Contents

Learn about Azure Marketplace, an online applications and services marketplace that enables ISVs from startups to enterprises to offer solutions to customers around the world.

AppSource and Azure Marketplace Publisher guide

Cloud Partner Portal

Azure Marketplace and AppSource roadmap

2/4/2019 • 2 minutes to read • Edit Online

This document provides a view into what's next for Azure Marketplace, AppSource, and related partner programs. It captures some of the significant features we have committed and a rough time frame for when you can expect to see them. It is not a comprehensive list of all new features, but is intended to provide visibility into our key investments. These feature sets and delivery time frames are current and subject to change. This page is refreshed monthly.

We welcome your suggestions! Join the conversation in the Microsoft Partner Community to get the latest updates on new capabilities, programs, and events.

	Feature	Jan-Mar	Apr-July
Commerce Enablement	**SaaS annual terms** Offer per site software-as-a-service (SaaS) solutions with annual billing	✔	
	Standard contracts List offerings under consistent marketplace contract terms to simplify customer procurement processes	✔	
	Container Apps Publish helm charts for container applications in the marketplace		✔
	Geo expansion Broaden marketplace availability to 53 additional geographies for a total of 141 countries		✔
	SaaS seat-based pricing Publishers can offer software-as-a-service (SaaS) solutions that are billed per user		✔
	Custom meters Offer consumption-based solutions that are billed according to custom pricing dimensions		✔
	Managed Services List managed services offerings in marketplace for discoverability and seamless deployment into a customer's Azure environment		✔
Sales Channels	**Publisher opt-in to CSP reseller channel** ISVs can select to publish paid offerings into Cloud Solution Provider (CSP) catalog for availability through Microsoft's channel partners	✔	
	Reseller targeting for ISVs Ability for publishers to offer custom pricing and terms through Cloud Solution Provider (CSP) partners of their choice		✔
Buyer Experience	**Transactable offers in AppSource** Customers can navigate from discovery through to transaction within the AppSource storefront		✔
	Customer-managed marketplace Allows an admin to curate and govern offerings available to the rest of the organization		✔
	Improved Offer discoverability Search optimization, category simplification, and enhanced ratings make offerings easier to find within the marketplace storefronts	✔	✔
Partner Experience	**Publisher insights** Enhanced reporting and analytics available to publishers in Cloud Partner Portal	✔	
	Lead routing Simplify lead routing provided to partners through Partner Center		✔

Next steps

Visit the Azure Marketplace and AppSource Publisher Guide page.

Azure Marketplace and AppSource publishing guide

2/1/2019 • 3 minutes to read • Edit Online

The Marketplace publishing guide is designed to help new and existing publishers learn how to use storefronts in the Azure Marketplace and Microsoft AppSource to grow their business in partnership with Microsoft by listing applications and services.

> **NOTE**
>
> The Marketplace here refers to both Azure Marketplace and AppSource. See One Marketplace, two storefronts for more information.

This guide covers the following topics:

- What the Marketplace is and how it works
- The difference between Azure Marketplace and AppSource storefronts
- The benefits of participating in the Marketplace
- How to become a publisher and list your application or service
- How to grow your business

This guide contains both technical and business information about the steps you need to take before you list your applications and services. Use the table of contents to go to different sections of the guide and to go directly to key topics.

For questions about the Azure Marketplace and AppSource, send us a message under **Problem Type** > **Marketplace Onboarding**. Our Marketplace Publisher Onboarding Team will be happy to help!

Benefits of participating in the Marketplace

The Marketplace is the launch pad for joint go-to-market activities with Microsoft that can help accelerate your business growth. By using launch promotion, demand generation, and joint sales and marketing, your Marketplace offers can be the centerpiece of your cloud business engine. There are no fees for participating in the Marketplace.

Our goal is to connect Microsoft customers with the best solutions that our partner ecosystem offers. To do that, we support you throughout your journey, from onboarding to publishing and growth.

Take advantage of the capabilities in the Marketplace to grow your business.

Expand to new markets and segments and generate new sales opportunities

Use the Marketplace as a channel to access new markets, segments, and Microsoft cloud users with your portfolio of solutions. Generate new marketing leads, and nurture new leads to sales opportunities. Benefit from joint marketing and sales activities to get more customers.

Enhance business value and increase deal size with existing and new customers

Upsell and cross-sell your solutions by addressing customer problems after you move workloads to the cloud. If you sell or deploy through the Marketplace, you can reduce sales cycles, accelerate projects, and increase deal profitability by selling complete solutions that target specific workloads and industry scenarios.

Get actionable insights

Get insights on the performance of your listings through the insights and analytics that are available to you through the Marketplace. Get more information about campaign performance, orders and payouts, and how to

maximize campaign activities for your solution.

Marketplace go-to-market benefits

New listings in the Marketplace are eligible for a diverse set of free benefits to help partners grow their business in the Marketplace. These benefits fall into the following categories:

- Technical: Everything you need to get your application ready for launch. From technical support, application design, and architecture design, to Azure credits for development and testing.

- Co-marketing: Everything you need to launch your offer. Access free Microsoft Go-To-Market Launch Fundamentals to help you launch and promote your solution. You might also be eligible for additional Microsoft marketing campaign inclusion and opportunities to be featured in the Marketplace.

- Co-selling: Begin or accelerate your journey to selling with Microsoft through the Marketplace. Access programs and support to drive joint sales with Microsoft teams.

After you submit your solution to the Marketplace, our onboarding team contacts you to support your publishing experience.

For more information about Microsoft Go-To-Market benefits and ways to grow your business in the Marketplace, see Microsoft Go-To-Market Services.

Next steps

Review in-depth information on cloud marketplace topics by exploring the table of contents to the left.

Become a Cloud Marketplace Publisher

1/7/2019 • 5 minutes to read • Edit Online

This article covers registering as a cloud marketplace publisher. Depending on your selected publishing option, and your current membership on Microsoft Partner Network some of the following steps may not be required. Once registered you'll be able to create marketplace offers for Azure Marketplace or AppSource.

	REGISTRATION STEP	DURATION	DETAILS
1	Register in Microsoft Partner Network	15 min	Register in Microsoft Partner Network
2	Create a Microsoft Account (required for Azure Marketplace transact offers; recommended for others)	15 min	Create a Microsoft ID
3	Submit the marketplace registration form	15 min	Submit the marketplace nomination form
4	Sign into Cloud Partner Portal	1-3 days	Sign into Cloud Partner Portal
5	Register in Microsoft Developer Center (Dev Center) (for Azure Marketplace transact offers)	5-10 days	Register in Dev Center

1. Register in Microsoft Partner Network

| 15 min |
Participation in Microsoft's cloud marketplace requires membership in the Microsoft Partner Network (MPN), which also provides key benefits, programs, and partner performance tracking. If your organization is not yet a member, join the Microsoft Partner Network (MPN) to become an official Microsoft partner and receive additional benefits and support for publishing in marketplace.

- To register in Microsoft Partner Network, visit the Membership page and follow the steps to start your enrollment.

After registering, record the Microsoft Partner Network ID for your organization. You will need this during step 3 when submitting your marketplace registration form.

- Learn about the benefits of the Microsoft Partner Network
- If your organization has an existing membership, then you will join your organization during registration. If you use Partner Center, you will be able to see the ID in your Partner Center account. If you use Partner Membership Center (PMC), you will be able to see it in your Partner Membership Center account.

2. Create a Microsoft Account

| 15 min |

A Microsoft account, e.g. *@outlook.com or @live.com*, is used to access many Microsoft devices and services. It is required for Azure Marketplace transact offers, and we recommend its use to all cloud publishers. For more information on the benefits and uses of a Microsoft account, visit this page. You will use a personal Microsoft account to access the Cloud Partner Portal, the publishing platform that you will use to create and manage your marketplace offers.

[! IMPORTANT] Please note that a Microsoft account associated with your work email will not allow you to access the portal.

> **NOTE**
>
> If you already have a Microsoft account, review the Guidelines for creating a Microsoft ID to manage a marketplace account to determine if it can be used for marketplace publishing.
>
> Users with an Azure Active Directory federated corporate account should read this article before attempting to create or use your existing Microsoft Account.

- For help creating or managing your Microsoft account, visit the Microsoft account help support pages.

3. Submit the marketplace registration form

| 15 min |
Complete this brief registration form to become a marketplace publisher. The information submitted on this form will be used to create a publisher account in the Cloud Partner Portal which will allow you to create, publish, and manage marketplace offers.

You will be asked to include the following information:

- Details about your organization, including your Microsoft Partner Network ID (which you can look up in either Partner Center or Partner Membership Center)
- A brief description of your initial app or consulting services offer that you intend to publish, including the Microsoft product or service to which your offer most closely aligns
- The target audience for your app or service

4. Sign into Cloud Partner Portal

| 1-3 days |
Our Marketplace Onboarding Team will validate the marketplace registration details provided in step 3. Once approved, you will receive a welcome email with account credentials and guidance on signing-in to the Cloud Partner Portal.

You will use the Cloud Partner Portal to create, publish, and manage marketplace offers. Once you receive the approval welcome email, you can immediately log into the Cloud Partner Portal with your Microsoft account to access additional technical information about publishing to marketplace and creating your offer.

- For more information about using Cloud Partner Portal, visit the Getting Started article in Learn section. You must be logged in to the Cloud Partner Portal to access these details.
- If you have questions or would like to schedule an onboarding overview call, please review other articles in this Publisher Guide or open a support request under Problem Type > Marketplace Onboarding from within the Cloud Partner Portal.
- If you didn't receive the welcome email, please check your spam folder for an email with the subject line "Welcome to Microsoft Marketplace!." If there is no email in your spam folder, please contact Microsoft support. On the support page, please select: Problem Type > Marketplace Onboarding. Our Marketplace

Publisher Onboarding Team will be happy to assist with your inquiries.

5. Register in Dev Center (for Transact publishing option only)

| 5-10 days |

A Dev Center account is required for offers that use the transact publishing option: includes virtual machines, Azure apps, and SaaS apps configured to sell through Azure. The Dev Center account details are used by Microsoft to validate the legal, tax, and banking information for your organization that will be used for payout purposes when you sell and bill your software licensing fees through Azure Marketplace.

The Dev Center registration process can be started before creating your offer in Cloud Partner Portal, but must be completed before publishing your marketplace offer. Given the 5–10 day typical duration of this step, we recommend starting this process as soon as possible if you intend to use the transact publishing option.

The individual registering in Dev Center must be a valid representative of your organization and must provide personal information to validate their identity. Register with your Microsoft account, created in step 2, and use the same Microsoft account that you used to access the Cloud Partner Portal.

- To register for a Dev Center account, start the signup process here.
- For more information about creating a Microsoft account, visit the *Create a Microsoft account* section.

Once you have completed the Dev Center registration, link your Cloud Partner Profile with your Dev Center account (see detailed steps here). This step must be completed before publishing your transact offer.

> **NOTE**
>
> To waive the $99 Developer Center registration fee, complete the marketplace registration form and you will receive an email containing your promotional code.

> **IMPORTANT**
>
> Before you create a Microsoft Dev Center account, please verify that your organization does not already have a Dev Center account to avoid duplicate accounts. For more information, visit the Register in Dev Center section.

Next steps

- Learn about the marketplace storefronts: Comparing AppSource and the Azure Marketplace.
- Determine the listing type for your solution.

Guidelines for Azure Marketplace

Guidelines for creating a Microsoft ID to manage a marketplace account

If more than one person requires access to the same Microsoft ID used to create your marketplace account, then you should follow these guidelines to help you create a company account.

> **IMPORTANT**
>
> To authorize multiple users to access your Microsoft Developer Center (Dev Center) account, Microsoft recommends that you use Azure Active Directory (Azure AD) to assign roles to individual users. Each user must access the account by signing in with individual Azure AD credentials. Create your Microsoft ID by using an email address in a domain registered to your company Microsoft suggests that the email not be assigned to an individual. An example is `windowsapps@fabrikam.com`.
>
> - For more information, visit the Issue: Microsoft ID in an Azure AD federated domain section.

- Limit access to the Microsoft ID to the smallest possible number of developers.
- Set up a corporate email distribution list (DL) that includes everyone who must access your Dev Center account. Add the DL email address to your security information. The DL enables all of the employees on the list to receive security codes when requested and to manage the security information for your Microsoft ID. If setting up a distribution list is not feasible, then the owner of the individual email account must be available to access and share the security code when prompted.
  - For example, the owner is prompted when new security information is added to the Microsoft ID or when the Microsoft ID is accessed from a new device.
- Add a company phone number that does not require an extension and is accessible to key team members.
- In general, you should require developers to use trusted devices to sign into your Dev Center account. All key team members should have access to the trusted devices. Using trusted devices to access reduces the requirement for sending security codes when someone is accessing the Dev Center account.
- If you are required to grant access to the Dev Center account from a non-trusted computer, then you should limit access to no more than five developers. Ideally, your developers should access the account from computers that share the same geographical and network location.
- Frequently review and verify your security information.
  - To view your security information, visit the Security settings page located at account.live.com/proofs/Manage.

Your Dev Center account should be primarily accessed from trusted computers. It is critical that you access from trusted computers, because there is a limit to the number of codes generated per Dev Center account per week. Using trusted computers also enables the most secure and consistent sign-in experience.

- For more information about additional Dev Center account guidelines and security, visit the Opening a developer account page located at docs.microsoft.com/windows/uwp/publish/opening-a-developer-account.

Issue: Microsoft ID in an Azure AD federated domain

Your corporate account may be federated through Azure Active Directory (Azure AD). If you try to create a Microsoft ID using a corporate email address that is federated with Azure AD, then you receive an error. If you receive an error, then you should check with your IT team to confirm your account is federated through Azure AD.

Azure AD federated email is a known issue and Microsoft is working to resolving it.

- For more information about Azure AD, visit the Azure Active Directory Documentation page located at docs.microsoft.com/azure/active-directory.

Microsoft recommends a workaround. Follow these steps to create a new email address in the `outlook.com` domain and create a rule to forward your communications.

1. Go to the Create account page and click on the Get a new email address link.
   - To sign up for your Microsoft ID, visit the Create account page located at signup.live.com/signup.
2. Create the new email address and enter a password. A new Microsoft ID and an email mailbox in the `outlook.com` domain is created. Continue the registration process until the account is created.

> **IMPORTANT**
>
> You must use an email address or distribution list that is registered as a Microsoft ID to register in Dev Center. Microsoft recommends that you use a distribution list to remove dependency from individuals. If your email address or distribution list is not registered, then you must register now.

> **IMPORTANT**
>
> If your any email address is located in the `Microsoft` company domain, then you are not able to use it for registration in Dev Center.

3. After you create the Microsoft ID with the Outlook email address, sign into your Outlook mailbox. Create an email forwarding rule. The email forwarding rule should move all emails that are received in the Outlook mailbox to the email address in your domain that you created to manage your marketplace account.

   - To sign into your Outlook mailbox, visit the Outlook page located at outlook.live.com/owa.
   - For more information about forwarding rules, visit the Use rules in Outlook Web App to automatically forward messages to another account page located at support.office.com/article/Use-rules-in-Outlook-Web-App-to-automatically-forward-messages-to-another-account-1433e3a0-7fb0-4999-b536-50e05cb67fed.
4. The forwarding rule sends all email and communications received in the Outlook email account to the email address in a domain registered to your company. Your `outlook.com` email address must be used to authenticate in both Dev Center and Cloud Partner Portal.

Next steps

- Visit the Azure Marketplace and AppSource Publisher Guide page.

Register in Dev Center

1/28/2019 • 8 minutes to read • <u>Edit Online</u>

To help verify that you are not logged into a personal browser account, open a new Internet Explorer InPrivate or Chrome Incognito browsing session.

1. Register as a seller in Dev Center.
   - To sign in and register as a seller, visit the Azure Dev Center page located at dev.windows.com/registration?accountprogram=azure.

2. Complete the `Help us protect your account` wizard, which verifies your identity using your phone number or email address.

3. In the `Registration - Account Info` section, select your account country or region from the *Account country/region* drop-down menu.

> **WARNING**
>
> To sell your services in Azure Marketplace, verify that your registered entity is from one of the approved *sell-from* countries. The location restriction is required for payout and taxation reasons.
>
> - For more information, visit the Azure Marketplace Participation Policies page located at azure.microsoft.com/support/legal/marketplace/participation-policies.

4. For *Account Type*, select the `Company` radio button.

   - For more information about account types and to assist in determining which is best for you, visit the Account types, locations, and fee page located at docs.microsoft.com/windows/uwp/publish/account-types-locations-and-fees.

   Click on the Next button.

5. For *Publisher display name*, enter the display name (typically the name of your company).

> **NOTE**
>
> The publisher display name entered in Dev Center is not displayed in Azure Marketplace when your offer is listed, but you must fill this box to complete the registration process.

6. For *Contact info*, enter the information required for the account verification.

> **IMPORTANT**
>
> You must provide accurate contact information. The verification process uses your contact information to approve your company in Dev Center.

7. For *Company Approver*, enter the contact information for the approver. An approver verifies that you are authorized to create an account in Dev Center for your organization.

   Click on the Next button.

8. In the `Registration - Payment` section, you must enter your payment information to pay for your Dev Center account.

- For *Promo code*, enter a promo code that covers the cost of registration.
- For *Billing*, provide your credit card information. PayPal information may be used in place of a credit card in supported markets.

Click on the Next button.

9. In the `Registration - Review` section, review your account information and confirm that everything is correct.

   Read the terms and conditions of the Microsoft Azure Marketplace publisher agreement.

   Click on the check-box to indicate that you have read and accepted the terms.

   Click on the Finish button to be sent a confirmation email message.

10. Choose the next steps using the billing model for your offer.

BILLING MODEL	NEXT STEPS
Free	Go to Cloud Partner Portal. • To publish on the Azure Marketplace, visit the Cloud Partner Portal page located at cloudpartner.azure.com.
Commercial (transact)	Update your account information. • For more information about adding account information, visit the How to Add bank and tax information section.

   • An example of a commercial offer is a VM offer with an hourly billing model.

Get Help with Dev Center Registration

If you have issues with Dev Center registration, then follow these steps to submit a support ticket.

1. Go to Dev Center support.
   - To access support, visit the Windows developer support page located at developer.microsoft.com/windows/support.
2. In Contact Us section, click on the Submit an incident button.

   Select `Help with Dev Center` from the *Problem type* drop-down menu.

   Select `Publish and manage apps` from the *Category* drop-down menu.

   Click on the Start email button.

3. On the sign-in page, sign in using any Microsoft ID. If you do not have a Microsoft ID, then create one.
   - For more information about creating a Microsoft ID, visit the Guidelines for creating a Microsoft ID to manage an Azure Marketplace account section.
4. Fill in the details of the issue.
5. To submit the ticket, click on the Submit button.

Issue: Add bank and tax information for publisher payouts

The bank and tax information is required for all commercial offers using the transact listing type.

- If you are publishing commercial offers for purchase, then you must add payout and tax information and request validation in Dev Center.

  > **IMPORTANT**
  >
  > For commercial offers (transact), you must complete the bank and tax information before you are able to push your offers to production.

- If you are publishing only free or BYOL offers, then you are not required to add the information. You may add the information later, but validation of the tax information takes some time. If you plan to offer

commercial offers for purchase, then you should add the information as soon as possible.

Add bank information

1. Sign into Dev Center using your Microsoft ID.
   - To sign into Dev Center, visit the Windows Dev Center page located at dev.windows.com.
2. Select Payout account on the left menu.
3. On the `Choose payment method` page, select `Bank account` or `PayPal`.

> **IMPORTANT**
>
> If you have commercial offers that customers purchase on the Marketplace, then your payout account is where you receive payout for the purchases.

4. Enter the payment information. After you have verified that the information is correct, click on the Save button.

> **IMPORTANT**
>
> If you update or change your payout account, then you must follow the same steps replacing the current information with the new information. Changes to your payout account may delay payments up to one payment cycle. This delay occurs because Microsoft must verify the account change, this is the same as when you first set-up your payout account. You get paid the full amount after your account has been verified. Any payments due from the current payment cycle are added to the next cycle.

5. Click on the Next button.

Add tax information

1. Sign into Dev Center using your Microsoft ID.
   - To sign into Dev Center, visit the Windows Dev Center page located at dev.windows.com.
2. Select Tax profile on the left menu.
3. On the `Set up your tax form` page, select the country or region where you have permanent residency.

   Select the country or region where you hold primary citizenship.

   Click on the Next button.

4. Enter your tax details.
5. Click on the Next button.

Frequently Asked Questions:

- **Which publishers requires a Dev Center account registration?**

  > Publisher who are publishing in Transact listing type: VM, Azure apps: solution templates and managed apps.

- **Why is Dev Center account required?**

  > Dev Center account is a required to enable Microsoft to bill the customer on the publisher's behalf for Transact listing type. Dev Center account registration enables Microsoft to validate the legal, tax, and

banking information for your company. To learn more click here.

- **How do I get started with Dev Center registration?**

  To prevent duplication, verify that your company does not already have a Dev Center account registered. You must be signed in with the Microsoft account that you want to associate with your developer account. If you don't already have a Microsoft account, you can create a new account here. (example: contoso_marketplace@live.com) To sign in and register, go to https://dev.windows.com/en-us/registration?accountProgram=Azure

  To learn more on registration process click here.

- **Should I choose 'Individual' or 'Company' account type?**

  To publish a transact offer on Marketplace, you need to select Company account when registering for your Dev Center account.

- **Can I change my account type from 'Individual' to 'Company' account after account creation?**

  No, the account type cannot be updated once the account is created.

- **Why do I get a 'City is required' error message though I have entered the city correctly?**

  Check to make sure the zip code is correctly entered too. There is a city, zip code validation.

- **How can I get a promo code?**

  Complete the Marketplace Registration form to receive a Dev Center promotional code.

- **What should I expect after I complete the registration?**

  Look for an email from verify@microsoft.com with subject line "Action needed: Verify your email account with Microsoft". Click on the time sensitive verification link to complete registration. *If you have not received an email within 24hrs, please check the spam folder.*

- **What are the next steps after Dev Center verification?**

  Go to "Your programs" (https://developer.microsoft.com/dashboard/Account/Programs) and log into the Dev Center account. If you don't see Azure as a registered program, look under "Recommended programs for you", and then look for Azure to select "Get Started."

- **How do I link my Dev Center account to my Cloud Partner Portal publisher profile?**

  The final step before publishing is linking your Dev Center account to your Cloud Partner Portal profile. If your Dev Center account is different from your account on Cloud Partner Portal, add your Dev Center account as a new user in the Cloud Partner Portal. Login to the Cloud Partner Portal with your Dev Center Account. Select Publisher profile on menu located on the top right of your web browser. Select Link Dev Center Account.

- **Why is my Dev Center application rejected?**

  The third-party vetting company (Duns & Bradstreet) was unable to contact you through the phone number that you have provided. Contact support at developer.microsoft.com/windows/support to re-

> start the vetting process

> or
>
> Account registration are rejected based on geography issues. Companies with subsidiaries based in locations different than the headquarters will only need one Dev Center account.

- **What should I do if the company name that I want to use already exists in Dev Center?**

  > Assign a temporary company name, contact support at developer.microsoft.com/windows/support and provide them your business registration documents.

- **How do I add my tax and payout information?**

  > You will not be able to publish transact offers without completing the tax and bank information in your Dev Center account. For more information about adding account information, visit How to Add bank and tax information.

- **Can I change the Dev Center Microsoft login account?**

  > No. Once a Dev Center is created, the owner account cannot be changed. You would have to start over with a brand-new Dev Center account with the desired Microsoft account.

- **Where do I contact support with issues regarding Dev Center registration?** To access support, visit the Windows developer support page located at developer.microsoft.com/windows/support.

Next steps

- Visit the Azure Marketplace and AppSource Publisher Guide page.

Azure partner customer usage attribution

1/25/2019 • 11 minutes to read • Edit Online

As a software partner for Azure, your solutions require Azure components or they need to be deployed directly on the Azure infrastructure. Customers who deploy a partner solution and provision their own Azure resources can find it difficult to gain visibility into the status of the deployment, and get optics into the impact on Azure growth. When you add a higher level of visibility, you align with the Microsoft sales teams and gain credit for Microsoft partner programs.

Microsoft now offers a method to help partners better track Azure usage of customer deployments of their software on Azure. The new method uses Azure Resource Manager to orchestrate the deployment of Azure services.

As a Microsoft partner, you can associate Azure usage with any Azure resources that you provision on a customer's behalf. You can form the association via the Azure Marketplace, the Quickstart repository, private GitHub repositories, and one-on-one customer engagement. To enable tracking, two approaches are available:

- Azure Resource Manager templates: Resource Manager templates or solution templates to deploy the Azure services to run the partner's software. Partners can create a Resource Manager template to define the infrastructure and configuration of their Azure solution. A Resource Manager template allows you and your customers to deploy your solution throughout its lifecycle. You can be confident that your resources are deployed in a consistent state.
- Azure Resource Manager APIs: Partners can call the Resource Manager APIs directly to deploy a Resource Manager template or to generate the API calls to directly provision Azure services.

Customer usage attribution is required on Azure Application offer published to Azure Marketplace.

Use Resource Manager templates

Many partner solutions are deployed on a customer's subscription by using Resource Manager templates. If you have a Resource Manager template that's available in the Azure Marketplace, on GitHub, or as a Quickstart, the process to modify your template to enable the new tracking method should be straight forward.

For more information on creating and publishing Solution Templates, see

- Create and deploy your first Resource Manager template.
- Azure Application offer.
- Video: Building Solution Templates, and Managed Applications for the Azure Marketplace.

Add a GUID to your template

To add a globally unique identifier (GUID), you make a single modification to the main template file:

1. Create a GUID using the suggested method and register the GUID.

2. Open the Resource Manager template.

3. Add a new resource in the main template file. The resource needs to be in the **mainTemplate.json** or **azuredeploy.json** file only, and not in any nested or linked templates.

4. Enter the GUID value after the **pid-** prefix (e.g., pid-eb7927c8-dd66-43e1-b0cf-c346a422063).

5. Check the template for any errors.

6. Republish the template in the appropriate repositories.

7.

Sample Resource Manager template code

To enable tracking resources for your template, you need to add the following additional resource under the resources section. Please make sure to modify the below sample code with your own inputs when you add it to the main template file. The resource needs to be added in the **mainTemplate.json** or **azuredeploy.json** file only, and not in any nested or linked templates.

```
// Make sure to modify this sample code with your own inputs where applicable

{ // add this resource to the resources section in the mainTemplate.json (do not add the entire file)
    "apiVersion": "2018-02-01",
    "name": "pid-XXXXXXXX-XXXX-XXXX-XXXX-XXXXXXXXXXXX", // use your generated GUID here
    "type": "Microsoft.Resources/deployments",
    "properties": {
        "mode": "Incremental",
        "template": {
            "$schema": "https://schema.management.azure.com/schemas/2015-01-01/deploymentTemplate.json#",
            "contentVersion": "1.0.0.0",
            "resources": []
        }
    }
} // remove all comments from the file when complete
```

Use the Resource Manager APIs

In some cases, you might prefer to make calls directly against the Resource Manager REST APIs to deploy Azure services. Azure supports multiple SDKs to enable these calls. You can use one of the SDKs, or call the REST APIs directly to deploy resources.

If you're using a Resource Manager template, you should tag your solution by following the instructions described earlier. If you aren't using a Resource Manager template and making direct API calls, you can still tag your deployment to associate usage of Azure resources.

Tag a deployment with the Resource Manager APIs

For this tracking approach, when you design your API calls, include a GUID in the user agent header in the request. Add the GUID for each offer or SKU. Format the string with the **pid-** prefix and include the partner-generated GUID. Here's an example of the GUID format for insertion into the user agent:

GUID format for insertion into the user agent:

pid-eb7927c8-dd66-43e1-b0cf-c346a422063   // enter your GUID after the "pid-"

> **NOTE**
>
> The format of the string is important. If the **pid-** prefix isn't included, it's not possible to query the data. Different SDKs track differently. To implement this method, review the support and tracking approach for your preferred Azure SDK.

Example: The Python SDK

For Python, use the **config** attribute. You can only add the attribute to a UserAgent. Here's an example:

For Python, you need to use the "config" attribute. You can only add to a UserAgent (we still want some kind of control). This would be:

```
client = azure.mgmt.servicebus.ServiceBusManagementClient(**parameters)

client.config.add_user_agent("pid-eb7927c8-dd66-43e1-b0cf-c346a422063")
```

This has to be done for each client, there is no global static configuration (You may choose to do a client factory to be sure every client is doing it).

Additional reference information

> **NOTE**
>
> Add the attribute for each client. There's no global static configuration. You might tag a client factory to be sure every client is tracking. For more information, see this client factory sample on GitHub.

Tag a deployment by using the Azure PowerShell

If you deploy resources via Azure PowerShell, append your GUID by using the following method:

```
[Microsoft.Azure.Common.Authentication.AzureSession]::ClientFactory.AddUserAgent("pid-eb7927c8-dd66-43e1-b0cf-c346a422063")
```

Tag a deployment by using the Azure CLI

When you use the Azure CLI to append your GUID, set the **AZURE_HTTP_USER_AGENT** environment variable. You can set this variable within the scope of a script. You can also set the variable globally for shell scope:

```
export AZURE_HTTP_USER_AGENT='pid-eb7927c8-dd66-43e1-b0cf-c346a422063'
```

Create GUIDs

A GUID is a unique reference number that has 32 hexadecimal digits. To create GUIDs for tracking, you should use a GUID generator. The Azure Storage team has created a GUID generator form that will email you a GUID of the correct format and can be reused across the different tracking systems.

> **NOTE**
>
> It is highly recommend that you use Azure Storage's GUID generator form to create your GUID. For more information, see our FAQ.

We recommend you create a unique GUID for every offer and distribution channel for each product. You can opt to use a single GUID for the product's multiple distribution channels if you do not want reporting to be split.

If you deploy a product by using a template and it is available on both the Azure Marketplace and on GitHub, you can create and register 2 distinct GUIDS:

- Product A in Azure Marketplace
- Product A on GitHub

Reporting is done by the partner value (Microsoft Partner ID) and the GUIDs.

You can also track GUIDs at a more granular level like the SKU, where SKUs are variants of an offer.

Register GUIDs and offers

To include a GUID in our tracking, the GUID must be registered.

All registrations for template GUIDs are done via the Azure Marketplace Cloud Partner Portal (CPP).

After you add the GUID to your template or in the user agent, and register the GUID in the CPP, all deployments are tracked.

1. Apply to Azure Marketplace and get access to the CPP.

   - Partners are required to have a profile in CPP. You're encouraged to list the offer in Azure Marketplace or AppSource.
   - Partners can register multiple GUIDs.
   - Partners can register a GUID for the non-Marketplace solution templates and offers.

2. Sign in to the Cloud Partner Portal.

3. In the upper-right corner, select your account icon, and then select **Publisher profile**.
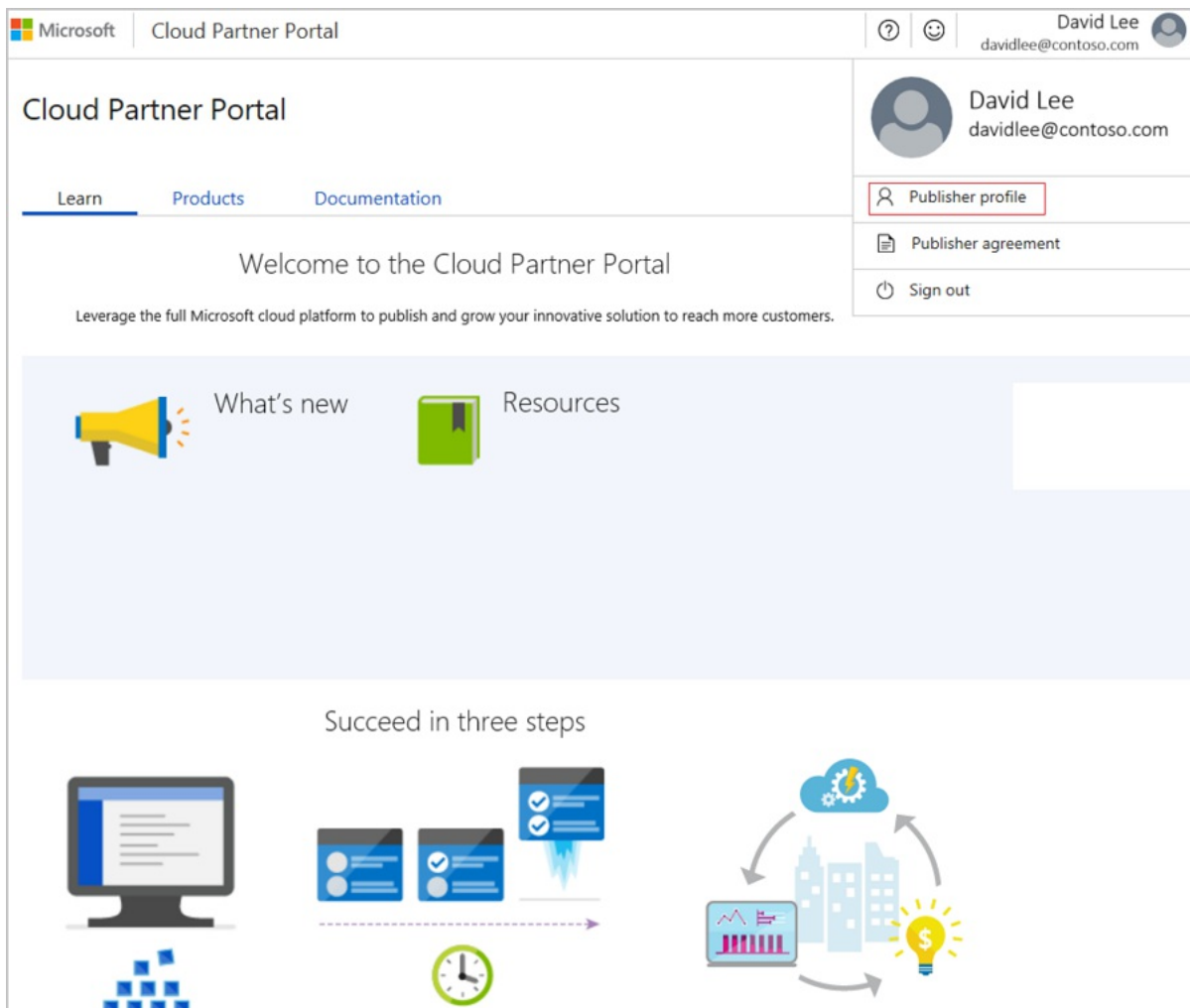
4. On the **Profile page**, select **Add Tracking GUID.**
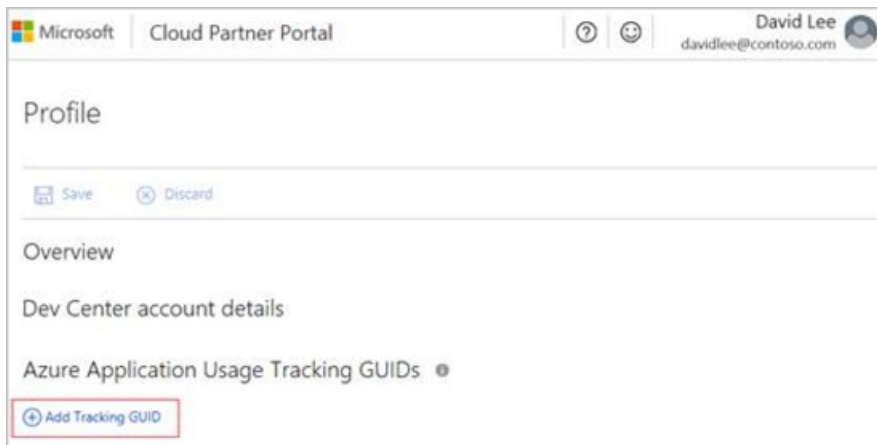
5. In the **Tracking GUID** box, enter your tracking GUID. Enter just the GUID without the **pid-** prefix. In the **Custom Description** box, enter your offer name or description.

6. To register more than one GUID, select **Add Tracking GUID** again. Additional boxes appear on the page.

7. Select **Save**.

After you add the GUID to your template or in the user agent, and register the GUID in the CPP, all deployments are tracked.

Verify the GUID deployment

After you modify your template and run a test deployment, use the following PowerShell script to retrieve the resources that you deployed and tagged.

You can use the script to verify that the GUID is successfully added to your Resource Manager template. The script doesn't apply to Resource Manager API deployment.

Sign in to Azure. Select the subscription with the deployment that you want to verify before you run the script. Run the script within the subscription context of the deployment.

The **GUID** and **resourceGroup** name of the deployment are required parameters.

You can get the original script on GitHub.

```
Param(
    [GUID][Parameter(Mandatory=$true)]$guid,
    [string][Parameter(Mandatory=$true)]$resourceGroupName
)

# Get the correlationId of the pid deployment

$correlationId = (Get-AzureRmResourceGroupDeployment -ResourceGroupName
$resourceGroupName -Name "pid-$guid").correlationId

# Find all deployments with that correlationId

$deployments = Get-AzureRmResourceGroupDeployment -ResourceGroupName $resourceGroupName | Where-
Object{$_.correlationId -eq $correlationId}

# Find all deploymentOperations in a deployment by name
# PowerShell doesn't surface outputResources on the deployment
# or correlationId on the deploymentOperation

foreach ($deployment in $deployments){

# Get deploymentOperations by deploymentName
# then the resourceId for any create operation

($deployment | Get-AzureRmResourceGroupDeploymentOperation | Where-Object{$_.properties.provisioningOperation -
eq "Create" -and $_.properties.targetResource.resourceType -ne
"Microsoft.Resources/deployments"}).properties.targetResource.id

}
```

Notify your customers

Partners should inform their customers about deployments that use Resource Manager GUID tracking. Microsoft reports the Azure usage that's associated with these deployments to the partner. The following examples include content that you can use to notify your customers about these deployments. In the examples,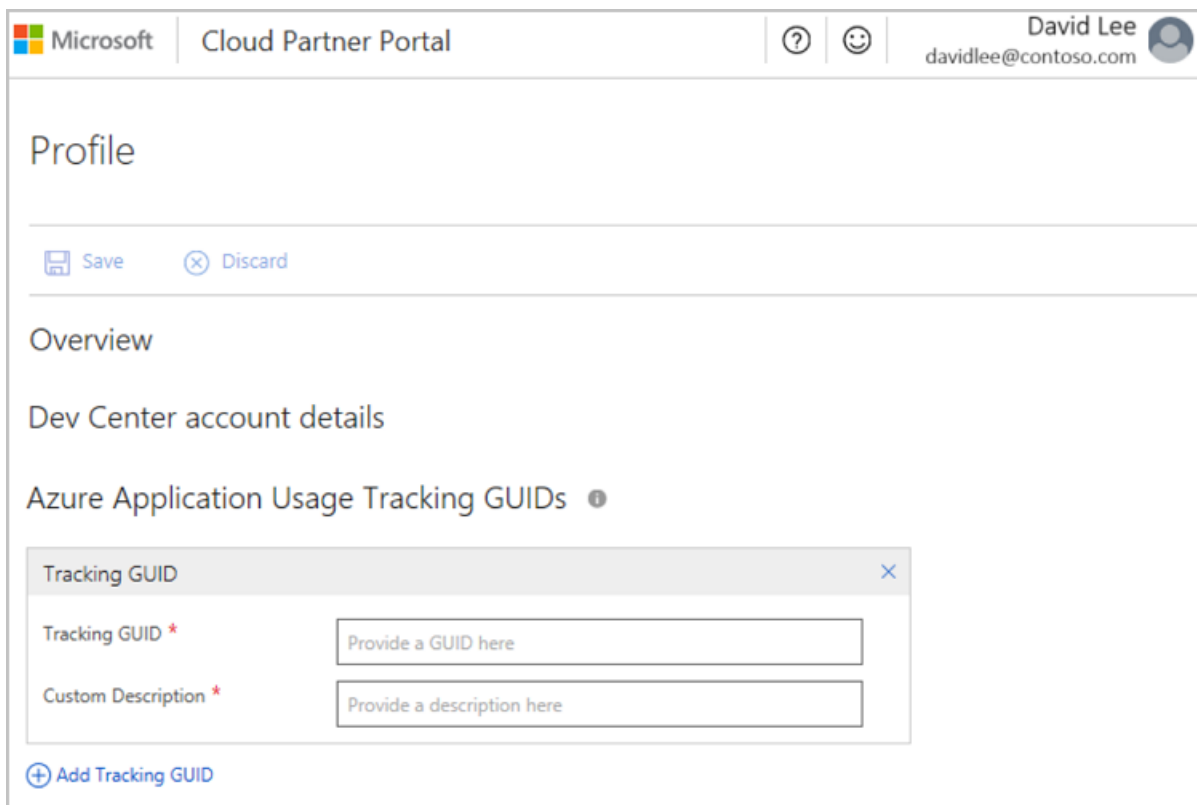 replace <PARTNER> with your company name. Partners should make sure the notification aligns with their data privacy and collection policies, including options for customers to be excluded from tracking.

Notification for Resource Manager template deployments

When you deploy this template, Microsoft is able to identify the installation of <PARTNER> software with the Azure resources that are deployed. Microsoft is able to correlate the Azure resources that are used to support the software. Microsoft collects this information to provide the best experiences with their products and to operate their business. The data is collected and governed by Microsoft's privacy policies, which can be found at https://www.microsoft.com/trustcenter.
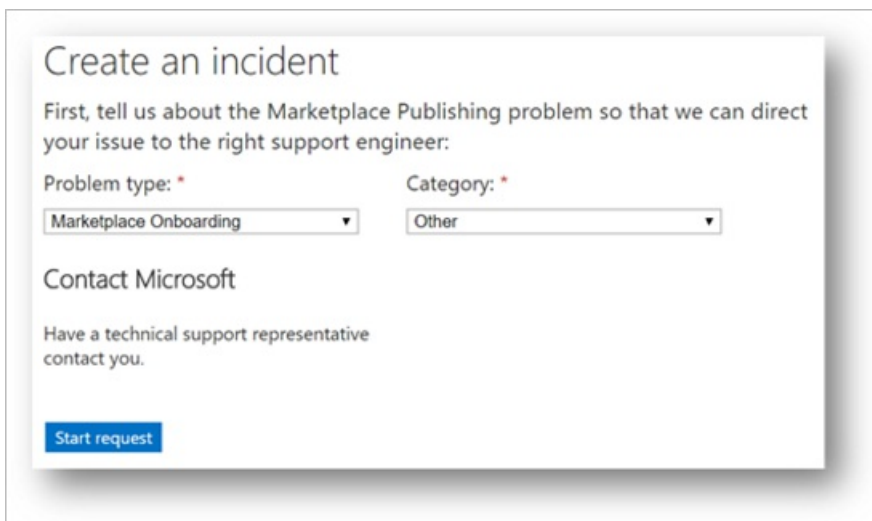
Notification for SDK or API deployments

When you deploy <PARTNER> software, Microsoft is able to identify the installation of <PARTNER> software with the Azure resources that are deployed. Microsoft is able to correlate the Azure resources that are used to support the software. Microsoft collects this information to provide the best experiences with their products and to operate their business. The data is collected and governed by Microsoft's privacy policies, which can be found at https://www.microsoft.com/trustcenter.

Get support

If you need assistance, follow these steps.

1. Go to the support page.

2. Under **Problem type**, select **Marketplace Onboarding**.

3. Choose the **Category** for your issue:

   - For usage association issues, select **Other**.
   - For access issues with the Azure Marketplace CPP, select **Access Problem**.

4. Select **Start Request**.

5. On the next page, enter the required values. Select **Continue**.

6. On the next page, enter the required values.

> **IMPORTANT**
>
> In the **Incident title** box, enter **ISV Usage Tracking**. Describe your issue in detail.

7. Complete the form, and then select **Submit**.

FAQ

What's the benefit of adding the GUID to the template?

Microsoft provides partners with a view of customer deployments of their templates and insights on their influenced usage. Both Microsoft and the partner can use this information to drive closer engagement between sales teams. Both Microsoft and the partner can use the data to get a more consistent view of an individual partner's impact on Azure growth.

Who can add a GUID to a template?

The tracking resource is intended to connect the partner's solution to the customer's Azure usage. The usage data is tied to a partner's Microsoft Partner Network identity (MPN ID). Reporting is available to partners in the CPP.

After a GUID is added, can it be changed?

Yes, a customer or implementation partner may customize the template and can change or remove the GUID. We suggest that partners proactively describe the role of the resource and GUID to their customers and partners to prevent removal or edits to the tracking GUID. Changing the GUID affects only new, not existing, deployments, and resources.

When will reporting be available?

A beta version of reporting should be available soon. Reporting will be integrated into the CPP.

Can I track templates deployed from a non-Microsoft repository like GitHub?

Yes, as long as the GUID is present when the template is deployed, usage is tracked. Partners are required to have a profile in the CPP to register related templates that are published outside of the Azure Marketplace.

Is there a difference if the template is deployed from Azure Marketplace versus other repositories like GitHub?

Yes, partners who publish offers in the Azure Marketplace might receive more detailed data on deployments from the Azure Marketplace. Partners benefit from exposing their offer to customers on the Azure Marketplace portal and in the Azure portal. Offers in the Azure Marketplace also generate leads for the partner.

What if I create a custom template for an individual customer engagement?

You're still welcome to add the GUID to the template. If you use an existing registered GUID, it's included in the reporting. If you create a new GUID, you need to register the new GUID to have it included in the tracking.

Does the customer receive reporting as well?

Customers can track their usage of individual resources or customer-defined resource groups within the Azure portal.

Is this tracking methodology similar to the Digital Partner of Record (DPOR)?

This new method of connecting the deployment and usage to a partner's solution provides a mechanism to link a partner solution to Azure usage. DPOR is intended to associate a consulting (Systems Integrator) or management (Managed Service Provider) partner with a customer's Azure subscription.

What's the benefit to using Azure Storage's GUID Generator form?

Azure Storage's GUID Generator form is guaranteed to generate a GUID of the required format. Additionally, if you are using any of Azure Storage's data plane tracking methods, you can leverage the same GUID for Marketplace control plane tracking. This allows you to leverage a singled unified GUID for Partner attribution without having to maintain separate GUIDS.

Comparing AppSource and the Azure Marketplace

11/30/2018 • 2 minutes to read • Edit Online

Storefronts in the Azure Marketplace and Microsoft AppSource serve unique customer requirements. Use storefronts to target customers by role. You can offer the right solution or service based on your customer.

Understanding the differences between storefronts

To choose a storefront, begin by identifying the target audience for your offer. If you're targeting audiences in multiple storefronts, you can publish once to sell in multiple storefronts.

AZURE MARKETPLACE	APPSOURCE
IT Professionals and Developers	Business Users and Business Decision Makers

The following table describes the benefits of using a storefront:

BENEFITS	APPSOURCE	AZURE MARKETPLACE
Billing flexibility	Provisions a trial experience. Currently, doesn't offer a commerce-enabled publishing option. You can use your current ordering and billing infrastructure with no additional investment or changes.	For VMs, Pay-As-You-Go billing options use Microsoft Enterprise Agreements (EAs) or web direct sales models. Pricing options include a Free Tier subscription, in which an offering is perpetually free. Pricing options also include a Try It Now subscription. A Try It Now subscription is promotionally free for a limited period. When the period ends, the VM is converted to a paid subscription. Bring Your Own License (BYOL) activation is also an option that you can use for customers. For both billing options and the following VM offers, all provisioned Azure resources are billed directly to the customer: • Azure apps: Managed app • Azure apps: Solution template
Connections with other partners	Links independent software vendors, system integrators, and managed service providers to specific implementation scenarios. You can collaboratively sell to new customers.	Currently, you can't link a service provider or delivery partners to your offer.
Automation	Links independent software vendors, system integrators, and managed service providers to specific implementation scenarios. You can collaboratively sell to new customers.	Currently, you can't link a service provider or delivery partners to your offer. Take advantage of automated software as a service (SaaS) with add-on provisioning. Use the Azure apps: Solution template publishing option to automate SaaS-based data collection and deployment scenarios.

BENEFITS	APPSOURCE	AZURE MARKETPLACE
Multiple cloud types	Currently, doesn't support Azure Stack, Azure Government, or regional clouds.	Publish solutions for both the public cloud and on-premises by using the following types: • Azure Stack • Azure Government • Regional clouds, including China and Germany
In-context presentation to customers	Reach more customers through the in-app experience for Microsoft products such as Dynamics 365, Power BI, and Office 365.	Make your solution available in the Azure in-portal experience for contextual search. Use the Virtual machine and Azure apps: Solution template publishing options.

Next steps

- Review the Azure Marketplace and AppSource publishing guide.

Determine your publishing option

1/7/2019 • 3 minutes to read • Edit Online

The publishing option that you choose for your offer relates directly to both the eligibility requirements and marketplace GTM benefits. More importantly, the selection of publishing option and offer type in the Cloud Partner Portal defines how users will interact with your marketplace offer.

You can enable publishing options by selecting an offer type and then creating a marketplace offer in the Cloud Partner Portal. To do this, you'll need to understand the following key marketplace concepts: the publishing options, offer types and configuration, and calls-to-action that will govern how and where your offer is presented in the marketplace storefronts.

Storefronts, Publishing Options, & Offer Types

	Azure Infrastructure Solutions			Pro Services	Web Apps	Microsoft In-App Experiences			
	Single VM	**Azure App** Multi-VM Deployment	**Containers**	**Consulting Services**	**SaaS Apps**	**Office 365**	**PowerApps**	**PowerBI**	**Dynamics 365**
List				✔	✔	✔	✔	✔	✔
Trial	✔				✔	✔	✔	✔	✔
Transact	✔	✔	✔		✔				

✔ Azure Marketplace   ✔ AppSource   ✔ Available in Both Storefronts

> **NOTE**
> The table above describes how your solution or service maps to the storefront, publishing option, and offer type used to present your offer in marketplace.

In this article, you will learn...

- How to determine the appropriate storefront for your solution

- Which publishing options and calls-to-action are available in each storefront

- Which offer types are available for each publishing option

Selecting a storefront, publishing option, and offer type for your solution

Before you select a publishing option, it's important to understand the storefront eligibility requirements for marketplace solutions, apps, and services:

Azure Marketplace applications are technical "building-block" solutions built-on or built-for Azure. Azure

Marketplace consulting services are professional services offerings that help customers get started with or accelerate the use of Azure.

AppSource applications are line-of-business solutions that can be built-on Azure or built-for: Dynamics 365, Office 365, PowerBI, or Power Apps. AppSource consulting services are professional services offerings that help customers get started with or accelerate usage of Dynamics 365 and Power BI.

Once you have registered to become a publisher and have received access to the Cloud Partner Portal for creating, configuring, and publishing marketplace offers, you will:

1. Understand how the storefront for your offer will be determined

2. Choose a publishing option for your offer

3. Select an offer type and review the eligibility requirements

4. Build and configure your offer for publishing in the Cloud Partner Portal

Understand storefront selection

The storefront where your offer will be presented, Azure Marketplace and/or AppSource, will be automatically determined by your offer details and target audience, as well as the categories and industries selected by you when creating your offer in the Cloud Partner Portal.

> **NOTE**
>
> "Cross-listing" (for SaaS Apps only): when a list or trial-based offer meets the criteria for both a technical and business user audience, your offer will be listed in both storefronts. Learn more about the publishing options below.

Choose a publishing option

The publishing options available offer differentiated customer engagement while giving you access to lead sharing and Go-To-Market benefits. Select from three possible publishing options before using the Cloud Partner Portal to create a marketplace offer. Note the calls-to-action that correspond with the publishing option:

PUBLISHING OPTION	DESCRIPTION
List	Simple listing of your application or service that enables a marketplace user to request you to connect with the customer via the **Contact Me** call-to-action.
Trial	Use marketplace to enhance discoverability and automate provisioning of your application's trial experience, enabling prospective users to use your SaaS, IaaS, or Microsoft in-app experience at no cost for a limited time before they buy. The calls-to-action used for the trial publishing option are either: **Free Trial** or **Test Drive**.
Transact	Your application runs on Azure and can be provisioned as a resource directly into the customer's Azure subscription when the customer selects the Get it Now call to action. Your software license fees can optionally be purchased and billed via the customer's choice of payment instrument and terms, and you can choose to offer time-limited access to your **Free Software Trial** (only available for Azure Marketplace.)

> **NOTE**
>
> When using the Transact publishing option, it is important to understand the pricing, billing, invoicing, and payout considerations before selecting an offer type and creating your offer. Review the Marketplace Billing and Commercial Considerations article to learn more.

Next steps

- Once you decide on a publishing option, you are ready to select the offer type that will be used to present your offer.
- Review the eligibility requirements in the publishing options by offer type section to finalize the selection and configuration of your offer.
- Review the publishing patterns by storefront for examples on how your solution maps to an offer type and configuration.
- Log in to the Cloud Partner Portal to create and configure your offer.

Lead management for cloud marketplace

1/7/2019 • 8 minutes to read • Edit Online

Customers are the center of any good business. In the transformation of today's product acquisitions, marketers need to focus on connecting with customers directly and building a relationship. This is why generating high-quality leads is a vital tool for your sales cycle. After listing your offer in the Cloud Partner Portal, there are tools enabled for you to programmatically receive customer contact information immediately after a customer expresses interest or deploys your product in the marketplace.

What are leads in the marketplace?

The leads are from customers who are interested or deploying your products from the Marketplace. Whether your product is listed on Azure Marketplace or AppSource, you will be able to receive leads from customers once it is set up properly from your CRM to your listing(s) in Cloud Partner Portal

How to connect your CRM system with the cloud partner portal

To start getting leads, Lead Management connector on the Cloud Partner Portal is designed so that it can be easily plugged in with your CRM information to a list of CRM system available. Now you can easily leverage the leads generated by the marketplace without a significant engineering effort to integrate with an external system.

Here are step-by-step instructions on how to connect each of the possible lead destinations:

Dynamics CRM Online - Click here to get the instructions on how to configure Dynamics CRM Online for getting leads.

Marketo - Click here to get the instructions for setting up Marketo Lead Configuration to get leads.

Salesforce - Click here to get instructions for setting up your Salesforce instance to get leads.

Azure Table – Click here to get the instructions for setting up your Azure storage account for getting leads in an Azure table.

Https Endpoint – Click here to get the instructions for setting up your Https Endpoint to get leads.

Once you have configured your lead destination properly and have hit Publish on your offer, we will validate the connection and send you a test lead. When you are viewing the offer before you go live, you can also test your lead connection by trying to acquire the offer yourself in the preview environment. It's important to make sure that your lead settings stay up-to-date so that you don't lose any leads, so make sure you update these connections whenever something has changed on your end.

What are the next steps?

Once the technical set up is in place, you should incorporate these leads into your current sales & marketing strategy and operational processes. We are interested in better understanding your overall sales process and want to work closely with you on providing high-quality leads and enough data to make you successful. We welcome your feedback on how we can optimize and enhance the leads we send you with additional data to help make these customers successful. Let us know if you're interested in providing feedback and suggestions to enable your sales team to be more successful with Marketplace Leads.

Common lead configuration errors during publishing on cloud partner portal

Could not save the lead to Dynamics CRM. Check the Dynamics CRM account settings. LastCRMError: Unable to sign in to Dynamics CRM, LastCRMException:

> If O365 authentication was selected, check if the user account and password is valid. If AAD was selected, check if the tenant ID, application ID and application secret key matches what was set up on AAD. Follow instructions here.If the account username/password is valid, please make sure it has access to Dynamics 365 and has a license assigned (Steps 11-15 if using Azure Active Directory or Security Settings if using an Office user).

Could not save the lead to Dynamics CRM. User does not have create permissions for the leadsourcecode attribute in the lead entity

> The application/user is missing security role(s) to Microsoft Marketplace lead writer. Follow steps 11-15 if using Azure Active Directory or Security Settings if using an Office user here.

Could not save the lead to Dynamics CRM using AAD. Exception:: Tenant not found. This instance may happen if there are no active subscriptions for the tenant.

> The Directory Id provided in the lead management section is not a valid directory. Please get the Directory Id based on the instructions at Step 2 (under Azure Active Directory, from here

Could not save the lead to Dynamics CRM. LastCRMError: SecLib::RetrievePrivilegeForUser failed - no roles are assigned to user.

> Resolution: Assign Security role to Microsoft Marketplace lead writer. Follow instructions here under Security settings

Could not save the lead to Dynamics CRM using AAD. Exception:: Application with identifier was not found in the directory

> The Application Id provided in the lead management section is not a valid directory. Please get the Directory Id based on the instructions at Step 8 (under Azure Active Directory, from here).

Could not save the lead to Dynamics CRM using AAD. Exception:: Requested tenant identifier is not valid and not valid external domain format

> The Directory Id provided in the lead management section is not a valid directory. Please get the Directory Id based on the instructions at Step 2 (under Azure Active Directory, from here).

Could not save the lead to Dynamics CRM using AAD. Exception:: Error validating credentials.: Invalid client secret is provided.

> Resolution: Sign in to the Azure Portal, check if the application key matches what's in the Cloud Partner Portal. Please generate password based on the instruction at Step 10 (under Azure Active Directory), from here).

Could not save the lead to Dynamics CRM. LastCRMError: The request channel timed out while waiting for a reply after 00:02:00. Increase the timeout value passed to the call to Request or increase the SendTimeout value on the Binding. The time allotted to this operation may have been a portion of a longer timeout.

> Resolution: Sign in to Cloud Partner Portal, check Storefront details >> Lead destination >> URL, check if it's a valid Dynamic CRM instance

Frequently asked questions

What are leads and why are they important to me as a publisher on Marketplace?

Leads are customers who are deploying your products from the Marketplace. Whether your product is listed on Azure Marketplace or AppSource, you will be able to receive leads of customers who are interested in your product if you have setup the lead destination on your offer.

Where can I get help in setting up my lead destination?

You can find documentation here: Get customer leads or submit a support ticket through aka.ms/marketplacepublishersupport select offer type and lead management.

Am I required to configure a lead destination in order to publish an offer on Marketplace?

Yes, if you are publishing a Contact Me SaaS app, or Consulting Services.

How can I confirm that the lead configuration is correct?

After setting up your offer, and lead destination, publish your offer. On lead validation step, Marketplace will send a test lead to the lead destination configured in your offer.

How can I find the test lead?

Search for "MSFT_TEST" in your lead destination, here's a sample test lead data:

company = MSFT_TEST_636573304831318844

country = US

description = MSFT_TEST_636573304831318844

email = MSFT_TEST_636573304831318844@test.com

encoding = UTF-8

encoding = UTF-8

first_name = MSFT_TEST_636573304831318844

last_name = MSFT_TEST_636573304831318844

lead_source = MSFT_TEST_636573304831318844-MSFT_TEST_636573304831318844|

oid = 00Do0000000ZHog

phone = 1234567890

title = MSFT_TEST_636573304831318844

I have a live offer, but I'm not seeing any leads?

Each lead will have data passed in fields in your selected lead destination, the leads will come in this format:
Source-Action|Offer

Sources:

```
"AzureMarketplace",
"AzurePortal",
"TestDrive",
"SPZA" (acronym for AppSource)
```

Actions:

```
“INS” – Stands for Installation. This is on Azure Marketplace or AppSource whenever a customer hits the button
to acquire your product.
“PLT” – Stands for Partner Led Trial. This is on AppSource whenever a customer hits the Contact me button.

“DNC” – Stands for Do Not Contact. This is on AppSource whenever a Partner who was cross listed on your app
page gets requested to be contacted. We are sharing the heads up that this customer was cross listed on your
app, but they do not need to be contacted.

“Create” – This is inside Azure Portal only and is whenever a customer purchases your offer to their account.

“StartTestDrive” – This is for Test Drives only and is whenever a customer starts their test drive.
```

Offers:

```
“checkpoint.check-point-r77-10sg-byol”,
“bitnami.openedxcypress”,
“docusign.3701c77e-1cfa-4c56-91e6-3ed0b622145a”
```

Here's sample data of the customer information

```
{

"FirstName":"John",

"LastName":"Smith",

"Email":"jsmith@microsoft.com",

"Phone":"1234567890",

"Country":"US",

"Company":"Microsoft",

"Title":"CTO"

}
```

Find out more under Lead Info.

I have configured Azure BLOB as my lead destination, why don't I see the lead?

The lead only gets written when you select Azure BLOB storage as your lead destination. Switch to Azure table to receive the lead real time

I received an email from Marketplace, why can't I find the lead in my CRM?

It's possible that the end user's email domain is from .edu. For privacy reasons we don't pass PII data from .edu domain. Submit a support ticket through aka.ms/marketplacepublishersupport

I have configured Azure Table/Azure BLOB as my lead destination, how can I view the leads?

You can access the blob or table from Azure Portal, or you can download and install Azure Storage Explorer for free to view your Azure storage account's tables/blobs.

I have configured Azure Table as my lead destination, can I get notified whenever a new lead is sent by Marketplace?

Yes, follow the instructions to set up Azure Table + Function on the documentation here.

I have configured Salesforce as my lead destination, why can't I find the leads?

Check if the web to lead form is a mandatory field based on a picklist. If yes, switch over the field to a non-mandatory text field.

There was an issue with my lead destination, and I missed some leads. Can I have them sent to me in an email?

Due to PII (Private Identifiable Information) policies, we cannot share lead information through unsecured email.

I have configured Azure Storage (BLOB/Table) as my lead destination, how much will it cost?

Lead gen data is low (<1 GB for almost all publishers). The cost will depend on number of leads received, if 1,000 leads are received in a month, it costs around 50 cents.

Azure Marketplace commercial transaction capabilities and considerations

1/7/2019 • 9 minutes to read • Edit Online

Azure Marketplace publishing options offer unique ways to connect cloud software and service providers with customers. This article covers the following commerce-related topics in the Azure Marketplace:

- Marketplace publishing options
- Transact general overview
- Transact billing models
- Transact requirements

Marketplace publishing options

The following publishing options are available to Azure Marketplace publishers.

List & trial publishing options

In Azure Marketplace, publishers can leverage the list and trial publishing options for promotional and user acquisition purposes. With the list or trial publishing options, Microsoft doesn't participate directly in the publisher's software license transactions, and there is no associated transaction fee. Publishers are responsible for supporting all aspects of the software license transaction, including but not limited to: order, fulfillment, metering, billing, invoicing, payment, and collection. With the list and trial publishing options, publishers keep 100% of publisher software licensing fees collected from the customer.

Transact publishing option

In addition to the list and trial publishing options, the transact publishing option is available to Azure Marketplace publishers. It takes advantage of Microsoft's globally available commerce capabilities. This option allows Microsoft to host cloud marketplace transactions on behalf of the publisher.

Transact general overview

When using the transact publishing option, Microsoft enables the sale and deployment of third-party software to the customer's Azure subscription. The publisher must consider the billing of Azure infrastructure fees, and the publisher's own software licensing fees, when selecting a billing model and offer type in Azure Marketplace.

The Transact publishing option in Azure Marketplace is currently supported for the following offer types: Virtual Machines, Azure Applications, or SaaS Apps.

Transacting **Enterprise Deals** in Azure Marketplace
Select an offer type and monetize your solution with Microsoft integrated billing

Offer Type	Virtual Machines	Azure Applications	SaaS Apps
Deployment	One Virtual Machine	Virtual Machines, Networking, Storage, and More (ARM)	*Anything* as a Service
Licensing	BYOL, Free, or PAYGO		Subscription
Pricing	Hourly/Monthly		Monthly/Annual
Private Offers	Enterprise-Ready		

Billing infrastructure costs

For Virtual Machines and Azure applications

For Virtual Machines and Azure Applications, the Azure infrastructure usage fees are billed to the customer's Azure subscription. Infrastructure usage fees are priced and presented separately from the software provider's licensing fees on the customer's invoice.

For SaaS apps

For SaaS Apps, the publisher must account for Azure infrastructure usage fees, and software licensing fees as a single cost item. It is represented as a flat monthly fee to the customer. The Azure infrastructure usage is managed and billed to the partner directly. Actual infrastructure usage fees are not seen by the customer. Publishers typically opt to bundle Azure infrastructure usage fees into their software license pricing. Software licensing fees aren't metered or consumption based.

Transact billing models

Depending on the transaction option used, the publisher's software license fees can be presented as follows:

- Free: No charge for software licenses.

- Bring your own license (BYOL): Any applicable charges for software licenses are managed directly between the publisher and customer. Microsoft only passes through Azure infrastructure usage fees. (Virtual Machines and Azure Applications only.)

- Pay-as-you-go: Software license fees are presented as a per-hour, per-core (vCPU) pricing rate based on the Azure infrastructure used. This only applies to Virtual Machines and Azure Applications.

- Subscription pricing (site-based): Software license fees are presented as a monthly, recurring fee. This only applies to SaaS Apps and Azure Applications – Managed Apps.

- Free software trial: No charge for software licenses for 30-days or 90-days.

Free and bring-your-own-license (BYOL) pricing

When publishing a free or bring-your-own-license transaction offer, Microsoft does not play a role in facilitating the sales transaction for your software license fees. Like the list and trial publishing options, the publisher keeps 100% of software license fees.

Pay-as-you-go and subscription (site-based) pricing

When publishing a pay-as-you-go or subscription transaction offer, Microsoft provides the technology and services to process software license purchases, returns, and chargebacks. In this scenario, the publisher authorizes Microsoft to act as an agent for these purposes. The publisher allows Microsoft to facilitate the software licensing transaction, while retaining their designation as the seller, provider, distributor, and licensor.

Microsoft enables customers to order, license, and use publisher software, subjecting to the terms and conditions of both Azure Marketplace and the publisher's end-user licensing agreement (see Cloud Partner Portal). Publishers must provide their end-user licensing agreement in the marketplace offer.

Orders processed through marketplace are billed to the customer's Azure subscription in a single bill, the same billing method as the customer's Azure infrastructure costs. Customers can use the preferred invoicing method and payment instrument used for their Azure subscription billing.

Free software trials

For transact publishing scenarios, the publisher can make a software license available free for 30-days or 90 days. This discounting capability does not include the cost of Azure infrastructure usage that is driven by use of the partner solution.

Private offers

In addition to using offer types and billing models to monetize an offer, publishers can transact a private version of solution offer, complete with negotiated, deal-specific pricing, and custom configurations using a customized image. Private offers are supported by all 3 transact publishing options.

This pricing option can be the higher or lower than the publicly displayed pricing. Private offers can be used to discount, or add a premium for an offer. Private offers can be made available to one or more customers by white listing their Azure subscription at the offer level.

Examples

Pay-As-You-Go

- If you enable the Pay-As-You-Go option, then you have the following cost structure.

YOUR LICENSE COST	$1.00 PER HOUR
Azure usage cost (D1/1-Core)	$0.14 per hour
Customer is billed by Microsoft	*$1.14 per hour*

- In this scenario, Microsoft bills $1.14 per hour for use of your published VM image.

MICROSOFT BILLS	$1.14 PER HOUR
Microsoft pays you 80% of your license cost	$0.80 per hour
Microsoft keeps 20% of your license cost	$0.20 per hour
Microsoft keeps 100% of the Azure usage cost	$0.14 per hour

Bring Your Own License (BYOL)

- If you enable the BYOL option, then you have the following cost structure.

YOUR LICENSE COST	LICENSE FEE NEGOTIATED AND BILLED BY YOU
Azure usage cost (D1/1-Core)	$0.14 per hour
Customer is billed by Microsoft	*$0.14 per hour*

- In this scenario, Microsoft bills $0.14 per hour for use of your published VM image.

MICROSOFT BILLS	$0.14 PER HOUR
Microsoft keeps the Azure usage cost	$0.14 per hour
Microsoft keeps 0% of your license cost	$0.00 per hour

SaaS App subscription (Sell through Azure)

This option must be configured to sell through Microsoft and can be priced using one or more flat-rate monthly Plans defined at the offer level.

- If you enable the Sell through Azure option, then you have the following cost structure.

YOUR LICENSE COST	$100.00 PER MONTH
Azure usage cost (D1/1-Core)	Billed directly to the publisher, not the customer
Customer is billed by Microsoft	*$100.00 per month (note: publisher must account for any incurred or pass-through infrastructure costs in the license fee)*

- In this scenario, Microsoft bills $100.00 for your software license and pays out $80.00 to the publisher.

MICROSOFT BILLS	$100.00 PER MONTH
Microsoft pays you 80% of your license cost	$80.00 per month
Microsoft keeps 20% of your license cost	$20.00 per month

Customer invoicing, payment, billing, and collections

Invoicing and payment

Publisher can use the customer's preferred invoicing method to deliver subscription or PAYGO software license fees.

Enterprise agreement

If the customer's preferred invoicing method is the Microsoft Enterprise Agreement, your software license fees will be billed using this invoicing method as an itemized cost, separate from any Azure-specific usage costs.

Credit cards and monthly invoice

Customers can also pay using a credit card and a monthly invoice. In this case, your software license fees will be billed just like the Enterprise Agreement scenario, as an itemized cost, separate from any Azure-specific usage costs.

For example, if the customer purchases using a credit card:

DESCRIPTION	DATE
Order Period	Aug 15, 2018 - Aug 30, 2018
Term Ending (month)	Aug 30, 2018
Billing Date	Sept 1, 2018
Customer Payment Date	Sept 1, 2018
Escrow Period (credit cards only, 30 days)	Sept 1, 2018 – Sept 30, 2018
Collection Period Start	Sept 1, 2018
Collection Period End (maximum, 30 days)	Sept 30, 2018
Payout Calculation Date (monthly on the 15th)	Oct 1, 2018
Payout Date	Oct 15, 2018

If the customer purchases using an Enterprise Agreement:

DESCRIPTION	DATE
Order Period	Aug 15, 2018 - Aug 30, 2018
Term Ending (quarter)	Sept 30, 2018
Billing Date	Oct 15, 2018
Escrow Period (credit cards only, 30 days)	n/a
Collection Period Start	Oct 15, 2018
Collection Period End (maximum, 90 days)	Jan 15, 2018
Customer Payment Date	Dec 30, 2018
Payout Calculation Date (monthly on the 15th)	Jan 15, 2018
Payout Date	Feb 15, 2019

Free credits and monetary commitment

Some customers elect to prepay Azure with a monetary commitment in the Enterprise Agreement or have been provided free credits for use with Azure. Although these credits can be used to pay for Azure usage, they can't be used to pay for publisher software license fees.

Billing and collections

Publisher software license billing is presented using the customer selected method of invoicing and follows the invoicing timeline. Customers without an Enterprise Agreement in place are billed monthly for marketplace software licenses. Customers with an Enterprise Agreement are billed monthly via an invoice that is presented quarterly.

When subscription or Pay-as-You-Go pricing models are selected, Microsoft acts as the agent of the publisher and is responsible for all aspects of billing, payment, and collection.

Publisher payout and reporting

- Any software licensing fees collected by Microsoft as an agent are subject to a 20% transaction fee unless otherwise specified and are deducted at the time of publisher payout.

- Customers typically purchase using the Enterprise Agreement or a credit-card enabled pay-as-you-go agreement. The agreement type determines billing, invoicing, collection, and payout timing.

> **NOTE**
>
> All reporting and insights for the transact publishing option are available via the Insights section of the Cloud Partner Portal.

Billing questions and support

For more information and legal policies, see the Publisher Agreement (available in the Cloud Partner Portal).

To get help on billing questions, create a support incident and choose Virtual Machines or Web Apps (aka SaaS Apps) depending on the offer type used.

Transact requirements

The transact requirements for different offer types are covered in this section.

Requirements for all offer types

Dev Center and Microsoft account

- Both a Dev Center and a Microsoft account are required for the transact publishing option, regardless of the offer's pricing model.
- The Dev Center account holds all relevant financial details required for Microsoft to collect fees from the customer on the publisher's behalf and pay out the publisher.
- Although you may use the same organizational or Microsoft sign-in details across both accounts, Dev Center is a separate account from the Cloud Publisher Portal account. To use the transact publishing option, the publisher must complete the Dev Center account sign-up process, in addition to signing up for access to the Cloud Partner Portal.

For more information on setting up these accounts, see Become a Cloud Marketplace Publisher.

Requirements for specific offer types

The transact publishing option is only available for use with the following marketplace offer types:

Virtual Machine

Select from free, bring-your-own-license, or pay-as-you-go-pricing models and present as SKUs defined at the offer level. On the customer's Azure bill, Microsoft presents the publisher software license fees separately from the underlying Azure infrastructure fees. Azure infrastructure fees are driven by use of the publisher software.

Azure Applications: Solution Template or Managed App

Must provision one or more virtual machines and pulls through the sum of the virtual machine pricing. For managed apps on a single plan, a flat-rate monthly subscription can be selected as the pricing model instead the virtual machine pricing. In both cases, Azure infrastructure usage fees are passed to the customer separately from software license fees, but on the same billing statement.

Next steps

- Review the eligibility requirements in the publishing options by offer type section to finalize the selection and configuration of your offer.
- Review the publishing patterns by storefront for examples on how your solution maps to an offer type and configuration.
- Become a Marketplace publisher, and sign in to the Cloud Partner Portal to create and configure your offer.

Private offers

11/29/2018 • 3 minutes to read • Edit Online

Private offers on Microsoft Azure Marketplace enable publishers to create SKUs that are only visible to targeted customers.

Unlock enterprise deals with Private offers

Enterprise customers increasingly use online marketplaces to find, try, and buy cloud solutions. Now with private offers, publishers can use marketplace to privately share customized solutions with targeted customers with capabilities that enterprises require:

- *Negotiated pricing* lets publishers extend discounts and off-list pricing from publicly available offerings.
- *Private terms and conditions* enable publishers to tailor terms and conditions to a specific customer.
- *Specialized configurations* let publishers tailor their Virtual Machines, Azure Applications, and SaaS Apps offer to an individual customer's needs. This option also enables publishers to provide preview access to new product features, before launching more broadly to all customers.

Private offers allow publishers to take advantage of the scale and global availability of a public marketplace, with the flexibility and control needed to negotiate and deliver custom deals and configurations. Together, these features open the door to strong enterprise adoption of cloud marketplaces. Enterprises can now buy and sell in ways they expect and demand.

Private offers are now available for Virtual Machine, Azure Application (implemented as solution templates or managed applications), and SaaS Apps offers. Like public offers, private offers can be created and managed via the Cloud Partner Portal. Customers can be granted or revoked access to private offers in minutes.

Creating Private offers using SKUs and plans

For *new or existing offers with public SKUs or plans*, publishers can easily create new, private variations by creating new SKUs or plans and marking them as private. Private SKUs and plans are components of an offer and are only visible and purchasable by the targeted customers. Private SKUs and plans can reuse the base images and/or offer metadata already published for a public SKU or plan. This option allows publishers to create multiple private variations of a public offer without having to publish multiple versions of the same base image and offer metadata. For Virtual Machine and Azure application offers only, when a private SKU shares a base image with a public SKU, any changes to the offer's base image will propagate across all public and private SKUs using that base image.

For *new offers that only include private SKUs or plans*, publishers can create their offers as any other offer, and then mark the SKUs or plans as private. The offers that only have private SKUs or plans will not be discoverable or accessible via Azure Marketplace or the Azure portal by customers that are not associated with the offer.

Targeting customers with Private offers

For both new and existing private offers, publishers can target customers using subscription identifiers. Publishers using a Virtual Machine or Azure Application offer can constrain availability of a private SKU to an individual Azure subscription ID or upload a CSV of up to 20,000 Azure subscription IDs. While using a SaaS App private offer, publishers can associate either an Azure subscription ID or a tenant ID to constrain the availability of a private plan, using either the manual or CSV upload approach.

Once an offer has been certified and published, customers can be updated or removed from the SKU or Plan within minutes by using the Sync Private Subscriptions feature. This capability enables publishers to quickly and

easily update the list of customers to which the private SKU or plan is presented without recertifying or republishing the offer.

Deploying Private offers

Private offers are only discoverable via the Azure portal and are not presented via Azure Marketplace. Once logged into the Azure portal, customers can select the Marketplace navigation element to access their private offers. Private Offers will also appear in search results and can be deployed via command line and Azure Resource Manager templates like any other offers.
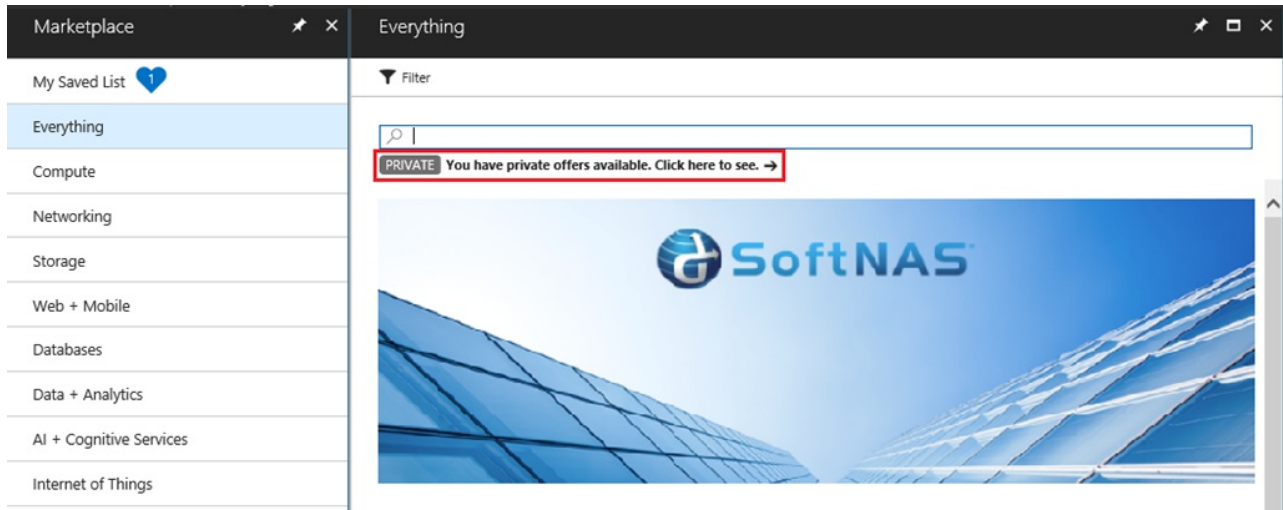
Private offers will also appear in search results. Just look out for the "Private" badge.

Next steps

If you would like to take advantage of these new capabilities, you can get started selling on the Azure Marketplace.

Publishing guide by offer type

1/7/2019 • 2 minutes to read • Edit Online

Once you decide on a publishing option, you are ready to select the offer type that will be used to present your offer.

The offer is the publishing object that you will create, publish, and manage in the Cloud Partner Portal. The *offer type* defines the offer structure, which includes the metadata, artifacts, and other content used to present the offer in the marketplace.

Before you can create an offer, you must choose an offer type. The offer type will correspond to the type of solution, app, or service offer that you wish to publish, as well as its alignment to Microsoft products and services.

A single offer type can be configured differently in the Cloud Partner Portal to enable different publishing options, calls-to-action, provisioning, or pricing. The publishing option and configuration of the offer type also align to the offer eligibility and technical requirements.

Be sure to review the storefront and offer type eligibility requirements and the technical publishing requirements before creating your offer.

List of offer types

Azure Marketplace offer types are listed in the table below.

OFFER TYPE	DESCRIPTION
Virtual machines	Use the virtual machine offer type when you deploy a virtual appliance to the subscription associated with your customer.
Solution templates	Use the solution template offer type when your solution requires additional deployment and configuration automation beyond a simple VM.
Managed applications	Use the Azure app: managed app offer type when the following conditions are required: • You deploy either a subscription-based solution for your customer using either a VM or an entire IaaS-based solution. • You or your customer require that the solution is managed by a partner.
SaaS applications	Use the SaaS app offer type to enable your customer to buy your SaaS-based, technical solution as a subscription.
Container offers	Use the Container offer type when your solution is a Docker container image provisioned as a Kubernetes-based Azure container service.
IoT Microsoft Edge modules	Azure IoT Edge modules are the smallest computation units managed by IoT Edge, and can contain Microsoft services (such as Azure Stream Analytics), 3rd-party services, or your own solution-specific code.

OFFER TYPE	DESCRIPTION
Consulting services	Consulting Services in Azure Marketplace help to connect customers with services to support and extend their use of Azure.
AppSource offers	The AppSource storefront includes offers that build on or extend Dynamics 365, Office 365, Power BI, and Power Apps.

Finally, see **Azure AD requirements** by listing options and offer types for more information on single sign-on requirements.

Next steps

- Review the eligibility requirements in the publishing options by offer type section to finalize the selection and configuration of your offer.
- Review the publishing patterns by storefront for examples on how your solution maps to an offer type and configuration.
- Sign in to the Cloud Partner Portal to create and configure your offer.

Virtual Machine Offer Publishing Guide

1/7/2019 • 3 minutes to read • Edit Online

Virtual Machine images are one of the main ways to publish a solution in the Azure Marketplace. Use this guide to understand the requirements for this offer.

These are transaction offers which are deployed and billed through the Marketplace. The call to action that a user sees is "Get It Now."

Free Trial

You can arrange for users to test your offer by accessing limited term software licenses when using the Bring Your Own License (BYOL) billing model. Below are the requirements to deploy this offer.

REQUIREMENTS	DETAILS
Free trial period and trial experience	Your customers may try your app for free for a limited time. Your customers are note required to pay any license or subscription fees for your offer. Your customers are not required to pay for the underlying Microsoft first-party product or service. All trial options are deployed to your Azure subscription. You have sole control of the cost optimization and management. You may choose a free trial or interactive demo. No matter what you choose, your free trial must provide customers a pre-set amount of time to try your offer at no additional cost.
Easily configurable, ready-to-use solution	Your app must be easy and quick to configure and set up.
Availability / uptime	Your SaaS app or platform must have an uptime of at least 99.9%.
Azure Active Directory	Your offer must allow Azure Active Directory (Azure AD) federated single sign-on (SSO) (Azure AD federated SSO) with consent enabled.

Test Drive

You deploy one or more virtual machines through infrastructure-as-a-service (IaaS) or software-as-a-service (SaaS) apps. A benefit of the test drive publishing option is the automated provisioning of a virtual machine or entire solution led by a partner-hosted guided tour. A test drive provides an evaluation at no additional cost to your customer. Your customer does not need to be an existing Azure customer to engage with the trial experience.

Contact us at amp-testdrive to get started.

REQUIREMENTS	DETAILS
You have a Marketplace app	One or more virtual machines through IaaS or SaaS.

Interactive Demo

You provide a guided experience of your solution to your customers by using an interactive demonstration. The

benefit of interactive demo publishing option is that you provide a trial experience without complicated provisioning of your complex solution.

Virtual Machine Offer

Use the virtual machine offer type when you deploy a virtual appliance to the subscription associated with your customer. VMs are fully commerce enabled using pay-as-you-go or bring-your-own-license (BYOL) licensing models. Microsoft hosts the commerce transaction and bills your customer on your behalf. You get the benefit of using the preferred payment relationship between your customer and Microsoft, including any Enterprise Agreements.

> **NOTE**
>
> At this time, the monetary commitments associated with an Enterprise Agreement are able to be used against the Azure usage of your VM, but not against your software licensing fees.

> **NOTE**
>
> You are able to restrict the discovery and deployment of your VM to a specific set of customers by publishing the image and pricing as a Private offer. Private offers unlock the ability for you to create exclusive offers for your closest customers and offer customized software and terms. The customized terms enable you to highlight a variety of scenarios, including field-led deals with specialized pricing and terms as well as early access to limited release software. Private offers enable you to give specific pricing or products to a limited set of customers by creating a new SKU with those details.
>
> * For more information about Private Offers, visit the Private Offers on Azure Marketplace page located at azure.microsoft.com/blog/private-offers-on-azure-marketplace.

REQUIREMENT	DETAILS
Billing and metering	Your VM must support either BYOL or Pay-As-You-Go monthly billing.
Azure-compatible virtual hard disk (VHD)	VMs must be built on Windows or Linux. - For more information about creating a Linux VHD, see Linux distributions endorsed on Azure. - For more information about creating a Windows VHD, see Create an Azure-compatible VHD.

Next steps

If you haven't already done so,

* Register in the marketplace.

If you're registered and are creating a new offer or working on an existing one,

* Log in to Cloud Partner Portal to create or complete your offer.
* See Virtual machine offer for more information.

Azure Applications: Solution Template Offer Publishing Guide

1/7/2019 • 2 minutes to read • Edit Online

Solution templates are one of the main ways to publish a solution in the Marketplace. Use this guide to understand the requirements for this offer.

Use the Azure app: solution template offer type when your solution requires additional deployment and configuration automation beyond a single VM. You may automate the provisioning of one or more VMs using Azure apps: solution templates. You may also provision networking and storage resources. Azure apps: solution templates offer type provides automation benefits for single VMs and entire IaaS-based solutions.

These solution templates are transaction offers, which are deployed and billed through the Marketplace. The call to action that a user sees is "Get It Now."

Requirements for Solution Templates

REQUIREMENTS	DETAILS
Billing and metering	The resources will be provisioned in the customer's Azure subscription. Pay-as-you-go (PAYGO) virtual machines will be transacted with the customer via Microsoft, billed via the customer's Azure subscription (PAYGO). In the case of bring-your-own-license (BYOL), while Microsoft will bill infrastructure costs incurred in the customer subscription, you will transact your software licensing fees to the customer directly.
Azure-compatible virtual hard disk (VHD)	VMs must be built on Windows or Linux. For more information, see Create an Azure-compatible VHD.
Customer Usage Attribution	Enabling customer usage attribution is required on all solution templates published to the Azure Marketplace. For more information on customer usage attribution and how to enable it, see Azure partner customer usage attribution.

Next steps

If you haven't already done so, register in the marketplace.

If you're registered and are creating a new offer or working on an existing one, sign in to Cloud Partner Portal to create or complete your offer.

Azure Applications: Managed Application Offer Publishing Guide

1/7/2019 • 2 minutes to read • Edit Online

A managed application is one of the main ways to publish a solution in the Marketplace. Use this guide to understand the requirements for this offer.

These are transaction offers which are deployed and billed through the Marketplace. The call to action that a user sees is "Get It Now."

Use the Azure app: managed app offer type when the following conditions are required:

- You deploy either a subscription-based solution for your customer using either a VM or an entire IaaS-based solution.
- You or your customer require that the solution is managed by a partner.

> **NOTE**
>
> For example, a partner may be an SI or managed service provider (MSP).

Managed Application Offer

REQUIREMENTS	DETAILS
Deployed to a customer's Azure subscription	Managed Apps must be deployed in the customer's subscription and can be managed by a 3rd party
Billing and metering	The resources will be provisioned in the customer's Azure subscription. Pay-as-you-go (PAYGO) virtual machines will be transacted with the customer via Microsoft, billed via the customer's Azure subscription (PAYGO)
In the case of bring-your-own-license, while Microsoft will bill infrastructure costs incurred in the customer subscription, you will transact your software licensing fees to the customer directly	
Azure-compatible virtual hard disk (VHD)	VMs must be built on Windows or Linux. - For more information about creating a Linux VHD, see Linux distributions endorsed on Azure. - For more information about creating a Windows VHD, see Create an Azure-compatible VHD.

> **NOTE**
>
> Managed apps must be deployable through the Marketplace. If customer communication is a concern, then you should reach out to interested customers after you have enabled lead sharing.

Next steps

If you haven't already done so,

- Register in the marketplace.

If you're registered and are creating a new offer or working on an existing one,

- Log in to Cloud Partner Portal to create or complete your offer.

SaaS applications Offer Publishing Guide

1/22/2019 • 5 minutes to read • Edit Online

SaaS applications can be published in the marketplace with three different calls to action: "Contact Me," "Try it now," and "Get it Now." This guide explains these three options, including requirements for each.

Offer overview

SaaS applications are available in both Azure Storefronts The following table describes the current available options:

STOREFRONT OPTION	LISTING	TRIAL/TRANSACT
AppSource	Yes (Contact Me)	Yes (PowerBI/Dynamics)
Azure marketplace	No	Yes (SaaS Apps)

List: The Listing publishing option consists of a Contact Me offer type and is used when a Trial- or Transaction-level participation is not feasible. The benefit of this approach is that it enables publishers with a solution in-market to immediately begin receiving leads that can be turned into deals to increase your business.

Trial/Transaction: The customer has the option to directly buy or request a trial for your solution. Providing a Trial experience increases the engagement level offered to customers and enables customers to explore your solution before buying. With a Trial experience, you will have better chances of promotion in the storefronts, and you should expect more and richer leads from customer engagements. Trials must include free support at least for the duration of the trial period.

SAAS APPS OFFER	BUSINESS REQUIREMENTS	TECHNICAL REQUIREMENTS
Contact Us	Yes	No
PowerBI / Dynamics	Yes	Yes (Azure AD integration)
SaaS Apps	Yes	Yes (Azure AD integration)

SaaS List

The call to action for a SaaS listing with no trial and no billing functionality is "Contact Me."

You do not need to configure Azure Active Directory to list a SaaS application.

REQUIREMENTS	DETAILS
Your app is a SaaS offering	Your solution is a SaaS offering and you offer a multitenant SaaS product.

SaaS Trial

You provide a solution or app using a free-to-try, software-as-a-service (SaaS)-based trial. Free trial offers may be presented as a limited-use or limited-duration trial account.

REQUIREMENTS	DETAILS
Your app is a SaaS offering	Your solution is a SaaS offering and you offer a multitenant SaaS product.
Your app is AAD enabled	The customer will be re-directed to your domain and you will transact with the customer directly

SaaS Trial Technical requirements

The technical requirements for SaaS applications are simple. Publishers are only required to be integrated with Azure Active Directory (Azure AD) to be published. Azure AD integration with applications is well documented and Microsoft provides multiple SDKs and resources to accomplish this.

To start, we recommend that you have a subscription dedicated for your Azure Marketplace publishing, allowing you to isolate the work from other initiatives. Once this is done you can start deploying your SaaS application in this subscription to start the development work.

The best Azure Active Directory documentation, samples and guidance are located at the following sites:

- Azure Active Directory Developer's Guide

- Integrating with Azure Active Directory

- Integrating Applications with Azure Active Directory

- Azure Roadmap - Security and Identity

For video tutorials, review the following:

- Azure Active Directory Authentication with Vittorio Bertocci

- Azure Active Directory Identity Technical Briefing - Part 1 of 2

- Azure Active Directory Identity Technical Briefing - Part 2 of 2

- Building Apps with Microsoft Azure Active Directory

- Microsoft Azure Videos focused on Active Directory

Free Azure Active Directory training is available at

- Microsoft Azure for IT Pros Content Series: Azure Active Directory

In addition, Azure Active Directory provides a site to check for Service Updates

- Azure AD Service updates

Using Azure Active Directory to enable trials

Microsoft authenticates all Marketplace users with Azure AD, hence when an authenticated user clicks through your Trial listing in Marketplace and is redirected to your Trial environment, you can provision the user directly into a Trial without requiring an additional sign-in step. The token that your app receives from Azure AD during authentication includes valuable user information that you can use to create a user account in your app, enabling you to automate the provisioning experience and increase the likelihood of conversion. For more information about the token, see Sample Tokens .

Using Azure AD to enable 1-click authentication to your app or Trial does the following:

- Streamlines the customer experience from Marketplace to Trial.

- Maintains the feel of an 'in-product experience' even when the user is redirected from Marketplace to your domain or Trial environment.
- Decreases the likelihood of abandonment on redirect because there is not an additional sign-in step.
- Reduces deployment barriers for the large population of Azure AD users.

Certifying your Azure AD integration for Marketplace

You can certify your Azure AD integration in a few different ways, depending on whether your application is single-tenant or multi-tenant, and whether you are new to Azure AD federated single sign-on (SSO), or already support it.

For multi-tenant applications:

If you already support Azure AD, do the following:

1. Register your application in the Azure portal
2. Enable the multi-tenancy support feature in Azure AD to get a 'one-click' trial experience. More specific information can be found here.

If you are new to Azure AD Federated SSO, do the following:

1. Register your application in the Azure portal
2. Develop SSO with Azure AD using OpenID Connect or OAuth 2.0.
3. Enable multi-tenancy support feature in AAD to get 'one-click' trial experience More specific information can be found here.

For single-tenant application, use any of the following options:

- Add users to your directory as guest users using Azure B2B
- Manually provision trials for customers by using 'Contact Me'
- Develop a per-customer 'Test Drive'
- Build a multi-tenant sample demo app with SSO

SaaS Subscriptions

Use SaaS app offer type to enable your customer to buy your SaaS-based, technical solution as a subscription. The following requirements must be met for your SaaS app:

- Price and bill the service at a flat, monthly rate.
- Provide a method to upgrade or cancel the service at any time. Microsoft hosts the commerce transaction. Microsoft bills your customer on your behalf. To use bill a SaaS App as a subscription, you must enable you own subscription management service API. Your subscription management service API must communicate directly with the Azure Resource Manager APIs. Your subscription management service API must support service provisioning, upgrading, and canceling.

REQUIREMENT	DETAILS
Billing and metering	Your offer is priced at a monthly flat rate. Usage-based pricing and usage-based "true-up" capabilities are not supported at this time.
Cancellation	Your offer is cancelable by the customer at any time.
Transaction landing page	You host an Azure co-branded transaction landing page where users can create and manage their SaaS service account.

REQUIREMENT	DETAILS
Subscription API	You expose a service that can interact with the SaaS Subscription to create, update, and delete a user account and service plan. Critical API changes must be supported within 24 hours. Non-critical API changes will be released periodically.

Next steps

If you haven't already done so,

- Register in the marketplace.

If you're registered and are creating a new offer or working on an existing one,

- Log in to Cloud Partner Portal to create or complete your offer.
- See Azure SaaS application offer for more information.

Containers Offer Publishing Guide

1/7/2019 • 2 minutes to read • Edit Online

Container offers help you publish your container image to the Azure Marketplace. Use this guide to understand the requirements for this offer.

These are transaction offers which are deployed and billed through the Marketplace. The call to action that a user sees is "Get It Now."

Use the Container offer type when your solution is a Docker container image provisioned as a Kubernetes-based Azure container service.

> **NOTE**
>
> For example, a Kubernetes-based Azure container service like Azure Kubernetes Service or Azure Container Instances, the choice of Azure customers for a Kubernetes-based container runtime.

Microsoft currently supports free and bring-your-own-license (BYOL) licensing models.

Containers Offer

REQUIREMENT	DETAILS
Billing and metering	Support either the free or BYOL billing model.
Image built from Dockerfile	Container images must be based on the Docker image specification and must be built from a Dockerfile. • For more information about building docker images, visit the Usage section located at docs.docker.com/engine/reference/builder/#usage.
Hosting in ACR	Container images must be hosted in an Azure Container Registry (ACR) repository. • For more information about working with ACR, visit the Quickstart: Create a container registry using the Azure portal page located at docs.microsoft.com/azure/container-registry/container-registry-get-started-portal.
Image tagging	Container images must contain at least 1 tag (maximum tags: 16). • For more information about tagging an image, visit the docker tag page located at docs.docker.com/engine/reference/commandline/tag.

Next steps

If you haven't already done so,

- Register in the marketplace.

If you're registered and are creating a new offer or working on an existing one,

- Log in to Cloud Partner Portal to create or complete your offer.
- See Containers for more information.

IoT Edge modules

The Azure IoT Edge platform is backed by Azure Cloud. This platform enables users to deploy cloud workloads to run directly on IoT devices. An IoT Edge module can run offline workloads and do data analysis locally. This offer type helps to save bandwidth, safeguard local and sensitive data, and offers low-latency response time. You now have the options to take advantage of these pre-built workloads. Until now, only a handful of first-party solutions from Microsoft were available. You had to invest the time and resources into building your own custom IoT solutions.

By introducing the IoT Edge modules in the Azure Marketplace, we now have a single destination for publishers to expose and sell their solutions to the IoT audience. IoT developers can ultimately find and purchase capabilities to accelerate their solution development.

Key benefits of IoT Edge modules in Azure Marketplace:

FOR PUBLISHERS	FOR CUSTOMERS (IOT DEVELOPERS)
Reach millions of developers looking to build and deploy IoT Edge solutions.	Compose an IoT Edge solution with the confidence of using secure and tested components.
Publish once and run across any IoT Edge hardware that supports containers.	Reduce time to market by finding and deploying 1st and 3rd party IoT Edge modules for specific needs.
Monetize with flexible billing options • Free and Bring Your Own License (BYOL).	Make purchases with your choice of billing models. • Free and Bring Your Own License (BYOL).

What is an IoT Edge module?

Azure IoT Edge lets you deploy and manage business logic on the edge in the form of modules. Azure IoT Edge modules are the smallest computation units managed by IoT Edge, and can contain Microsoft services (such as Azure Stream Analytics), 3rd-party services or your own solution-specific code. To learn more about IoT Edge modules, see Understand Azure IoT Edge modules.

What is the difference between a Container offer type and an IoT Edge module offer type?

The IoT Edge module offer type is a specific type of container running on an IoT Edge device. It comes with default configuration settings to run in the IoT Edge context, and optionally uses the IoT Edge module SDK to be integrated with the IoT Edge runtime.

Publishing your IoT Edge module

Selecting the right storefront

IoT Edge Modules are only published to the Azure Marketplace, AppSource does not apply. For more information on the differences and target audience across storefronts, see determining the publishing option for your solution.

Billing options

The marketplace currently supports **Free** and **Bring Your Own License (BYOL)** billing options for IoT Edge modules.

Publishing options

In all cases, IoT Edge modules should select the **Transact** publishing option. See choose a publishing option for more details on publishing options.

Eligibility Criteria

All the terms of the Microsoft Azure Marketplace agreements and policies apply to IoT Edge module offers. Additionally, there are pre-requisites and technical requirements for IoT Edge modules.

Pre-requisites

To publish an IoT Edge module to the Azure Marketplace, you need to meet the following prerequisites:

- Access to the Cloud Partner Portal (CPP). For more information, see Azure Marketplace and AppSource publishing guide.
- Host your IoT Edge module in an Azure Container Registry.
- Have your IoT Edge module metadata ready such as (non-exhaustive list):
  - A title
  - A description (in HTML format)
  - A logo image (PNG format and fixed image sizes including 40x40px, 90x90px, 115x115px, 255x115px)
  - A term of use and privacy policy
  - Default module configuration (route, twin desired properties, createOptions, environment variables)
  - Documentation
  - Support contacts

Technical Requirements

The primary technical requirements for an IoT Edge Module, in order for it to get certified and published in the Azure Marketplace, are detailed in the Prepare your IoT Edge module technical assets.

Documentation and Resources

Create an IoT Edge module offer -– The steps for publishing a new IoT Edge module offer with the Cloud Publishing Portal.

Next steps

If you haven't already done so,

- Register in the Microsoft Partner Network.
- Create a Microsoft Account (required for Azure Marketplace transact offers; recommended for others).
- Submit the Marketplace Registration Form.

If you're registered and are creating a new offer or working on an existing one,

- Sign in to Cloud Partner Portal to create or complete your offer.
- See IoT Edge module offer publishing overview for information on how to publish an IoT Edge module offer.

Consulting Services for Azure Marketplace and AppSource

1/10/2019 • 8 minutes to read • Edit Online

Consulting Services in Azure Marketplace and AppSource provides Microsoft partners the goal of connecting customers with services to support and extend their use of Azure and business goals.

Azure Marketplace and AppSource support the listing of consulting service offerings from System Integrator (SI) partners of Microsoft – the goal being to offer quality consulting services to enable customers to connect with the expert services they need. Helping customers assess, evaluate, and deploy the right solutions and implementation that will help with their business objectives and goals.

These consulting-service offerings are customer-specific engagements. Publishers have the option to determine the listing type and with fixed scope and duration, either fixed-price or free, and have a defined agenda with deliverables to the customer. Leads are received through a notification in partner's CRM system and aim to respond to customers within 48 hours.

Consulting Services in Azure Marketplace vs AppSource Storefront

The marketplace storefronts are aligned with audiences and Microsoft cloud products to help customers find what they need. Each storefront offers specialized publishing options to help you maximize your publishing investment. The following table summarizes these options:

	AZURE MARKETPLACE	APPSOURCE
Audience	**IT pros and cloud developers**	**Business Users / Line-of-business decision makers**
Solution Relevance	Technical apps built for or built on Azure	Business Apps That Leverage / Extend D365, Power BI, O365, Azure. (Add-in or Add-on finished apps)
Publishing Options	Contact me, Trial, Transact, or Consulting Services	Contact Me, Trial, or Consulting Services
In Product Experience	Azure Management Portal	Dynamics 365, Office 365, Office Client Apps
Other	On-Premises Publishing Via Azure Stack	Consulting Services for Dynamics and Power BI

Service offers that are based on Microsoft Dynamics 365, Office 365, and Power BI are eligible to be listed on AppSource. For more information, see Microsoft AppSource consulting services listing guidelines.

> **NOTE**
>
> Consulting services in Azure Marketplace should leverage offerings geared towards a *technical audience with focuses on *Azure technical solutions and services.* ** Consulting services in AppSource should leverage offerings geared towards their expertise in delivering quality solutions for Dynamics 365, Power BI, or PowerApps to list their consulting services offerings on AppSource

Eligible Partners and Supported Countries

Partners are required to have a **silver or gold competency** in the relevant area for their service.

The eligible competencies are listed in the following table for Azure Marketplace:

COMPETENCY	SOLUTION AREA
Cloud Platform and Infrastructure	Cloud Platform, Data Center
Application Development and ISV	Application Development, Application Integration, DevOps
Data Management and Analytics	Data Analytics, Data Platform

The eligible competencies are listed in the following table for AppSource:

PRIMARY PRODUCT	ELIGIBILITY REQUIREMENT
Dynamics 365 for Customer Engagement	Silver or Gold Cloud Customer Relationship Management competency.
Dynamics 365 for Finance and Operations, Enterprise edition	Silver or Gold Enterprise Resource Planning competency, and a minimum revenue of $25K in Cloud Operations in the trailing 12 months.
Dynamics 365 for Finance and Operations, Business edition	Serve as Cloud Service Provider (CSP) or Digital Partner of Record (DPOR) for at least one customer
Power BI, Power BI Custom Visuals	Meet the Solution Partner criteria.
PowerApps	Have a published Partner Showcase solution

For more information, see competencies through Microsoft Partner Network.

SI partners can submit consulting-service offerings for the following 18 countries

ELIGIBLE COUNTRIES			
Australia	France	Mexico	Spain
Belgium	Germany	Netherlands	Sweden
Canada	India	New Zealand	United Kingdom
Denmark	Italy	Norway	United States
Finland	Japan	Poland	

The launch of consulting services will go live in specific geo-region. First launch will be: United States, Canada, the United Kingdom, and Australia. The catalogs for other countries will go live after a meaningful number and compelling selection of service offerings have been submitted by partners and approved by Microsoft.

How To Register For Consulting Services in Azure Marketplace and AppSource

Start by registering your company information in the marketplace. Publishers can reference Become a Publisher in the Marketplace, for a complete check-list of registration requirements.

What To Expect After Registration The Onboarding Team will reach out in 1-3 business days with a welcome email, which will include your Cloud Partner Portal (CPP) login information. Cloud Partner Portal is the offer listing portal where publishers submit listing information and submissions.

> **NOTE**
>
> Partners only need to register once to become a publisher. Once you receive your welcome email and Cloud Partner Portal login, publishers do not need to re-register in order to publish different listing types.

Prepare Your Publishing Artifacts

Prior to registration, you can start collecting and preparing the content that will help your listing articulate the value of your service and solution to your target customer.

SET UP FOR NEW PUBLISHERS
MPN ID
Company logos (48 × 48, 216 × 216)
Lead Destination

SET UP FOR NEW OFFERS
Offer name (200 characters) and description (2000 characters)
Competencies
Country/region availability
Duration of engagement
Applicable industries, categories, and search keywords
Product overview video
Screenshots (maximum of 5, 1280 × 720)
Marketing documents (maximum of 3)

Publishing Process

Listing your consulting-service offer on the Azure Marketplace and AppSource involves the following stages:

1. **Listing**: Start drafting a new offer listing by logging in to your [Cloud Partner Portal](#) account. Select 'New Offer' and 'Consulting Services' from the drop-down menu. Enter your listing artifact and publish.
2. **Validation**: Your request is reviewed to ensure that you meet the eligibility criteria. We then send you instructions for listing your consulting services offering.
3. **Submit**: Provide the required information that's listed in the instructions. All content and supporting material must be submitted in English.
4. **Review**: Our marketing and editorial team reviews your submission and optimizes it for readability, grammar, and effectiveness.
5. **Staging**: Your submission is staged for your review.
6. **Publishing**: When you and Microsoft are satisfied with the staged content, your listing is ready to go live on the marketplace. The go-live date for your listing depends on the country that's specified in your offering. If the catalog for your selected country is already live on the Azure Marketplace or AppSource, your listing will appear within a few hours. Otherwise, the listing will appear as soon as the catalog goes live.

Offer Listings and Content Review Criteria

Offerings must be of one of the following five service types (you can list more than one):

- **Assessment**: An evaluation of a customer's environment to determine the applicability of a solution and provide an estimate of cost and timing.
- **Briefing**: An introduction to a solution or a consulting service to draw customer interest by using frameworks, demos, and customer examples.
- **Implementation**: A complete installation that results in a fully working solution. We recommend limiting it to solutions that can be implemented in two weeks or less.
- **Proof of concept**: A limited-scope implementation to determine whether a solution meets customer requirements.
- **Workshop**: An interactive engagement that's conducted on a customer's premises. It can involve training, briefings, assessments, or demos that are built on the customer's data or environment.

Note: Except for the *Briefing* service type, consulting services can be offered in person (that is, onsite at a customer's location or a partner's facility) or virtually (that is, via teleconferencing, web conferencing, or remote implementation). Briefings must be offered in person.

Once you have configured the required elements listed above, the content review team will validate that your offer description is informative and complete for your target audience.

Listing Title

The title field has a 50-character limit and must transmit the duration and service type of the offer to maximize search engine optimization. The required format is as follows: NAME: DURATION TYPE

Examples:

SAMPLE TITLE	CORRECT FORMAT
Getting Started with Azure IoT in Manufacturing	Manufacturing IoT: 2-Day Assessment
Workshop on Smart Toasters	Smart Toasters: 1-Wk Workshop
SQL Server Migration PoC	SQL Migration: 3-Wk Proof of Concept

Listing Summaries and Descriptions

When reviewing Offer Descriptions and Offer Summaries, the team will apply the following criteria:

OFFER TYPE	REQUIRED	RECOMMENDED
Assessment	Include a detailed agenda for multi-day or multi-week assessments, and articulate what deliverable the customer can expect	Optimize your offer summary with your top Search Engine Optimization keywords
Briefing	Articulate what deliverable the customer can expect. Remember Briefing must be offered in person. If you are providing a virtual service, please choose a different offer type	Optimize your offer summary with your top Search Engine Optimization keywords
Implementation	Include a detailed agenda for multi-day or multi-week implementations, and articulate what engineering changes, technical artifacts, or other artifacts a customer can expect as outcomes of the engagement	Optimize your offer summary with your top Search Engine Optimization keywords
Proof of Concept	Articulate what engineering changes, technical artifacts, or other artifacts a customer can expect as outcomes of the engagement	Optimize your offer summary with your top Search Engine Optimization keywords
Workshop	Include a detailed agenda daily, weekly, or monthly, depending on the chosen duration of your offering. Articulate what the learning goals or other deliverables are of your workshop	Optimize your offer summary with your top Search Engine optimization keywords

Within Cloud Partner Portal, you can add formatting to your listing by using Markdown. This is a lightweight design language that will help add polish to your listing.

Sample Markdown Notes

- Add * at beginning and end of copy block - with no space to create italics (Ex: *content*)
- Include line break after ":" colon
- Space after "*" for bullets (Ex: *(space)Content)
- ### space for heading (Ex: ###(space)Agenda/Deliverables)
- Line break after heading
- ** = bold
- *Italicize Offer Summary

Next steps

If you haven't already done so,

- Register in the marketplace.

If you are registered and working in Cloud Partner Portal,

- Log in to Cloud Partner Portal to create or complete your offer.
- See Azure and Dynamics 365 consulting service offer for more information.

Office 365, Dynamics 365, Power Apps and Power BI Offer Publishing Guide

1/7/2019 • 2 minutes to read • Edit Online

The AppSource storefront includes offers that build on or extend Dynamics 365, Office 365, Power BI, and Power Apps. Each of these products have specific documentation to guide you in the publishing process. See below for links to more detail for each offer type.

AppSource has list and trial offers, with the call to action "Contact Me" or "Try It Now." There is currently no transaction functionality in AppSource.

Product-Specific guides

Office 365

Review the publishing process and guidelines

Power Apps

Learn about how customers can test drive your app on AppSource.

Power BI

Review the publishing process and guidelines.

Dynamics 365

Dynamics 365 for Finance and Operations

When building for Enterprise Edition, review the publishing process and guidelines

See Dynamics 365 for Finance and Operations offer for how to publish the offer in Cloud Partner Portal.

Dynamics 365 for Customer Engagement

Review the publishing process and guidelines.

See Dynamics 365 for Customer Engagement offer for how to publish the offer in Cloud Partner Portal.

Next steps

If you haven't already done so,

- Register in the marketplace.

If you are registered and working in Cloud Partner Portal,

- Log in to Cloud Partner Portal to create or complete your offer.

Enable an AppSource and Marketplace listing by using Azure Active Directory

2/4/2019 • 2 minutes to read • Edit Online

Azure Active Directory (Azure AD) is a cloud identity service that enables authentication with a Microsoft account. Azure AD uses industry-standard frameworks. Learn more about Azure Active Directory.

Azure AD benefits

Microsoft AppSource and Azure Marketplace customers use in-product experiences to search the listing catalogs. These actions require customers to sign in to the product. Azure AD integration provides the following benefits:

- Faster engagement and an optimized customer experience
- Single sign-on (SSO) for millions of enterprise users
- Consistent, sign-in experience across applications published by different partners
- Scalable, cross-platform authentication for mobile and cloud apps

Offers that require Azure AD

The various listing options and offer types for AppSource and Azure Marketplace have different requirements for Azure AD implementation. See the following table for details:

OFFER TYPE	AZURE AD SSO REQUIRED?			
	Contact Me	Trial	Test Drive	Transact
Virtual Machine	N/A	No	No	No
Azure Apps (solution template)	N/A	N/A	N/A	N/A
Managed Apps	N/A	N/A	N/A	No
SaaS	No	Yes	Yes	Yes
Containers	N/A	N/A	N/A	No
Consulting Services	No	N/A	N/A	N/A

For more information about SaaS technical requirements, see SaaS applications Offer Publishing Guide.

Azure AD integration

- For information on how to enable single sign-on by integrating Azure AD into your listing, see Azure Active Directory for developers.
- To get details about Azure AD single sign-on, see What is application access and single sign-on with Azure Active Directory?.

Enable a trial listing

Automated customer setup can increase the likelihood of conversion. When your customer selects your trial listing and is redirected to your trial environment, you can set up the customer directly without requiring additional sign-in steps.

During authentication, Azure AD sends a token to your app or offer. The user information provided by the token enables the creation of a user account in your app or offer. To learn more, see Sample tokens.

When you use Azure AD to enable one-click authentication in your app or trial listing, you:

- Streamline the customer experience from the Marketplace to your trial listing.
- Maintain the feel of an in-product experience even when the user is redirected from the Marketplace to your domain or trial environment.
- Reduce the likelihood of abandonment when users are redirected because there are no additional sign-in steps.
- Reduce deployment barriers for the large population of Azure AD users.

Verify Azure AD integration

Multitenant solutions

Use Azure AD to support the following actions:

- Register your app in one of the Marketplace storefronts. View App registration or AppSource certification for more information.
- Enable the multitenancy support feature in Azure AD to get a one-click trial experience.

If you're new to using Azure AD federated single sign-on, take these steps:

1. Register your app in the Marketplace.
2. Develop SSO with Azure AD by using OAuth 2.0 or OpenID Connect.
3. Enable the multitenancy support feature in Azure AD to provide a one-click trial experience.

Single-tenant solutions

Use Azure AD to support one of the following actions:

- Add guest users to your directory by using Azure AD B2B.
- Manually set up trials for customers by using the **Contact Me** publishing option.
- Develop a per-customer test drive.
- Build a multi-tenant sample demo app that uses SSO.

Next steps

- Make sure you've registered in the Azure Marketplace.
- Sign in to Cloud Partner Portal to create or complete your offer.

Marketing best practices

Publishing your offer in marketplace is just the first step. Furthermore, you need to determine how to optimize your listing to drive for maximum impact. The good news is that by publishing a listing in marketplace, you begin to unlock significant joint Go-To-Market (GTM) activities with Microsoft. In order to get the most out of this new GTM initiative and truly grow your business, you want to include your new listing as part of your existing marketing and sales activities.

The quality of your marketplace offer and your commitment to customer-centric demand help to drive your business growth. Your engagement in these activities helps Microsoft to amplify your GTM work, in order to feature key solutions across storefronts in the marketplace.

After you've created a great listing, the following marketing initiatives will help you grow your business:

- *Build a strong value proposition.*
  Identify your potential customer and the key differentiators of your solution.

- *Create a unique landing page on your site to make your app listing stand out.*
  Drive traffic from your site to your offer and make a great first impression. Based on your offer listing, customers decide whether they want to learn more and try your solutions.

- *Enable a test drive or other trial experience.*
  Users want to experience your app firsthand. Publishers have historically seen much higher lead conversion rates from listings that offer a test drive or trial.

- *Optimize your listing to help boost search engine rankings.*
  Incorporate search keywords in your app name, summary, and listing.

- *Build your demand-generation plan.*
  Use your marketplace offer listing as the landing page for marketing calls to action. If you've enabled lead sharing, each time customers try, test drive, or deploy your offer from the landing page, you obtain their name and contact information.

- *Promote your app on AppSource and/or in the Azure Marketplace.*
  Link to your app listing, and use URL tagging each time you link to your app.

- *Create marketing and promotion campaigns.*
  Plan and build campaigns to drive awareness and engagement, with a clear call to action that directs traffic to your marketplace listing.

- *Get customer feedback.*
  Invite your customers to submit a rating and review of your listing site. After they've started a trial, they receive an email message inviting them to share their experience with other customers.

Build an effective marketing campaign

A marketing campaign is a series of promotional activities or marketing tactics that are aimed at driving your audience to perform a desired action or reach an outcome. As you're designing your campaign, consider the following best practices:

Know your audience

First, determine the actual buyer versus the purchase influencer. They might be different people within an

organization, and your tactics and calls to action for each role might differ. Ask these evaluation questions to help you better understand your audience:

- How much control does the buyer have over the purchasing decision?
- How much influence does the influencer have?
- What does the influencer influence?
- Does this person influence budget or which solution is picked?

Knowing the answers to these questions helps you make decisions about where to invest your sales and marketing resources.

Define where your audience learns

These days, typical customers are most of the way through their journey by the time they visit the marketplace. Buyers get this far in the decision-making process by learning about solutions and assessing options in advance. You want to design a campaign that aims to be where your buyers and influencers learn about solutions well before they consider purchasing one.

The audience for each industry is different. Does your audience learn online, through email, at trade shows, through social media, or through conversations with trusted advisors? Depending on where and how your audience learns, you should design activities and distribute your marketing dollars accordingly. The combination of these tactics becomes your campaign strategy.

Create clear campaign goals

You should define success for your campaign in the marketplace and create clear key performance indicators (KPIs). You can run multiple campaigns with different end goals. Of course, the ultimate goal is usually increased revenue or customer acquisition; however, your marketing campaigns might be tied to goals in some other stages of the buying cycle. Here are a few examples:

- *You have newly launched your product in the marketplace.* In this case, you might find that your marketing resources are best spent on audience education and lead generation. Success might be defined by the number of leads generated from your marketplace listing. In this case, your marketing tactics (and landing page) would focus on drawing customers to your marketplace listing.

- *You have a trial set up in the marketplace.* Your product requires some level of engagement and experience before a purchase takes place. Consider a campaign goal of the number of trials downloaded. In this case, the call to action for your campaign tactics would focus sharply on encouraging a trial in the marketplace.

- *Your product or category is well known, and you have purchase capabilities set up in the marketplace.* Consider skipping the trial call to action and direct your audience to your **Get It Now** link in the marketplace.

- *Your offer is established and mature.* Consider focusing your campaign efforts on upselling your customer base and driving action toward increasing purchases in the marketplace. Your messaging would focus on encouraging customers to purchase through the marketplace. Your KPI could be the revenue that's generated through the marketplace.

Whatever the maturity of your offer and the goals of your organization, the following are keys to maximizing the effectiveness of your campaign:

- Remain focused on your goals.
- Map out a set of integrated marketing tactics that are aligned to your goals.

As part of being a new publisher in the marketplace, you receive a number of free marketplace GTM benefits from Microsoft. Think critically about how to use these benefits in your campaign strategy. Let our marketing team know your marketplace campaign goals and your desired audience action. Microsoft can help customize these deliverables to work into your plan.

For additional content about campaign building and marketing practices, be sure to engage in the Smart Partner Marketing program, a benefit of joining the Microsoft Partner Network.

Available on AppSource or Azure Marketplace badge

When your offer is listed in AppSource or the Azure Marketplace, you have earned the benefit of displaying the *Available on AppSource* or *Available on Azure Marketplace* badge on your website.

The AppSource badge is available in three sizes. You can download the badge along with guidance on how to use it at Promote the availability of your app on Microsoft AppSource.

The Azure Marketplace badge is provided as part of your free go-to-market benefits.

Next steps

To learn more about marketplace GTM services, go to Go-to-market services.

Log in to the Cloud Partner Portal to create and configure your offer.

Offer listing best practices

1/16/2019 • 3 minutes to read • <u>Edit Online</u>

The tables in this section provide suggestions for creating and engaging marketplace offers. To write and configure your marketing materials, go to the Cloud Partner portal.

Storefront offer details

STOREFRONT SETTING	BEST PRACTICE
Offer Name	Provide a strong title: • Your app name should communicate the core value for your customers. • Include search keywords in your app title to receive higher ranking in search engine results. Follow a set title format for consulting service listings: [Offer Name] : [Duration] [Offer Type] (for example, *Contoso: 2-Week Implementation*) Adhere to brand guidelines: Follow Microsoft Trademark and Brand Guidelines and other relevant, product-specific guidelines when you refer to Microsoft trademarks and the names of Microsoft software, products, and services.
Offer Description	Provide a clear offer description: • Clearly describe your offer's value proposition in the first few sentences of your description. • Keep in mind that the first few sentences might be displayed in search engine results. • Do not rely on features and functionality to sell your product. Instead, focus on the value you deliver. • Use industry-specific vocabulary or benefit-based wording as much as possible. • Additionally, Consulting Service listings must clearly state the professional service you provide. Core components of your value proposition should include the following information: • Description of the product. • Type of user that benefits from the product. • Customer need or pain that the product addresses.

Storefront listing details

STOREFRONT SETTING	BEST PRACTICE
Industries: AppSource apps and consulting services only	Select industries if your offer addresses industry-specific needs: • Call out industry-specific capabilities in your offer description. **Note**: The maximum number of options varies by offer type and is indicated in the Cloud Partner portal.

STOREFRONT SETTING	BEST PRACTICE
Categories	Select categories that align best with your offer: • Choose the categories carefully, because customers use them to search for relevant apps. • Be sure to call out how your offer supports category-specific needs in the offer description. **Note**: The maximum number of options varies by offer type and is indicated in the Cloud Partner portal.
Products that your app works with (3 max): AppSource apps only	List additional products and technologies that your solution uses or extends. For example, Azure IoT Hub or Azure Machine Learning.
Search keywords (3 max)	Search keywords can help business users find your offer when they search • in the Azure Marketplace • on AppSource • using search engines For your listing to appear in these searches, you need to: • Identify the top three search keywords for your offer; • incorporate the search keywords in your offer summary and description; • list the search keywords here.

Storefront marketing details

STOREFRONT SETTING	BEST PRACTICE
Offer logo (PNG format, 48 × 48): search page	Design and optimize your logo for a digital medium: Upload the logo in PNG format to the search page of your offer.
Offer logo (PNG format, 216 × 216): app details page	Design and optimize your logo for a digital medium: Upload the logo in PNG format to the app details listing page of your offer.
"Learn more" documents	Include supporting sales and marketing assets under "Learn more," some examples are: • white papers, • brochures, • checklists, or • PowerPoint presentations. Save all files in PDF format. Your goal here should be to educate customers, not sell to them. Add a link to your app landing page to all your documents and add URL parameters to help you track visitors and trials.

STOREFRONT SETTING	BEST PRACTICE
Videos: AppSource, consulting services, and SaaS offers only	The strongest videos communicate the value of your offer in narrative form: • Make your customer, not your company, the hero of the story. • Your video should address the principal challenges and goals of your target customer. • Recommended length: 60-90 seconds. • Incorporate key search words that use the name of the videos. • Consider adding additional videos, such as a how-to, getting started, or customer testimonials.
Screenshots (1280 × 720)	Add up to five screenshots: Incorporate key search words in the file names.

Link to your offer page from your website

When you link from the AppSource or Azure Marketplace badge on your site to your listing in the marketplace, you can support strong analytics and reporting by including the following query parameters at the end of the URL:

- **src**: Include the source from which the traffic is routed to AppSource (for example, website, LinkedIn, or Facebook).
- **mktcmpid**: Your marketing campaign ID, which can contain up to 16 characters in any combination of letters, numbers, underscores, and hyphens (for example, *blogpost_12*).

The following example URL contains both of the preceding query parameters:

```
https://appsource.microsoft.com/product/dynamics-365/mscrm.04931187-431c-415d-8777-f7f482ba8095?
src=website&mktcmpid=blogpost_12
```

By adding the parameters to your AppSource URL, you can review the effectiveness of your campaign in the analytics dashboard in Cloud Partner portal.

Next steps

To learn more about marketplace GTM services, go to Go-to-market services.

Log in to the Cloud Partner Portal to create and configure your offer.

How to get featured in AppSource and Azure Marketplace

1/16/2019 • 2 minutes to read • Edit Online

Azure Marketplace and AppSource have **featured apps** sections, where you can get your app featured:

- First, if you have a TRIAL or TRANSACTION offer, you can use your "category promotion" benefit through Go-to-Market benefits.
- Second, review the list of best practices and criteria below to earn a spot.

The featured apps selection algorithm generates a score to an app by Microsoft, just like a person's credit score in the US. The weekly selection of featured apps will be based on a calculation of app and service performance.

Steps to take

You can take the following action items to improve your score:

1. *Ensure that your app or service is appropriately categorized*: choose three categories that represent your app or service's capabilities.
2. *Azure Marketplace Apps: grow your Azure consumption month-over-month.* If you are able to achieve 1,000 hours of Azure usage a month, you will greatly increase your chances of being featured.
3. *AppSource Apps: increase the acquisitions coming to your offer.* If you are able to achieve 10 acquisitions per month, you will greatly increase your chances of being featured.
4. *Achieve Co-Sell ready status*: complete the requirements for co-sell ready.
5. *Improve the quality of your offer*: see content listing guidelines for information on how to modify your offer
6. Publish multiple offers in Marketplace: are all your core apps and services listed? Do you have a trial experience?
7. Encourage your customers to write reviews.

Featured Apps promotions operate separately from the search algorithm.

> **NOTE**
>
> If your solution is not appearing correctly in search results, file a support ticket through the Help menu in Cloud Partner Portal.

Your GTM support also includes a full library of self-help templates, web content, training, and tools to help you further promote your listings and your business.

Next steps

To learn more about marketplace GTM services, go to Go-to-market services.

Log in to the Cloud Partner Portal to create and configure your offer.

Azure Marketplace listing guidelines

1/7/2019 • 9 minutes to read • Edit Online

This document contains requirement guidelines as well as a checklist for reviewers for new offers and services listed to Azure Marketplace.

All offers must meet the All Listing Requirements indicated below. Additional requirements and checklists are provided for specific listing types including: offers with attached trials, SaaS apps, containers, and consulting offers.

All listing requirements

	LISTING ELEMENT	BASE REQUIREMENTS	OPTIMAL REQUIREMENTS
1	Lead destination	Have a lead destination configured	OCP Catalog has the lead destination CRM info also listed in partner solution tab
2	Offer title	Descriptive of solution offering. Matches online promotion of solution in partner's website	Contains key search words
3	Logo	Logo displays correctly	Logo displays correctly and includes hero image which is the large-format image in the Azure Portal
4	Offer description	• 2-3 paragraphs • Solution offering is easily understood at a glance • Offer description is free of spelling and grammar mistakes • Offer description is comprehensive and captures: target audience, type of user, why it's valuable (value prop) • Offer description is in paragraph narrative form with short sentences that is easy to comprehend	• Target industry is outlined (if relevant) • Good style formatting with each paragraph header having a one-sentence or phrase summarizing content that follows and inclusive of bullet points (when appropriate) to emphasize key benefits. The objective here is for the reader to understand the offering at a glance in an easy to view format and not have to read paragraphs. • There is spacing between each paragraph and reads like a car brochure. Meaning not technical features or code lingo but descriptive of the offering in simple terms and is comprehensive.

	LISTING ELEMENT	BASE REQUIREMENTS	OPTIMAL REQUIREMENTS
5	Categories & Industries	• Categories match solution offering capabilities • Do not extend to categories that solution does not fit • Optimal industry, or all industries selected (if not optimal industries)	• Max. 3 categories • Max. 3 industries
6	Images	• No image required, but if provided must display and a high-resolution image. • Image requirements are listed in CPP and also here • Text included in the screenshot is legible with clear image	Solution offering is easily understood at a glance
7	Videos	• No videos required, but if provided must play back without any errors. • If provided, may not refer to competitor companies UNLESS demonstrating a migration solution	• Ideally 3 mins or more • Solution offering easily understood through video content • Demo of solution capabilities
8	List Status (Call to action)	Must be labeled one of the following type: o Contact Me o Trial/Get Trial Now/Start Trial/Test Drive o Buy Now/Get it Now	Customer can readily understand what next steps available are: 1. Try the Trial 2. Buy Now 3. Contact via e-mail or phone number to arrange for PoC, Assessment, or Briefing.
9	Solution Pricing	Must have solution pricing tab/details and in the local currency of the partner solution offering	Multiple billing options available with tier-pricing for customer to have options
10	Learn More	Links at the bottom (under the description, not the marketplace links on the left) leads to more information about the solution and are publicly available and displaying correctly	Links to specific items (e.g. spec pages on partner site) and not just partner homepage site

	LISTING ELEMENT	BASE REQUIREMENTS	OPTIMAL REQUIREMENTS
11	Solution Support & Help	Link to at least one of the following: o Telephone numbers o Email support o Chat agents o Community forums	• All support methods listed: telephone & email support. • Paid support offered free during trial or test drive period
12	Legal	Policies or terms available via a public URL	

Trial offer requirements

	LISTING ELEMENT	BASE REQUIREMENTS	OPTIMAL REQUIREMENTS
	List Status	Link must lead to customer-led trial experience	Other CTAs (e.g. buy now) also available

SaaS apps requirements

	LISTING ELEMENT	BASE REQUIREMENTS	OPTIMAL REQUIREMENTS
1	Offer title	• Must consist only of lowercase, alphanumeric characters, dashes, or underscores. Cannot be modified once published. • Descriptive of solution offering. • Matches online promotion of solution in partner's website.	Contains key search words
2	Technical Info: Configuration	• For SaaS app, choose whether you just want to list your app or if you want to enable customers to purchase your app through Azure. • Select appropriate text that you want on your offer's acquisition button: Free, Free Trial, or Contact me • Only select (pop-up box)-one of these applicable products if your app utilizes the technology: Cortana Intelligence, Power BI Solution Templates, Power Apps	

	LISTING ELEMENT	BASE REQUIREMENTS	OPTIMAL REQUIREMENTS
3	Test Drive	Select: Yes or No	Customer can readily understand what next steps available are: 1. Try the Trial 2. Buy Now 3. Contact via e-mail or phone number to arrange for PoC, Assessment, or Briefing.
4	Storefront details: Offer Summary	This will appear on your app's search page with a maximum of 100 characters	
5	Storefront details: Industries	Industries (Max 2): Select the industries that your app is best aligned and applicable to.	
6	Offer Description	• Simple HTML is allowed, including p, em, ul, li, ol and header tags. Maximum of 3000 characters. • 2-3 paragraphs • Solution offering is easily understood at a glance • Description is comprehensive and captures: target audience*, type of user, why it's valuable (value prop) • Offer description is in paragraph narrative form with short sentences that is easy to comprehend.	• Target industry is outlined (if relevant) • Good style formatting with each paragraph header having a one-sentence or phrase summarizing content that follows and inclusive of bullet points (when appropriate) to emphasize key benefits. The objective here is for the reader to understand the offering at a glance in an easy to view format and not have to read paragraphs. • There is spacing between each paragraph and reads like a car brochure. Meaning not technical features or code lingo but descriptive of the offering in simple terms and is comprehensive.
7	Marketing Artifacts	Logos display correctly	• Logo includes "hero image," which is the large-format image in the Azure Portal • Logos: Small (48x48) & Large (216x216) are requirements • Hero image requirements: https://docs.microsoft.com/azure/marketplace/cloud-partner-portal-orig/cloud-partner-portal-solution-template-offer-publish • Screenshot (Max 5): CPP requires a .png image with resolution 1280 x 720.

	LISTING ELEMENT	BASE REQUIREMENTS	OPTIMAL REQUIREMENTS
8	Categories & Industries	• Categories match solution offering capabilities • At least 1 item(s) should be chosen from pop-up box • Do not extend to categories that solution does not fit • Optimal industry, or all industries selected (if not optimal industries • Do not extend to categories that solution does not fit • Optimal industry, or all industries selected (if not optimal industries)	Max. 3 categories selected if applicable.
9	Lead Management	Select the system where your leads will be stored. Learn how to connect your CRM system here	

	LISTING ELEMENT	BASE REQUIREMENTS	OPTIMAL REQUIREMENTS
10	Contacts: Solution Support & Help	• Engineering contact name: Enter the name of the engineering contact for your app. This contact will receive technical communications from Microsoft. • Engineering contact email: Enter the email address of the engineering contact for your app. • Engineering contacts Phone: Enter the phone number of the engineering contact. ISO phone number notations are supported; for details, see https://en.wikipedia.org/wiki/E.123. • Support contact Name: Enter the name of the support contact for your app. This contact will receive support-related communications from Microsoft. • Support contact email: Enter the email address of the support contact for your app. • Support contact phone: Enter the phone number of the support contact. ISO phone number notations are supported; for details, see https://en.wikipedia.org/wiki/E.123. • Support URL: Enter the URL to your support page.	• All support methods listed: telephone & email support. • Paid support offered free during trial or test drive period
11	Legal	• Privacy policy URL: Enter the URL to your app's privacy policy in the Privacy policy URL field in CPP. • Terms of use: Enter the terms of use of your app. Customers are required to accept these terms before they can try your app.	Policies or terms available via a public URL site

Container offer requirements

	LISTING ELEMENT	BASE REQUIREMENTS	OPTIMAL REQUIREMENTS

	LISTING ELEMENT	BASE REQUIREMENTS	OPTIMAL REQUIREMENTS
1	Offer Settings	• Offer ID: Max 50 Character • Publisher ID: Select from drop-down • Name: Max 50 characters	Mirrors the title style already available in the description- do not want long titles.
2	SKUs	Partner clicks on new SKUs	Mirrors the title style already available in the description- do not want long titles.
3	Marketplace Artifacts	Logos display correctly	• Logo includes "hero image," which is the large-format image in the Azure Portal • Logos: Small (48x48) & Large (216x216) are requirements • Hero image requirements: https://docs.microsoft.com/azure/marketplace/cloud-partner-portal-orig/cloud-partner-portal-solution-template-offer-publish • Screenshot (Max 5): CPP requires a .png image with resolution 1280 x 720.
4	Lead Management	• Lead Management: Select the system where your leads will be stored. • Learn how to connect your CRM system here	

Consulting offer requirements

	LISTING ELEMENT	BASE REQUIREMENTS	OPTIMAL REQUIREMENTS
1	Offer Title	• Must clearly list service type and duration in the following format: NAME : DURATION TYPE. (i.e., "Offer Engagement: 1-Week Proof-of-Concept")	• Does not repeat publisher name • Mirrors the title style already available in the description- do not want long titles.

	LISTING ELEMENT	BASE REQUIREMENTS	OPTIMAL REQUIREMENTS
2	Offer Description	• Ensure proper usage of Microsoft product names • Offers marked as Price: Estimated must have a note either at the top or bottom of the offer to explain the variability (travel to client, number of servers being migrated, etc.) • Each offer type has description requirements as follows: o Briefings need at least 4 to 5 bullets with information on topics covered in briefing o All workshops need agenda o All agendas must be broken down by day or by week, depending on the duration of the workshop o Assessment, POC, non-training workshops, Implementation offers need deliverables o Training workshops don't need deliverables, but they need a more detailed agenda with topics that will be covered.	• Any offer has agenda and deliverables • Offer includes a paragraph with context on the company providing the service in the top section • Offer includes a paragraph on the value of the service itself as a top section
3	Markdown Formatting	All offers must use Markdown formatting so that the offer renders properly when converted to HTML	
4	Categories & Industries	Categories not relevant	
5	List Status (CTA)	Automatically listed as Contact Me	
6	Solution Support & Help	Support & Help not required	
7	Privacy Policy & Terms of Use available	Policies or terms not required	

	LISTING ELEMENT	BASE REQUIREMENTS	OPTIMAL REQUIREMENTS
8	Service Types	Ensure Service Type matches title	
9	Competencies	• Must be at least one of the following: • Application Development • Application Integration • Application Lifecycle Management • Cloud Platform • Data Analytics • Data Center • Data Platform • DevOps	
10	Products	Must be Azure	
11	Country/Region	Ensure country and region matches chosen currency	
12	Learn More	• Links at the bottom (under the description, not the marketplace links on the left) leads to more information about the solution and are publicly available and displaying correctly. • Links must have a "friendly name" and not be appearing as the file name of any downloads	

Next steps

- Learn about different offer types in the marketplace.
  SaaS Apps
  Containers
  Consulting services
- Determine the listing type for your solution.

Azure AppSource and Marketplace review policies

11/14/2018 • 2 minutes to read • Edit Online

The rating and review policies for Azure AppSource and Marketplace are listed here.

- In AppSource and Azure Marketplace reviews, Microsoft will not tolerate the following behaviors or content:

  - Bot/cyber-attacks
  - Privacy compliance violations
  - Spam content
  - Scam content
  - Offensive content: obscene, profane, or offensive language or gestures
  - Illegal content
  - Abusive, hateful, or threatening content
  - Defamatory content
  - Repeated submissions of the same or similar content
  - Advertising, including promotion of other apps and services

- Microsoft reserves the right to remove review-related content submitted by a user for any reason.

- Microsoft reserves the right to block a user from submitting review-related content for any reason.
- Publishers will receive no notification on the removal of review-related content related to their applications.
- Users will receive no notification on the removal of review-related content submitted by them.
- Microsoft is not obligated to provide an explanation relating to the removal of review-related content.
- Microsoft will not honor requests to restore removed review-related content.

Review guidelines for customers

- Do not submit content that could be in violation of the AppSource and Azure Marketplace review policy.
- Do not include personally identifiable information (PII) such as email address, physical address, telephone numbers and etc.
- Ensure that your review is clear, readable, and informative.
- Ensure that viewpoints expressed in your review are balanced and neutral.
- Remember that you are posting in a public forum and act accordingly.

Your Marketplace benefits

1/16/2019 • 2 minutes to read • Edit Online

As part of your publishing journey, you need to create technical and marketing assets for your offer. As a result, there are technical and marketing benefits that Azure Marketplace and AppSource publishers can use in order to improve customer engagement with your offer. You may find the technical resources below useful.

Technical resources provided by Microsoft

While you are creating your offer, you can take advantage of a number of Microsoft resources, such as consulting with a technical expert, or getting support for testing a marketplace-specific solution.

Technical resources can be used at any time. The table below lists the benefits:

Technical Benefit	ALL APP AND SERVICE LISTINGS	APP TRIAL	APP TRANSACT
Onboarding	✓	✓	✓
Microsoft marketplace consultation: product development and architecture guidance	✓	✓	✓
Marketplace Forums	✓	✓	✓
Technical Support	✓	✓	✓
Development Testing Sponsorship			✓

How to access Microsoft resources

The Go-to-Market benefits are accessible to partners who have recently published an offer.

1. Onboarding: Register to get access to the Cloud Partner Portal and onboarding support resources.
2. Microsoft Marketplaces Consultation: Take advantage of this FREE consultation to help plan the architecture of your app in marketplace.
3. Marketplace Forums: Ask your questions directly to Microsoft employees and other marketplace partners in the Marketplace forum.
4. Technical Support: Use the Help menu in Cloud Partner Portal to get help on your marketplace-related support questions.
5. Development Testing Sponsorship: Review eligibility below and submit your request for sponsorship using the registration form:
   - Dev and testing are for the purpose of publishing to the Azure Marketplace.
   - The funding cannot be used for any other purpose.
   - The award is $5,000 for 90 days of use, starting from when the first action is taken in the assigned subscription.
   - The app being tested must go live in the Azure Marketplace within 30 days of the last day of funding: For example, if such funding is used starting on December 1st, then the app must be live by March 31st.

Go-to-market (GTM) benefits in the Marketplace

New listings in both Azure Marketplace and AppSource are eligible to receive free marketplace GTM benefits

through our Microsoft GTM Services team. This team will help you optimize your listings and increase awareness for your solutions in the Microsoft marketplace.

STOREFRONT	ADDITIONAL AVAILABLE BENEFITS
AppSource	Microsoft Gold partners Trial Apps
The Azure Marketplace	Transact offers Trial offers

Your GTM support includes templates, web content, training, and tools to promote your business.

To access these benefits, you will need to:

1. Publish an offer in either Azure Marketplace or AppSource.
2. Ensure you have entered a marketing contact in the **contact information** portion of your offer. This should be a dedicated marketing resource, as opposed to a catch-all alias. (i.e, avoid using "support@", "info@", "marketing@", etc.)

Based on your solution status, you will receive either an email with self-help resources, or an invitation to a consultation call with a dedicated Engagement Manager. You do not need to do anything to initiate the call—the Marketplace Onboarding Team will reach out to you based on the information you provide in the Cloud Partner Portal.

The scope of the activities available to you expands as you grow your offerings in the marketplace. All listings receive a base level of optimization recommendations and promotion. These listings are also eligible for additional marketing benefits based on solution status, chosen marketplace, and Microsoft Partner Competency achievement.

The table below summarize the eligibility requirements:

GTM Activity	ALL APP AND SERVICE LISTINGS	APP TRIAL	APP TRANSACT^^	CONSULTING SERVICE POC LISTINGS^
OCP Catalog Listing	✓	✓	✓	✓
Marketplace Listing Optimization	✓	✓	✓	✓
Marketplace Blog with Newsletter and Social Amplification	✓	✓	✓	✓
Social Promotion Spotlight		✓	✓	✓
Press Release Support		✓	✓	✓
Mini Case Study		✓	✓	✓
Azure Sponsored Accounts *				✓
Marketplace Category Promotion **				
Microsoft Seller Webinar **		✓	✓	✓
Test Drive Sponsorship **			✓	
Microsoft Executive PR Endorsement **			✓	

* Requires silver or gold competency.
** Requires gold competency.
*** Requires gold competency and Co-sell Ready listing in OCP Catalog.
^ Transact only, applicable to Azure Marketplace.

Next steps

Log in to the Cloud Partner Portal to create and configure your offer.

Promote your business with Microsoft

1/16/2019 • 2 minutes to read • Edit Online

Marketplace partners are required to be a part of the Microsoft Partner Network (MPN). As an MPN member, you can access additional business-focused benefits. Visit partner.microsoft.com to see how you can use the network to access:

- New business opportunities.
- Connecting with teams or partners.
- Solutions and training to help grow your skillset.

Benefits and resources

To promote your offer or app, and to access more benefits and resources, use the following table:

BENEFITS	RESOURCES
Use your Core Benefits	As part of the Microsoft Partner Network, you receive a set of core benefits that can help save time and money. The benefits can help you - strengthen your capabilities, - better serve customers, and - build connections to reach your full business potential. For more information about core benefits, visit Core Benefits and Requirements.
Earn your Cloud Platform Competency	Earning a competency helps you to - Differentiate yourself among other Microsoft partners. - Demonstrate technical expertise and customer success in the market. Competency is a prerequisite for many key partner programs, such as Co-Sell. See Cloud Platform competency for more information.
Become IP Co-Sell Ready	You might be eligible for the IP Co-Sell Ready program. This program allows you to: - Collaborate directly with Microsoft sellers and other partners on target customer opportunities and account planning. - Making your solution visible to Microsoft sellers in the seller solution catalog. - Microsoft sellers are rewarded for collaborating and winning with you. See the Co-Sell Ready program and Promote your business for more information including eligibility requirements.

Next steps

To learn more about marketplace GTM services, go to Go-to-market services.

Log in to the Cloud Partner Portal to create and configure your offer.

Preferred Solutions in Azure Marketplace and AppSource

2/1/2019 • 2 minutes to read • <u>Edit Online</u>

A Microsoft preferred solution is a cloud application selected for its quality, performance, and ability to address customer needs in a certain industry vertical or solution area. A team of Microsoft industry and sales experts selects solutions from partners that have a gold competency in the Microsoft Partner Network. These solutions are featured in our cloud marketplace storefronts: Azure Marketplace and AppSource. Preferred solutions on AppSource can be discovered by industry verticals, while on Azure Marketplace you can click within solution area categories.

Microsoft will contact solution providers if one or more of their solutions has been selected as a preferred solution.

Support for the Marketplace

1/7/2019 • 2 minutes to read • Edit Online

Here is a list of support options for the Marketplace.

Additionally, you can get many of your questions answered in the Marketplace channel of C+AI Community Forum.

Onboarding

Open a ticket for with Microsoft marketplace publisher support for all issues with onboarding and getting started.

Cloud Partner Portal

SUPPORT CHANNEL	DESCRIPTION	AVAILABILITY
For assistance, visit the Create an incident page located at Marketplace Support	Support for Cloud Partner Portal.	Support is provided between 6am - 6pm PST.

Technical

SUPPORT CHANNEL	DESCRIPTION
Slack: join.marketplace.azure.com	Slack environment to support Partners with technical issues. There about 350+ Partners currently working in this environment.
MSDN forums: Marketplace located at social.msdn.microsoft.com/Forums/azure/home?forum=DataMarket	Microsoft Developer Network forum.
Stack Overflow: Azure located at stackoverflow.com/questions/tagged/azure	Stack Overflow environment to get solutions and ask questions about everything related to Azure Marketplace. • Stack Overflow: Azure Marketplace located at stackoverflow.com/questions/tagged/azure-marketplace • Stack Overflow: Azure Resource Manager located at stackoverflow.com/questions/tagged/azure-resource-manager • Stack Overflow: Virtual Machines on Azure located at stackoverflow.com/questions/tagged/azure-virtual-machine • Stack Overflow: Containers on Azure located at stackoverflow.com/search?q=azure+container
Support for AppSource: appsourcecrm@Microsoft.com	Support publishing for Dynamics Apps

Marketing resources

SUPPORT CHANNEL	DESCRIPTION	AVAILABILITY
Email: cosell@microsoft.com	Support for onboarding processes and questions related to the Co-Sell program.	Based in the Pacific time zone.
Email: gtm@microsoft.com	Support for GTM benefits and program questions.	Business hours are in the Pacific time zone.
Email: cebrand@microsoft.com	Answers to questions about usage for Azure logos and branding.	

Next steps

Visit the Azure Marketplace and AppSource Publisher Guide page.

Marketplace FAQs

2/1/2019 • 35 minutes to read • Edit Online

Answers to common questions about the Microsoft Azure Marketplace.

FAQ for customers

What you need to know about Azure Marketplace

What is Azure Marketplace?

Azure Marketplace provides access and information on solutions and services available from Microsoft and our partners. Customers (IT pros and developers) can discover, try to buy cloud software solutions built on or built for Azure. Our catalog of 8,000+ listings provides Azure building blocks, such as Virtual Machines (VMs), APIs, Azure apps, Solution Templates and managed applications, SaaS apps, containers, and consulting services.

Who are Azure Marketplace customers?

Azure Marketplace is designed for IT professionals and cloud developers who are interested in commercial IT software and services.

What type of products are currently available in the Azure Marketplace?

The Azure Marketplace offers technical solutions and services from Microsoft and partners built to extend Azure products and services. The solution catalog spans several categories, including but not limited to:

- base operating systems
- databases
- security
- identity
- networking
- blockchain
- developer tools
- and more

Azure Marketplace offers SaaS applications, Virtual Machines, Solution Templates, Azure-Managed applications, and consulting services.

Azure Marketplace for Customers

How do I get started in Azure Marketplace?

You can find a wide range of enterprise applications and solutions that are certified and optimized to run on Azure, by visiting Azure Marketplace. Azure Marketplace can also be accessed through the Azure Management Portal under **Create a Resource**.

What are the key benefits of Azure Marketplace?

With Azure Marketplace, customers can discover technical applications built for or built on Azure. It combines Microsoft Azure's market of solutions and services into a single, unified platform to discover, try, buy, or deploy solutions in just a few clicks.

How do I purchase products from the Azure Marketplace?

Azure Marketplace offers can be purchased through:

- [web-based storefront](#).
- [Microsoft Azure Management portal](#), or via the [Azure Marketplace Command Line Interface (CLI)](#).

Note: Prepaid credits and other forms of monetary commitment cannot be used to pay for software license fees, but can be used to pay associated Azure usage charges. Exceptions are listed in [Azure monetary commitment](#).

Can I choose which Microsoft Azure region(s) to deploy my Azure Marketplace purchase?

The publishers have the option of deploying to any Azure data center region they enable. We recommend selecting the data center locations closest to your services to optimize performance and control budget.

If I accidentally delete an Azure Marketplace purchase, can I "undo" the action?

No, deletions are final. If a subscription is accidentally deleted, it can be repurchased. Any unused functionality or prepaid services are lost.

Am I warned if I try to delete an Azure Marketplace purchase that is in use by one of my applications?

No, Azure provides no warning when deleting a purchase, even if it is currently in use, or an application is dependent upon.

If my Azure Marketplace purchase has any dependencies on other assets such as an Azure website, do I have to manage them?

Dependencies are not automatically managed for Azure Marketplace offerings. Carefully review the description of Azure Marketplace purchase before using it to determine if there are any dependencies needed prior to deploying the solution.

Can I buy Azure Marketplace solutions from an Azure Cloud Solution Provider?

Currently, only free and bring-your-own-license (BYOL) Marketplace offers are available via Azure CSP and Open customers.

What countries are supported for purchasing applications and services sold/provisioned through the Azure Marketplace?

Azure Marketplace is available to Microsoft Azure customers in the following countries:

Algeria, Argentina, Australia, Austria, Bahrain, Belarus, Belgium, Brazil, Bulgaria, Canada, Chile, Colombia, Costa Rica, Croatia, Cyprus, Czech Republic, Denmark, Dominican Republic, Ecuador, Egypt, El Salvador, Estonia, Finland, France, Germany, Greece, Guatemala, Hong Kong, Hungary, Iceland, India, Indonesia, Ireland, Israel, Italy, Japan, Jordan, Kazakhstan, Kenya, Kuwait, Latvia, Liechtenstein, Lithuania, Luxembourg, Macedonia, Malaysia, Malta, Mexico, Montenegro, Morocco, Netherlands, New Zealand, Nigeria, Norway, Oman, Pakistan, Panama, Paraguay, Peru, Philippines, Poland, Portugal, Puerto Rico, Qatar, Romania, Russia, Saudi Arabia, Serbia, Singapore, Slovakia, Slovenia, South Africa, South Korea, Spain, Sri Lanka, Sweden, Switzerland, Taiwan, Thailand, Trinidad and Tobago, Tunisia, Turkey, Ukraine, United Arab Emirates, United Kingdom, United States, Uruguay, Venezuela.

Deploying a solution from Azure Marketplace

I have deployed an Azure Marketplace Virtual Machine (VM) to a subscription, and I now want to migrate the subscription from one Azure account to another. Is this currently supported?

To migrate an Azure subscription, including Azure Marketplace VMs and services, delete or cancel any prior Azure subscription before associating to the new Azure Account. Once the migration is completed, resulting usage fees are billed using the new registered account's method of payment.

I want to migrate an Azure Marketplace Virtual Machine (VM) subscription to my Enterprise Agreement. Is this currently supported?

To migrate an Azure Marketplace Virtual Machine (VM) subscription to an Enterprise Agreement, stop or cancel

any prior subscription before the migration. Once the migration of your Azure account and associated subscriptions are complete, you can repurchase the Azure Marketplace VM or service. The resulting usage fees are billed quarterly under your Enterprise Agreement.

Pricing and payment

How are Azure Marketplace subscriptions priced?

Pricing varies based on product types and publisher specifications. Software license fees and Azure usage costs are charged separately through your Azure subscription.

Unbundled:

BYOL Model: Bring-your-own-license. When obtaining a software license directly from the publisher or a reseller, there are no additional software-related charges or fees.

Bundled:

Azure subscription is included with the publisher's Independent Software Vendors (ISV) solution pricing.

Charged:

Free: Free SKU. No charges are applied for software license fees or usage of the offering.

Free Software Trial: An offer that is free for a limited period. There is no charge for the publisher's software license fees for use during the trial period. Upon expiration, it automatically converts to a paid offer based on standard rates issued by the publisher.

Usage-Based: Rates are charged or billed based on the extent usage of the offering. For Virtual Machines Images, it is charged on an hourly fee. For Developer services and APIs, it is charged per unit of measurement as defined by the offering.

Monthly Fee: Rates are charged or billed a fixed monthly fee for a subscription to the offering (from the start date of the subscription for that plan). The monthly fee may be prorated for mid-month cancellations or unused services.

Offer specific pricing details can be found on the solution details page on https://azure.microsoft.com/en-us/pricing/ or within the Microsoft Azure Management portal.

> **NOTE**
>
> Except for monthly fees, Azure usage charges are applicable to all pricing models unless otherwise stated.

How should I provide my software license key for BYOL marketplace solutions and what role does Azure Marketplace play?

Acquisition and enforcement of license credentials for BYOL solutions are the responsibility of the publisher. For Virtual Machine offers, the acquisition of the license key typically occurs in the publisher's application after the application has started. When using a Virtual Machine offer deployed via an Azure Application Solution Template, the ARM template can be configured to prompt the user for a range of inputs including license credentials.

These are the most common options per offer type:

Virtual Machine Offer:

Option 1: The acquisition of the license key typically occurs in the publisher's application after the application has started.

Option 2: The license key is entered by the end user (via command line / web interface provided by the offer) after the deployment of the VM offer in the selected subscription. The license can be a key and/or file, as determined by

the publisher.

Azure Apps (Solution Template and Managed Apps):

Option 1: The ARM template can be configured to prompt you for a range of inputs including license credentials. This can be done as a license file (File upload) or a key (textbox input), before the deployment of the offer, in the end-user subscription.

Option 2: You can enter the license key via command line / web interface provided by the offer. It is done after the deployment of the Azure Apps offer in the selected subscription. The license can be a key and/or file, as determined by the publisher.

What is the difference between 'Free Trial' and 'Free Software Trial'?

A 'Free Trial' subscription offer is perpetually free. A 'Free Software Trial' '(Try It Now') offer is a paid offer, but free for a limited trial periods.

Do I need to have a payment instrument (for example, credit card) on file to deploy Free Tier or bring your own license (BYOL) offerings?

No. A payment instrument is not required to deploy Free Tier or BYOL offerings. However, Free Trial offerings require a payment instrument. Listings that include the **Get it now** or **Free software trial** buttons are deployed into the selected Azure subscription. These listings are billed using the selected account's registered method of payment. Azure usage charges are billed separately from software license fees.

If they have questions about pricing for offers sold on the Azure Marketplace, who does an Enterprise Agreement (EA) indirect customer contact?

Enterprise Agreement (EA) indirect customers must contact their Licensing Solution Provider (LSP) for all Azure Marketplace pricing questions.

Can I control my employees' access to Azure Marketplace and purchasing privileges?

Yes, for Enterprise Agreement (EA) customers, the enrollment administrator may turn off purchase privileges for all accounts on the enrollment and turn it back on long enough to make a purchase. Additionally, all customers can use Azure Policy to restrict deployment options for their Azure subscriptions, including management of Azure Marketplace resources.

Can I apply Azure subscription credits or monetary commitment funds in my account towards Azure Marketplace offers?

Specific Azure Marketplace offers can use Azure subscription credits or monetary commitment funds. See Azure monetary commitment for a complete list of products participating in this program. These offers do not include BYOL or BYOS options. All other Azure Marketplace offers cannot use Azure subscription credits or monetary commitment: such as the free one-month trial credit, monthly MSDN credits, credits from Azure promos, monetary commitment balances, and any other free credits provided from Azure.

Do Volume License discounts apply to Azure Marketplace purchases?

No. The publisher that owns solutions in Azure Marketplace can set pricing. Standard Microsoft volume license discounts do not apply towards Azure Marketplace purchases.

How do I pay for these subscriptions? Do my Azure Marketplace purchases appear on the Azure bill, or is there another bill?

Azure Marketplace purchases inherit the same payment method as the Azure subscription. They are billed separately from Azure usage unless they are enabled to consume monetary commitment.

MOSP - Microsoft Online Subscription Program (web-direct) customers are charged against the same credit card that is on file for their Azure subscription profile. If the customer does not have a credit card on file (a special

waiver to have Azure charges invoiced), then they cannot purchase from the Azure Marketplace.

Enterprise Agreement (EA) customers are charged against their EA. Specific Azure Marketplace offers listed in Azure monetary commitment are first deducted from any available monetary commitment, then billed as an overage on a single quarterly invoice. EA indirect, education, and government customers are billed by their Licensing Solution Provider (LSP).

Where can I view my Azure Marketplace subscription details and billing information?

MOSP - Microsoft Online Subscription Program (web direct) customers can view Marketplace subscription details under the 'Marketplace' menu in the Azure billing portal. Customers who have purchased Virtual Machines from the Marketplace can view their estimated accrued charges in the Microsoft Azure Management portal.

Enterprise Agreement (EA) customers can view Marketplace subscription details in the 'Azure Marketplace' tab in the Enterprise portal billing and account management view. Note: EA Indirect customers can only see offer and usage information. Pricing details are not available in the Enterprise portal.

How do I cancel an Azure Marketplace add-on to Azure VM?

Since the add-on is associated to the Azure Virtual Machine (VM), to cancel the Azure Marketplace purchase, first stop the VM by deleting it. Thus stopping all subscription usage and charges on the Azure Marketplace purchase.

How often am I billed for my Azure Marketplace purchases?

Enterprise Agreement customers, for the specific services outlined, first have available monetary commitment funds reduced by the total cost for these services in the month they are consumed. All Azure Marketplace offers that do not deduct from monetary commitment, are billed monthly in arrears.

MOSP, that is web-direct customers, are charged monthly against the same credit card that is on file for their Azure subscription profile.

How can I move my Azure Marketplace purchases from my MOSP subscription to my direct Enterprise Agreement (EA) subscription?

Although most Microsoft subscriptions can be easily converted to an Enterprise Agreement, Azure Marketplace purchases within those subscriptions cannot.

To migrate other services purchased from the Azure Marketplace to an EA subscription, first cancel the applications from within the existing MOSP subscription, and repurchase those applications within the EA subscription. By doing so, you can submit a credit request for a refund during the potential month of overlapping coverage between the Marketplace service subscriptions - create a support ticket.

What is the difference between "price", "software price", and "total price" in the cost structure for Virtual Machine offers in the Azure Marketplace?

"Price" refers to the cost of the Azure Virtual Machine to run the software. "Software price" refers to the cost of the Marketplace publisher's software running on an Azure Virtual Machine. "Total price" refers to the combined total cost of the Azure Virtual Machine and the Marketplace publisher's software running on an Azure Virtual Machine.

Can I apply Azure subscription credits or monetary funds on my account towards Azure products and services required to run Azure Marketplace offers?

Yes. Azure subscription credits or monetary commitment funds on the account can be used toward Azure products and Azure Marketplace offers. For example, Azure monetary commitment funds can be applied towards the "price" component of a Virtual Machine offer in the Azure Marketplace. However, Azure subscription credits and monetary commitment funds can only be applied towards certain Marketplace publishers' software ("software price") running on an Azure Virtual Machine.

How do I find out how much of my Azure Marketplace purchase I have used?

An estimated usage information can be found in the Microsoft Azure management portal. Such estimated usage information may not include recent activities, and may be based on projections derived from past consumption. During the public preview, this capability may not be available for all purchases and may vary based on product type.

Customer support

Who do I contact for general support issues with Azure Marketplace?

For general application support regarding usage or troubleshooting, contact the application publisher directly.

For billing and subscription issues with your Azure Marketplace purchase, contact Azure Support.

Who do I contact for technical support with a solution purchased in the Azure Marketplace?

Contact the publisher provider for all technical product support. Publisher contact information and/or a link to the support website can be found on their solution details page on Azure Marketplace.

Who do I contact for billing support/questions regarding a third-party solution purchased from Marketplace?

Contact Microsoft Support at Azure Support.

Is there a support forum, for Azure Marketplace?

Yes. Visit the Azure Marketplace forum for community support.

Who do I contact if I have questions about pricing or terms for partner solutions sold on the Azure Marketplace?

Contact the publisher provider for all technical product support. Publisher contact information and/or a link to the support website can be found on each solution details page on Azure Marketplace.

If I am not satisfied, can I return a purchase?

Purchases made from the Azure Marketplace cannot be returned but can be canceled/deleted. Once a subscription is canceled/deleted, it is not charged for subsequent months.

Customers must directly contact the publisher for any technical issues relating to their Marketplace service or purchase. Publisher contact information and/or a link to the support website can be found on their solution details page on Azure Marketplace.

Dev Center registration

Which publishers require a Dev Center account registration?

Publishers who are publishing in Transact listing type: VM, Azure apps: Solution Templates and managed apps.

Why is a Dev Center account required?

A Dev Center account is required to enable Microsoft to bill the customer on the publisher's behalf for a Transact listing type. Dev Center account registration enables Microsoft to validate the legal, tax, and banking information for your company.

How do I get started with Dev Center registration?

Start by creating a Microsoft Partner Network (MPN) ID. Sign in and register as a seller in Dev Center with your MPN ID. To prevent duplication, verify that your company does not already have a Dev Center account registered. (Note: complete the Marketplace Registration form to receive a Dev Center promotional code before registration.)

What should I expect after registration?

Look for an email from verify@microsoft.com with subject line "Action needed: Verify the account that received the

email with Microsoft". To complete registration, click the time sensitive verification link. If no emails were received within 24 hrs, check the spam folder.

What are the next steps after Dev Center verification?

Go to Your programs and log into the Dev Center account. There should be a section titled **Recommended programs for you** and under which, a subsection titled **Azure**. Click **Get Started** and go through the process of setting up an Azure account.

Why is my Dev Center application rejected?

Account registrations are based on geographic issues. Companies with subsidiaries based in locations different than the headquarters only need one Dev Center account.

How do I contact support with issues regarding Dev Center registration?

To access support, visit the Windows developer support page located at https://developer.microsoft.com/en-us/windows/support.

FAQ for publishers

What you need to know about Azure Marketplace

What is Azure Marketplace?

Azure Marketplace is an online applications and services marketplace. Customers (mostly IT pros and developers) can discover, and buy cloud software solutions built with or for Azure. Its catalog has over 8,000 listings, such as Azure building blocks like Virtual Machines (VMs), APIs, Solution Templates, SaaS applications, and consulting service offers.

Azure Marketplace is the starting point for all joint Microsoft Go-To-Market activities. We focus on helping partners to reach more customers. You can publish new listings, and also use Azure Marketplace to conduct promotional and demand generation campaigns, perform joint sales/marketing activities with Microsoft.

Who are Azure Marketplace customers?

Azure Marketplace is designed for IT professionals and cloud developers, interested in commercial IT software and services.

Azure Marketplace for Publishers

Why should I publish my application on Azure Marketplace and how does it benefit me?

Azure Marketplace provides a market for Microsoft Partners to promote and sell products and services to Azure customers. Publishers, instantly gain access to 140 global markets, our 300,000+ partners, and Azure's network of enterprise customers. The marketplace includes more than 90% of Fortune 500 companies and many of the world's leading developers. New partners in Azure Marketplace are automatically offered a set of no-cost Go-To-Market benefits to help boost awareness of their offers in Azure's marketplace.

What is the differentiating factor between Azure Marketplace and AppSource?

Microsoft Partners can choose where to publish based on their target audience.

Microsoft provides two distinct cloud marketplace storefronts – Azure Marketplace and AppSource. These storefronts allow customers to find, try, and buy cloud applications and services. Each storefront serves unique customer needs and enables Microsoft Partners to target their solutions or services based on the target audience.

Select Azure Marketplace to target IT professionals and developers, or technical users.

Select AppSource to target line-of-business decision-makers and business owners.

Review the Publisher Guide for more details and benefits of Azure Marketplace and AppSource.

How do I begin to publish in Azure Marketplace?

Start your Azure Marketplace listing by reviewing the Azure Marketplace Publisher Guide and Becoming a Publisher. Next, submit your application by completing the Azure Marketplace Nomination Form.

Do I have to be a member of the Microsoft Partner Network (MPN) to list my applications and services in the Azure Marketplace?

Yes, an MPN is required to publish in Azure Marketplace. Visit Microsoft Partner Network to get started.

What should I expect after I submit my registration to publish in Azure Marketplace?

After submitting your registration, the marketplace onboarding team will review and provide a welcome email regarding the next steps within 1-3 business days.

What is the criterion to publish a solution in Azure Marketplace?

To publish in Azure Marketplace, partners must demonstrate that their application runs on or extends Azure. Publishers are required to provide customers with a Service Level Agreement, privacy policy, phone and online support. Various workloads have additional requirements. Review the Azure Marketplace Participation Policies and Publisher Guide for further guidance.

Is there a fee to publish in Azure Marketplace?

There are no publishing fees when uploading a List, Trial, or BYOL (Bring Your Own License) solution via Azure Marketplace.

Are there any transaction fees for purchases through Azure Marketplace?

When the solution license is purchased via Azure Marketplace, revenues for the software license are split between the publisher and Microsoft. This is done in accordance to the terms and conditions in the Marketplace Publisher Agreement. Additionally, solutions with BYOL (Bring Your Own License) publishers do not incur transaction fees.

Where do I find guidelines for integrating my application with Azure Active Directory (AAD)?

Microsoft authenticates all Marketplace users with AAD. You can be directly provisioned into a Trial without requiring an additional sign-in step. For example, an authenticated user clicks through a Trial listing in Marketplace, and gets redirected to a Trial environment.

For more information, and to get started enabling a trial with AAD, visit the Azure Active Directory section in the Publisher Guide.

How do I get started with Dev Center registration?

To get started, publishers should verify that a Dev Center account has not already been registered (to prevent duplication). Once confirmed, the next step is to register by signing in with a Microsoft account, which will be associated with the developer account.

If you don't already have a Microsoft account, you can create an account (For example: contoso_marketplace@live.com).

Why is Dev Center account required?

A Dev Center account is required to enable Microsoft to bill customers on the publisher's behalf for Transact listing types. Dev Center account registration enables Microsoft to validate the legal, tax, and banking information. For more information, see register in Dev Center.

Which publishers require a Dev Center account registration?

Publishers who are publishing Transact listing types: VM, Azure apps, solution templates, and managed apps.

What are leads and why are they important to me as a publisher in Marketplace?

Leads are customers who are deploying your products from the Marketplace. Whether your product is listed on Azure Marketplace or AppSource, you are able to receive leads from customers who are interested in your product. You can set up lead destination on your offer. To learn more, see Become a Cloud Marketplace Publisher.

Where can I get help in setting up my lead destination?

Learn more in Cloud Partner Portal-Get Customer Leads documentation, or submit a support ticket through https://aka.ms/marketplacepublishersupport by selecting your offer type and lead management.

Am I required to configure a lead destination to publish an offer on Marketplace?

Yes, if publishing a **Contact Me**, **SaaS app**, or **consulting services** offer you are required to configure a lead destination.

How can I confirm that the lead configuration is correct?

After completing the offer and setting up a lead destination, the listing can properly be published in the Cloud Partner Portal. Before the listing goes live, you can validate if the lead configuration set-up is working correctly. Send a test-lead to the lead destination configured in the offer.

What countries/regions are Azure Marketplace available for publishers to sell from?

Publishers based in the following countries can currently sell in the Azure Marketplace: Afghanistan, Albania, Algeria, Angola, Antigua and Barbuda, Argentina, Armenia, Australia, Austria, Azerbaijan, Bahrain, Bangladesh, Belarus, Belgium, Benin, Bolivia, Bosnia and Herzegovina, Botswana, Brazil, Bulgaria, Burkina Faso, Burundi, Cambodia, Cameroon, Canada, Central African Republic, Chad, Chile, Colombia, Comoros, Congo, Congo (DRC), Costa Rica, Cote D'Ivoire, Croatia, Cyprus, Czech Republic, Denmark, Dominica, Dominican Republic, Ecuador, Egypt, El Salvador, Eritrea, Estonia, Ethiopia, Fiji Islands, Finland, France, Georgia, Germany, Ghana, Greece, Guatemala, Guinea, Haiti, Honduras, Hong Kong SAR, Hungary, Iceland, India, Indonesia, Iraq, Ireland, Israel, Italy, Jamaica, Japan, Jordan, Kazakhstan, Kenya, Korea (South), Kuwait, Laos, Latvia, Lebanon, Liberia, Liechtenstein, Lithuania, Luxembourg, Madagascar, Malawi, Malaysia, Mali, Malta, Mauritius, Mexico, Monaco, Mongolia, Montenegro, Morocco, Mozambique, Nepal, The Netherlands, New Zealand, Nicaragua, Niger, Nigeria, Norway, Oman, Pakistan, Panama, Paraguay, Peru, Philippines, Poland, Portugal, Qatar, Romania, Russia, Rwanda, Saudi Arabia, Senegal, Serbia, Sierra Leone, Singapore, Slovakia, Slovenia, Somalia, South Africa, Spain, Sri Lanka, Sweden, Switzerland, Tajikistan, Tanzania, Thailand, Timor-Leste, Togo, Tonga, Trinidad and Tobago, Tunisia, Turkey, Turkmenistan, Uganda, Ukraine, United Arab Emirates, United Kingdom, United States, Uruguay, Uzbekistan, Venezuela, Vietnam, Zambia, and Zimbabwe.

How do I delete a listing from the Azure Marketplace?

Virtual Machine & Azure Apps:

1. Sign in to the Cloud Partner Portal.
2. Select the offer from the 'All Offers' tab.
3. In the pane on the left side of the screen, select the SKUs tab.
4. Select the SKU for deletion and click the 'delete' button for that SKU.
5. Republish the offer to Azure Marketplace.

For more information, see Deleting an offer.

Web Apps (SaaS apps, Add-ons) & Consulting Services:

1. In the Cloud Partner Portal, select the question mark icon and then click 'Support'.
2. Go to https://go.microsoft.com/fwlink/?linkid=844975.
3. On the support page, select the offer type.
4. Select 'Remove' a published offer.
5. Create an incident ticket.

6. Submit.

O365 Apps

1. Sign in to https://sellerdashboard.microsoft.com with Dev Account.
2. Withdraw add-in.

NOTE: App will disappear for existing listing after 90 days.

Power BI Apps

- Contact: Anjana Sompur (Slalom Consulting LLC).

Benefits and Go-To-Market (GTM) Resources

What are some of the Go-To-Market benefits provided for publishers listed on Azure Marketplace?

Azure Marketplace is the starting point for joint Go-To-Market activities with Microsoft, and the doorway to a Co-Sell Ready partnership. All new listings in Azure Marketplace are automatically offered a set of no-cost Go-To-Market benefits to help drive awareness of offers to Microsoft's customers. Once an offer is published, the Microsoft GTM team contacts you and begins delivering your benefits.

Visit Microsoft GTM Services for more information on our GTM benefits and ways to grow your business in marketplace.

Where are Azure Marketplace solutions promoted within Microsoft web properties?

Azure Marketplace solutions are available in the Microsoft Microsoft Azure management portal, and Azure Marketplace website. Cloud Developers and IT Pros using Azure have exposure to partner solutions every time they sign in. A subset of partner solutions is also showcased and rotated on the Azure Marketplace homepage and Azure solutions page.

Billing and payments

How do I receive payment for my Azure Marketplace sales?

All payments from Microsoft are processed via PayPal or Electronic Funds Transfer (EFT) monthly. Payment is made within two months of the date the customer used the service, though the exact timing depends on the payment instrument of the customer. A 45-day escrow period applies to credit card customers.

For Virtual Machine-based solutions purchased with usage-based billing, when a customer up-sizes or downsizes the underlying Virtual Machine, does the pricing of my software license follow?

Yes, the new price is billed immediately. Pricing changes happen when a customer changes the Virtual Machine size, and specifies different prices in the pricing table, which are based on Virtual Machine size.

Is per-node billing available for Azure Marketplace?

Azure Marketplace does not currently support per-node billing with Virtual Machines. Publishers can still determine a per-node billing rate with Microsoft VM billing rates. The calculation is to determine the number of VMs by the number of hours used and rate per hour.

Who do I contact for billing or offer management questions?

Log a ticket with Microsoft Support.

Publisher support

Who do I contact for general support issues with Azure Marketplace?

For general application support regarding usability or troubleshooting, contact Cloud Partner Portal Support.

For billing and subscription issues with your Azure Marketplace purchase, contact Azure Support.

Is there a support forum for Azure Marketplace?

Visit the Azure Marketplace forum.

Who do I contact with publishing or offer management questions?

Visit the Azure Marketplace Publisher Guide for up-to-date resource and documentations on frequently asked questions. Additionally, you can log a ticket with Microsoft Support in the Cloud Partner Portal.

Azure Marketplace for Customers

How do I get started in Azure Marketplace?

Visit the Azure Marketplace web-based storefront, and browse through the wide range of quality enterprise applications and solutions, certified and optimized to run on Azure. Azure Marketplace can also be accessed through Azure classic portal under 'Create a Resource'. To learn more, see https://azuremarketplace.microsoft.com/about.

What are the key benefits of Azure Marketplace?

Azure Marketplace is the store for IT Pros and Developers to discover technical applications built for or built on Azure. Instantly gain access to 140 global markets and solutions and offerings from our 300,000+ partner network. It combines Microsoft Azure's marketplace of solutions and services into a single, unified platform for you to discover, trial, and buy solutions in just a few clicks.

How do I purchase products from the Azure Marketplace?

You can find Azure Marketplace offers via the web-based storefront, in the Microsoft Azure Management portal, or via the Azure Marketplace Command Line Interface (CLI). Once logged into the Azure Marketplace, you can discover and buy Microsoft and Partner solutions. Note: Prepaid credits and other forms of Monetary Commitment are not used for software license fees. Instead, they cover associated Azure usage charges. Exceptions are listed in Azure monetary commitment.

Can I choose which Microsoft Azure regions my Azure Marketplace purchase is deployed?

Customers have the option of deploying to any Azure data center region that a publisher enables. You can select data center locations closest to their services to optimize performance and manage budget.

If I accidentally delete an Azure Marketplace purchase, can I "undo" the action?

No, deletions are final. If you accidentally delete a subscription, you can easily restart it by purchasing again. However, any unused functionality or prepaid services are lost, so take care when deleting a subscription.

Are there warnings, if I try to delete an Azure Marketplace purchase being used by one of my applications?

No, Azure does not warn you when you delete a purchase that your application depends on.

If my Azure Marketplace purchase has any dependencies on other assets such as an Azure website, then do I have to manage them?

Dependencies are not automatically managed for Azure Marketplace offerings. Carefully review the description of your Azure Marketplace purchase before using it. You should determine if there are any dependencies before deploying the solution.

Can I buy Azure Marketplace solutions from an Azure Cloud Solution Provider (CSP)?

Currently, only free and bring-your-own-license (BYOL) Marketplace offers are available to Azure CSP and Open customers.

Who can purchase applications and services sold/provisioned through the Azure Marketplace?

The Azure Marketplace is available to Microsoft Azure customers in the following countries:

Algeria, Argentina, Australia, Austria, Bahrain, Belarus, Belgium, Brazil, Bulgaria, Canada, Chile, Colombia, Costa Rica, Croatia, Cyprus, Czech Republic, Denmark, Dominican Republic, Ecuador, Egypt, El Salvador, Estonia, Finland, France, Germany, Greece, Guatemala, Hong Kong, Hungary, Iceland, India, Indonesia, Ireland, Israel, Italy, Japan, Jordan, Kazakhstan, Kenya, Kuwait, Latvia, Liechtenstein, Lithuania, Luxembourg, Macedonia, Malaysia, Malta, Mexico, Montenegro, Morocco, Netherlands, New Zealand, Nigeria, Norway, Oman, Pakistan, Panama, Paraguay, Peru, Philippines, Poland, Portugal, Puerto Rico, Qatar, Romania, Russia, Saudi Arabia, Serbia, Singapore, Slovakia, Slovenia, South Africa, South Korea, Spain, Sri Lanka, Sweden, Switzerland, Taiwan, Thailand, Trinidad and Tobago, Tunisia, Turkey, Ukraine, United Arab Emirates, United Kingdom, United States, Uruguay, Venezuela.

Deploying a solution from Azure Marketplace

I have deployed an Azure Marketplace Virtual Machine (VM) to a subscription, and I now want to migrate that subscription from one Azure account to another. Is this currently supported?

To migrate your Azure subscription, Marketplace VMs, and services, you need to delete or cancel them before associating your Azure subscription to the new Azure Account. Once the migration of your Azure subscriptions is complete, you can repurchase the Azure Marketplace services. The resulting usage fees are billed using your account's registered method of payment.

I want to migrate an Azure Marketplace Virtual Machine (VM) subscription to my Enterprise Agreement. Is this currently supported?

To migrate VMs with BYOL to EA subscription, you don't need to rebuild them. The MOSP - Microsoft Online Subscription Program (i.e. web-direct) subscription can be converted to EA directly.

Pricing and Payment

How are Azure Marketplace subscriptions priced?

Pricing varies based on product types and publisher specifications. Software license fees and Azure usage costs are charged separately through your Azure subscription. Pricing models include:

- **BYOL Model**: Bring-your-own-license. When you obtain a software license for use on Azure Marketplace directly from the publisher or a reseller, you are not charged any additional software-related fees for use.

- **Free**: Free SKU. You are not charged software license fees for use of the offering.

- **Free Software Trial**: An offer that is free for a limited period of time. You are not charged the publisher's software license fees for use of the offering through a trial period. Upon expiration of the trial period, you are automatically charged standard rates for use of the offering.

- **Usage-Based**: You are charged or billed based on your usage of the offering. For Virtual Machines Images, you are charged an hourly Azure Marketplace fee. For Developer services, and API, you are charged per unit of measurement as defined by the offering.

- **Monthly Fee**: You are charged or billed a fixed monthly fee for a subscription to the offering, from start of that particular plan. The monthly fee may be prorated for mid-month cancellations or unused services.

Pricing details can be found on the solution details page on https://azure.microsoft.com/en-us/pricing/, or within the Microsoft Azure Management portal.

> **NOTE**
> Except for monthly fees, Azure usage charges are applicable to all pricing models unless otherwise stated.

What is the difference between Free Tier and Free Software Trial?

A Free Tier subscription offering is perpetually free. A Free Software Trial (Try It Now) offering is a paid subscription, only free for a limited period of time.

Do I need to have a payment instrument (for example, credit card) on file to deploy Free Tier or bring your own license (BYOL) offerings?

No. A payment instrument is not required to deploy Free Tier or BYOL offerings. However, Free Trial offerings require a payment instrument.

Listings, with the "GET IT NOW" or "FREE SOFTWARE TRIAL" buttons, are deployed into your Azure subscription, and billed using your account's registered method of payment. Azure usage charges are billed separately from software license fees.

If they have questions about pricing for offers sold on the Azure Marketplace, who does an Enterprise Agreement (EA) indirect customer contact?

EA Indirect customers must contact their Licensing Solution Provider (LSP) for all Azure Marketplace pricing questions.

Can I control my employees' access to the Azure Marketplace and purchasing privileges?

Yes, for EA customers, the enrollment administrator may turn off purchase privileges for all accounts on the enrollment and turn it back on long enough to make a purchase. Additionally, all customers can use Azure Policy to restrict deployment options for their Azure subscriptions, including management of Azure Marketplace resources.

Can I purchase from Azure Marketplace on my Microsoft Volume Licensing / Enterprise Agreement?

Yes. Enterprise Agreement (EA) customers can purchase applications and services from the Azure Marketplace. Independent Software Vendors (ISVs) that own the applications and services set their own pricing. As a result, standard Microsoft volume license discounts do not apply towards Azure Marketplace offerings.

Can I apply Azure subscription credits or monetary commitment funds on my account towards Azure Marketplace offers?

Specific Azure Marketplace offers can use Azure subscription credits or monetary commitment funds. See Azure monetary commitment for a complete list of products participating in this program. These offers do not include BYOL or BYOS options. All other Azure Marketplace offers cannot use Azure subscription credits or monetary commitment: such as the free one-month trial credit, monthly MSDN credits, credits from Azure proms, monetary commitment balances, and any other free credits provided to you from Azure.

Do Volume License discounts apply to Azure Marketplace purchases?

No. ISVs who own solutions in the Azure Marketplace can set pricing. Standard Microsoft volume license discounts do not apply towards Azure Marketplace purchases.

How do I pay for these subscriptions? Do my Azure Marketplace purchases appear on the Azure bill, or there is another bill?

Azure Marketplace purchases inherit the same payment method as your Azure subscription. They are billed separately from Azure usage unless they are enabled to consume monetary commitment.

MOSP - Microsoft Online Subscription Program (i.e. web-direct) customers are charged against the same credit card that is on file for their Azure subscription profile. If you do not have a credit card on file, then you cannot purchase from the Azure Marketplace. In this case, you received a special waiver to have your Azure charges invoiced to you instead.

Enterprise Agreement (EA) customers are charged against their EA. Specific Azure Marketplace offers listed here are first deducted from any available monetary commitment, then billed as an overage on a single quarterly invoice. EA indirect, education, and government customers are billed by their Licensing Solution Provider (LSP).

Where can I view my Azure Marketplace subscription details and billing information?

MOSP, Microsoft Online Subscription Program, (i.e. web direct) customers can view Marketplace subscription details under the 'Marketplace' menu in the Azure billing portal. Customers that purchased Virtual Machines from the Marketplace can view their estimated accrued charges in the Microsoft Azure Management portal.

Enterprise Agreement (EA) customers can view Marketplace subscription details in the 'Azure Marketplace' tab in the Enterprise portal billing and account management view. Note: EA Indirect customers can only see offer and usage information. Pricing details are not available in the Enterprise portal.

How do I cancel an Azure Marketplace add-on to an Azure VM?

Since the add-on is associated to the Azure VM, to cancel the Azure Marketplace purchase you must stop running the VM by deleting the VM. This stops all usage and charges from continuing on your Azure Marketplace purchase.

How often am I billed for my Azure Marketplace purchases?

Enterprise Agreement customers, for the specific services outlined, first have available monetary commitment funds reduced by the total cost for these services on consumption basis. For all Azure Marketplace offers that do not deduct from monetary commitment, customers are billed monthly in arrears.

MOSP (i.e. web-direct) customers are charged monthly, against the same credit card that is on file for their Azure subscription profile.

How can I move my Azure Marketplace purchases from my MOSP subscription to my direct Enterprise Agreement (EA) subscription?

Although most Microsoft subscriptions can be easily converted to your Enterprise Agreement, Azure Marketplace purchases within those subscriptions cannot.

To migrate other services purchased from the Azure Marketplace to an EA subscription, first cancel the applications from within the existing MOSP subscription. Then repurchase those applications within the EA subscription. After doing so, you can submit a credit request for the potential month of overlapping coverage between the Marketplace service subscriptions - create a support ticket.

What is the difference between "price," "software price," and "total price" in the cost structure for Virtual Machine offers in the Azure Marketplace?

"Price" refers to the cost of the Azure Virtual Machine to run the software. "Software price" refers to the cost of the Marketplace publisher's software running on an Azure Virtual Machine. "Total price" refers to the combined total cost of the Azure Virtual Machine and the Marketplace publisher's software running on an Azure Virtual Machine.

Can I apply Azure subscription credits or monetary commitment funds in my account toward Azure products and services, which are required to run Azure Marketplace offers?

Yes. Azure subscription credits or monetary commitment funds on your account can be used toward Azure products and Azure Marketplace offers. For example, you can use Azure monetary commitment funds toward the "price" component of a Virtual Machine offer in the Azure Marketplace. However, Azure subscription credits and monetary commitment funds can only be applied towards certain software price running on an Azure Virtual Machine.

How do I find out how much of my Azure Marketplace purchase I have used?

Estimated usage information can be found, when you view the Dashboard of your purchases in the Microsoft Azure management portal. Such usage information do not include recent activities, and are based on projections derived from past consumption. In the public preview, this capability may not be available for all purchases, and can vary based on product type.

Customer Support

Who do I contact for general support issues with Azure Marketplace?

For general application support regarding usage or troubleshooting, contact the application publisher directly.

For billing and subscription issues with your Azure Marketplace purchase, contact Azure Support.

Who do I contact for technical support with a solution purchased in the Azure Marketplace?

Contact your Azure Marketplace publisher for all technical product support. You can find publisher contact information, and/or a link to the support website, on the solution details page.

Who do I contact for billing support/ questions regarding a third-party solution purchased from Marketplace?

Contact Microsoft Support at Azure Support.

Is there a support forum for Azure Marketplace?

The Azure Marketplace forum can be found here.

Who do I contact if I have questions about pricing or terms for partner solutions sold on the Azure Marketplace?

Customers must contact the publisher of the solution directly. Their contact information is listed on their solution details page on Azure Marketplace, or a support link is provided to their website.

If I am not satisfied, can I return a purchase?

Purchases made from the Azure Marketplace cannot be returned but can be canceled/deleted. Once a subscription is canceled/deleted, you are not charged for subsequent months.

Customers must directly contact the publisher for any technical issues relating to their Marketplace service. On Azure Marketplace, you can find publisher contact information, and/or a link to the support website on the **solution details** page.

Next steps

Visit the Azure Marketplace and AppSource Publisher Guide page.

Azure Marketplace terms

1/28/2019 • 7 minutes to read • Edit Online

These terms govern the use of the Microsoft Azure Marketplace that enables you to access or purchase products and services optimized for use with Azure ("Marketplace"). These products and services include the Virtual Machine Gallery, and any other Microsoft Azure feature . The Marketplace may include products or services ("Marketplace Offerings" or "Offerings") published by Microsoft, and third-party publishers (each such publishing party, a "Publisher").

Purchasing and billing

1. *Direct customers*. If you have purchased a Microsoft Azure subscription from Microsoft, the following terms are applicable to your purchase of Marketplace Offerings through that subscription:

   a. *Payment*. You agree to pay all applicable fees related to your use of Marketplace Offerings. These fees are separate and in addition to fees applicable to your use of any Microsoft Azure Services.

   b. *Prices*. Prices stated for Marketplace Offerings exclude all applicable taxes and currency exchange settlements, unless stated otherwise. You are solely responsible for paying such taxes or other charges. Prices may be stated in terms of recurring fees for subscription-type Offerings, or in terms of a unit of measurement (such as hours run or transactions performed) for usage-type Offerings.

   c. *Payment Instrument*. When you have provided a payment method to Microsoft for your Microsoft Azure subscription, you authorize Microsoft to charge that payment method for your purchase of Marketplace Offerings. A credit card is an example of the payment method.

   d. *Billing*. The billing and payment terms of your Microsoft Azure subscription agreement govern your Marketplace purchases. These terms are applicable to consumption or pay-as-you-go purchases . If you incur charges that are not processed during the billing period of your purchase or use, we may bill you for such charges in a subsequent billing period. You are provided with a list of charges through your Microsoft Azure account portal, where you can view and print your charges. This is the only billing statement that we provide. Any usage or spend amounts displayed other than in a final billing statement are only estimates. Estimates do not include recent activities, or may be comprised of projections based on previous usage patterns.

   e. *Price Increase*. If a price increase is made to a Marketplace Offering for which you have an active subscription, we provide you with 30 days' prior notice to the increase. Upon expiration of the 30-day notice period, your continued use of the Marketplace Offering constitutes your authorization to be charged at the new price.

   f. *Refunds*. Unless otherwise provided by law or allowed by a Publisher, all charges are non-refundable.

   g. *Billing Corrections*. If you discover that we made an error on your bill, you must tell us within 120 days after the error first appears on your bill. If you do not tell us within that time, you release us from all liability and claims of loss resulting from the error. We have no obligation to correct the error or provide a refund. If we have identified a billing error, we correct that error within 90 days.

2. *Indirect customers*. If you purchase a Microsoft Azure subscription from a reseller, the purchasing and billing terms in your agreement with your reseller govern your purchase of Marketplace Offerings through that subscription.

3. *General*. The following terms are applicable irrespective of the entity from which you purchased your Microsoft Azure subscription.

   a. *Monetary Commitment*. Unless indicated otherwise for a particular Marketplace Offering, Microsoft subscription credits (such as free trial, MSDN, or BizSpark) or monetary commitment funds cannot be

used to purchase Marketplace Offerings. Such purchases are billed separately.

b. *Reservations.* "Reservations" means an advanced purchase of eligible Marketplace Offerings for a specified term and region, such as Reserved Software Instances. Reservations are purchased for specified terms of up to three years. Reservations expire at the end of the specified term. You are not refunded payment for unused Reservations. Unless indicated otherwise for a particular Marketplace Offering, exchange and cancellation are not available. Reservation pricing is based on available pricing at the time of purchase. Reserved Instances for software do not include the cost of compute.

c. *Automatic Renewal.* If you purchased a Marketplace subscription with an automatic renewal option, we, or your reseller if applicable, may automatically renew your subscription and charge you for any renewal term. To avoid such charges, you can cancel your subscription before the renewal date.

d. *Free Trials.* If you take part in a free trial subscription for a Marketplace Offering, you must cancel your subscription before the end of the trial period to avoid incurring charges. If you do not cancel your subscription by the end of free trial period, you will be charged for the Marketplace Offering at the purchase prices. If you create multiple subscriptions to a free trial Offering, the trial period applicable to all such subscriptions commence on the date that you create your first subscription. All such subscriptions will be converted to paid Offerings at the end of trial period.

e. *Cancelation.* If you do not provide an on-time, full payment, we may suspend or cancel your access to Marketplace Offerings. Suspension or cancellation of access for non-payment could result in loss of your data.

Use rights

1. *Publisher Terms of Use.* Your right to use any Marketplace Offering is according to separate terms of use provided by the Publisher of the Marketplace Offering ("Terms of Use"). Except for Marketplace Offerings that we publish, we are not a party bound by any Publisher Terms of Use.

2. *BYOL Offerings.* Publishers may make certain Marketplace Offerings available on the condition that you have obtained, outside of the Marketplace, the rights necessary to use such Offerings ("Bring-Your-Own-License (BYOL) Offerings"). If you use any BYOL Offerings, you are responsible for ensuring that you have sufficient rights to use the Offering.

3. *Microsoft Software Products.* If a third-party Publisher publishes a virtual machine Offering in the Marketplace, that includes any Microsoft software product listed at http://azure.microsoft.com/pricing/details/virtual-machines/ ("Microsoft Software Product"):

   a. Microsoft, and not the third party, is the licensor of the Microsoft Software Product;

   b. In addition to any fees associated with the third-party Offering, your use of the Microsoft Software Product is subject to applicable fees with your Azure subscription. Your reseller can set these fees; and

   c. Microsoft's terms, and not the third party's Terms of Use, govern your use of any Microsoft Software Product included in the Offering. These terms also include your right, if any, to use the Microsoft Software Product outside of Microsoft Azure.

4. *Application Programming Interfaces.* We may make available application programming interfaces ("Marketplace APIs") for use with the Marketplace. If you use Marketplace APIs to purchase or access Marketplace Offerings, you are responsible for reviewing and complying with the applicable Terms of Use in the Marketplace user interface. These terms may change from time to time. Your use of any Marketplace APIs to purchase Marketplace Offerings also constitutes your authorization to pay all applicable fees in accordance with the payment terms. The payment terms are found in the Marketplace user interface at the time of purchase.

Privacy and data protection

1. *Information Disclosed to Publishers.* If you purchase or use a Marketplace Offering, we may share with the Publisher of such Offering your contact information and details about the transaction. We do not share your

Customer Data with any Publisher, unless we have your permission for doing so.

2. *Publisher Privacy Policies.* Publishers are responsible for providing privacy statements that describe their privacy practices for Customer Data collected by their Offerings or any customer information that they receive from Microsoft. Unless indicated otherwise, a Marketplace Offering published by Microsoft, Microsoft's privacy, security, data location, and retention policies do not apply to any Marketplace offering. The same holds true for the Publishers' use of any Customer Data or other customer information.

3. *Processing of Personal Data.* Microsoft is a processor or subprocessor of personal data relating to the provision of Offerings. Microsoft makes the commitments in the European Union General Data Protection Regulation Terms of the Online Services Terms to all customers effective May 25, 2018, at http://go.microsoft.com/?linkid=9840733.

Miscellaneous

1. *Financial data.* Certain Marketplace Offerings may contain financial data. Microsoft is not a broker/dealer or registered investment advisor under U.S. federal securities law or securities laws of other jurisdictions. Microsoft does not advise individuals as to the advisability of investing in, purchasing, or selling securities or other financial products or services. Nothing contained in the Marketplace is an offer or solicitation to buy or sell any security. Microsoft and its licensors of stock quotes or index data, do not endorse or recommend any particular financial products or services. Nothing in the Marketplace, including any data sets or financial applications, are intended as professional advice, including but not limited to, investment or tax advice.

2. *Throttling.* To protect our system, we may limit the number of requests that you can make to the Marketplace. Microsoft also enforces reasonable limits on your use of the Marketplace. Additionally, publishers may place restrictions on the number of requests that you can make to their services ("Specific Throttling"). Specific Throttling limits may be displayed on the publisher's content detail page for which they apply. The Specific Throttling limits may change at any time, with or without notice.

Next step

Visit the Azure Marketplace and AppSource Publisher Guide page.

Azure Marketplace participation policies

2/1/2019 • 15 minutes to read • Edit Online

These Microsoft Azure Marketplace Participation Policies apply to all publishers and offerings in the Microsoft Azure Marketplace. These policies are in addition to the terms and conditions set forth in the Microsoft Marketplace Publisher Agreement. To participate in the Azure Marketplace, publishers must always comply with the policies described, and/or referenced in this document. If a publisher fails to meet all terms and conditions at any given time, Microsoft may remove the publisher's offering from the Azure Marketplace. We may update this document from time to time.

Base Criteria

1. Software and services offered in the Azure Marketplace must meet at least one of the following criteria:

   - *Run on Microsoft Azure*: The primary function of the software or service must run on Microsoft Azure.
   - *Deployable to Microsoft Azure*: Publishers must describe in their offering listing information how the software or service is deployed on Microsoft Azure.
   - *Integrate with or extend a Microsoft Azure service*: In their offer listing information, publishers must describe which Azure service the software or service integrates or extends. How the software or service integrates or extends the Azure service.

2. Publishers must be located in a sell-from country supported by the Azure Marketplace. The Azure Marketplace currently supports the following sell-from countries: Afghanistan, Albania, Algeria, Angola, Antigua and Barbuda, Argentina, Armenia, Australia, Austria, Azerbaijan, Bahrain, Bangladesh, Belarus, Belgium, Benin, Bolivia, Bosnia and Herzegovina, Botswana, Brazil, Bulgaria, Burkina Faso, Burundi, Cambodia, Cameroon, Canada, Central African Republic, Chad, Chile, Colombia, Comoros, Congo (DRC), Congo (Republic of), Costa Rica, Cote D'Ivoire, Croatia, Cyprus, Czech Republic, Denmark, Dominica, Dominican Republic, Ecuador, Egypt, El Salvador, Eritrea, Estonia, Ethiopia, Fiji Islands, Finland, France, Georgia, Germany, Ghana, Greece, Guatemala, Guinea, Haiti, Honduras, Hong Kong SAR, Hungary, Iceland, India, Indonesia, Iraq, Ireland, Israel, Italy, Jamaica, Japan, Jordan, Kazakhstan, Kenya, Korea (South), Kuwait, Laos, Latvia, Lebanon, Liberia, Liechtenstein, Lithuania, Luxembourg, Madagascar, Malawi, Malaysia, Mali, Malta, Mauritius, Mexico, Monaco, Mongolia, Montenegro, Morocco, Mozambique, Nepal, The Netherlands, New Zealand, Nicaragua, Niger, Nigeria, Norway, Oman, Pakistan, Panama, Paraguay, Peru, Philippines, Poland, Portugal, Qatar, Romania, Russia, Rwanda, Saudi Arabia, Senegal, Serbia, Sierra Leone, Singapore, Slovakia, Slovenia, Somalia, South Africa, Spain, Sri Lanka, Sweden, Switzerland, Tajikistan, Tanzania, Thailand, Timor-Leste, Togo, Tonga, Trinidad and Tobago, Tunisia, Turkey, Turkmenistan, Uganda, Ukraine, United Arab Emirates, United Kingdom, United States, Uruguay, Uzbekistan, Venezuela, Vietnam, Zambia, Zimbabwe.

3. For each offering, publishers must make the offering available in at least one sell-to country supported by the Azure Marketplace. The Azure Marketplace currently supports the following sell-to countries: Algeria, Argentina, Australia, Austria, Bahrain, Belarus, Belgium, Brazil, Bulgaria, Canada, Chile, Colombia, Costa Rica, Croatia, Cyprus, Czech Republic, Denmark, Dominican Republic, Ecuador, Egypt, El Salvador, Estonia, Finland, France, Germany, Greece, Guatemala, Hong Kong, Hungary, Iceland, India, Indonesia, Ireland, Israel, Italy, Japan, Jordan, Kazakhstan, Kenya, Kuwait, Latvia, Liechtenstein, Lithuania, Luxembourg, Macedonia, Malaysia, Malta, Mexico, Montenegro, Morocco, Netherlands, New Zealand, Nigeria, Norway, Oman, Pakistan, Panama, Paraguay, Peru, Philippines, Poland, Portugal, Puerto Rico, Qatar, Romania, Russia, Saudi Arabia, Serbia, Singapore, Slovakia, Slovenia, South Africa, South Korea, Spain, Sri Lanka, Sweden, Switzerland, Taiwan, Thailand, Trinidad and Tobago, Tunisia, Turkey, Ukraine, United Arab Emirates, United Kingdom, United States, Uruguay, Venezuela.

4. Publishers must remain in good financial standing.

5. Publisher offerings in the Azure Marketplace must be of limited or general availability, and must have an established customer base.

6. Offerings in the Azure Marketplace cannot use or depend on any product or component that is not supported, or no longer commercially available.

7. Publishers must make detailed technical documentation available. The documentation needs to describe how to use their offerings on Microsoft Azure. Each offering must provide or link to such documentation in their listing information.

8. Publishers must announce the availability of their offering in the Azure Marketplace on their public website, and must include hyperlinks to their offer listing pages on https://azuremarketplace.microsoft.com/marketplace/.

9. Publishers must classify each offering based on one or more classification taxonomies provided by Microsoft, including the categories described in the **Offering Classification Definitions** section of this document. If Microsoft considers a publisher-selected classification to be inaccurate, it reserves the right to reclassify any offering.

10. If a publisher's offering is Microsoft Azure Certified, and does not run primarily on Microsoft Azure, the publisher must make a paid version of the offering available in the Marketplace, within 90 days of publishing a free or BYOL version of the offering.

Publishing offers

1. Publishers must publish at least one offering in the Azure Marketplace, within 60 days of executing the Microsoft Marketplace Publisher Agreement.

2. Publishers must adhere to Azure Marketplace technical requirements for onboarding, as defined in the Marketplace Publication Guidelines and as may be further identified in the Publishing Portal.

Offer listings

1. Publishers must include detailed offer information in their offer listing pages, which must be accurate and up-to-date. Such information must include, as applicable:

   - *Offering description*
     - Minimum offer description
       - SKU information
       - Value proposition
     - Recommended offer description
       - Detailed SKU information
       - Detailed value proposition
       - Features: 3-5 factual statements about the offering
       - Benefits: 3-5 results produced by offering features
   - *Pricing model*: The offering must be compatible with pricing models supported by the Azure Marketplace, as described in the **Pricing Models** section of this document.
   - *Link to customer support details*: Publishers must provide commercially reasonable customer support for their offerings in the Azure Marketplace. They can either include it as part of user fees associated with the offering, or as a support offering to be purchased separately.
   - *Offer resources*: Resources include, but are not limited to, demo videos, screenshots, white papers, case studies, testimonials, and detailed technical documentation on how to use the publisher's offering on Microsoft Azure.

- *Customer refund policy*
- *Terms of Use*
- *Privacy Policy*

2. Publishers may not redirect or up-sell Azure customers within their offer listing page to software or services other than what is available in the Azure Marketplace. This restriction does not apply to support services that publishers sell outside of the Azure Marketplace.

3. Publishers may not promote within the Azure Marketplace the availability of their offerings on other cloud platforms.

4. Microsoft reserves the right to edit and revise offer listing page details for quality assurance. If Microsoft makes any changes to any listing page details, Microsoft is to inform publishers before the publication of their offering listing pages in the Azure Marketplace.

Offering classification

Virtual Machine Image	Pre-configured virtual machine (VM) image with a fully installed operating system, and one or more applications. Virtual Machine Image offerings may include a single VM image or multiple VM images tied together by a Resource Manager template. A virtual machine image ("Image") provides the information necessary to create and deploy virtual machines in the Azure Virtual Machines service. An Image comprises an operating system, virtual hard drive, and zero or more data disk virtual hard drives. Customers can deploy any number of virtual machines from a single Image.
Virtual Machine Extension	VM agents that can be added to new VMs using various options, including via REST API, the Azure portal, or Azure PowerShell cmdlets. VM Extensions can also be manually installed on existing VMs, and can be configured for either Windows Server or Linux-based VMs. A virtual machine extension ("**VM Extension**") is mechanism for installing a software application, or suite of software applications, within Azure virtual machines. A VM Extension may include software applications. Once it is installed within or executed by a virtual machine, it may download and install one or more software applications from an external location. For clarity, any software or other data installed by your VM Extension, even if retrieved from an external location, is considered Offering Contents for purposes of this Agreement. You are responsible, and must provide support to Customers, for any VM Extension handlers associated with your VM Extension Offerings.

Services	Fully managed services for information workers, business analysts, developers, or IT pros to use in custom application development or system management. The Marketplace supports three types of services: **Application Services** provide functionality to enable customers to quickly develop cloud scale applications on Azure. Customers must have an Azure subscription to purchase Application Services. Publishers are responsible for metering customers' usage of Application Services and for reporting usage information to Microsoft, as detailed in the Microsoft Marketplace Publisher Agreement.
Web Application	Application package that can be used to install and deploy open source or proprietary website content or management platforms in the Azure Websites Service. Web Applications must comply with the Microsoft Web Application Gallery Principles. In this Agreement, a "**Web Application**" is an application package used by Customers to install and deploy open source or proprietary website applications in the Azure Website Service.
Catalog Listing	Offerings that are not available to Azure customers directly through the Marketplace, but the Marketplace displays a link, icon, and software/service product listing. Customers are directed to the publisher's web site, or provided instructions on how to obtain and use the offering on Azure. A "**Catalog-Only Listing**" is an Offering that is not available to Customers directly through the Marketplace. Instead, a link, icon, and/or description is displayed in the Marketplace, that directs customers to your website. Furthermore, instructions are provided on how customers may obtain and use the Offering in Azure. For clarity, any software or data referenced by a Catalog-Only Listing is considered Offering Contents in this Agreement.
Azure Resource Manager (Resource Manager) Template	Resource Manager template can reference multiple, distinct offerings, including offerings published by other publishers. It enables Azure customers to deploy one or more offerings in a single, coordinated fashion. An "**Azure Resource Manager (Azure Resource Manager) Template**" is a data structure that references one or more Offerings and includes metadata about the Offering(s). The data structure is associated with Listing Information. Resource Manager templates are used by the Marketplace Service to display and enable customers to deploy certain categories of Offerings. Publishers may publish ARM Templates in the Marketplace that reference multiple, distinct Offerings, including offerings published by other publishers.

If you wish to publish an application or service not in any of the categories already discussed, enter a request on the Azure Marketplace Forum.

Pricing models

The following table describes the pricing models currently supported by the Azure Marketplace. An offering may include different SKUs that utilize different pricing models.

PRICING MODEL	DESCRIPTION	APPLICABLE TO
Free	Free SKU. Customers are not charged Azure Marketplace fees for use of the offering. Prices for free SKUs may not be increased to non-zero amounts.	• Virtual Machine Images • VM Extensions • Services • Resource Manager templates
Free Trial **(Try it now)**	Promotional free SKU for a limited period of time. Customers are not charged Azure Marketplace fees for use of the offering through a trial period. Upon expiration of the trial period, customers are automatically charged based on standard rates for use of the offering. The Marketplace is currently not able to prevent customers from creating multiple subscriptions to Free Trial offerings. Publishers who wish to restrict the number of subscriptions customers may create for Free Trial offerings, are responsible for including appropriate restrictions in their Terms of Use.	• Virtual Machine Images • Services
BYOL	Bring-Your-Own-License (BYOL) SKU. If they have obtained access or use of the offering outside of the Azure Marketplace, customers are not charged Azure Marketplace fees.	Virtual Machine Images
Monthly Subscription	Customers are charged a fixed monthly fee for a subscription to the offering. Monthly subscriptions begin on the date of customer purchase except as described below. Monthly fees are not prorated for mid-month customer cancellations, or unused services. Monthly fees may be prorated if the customer's licensing terms require calendar monthly billing, or if the customer upgrades or downgrades its subscription in the middle of the month. Upgrades and downgrades are only supported if the Publisher configures the offering accordingly.	Services

PRICING MODEL	DESCRIPTION	APPLICABLE TO
Usage-Based	Customers are charged based on the extent of their use of the offering. For Virtual Machine Images, customers are charged an hourly Azure Marketplace fee, as set by publishers, for use of virtual machines deployed from the images. The hourly fee may be uniform or varied across virtual machine sizes. Partial hours are charged by the minute. For Application Services, publishers are responsible for defining the unit of measurement for billing purposes. (for example, number of transactions, number of emails sent, etc.) Publishers can define multiple meters for the same Application Service plan. Publishers are responsible for tracking individual customers' usage, with each meter defined by the offering. They also need to report this tracking information to Microsoft on an hourly basis, using reporting mechanisms provided by Microsoft. Microsoft charges customers based on the usage information reported by publishers for the applicable billing period.	• Services • Virtual Machine Images

Publishers can now lower their user fees for virtual machine offerings already published. All other types of price alterations for existing offerings are currently not supported in the Marketplace. Publishers who wish to change the user fees associated with an offering, should first remove the offering from the Marketplace. Removal should be done in accordance to the requirements of the Microsoft Marketplace Publisher Agreement and this document. Then the publisher can publish a new offering that includes the new user fees.

After publishing a Services Offering in the Marketplace, Publishers must maintain their own data logs for a minimum of two (2) previous calendar years. The data logs contain the provisioning of their Offering to customers. If there are any conflicts in the data between the Publisher's data logs and Microsoft's data logs, Microsoft's data logs take precedence.

Offering suspension and removal

1. Microsoft reserves the right to suspend or remove an offering from the Azure Marketplace for any reason. Reasons Microsoft may remove an offering include, but are not limited to:

   - The offering hasn't been provisioned by any customers for six or more months;
   - The offering has a high cancellation rate for paid SKUs;
   - The offering consistently receives negative customer feedback;
   - The offering consistently receives many support tickets; or
   - The publisher has failed to comply with terms and conditions in the Microsoft Marketplace Publisher Agreement, the Marketplace Publication Guidelines, or this document.

2. For various reasons, you may decide to remove your offer from the Marketplace. Offer Removal ensures that new customers may no longer purchase or deploy your offer, but has no impact on existing customers. Offer Termination is the process of terminating the service and/or licensing agreement between you and

your existing customers. Guidance and policies related to offer removal and termination are governed by Microsoft Marketplace Publisher Agreement (see "Payment terms" section). You may request removal or termination by logging a support ticket.

Payment terms

Publishers are paid applicable Publisher Net Revenues, as defined in the Microsoft Marketplace Publisher Agreement, within 45 days after each calendar month.

Microsoft software products

Microsoft permits publishers to include the following Microsoft Software Products in their Image Offerings, subject to the terms and conditions of Exhibit B of the Microsoft Marketplace Publisher Agreement:

- Windows Server®
- SQL Server®
- Microsoft Dynamics NAV®

Taxes

1. **Responsibility for Taxes on End Customer Sales.**

    a. In general, each of Microsoft's and publisher's responsibilities for taxes on end customer sales depend on the country and the purchase scenario in which offers are sold.

    b. In certain countries (**Microsoft Managed Countries**) Microsoft assumes responsibility for managing end customer taxation, which may include validating the business status of customers by obtaining tax registration numbers or exemption certificates, deeper managed relationships with customers and calculating, collecting and/or remitting taxes. In cases where sales are made through partners, Microsoft assumes all partners are businesses and are appropriately discharging their tax obligations. Additional information can be found in the FAQs.

    c. For all countries that are not Microsoft Managed Countries (**ISV Managed Countries**), publishers acknowledge and agree that publishers have sole responsibility to determine and manage end customer taxation, such as registration, tax calculation, collection and remittance, validation of business status of customers and provision of tax invoices to customers, for all offers such publishers choose to make available in ISV Managed Countries. Publishers acknowledge that, with respect to any sale in an ISV Managed Country, Microsoft currently may not be able to provide.

    d. End customers may purchase offers directly from Microsoft or from Microsoft partners to whom publisher licenses its product. In addition, there are several different licensing programs. In some instances, Microsoft Managed Countries may become ISV Managed Countries and vice versa (see the Section on **Microsoft Managed Countries**, below). Information regarding customer purchase scenarios can be found in Azure Marketplace FAQ.

2. **Microsoft Managed Countries.**

    a. The following countries are Microsoft Managed Countries for sales through all customer purchase scenarios: Armenia, Belarus, European Union, Canada, India, Ireland, Liechtenstein, Monaco, New Zealand, Norway, Puerto Rico, Russia, Saudi Arabia, Serbia, South Korea, Switzerland, Taiwan, Turkey, United Arab Emirates and United States.

    b. Australia is a Microsoft Managed Country for sales through all customer purchase scenarios except the Enterprise Agreement customer purchase scenario.

    c. Microsoft manages end customer taxation for publisher as a convenience and has assumed the most

common scenarios for determining the countries and strategies for managing end customer taxation.

    d. Microsoft makes no warranties that Microsoft's actions will completely satisfy publishers obligations in Microsoft Managed Countries. For all Microsoft Managed Countries, Microsoft strongly recommends publishers work with their own tax advisors to ascertain whether Microsoft Managed tax remittance sufficiently addresses the publishers' compliance requirements. This is particularly critical for any Microsoft Managed Countries from which publishers sell their products. For example, a publisher established in and selling offers in Saudi Arabia may determine that relying on Microsoft to manage tax may not be sufficient to satisfy the publisher's compliance obligations.

3. **ISV Managed Countries.**

    a. ISV Managed Countries include Australia, for all sales through the Enterprise Agreement customer purchase scenario, and all countries not referenced in the Section on **Microsoft Managed Countries**.

4. **Special Cases.**

    a. *Brazil*. For sales in Brazil through all customer purchase scenarios except CSP, Brazil is a Microsoft Managed Country, and Microsoft acts as a reseller, rather than publishers' agent. For sales in Brazil through the CSP customer purchase scenario, Microsoft acts as publishers' agent and sells from a Brazil entity to Brazilian CSPs that Microsoft assumes are tax compliant.

    b. *Mexico*. For sales in Mexico through the Enterprise Agreement customer purchase scenario, Mexico is a Microsoft Managed Country, and Microsoft acts as a reseller, rather than publishers' agent. For sales in Mexico through all customer purchase scenarios except Enterprise Agreement, Mexico is an ISV Managed Country and Microsoft acts as publishers' agent.

Security events

Publishers must report suspected security events, including security incidents and vulnerabilities of their Azure Marketplace software and service offerings, at the earliest opportunity. Publishers should log a support ticket using the process outlined Azure security event support ticket, by providing the requested information.

Next step

Visit the Azure Marketplace and AppSource Publisher Guide page.

Getting started with the Cloud Partner Portal

10/4/2018 • 2 minutes to read • Edit Online

This article provides a walk-through of the Cloud Partner Portal. Learn what you can do using the Cloud Partner Portal to work with offers on Azure Marketplace and on AppSource.

Portal tour

The Cloud Partner Portal contains everything you need to offer and operate a successful business on the cloud. Here's a quick overview of the parts of this site that you'll likely use the most often.

Left navigation bar

When you first land on the portal, you should see the collapsible navigation bar. This is where you can navigate among menu items.
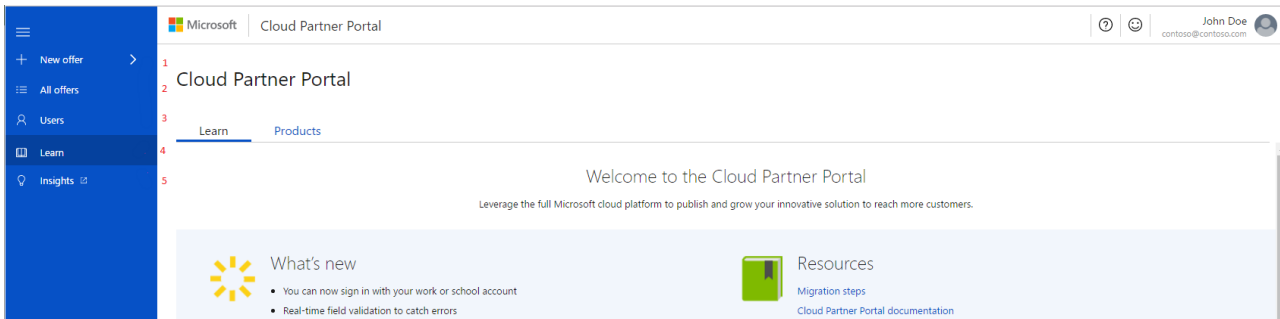
Use the menu bar to get more information about each of the following items:

- **New offer** - Kick off a new offer here.
- **All offers** - Check the state and status of all your current offers.
- **Users** - Manage and control access for your company.
- **Learn** - Jump-start your learning, and stay up-to-date on what's new in the Partner Portal.
- **Insights** - Find insights and usage information about your products and customers by visiting the Insights Portal.

Offer page

Continuing the tour, once you start a new offer or come back to edit your offer, you'll do a lot of work in the offer page. This is where you configure all the settings for your offer and check its status.
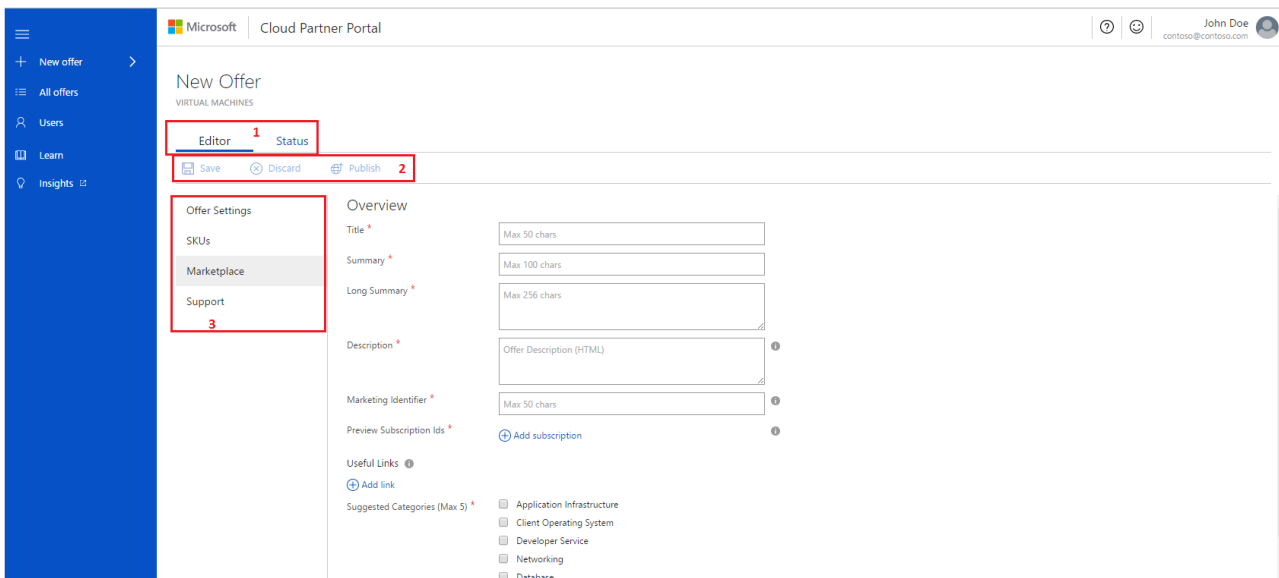
On the Offer page you can:

- Add content or check your offer's status by toggling between two top level modes: **Editor** and **Status**.
- Use the **Action bar** to explicitly manage your offer's changes by saving and discarding your input.
- Navigate between the required **Forms** for each offer as you change your offer's settings.

Menu bar

Finally, on the top of your screen you'll always be able to navigate to the top menu bar. This menu contains interactive actions for support and feedback. You can also access all your Publisher account information.
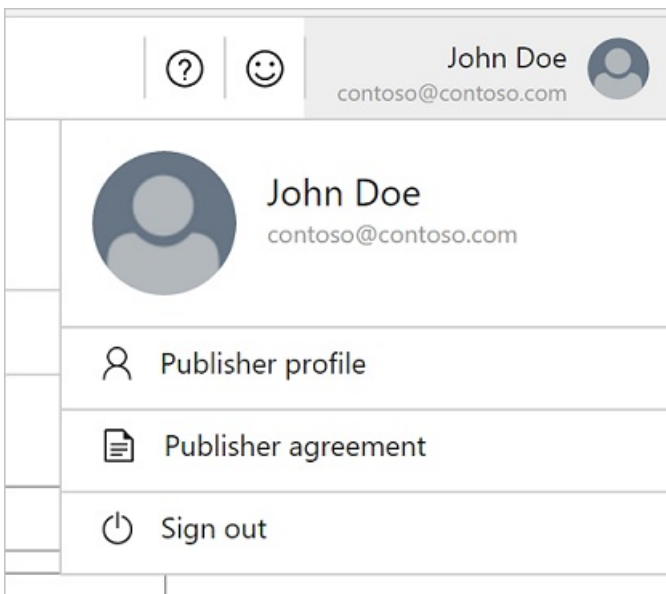
- **Need help?** - If you're ever confused and need help, create a support request, and find links to the documentation.
- **Feedback** - Have something you want to say? Let us know here. Microsoft wants to make the Azure Marketplace, the AppSource publishing process, and the overall cloud partner portal experience as easy and as intuitive as possible. We triage and review all feedback, and we'll always respect your privacy. We only contact you when you ask for more information.
- **Publisher account** - When you first visit the portal you'll see the publisher agreement contract to accept becoming a publisher. From then on, this is where you can make edits to your publisher profile or revisit the contract. This is also where you connect your Dev Center account to be able to sell your offers.

Cloud Partner Portal Tour

11/20/2018 • 2 minutes to read • Edit Online

This article provides an introduction to the Cloud Partner Portal: its contents, navigation mechanisms, and functionality. This portal enables registered partners to create new offers and manage existing offers for the Azure Marketplace and AppSource Marketplace. The Cloud Partner Portal is only accessible to registered partners; for more information, see Become a Cloud Marketplace Publisher.
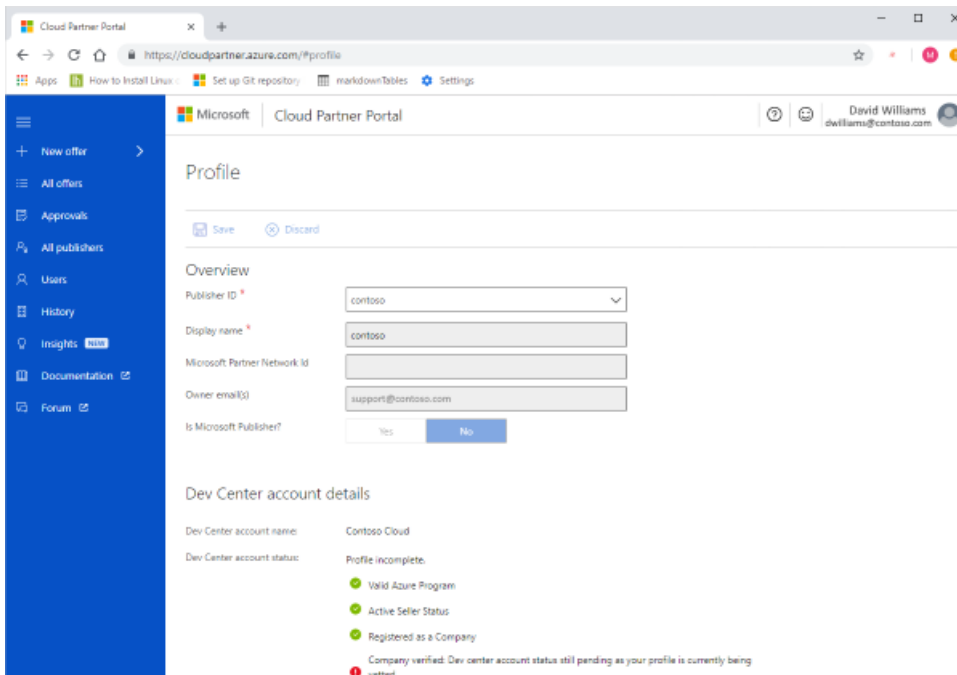
(*Click on image to enlarge.*)

Section contents

After explaining the navigation mechanisms of the portal, we will examine the primary entries in the left navigation pane in its corresponding article:

- New Offer menu enables users to create new offers of the specified type.
- All offers page enables partners to view all submitted offers and some of their primary characteristics.
- Approvals page enables partners to view all their currently approved offers.
- All Publishers page lists all the current registered cloud partner publishers.
- Users page lists all the current user accounts associated with registered cloud partners.
- History page lists the offer publishing and modification events for all publishers.
- Insights page contains the various dashboards that comprise the *Seller Insights* feature of this portal.

Next steps

The next article, Cloud Partner Portal Navigation, examines the various navigational mechanisms available on the site.

Cloud Partner Portal navigation

11/20/2018 • 2 minutes to read • <u>Edit Online</u>

There are two primary user interface (UI) mechanisms for navigating around in the Cloud Partner Portal: the top menu bar and the left-side navigation pane. These UI elements are invariant, available no matter what page on the portal you navigate to.

Menu bar

The menu bar runs across the top of the portal site. It has the following four active areas:
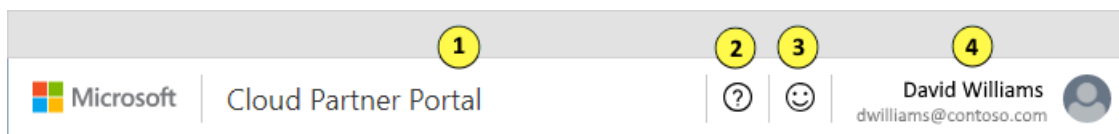
Clicking on these areas results in the following actions:

1. Title area - navigates to the portal home page.
2. **Help** button - displays the help menu, which provides resources for assisting the user.
3. **Feedback** button - displays the **Send us feedback** form.
4. **Publisher** button - displays a menu that enables the user to manage their profile.

These menus and forms are described next.

Help menu

The **Help** menu provides resources to assist the user with the Cloud Partner Portal.
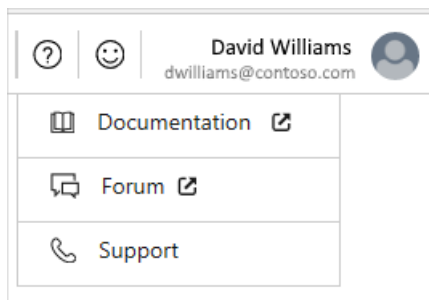
The Help menu contains the following items:

- **Documentation** - Launches a new tab in the browser and navigates to the documentation home page for the Cloud Partner Portal.
- **Forum** - Launches a new tab and navigates to the documentation home page for the Partner Community for the AppSource and Azure Marketplaces.
- **Support** - Launches a new tab and navigates to the support page for Marketplace Publishing, where you can create an incident report. We triage and review all feedback, and we'll always respect your privacy. We'll only contact you if you request or ask for more information.

Send us feedback form

The **Send us feedback** form provides you with a direct method to provide feedback to the Marketplace Publisher Onboarding Team. We'll only contact you for additional information if you've checked the **OK to contact you about your feedback** checkbox.

> **TIP**
>
> If your feedback is about a specific page on the Cloud Partner Portal, please navigate to that page before clicking on the **Feedback** button. Verify that the **Include screenshot** checkbox is selected before submitting your feedback so that your session's UI state can be captured.

Publisher menu

This menu enables you to manage your profile and session: direct access to your publisher profile page, view the Microsoft Publisher Agreement, or sign out of the current session.
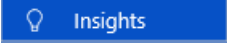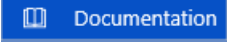
Left navigation pane

A collapsible navigation pane occupies the left side of the portal. It contains a menubar with the following items that enable partners to:

MENU ITEM	DESCRIPTION
	New Offer menu to create new offers of the specified type.
	All offers page to view all submitted offers and some of their primary characteristics.
	Approvals page to view all their currently approved offers.

MENU ITEM	DESCRIPTION
![All publishers]	All Publishers page lists all the current registered cloud partner publishers.
![Users]	Users page lists all the current user accounts associated with registered cloud partners.
![History]	History page lists the offer publishing and modification events for all publishers.
![Insights]	insights page contains the various dashboards that comprise the *Seller Insights* feature of this portal.
![Documentation]	Launches a new tab to the documentation home page for the Cloud Partner Portal (duplicates entry in the **Help** menu).
![Forum]	Launches a new tab to the documentation home page for the Partner Community for the AppSource and Azure Marketplaces (duplicates entry in the **Help** menu).

NOTE

Because this menubar is periodically updated to reflect new features of the portal, the items you see may not exactly match those in the table above.

Next steps

The next article, New Offer menu, lists the types of offers that you can create with the **New offer** menu.

New offer menu

2/1/2019 • 2 minutes to read • Edit Online

The **New offer** menu enables partners to create instances of offer types supported by the Cloud Partner Portal. Selecting the **New offer** menu item, on the left-side navigation menubar, displays the following list of offer types. Selecting one of these types begins the offer creation and publishing process.

NEW OFFER MENU ITEM	CORRESPONDING DOC SECTION
Azure Applications	Azure application offer
Consulting Service	Consulting services offer
Containers	Containers offer
Dynamics 365 Business Central	Dynamics 365 Business Central offer
Dynamics 365 for Customer Engagement	Dynamics 365 for Customer Engagement offer
Dynamics 365 for Operations	Dynamics 365 for Operations offer
IoT Edge Modules	IoT Edge module offer
Power BI Apps	Power BI App offer
SaaS Apps	SasS application offer
Virtual Machines	Virtual machine offer

> **NOTE**
>
> Because this menu is periodically updated to reflect new offer types and offer name changes, the items you see may not exactly match those in the table above.

Next steps

If you are creating a new offer, you can use the previous table to navigate to the offer section for guidance in creating and publishing your offer. Otherwise, the portal tour continues with an examination of the All Offers page.

All offers page

11/20/2018 • 2 minutes to read • Edit Online

The **All offers** page enables partners to view a list of created offers, including their name, type, publisher, and current status. You can specify a string to filter the results. The status area at the bottom of the page displays aggregate and page counts, and enables you to navigate between list pages. Selecting an offer in this list will display that offer in the associated offer editor.

Example page

The following image shows the **All offers** page filtered on the string `Contoso`.

All Offers

contoso

OFFER NAME	OFFER TYPE	PUBLISHER	STATUS
grbtest	Virtual Machines	Contoso DNS	-
Test2	Virtual Machines	Contoso	-
Test3	Virtual Machines	Contoso	-
Contossian Pro	Virtual Machines	Contoso	-
Test1	Virtual Machines	Contoso	-
test1	Azure Applications	Contoso	-
linux offer	Virtual Machines	Contoso	-
l;l;	Virtual Machines	Contoso	-
Contoso DNS Firewall	Azure Applications	Contoso DNS	Publish canceled
Contoso Power Monitoring	Azure Applications	VIAcode Consulting, LLC.	Publish canceled
Contoso Test Offer	Virtual Machines	Azure Marketplace	Publish failed
Contoso demo SaaS	SaaS Apps	Azure Marketplace	Delisted
IoT Central Sample Contoso	SaaS Apps	Microsoft	Awaiting publisher sign off

Next steps

The next navigation menubar item displays an Approvals page, which lists approved offers. Approved offers are either already published or in the process of being published.

Approvals page

11/20/2018 • 2 minutes to read • Edit Online

The **Approvals** page provides a list of approved offers, including the offer name, publisher, offer type, and current action. Approved offers are either already published or in the process of being published. The results can be ordered by column or filtered on a specified string. The status area at the bottom of the page displays aggregate and page counts, and enables you to navigate between list pages. Selecting an offer in this list will display that offer in the associated offer editor.

Example page

The following image shows the **Approvals** page for Contoso.

Next steps

The next navigation menubar item displays an All Publishers page, which lists all the registered publishers.
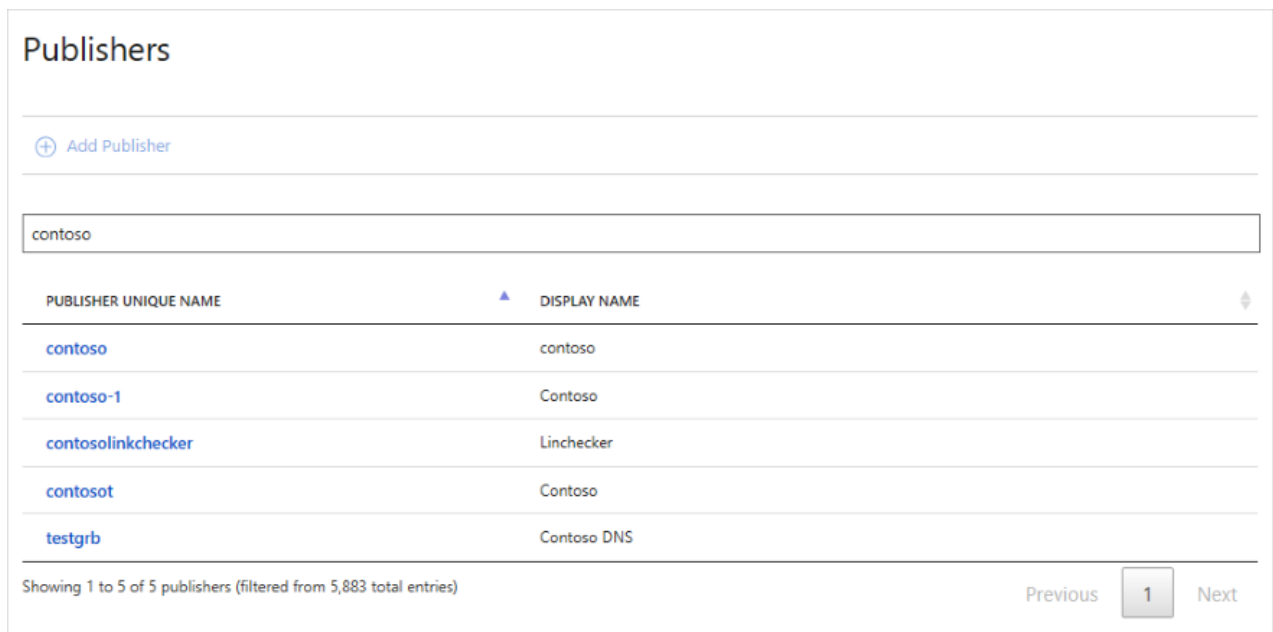
All publishers page

11/20/2018 • 2 minutes to read • Edit Online

The **All publishers** page displays a list of all registered Microsoft cloud publishers, including their publisher unique name and display name. You can order the results by column or specify a string to filter the results. This page also displays an **Add Publisher** button, but this button is only enabled for portal administrators. Selecting a publisher in this list will display the profile for that publisher. For more information, see Managing Publisher Profile.

Example page

The following image shows the publisher listing filtered on the string contoso`.

Clicking on the first entry will display the profile page for Contoso. You can only edit your own publisher profile.

Profile

💾 Save   ⊗ Discard

Overview

Publisher ID *

contoso ▾

Display name *

contoso

Microsoft Partner Network Id

Owner email(s)

dwilliams@contoso.com

Is Microsoft Publisher?

| Yes | **No** |

Dev Center account details

Dev Center account name: Contoso Cloud

Dev Center account status: Profile incomplete.

✅ Valid Azure Program

✅ Active Seller Status

✅ Registered as a Company

❗ Company verified: Dev center account status still pending as your profile is currently being vetted.

Dev Center account owner email: johndoe@contoso.com

Dev Center account seller id: 00000000

Azure Application Usage Tracking GUIDs ⓘ

⊕ Add Tracking GUID

Next steps

The next navigation menubar item displays a Users page, which lists all registered users.
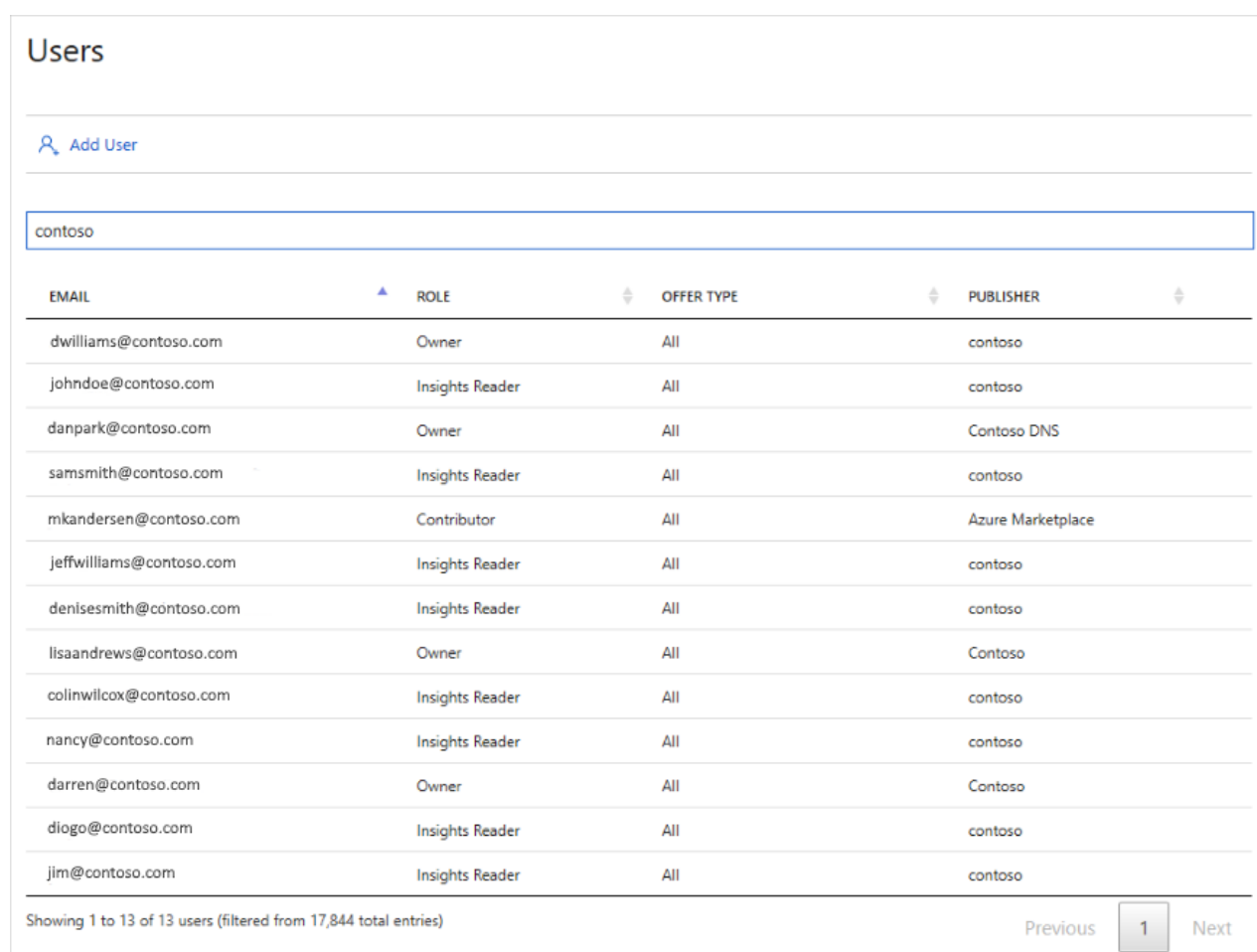
Users page

The **Users** page displays a list of all registered users of the Cloud Partner Portal. The columns include each user's email address, portal role, offer type, and publishing organization. The results can be ordered by column or filtered on a specified string.

This page also displays an **Add User** button for adding users to your publishing organization. For more information, see Managing users on the Cloud Partner Portal.

Example page

The following image shows the **Users** page filtered on the string `contoso`.

EMAIL	ROLE	OFFER TYPE	PUBLISHER
dwilliams@contoso.com	Owner	All	contoso
johndoe@contoso.com	Insights Reader	All	contoso
danpark@contoso.com	Owner	All	Contoso DNS
samsmith@contoso.com	Insights Reader	All	contoso
mkandersen@contoso.com	Contributor	All	Azure Marketplace
jeffwilliams@contoso.com	Insights Reader	All	contoso
denisesmith@contoso.com	Insights Reader	All	contoso
lisaandrews@contoso.com	Owner	All	Contoso
colinwilcox@contoso.com	Insights Reader	All	contoso
nancy@contoso.com	Insights Reader	All	contoso
darren@contoso.com	Owner	All	Contoso
diogo@contoso.com	Insights Reader	All	contoso
jim@contoso.com	Insights Reader	All	contoso

Showing 1 to 13 of 13 users (filtered from 17,844 total entries)   Previous 1 Next

Next steps

The next navigation menubar item displays an audit history page, which lists the publishing events for all offers.
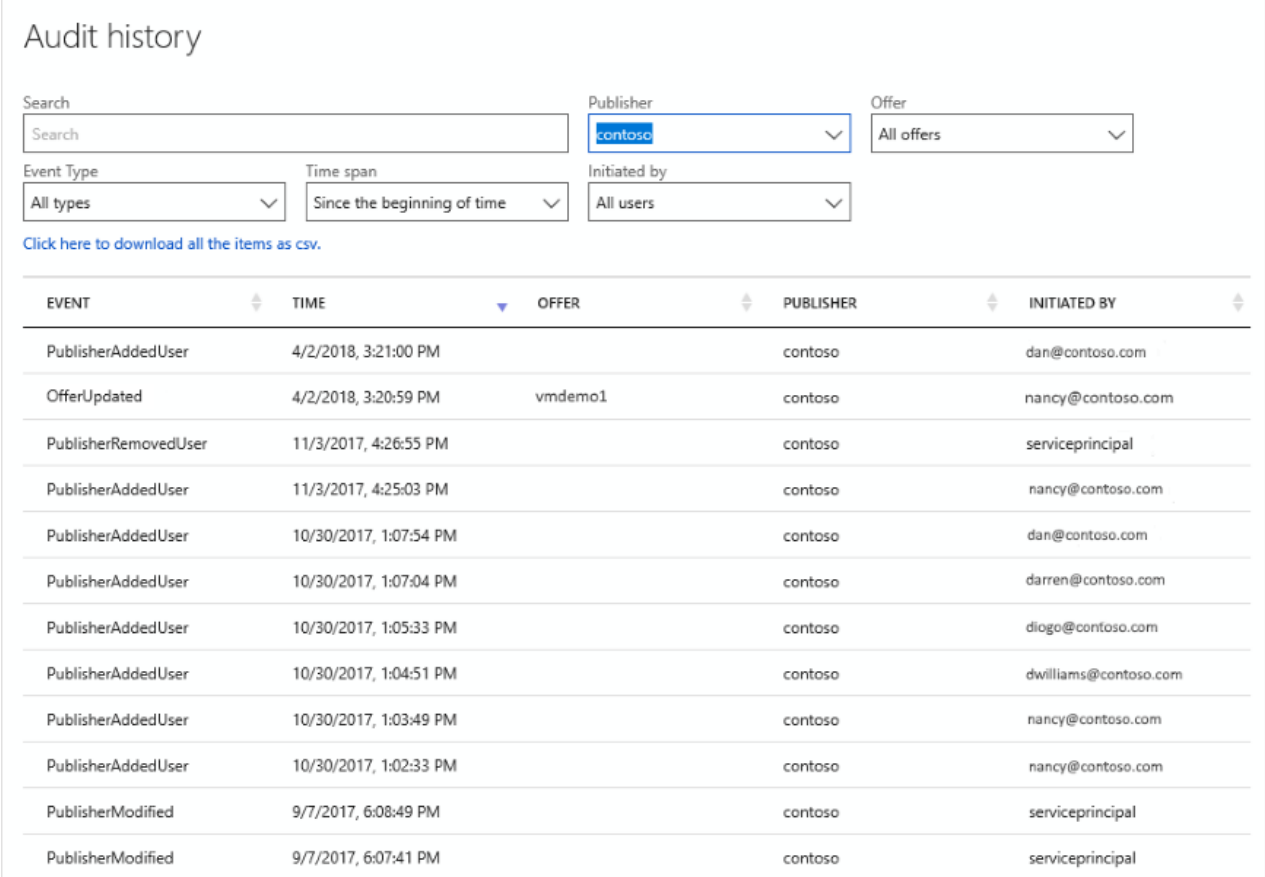
Audit history page

11/20/2018 • 2 minutes to read • Edit Online

The **Audit history** page displays a list of the publishing events for all marketplace offers. The columns include event type, occurrence datetime, offer name, publisher, and user who initiated the action. The results can be ordered by column or filtered on a specified string. This page also enables the user to download a comma-separated values (.csv) file of the current audit listing.

Example page

The following image shows the **Audit history** page filtered on the string `contoso`.

Next steps

The next navigation menubar item accesses the Seller Insights capability of the Cloud Partner Portal, which provides sets of customizable dashboards into your marketplace offers.

Insights page

The **Insights** page provides the following sets of dashboards to assist you in understanding and maximizing sales of your marketplace offers. Each dashboard is accessed through a tab of the same name along the top of the page.

DASHBOARD	DISPLAYED CONTENT
Summary	graphs, trends, and values of aggregate data that summarizes marketplace activity for the publisher's offers
Payout	payouts and related transactions in graphical and downloadable formats
Orders & usage	orders and usage information in graphical and downloadable formats
Customer	customer information, including their purchasing profile
Deployment	deployment success and failure information in both graphical and event-level formats
Downloads	list of download requests for the last 30 days
Analytics	summary of web analytics and analysis of campaign performance

Summary dashboard

The Summary dashboard is the first tab and is the default tab displayed when you navigate to the Insights page. This intentional design reflects that this dashboard gives publishers the broadest view of the sales activity of their offers. It provides graphical representations of the normalized usage trend; monthly usage; trending usage by geographical market, offer, and customer; and the payout trend. The output can be customized by specifying start and end dates for the analysis. The following image shows an example summary dashboard for Contoso for June through August of 2018.
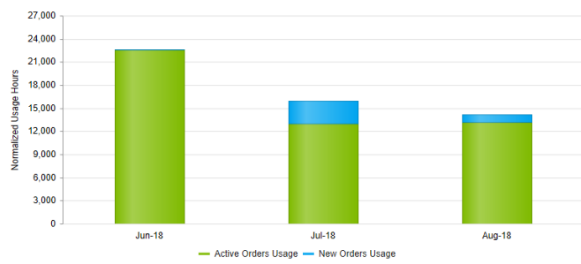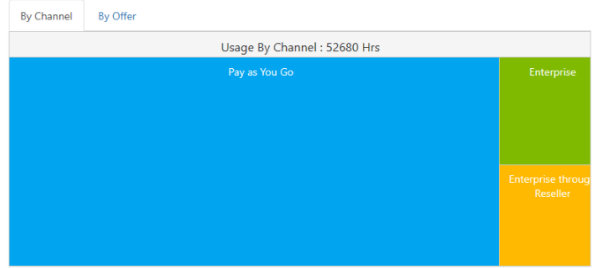
Next steps

For more information about using Seller Insights to optimize sales, see the section Getting Started with Seller Insights.

Create a Microsoft Developer account

1/28/2019 • 9 minutes to read • Edit Online

This article describes how to become an approved Microsoft Developer for Azure Marketplace publishing.

Create a Microsoft account

To start the publishing process, you'll need to complete the **Microsoft Developer Center** registration. You'll use the same registered account on the **Cloud Partner Portal** to start the publishing process.

General account guidelines

We recommend that you only have one Microsoft account for your Azure Marketplace offerings. This account shouldn't be specific to services or offers.

The address that forms the user name should be on your domain and controlled by your IT team. All the publishing related activities should be done through this account.

> **WARNING**
>
> Words like "Azure" and "Microsoft" aren't supported for Microsoft account registration. Avoid using these words to complete the account creation and registration process.

Company account guidelines

Follow these guidelines if more than one person will need to access the account by logging in with the Microsoft account that opened the account.

> **IMPORTANT**
>
> To allow multiple users to access your Dev Center account, we recommend using Azure Active Directory to assign roles to individual users. They can access the account by signing in with their individual Azure AD credentials. For more information, see Manage account users.

- Create your Microsoft account using an email address that belongs to your company's domain, but not to a single individual. For example, windowsapps@fabrikam.com.
- Limit access to this Microsoft account to the smallest possible number of developers.
- Set up a corporate email distribution list that includes everyone who needs to access the developer account, and add this email address to your security info. This allows all of the employees on the list to receive security codes when needed and to manage your Microsoft account's security info. If setting up a distribution list isn't feasible, the owner of the individual email account will need to be available to access and share the security code when prompted (such as when new security info is added to the account or when it must be accessed from a new device.)
- Add a company phone number that doesn't require an extension and is accessible to key team members.
- In general, have developers use trusted devices to log in to your company's developer account. All key team members should have access to these trusted devices. This will reduce the need for security codes to be sent when accessing the account.
- If you need to allow access to the account from a non-trusted PC, limit that access to a maximum of five developers. Ideally, these developers should access the account from machines that share the same geographical and network location.

- Frequently review your company's security info to make sure it's current.

> **IMPORTANT**
>
> Your developer account should be accessed primarily from trusted PCs. This is critical because there is a limit to the number of codes generated per account, per week. It also enables the most seamless sign-in experience.
>
> For more information, see additional developer account guidelines and security.

To create a Microsoft account

1. Open a new Chrome Incognito or Internet Explorer InPrivate browsing session to ensure that you're not signed in to an existing account.

2. Register the email (using the previous guidelines) as a Microsoft account by using this link. Complete the following sign up instructions:

   - When registering your account as a Microsoft account, you need to provide a valid phone number for the system to send you an account verification code as a text message or an automated call.
   - When registering your account as a Microsoft account, you need to provide a valid email id for receiving an automated email for account verification.
   - Verify the email address sent to the DL.

   You're now ready to use the new Microsoft account in the Microsoft Developer Center.

Register your account in Microsoft Developer Center

The Microsoft Developer Center is used to register the company information once. The registrant must be a valid representative of the company, and must provide their personal information as a way to validate their identity. The person registering must use a Microsoft account that is shared for the company, **and the same account must be used in the Cloud Partner Portal.** You should check to make sure your company does not already have a Microsoft Developer Center account before you attempt to create one. During the process, we will collect company address information, bank account information, and tax information. These are typically obtainable from finance or business contacts.

> **IMPORTANT**
>
> You must complete the following Developer profile components in order to progress through the various phases of offer creation and deployment.

DEVELOPER PROFILE	TO START DRAFT	STAGING	PUBLISH FREE AND SOLUTION TEMPLATE	PUBLISH COMMERCIAL
Company registration	Must have	Must have	Must have	Must have
Tax profile ID	Optional	Optional	Optional	Must have
Bank account	Optional	Optional	Optional	Must have

> **NOTE**
>
> Bring Your Own License (BYOL) is only supported for virtual machines and is considered a free offering.

Register your company account

1. Open a new Internet Explorer InPrivate or Chrome Incognito browsing session to ensure that you're not

signed in to a personal account.

2. Go to the Windows Dev Center to register yourself as a seller. Please read the following important note before you proceed.

IMPORTANT

Ensure that the email id or distribution list (a distribution list is recommended to remove dependency from individuals) which you will be using for registering in the Dev Center is at first registered as a Microsoft account. If not, then please register using this link. Also, any email id under the Microsoft company domain cannot be used for Dev Center registration.`

3. Run the "Help us protect your account" wizard, to verify your identity using a phone number or email address.

4. In Registration-Account Info, select your **Account country/region** from the dropdown list and then select **Next**.

5. Select **Company** as your "Account Type" and then select **Next**.

6. Enter the **Publisher display name**. This is typically the name of your company.

7. Enter the **Contact info** for the account verification.

8. Enter the contact information for the **Company Approver**. The Company approver is the person who can verify that you are authorized to create an account in the Dev Center on behalf of your organization. After you provide this information, select **Next** to move to the **Payment section**.

9. Enter payment information for your account. If you have a promo code that covers the cost of registration, you can enter that here. Otherwise, provide your credit card info (or PayPal in supported markets). Select **Next** to move on to the final **Review**.

Registration - Payment

Please enter your payment information. You won't be charged until after you complete your registration on the next page. This is a one-time registration fee and no renewal is required.

Promo code

XXXXX-XXXXX-XXXXX-XXXXX-XXXXX

If you have a promo code from MSDN, DreamSpark, or another program, enter it here to cover the cost of registration.

Fees

Registration price	99.00 USD
Estimated tax	0.00 USD
Estimated total	99.00 USD

Billing

Choose a payment method
- Credit/Debit card
- PayPal

Add payment information

Card type
VISA · MASTERCARD · AMERICAN EXPRESS · DISCOVER

Card number
- Enter without dashes or spaces -

Name on card

Expiration date
MM ▾ YYYY ▾

CVV
What's this?

Billing address

Address line 1
sample

Address line 2
- Optional -

City
BELLEVUE

State
WA ▾

ZIP code
98007

Country/region
United States

Phone number
999   9999999

When you add a credit card as a payment method, Microsoft authorizes the card by making a small, temporary charge to your account. You won't pay anything until you buy something from the Store.
Your credit card company might charge an International Transaction Fee (ITF) or a currency conversion charge when you buy something from the Store.

Next   Cancel

Microsoft is committed to helping protect your privacy. For more info, see our privacy and cookies.

10. Review your account information and confirm that everything is correct. Read and accept the terms and conditions of the Microsoft Azure Marketplace Publisher Agreement. Check the box to indicate you have read and accepted these terms.

11. Select **Finish** to confirm your registration. A confirmation message is sent to your email address.

12. If you're planning to only publish free offers, select Go to the Cloud Partner Portal and skip to "Register your account in the cloud partner portal" in this article.

Commercial offers

If you're planning to publish commercial offers, such as a Virtual Machine offer using an hourly billing model, you have to provide tax and banking information. To this, sign into your Developer Center account and select **Update your account information**. Follow the instructions in the next section, "Add banking and tax information".

> **IMPORTANT**
>
> You won't be able to push a commercial offer to production without providing bank account and tax information.

If you prefer to update your bank and tax information later, then you can skip to "Register your account in the cloud partner portal" in this article.

Add banking and tax information

To publish commercial offers for purchase, you need to add payout and tax information and submit it for validation in the Developer Center.

To provide bank information

1. Sign in to the Microsoft Developer Center with your Microsoft account.
2. Select **Payout account** in the left menu, under **Choose payment method**, select **Bank account** or **PayPal**.

3. Enter the payment information, and then select **Save**.

4. Select **Next**.

To provide tax information

1. Sign in to the Microsoft Developer Center with your Microsoft account (if needed).
2. On the left menu, select **Tax profile**.
3. On the **Set up your tax form** page:
   - Select the country or region where you have permanent residency.
   - Select the country or region where you hold primary citizenship.
   - Select **Next**.
4. Enter your tax details, and then select **Next**.

Developer Center registration issues

If you have issues with Developer Center registration, use the following steps to open a support ticket.

1. Go to the support link.

2. Under **Contact Us**, select **Submit an incident**.
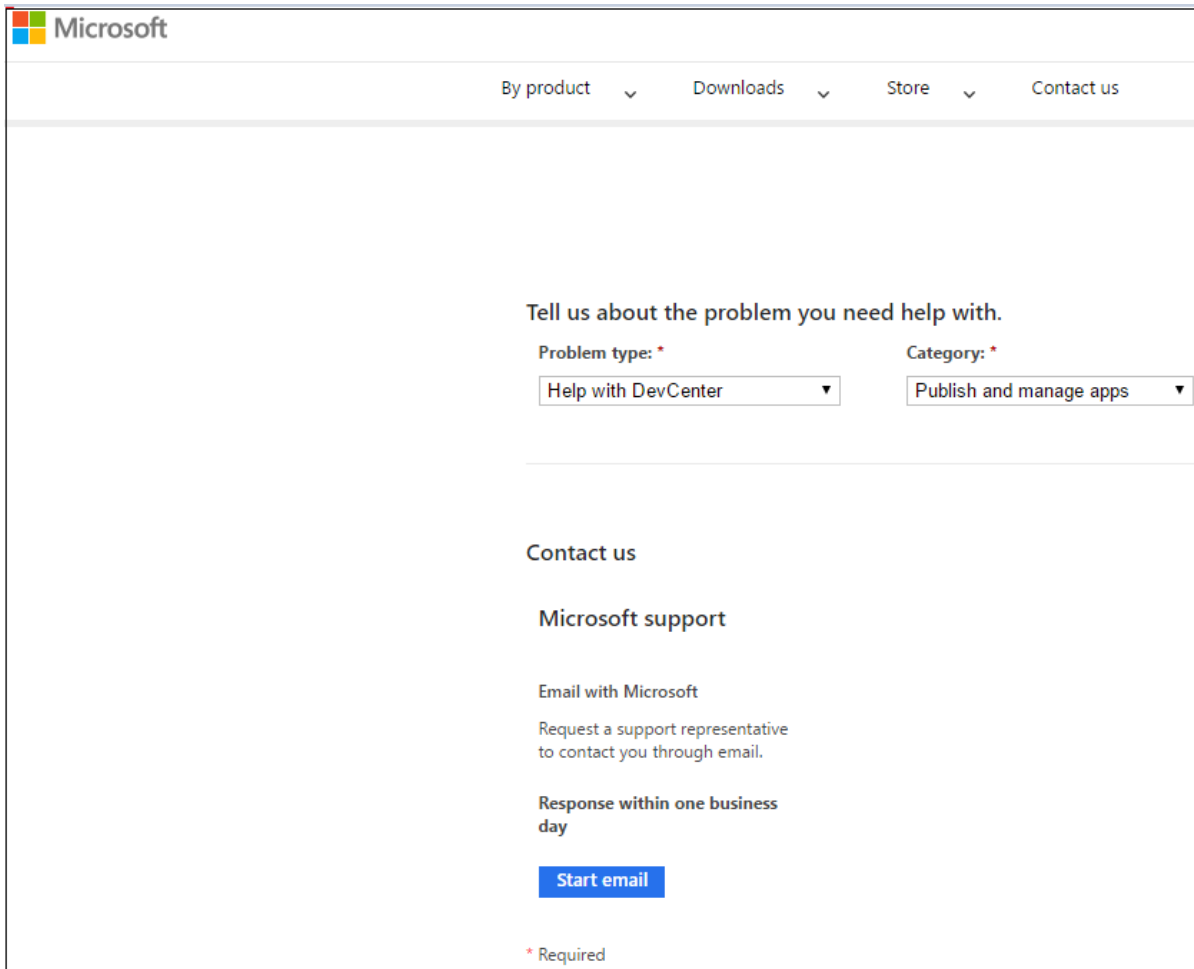
3. For **Problem type**, select "Help with Dev Center"and for **Category**, select "Publish and manage apps".
    Select **Start email**.

4. You'll be given a sign in page. Use any Microsoft account to sign in. If you don't have a Microsoft account then create one.\

5. Provide detailed information about the issue and select **Submit** to send the ticket.

Register your account in the cloud partner portal

You use the Cloud Partner Portal to publish and manage your offer(s).

1. Open a new Chrome Incognito or Internet Explorer InPrivate browsing session to ensure that you're not signed in to a personal account.
2. Go to Cloud Partner Portal.
3. If you're a new user and signing in to the Cloud Partner Portal for the first time, then you must sign in using the same email id that's registered with your Dev Center account. This ensures that your Dev Center account and the cloud partner portal account are linked to each other.

Later you can add the other members of the company who are working on the application. You can them as contributors or owners in the cloud partner portal by following the steps in the next section.

If you are added as a contributor/owner in the cloud partner portal portal, then you can sign in with your own account.

> **TIP**
> The participation policies are described on the Azure website.

Manage users as owners or contributors in the cloud partner portal

Steps to manage users on cloud partner portal

Next steps

Now that your account is created and registered, you can start the Azure marketplace publishing process.

Private SKUs and Plans

12/3/2018 • 3 minutes to read • Edit Online

Private SKUs enable you to restrict the availability of SKUs to specific customers. When a SKU is marked private, it's not available in any public catalog including on Azure Marketplace and the Azure portal. On the Azure portal, only customers with access to the SKU can see it. Additionally, they would also be prompted that they have access to private offers.

> **NOTE**
>
> Private SKUs must have new unique SKU/Plan Ids to avoid any conflict with your public SKUs.

You can use private SKUs to handle the following scenarios:

1. Publish software that you want only available publicly to specific customers and not publicly available.
2. Publish variations of public software at a customized price for specific customers.
3. Publish variations of public software with a customized description and terms (via new offer).

If you only want to change the price, you can reuse the disks from another SKU in the same offer. With private SKUs, you don't have to resubmit disks across SKUs.

Mark a SKU private

To mark a SKU as private, toggle the option asking if the SKU is private:

Is this a private SKU? *   [Yes | **No**]   ⓘ

You can reuse the disks in another SKU and modify the pricing or the description. To reuse the disks, select **Yes** as a response to the "Does this SKU re-use images from a public SKU" prompt.

If the SKU is marked as private and the offer has other SKUs with reuseable disks, you are required to indicate that the SKU reuses disks from another SKU. You are also required to specify the target audience for the private SKU.

> **NOTE**
>
> After it's published, a public SKU can't be made private.

Select an image

You can provide new disks for the private SKU or reuse the same disks already provided in another SKU, only modifying the pricing or description. To reuse the disks, select **Yes** as a response to the "Does this SKU re-use image from a public SKU" prompt.

Does this SKU re-use images from a public SKU?   [Yes | **No**]   ⓘ

After you confirm that the SKU reuses images from another SKU, you identify the SKU that's the source of the images.

The prompts in the next screen capture show how to identify the private SKU would reuse the images from the selected SKU:

Does this SKU re-use images from a public SKU?	Yes	No	ⓘ
Base SKU *	Select an option ⌄		ⓘ Select the Base SKU for images.
	Select an option		
Restricted Audience	publicsku		

When you publish the offer, the images from the selected SKU would be made available under the private SKU ID with the custom rates/terms. The private SKU would only be visible to the targeted audience.

For image updates, you would only be required to update the underlying SKU's image. Behind the scenes, the image for the private SKU will also be updated automatically. Similarly, if you delete the image from the underlying SKU, the image would also be removed from the private SKU.

Restricting the audience

Private offers can be found and deployed only by targeted users. Currently we support targeting users using subscription Ids.

These subscriptions can be entered via a manual entry form **for up to 10 subscriptions**, or by uploading a CSV file, which allows **for up to 20,000 subscriptions**.

Manual Entry for restricted audience:

Restricted Audience	Manual Entry	Upload CSV

#	SUBSCRIPTION ID	DESCRIPTION	
1.			🗑

⊕ Add

CSV Upload for restricted audience:

Restricted Audience	Manual Entry	Upload CSV

↓ Export customers | ↑ Import customers

0/20000 whitelisted customers

Sample CSV file content:

```
Type,Id,Description
SubscriptionId,7738d703-3135-4e8d-8b81-1e70379abd9d,Private Customer
```

When you switch from manual entry to CSV upload view or from CSV to manual entry, the old list of subscription Ids with access to the SKU is not retained. A warning is displayed and the list is only overwritten upon saving the offer.

Sync Private subscriptions

When adding subscriptions to a published offer with a Private SKU or Plan, you do not need to re-publish the offer to add audience information. Simply use an Azure subscription ID (Plans and SKUs) or Tenant ID (Plans only) to add audience.

Previewing Private offers

During the preview/staging step, only the offer level preview subscriptions will be able to access the SKU. This is the testing stage at which time you can validate what the offer would look like to your targeted customers, and is standard for all types of publishing.

Offer Level Preview Subscriptions to access staged offers:

Preview Subscription Ids *

| Enter Azure Subscription Id here | ✕ ⓘ |

| Enter Azure Subscription Id here | ✕ |

⊕ Add subscription

After the offer is live, only the restricted audience subscriptions (entered via manual entry or CSV) will be able to view and deploy the private SKU. We recommend that you **always include your own subscriptions in the restricted audience** for the private SKU for validation purposes.

> **NOTE**
>
> For debugging purposes, Microsoft support and engineering teams will also have access to these private offers.

Azure Marketplace SEO Publisher Guide

10/4/2018 • 2 minutes to read • Edit Online

General explanation of algorithm

The marketplace utilizes Azure Search for powering the site's search capabilities. The algorithm is based on term frequency–inverse document frequency (TF-IDF). The standard Lucene Analyzer is used.

In general, all text fields, categories, and industries and included into the weightage of the relevance. Specialized terms that are used infrequently by apps but frequently in your app will generate a higher match score with search. So including terms like "VM" would offer little benefit whereas "Azure search" would be much more specialized. Below are the most relevant fields to consider.

FIELD	IMPORTANCE	GUIDANCE
Offer Name	High	Exact or close to a complete match with search query will yield high ranking.
Publisher Name	High	Exact or close to a complete match with search query will yield high ranking.
Short Description	Medium	Given naming of apps and publisher names will almost guarantee a high ranking, it may not be the most relevant. In this case,a short description is critical. Keep the text concise and to the point. Keywords and expected search terms should be included for best result. For example "This is the best Retail POS built fully on top of Dynamics 365" is less effective than "Retail POS (point of sale) for Dynamics 365".
Long Description	Low	Description offers a way to go into more depth. The most effective descriptions are of reasonable length and keywords are used. A to-the-point descriptions using keywords will benefit more than long, lengthy text. Make sure key terms, such as "IoT", are present in description.
Product Categories	Medium	Product categories are determined by a combination of publisher choices and Microsoft. Select these categories appropriately so that users can easily find the apps in the correct category.

Other Tips

- Search suggests gets heavy user activity. It prioritizes matches against app name/publisher. Short description becomes the key field for when the search term is not an exact match with publisher/app name.
- Documents for download are not included in search weightage.

- Your apps actual acquisition and usage will impact search ranking as well. For example, two equivalent apps where one has vastly more users will get a higher ranking.

Manage 'Azure Marketplace' and 'AppSource' publisher profile

1/7/2019 • 2 minutes to read • Edit Online

This document is a walk-through on viewing and managing users to your registered publisher profile.

By this time, you've completed the steps to become an Azure Marketplace and AppSource publisher. The publisher profile is registered on the **Cloud Partner Portal** following approval of your partner request. Your publisher profile will apply to all the offers and SKUs published from the account used during partner registration.

If you haven't registered your company as a cloud partner, see Get started with the cloud partner portal .

Publisher Profile: Your publisher profile distinguishes your company on the Azure Marketplace and AppSource. It consists of your publisher ID, display name, and owner email(s). A well-managed profile will increase your visibility and help marketplace users easily identify and select an appropriate offer.

> **NOTE**
>
> Your publisher ID and registered owner email isn't editable once you publish your first offer. However you can view your profile and edit the publisher display name from the Cloud Partner Portal.

> **NOTE**
>
> Add users (contributors and owners) to your publishing profile from the Users section on the left navigation pane from the Users Section of the cloud partner portal`

To view and manage your publisher profile, from the top-right menu bar, click the **Publisher profile tab**.

John Doe

contoso@contoso.com

👤 Publisher profile

📄 Publisher agreement

⏻ Sign out

Microsoft | Cloud Partner Portal

Profile

💾 Save   ⊗ Discard

Overview

Publisher ID *

Display name *

Owner email(s)

Dev Center account details ⓘ

You do not have a dev center account linked to your profile.
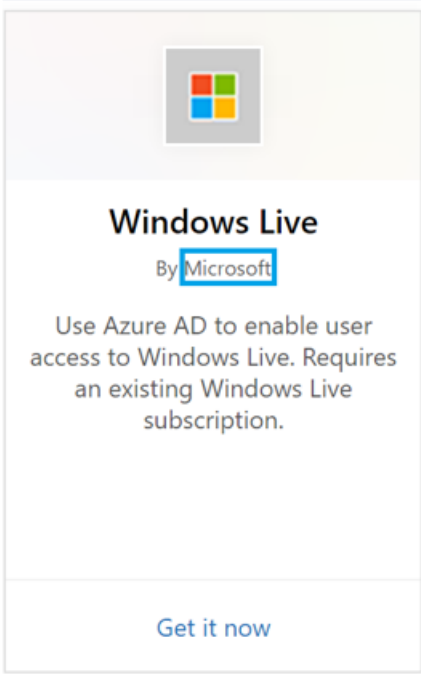
Link Dev Center Account

Link your Dev Center Account: You can also link your existing Dev Center account with your publisher profile on the Cloud Partner Portal. First sign in to the portal with the same email address used to register your Dev Center account. Then your publisher profile page displays your Dev Center account status, Dev Center account owner email, and Dev Center account name.

If you don't have a Developer Center Account, you can create an account. Then add the registered email address as an owner on the Cloud Partner Portal for your offer. An owner can only add the registered email address to your publishing profile from the **User** section. Then, sign in to the portal using the same email address, and link your Dev Center account.

	Description	Constraints
Publisher ID	- A Publisher ID uniquely identifies your company and your offer in the Microsoft Azure Marketplace and Appsource. - Publisher ID will be visible in the URL of the listing on the below portals and during programmatic deployments. - https://azuremarketplace.microsoft.com/ - https://appsource.microsoft.com/ - https://portal.azure.com.	**Non-editable post publishing your first offer.**
Display Name	Display name is your Company Name that will be included with offers you publish. This will appear in the product tile. Display Name should be in line with the company name to avoid any confusion for the customers who might be searching for your marketplace offer with the company name. **Windows Live** By Microsoft Use Azure AD to enable user access to Windows Live. Requires an existing Windows Live subscription. Get it now	**Editable**
Owner Email(s)	You can add 1 or more email addresses for the people working on the offer as owners. Each owner will be able to make changes and publish new offers for the publisher account. You can add users to your publishing profile from the 'Users' from cloud partner portal.	**Non-editable post publishing your first offer.**

Managing users on cloud partner portal

1/22/2019 • 2 minutes to read • Edit Online

The Cloud Partner Portal allows you to add users with role-based access to virtual machine offers. It helps to manage access and permissions while multiple people are working on offers.

To **add users and assign roles** for offer publishing, follow the steps below:

Step 1. To add users and assign roles, click the Users tab on the left side navigation pane.
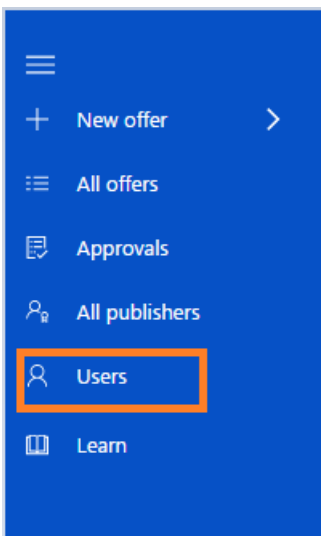
Step 2. Click Add User.
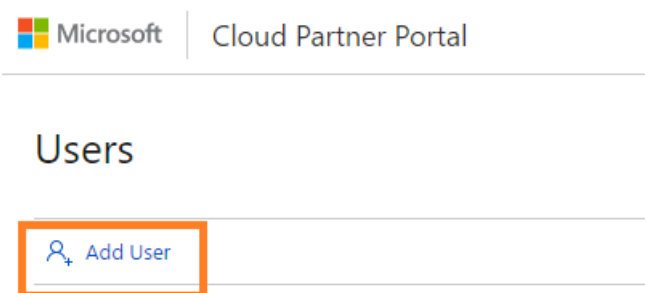
Step 3. Type email address and select a role assignment.

You can add the new user as an 'owner' or 'contributor'.

Email: Add the email addresses of teammates who will be working on publishing the offer. Microsoft accounts (Outlook, Hotmail, and Live) and Org IDs are supported.

o Add a 'team/group email alias/security group' in case the individual working on the offer leaves the organization.

o Ensure that email IDs provided on the Cloud Partner Portal are monitored for any communication from Microsoft.

Role: Refer to the table below to identify the appropriate user role type.
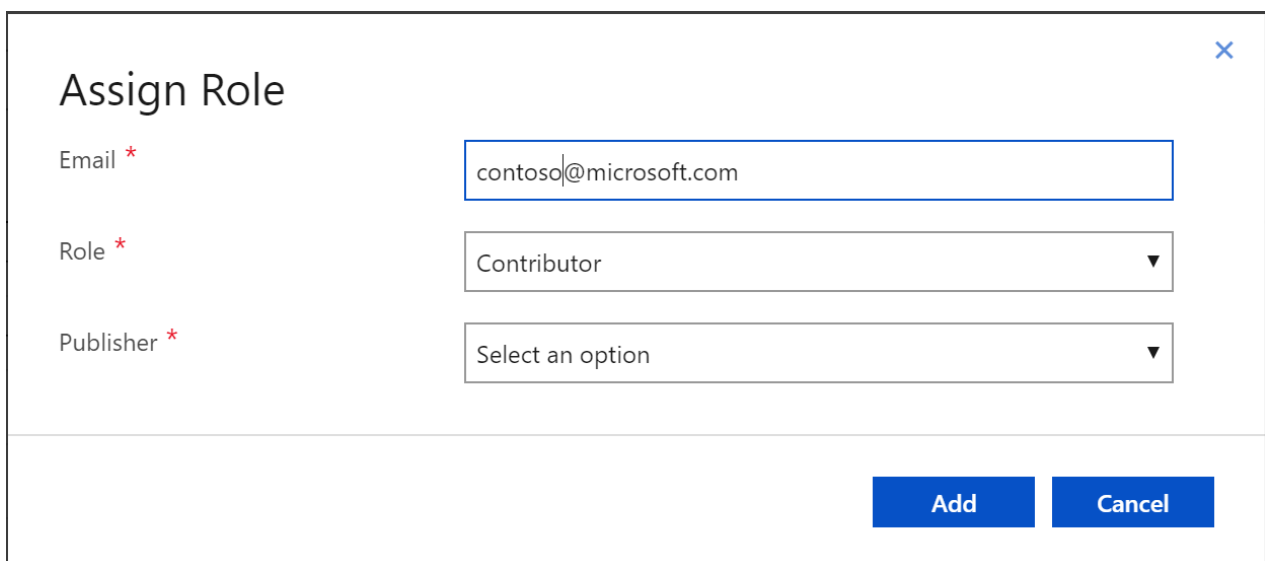
Role Types	Access Level
Owner	• Read/**Update** Publisher profile. • **Manage Users for the publisher profile** • **Accept Publisher Agreement and Publish.** • Create/Read/Update and Delete Offers/SKU's • Publish Offers/SKU's • Read **(all)** reports specific to the publisher.
Contributor	• Read Publisher profile. • Add Contributors as users. • Create/Read/Update and Delete Offers/SKU's • Publish Offers/SKU's • Read **(some)** reports specific to the publisher.

Currently, only owners can access the Azure Payouts and Azure Customer tabs in Insights.

Step 4. Select the Publisher Name you want to add to the new user then click Add to complete user addition.

NOTE

The 'publisher names' for which your email is added as an owner or contributor will show up in the drop-down list of Publisher for selection.`

If you need to remove a user that has been added, all you need to do is search for their email on the Users tab, and then press the delete button on the right-hand side.

Cloud Partner Portal GDPR compliance

11/7/2018 • 2 minutes to read • Edit Online

General Data Protection Regulation (GDPR)is a European Union (EU) data protection and privacy law. The GDPR imposes rules on companies, government agencies, non-profits, and other organizations that offer goods and services to people in the EU, or that collect and analyze data tied to EU residents.

Cloud Partner Portal provides detailed information regarding its processing of customer data and the security measures used to protect that data. This information is accessible via its in-product experiences.

Discover

Cloud Partner Portal gives access to all your data in the Users tab. You can identify your personal data there. To learn how to add/remove users, see our documentation.

Manage

You can manage your personal data by pressing delete on your User account in the Users tab. We have roles of an **owner** and a **contributor** that can be assigned to each specific user, and both can be assigned/copied/updated/deleted.

Consent

For managing consent in Cloud Partner Portal, you are always initially shown a publisher agreement contract, to which you need to agree to in order to be a publisher with Microsoft. If you do not consent to the publisher agreement contract, then we restrict the publisher to not be able to sell with Microsoft.

Related links

- How and where Microsoft sends customers' data, including geo locations
- Sub-contractors who have access to customers' data
- Details on Azure security measures administered by Microsoft
- Details regarding Microsoft's privacy reviews process, conducted for all products, including all Azure services
- What data Microsoft collects and processes from customer systems and end users

Azure and AppSource Marketplace Offers

2/1/2019 • 2 minutes to read • Edit Online

This first part of this section introduces the general operations used to create and manage offers for the Azure and AppSource Marketplaces. This part provides the background you need to understand to manage specific offer types, as well as technical information that is common to all offer types. The majority of this section contains detailed instructions on how to create and manage specific offer types.

The following video introduces the various capabilities and different offers types available in Azure Marketplace or AppSource. It also covers important technical and business aspects of publishing an application or service in these marketplaces.

Building Apps and Services for Azure Marketplace and AppSource - Build 2018

For more information about these marketplaces, see Azure Marketplace and AppSource publishing guide.

Azure Marketplace and AppSource offer types

The following table lists the current offer types supported by the Cloud Partner Portal. For each offer type, it lists the marketplace(s) where the offer can be listed, as well as a general description of the offer solution technology.

OFFER TYPE	MARKETPLACE	DESCRIPTION
Azure application	Azure	Solution is composed of one or more virtual machines (VMs), optional custom Azure code, deployed through an Azure Resource Manger template. Deployment can be either by the customer through a solution template or managed by the publisher. This type is used to provide more flexibility than provided virtual machine offer type.
Consulting service	both	Microsoft-qualified consultants can list their domain-specific services on either Azure Marketplace or AppSource. Their expertise assists customers assessing their problems and creating and deploying the right solutions to meet their business objectives.
Container	Azure	Solution is a Docker container image provisioned as either a Kubernetes-based service or Azure Container instances.
Dynamics 365 Business Central	AppSource	A package that extends this enterprise resource planning (ERP) and business management system.

OFFER TYPE	MARKETPLACE	DESCRIPTION
Dynamics 365 for Customer Engagement	AppSource	A package that extends this customer resource management (CRM) system, through its sales, service, project service, and field service modules.
Dynamics 365 for Finance and Operations	AppSource	A package that extends this enterprise resource planning (ERP) service that supports advanced finance, operations, manufacturing, and supply chain management.
IoT Edge module	Azure	A Docker-compatible container that runs on an IoT Edge device. It contains of Small computational modules that use a combination of custom code, other Azure services, and 3rd-party services.
Power BI App	AppSource	A package that uses dataflows to connect reports and dashboards to data in common data storage.
SaaS app	Azure	Solution is a software-as-a-service subscription, managed by the publisher, which users log on through a customized interface that leverages Azure Active Directory.
Virtual machine	Azure	Solution is contained within a single virtual machine deployed to the customer's subscription.

For more information, see Publishing guide by offer type.

Next steps

You will learn about the general operations you can perform on marketplace offers and their common technical attributes and assets in the topic Manage offers.

Manage Azure and AppSource Marketplace offers

1/16/2019 • 2 minutes to read • Edit Online

This section introduces the general operations used to manage offers for the Azure and AppSource Marketplaces. For example, it explains how to use the Cloud Partner Portal to create and publish a marketplace offer. This section also explains technical issues that are common to most of the offer types, such as text-based and image assets.

Standard offer operations

The Cloud Partner Portal enables a publisher to perform the following basic operations on an offer.

OPERATION	DESCRIPTION
Create offer	Creates a pending offer entry in onboarding repository, but does not automatically publish it to a Microsoft marketplace
View offer status	Provides the publishing status of an offer. There are multiple places in the portal where status information is displayed.
Publish offer	Validates, then posts a completed offer entry to the appropriate Microsoft marketplace. The offer is then said to be *live*.
Update offer	Allows modification of certain characteristics of an existing offer. Applies to both pending and published offers.
Delete offer	Deletes an existing pending or live offer.

Next steps

If you are unfamiliar with capabilities and user interface the Cloud Partner Portal, see the section Cloud Partner Portal Tour. Afterwards learn more about creating an offer.

Create Azure Marketplace and AppSource offers

1/16/2019 • 2 minutes to read • Edit Online

One essential purpose of the Cloud Partner Portal is to enable publishers to create (and then publish) offers to the Microsoft Azure and AppSource Marketplaces. This operation always begins with selecting the desired offer type from the New offer menu. In response, the appropriate **New Offer** page is displayed for that offer type. For example, the following image shows the default **New Offer** page for an Azure application type.

There are two tab selections available in the horizontal menubar displayed towards the top of this page:

- **Editor** tab - Enables the entry of information and uploading of assets for the new offer instance. This tab is displayed by default.
- **Status** tab - Provides the publishing status, and lists any validation and review issues.

When you create an offer, you use the **Editor** tab to enter information about that offer.

Editing operations

The horizontal toolbar, located above the data input area, displays the following buttons:

BUTTON	PURPOSE
Save	Saves any recent data entry changes. You must manually save changes before you navigate away from the page or your changes are lost.
Discard	Discards recent data entry changes (since the last save)
Compare	Compares the state of the current offer with the published offer. Only enabled after an offer has been successfully published.

BUTTON	PURPOSE
Publish	Begins the publishing process for this offer
Delete	Deletes this offer after it is created but before it has been published.

Editing tabs

When creating an offer, you supply the required and optional data in each tab located in the left-hand vertical column of the **New Offer** page. Standard user interface controls--such as text boxes, drop-down menus, and check boxes--are displayed for data collection. Although the specific collection of editing tabs depends upon the offer type, the following table lists some of the common tabs.

TAB NAME	PURPOSE
Offer Settings	Collects offer and publisher identity information.
SKUs	Defines the technical and business characteristics for each stock-keeping unit (SKU) version of your offer
Test Drive	For those types that support this optional feature, defines a demonstration for your offer. For more information, see What is Test Drive?
Marketplace or **Storefront**	Collects text strings, documents, and images used to list the offer in the marketplace
Support	Collects contact information for customer, engineering, and online support

The content of the similarly named tabs may differ among different offer types. Offer-specific details of these tabs are provided within the "Create offer" section for each offer type.

Next steps

After you create and save an offer, and before or after you publish it, you can view its status.

Publish Azure Marketplace and AppSource offers

1/16/2019 • 2 minutes to read • Edit Online

Once you've populated all the offer details, it's time to publish your offer and take it "live" on Azure Marketplace. There are a few stages the offer goes through. Make sure both your marketing content and your technical assets meet the quality requirements, to be Azure Certified and go live on the website. The following diagram illustrates the general offer publishing process. This process differs somewhat among the various offer types.

Publishing Process

Use the following steps to publish your offer.

1. Click **Publish** under the **Editor** tab to start the publishing process.
2. Under the **Status** tab, you see the **Publishing Steps** in flowchart form. This form also specifies the current status of your offer, and reported issues.
3. Once you verify everything looks correct and works properly in preview, you are ready to go live. Click **Go Live** under the **Status** tab and Microsoft will take your offer into production and on the appropriate marketplace. Typically, go live takes several hours.

At any point in the publishing process, you can also sign in and click the **All Offers** tab to view the latest status for any of your offers. You can click directly on the status for your offer and see the details on where your offer is in the publishing process.

Canceling the publishing request

You might start the process of publishing and have a need to cancel your request. You can only cancel a publishing request once the publish request reaches the *Publisher sign out* step. To cancel, click **Cancel Publish**. The publishing status resets to Step 1, and to republish, you must click **Publish** and follow the steps in the **Status** tab.

Next steps

During the publishing process, it is useful to monitor the offer status until the offer goes live.

View the publishing status of Azure Marketplace and AppSource offers

1/21/2019 • 2 minutes to read • Edit Online

After you create an offer, and especially during the publishing process, you can view the status of your offer in the Cloud Partner Portal. Overall publishing status is available in the **All Offers** and **Approvals** pages of the portal. One of the following status indicators should be displayed for each offer.

STATUS	DESCRIPTION
-	Offer has been created but publishing process has not begun.
Publish in progress	Offer is working its way through the steps of the publishing process.
Publish failed	A critical issue was discovered during validation or review by Microsoft.
Publish canceled	The publisher has canceled the offer publishing process. This state does not delist an existing offer in the marketplace.
Awaiting publisher sign out	Offer was reviewed by Microsoft, and now awaits a final verification by the publisher.
Delisted	A previously published offer in the marketplace has been removed.

Publishing status details

More detail about the status on an offer as it goes through the publishing process is found in the **Status** tab of the **New Offer** page. This page lists all the publishing steps for that offer type. *Note that the number and specific steps often differ among offer types.* This page also indicates any outstanding issues raised by the Microsoft validation and review steps, which often require action by the publisher before the publishing process can proceed. For example, the following image shows the **Status** tab for a new virtual machine offer.

New Offer

VIRTUAL MACHINES

Editor   Status

⊗ Cancel Publish

Publishing status: This offer has never been published.

Publishing Steps

Status Last Refreshed:
1/14/2019, 2:39:23 AM

○ **Validate Pre-Requisites** (< 15 min)
Offer settings provided are validated.

○ **Certification** (~2-3 days)
Your offer is analyzed by our certification systems for issues.

○ **Test Drive validation** (< 2 hours)
Microsoft validates the Test Drive can deploy and be replicated.

○ **Provisioning** (< 4 days)
Your virtual machine is being replicated in our production systems.

○ **Packaging and Lead Generation Registration** (< 1 hour)
Your virtual machine is being packaged for customers. Additionally, lead systems are being configured and set up.

○ **Publisher signoff**
Offer is available to preview. Ensure that everything looks good before making your offer live.

Go Live

○ **Provisioning** (< 4 days)
Your virtual machine is being replicated in our production systems.

○ **Live** (< 1 hour)
Offer is publicly visible and is available for purchase.

The next example **Status** tab for a consulting service, showing a reported error in the lead management settings. Because lead management is required for consulting services, this error must be corrected before publishing can continue.

Contoso Business Mapping and Integration

CONSULTING SERVICE

Editor   **Status** ❗

ⓧ Cancel Publish

Publishing status: Publishing failed.

Publishing Steps

Status Last Refreshed:
1/14/2019, 3:17:10 AM

✔ **Validate Prerequisites** (< 15 min)
Offer settings provided are validated.

❗ **Lead management validation and registration** (< 15 min)
Microsoft validates and registers lead mananagement details.

Failed to validate lead management settings.

Could not save the lead to Dynamics CRM. LastCRMError: Principal user (Id= 00000000-0000-0000-0000-0000000000, type=8) is missing prvReadWorkflow privilege
(Id= 00000000-0000-0000-0000-0000000000) => Principal user (Id=00000000-0000-0000-0000-0000000000, type=8) is missing prvReadWorkflow privilege (Id= 000000
0-0000-0000-0000-000000000), LastCRMException: System.ServiceModel.FaultException`1[Microsoft.Xrm.Sdk.OrganizationServiceFault]: Principal user (Id=0000000-0000-
0000-0000-0000000, type=8) is missing prvReadWorkflow privilege (Id= 00000000-0000-0000-0000-0000000000) (Fault Detail is equal to
Microsoft.Xrm.Sdk.OrganizationServiceFault).

○ **Offer Approval** (1 - 2 days)
Microsoft validates the offer and approves.

○ **AppSource Packaging** (< 1 hour)
Offer is packaged to show up on AppSource.

○ **Publisher signoff**
Offer is available to preview. Ensure that everything looks good before making your offer live.

Go Live

○ **Live** (< 4 days)
Offer is visible to customers and is available for purchase.

The final example status of an Azure application shows a critical Microsoft review issue. It contains a hot link to the VSTS item that contains detailed information about this review issue. For more information, see Publish Azure application offer.

Publishing Steps

✔ **Packaging and Lead Generation Registration** (< 1 hour)
Your Azure Application is packaged for customers. Additionally, lead systems are configured and set up.

✔ **Publisher signoff**
Offer is available to preview. Ensure that everything looks good before making your offer live.
Here are a few links to help you:

Azure Portal
Microsoft Azure - contoso-app1 (Preview)

Azure Marketplace
JFrog Artifactory Enterprise (Preview)

Request Review and Go Live

❗ **Microsoft Review** (7 - 14 days)
We will review your Azure Application and will email you if we find any issues. This step may take longer to complete than anticipated depending upon the nature of issues.

Validating content: Content validation completed.

Microsoft Review: See PR comments

Pull Request Links:
SKU: contoso-app1 - Pull Request Id: 0000

○ **Live** (< 1 day)
Your Azure Application is live and available to the public.

Next steps

To correct outstanding issues or update offer settings, you must update an offer.

Update Azure Marketplace and AppSource offers

1/16/2019 • 4 minutes to read • Edit Online

There are various kinds of updates you can apply to your offer after it's published. The Cloud Partner Portal assists you in properly modifying attributes of an offer, including:

- Adding new virtual machine (VM) image or package version to an existing SKU
- Change regions a SKU is available in
- Adding new SKUs
- Updating marketplace metadata for offers or SKUs
- Updating pricing on pay-as-you-go offers

The portal also has features, such as the ability to compare features and view a history of features for an offer, that assist you in managing changes. After you modify an offer or SKU, it must be republished before the changes go "live". This article walks you through the different aspects of updating your marketplace offer.

Unpermitted changes to an offer/SKU

There are some attributes of an offer or SKU that cannot be modified once it has been published in the marketplace. The corresponding fields are disabled in the **Editor** tab of the portal, for example:

- Offer ID and Publisher ID
- SKU ID
- Data disk count of existing SKUs
- Billing/license model changes of existing SKUs
- Version tags, for example: `1.0.1`

Common update operations

The following sections explain how to perform some of the most update operations. These operations are not available for all offer types. You must sign into the Cloud Partner Portal to start any of these operations.

Update offer contacts

Use the following steps to update the support contacts for your offer.

1. In the **All Offers** page, select the offer.
2. Select the **Contacts** tab. Update your contacts.
3. Select the **Save** button.
4. Select **Publish** to start the publishing process.

Change regions an offer or SKU is available in

Over time, you may want to make your offer/SKU available in more regions. Alternatively, you may want to stop supporting the offer/SKU in a given region. To implement these changes, follow the following steps.

1. In the **All offers** page, find the offer you would like to update.

For Azure Marketplace offers:

1. Select the **SKUs** tab. Select the SKU to modify.
2. Click the **Select Countries** button under the **Country/Region availability** field.
3. In the region availability dialog, add or remove the regions for this SKU.

For AppSource offers:

1. Select the **Storefront Details** tab.
2. Next to the **Supported countries/regions** label, click **Supported countries/regions**.
3. In the supported countries/regions dialog, add or remove the regions for this offer.

For either marketplace:

1. Click **Publish** to start the publishing process.

If a SKU is being made available in a new region, you have the ability to specify pricing for that particular region via the **Export Pricing Data** functionality. If you are adding a region back that was previously available, you cannot update its pricing because pricing changes are not permitted.

Add a new SKU

To make a new SKU available for an existing offer, use the following steps:

1. In the **All offers** page, find the offer.
2. Under the **SKUs** form, click **Add new SKU** and provide a **SKU ID** in the pop-up.
3. Follow the rest of the steps detailed in Publish a virtual machine offer.
4. Click **Publish** to start the publishing process.

Update offer marketplace assets

You may have scenarios where you need to update the marketplace text-based and image assets, such your company logos, offer description, etc. Use the following steps to update these assets.

1. In the **All offers** page, find your offer.
2. Select the **Marketplace** tab and follow the instructions in your offer's *Marketplace tab* topic.
3. Click **Publish** to start the publishing process.

Update pricing on published offers

Once your pay-as-you-go offer is published, you cannot increase the price of an existing SKU. Instead, create a SKU under the same offer, delete the old SKU, and then republish your offer. You can decrease the price on previously published offers. To decrease your offer price:

1. Select the SKU for which you want to decrease pricing.
2. You must set the lower price by the same mechanism you originally used: either directly in the portal UI or with the import/export spreadsheet.
3. Click **Save**.
4. Click **Publish** to start the publishing process.

The pricing is visible to new customers once it is live on the marketplace, and all new customers will then pay the new decreased price. For existing customers, the price decrease is reflected retroactively to the start of the billing cycle during which the price decrease became effective. If they have already been billed for the cycle during which a price decrease occurred, they will receive a refund during their next billing cycle to cover the decreased price.

Compare feature

When you make changes on a published offer, you can use the *Compare* feature to audit the changes. To utilize this feature:

1. At any point in the editing process, you can click the **Compare** button in the **Editor** tab for your offer.
2. A comparison window displays side-by-side versions of the saved changes to this offer as compared to the marketplace offer.
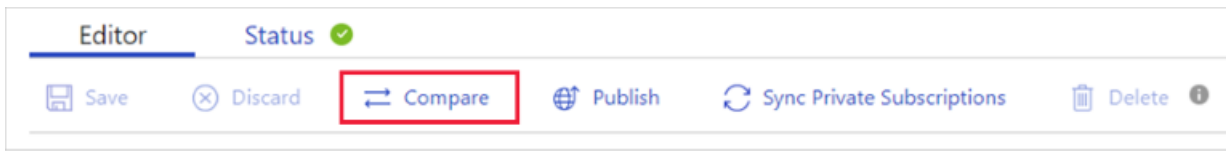
History of publishing actions

To view historical publishing activity, select the **History** tab in the left vertical menubar of the Cloud Partner Portal. The History page provides flexible filtering by several characteristics and supports column ordering. Each publishing event is timestamped. For more information, see Audit history page.

Next steps

You can also use the Cloud Partner Portal to delete a published SKU or offer.

Delete Azure Marketplace and AppSource offers or SKUs

1/16/2019 • 2 minutes to read • Edit Online

For various reasons, you may decide to withdraw your offer from its Microsoft marketplace, which can take two forms:

- *Offer removal* ensures that new customers may no longer purchase or deploy your offer, but has no impact on existing customers, whom you must support according to your license agreement and pertinent laws.
- *Offer termination* is the process of terminating the service and/or licensing agreement between you and your existing customers. Guidance and policies related to offer removal and termination are governed by Microsoft Marketplace Publisher Agreement (Section 7) and the Participation Policies (Section 6.2).

This article talks about the different supported deletion scenarios and the steps required to perform each.

> **NOTE**
>
> You can delete an offer that has not been published by simply selecting the **Delete** button in the toolbar of the **Editor** tab.

Delete a published SKU from the Azure Marketplace

You can delete a published SKU from Azure Marketplace using the following steps:

1. Sign in to the Cloud Partner Portal.
2. In the **All offers** page, select your offer. Your offer should be displayed in the **Editor** tab.
3. In the left toolbar, select the **SKUs** tab.
4. Select the SKU that you want to delete and click the **Delete** button.
5. Republish the offer to Azure Marketplace.

After the modified offer is published to the Azure Marketplace, the selected SKU will no longer be listed in the Azure Marketplace and Azure portal.

Roll back to a previous SKU version

You can delete the current version of a published SKU from Azure Marketplace by using the steps here. When the process is complete, the SKU is rolled back to its previous version.

1. Sign in to the Cloud Partner Portal.
2. In the **All offers** page, select your offer. Your offer should be displayed in the **Editor** tab.
3. In the left toolbar, select the **SKUs** tab.
4. Delete the latest version of the associated solution asset from the list of disk versions. Depending upon the offer type, this field could be **Disk Version**, **Package Versions**, or similar asset.
5. Republish the offer to Azure Marketplace.

After the modified offer is published on theAzure Marketplace, the current version of the listed SKU will no longer be listed. in the Azure Marketplace and the Azure portal. The SKU is rolled back to its previous version.

Delete a live offer

There are various procedural, business, and legal aspects to removing a live offer. Follow the following steps to get guidance from the support team to remove a live offer from the Azure Marketplace:

1. Raise a support ticket using the Create an incident page, or by clicking **Support** in the upper-right corner of the Cloud Partner Portal.

2. Select your specific offer type in the **Problem type** list and select **Remove a published offer** in the **Category** list.

3. Submit the request.

The support team guides you through the offer deletion process.

> **NOTE**
>
> Deleting an offer (or SKU) will not affect current purchases of that offer (or SKU). These purchases will continue to work as before. However, deleted offers or SKUs won't be available for any future purchases.

Next steps

After you are familiar with the basic operations used to manage offers, you are ready to create an instance of a Microsoft marketplace offer.

Azure application offer

12/10/2018 • 3 minutes to read • Edit Online

This section explains how to publish a new Azure application offer to the Microsoft Azure Marketplace.

Each Azure application contains an Azure Resource Manager template that defines all the technical assets used by the application, which typically includes one or more virtual machines and other supporting Azure- or Web-based services.	

Benefits

Some of the benefits of listing your applications on a Microsoft marketplace include:

- Reaching 100 million Azure Active Directory users across Office 365 and Dynamics 365.

- Extending your sales team: reach business users worldwide and gain a sales channel that engages end users, helps generate leads, and initiates conversations with new customers across industries.

- Getting actionable insights: we will share insights into how your app is performing on AppSource, what works well, and how to further improve your sales procedures.

Types of Azure applications

There are two kinds of Azure applications: a managed application and a solution template. Although similar, there are some notable differences.

Solution template

Solution templates are one of the main ways to publish a solution in the Marketplace. This offer type is used when your solution requires additional deployment and configuration automation beyond a single virtual machine (VM). You can automate providing of more than one VM using a solution template. This includes provisioning of networking and storage resources to provide complex IaaS solutions. For an overview of solution template requirements and the billing model, see Azure Applications: solution templates.

Managed application

A managed application is similar to a solution template in the Marketplace, with one key difference. In a managed application, the resources are deployed to a resource group that's managed by the publisher of the app. The resource group is present in the consumer's subscription, but an identity in the publisher's tenant has access to the resource group. As the publisher, you specify the cost for ongoing support of the solution. Use Azure Managed applications to easily build and deliver fully managed, turnkey applications to your customers.

In addition to the Marketplace, you can also offer managed applications in a service catalog. The service catalog is an internal catalog of approved solutions for users in an organization. You use the catalog to meet organizational standards while offering solutions for groups in an organization. Employees use the catalog to easily find applications that are recommended and approved by their IT departments.

For more information about the advantages and types of managed applications, see the Azure managed applications overview.

Publishing overview

The following video, Building Solution Templates, and Managed Applications for the Azure Marketplace, is an overview on how to author an Azure Resource Manager template to define an Azure application solution and then how to subsequently publish the app offer to the Azure Marketplace.

Publishing process workflow

The following diagram shows the high-level process for publishing an Azure application offer.
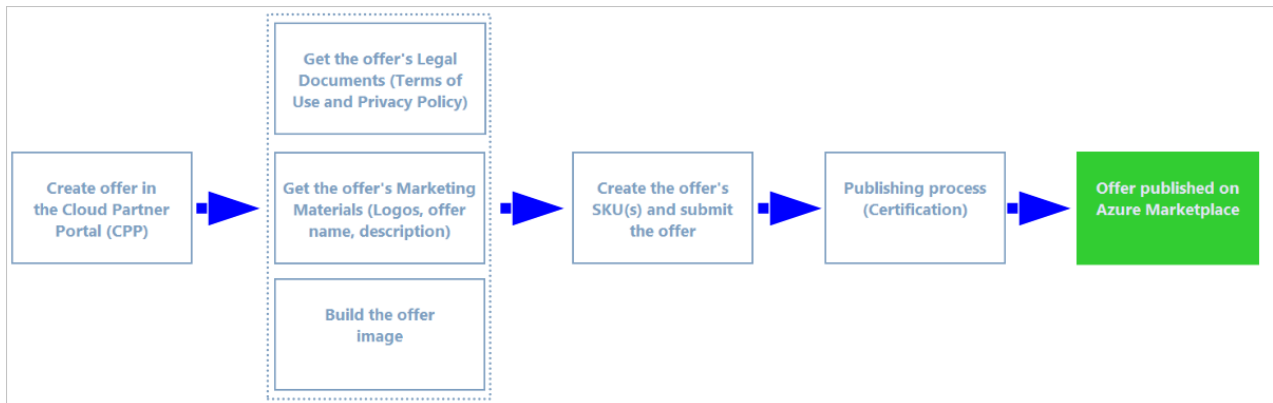
Offer components

This section outlines the elements of publishing a managed application offer and is intended as a guide for the publisher to the Azure Marketplace. Publishing's divided into the following main parts:

- Prerequisites - Lists the technical and business requirements before creating or publishing a managed application offer.
- Create the offer - Gives the steps required to create a managed application offer entry using the Cloud Partner Portal.
- Publish the offer- Describes how to submit the offer for publishing to the Azure Marketplace.

Steps in the publishing process

The high-level steps for publishing an Azure application offer are:

1. Create the offer - Provide detailed information about the offer. This information includes: the offer description, marketing materials, support information, and asset specifications.

2. Create the business and technical assets - Create the business assets (legal documents and marketing materials) and technical assets for the associated solution.

3. Create the SKU - Create the SKU(s) associated with the offer. A unique SKU is required for each image you're planning to publish.

4. Certify and publish the offer - After the offer and the technical assets are completed, you can submit the offer. This submission starts the publishing process. During this process, the solution is tested, validated, certified, then "goes live" on the Azure Marketplace.

Next steps

Before you consider these steps, you must meet the technical and business requirements for publishing a managed application to the Microsoft Azure Marketplace.

Azure application prerequisites

12/10/2018 • 2 minutes to read • Edit Online

This article describes the technical and business prerequisites for publishing a managed application offer on the Azure Marketplace.

Technical requirements

The technical requirements include the following items:

- Azure Resource Manager templates For more information, see Understand the structure and syntax of Azure Resource Manager templates. This article describes the structure of an Azure Resource Manager template. It presents the different sections of a template and the properties that are available in those sections. The template consists of JSON and expressions that you can use to construct values for your deployment.

- Azure Quickstart templates.
  For more information, see:

  - Azure Quickstart Templates. Deploy Azure resources through the Azure Resource Manager with community contributed templates to get more done. Azure Resource Manager allows you to provision your applications using a declarative template. In a single template, you can deploy multiple services along with their dependencies. You use the same template to repeatedly deploy your application during every stage of the application lifecycle.

  - GitHub: Azure Resource Manager Quickstart Templates. This repo contains all the currently available Azure Resource Manager templates contributed by the community. A searchable template index is maintained at https://azure.microsoft.com/en-us/documentation/templates/.

- Create UI Definition
  For more information, see Create Azure portal user interface for your managed application. This article introduces the core concepts of the createUiDefinition.json file. The Azure portal uses this file to generate the user interface for creating a managed application.

Business requirements

The business requirements include the following procedural, contractual, and legal obligations:

- You must be a registered Cloud Marketplace Publisher. If you're not registered, follow the steps in the article Become a Cloud Marketplace Publisher.

> **NOTE**
>
> You should use the same Microsoft Developer Center registration account to sign in to the Cloud Partner Portal. You should have only one Microsoft account for your Azure Marketplace offerings. This account shouldn't be specific to individual services or offers.

- Your company (or its subsidiary) must be in a sell-from-country supported by the Azure Marketplace. For a current list of these countries, see Microsoft Azure Marketplace Participation Policies.

- Your product must be licensed in a way that's compatible with billing models supported by the Azure Marketplace. For more information, see billing options in the Azure Marketplace.

- You're responsible for making technical support available to customers in a commercially reasonable manner. This support can be free, paid, or through community approaches.

- You're responsible for licensing your software and any third-party software dependencies.
- You must provide content that meets criteria for your offering to be listed on Azure Marketplace and in the Azure portal.
- You must agree to the terms of the Microsoft Azure Marketplace Participation Policies and Publisher Agreement.
- You must comply with the Microsoft Azure Website Terms of Use, Microsoft Privacy Statement and Microsoft Azure Certified Program Agreement.

Publishing requirements

To publish a new Azure application offer, you must meet the following prerequisites:

- Have your metadata ready to use. The following list (non-exhaustive) shows an example of this metadata:
  - A title
  - A description (in HTML format)
  - A logo image (in PNG format) and in these fixed image sizes: 40 x 40 pixels, 90 x 90 pixels, 115 x 115 pixels, and 255 x 115 pixels.
- A Terms of Use and a Privacy policy
- Documentation
- Support contacts

Next steps

Create an Azure application offer

Create an Azure application offer

12/14/2018 • 2 minutes to read • Edit Online

This article describes how to create and publish an Azure application offer entry for the Azure Marketplace. Every offer appears as its own entity in Azure Marketplace and is composed of the following groupings of assets and supporting services: offer details, SKUs, marketing artifacts, and support information.

New Offer form

Sign in to the Cloud Partner Portal, and then select **+ New offer** on the left menu bar. On the New offer menu, select **Azure Applications** to display the **New Offer** form and start the process of defining assets for a new offer.
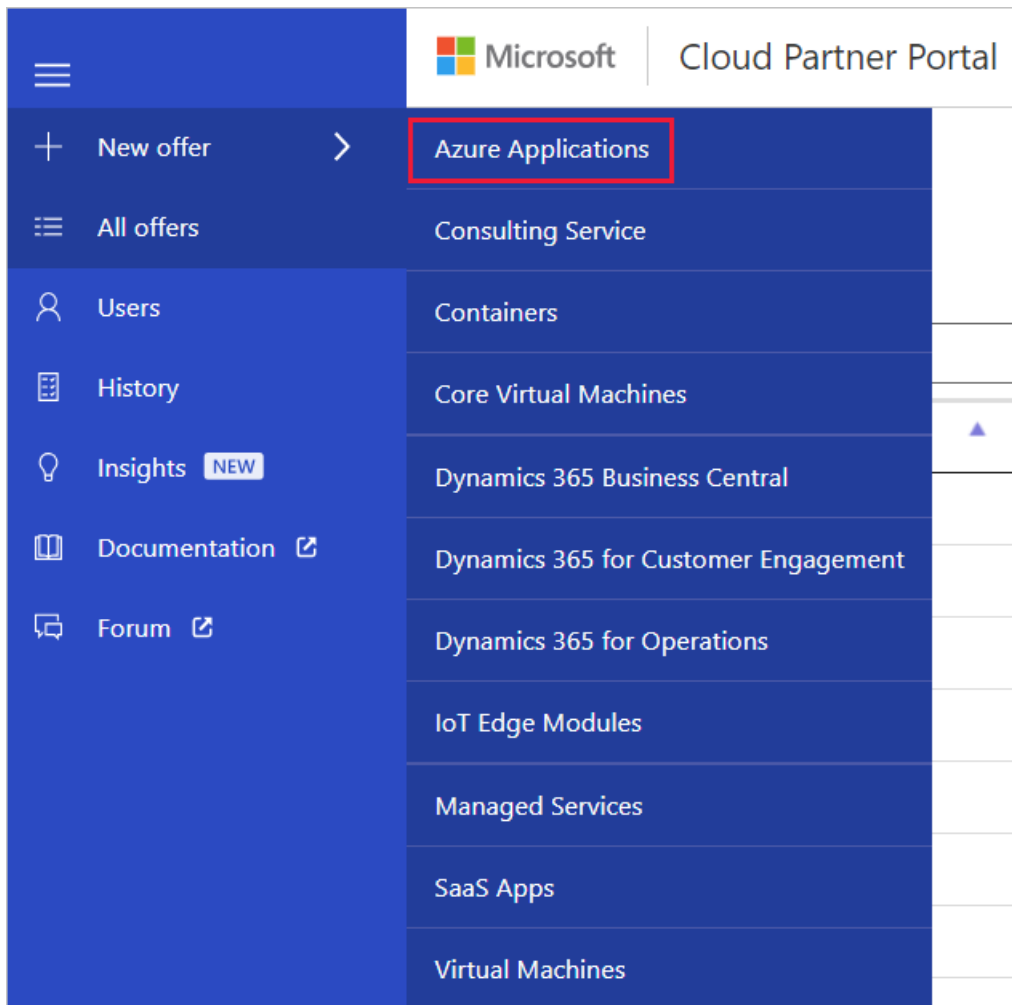
Next steps

The New Offer page provides a set of tabs and form fields that you'll use to create a new offer. The following articles explain how to define the asset groups and supporting services for your new offer.

- Offer Settings tab
- SKUs tab
- Test Drive tab
- Marketplace tab
- Support tab

Azure application Offer Settings tab

12/10/2018 • 2 minutes to read • Edit Online

This article describes how to configure the offer settings for an Azure application.

The **Azure Applications > New Offer** page opens with the focus on the **Offer Settings** tab. An asterisk (*) appended to the field name indicates that it's required.

Offer Identity settings

Under **Offer Identity**, you must provide information for the fields described in the following table.

FIELD	DESCRIPTION
Offer ID	A unique identifier (within a publisher profile) for the offer. This identifier will be visible in product URLs and insights reports. It has a maximum length of 50 characters, and can use lowercase alphanumeric characters and dashes (-). (The identifier can't end with a dash.) **Note:** This field can't be changed after an offer goes live. For example, if Contoso publishes an offer with offer ID **sample-container**, it's assigned the Azure Marketplace URL `https://azuremarketplace.microsoft.com/marketplace/apps/contoso.sam container?tab=Overview` .
Publisher ID	Your organization's unique identifier in the Azure Marketplace. All your offerings should be associated with your publisher ID. This value can't be changed after the offer's saved.
Name	The display name for your offer. This name is displayed in the Azure Marketplace and in the Cloud Partner Portal. It can have a maximum of 50 characters. We recommend using a recognizable brand name for your product. Don't include your organization's name unless that's how your product is marketed. If you are marketing this offer in other websites and publications, ensure that the name is exactly the same across all publications.

FIELD	DESCRIPTION

Select **Save** to save your Offer Settings.

Next steps

Use the SKUs tab to configure the SKUs for your offer.

Azure application SKUs tab

12/10/2018 • 6 minutes to read • Edit Online

This article describes how to use the SKUs tab to create SKUs for your Azure application.
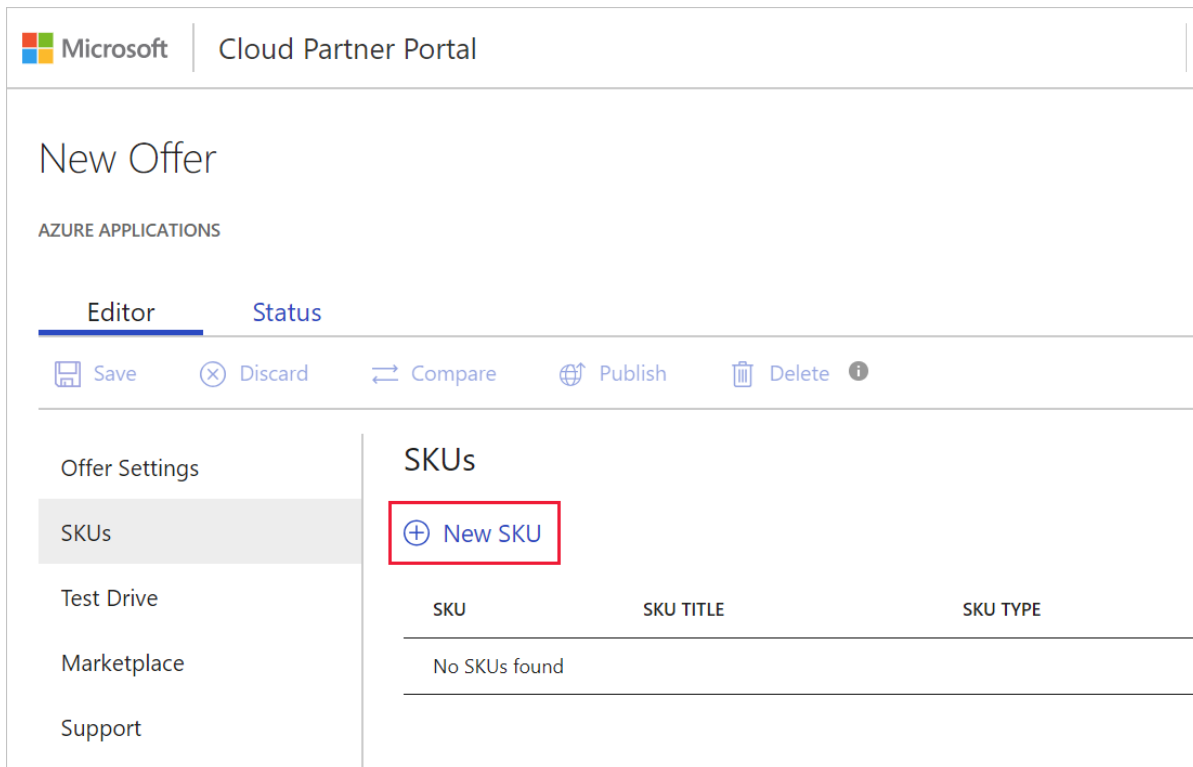
> **IMPORTANT**
>
> The steps for configuring a SKU are different for a Managed application offer and a Solution template offer. These differences are documented in this article.

Configure Azure application SKUs

Create a new SKU

Use these steps to create a new SKU:

1. Select the **SKUs** tab.

2. Under SKUs, select **+ New SKU**.

3. In the New SKU popup window, type a **SKU ID**. This id is limited to 50 characters and must consist only of lowercase, alphanumeric characters, dashes or underscores. The SKU ID can't end in a dash.

4. The SKU ID is visible to customers in product URLs, Resource Manager templates (if applicable), and billing reports. You can't modify this id after the offer's published.

SKU Details for a Solution Template

Provide the following SKU settings:

- **Title** - A title for the SKU. This title is displayed in the gallery for this item.
- **Summary** - A short summary description of the SKU. (Maximum length is 100 characters.)
- **Description** - A detailed description of the SKU.

- **SKU Type** - A dropdown list with these values: "Solution Template" and "Managed Application". For this scenario, select **Solution Template**.
- **Cloud Availability** - The location of the SKU. The default is **Public Azure**. Public Azure - This virtual machine will be deployable to customers in all public Azure regions that have Marketplace integration.
- **Azure Government Cloud** - This virtual machine will be deployed in the Azure Government Cloud. Before publishing to Azure Government, Microsoft recommends publishers test and validate their solution works as expected in the environment. To stage and test, request a trial account.

> **NOTE**
>
> Microsoft Azure Government is a government-community cloud with controlled access for customers from the US Federal, State, local or tribal AND partners eligible to serve these entities.

- **Is this a private SKU?** – Select Yes if this SKU is only available to a select group of customers.

SKU Details ⓘ

Title *	Max 50 chars
Summary *	Max 100 chars
Description *	Provide a description for the SKU here
SKU Type	Solution Template ⌄ ⓘ
Cloud Availability *	☑ Public Azure ⓘ ☐ Azure Government Cloud
Is this a private SKU? *	Yes No ⓘ

SKU Details for Managed Application

The next screen capture shows the SKU Details form for a Managed Application.

SKU Details ⓘ

Title *
Max 50 chars

Summary *
Max 100 chars

Description *
Provide a description for the SKU here

SKU Type
Managed Application ⌄ ⓘ

Is this a private SKU? *
Yes | No ⓘ

Country/Region availability *
0/88 selected **Select regions**

Old Pricing *
[ ] USD per month ⓘ

↓ Export pricing data | ↑ Import pricing data
Save your pricing changes to enable export/import of pricing data

Simplified Currency Pricing (Learn More) *
[ ] USD per month ⓘ

↓ Export pricing data | ↑ Import pricing data
Save your pricing changes to enable export/import of pricing data

---

Configure the following SKU settings:

- **Title** - A title for the SKU. This title is displayed in the gallery for this item.
- **Summary** - A short summary description of the SKU. (Maximum length is 100 characters.)
- **Description** - A detailed description of the SKU.
- **SKU Type** - A dropdown list with these values: "Solution Template" and "Managed Application". For this scenario, select **Managed Application**.
- **Cloud Availability** - The location of the SKU. The default is **Public Azure**.
- **Public Azure** - This virtual machine will be deployable to customers in all public Azure regions that have Marketplace integration.
- **Azure Government Cloud** - This virtual machine will be deployed in the Azure Government Cloud. Before publishing to Azure Government, Microsoft recommends publishers test and validate their solution works as expected in the environment. To stage and test, request a trial account.

> **NOTE**
>
> Microsoft Azure Government is a government-community cloud with controlled access for customers from the US Federal, State, local or tribal AND partners eligible to serve these entities.

- **Is this a private SKU?** – Select Yes if this SKU is only available to a select group of customers.
- **Country/Region availability** – Use **Select regions** to view the list of countries/regions that are available.

Check each country/region, and then select **OK** to save your picks.

- **Old Pricing** – Enter the price for the SKU, in USD per month. Prices are set in local currency using current exchange rates upon configuration. Validate these since you ultimately own these settings. To set or view each country/region's price individually, please export the pricing spreadsheet and import with custom pricing.

> **NOTE**
>
> Save your pricing changes to enable export/import of pricing data.

- **Simplified Currency Pricing** - Enter the price for the SKU, in USD per month. This must be the same as Old Pricing. For more information, see Simplified Currency Pricing.
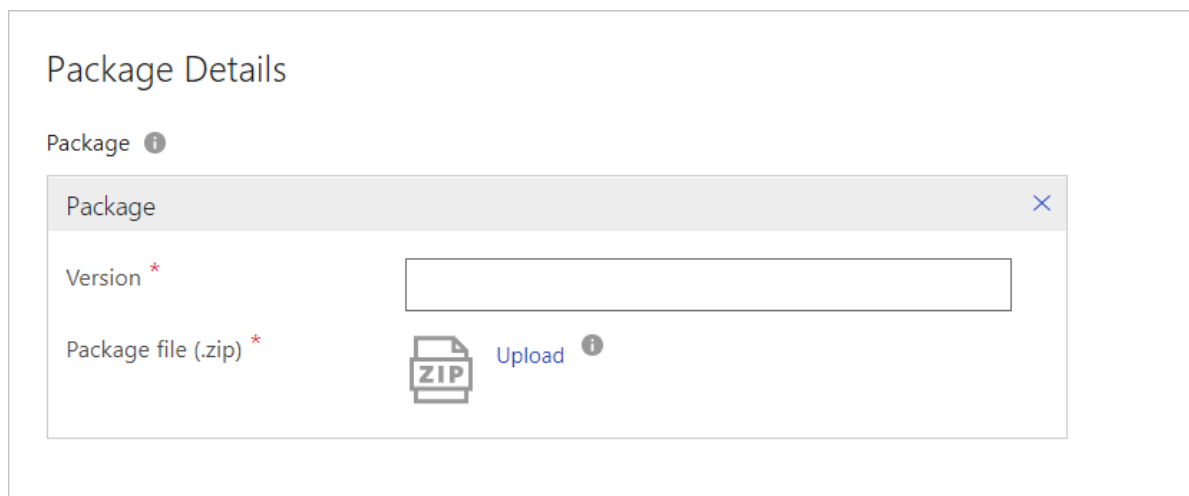
Package Details for Solution Template

Provide the following Package Details:

- **Version** - The version of the package that you will upload. Version tags must be of the form X.Y.Z, where X, Y, and Z are integers.
- **Package file (.zip)** - This package contains the following files, saved in a .zip file.

  - MainTemplate.json - The deployment template file that's used to deploy the solution/application and create the resources defined for the solution. For more information, see How to author deployment template files.
  - createUIDefinition.json - This file is used by the Azure portal to generate the user interface for provisioning this solution/application. For more information, see Create Azure portal user interface for your managed application.

Package Details

Package ⓘ

Package	✕
Version *	
Package file (.zip) *	[ZIP] Upload ⓘ

Package Details for Managed Application

Provide the following Package Details:

- **Version** - The version of the package that you will upload. Version tags must be of the form X.Y.Z, where X, Y, and Z are integers.

- **Package file (.zip)** - This package contains the following files, saved in a .zip file.

  - applianceMainTemplate.json - The deployment template file that is used to deploy the solution/application and create the resources that are defined. For more information, see Quickstart: Create and deploy Azure Resource Manager templates by using the Azure portal.

  - applianceCreateUIDefinition.json - This file is used by the Azure portal to generate the user interface for provisioning this solution/application. For more information, see Create Azure portal user interface for your managed application.

  - mainTemplate.json - The template file that contains only the Microsoft.Solution/appliances resource. For more information, see Understand the structure and syntax of Azure Resource Manager Templates. Note the following key properties of this resource:
    - "kind" - The value should be "Marketplace" in the case of Marketplace-Managed application.
    - "ManagedResourceGroupId" - The resource group in the customer's subscription where all the resources defined in the applianceMainTemplate.json will be deployed.
    - "PublisherPackageId"- The string that uniquely identifies the package. This value needs to be constructed as follows: it's a concatenation of [publisherId].[OfferId]-preview[SKUID]. [PackageVersion].

- **Tenant Id** - The Azure Active Directory tenant id of your organization.

- **Enable JIT Access?** – Select **Yes** to enable Just-In-Time management access for customer deployments using this offer.

Package Details

Package ⓘ

Package	✕

Version *

Package file (.zip) * ZIP Upload ⓘ

Tenant Id * [Max 50 chars] ⓘ

Enable JIT Access? * [Yes] [**No**] ⓘ

Authorization ⓘ

⊕ New Authorization

Policy Settings ⓘ

⊕ New Policy

For a managed application you must configure Authorization and Policy Settings.

Authorization

Add the Azure Active Directory Identifier of user, group or application to which you want to grant the permission to the managed resource group. The permission that is granted is indicated by the role definition Id. It could be a Owner, Contributor or any custom role.

Policy Settings

Add the policies that the Managed App complies with. Learn more about Azure Resource policies, see What is Azure Policy?

Package Details

Package ⓘ

Package	✕

Version *

[   ]

Package file (.zip) *   [ZIP]   Upload ⓘ

Tenant Id *   [Max 50 chars   ] ⓘ

Enable JIT Access? *   [Yes | **No**] ⓘ

Authorization ⓘ

Authorization	✕

Principal Id *   [Enter principal Id here   ] ⓘ

Role Definition *   [Select an option   ⌄] ⓘ

⊕ New Authorization

Policy Settings ⓘ

Policy	✕

Policy Name *   [Max 50 chars   ]

Policies   [Select an option   ⌄] ⓘ

Policy SKU   [Select an option   ⌄] ⓘ

⊕ New Policy

To create a new authorization:
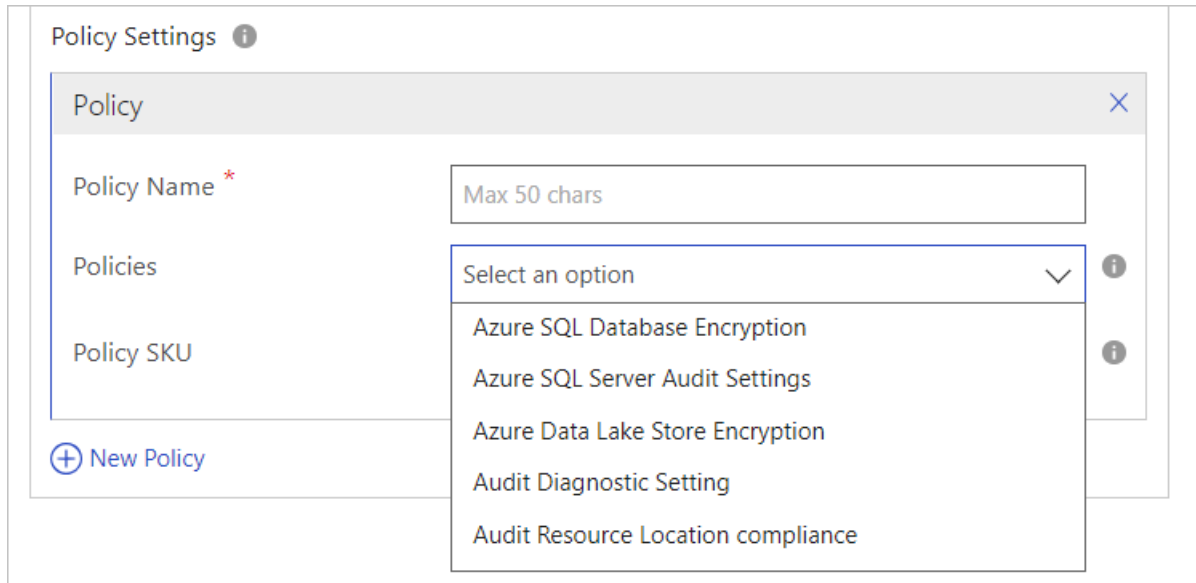
1. Under **Authorization**, select **+ New Authorization**.
2. For **Principal Id**, type the Azure Active Directory Identifier of user, group or application to which you want to grant the permission to the managed resource group. The permission that's granted is indicated by the Role Definition.
3. For **Role Definition**, select one of these options from the dropdown list: Owner or Contributor. For more information, see Built-in roles for Azure resources.

> **NOTE**
>
> Multiple authorizations can be added. However, it's recommended to create an Active Directory user group and specify its ID in the "PrincipalId." This will enable addition of more users to the user group without having to update the SKU.

To create a new policy:

1. Under **Policy Settings**, select **+ New Policy**.
2. For **Policy Name**, enter a name for the policy. The maximum length of the name is 50 characters.
3. For **Policies**, select one of the options from the dropdown list. Choose the policy that the data provider wants to be enabled when the application uses the data. For more information, see the Azure Policy Samples.

4. For **Policy SKU**, select Free or Standard as the policy SKU type. The Standard SKU is required for audit policies.

Next steps

Marketplace tab

Azure applications Test Drive tab

12/10/2018 • 3 minutes to read • Edit Online

Use the Test Drive tab to provide a trial experience for your customers.

Test Drive benefits

Creating a trial experience for your customers is a best practice to ensure they can buy with confidence. Of the trial options available, Test Drive is the most effective at generating high-quality leads and increased conversion of those leads.

It provides customers with a hands-on, self-guided trial of your product's key features and benefits, demonstrated in a real-world implementation scenario.

How a test drive works
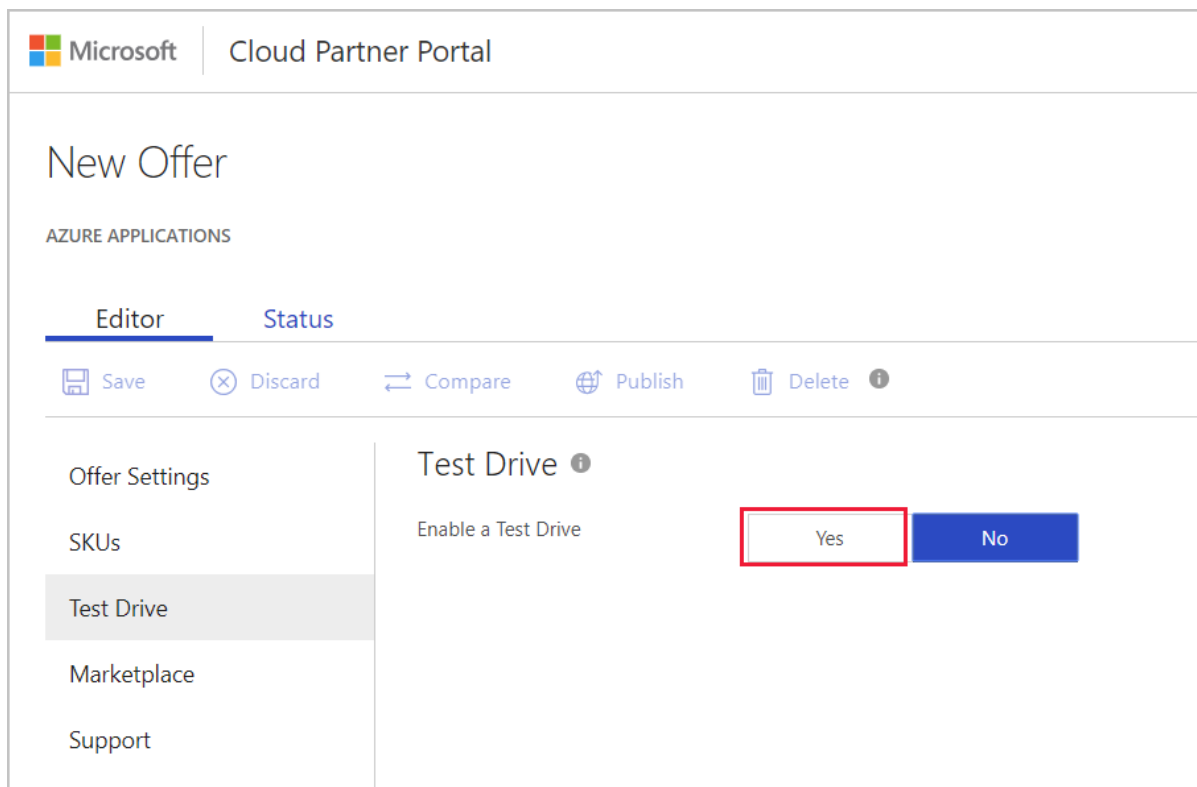
A potential customer searches and discovers your application on the Marketplace. The customer signs in and agrees to the terms of use. At this point, the customer receives your pre-configured environment to try for a fixed number of hours, while you receive a highly qualified lead to follow up with. For more information, see What is Test Drive?

Setting up a test drive

Use the following steps to enable and configure a test drive.

To enable a test drive:

1. Under **New Offer**, select the **Test Drive** tab.
2. Under **Test Drive**, select **Yes** for **Enable a Test Drive**.

To configure a test drive:

After you enable a test drive, you'll fill out the following forms to set up the test drive:

- Details
- Technical Configuration
- Test Drive Deployment Subscription Details

The next screen capture shows all the Test Drive forms. An asterisk (*) appended to the field name indicates that it's required.

Test Drive ⓘ

Enable a Test Drive

Yes	No

Please ensure you have Lead Management enabled for your offer to get leads from Test Drive. Learn more about how to build a Test Drive here.

Details

Description *

```
Test Drive Description (HTML)
```
ⓘ

User Manual *

📁 Upload ⓘ

Test Drive Demo Video ⓘ

⊕ Add video

Technical Configuration

Instances *

1/26 selected   **Select regions**

TYPE	INSTANCES	REGIONS	TOTAL	
Hot		× 1 =	0	ⓘ
Warm		× 1 =	0	ⓘ
Cold		× 1 =	0	ⓘ

Test Drive Duration (hours) *

```
Integer between 1 and 999
```

Test Drive ARM Template *

📁 Upload ⓘ

Access Information *

```
Instructions once a customer gets the Test Drive (HTML)

Example

Access the test drive at this URL: {{url}}

Use the following information to login - Username: {{login}},
and Password: {{password}}
```
ⓘ

Test Drive Deployment Subscription Details

In order to deploy the Test Drive on your behalf, please create and provide a separate, unique Azure Subscription. Click here for help filling out this section of the form.

Azure Subscription Id *

Azure AD Tenant Id *

Azure AD App Id *

Azure AD App Key *

The following table describes the fields required to set up the test drive for your managed application.

FIELD	DESCRIPTION

FIELD	DESCRIPTION
Description	Describe what can be done on your Test Drive. You can use basic HTML tags to format this description. For example, <p>, <em>, , , , and headings.
User Manual	Upload a user manual that your customers can use to walk through the Test Drive experience. This document must be a .pdf file.
Test Drive Demo Video (optional)	You can provide a video walkthrough of your Test Drive. A customer can watch this video before they take a test drive. Provide a URL to the video on YouTube or Vimeo. If you select **+ Add Video**, you'll be prompted to provide the following information: • Name • URL • Thumbnail (in PNG format, 533 x 324 pixels)
Instances	Configure how many instances you want, in what region(s), and how fast your customers can get the Test Drive. For more information, see How to publish a Test Drive.
Test Drive Duration (hours)	Enter an integer for the number of hours. The allowed range is from 1 to 999.
Test Drive ARM Template	Upload a compressed (.zip) file that has your Azure Resource Manager Templates for your app. For more information, see Azure Resource Manager Test Drive.
Access Information	Provide access information after your customer gets the Test Drive. For example, a URL to access the test drive, and sign information. . You can use basic HTML tags to format this description. For example, <p>, <em>, , , , and headings.
Access Subscription Id	This grants access to Azure services and the Azure portal. The subscription is where resource usage is reported, and services are billed. If you don't already have a separate Azure Subscription for Test Drives only, create a subscription.
Azure AD Tenant Id	Provide an existing Tenant in Azure Active Directory or create a tenant for this test drive.
Azure AD App Id	Create and register a new application. Microsoft uses this application to perform operations on your Test Drive instance.
Azure AD App Key	Create an authentication key for the app and paste it into this field.

After you provide all the required information, select **Save** to finish setting up the test drive.

Next steps

Marketplace tab

Azure application Marketplace tab

12/10/2018 • 5 minutes to read • Edit Online

Use the Marketplace tab to describe your Azure application and provide marketing assets. This tab includes the following forms: Overview, Marketing Artifacts, Lead Management, and Legal.

Overview form

The Overview form has the required and optional fields shown in the next screen capture. Required fields are indicted by an asterisk (*).

Overview ⓘ

Title *   [Max 50 chars   ]

Summary *   [Max 100 chars   ]

Long Summary *   [Max 256 chars   ]

Description *   [Max 3000 chars   ] ⓘ

Marketing Identifier *   [Max 50 chars   ] ⓘ

Preview Subscription Ids *   [Enter Azure Subscription Id here] ⓘ
                             ⊕ Add subscription

Useful Links ⓘ
⊕ Add link

Suggested Categories (Max 5) *   ☐ Analytics
                                  ☐ Application Infrastructure
                                  ☐ Backup
                                  ☐ Big Data
                                  ☐ Blockchain
                                  ☐ Business Application
                                  ☐ Cache
                                  ☐ Client Operating System
                                  ☐ Compliance
                                  ☐ Database
                                  ☐ Developer Service
                                  ☐ Identity
                                  ☐ Media
                                  ☐ Networking
                                  ☐ Security
                                  ☐ Storage
                                  ☐ Web

The following table describes the settings to use for creating a storefront for the offer.

FIELD	DESCRIPTION
Title	Title of the offer. It will be displayed prominently in the marketplace. The maximum length is 50 characters.
Summary	Short summary of the offer. The maximum length is 100 characters.
Long Summary	Longer summary of the offer (though it could be the same as the summary). The maximum length is 256 characters.
Description	Description of the offer. The maximum length is 3000 characters. Simple HTML formatting is allowed, including <p>, <em>, , , and header tags.
Marketing Identifier	A unique URL to associate to this offer, typically includes your organization and solution name, maximum length 50 characters. Choose a short, friendly marketing identifier for your service. This will be used in marketplace URLs for this offer. For example, if your publisher ID is "contoso" and your marketing identifier is "sampleApp", the URL for your offer in Azure Marketplace will be https://azuremarketplace.microsoft.com/en-us/marketplace/apps/contoso.sampleApp
Preview Subscription IDs	Add from one to 100 subscription identifiers of previewers. These white-listed subscriptions will have access to your offer while it's available in preview after it's published, before it goes live.
Useful Links	You can provide links to various resources for users of your offer, such as support, documentation, forums, etc. Make sure to add at least one link to your documentation.
Suggested Categories (Max 5)	Pick up to five categories. The selected categories are used to map your offer to the product categories available in Azure Marketplace and Azure Portal. They'll be shown on browse pages and on your product details page.

Marketing Artifacts

The Marketing Artifacts form has the required and optional fields shown in the next screen capture. Required fields are indicted by an asterisk (*).

Marketing Artifacts

Logos (PNG format)

Small (40x40) *   Upload

Medium (90x90) *   Upload

Large (115x115) *   Upload

Wide (255x115) *   Upload

Hero (815x290)   Upload

Screenshots (Max 5)

⊕ Add screenshot

Videos ⓘ

⊕ Add video

The following table describes the marketing artifacts.

FIELD	DESCRIPTION
Small	40x40 pixels in PNG format
Medium	90x90 pixels in PNG format
Large	115x115 pixels in PNG format
Wide	255x115 pixels in PNG format
Hero	815x290 pixels in PNG format. Optional. **Note:** The hero icon can't be deleted after it's uploaded.

FIELD	DESCRIPTION
Screenshots (Max 5)	Screenshots are displayed on your product details page. They're a good way to visually communicate what your app does and how it works. For example, you can show architecture diagrams or use case illustrations. Screenshots are optional, and you limited to 5 per SKU. To add a screenshot: - Select **+ Add screenshot** to open the Screenshot window **Name** - Enter a name/title (Maximum length of 100 characters.) **Upload** - Upload the image. It must be in PNG format, and the size is 533 x 324 pixels.
Add video	Videos are displayed on your product details page. They're a good way to visually communicate what your application does and how it works. To add a video: - Select **+ Add video** to open the Video window **Name** - Enter a name/title (Maximum length of 100 characters.) **Link** – Enter the URL for the site that's hosting the video (YouTube or Vimeo) **Thumbnail** – Upload a thumbnail. It must be in PNG format, and the size is 533 x 324 pixels.

Artifact examples in Azure Marketplace

The next screen capture shows an example of a Marketplace search result.
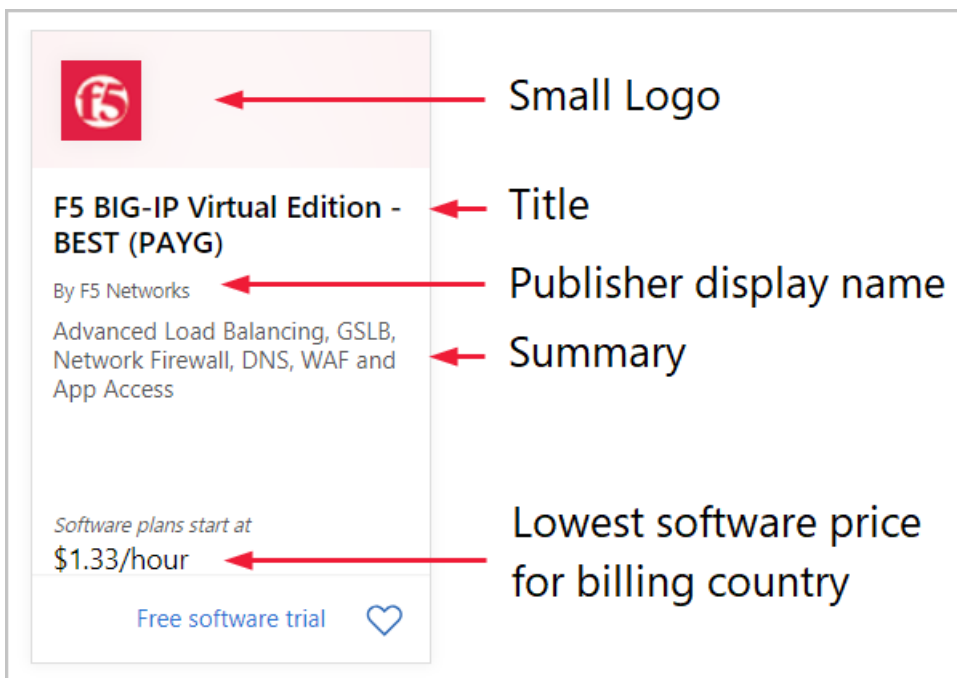
The following image shows how the offer is displayed in the Marketplace after a customer clicks on the offer's tile in the search result.

F5 BIG-IP Virtual Edition - BEST (PAYG) ← Title

F5 Networks

← Large Logo

Overview   Plans + Pricing   Reviews

Advanced Load Balancing, GSLB, Network Firewall, DNS, WAF and App Access ← Summary

GET IT NOW

SAVE FOR LATER

Pricing information
Starting at $1.33/hour
+ Azure infrastructure costs

Categories
Compute
Networking
Security
Identity

Support
Support

Legal
License Agreement
Privacy Policy

The BIG-IP Virtual Edition (VE) is F5's application delivery services platform for Microsoft Azure. From traffic management and service offloading to application access, acceleration and security, the BIG-IP VE consistently ensures your applications are fast, available and secure.

F5 BIG-IP ADC VE modules are available through F5 Good, Better, Best (GBB) license bundles which include:

• GOOD: BIG-IP Local Traffic Manager (LTM)

• BETTER: GOOD + BIG-IP DNS + Advanced Firewall Manager (AFM)

• BEST: BETTER + Application Security Manager+ Access Policy Manager

The Best package includes the full functionality of the Better package, as well as BIG-IP APM for secure, anytime, anywhere application access, and BIG-IP ASM, the industry's most effective and robust web application firewall (WAF) for protection against a large breadth of application layer security threats including L7 DDoS, bot attacks and all OWASP top 10 attack types.

Deployment of VEs into your Azure virtual network can be sped up, simplified and automated using F5's Azure Resource Manager (ARM) templates, which are available through F5's GitHub Repository.

All hourly offerings include a 30 day free trial as well as access to F5 premium support, details of which are listed here.

← Description

Learn more

Azure Stack Usage Details
F5 BIG-IP Free Trial (BYOL)
F5 BIG-IP Licensing Information
F5 BIG-IP Setup Guide
F5 Technical Support Details
Deployment Instructions

← Useful Links

Artifact examples in Azure Portal

The following screen captures show how an offer is displayed in the Azure Portal. The application offer in this example is found by browsing to **Marketplace>Everything>Dev + Test>Jenkins**. The Jenkins offer shows a logo, title, and publisher display name.

Dashboard > Marketplace > Everything

Marketplace

My Saved List 0
Everything
Compute
Networking
Storage
Web
Mobile
Containers
Databases
Analytics
AI + Machine Learning
Internet of Things
Integration
Security

Everything

Search Everything

Pricing   Operating System   Publisher
All   All   All

Dev + test   More

Jenkins   Team Project   DevTest Labs   Application   Visual Studio   VS Anywhere
               (preview)   Insights   (preview)
Jenkins   Team Project   DevTest Labs   Application   Visual Studio   VS Anywhere
Microsoft   (preview)   Microsoft   Insights   Microsoft   (preview)
               Microsoft   Microsoft   Constellation Technolc

Virtual Machines   More

Windows Server   SQL Server   Ubuntu Server   Oracle Database   SLES 12 SP3   Visual Studio
                                                                      (Priority)
Microsoft   Microsoft   Canonical   Oracle + Microsoft SUSE   Microsoft

The next screen capture shows detailed information about the application when a user selects Jenkins.

Jenkins   **SKU title**   **Description**
Microsoft

We are excited to bring the next phase of our support for Jenkins on Microsoft Azure with the launch of a secure, stable and production ready version of Jenkins.

Note: For instructions on connecting to this Jenkins instance once deployed, please browse to the URL or public IP of this instance. The URL is the Domain name label you enter in Settings and the

URL of public IP of this instance. The URL is the Domain name label you enter in Settings and the suffix shown below this field.

This solution template will install the latest stable Jenkins version on a Linux (Ubuntu 16.04 LTS) VM along with tools and plugins configured to work with Azure. This includes –

- git for source control
- Azure Credentials plugin for connecting securely
- Azure VM Agents plugin for elastic build, test and continuous integration
- Azure Storage plugin for storing artifacts
- Azure CLI to deploy apps using scripts

For a detailed walkthrough of the steps this solution automates for you, please visit our blog post.

Jenkins® is a registered trademark of Software in the Public Interest, Inc.

SKU description

This solution template is designed to configure a Jenkins instance following best practices with minimal Azure knowledge. With a handful of user inputs and a simple single-click deployment through the Azure portal, you can provision a fully configured Jenkins instance in minutes, which can use Azure services anywhere across the globe.

♡ **Save for later**

Screenshot
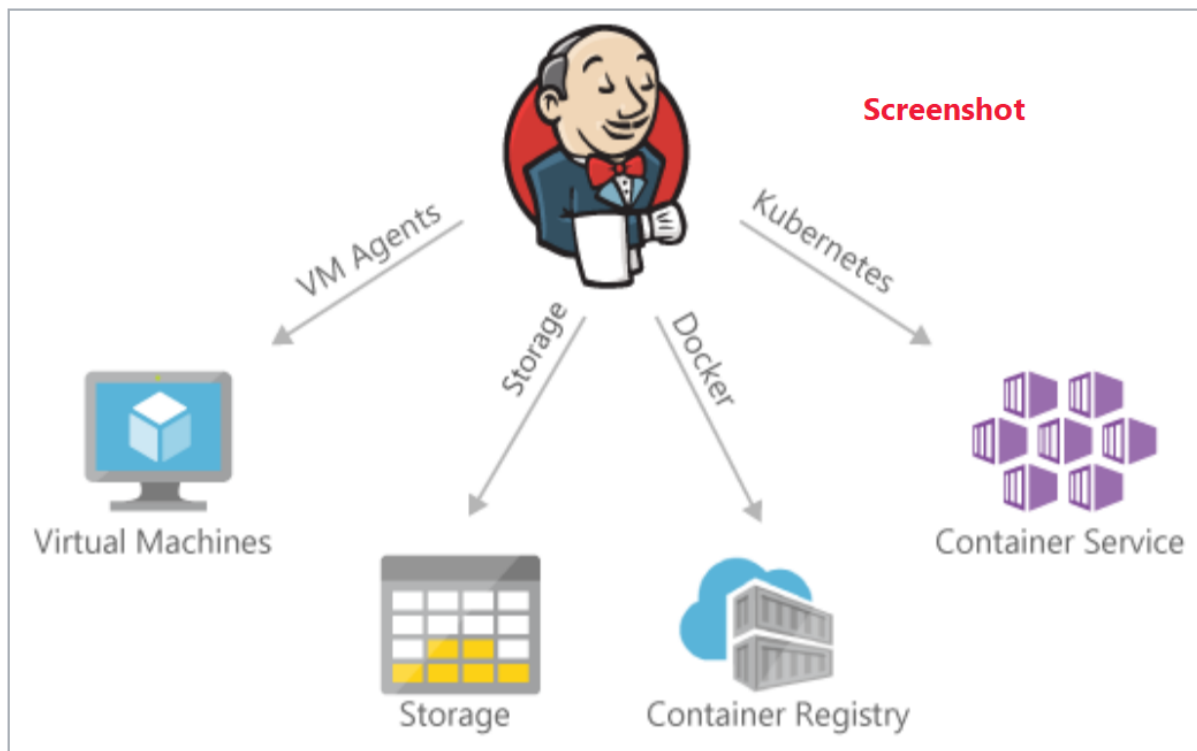
PUBLISHER	Microsoft

Useful links, including support URL

Jenkins Continuous Integration with Azure VM Agents

Jenkins Continuous Integration with Azure Container Agents

Use Azure Storage as a Jenkins artifact repository

Plugin for deploying to Web App and Web App for

USEFUL LINKS

	Containers Plugin for deploying to Azure Container Service(ACS) Plugin for deploying to Azure Functions Push Docker images to Container Registry with Jenkins
SUPPORT	https://azure.microsoft.com/en-us/support/options/

Logo guidelines

All the logos uploaded to the Cloud Partner Portal should follow the guidelines:

- The Azure design has a simple color palette. Keep the number of primary and secondary colors on your logo low.
- The theme colors of the Azure Portal are white and black. Avoid using these colors as the background color for your logos. Use a color that will make your logos prominent in the Azure portal. We recommend simple primary colors. If you're using a transparent background, make sure that the logos/text aren't white, black, or blue.
- Don't use a gradient background on your logo.
- Avoid placing text, even your company or brand name, on the logo. The look and feel of your logo should be "flat" and should avoid gradients.
- Don't stretch the logo.

Hero logo

The Hero logo is optional.

> **IMPORTANT**
>
> You can't delete the Hero logo after it's uploaded.

Use the following guidelines for a Hero logo:

- Black, white, and transparent backgrounds aren't allowed.
- Avoid using any light color as the background for the logo. The publisher display name, plan title and the offer long summary are displayed in white font color and must stand out against the background.
- Avoid using most text when you're designing the logo. The publisher name, plan title, the offer long summary, and a create button are embedded programmatically inside the logo when the offer's listed.
- Include an unused rectangular space on the right-side of your hero logo. This blank space is 415x100 pixels and offset from the left by 370 pixels.

Lead Management

The Lead Management form has an optional field to configure lead management. To configure lead management, select the Lead destination from the dropdown list. The next screen capture shows the available destinations.

For more information, see Configure customer leads.

Legal

Use the Legal form to provide the legal documentation required for every offer.

Provide the following information:

- **Privacy policy URL** – Enter a link to your app's privacy policy.
- **Terms of use** – Enter the terms of use for your app. Customers are required to accept these terms before they can try your app.

Next steps

Support tab

Azure application Support tab

12/10/2018 • 2 minutes to read • Edit Online

Use the Support tab to provide engineering and customer support information.

Identify contacts and websites

Use the next screen capture as a guide to provide the required information. All field names appended with a red asterisk (*) must be completed.

1. Under **Engineering Contact**, provide information for the following fields:

   - **Name** - Enter the name of the engineering contact for your app. This contact will receive technical communications from Microsoft.
   - **Email** - Enter the email address of the engineering contact.
   - **hone** - Enter the phone number of the engineering contact.

2. Under **Support Contact**, provide information for the following fields:

   - **Name** - Enter the name of the support contact for your app. This contact will receive support-related communications from Microsoft.
   - **Email** - Enter the email address of the support contact for your app.
   - **Phone** - Enter the phone number of the support contact.

3. Under **Support Urls**, provide the appropriate support URLs that Microsoft will use when your customers

open support tickets. These Urls will be for either Public Azure or the Azure Government Cloud.

4. Select **Save** when you're done.

Next steps

[Publish Azure application offer](#)

Prepare your Azure application technical assets

12/14/2018 • 2 minutes to read • Edit Online

This article describes the resources for preparing the technical assets for your Azure application offer.

Before you begin

Review the following Azure application documentation, which provides Quickstarts, Tutorials, and Samples.

- Understand Azure Resource Manager Templates
- Quickstarts:

  - Azure Quickstart templates
  - GitHub Azure Quickstart templates
  - Publish application definition
  - Deploy service catalog app
- Tutorials:

  - Create definition files
  - Publish marketplace application

  - Samples:

    - Azure CLI
    - Azure PowerShell
    - Managed application solutions

Fundamental technical knowledge

Designing, building, and testing these assets take time and requires technical knowledge of both the Azure platform and the technologies used to build the offer.

Your engineering team should have knowledge about the following Microsoft technologies:

- Basic understanding of Azure Services
- How to design and architect Azure applications
- Working knowledge of Azure Virtual Machines, Azure Storage, and Azure Networking
- Working knowledge of Azure Resource Manager
- Working knowledge of JSON

Suggested tools

Choose one or both of the following scripting environments to help manage your Azure application:

- Azure PowerShell
- Azure CLI

We recommend adding the following tools to your development environment:

- Azure Storage Explorer
- Visual Studio Code with the following extensions:

- Extension: Azure Resource Manager Tools
- Extension: Beautify
- Extension: Prettify JSON

We also suggest reviewing the available tools in the Azure Developer Tools page and, if you are using Visual Studio, the Visual Studio Marketplace.

Next steps

Create Azure application offer

Publish Azure application offer

1/28/2019 • 3 minutes to read • Edit Online

After you create an offer by providing the information on the **New Offer** page, you can publish the offer. Select **Publish** to start the publishing process.

The following diagram shows the main steps in the publishing process for an offer to "go live".

Publishing Steps

Validate Pre-Requisites (< 15 min)
Offer settings provided are validated.

Validate influenced revenue settings (< 15 min)
Offer settings provided are validated.

Certification (< 1 day)
Your offer is analyzed by our certification systems for issues.

Test Drive validation (< 2 hours)
Microsoft validates the Test Drive can deploy and be replicated.

Packaging and Lead Generation Registration (< 1 hour)
Your Azure Application is packaged for customers. Additionally, lead systems are configured and set up.

Publisher signoff
Offer is available to preview. Ensure that everything looks good before making your offer live.

Request Review and Go Live

Microsoft Review (7 - 14 days)
We will review your Azure Application and will email you if we find any issues. This step may take longer to complete than anticipated depending upon the nature of issues.

Live (< 1 day)
Your Azure Application is live and available to the public.

Detailed description of publishing steps

The following table lists and describes each publishing step, and provides a time estimate to complete each step. Times estimates in "days" are defined as business days, which exclude weekends and holidays.

PUBLISHING STEP	TIME	DESCRIPTION
Validate prerequisites	< 15 min	Offer information and offer settings are validated.
Validate influenced revenue settings	< 15 min	Azure resource usage attribution for the offer is checked.
Certification	< 1 day	Offer is analyzed by the Azure Certification Team. The offer is scanned for viruses, malware, safety compliance, and security issues. The offer is checked to see that it meets all the eligibility criteria. For more information, see prerequisites. Feedback is provided if an issue is found.

PUBLISHING STEP	TIME	DESCRIPTION
Test Drive validation	< 2 hours	(Optional) If a Test Drive is present, Microsoft validates that it can be deployed and replicated.
Packaging and lead generation registration	< 1 hour	Offer's technical assets are packaged for customer use and the lead systems are configured and deployed.
Publisher sign-off	manual	Final publisher review and confirmation before the offer goes live. The offer is now available for preview. You can deploy your offer in the selected subscriptions (in the offer information steps) to verify that it meets all your requirements. After you verify the offer, select **Go Live** so your offer can move to the next step.
Microsoft review	7 - 14 days	Microsoft holistically reviews your Azure application and emails you if issues are discovered. The length of this step depends upon the complexity of the application, the issues uncovered, and how promptly you respond to them.
Live	< 1 day	Offer is released, replicated to the specified regions, and made available to the public.

You can monitor the publishing process in the **Status** tab for your offer in the Cloud Partner Portal.
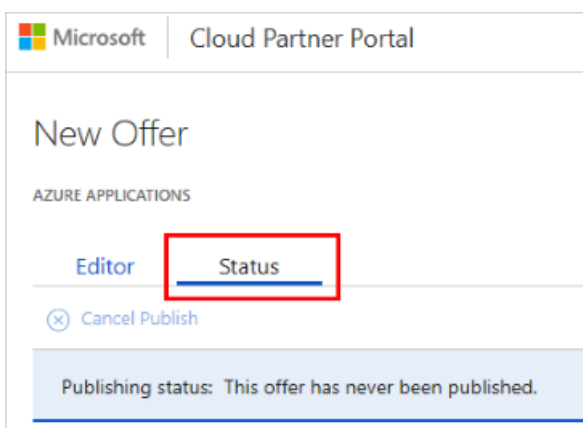
After you finish the publishing process, your offer will be listed in the Microsoft Azure Marketplace application category.

Errors and Review feedback

In addition to displaying the publishing status of your offer, the **Status** tab also displays error messages and feedback from the **Microsoft review** step. Typically, review issues are referenced as pull request (PR). Each PR is linked to an online Visual Studio Team Services (VSTS, renamed to Azure DevOps) item, which contains details about the issue. The following image displays an example of a review PR reference. For more complex situations, the review and support teams may email you.

Publishing Steps

✓ **Packaging and Lead Generation Registration** (< 1 hour)
Your Azure Application is packaged for customers. Additionally, lead systems are configured and set up.

✓ **Publisher signoff**
Offer is available to preview. Ensure that everything looks good before making your offer live.
Here are a few links to help you:

Azure Portal
Microsoft Azure - contoso-app1 (Preview)

Azure Marketplace
JFrog Artifactory Enterprise (Preview)

[Request Review and Go Live]

⊗ **Microsoft Review** (7 - 14 days)
We will review your Azure Application and will email you if we find any issues. This step may take longer to complete than anticipated depending upon the nature of issues.

Validating content: Content validation completed.

Microsoft Review: See PR comments

Pull Request Links:
SKU: contoso-app1 - Pull Request Id: 0000

○ **Live** (< 1 day)
Your Azure Application is live and available to the public.

You must address each reported issue before the offer continues through the publishing process. The following diagram illustrates how this feedback process relates to the publishing process.
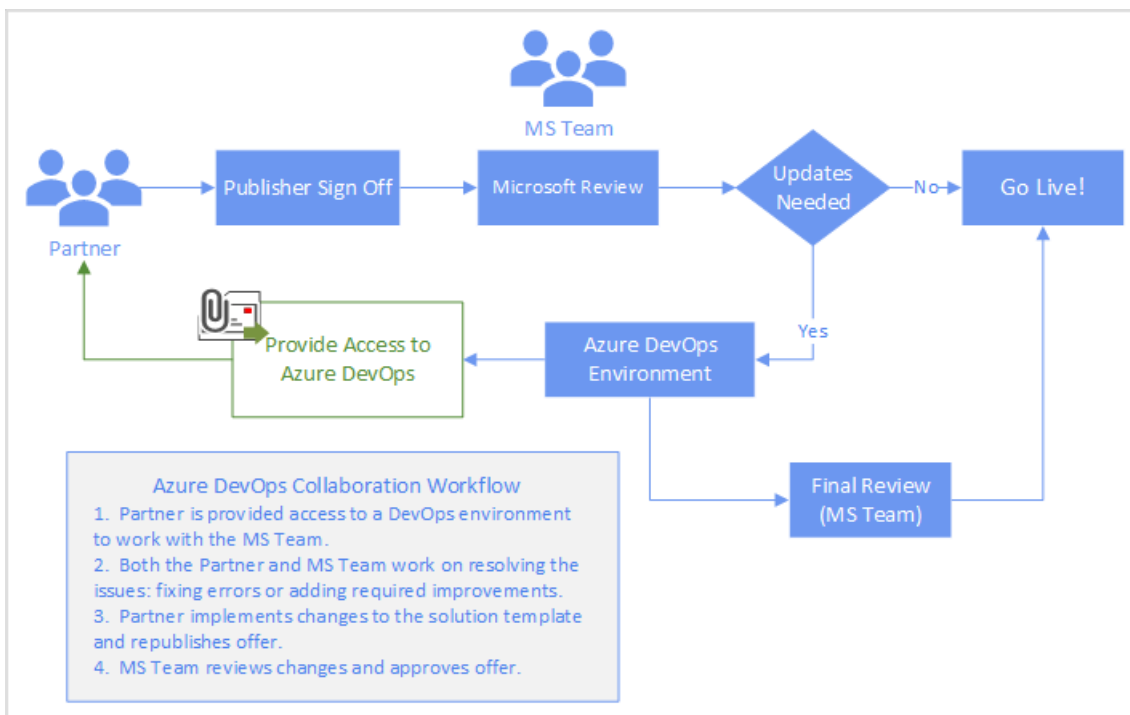
VSTS access

To view the VSTS items referenced in review feedback, publishers must be granted proper authorization. Otherwise, new publishers receive a `401 - Not Authorized` response page. To request access to the offer review VSTS system, perform the following steps:

1. Collect the following information:
   - Your publisher name and ID
   - Offer type (Azure app), offer name, and SKU ID
   - The pull request link, for example:
     ```
     https://solutiontemplates.visualstudio.com/marketplacesolutions/_git/contoso/pullrequest/<number>
     ```
     This URL can be retrieved from the notification message or the address of the 401 response page.

- The email address(es) of the individuals from your publishing organization that you want access granted to. These should include the owner address(es) you provided when registering as a publisher on the Cloud Partner Portal.

2. Create a support incident. In the title bar of the Cloud Partner Portal, select the **Help** button, then choose **Support** from the menu. You default web browser should launch and navigate to the Microsoft new support incident page. (You may have to sign in first.)

3. Specify the **Problem type** as **marketplace onboarding** and **Category** as **Access problem**, then select **Start request**.

4. In **Step 1 of 2** page, supply your contact information and select **Continue**.

5. In **Step 2 of 2** page, specify an incident title (for example `Request VSTS access`) and supply the information you collected in the first step (above). Read and accept the agreement, then select **Submit**.

If the incident creation was successful, a confirmation page is displayed. Save the confirmation information for your reference. Microsoft support should reply to your access request within a few business days.

Next steps

Once an Azure app is published, you can Update existing offer to reflect changing business or technical requirements.

Update an existing Azure application offer

12/10/2018 • 3 minutes to read • Edit Online

There are various kinds of updates that you might want to do to your offer after it has been published and is live. Any change you make to your new version of your offer should be saved and republished to have it reflect in the Marketplace. This article steps through the different aspects of updating your managed application offer in the Cloud Partner Portal.

There are several reasons why you might want to update your offer, such as:

- Adding a new image version to existing SKUs.
- Adding new SKUs.
- Updating the marketplace metadata for the offer or individual SKUs.

To assist you in these modifications, the portal provides the **Compare** and **History** features.

Unpermitted changes to an Azure application offer or SKU

There are attributes of a container offer or SKU that can't be changed after the offer is live on the Azure Marketplace. You can't change the following settings:

- Offer ID and Publisher ID of the offer
- SKU ID of existing SKUs
- Version tags, for example: `1.0.1`
- Billing/license model changes to existing SKUs

Common update operations

The following update operations are common.

Update image version for a SKU

It's common for an image to be periodically updated with security patches, additional features, and so on. In this scenario, you want to update the image that your SKU references by using the following steps:

1. Sign into the Cloud Partner Portal.
2. Under **All offers**, find the offer you want to update.
3. In the **SKUs** tab, select the SKU associated with the image to update.
4. Select **+ New Image Version** to add a new image.
5. Provide the new image versions. The image version needs to follow the same tags guidelines as previous versions. Version tags should be of the form X.Y.Z, where X, Y, and Z are integers. Verify that the new version you provide is greater than all previous versions.
6. Select **Publish** to start the workflow to publish your new container image version to the Azure Marketplace.

Add a new SKU

Use the following steps to make a new SKU available for your offer:

1. Sign into the Cloud Partner Portal.
2. Under **All offers**, find the offer you want to update.
3. Under the **SKUs** tab, select **Add new SKU** and provide a **SKU ID** in the pop-up window.
4. Republish the offer using the steps described in Publish Azure application offer.

5. Select **Publish** to start the workflow to publish your new SKU.

Update offer marketplace metadata

Use the following steps to update the marketplace metadata associated with your offer. (For example: company name, logos, etc.)

1. Sign into the Cloud Partner Portal.
2. Under **All offers**, find the offer you'd like to update.
3. Go to the **Marketplace** tab. Use the instructions in Publish Azure application offer to make metadata changes.
4. Select **Publish** to start the workflow to publish your changes.

Deleting an existing offer

You may decide to remove your offer from the Marketplace. Deleting an offer does not affect current purchases of that offer. Those customer purchases will continue to work as before. However, the offer will not be available for any new purchases after the deletion is complete.

Offer Termination is the process of terminating the service and/or licensing agreement between you and your existing customers. Guidance and policies related to offer removal and termination are governed by Microsoft Marketplace Publisher Agreement (see Section 7) and the Participation Policies (see Section 6.2).

For more information, see Delete and offer/SKU from Azure Marketplace.

Compare feature

When you make changes to a published offer, you can use the Compare feature to audit the changes that you've made.

To use the Compare feature:

1. At any point in the editing process, select Compare for your offer.
2. Look at side-by-side versions of marketing assets and metadata.

History of publishing actions

To see historical publishing activity, select the **History** tab on the left navigation menu bar of Cloud Partner Portal. You can see the timestamped actions taken during the lifetime of your Azure Marketplace offers.

Next steps

Azure application offer

Azure and Dynamics 365 consulting service offer

1/11/2019 • 2 minutes to read • Edit Online

This article explains how to publish a consulting service offer to either the Microsoft Azure Marketplace or AppSource. Solutions based on Microsoft Dynamics 365, Power BI, and PowerApps can be listed on AppSource. Other offers based on other Microsoft Azure services can be listed in the Azure Marketplace.

Publishing benefits

Publishing to either of the Microsoft marketplaces has the following benefits:

- Promote your company by leveraging the Microsoft brand.
- Potentially reach more than 100 million Office 365 and Dynamics 365 users on AppSource, and reach more than 200,000 organizations through the Azure Marketplace.
- Get high-quality leads from these marketplaces.
- Get your services promoted by the Microsoft field and telesales teams.

Publish a consulting service offer

This section outlines the elements of publishing a consulting service offer. Publishing is divided into the following main parts:

- Consulting service prerequisites lists the requirements to publish a consulting service offer for:

  - Dynamics 365 for Customer Engagement
  - Dynamics 365 for Finance & Operations
  - Dynamics 365 Business Central
  - Power BI
  - PowerApps

- Create a new offer lists the steps required to create a consulting service offer entry by using the Cloud Partner Portal:
  - Define offer settings.
  - Enter storefront details and whether to publish in the Azure Marketplace or on AppSource.

- Publish your offer explains how to submit the offer for publishing.

Next steps

Before you take these steps to publish your consulting service offer, you must meet the prerequisites for publishing a consulting service offer.

Consulting service prerequisites

1/11/2019 • 2 minutes to read • Edit Online

To submit consulting service offers for any of the following products, fulfill one or more of the corresponding requirements:

- **Dynamics 365 for Customer Engagement**: Partners must have a Silver or Gold certification for the Cloud Customer Relationship Management competency.
- **Dynamics 365 for Finance & Operations**: Partners must have a Silver or Gold certification for the Enterprise Resource Planning competency. Partners also must have a minimum revenue of $25,000 in Cloud Operations in the trailing 12 months.
- **Dynamics 365 Business Central**: Partners must have acted as a Cloud Solution Provider (CSP) or a Digital Partner of Record (DPOR) for at least one customer.
  - **CSP**: For information on how to become a CSP, see Get started as a CSP.
  - **DPOR**: For DPOR requirements, see the DPOR overview.
- **Power BI**: Get listed on the Power BI partner showcase. For more information, see Solution Partner criteria.
- **PowerApps**: Partners must have a solution published on the Partner Solution Showcase.

Next steps

If you met the preceding requirements, you're ready to create a consulting services offer.

Create an offer

1/11/2019 • 2 minutes to read • Edit Online

This article describes how to create and publish a consulting service offer.

Define your offer

Define your packaged consulting service offering. Focus on fixed scope, fixed duration, estimated fixed price (or free), and primarily presales-oriented offerings for a single customer. Select repeatable packaged engagements that are popular and effective at driving new business for you.

Create a new offer

To create a new offer, follow these steps.

1. On the main menu of the Cloud Partner Portal, select **New offer**.
2. On the **New offer** menu, select **Consulting service**.
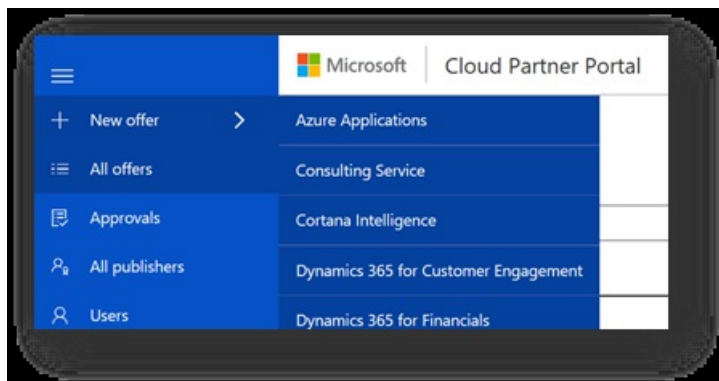
Next steps
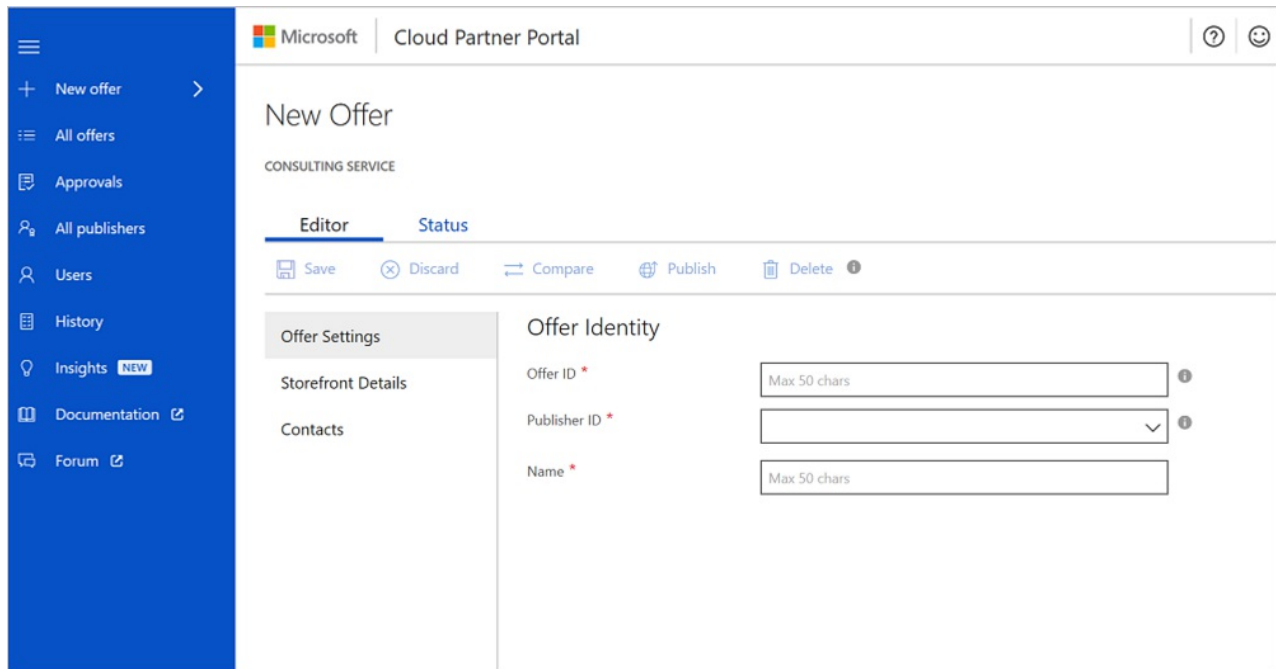
The **New Offer** page for the consulting service offer type provides a set of tabs and form fields that you use to create a new offer. The following articles explain how to use the tab to define the offer settings and storefront details for your new offer:

- Define offer settings
- Enter storefront details, and whether to publish in the Azure Marketplace or on AppSource

Offer settings tab

1/11/2019 • 2 minutes to read • Edit Online

On the **New Offer** screen, the first step is to create the offer identity. The offer identity consists of three parts: **Offer ID**, **Publisher ID**, and **Name**. Each of these parts is covered in the following sections.

Offer ID

This identifier is a unique name you create when you first submit the offer. It must consist only of lowercase alphanumeric characters, dashes, or underscores. The **Offer ID** is visible in the URL and affects search engine results. An example is *yourcompanyname_exampleservice*.

As shown in the example, the **Offer ID** is appended to your publisher ID to create a unique identifier. This unique identifier is exposed as a permanent link that can be booked and is indexed by the search engines.

> **NOTE**
>
> After an offer is live, its identifier can't be updated.

Publisher ID

This identifier is related to your account. After you sign in with your organizational account, your **Publisher ID** shows up in the drop-down menu.

Name

This string displays as the offer name on AppSource or in the Azure Marketplace. The **Name** box is limited to 50 characters. The reviewer might need to edit your title to append the duration and offer type to your offer name.

The following example shows how the offer name is assembled.

CRM Adoption & Readiness: 4-Hr Assessment
By Edgewater Fullscope
Dynamics 365

$800

Contact Me

The offer name is composed of four parts:

- **Duration:** Defined on the **Storefront Details** tab of the editor. Duration can be expressed in hours, days, or weeks.
- **Type of service:** Defined on the **Storefront Details** tab of the editor. Types of services are `Assessment`, `Briefing`, `Implementation`, `Proof of concept`, and `Workshop`.
- **Preposition:** Inserted by the reviewer.
- **Name:** Defined on the **Offer Settings** page.

> **NOTE**
>
> The **Name** box is limited to 50 characters. The reviewer might need to edit your title to append the duration and offer type to your offer name.

The following list provides several well-named offer names:

- Essentials for Professional Services: 1-Hr Briefing
- Cloud Migration Platform: 1-Hr Briefing
- PowerApps and Microsoft Flow: 1-Day Workshop
- Azure Machine Learning Services: 3-Wk PoC
- Brick and Click Retail Solution: 1-Hr Briefing
- Bring Your Own Data: 1-Wk Workshop
- Cloud Analytics: 3-Day Workshop
- Power BI Training: 3-Day Workshop
- Sales Management Solution: 1-Week Implementation
- CRM Quickstart: 1-Day Workshop
- Dynamics 365 for Sales: 2-Day Assessment

After you fill out the **Offer Settings** tab, save your submission. The offer name now appears above the editor, and you can find it in **All Offers**.

Next steps

Now you can enter storefront details and determine whether to publish in the Azure Marketplace or on AppSource.

Storefront Details tab

1/11/2019 • 6 minutes to read • Edit Online

This article explains how to enter the details for your storefront. The **Storefront Details** tab consists of the following sections:

- **Offer Details**
- **Publisher Information**
- **Listing Details**
- **Marketing Artifacts**

Offer details

The **Offer Details** section contains the following boxes:

- **Offer summary**
- **Offer description**

Offer summary

The offer summary is a brief description of your offer that appears just below the offer name. Use plain text to enter the offer summary, without any line breaks. The following examples are good offer summaries together with their corresponding offer names.

Example 1

- **Offer name**: Cloud Analytics: 3-Day Workshop
- **Offer summary**: Overview of Microsoft Azure and Power BI, assessment of current environment, and mini POC.

Example 2

- **Offer name**: Industrial Azure IoT: 30-Day Proof of Concept
- **Offer summary**: Create an industrial-connected product pilot to securely connect equipment in the field to an Azure IoT Hub solution with dashboards, reports, and notifications.

Example 3

- **Offer name**: Professional Services: 1-Hr Briefing
- **Offer summary**: Overview and demo of preconfigured, extended Dynamics 365 for Operations solution that provides enhanced management of projects, billing, and resources for professional services.

Example 4

- **Offer name**: Power BI in Your World: 4-Hr Workshop
- **Offer summary**: Get up and running with your first dashboard and learn best practices. For up to 12 students, conducted on-site.

Example 5

- **Offer name**: Dynamics and Projects: 3-Day Assessment
- **Offer summary**: Requirements gathering and assessment for an ERP solution designed for professional services firms and project-driven businesses.

Offer description

Enter the description of the consulting service offer in the **Offer description** box. A good offer description covers exact details of what the engagement looks like and the end deliverable to the customer. It should clearly help the customer understand what they get. Include how your offering relates to the Microsoft product for which you're offering consulting services.

Don't include your email address or phone number in your offer description. A **Contact Me** button is included with your offer to upload leads to the lead management target that you identify for your offer.

Enter the offer description in Markdown format. If you're not familiar with Markdown or formatting for HTML, see Use Markdown for writing docs.

Use these formats to make sure that your offer is easy for your customers to read.

Keep your offer description brief and adhere to the character limit because users don't like to read long text. You also can upload marketing brochures, fact sheets, and other documents that describe your offer in deeper detail.

The following example demonstrates a well-composed offer description and its related name and summary:

Offer name: Cloud Analytics: 3-Day Workshop

Offer summary: Overview of Microsoft Azure and Power BI, assessment of current environment, and mini POC.

Offer description: This 3-day workshop is for technical and business leaders and is held on-site at the client's facility.

Agenda

Day 1

- Focuses on how to secure, scale, and organize data within the Microsoft cloud by using Azure Data Lake, Azure HDInsight, or Azure SQL Data Warehouse.

Day 2

- Covers how to configure and deploy advanced analytics solutions with Microsoft R and Azure Machine Learning.

Day 3

- Covers how to draw actionable insights and operationalize analytics with Power BI and includes a collaborative session to cobuild a Power BI dashboard.

Deliverables

By the end of the workshop, the client can define a high-level plan and an implementation roadmap for data and analytics solutions in the Microsoft cloud.

The following sample Markdown file is for the previous offer:

```
This 3-day workshop is for technical and business leaders and is held on-site at the client's facility.

   ### Agenda

   **Day 1**

   * Focuses on how to secure, scale, and organize data within the Microsoft cloud by using Azure Data Lake,
Azure HDInsight, or Azure SQL Data Warehouse.

   **Day 2**

   * Covers how to configure and deploy advanced analytics solutions with Microsoft R and Azure Machine
Learning.

   **Day 3**

   * Covers how to draw actionable insights and operationalize analytics with Power BI and includes a
collaborative session to cobuild a Power BI dashboard.


   ### Deliverables
   By the end of the workshop, the client will be able to define a high-level plan and an implementation
roadmap for data and analytics solutions in the Microsoft cloud.
```

Publisher information

MPN ID

Enter your nine-digit Microsoft Partner Network (MPN) ID. If you don't have an MPN ID, you can get one at the Microsoft Partner Center.

Partner Center ID

Enter your new Partner Center ID, if you have one.

MPN ID

Enter a secret key to preview your offer on AppSource before it goes live. This identifier isn't a password.

Listing details

Consulting service type

Microsoft focuses exclusively on fixed scope, fixed duration, estimated or fixed price (or free), and primarily presales-oriented consulting service offerings for a single customer. Types of services are assessment, briefing, implementation, proof of concept, and workshop offers conducted either on-site or virtually. The AppSource consulting services marketplace doesn't support listings for managed or subscription services.

> **NOTE**
>
> AppSource consulting services aren't the appropriate marketplace for subscription or on-demand trainings.

The following five types of offerings are included:

- **Assessment**: An evaluation of a customer's environment to determine applicability of a solution and provide an estimate of cost and timing.
- **Briefing**: An introduction to a solution or a consulting service to draw customer interest by using frameworks, demos, and customer examples. Briefings must be conducted on-site.
- **Implementation**: A complete installation that results in a fully working solution. For this pilot, Microsoft recommends limiting to solutions that can be implemented in one week or less.
- **Proof of concept**: A limited-scope implementation to determine if a solution meets a customer's requirements.
- **Workshop**: An interactive engagement conducted on a customer's premises that can include training sessions, briefings, assessments, or demos built on the customer's data or environment.

Country/region availability

Select the country and region where this consulting service offer is available. A single offer can't be published in multiple countries or regions. A new offer must be created for each country or region.

> **NOTE**
>
> AppSource consulting services are currently live in the United States, the United Kingdom, and Canada. You can submit an offer for a country that isn't yet live, and it will be reviewed and prepared to go live. A minimum number of offers ready to go live are needed to open a new country, so offers for countries that aren't live are encouraged.

Industries

Select the industries that your consulting service offer is most applicable to.

Duration

Select a number (for example, 3 or 4) under **Duration**, and then select **Hour**, **Day**, or **Week**.

Primary products

To publish to the Azure Marketplace, select **Azure** as the primary product. Then select the relevant **Solution Areas**.

To publish to AppSource, select **Dynamics 365**, **Power BI**, or **PowerApps** as your primary product. You also can select other relevant **Applicable Products**. Then your consulting service offer shows in listings that are associated with each of these products on AppSource.

Relevant competencies

Select competencies relevant to this offer to have them displayed along with the offer details.

Marketing artifacts

Company logo (.png format, 48 x 48 pixels)

Upload an image that appears on the tile of your offer in the offer gallery view page. The image must be a .png image with a resolution of 48 x 48 pixels.

Company logo (.png format, 216 x 216 pixels)

Upload an image that appears on the details page of your offer. The image must be a .png image with a resolution of 216 x 216 pixels.

Videos (limited to four)

Upload up to four customer case study videos or customer reference videos. If you don't have any, upload a video

that explains your company's expertise related to the offer. If you have a Power BI or PowerApps solution showcase, upload the showcase video here. Video links must be for YouTube or Vimeo.

Documents (limited to three)

Upload the marketing brochure that describes your consulting service offer in detail. You also can upload a company overview, fact sheets, or case studies. Make sure that your documents use the current names of featured products and don't feature Microsoft competing products.

Screenshots (limited to five)

Upload up to five images that provide more information about your offer, its deliverables, or your company. A snippet of your marketing brochure, a relevant slide from a presentation, or an image that shows company momentum or expertise are some examples.

Next steps

You're now ready to publish your consulting services offer.

Publish a consulting service offer

1/11/2019 • 2 minutes to read • Edit Online

After you finish **Offer Settings**, **Storefront Details**, and **Contacts**, select **Publish** and provide an email address. When Microsoft is ready to publish your offer, you receive an email to preview it before it goes live. You can return to the portal to check the status of your offer at any time.

Offers might appear in a "Publish canceled" or "Publish failed" status during the publishing process. These designations are a normal part of the process and allow Microsoft to make edits to your offer. If your offer appears as "Publish canceled," leave it as that status.

Lead destination

You can select a CRM system where your lead information is stored. The CRM system you select here is where we write information about the users who try your app on AppSource.

Based on the CRM system you choose, select the corresponding URL from the following list for information on how to fill out the next set of fields.

Select Azure Table if you have one of the following CRM systems:

- Marketo
- Microsoft Dynamics CRM
- Salesforce

Next steps

Continue on to learn how to publish your offer.

Containers

11/2/2018 • 2 minutes to read • Edit Online

This section explains how to publish a container image to the Azure Marketplace.
The container offer type supports Docker container images provisioned as Azure Kubernetes Service instances or Azure Container Instances and hosted in an Azure Container Registry repository.
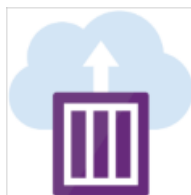
Offer components

This section outlines the elements of publishing a container, and is intended as a guide for the publisher to the Azure Marketplace. Publishing's divided into the following main parts:

- Prerequisites - lists the technical and business requirements before creating or publishing a container offer.
- Create the offer -lists the steps required to create a new container offer entry using the Cloud Partner Portal.
- Prepare the technical assets - how to create the technical assets for a container solution as an offer on the Azure Marketplace.
- Publish the offer - how to submit the offer for publishing to the Azure Marketplace.

Container publishing process

The following diagram illustrates the high-level steps in publishing a VM offer.
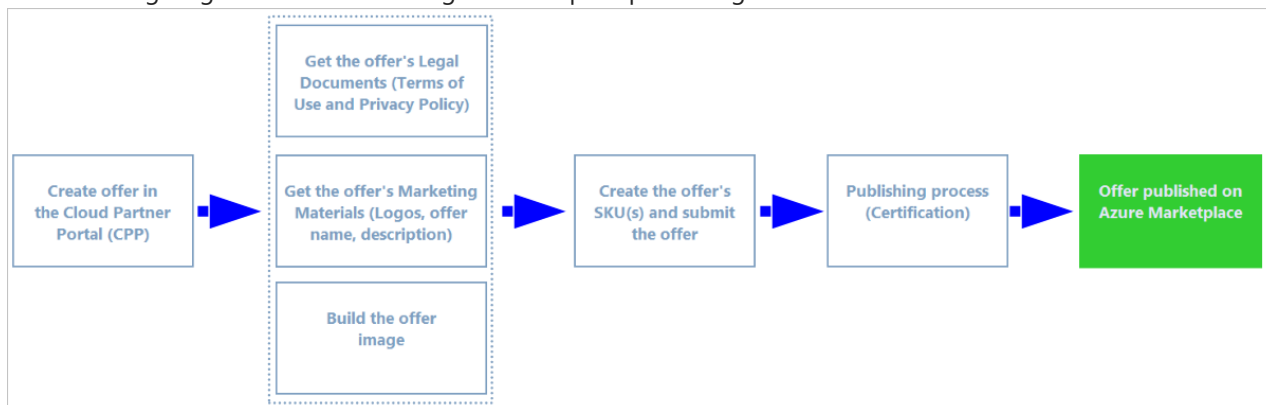
The high-level steps for publishing a container offer are:

1. Create the offer - Provide detailed information about the offer. This information includes: the offer description, marketing materials, support information, and asset specifications.
2. Create the business and technical assets - Create the business assets (legal documents and marketing materials) and technical assets for the associated solution (the containers images hosted in an Azure Container Registry.
3. Create the SKU - Create the SKU(s) associated with the offer. A unique SKU is required for each image you're planning to publish.
4. Certify and publish the offer - After the offer and the technical assets are completed, you can submit the offer. This submission starts the publishing process. During this process, the solution is tested, validated, certified, then "goes live" on the Azure Marketplace.

Next steps

Before you consider these steps, you must meet the technical and business requirements for publishing a container to the Microsoft Azure Marketplace.

Container publishing prerequisites

11/2/2018 • 2 minutes to read • Edit Online

This article describes the prerequisites for publishing a container offer on the Azure Marketplace.

Publishing prerequisites

To publish a new container image, you have to meet the following prerequisites:

- Access to the Cloud Partner Portal. For more information, see Azure Marketplace and AppSource publishing guide.
- Agreement to the Azure Marketplace Terms
- Host your container technical asset in an Azure Container Registry.
- Have your container metadata ready to use. For example, the following non-exhaustive list:
  - A title
  - A description (in HTML format)
  - A logo image (in PNG format) and in these fixed image sizes: 40x40 px, 90x90 px, 115x 115 px, and 255x115 px.
- A terms of use and a privacy policy
- Documentation
- Support contacts

Next steps

- Prepare your container technical assets
- Create your container offer

Create a new container offer with the Cloud Partner Portal

11/2/2018 • 2 minutes to read • Edit Online

This article describes how to create and publish a container offer entry for the Azure Marketplace. Every offer appears as its own entity in Azure Marketplace and is associated with one or more SKUs. A container offer is composed of the following groupings of assets and supporting services:

ASSET GROUP	DESCRIPTION
SKUs	The smallest deployable unit of an offer. A single offer (product class) can have multiple SKUs associated with the offer. You can use SKUs to differentiate between supported features and billing models.
Marketplace	Contains marketing, legal and lead management assets and specifications. • Marketing assets include offer name, description, and logos • Legal assets include a privacy policy, terms of use, and other legal documentation • Lead management policy enables you to specify how to handle leads from the Azure Marketplace end-user portal.
Support	Contains support contact and policy information

New Offer form

Sign in to the Cloud Partner Portal, and then select **+ New offer** on the left menu bar. On the New offer menu, select **Containers** to display the **New Offer** form and start the process of defining assets for a new container offer.
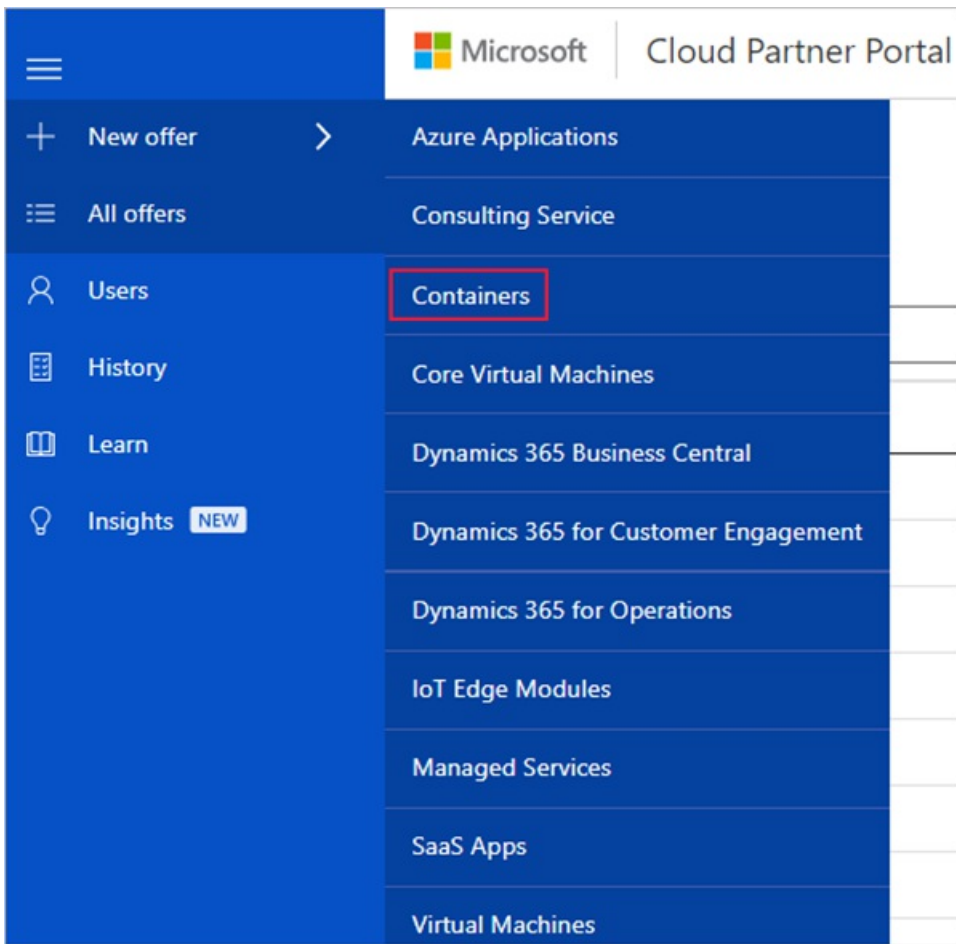
Next steps
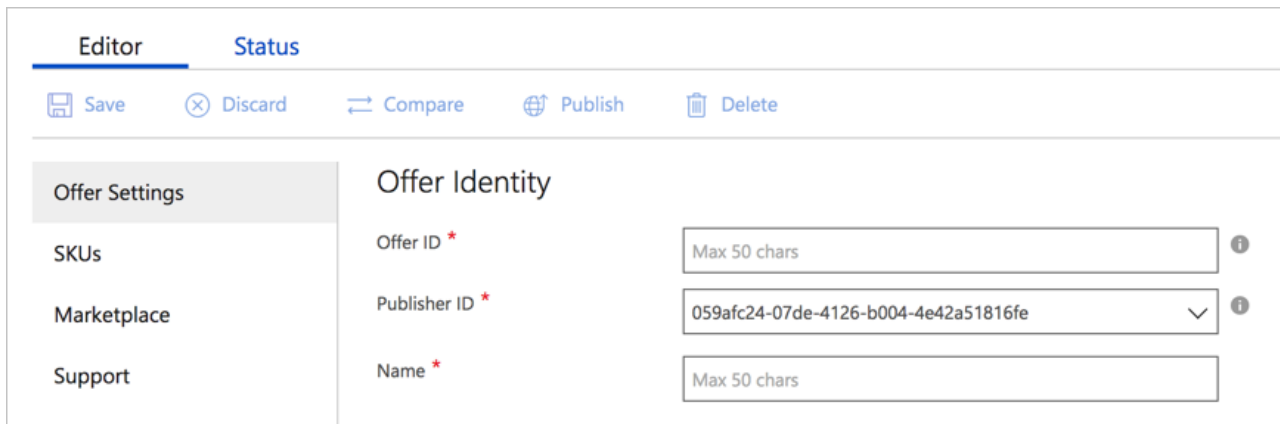
The **New Offer** page for the container offer type provides a set of tabs and form fields that you'll use to create a new offer. Each of the following articles explains how to use the tab to define the asset groups and supporting services for your new container offer.

- Offer Settings tab
- SKUs tab
- Marketplace tab
- Support tab

Container Offer Settings tab

11/2/2018 • 2 minutes to read • Edit Online

The **Containers > New Offer** page opens with the focus on the **Offer Settings** tab.

Offer Identity settings

Under **Offer Identity**, you must provide information for the fields described in the following table. An asterisk (*) appended to the field name indicates that it's required.

FIELD	DESCRIPTION
Offer ID	A unique identifier (within a publisher profile) for the offer. This identifier will be visible in product URLs and insights reports. It has a maximum length of 50 characters, and can use lowercase alphanumeric characters and dashes (-). (The identifier can't end with a dash.) **Note:** This field can't be changed after an offer goes live. For example, if Contoso publishes an offer with offer ID **sample-container**, it's assigned the Azure Marketplace URL `https://azuremarketplace.microsoft.com/marketplace/apps/contoso.sam container?tab=Overview` .
Publisher ID	Your organization's unique identifier in the Azure Marketplace. All your offerings should be associated with your publisher ID. This value can't be changed after the offer's saved.
Name	The display name for your offer. This name is displayed in the Azure Marketplace and in the Cloud Partner Portal. It can have a maximum of 50 characters. We recommend using a recognizable brand name for your product. Don't include your organization's name unless that's how your product is marketed. If you are marketing this offer in other websites and publications, ensure that the name is exactly the same across all publications.

Select **Save** to save your Offer Settings.

Next steps

Use the SKUs tab to configure the SKUs for your offer.

Container SKUs tab
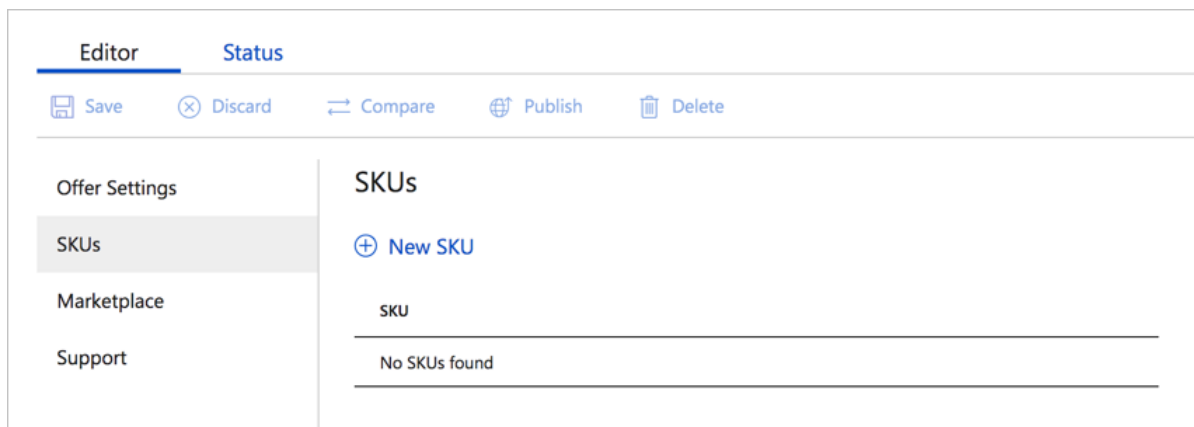
11/14/2018 • 2 minutes to read • Edit Online

The **SKUs** tab of the **New Offer** page enables you to create one or more SKUs and associate them to your new offer. You can use different SKUs to differentiate a solution by feature sets, billing models, or other characteristic.

SKU Settings

When you start creating a new offer, there aren't any SKUs associated with the offer. To create a new SKU, follow these steps:

1. In the SKUs tab, select **New SKU**
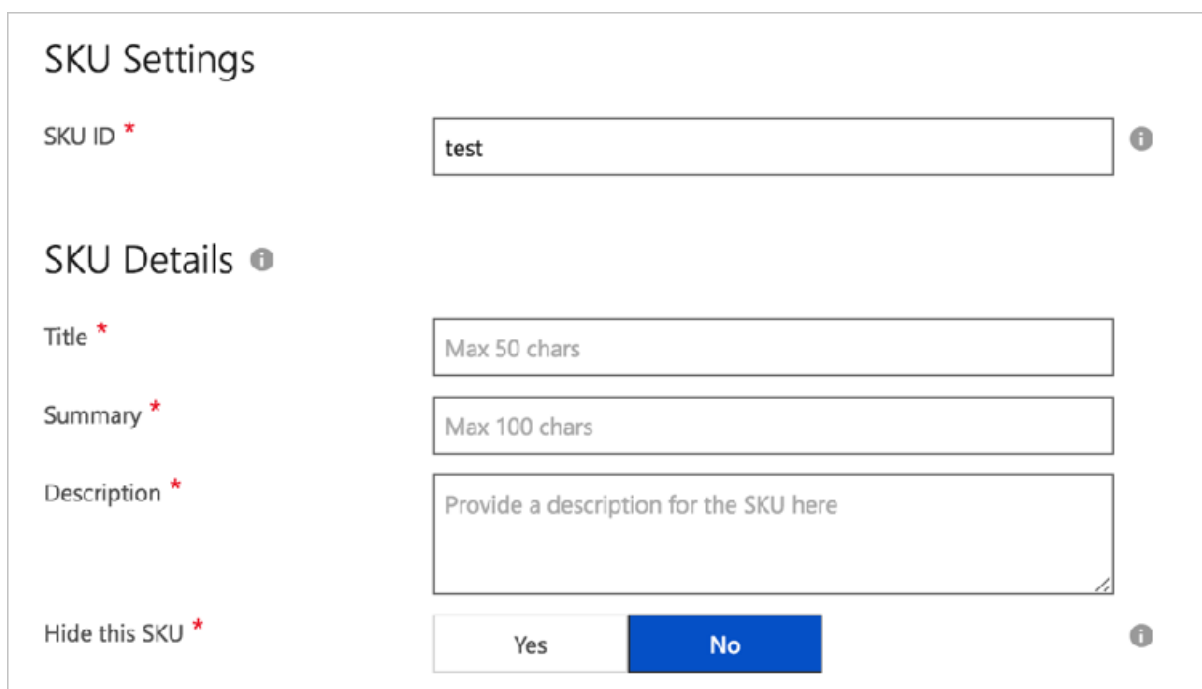
2. Provide the required SKU and container information. Each SKU corresponds to a container image. There are two parts to a SKU:

   - SKU metadata
   - Container metadata

SKU metadata

The SKU metadata contains storefront display information for the container listing.

Container metadata

The container metadata has reference information of your image repository details inside Azure Container Registry (ACR). Azure Marketplace copies this image into a Marketplace-specific, public registry and then makes the image available for customers after certification. All requests from the Azure user to consume an Azure Marketplace container image are served from the Marketplace's public registry, not ACR.

The **Image Repository Details** in the previous screen capture contains the following fields:

- **Subscription ID** - The Azure subscription ID where the ACR is present.
- **Resource group name** - The resource group name of the ACR.
- **Registry name** - The ACR name.
- **Repository name** - The repository name. After this name is set, this value can't be changed. Use a unique name to avoid a conflict with other offers in your account.
- **Username** - The username (admin username) associated with the ACR image.
- **Password** - The password associated with the ACR image.

> **NOTE**
>
> The username and password are required to ensure that partners have access to the ACR mentioned in the publishing process.

Image Version

When publishing a container image, you can provide one or more image tags, and SHA digests.

Image Tag or Digest

- This tag or digest must include a `latest` tag and a version tag (for example, starting with `xx.xx.xx-` where xx is a number). They should be manifest tags to target multiple platforms. All tags referenced by a manifest tag must also be added so we can upload them.
- You can add several versions of container using tags. All manifest tags (except `latest`) must start with either `X.Y-` or `X.Y.Z-` where X, Y, Z are integers.
  For example, if a `latest` tag points to `1.0.1-linux-x64`, `1.0.1-linux-arm32`, and `1.0.1-windows-arm32`, these tags need to be added here.

> **NOTE**
>
> Remember to add a **test tag** to your image so you can identify the image during testing.

Next steps

Use the Marketplace tab to create a marketplace description for your offer.

Container Marketplace tab

11/2/2018 • 2 minutes to read • Edit Online

The **Marketplace** tab of the **New Offer** page enables you to provide your prospective customers with marketing, sales, and legal information and agreements and manage leads generated from the marketplace. Add your marketing-specific content to the **Overview** section.

Overview

In this section, you enter the general information about your Azure Marketplace Offer. An asterisk (*) appended to the field name indicates that it's required.

The following table describes the purpose and content of these fields.

FIELD	DESCRIPTION
Title	Title of the offer. It will be displayed prominently in the marketplace. Maximum length is 50 characters.
Summary	Short summary of the offer. Maximum length is 100 characters.
Long Summary	Longer summary of the offer (though it could be the same as the **summary**). Maximum length is 256 characters.
Description	Description of the offer. Maximum length is 3000 characters, supports simple HTML formatting.
Marketing Identifier	A unique URL to associate to this offer, which typically includes your organization and solution name. Maximum length is 50 characters.

FIELD	DESCRIPTION
Preview Subscription Ids	Add one to 100 subscription identifiers of previewers. These white-listed subscriptions will have access to the offer once it's published, before it goes live.

Next steps

Use the Support tab to provide the technical and user support resources for your offer.

Container Support tab

11/2/2018 • 2 minutes to read • Edit Online

Use the **Support** tab of the **New Offer** page to provide technical and user support resources for your offer. The following input areas are provided on the Support form: **Engineering Contact**, **Customer Support**, and **Support Urls**. An asterisk (*) appended to the field name indicates that it's required.

Support form fields

Provide the required information for the Engineering Contact and Customer Support fields.

Engineering Contact

The Engineering contact is the technical contact between your organization and Microsoft. The following information is required.

- **Name** - Name of the person or group that serves as technical/engineering support.
- **Email** - Email address of this technical contact.
- **Phone** - Phone number for technical support.

Customer Support

The Customer Support contact receives support tickets opened by customers in Azure. The following information is required.

- **Name** - Name of the person or group that serves as customer support.
- **Email** - Email address of this support contact.
- **Phone** - Phone number for customer support.

Next steps

After you finish providing support information, you're ready to publish your offer.

Prepare your container technical assets

This article describes steps and requirements for configuring a container offer the Azure Marketplace.

Before you begin

Review the Azure Container Instances documentation, which provides Quickstarts, Tutorials, and Samples.

Fundamental technical knowledge

Designing, building, and testing these assets take time and requires technical knowledge of both the Azure platform and the technologies used to build the offer.

In addition to your solution domain, your engineering team should have knowledge on the following Microsoft technologies:

- Basic understanding of Azure Services
- How to design and architect Azure applications
- Working knowledge of Azure Virtual Machines, Azure Storage and Azure Networking
- Working knowledge of Azure Resource Manager
- Working Knowledge of JSON

Suggested tools

Choose one or both of the following scripting environments to help manage your container image:

- Azure PowerShell
- Azure CLI

In addition, we recommend adding the following tools to your development environment:

- Azure Storage Explorer
- Visual Studio Code
    - Extension: Azure Resource Manager Tools
    - Extension: Beautify
    - Extension: Prettify JSON

We also suggest reviewing the available tools in the Azure Developer Tools page and, if you are using Visual Studio, the Visual Studio Marketplace.

Create the container image

- Create and configure the virtual hard disk (VHD) for your container virtual machine (VM). This VHD contains the operating system (Windows, Linux, or Ubuntu) for the container. Additional data disks may be required.
- Configure the VM OS, VM size, ports to open, and any attached data disks.
- Install the application and other software that's needed for your offer. For example: database software, third party software, or a custom application.

Next steps

Create your container offer

Publish container offer

11/2/2018 • 2 minutes to read • Edit Online

After you create a new offer using the **New Offer** page, you can publish the offer. Select **Publish** to start the publishing process.

The following diagram shows the main steps in the publishing process for an offer to "go live".

Detailed description of publishing steps

The following table describes each publishing step. An estimated time to finish each step is also given.

PUBLISHING STEP	TIME	DESCRIPTION
Validate prerequisites	15 min	Offer information and offer settings are validated.
Certification	1 week	Offer is analyzed by the Azure Certification Team. The offer is scanned for viruses, malware, safety compliance, and security issues. The offer is checked to see that it meets all the eligibility criteria. For more information, see prerequisites and preparing your technical assets. Feedback's provided if an issue is found.
Packaging	1 hour	Offer's technical assets are packaged for customer use and the lead systems are configured and setup.

PUBLISHING STEP	TIME	DESCRIPTION
Publisher sign-off	-	Final publisher review and confirmation before the offer goes live. You can deploy your offer in the selected subscriptions (in the offer information steps) to verify that it meets all your requirements. Select **Go Live** so your offer can move to the next step.
Packaging	1 hour	The finished offer is replicated in marketplace production systems and regions.
Live	4 days	Offer is released, replicated to the required regions, and made available to the public.

Allow for up to 10 business days for the publishing process to finish and the offer is released. After you finish the publishing process, your container offer will be listed in the Microsoft Azure Marketplace.

Next steps

Update an existing container offer on Azure Marketplace

Update an existing container offer

11/2/2018 • 2 minutes to read • Edit Online

This article steps through the different aspects of updating your container offer in the Cloud Partner Portal.

There are several reasons why you might want to update your offer, such as:

- Adding a new container image version to existing SKUs.
- Adding new SKUs.
- Updating the marketplace metadata for the offer or individual SKUs.

To assist you in these modifications, the portal provides the **Compare** and **History** features.

Unpermitted changes to a container offer or SKU

There are attributes of a container offer or SKU that can't be changed after the offer is live on the Azure Marketplace. You can't change the following settings:

- **Offer ID** and **Publisher ID** of the offer
- **SKU ID** of existing SKUs
- Version tags, for example: `1.0.1`
- Billing/license model changes to existing SKUs

Common update operations

The following update operations are common.

Update container image version for a SKU

It's common for a container image to be periodically updated with security patches, additional features, and so on. In this scenario, you want to update the container image that your SKU references by using the following steps:

1. Sign into the Cloud Partner Portal.
2. Under **All offers**, find the offer you want to update.
3. In the **SKUs** tab, select the SKU associated with the container image to update.
4. Under **Container image**, select **+ New Image Version** to add a new container image.
5. Provide the new container **image versions**. The image version needs to follow the same tags guidelines as previous versions. Version tags should be of the form X.Y.Z, where X, Y, and Z are integers. Verify that the new version you provide is greater than all previous versions.
6. Select **Publish** to start the workflow to publish your new container image version to the Azure Marketplace.

Add a new SKU

Use the following steps to make a new SKU available for your offer:

1. Sign into the Cloud Partner Portal.
2. Under **All offers**, find the offer you want to update.
3. Under the **SKUs** tab, select **Add new SKU** and provide a **SKU ID** in the pop-up window.
4. Republish the container using the steps described in Publish container offer.
5. Select **Publish** to start the workflow to publish your new SKU.

Update offer marketplace metadata

Use the following steps to update the marketplace metadata associated with your offer. (For example: company name, logos, and etc.)

1. Sign into the Cloud Partner Portal.

2. Under **All offers**, find the offer you'd like to update.

3. Go to the **Marketplace** tab. Use the instructions in the Publish container offer offer article to make metadata changes.

4. Select **Publish** to start the workflow to publish your changes.

Compare feature

When you make changes to a published offer, you can use the **Compare** feature to audit the changes that you've made.

To use the Compare feature:

1. At any point in the editing process, select Compare for your offer.

2. Look at side-by-side versions of marketing assets and metadata.

History of publishing actions

To see historical publishing activity, select the **History** tab on the left navigation menu bar of Cloud Partner Portal. You can see the timestamped actions taken during the lifetime of your Azure Marketplace offers.

Dynamics 365 Business Central offer

11/5/2018 • 2 minutes to read • Edit Online

This section explains how to publish a Dynamics 365 Business Central solution to the Microsoft AppSource Marketplace. Microsoft Microsoft Dynamics 365 Business Central is an enterprise resource planning (ERP) system that handle a wide range of business processes, including finance, operations, supply chain, CRM and project management and electronic commerce. Premium packages also support service management and manufacturing.

Publishing benefits

There are many benefits of using Microsoft Dynamics 365 Business Central to publish applications to AppSource:

- Enrich Dynamics 365 Business Central, a proven Microsoft online solution, with your expertise.
- Leverage the Dynamics 365 brand–a brand that millions of users know and trust.
- Reach more customers for your business apps with Microsoft AppSource.
- Achieve more from a platform that delivers a modern experience and offers scale.
- Bundle with intelligent business apps such as Microsoft PowerApps, Microsoft Flow, Power BI, Cortana Intelligence, and many more.

Publishing process

Use the following steps to develop your Dynamics 365 Business Central app and publish it to AppSource:

1. You must have a Microsoft Partner Network ID, a Developer account, and a PSBC account. For more information, see the whitepaper Step 1 - Create your accounts.
2. Share your Business Central app idea with us on Microsoft AppSource. After submitting your idea, we will engage with you and provide you with additional resources. For more information, see Step 2 - Engage with us about your app idea.
3. Develop the technical assets for your app and then submit it for validation. Use the Checklist for Submitting Your App to guide you in this step.
4. Develop the marketing assets for your app as described in the whitepaper Step 2.2 - Develop the marketing aspects of your app.
5. Publish your app as described in the subsequent articles in this section. This same information can also be found in the whitepaper Step 3 - Publish your app.

Next steps

Review the publishing process in detail in the Publish overview.

Bring your Microsoft Dynamics 365 Business Central app into Microsoft AppSource

10/4/2018 • 2 minutes to read • Edit Online

There are plenty of benefits of using Dynamics 365 Business Central as a platform for app builders:

- Enrich Dynamics 365 Business Central, a proven Microsoft online solution, with your expertise.
- Leverage the Dynamics 365 brand--a brand that millions of users know and trust.
- Reach more customers for your business apps with Microsoft AppSource.
- Achieve more from a platform that delivers a modern experience and offers scale.
- Bundle with intelligent business apps such as Microsoft PowerApps, Microsoft Flow, Power BI, Cortana Intelligence, and many more.

To bring your Business Central app into Microsoft AppSource:

1. Create your accounts.
2. Engage with us about your app idea.
   - Develop the technical aspects of your app
   - Develop the marketing aspects of your app
3. **Publish your app.**

The typical application process and timeline will be as follows:
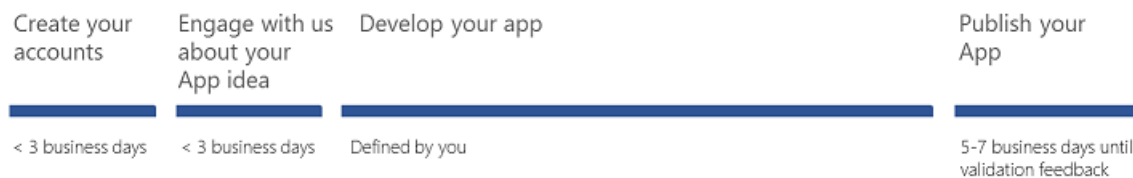
To learn more about this application type, see Announcing Dynamics 365 Business Central.

How to create your new Microsoft Dynamics 365 Business Central offer

10/4/2018 • 2 minutes to read • Edit Online

After you have built your app, you must define all the attributes that will determine how your app will be listed in Microsoft AppSource. For example, you must provide your company information, your offer and plans, marketing information, a support contact, and the Microsoft AppSource categories.

To define the attributes, Sign into the Microsoft Cloud Partner Portal, using the Microsoft account you used for registration in the Developer Center.

1. In the Cloud Partner Portal, from the left navigation bar, click on **+ New offer** and select **Dynamics 365 Business Central** from the list of applications.
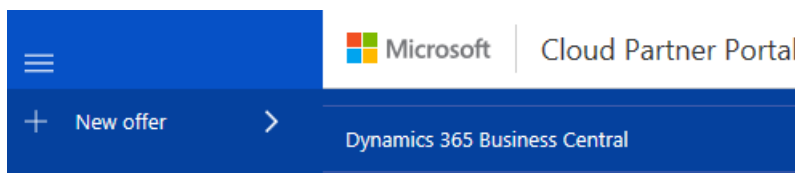
2. A new offer "Editor" view is now opened for you, and you are ready to start authoring.
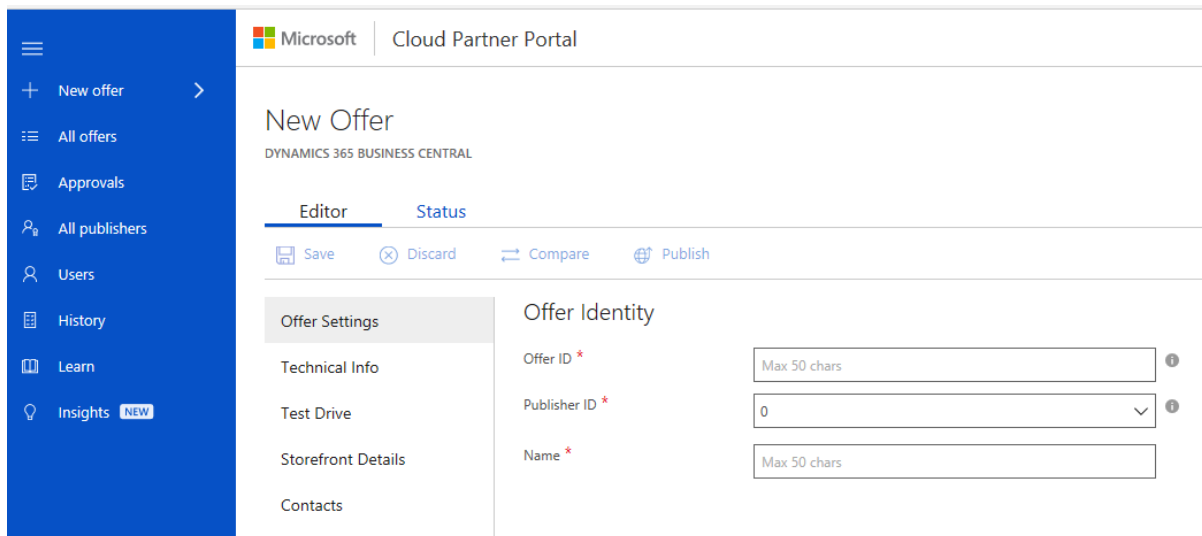
3. In the "Editor" view, you can see an overview of the tabs that have to be completed. Each tab consists of a set of fields that are to be filled out. Required fields are marked with a red asterisk (*). You won't be able to proceed to the next publishing step without completing these fields. The following tabs are displayed for a Dynamics 365 Business Central app:

- **Offer Settings**
- **Technical Info**
- **Storefront Details**
- **Contacts**

How to fill out the Offer Settings form

10/4/2018 • 2 minutes to read • Edit Online

The offer settings form is a basic form to specify the offer settings. The required fields are described below.

Offer ID

`OfferId` is a unique identifier for the offer within a publisher profile. This ID will be visible in product URLs. It can only be composed of lowercase alphanumeric characters or dashes (-). The ID cannot end in a dash and can have a maximum of 50 characters. This field is locked once an offer goes live.

If, for example, the partner "Contoso" creates an offer ID called "sample-Web App", it will show up in AppSource as:

```
https://appsource.microsoft.com/marketplace/apps/contoso.sample-Web App?tab=Overview
```

Publisher ID

This dropdown allows you to choose the publisher profile you want to publish this offer under. This field is locked once an offer goes live.

Name

This is the display name for your app/offer, which will be displayed in Microsoft AppSource. It can have a maximum of 50 characters.

> **NOTE**
>
> The short name must be the same as the publisher name specified in the app manifest.

Click on **Save** to save your progress. Next step would be to add technical information for your offer.

How to fill out the Technical Info form

10/4/2018 • 2 minutes to read • Edit Online

1. In the **Choose Application Type** section, upload your extension package file (.app) and any extension package files your extension has a dependency on.

- **Extensions Package File** -- Required - the extension package file (.app).

- **Dependency package file** -- Required if the app has a dependency on another app published in AppSource. This .app file of an already published extension in AppSource, which the current app is dependent upon.

- **Library Package File** - Required if the app has a dependency on another app that is *not* published in AppSource. This .app file of an existing app, but one that has not been and will not be published in AppSource.

- **App Test Automation** -- Required - the VS Coded test package that you must create for automated testing of extensions.

1. In the **Additional Information for the extension** section, upload additional information for your extension. This information is used during validation.

- **URL to Product Documentation** -- Required - URL to the documentation for the extension.

- **Key Usage Scenarios** -- Required - a document that lists the step by step setup and usage details for the extension. An example can be found in the article User Scenario Documentation.

- **Target Release** -- Required - Select the release on which to deploy the app. Select **current** to deploy on the current in market version. Select **next minor** to deploy with the next minor version to be released. Select **next major** to deploy with the next major version to be released.

- **Requires Premium SKU** -- Optional -- Select the Premium button if the app requires the Premium SKU. Service Management and Manufacturing are available only on premium. Detailed information on Essential vs Premium can be found in the article Changing Which Features are Displayed.

- **Explanation for Code Analysis Errors** -- Optional -- Document that lists and justifies any code that doesn't meet the requirements.

- **Explanation of Impacted Core Functionality** -- Optional -- Document that lists and explains any core functionality that is limited by the extension.

- **Test Accounts** -- Optional -- User accounts for remote services, web sites, etc. that will be needed to complete the end to end usage test.

- **UX requirements exceptions** -- Optional -- Document that lists and justifies any user experience requirements not met by the extension.

The next step is to add storefront details for your offer.

How to fill out the Storefront Details form

10/17/2018 • 4 minutes to read • Edit Online

Simply listing your app's features and functionality will not convert prospects to buyers. For more information about how to best market your app in the AppSource marketplace, see the white paper Developing Apps for Dynamics 365 for Finance and Operations.

Offer Summary

This summary will appear on AppSource, as a summary in the overview of apps, as well as on the app detail page just below your app name and the publisher name. We recommend you to create curiosity and a positive mental acknowledgement by asking prospects a question they either do not know the answer to or can relate to. The question should stimulate a strong emotional response. Speak to a core pain they are likely experiencing that has a negative measurable impact. It should be a maximum of 100 characters.

Microsoft

AppSource

Apps > LS Express Start

LS Express Start
LS Retail

Tired of your POS and retail system holding you back?

LS Express Start is a complete online POS system with all the tools retailers need to run their business, straight out of the box. LS Express Start is platform-independent, and runs on iOS, Android and Windows. The system is fully optimized for touch screen, making it an ideal fit for dynamic businesses looking for a flexible, **mobile Point of Sale**. LS Express Start is totally integrated in Microsoft Dynamics 365 for Financials, which means you can **use the capabilities of the Microsoft suite** to improve your service and increase your profitability: customize your receipts in Microsoft Word, use your sales to generate forecasts or run your

GET IT NOW

Pricing
Free

Products

Offer Description

This description will appear on AppSource, just below your **Offer Summary**. When describing your solution, do not focus on the underlying technology or operational features. Prospects can learn about the details later. Your primary objective is conversion, which means motivating prospects into action. The optimal approach is to remind them of the pain they are likely experiencing and reference the benefits they will experience once they start using your solution. Clearly articulate a compelling desired outcome and result. We recommend you to add a link to your app landing page at the end of your description. Maximum allowed is 1300 characters

Industries

Select the industry that your app is best aligned to. If your app relates to multiple industries, you can leave this blank

Categories

Select the categories that are relevant to your app. Select at least one category and a maximum of three. Choose carefully because customers can search on AppSource based on the categories

App type
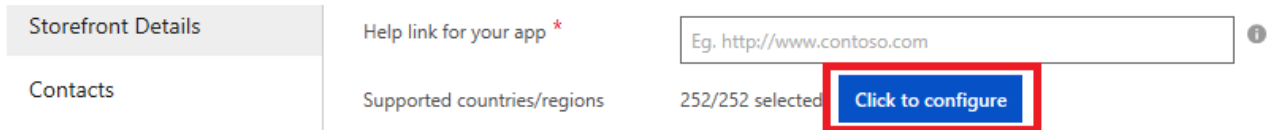
Select the type of trial that your app will enable on AppSource. **Free** means your app is free. **Trial** means customers can try your app for a short period on AppSource. **Request for trial** means customers can request a trial of the app from AppSource.

Help link for your app

There must be an active help link that guides customers to online product help related to your app. It is best practice to include instructions about set up, links to existing videos and documentation, and to the most frequently asked questions.

Supported countries/regions

This field determines the countries/regions in which your offer will be available for trial. You can only choose countries where Microsoft Dynamics 365 Business Central is already available or in preview. For the current list, see Countries and Translations Supported.

Supported languages

Select the languages that your app supports. If your app supports additional languages that are not on this list, continue to publish your offer and email us at appsource@microsoft.com to let us know.

App version

Enter the version number for your app

Products your app works with (Max 3)

List specific products that your app works with. You can list maximum of three products. To list a product, click on the plus sign (beside new) and a new open text field will be created for you to enter the name of a product that your app works with.

Hide key

Provide a hide key that can be used to view your staged offer in AppSource. You can enter any string here

Offer logo (png format, 48x48)

This logo will appear on AppSource in the overview of app or app results, when completing a search. *Only png format is allowed.* Upload a png image with resolution of 48PX*48PX

Offer logo (png format, 216x216)

This will appear on AppSource on your app's detail page. *Only png format is allowed.* Upload a png image with resolution of 216PX*216PX

Video

It is recommended that you upload at least one video (but not a requirement). Up to a total of four videos are permitted. For each video you want to upload, you need to fill in the video name, URL (YouTube or Vimeo only) and Thumbnail to associate with the video. Thumbnail must be in png format and must be 1280PX*720PX. To add new video(s), click on the plus sign - see screenshot below. Videos thumbnail(s) will appear on AppSource.

Document

Documents you upload here will appear on AppSource under "Learn more". You can upload maximum three documents in PDF format. For each document you want to upload, you need to fill in the document name, and upload the document. Document must be in pdf format. To add new document(s), click on the plus sign - see screenshot below

Screenshots

A minimum of three screenshots is required, up to a maximum of five are permitted. Take the screenshots in the Financials sandbox and choose screenshots that include realistic demo data and tell a compelling, engaging story.

Privacy Policy

Enter URL to your app's Privacy Policy document.

Terms of use

Enter the Terms of Use for your app. AppSource customers are required to accept these terms before they can try your app

Customer Support

There must be a specific support page that provides customers with different contact options. Include support via phone, email message, and ideally live chat, if possible.

Lead Destination

Select a CRM system where you lead will be stored. Select "Azure Table" here if you have one of the following CRM systems: Salesforce, Marketo, Microsoft Dynamics CRM. The CRM system you select here is where we will write details of end users that try your app on AppSource (leads). Depending on the CRM system you select, click the corresponding URL below for information on how to complete the next set of fields

- Azure Table
- Marketo
- Microsoft Dynamics CRM
- Salesforce

Next step is to proceed with app publishing.

App Publishing Steps

10/4/2018 • 4 minutes to read • Edit Online

To start the Publish process, you will click "Publish" under the Editor tab.
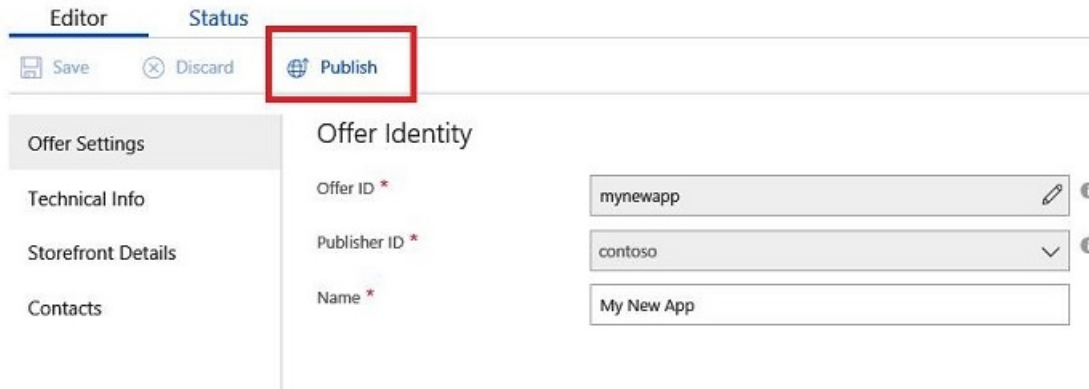
Under the Status tab, you will see the Publishing Steps indicating where your offer is in the publishing process. At any point in the publishing process, you can also sign in and click the All Offers tab to view the latest status for any of your offers. You can click directly on the status for your offer and see the details on where your offer is in the publishing process.

Let's walk through each of the publishing steps, discuss what happens at each step and how long you should estimate each step will take.
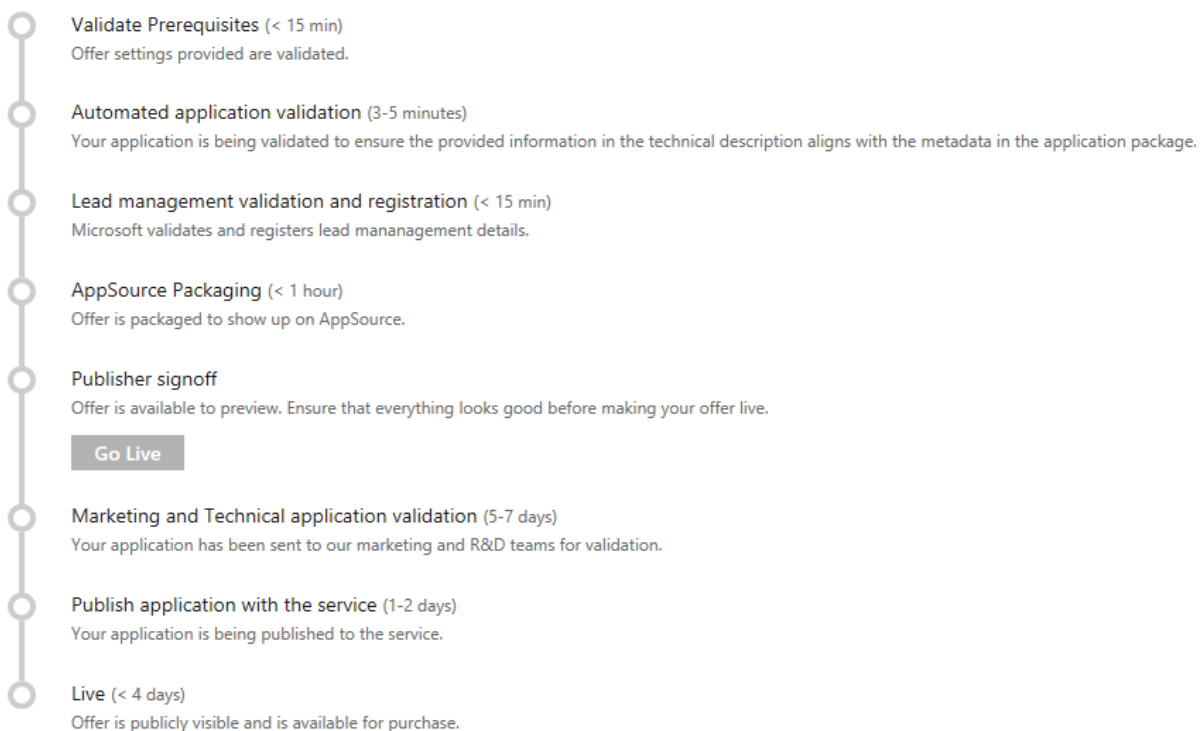
Validate Prerequisites

When you click "Publish", an automated check will take place to ensure you've populated all the required fields on your offer. If any fields are not populated, a warning will appear next to the field and you will need to populate it accurately then click 'Publish' again.

Once you've completed this step correctly, a pop-up will appear asking for an email address, which will be used to send you publishing notifications. Once you submit your email address, this step is complete.

Automated application validation

In this step, our automated certification service checks application extensions provided with an offer that their content aligns with offer metadata. Always make sure that your app name, version, publisher, and ID matches with provided in extension manifest named `app.json`.

Test Drive validation

If you have opted to set up Test Drive, this stage is where your Test Drive settings are validated.

Lead management validation and registration

During this stage, if you configured the Lead Generation feature, we will validate that your CRM integration is working by sending a test lead to your CRM. You will see a record with fake data populate in your CRM or Azure Table after this step is complete. All documentation for Lead Generation is located here.

AppSource packaging

Your Storefront details artifacts are being checked and AppSource preview package is being generated.

Publisher sign out

During this stage, the **Go Live** button will now become active. You will also now have a link to preview your offering (with your hidekey). Once you are happy with how your preview looks, click the Go Live button. Keep in mind, this request does not make your app live on App Source, but instead it triggers our internal validation process.

Marketing and Technical application validation

This step is where we conduct the marketing and technical validations in parallel. Refer to the Checklist for Submitting Your App and Developing Apps for Dynamics 365 for Finance and Operations white paper guidance docs for mandatory requirements and recommendations. During the validation process, we will:

- work with you on any outstanding questions and issues.
- provide you with an app publishing date, and notify you when your app is published.
- provide you with a first feedback concerning the technical and the marketing validation within 5-7 business days.

These steps can typically take over a week, and there is no need for you to stay continuously logged into the Cloud Partner Portal.

Publish application with the service

Your offer is going through some final processing. Your app has passed both marketing and technical validation, but must now go through some final processing to make it ready for App Source.

Live

Your offer is now Live on AppSource, and customers will be able to view and deploy your app in their Microsoft Dynamics 365 Business Central subscriptions. You will receive an e-mail from us, notifying you that your app has been made public on App Source. At any point, you can click on the All offers tab, and see the status for all your offers listed on the right column. You can click on the status to see the publishing flow status in detail for your offer.

Error Handling

During the publishing process, an error may be encountered. If an error is encountered, you will receive a notification email informing you that an error occurred with instructions on next steps. You can also see errors at any time during this process by clicking the Status tab. You will see which point in the process the error occurred along with an error message outlining what needs to be resolved.

If you encounter errors during the publishing process, you are required to fix these errors, then click **Publish** to restart the process. You must start at the beginning of the publishing steps at **Validate Pre-Requisites** when republishing after any error fix.

If you are having issues resolving an error, you should open a support request to get help from our support engineers.

Canceling the publishing request

You might start the process of publishing and have a need to cancel your request. You can only cancel a publishing request once the publish request reaches the Publisher Signoff step. To cancel, click on **Cancel Publish**. The publishing status will reset to Step 1, and to publish again, you should click Publish and follow the steps in the status.
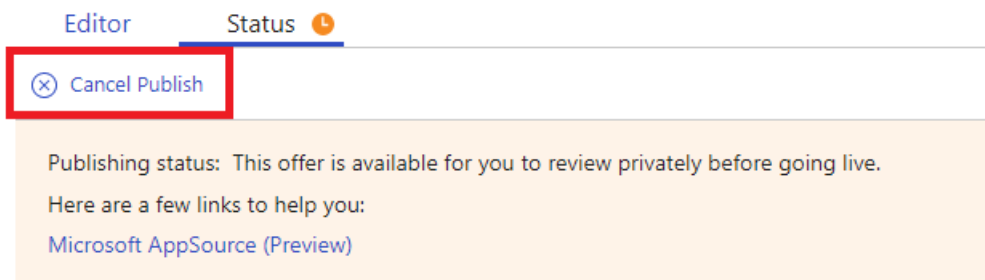
Dynamics 365 for Customer Engagement offer

1/7/2019 • 2 minutes to read • Edit Online

This section explains how to publish a Dynamics 365 for Customer Engagement solution to the Microsoft AppSource Marketplace. All apps for Dynamics 365 for Customer Engagement (Sales, Service, Project Service, and Field Service) must go through our certification process and support a trial experience. The certification process checks your solution for standard requirements, compatibility, and proper practices. The trial experience allows users to deploy your solution to a live Dynamics 365 environment.

Publishing overview

The following video, Deliver a compelling experience on Microsoft AppSource (Build 2018), provides an overview of the AppSource Marketplace and the benefits of this ecosystem. Next it demonstrates an example of a custom Dynamics 365 for Customer Engagement application, the benefits of providing a Test Drive trial, and how to publish to AppSource.

Publishing process

The subsequent articles in this section guide you through the process of creating and publishing a Dynamics 365 for Customer Engagement application. We recommend reading the parallel information in the Dynamics 365 documentation section Publish your app on AppSource.

Next steps

Before creating a new Dynamics 365 for Customer Engagement offer, you must meet the prerequisites for this offer type.

Dynamics 365 for Customer Engagement prerequisites

1/7/2019 • 2 minutes to read • Edit Online

This article describes the technical and business prerequisites for publishing a Dynamics 365 for Customer Engagement application offer on the AppSource Marketplace.

Technical requirements

Your Dynamics 365 for Customer Engagement application must conform to the Microsoft AppSource app review guidelines, which includes the following requirements:

REQUIREMENT	DESCRIPTION
Azure Active Directory integration	Your app must allow Azure Active Directory federated single sign-on (AAD federated SSO) with consent enabled. For more information, see How to get AppSource Certified for Azure Active Directory.
Integration with Microsoft Cloud services (optional)	Where this functionality is required, your app should integrate with other Microsoft Cloud services like Microsoft Power BI, Microsoft Flow, or Microsoft Azure services such as machine learning or cognitive services.
Line-of-business focused	Your app must focus on a well-defined business process or issue, primarily target business customers, and enable users to sign in with their work credentials (username and password).
Free trial period and trial experience	A customer must be able to use your app for free for a limited time: either a "Get it now" for free apps, a "Free trial" for a specified period, a "Test drive" demonstrator, or a "Contact me" request option.
No/low configuration	Your app must be easy and quick to configure and set up (no development or customization required).
Customer support	Support for your app must include a support link where customers can find help.
Availability/uptime	Your app must have an uptime of at least 99.9%.

Business requirements

The business requirements include the following procedural, contractual, and legal obligations:

- You must be registered on the Microsoft Partner Network (MPN) or be a registered Cloud Marketplace Publisher. If you're not registered, follow the steps in Become a Cloud Marketplace Publisher. (For the third step, instead use the AppSource partner nomination form).

> **NOTE**
>
> You should use the same Microsoft Developer Center registration account to sign in to the Cloud Partner Portal. You should have only one Microsoft account for your Azure Marketplace offerings. This account shouldn't be specific to individual services or offers.

- Because AppSource doesn't offer a commerce-enabled publishing option, you must use your current ordering and billing infrastructure with no additional investment or changes.

- You're responsible for making technical support available to customers in a commercially reasonable manner. This support can be free, paid, or through community approaches.

- You're responsible for licensing your software and any third-party software dependencies.

- You should have created the associated marketing collateral, such as an official app name, description (in HTML format), logo images in PNG format (40 x 40, 90 x 90, 115 x 115, and 255 x 115 pixels), and Terms of Use and a Privacy policy.

Next steps

After you have met these requirements, you can create a Dynamics 365 Customer Engagement offer

Create a Dynamics 365 for Customer Engagement application offer

1/7/2019 • 2 minutes to read • Edit Online

This section describes how to create and publish a Dynamics 365 for Customer Engagement application offer for the AppSource Marketplace. Every offer appears as its own entity in the marketplace and is composed of the following groupings of assets and supporting services: offer details, package technical information, marketing artifacts, support information, and optional Test Drive specifications.

New Offer form

Sign in to the Cloud Partner Portal, and then select **+ New offer** on the left menu bar. On the New offer menu, select **Dynamics 365 for Customer Engagement**:
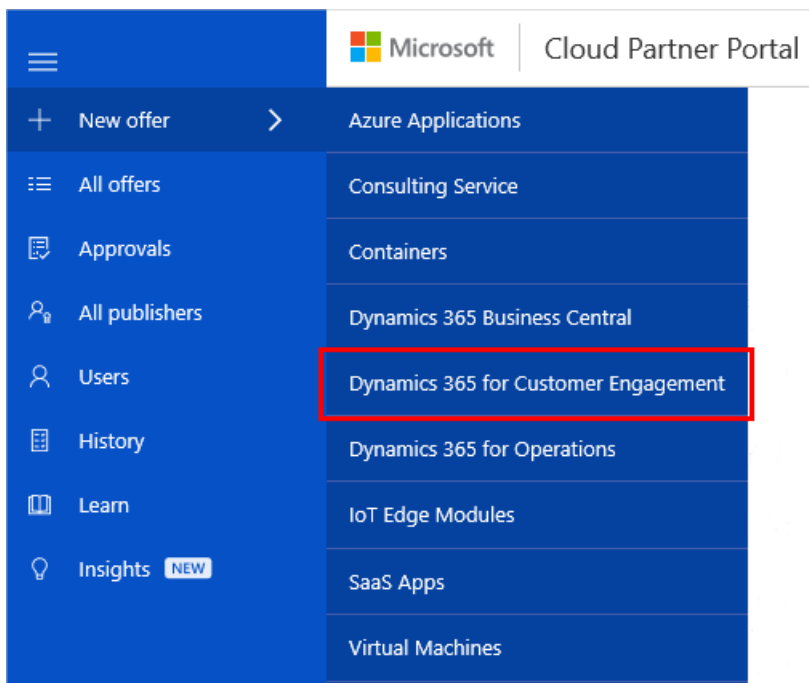
The **New Offer** form is displayed, showing the initial **Offer Settings** tab.

Next steps

The **New Offer** page provides a set of tabs and form fields that you'll use to create a new offer. The following articles explain how to define the asset groups and supporting information for your new offer.

- Offer Settings tab
- Technical Info tab
- Test Drive tab
- Storefront Details tab
- Contacts tab

Dynamics 365 for Customer Engagement Offer Settings tab

1/7/2019 • 2 minutes to read • Edit Online

This article describes how to configure the offer settings for a Dynamics 365 for Customer Engagement application.

The **Dynamics 365 for Customer Engagement** > **New Offer** page opens with the focus on the **Offer Settings** tab. An asterisk (*) appended to the field name indicates that it's required.

Offer Settings fields

The following table describes the fields in this tab.

FIELD	DESCRIPTION
Offer ID	A unique identifier (within a publisher profile) for the offer. This identifier will be visible in product URLs and insights reports. It has a maximum length of 50 characters, and can use lowercase alphanumeric characters and dashes (-). (The identifier can't end with a dash.) **Note:** This field can't be changed after an offer goes live because it's tied to the offer's marketplace base URL.
Publisher ID	Your organization's unique identifier in the Azure Marketplace. All your offerings should be associated with your publisher ID. This value can't be changed after the offer is saved.

FIELD	DESCRIPTION
Name	The display name for your offer. This name is displayed in the AppSource Marketplace. It can have a maximum of 50 characters. We recommend using a recognizable brand name for your product. Don't include your organization's name unless that's how your product is marketed. If you are marketing this offer in other websites and publications, ensure that the name is exactly the same across all publications.

Select **Save** to save your offer settings.

Next steps

Use the Technical Info tab to configure the application and package information for your offer.

Dynamics 365 for Customer Engagement Technical Info tab

1/7/2019 • 2 minutes to read • Edit Online

The **Technical Info** tab of the **New Offer** page enables you to specify detailed information about your Dynamics 365 for Customer Engagement application, including CRM package and marketing logo assets. This tab is divided into four sections: **Application Info**, **CRM Package**, **CRM Package Availability**, and **Marketing Artifacts**. An appended asterisk (*) on a field name indicates that it is required.

Application Info section

You will provide details about your Dynamics 365 application in this section.

The following table describes these fields.

FIELD	DESCRIPTION
Base license model	License model determines how customers are assigned your application in the Dynamics 365 Admin Center. **Resource** licensing is instance-based, whereas **User** licenses are assigned one per tenant.
S2S outbound & CRM Secure Store Access	Enables configuration of CRM Secure Store or Server-to-Server (S2S) outbound access. *This feature requires specialized consideration from the Dynamics 365 Team during the certification phase.* Microsoft will contact you to complete additional steps to support this feature.

FIELD	DESCRIPTION
Subscribe to CRM life-cycle events	Integration with Dynamics 365 Life Cycle events requires you to provide a dedicated service that is registered through a special agreement with Microsoft. *This feature requires specialized consideration from the Dynamics 365 Team during the certification phase.* You will be contacted to complete additional steps to support this capability.
Application Configuration Url	URL of the web page that enables the user to configure the application
Applicable Dynamics 365 products	Select the Dynamics 365 products that this offer applies to. This offer will show up under selected products in AppSource.
Marketing Only Change	Setting this option to Yes indicates that only marketing/descriptive changes have been made to the existing offer. Such changes allow the offer to bypass the certification and provisioning stages.

CRM Package section

You will provide details about your AppSource package file in this section. This information will be used by the Dynamics 365 validation and certification teams.

The following table describes these fields.

FIELD	DESCRIPTION
Filename of your package	Filename of your package (.zip). This name is *not* public and will be used internally by Dynamics 365 certification team.
Url	URL of an Azure Storage account that contains the uploaded package file. This URL should include a read-only SAS key to allow our team to pick up your package for verification.
More than one crm package	Select Yes ONLY if you are supporting multiple versions of crm with different packages. Each version will have a corresponding package file tht you must create individually.
Scenario and use case asset	Enables the upload of a functional specification document for your application, for use by the Dynamics 365 validation team. The preferred format for this spec is the E2E User Scenario Template.

FIELD	DESCRIPTION

CRM Package Availability section

In this section, select which geographic regions your application will be available to customers. Deploying to the following sovereign regions *require special permission and validation* during the certification process: Germany, US Government Cloud, and TIP.

Marketing Artifacts section

This section requires you to upload an application logo that will be used to represent your package in the AppSource Marketplace. The logo image must be in the PNG format and be of size 255 x 115 pixels.

Next steps

We recommend that you offer a demonstration of your application by completing the Test Drive tab

Dynamics 365 for Customer Engagement application Test Drive tab

1/7/2019 • 3 minutes to read • Edit Online

Use the **Test Drive** tab to create a trial experience for your customers. It provides customers with a hands-on, self-guided trial of your offer's key features and benefits, demonstrated in a real-world implementation scenario. Of the trial options available, Test Drive is the most effective at generating high-quality leads and increased conversion of those leads. For more information, see What is Test Drive?

The Test Drive experience for Dynamics 365 applications automatically runs as a Microsoft-hosted solution. For more information, see Hosted Test Drive.

The Test Drive tab has three potential sections: **Test Drive**, **Details**, and **Technical Configuration**. The last two sections are only displayed after you enable Test Drive functionality. An asterisk (*) appended to the field name indicates that it's required.

Test Drive section

To enable this functionality, select **Yes** to **Enable a Test Drive**.

Details section

You will provide basic Test Drive information in the **Details** section.

The following table describes the fields required to set up the test drive for your Dynamics 365 application.

FIELD	DESCRIPTION
Description	Describe what can be done on your Test Drive. You can use basic HTML tags to format this description. For example, <p>, <em>, , , , and headings.

FIELD	DESCRIPTION
User Manual	Upload a user manual that your customers can use to walk through the Test Drive experience. This document must be a .pdf file.
Test Drive Demo Video (optional)	You can provide a video walkthrough of your Test Drive. A customer can watch this video before they take a test drive. Provide a URL to the video on YouTube or Vimeo. If you select **+ Add Video**, you'll be prompted to provide the following information: • Name • URL • Thumbnail (in PNG format, 533 x 324 pixels)

Technical Configuration section

in this section, you will provide technical details about your test drive.

Where the fields have the following purposes:

FIELD	DESCRIPTION
Type of Test Drive	Choose **Microsoft Hosted (Dynamics 365 for Customer Engagement)**.
Max Concurrent Test Drives	Number of concurrent instances of an active Test Drive at any given point of time. Each user will consume a Dynamics license while their Test Drive is active, so you will need to ensure you have at least this many Dynamics licenses available for Test Drive users. Recommended value of 3-5.

FIELD	DESCRIPTION
Test Drive Duration (hours)	Maximum number of hours the user's Test Drive instance will be active for. After this period is exceeded, the instance will be deprovisioned from your tenant. Recommended value of 2-24 hours depending on the complexity of your app. The user can always request another Test Drive if they run out of time and want to re-evaluate.
Instance URL	URL that the Test Drive will initially navigate to. This is typically the URL of your Dynamics 365 instance that has your app and sample data installed onto.
Azure AD Tenant ID	GUID of the Azure tenant for your Dynamics 365 Instance. To retrieve this value, login to Azure portal and navigate to **Azure Active Directory** > **Select Properties** > **Copy the Directory ID**.
Azure AD App ID	GUID of your Azure AD application
Azure AD App Key	Secret of your Azure AD application, for example: `IJUgaIOfq9b9LbUjeQmzNBW4VGn6grr1l/n3aMrnfdk=`
Azure AD Tenant Name	Name of the Azure tenant for your Dynamics 365 instance. Use the format of <tenantname.>onmicrosoft.com, for example: `testdrive.onmicrosoft.com`
Instance Web API URL	Web API URL for your Dynamics 365 Instance. You can retrieve this value by logging into your Microsoft Dynamics 365 instance and navigating to **Settings** > **Customization** > **Developer Resources** > **Instance Web API (Copy this URL)**. Example value: `https://testdrive.crm.dynamics.com/api/data/v9.0`
Role name	Name of the custom Dynamics 365 security role you have created for your Test Drive and will be assigned to the users when they run it, for example `testdriveuser`.

After you provide all the required information, select **Save**.

Next steps

Next you will provide marketing and sales information in the Storefront Details tab.
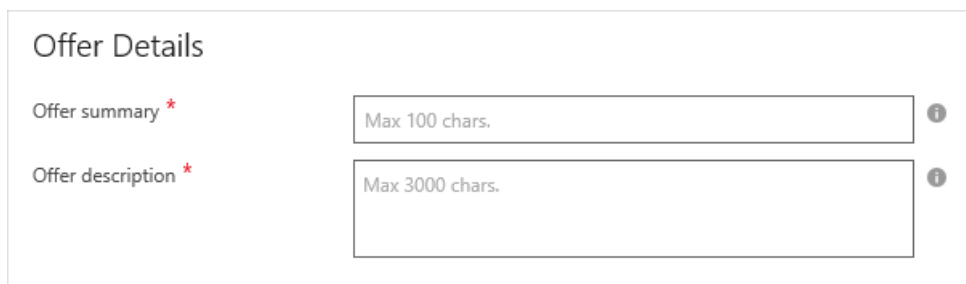
Dynamics 365 for Customer Engagement Storefront Details tab

1/22/2019 • 3 minutes to read • Edit Online

Use the **Storefront Details** tab to provide sales and marketing information and artifacts. This tab contains the following six sections: **Offer Details**, **Listing Details**, **Marketing Artifacts**, **Legal**, **Customer Support**, **Lead Management**. A label appended with an asterisk (*) indicates that it is required.

Offer Details section

You will provide the summary and description of your offer in this section. This information is prominently displayed in the marketplace.

Where the following table describes the fields in this tab:

FIELD	DESCRIPTION
Offer Summary	Summary of your offer's value proposition. It will appear on your offer's search page. Format is plain text with a maximum of 100 characters.
Offer Description	Description that will appear on your app detail page. Format is simple HTML (including p, em, ul, li, ol, and header tags) with a maximum of 1300 characters.

Listing Details section

You will provide details about the marketplace listing in this section.

Listing Details

Industries (Max 2)
- ☐ Agriculture
- ☐ Architecture Engineering
- ☐ Distribution
- ☐ Education
- ☐ Financial Services
- ☐ Government
- ☐ Health
- ☐ Hospitality and Travel
- ☐ Manufacturing
- ☐ Media and Entertainment
- ☐ National and Public Security
- ☐ Nonprofits
- ☐ Professional Services
- ☐ RealEstate
- ☐ Retail
- ☐ Telecommunications

ⓘ

Categories (Max 3) *
- ☐ Analytics
- ☐ Artificial Intelligence
- ☐ Collaboration
- ☐ Customer Service
- ☐ Finance
- ☐ Gamification
- ☐ Human Resources
- ☐ IT and Administration
- ☐ Marketing
- ☐ Operations Supply Chain
- ☐ Productivity
- ☐ Sales

App type *

| Free | Trial | **Contact me** |

ⓘ

Help link for your app *

Eg. http://www.contoso.com   ⓘ

Supported countries/regions   252/252 selected   **Click to configure**

Supported languages
- ☑ English
- ☐ French
- ☐ Japanese

App version

Enter the version number for your app.

App Release Date

Eg. mm/dd/yyyy

Products your app works with (Max 3)

⊕ New

Search keywords (Max 3)

⊕ New

Hide key *

Enter hide key for app preview.   ⓘ

Where the following table describes the fields in this tab:

FIELD	DESCRIPTION
Industries	Select the industries (maximum two) that the app best aligns to. If none applies, you can select zero options.
Categories	Select the categories that are relevant to the app. Select between one and three options.
App type	Select the type of trial that is enabled for the app on AppSource. **Free** indicates your app can be used without charge; **Trial** indicates that customers can try your app for a short period without charge; and **Contact me** indicates that customers can request a trial of the app on AppSource.
Help link for your app	URL for online documentation or other help resource for the app.
Supported countries/regions	A popup dialog enables the selection of the geographic regions where the app is offered. Worldwide distribution is the default.
Supported languages	Select the languages that your app supports. Currently only a few language options are supported. (If your app supports additional languages that are not on this list, continue to publish your offer and email this information to: appsource@microsoft.com.)
App version	Version number for the app
App Release Date	Release/publishing date of the app
Products your app works with	Products or services that your app inter-operates with. You can list maximum of three products. To list a product, click on **+New** and enter the name of a product in the displayed text box.
Search keywords	Set of keywords associated with the app, with a maximum of three keywords. AppSource allows customer to search based on keywords. Choose general, common words that users will likely use to search for your app.
Hide key	A secret key that is combined with the offer URL to allow you to preview the offer before it goes live. This key is *not* a password. It can only contain alphanumeric characters.

Marketing Artifacts section

In this section, you will provide marketing collateral: logo images, promotional or instructional videos, product documentation, and user interface screenshots.

Where the following table describes the fields in this tab:

FIELD	DESCRIPTION
Offer logo (png format, 48x48)	Upload an image that will display on your app's search page. Format is PNG and size must be 48 x 48 pixel.
Offer logo (png format, 216x216)	Upload an image that will display on your app's detail page. Format is PNG and size must be 216 x 216 pixel.
Videos	Upload promotional or instructional videos for the app, with a maximum of four. For each video, fill in the video name, URL (YouTube or Vimeo only), and associated thumbnail in PNG format and sized 1280 x 720 pixel.
Documents	Upload product promotional or instructional documents in PDF format, with a maximum of three. For each document, provide a document name.
Screenshots	Upload a maximum of five images of the app UI in PNG format and sized 1280 x 720 pixels. These screenshots will appear on the AppSource detail page for your app.

Legal section

You will provide *privacy policy* and *terms of use* for your app in this section.

Where the following table describes the fields in this tab:

FIELD	DESCRIPTION
Privacy Policy URL	URL of the online privacy policy for your app.
Terms of use	Terms of use for your app in plain text. AppSource customers are required to accept these terms before they can try your app.

Customer Support section

In this section, you will provide the **Support URL** for your app.

Lead Management section

In this section, you will provide the mechanism to handle leads generated by your offer listing. Typically leads are stored in customer relationship management (CRM) systems. The following destinations are supported: **None**, **Azure Table**, **Dynamics CRM Online**, **HTTPS Endpoint**, **Marketo**, and **Salesforce**. For more information, see Get customer leads.

Next steps

Next, you will provide technical and customer support information in the Contacts tab.

Azure application Contacts tab

1/7/2019 • 2 minutes to read • Edit Online

Use the **Contacts** tab to provide engineering and customer support information for your Dynamics 365 for Customer Engagement offer.

Specify customer and engineering contacts

Supply the following values to define the primary **Engineering Contact** and for your offer.

FIELD	DESCRIPTION
Name	Name of the engineering contact for your app. This contact will receive technical communications from Microsoft.
Email	Email address of the engineering contact
Phone	Phone number of the engineering contact

Supply the following values to define the primary **Support Contact** and for your offer.

FIELD	DESCRIPTION
Name	Name of the customer support contact for your app. This contact will receive support-related communications from Microsoft.
Email	Email address of the customer support contact
Phone	Phone number of the customer support contact

Next steps

After you verify that you have required technical assets for your offer, you are ready to publish the Dynamics 365 for Customer Engagement offer.

Create technical assets for Azure application offer

1/7/2019 • 2 minutes to read • Edit Online

Typically you develop solutions using the SDK for Dynamics 365 for Customer Engagement apps. Solutions take a variety of forms, as described in Programming models for Dynamics 365 for Customer Engagement apps. Chose the form that best conforms to your solution requirements. When developing a solution, there are a number of issues you must address, such as extensibility choices, solution components, and version compatibility. For more information, see Introduction to solutions.

Most of the Dynamics 365 solutions published to AppSource are managed applications distributed as package files.

Creating and storing the package

The parallel documentation creating Dynamics 365 for Customer Engagement offers is found in the section Publish your app on AppSource. The following contained topics detail how to create the solution package file and upload it to Azure storage:

- Step 4: Create an AppSource package for your app - explains how to create a compressed (zip) file that represents your managed application and contains: solution assets folder, custom code DLL, MIME type information file, AppSource package icon, license terms (HTML) file, and contents file (XML).
- Step 5: Store your AppSource Package on Azure Storage and generate a URL with SAS key - explains how to store an AppSource package file in a Microsoft Azure Blob storage account, and use a Shared Access Signature (SAS) key to share the package file. Your package file is retrieved from your Azure Storage location for certification, and then for AppSource trials and publication.

Next steps

If you have not already done so, create your Dynamics 365 for Customer Engagement offer. Then you will be ready to publish your offer.

Publish a Dynamics 365 for Customer Engagement offer

1/7/2019 • 2 minutes to read • Edit Online

After you create a new offer by providing the information on the **New Offer** page, you can publish the offer. Select **Publish** to start the publishing process.

The following diagram shows the main steps in the publishing process for an offer to "go live".
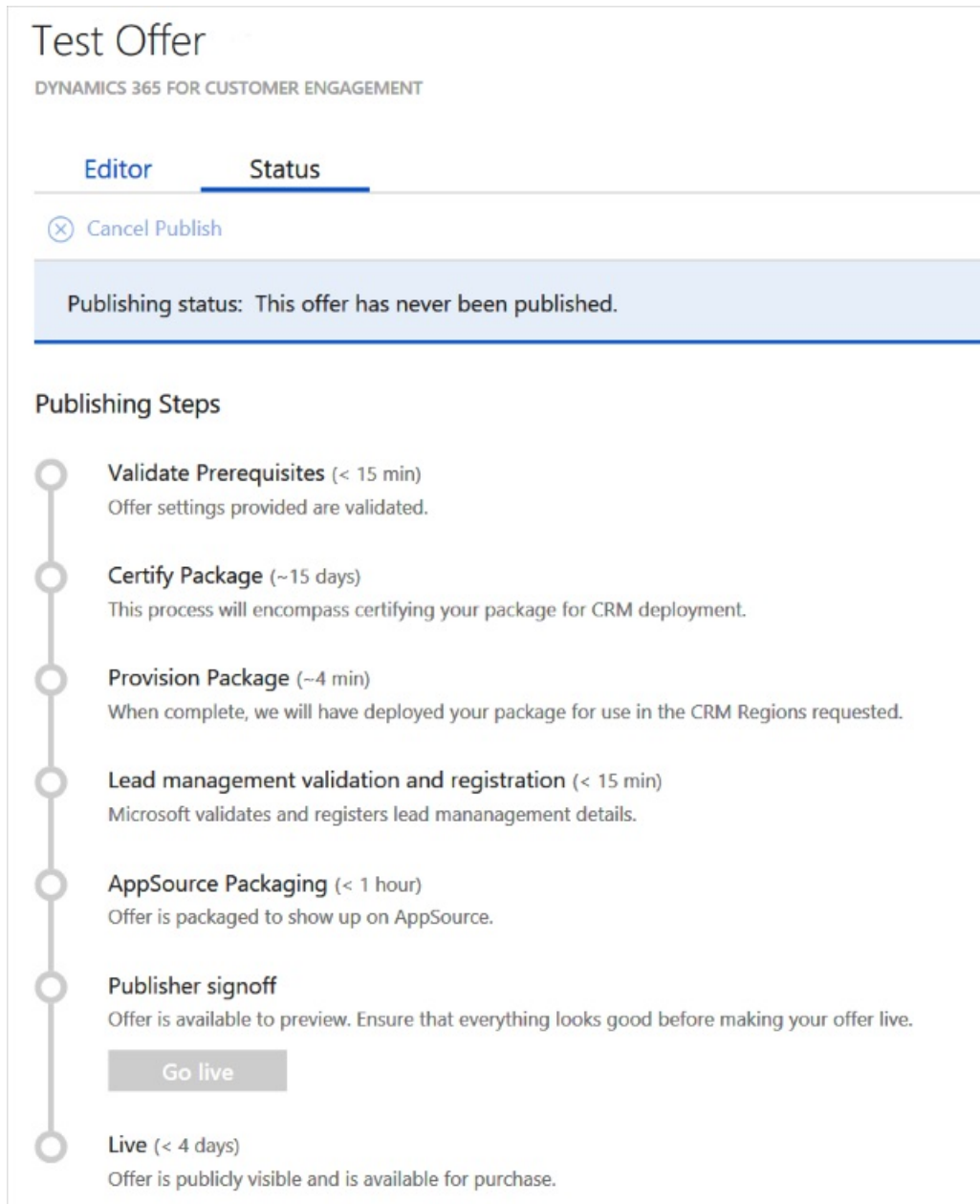
Detailed description of publishing steps

The following table describes each publishing step, with a time estimate (maximum) to complete each step. The following table describes each publishing step. An estimated time to finish each step is also given.

PUBLISHING STEP	TIME	DESCRIPTION
Validate prerequisites	15 min	Offer information and offer settings are validated.
Certification	1 week	Offer is analyzed by the Azure Certification Team. The offer is scanned for viruses, malware, safety compliance, and security issues. The offer is checked to see that it meets all the eligibility criteria. For more information, see prerequisites. Feedback is provided if an issue is found.
Packaging	1 hour	Offer's technical assets are packaged for customer use and the lead systems are configured and setup.
Publisher sign out	-	Final publisher review and confirmation before the offer goes live. You can deploy your offer in the selected subscriptions (in the offer information steps) to verify that it meets all your requirements. Select **Go Live** so your offer can move to the next step.
Packaging	1 hour	The finished offer is replicated in marketplace production systems and regions.
Live	4 days	Offer is released, replicated to the required regions, and made available to the public.

Next steps

Allow for up to 10 business days for the publishing process to finish and the offer is released. After you finish the publishing process, your offer will be listed in the Microsoft AppSource Marketplace.

Dynamics 365 for Finance and Operations offer

11/5/2018 • 2 minutes to read • Edit Online

This section explains how to publish a Dynamics 365 for Finance and Operations solution to the Microsoft AppSource Marketplace. Microsoft Dynamics 365 for Finance and Operations is an enterprise resource planning (ERP) service that supports advanced finance, operations, manufacturing, and supply chain management.

Publishing process

Use the following steps to develop your Dynamics 365 for Finance and Operations app and publish it to AppSource:

1. As a prerequisite, you must become Dev Center Certified.
2. Upgrade your code.
3. Build, package, and deploy your data using Lifecycle Services (LCS).
4. Create an implementation methodology in LCS.
5. Define your Business Processes in LCS.
6. Create your marketing content in the Cloud Partner Portal.
7. Get your App validated by our team. For guidance, see Validate applications for Finance and Operations.
8. Test and certify your offer in the Cloud Partner Portal.
9. Publish to AppSource and go live.

The subsequent articles in this section describe these steps in more details.

Next steps

You must verify that you have met the business and technical requirements for this offer type.

Prerequisites for Application Curation

10/4/2018 • 2 minutes to read • Edit Online

Microsoft requires specific reviews in order to validate that the following requirements are met:

- A partner's custom code meets Microsoft guidelines.
- A Microsoft Dynamics Lifecycle Services (LCS) solution package can be successfully deployed.
- Transactions can be completed.

Currently, partners must demonstrate that these requirements have been met by doing test deployments and then sharing the results with Microsoft. No code will be deployed on a customer environment that Microsoft hasn't validated. Partners must complete the following curation artifacts and tests:

- Code analysis report (CAR)
- Business process modeler (BPM)/test scripts
- Project name and description
- Business database backup
- Data packages and Process data packages (PDPs)
- Methodology
- Binaries (optional)
- Deployable packages
- Models (code and tests)
- Marketing content

See Pre-requisites for app curation for more info.

How to create Dynamics 365 for Operations offer via Cloud Partner portal

11/7/2018 • 5 minutes to read • Edit Online

Publishing portal provides role-based access to the portal allowing multiple individuals to be able to collaborate towards publishing an offer. See Cloud Portal Manage Users for more info.

Before an offer can be published on behalf of a publisher account, one of individuals with "owner" role need to agree to comply with the Terms of Use, Microsoft Privacy Statement, and Microsoft Azure Certified Program Agreement.

How to create a new Dynamics 365 for Operations offer

Once all the pre-requisites have been met, you are ready to start authoring your Dynamics 365 for Operations offer.

1. Sign in to the Cloud Partner Portal.
2. From the left navigation bar, click on "+ New offer" and select "Dynamics 365 for Operations".
3. A new offer "Editor" view is now opened for you, and we are ready to start authoring.
4. The "forms" that need to be filled out are visible on the left within the "Editor" view. Each "form" consists of a set of fields that are to be filled out. Required fields are marked with a red asterisk (*).

There are four main forms for authoring a Dynamics 365 for Operations offer:

- Offer Settings
- Technical Info
- Storefront Details
- Contacts

How to fill out the Offer Settings form

The offer settings form is a basic form to specify the offer settings. The different fields are described below.

Offer ID

This is a unique identifier for the offer within a publisher profile. This ID will be visible in product URLs. It can only be composed of lowercase alphanumeric characters or dashes (-). The ID cannot end in a dash and can have a maximum of 50 characters. This field is locked once an offer goes live.

for example, if a publisher contoso publisher creates an offer with offer ID *sample-dynamics365 for operations*, it will show up in AppSource as "https://appsource.microsoft.com/marketplace/apps/**contoso**.*sample-dynamics 365 for operations*?tab=Overview"

Publisher ID

This dropdown allows you to choose the publisher profile you want to publish this offer under. This field is locked once an offer goes live.

Name

This is the display name for your offer. This is the name that will show up in AppSource. It can have a maximum of 50 characters.

Click on "Save" to save your progress. Next step would be to fill out Technical info for your offer.

How to fill out the Technical Info form

The technical info form contains information that will be displayed in your offer page. Instructions for the different fields are described below.

Solution Identifier

First is your Solution Identifier.

1. To find this identifier, go to Life Cycle Services and select Solution Management.
2. After picking the appropriate solution, you will see the Solution Identifier in the Package overview. **If the identifier is blank, select edit and republish your package for the Solution Identifier to appear.

Validation Assets

Upload your CAR (Customization Analysis Reports) here.

Does solution enable translation(s)?

Select 'Yes' or 'No'.

Does solution include Localization(s)?

Select 'Yes' or 'No'.

Product Version

Select New AX. Finally click save.

How to fill out Storefront details form.

First is your Offer Details.

1. **Offer Summary**

   - Enter a short summary of your solution (Max 100 chars).

2. **Offer Description**

   - Enter a brief description of your solution. Your description should have the functional footprint of your

solution and should directly align with your BPM library. for example, If you say you have features x,y,z in your marketing content, during the final review we will make sure these are documented in the BPM library inside LCS.

Editor	Status

Save   Discard   Publish

Offer Settings

Technical Info

Storefront Details

Contacts

Offer Details

Offer summary *   `Max 100 chars.`

Offer description *   `Max 3000 chars.`

Listing Details

Editor	Status

Save   Discard   Publish

Offer Settings

Technical Info

Storefront Details

Contacts

App type *   Free   Trial   **Request for Trial**

Help link for your app *   `Eg. http://www.contoso.com`

Supported countries/regions   252/252 selected   **Click to configure**

Supported languages   ☑ English
☐ French
☐ Japanese

App version   `Enter the version number for your app.`

App Release Date   `Eg. mm/dd/yyyy`

Products your app works with (Max 3)   ⊕ New

Search keywords (Max 3)   ⊕ New

1. **Industries** - Check a max of two industries from the given options.
2. **Categories** - Check a max of three categories from the given options.
3. **App Type** - Select from the given options.
4. **Help link for your App** - Enter the help link for your solution.
5. **Supported countries/regions** - Check from the given options.
6. **Supported Languages** - Check from the given options.
7. **App Version** - Enter version of your solution that is being released. (for example, 1.0.0.0)
8. **App Release Date** - Enter release date of your solution(mm/dd/yyyy).
9. **Products your app works with** - List-specific products that your app works with. You can list maximum of three products. To list a product, click on the plus sign (beside new) and a new open text field will be created for you to enter the name of a product that your app works with.
10. **Search Keywords** - Enter common terms users may use to find your solution during a search. **These keywords will not be displayed in the marketplace.
11. **Hide Key** - This is what key that would be combined with the offer preview URL to hide it from public view. It is not a password. You can enter any string here.

Marketing Artifacts

1. Next is uploading your **Logos**, **Screenshots**. **Please note the sizes for each upload, and all images should be in PNG format.
2. **Demo videos** - Click on "+new". Upload a demo video of your solution(YouTube or Vimeo links only).**. Please note that you should upload a Thumbnail of specified size to make your video appear in staging.

3. **Documents** - Upload any documents related to your solution, and remember to enter a name for the document.

Legal

This information will link to your Privacy Policy, and Terms of Use. Enter the solution Privacy Policy URL, and your Terms of Use. **The customer will be able to see these policies on the portal.

Customer Support

The Support URL will only be seen in the portal by your users.

Leads Management

Select a CRM system where you lead will be stored. Select "Azure Table" here if you have one of the following CRM systems: Salesforce, Marketo, Microsoft Dynamics CRM. The CRM system you select here is where we will write details of end users that try your app on AppSource (leads). Depending on the CRM system you select, click the corresponding URL below for information on how to complete the next set of fields.

1. For Azure Table refer here
2. For Dynamics CRM online, refer here
3. For Marketo here
4. For Salesforce refer here

How to fill out the Contacts form.

This information will be used for Microsoft and Customer support. Enter the Engineering Contact and Customer Support for your company, and the Support URL for your solution. This information will be used, as a single point of contact, if Microsoft has a question about your solution, and also for Customer support.

LCS Subscription

In this tutorial, you will learn how create a subscription. This subscription will give you a Microsoft Online test tenant and a Microsoft Dynamics Lifecycle Services project where you can deploy an environment. You will also set up additional users in your Microsoft Online tenant and gain experience with the following service administration capabilities. Here are the skills that you will learn:

- Subscribing and creating a new Microsoft Online test tenant.
- Navigating to Lifecycle Services projects.
- Using features on Lifecycle Services.
- Adding additional users to Microsoft Azure Active Directory and the client.
- Viewing resources in your subscription email.

Key terms

Microsoft Online Services tenant - A tenant is the group of all subscriptions and users for your organization. The tenant is created at the same time as your first subscription in Microsoft Online Services.

Subscription - A subscription provides you with an online environment. This environment lets you experience Dynamics 365 for Operations in the cloud and also lets you see how customizations that you develop can be deployed to the cloud.

Microsoft Azure Active Directory - The cloud environment includes Azure Active Directory (AD), which helps you manage users, groups, security roles, and licenses for online applications, similarly to the way that you manage them for on-premise environments.

Users - Users of the services that your organization has subscribed to are managed in Azure AD. Any users in your tenant can be added and assigned to security roles.

Developers and administrators - Developers and administrators are users who also have access to Lifecycle Services that lets them manage projects and environments. These users are also end users.

See LCS Subscription for more info.

Upgrading code to the latest platform

10/4/2018 • 2 minutes to read • Edit Online

This article explains how to upgrade your Microsoft Dynamics 365 for Operations platform version to the latest platform release.

Overview

The Microsoft Dynamics 365 for Operations platform consists of the following components:

Dynamics 365 for Operations platform binaries such as Application Object Server (AOS), the data management framework, the reporting and business intelligence (BI) framework, development tools, and analytics services. The following Application Object Tree (AOT) packages:

1. Application Platform
2. Application Foundation
3. Test Essentials

Important: To move to the latest Dynamics 365 for Operations platform, your Dynamics 365 for operations implementation cannot have any customizations (overlayering) of any of the AOT packages that belong to the platform. This restriction was introduced in platform update 3, so that seamless continuous updates can be made to the platform. If you are running on a platform that is older than platform update 3, see the Upgrading to platform update 3 from an earlier build section at the end of this article.

For more Info on Code upgrade, Please refer here.

Data Entities

1/22/2019 • 2 minutes to read • Edit Online

This article defines and provides an overview of data entities. It includes information about the capabilities of data entities, the scenarios that they support, the categories that are used for them, and the methods for creating them.

Overview

A data entity is an abstraction from the physical implementation of database tables. For example, in normalized tables, much of the data for each customer might be stored in a customer table, and then the rest might be spread across a small set of related tables. In this case, the data entity for the customer concept appears as one de-normalized view, in which each row contains all the data from the customer table and its related tables. A data entity encapsulates a business concept into a format that makes development and integration easier. The abstracted nature of a data entity can simplify application development and customization. Later, the abstraction also insulates application code from the inevitable churn of the physical tables between versions.

To summarize: Data entity provides conceptual abstraction and encapsulation (de-normalized view) of underlying table schemas to represent key data concepts and functionalities.

Capabilities

A data entity has the following capabilities:

- It replaces diverging and fragmented concepts of AXD, Data Import/Export Framework (DIXF) entities, and aggregate queries with single concept.
- It provides a single stack to capture business logic, and to enable scenarios such as import/export, integration, and programmability.
- It becomes the primary mechanism for exporting and importing data packages for Application Lifecycle Management (ALM) and demo data scenarios.
- It can be exposed as OData services, and then used in tabular-style synchronous integration scenarios and Microsoft Office integrations.

See Data Entities for more info.

Business Process Libraries

Business process libraries are nothing but task guides of your end-end scenarios. The business process library should directly align with your marketing content. Each business process in the business process library should have a task recording associated with it. If you have processes that are outside Dynamics 365 for Operations, please attach a Visio to your BPM library.

See Business Process Modeler for more info.

Methodologies

Lifecycle Services (LCS) for Microsoft Dynamics provides methodologies that you can use to ensure a more repeatable and predictable implementation project experience. You can use one of the provided methodologies or create your own. With a methodology, you can easily track and report on your progress.

A methodology consists of phases, tasks, and milestones. Each phase can have any number of tasks, some of which are mandatory. When all of the tasks in a phase are completed, the phase can be marked as complete. You can also create a milestone for when you anticipate a phase to be completed. The following methodologies are included in an LCS project:

- Implementation
- Sure Step
- Learn development
- Migrate and create solutions
- Consume solutions

See LCS Methodologies for more info.

Dynamics 365 for Operations Help Wiki

10/4/2018 • 2 minutes to read • Edit Online

Microsoft Dynamics 365 for Operations is Microsoft's business application for enterprises. It enables people to quickly make smarter decisions through an intelligent user interface that provides access to real-time insights and data. It enables businesses to transform and innovate by delivering proven business logic that allows them to redesign their business processes faster. It gives businesses the flexibility to grow at their own pace and do business nearly anywhere, anytime, allowing them to scale their operations globally to meet business needs.

This user guide can help you learn how to make Dynamics 365 for Operations work for your business.

See Dynamics 365 for Operations Help Wiki for more info.

IoT Edge module offer publishing overview

11/7/2018 • 2 minutes to read • Edit Online

This section explains how to publish a new Azure IoT Edge module offer to the Microsoft Azure Marketplace. An IoT Edge module is a Docker-compatible container that's made to run on an IoT Edge device. Azure IoT Edge modules are the smallest unit of computation managed by IoT Edge, and can contain Azure services or custom solution code.

Publishing process

The high-level steps for publishing an IoT Edge module offer are:

1. Create the offer
   Provide detailed information about the offer. This information includes: the offer description, marketing materials, support information, and asset specifications.

2. Create the business and technical assets
   Create the business assets (legal documents and marketing materials) and technical assets for the associated solution (the IoT Edge module images hosted in an Azure Container Registry.

3. Create the SKU
   Create the SKU(s) associated with the offer. A unique SKU is required for each image you're planning to publish.

4. Certify and publish the offer
   After the offer and the technical assets are completed, you can submit the offer. This submission starts the publishing process. During this process the solution is tested, validated, certified, then "goes live" on the Azure Marketplace.

Parts of an offer

The following articles cover the key parts of an IoT Edge module offer.

- Prerequisites
  This article lists the technical and business requirements before you can create or publish an IoT Edge module offer.
- Prepare IoT Edge module technical assets
  This article describes how to prepare the technical assets for an IoT Edge module. These assets must meet all the required technical criteria before the IoT Edge module can be published on the Azure Marketplace.
- Create an IoT Edge module offer
  This article lists the steps required to create a new IoT Edge module offer entry using the Cloud Partner Portal.
- Publish IoT Edge module offer
  This article describes how to submit the offer for publishing on the Azure Marketplace.

Next steps

Review the technical and business requirements for publishing an IoT Edge module to the Microsoft Azure Marketplace.

IoT Edge module publishing prerequisites

10/18/2018 • 2 minutes to read • Edit Online

This article describes the prerequisites for publishing an IoT Edge module offer.

To learn more about IoT Edge modules and the benefits of publishing a module to the Azure Marketplace, see the IoT Edge modules publishing guide.

Publishing prerequisites

To publish an IoT Edge module to the Azure Marketplace, you have to meet the following prerequisites:

- Access to the Cloud Partner Portal. For more information, see Azure Marketplace and AppSource publishing guide.
- Agreement to the Azure Marketplace Terms
- Host your IoT Edge module technical asset in an Azure Container Registry. For more information, see how to prepare your IoT Edge module technical asset
- Have your IoT Edge module metadata ready to use. For example, (non-exhaustive list):
  - A title
  - A description (in HTML format)
  - A logo image (PNG format and fixed image sizes including 40x40px, 90x90px, 115x115px, 255x115px)
  - A term of use and privacy policy
  - A default module configuration that includes: routes, twin desired properties, createOptions, and environment variables.
  - Documentation
  - Support contacts

Next steps

- Prepare your IoT Edge module technical asset
- Create your IoT Edge module offer

Create a new IoT Edge module offer with the Cloud Partner Portal

10/18/2018 • 2 minutes to read • Edit Online

This article describes how to create and publish an IoT Edge module offer entry for the Azure Marketplace. Every offer appears as its own entity in Azure Marketplace and is associated with one or more SKUs. An IoT Edge module offer is composed of the following groupings of assets and supporting services:

ASSET GROUP	DESCRIPTION
SKUs	The smallest deployable unit of an offer. A single offer (product class) can have multiple SKUs associated with the offer. You can use SKUs to differentiate between supported features and billing models.
Marketplace	Contains marketing, legal and lead management assets and specifications. • Marketing assets include offer name, description, and logos • Legal assets include a privacy policy, terms of use, and other legal documentation • Lead management policy enables you to specify how to handle leads from the Azure Marketplace end-user portal.
Support	Contains support contact and policy information

New Offer form

Sign in to the Cloud Partner Portal, and then select **+ New Offer** on the left menu bar. On the New Offer menu, select **IoT Edge Modules** to display the **New Offer** form and start the process of defining assets for a new ioT Edge Module offer.
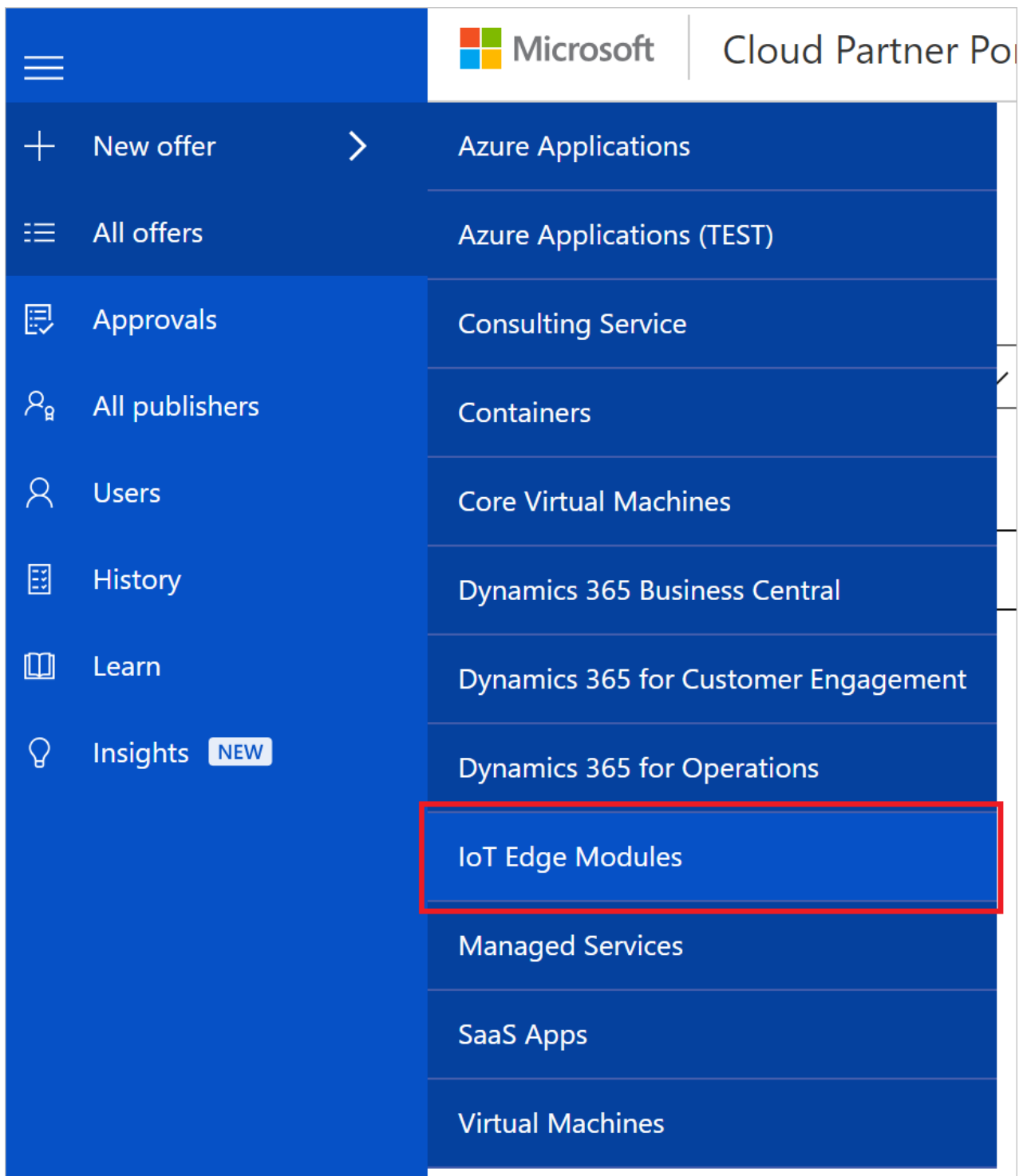
Next steps

The **New Offer** page for the IoT Edge module offer type provides a set of tabs and form fields that you'll use to create a new offer. Each of the following articles explains how to use the tab to define the asset groups and supporting services for your new IoT Edge module offer.

- Offer Settings tab
- SKUs tab
- Marketplace tab
- Support tab

IoT Edge module Offer Settings tab

10/18/2018 • 2 minutes to read • Edit Online

The **IoT Edge Modules > New Offer** page opens with the focus on the **Offer Settings** tab.

Offer Identity settings

Under **Offer Identity**, you must provide information for the fields described in the following table. An asterisk (*) appended to the field name indicates that it's required.

FIELD	DESCRIPTION
Offer ID	A unique identifier (within a publisher profile) for the offer. This identifier will be visible in product URLs and insights reports. It has a maximum length of 50 characters, and can use lowercase alphanumeric characters and dashes (-). (The identifier can't end with a dash.) **Note:** This field can't be changed after an offer goes live. For example, if Contoso publishes an offer with offer ID **sample-iot-edge-module**, it's assigned the Azure Marketplace URL `https://azuremarketplace.microsoft.com/marketplace/apps/contoso.sam iot-edge-module?tab=Overview` .
Publisher	Your organization's unique identifier in the Azure Marketplace. All your offerings should be associated with your publisher ID. This value can't be changed after the offer's saved.
Name	The display name for your offer. This name is displayed in the Azure Marketplace and in the Cloud Partner Portal. It can have a maximum of 50 characters. We recommend using a recognizable brand name for your product. Don't include your organization's name unless that's how your product is marketed. If you are marketing this offer in other websites and publications, ensure that the name is exactly the same across all publications.

Select **Save** to save your Offer Settings.

Next steps

Use the SKUs tab to configure the SKUs for your offer.

IoT Edge module SKUs tab

11/20/2018 • 5 minutes to read • Edit Online

The **SKUs** tab of the **New Offer** page enables you to create one or more SKUs and associate them to your new offer. You can use different SKUs to differentiate a solution by feature sets, billing models, or some other characteristic.

SKU Settings

When you start creating a new offer, there aren't any SKUs associated with the offer. To create a new SKU, follow these steps:

- On the **IoT Edge Modules > New Offer** page, select the **SKUs** tab.
- Under SKUs, select **+ New SKU** to open a dialog box.
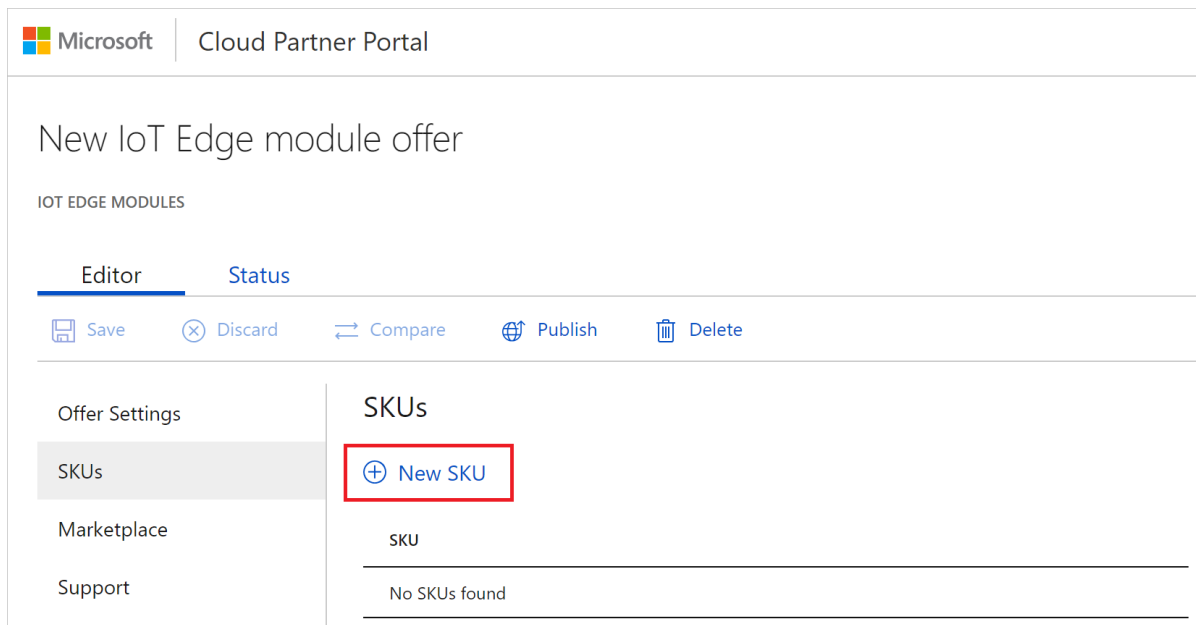
- On the **New SKU** dialog box, enter an identifier for the SKU and then select **OK**. (The following table gives the identifier naming conventions.)

The **SKUs** tab is refreshed and displays the fields that you edit to configure the SKU. An asterisk (*) appended to the field name indicates that it's required.

FIELD	DESCRIPTION
SKU ID	Identifier for this SKU. This name has a maximum of 50 characters, consisting of lowercase alphanumeric characters or dashes (-), but can't end with a dash. **Note:** You can't change this name after the offer's published. The name is publicly visible in product URLs.

SKU Details

Configure the **SKU Details** to define how your SKU will be displayed on the Azure Marketplace and Azure Portal websites.

SKU Settings

SKU ID *

new-sku

SKU Details ⓘ

Title *

Max 50 chars

Summary *

Max 100 chars

Description *

Provide a description for the SKU here

Hide this SKU *

| Yes | No |

The following table describes the purpose, content, and formatting for fields under **SKU Details**.

FIELD	DESCRIPTION
Title	Title for this SKU. Maximum length of 50 characters. It will be shown in the Azure Portal and will be used as a default module name (without spaces and special characters) when it's deployed. See the pictures below to see exactly where this field is displayed.
Summary	Short summary of this SKU. Maximum length of 100 characters. Do **NOT** summarize the offer, just the SKU. This summary will be shown in the Azure Marketplace. See the pictures below to see exactly where this field is displayed.
Description	Short description of this SKU.Maximum length of 3000 characters. Do NOT describe the offer but just this SKU. It will be shown in the azure marketplace and in the Azure portal. In the Azure portal, it will be appended to the Marketplace Description describing the offer defined in the Marketplace tab. It can be the same as the SKU Summary. See the pictures below to see exactly where this field is displayed.
Hide this SKU	Keep the default setting, which is **No**.

SKU example

The following examples show how the SKU **Title**, **Summary**, and **Description** fields appear in different views.

On the Azure Marketplace website:

- When looking at SKU details:
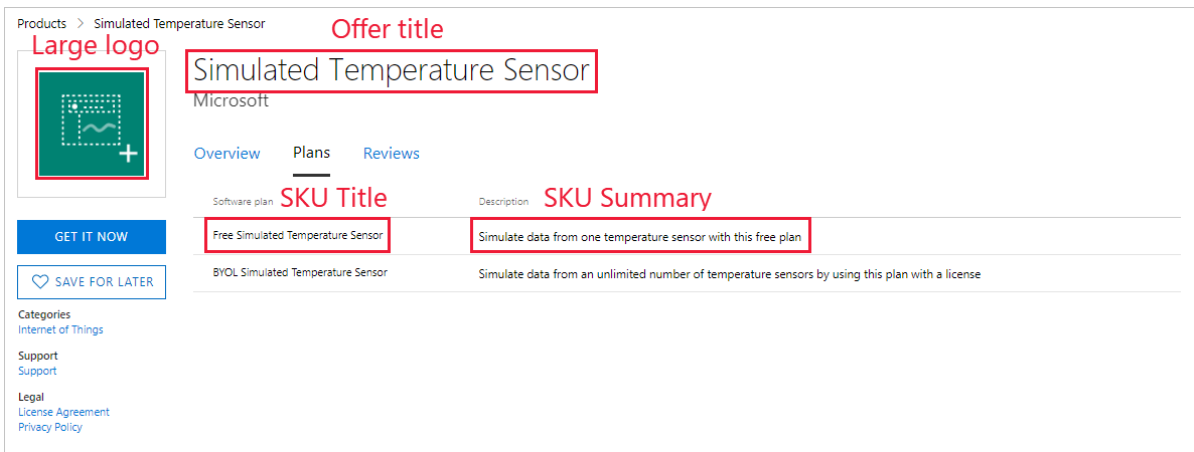
On the Azure Portal website:

- When browsing SKUs:
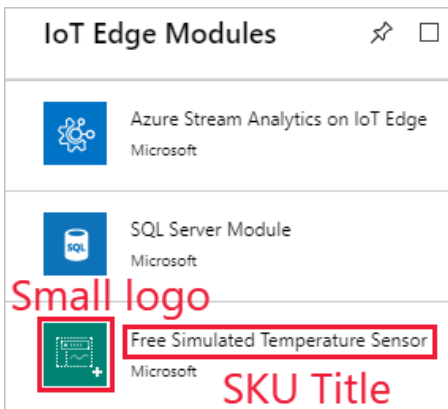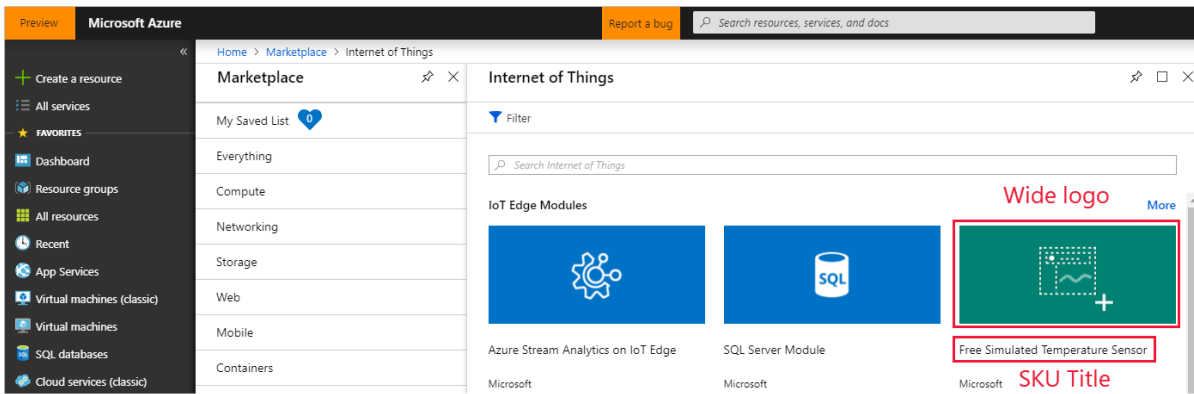
- When searching for SKUs:
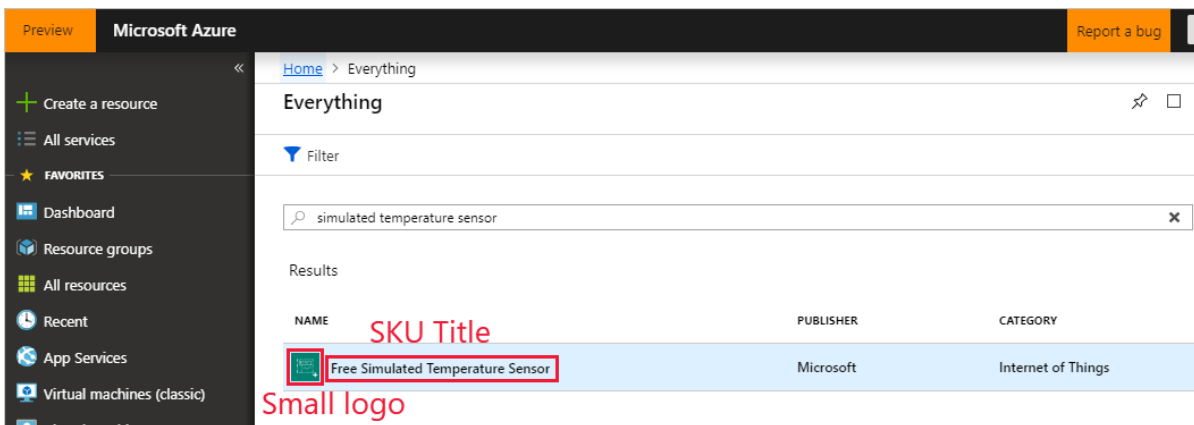
- When looking at SKU details:

Free Simulated Temperature Sensor — SKU Title

Microsoft

The simulated temperature sensor used in the getting started tutorial for Azure IoT Edge. This simulated sensor periodically generates fake temperature readings which increase in value over time.

Minimum hardware requirements: Linux or Windows containers, x64 or arm32. 150Mb of disk space and 50Mb of RAM.

— Offer Description

Simulate data from one temperature sensor with this free plan — SKU Description

♡ Save for later

— Screen capture

PUBLISHER   Microsoft

USEFUL LINKS   IoT Edge documentation
                   E2E tutorial
                   Source code

SUPPORT   https://support.microsoft.com/en-us

Create

- When deploying the module:

SKU content

Under **Edge Module Images**, provide the information we need to upload your IoT Edge module.

Give us access to your Azure Container Registry (ACR) that contains your IoT Edge module image so that we can upload it and certify it. After it's published, your IoT Edge module will be copied and distributed using a public container registry hosted by the Azure Marketplace.

You can target multiple platforms and provide several versions through tags. Learn more about tags and versioning in "Prepare your IoT Edge module technical assets".

The following table describes the purpose, contents, and formatting of the fields for:

- **Image Repository Details**
- **Image Version**

FIELD	DESCRIPTION
Image Repository Details	
Subscription ID	The Azure subscription ID of your ACR.
Resource group name	The resource group name of your ACR.
Registry name	Your ACR registry name. Only copy the registry name, NOT the login server name (for example, without the `azurecr.io` .)
Repository name	The repository name of your ACR that contains your IoT Edge module. **Note:** After the name is set, it can't be changed later. Use a unique name to ensure that no other offer in your account has the same name.
Username	The username associated with your ACR (admin username).
Password	The password associated with your ACR.
Image Version	
Image Tag or Digest	It must at least include a `latest` tag and a version tag (for example, starting with `xx.xx.xx-` where xx is a number). They should be manifest tags to target multiple platforms. All tags referenced by a manifest tag must also be added so we can upload them. You can add several versions of an IoT Edge module using tags. All manifest tags (except `latest`) must start with either `X.Y-` or `X.Y.Z-` where X, Y, Z are integers. Learn more about tags and versioning in "Prepare your IoT Edge module technical assets". For example, if a `latest` tag points to that points to `1.0.1-linux-x64` , `1.0.1-linux-arm32` , , and `1.0.1-windows-arm32` , these 6 tags needs to be added here.

Help your customers launch your IoT Edge module by using default settings

Define the most common settings to deploy your IoT Edge module. Optimize customer deployments by letting them launch your IoT Edge module out-of-the-box with these defaults.

Default Routes ⓘ

Route ✕

Name *
```
Provide the Name here.
```

Value *
```
Provide the Value here.
```

⊕ New Route

Default twin desired properties ⓘ

Twin ✕

Name *
```
Provide the desired property key here.
```

Value *
```
Provide the desired property value here.
```

⊕ New Twin

Default environment variables ⓘ

EnvironmentVariable ✕

Name *
```
Provide the desired environment variable name here.
```

Value *
```
Provide the desired environment variable value here.
```

⊕ New Environment Variable

Default CreateOptions ⓘ

CreateOptions
```
Provide the create option here.
```

The following table describes the purpose, contents, and formatting of the fields for **Default Routes**, **Default twin desired properties**, **Default environment variables**, and **Default CreateOptions**.

FIELD	DESCRIPTION

FIELD	DESCRIPTION

Default routes	Each default route name and value must be fewer than 512 characters. You can define up to 5 default routes. Make sure to use a correct route syntax in your route value. To refer to your module, use its default module name, which will be your **SKU Title** without spaces and special characters. To refer to other modules not yet known, use the `<FROM_MODULE_NAME>` convention to let your customers know that they need to update this info. Learn more about IoT Edge routes.
	
	For example, if module `ContosoModule` listens for inputs on `ContosoInput` and output data at `ContosoOutput`, it makes sense to define the following 2 default routes:
	- Name #1: `ToContosoModule`
	- Value #1:
	`FROM /messages/modules/<FROM_MODULE_NAME>/outputs/* INTO BrokeredEndpoint("/modules/ContosoModule/inputs/ContosoInput")`
	- Name #2: `FromContosoModuleToCloud`
	- Value #2:
	`FROM /messages/modules/ContonsoModule/outputs/ContosoOutput INTO $upstream`

Default twin desired properties	Each default twin desired properties name and value must be fewer than 512 characters. You can define up to 5 name/value twin desired properties. Values of twin desired properties must be valid JSON, non-escaped, without arrays and with a maximum nested hierarchy of 4. Learn more about twin desired properties. For example, if a module supports a dynamically configurable refresh rate via twin desired properties, it makes sense to define the following default twin desired property: - Name #1: `RefreshRate` - Value #1: `60`
Default environment variables	Each default environment variables name and value must be fewer than 512 characters. You can define up to 5 name/value environment variables. For example, if a module requires to accept terms of use before being started, you can define the following environment variable: - Name #1: `ACCEPT_EULA` - Value #1: `Y`
Default createOptions	The createOptions must be fewer than 512 characters. It must be valid JSON, non-escaped. Learn more about createOptions. For example, if a module requires bind a port, you can define the following createOptions: `"HostConfig":{"PortBindings":{"5012/tcp": [{"HostPort":"5012"}]}`

Select **Save** to save your SKU settings.

Next steps

Use the Marketplace tab to create a marketplace description for your offer.

IoT Edge module Marketplace tab

10/18/2018 • 5 minutes to read • Edit Online

The **Marketplace** tab of the **New Offer** page enables you to provide your prospective customers with marketing, sales, and legal information and agreements and manage leads generated from the marketplace. This long form is divided into four sections: **Overview**, **Marketing Artifacts**, **Lead Management**, and **Legal**.

Overview

In this section, you enter the general information about your Azure Marketplace Offer. An asterisk (*) appended to the field name indicates that it's required.

The following table describes the purpose and content of these fields.

FIELD	DESCRIPTION
Title	Title of the offer. It will be displayed prominently in the marketplace. Maximum length of 50 characters.
Summary	Short summary of the offer. Maximum length of 100 characters.
Long Summary	Longer summary of the offer (though it could be the same as the **summary**). Maximum length of 256 characters.
Description	Description of the offer. Maximum length of 3000 characters, supports simple HTML formatting. It must include a *minimum hardware requirements* paragraph at the bottom. for example: Minimum hardware requirements: Linux x64 and arm32 OS, 1 GB of RAM, 500 Mb of storage
Marketing Identifier	A unique URL to associate to this offer, typically includes your organization and solution name, maximum length 50 characters. For example: `https://azuremarketplace.microsoft.com/marketplace/apps/contoso.sampleIo`
Preview Subscription IDs	Add one to 100 subscription identifiers of previewers. These white-listed subscriptions will have access to the offer once it's published, before it goes live.

FIELD	DESCRIPTION
Useful Links	Multi-selection of business and technical categories that offer can be best associated with. A maximum of 10 allowed. Make sure to add at least one link to your documentation and one link to the compatible IoT Edge devices from the Azure IoT device catalog.
Suggested Categories	Pick up to five categories. They'll be shown on your product details page. In the browse pages, all IoT Edge modules are shown under the *Internet of Things > IoT Edge module* category.

Offer example

The following examples show how the offer **Title**, **Summary**, **Description**, **Logos**, and **Screenshots** fields appear in different views.

On the Azure Marketplace website:

- When browsing offers:

- When looking at offer details:

On the Azure portal website:

- When browsing offers:

- When searching for an offer:

- When looking at offer details:

Marketing Artifacts

This section has the following subsections: **Logos**, **Screenshot**, and **Videos**.

> **NOTE**
> Logos are the only required marketing artifacts, however all are highly recommended for best customer appeal.

Marketing Artifacts

Logos (PNG format)

Small (40x40) * Upload

Medium (90x90) * Upload

Large (115x115) * Upload

Wide (255x115) * Upload

Hero (815x290) Upload

Screenshots (Max 5)

Screenshot	✕

Name * Screenshot Title

Image (533x324) * Upload

⊕ Add screenshot

Videos ⓘ

Video	✕

Name * Enter a name for this video

Link * Eg. https://www.youtube.com/watch?v=hpq_Y9LuIB8

Thumbnail, (533x324) * Upload ⓘ

⊕ Add video

FIELD	DESCRIPTION
Logos	See the previous screen captures to see how and where your logos will be used.
Small	40x40 pixel PNG format
Medium	90x90 pixel PNG format
Large	115x115 pixel PNG format
Wide	255x115 pixel PNG format
Hero	815x290 pixel PNG format. Optional, however once uploaded the hero icon cannot be deleted.
Screenshots	Screenshots are displayed on your product details page. They're a good way to visually communicate what your IoT Edge module does and how it works. You can show architecture diagrams or use case illustrations for instance. Optional, but maximum of five screenshots per SKU.
Name	Name or title. Maximum length of 100 characters.

FIELD	DESCRIPTION
Image	Screen capture image, 533x324 pixel PNG format
Videos	Videos are displayed on your product details page. They're a good way to visually communicate what your IoT Edge module does and how it works.
Name	Name or title. Maximum length of 100 characters.
Link	Video URL, hosted on YouTube or Vimeo
Thumbnail	533x324 pixel PNG format

Logo guidelines

All the logos uploaded to the Cloud Partner Portal should follow the guidelines:

- The Azure design has a simple color palette. Keep the number of primary and secondary colors on your logo low.
- The theme colors of the Azure Portal are white and black. Avoid using these colors as the background color for your logos. Use a color that will make your logos prominent in the Azure portal. We recommend simple primary colors. If you're using a transparent background, make sure that the logos/text aren't white, black, or blue.
- Don't use a gradient background on your logo.
- Avoid placing text—even your company or brand name—on the logo. The look and feel of your logo should be "flat" and should avoid gradients.
- Don't stretch the logo.

Hero logo

The Hero logo is optional.

> **IMPORTANT**
>
> After the Hero logo is uploaded, it can't be deleted.

Use the following guidelines for a Hero logo:

- Black, white, and transparent backgrounds aren't allowed.
- Avoid using any light color as the background for the logo. The publisher display name, plan title and the offer long summary are displayed in white font color, and must stand out against the background.
- Avoid using most text when you're designing the logo. The publisher name, plan title, the offer long summary, and a create button are embedded programmatically inside the logo when the offer's listed.
- Include an unused rectangular space on the right-side of your hero logo. This blank space is 415x100 pixels, and offset from the left by 370 pixels.

Lead management

This section enables you set up the options for collecting customer leads generated from your Azure Marketplace offers. You can select the following storage options from a dropdown list.

- **None** - the default, lead information is not collected.
- Azure Table - written to the Azure table specified by a connection string.
- Dynamics CRM Online - written to the Microsoft Dynamics 365 Online instance, specified by a URL and authentication credentials.
- HTTPS Endpoint - written to the specified HTTPS endpoint as a JSON payload.
- Marketo - written to the specified Marketo instance, specified by server ID, munchkin ID, and form ID.
- Salesforce - written to a Salesforce database, specified by an object Identifier.

After you successfully publish your offer, the lead connection is verified and a test lead is automatically sent to the destination that you configured.

> **NOTE**
>
> Lead information should be continuously managed and these settings should be promptly updated whenever changes are made to your customer management architecture.

Legal

This section lets you provide the two legal documents that are required for each offer: Privacy Policy and the Terms of Use.

FIELD	DESCRIPTION
Privacy Policy URL	URL to your posted privacy policy
Terms of use	Terms of use as inline simple HTML or link to your posted terms of use

Next steps

Use the Support tab to provide the technical and user support resources for your offer.

IoT Edge module Support tab

10/18/2018 • 2 minutes to read • Edit Online

Use the **Support** tab of the **New Offer** page to provide technical and user support resources for your offer. The following input areas are provided on the Support form: **Engineering Contact**, **Customer Support**, and **Support Urls**. An asterisk (*) appended to the field name indicates that it's required.

Support form fields

The following table describes the form fields and the input required for each field.

FIELD	DESCRIPTION
Engineering Contact	*Serves as a technical contact between Microsoft and your organization*
Name	Name of the person or group that serves as technical/engineering support
Email	Email address of this technical contact
Phone	Phone number for technical support

FIELD	DESCRIPTION
Customer Support	*Receives support tickets opened by customers in Azure*
Name	Name of the person or group that serves as customer support
Email	Email address of customer support
Phone	Phone number for customer support
Support Urls	*Support sites that Microsoft will use when your customers open support tickets*
Public Azure	URL for public internet support site
Azure Government Cloud	URL for government cloud support site

Next steps

After you finish providing support information, you're ready to publish your offer.

Prepare your IoT Edge module technical assets

1/10/2019 • 5 minutes to read • Edit Online

This article describes the requirements that your IoT Edge module technical assets need to meet before being published on Azure Marketplace.

Understanding IoT Edge modules and getting started

An IoT Edge module is a Docker-compatible container that's made to run on an IoT Edge device.

- To learn more about IoT Edge modules, see Understand Azure IoT Edge modules.
- To get started with your IoT Edge module development, see requirements and tools for developing IoT Edge modules.

Technical requirements

The following technical requirements must be met in order for your IoT Edge module to be certified and published on the Azure Marketplace.

Platform support

Your IoT Edge module must support one of the following platform options.

Tier 1 platforms supported by IoT Edge

Support all Tier 1 platforms supported by IoT Edge (as recorded in Azure IoT Edge support). We recommend this option because it provides a better customer experience. Modules meeting this criteria will be showcased. A module using this platform option must:

- Provide a `latest` tag and a version tag (for example, `1.0.1`) that are manifest tags built with the GitHub manifest-tool.
- Use the the Marketplace tab to add a link to Compatible IoT Edge certified devices. This link resolves to `http://aka.ms/iot-edge-certified`, a website where customers can browse or search for certified devices. This website is also known as the Azure IoT Edge Certified device catalog.

A subset of Tier 1 platforms supported by IoT Edge

Support a subset (at least one) of Tier 1 platforms supported by IoT Edge (as recorded in Azure IoT Edge support). A module using this platform option must:

- Provide a `latest` tag and a version tag (for example, `1.0.1`) that are manifest tags built with the GitHub manifest-tool if more than one platform is supported. Manifest tags are optional only when one platform is supported.
- Use the Marketplace tab to provide a link to at least one IoT Edge device in the Azure IoT Edge Certified device catalog.

Device dimensions

IoT Edge module dimensions (CPU/RAM/Storage/GPU/etc.) on targeted IoT Edge devices must meet the following requirements:

- The module must **work with at least one IoT Edge certified** device in the Azure IoT Edge Certified device catalog.
- The **Minimum hardware requirements** must be documented as the last paragraph in the description of the offer (under the Marketplace tab). Optionally, you can also list the recommended hardware

requirements if they differ significantly. For example, add the following section at the end of your offer description:

```
<p><u>Minimum hardware requirements:</u> Linux x64 and arm32  OS, 1GB of RAM, 500 Mb of storage</p>
```

Configuration

It also includes default configuration settings to make the deployment to an IoT Edge device as straight-forward as possible. The container may also include the IoT Edge Module SDK to enable communication with the edgeHub and IoT Hub.

Default configuration

IoT Edge modules must be able to start with the default settings provided in SKU tab of the Cloud Partner portal. The following default settings are available:

- Default **routes**
- Default **twin desired properties**
- Default **environment variables**
- Default **createOptions**

In a scenario where a parameter required for a default value doesn't make sense (for example, the IP address of a customer's server), you add a parameter as the default value. This value is enclosed in brackets and in upper case. For this example, you'd set up the following default environment variable:

```
ServerIPAddress = <MY_SERVER_IP_ADDRESS>
```

Configuration documentation

All configuration settings of an IoT Edge module must be clearly documented (how to use its routes, twin desired properties, environment variables, createOptions, and so on.) Provide a link to your documentation, or the documentation must be part of your offer/sku description.

Tags and versioning

Customers must be able to easily deploy a module and automatically get updates from the marketplace (in a developer scenario.) They also must be able to use and freeze an exact version they've tested (in a production scenario.)

To meet these customer's expectations and be published in the marketplace, IoT Edge modules must meet the following requirements:

- Include a manifest `latest` tag, that points the latest version on all supported platforms.
- Version tags must be of the form X.Y.Z, where X, Y, and Z are integers.
- Include a "version" tag, like `1.0.1`, that points to a specific version on all supported platforms.
- Don't update "version" tags, like `1.0.1`, because they must be immutable.

> **NOTE**
>
> Optionally, versioning can include "rolling version" tags, such as `2.0` and `1.0`. This supports maintaining multiple major versions in parallel.

Telemetry

Modules using the IoT Module SDK must set the unique module identifier to `PublisherId.OfferId.SkuId` for telemetry purposes. A unique identifier enables the Azure Marketplace to identify the number of module instances that are running.

Use the following methods from the IoT Module SDKs to set the `ProductInfo` to this identifier:

- C#
- C
- Python
- Java

For modules that don't use the IoT Module SDK, less precise insights are available through the Cloud Partner Portal such as the number of downloads.

Security

IoT Edge modules must ask for the least privileged access to the host as possible. Privileged modules should be avoided.

Module IoT SDK

Including the IoT Module SDK isn't a prerequisite for certification. However, including the IoT Module SDK may provide a better user experience. For example, to support routing or sending messages to the Cloud.

The IoT Module SDK is required to get telemetry data about the number of module instances running.

Recertification process

Partners will get notified whenever there is a breaking change that affects their modules, such as:

- Tier 1 os/arch support matrix supported by IoT Edge
- IoT Module SDK
- IoT Edge Runtime
- The IoT Edge module certification guidelines

Partners will have to update their modules and recertify them using the Cloud Partner Portal tool.

Host your IoT Edge module in an Azure Container Registry

To upload your IoT Edge module to the Cloud Partner Portal, you first need to host it in an Azure Container Registry (ACR). The module must include all the tags that you want to publish, including the image tags referenced by a manifest tag.

Next steps

- Create your IoT Edge module offer

Publish IoT Edge module offer

10/23/2018 • 2 minutes to read • Edit Online

After you create a new offer by providing the information on the **New Offer** page, you can publish the offer. Select **Publish** to start the publishing process.

The following diagram shows the main steps in the publishing process for an offer to "go live".
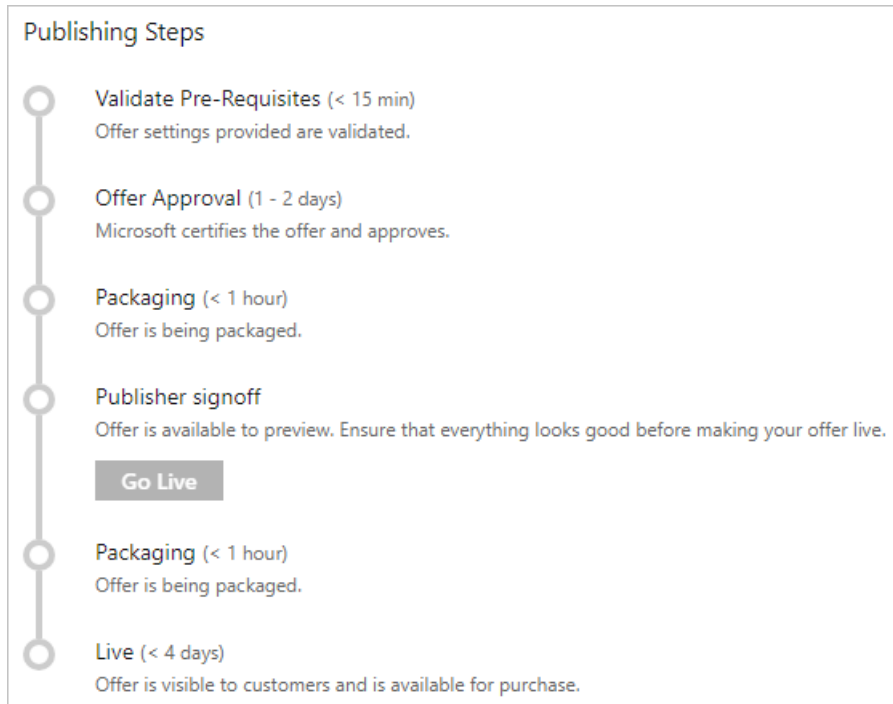
Detailed description of publishing steps

The following table describes each publishing step, with a time estimate (maximum) to complete each step.

PUBLISHING STEP	TIME	DESCRIPTION
Validate prerequisites	15 min	Offer information and offer settings are validated.
Certification	2 weeks	Offer is analyzed by the Azure Certification Team. This step will perform scans for viruses, malware, safety compliance, and security issues. It will also verify that this IoT Edge module offer meets all eligibility criteria (see prerequisites and preparing your technical assets). Feedback is provided if an issue is found.
Packaging	1 hour	Offer's technical assets are packaged for customer use and the lead systems are configured and setup.

PUBLISHING STEP	TIME	DESCRIPTION
Publisher sign off	-	Final publisher review and confirmation before the offer goes live. You can deploy your offer in the selected subscriptions (in the offer information steps) to verify that it meets all your requirements. Select **Go Live** so your offer can move to the next step.
Packaging	1 hour	Finalized offer is replicated in marketplace production systems and regions.
Live	4 days	Offer is released, replicated to the required regions, and made available to the public.

Allow for up to 10 business days for the publishing process to finish and the offer is released. After you finish the publishing process, your IoT Edge module offer will be listed in the Microsoft Azure Marketplace.

Next steps

- Update an existing IoT Edge module offer on Azure Marketplace

Update an existing IoT Edge module offer

10/18/2018 • 2 minutes to read • Edit Online

This article steps through the different aspects of updating your IoT Edge module offer in the Cloud Partner Portal and then republishing the offer.

There are several reasons why you might want to update your offer, such as:

- Adding a new IoT Edge module image version to existing SKUs.
- Adding new SKUs.
- Updating the marketplace metadata for the offer or individual SKUs.

To assist you in these modifications, the portal offers the **Compare** and **History** features.

Unpermitted changes to IoT Edge module offer or SKU

There are attributes of a IoT Edge module offer or SKU that can't be changed after the offer is live on the Azure Marketplace. You can't change the following settings:

- **Offer ID** and **Publisher ID** of the offer
- **SKU ID** of existing SKUs
- Version tags, for example: `1.0.1`
- Billing/license model changes to existing SKUs

Common update operations

The following update operations are common.

Update the IoT Edge module image version for a SKU

It's common for a IoT Edge module image to be periodically updated with security patches, additional features, and so on. In this scenario, you want to update the IoT Edge module image that your SKU references by using the following steps:

1. Sign into the Cloud Partner Portal.

2. Under **All offers**, find the offer you want to update.

3. In the **SKUs** tab, select the SKU associated with the IoT Edge module image to update.

4. Under **Edge module image**, select **+ New Image Version** to add a new IoT Edge module image.

5. Provide the new IoT Edge module **image versions**. The image version needs to follow the same tags guidelines as previous versions. Version tags should be of the form X.Y.Z, where X, Y, and Z are integers. Verify that the new version you provide is greater than all previous versions.

6. Select **Publish** to start the workflow to publish your new IoT Edge module version to the Azure Marketplace.

Add a new SKU

Use the following steps to make a new SKU available for your offer:

1. Sign into the Cloud Partner Portal.

2. Under **All offers**, find the offer you want to update.

3. Under the **SKUs** tab, select **Add new SKU** and provide a **SKU ID** in the pop-up window.

4. Republish the IoT Edge module using the steps described in Publish a IoT Edge module to Azure Marketplace.

5. Select **Publish** to start the workflow to publish your new SKU.

Update offer marketplace metadata

Use the following steps to update the marketplace metadata associated with your offer. (For example: company name, logos, etc.)

1. Sign into the Cloud Partner Portal.

2. Under **All offers**, find the offer you would like to update.

3. Go to the **Marketplace** tab. Use the instructions in the Publish a IoT Edge module to Azure Marketplace article to make metadata changes.

4. Select **Publish** to start the workflow to publish your changes.

Compare Feature

When you make changes on a published offer, you can use the **Compare** feature to audit the changes that you've made.

To use the Compare feature:

1. At any point in the editing process, select **Compare** for your offer.

2. Look at side-by-side versions of marketing assets and metadata.

History of Publishing Actions

To see historical publishing activity, select the **History** tab on the left navigation menu bar of Cloud Partner Portal. You can see the timestamped actions taken during the lifetime of your Azure Marketplace offers.

Power BI Application offer

2/1/2019 • 2 minutes to read • Edit Online

This section explains how to publish a Power BI Application to the Microsoft AppSource Marketplace. A Power BI Application packages Power BI content and uses dataflows to connect reports and dashboards to data in common data storage. The app can be then deployed to other tenants through AppSource.	

This section is divided into these main parts:

- Prerequisites - the technical and business requirements for creating or publishing a Power BI App offer
- Create Power BI App offer - the steps required to create a new Power BI App offer entry using the Cloud Partner Portal
- Publish Power BI App offer - how to submit a new offer for publishing to AppSource, and how to update an existing offer.

Publishing steps

The following diagram illustrates the high-level steps in publishing a Power BI App offer.
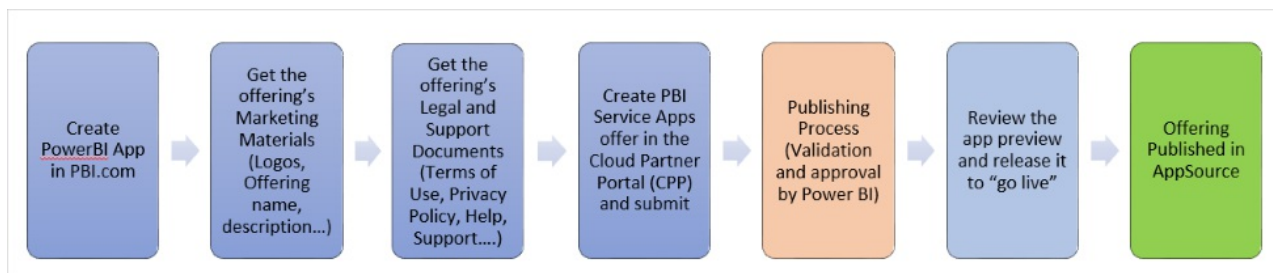
Power BI Apps publishing process

1. Create a service application in Power BI (which results in creating package installation URL). This URL represents the technical assets for the offer. For more information, see What is Power BI.
2. Collect or create the business assets, including:
   - Marketing materials
   - Legal and support documents
3. Create the offer – Use the Cloud Partner Portal to configure the details and information about the offer, including the offer description, marketing materials, legal, support information, and asset specifications.
4. Certify and publish the offer - This submission starts the publishing process.
   - The AppSource onboarding team tests, validates, and certifies your application.
   - Once certified, you should review it on its test environment and release it.

Once all these steps are performed, your app will "go live" on AppSource.

Next steps

Before you begin these steps, you must meet the requirements for publishing a Power BI App to AppSource.

Power BI Apps prerequisites

2/1/2019 • 2 minutes to read • Edit Online

This article lists the technical and business requirements that you must meet before you can publish a Power BI App offer to Microsoft AppSource Marketplace.

Technical requirements

The primary technical asset you will need for this offer type is a Power BI Application. For more information, see Create Power BI technical assets.

Once your service application is created and tested in Power BI, you should save the application installation URL that Power BI generates. You will need it to create a new Power BI App offer.

Business requirements

The business requirements include procedural, contractual, and legal obligations:

- You must be a registered Cloud Marketplace Publisher. If you are not registered yet, follow the steps in the article Become a Cloud Marketplace Publisher.

  > **NOTE**
  >
  > You should use the same Microsoft Developer Center registration account to sign onto the Cloud Partner Portal. You should have only one Microsoft account for your AppSource offerings. It should not be specific to individual services or offers.

- You are responsible for making technical support available to customers in a commercially reasonable manner.

- You must provide content that meets criteria for your offering to be listed on AppSource. For more information, see Have an app to list on AppSource? Here's how.
- You must comply with the Microsoft Privacy Statement.

Next steps

Once you have met all the requirements, you are ready to create a Power BI offer in the Cloud Partner Portal.

Create a Power BI Application offer

2/1/2019 • 2 minutes to read • Edit Online

This section lists the steps required to create a new Power BI App offer for AppSource. Every offer appears as its own entity in AppSource. When you create a new offer in the Cloud Partner Portal, you are required to supply four groups of assets for your offer.

ASSET GROUP	DESCRIPTION
Offer Settings	Primary identifications and name for the offer
Technical Info	Installer URL used to install the app in client's Power BI workspace. For more info on how to generate this URL, refer to Power BI App documentation.
Storefront details	Contains marketing, legal and lead management assets. Marketing assets include offer description and logos. Legal assets include a privacy policy, terms of use, and other legal documentation. Lead management policy enables you to specify how to handle leads from the AppSource end-user portal.
Contacts	Contains support contact and policy information

New Offer form

Once your sign into the Cloud Partner Portal, click the **+ New Offer** item on the left menubar. In the resulting menu, click on **Power BI Apps** to display the **New Offer** form and start the process of defining assets for a new app offer.

Next steps

The subsequent articles in this section mirror the tabs in the **New Offer** page (for a Power BI App offer type). Each article explains how to use the associated tab to define the asset groups and supporting services for your new app offer.

- Offer Settings tab
- Technical info tab
- Storefront details tab
- Contacts

Power BI Apps Offer Settings tab

The **New Offer** page for service apps opens in the first tab named **Offer Settings**. You will provide the primary identifiers and name for your offer in this tab. An appended asterisk (*) on the field name indicates that it is required.

Offer settings fields

In the **Offer Settings** tab, you must provide the following required fields.

FIELD	DESCRIPTION
Offer ID	A unique identifier (within a publisher profile) for the offer. This identifier will be visible in product URLs, Resource Manager templates, and billing reports. It has a maximum length of 50 characters, can only be composed of lowercase alphanumeric characters and dashes (-), but cannot end in a dash. This field cannot be changed after an offer goes live. For example, if Contoso publishes an offer with offer ID `sample-SvcApp`, it is assigned the AppSource URL `https://appsource.microsoft.com/marketplace/apps/contoso.sample SvcApp`.
Publisher	Your organization's unique identifier in AppSource. All your offerings should be associated with your publisher ID. This value cannot be modified once the offer is saved.
Name	Display name for your offer. This name will display in AppSource and in the Cloud Partner Portal. It can have a maximum of 50 characters. Guidance here is to include a recognizable brand name for your product. Don't include your organization's name here unless that is how the app is marketed. If you are marketing this offer in other websites and publications, ensure that the name is the same across all publications. If you release an offer during the preview period of Power BI Apps, preview mode, append the string `(Preview)` to your application's name, for example `Sample Scv App (Preview)`.

Next steps

In the next tab, you will specify Technical Info for your offer.

Power BI Apps Technical Info tab

2/1/2019 • 2 minutes to read • Edit Online

The **Technical Info** tab of the **New Offer** page is where you provide the Power BI installer package URL and any additional info required for the new offer's validation. For the initial release, all Power BI Apps are free, available for download from AppSource at no additional charge. As a result, you will not be able to define any stock keeping units (SKUs) for this offer type.

Technical Info fields

In the **Technical Info** tab, you must provide the following fields. An appended asterisk (*) on the field label indicates that it is required.

FIELD	DESCRIPTION
Installer URL	Address generated by Power BI when you publish the app and promote it to production. For more information on how to generate the URL, see Publish service apps in Power BI.
Validation instructions	Optional text instructions (max 3000 chars) for the Microsoft validation team to assist in configuring, connecting and testing your app, including: typical configuration settings, test accounts or parameters that can be used to test the "Connect Data" option, etc. This information will only be visible to the validation team and is only used for validation purposes.
Is this app created as a Power BI content pack?	Currently, this is an internally used field. Leave the value set to its default value, `No` ; otherwise, changing this field to `No` could impede publishing.

Next steps

In the next Storefront Details tab, you will provide marketing and legal information for your app.
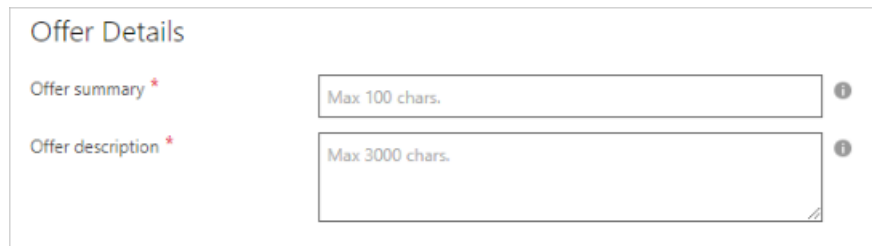
Power BI Apps Storefront Details tab

2/1/2019 • 4 minutes to read • Edit Online

Use the **Storefront Details** tab of the **New Offer** page to provide marketing, sales, and legal information to your prospective customers. This tab also specifies how to manage leads generated from the marketplace. This long form is divided into six sections: **Offer Details**, **Listing Details**, **Marketing Artifacts**, **Legal**, **Customer Support**, and **Lead Management**. An appended asterisk (*) on the field label indicates that it is required.

Offer Details section

In this section, you enter the general information about your App Source Offer.

The following table describes the name and purpose of these fields.

FIELD	DESCRIPTION
Offer Summary	Brief purpose of the app. Maximum length of 100 characters.
Offer Description	Description of app. Maximum length of 3000 characters, supports simple HTML formatting.

Listing Details section

This second section provides additional context for your app: what industries it is typically used in, what category best applies to it, compatible products, and associated search terms.

Listing Details

Industries (Max 2)

- ☐ Agriculture   ⓘ
- ☐ Architecture Engineering
- ☐ Distribution
- ☐ Education
- ☐ Financial Services
- ☐ Government
- ☐ Health
- ☐ Hospitality and Travel
- ☐ Manufacturing
- ☐ Media and Entertainment
- ☐ National and Public Security
- ☐ Nonprofits
- ☐ Professional Services
- ☐ RealEstate
- ☐ Retail
- ☐ Telecommunications

Categories (Max 3) *

- ☐ Analytics
- ☐ Artificial Intelligence
- ☐ Collaboration
- ☐ Customer Service
- ☐ Finance
- ☐ Human Resources
- ☐ IT and Administration
- ☐ Marketing
- ☐ Operations Supply Chain
- ☐ Productivity
- ☐ Sales

Help link for your app *   `Eg. http://www.contoso.com`   ⓘ

Products your app works with (Max 3)   ⊕ New

Search keywords (Max 3)   ⊕ New

The following table describes the name and purpose of these fields.

FIELD	DESCRIPTION
Industries	Select the industry that your app is best aligned to. If your app relates to multiple industries, you can leave this blank.
Categories	Select the categories that are relevant to your app. Select a maximum of 3.
Help link for your app	URL to a page that has online help for your app
Products your app works with (Max 3)	List the specific products that your app works with. You can list maximum of 3 products. To list a product, click on the plus sign (beside new) and a new open text field will be created for you to enter the name of a product that your app works with.
Search keywords (Max 3)	AppSource allows customer to do search based on keywords. You can enter the set of keywords for which your application will be shown to the customers. For example, if the application is "My Emailing app" Emails, Mailing, Mail app might be some keywords. Choose words that users will likely use to search for your app in the AppSource search box.

FIELD	DESCRIPTION

Marketing Artifacts section

This third section enables uploading of branding and marketing materials. It is divided in four subsections: **Logos**, **Videos**, **Documents**, and **Screenshots**. Logos and screenshots are required marketing artifacts; however, all are highly recommended for best customer appeal.

FIELD	DESCRIPTION
Logos	
Offer logo (png format, 48x48)	Displayed on AppSource in the overview of app or app results, when completing a search. Only png format, with a resolution of 48px*48px is supported.
Offer logo (png format, 216x216)	Displayed on AppSource on your app's detail page. Only png format, with a resolution of 216px*216px is supported.
Videos	
Name	Name or title of the app
URL	Video URL hosted on YouTube or Vimeo
Thumbnail	Thumbnail image of the app. Only png format with a resolution of 1280px*720px is supported.
Documents	Optional, but maximum of three documents. Docs you upload here will appear on AppSource under "Learn more".
Name	Name or title of supporting document

FIELD	DESCRIPTION
File	Upload document must be in pdf format
Screenshots	Optional, but maximum of five screenshots.
Name	Name or title of screenshot
Image	Upload screen capture image, must be png format with resolution of 1280px*720px

Logo guidelines

All the logos uploaded to the Cloud Partner Portal should follow the guidelines:

- Do not use a gradient background on your logo.
- Avoid placing text—including your company or brand name—on the logo. The look and feel of your logo should be "flat" and should avoid gradients.
- Do not stretch the logo.

Legal section

This fourth section enables you to provide the two legal documents required for each offer: Privacy Policy and the Terms of Use.

FIELD	DESCRIPTION
Privacy Policy URL	URL to your posted privacy policy
Terms of use	Policy as plain text or simple HTML

Customer Support section

Provide the **Support URL** for your online customer support page. It is best if this online support page provides customers with multiple contact options, such as phone, email, and live chat.

Lead Management section

The last section enables you to collect customers leads generated from your AppSource offers. It offers the following storage options (from a drop-down list) for this lead information.

FIELD	LEAD DESTINATION
None	Leads are not collected (the default).

FIELD	LEAD DESTINATION
Azure Blob (deprecated)	An Azure blob, specified by a container name and a connection string. This choice is deprecated; use **Azure Table** instead.
Azure Table	An Azure table, specified by a connection string
Dynamics CRM Online	A Microsoft Dynamics 365 Online instance, specified by a URL and authentication credentials
HTTPS Endpoint	The specified HTTPS endpoint as a JSON payload
Marketo	A Marketo instance, specified by server ID, munchkin ID, and form ID
Salesforce	A Salesforce database, specified by an object Identifier

After you publish your offer, the lead connection is validated, and a test lead is automatically sent to the specified destination. Lead information should be continuously managed, and these settings should be promptly updated to reflect your current customer management architecture.

Next steps

In the next Contacts tab, you will provide technical and user support resources for your offer.

Power BI Apps Contacts tab

2/1/2019 • 2 minutes to read • Edit Online

Use the **Contacts** tab of the **New Offer** page to provide technical and user support resources for your offer. It is divided into two sections: **Engineering** and **Customer Support**.

Contacts fields

The following table describes the name and purpose of these fields.

FIELD	DESCRIPTION
Engineering Contact	Serves as a technical contact between AppSource and your organization
Name	Name of the person or group that serves as technical/engineering support
Email	Email address of this technical contact
Phone	Phone number for technical support
Support Contact	Receives support tickets opened by customers within AppSource
Name	Name of the person or group that serves as customer support
Email	Email address of customer support

Next steps

After you have completed the Power BI App offer, you should confirm that you have created all the associated technical assets for this offer.

Create Power BI App technical assets

2/1/2019 • 2 minutes to read • Edit Online

The primary technical asset you will need for this offer type is a Power BI Application, which is a collection of a primary dataset, report and (or) dashboard and optional connected services and embedded datasets. (Power BI applications are an evolution of asset type previously known as content packs.) For complete information about developing these applications, see Power BI Apps.

Obtaining an installation URL

Building Power BI App in only available within the Power BI service and requires sign in using a Power BI Pro license. Once your service application is created and tested in Power BI, save the application installation URL that Power BI generates. You must supply this URL in the Technical Info tab of the Cloud Partner Portal submission form.

Next steps

After you have created and tested your Power BI App and created the associated offer, you can publish the Power BI offer.

Publish Power BI App offer

The last step, after you have defined the offer in the portal and created the associated technical assets, is to submit the offer for publishing. To start this process, click the **Publish** button on the vertical menu in the **New Offer** window. For more information, see Publish Azure Marketplace and AppSource offers.

Publishing steps

The following diagram depicts the main steps in the publishing process to "go live".

The following table describes these steps and provides a maximum time estimate for their completion:

PUBLISHING STEP	TIME	DESCRIPTION
Validate prerequisites	15 min	Offer information and offer settings are validated.
Certification	1-7 days	The Power BI Certification Team analyses your offer. We run your Power BI App through a manual verification test by installing the app via provided installation URL. Main validations are performed as part of the app certification process; see below.
Packaging	< 1 hour	Offer's technical assets are packaged for customer use.
Lead Generation Registration	< 1 hour	Lead systems are configured and deployed.

PUBLISHING STEP	TIME	DESCRIPTION
Publisher signoff	-	Final publisher review and confirmation before the offer goes live. You will also now have a link to preview your offering. Once you are happy with how your preview looks, click the **Go Live** button in the **Status** tab. This action sends a request to the onboarding team to list your app on AppSource.
Live	< 3 hours	Your offer is now publicly listed ("live") on AppSource, and customers will be able to view and deploy your app in their Power BI subscriptions. You will also receive a confirmation e-mail. At any point, you can click on the **All offers** tab, and see the status for all your offers listed on the right column. You can click on the **Status** tab to see the publishing flow status in detail for your offer.

Allow for up to eight days for this process to complete. After you go through these publishing steps, your Power BI App offer will be listed in the AppSource Power BI Apps section.

App certification process

The Microsoft onboarding team uses the following process to validate your Power BI offer submission:

1. Legal documents and help links are reviewed.
2. Support Contact info is validated.
3. Installer URL is used to verify proper installation.
4. App is scanned for malware and other malicious content.
5. Verification is performed that content displayed matches app's description.
6. App-related operations work as expected in Power BI: open reports and dashboards with sample data, connect to custom data sources, refresh, etc.

The Certification Team provides feedback if they find any issues. For more info on Power BI App requirements, see the Power BI App documentation.

Next steps

We recommend that you regularly monitor your app in the AppSource Marketplace. In addition, you should use the Seller Insights feature of the Cloud Partner Portal to provide insights on your marketplace customers and usage. You can also perform certain updates to your offer.

Update an existing Power BI App offer

2/1/2019 • 2 minutes to read • Edit Online

This article walks you through the different aspects of updating your Power BI App offer in the Cloud Partner Portal and then republishing the offer. There are commonplace reasons for you to update your offer, including:

- Updating the app's content in Power BI and getting a new Install URL from newly packaged app
- Updating the marketplace metadata for the offer: sales, marketing, or support information and assets

To assist you in these modifications, the portal offers the **Compare** and **History** features.

Unpermitted changes to offer

There are some attributes of a Power BI App offer that cannot be modified once the offer is live in the AppSource, mainly **Offer ID** and **Publisher ID**.

Common update operations

Although there are a wide range of characteristics you can change on a Power BI App offer, the following operations are common.

Update app content in Power BI

It is common for the app in Power BI to be periodically updated with new content, security patches, additional features, and so on. Under such scenarios, you want to update the URL to the new apps content installation by using the following steps:

1. Sign into the Cloud Partner Portal.
2. Under **All offers**, find the offer to update.
3. In the **Technical Info** tab, enter a new installer URL.
4. Click on **Publish** to start the workflow to publish your new app's version to the AppSource.

Update offer marketplace metadata

Use the following steps to update the marketplace metadata—company name, logos, etc.—associated with your offer:

1. Sign into the Cloud Partner Portal.
2. Under **All offers**, find the offer you would like to update.
3. Goto the **Storefront Details** tab then follow the instructions in the Power BI Apps Storefront Details tab to make metadata changes.
4. Click on **Publish** to start the workflow to publish your changes.

Compare feature

When you make changes on an already published offer, you can use the **Compare** feature to audit the changes that have been made. To use this feature:

1. At any point in the editing process, click the **Compare** button for your offer.

2. View side-by-side versions of marketing assets and metadata.

History of publishing actions

To view any historical publishing activity, click on the **History** tab in the left navigation menubar of Cloud Partner Portal. Here you will be able to view timestamped actions that have been taken during the lifetime of your AppSource offers.

Next steps

You should regularly use the Seller Insights feature of the Cloud Partner Portal to provide insights on your marketplace customers and usage.

Azure SaaS application offer

1/14/2019 • 2 minutes to read • Edit Online

This section explains how to publish a software as a service (SaaS) application offer to the Azure Marketplace.

Use SaaS applications when your solution will be deployed in your own Azure subscription and customers will log on through an interface you design and manage to test the application. Azure Active Directory (AAD) is used to leverage your existing trial environment.

Benefits

Some of the benefits of listing your applications on a Microsoft marketplace include:

- Reaching 100 million Azure Active Directory users across Office 365 and Dynamics 365.

- Extending your sales team: reach business users worldwide and gain a sales channel that engages end users, helps generate leads, and initiates conversations with new customers across industries.

- Getting actionable insights: we will share insights into how your app is performing on AppSource, what works well, and how to further improve your sales procedures.

Publishing process workflow

The following diagram shows the high-level steps for publishing a SaaS application offer.
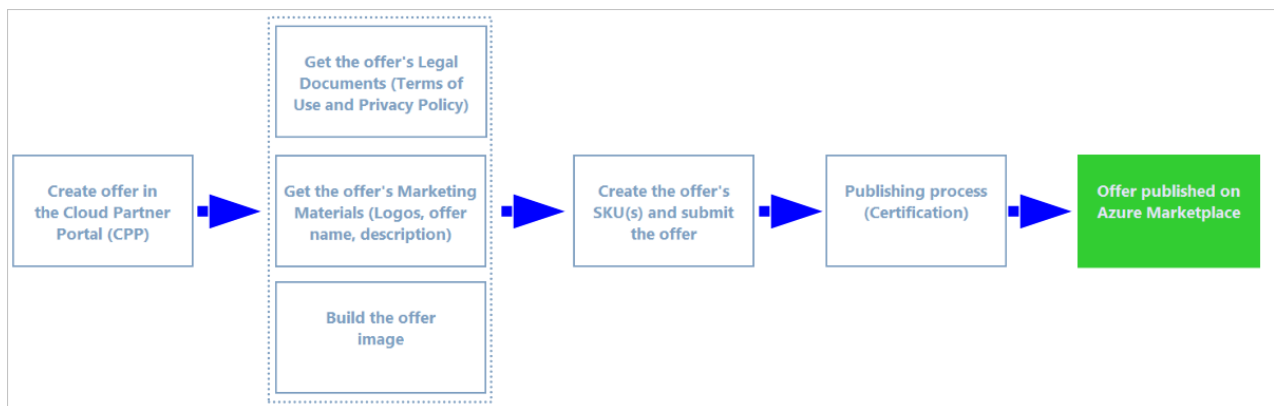
Offer components

This section describes the elements of publishing a SaaS offer, and is intended as a guide for the publisher to the Azure Marketplace. Publishing's divided into the following main parts:

- Prerequisites- Lists the technical and business requirements before creating or publishing a SaaS offer.
- Create the offer - Gives the steps required to create a new SaaS offer entry using the Cloud Partner Portal.
- Publish the offer - Explains how to submit the offer for publishing to the Azure Marketplace.

SaaS publishing process

The high-level steps for publishing a SaaS offer are:

1. Create the offer - Provide detailed information about the offer. This information includes: the offer description, marketing materials, support information, and asset specifications.
2. Create the business and technical assets - Create the business assets (legal documents and marketing

materials) and technical assets for the associated solution.

3. Certify and publish the offer - After the offer and the technical assets are completed, you can submit the offer. This submission starts the publishing process. During this process, the solution is tested, validated, certified, then "goes live" on the Azure Marketplace.

Next steps

Before you consider these steps, you must meet the technical and business requirements for publishing a SaaS offer to the Microsoft Azure Marketplace.

SaaS application publishing prerequisites

12/10/2018 • 2 minutes to read • Edit Online

This article describes the prerequisites for publishing a SaaS Application (App) offer on the Azure Marketplace. The Cloud Partner Portal provides role-based access to the portal, allowing multiple individuals to collaborate towards publishing an offer. For more information, see Manage Users.

Publishing prerequisites

To publish a new SaaS App offer, you must meet the following prerequisites:

- Access to the Cloud Partner Portal. For more information, see Azure Marketplace and AppSource publishing guides.
- Before an offer can be published on behalf of a publisher account, one of individuals with Owner role need to agree to comply with the Terms of Use, Microsoft Privacy Statement, and Microsoft Azure Certified Program Agreement.
- All non-English content needs to be accompanied with an English language version. This content includes Storefront text, documents, screenshots, Terms of Use and Privacy Policy. It's acceptable to provide a Useful link URL to a non-English application.
- Have your metadata ready to use. The following list (non-exhaustive) shows an example of this metadata:
  - A title
  - A description (in HTML format)
  - A logo image (in PNG format) and in these fixed image sizes: 40 x 40 pixels, 90 x 90 pixels, 115 x 115 pixels, and 255 x 115 pixels.
  - A Terms of Use and a Privacy Policy
  - Documentation
  - Support contacts

Next steps

Create SaaS offer

Create a new SaaS application offer

12/10/2018 • 2 minutes to read • Edit Online

This article describes how to create and publish a SaaS application (app) offer entry for the Azure Marketplace.

Offer process

The next diagram shows the process for creating a SaaS App offer.
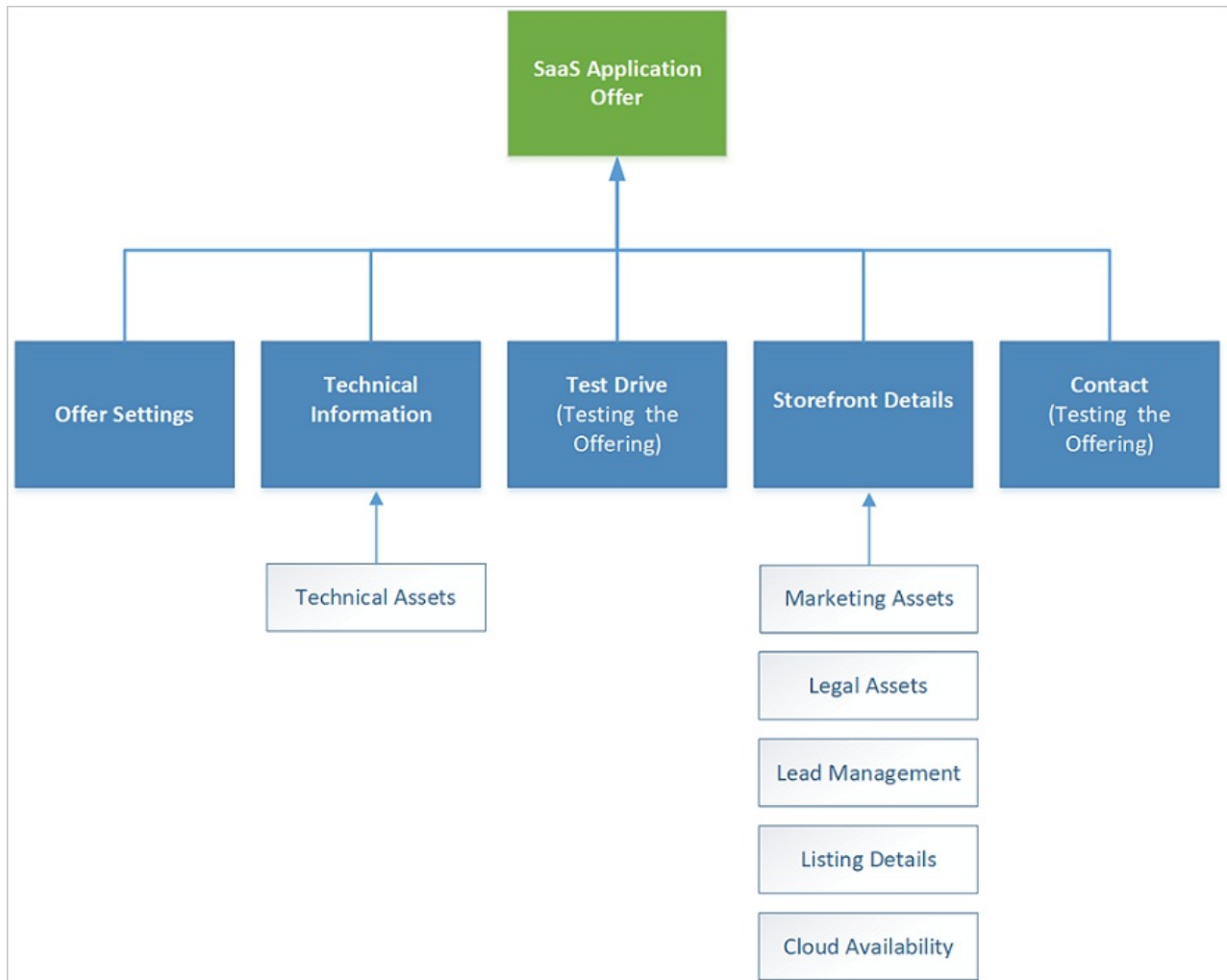
Offer components

The SaaS App offer consists of five sections, described in the following table:

ASSET GROUP	DESCRIPTION
Offer Settings	Use to configure a unique identity for the SaaS app.
Technical Info	Use to configure the SaaS Solution type, and provide the connection details for your application.
Channel Info	Provide channel information such as GTM materials and contacts.

ASSET GROUP	DESCRIPTION
Test Drive	Optional section for defining a service that will let customers test your offer before they purchase it.
Storefront Details	Contains marketing, legal and lead management assets and specifications. • Marketing assets include offer name, description, and logos • Legal assets include a privacy policy, terms of use, and other legal documentation • Lead management policy enables you to specify how to handle leads from the Azure Marketplace end-user portal.
Contacts	Contains support contact and policy information

New Offer form

Sign in to the Cloud Partner Portal, and then select **+ New offer** on the left menu bar. On the New offer menu, select **SaaS Apps** to display the New Offer form and start the process of defining assets for a new SaaS application offer.
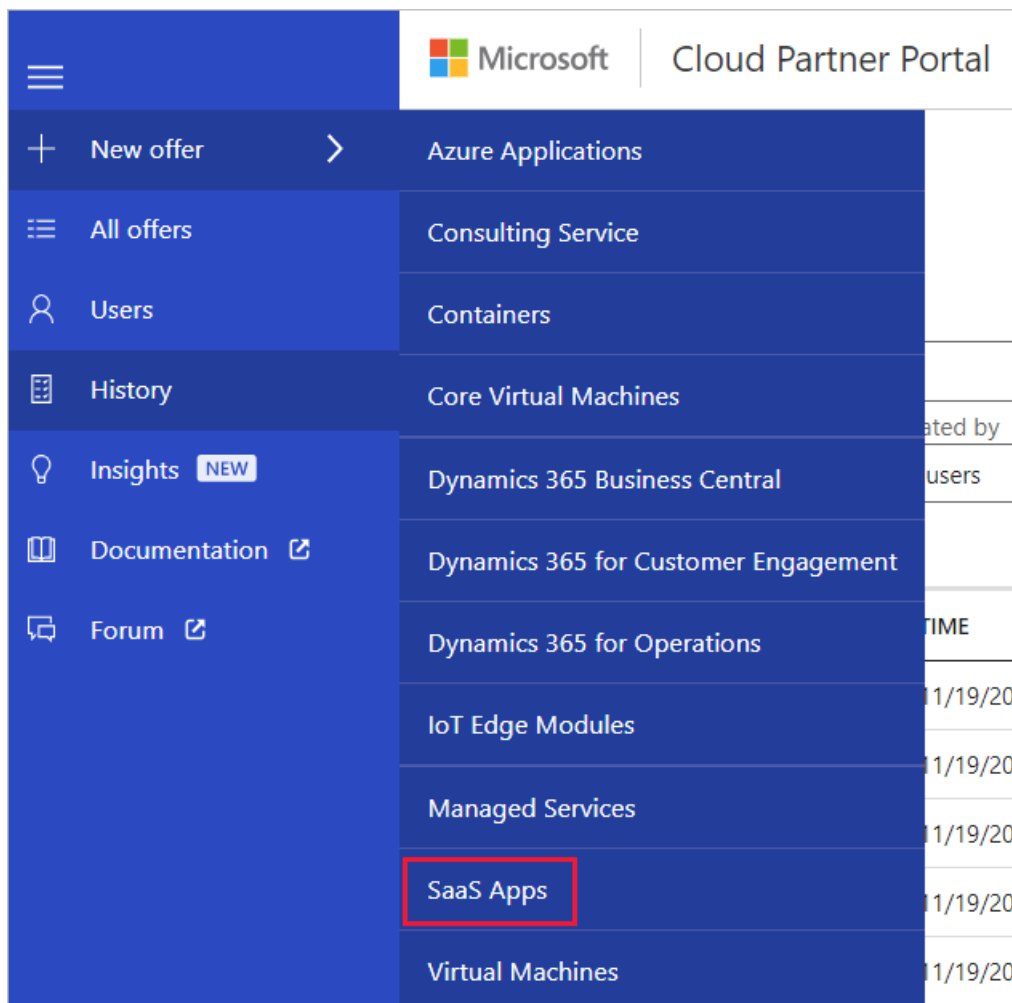
Next steps

The New Offer page for the SaaS offer type provides a set of tabs and form fields that you'll use to create a new offer. Each of the following articles explains how to use the tab to define the asset groups and supporting services

for your new offer.

- Offer Settings tab
- Technical Info tab
- Channel Info tab
- Test Drive tab
- Storefront Details tab
- Contacts tab
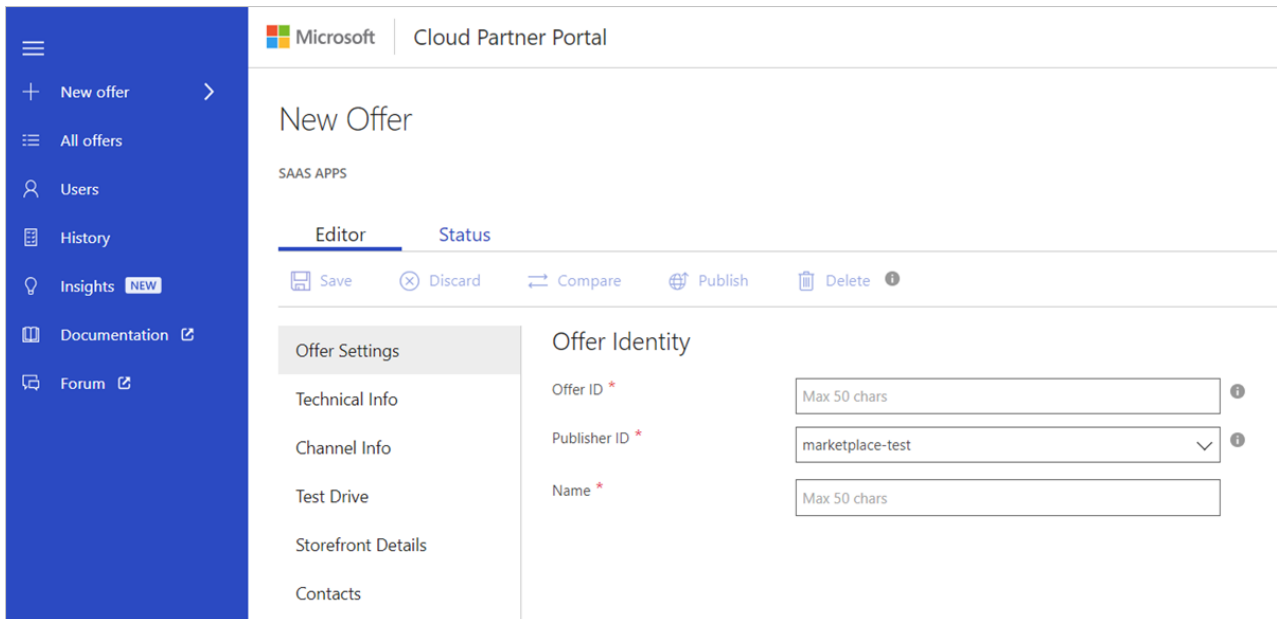
SaaS application Offer Settings tab

12/10/2018 • 2 minutes to read • Edit Online

This article describes how to configure the offer settings for the offer.

The **SaaS App > New Offer** page opens with the focus on the **Offer Settings** tab.

Use the Offer Settings tab to configure the **Offer Identity**, shown in the next screen capture. An asterisk (*) appended to the field name indicates that it's required.

Offer Identity settings

Under Offer Identity, you must provide information for the fields described in the following table.

FIELD NAME	DESCRIPTION
Offer ID	A unique identifier for the offer within a publisher profile. This ID will be visible in product URLs and billing reports. It can only be composed of lowercase alphanumeric characters or dashes (-). The ID can't end with a dash and is limited to a maximum of 50 characters. Note that this field is locked once an offer goes live. For example, if a publisher, Contoso, publishes an offer with offer ID sample-vm, it will show up in Azure marketplace as: https://azuremarketplace.microsoft.com/marketplace/apps/contoso.sample-vm?tab=Overview.
Publisher ID	The Publisher ID is your unique identifier in the Marketplace. All your offerings should be attached your publisher ID. The Publisher ID can't be modified after the offer's saved..

FIELD NAME	DESCRIPTION
Name	This is the display name for your offer. This is the name that will show up in Azure Marketplace and in Azure Portal. It can have a maximum of 50 characters. Include a recognizable brand name for your product. Don't include your company name here unless that is how it is marketed. If you're marketing this offer at your own website, ensure that the name is exactly how it shows up in your website.

Select **Save** to save your progress.
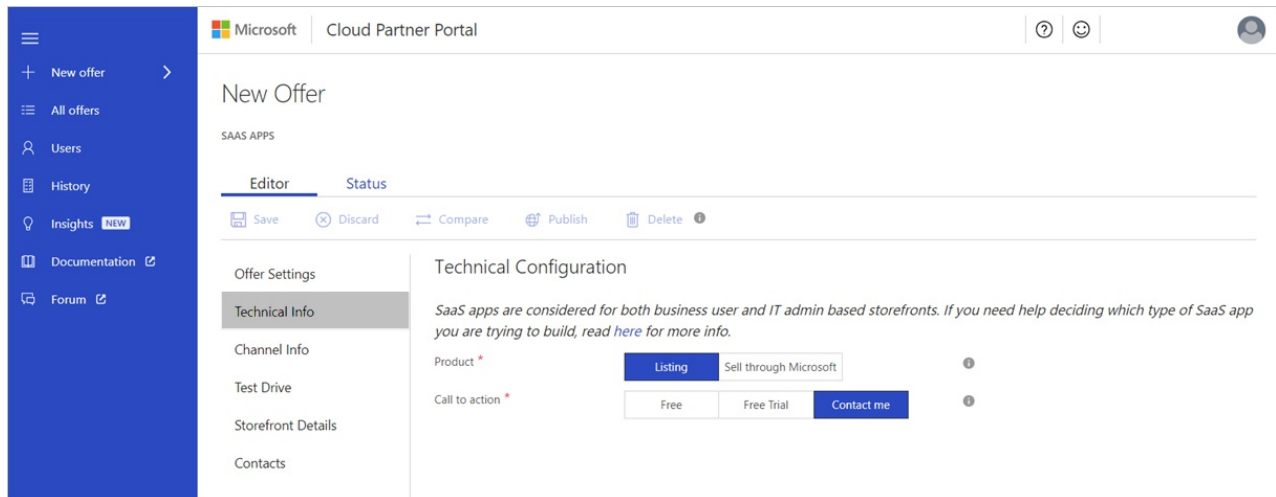
Next steps

[Technical Info tab](#)

SaaS application Technical Info tab

1/22/2019 • 3 minutes to read • Edit Online

The Technical Info tab provides the Technical Configuration form. Use this form to pick the type of SaaS application (app) you're creating and configure how your app is provided to customers.

Technical Configuration form

This form has 2 fields: Product and Call to action.

Product field

You can provide a SaaS app for both of the following storefronts:

- For a business user by selecting the **Listing** option.
- For an IT admin user, by selecting **Sell through Microsoft**. To help you decide which type of SaaS app you're building, read Understand storefront selection.

Sell through Microsoft

To build this experience you need to configure the following pieces:

- Connect your SaaS service website with Microsoft's SaaS APIs. The SaaS Sell through Azure – APIs article explains how to create this connection.
- Enable Sell through Azure on Cloud Partner Portal in the Technical Configuration form and provide the required information. For more information about this billing model and how it's implemented, see SaaS – Sell through Azure.

Technical Configuration

SaaS apps are considered for both business user and IT admin based storefronts. If you need help deciding which type of SaaS app you are trying to build, read here for more info.

Product *

| Listing | Sell through Microsoft |

ⓘ

Sell through Microsoft enables you to write connection APIs to facilitate commerce with Microsoft and is only available for offers on Azure Marketplace.

Preview Subscription Ids *

Enter Azure Subscription Id here   ⓘ

⊕ Add subscription

Preview AAD/MSA accounts

Eg: aad_account@example.com,msa_account@example.com   ⓘ

Connection Details

Getting Started Instructions *

Provide helpful instructions for how to connect to your app.   ⓘ

Landing Page URL *

Eg: https://contoso.com/   ⓘ

Connection Webhook *

Eg: https://prod-1.westus.logic.azure.com:443/workflows/123   ⓘ

Azure AD Tenant Id *

Eg: 50c464d3-4930-494c-963c-1e951d15360e   ⓘ

Azure AD App Id *

Eg: 50c464d3-4930-494c-963c-1e951d15360e   ⓘ

The following table describes the required fields for Sell through Microsoft.

FIELD NAME	DESCRIPTION
Preview Subscription IDs	All the Azure Subscription identifiers used to test your offer in preview before it is publicly available.
Getting Started Instructions	Directions to share with your customers to help them connect to your SaaS app. Basic HTML tags are allowed, for example: <p>, <h1>, , etc.
Landing Page URL	Your site URL that you will be directing your customers to land on after acquiring from Azure portal. This URL will also be the endpoint that will be receiving the connection APIs to facilitate commerce with Microsoft.
Connection Webhook	For all asynchronous events that Microsoft needs to send to you on behalf of the customer (example: Azure Subscription has gone invalid), we require you to provide us a connection webhook. If you don't already have a webhook system in place, the simplest configuration is to have an HTTP Endpoint Logic App that will listen for any events being posted to it and then handle them appropriately. For more information, see Call, trigger, or nest workflows with HTTP endpoints in logic apps

FIELD NAME	DESCRIPTION
Azure AD Tenant ID and App ID	Inside Azure portal, we require that you create an Active Directory App so that we can validate the connection between our two services is behind an authenticated communication. For these fields, create an AD App and paste in the corresponding Tenant Id and App Id required. Note that App id is associated to your publisherID. Hence, make sure same App ID as in all offers.

Finally, if you select **Sell through Microsoft**, there is another New Offer tab named **Plans**.

The plans tab lists the specific plans and their corresponding prices that your SaaS app supports. As of today, we allow for monthly pricing, with the ability to allow for 1- or 3- months of free access. These plans and prices should match the exact plans and prices that you have on your own SaaS app site.

> **NOTE**
>
> Plans are only needed if you choose Sell through Microsoft.

Call to action field

The Call to action field lets you pick the message that appears on your offer's acquisition button. The following options are available:

- Free – If you pick this option, you're prompted to enter a Trial URL where customers can get access to your SaaS app. For example: https://contoso.com/trial
- Free Trial– If you pick this option, you're prompted to enter a Trial URL where customers can get access to your SaaS app. For example: https://contoso.com/trial
- Contact me

For more information about the Call to action options, see Choose a publishing option.

Next steps

- Plans tab (Optional)
- Channel Info tab

SaaS application Plans tab

12/10/2018 • 2 minutes to read • Edit Online

Use the Plans tab to create a new plan. At least 1 plan must be added if you're using the Sell through Microsoft option for your SaaS app.

Create a new plan

To create a new plan:

1. Under **Plans**, select **+ New Plan**
2. In the **New Plan** popup window, type a **Plan ID**. This maximum length is 50 characters. This ID must consist only of lowercase, alphanumeric characters, dashes, or underscores. You can't change this ID after the offer's published.
3. Select **OK** to save the Plan ID.
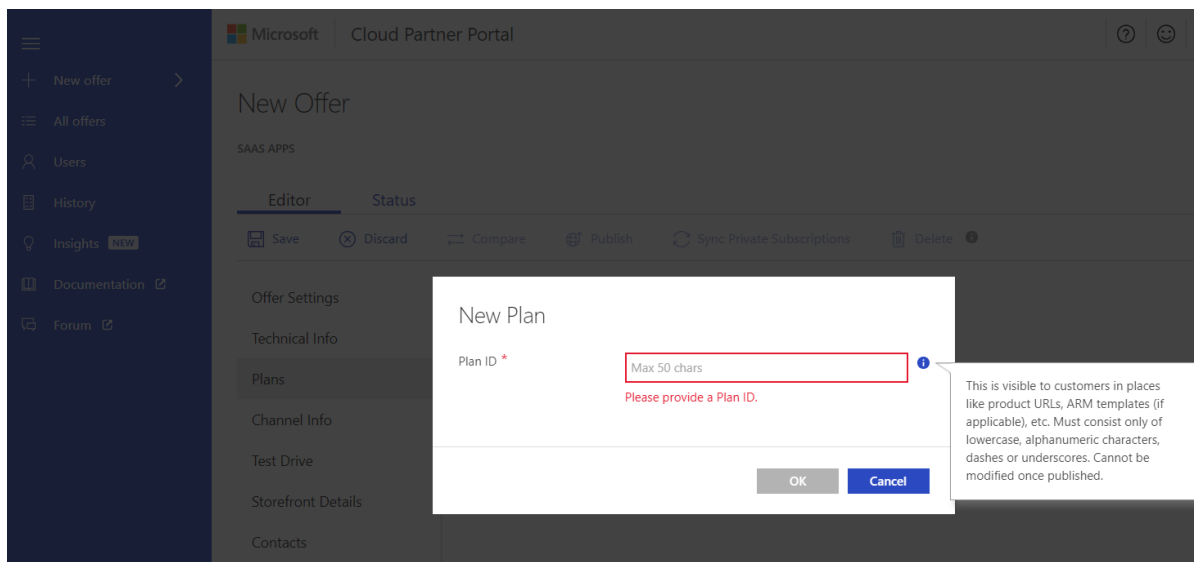
To configure the plan:

1. Under **Plan Details**, provide information for the following fields:

   - Title - Provide a title for the plan. The title is limited to 50 characters.
   - Description - Provide a description. The description is limited to up to 500 characters.
   - Is this a private plan? - If the plan's only available to a select group of customers, select **Yes**.
   - Country/Region availability - The plan must be available to at least 1 country or region. Click **Select regions**. Pick a country/region from the **Select Country/Region availability** list, and then select **OK**.
   - Legacy Pricing - Provide the cost, in USD per month.

2. Under **Simplified Currency Pricing**, provide the following information:

   - Billing Term - Monthly Price is selected by default. You can also provide annual pricing.
   - Monthly Price - Provide the Monthly price, which must match the Legacy pricing.

   > **NOTE**
   >
   > If you add Annual Price to the billing term, you'll get prompted for the **Annual Price** in USD per year.

3. Select **Save** to finish configuring the plan.

   > **NOTE**
   >
   > After you save your pricing changes you can export/import pricing data.

< All Plans

Plan Settings

Plan ID *

plan-saas-app-test1

Plan Details

Title *

Max 50 chars.

Description *

Provide a description for the plan here. Max 500 chars.

Is this a private plan? *

Yes   **No**

Country/Region availability *   0/88 selected   **Select regions**

Legacy Pricing *

USD per month

↓ Export pricing data | ↑ Import pricing data

Save your pricing changes to enable export/import of pricing data

Simplified Currency Pricing ⓘ

Billing Term *   ☑ Monthly Price
                  ☐ Annual Price

Monthly Price

USD per month

↓ Export pricing data | ↑ Import pricing data

Save your pricing changes to enable export/import of pricing data

Next steps

[Channel Info tab](#)

SaaS application Channel Info tab

12/10/2018 • 2 minutes to read • Edit Online

Use the Channel Info tab to provide channel information for your app, including go-to-market (GTM) materials and contact information.

To configure channel information

1. Under **Channel Info>GTM materials**, enter the URL for the website that hosts your GTM materials.
2. Under **Channel Manager Contact**, provide a manager contact Microsoft can reach out to for support and business issues. Enter information for these fields: Name, Email Address, and Phone Number.
3. Select **Save** to finish setting up the channel information.

Next steps

Test Drive

SaaS application Test Drive tab

12/10/2018 • 2 minutes to read • <u>Edit Online</u>

Use the Test Drive tab to provide a trial experience for your customers.

Test Drive benefits

Creating a trial experience for your customers is a best practice to ensure they can buy with confidence. Of the trial options available, Test Drive is the most effective at generating high-quality leads and increased conversion of those leads.

Test drive provides customers with a hands-on, self-guided trial of your product's key features and benefits, demonstrated in a real-world implementation scenario.

How a test drive works

A potential customer searches and discovers your application on the Marketplace. The customer signs in and agrees to the terms of use. At this point, the customer receives your pre-configured environment to try for a fixed number of hours, while you receive a highly qualified lead to follow up with. For more information, see What is Test Drive?

Publishing steps

The main publishing steps for adding a test Drive are:

1. Define your Test Drive scenario
2. Build and/or modify your Resource Manager template
3. Create your Test Drive step-by-step manual
4. Republish your offer

Setting up a test drive

There are four different types of Test Drives available, each based on the type of product, scenario, and marketplace you're on.

TYPE	DESCRIPTION	SETUP INSTRUCTIONS
Azure Resource Manager	An Azure Resource Manager Test Drive is a deployment template that contains all the Azure resources that comprise a solution being built by the publisher. Products that fit this type of Test Drive are ones that use only Azure resources.	Azure Resource Manager Test Drive
Hosted	A Hosted Test Drive removes the complexity of setup by Microsoft hosting and maintain the service that performs the Test Drive user provisioning and deprovisioning.	Hosted Test Drive

TYPE	DESCRIPTION	SETUP INSTRUCTIONS
Logic App	A Logic App Test Drive is a deployment template which is meant to encompass all complex solution architectures. All Dynamics applications or custom products should use this type of Test Drive.	Logic App Test Drive
Power BI	A Power BI Test Drive consists of an embedded link to a custom-built dashboard. Any product that wants to demonstrate an interactive Power BI visual should use this type of Test Drive. All you need to upload is your embedded Power BI URL.	Power BI Test Drive

Power BI test drive

Use the following steps to configure a test drive.

1. Under New Offer, select **Test Drive**.
2. On Test Drive, select **Yes**.

When you enable a test drive, you'll see the Details and Technical Configuration forms, which are shown in the next screen capture.

Test Drive ⓘ

Enable a Test Drive   [Yes] [No]

Please ensure you have Lead Management enabled for your offer to get leads from Test Drive. Learn more about how to build a Test Drive here.

Details

Description *   Test Drive Description (html)   ⓘ

User Manual *   📁 Upload ⓘ

Test Drive Demo Video ⓘ
⊕ Add video

Technical Configuration

Type of Test Drive *   Microsoft Hosted (Dynamics 365 for Customer Engagement) ⌄

Max Concurrent Test Drives *   Integer between 1 and 99   ⓘ

Test Drive Duration (hours) *   Integer between 1 and 999

Instance URL *   https://testdrive.crm.dynamics.com/   ⓘ

Azure AD Tenant Id *

Azure AD App Id *

Azure AD App Key *

Azure AD Tenant Name *   ⓘ

Instance Web API URL *   https://testdrive.crm.dynamics.com/api/data/v9.0   ⓘ

Role name *   ⓘ

3. Under **Details**, provide information for the following fields:

- Description – Describe your test drive and what users can do with it. You can use basic HTML tags to format this description.
- User Manual – Upload a User Manual document that your customers can use when they're taking the test drive. This manual must be a pdf file.
- Test Drive Demo Video (optional) - You can provide a video (YouTube or Vimeo) for your customers to watch before they take the Test Drive. Provide a URL to the video.

4. Under **Technical Configuration**, provide information for the following fields:

- Type of Test Drive – Select **Power BI** from the dropdown list.
- Link to Power BI Dashboard – Provide a link to the dashboard.

5. When you finish configuring the test drive, select **Save**.

Next steps

Storefront Details tab

SaaS application Storefront Details tab

12/10/2018 • 3 minutes to read • Edit Online

This article shows how to use the Storefront Details tab to describe your SaaS app and provide marketing assets. This tab includes the following forms: Overview, Marketing Artifacts, Lead Management, and Legal.

Overview

The Overview form has the required and optional fields shown in the next screen capture. An asterisk (*) appended to the field name indicates that it's required.

The following table describes the Storefront Details that you can provide for the offer.

OFFER FIELDS	DESCRIPTION
Offer summary	Summary of your offer's value proposition. It will appear on your offer's search page. It should be a maximum of 100 characters.
Offer description	The description that will appear on your application's detail page. Maximum allowed is 1300 characters. You can use basic HTML markup tags to format content. For example, <p>, <h1>, <h2>, and . To see how the formatted description will look, use an online real-time HTML tool like http://htmledit.squarefree.com

OFFER FIELDS	DESCRIPTION
Industries	Select the industries that your Offer is best aligned to. If your app relates to multiple industries, you can select a maximum of two.
Suggested Categories (Max 3)	Select the categories that your Offer is best aligned to. You can select a maximum of three categories.
App version	Enter the version number of your application.
Search keywords (Max 3)	Enter up to three search keywords that customers can use to find your application in the Marketplace storefront website.

Marketing Artifacts

Use the Marketing Artifacts form to identify Azure Marketplace marketing assets such as logos, videos, screenshots, and documents.

The following table describes the fields for Marketing Artifacts.

OFFER FIELDS	DESCRIPTION
Logos	If this is a Sell through Microsoft SaaS app, you should provide all logo images. If this is a Listing, then only 2 logos are required. Use following guidelines for logos uploaded in the Cloud Partner Portal: • Keep the number of primary and secondary colors on your logo low. The Azure design has a simple color palette. • Avoid using black or white as the background color of your logo. The theme colors of the Azure Portal are black and white. Instead, use some color that would make your logo prominent in the Azure Portal. We recommend simple primary colors. If you're using a transparent background, then make sure that the logo and text are not black, white, or blue. • Don't use a gradient background on the logo. • Avoid placing text, even your company or brand name, on the logo. The look and feel of your logo should be 'flat' and should avoid gradients. • The logo image should not be stretched.
Videos	Allows you to add links of videos of your offer. You can use links to YouTube and/or Vimeo videos, which are shown along with your offer to customers. You will also need to enter a thumbnail image of the video, with a png image of 1280 x 720 pixels. You can have a maximum of four videos per offer.
Documents	Allows you to add marketing documents to your offer. All documents must be in PDF format, and you can have a maximum of three documents per offer.
Screenshots	Allows you to add screenshots of your offer. There is a maximum of five screenshots that can be added per offer. The maximum image size is 1280 x 720 pixels.
Useful links	Allows you to add external URLs for your offer to help point to architecture diagrams or other websites that a customer would want to see.

Marketing examples

The next screen capture shows an example of a Marketplace search result.

The following image shows how the offer is displayed in the Marketplace after a customer clicks on the offer's tile in the search result.

Lead Management

To configure lead management, select the **Lead destination** from the dropdown list. The next screen capture shows the available destinations.

Legal

Use the Legal form to provide the legal documentation required for every offer.

Provide the following information:

- Privacy policy URL – Enter a link to your app's privacy policy.
- Terms of use – Enter the terms of use for your app. Customers are required to accept these terms before they can try your app.

Next steps

Contacts tab

SaaS application Contacts tab

12/10/2018 • 2 minutes to read • Edit Online

This article describes how to use the Contacts tab to identify contacts for customers who are using your offer.

Identify contacts

Use the next screen capture as a guide to provide the required information. All fields with marked with an asterisk (*) must be completed.

1. Under Engineering Contact, provide information for the following fields:

   - Name - Enter the name of the engineering contact for your app. This contact will receive technical communications from Microsoft.
   - Email - Enter the email address of the engineering contact.
   - Phone - Enter the phone number of the engineering contact. ISO phone number notations are supported. For more information, see E.123

2. Under Support Contact, provide information for the following fields:

   - Name - Enter the name of the support contact for your app. This contact will receive support-related communications from Microsoft.
   - Email - Enter the email address of the support contact for your app.
   - Phone - Enter the phone number of the support contact. ISO phone number notations are supported.

For more information, see E.123

- Support URL - Enter the URL to your support page.

3. Select **Save** when you finish the forms.

Next steps

Publish SaaS offer

Publish a SaaS application offer

12/10/2018 • 2 minutes to read • Edit Online

After you create a new offer by providing the information on the **New Offer** page, you can publish the offer. Select **Publish** to start the publishing process.

The following diagram shows the high-level steps for publishing a new SaaS application offer.
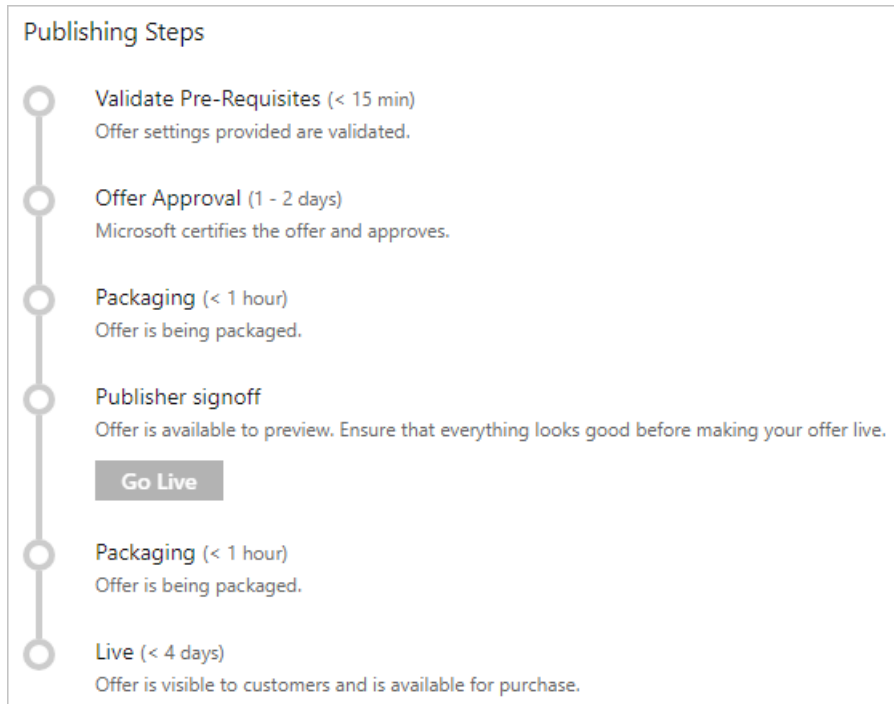
Detailed description of publishing steps

The following table describes each publishing step, with a time estimate (maximum) to complete each step.

STEP	TIME	DESCRIPTION
Certification	2 weeks	Offer is analyzed by the Azure Certification Team. This step will perform scans for viruses, malware, safety compliance, and security issues. It will also verify that this offer meets all eligibility criteria (see prerequisites). Feedback is provided if an issue is found.
Packaging	1 hour	Offer's technical assets are packaged for customer use and the lead systems are configured and setup.

STEP	TIME	DESCRIPTION
Publisher sign off	-	Final publisher review and confirmation before the offer goes live. You can deploy your offer in the selected subscriptions (in the offer information steps) to verify that it meets all your requirements. Select **Go Live** so your offer can move to the next step.
Packaging	1 hour	Finalized offer is replicated in marketplace production systems and regions.
Live	4 days	Offer is released, replicated to the required regions, and made available to the public.

Allow for up to 10 business days for the publishing process to finish and the offer is released. After you finish the publishing process, your SaaS offer will be listed in the Microsoft Azure Marketplace.

Next steps

Update an existing offer

Update an existing SaaS application offer

12/10/2018 • 2 minutes to read • Edit Online

There are various kinds of updates that you might want to do to your offer after it's been published and is live. Any change you make to your new version of your offer should be saved and republished to have it reflect in the Marketplace. This article steps through the different aspects of updating your SaaS offer in the Cloud Partner Portal.

There are several reasons why you might want to update your offer, such as:

- Adding a new version to an existing app.
- Updating an app.
- Adding new features to an app.
- Updating the marketplace metadata for the offer.

To assist you in these modifications, the portal provides the **Compare** and **History** features.

Unpermitted changes to a SaaS offer

There are attributes of a SaaS offer that can't be changed after the offer is live on the Azure Marketplace. You can't change the following settings:

- Offer ID and Publisher ID of the offer
- Version tags, for example: `1.0.1`
- Billing/license model changes to existing offers.

Common update operations

The following update operations are common.

Update offer contacts

Use the following steps to update the support contacts for your offer.

1. Sign into the Cloud Partner Portal.
2. Under **All offers**, find the offer you'd like to update.
3. Go to the **Contacts** tab. Update your contacts.
4. Select **Publish** to start the workflow to publish your changes.

Update offer marketplace metadata

Use the following steps to update the marketplace metadata associated with your offer. (For example: company name, logos, etc.)

1. Sign into the Cloud Partner Portal.
2. Under **All offers**, find the offer you'd like to update.
3. Go to the **Storefront Details** tab. Use the instructions in the Publish SaaS offer article to make metadata changes.
4. Select **Publish** to start the workflow to publish your changes.

Compare feature

When you make changes to a published offer, you can use the Compare feature to audit the changes that you've

made. The next screen capture shows the Compare option for a published offer.
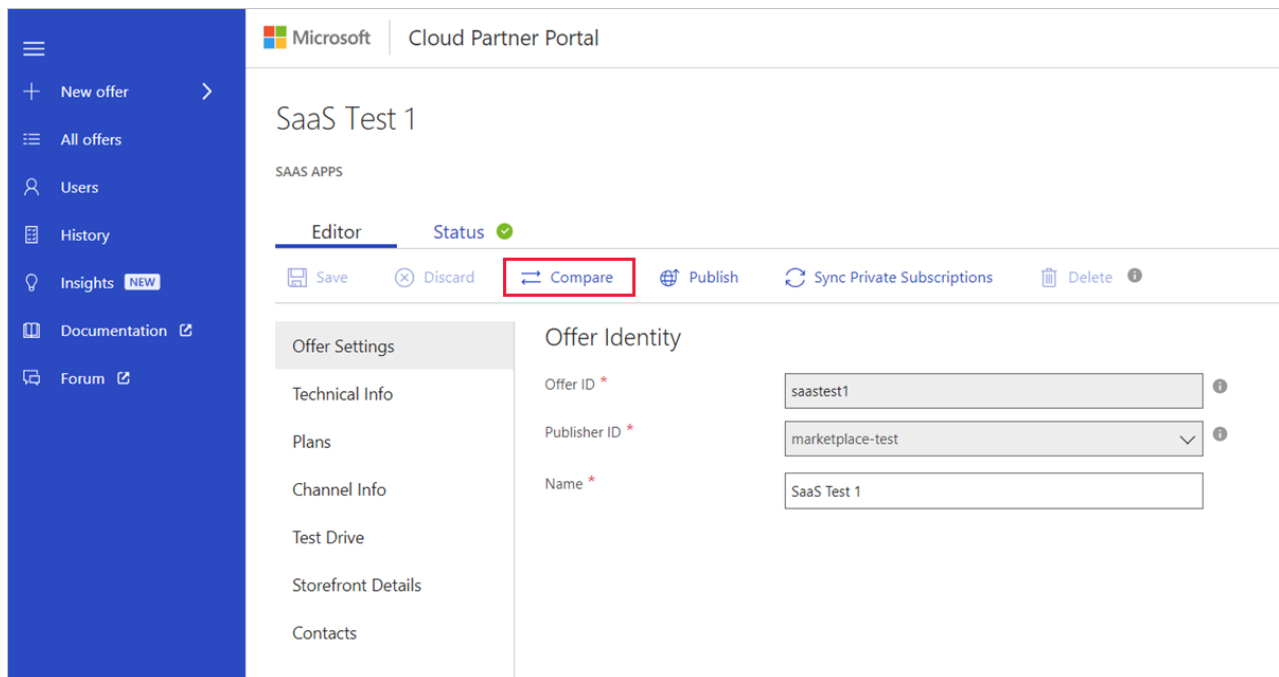
To use the Compare feature:

1. At any point in the editing process, select Compare for your offer.
2. Look at side-by-side versions of marketing assets and metadata.

Publishing history

To see historical publishing activity, select the **History** tab on the left navigation menu bar of Cloud Partner Portal. You can see the timestamped actions taken during the lifetime of your Azure Marketplace offers.
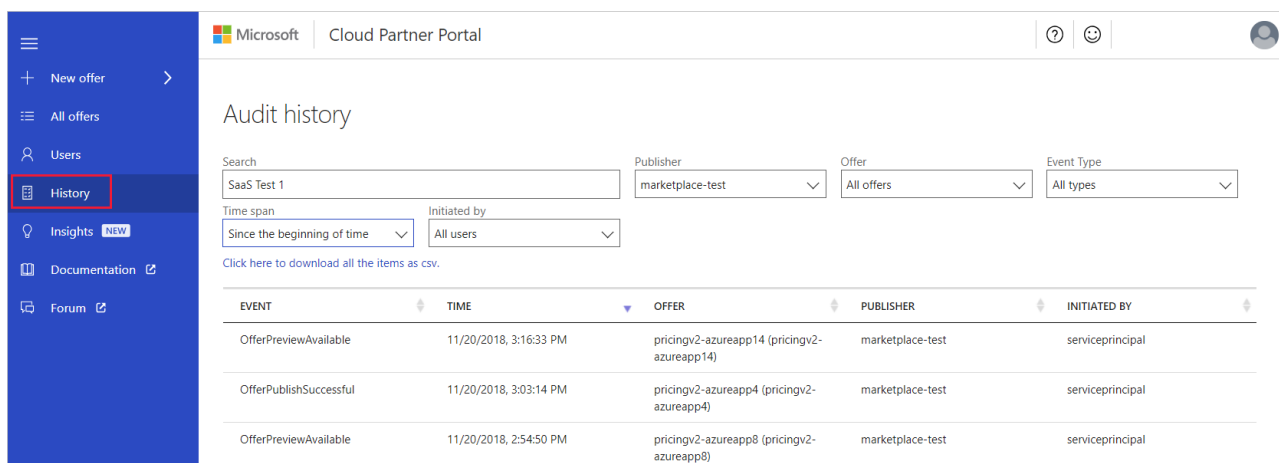
You can use the Audit history page to search for a specific offer and apply filters such as Publisher, Offer and Event Type (for example, OfferGoLiveRequested.) You can also download the audit history as a csv file.

Next steps

SaaS application offer

Virtual machine offer

1/16/2019 • 2 minutes to read • Edit Online

This section explains how to publish a new virtual machine offer to the Azure Marketplace. Support is provided for both Windows-based and Linux-based virtual machines, containing an operating system virtual hard disk (VHD) and zero or more data VHDs.	

Publishing overview

The following video, Optimize Your Azure Marketplace Offer, presents a broad overview of the Azure Marketplace, including how to publish on this marketplace (using a virtual machine solution), how to optimize the user experience with your product page and optional Test Drive experience, how user leads are generated and how you can consume them, and optimize customer engagement.

VM Publishing process flow

The following diagram illustrates the high-level steps in publishing a VM offer.
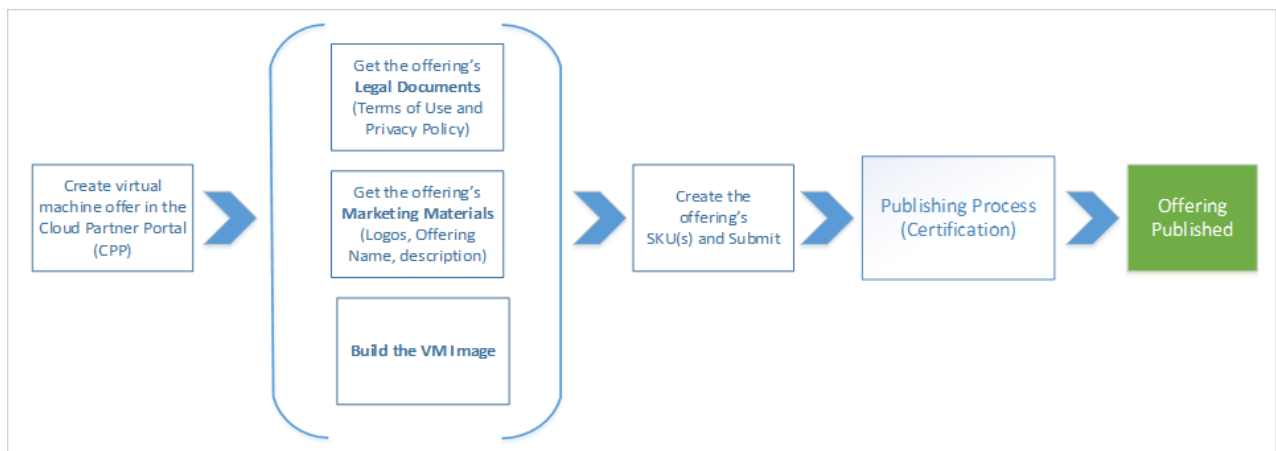
1. Create the offer - All the details and information about the offer is configured, including the offer description, marketing materials, legal, support information and asset specifications.

2. Create the business and technical assets - Create the business assets (legal documents and marketing materials) and technical assets for the associated solution (here, the VMs and attached disks).

3. Create the SKU - Create the associated SKU(s) associated with the offering and submit them. A unique SKU is required for each image you are planning to publish.

4. Certify and publish the offer - Once the offer and the technical assets are completed, you can submit the offer. This submission will start the publishing process, in which the solution is tested, validated, certified, then "goes live" on the marketplace.

Next steps

Before you consider these steps, you must meet the technical and business requirements for publishing a VM to the Microsoft Azure Marketplace.

Virtual machine prerequisites

10/22/2018 • 2 minutes to read • Edit Online

This article lists both the technical and business requirements that you must meet before you can publish a VM offer to the Azure Marketplace.

Technical requirements

The technical prerequisites for publishing a virtual machine (VM) solution are straightforward:

- You must have an active Azure account. If you do not have one, you can sign up at the Microsoft Azure site.
- You must have an environment configured to support either Windows or Linux VM development. For more information, see the associated VM documentation site:
  - Linux VMs Documentation
  - Windows VMs Documentation

Business requirements

The business requirements include procedural, contractual, and legal obligations:

- You must be a registered Cloud Marketplace Publisher. If you are not registered yet, follow the steps in the article Become a Cloud Marketplace Publisher.

  > **NOTE**
  >
  > You should use the same Microsoft Developer Center registration account to sign onto the Cloud Partner Portal. You should have only one Microsoft account for your Azure Marketplace offerings. It should not be specific to individual services or offers.

- Your company (or its subsidiary) must be located in a sell-from-country supported by the Azure Marketplace. For a current list of these countries, see Microsoft Azure Marketplace Participation Policies.

- Your product must be licensed in a way that is compatible with billing models supported by the Azure Marketplace. For more information, see Billing options in the Azure Marketplace.

- You are responsible for making technical support available to customers in a commercially reasonable manner. This support can be free, paid, or through community approaches.

- You are responsible for licensing your software and any third-party software dependencies.

- You must provide content that meets criteria for your offering to be listed on Azure Marketplace and in the Azure portal.

- You must agree to the terms of the Microsoft Azure Marketplace Participation Policies and Publisher Agreement.

- You must comply with the Microsoft Azure Website Terms of Use, Microsoft Privacy Statement and Microsoft Azure Certified Program Agreement.

Create Virtual Machine offer

10/22/2018 • 2 minutes to read • Edit Online

This section lists the steps required to create a new virtual machine (VM) offer request for the Azure Marketplace. Every offer appears as its own entity in Azure Marketplace and is associated with one or more SKUs. A VM offer is composed of the following groupings of assets and supporting services:

where:

ASSET GROUP	DESCRIPTION
SKUs	The smallest purchasable unit of an offer. A single offer (product class) can have multiple SKUs associated with it, to differentiate between supported features, VM image types, and billing models.
Marketplace	Contains marketing, legal and lead management assets and specifications. • Marketing assets include offer name, description, and logos • Legal assets include a privacy policy, terms of use, and other legal documentation • Lead management policy enables you to specify how to handle leads from the Azure Marketplace End-user portal.
Support	Contains support contact and policy information

ASSET GROUP	DESCRIPTION
Test Drive	Defines assets that enable end users to test your offering before they purchase it

New Offer form

Once your sign into the Cloud Partner Portal, click the **+ New Offer** item on the left menubar. In the resulting menu, click on **Virtual Machines** to display the **New Offer** form and start the process of defining assets for a new VM offer.
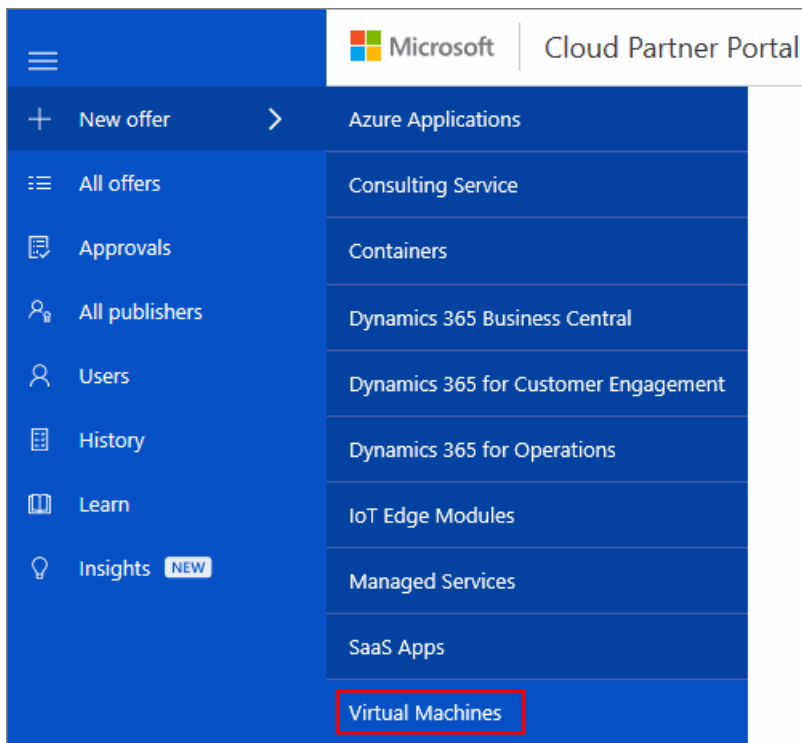
> **WARNING**
>
> If the **Virtual Machines** option is not shown or is not enabled, then your account does not have permission to create this offer type. Please check that you have met all the prerequisites for this offer type, including registering for a developer account.

Next steps

The subsequent topics in this section mirror the tabs in the **New Offer** page (for a VM offer type). Each article explains how to use the associated tab to define the asset groups and supporting services for your new VM offer.

- Offer Settings tab
- SKUs tab
- Test Drive tab
- Marketplace tab
- Support tab

Virtual machine Offer Settings tab

10/22/2018 • 2 minutes to read • Edit Online

The **New Offer** page for virtual machines opens in the first tab named **Offer Settings**. An appended asterisk (*) on the field name indicates that it is required.

In the **Offer Settings** tab, you must provide the following required fields.

FIELD	DESCRIPTION
Offer ID	A unique identifier (within a publisher profile) for the offer. This identifier will be visible in product URLs, Azure Resource Manager templates, and billing reports. It has a maximum length of 50 characters, can only be composed of lowercase alphanumeric characters and dashes (-), but cannot end in a dash. This field cannot be changed after an offer goes live. For example, if Contoso publishes an offer with offer ID **sample-vm**, it is assigned the Azure Marketplace URL `https://azuremarketplace.microsoft.com/marketplace/apps/contoso.sample-vm?tab=Overview` .
Publisher	Your organization's unique identifier in the Azure Marketplace. All your offerings should be associated with your publisher ID. This value cannot be modified once the offer is saved.
Name	Display name for your offer. This name will display in the Azure Marketplace and in the Cloud Partner Portal. It can have a maximum of 50 characters. Guidance here is to include a recognizable brand name for your product. Don't include your organization's name here unless that is how it is marketed. If you are marketing this offer in other websites and publications, ensure that the name is exactly the same across all publications.

Click **Save** to save your progress. In the next tab, you will add SKUs to your offer.
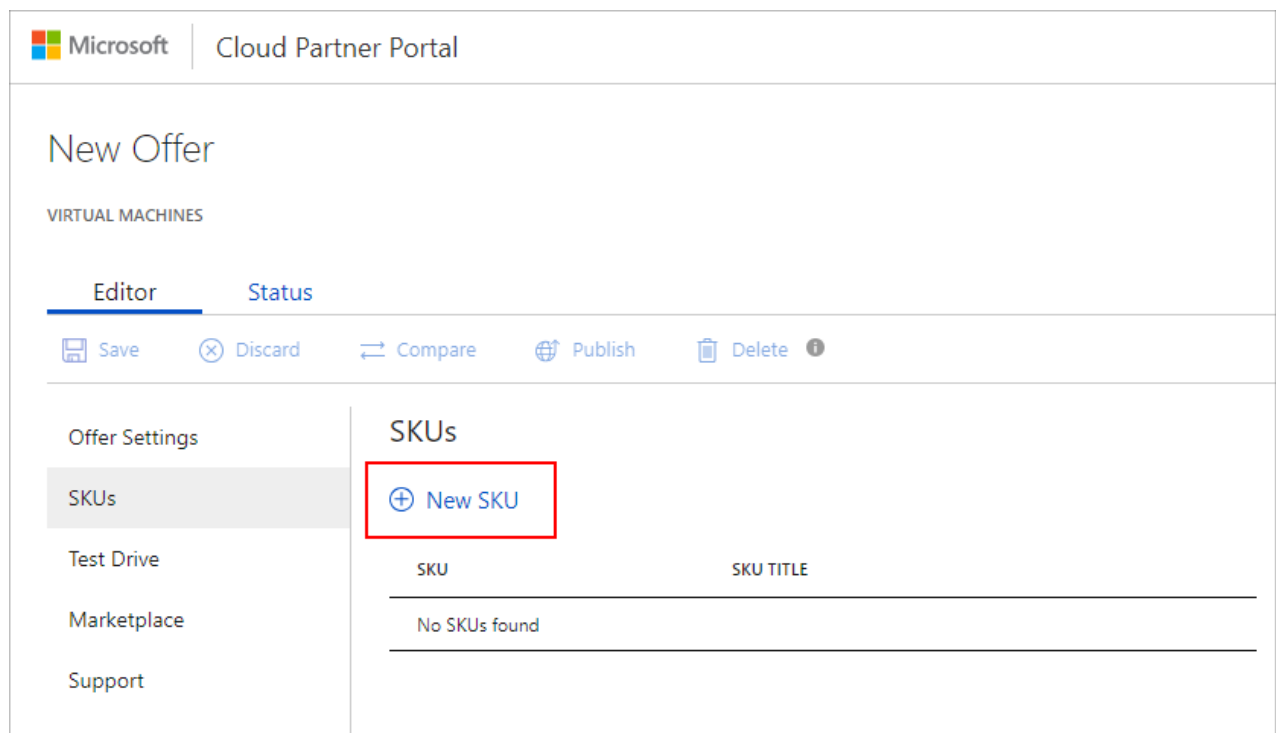
Virtual machine SKUs tab

10/22/2018 • 5 minutes to read • Edit Online

The **SKUs** tab of the **New Offer** page enables you to create one or more SKUs and associate them to your new offer. Different SKUs can differentiate a solution by feature sets, VM image types, throughput or scalability, billing models, or some other characteristic.

Create a SKU

Initially, a new offer will not have any associated SKUs, so you will create one by clicking **New SKU**.

The **New SKU** dialog box is displayed. Enter the identifier for the new SKU then click **OK**. (See below for identifier naming conventions.) The **SKUs** tab will now display the fields available for editing. An appended asterisk (*) on the field name indicates that it is required.

The following table describes the purpose, contents, and formatting of these fields.

FIELD	DESCRIPTION
SKU Settings	
SKU ID	Identifier for this SKU. This name has a maximum of 50 characters, consisting of lowercase alphanumeric characters or dashes (-), but cannot end with a dash. It cannot be modified after the offer is published.

FIELD	DESCRIPTION
SKU Details	
Title	Friendly name for the offer for display in the marketplace. Maximum length of 50 characters.
Summary	Succinct description of the offer for display in the marketplace. Maximum length of 100 characters.
Description	Description text that provides a more detailed explanation of the offer.
Hide this SKU	Indicates whether the SKU should be visible in the marketplace to customers. You may want to hide the SKU if you only want it available only via solution templates and not for purchase individually. It could also be useful for initial testing or for temporary or seasonal offers.
Cloud Availability	Determines on which clouds the SKU should be available. The default is the public version of Azure. Microsoft Azure Government is a government-community cloud with controlled access for the US Federal, State, local or tribal governments, and their certified partners. For more information about government cloud, see Welcome to Azure Government.
Is this a Private SKU?	Indicates whether the SKU is private or public. The default is **No** (public). For more information, see Public and Private SKUs.
Country/Region Availability	Determines which countries or world regions your SKU will be available for purchase. Select at least one region/country.
Pricing	
License Model	Standardized billing model to use. If you select **Usage-based monthly billed SKU**, an accordion section will open to enable you to specify details of per-core pricing and whether you want to offer a free trial period. This section also enables you to export and import this pricing schedule to Excel. For more information, see Billing options in the Azure Marketplace.
VM Images	
Operating System Family	Indicates whether the solution VM is Windows- or Linux-based.
Select Operating System Type	Specific vendor or release of the specified OS.
OS Friendly Name	Operating system name to be displayed to customers.
Recommended VM Sizes	Enables selection of up to six recommended VM sizes from a standardized list. Although these recommendations are prominently displayed to potential customers, they are able to specify any VM size that is compatible with the solution image.

FIELD	DESCRIPTION
Open Ports	Ports to open and protocol to support for the SKU. These configurations must match the virtual network you've configured for the network of the solution VM. These settings go into effect during VM deployment. However, Port settings can be modified after you publish an SKU. For more information, see How to open ports to a virtual machine with the Azure portal. The following default network mappings are added to all VMs. Windows: 3389 -> 3389 TCP, 5986 -> 5986 TCP; Linux: 22 -> 22, TCP (SSH).
Disk Version	Associated solution VM, specified by disk version number and disk URL. The disk version must be in semantic version format: `<major>.<minor>.<patch>`. The URL is the shared access signature URI created for the operating system VHD. Although, you can add up to eight disk versions per SKU, only the highest disk version number for an SKU will show up in Azure Marketplace. The other versions will only be visible via APIs. The **New data disk** accordion section enables you to attach up to 15 data disks to your VM. Once you publish a SKU with a given VM version and associated data disks, this configuration cannot be modified. If additional VM versions get added to the SKU, they must also support the same number of data disks. If you have not created your Azure-based VM image(s), you can add update this field later. For information about creating the associated VM resource, see the section Create VM technical assets.

Click **Save** to save your progress. In the next tab, you will specify if your offer supports Test Drive.

Additional pricing considerations

The pricing model described above is a basic description. It is undergoing changes and may be affected by local or regional tax regulations and Microsoft pricing policies.

Simplified Currency Pricing

Starting September 1 2018, a new section called **Simplified Currency Pricing** will be added to the portal. Microsoft is streamlining the Azure Marketplace business by enabling more predictable pricing and collections from your customers across the world. This streamlining will include reducing the number of currencies in which we invoice your customers. For more information, see Update an existing VM offer on Azure Marketplace.

Additional information on taxes and prices

- Microsoft classifies some countries as *tax remitted countries*. In such countries, Microsoft collects taxes from customers then pays (remits) taxes to the government. In other countries, partners are typically responsible for collecting taxes from their customers and paying taxes to the government. If you choose to sell in the latter countries, you must have the capability to calculate and pay local taxes.

- Prices are not changeable once an offer goes live. However, you may still add or remove supported regions.

- Microsoft charges the customer standard Azure VM usage fees in addition to your scheduled SKU fees.

- Prices are set for all regions in local currency on available currency rates at the time of setting prices.

- To set each region's price individually, please export the pricing spreadsheet, apply custom pricing, then import.

Virtual machine Test Drive tab

The **Test Drive** tab of the **New Offer** page enables you to provide your prospective customers with a hands-on, self-guided demonstration of your product's key features and benefits, demonstrated in a standardized scenario. Test Drive is an optional feature for the offer types that support Test Drive. Test Drive requires supporting assets to be properly implemented. For more information, see the article Azure Marketplace Test Drive.

To enable this feature, on the **Test Drive** tab, click the **Yes** option on **Enable a Test Drive**. The **Test Drive** tab displays the fields available for editing. An appended asterisk (*) on the field name indicates that it is required.

Editor   Status

💾 Save   ⊗ Discard   ⇄ Compare   🌐 Publish   🗑 Delete ⓘ

Offer Settings

SKUs

Test Drive

Marketplace

Support

Test Drive ⓘ

Enable a Test Drive   [Yes] [No]

Please ensure you have Lead Management enabled for your offer to get leads from Test Drive. Learn more

Details

Description *   [Test Drive Description (HTML)]   ⓘ

User Manual *   📁 Upload ⓘ

Test Drive Demo Video ⓘ

⊕ Add video

Technical Configuration

Instances *   1/26 selected   [Select regions]

TYPE	INSTANCES	REGIONS	TOTAL	
Hot		× 1 =	0	ⓘ
Warm		× 1 =	0	ⓘ
Cold		× 1 =	0	ⓘ

Test Drive Duration (hours) *   [Integer between 1 and 999]

Test Drive ARM Template *   📁 Upload ⓘ

Access Information *   [Instructions once a customer gets the Test Drive (HTML)

Example

Access the test drive at this URL: {{url}}

Use the following information to login - Username: {{login}}, and Password: {{password}}]   ⓘ

Test Drive Deployment Subscription Details

In order to deploy the Test Drive on your behalf, please create and provide a separate, unique Azure Subsc

Azure Subscription Id *   [   ]

Azure AD Tenant Id *   [   ]

Azure AD App Id *   [   ]

Azure AD App Key *   [   ]

The following table describes the purpose and content of these fields.

FIELD	DESCRIPTION
Details	

FIELD	DESCRIPTION
Description	Provide an overview of your Test Drive scenario. This text will be shown to the user while the Test Drive is being provisioned. This field supports basic HTML if you want to provide formatted content.
User Manual	Upload a detailed user manual (.pdf) which helps Test Drive users understand how to use your solution.
Test Drive Demo Video	Upload a video that showcases your solution. If you chose this option, you must provide a name, URL to the video (hosted on YouTube or Vimeo), and a (533x324 pixel) thumbnail for the video.
Technical Configuration	
Instances	Specify region availability and relatively availability of the vm instance (click the info icon for more details). Potential concurrent Test Drive sessions should not exceed the quota limit for your subscription. The former is calculated as: [Number of Regions Selected] x [Hot instances] + [Number of Regions Selected] x [Warm instances] + [Number of Regions Selected] x [Cold instances]
Test Drive Duration	Maximum session duration in hours. The Test Drive session terminates automatically after this time period is exceeded.
Test Drive ARM Template	Upload the Azure Resource Manager template associated with this Test Drive. For more information, see Transforming Virtual Machine Deployment Template for Test Drive.
Access Information	Azure Resource Manager access and trial login information, written as plain text or simple HTML.
Test Drive Deployment Subscription Details	
Azure Subscription Id	Can be obtained by signing into the Microsoft Azure portal and clicking **Subscriptions** on the left menubar. (Example: "a83645ac-1234-5ab6-6789-1h234g764ghty") This identifier should be a GUID of the form `a83645ac-1234-5ab6-6789-1h234g764ghty`.
Azure AD Tenant Id	Azure Active Directory tenant ID. Can be obtained by signing into the Microsoft Azure portal and clicking **Azure Active Directory** on the left menubar, then clicking **Properties** in the middle menubar, then copying the **Directory ID** from the form. This identifier should also be a GUID. If blank, then you must create a tenant ID for your organization.
Azure AD App Id	Identifier for your registered Azure VM solution
Azure AD App Key	Authentication key for your registered solution

In the next Marketplace tab, you will provide marketing and legal information about your solution.

Virtual machine Marketplace tab

11/19/2018 • 4 minutes to read • Edit Online

The **Marketplace** tab of the **New Offer** page enables you to provide your prospective customers with marketing, sales, and legal information and agreements and manage leads generated from the marketplace. This long form is divided into four sections: **Overview**, **Marketing Artifacts**, **Lead Management**, and **Legal**.

Overview section

In this section, you enter the general information about your Azure Marketplace Offer. An appended asterisk (*) on the field name indicates that it is required.

The following table describes the purpose and content of these fields.

FIELD	DESCRIPTION
Title	Title of the offer, often the long, formal name. This title will be displayed prominently in the marketplace. Maximum length of 50 characters.
Summary	Brief purpose or function of solution. Maximum length of 100 characters.
Long Summary	Purpose or function of solution. Maximum length of 256 characters.
Description	Description of solution. Maximum length of 3000 characters, supports simple HTML formatting.

FIELD	DESCRIPTION
Marketing Identifier	A unique URL to associate to this offer, typically includes your organization and solution name, maximum length 50 characters. For example: `https://azuremarketplace.microsoft.com/marketplace/apps/contoso.samp`
Preview Subscription IDs	Add one to 100 subscription identifiers of previewers. These white-listed subscriptions will have access to the offer once it's published, before it goes live.
Useful Links	Add URLs to the documentations, release notes, FAQs, and so on.
Suggested Categories (Max 5)	Multi-selection of business and technical categories that offer can be best associated with. Maximum five allowed.

Marketing Artifacts section

This second section is divided in three subsections: **Logos**, **Screenshot**, and **Videos**. Logos are the only required marketing artifacts, however all are highly recommended for best customer appeal.

Marketing Artifacts

Logos (PNG format)

Small (40x40) *   Upload

Medium (90x90) *   Upload

Large (115x115) *   Upload

Wide (255x115) *   Upload

Hero (815x290)   Upload

Screenshots (Max 5)

Screenshot   ✕

Name * | Screenshot Title |

Image (533x324) *   Upload

⊕ Add screenshot

Videos ⓘ

Video   ✕

Name * | Enter a name for this video |

Link * | Eg. https://www.youtube.com/watch?v=hpq_Y9LuIB8 |

Thumbnail, (533x324) *   Upload ⓘ

⊕ Add video

FIELD	DESCRIPTION
Logos	
Small	40x40 pixel .ico bitmap
Medium	90x90 pixel .ico bitmap
Large	115x115 pixel .ico bitmap
Wide	255x115 pixel .ico bitmap
Hero	815x290 bitmap. Optional, however once uploaded the hero icon cannot be deleted.
Screenshots	Optional, but maximum of five screenshots per SKU.

FIELD	DESCRIPTION
Name	Name or title
Image	Screen capture image, 533x324 pixel
Videos	
Name	Name or title
Link	Video URL, hosted on YouTube or Vimeo
Thumbnail	533x324 bitmap

Logo guidelines

All the logos uploaded to the Cloud Partner Portal should follow the guidelines:

- The Azure design has a simple color palette. Keep the number of primary and secondary colors on your logo low.
- The theme colors of the Azure portal are white and black. Therefore avoid using these colors as the background color of your logos. Use some color that would make your logos prominent in the Azure portal. We recommend simple primary colors. If you are using transparent background, then make sure that the logos/text are not white or black or blue.
- Do not use a gradient background on your logo.
- Avoid placing text—even your company or brand name—on the logo. The look and feel of your logo should be "flat" and should avoid gradients.
- Do not stretch the logo.

Hero logo

The Hero logo is optional; however once uploaded, the hero icon cannot be deleted. The Hero logo icon should follow the guidelines:

- Black, white, and transparent backgrounds are not allowed for hero icons.
- Avoid using any light color as the background of the hero icon. The Publisher display name, plan title and the offer long summary are displayed in white font color, and must stand out against the background.
- Avoid using most text while you are designing the hero logo. The publisher name, plan title, the offer long summary and a create button are embedded programmatically inside the hero icon when the offer lists.
- Include an unused rectangle on the right-side of your hero icon, of size 415x100 pixel and offset 370 px from the left.

As an example, the following hero icon is for the Azure Container Service.
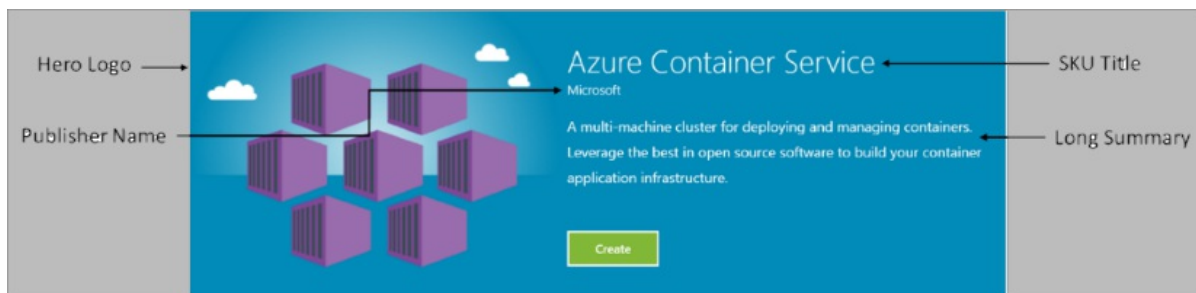
Marketing information example

The following image demonstrates how marketing information is displayed on the Microsoft Windows Server main product page.

Lead Management section

The third section enables you to collect customers leads generated from your Azure Marketplace offers. It offers the following storage options (from a dropdown list) for this lead information.

- **None** - the default, lead information is not collected.
- Azure Table - written to the Azure table specified by a connection string.
- Dynamics CRM Online - written to the Microsoft Dynamics 365 Online instance, specified by a URL and authentication credentials.
- HTTPS Endpoint - written to the specified HTTPS endpoint as a JSON payload.
- Marketo - written to the specified Marketo instance, specified by server ID, munchkin ID, and form ID.
- Salesforce - written to a Salesforce database, specified by an object Identifier.

After you successfully publish your offer, the lead connection is validated and a test lead is automatically sent to the configured destination. Lead information should be continuously managed and these settings should be promptly updated whenever changes are made to your customer management architecture.

Legal section

This last section enables you to provide the two legal documents required for each offer: Privacy Policy and the Terms of Use.

FIELD	DESCRIPTION
Privacy Policy URL	URL to your posted privacy policy
Terms of use	policy as plain text or simple HTML.

FIELD	DESCRIPTION

In the next Support tab, you will provide technical and user support resources for your offer.

Virtual machine Support tab

10/22/2018 • 2 minutes to read • Edit Online

The **Support** tab of the **New Offer** page enables you to provide technical and user support resources for your offer. It is divided into three areas: **Engineering**, **Customer Support**, and **Support URLs**.

Where:

FIELD	DESCRIPTION
Engineering Contact	Serves as a technical contact between Microsoft and your organization
Name	Name of the person or group that serves as technical/engineering support
Email	Email address of this technical contact
Phone	Phone number for technical support
Customer Support	Receives support tickets opened by customers within Azure
Name	Name of the person or group that serves as customer support

FIELD	DESCRIPTION
Email	Email address of customer support
Phone	Phone number for customer support
Support Urls	Support sites that Microsoft will use when your customers open support tickets
Public Azure	URL for public internet support site
Azure Government Cloud	URL for government cloud support site

Create technical assets for a virtual machine offer

10/22/2018 • 3 minutes to read • Edit Online

This section walks you through creating and configuring the technical assets for a virtual machine (VM) offer for the Azure Marketplace. A VM contains two components: the solution virtual hard disk (VHD) and optional associated data disks.

- *Virtual hard disks (VHDs)*, containing the operating system and your solution, that you will deploy with your Azure Marketplace offer. The process of preparing the VHD differs depending on whether it is a Linux-based, Windows-based, or a custom-based VM.
- *Data disks* represent dedicated, persistent storage for a virtual machine. Do *not* use the solution VHD (for example, the `c:` drive) to store persistent information.

A VM image contains one operating system disk and zero or more data disks. One VHD is needed per disk. Even blank data disks require a VHD to be created. You must configure the VM OS, the VM size, ports to open, and up to 15 attached data disks.

> **TIP**
> Regardless of which operating system you use, add only the minimum number of data disks needed by the SKU. Customers cannot remove disks that are part of an image at the time of deployment but they can always add disks during or after deployment.

> **IMPORTANT**
> *Do not change disk count in a new image version.* If you must reconfigure Data disks in the image, define a new SKU. Publishing a new image version with different disk counts will have the potential of breaking new deployment based on the new image version in cases of auto-scaling, automatic deployments of solutions through Azure Resource Manager templates and other scenarios.

Fundamental technical knowledge

Designing, building, and testing these assets take time and requires technical knowledge of both the Azure platform and the technologies used to build the offer. In addition to your solution domain, your engineering team should have knowledge on the following Microsoft technologies:

- Basic understanding of Azure Services
- How to design and architect Azure applications
- Working knowledge of Azure Virtual Machines, Azure Storage and Azure Networking
- Working knowledge of Azure Resource Manager
- Working Knowledge of JSON

Suggested tools

Choose one or both of the following scripting environments to help manage VHDs and VMs:

- Azure PowerShell
- Azure CLI

In addition, we recommend adding the following tools to your development environment:

- Azure Storage Explorer
- Visual Studio Code
  - Extension: Azure Resource Manager Tools
  - Extension: Beautify
  - Extension: Prettify JSON

We also suggest reviewing the available tools in the Azure Developer Tools page and, if you are using Visual Studio, the Visual Studio Marketplace.

Next steps

The subsequent articles in this section walk you through the steps of creating and registering these VM assets:

1. Create an Azure-compatible virtual hard disk explains how to create either a Linux- or Windows-based VHD that is compatible with Azure. It includes best practices, such as sizing, patching, and preparing the VM for uploading.

2. Connect to the virtual machine explains how to remotely connect to your newly created VM and sign into it. This article also explains how to stop the VM to save on usage costs.

3. Configure the virtual machine explains how to choose the correct VHD size, generalize your image, apply recent updates (patches), and schedule custom configurations.

4. Deploy a virtual machine from a virtual hard disk explains how to register a VM from an Azure-deployed VHD. It lists the tools required, and how to use them to create a user VM image, then deploy it to Azure using either the Microsoft Azure portal or PowerShell scripts.

5. Certify a virtual machine image explains how to test and submit a VM image for Azure Marketplace certification. It explains where to get the *Certification Test Tool for Azure Certified* tool, and how to use this tool to certify your VM image.

6. Get SAS URI explains how to get the shared access signature (SAS) URI for your VM image(s).

As a supporting article, Common shared access signature URL issues lists some common problems you may encounter using SAS URIs and the corresponding possible solutions.

After you have completed all these steps, you will be ready to publish your VM offer to the Azure Marketplace.

Create an Azure-compatible VHD

11/7/2018 • 3 minutes to read • Edit Online

This article details the steps required to create a virtual hard disk (VHD) for a virtual machine (VM) offer in the Azure Marketplace. It also includes best practices for various aspects, such as using the Remote Desktop Protocol (RDP), selecting a size for the VM, installing the latest Windows updates, and generalizing the VHD image. The following sections mainly focus on windows-based VHDs; for more information about creating Linux-based VHDs, see Linux on distributions endorsed by Azure.

> **WARNING**
>
> It is strongly recommended that you follow the guidance in this topic to use Azure to create a VM containing an pre-configured, endorsed operating system. If this is not compatible with your solution, then it is possible to create and configure an on-premise VM using an approved operating system. You can then configure and prepare it for upload as described in Prepare a Windows VHD or VHDX to upload to Azure.

Select an approved base

The operating system VHD for your VM image must be based on an Azure-approved base image that contains Windows Server or SQL Server. To begin, create a VM from one of the following images, located at the Microsoft Azure portal:

- Windows Server (2016, 2012 R2 Datacenter, 2012 Datacenter, 2008 R2 SP1)
- SQL Server 2014 (Enterprise, Standard, Web)
- SQL Server 2012 SP2 (Enterprise, Standard, Web)

> **TIP**
>
> If you are using the current Azure portal or PowerShell, Windows Server images published on September 8, 2014 and later are approved.

Alternately, Azure offers a range of approved Linux distributions. For a current list, see Linux on distributions endorsed by Azure.

Create VM in the Azure portal

In the Microsoft Azure portal, create the base image using the following steps.

1. Sign in to the portal with the Microsoft account for the Azure subscription you want to publish your VM offer.
2. Create a new resource group and provide your **Resource group name**, **Subscription**, and **Resource group location**. For more guidance, see Manage resource groups.
3. Click on **Virtual machines** in the left menubar to display the Virtual machines details page.
4. In this new page, click on **+Add** to display the **Compute** blade. If you do not see the VM type on the initial screen, you can search for the name of your base VM, for example:
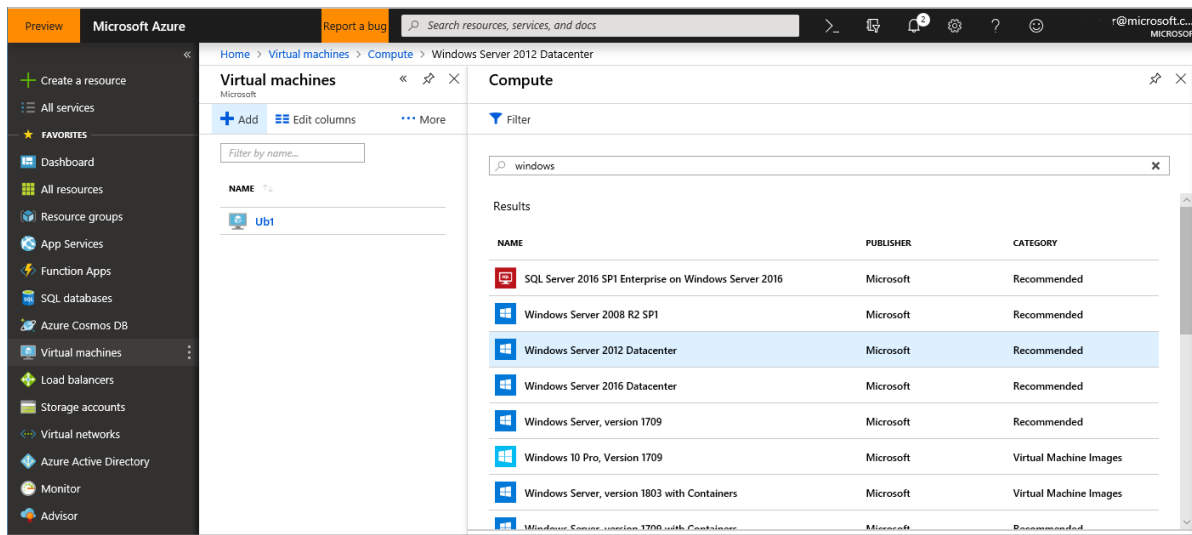
5. After you select the proper virtual image, provide the following values:

   - On the **Basics** blade, enter a **Name** for the virtual machine, between 1-15 alphanumeric characters. (This example uses `DemoVm009` .)

   - Enter a **User name** and a strong **Password**, which are used to create a local account on the VM. (Here `adminUser` is used.) The password must be 8-123 characters long and meet three out of the four following complexity requirements: one lower case character, one upper case character, one number, and one special character. For more information, see Username and password requirements.

   - Select the Resource group you created (here `DemoResourceGroup`).

   - Select an Azure Datacenter **Location** (here `West US`).

   - Click **OK** to save these values.

6. Select the size of the VM to deploy using the following recommendations:

   - If you plan to develop the VHD on-premises, the size does not matter. Consider using one of the smaller VMs.

   - If you plan to develop the image in Azure, consider using one of the recommended VM sizes for the selected image.

   - For pricing information, refer to the **Recommended pricing tiers** selector displayed on the portal. It will display the three recommended sizes provided by the publisher. (Here, the publisher is Microsoft.)
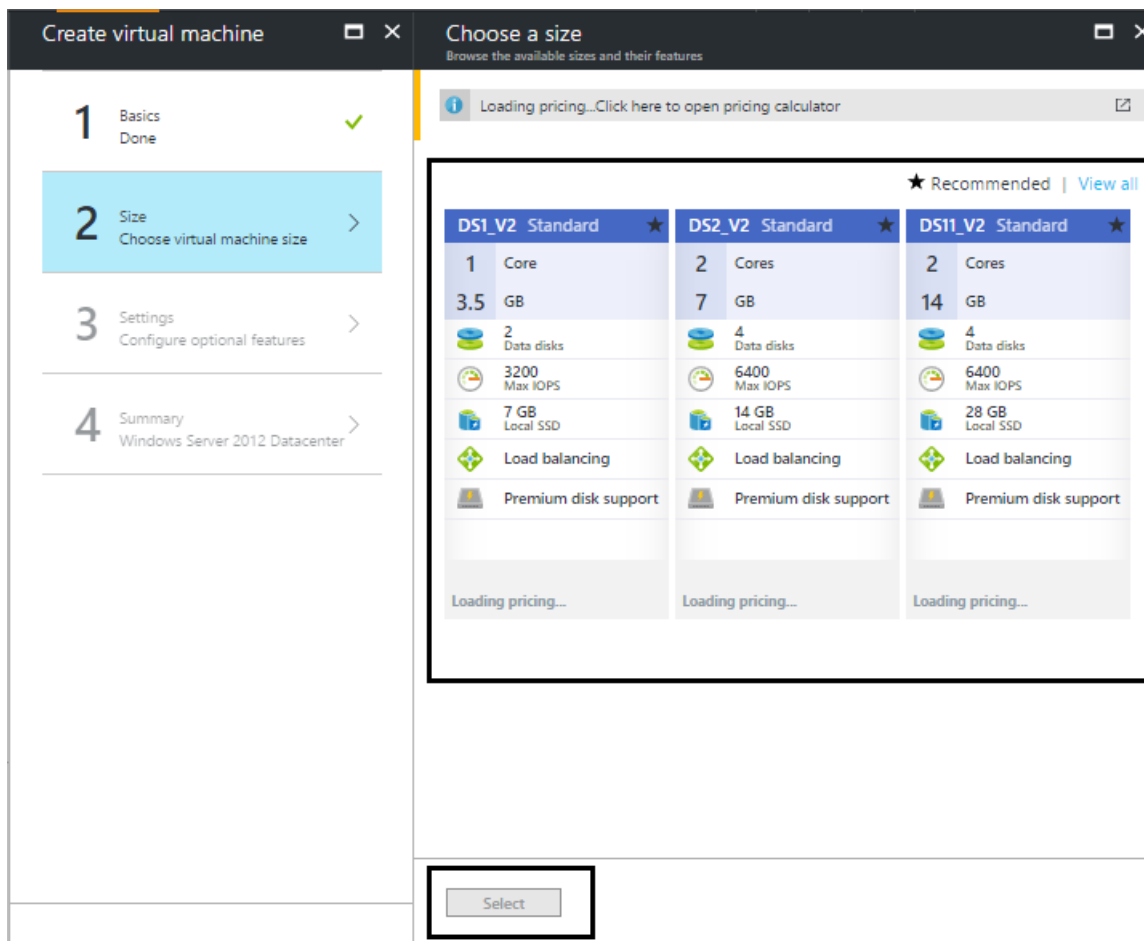
7. In the **Settings** blade, set the **Use Managed Disk** option to **No**. This enables you to manually manage the new VHD. (The **Settings** blade also enables you to change other change the storage and network options, for example, selecting **Premium (SSD)** in **Disk type**.) Click **OK** to continue.
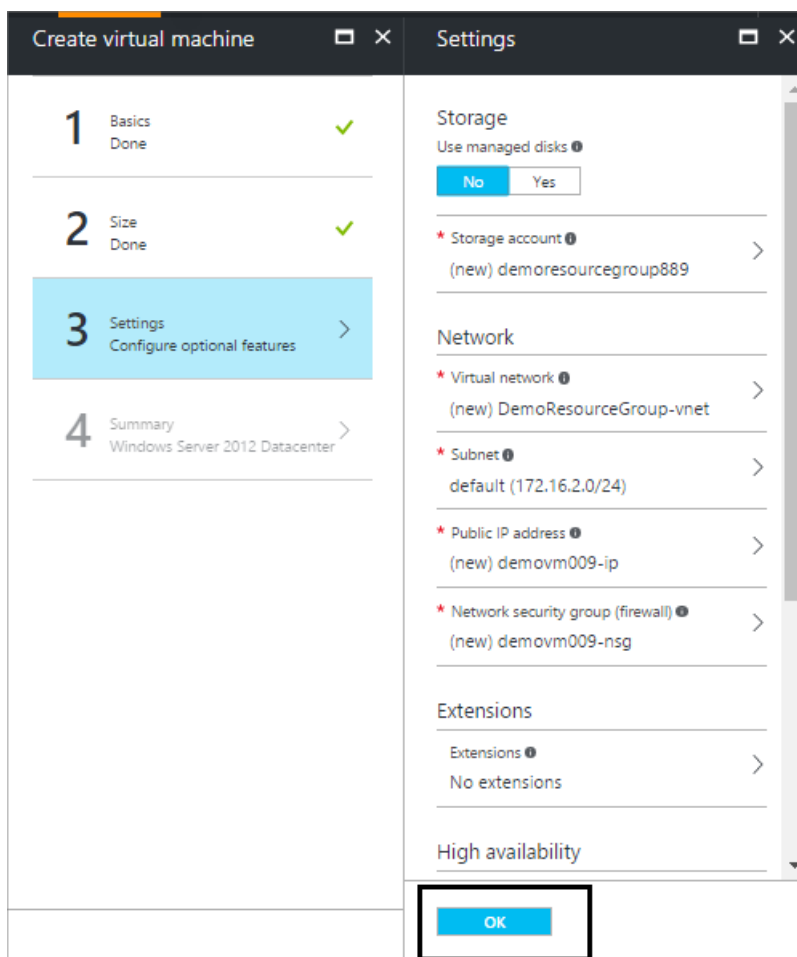
8. Click **Summary** to review your choices. When you see the **Validation passed** message, click **OK**.
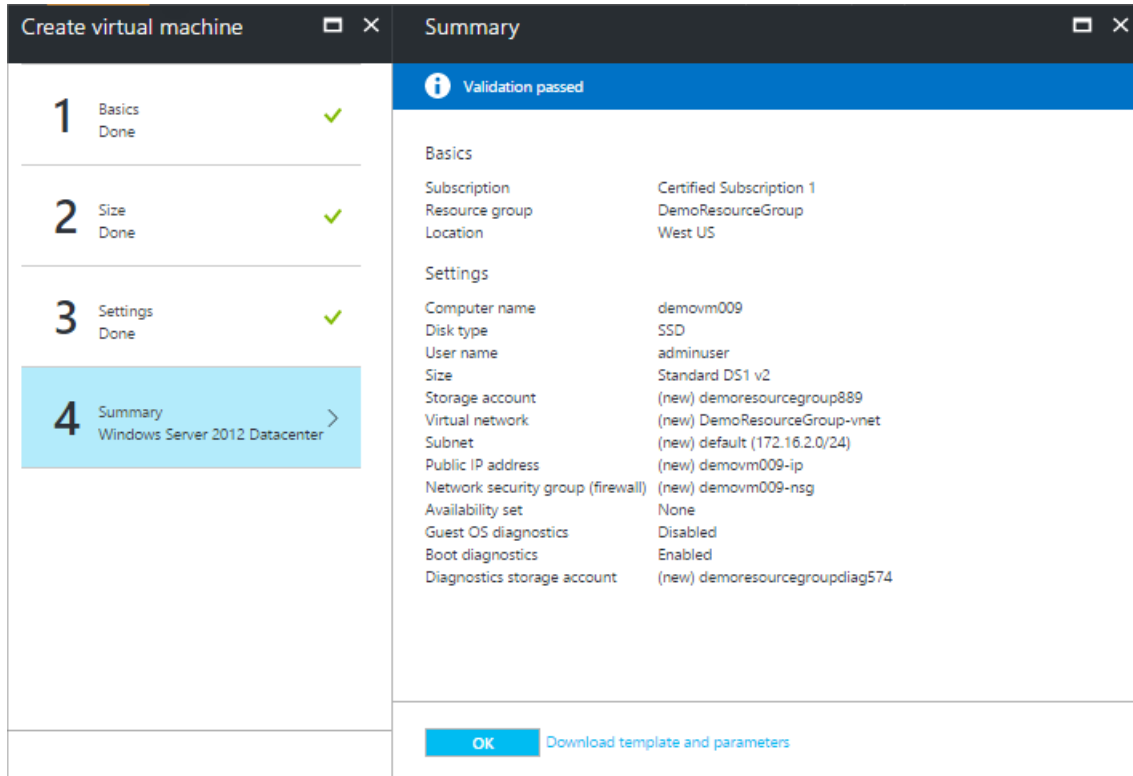
Azure begins provisioning of the virtual machine you specified. You can track its progress by clicking on **Virtual Machines** tab on left. After it is created, the status will change to **Running**. At that point, you can connect to the virtual machine.

Next steps

If you encountered difficulty creating your new Azure-based VHD, see Common issues during VHD creation. Otherwise, next you must connect to the VMs you created on Azure.

Common issues during VHD creation (FAQ)

10/22/2018 • 3 minutes to read • Edit Online

The following frequently asked questions (FAQ) cover common issues encountered during virtual hard disk (VHD) and virtual machine (VM) creation for VM offers.

How do you create a VM from the Azure portal using the VHD that is uploaded to premium storage?

Azure Marketplace does not currently support creating VM offers from images residing on managed storage or from Azure Premium Storage. For more information about these storage options, see Azure Managed Disks Overview and High-performance Premium Storage and managed disks for VMs.

Can you use generation 2 VMs for offers?

No, only generation 1 VHDs are supported. However, we are currently working with the Microsoft Azure Platform Team to investigate support for generation 2 VMs. For more information about the differences, see Should I create a generation 1 or 2 virtual machine in Hyper-V?

How do you change the name of the host?

You cannot. Once VM is created, users (including owners) cannot update the name of the host.

How do you reset the Remote Desktop service or its sign-in password?

The following articles explain how to perform RDS resets for Windows- and Linux-based VMs:

- How to reset the Remote Desktop service or its login password in a Windows VM
- How to reset a Linux VM password or SSH key, fix the SSH configuration, and check disk consistency using the VMAccess extension

How do you generate new SSH certificates?

Generation of certificates is explained in the article Get shared access signature URI for your VM image in the subsequent section Create technical assets for a VM offer.

How do you configure a virtual private network (VPN) to work with my VMs?

If you are using the Azure Resource Manager deployment model, then you have three common options of setting up a VPN:

- Create a route-based VPN gateway using the Azure portal
- Create a route-based VPN gateway using PowerShell
- Create a route-based VPN gateway using CLI

What are Microsoft support policies for running Microsoft server software on Azure-based VMs?

These support policies are detailed in the article Microsoft server software support for Microsoft Azure virtual machines.

Do virtual machines have unique identifiers associated with them?

Yes, if hosted on Azure. Azure assigns a unique identifier, named the Azure Virtual Machine Unique ID to each new VM resource that is created. For more information, read the blog post Azure Virtual Machine Unique ID. You can also obtain this identifier programmatically through the List API.

In a VM, how do you manage the custom script extension in the startup task?

The following article details how to use the Custom Script Extension using the Azure PowerShell module, Azure Resource Manager templates, and details troubleshooting steps on Windows systems: Custom Script Extension for Windows

Are 32-bit applications or services supported in the Azure Marketplace?

In general, no. The supported operating systems and standard services for Azure VMs are all 64-bit. However, from a technical standpoint, most 64-bit operating systems support running 32-bit versions of applications for backward compatibility. However, use of 32-bit applications as part of your VM solution is not supported and therefore is *highly discouraged*. Instead, recompile your application as a 64-bit project.

For more information, see the following articles:

- Running 32-bit applications
- Support for 32-bit operating systems in Azure virtual machines
- Microsoft server software support for Microsoft Azure virtual machines

Every time I try to create an image from my VHDs, I get the error `.VHD is already registered with image repository as the resource` in PowerShell. I did not create any image before nor did I find any image with this name in Azure. How do I resolve this issue?

This issue usually occurs if the user provisioned a VM from a VHD that has a lock on it. Verify that there is no VM allocated from this VHD and then retry the operation. If this issue persists, open a support ticket, as explained in Support for Cloud Partner Portal.

Connect to your Azure-based virtual machine

10/22/2018 • 2 minutes to read • Edit Online

This article explains how to connect to and sign into the virtual machines (VMs) you created on Azure. Once you have successfully connected, you can work with the VM as if you were locally logged on to its host server.

Connect to a Windows-based VM

You will use the remote desktop client to connect to the Windows-based VM hosted on Azure. Most versions of Windows natively contain support for the remote desktop protocol (RDP). For other machines, you can find more information about clients in Remote Desktop clients.

The following article details how to use the built-in Windows RDP support to connect to your VM: How to connect and log on to an Azure virtual machine running Windows.

> **TIP**
>
> You may get security warnings during the process, for example that the .rdp file is from an unknown publisher or that your user credentials cannot be verified. It is safe to ignore these warnings.

Connect to a Linux-based VM

In order to connect the Linux-based VM, you need a secure shell protocol (SSH) client. This discussion will use the free PuTTY SHH terminal.

1. In the **Virtual machines** blade of the Azure portal, select the VM you want to connect to.
2. **Start** the VM if it is not already running.
3. Click on the name of the VM to open its **Overview** page.
4. Note the Public IP address and DNS name of your VM. (If these values are not set, then you must Create a network interface

5. Open the PuTTY application.

6. In the PuTTY Configuration dialog, enter the IP address or DNS name of your VM.
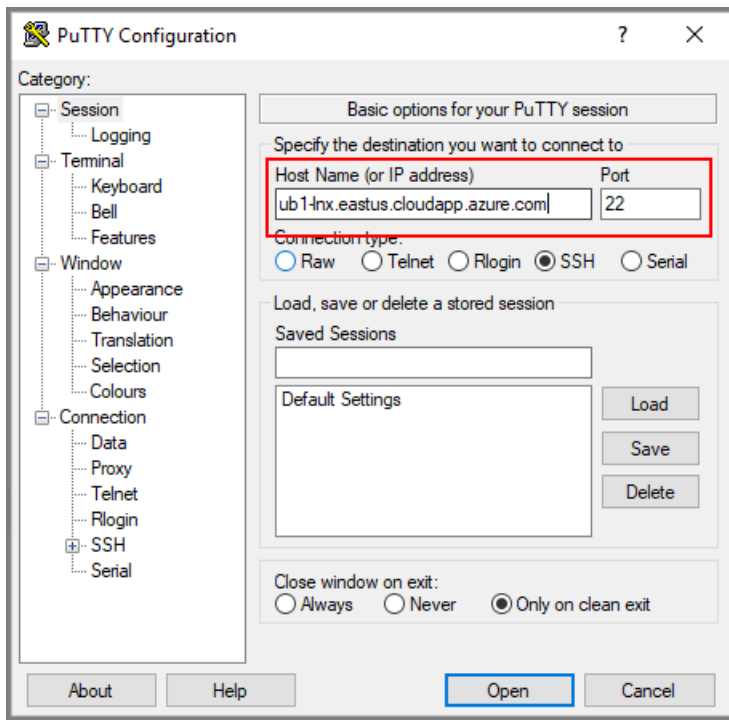
7. Click **Open** to open a PuTTY terminal.

8. When you are prompted, enter the account name and password of your Linux VM account.

   If you are having connection problems, refer to the documentation for your SSH client, for example Chapter 10: Common error messages.

For more information, including how to add a desktop to a provisioned Linux VM, see Install and configure Remote Desktop to connect to a Linux VM in Azure.

Stop unused VMs

Azure bills for VM hosting when a VM is running *or idle*. Therefore it is best practice to stop VMs that are not currently being used. For example, test, backup, or retired VMs are candidates for shutdown. To shut down a VM, perform the following steps:

1. On the **Virtual machines** blade, select the VM you want to stop.
2. In the toolbar near the top of the page, click on the **Stop** button.
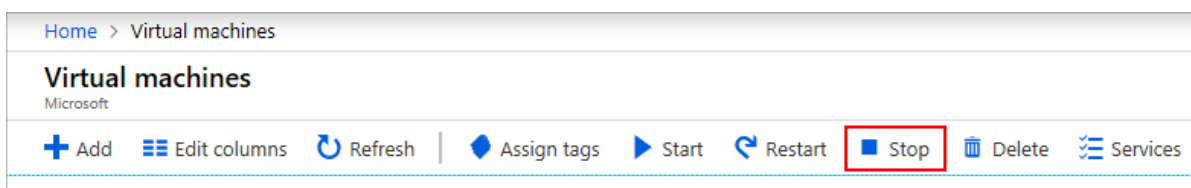
Azure quickly stops the VM in a process called *deallocation*, which not only shuts down the operating system on the VM, but also frees the hardware and network resources previously provisioned for it.

If you want to later reactivate a stopped VM, select it and click the **Start** button.

Next steps

After you are remotely connected, you are ready to configure your VM.

Configure the Azure-hosted VM

12/10/2018 • 4 minutes to read • Edit Online

This article explains how to size, update, and generalize a virtual machine (VM) hosted on Azure. These steps are necessary to prepare your VM to be deployed from the Azure Marketplace.

Sizing the VHDs

If you have selected one of the VMs pre-configured with an operating system (and optionally additional services), then you have already picked a standard Azure VM size, as described in Virtual machine SKUs tab. Starting your solution with a pre-configured OS is the recommended approach. However, if you are installing an OS manually, then you must size your primary VHD in your VM image:

- For Windows, the operating system VHD should be created as a 127-128 GB fixed-format VHD.
- For Linux, this VHD should be created as a 30-50 GB fixed-format VHD.

If the physical size is less than 127-128 GB, the VHD should be sparse. The base Windows and SQL Server images provided already meet these requirements, so do not change the format or the size of the VHD obtained.

Data disks can be as large as 1 TB. When deciding on their size, remember that customers cannot resize VHDs within an image at the time of deployment. Data disk VHDs should be created as fixed-format VHDs. They should also be sparse. Data disks can initially be empty or contain data.

Install the most current updates

The base images of operating system VMs contain the latest updates up to their published date. Before publishing the operating system VHD you have created, ensure that you update the OS and all installed services with all the latest security and maintenance patches.

For Windows Server 2016, run the **Check for Updates** command. Otherwise, for older versions of Windows, see How to get an update through Windows Update. Windows update will automatically install the latest critical and important security updates.

For Linux distributions, updates are commonly downloaded and installed through a command-line tool or a graphical utility. For example, Ubuntu Linux provides the apt-get command and the Update Manager tool for updating the OS.

Perform additional security checks

You should maintain a high level of security for your solution images in the Azure Marketplace. The following article provides a checklist of security configurations and procedures to assist you in this objective: Security Recommendations for Azure Marketplace Images. Some of these recommendations are specific to Linux-based images, but most apply to any VM image.

Perform custom configuration and scheduled tasks

If additional configuration is needed, the recommended approach is to use a scheduled task that runs at startup to make any final changes to the VM after it has been deployed. Also consider the following recommendations:

- If it is a run-once task, it is recommended that the task delete itself after it successfully completes.
- Configurations should not rely on drives other than C or D, because only these two drives that are always guaranteed to exist. Drive C is the operating system disk, and drive D is the temporary local disk.

For more information about Linux customizations, see Virtual machine extensions and features for Linux.

Generalize the image

All images in the Azure Marketplace must be reusable in a generic fashion. To achieve this reusability, the operating system VHD must be *generalized*, an operation that removes all instance-specific identifiers and software drivers from a VM.

Windows

Windows OS disks are generalized with the sysprep tool. If you subsequently update or reconfigure the OS, you must rerun sysprep.

> **WARNING**
>
> Because updates may run automatically, once you run sysprep, you should to turn off the VM until it is deployed. This shutdown will avoid subsequent updates from making instance-specific changes to the VHD OS or installed services.

For more information about running sysprep, see Steps to generalize a VHD

Linux

Following two-step process will generalize a Linux VM and redeploy it as a separate VM. For more information, see How to create an image of a virtual machine or VHD.

Remove the Azure Linux agent

1. Connect to your Linux VM using an SSH client.
2. In the SSH window, type the following command:
   ```
   sudo waagent -deprovision+user
   ```
3. Type `y` to continue. (You can add the `-force` parameter to the previous command avoid this confirmation step.)
4. After the command completes, type `exit` to close the SSH client.

Capture the Image

1. Go to the Azure portal, select your resource group (RG) and de-allocate the VM.
2. Your VHD is generalized now and you can create a new VM by using this VHD.

Create one or more copies

Creating copies of VM is often useful for backup, testing, customized fail-over or load balancing, to offer different configurations of a solution, and so on. For information on how to duplicate and download a primary VHD, to make an unmanaged clone, see:

- Linux VM: Download a Linux VHD from Azure
- Windows VM: Download a Windows VHD from Azure

Next steps

After your VM is configured, you are ready to deploy a virtual machine from a virtual hard disk.

Windows Remote Management over HTTPS

1/14/2019 • 2 minutes to read • Edit Online

This section explains how to configure an Azure-hosted, Windows-based VM so that it can be managed and deployed remotely with PowerShell. To enable PowerShell remoting, the target VM must expose a Windows Remote Management (WinRM) HTTPS endpoint. For more information about PowerShell remoting, see Running Remote Commands. For more information about WinRM, see Windows Remote Management.

If you created a VM using one of the "classic" Azure approaches—either the Azure Service Manager Portal or the deprecated Azure Service Management API—then it is automatically configured with a WinRM endpoint. However, if you create a VM using any of the following "modern" Azure approaches, then your VM will *not* be configured for WinRM over HTTPS.

- Using the Azure portal, typically from an approved base, as described in the section Create an Azure-compatible VHD
- Using the Azure Resource Manager templates
- Using either the Azure PowerShell or Azure CLI command shell. For examples, see Quickstart: Create a Windows virtual machine in Azure with PowerShell and Quickstart: Create a Linux virtual machine with the Azure CLI.

This WinRM endpoint is also required to run the Certification tool kit for onboarding the VM, as described in Certify your VM image.

In contrast, typically Linux VMs are remotely managed using either Azure CLI or Linux commands from an SSH console. Azure also provides several alternative methods to run scripts in your Linux VM. For more complex scenarios, there are a number of automation and integration solutions available for Windows- or Linux-based VMs.

Configure and deploy with WinRM

The WinRM endpoint for a windows-based VM can be configured during two different stages of its development:

- During creation - during the deployment of a VM to an existing VHD. This is the preferred approach for new offers. This approach requires the creation of an Azure certificate, using supplied Azure Resource Manager templates, and running customized PowerShell scripts.
- After deployment - on an existing VM hosted on Azure. Use this approach if you already have a VM solution deployed on Azure, and need to enable Window Remote Management for it. This approach requires manual changes in the Azure portal and the execution of a script on the target VM.

Next steps

If you are creating a new VM, you can enable WinRM during deployment of your VM from its VHDs. Otherwise, WinRM can be enabled in an existing VM

Configure WinRM after virtual machine creation

12/10/2018 • 2 minutes to read • Edit Online

This article explains how to configure an existing Azure-hosted virtual machine (VM) to enable WinRM over HTTPS. This configuration applies only to Windows-based VMs and requires the following two-step process:

1. Enable port traffic for the WinRM over HTTPS protocol. You will configure this setting for your VM in the Azure portal.
2. Configure the VM to enable WinRM by running the supplied PowerShell scripts.

Enabling port traffic

The WinRM over HTTPS protocol uses port 5896, which is not enabled by default on pre-configured Windows VMs offered on the Azure Marketplace. To enable this protocol, use the following steps to add a new rule to the network security group (NSG) with the Azure portal. For more information about NSGs, see Security Groups.

1. Navigate to the blade **Virtual machines >** *<vm-name>* **> Settings/Networking**.
2. Click on the NSG name (in this example, **testvm11002**) to display its properties:

3. Under **Settings**, select **Inbound security rules** to display this blade.

4. Click **+Add** to create a new rule called `WinRM_HTTPS` for TCP port 5986.

5. Click **OK** when you are finished supplying values. The list of inbound security rules should contain the following new entries.
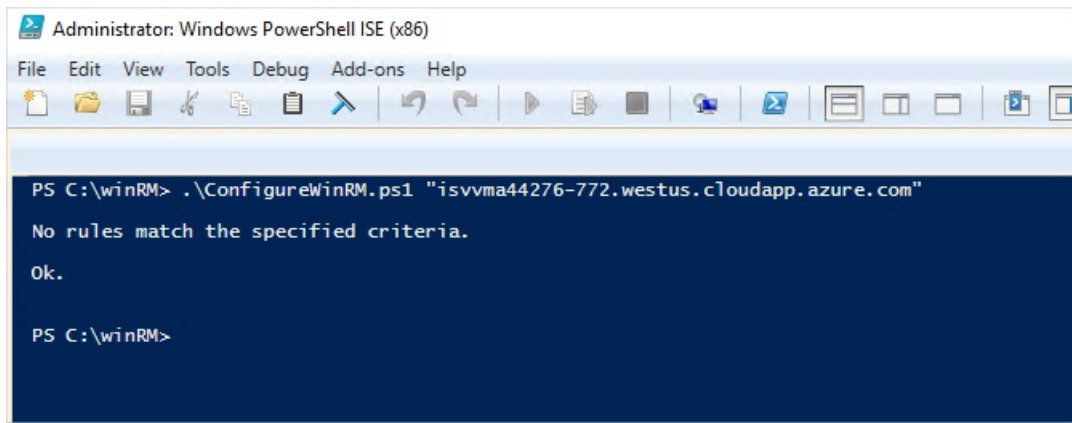
Configure VM to enable WinRM

Use the following steps to enable and configure the Windows Remote Management feature on your Windows VM.

1. Establish a Remote Desktop connection to your Azure-hosted VM. For more information, see How to connect and sign in to an Azure virtual machine running Windows. The remaining steps will be run on your VM.

2. Download the following files and save them to a folder on your VM:
   - ConfigureWinRM.ps1
   - makecert.exe
   - winrmconf.cmd

3. Open the **PowerShell Console** with elevated privileges (**Run as Administrator**).

4. Run the following command, supplying the required parameter: the fully qualified domain name (FQDN) for your VM:

```
ConfigureWinRM.ps1 <vm-domain-name>
```

This script depends upon the other two files being in the same folder.

Next steps

Once you have configured WinRM, you are ready to deploy your VM from its constituent VHDs.

Deploy a VM from your VHDs

1/21/2019 • 2 minutes to read • Edit Online

This section explains how to deploy a virtual machine (VM) from an Azure-deployed virtual hard disk (VHD). It lists the tools required, and how to use them to create a user VM image, then deploy it to Azure using PowerShell scripts.

After you have uploaded your virtual hard disks (VHDs)—the generalized operating system VHD and zero or more data disk VHDs—to your Azure storage account, you can register them as a user VM image. Then you can test that image. Because your operating system VHD is generalized, you cannot directly deploy the VM by providing the VHD URL.

To learn more about VM images, see the following blog posts:

- VM Image
- VM Image PowerShell 'How To'

Prerequisite: install the necessary tools

If you have not already done so, install Azure PowerShell and the Azure CLI, using the following instructions:

- Install Azure PowerShell on Windows with PowerShellGet
- Install Azure CLI 2.0

Deployment steps

You will use the following steps to create and deploy a user VM image:

1. Create the user VM image, which entails capturing and generalizing the image.
2. Create certificates and store them in a new Azure Key Vault. A certificate is required for establishing a secure WinRM connection to the VM. An Azure Resource Manager template and an Azure PowerShell script are provided.
3. Deploy the VM from a user VM image, using the supplied template and script.

After your VM is deployed, you are ready to certify your VM image.

1. Click **New** and search for **Template Deployment**, then select **Build your own template in Editor**.

2. Copy and paste this JSON template into the editor and click **Save**.

3. Provide the parameter values for the displayed **Custom deployment** property pages.

Custom deployment
Deploy from a custom template

BASICS

* Subscription   Certified Subscription 2

* Resource group   ⦿ Create new   ◯ Use existing

                Create a resource group

* Location   West US

SETTINGS

* User Storage Account Name

User Storage Container Name   vhds

* Dns Name For Public IP

Admin User Name   isv

Custom deployment
Deploy from a custom template

Admin Password

Os Type   windows

* Subscription Id

* Location

* Vm Size

* Public IP Address Name

* Vm Name

* Virtual Network Name

* Nic Name

* Vhd Url ⓘ

TERMS AND CONDITIONS

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Purchase

PARAMETER	DESCRIPTION
User Storage Account Name	Storage account name where the generalized VHD is located
User Storage Container Name	Container name where the generalized VHD is located
DNS Name for Public IP	Public IP DNS name
Admin User Name	Administrator account's username for new VM
Admin Password	Administrator account's password for new VM
OS Type	VM operating system: `Windows` | `Linux`
Subscription ID	Identifier of the selected subscription
Location	Geographic location of the deployment
VM Size	Azure VM size, for example `Standard_A2`
Public IP Address Name	Name of your public IP address
VM Name	Name of the new VM
Virtual Network Name	Name of the virtual network used by the VM
NIC Name	Name of the network interface card running the virtual network
VHD URL	Complete OS Disk VHD URL

PARAMETER	DESCRIPTION

4. After you supply these values, click **Purchase**.

Azure will begin deployment: it creates a new VM with the specified unmanaged VHD, in the specified storage account path. You can track the progress in the Azure portal by clicking on **Virtual Machines** on the left-hand side of the portal. When the VM has been created, the status will change from `Starting` to `Running`.

Deploy a VM from PowerShell

To deploy a large VM from the generalized VM image just created, use the following cmdlets.

```
$img = Get-AzureVMImage -ImageName "myVMImage"
$user = "user123"
$pass = "adminPassword123"
$myVM = New-AzureVMConfig -Name "VMImageVM" -InstanceSize "Large" -ImageName $img.ImageName | Add-
AzureProvisioningConfig -Windows -AdminUsername $user -Password $pass
New-AzureVM -ServiceName "VMImageCloudService" -VMs $myVM -Location "West US" -WaitForBoot
```

Next steps

Next, you will create a user VM image for your solution.

Create a user VM image

12/10/2018 • 2 minutes to read • Edit Online

This article explains the two general steps required to create an unmanaged image from a generalized VHD. References are provided to guide you through each step: capture the image and generalize the image.

Capture the VM image

Use the instructions in the following article on capturing the VM that corresponds to your access approach:

- PowerShell: How to create an unmanaged VM image from an Azure VM
- Azure CLI: How to create an image of a virtual machine or VHD
- API: Virtual Machines - Capture

Generalize the VM image

Because you have generated the user image from a previously generalized VHD, it should also be generalized. Again, select the following article that corresponds to your access mechanism. (You may have already generalized your disk when you captured it.)

- PowerShell: Generalize the VM
- Azure CLI: Step 2: Create VM image
- API: Virtual Machines - Generalize

Next steps

Next you will create a certificate and store it in a new Azure Key Vault. This certificate is required for establishing a secure WinRM connection to the VM.

Create certificates for Azure Key Vault

12/10/2018 • 3 minutes to read • Edit Online

This article explains how to provision the self-signed certificates required to establish a Windows Remote Management (WinRM) connectivity to an Azure-hosted virtual machine (VM). This process consists of three steps:

1. Create the security certificate.
2. Create the Azure Key Vault to store this certificate.
3. Store the certificates to this key vault.

You can use either a new or an existing Azure resource group for this work. The former approach is used in the following explanation.

Create the certificate

Edit and run the following Azure Powershell script to create the certificate file (.pfx) in a local folder. You'll need to replace the values for the following parameters:

PARAMETER	DESCRIPTION
`$certroopath`	Local folder to save the .pfx file to
`$location`	One of the Azure standard geographic locations
`$vmName`	Name of the planned Azure virtual machine
`$certname`	Name of the certificate; must match the fully qualified domain name of the planned VM
`$certpassword`	Password for the certificates, must match the password used for the planned VM

```
    # Certification creation script

    # pfx certification stored path
    $certroopath = "C:\certLocation"

    #location of the resource group
    $location = "westus"

    # Azure virtual machine name that we are going to create
    $vmName = "testvm000000906"

    # Certification name - should match with FQDN of Windows Azure creating VM
    $certname = "$vmName.$location.cloudapp.azure.com"

    # Certification password - should be match with password of Windows Azure creating VM
    $certpassword = "SecretPassword@123"

    $cert=New-SelfSignedCertificate -DnsName "$certname" -CertStoreLocation cert:\LocalMachine\My
    $pwd = ConvertTo-SecureString -String $certpassword -Force -AsPlainText
    $certwithThumb="cert:\localMachine\my\"+$cert.Thumbprint
    $filepath="$certroopath\$certname.pfx"
    Export-PfxCertificate -cert $certwithThumb -FilePath $filepath -Password $pwd
    Remove-Item -Path $certwithThumb
```

> **TIP**
>
> Keep the same PowerShell console session active during these steps so that the values of the various parameters will be retained.

> **WARNING**
>
> If you save this script, store it only in a secure location because it contains security information (a password).

Create the key vault

Copy the contents of the key vault deployment template to a file on your local machine. (in the example script below, this resource is `C:\certLocation\keyvault.json` .) Edit and run the following Azure Powershell script to create an Azure Key Vault instance and the associated resource group. You'll need to replace the values for the following parameters:

PARAMETER	DESCRIPTION
`$postfix`	Arbitrary numeric string appended to deployment identifiers
`$rgName`	Azure resource group (RG) name to create
`$location`	One of the Azure standard geographic locations
`$kvTemplateJson`	Path of file (keyvault.json) containing Resource Manager template for key vault
`$kvname`	Name of the new key vault

```
    # Creating Key vault in resource group
```

```powershell
# "Random" number for deployment identifiers
$postfix = "0101048"

# Resource group name
$rgName = "TestRG$postfix"

# Location of Resource Group
$location = "westus"

# Key vault template location
$kvTemplateJson = "C:\certLocation\keyvault.json"

# Key vault name
$kvname = "isvkv$postfix"

# code snippet to get the Azure user object ID
try
   {
    $accounts = Get-AzureAccount
    $accountNum = 0
    $accounts.Id | %{ ++$accountNum; Write-Host $accountNum $_}
    Write-Host "`nPlease select User, e.g. 1:" -ForegroundColor DarkYellow
    [Int] $accountChoice = Read-Host

    While($accountChoice -lt 1 -or $accountChoice -gt $accounts.Length)
    {
        Write-Host "incorrect input" -ForegroundColor Red
        Write-Host "`nPlease select User, e.g. 1:" -ForegroundColor DarkYellow
        [Int] $accountChoice = Read-Host
    }

    $accountSelected = $accounts[$accountChoice-1]
    echo $accountSelected
    $id = $accountSelected.Id

    Write-Host "User $id Selected"
    $myobjectId=(Get-AzureRmADUser -Mail $id)[0].Id
  }
  catch
  {
  Write-Host $_.Exception.Message
  Break
  }

# code snippet to get Azure User Tenant Id
  # SELECT Subscriptions
    #*************************************
    try
    {
    $subslist=Get-AzureSubscription
    for($i=1; $i -le $subslist.Length;$i++)
    {
        Write-Host ($i.ToString() +":"+ $subslist[$i-1].SubscriptionName)
    }
    Write-Host "`nPlease pick subscription from above, e.g. 1:" -ForegroundColor DarkYellow
    [int] $selectedsub=Read-Host

    While($selectedsub -lt 1 -or $selectedsub -gt $subslist.Length)
    {
        Write-Host "incorrect input" -ForegroundColor Red
        for($i=1; $i -le $subslist.Length;$i++)
         {
          Write-Host ($i.ToString() +":"+ $subslist[$i-1].SubscriptionName)
         }
        Write-Host "`nPlease pick subscription from above, e.g. 1:" -ForegroundColor DarkYellow
    [int] $selectedsub=Read-Host
    }
    if($selectedsub -ge 1 -and $selectedsub -le $subslist.Length)
```

```
            {
            $mysubid=$subslist[$selectedsub-1].SubscriptionId
            $mysubName=$subslist[$selectedsub-1].SubscriptionName
            $mytenantId=$subslist[$selectedsub-1].TenantId
            Write-Host "$mysubName selected"
            }
            }
            catch
            {
            Write-Host $_.Exception.Message
            Break
            }

    # Create a resource group
     Write-Host "Creating Resource Group $rgName"
     Create-ResourceGroup -rgName $rgName -location $location
     Write-Host "----------------------------------"

    # Create key vault and configure access
    New-AzureRmResourceGroupDeployment -Name "kvdeploy$postfix" -ResourceGroupName $rgName -TemplateFile
$kvTemplateJson -keyVaultName $kvname -tenantId $mytenantId -objectId $myobjectId

    Set-AzureRmKeyVaultAccessPolicy -VaultName $kvname -ObjectId $myobjectId -PermissionsToKeys all -
PermissionsToSecrets all
```

Store the certificate

You can now store the certificates, contained in the .pfx file, to the new key vault by running the following script.

```
    #push certificate to key vault secret

    $fileName =$certroopath+"\$certname"+".pfx"

    $fileContentBytes = get-content $fileName -Encoding Byte
    $fileContentEncoded = [System.Convert]::ToBase64String($fileContentBytes)

        $jsonObject = @"
{
"data": "$filecontentencoded",
"dataType" :"pfx",
"password": "$certpassword"
}
"@
        echo $certpassword
        $jsonObjectBytes = [System.Text.Encoding]::UTF8.GetBytes($jsonObject)
        $jsonEncoded = [System.Convert]::ToBase64String($jsonObjectBytes)
        $secret = ConvertTo-SecureString -String $jsonEncoded -AsPlainText –Force
        $objAzureKeyVaultSecret=Set-AzureKeyVaultSecret -VaultName $kvname -Name "ISVSecret$postfix" -
SecretValue $secret
        echo $objAzureKeyVaultSecret.Id
```

Next steps

Next you will deploy a VM from your user VM image.

Key vault deployment template

12/10/2018 • 2 minutes to read • Edit Online

The following Azure Resource Manager template defines a new Azure Key Vault instance. It is used in the article Create key vault certificate.

```
{
  "$schema": "https://schema.management.azure.com/schemas/2015-01-01/deploymentTemplate.json#",
  "contentVersion": "1.0.0.0",
  "parameters": {
    "keyVaultName": {
      "type": "string",
      "defaultValue":"isvkv0001",
      "metadata": {
        "description": "Name of the Vault"
      }
    },
    "tenantId": {
      "type": "string",
      "defaultValue":"72f988bf-86f1-41af-91ab-2d7cd011db47",
      "metadata": {
        "description": "Tenant Id of the subscription. Get using Get-AzureSubscription cmdlet or Get
Subscription API"
      }
    },
    "objectId": {
      "type": "string",
      "defaultValue":"d55739bf-d5d6-4ce0-be1c-49ade53c4315",
      "metadata": {
        "description": "Object Id of the AD user. Get using Get-AzureADUser or Get-AzureADServicePrincipal
cmdlets"
      }
    },
    "keysPermissions": {
      "type": "array",
      "defaultValue": ["all"],
      "metadata": {
        "description": "Permissions to keys in the vault. Valid values are: all, create, import, update, get,
list, delete, backup, restore, encrypt, decrypt, wrapkey, unwrapkey, sign, and verify."
      }
    },
    "secretsPermissions": {
      "type": "array",
      "defaultValue": ["all"],
      "metadata": {
        "description": "Permissions to secrets in the vault. Valid values are: all, get, set, list, and
delete."
      }
    },
    "skuName": {
      "type": "string",
      "defaultValue": "Standard",
      "allowedValues": [
        "Standard",
        "Premium"
      ],
      "metadata": {
        "description": "SKU for the vault"
      }
    },
    "enableVaultForDeployment": {
      "type": "bool",
```

```json
        "defaultValue": true,
        "allowedValues": [
          true,
          false
        ],
        "metadata": {
          "description": "Specifies if the vault is enabled for a VM deployment"
        }
      }
    },
    "resources": [
      {
        "type": "Microsoft.KeyVault/vaults",
        "name": "[parameters('keyVaultName')]",
        "apiVersion": "2015-06-01",
        "location": "[resourceGroup().location]",
        "properties": {
          "enabledForDeployment": "[parameters('enableVaultForDeployment')]",
          "tenantId": "[parameters('tenantId')]",
          "accessPolicies": [
            {
              "tenantId": "[parameters('tenantId')]",
              "objectId": "[parameters('objectId')]",
              "permissions": {
                "keys": "[parameters('keysPermissions')]",
                "secrets": "[parameters('secretsPermissions')]"
              }
            }
          ],
          "sku": {
            "name": "[parameters('skuName')]",
            "family": "A"
          }
        }
      }
    ]
  }
```

Deploy an Azure VM from a user VHD

1/14/2019 • 2 minutes to read • Edit Online

This article explains how to deploy a generalized VHD image to create a new Azure VM resource, using the supplied Azure Resource Manager template and Azure PowerShell script.

VHD deployment template

Copy the Azure Resource Manager template for VHD deployment to a local file named `VHDtoImage.json` . Edit this file to provide values for the following parameters.

PARAMETER	DESCRIPTION
ResourceGroupName	Existing Azure resource group name. Typically use the same RG associated with your key vault
TemplateFile	Full pathname to the file `VHDtoImage.json`
userStorageAccountName	Name of the storage account
sNameForPublicIP	DNS name for the public IP. Must be lowercase
subscriptionId	Azure subscription identifier
Location	Standard Azure geographic location of the resource group
vmName	Name of the virtual machine
vaultName	Name of the key vault
vaultResourceGroup	Resource group of the key vault
certificateUrl	Url of the certificate, including version stored in the key vault, for example: `https://testault.vault.azure.net/secrets/testcert/b621es1db241e56a72d03`
vhdUrl	URL of the virtual hard disk
vmSize	Size of the virtual machine instance
publicIPAddressName	Name of the public IP address
virtualNetworkName	Name of the virtual network
nicName	Name of the network interface card for the virtual network
adminUserName	Username of the administrator account
adminPassword	Administrator password

Powershell script

Copy and edit the following script to supply values for the `$storageaccount` and `$vhdUrl` variables. Execute it to create an Azure VM resource from your existing generalized VHD.

```
# storage account of existing generalized VHD
$storageaccount = "testwinrm11815"

# generalized VHD URL
$vhdUrl = "https://testwinrm11815.blob.core.windows.net/vhds/testvm1234562016651857.vhd"

echo "New-AzureRMResourceGroupDeployment -Name "dplisvvm$postfix" -ResourceGroupName "$rgName" -TemplateFile
"C:\certLocation\VHDtoImage.json" -userStorageAccountName "$storageaccount" -dnsNameForPublicIP "$vmName" -subscriptionId
"$mysubid" -location "$location" -vmName "$vmName" -vaultName "$kvname" -vaultResourceGroup "$rgName" -certificateUrl
$objAzureKeyVaultSecret.Id  -vhdUrl "$vhdUrl" -vmSize "Standard_A2" -publicIPAddressName "myPublicIP1" -virtualNetworkName
"myVNET1" -nicName "myNIC1" -adminUserName "isv" -adminPassword $pwd"

#deploying VM with existing VHD
New-AzureRMResourceGroupDeployment -Name "dplisvvm$postfix" -ResourceGroupName "$rgName" -TemplateFile
"C:\certLocation\VHDtoImage.json" -userStorageAccountName "$storageaccount" -dnsNameForPublicIP "$vmName" -subscriptionId
"$mysubid" -location "$location" -vmName "$vmName" -vaultName "$kvname" -vaultResourceGroup "$rgName" -certificateUrl
$objAzureKeyVaultSecret.Id  -vhdUrl "$vhdUrl" -vmSize "Standard_A2" -publicIPAddressName "myPublicIP1" -virtualNetworkName
"myVNET1" -nicName "myNIC1" -adminUserName "isv" -adminPassword $pwd
```

Next steps

After your VM is deployed, you are ready to certify your VM image.

Virtual hard disk deployment template

12/10/2018 • 2 minutes to read • Edit Online

The following Azure Resource Manager template defines a new Azure virtual machine (VM) instance, created from local virtual hard disk (VHD). This template is used in the article Deploy an Azure VM from a user VHD.

```
{
    "$schema": "http://schema.management.azure.com/schemas/2014-04-01-preview/deploymentTemplate.json",
    "contentVersion": "1.0.0.0",
    "parameters": {
        "userStorageAccountName": {
            "type": "string"
        },
        "userStorageContainerName": {
            "type": "string",
            "defaultValue": "vhds"
        },
        "dnsNameForPublicIP": {
            "type": "string"
        },
        "adminUserName": {
            "defaultValue": "isv",
            "type": "string"
        },
        "adminPassword": {
            "type": "securestring",
            "defaultValue": "Password@123"
        },
        "osType": {
            "type": "string",
            "defaultValue": "windows",
            "allowedValues": [
                "windows",
                "linux"
            ]
        },
        "subscriptionId": {
            "type": "string"
        },
        "location": {
            "type": "string"
        },
        "vmSize": {
            "type": "string"
        },
        "publicIPAddressName": {
            "type": "string"
        },
        "vmName": {
            "type": "string"
        },
        "virtualNetworkName": {
            "type": "string"
        },
        "nicName": {
            "type": "string"
        },
        "vaultName": {
            "type": "string",
            "metadata": {
                "description": "Name of the KeyVault"
            }
        }
    }
}
```

```json
        },
        "vaultResourceGroup": {
            "type": "string",
            "metadata": {
                "description": "Resource Group of the KeyVault"
            }
        },
        "certificateUrl": {
            "type": "string",
            "metadata": {
                "description": "Url of the certificate with version in KeyVault e.g.
https://testault.vault.azure.net/secrets/testcert/b621es1db241e56a72d037479xab1r7"
            }
        },
        "vhdUrl": {
            "type": "string",
            "metadata": {
                "description": "VHD Url..."
            }
        }
    },
    "variables": {
        "addressPrefix": "10.0.0.0/16",
        "subnet1Name": "Subnet-1",
        "subnet2Name": "Subnet-2",
        "subnet1Prefix": "10.0.0.0/24",
        "subnet2Prefix": "10.0.1.0/24",
        "publicIPAddressType": "Dynamic",
        "vnetID": "[resourceId('Microsoft.Network/virtualNetworks',parameters('virtualNetworkName'))]",
        "subnet1Ref": "[concat(variables('vnetID'),'/subnets/',variables('subnet1Name'))]",
        "osDiskVhdName": "
[concat('http://',parameters('userStorageAccountName'),'.blob.core.windows.net/',parameters('userStorageContai
nerName'),'/',parameters('vmName'),'osDisk.vhd')]"
    },
    "resources": [
        {
            "apiVersion": "2015-05-01-preview",
            "type": "Microsoft.Network/publicIPAddresses",
            "name": "[parameters('publicIPAddressName')]",
            "location": "[parameters('location')]",
            "properties": {
                "publicIPAllocationMethod": "[variables('publicIPAddressType')]",
                "dnsSettings": {
                    "domainNameLabel": "[parameters('dnsNameForPublicIP')]"
                }
            }
        },
        {
            "apiVersion": "2015-05-01-preview",
            "type": "Microsoft.Network/virtualNetworks",
            "name": "[parameters('virtualNetworkName')]",
            "location": "[parameters('location')]",
            "properties": {
                "addressSpace": {
                    "addressPrefixes": [
                        "[variables('addressPrefix')]"
                    ]
                },
                "subnets": [
                    {
                        "name": "[variables('subnet1Name')]",
                        "properties": {
                            "addressPrefix": "[variables('subnet1Prefix')]"
                        }
                    },
                    {
                        "name": "[variables('subnet2Name')]",
                        "properties": {
                            "addressPrefix": "[variables('subnet2Prefix')]"
```

```
                        address Prefix : [variables( subnet2Prefix )]
                    }
                }
            ]
        }
    },
    {
        "apiVersion": "2015-05-01-preview",
        "type": "Microsoft.Network/networkInterfaces",
        "name": "[parameters('nicName')]",
        "location": "[parameters('location')]",
        "dependsOn": [
            "[concat('Microsoft.Network/publicIPAddresses/', parameters('publicIPAddressName'))]",
            "[concat('Microsoft.Network/virtualNetworks/', parameters('virtualNetworkName'))]"
        ],
        "properties": {
            "ipConfigurations": [
                {
                    "name": "ipconfig1",
                    "properties": {
                        "privateIPAllocationMethod": "Dynamic",
                        "publicIPAddress": {
                            "id": "
[resourceId('Microsoft.Network/publicIPAddresses',parameters('publicIPAddressName'))]"
                        },
                        "subnet": {
                            "id": "[variables('subnet1Ref')]"
                        }
                    }
                }
            ]
        }
    },
    {
        "apiVersion": "2015-06-15",
        "type": "Microsoft.Compute/virtualMachines",
        "name": "[parameters('vmName')]",
        "location": "[parameters('location')]",
        "dependsOn": [
            "[concat('Microsoft.Network/networkInterfaces/', parameters('nicName'))]"
        ],
        "properties": {
            "hardwareProfile": {
                "vmSize": "[parameters('vmSize')]"
            },
            "osProfile": {
                "computername": "[parameters('vmName')]",
                "adminUsername": "[parameters('adminUsername')]",
                "adminPassword": "[parameters('adminPassword')]",
                "secrets": [
                    {
                        "sourceVault": {
                            "id": "[resourceId(parameters('vaultResourceGroup'),
'Microsoft.KeyVault/vaults', parameters('vaultName'))]"
                        },
                        "vaultCertificates": [
                            {
                                "certificateUrl": "[parameters('certificateUrl')]",
                                "certificateStore": "My"
                            }
                        ]
                    }
                ],
                "windowsConfiguration": {
                    "provisionVMAgent": "true",
                    "winRM": {
                        "listeners": [
                            {
                                "protocol": "http"
                            }
```

```json
                                    },
                                    {
                                        "protocol": "https",
                                        "certificateUrl": "[parameters('certificateUrl')]"
                                    }
                                ]
                            },
                            "enableAutomaticUpdates": "true"
                        }
                    },
                    "storageProfile": {
                        "osDisk": {
                            "name": "[concat(parameters('vmName'),'-osDisk')]",
                            "osType": "[parameters('osType')]",
                            "caching": "ReadWrite",
                            "image": {
                                "uri": "[parameters('vhdUrl')]"
                            },
                            "vhd": {
                                "uri": "[variables('osDiskVhdName')]"
                            },
                            "createOption": "FromImage"
                        }
                    },
                    "networkProfile": {
                        "networkInterfaces": [
                            {
                                "id": "
[resourceId('Microsoft.Network/networkInterfaces',parameters('nicName'))]"
                            }
                        ]
                    },
                "diagnosticsProfile": {
                    "bootDiagnostics": {
                        "enabled": true,
                        "storageUri": "[concat('http://', parameters('userStorageAccountName'),
'.blob.core.windows.net')]"
                    }
                }

            }
        }
    ]
}
```

Deploy a virtual machine from the Azure Marketplace

1/14/2019 • 2 minutes to read • Edit Online

This article explains how to deploy a pre-configured virtual machine (VM) from an Azure Marketplace, using the provided Azure PowerShell script. This script also exposes the WinRM HTTP and HTTPS endpoints on the VM. The script requires that you already have a certificate uploaded to Azure Key Vault, as described in Create certificates for Azure Key Vault.

VM deployment template

The quickstart Azure VM deployment template, is available as the online file azuredeploy.json. It contains the following parameters:

PARAMETER	DESCRIPTION
newStorageAccountName	Name of the storage account
dnsNameForPublicIP	DNS Name for the public IP. Must be lowercase.
adminUserName	Administrator's username
adminPassword	Administrator's password
imagePublisher	Image publisher
imageOffer	Image offer
imageSKU	Image SKU
vmSize	Size of the VM
vmName	Name of the VM
vaultName	Name of the key vault
vaultResourceGroup	Resource group of the key vault
certificateUrl	URL for the certificate, including version in KeyVault, for example `https://testault.vault.azure.net/secrets/testcert/b621es1db241e56a72d037`

Deployment script

Edit the following Azure PowerShell script and execute it to deploy the specified Azure Marketplace VM.

```
New-AzureRmResourceGroupDeployment -Name "dplvm$postfix" -ResourceGroupName "$rgName" -TemplateUri
"https://raw.githubusercontent.com/azure/azure-quickstart-templates/master/201-vm-winrm-keyvault-windows/azuredeploy.json" -
newStorageAccountName "test$postfix" -dnsNameForPublicIP $vmName -adminUserName "isv" -adminPassword $pwd -vmSize "Standard_A2" -
vmName $vmName -vaultName "$kvname" -vaultResourceGroup "$rgName" -certificateUrl $objAzureKeyVaultSecret.Id
```

Next steps

Once you have deployed a pre-configured VM, you can configure and access the solutions and services it contains, or use it for further development.

Certify your VM image
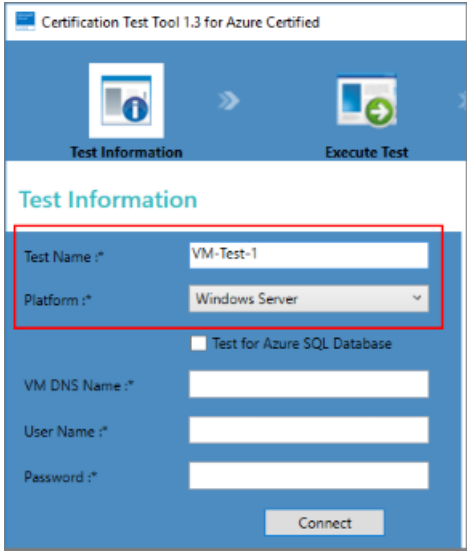
12/10/2018 • 2 minutes to read • Edit Online

After you create and deploy your virtual machine (VM), you must test and submit the VM image for Azure Marketplace certification. This article explains where to get the *Certification Test Tool for Azure Certified*, how to use this tool to certify your VM image, and how to upload the verification results to the Azure container where your VHDs reside.

Download and run the certification test tool

The Certification Test Tool for Azure Certified runs on a local Windows machine, but tests an Azure-based Windows or Linux VM. It verifies that your user VM image is compatible with Microsoft Azure—that the guidance and requirements around preparing your VHD have been met. The output of the tool is a compatibility report, which you will upload to the Cloud Partner Portal to request VM certification.

1. Download and install the most recent Certification Test Tool for Azure Certified.
2. Open the certification tool, and then click **Start New Test**.
3. From the **Test Information** screen, enter a **Test Name** for the test run.
4. Select the **Platform** for your VM, either `Windows Server` or `Linux`. Your platform choice affects the remaining options.
5. If your VM is using this database service, select the **Test for Azure SQL Database** checkbox.

Connect the certification tool to a VM image

The tool connects to Windows-based VMs with PowerShell and connects to Linux VMs through SSH.Net.

Connect the certification tool to a Linux VM image

1. Select the **SSH Authentication** mode: `Password Authentication` or `key File Authentication`.
2. If using password-based authentication, enter values for the **VM DNS Name**, **User name**, and **Password**. Optionally, you can change the default **SSH Port** number.
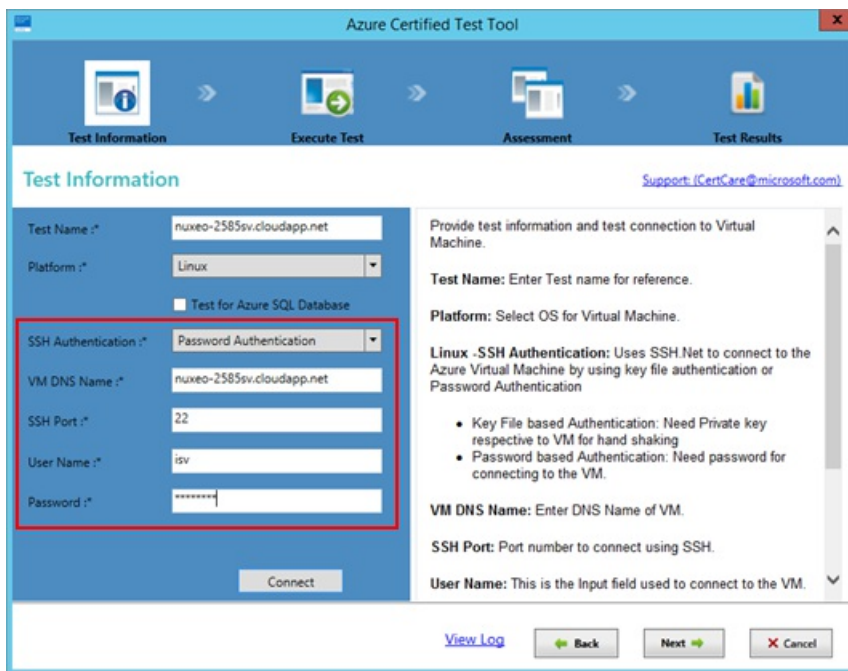
3. If using key file-based authentication, enter values for the **VM DNS Name**, **User name**, and **Private key** location. Optionally, you can supply a **Passphrase** or change the default **SSH Port** number.
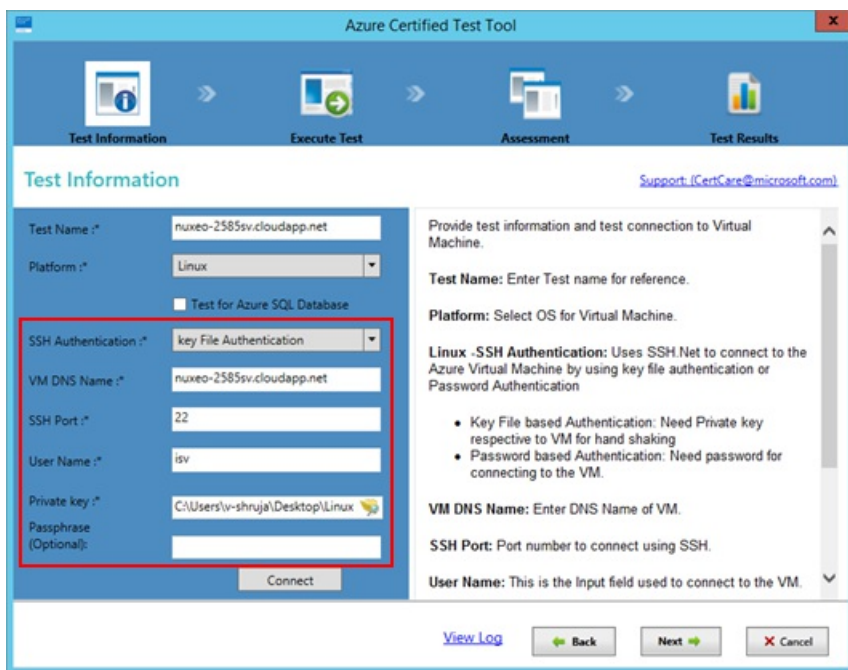
Connect the certification tool to a Windows-based VM image

1. Enter the fully qualified **VM DNS name** (for example, `MyVMName.Cloudapp.net`).
2. Enter values for the **User Name** and **Password**.
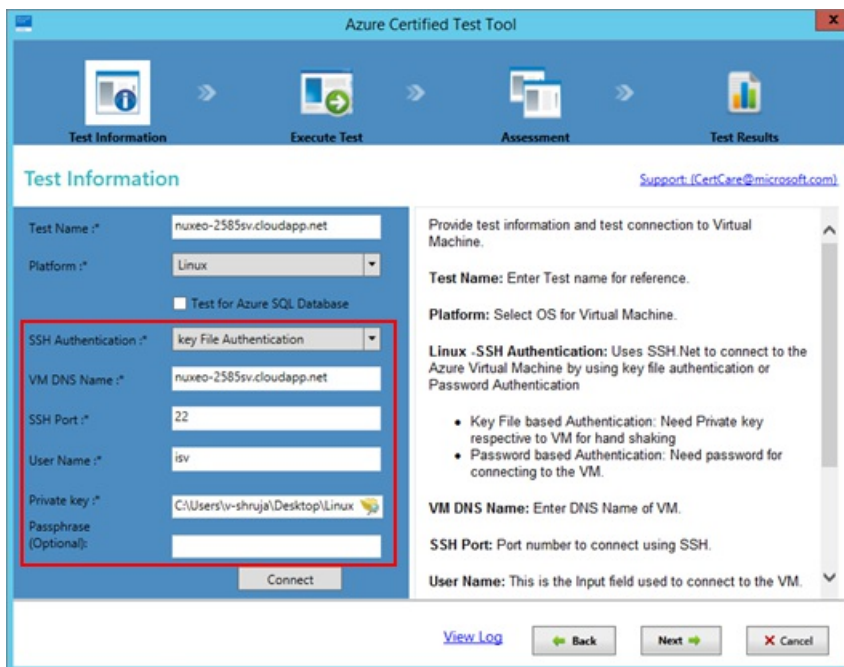
Run a certification test

After you have supplied the parameter values for your VM image in the certification tool, select **Test Connection** to ensure a valid connection to your VM. After a connection is verified, select **Next** to start the test. When the test is complete, a table is displayed with the test results (Pass/Fail/Warning). The following example shows the test results for a Linux VM test.
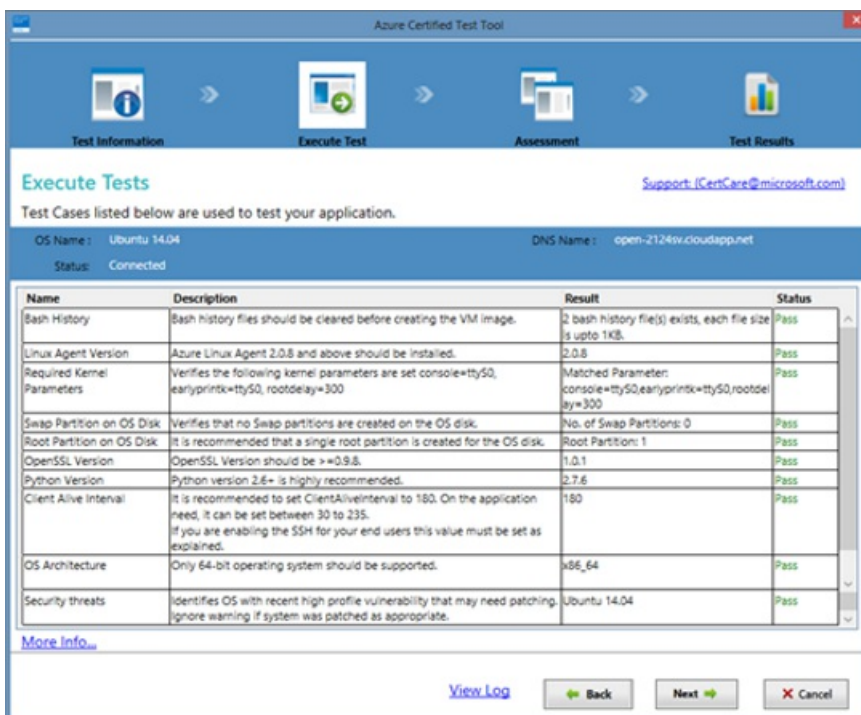
If any of the tests fail, your image is *not* certified. In this case, review the requirements and failure messages, make the indicated changes, and rerun the test.

After the automated test, you are required to provide additional information about your VM image on the **Questionnaire** screen. It contains two tabs that you must complete. The **General Assessment** tab contains **True/False** questions, whereas the **Kernel Customization** contains multiple selection and freeform questions. Complete the questions on both tabs then select **Next**.
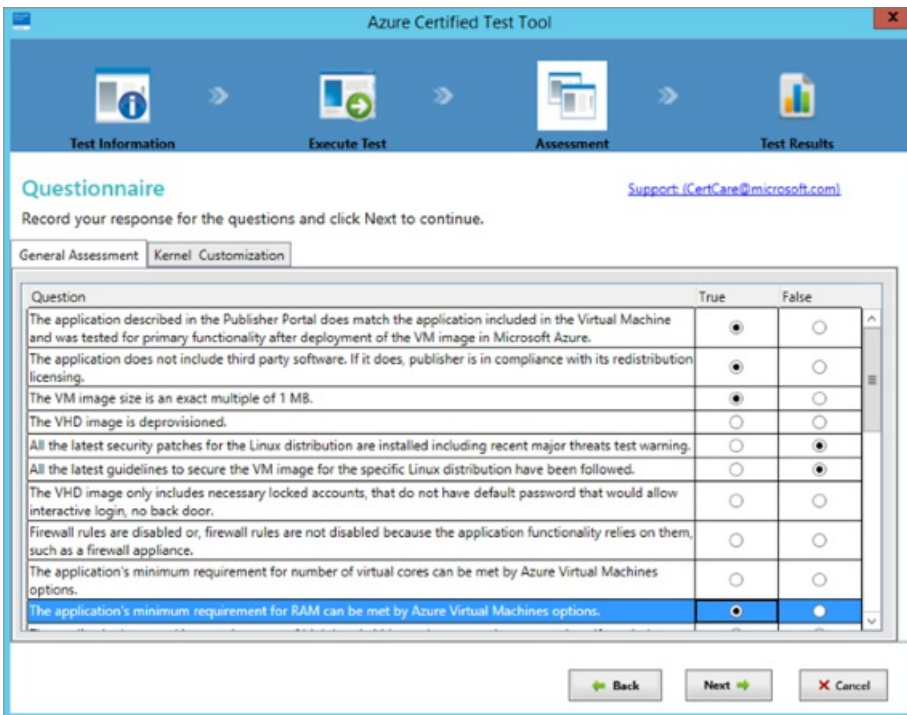
The last screen enables you to provide additional information, such as SSH access information for a Linux VM image and an explanation for any failed assessments if you are seeking exceptions.

Lastly, click **Generate Report** to download the test results and log files for the executed test cases in addition to your answers to the questionnaire. Save the results in the same container as your VHD(s).
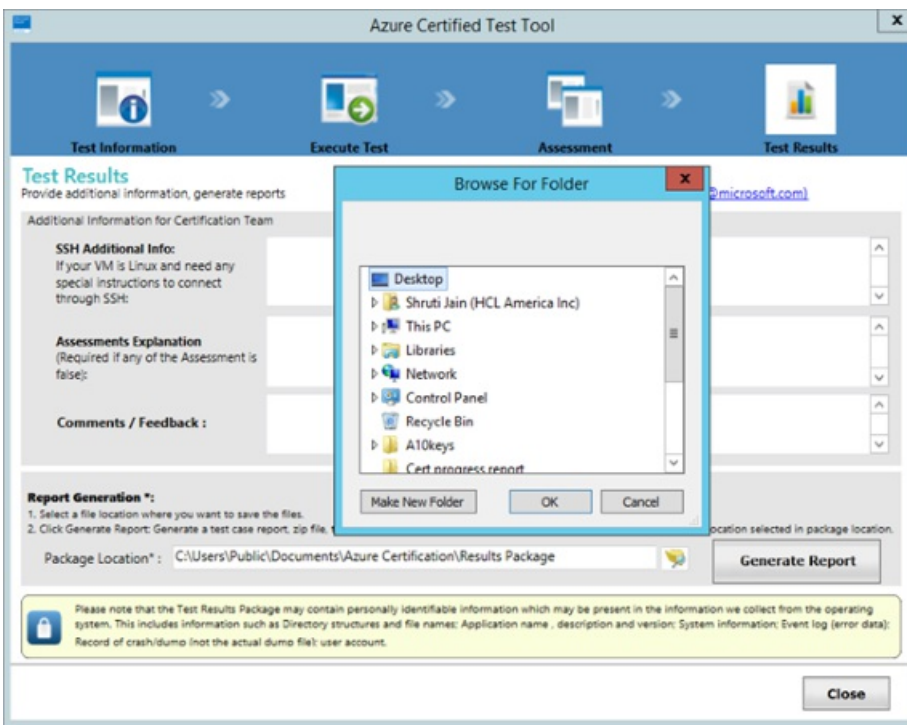
Next steps

Next, you will generate a uniform resource identifiers (URI) for each VHD that you submit to the marketplace.

Create a self-test client to pre-validate an Azure virtual machine image

1/28/2019 • 10 minutes to read • Edit Online

Use this article as a guide for creating a client service that consumes the self-test API. You can use the self-test API to pre-validate a virtual machine (VM) to ensure it meets the latest Azure Marketplace publishing requirements. This client service enables you to test a VM before you submit your offer for Microsoft certification.

Development and testing overview

As part of the self-test process, you'll create a local client that connects to Azure Marketplace to validate a VM running in your Azure Subscription. The VM can be running the Windows or Linux operating system.

The local client runs a script that authenticates with the self-test API, sends connection information, and receives test results.

The high-level steps for creating a self-test client are:

1. Choose the Azure Active Directory (AD) tenant for your application.
2. Register the client app.
3. Create a token for the client Azure AD app.
4. Pass the token to the self-test API.

After you create the client, you can test it against your VM.

Self-test client authorization

The following diagram shows how authorization works for service to service calls using client credentials (shared secret or certificate.)
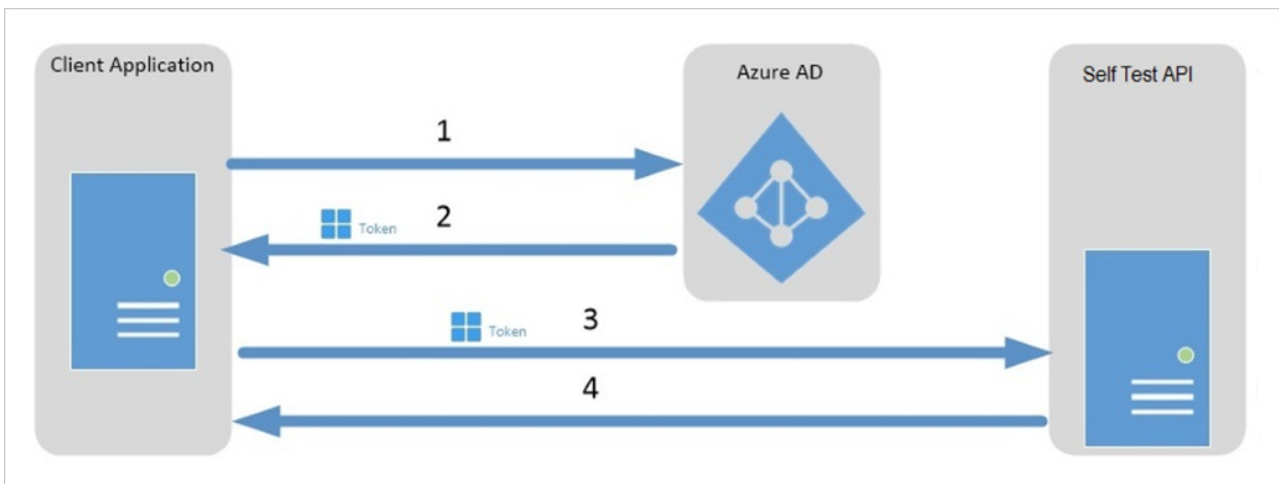
The self-test client API

The self-test API contains a single endpoint that supports only the POST method. It has the following structure.

```
Uri:             https://isvapp.azurewebsites.net/selftest
Method:          Post
Request Header:  Content-Type: "application/json"
Authorization:   "Bearer xxxx-xxxx-xxxx-xxxxx"
Request body:    The Request body parameters should use the following JSON format:
                 {
                   "DNSName":"XXXX.westus.cloudapp.azure.com",
                   "User":"XXX",
                   "Password":"XXX@1234567",
                   "OS":"XXX",
                   "PortNo":"22",
                   "CompanyName":"ABCD",
                 }
```

The following table describes the API fields.

FIELD	DESCRIPTION
Authorization	The "Bearer xxxx-xxxx-xxxx-xxxxx" string contains the Azure Active Directory (AD) client token, which can be created by using PowerShell.
DNSName	DNS Name of the VM to test
User	User name for signing into the VM
Password	Password for signing into the VM
OS	Operating system of the VM: either `Linux` or `Windows`
PortNo	Open port number for connecting to the VM. The port number is typically `22` for Linux and `5986` for Windows.

Consuming the API

You can consume the self-test API using PowerShell or cURL.

Use PowerShell to consume the API on the Linux OS

To call the API in PowerShell, follow these steps:

1. Use the `Invoke-WebRequest` command to call the API.
2. The method is Post and content type is JSON, as shown in the following code example and screen capture.
3. Specify the body parameters in JSON format.

The following code example shows a PowerShell call to the API.

```
$accesstoken = "Get token for your Client AAD App"
$headers = New-Object "System.Collections.Generic.Dictionary[[String],[String]]"
$headers.Add("Authorization", "Bearer $accesstoken")
$Body = @{
    "DNSName" = "XXXX.westus.cloudapp.azure.com"
    "User" = "XXX"
    "Password" = "XXX@123456"
    "OS" = "Linux"
    "PortNo" = "22"
    "CompanyName" = "ABCD"

} | ConvertTo-Json
$res = Invoke-WebRequest -Method "Post" -Uri $uri -Body $Body -ContentType "application/json" –Headers
$headers;
$Content = $res | ConvertFrom-Json
```

The following screen capture shows an example for calling the API in PowerShell.

Using the previous example, you can retrieve the JSON and parse it to get the following details:

```
$testresult = ConvertFrom-Json –InputObject (ConvertFrom-Json –InputObject $res)

  Write-Host "OSName: $($testresult.OSName)"
  Write-Host "OSVersion: $($testresult.OSVersion)"
  Write-Host "Overall Test Result: $($testresult.TestResult)"

For ($i=0; $i -lt $testresult.Tests.Length; $i++)
{
    Write-Host "TestID: $($testresult.Tests[$i].TestID)"
    Write-Host "TestCaseName: $($testresult.Tests[$i].TestCaseName)"
    Write-Host "Description: $($testresult.Tests[$i].Description)"
    Write-Host "Result: $($testresult.Tests[$i].Result)"
    Write-Host "ActualValue: $($testresult.Tests[$i].ActualValue)"
}
```

The following screen capture, which shows `$res.Content` , gives you the details of your test results in JSON format.

```
 22
 23     $res = Invoke-WebRequest -Method Post -Uri $SelfTestUri -Headers $headers -ContentType 'application/json' -Body $Body
 24
 25     $testresult = ConvertFrom-Json -InputObject (ConvertFrom-Json -InputObject $res)
 26
 27       Write-Host "OSName: $($testresult.OSName)"
 28       Write-Host "OSVersion: $($testresult.OSVersion)"
 29       Write-Host "Overall Test Result: $($testresult.TestResult)"
 30
 31     For ($i=0; $i -lt $testresult.Tests.Length; $i++)
 32   ⊟{
 33         Write-Host "TestID: $($testresult.Tests[$i].TestID)"
 34         Write-Host "TestCaseName: $($testresult.Tests[$i].TestCaseName)"
 35         Write-Host "Description: $($testresult.Tests[$i].Description)"
 36         Write-Host "Result: $($testresult.Tests[$i].Result)"
 37         Write-Host "ActualValue: $($testresult.Tests[$i].ActualValue)"
 38     }
 39
 40
 41
```

```
PS C:\Windows\system32> D:\VS2017\SelfTest\Dev\SelfTest_Client\TokenClient.ps1
OSName: Ubuntu 16.04
OSVersion: 16.04
Overall Test Result: Pass
TestID: 48
TestCaseName: Bash History
Description: Bash history files should be cleared before creating the VM image.
Result: Passed
ActualValue: No file Exist
TestID: 39
TestCaseName: Linux Agent Version
Description: Azure Linux Agent 2.2.10 and above should be installed.
Result: Passed
ActualValue: 2.2.20
TestID: 40
TestCaseName: Required Kernel Parameters
Description: Verifies the following kernel parameters are set console=ttyS0, earlyprintk=ttyS0, rootdelay=300
Result: Passed
ActualValue: Matched Parameter: console=ttyS0,earlyprintk=ttyS0,rootdelay=300
TestID: 41
TestCaseName: Swap Partition on OS Disk
Description: Verifies that no Swap partitions are created on the OS disk.
Result: Passed
```

The following screen capture shows an example of JSON test results viewed in an online JSON viewer (for example, Code Beautify or JSON Viewer).

```
SchemaVersion : 1

AppCertificationCategory : Microsoft Single VM Certification

ProviderID : 050DE427-2A99-46D4-817C-5354D3BF2AE8

OSName : Ubuntu\r\n 16.04

OSVersion : 16.04

CreatedDate : 06/01/2018 07:04:24

TestResult : Pass

APIVersion : 1.1

▼ Tests [11]

    ▶ 0  {6}

    ▶ 1  {6}

    ▼ 2  {6}

            TestID : 40

            TestCaseName : Required Kernel Parameters

            Description : Verifies the following\r\n kernel parameters are set console=ttyS0,
                          earlyprintk=ttyS0, rootdelay=300

            Result : Passed

            ActualValue : Matched Parameter:
                          console=ttyS0,earlypri\r\nnntk=ttyS0,rootdelay=300

            RequiredValue : console=ttyS0#earlyprintk=ttyS0#rootdelay=300

    ▶ 3  {6}

    ▶ 4  {6}

    ▶ 5  {6}

    ▶ 6  {6}

    ▶ 7  {6}

    ▶ 8  {6}

    ▶ 9  {6}

    ▶ 10 {6}
```

Use PowerShell to consume the API on the Windows OS

To call the API in PowerShell, follow these steps:

1. Use the `Invoke-WebRequest` command to call the API.
2. The method is Post and content type is JSON, as shown in the following code example and screen capture.
3. Create the Body parameters in JSON format.

The following code example shows a PowerShell call to the API.

```
$accesstoken = "Get token for your Client AAD App"
$headers = New-Object "System.Collections.Generic.Dictionary[[String],[String]]"
$headers.Add("Authorization", "Bearer $accesstoken")
$Body = @{
    "DNSName" = "XXXX.westus.cloudapp.azure.com"
    "User" = "XXX"
    "Password" = "XXX@123456"
    "OS" = "Windows"
    "PortNo" = "5986"
    "CompanyName" = "ABCD"

} | ConvertTo-Json
$res = Invoke-WebRequest -Method "Post" -Uri $uri -Body $Body -ContentType "application/json" –Headers
$headers;
$Content = $res | ConvertFrom-Json
```

The following screen capture shows an example for calling the API in PowerShell.

Using the previous example, you can retrieve the JSON and parse it to get the following details:

```
$testresult = ConvertFrom-Json –InputObject (ConvertFrom-Json –InputObject $res)

  Write-Host "OSName: $($testresult.OSName)"
  Write-Host "OSVersion: $($testresult.OSVersion)"
  Write-Host "Overall Test Result: $($testresult.TestResult)"

For ($i=0; $i -lt $testresult.Tests.Length; $i++)
{
    Write-Host "TestID: $($testresult.Tests[$i].TestID)"
    Write-Host "TestCaseName: $($testresult.Tests[$i].TestCaseName)"
    Write-Host "Description: $($testresult.Tests[$i].Description)"
    Write-Host "Result: $($testresult.Tests[$i].Result)"
    Write-Host "ActualValue: $($testresult.Tests[$i].ActualValue)"
}
```

The following screen capture, which shows `$res.Content`, gives you the details of your test results in JSON format.

```powershell
$testresult = ConvertFrom-Json -InputObject (ConvertFrom-Json -InputObject $res)

   Write-Host "OSName: $($testresult.OSName)"
   Write-Host "OSVersion: $($testresult.OSVersion)"
   Write-Host "Overall Test Result: $($testresult.TestResult)"

   For ($i=0; $i -lt $testresult.Tests.Length; $i++)
   {
       Write-Host "TestID: $($testresult.Tests[$i].TestID)"
       Write-Host "TestCaseName: $($testresult.Tests[$i].TestCaseName)"
       Write-Host "Description: $($testresult.Tests[$i].Description)"
       Write-Host "Result: $($testresult.Tests[$i].Result)"
       Write-Host "ActualValue: $($testresult.Tests[$i].ActualValue)"
   }
```

```
OSName: Microsoft Windows Server 2016 Datacenter
OSVersion: 10.0.14393
Overall Test Result: Pass
TestID: 1.1.4
TestCaseName: OS Architecture
Description: Azure supports 64bit Operating System Only.
Result: Passed
ActualValue: 64 Bit
TestID: 1.1.5
TestCaseName: User account dependency
Description: Application execution should not have dependency on administrator account.
Result: Passed
ActualValue: isv
TestID: 1.1.6
TestCaseName: Failover Cluster
Description: Windows Server Failover Clustering feature is not yet supported, Application should not have dependency on this feature.
Result: Passed
ActualValue: Disabled
TestID: 1.1.7
TestCaseName: IPV6
Description: IPv6 is not yet supported in the Azure environment. Application should not have dependency on this feature.
Result: Warning
ActualValue: Enabled
```

The following screen capture shows test results viewed in an online JSON viewer. (for example, Code Beautify, JSON Viewer)

```
SchemaVersion : 1
AppCertificationCategory : Microsoft Single VM Certification
ProviderID : 050DE427-2A99-46D4-817C-5354D3BF2AE8
OSName : Micros\r\noft Windows Server 2016 Datacenter
OSVersion : 10.0.14393
CreatedDate : 06/01/2018 06:08:46
TestResult : Pass
APIVersion : 1.1
▼ Tests [17]
    ▼ 0  {6}
            Tes\r\ntID : 1.1.4
            TestCaseName : OS Architecture
            Description : Azure supports 64bit Operating System Only.
            Result : Passed
            ActualValue : 64 Bit
            Re\r\nquiredValue : OS Should be 64 bit
    ▶ 1  {6}
    ▶ 2  {6}
    ▶ 3  {6}
    ▶ 4  {6}
    ▶ 5  {6}
    ▶ 6  {6}
    ▶ 7  {6}
    ▶ 8  {6}
    ▶ 9  {6}
    ▶ 10 {6}
    ▶ 11 {6}
    ▶ 12 {6}
```

Use cURL to consume the API on the Linux OS

To call the API with cURL, follow these steps:

1. Use the curl command to call the API.
2. The method is Post and content type is JSON, as shown in the following code snippet.

```
CURL POST -H "Content-Type:application/json"
-H "Authorization: Bearer XXXXXX-Token-XXXXXXXX"
https://isvapp.azurewebsites.net/selftest
-d '{ "DNSName":"XXXX.westus.cloudapp.azure.com", "User":"XXX", "Password":"XXXX@123456", "OS":"Linux",
"PortNo":"22", "CompanyName":"ABCD"}'
```

The following screen shows an example of using curl to call the API.

The following screen capture shows the JSON results from the curl call.

```
SchemaVersion : 1
AppCertificationCategory : Microsoft Single VM Certification
ProviderID : 050DE427-2A99-46D4-817C-5354D3BF2AE8
OSName : Ubuntu\r\n 16.04
OSVersion : 16.04
CreatedDate : 06/01/2018 07:04:24
TestResult : Pass
APIVersion : 1.1
▼ Tests [11]
    ▶ 0  {6}
    ▶ 1  {6}
    ▼ 2  {6}
            TestID : 40
            TestCaseName : Required Kernel Parameters
            Description : Verifies the following\r\n kernel parameters are set console=ttyS0,
                    earlyprintk=ttyS0, rootdelay=300
            Result : Passed
            ActualValue : Matched Parameter:
                    console=ttyS0,earlypri\r\nnntk=ttyS0,rootdelay=300
            RequiredValue : console=ttyS0#earlyprintk=ttyS0#rootdelay=300
    ▶ 3  {6}
    ▶ 4  {6}
    ▶ 5  {6}
    ▶ 6  {6}
    ▶ 7  {6}
    ▶ 8  {6}
    ▶ 9  {6}
    ▶ 10 {6}
```

Choose the Azure AD tenant for the app

Use the following steps to choose the Azure AD tenant where you want to create your application.

1. Sign in to the Azure portal.
2. On the top menu bar, select your account and under the Directory list, choose the Active Directory tenant where you want to register your application. Or, select the **Directory + Subscription** icon to see the Global subscription filter. The following screen capture shows an example of this filter.
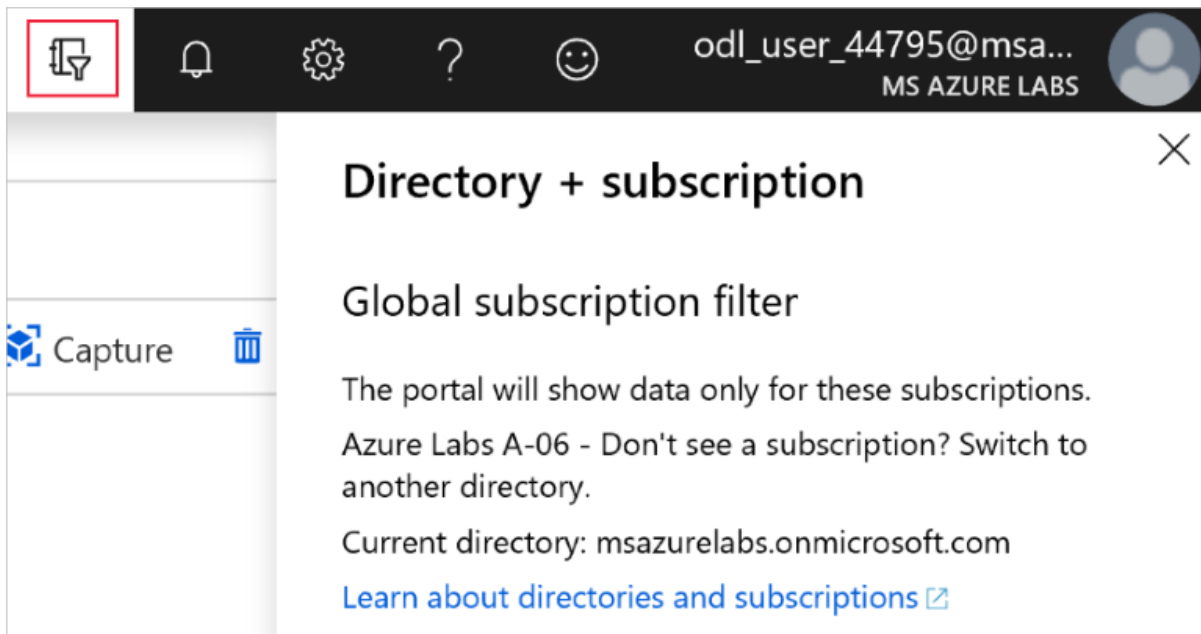
3. On the left-hand navigation bar, select **All services** and then select **Azure Active Directory**.

   In the following steps, you may need the tenant name (or directory name) or the tenant ID (or directory ID).

   To get tenant information:

   In **Azure Active Directory Overview**, search for "Properties" and then select **Properties**. Using the following screen capture as an example:

   - **Name** - The tenant name or directory name
   - **Directory ID** - The tenant ID or directory ID or use the scroll bar to find Properties.
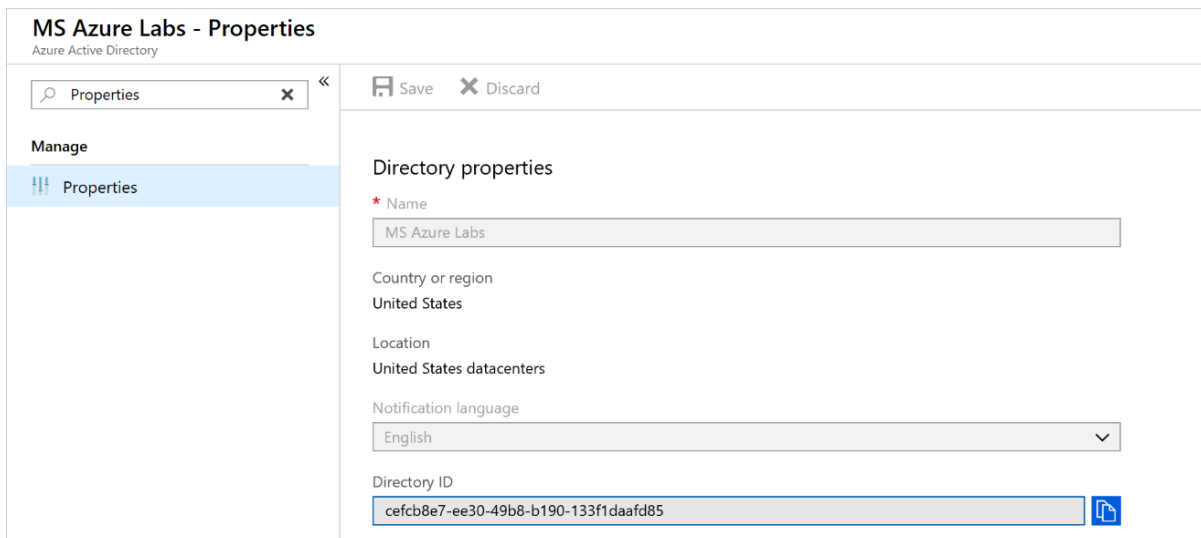
Register the client app

Use the following steps to register the client app.

1. On the left-hand navigation bar, select **All services** and then select **App registrations**.
2. Under **App registrations**, select **+ New application registration**.
3. Under **Create**, provide the information required for the following fields:

   - **Name** – Enter a friendly name for the app. For example, "SelfTestClient".
   - **Application type** – Select **Web App/API**
   - **Sign-on URL** – Type "https://isvapp.azurewebsites.net/selftest"

4. Select **Create**.

5. Under **App registrations** or **Registered app**, copy the **Application ID**.
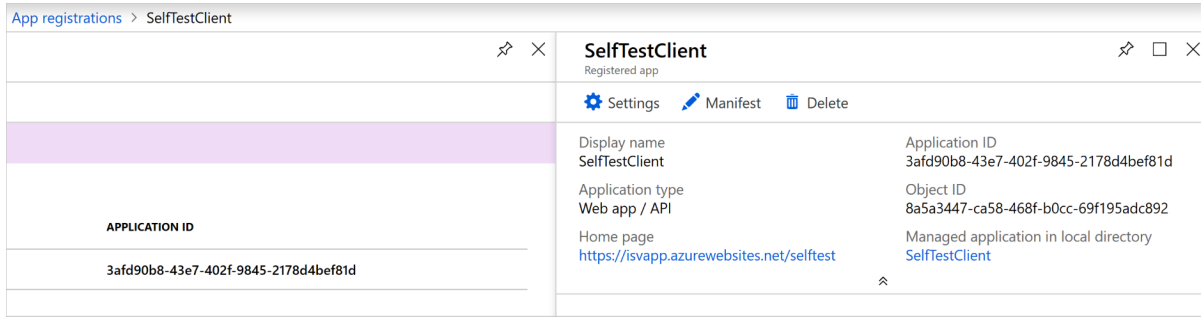
6. In the registered app toolbar, select **Settings**.

7. Select **Required permissions** to configure permissions for your application.

8. Under **Required permissions**, select **+ Add**.

9. Under **Add API access**, pick **Select an API**.

10. Under **Select an API**, type "Windows Azure classic deployment model" to search for the API.

11. In the search results, pick **Windows Azure classic deployment model** and then click **Select**.
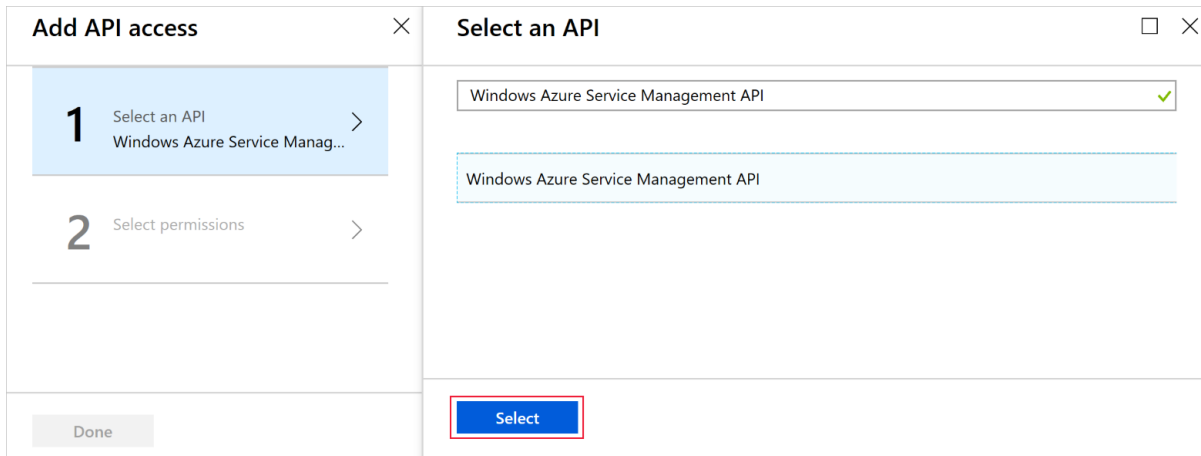
12. Under **Add API access**, pick **Select permissions**.

13. Select **Access "Windows Azure Service Management API"**.
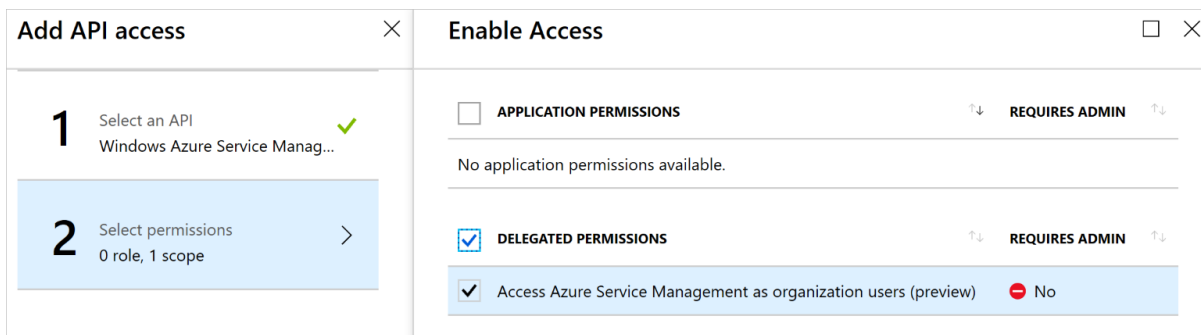
14. Click **Select**.

15. Select **Done**.

16. Under **Settings**, select **Properties**.

17. Under **Properties**, scroll down to **Multi-tenanted**. Select **Yes**.
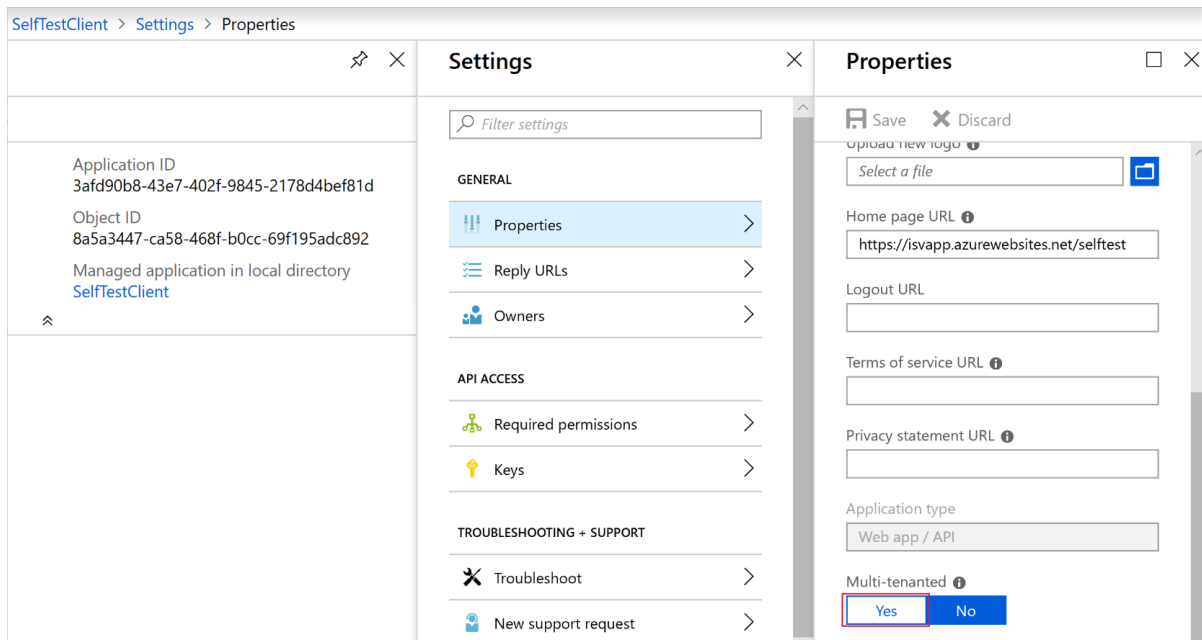
18. Select **Save**.

19. Under **Settings**, select **Keys**.

20. Create a secret key by selecting the Key **DESCRIPTION** textbox. Configure the following fields:

- Type in a key name. For example, "selftestclient"
- On the **EXPIRES** dropdown list, select "In 1 year".
- Select **Save** to generate the key.
- Under **VALUE**, copy the key.

> **IMPORTANT**
>
> You won't be able to see the key value after you exit the **Keys** form.
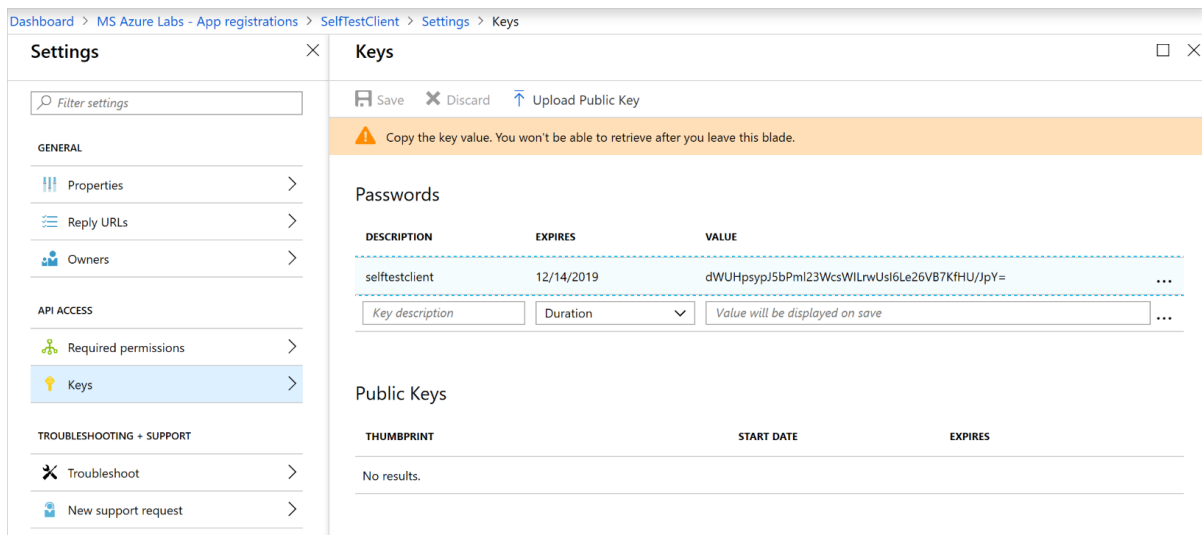
Create the token for the client app

You can use any of the following programs to create and get a token using the OAuth REST API:

- Postman
- cURL in Linux
- C#

- PowerShell

To create and get a token using Postman

To ask Auth0 for tokens for any of your authorized applications, perform a POST operation to the https://login.microsoftonline.com/common/oauth2/token endpoint with a payload in the following format:

```
Method Type : POST
Base Url: https://login.microsoftonline.com/common/oauth2/token
```

Pass the following parameters in Request body:

```
Body Content-Type: x-www-form-urlencoded
client_id: XXX (Paste your Application ID of Web App/API Type client AD App)
grant_type: client_credentials
client_secret: XXX (Paste your Secret Key of Web App/API Type client AD App)
resource: https://management.core.windows.net
```

Pass the following parameters in Request header:

```
Content-Type: application/x-www-form-urlencoded
```

The following screen capture shows an example of using Postman to get a token.

To create and get a token using cURL in Linux

To ask Auth0 for tokens for any of your authorized applications, perform a POST operation to the https://login.microsoftonline.com/common/oauth2/token endpoint with a payload in the following format:

```
Request:

curl --request POST \
            --url 'https://login.microsoftonline.com/common/oauth2/token' \
            --header "Content-Type:application/x-www-form-urlencoded" \
            --data "grant_type=client_credentials&client_id=XXXXX-XXXX-XXXX-
XXXXXXX&client_secret=XXXXXXXXX&resource=https://management.core.windows.net"

Response:

{"token":"UClCUUKxUlkdbhE1cHLz3kyjbIZYVh9eB34A5Q21Y3FPqKGSJs","expires":"2014-02-17 18:46:08"}
```

The following screen capture shows an example of using the curl command to get a token.

To create and get a token using C#

To ask Auth0 for tokens for any of your authorized applications, perform a POST operation to the https://soamtenant.auth0.com/oauth/token endpoint with a payload in the following format:

```
string clientId = "Your Application Id";
string clientSecret = "Your Application Secret";
string audience = "https://management.core.windows.net";
string authority = String.Format(System.Globalization.CultureInfo.InvariantCulture,
"https://login.microsoftonline.com/common/oauth2/token");
string grantType = "client_credentials";
var client = new RestClient(authority);
var request = new RestRequest(Method.POST);
        request.AddHeader("content-type", "application/x-www-form- urlencoded");

string requestBody = "grant_type=" + grantType + "&" + "client_id=" +   clientId + "&" + "client_secret=" +
clientSecret + "&" + "resource=" +  audience;

request.AddParameter("application/x-www-form-urlencoded", requestBody,  ParameterType.RequestBody);

IRestResponse response = client.Execute(request);
var content = response.Content;
var token = JObject.Parse(content)["access_token"];
```

To create and get a token using PowerShell

To ask Auth0 for tokens for any of your authorized applications, perform a POST operation to the https://soamtenant.auth0.com/oauth/token endpoint with a payload in the following format:

```
$clientId = "Application Id of AD Client APP";
$clientSecret = "Secret Key of AD Client APP "
$audience = "https://management.core.windows.net";
$authority = "https://login.microsoftonline.com/common/oauth2/token"
$grantType = "client_credentials";

$requestBody = "grant_type=" + $grantType + "&" + "client_id=" +  $clientId   + "&" + "client_secret=" +
$clientSecret + "&" + "resource=" + $audience;

$headers = New-Object  "System.Collections.Generic.Dictionary[[String],[String]]"
            $headers.Add("ContentType", "application/x-www-form-urlencoded")
resp = Invoke-WebRequest -Method Post -Uri $authority -Headers $headers -ContentType 'application/x-www-form-
urlencoded' -Body $requestBody

$token = $resp.Content | ConvertFrom-Json
$token.AccessToken
```

Pass the client app token to the API

Pass the token to the self-test API using the following code in the authorization header:

```
$redirectUri = 'https://isvapp.azurewebsites.net/selftest'
$accesstoken = 'place your token here'

$headers = New-Object "System.Collections.Generic.Dictionary[[String],[String]]"
$headers.Add("Authorization", "Bearer $accesstoken")
$Body =
@{
     'DNSName'="XXXX.cloudapp.azure.com";
     'User'="XXX";
     'Password'="XXXX@12345";
     'OS'="Linux";
     'PortNo'="22"
  } | ConvertTo-Json

$result=Invoke-WebRequest -Method Post -Uri $redirectUri -Headers $headers -ContentType 'application/json' -
Body $Body
$result
echo 'Test Results:'
$result.Content
```

Test your self-test client

To test the client, follow these steps:

1. Deploy the VM you want to test.
2. Call the self-test API using your client app token for authorization.
3. Get the test results in JSON format.

Test result examples

The following snippets show test results in JSON format.

Test results for a Windows VM:

```
{
  "SchemaVersion": 1,
  "AppCertificationCategory": "Microsoft Single VM Certification",
  "ProviderID": "050DE427-2A99-46D4-817C-5354D3BF2AE8",
  "OSName": "Microsoft Windows Server 2016 Datacenter",
  "OSVersion": "10.0.14393",
  "CreatedDate": "06/01/2018 07:48:04",
  "TestResult": "Pass",
  "APIVersion": "1.1",
  "Tests": [
    {
      "Tes tID": "1.1.4",
      "TestCaseName": "OS Architecture",
      "Description": "Azure supports 64bit Operating System Only.",
      "Result": "Passed",
      "ActualValue": "64 Bit",
      "Re quiredValue": "OS Should be 64 bit"
    },
    {
      "TestID": "1.1.5",
      "TestCaseName": "User account dependency",
      "Description": "Application execution should not have de pendency on administrator account.",
      "Result": "Passed",
      "ActualValue": "isv",
      "RequiredValue": "Logged in user should not be an administrator"
    },
    {
      "TestID": " 1.1.6",
      "TestCaseName": "Failover Cluster",
      "Description": "Windows Server Failover Clustering feature is not yet supported, Application should not
have dependency on this feature.",
      "Result": "Passed",
      "ActualValue": "Disabled",
      "RequiredValue": "Failover Clustering feature is disabled"
    },
```

Test results for a Linux VM:

```
{
  "SchemaVersion": 1,
  "AppCertificationCategory": "Microsoft Single VM Certification",
  "ProviderID": "050DE427-2A99-46D4-817C-5354D3BF2AE8",
  "OSName": "Ubuntu  16.04",
  "OSVersion": "16.04",
  "CreatedDate": "06/01/2018 07:04:24",
  "TestResult": "Pass",
  "APIVersion": "1.1",
  "Tests": [
    {
      "TestID": "48",
      "TestCaseName": "Bash Hi story",
      "Description": "Bash history files should be cleared before creating the VM image.",
      "Result": "Passed",
      "ActualValue": "No file Exist",
      "RequiredVal ue": "1024"
    },
    {
      "TestID": "39",
      "TestCaseName": "Linux Agent Version",
      "Description": "Azure Linux Agent 2.2.10 and above should be installed. ",
      "Result": "Pas sed",
      "ActualValue": "2.2.20",
      "RequiredValue": "2.2.10"
    },
    {
      "TestID": "40",
      "TestCaseName": "Required Kernel Parameters",
      "Description": "Verifies the following  kernel parameters are set console=ttyS0, earlyprintk=ttyS0,
rootdelay=300",
      "Result": "Passed",
      "ActualValue": "Matched Parameter: console=ttyS0,earlypri ntk=ttyS0,rootdelay=300",
      "RequiredValue": "console=ttyS0#earlyprintk=ttyS0#rootdelay=300"
    },
```

Next steps

After you've successfully tested your Azure virtual machine, you can Publish the offer.

Get shared access signature URI for your VM image

10/22/2018 • 4 minutes to read • Edit Online

During the publishing process, you must provide a uniform resource identifier (URI) for each virtual hard disk (VHD) associated with your SKUs. Microsoft needs access to these VHDs during the certification process. This article explains how to generate a shared access signature (SAS) URI for each VHD. You will enter this URI in the **SKUs** tab in the Cloud Partner Portal.

When generating SAS URIs for your VHDs, adhere to the following requirements:

- Only unmanaged VHDs are supported.
- `List` and `Read` permissions are sufficient. Do *not* provide `Write` or `Delete` access.
- The duration for access (*expiry date*) should be a minimum of three weeks from when the SAS URI is created.
- To safeguard against UTC time variations, set the start date to one day before the current date. For example, if the current date is October 6, 2014, select 10/5/2014.

Generate the SAS URL

The SAS URL can be generated in two common ways using the following tools:

- Microsoft Storage Explorer - Graphical tool available for Windows, macOS, and Linux
- Microsoft Azure CLI - Recommended for non-Windows OSs and automated or continuous integration environments

Azure CLI

Use the following steps to generate a SAS URI with Azure CLI.

1. Download and install the Microsoft Azure CLI. Versions are available for Windows, macOS, and various distros of Linux.

2. Create a PowerShell file (`.ps1` file extension), copy in the following code, then save it locally.

   ```
   az storage container generate-sas --connection-string 'DefaultEndpointsProtocol=https;AccountName=
   <account-name>;AccountKey=<account-key>;EndpointSuffix=core.windows.net' --name <vhd-name> --
   permissions rl --start '<start-date>' --expiry '<expiry-date>'
   ```

3. Edit the file to supply the following parameter values. Dates should be provided in UTC datetime format, for example `10-25-2016T00:00:00Z` .

   - `<account-name>` - Your Azure storage account name
   - `<account-key>` - Your Azure storage account key
   - `<vhd-name>` - Your VHD name
   - `<start-date>` - Permission start date for VHD access. Provide a date one day before the current date.
   - `<expiry-date>` - Permission expiration date for VHD access. Provide a date at least three weeks beyond the current date.

   The following example shows proper parameter values (at the time of this writing).

```
    az storage container generate-sas --connection-string
 'DefaultEndpointsProtocol=https;AccountName=st00009;AccountKey=6L7OWFrlabs7Jn23OaR3rvY5RykpLCNHJhxsbn9O
 Nc+bkCq9z/VNUPNYZRKoEV1FXSrvhqq3aMIDI7N3bSSvPg==;EndpointSuffix=core.windows.net' --name vhds --
 permissions rl --start '2017-11-06T00:00:00Z' --expiry '2018-08-20T00:00:00Z'
```

4. Save the changes to this PowerShell script.

5. Run this script, using administrative privileges, to generate a *SAS connection string* for container level access. You can use two basic approaches:

   - Run the script from the console. For example, in Windows, write-click on the script and select **Run as administrator**.

   - Run the script from a PowerShell script editor, such as the Windows PowerShell ISE, using administrative privileges. The following demonstrates a SAS connection string being generated within this editor.

6. Copy the resulting SAS connection string and save it to a text file in a secure location. You will edit this string to add the associated VHD location information to it to create the final SAS URI.

7. In the Azure portal, navigate to the blob storage that contains the VHD associated with the newly generated URI.

8. Copy the URL value of the **Blob service endpoint**, as shown below.
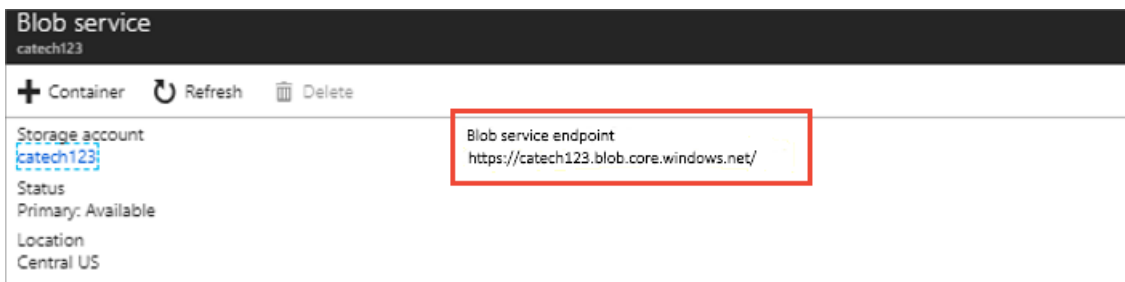
9. Edit the text file with the SAS connection string from step 6. You will construct the complete SAS URI using the following format:

   `<blob-service-endpoint-url>` + `/vhds/` + `<vhd-name>?` + `<sas-connection-string>`

   For example, if the name of the VDH is `TestRGVM2.vhd`, then the resulting SAS URI would be:

```
https://catech123.blob.core.windows.net/vhds/TestRGVM2.vhd?st=2018-05-06T07%3A00%3A00Z&se=2019-08-
02T07%3A00%3A00Z&sp=rl&sv=2017-04-17&sr=c&sig=wnEw9RfVKeSmVgqDfsDvC9IHhis4x0fc9Hu%2FW4yvBxk%3D
```

Repeat these steps for each VHD in the SKUs you plan to publish.

Microsoft Storage Explorer

Use the following steps to generate a SAS URI with the Microsoft Azure Storage Explorer.

1. Download and install the Microsoft Azure Storage Explorer.

2. Open the explorer and, in the left-hand menubar, click on the **Add Account** icon. The **Connect to Azure Storage** dialog box is displayed.

3. Select **Add an Azure Account** and click **Sign in**. Continue the required steps to sign into your Azure account.

4. In the left-hand **Explorer** pane, navigate to your **Storage Accounts** and expand this node.

5. Right-click on your VHD and select **Get Share Access Signature** from the context menu.
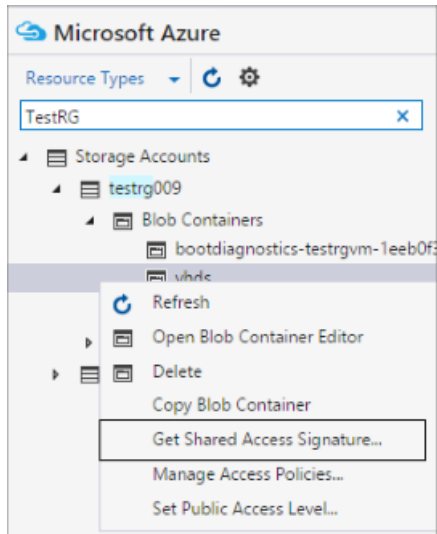
6. The **Shared Access Signature** dialog is displayed. Enter values for the following fields:

   - **Start time** - Permission start date for VHD access. Provide a date that is one day before the current date.

   - **Expiry time** - Permission expiration date for VHD access. Provide a date at least three weeks beyond the current date.

   - **Permissions** - Select the `Read` and `List` permissions.
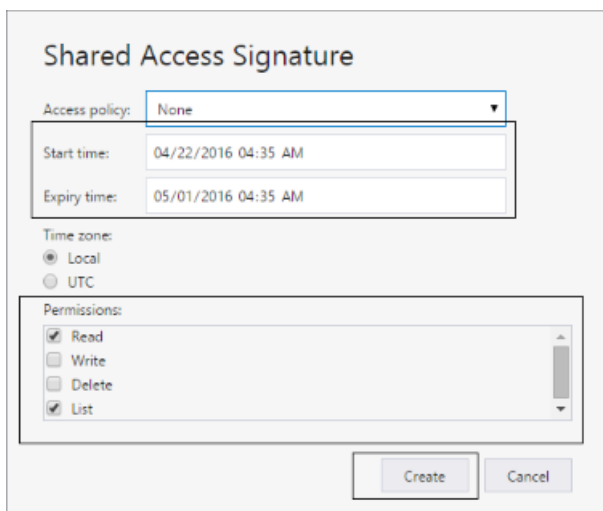
7. Click **Create** to create the associated SAS URI for this VHD. The dialog now displays details about this operation.

8. Copy the **URL** value and save it to a text file in a secure location.

This generated SAS URL is for container-level access. To make it specific, the associated VHD name must be added to it.

9. Edit the text file. Insert your VHD name after the `vhds` string in the SAS URL (include a leading forward slash). The final SAS URI should be of the format:

`<blob-service-endpoint-url>` + `/vhds/` + `<vhd-name>?` + `<sas-connection-string>`

For example, if the name of the VDH is `TestRGVM2.vhd`, then the resulting SAS URI would be:

```
https://catech123.blob.core.windows.net/vhds/TestRGVM2.vhd?st=2018-05-06T07%3A00%3A00Z&se=2019-08-
02T07%3A00%3A00Z&sp=rl&sv=2017-04-17&sr=c&sig=wnEw9RfVKeSmVgqDfsDvC9IHhis4x0fc9Hu%2FW4yvBxk%3D
```

Repeat these steps for each VHD in the SKUs you plan to publish.

Verify the SAS URI

Review and verify each generated SAS URI by using the following checklist. Verify that:

- The URI is of the form: `<blob-service-endpoint-url>` + `/vhds/` + `<vhd-name>?` + `<sas-connection-string>`
- The URI contains your VHD image filename, including the filename extension ".vhd".
- Towards the middle of the URI, `sp=rl` appears. This string indicates that `Read` and `List` access is specified.
- After that point, `sr=c` also appears. This string indicates that container-level access is specified.
- Copy and paste the URI into a browser to begin to download the associated blob. (You can cancel the operation before the download completes.)

Next steps

If you are having difficulties generating a SAS URI, then see Common SAS URL issues. Otherwise, save the SAS URI(s) to a secure location for later use. It will be required to publish your VM offer in the Cloud Partner Portal.

Common SAS URL issues and fixes

10/22/2018 • 2 minutes to read • Edit Online

The following table lists some of the common issues encountered when working with shared access signatures (which are used to identify and share the uploaded VHDs for your solution), along with suggested resolutions.

ISSUE	FAILURE MESSAGE	FIX
Failure in copying images		
"?" is not found in SAS URL	`Failure: Copying Images. Not able to download blob using provided SAS Uri.`	Update the SAS URL using recommended tools.
"st" and "se" parameters not in SAS URL	`Failure: Copying Images. Not able to download blob using provided SAS Uri.`	Update the SAS URL with proper **Start Date** and **End Date** values in it.
"sp=rl" not in SAS URL	`Failure: Copying Images. Not able to download blob using provided SAS Uri`	Update the SAS URL with permissions set as `Read` and `List`.
SAS URL has white spaces in VHD name	`Failure: Copying Images. Not able to download blob using provided SAS Uri.`	Update the SAS URL to remove white spaces.
SAS URL Authorization error	`Failure: Copying Images. Not able to download blob due to authorization error`	Review and correct the SAS URI format. Regenerate if necessary.
SAS URL "st" and "se" parameters do not have full date-time specification	`Failure: Copying Images. Not able to download blob due to incorrect SAS URL`	SAS URL **Start Date** and **End Date** parameters (`st` and `se` substrings) are required to have full datetime format, such as `11-02-2017T00:00:00Z`. Shortened versions are not valid. (Some commands in Azure CLI may generate shortened values by default.)

For more information, see Using shared access signatures (SAS).

Publish a virtual machine offer

10/22/2018 • 2 minutes to read • Edit Online

The last step, after you have defined the offer in the portal and created the associated technical assets, is to submit the offer for publishing. The following diagram depicts the main steps in the publishing process to "go live":

The following table describes these steps and provides a maximum time estimate for their completion:

PUBLISHING STEP	TIME	DESCRIPTION
Validate prerequisites	15 min	Offer information and offer settings are validated.
Test Drive Validation (optional)	2 hours	If you have selected to enable Test Drive, Microsoft validates the Test Drive configuration, its deployment, and replication through the selected regions.
Certification	3 days	Offer is analyzed by the Azure Certification Team. This step will perform scans for viruses, malware, safety compliance, and security issues. Feedback is provided if an issue is found.
Provisioning	4 days	VM offer is replicated in marketplace production systems.
Packaging and lead generation registration	< 1 hour	Offer's technical assets are packaged for customer use and the lead systems are configured and setup.

PUBLISHING STEP	TIME	DESCRIPTION
Publisher signoff	-	Final publisher review and confirmation before the offer goes live. You can deploy your offer in the selected subscriptions (in the offer information steps) to verify that it meets all your requirements.
Provisioning	4 days	Finalized VM offer is replicated in marketplace production systems and regions.
Live	4 days	VM offer is released, replicated to the required regions, and made available to the public.

Allow for up to 16 days for this process to complete. After you go through these publishing steps, your VM offer will be listed in the Microsoft Azure Marketplace.

Update an existing VM offer on Azure Marketplace

10/22/2018 • 6 minutes to read • Edit Online

This article walks you through the different aspects of updating your virtual machine (VM) offer in the Cloud Partner Portal and then republishing the offer.

There are a number of commonplace reasons for you to update your offer, including:

- Add a new VM image version to existing SKUs
- Change regions a SKU is available
- Add new SKUs
- Update the marketplace metadata for the offer or individual SKUs
- Update pricing on pay-as-you-go offers

To assist you in these modifications, the portal offers the **Compare** and **History** features.

Unpermitted changes to VM offer or SKU

There are some attributes of a VM offer or SKU that cannot be modified once the offer is live in the Azure Marketplace, mainly:

- **Offer ID** and **Publisher ID** of the offer
- **SKU ID** of existing SKUs
- Data disk count of existing SKUs
- Billing/license model changes to existing SKUs
- Price increases to a published SKU

Common update operations

Although there are a wide range of characteristics you can change on a VM offer, the following operations are common.

Update the VM image version for a SKU

It is common for a VM image to be periodically updated with security patches, additional features, and so on. Under such scenarios, you want to update the VM image that your SKU references by using the following steps:

1. Sign into the Cloud Partner Portal.

2. Under **All offers**, find the offer to update.

3. In the **SKUs** tab, click on the SKU associated with the VM image to update.

4. Under **Disk version**, click on **+New Disk Version** to add a new VM image.

5. Provide the new VM Images **Disk version**. The disk version needs to follow the semantic version format. Versions should be of the form X.Y.Z, where X, Y, and Z are integers. Verify that the new version you provide is greater than all previous versions; otherwise after republishing the new version will not display in either the portal or the Azure Marketplace.

6. For **OS VHD URL**, enter the shared access signature (SAS) URI created for the operating system VHD.

> **WARNING**
>
> The data disk count cannot change between different versions of the SKU. If previous versions had data disks configured, this new version must also have the same number of data disks.

7. Click on **Publish** to start the workflow to publish your new VM version to the Azure Marketplace.

Change region availability of a SKU

Over time, you may want to make your offer/SKU available in more regions. Alternatively, you may want to stop supporting the offer/SKU in a given region. To modify availability, use the following steps:

1. Sign into the Cloud Partner Portal.

2. Under **All offers** find the offer you would like to update.

3. In the **SKUs** tab, click on the SKU that you want to modify its availability.

4. Click on the **Select Countries** button under the **Country/Region availability** field.

5. In the region availability pop-up, add or remove the regions for this SKU.

6. Click on **Publish** to start the publish workflow to update your SKUs region availability.

If a SKU is being made available in a new region, you will have the ability to specify pricing for that particular region via the **Export Pricing Data** functionality. If you are adding a region back that was once available before, you will not be able to update its pricing because pricing changes are not permitted.

Add a new SKU

Use the following steps to make a new SKU available for your existing offer:

1. Sign into the Cloud Partner Portal.

2. Under **All offers** find the offer you would like to update.

3. Under the **SKUs** tab, click on **Add new SKU** and provide a **SKU ID** in the pop-up.

4. Republish the VM as detailed in the article Publish a virtual machine to Azure Marketplace.

5. Click on **Publish** to start the workflow to publish your new SKU.

Update offer marketplace metadata

Use the following steps to update the marketplace metadata—company name, logos, etc.—associated with your offer:

1. Sign into the Cloud Partner Portal.

2. Under **All offers** find the offer you would like to update.

3. Goto the **Marketplace** tab then follow the instructions in the article Publish a virtual machine to Azure Marketplace to make metadata changes.

4. Click on **Publish** to start the workflow to publish your changes.

Update Pricing on Published Offers

Once your pay-as-you-go offer is published, you cannot directly increase the SKU pricing. (However, you can create a new SKU under the same offer, delete the old SKU, and then republish your offer for new customers.) In contrast, you can decrease the price of a published offer using the following steps:

1. Sign into the Cloud Partner Portal.

2. Under **All offers**, find the offer to update.

3. Click on the SKU for which you want to decrease pricing.

4. If you have set the pricing in the 1x1 GUI, you can change the price directly in the UI. If you set pricing via import/export spreadsheet, you can only decrease prices via the import/export feature.

5. Click **Save**.

6. Click on **Publish** to start the workflow to publish your changes.

The new decreased pricing will be visible to new customers once it is live on the website. This new price will affect your customers in the following ways:

- New customers will be charged this new rate.
- For existing customers, the price decrease will be reflected retroactively to the start of the billing cycle during which the price decrease became effective. If they have already been billed for the cycle during which a price decrease occurred, they will receive a refund during their next billing cycle to cover the decreased price.

Simplified Currency Pricing

Starting September 1 2018, a new section called **Simplified Currency Pricing** will be added to the portal. Microsoft is streamlining the Azure Marketplace business by enabling more predictable pricing and collections from your customers across the world. This streamlining will include reducing the number of currencies in which we invoice your customers.

The new section will take pricing in these new currencies. Once all customers have been migrated to these new settlement currencies, the original pricing section will be retired and only the Simplified Currency Pricing section will remain.

You will have until November 1, 2018 to set a new price for the regions wherein the settlement currency is changing. You will not be able to increase the price for regions wherein the settlement currency is not changing.

> **NOTE**
>
> If you use APIs to publish your offer, you may see a new section within the Offer JSON. This would be annotated as `virtualMachinePricingV2` or `monthlyPricingV2`, depending upon the type of offer.

If you have any questions about this change, contact Azure Marketplace Support.

Compare Feature

When you make changes on an already published offer, you can leverage the **Compare** feature to audit the changes that have been made. To use this feature:

1. At any point in the editing process, click the **Compare** button for your offer.

2. View side-by-side versions of marketing assets and metadata.

History of Publishing Actions

To view any historical publishing activity, click on the **History** item in the left navigation menubar of Cloud Partner Portal. Here you will be able to view timestamped actions that have been taken during the lifetime of your Azure Marketplace offers.

What is Test Drive?

Test Drive is a great way to showcase your offer to potential customers by giving them the option to 'try before you buy', resulting in increased conversion and the generation of highly qualified leads.

After providing their contact information, customers can access your pre-built Test Drive experience: a hands-on, self-guided trial of your product's key features, and benefits being demonstrated in a real world implementation scenario.

Test Drive allows you to bring your product to life and generate highly qualified leads in the process.

How does a Test Drive work?

A potential customer discovers your application on the Marketplace, signs in and agrees to the terms of use. At this point, the customer receives your pre-configured environment to try for a fixed number of hours, while you receive a highly qualified lead to follow up with.

Flintfox Pricing & Promotion Execution
Flintfox International Limited

Hyper performance Pricing and Promotion Execution for any ERP

Flintfox RMx built on the Microsoft Cloud is a hyper performance pricing engine capable of handling the most complex price calculations with sub-millisecond response times. This means that you get a real time pricing engine delivering accurate prices to customers while executing sales discounts and promotiona...
sales.

RMx offers one source of the p...

Streamlined processes and pri...

Consolidate pricing systems an...
calculate pricing changes anyti...
a myriad of promotional tactics...
application.

Improved accuracy

Guard against pricing calculatio...
entry mistakes by leveraging a s...

Gain better insights and visibili...

Have a deeper understanding o...
performance updates to drive i...

CONTACT ME

TEST DRIVE

What's Test Drive?

Test Drive duration
2 hours

Products
Web apps

Publisher
Flintfox International Limited

Accounts supported
Work or school account

Categories
Operations + supply chain
Sales

Products supported

Sign in to Microsoft AppSource

Enter the email address of the account you want to use when acquiring apps on AppSource.

ⓘ The app you have selected (Flintfox Pricing & Promotion Execution) requires a work or school account to continue. Microsoft accounts are not supported for this app.

Work or school account

[someone@example.com]

Sign in

Don't have an account? **Sign up for a free account**

Flintfox Pricing & Promotion Execution
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Hyper performance Pricing and Promotion Execution for any ERP

Flintfox RMx built on the Microsoft Cloud is a hyper performance pricing engine capable of handling the most complex price calculations with sub-millisecond response times. This means that you get a real time pricing engine delivering accurate prices to customers while executing sales discounts and promotiona...
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Guard against pricing calculatio...
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Gain better insights and visibili...

Have a deeper understanding o...
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promotions, and complex free goods offers.

CONTACT ME

TEST DRIVE

What's Test Drive?

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Products
Web apps

Publisher
Flintfox International Limited

Accounts supported
Work or school account

Categories
Operations + supply chain
Sales

Products supported
Dynamics

One more thing ...

Flintfox Pricing & Promotion Execution
By Flintfox International Limited

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You're signed in as John Doe (johndoe@contoso.com).

Continue

And here below is an example of how an offer looks when it needs time to deploy:

Apps > Yellowfin for Azure > Test Drive

Test Drive
Yellowfin for Azure
by Yellowfin

✓ **Your Test Drive is ready** (0 hours 58 minutes remaining)

Access the test drive at this URL: https://XYZ.com
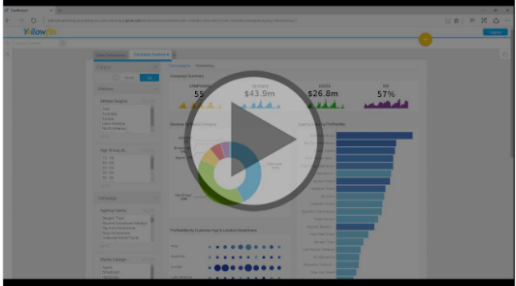
Use following information to login - Username: <Username here>, and Password: <Password here>

Test Drive details

Spend an hour test driving Yellowfin, and find out how hundreds of thousands of people like you, use Yellowfin every day to improve their business performance. Yellowfin provides the insight you need to make better business decisions - from monitoring sales activity, assessing risk, measuring project success, or tracking key financial indicators. Yellowfin allows reporting from data stored in relational databases, multi-dimensional cubes or in-memory analytical databases. In this test drive you can create views, reports and dashboards on Ski Team Tutorial/Sample data. Step by Step instructions are provided in the user manual and in the steps below. Please select "Start Trial" to start the test drive, and have fun!

Documentation
Test Drive User Manual

About this Test Drive

Apps > Yellowfin for Azure > Test Drive

Test Drive
Yellowfin for Azure
by Yellowfin

🕐 **Test Drive complete**
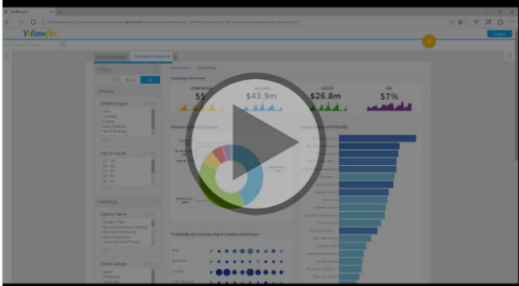
GET IT NOW   REPEAT TEST DRIVE

Test Drive details

Spend an hour test driving Yellowfin, and find out how hundreds of thousands of people like you, use Yellowfin every day to improve their business performance. Yellowfin provides the insight you need to make better business decisions - from monitoring sales activity, assessing risk, measuring project success, or tracking key financial indicators. Yellowfin allows reporting from data stored in relational databases, multi-dimensional cubes or in-memory analytical databases. In this test drive you can create views, reports and dashboards on Ski Team Tutorial/Sample data. Step by Step instructions are provided in the user manual and in the steps below. Please select "Start Trial" to start the test drive, and have fun!

Documentation
Test Drive User Manual

About this Test Drive

No matter how complex your application, your Microsoft Test Drive helps you bring your product to life for the customer. Today we offer three different types of Test Drives based on the type of product, scenario, and marketplace you are on.

- **Azure Resource Manager**: An Azure Resource Manager Test Drive is a deployment template that contains all the Azure resources that comprise a solution being built by the publisher. Products that fit this scenario are ones that use only Azure resources.
- **Logic App**: A Logic App Test Drive is a deployment template that is meant to encompass all complex solution architectures. All Dynamics applications or custom products should use this type of Test Drive.
- **Power BI**: A Power BI Test Drive is simply an embedded link to a custom built dashboard. Any product that wants to just demonstrate an interactive Power BI visual should use this type of Test Drive. All you need to upload here is your embedded Power BI URL.

What goes on in the background?

The Test Drive service is built to continuously support and serve your customers without requiring any manual effort from you. As a Publisher, your job is to manage and configure the Test Drive settings from theCloud Partner Portal, and then that setting will directly be available for your customers.

That is because after setting your configurations for your Test Drive, each Test Drive becomes a managed instance that will be deployed on demand for the customer requesting it. Once a Test Drive instance is assigned, the Test Drive is available for use for the set amount of time and then it is deleted to create room for another customer.

Next steps

Now that you know what a Test Drive is all about, go visit the specific Test Drive type that you want to go publish to learn all about the required fields needed.

- **Azure Resource Manager**
- **Logic App**

If you have more questions, are looking for troubleshooting advice, or want to make your Test Drive more successful, please go to FAQ, Troubleshooting, & Best Practices.

Azure Resource Manager Test Drive

This article is for Publishers who have their offer on the Azure Marketplace, or who are on AppSource but want to build their Test Drive with only Azure resources.

An Azure Resource Manager (Azure Resource Manager) template is a coded container of Azure resources that you design to best represent your solution. If you are unfamiliar with what a Resource Manager template is, read up on understanding ARM templates and authoring ARM templates to make sure you know how to build and test your own templates.

What Test Drive does is that it takes the provided Resource Manager template and makes a deployment of all the resources required from that Resource Manager template into a resource group.

If you choose to build an Azure Resource Manager Test Drive, the requirements are for you to:

- Build, test, and then upload your Test Drive Resource Manager template.
- Configure all required metadata and settings to enable your Test Drive.
- Republish your offer with Test Drive enabled.

How to build an Azure Resource Manager Test Drive

The most important part about building an Azure Resource Manager Test Drive is to define what scenario(s) you want your customers to experience. Are you a firewall product and you want to demo how well you handle script injection attacks? Are you a storage product and you want to demo how fast and easy your solution compresses files?

Make surety spend a sufficient amount of time evaluating what are the best ways to show off your product. Specifically around all the required resources you would need, as it makes the architecting of the Resource Manager template sufficiently easier.

To continue with our firewall example, the architecture may be that you need a public IP URL for your service and another public IP URL for the website that your firewall is protecting. Each IP is deployed on a Virtual Machine and connected together with a network security group + network interface.

Once you have architected the desired package of resources, now comes the writing and building of the Test Drive Resource Manager template.

Writing Test Drive Resource Manager templates

Test Drive runs deployments in a fully automated mode, and because of that, Test Drive templates have some restrictions described below.

Parameters

Most templates have a set of parameters. Parameters define resource names, resources sizes (for example, types of storage accounts or virtual machine sizes), user names and passwords, DNS names and so on. When you deploy solutions using Azure portal, you can manually populate all these parameters, pick available DNS names or storage account names, and so on.

However, Test Drive works in a fully automatic mode, without human interaction, so it only supports a limited set of parameter categories. If a parameter in the Test Drive Resource Manager template doesn't fall into one of the supported categories, you must **replace this parameter with a variable or constant value.**

You can use any valid name for your parameters, Test Drive recognizes parameter category by using metadata-type value. You **must specify metadata-type for every template parameter**, otherwise your template will not pass validation:

```
  "parameters": {
    ...
    "username": {
      "type": "string",
      "metadata": {
        "type": "username"
      }
    },
    ...
  }
```

It is also important to note that **all parameters are optional**, so if you don't want to use any, you don't have to.

Accepted Parameter Metadata Types

METADATA TYPE	PARAMETER TYPE	DESCRIPTION	SAMPLE VALUE
baseuri	string	Base URI of your deployment package	https://<..>.blob.core.windows.net/<..>
username	string	New random user name.	admin68876
password	secure string	New random password	Lp!ACS^2kh
session id	string	Unique Test Drive session ID (GUID)	b8c8693e-5673-449c-badd-257a405a6dee

username

Test Drive initializes this parameter with a **Base Uri** of your deployment package, so you can use this parameter to construct Uri of any file included into your package.

```
  "parameters": {
    ...
    "baseuri": {
      "type": "string",
      "metadata": {
        "type": "baseuri",
        "description": "Base Uri of the deployment package."
      }
    },
    ...
  }
```

Inside your template, you can use this parameter to construct a Uri of any file from your Test Drive deployment package. The example below shows how to construct a Uri of the linked template:

```
  "templateLink": {
    "uri": "[concat(parameters('baseuri'),'templates/solution.json')]",
    "contentVersion": "1.0.0.0"
  }
```

username

Test Drive initializes this parameter with a new random user name:

```
"parameters": {
  ...
  "username": {
    "type": "string",
    "metadata": {
      "type": "username",
      "description": "Solution admin name."
    }
  },
  ...
}
```

Sample value:

```
admin68876
```

You can use either random or constant usernames for your solution.

password

Test Drive initializes this parameter with a new random password:

```
"parameters": {
  ...
  "password": {
    "type": "securestring",
    "metadata": {
      "type": "password",
      "description": "Solution admin password."
    }
  },
  ...
}
```

Sample value:

```
Lp!ACS^2kh
```

You can use either random or constant passwords for your solution.

session ID

Test Drive initialize this parameter with a unique GUID representing Test Drive session ID:

```
"parameters": {
  ...
  "sessionid": {
    "type": "string",
    "metadata": {
      "type": "sessionid",
      "description": "Unique Test Drive session id."
    }
  },
  ...
}
```

Sample value:

```
b8c8693e-5673-449c-badd-257a405a6dee
```

You can use this parameter to uniquely identify the Test Drive session, if it's necessary.

Unique Names

Some Azure resources, like storage accounts or DNS names, requires globally unique names.

This means that every time Test Drive deploys the Resource Manager template, it creates a **new resource group with a unique name** for all its' resources. Therefore it is required to use the uniquestring function concatenated with your variable names on resource group IDs to generate random unique values:

```
"variables": {
...
"domainNameLabel": "[concat('contosovm',uniquestring(resourceGroup().id))]",
"storageAccountName": "[concat('contosodisk',uniquestring(resourceGroup().id))]",
...
}
```

Make sure you concatenate your parameter/variable strings ('contosovm') with a unique string output ('resourceGroup().id'), because this guarantees the uniqueness and reliability of each variable.

For example, most resource names cannot start with a digit, but unique string function can return a string, which starts with a digit. So, if you use raw unique string output, your deployments will fail.

You can find additional information about resource naming rules and restrictions in this article.

Deployment Location

You can make you Test Drive available in different Azure regions. The idea is to allow a user to pick the closest region, to provide with the beast user experience.

When Test Drive creates an instance of the Lab, it always creates a resource group in the region chose by a user, and then executes your deployment template in this group context. So, your template should pick the deployment location from resource group:

```
"variables": {
  ...
  "location": "[resourceGroup().location]",
  ...
}
```

And then use this location for every resource for a specific Lab instance:

```
"resources": [
  {
    "type": "Microsoft.Storage/storageAccounts",
    "location": "[variables('location')]",
    ...
  },
  {
    "type": "Microsoft.Network/publicIPAddresses",
    "location": "[variables('location')]",
    ...
  },
  {
    "type": "Microsoft.Network/virtualNetworks",
    "location": "[variables('location')]",
    ...
  },
  {
    "type": "Microsoft.Network/networkInterfaces",
    "location": "[variables('location')]",
    ...
  },
  {
    "type": "Microsoft.Compute/virtualMachines",
    "location": "[variables('location')]",
    ...
  }
]
```

You need to make sure that your subscription is allowed to deploy all the resources you want to deploy in each of the regions you are selecting. As well, you need to make sure that your virtual machine images are available in all the regions you are going to enable, otherwise your deployment template will not work for some regions.

Outputs

Normally with Resource Manager templates, you can deploy without producing any output. This is because you know all the values you use to populate template parameters and you can always manually inspect properties of any resource.

For Test Drive Resource Manager templates however, it's important to return to Test Drive all the information, which is required to get an access to the lab (Website URIs, Virtual Machine host names, user names, and passwords). Make sure all your output names are readable because these variables are presented to the customer.

There are no any restrictions related to template outputs. Just remember, Test Drive converts all output values into **strings**, so if you send an object to the output, a user will see JSON string.

Example:

```
"outputs": {
  "Host Name": {
    "type": "string",
    "value": "[reference(variables('pubIpId')).dnsSettings.fqdn]"
  },
  "User Name": {
    "type": "string",
    "value": "[parameters('adminName')]"
  },
  "Password": {
    "type": "string",
    "value": "[parameters('adminPassword')]"
  }
}
```

Subscription Limits

One more thing you should take into consideration is subscription and service limits. For example, if you want to deploy up to ten 4-core virtual machines, you need to make sure the subscription you use for your Lab allows you to use 40 cores.

You can find more information about Azure subscription and service limits in this article. As multiple Test Drives can be taken at the same time, verify that your subscription can handle the # of cores multiplied by the total number of concurrent Test Drives that can be taken.

What to upload

Test Drive Resource Manager template is uploaded as a zip file, which can include various deployment artifacts, but needs to have one file named **main-template.json**. This file is Azure Resource Manager deployment template, and Test Drive uses it to instantiate a Lab.

If you have additional resources beyond this file, you can reference it as an external resource inside the template, or you can include the resource in the zip file.

During the publishing certification, Test Drive unzips your deployment package and puts its content into an internal Test Drive blob container. The container structure reflects the structure of your deployment package:

PACKAGE.ZIP	TEST DRIVE BLOB CONTAINER
main-template.json	https://<…>.blob.core.windows.net/<…>/main-template.json
templates/solution.json	https://<…>.blob.core.windows.net/<…>/templates/solution.json
scripts/warmup.ps1	https://<…>.blob.core.windows.net/<…>/scripts/warmup.ps1
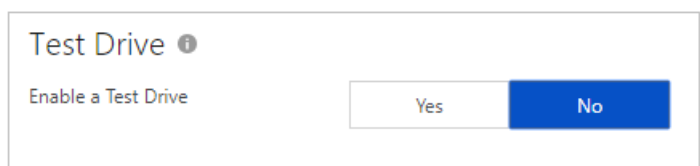
We call a Uri of this blob container Base Uri. Every revision of your Lab has its own blob container, and, therefore, every revision of your Lab has its own Base Uri. Test Drive can pass a Base Uri of your unzipped deployment package into your template through template parameters.

Transforming Template Examples for Test Drive

The process from turning an architecture of resources into a Test Drive Resource Manager template can be daunting. In order to help make this process easier, we've made examples on how to best transform current deployment templates here.

How to publish a Test Drive

Now that you have your Test Drive built, this section walks through each of the fields required for you to successfully publish your Test Drive.

The first and most important field is to toggle whether you want Test Drive enabled for your offer or not. When you select **Yes,** the rest of the form with all of the required fields are presented for you to fill out. When you select **No,** the form becomes disabled and if you republish with the Test Drive disabled, your Test Drive is removed from production.

Note: If there are any Tests Drives actively used by users, those Test Drives will continue to run until their session expires.

Details

The next section to fill out is the details about your Test Drive offer.

Description - *Required* This is where you write the main description about what is on your Test Drive. The customer will come here to read what scenarios your Test Drive will be covering about your product.

User Manual - *Required* This is the in-depth walkthrough of your Test Drive experience. The customer will open this and can walk through exactly what you want them to do throughout their Test Drive. It is important that this content is easy to understand and follow! (Must be a .pdf file)

Test Drive Demo Video - *Recommended* Similar to the User Manual, it is best to include a video tutorial of your Test Drive experience. The customer will watch this prior or during their Test Drive and can walk through exactly what you want them to do throughout their Test Drive. It is important that this content is easy to understand and follow!

- **Name** - Title of your Video
- **Link** - Must be an embedded URL from your tube or video. Example on how to get the embedded url is below:
- **Thumbnail** - Must be a high-quality image (533x324) pixels. It is recommended to take a screenshot of some part of your Test Drive experience here.

Below is how these fields show up for your customer during their Test Drive experience.

Technical Configuration

The next section to fill out is where you upload your Test Drive Resource Manager template and define how specifically your Test Drive instances work.

Instances - *Required* This is where you configure how many instances you want, in what region(s), and how fast your customers can get the Test Drive.

- **Instances** - The Select regions is where you pick where your Test Drive Resource Manager template is deployed in. It is recommended to just pick one region where you most expect your customers to be located at.
- **Hot** - Number of Test Drive instances that are already deployed and awaiting access per selected region. Customers can instantly access this Test Drives rather than having to wait for a deployment. The tradeoff is that these instances are always running on your Azure subscription, so they will incur a larger uptime cost. It is highly recommended to have **at least one Hot instance**, as most of your customers don't want to wait for full deployments to finish and so there is a drop-off in customer usage.
- **Warm** - Number of Test Drive instances per region that have been deployed and then the VM has been stopped and stored in Azure storage. The wait time for Warm instances is slower than Hot instances, but the uptime cost of storage is also less expensive.
- **Cold** - Number of Test Drive instances per region that can possibly be deployed. Cold instances require the entire Test Drive Resource Manager template to go through a deployment at the time of a customer requesting the Test Drive, so it is slower than Hot or Warm instances. However, the tradeoff is that you only have to pay for the duration of the Test Drive.

At this time calculates the total number of potential concurrent Test Drives you are going to make available, and verify that your quota limit for your subscription can handle that concurrent amount:

(Number of Regions Selected x Hot instances) + (Number of Regions Selected x Warm instances) + (Number of Regions Selected x Cold instances)

Test Drive Duration (hours) - *Required* Duration for how long the Test Drive will stay active, in # of hours. The Test Drive terminates automatically after this time period ends.

Test Drive Resource Manager template - *Required* Upload your Resource Manager template here. This is the file you built in the previous section above. Name the main template file: "main-template.json" and make sure that your Resource Manager template contains output parameters for key variables that are needed. (Must be a .zip file)

Access Information - *Required* After a customer gets their Test Drive, the access information is presented to them.

These instructions are meant to share the useful output parameters from your Test Drive Resource Manager template. To include output parameters, use double curly brackets (for example, **{{outputname}}**), and they will be inserted correctly in the location. (HTML string formatting is recommended here to render in the front end).

Test Drive Deployment Subscription Details

The final section to fill out is to be able to deploy the Test Drives automatically by connecting your Azure Subscription and Azure Active Directory (AD).

Test Drive Deployment Subscription Details

In order to deploy the Test Drive on your behalf, please create and provide a separate, unique Azure Subscription. Click here for help filling out this section of the form.

Azure Subscription Id *

Azure AD Tenant Id *

Azure AD App Id *

Azure AD App Key *

Azure Subscription ID - *Required* This grants access to Azure services and the Azure portal. The subscription is where resource usage is reported and services are billed. If you do not already have a **separate** Azure Subscription for Test Drives only, go ahead and make one. You can find Azure Subscription Ids by logging in to Azure portal and navigating to the Subscriptions on the left-side menu. (Example: "a83645ac-1234-5ab6-6789-1h234g764ghty")

Virtual machines

Cloud services (class...

Subscriptions

Virtual networks

Azure Active Directory
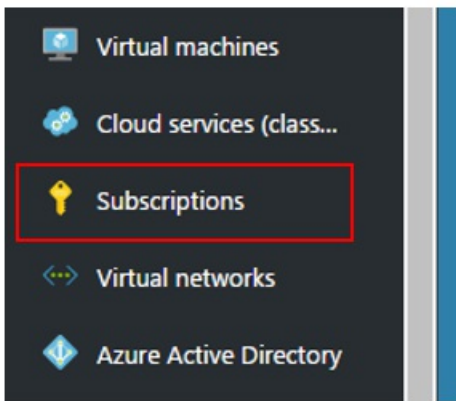
Azure AD Tenant ID - *Required* If you have a Tenant ID already available you can find it below in the Properties -> Directory ID.

Virtual machines (classic)

Virtual machines

Cloud services (classic)

Storage accounts

Storage accounts (classic)

Azure Active Directory

Azure AD Connect

Domain names

Mobility (MDM and MAM)

Company branding

User settings

Properties

Notifications settings
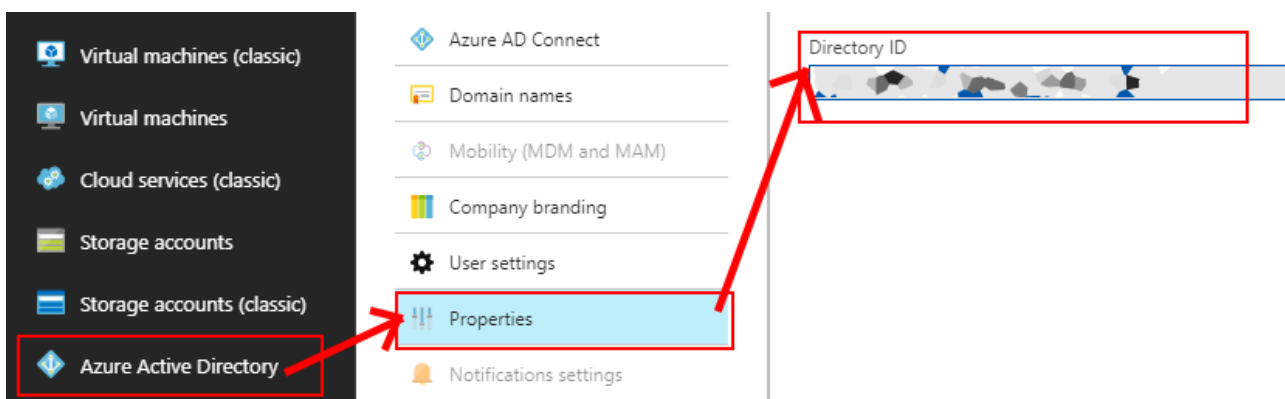
Directory ID

Otherwise, create a new Tenant in Azure Active Directory.
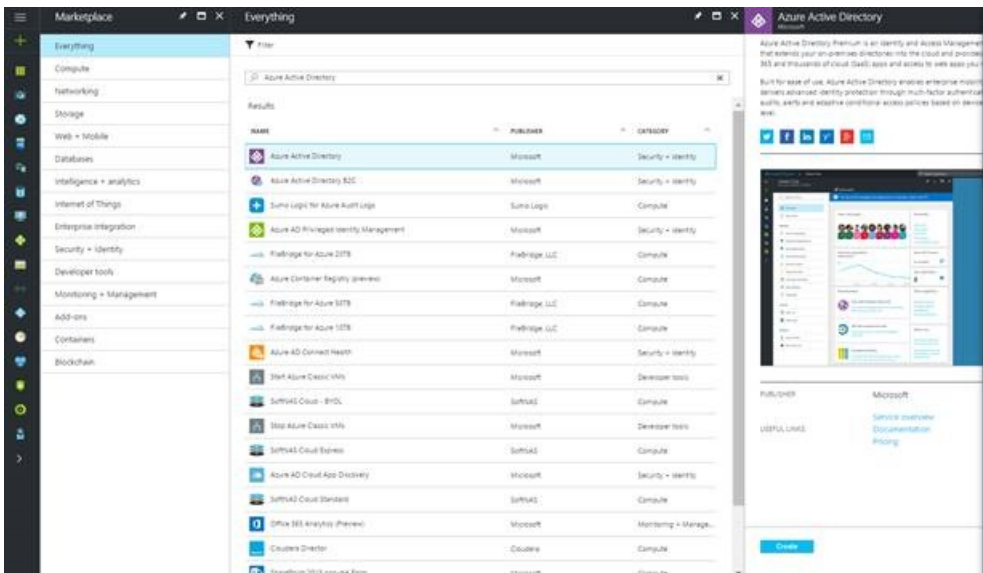
Azure AD App ID - *Required* Next step is to create and register a new application. We will use this application to perform operations on your Test Drive instance.

1. Navigate to the newly created directory or already existing directory and select Azure Active directory in the filter pane.
2. Search "App registrations" and click on "Add"
3. Provide an application name.
4. Select the Type of as "Web app / API"
5. Provide any value in Sign-on URL, we won't be using that field.
6. Click create.
7. After the application has been created, go to Properties -> Set the application as multi-tenant and hit Save.

Click Save. The last step is to grab the Application ID for this registered app and paste it in the Test Drive field here.

Given we are using the application to deploy to the subscription, we need to add the application as a contributor on the subscription. The instructions for these are as below:

1. Navigate to the Subscriptions blade and select the appropriate subscription that you are using for the Test Drive only.
2. Click **Access control (IAM)**.
3. Click the **Role assignments** tab.

4. Click **Add role assignment**.
5. Set the role as **Contributor**.
6. Type in the name of the Azure AD application and select the application to assign the role.

7. Click **Save**.

Azure AD App Key - *Required* The final field is to generate an authentication key. Under keys, add a Key Description, set the duration to never expire, then select save. It is **important** to avoid having an expired key, which will break your test drive in production. Copy this value and paste it into your required Test Drive field.

Next steps

Now that you have all of your Test Drive fields filled out, go through and **Republish** your offer. Once your Test Drive has passed certification, you should go an extensively test the customer experience in the **preview** of your offer. Start a Test Drive in the UI and then open up your Azure Subscription inside the Azure portal and verify that your Test Drives are being fully deployed correctly.

It is important to note that you do not delete any Test Drive instances as they are provisioned for your customers, so the Test Drive service will automatically clean these Resource Groups up after a customer is finished with it.

Once you feel comfortable with your Preview offering, now it is time to **go live**! There is a final review process from Microsoft once the offer has been published to double check the entire end to end experience. If for some reason the offer gets rejected, we will send a notification to the engineering contact for your offer explaining what will need to get fixed.

If you have more questions, are looking for troubleshooting advice, or want to make your Test Drive more successful, please go to FAQ, Troubleshooting, & Best Practices.

Hosted Test Drive

A Hosted Test Drive removes the complexity of setup by Microsoft hosting and maintain the service that performs the Test Drive user provisioning and deprovisioning. This article is for Publishers who have their offer on AppSource or are building a new one and want to offer a Hosted Test Drive, which connects with a Dynamics 365 for Customer Engagement, Dynamics 365 for Finance and Operations, or Dynamics 365 Business Central instance.

How to publish a Test Drive

Navigate to existing offer or create a new offer.

Select the Test Drive option from the side menu.

Select 'Yes' for 'Enable a Test Drive' option.

Provide the following fields in the 'Details' section.

- **Description**: Provide an overview of your Test Drive. This text will be shown to the user while the Test Drive is being provisioned. This field supports HTML if you want to provide formatted content.
- **User Manual**: Upload a detailed user manual (file of type .pdf) which helps Test Drive users understand how to use your App.
- **Test Drive Demo Video**: Optionally upload a video that showcases your App.

Grant AppSource permission to provision and deprovision Test Drive users in your tenant using the instructions located here.

In this step, you will generate the 'Azure AD App Id' and 'Azure AD App Key' values mentioned below.

Provide the following fields in the 'Technical Configuration' section:

- **Type of Test Drive**: Choose 'Microsoft Hosted (example Dynamics 365 for Customer Engagement)' option. This indicates that Microsoft will host and maintain the service that performs the Test Drive user provisioning and deprovisioning.
- **Max Concurrent Test Drives**: Set this field to the number of concurrent users that can have an active Test Drive at any given point of time. Each user will consume a Dynamics license while their Test Drive is active, so you will need to ensure you have at least this many Dynamics licenses available for Test Drive users. Recommended value of 3-5.
- **Test Drive Duration (hours)**: Set this field to the number of hours the users Test Drive will be active for. After this many hours, the user will be deprovisioned from your tenant. Recommended value of 2-24 hours depending on the complexity of your App. The user can always request another Test Drive if they run out of time and want to access the Test Drive again.
- **Instance URL**: Provide a URL that the Test Drive user will initially be navigated to when they start the Test Drive. This is typically the URL of your Dynamics 365 instance that has your App and sample data installed onto. Example Value:https://testdrive.crm.dynamics.com
- **Azure AD Tenant ID**: Provide the ID of the Azure Tenant for your Dynamics 365 Instance. To retrieve this value, login to Azure portal and navigate to 'Azure Active Directory' -> Select Properties from menu blade -> Copy the Directory ID. Example value: 72f988bf-86f1-41af-91ab-2d7cd0111234
- **Azure AD App ID**: ID of the Azure AD App you created in step 7.\ Example Value: 53852862-a2ae-4e43-9461-faa49650a096
- **Azure AD App Key**: Secret for the Azure AD App created in step 7.\ Example Value:

IJUgaIOfq9b9LbUjeQmzNBW4VGn6grr1l/n3aMrnfdk=

- **Azure AD Tenant Name**: Provide the name of the Azure Tenant for your Dynamics 365 Instance. Use the format of <tenantname.>onmicrosoft.com. Example Value: testdrive.onmicrosoft.com
- **Instance Web API URL**: Provide the Web API URL for your Dynamics 365 Instance. You can retrieve this value by logging into your Microsoft Dynamics 365 instance and navigating to Setting -> Customization -> Developer Resources -> Instance Web API (Copy this URL). Example value: https://testdrive.crm.dynamics.com/api/data/v9.0
- **Role name**: Provide the name of the custom Dynamics 365 Security Role you have created for Test Drive. This is the role that will be assigned to users during their Test Drive. Example Value: testdriverole

Next steps

When ready **publish** your offer, after your app has passed certification, you will have a **preview** of your offer. Start a Test Drive in the UI and verify that your Test Drives are running correctly. Once you feel comfortable with your preview offering, now it is time to **go live!**

Logic App Test Drive

12/11/2018 • 6 minutes to read • Edit Online
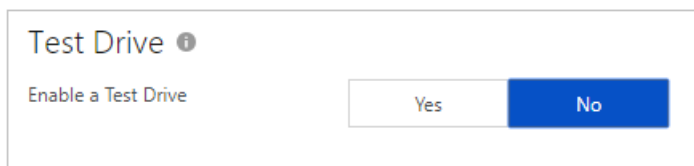
This article is for Publishers who have their offer on AppSource and want to build their Test Drive that connects with a Dynamics AX/CRM instance or any other resource beyond just Azure.

How to build a Logic App Test Drive

Test Drive documentation for Logic App Test Drives is currently still on GitHub for Operations and Customer Engagement, go there to read more.

How to publish a Test Drive

Now that you have your Test Drive built, this section walks through each of the fields required for you to successfully publish your Test Drive.
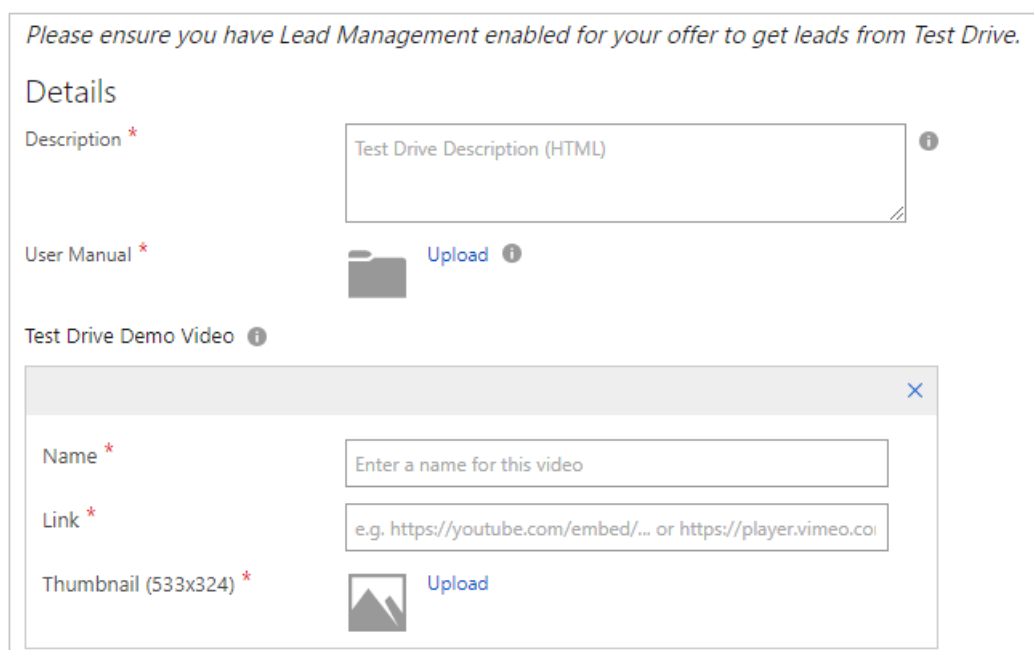
The first and most important field is to toggle whether you want Test of the form with all of the required fields are presented for you to fill out. When you select **No,** the form becomes disabled and if you republish with the Test Drive disabled, your Test Drive is removed from production.

Note: If there is any Test Drives actively used by users, those Test Drives will continue to run until their session expires.

Details

The next section to fill out is the details about your Test Drive offer.

Description - *[Required Field]* This is where you write the main description about what is on your Test Drive. The customer will come here to read what scenarios your Test Drive will be covering about your product.

User Manual - *[Required Field]* This is the in-depth walkthrough of your Test Drive experience. The customer will open this and can walk through exactly what you want them to do throughout their Test Drive. It is important that this content is easy to understand and follow! (Must be a .pdf file)

Test Drive Demo Video - [Recommended] Similar to the User Manual, it is best to include a video tutorial of your Test Drive experience. The customer will watch this prior or during their Test Drive and can walk through exactly what you want them to do throughout their Test Drive. It is important that this content is easy to understand and follow!

- **Name** - Title of your Video
- **Link** - Must be an embedded URL from YouTube or Vimeo. Example on how to get the embedded url is below:
- **Thumbnail** - Must be a high-quality image (533x324) pixels. It is recommended to take a screenshot of some part of your Test Drive experience here.

Below is how these fields show up for your customer during their Test Drive experience.
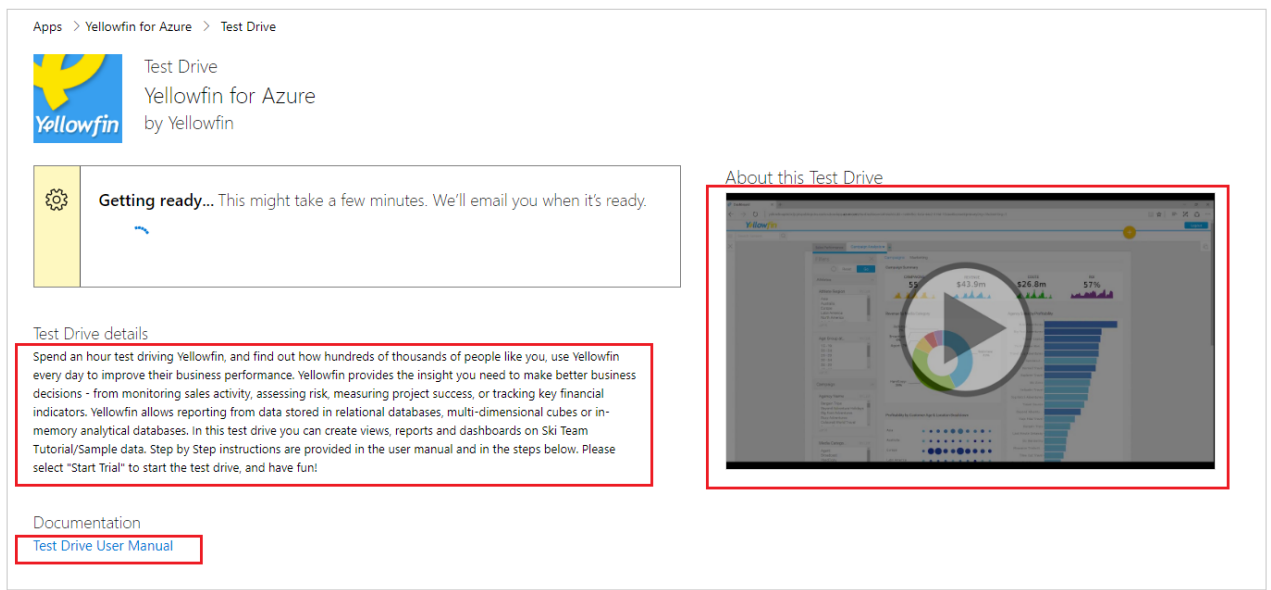
Technical Configuration

The next section to fill out is where you configure your Test Drive Logic App and define how specifically your Test Drive instances work.

- **Region** - *[Required Field]* The region you select is where you pick where your Test Drive Logic App resources are deployed in.

  Note: If your Logic App has any custom resources that are stored in a region, make sure that region is selected here. The best way to do this is to **fully deploy your Logic App locally on your Azure subscription in the portal and verify that it works** before writing it in here.

- **Maximum Concurrent Test Drives** - *[Required Field]* Number of Test Drive instances that are already deployed and awaiting access per selected region. Customers can instantly access this Test Drives rather than having to wait for a deployment.

  Note: If you are running a webinar/class where you want all of your N number of students to take a Test Drive, it is recommended to publish with N number of Hot instances and then once the class is over to republish back to your normal number of Hot instances.

- **Test Drive Duration (hours) -** *[Required Field]* Duration for how long the Test Drive will stay active, in # of hours. The Test Drive terminates automatically after this time period ends.

- **Azure Resource Group Name -** *[Required Field]* Write in the Resource Group name where your Logic App Test Drives are saved.

- **Assign Logic App Name -** *[Required Field]* Write in the Logic App that is used to assign a user in the Test Drive before the customer gets it, write in the name of that Logic App here. Make sure this file is saved in the Resource Group above.

- **Deprovision Logic App Name -** *[Required Field]* Write in the Logic App name for your deprovisioning of all the resources created in the Test Drive. Make sure this file is saved in the Resource Group above.

- **Access Information -** *[Required Field]* After a customer gets their Test Drive, the access information is presented to them. These instructions are meant to share the useful output parameters from your Test Drive Resource Manager template. To include output parameters, use double curly brackets (for example, **{{outputname}}**), and they will be inserted correctly in the location. (HTML string formatting is

recommended here to render in the front end).

Test Drive Deployment Subscription Details

The final section to fill out is to be able to deploy the Test Drives automatically by connecting your Azure Subscription and Azure Active Directory (AD).

Azure Subscription ID *[Required Field]* This grants access to Azure services and the Azure portal. The subscription is where resource usage is reported and services are billed. If you do not already have a **separate** Azure Subscription for Test Drives only, please go ahead and make one. You can find Azure Subscription Ids by logging in to Azure portal and navigating to the Subscriptions on the left-side menu. (Example: "a83645ac-1234-5ab6-6789-1h234g764ghty")
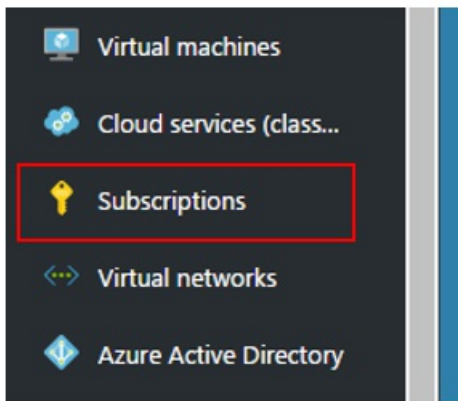
Azure AD Tenant ID *[Required Field]* If you have a Tenant ID already available you can find it below in the Properties -> Directory ID.
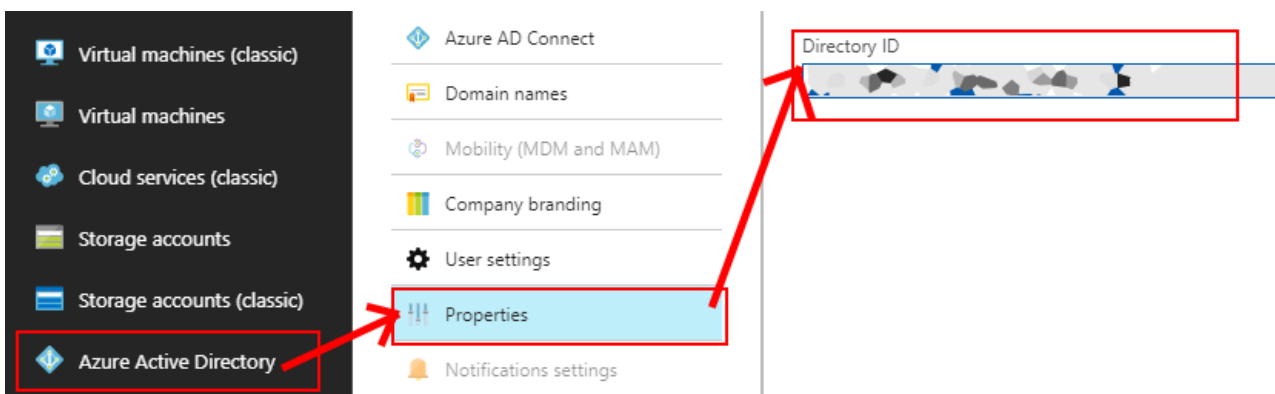
Otherwise, create a new Tenant in Azure Active Directory.
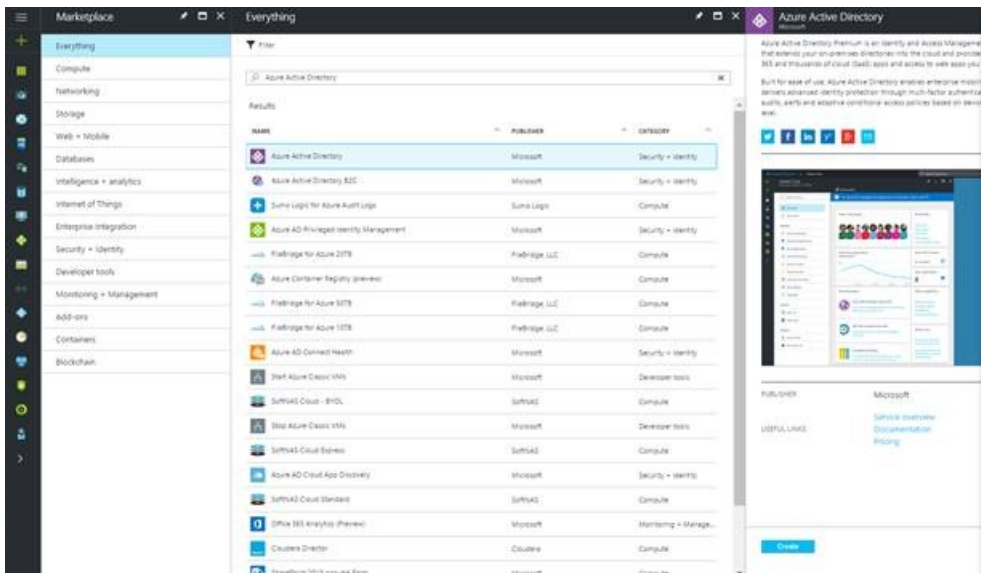
!Azure Active Directory](./media/azure-resource-manager-test-drive/subdetails5.png)

Azure AD App ID *[Required Field]* Next step is to create and register a new application. We will use this application to perform operations on your Test Drive instance.

1. Navigate to the newly created directory or already existing directory and select Azure Active directory in the filter pane.
2. Search "App registrations" and click on "Add"
3. Provide an application name.
4. Select the Type of as "Web app / API"
5. Provide any value in Sign-on URL, we won't be using that field.
6. Click create.
7. After the application has been created, go to Properties -> Set the application as multi-tenant and hit Save.

Click Save. The last step is to grab the Application ID for this registered app and paste it in the Test Drive field here.

Given we are using the application to deploy to the subscription, we need to add the application as a contributor on the subscription. The instructions for these are as below:

1. Navigate to the Subscriptions blade and select the appropriate subscription that you are using for the Test Drive only.
2. Click **Access control (IAM)**.
3. Click the **Role assignments** tab.

4. Click **Add role assignment**.
5. Set the role as **Contributor**.
6. Type in the name of the Azure AD application and select the application to assign the role.

7. Click **Save**.

Azure AD App Key - *[Required Field]* The final field is to generate an authentication key. Under keys, add a Key Description, set the duration to never expire, then select save. It is **important** to avoid having an expired key, which will break your test drive in production. Copy this value and paste it into your required Test Drive field.

Next steps

Now that you have all of your Test Drive fields filled out, go through and **Republish** your offer. Once your Test Drive has passed the certification process, you should go an extensively test the customer experience in the **preview** of your offer. Start a Test Drive in the UI and verify that your Test Drives are being fully deployed correctly.

It is important to note that you do not delete any part of the Test Drive as they are provisioned for your customers, so the Test Drive service will automatically clean these Resource Groups up after a customer is finished with it.

Once you feel comfortable with your Preview offering, now it is time to **go live**! There is a final review process from Microsoft once the offer has been published to double check the entire end to end experience. If for some reason the offer gets rejected, we will send a notification to the engineering contact for your offer explaining what will need to get fixed.

If you have more questions, are looking for troubleshooting advice, or want to make your Test Drive more successful, please go to FAQ,Troubleshooting, & Best Practices.

Transforming Examples for Test Drive

10/4/2018 • 2 minutes to read • Edit Online

The process from turning an architecture of resources into a Test Drive Logic app or Resource Manager template can be daunting. In order to help make this process easier, we've made three examples on how to best transform current architectures:

Transform Website Template into Test Drive

https://github.com/Azure/AzureTestDrive/wiki/Transforming-Website-Deployment-Template-for-Test-Drive

Transform Virtual Machine Template into Test Drive

https://github.com/Azure/AzureTestDrive/wiki/Transforming-Virtual-Machine-Deployment-Template-for-Test-Drive

Transform Existing Resource Manager templates into Test Drive

https://github.com/Azure/AzureTestDrive/wiki/Deploying-Existing-Solutions

If you have more questions, are looking for troubleshooting advice, or want to make your Test Drive more successful, please go to Test Drive Marketing and Best Practices.

Test Drive Marketing and Best Practices

10/4/2018 • 2 minutes to read • Edit Online

Azure Marketplace Test Drive is a great tool for marketers, and we recommend be incorporated in your go-to-market efforts when you launch. We have several best practices we recommend you do immediately when you publish that will greatly support generating more leads from Test Drive:

- **Referral page**: Post a page on your web presence that talks all about your Azure Test Drive and post multiple referral links directing traffic to your test drive
- **Social Media**: Create a schedule where you post on your social media channels about your test drive on a regular basis
- **Blogs**: Write a blog post about your Azure test drive. Highlight the features and benefits the user will get to experience free of charge and in very little time. Be sure to link to your Azure test drive page in multiple places in the blog copy. Here is a link to a sample blog post about Azure test drive. Even better? Post links to your blog post on your social media channels.
- **Email nurturing**: Inform leads that have engaged with your brand via other channels over email to inform them about the test drive and encourage them to try it out for free.
- **Sales training and tools**: Set up a training session with your sales teams to demo the test drive experience and come up with a few ways they can engage their leads and customers with it. Sales folks can set up a demo with multiple contacts at a company then send each of them the link to the test drive afterwards to take it themselves.
- **Trade shows and conferences**: Got a booth at an industry event that prospective customers will be attending? Set up a few laptops at the booth and have your test drives running so that customers can take the test drive at your booth, then talk to them about the product during and after their experience!

Lead Management

Now that you're generating highly qualified leads from test drive, you'll want to ensure you have incorporated these leads into your sales and marketing channels and you engage with prospects to turn them into paying customers. Here are some recommended practices with regards to driving leads through your sales cycle:

- Make contact with the lead within 24 hours of them taking the test drive. You will get the lead in your CRM of choice immediately after the customer deploys the test drive -- be sure to send them an email within the first 24 hours while they are still warm. Request scheduling a phone call with them to better understand what problems they are trying to solve, and to see if your product can help.
- Follow up a couple of times, but don't bombard them. We recommend you email these lead a few times before you close them out, but don't give up after the first attempt. Remember -- these customers directly engaged with your product and spent time in a free trial.
- They are great prospects!
- If you close a deal with a test drive lead be sure to register it at Partner sales connect. Also -- we would love to hear about your customer wins where test drive played a role!
- Got a success story where test drive generated a lead or helped you close a deal? Email us at amp-testdrive@microsoft.com to find out how you can get featured on our homepage!

Test Drive FAQ is located here: https://github.com/Azure/AzureTestDrive/wiki/Test-Drive-Best-Practices

Get customer leads

10/4/2018 • 4 minutes to read • Edit Online

This article explains how to create customer leads using the Cloud Partner Portal. You can connect these leads to your CRM system, and integrate them into your sales pipeline.

Leads

Leads are customers that are interested in, or are deploying your products from the Azure Marketplace or from AppSource.

Azure Marketplace

1. Customer takes a "Test Drive" of your offer. Test Drives are an accelerated opportunity for you to share your business instantly with potential customers without any barriers to entry. All Test Drives generate a lead for a customer that's interested in trying your product to learn more. Learn more about Test Drives at Azure Marketplace Test Drive.

1. Customer consents to sharing their information after selecting "Get it now". This lead is an **initial interest** lead, where we share information about customer who has expressed interest in getting your product. The lead is the top of the acquisition funnel.

2. Customer selects "Purchase" in the Azure Portal to get your product. This lead is an **active** lead, where we share information about a customer who has started to deploy your product.
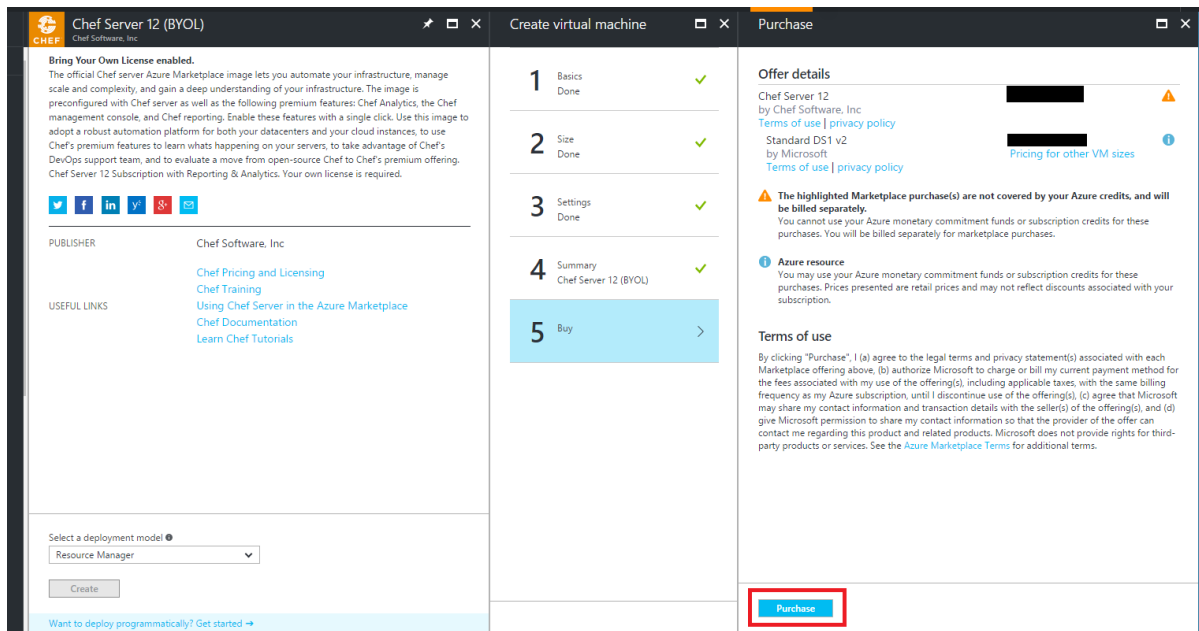
AppSource

1. Customer took a "Test Drive" for your offer. Test Drives are an accelerated opportunity for you to share your business instantly with potential customers without any barriers to entry. All Test Drives will generate a lead of a customer that's interested in trying your product to learn more. Learn more about Test Drives at AppSource Test Drive.

2. Customer consents to sharing their information after selecting "Get it now". This lead is an **initial interest**

lead, where we share information about customer who expresses interest in getting your product. The lead is the top of the acquisition funnel.

3. Customer selects "Contact me" on your offer. This lead is an**active** lead, where we share information about a customer who asks to be followed up with about your product.

Lead Data

Each lead you receive during the customer acquisition process has data in specific fields. Because you'll get leads from multiple steps, the best way to handle the leads is to de-duplicate and personalize the follow-ups. This way each customer is getting an appropriate message, and you're creating a unique relationship.

Lead Source

The format for a lead source is **Source**-**Action** | **Offer**

Sources: "AzureMarketplace", "AzurePortal", "TestDrive", and "AppSource (SPZA)"

Actions:

- "INS" -- Installation. This action is on Azure Marketplace or AppSource when a customer buys your product.
- "PLT" -- Stands for Partner Led Trial. This action is on AppSource when a customer uses the Contact me option.
- "DNC" -- Do Not Contact. This action is on AppSource when a Partner who was cross listed on your app page gets requested to be contacted. We're sharing the heads up that this customer was cross listed on your app, but they don't need to be contacted.
- "Create" -- This action is only inside the Azure Portal and is generated when a customer purchases your offer to their account.
- "StartTestDrive" -- This action is for only for Test Drives, and is generated when a customer starts their test drive.

Offers

The following examples show unique identifers that are assigned to a publisher and a specific offer: checkpoint.check-point-r77-10sg-byol, bitnami.openedxcypress, and docusign.3701c77e-1cfa-4c56-91e6-3ed0b622145a.

Customer Info

The fields in the following example show the customer information that's contained in a lead.

- FirstName: John
- LastName: Smith
- Email: jsmith@microsoft.com
- Phone: 1234567890
- Country: US
- Company: Microsoft
- Title: CTO

> **NOTE**
>
> Not all the data in the previous example is always available for each lead.

We are actively working on enhancing leads, so if there is a data field that you do not see here but would like to have, please send us your feedback.

How to connect your CRM system with the Cloud Partner Portal

To start getting leads, we've built our Lead Management connector on the Cloud Partner Portal so that you can easily plug in your CRM information, and we will make the connection for you. Now you can easily leverage the leads generated by the marketplace without a significant engineering effort to integrate with an external system.

Lead Management

Lead destination   Select an option   ▼   ⓘ Select the system where your leads will be stored.

We can write leads into a variety of CRM systems or directly to an Azure Storage Table where you can manage the leads however you'd like. Each of the following links provide instructions for connecting to possible lead

destinations:

- Dynamics CRM Online to get the instructions on how to configure Dynamics CRM Online for getting leads.
- Marketo to get the instructions for setting up Marketo Lead Configuration to get leads.
- Salesforce to get instructions for setting up your Salesforce instance to get leads.
- Azure Table to get the instructions for setting up your Azure storage account for getting leads in an Azure table.
- Https Endpoint to get the instructions for setting up your Https Endpoint to get leads.

After you configure your lead destination and Publish your offer, we'll validate the connection and send you a test lead. When you are viewing the offer before you go live, you can also test your lead connection by trying to acquire the offer yourself in the preview environment. It's important to make sure that your lead settings stay up-to-date so that you don't lose any leads, so make sure you update these connections whenever something has changed on your end.

What next?

Once the technical set up is in place, you should incorporate these leads into your current sales & marketing strategy and operational processes. We are very interested in better understanding your overall sales process and want to work closely with you on providing high-quality leads and enough data to make you successful. We welcome your feedback on how we can optimize and enhance the leads we send you with additional data to help make these customers successful. Please let us know if you're interested in providing feedback and suggestions to enable your sales team to be more successful with Marketplace Leads.

Lead Management Instructions for Azure Table

12/10/2018 • 4 minutes to read • Edit Online

This article describes how to configure Azure Table for storing sales leads. Azure Table lets you store and customize customer information.

To configure Azure Table

1. If you don't have an Azure account, you can create a free trial account.

2. After your Azure account is active, sign in to the Azure portal.

3. In the Azure portal, create a storage account. The next screen capture shows how to create a storage account. For more information about storage pricing, see storage pricing.

4. Copy the storage account connection string for the key and paste it into the **Storage Account Connection String** field on the Cloud Partner Portal. An example of a connection sting is

```
DefaultEndpointsProtocol=https;AccountName=myAccountName;AccountKey=myAccountKey;EndpointSuffix=core.windows.net
```
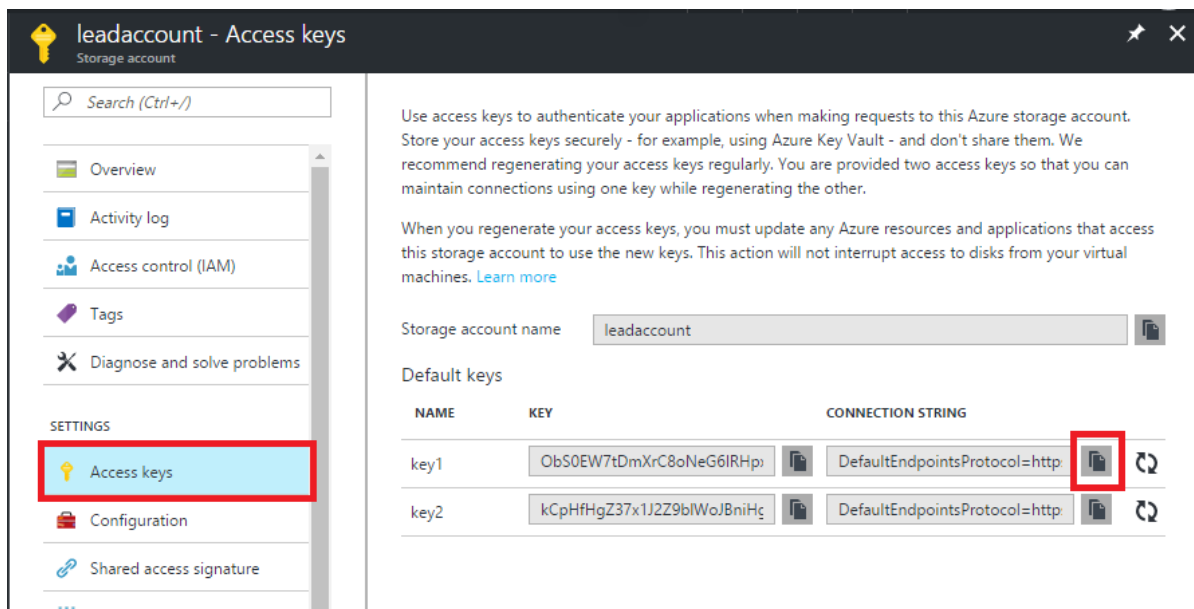
You can use Azure storage explorer or any other tool to see the data in your storage table. You can also export the data in Azure Table. data.

(Optional) Use Microsoft Flow with an Azure table

You can use Microsoft Flow to automate notifications every time a lead is added to Azure table. If you don't a have an account, you can sign up for a free account.

Lead notification example

Use this example as a guide to create a simple flow that automatically sends an email notification when a new lead is added to an Azure table. This example sets up a recurrence to send lead information every hour if table storage is updated.

1. Sign in to your Microsoft Flow account.
2. On the left navigation bar, select **My flows**.
3. On the top navigation bar, select **+ New**.
4. On the dropdown list, select **+ Create from blank**
5. Under Create a flow from blank, select **Create from blank**.
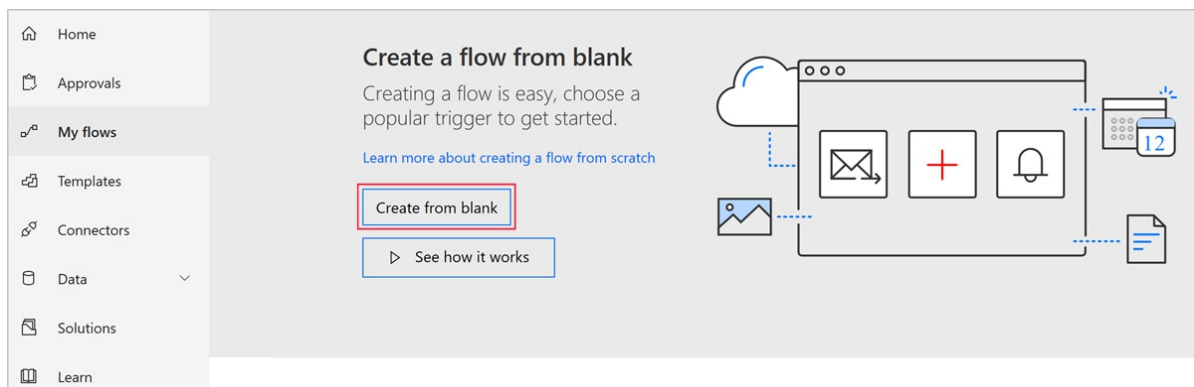
6. On the connectors and triggers search page, select **Triggers**.

7. Under **Triggers**, select **Recurrence**.

8. In the **Recurrence** window, keep the default setting of 1 for **Interval**. From the **Frequency** dropdown list, select **Hour**.
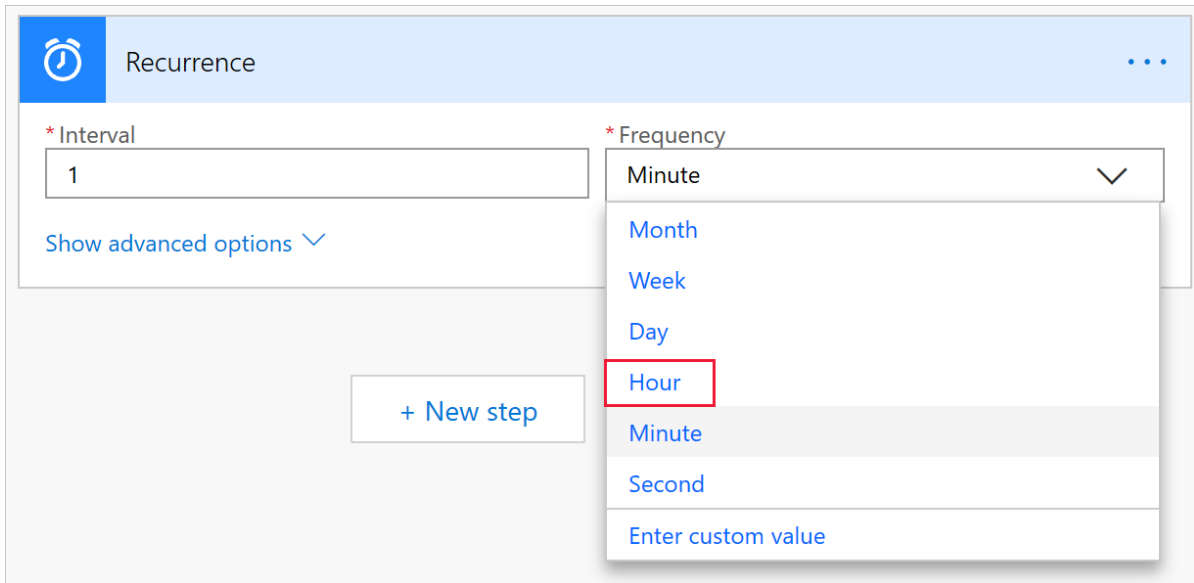
9. Select **+ New step**.

10. Search for "Get past time", and then select **Get past time** under Actions.
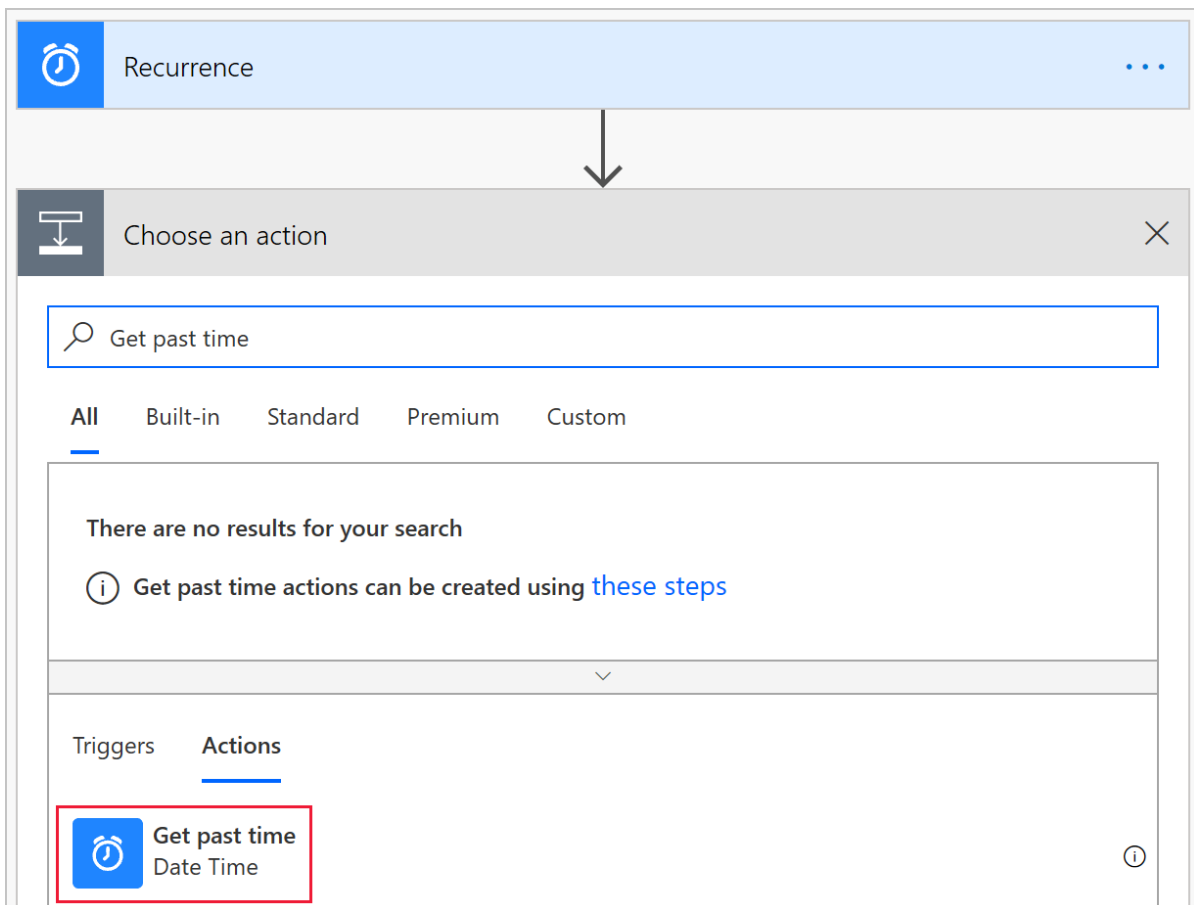
11. In the **Get past time** window, set the **Interval** to 1. From the **Time unit** dropdown list, select **Hour**.

In next set of steps, you'll connect to your Azure table, and set up the processing logic to handle new leads.

1. After the Get past time step, select **+ New step**, and then search for "Get entities".
2. Under **Actions**, select **Get entities**, and then select **Show advanced options**.
3. In the **Get entities** window, provide information for the following fields:

- **Table** – Enter the name of your Azure Table Storage. The next screen capture shows the prompt when "MarketPlaceLeads" is entered for this example.

- **Filter query** – Click this field and the Get past time icon is displayed in a popup window. Select **Past time** to use this as timestamp to filter the query. Alternatively, you can paste this function into the field: `gt datetime'@{body('Get_past_time')}'`

4. Select **New step** to add a condition to scan the Azure table for new leads.

5. In the **Choose an action** window, select **Actions**, and then select the **Condition** control.
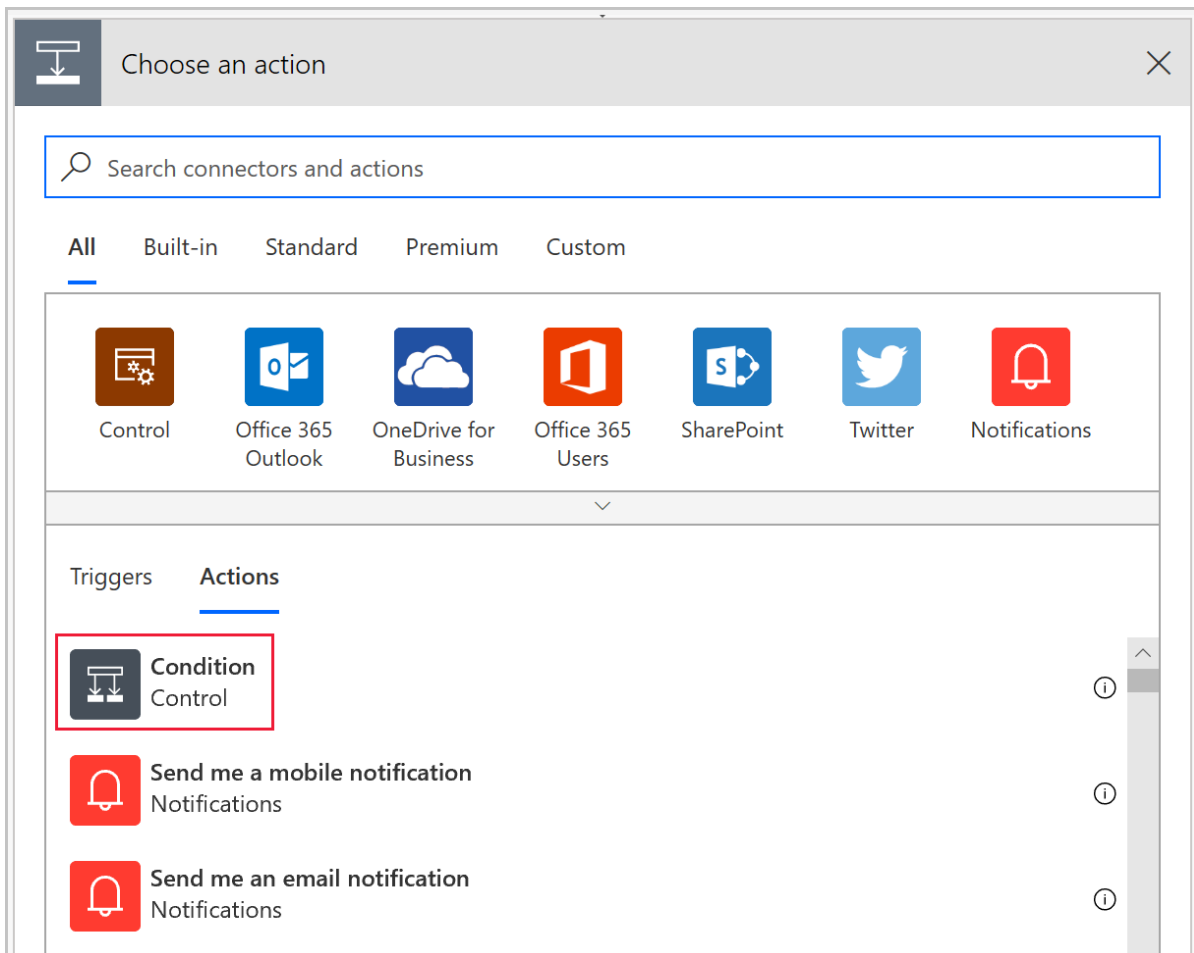
6. In the **Condition** window, select the **Choose a value** field, and then select **Expression** in the popup window.

7. Paste `length(body('Get_entities')?['value'])` into the *fx* field. Select **OK** to add this function. To finish setting up the condition:

   - Select "is greater than" from the dropdown list.
   - Enter 0 as the value
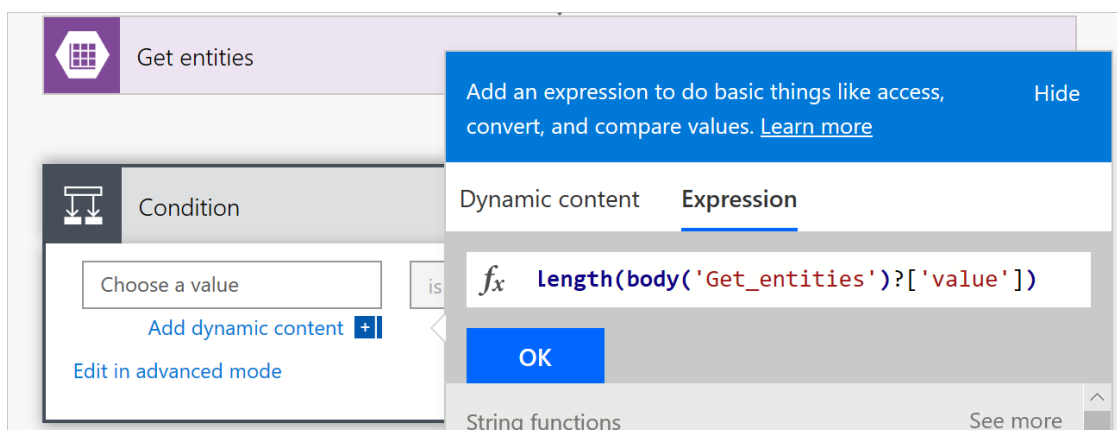
8. Set up the action to take based on the result of the condition.
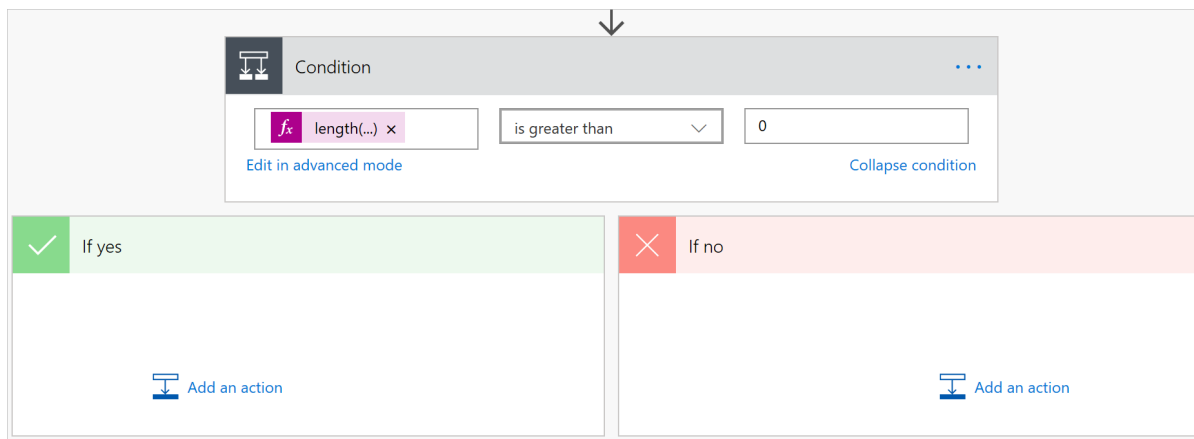
9. If the condition resolves to **If no**, don't do anything.

10. If the condition resolves to **If yes**, trigger an action that connects your Office 365 account to send an email. Select **Add an action**.

11. Select **Send an email**.

12. In the **Send an email** window, provide information for the following fields:

- **To** - Enter an email address for everyone that will get this notification.
- **Subject** – Provide a subject for the email. For example: New leads!
- **Body**: Add the text that you want to include in each email (optional) and then paste in body `('Get_entities')?['value']` as a function to insert lead information.

> **NOTE**
>
> You can insert additional static or dynamic data points to the body of this email.
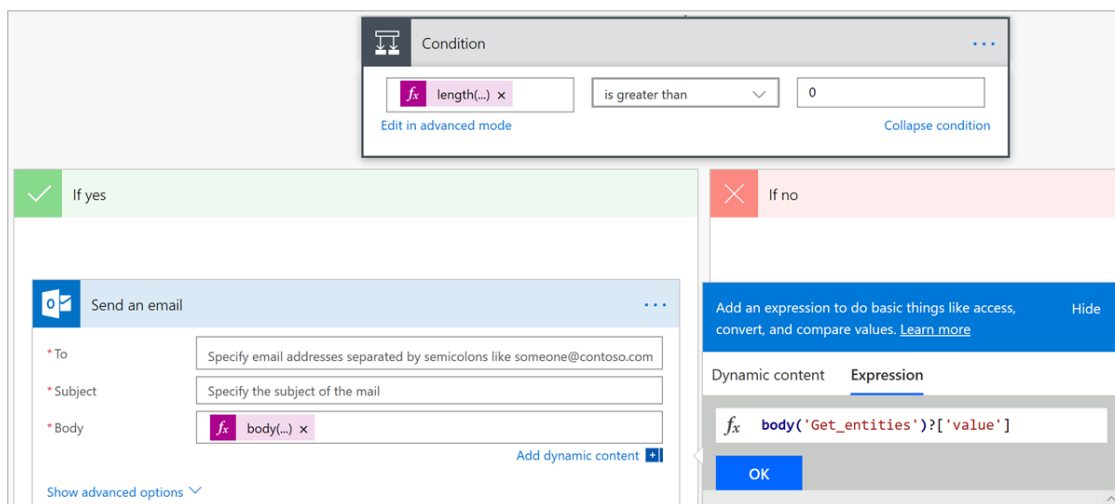
13. Select **Save** to save the flow. Microsoft Flow will automatically test the flow for errors. If there aren't any errors, your flow starts running after it's saved.

The next screen capture shows an example of how the final flow should look.
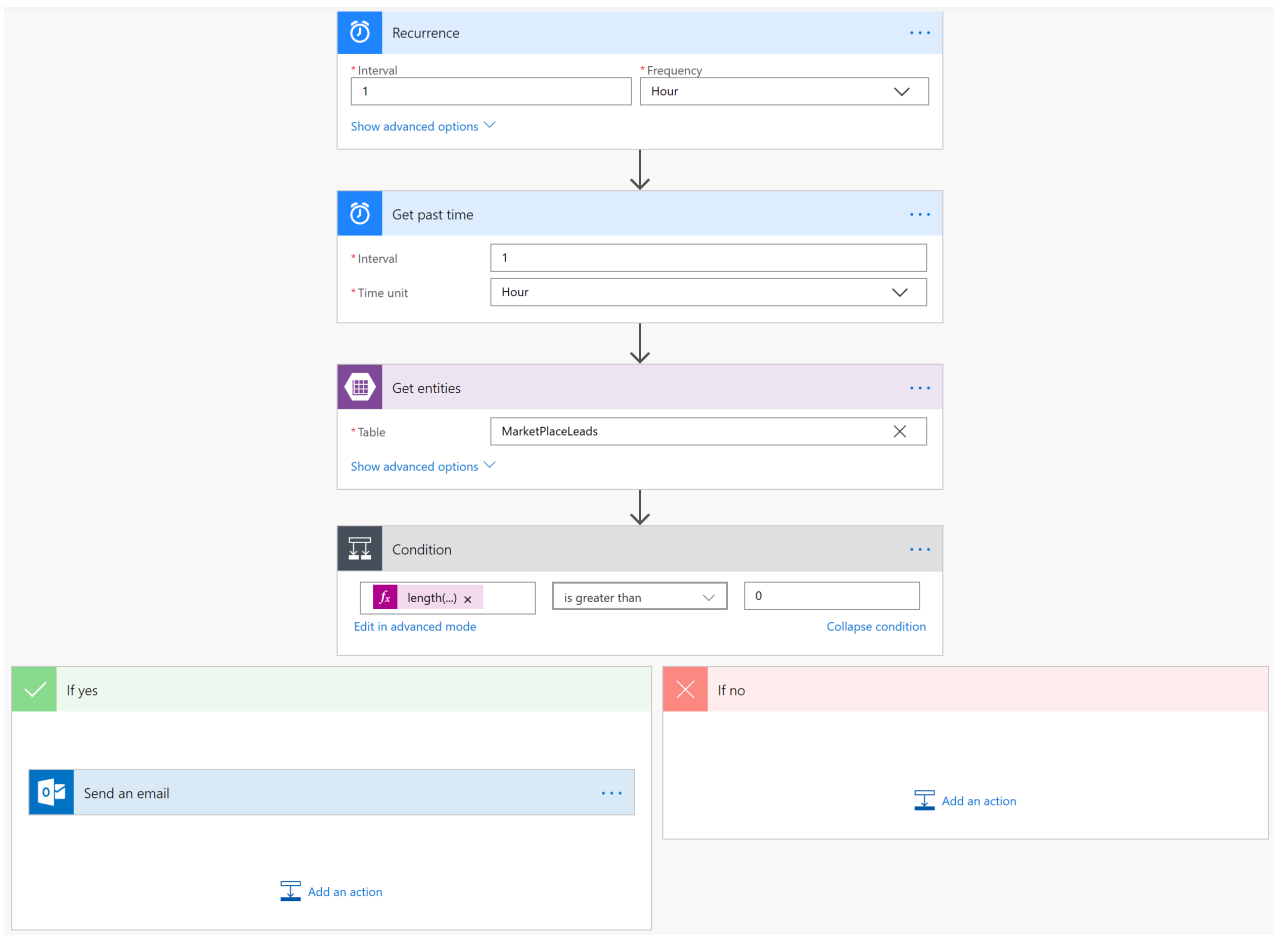
Managing your flow

Managing your flow after it's running is easy. You have complete control over your flow. For example, you can stop it, edit it, see a run history, and get analytics. The next screen capture shows the options that are available to manage a flow.

The flow keeps running until you stop it by using the **Turn flow off** option.

If you're not getting any lead email notifications, it means that new leads haven't been added to the Azure table. If there are any flow failures, you'll get an email like the example in the next screen capture.

Hello,

The flow(s) listed had an unusual number of failures in the past week and may need your attention.

🔔 1 Notifications

Recurrence -> Get past time,Get entities,Condition,Send an email
Failed 1 times

If you need more help, please visit the Microsoft Flow support page.

Thanks,
The Microsoft Flow team

Next steps

Configure customer leads

Configure lead management for Dynamics CRM online

10/8/2018 • 3 minutes to read • <u>Edit Online</u>

This article describes how to set up Dynamics CRM Online to process sales leads.

Prerequisites

The following user permissions are need for completing the steps in this article:

- You need to be an admin on your Dynamics CRM Online instance to install a solution.
- You need to be a tenant admin to create a new service account for lead service.

Install the solution

1. Download the Microsoft Marketplace Lead Writer solution and save it locally.

2. Open Dynamics CRM Online and go to Settings.

> **NOTE**
>
> If you don't see the options in the next screen capture, then you don't have the permissions you need.
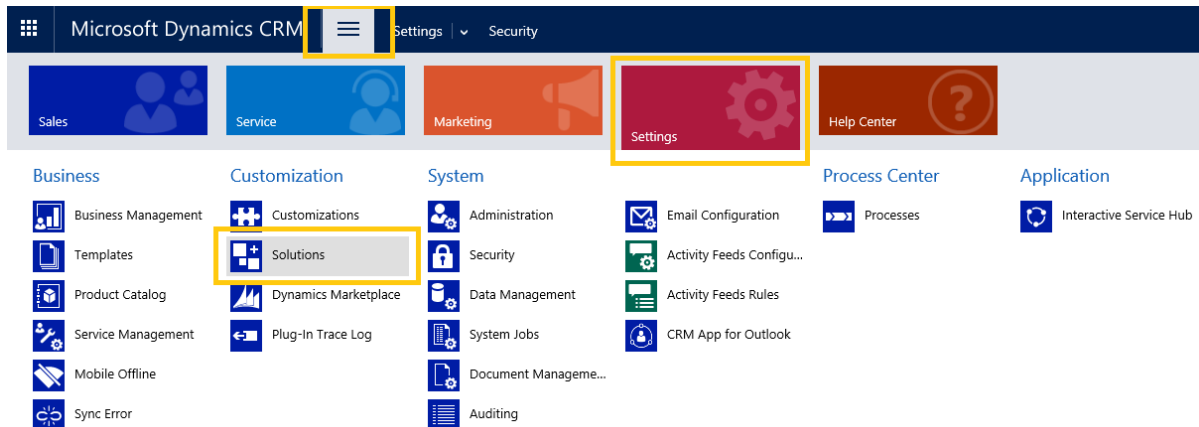
3. Select **Import**, and then select the solution that you downloaded in step 1.
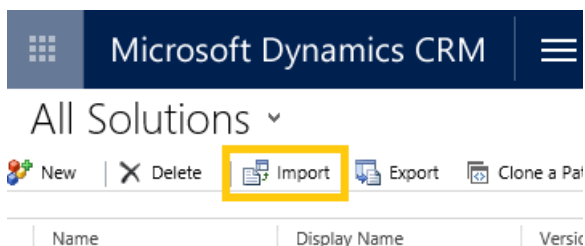
4. Finish installing the solution.

Configure user permissions

To write leads into your Dynamics CRM instance you have to share a service account with us and configure

permissions for the account.

Use the following steps to create the service account and assign permissions. You can use **Azure Active Directory** or **Office 365**.

Azure Active Directory

We recommend this option because you get the added benefit of never needing to update your username/password in order to keep getting leads. To use the Azure Active Directory option you provide the App Id, Application Key, and Directory Id from your Active Directory application.

Use the following steps to configure Azure Active Directory for Dynamics CRM.

1. Sign in to Azure portal and then select the Azure Active Directory service.

2. Select **Properties** and then copy the **Directory Id**. This is your tenant account identification that you need use in the Cloud Partner Portal.
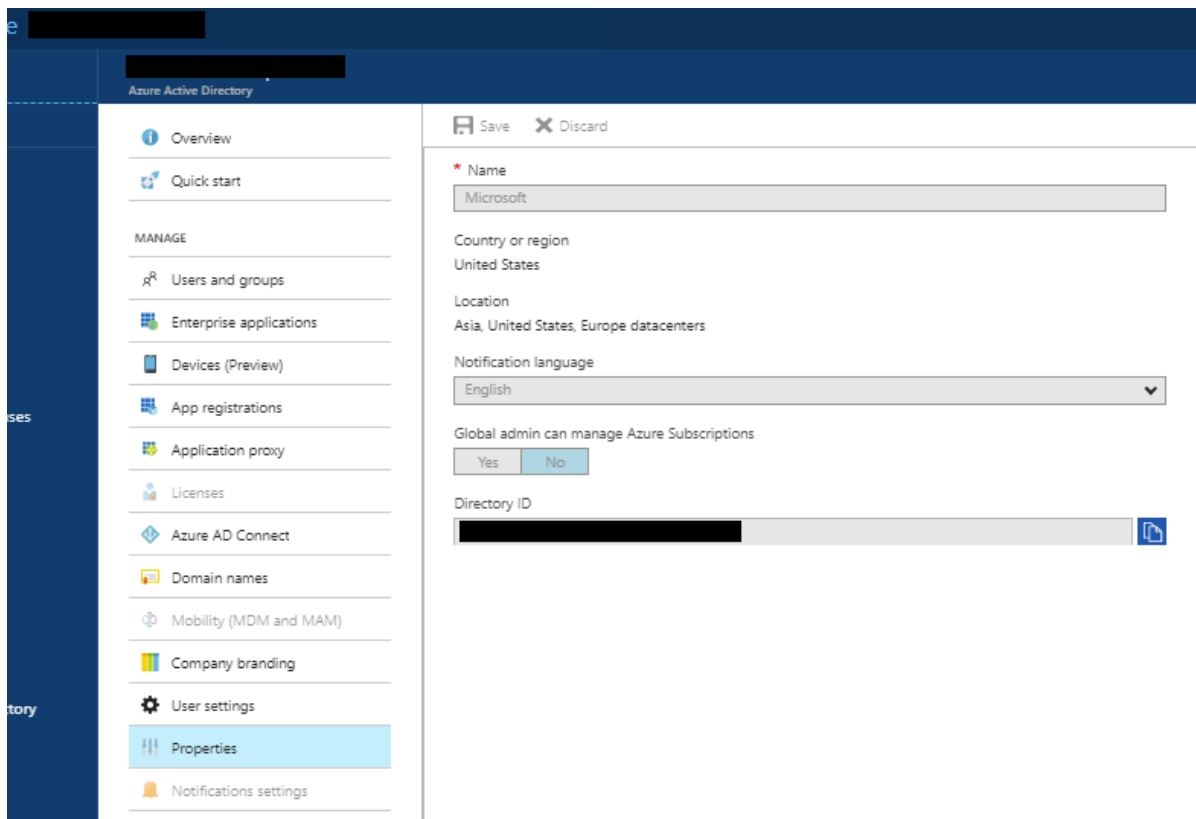
3. Select **App registrations**, and then select **New application registration**.

4. Enter the application name.

5. For Type, select **Web app / API**.

6. Provide a URL. This field isn't needed for leads, but is required to create an application.

7. Select **Create**.

8. Now that your application is registered, select **Properties** and then select **copy the Application Id**. You'll use this connection information in the Cloud Partner Portal.

9. In Properties, set the application as Multi-tenanted and then select **Save**.

10. Select **Keys** and create a new key with the Duration set to *Never expires*. Select **Save** to create the key.

11. On the Keys menu, select **Copy the key value.** Save a copy of this value because you'll need it for the Cloud Partner Portal.
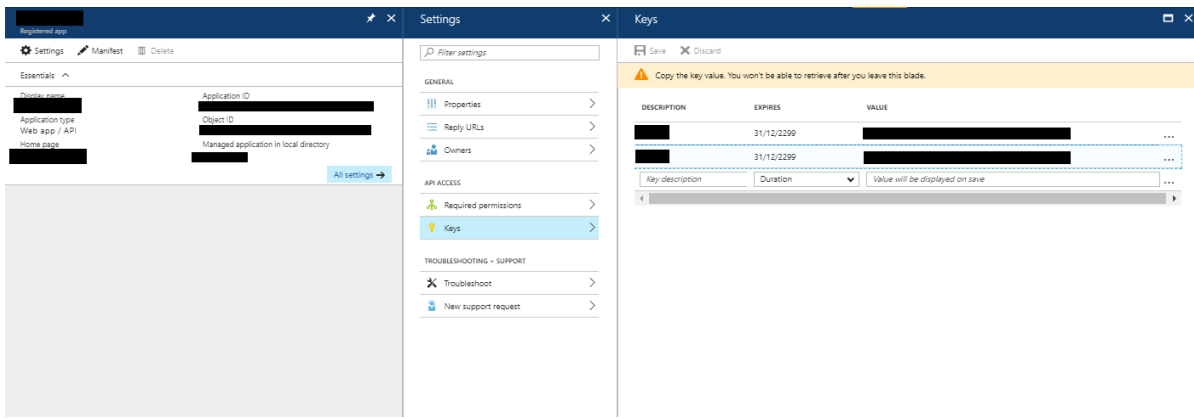
12. Select **Required permissions** and then select **Add**.

13. Select **Dynamics CRM Online** as the new API, and check the permission for *Access CRM Online as organization users*.

14. On Dynamics CRM, go to Users and select the "Enabled Users" dropdown to switch over to **Application Users**.
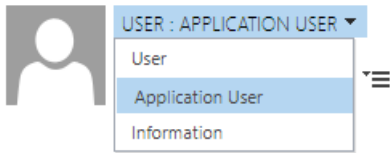
15. Select **New** to create a new user. Select the **USER: APPLICATION USER** dropdown.

16. In **New User**, provide the name and email that you want to use with this connection. Paste in the **Application Id** for the app you created in the Azure portal.

17. Go to "Security settings" in this article to finish configuring the connection for this user.
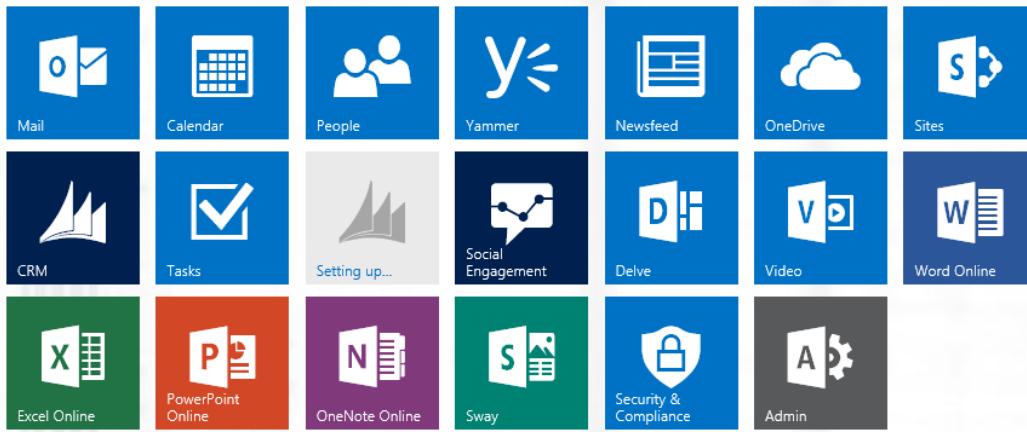
Office 365

If you don't want to use Azure Active Directory, you can register a new user on the Office 365 Admin portal. You'll be required to update your username/password every 90 days to continue getting leads.
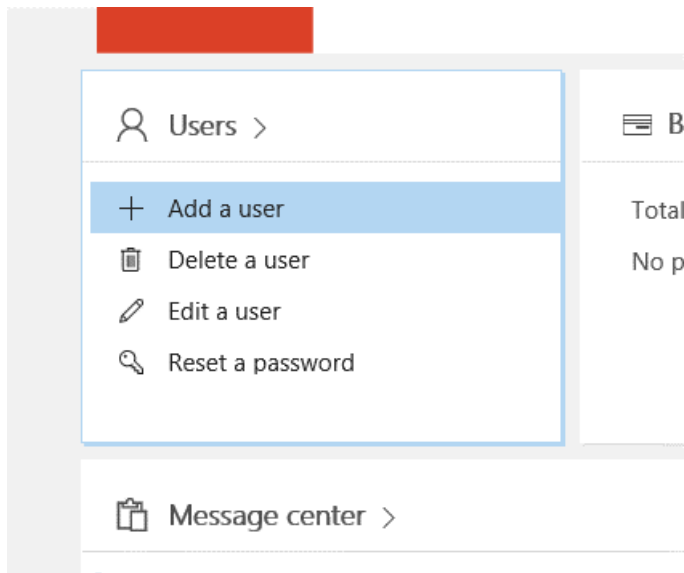
Use the following steps to configure Office 365 for Dynamics CRM.

1. Sign in to the Microsoft Office 365 Admin Portal.

2. Select the **Admin** tile

3. Select **Add a user**.

4. Create a new user for the lead writer service. Configure the following settings:

   - Provide a password and uncheck the "Make this user change their password when they first sign in" option.
   - Select "User (no administrator access)" as the role for the user.
   - Select the product license shown in the next screen capture. You'll be charged for the license you choose. The solution will also work with Dynamics CRM Online Basic license.

Security settings

The final step is to enable the User you created to write the leads.

1. Sign in to Dynamics CRM online.
2. On **Settings**, select **Security**.
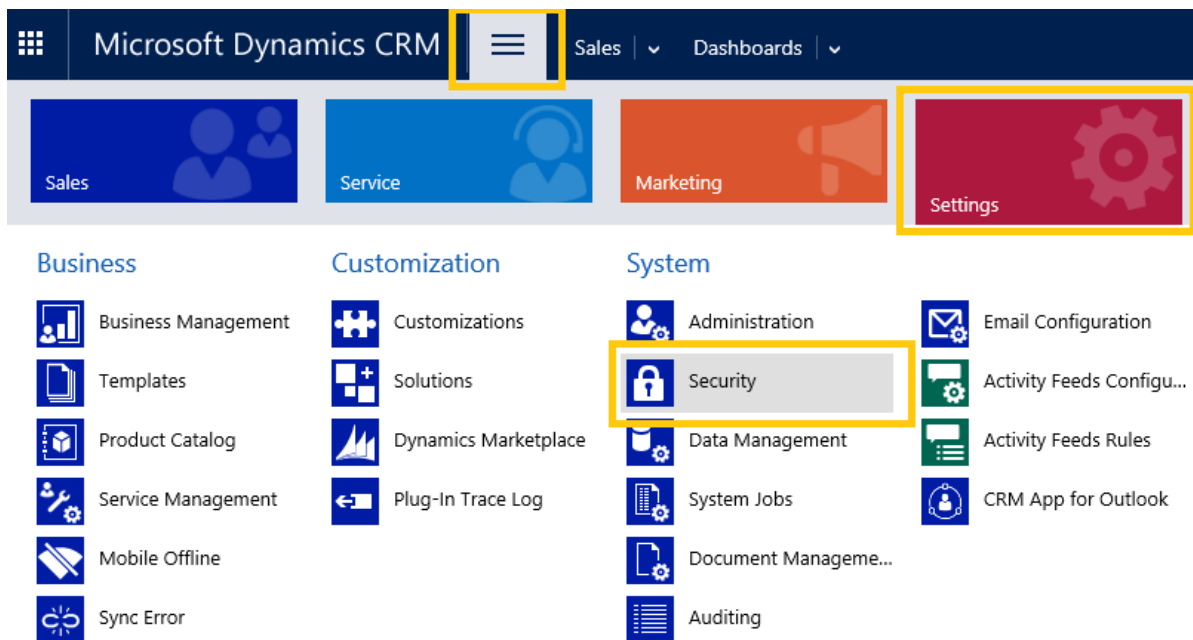
3. Select the user that you created in **User permissions**, and then select **Manage User Roles**. Check **Microsoft Marketplace Lead Writer** to assign the role.
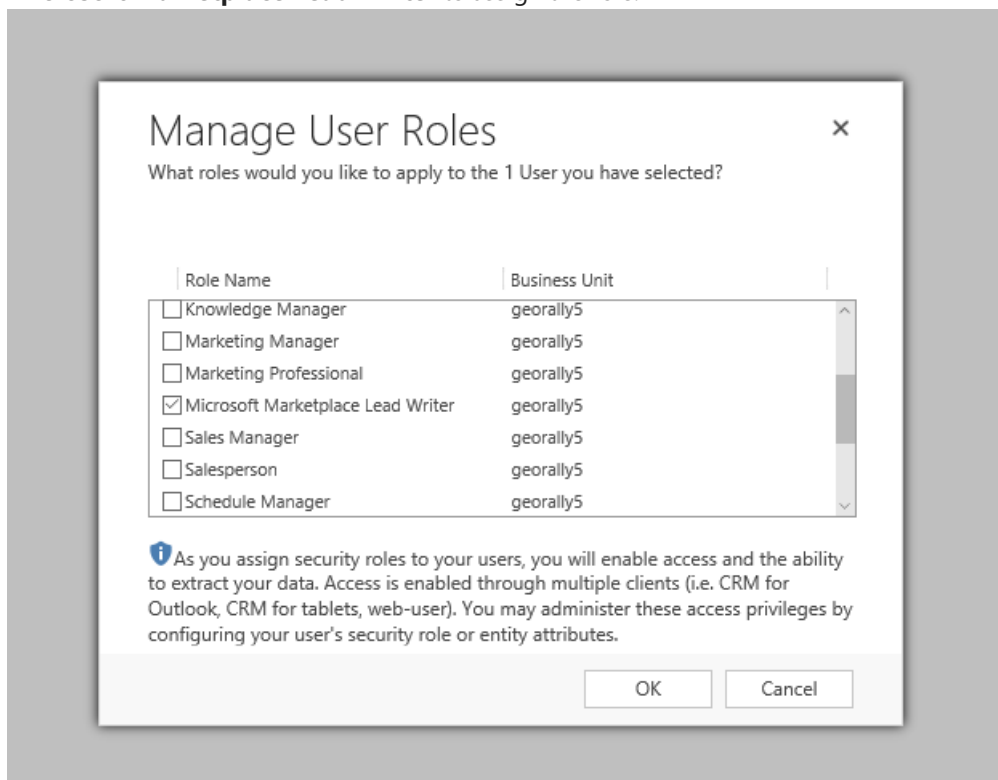
NOTE

This role is created by the solution that you imported and only has permissions to write the leads and to track the solution version to ensure compatibility.

---

4. In Security, select **Security Roles** and find the role for Microsoft Marketplace Lead Writer.

Security Roles

Business Unit: crmtest234 ▼

New | 🗄 🗄 | ✕ | More Actions ▾

✓	Name ↑	Business Unit
✓	Account Manager	crmtest234
	Activity Feeds	crmtest234
	CEO-Business Manager	crmtest234
	CSR Manager	crmtest234
	Customer service app access	crmtest234
	Customer Service Representative	crmtest234
	Delegate	crmtest234
	Field Service - Administrator	crmtest234
	Field Service - App Access	crmtest234
	Field Service - Dispatcher	crmtest234
	Field Service - Inventory Purchase	crmtest234
	Field Service - Resource	crmtest234
	Knowledge Manager	crmtest234
	Marketing Manager	crmtest234
	Marketing Professional	crmtest234
	Microsoft Marketplace Lead Writer	crmtest234
	Practice Manager	crmtest234

\

5. Select the **Core Records** tab. Enable Create/Read/Write for the User Entity UI.

\

Wrap up

Finish configuring Dynamics CRM for lead management by adding the generated account information to the Cloud Partner Portal. For example:

- **Azure Active Directory** - **Application Id** (example: *23456052-aaaa-bbbb-8662-1234df56788f*), **Directory Id** (example: *12345678-8af1-4asf-1234-12234d01db47*), and **Application Key** (example: *1234ABCDEDFRZ/G/FdY0aUABCEDcqhbLn/ST122345nBc=*).
- **Office 365** - **Url** (example: *https://contoso.crm4.dynamics.com*), **User Name** (example: *contoso@contoso.onmicrosoft.com*), and **Password** (example: *P@ssw0rd*).

Configure lead management using an HTTPS endpoint

1/7/2019 • 3 minutes to read • Edit Online

You can use an HTTPS endpoint to handle Azure Marketplace and AppSource leads. These leads can be written to that can be written to a Customer Relationship Management (CRM) system or sent out as an email notification. This article describes how to configure lead management using the Microsoft Flow automation service.

Create a flow using Microsoft Flow

1. Open the Flow webpage. Select **Sign in** or select **Sign up free** to create a free Flow account.

2. Sign in and select **My flows** on the menu bar.
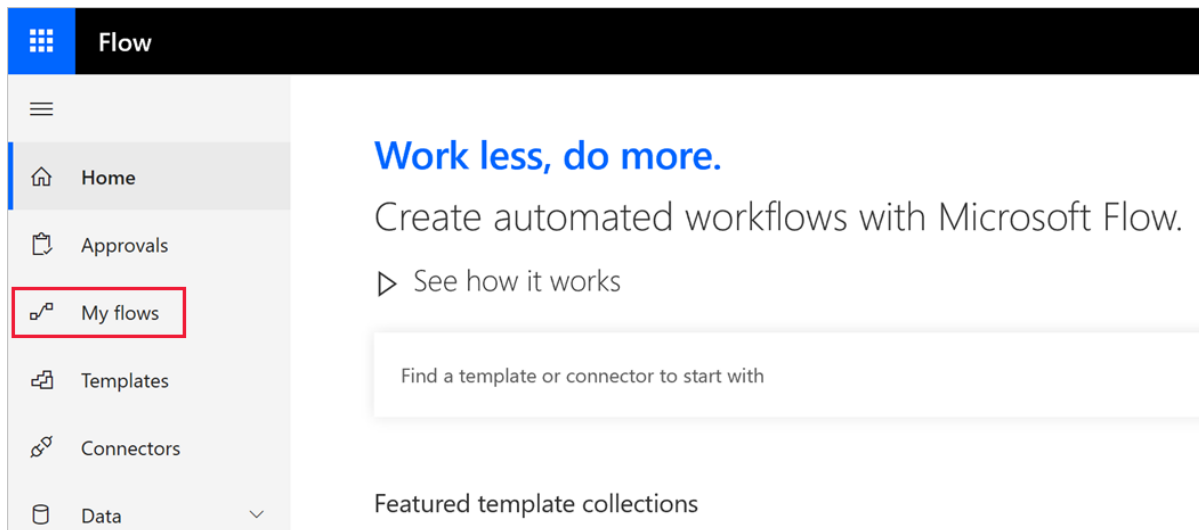
3. Select **+ Create from blank**.
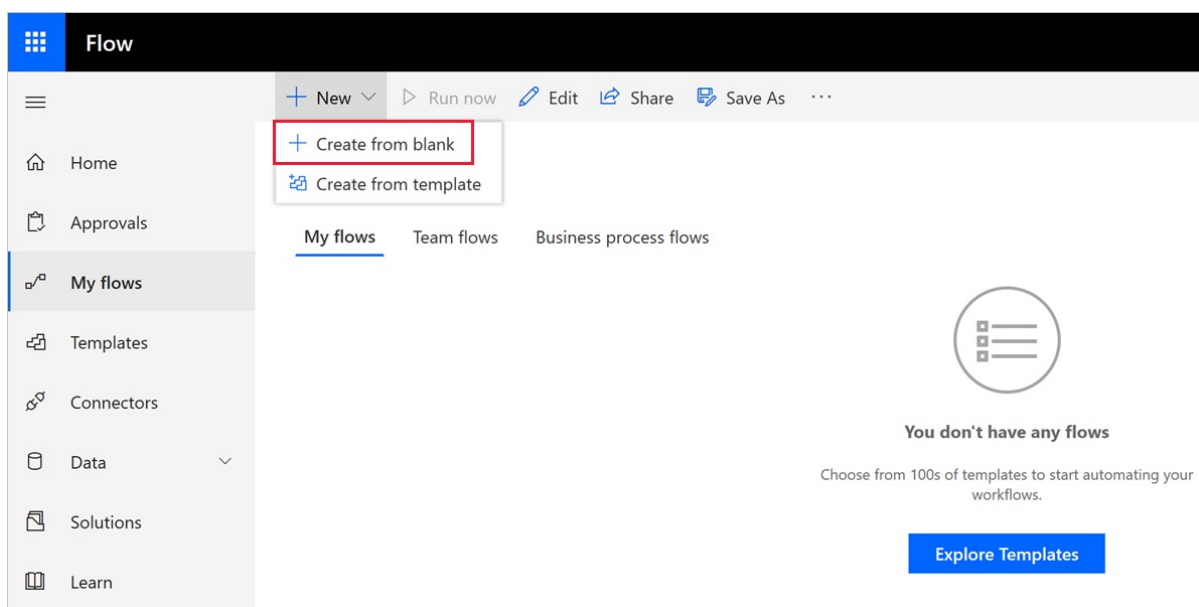
4. Select **Create from blank**.
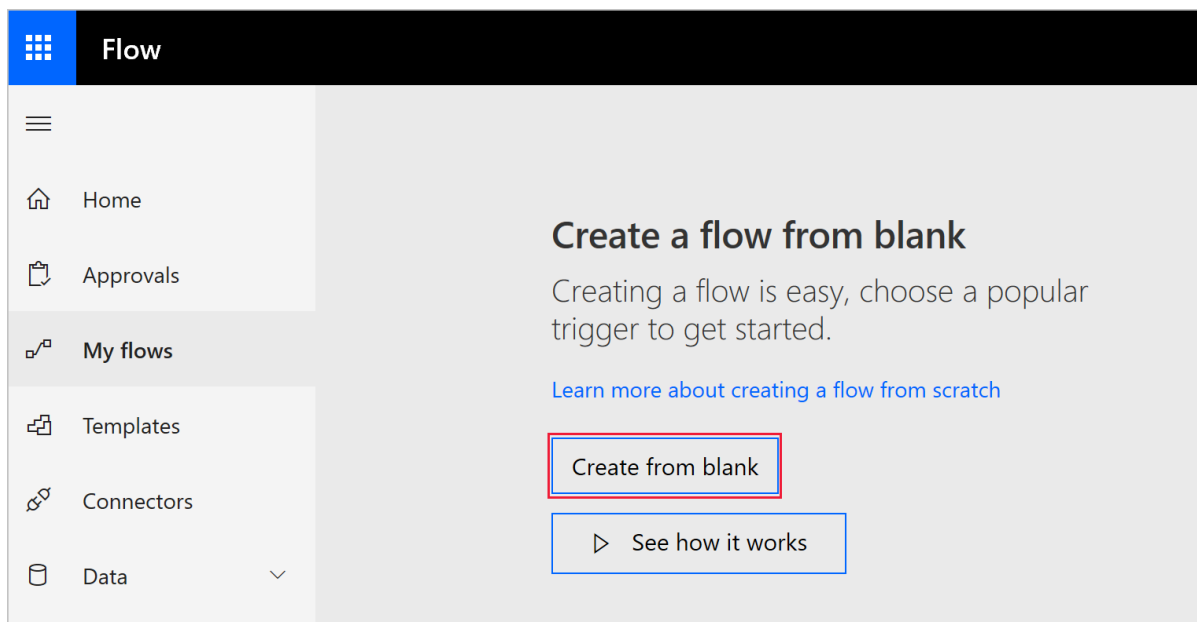
5. In the **Search connectors and triggers** field, type "request" to find the Request connector.

6. Under **Triggers**, select **When a HTTP request is received**.
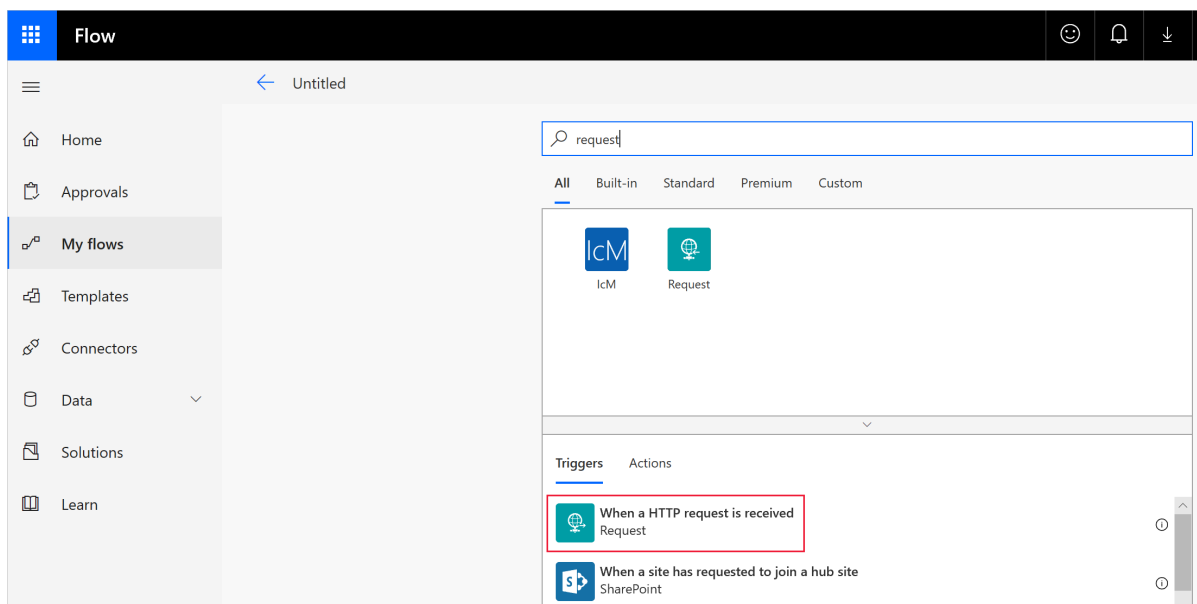
7. Use one of the following steps to configure the **Request Body JSON Schema**:

   - Copy the JSON schema at the end of this article into the **Request Body JSON Schema** text box.
   - Select **Use sample payload to generate schema**. In the **Enter or paste a sample JSON payload** text box, paste in the JSON example. Select **Done** to create the schema.

   > **NOTE**
   >
   > At this point in the flow you can either connect to a CRM system or configure an email notification.

To connect to a CRM system

1. Select **+ New step**.

2. Choose the CRM system of your choice with the action to create a new record. The following screen capture shows **Dynamics 365 - Create a new record** as an example.

3. Provide the **Organization Name** that's the connection inputs for your connector. Select**Leads** from the **Entity Name** dropdown list.

4. Flow shows a form for providing lead information. You can map items from the input request by choosing to add dynamic content. The following screen capture shows **LeadTitle** as an example.

5. Map the fields you want and then select **Save** to save your flow.

6. An HTTP POST URL is created in the request. Copy this URL and use it as the HTTPS endpoint.

To set up email notification

1. Select **+ New step**.

2. Under **Choose an action**, select **Actions**.

3. Under **Actions**, select **Send an email**.
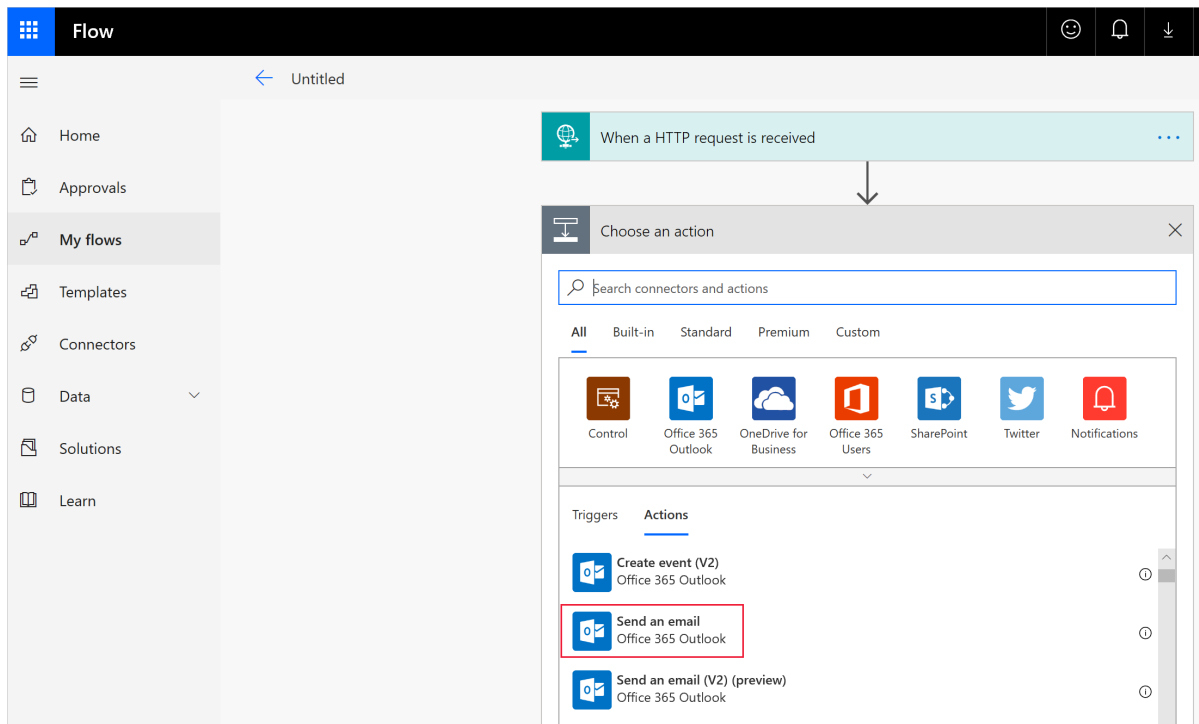
4. In **Send an email**, configure the following required fields:

- **To** - Enter at least one valid email address.

- **Subject** - Flow gives you the option of adding Dynamic content, like **LeadSource** in the following screen capture.
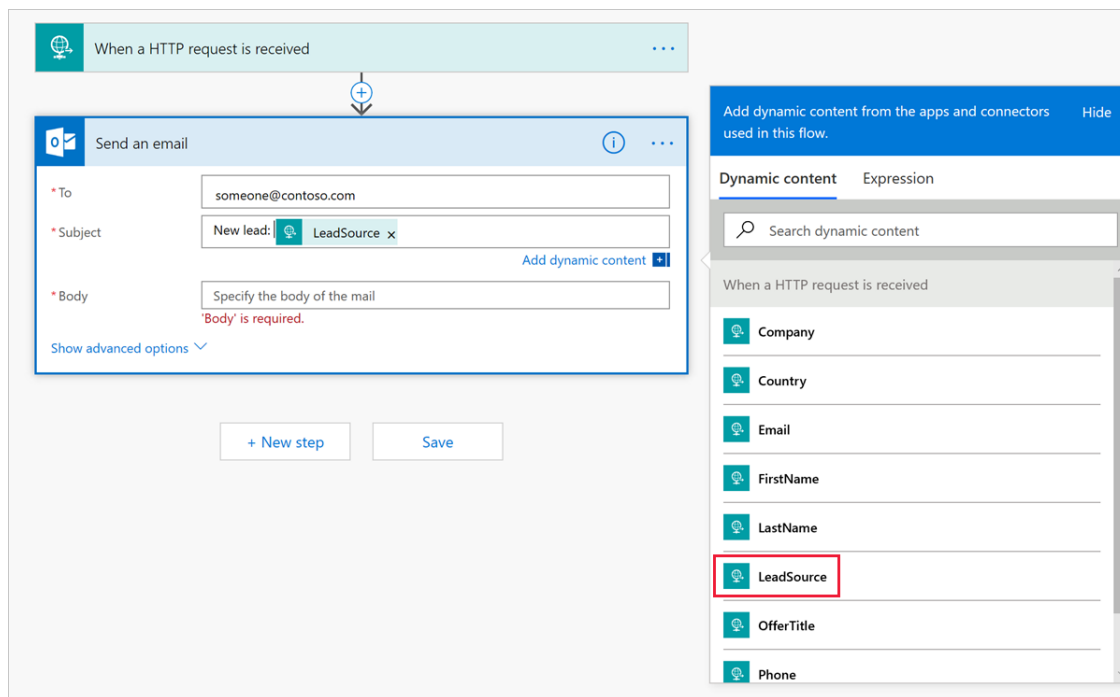
- **Body** - From the Dynamic content list, add the information you want in the body of the email. For example, LastName, FirstName, Email, and Company.

When you're finished setting up the email notification, it will look like the example in the following screen capture.
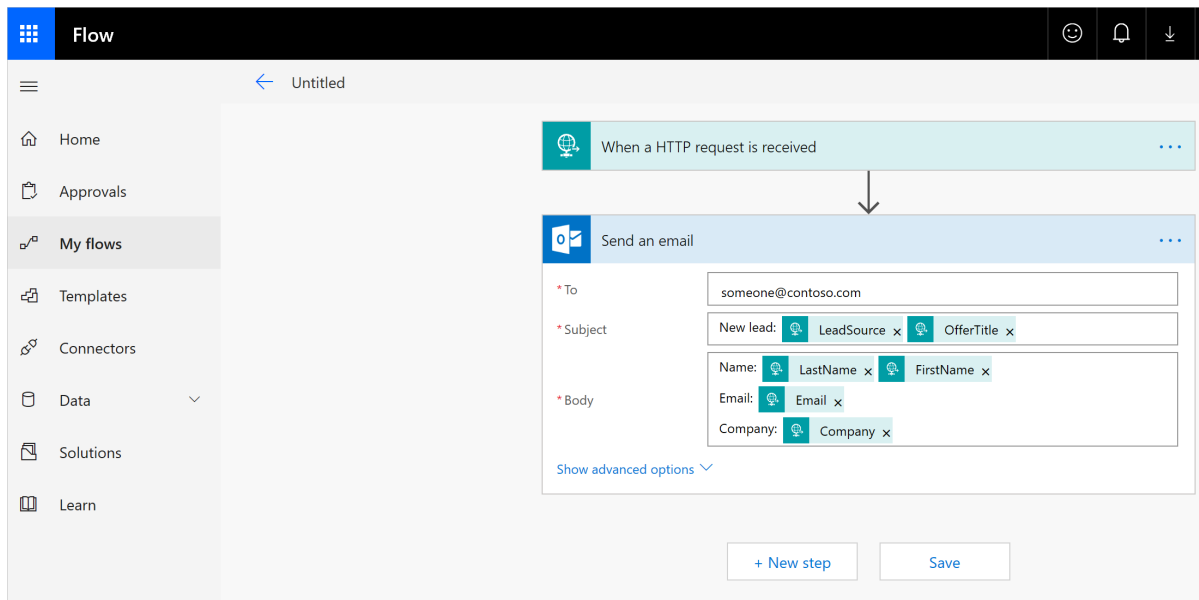
5. Select **Save** to finish your flow.

6. An HTTP POST URL is created in the request. Copy this URL and use it as the HTTPS endpoint.
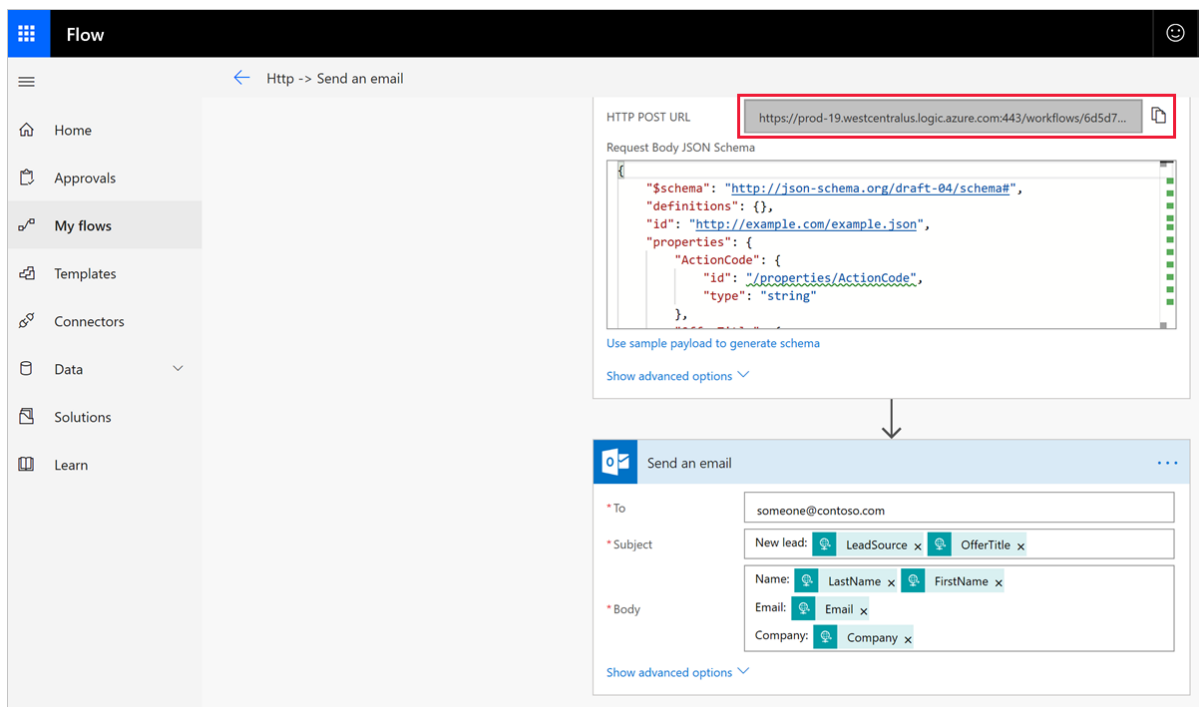
Configure your offer to send leads to the HTTPS endpoint

When you configure the lead management information for your offer, select **HTTPS Endpoint** for the **Lead Destination** and paste in the HTTP POST URL you copied in the previous step.

When leads are generated, Microsoft sends leads to the Flow, which get routed to the CRM system or email address you configured.

JSON schema and example

The JSON test example uses the following schema:

JSON schema

```json
{
  "$schema": "http://json-schema.org/draft-04/schema#",
  "definitions": {},
  "id": "http://example.com/example.json",
  "properties": {
    "ActionCode": {
      "id": "/properties/ActionCode",
      "type": "string"
    },
    "OfferTitle": {
      "id": "/properties/OfferTitle",
      "type": "string"
    },
    "LeadSource": {
      "id": "/properties/LeadSource",
      "type": "string"
    },
    "UserDetails": {
      "id": "/properties/UserDetails",
      "properties": {
        "Company": {
          "id": "/properties/UserDetails/properties/Company",
          "type": "string"
        },
        "Country": {
          "id": "/properties/UserDetails/properties/Country",
          "type": "string"
        },
        "Email": {
          "id": "/properties/UserDetails/properties/Email",
          "type": "string"
        },
        "FirstName": {
          "id": "/properties/UserDetails/properties/FirstName",
          "type": "string"
        },
        "LastName": {
          "id": "/properties/UserDetails/properties/LastName",
          "type": "string"
        },
        "Phone": {
          "id": "/properties/UserDetails/properties/Phone",
          "type": "string"
        },
        "Title": {
          "id": "/properties/UserDetails/properties/Title",
          "type": "string"
        }
      },
      "type": "object"
    }
  },
  "type": "object"
}
```

You can copy and edit the following JSON example to use as a test in your MS Flow.

JSON example

```
{
"OfferTitle": "Test Microsoft",
"LeadSource": "Test run through MS Flow",
"UserDetails": {
"Company": "Contoso",
"Country": "USA",
"Email": "someone@contoso.com",
"FirstName": "Some",
"LastName": "One",
"Phone": "16175555555",
"Title": "Esquire"
}
}
```

Next steps

If you haven't already done so, configure customer leads in the Cloud Partner Portal.

Configure lead management in Marketo

10/4/2018 • 2 minutes to read • Edit Online

This article describes how to set up Marketo to handle Microsoft sales leads.

1. Sign in to Marketo.
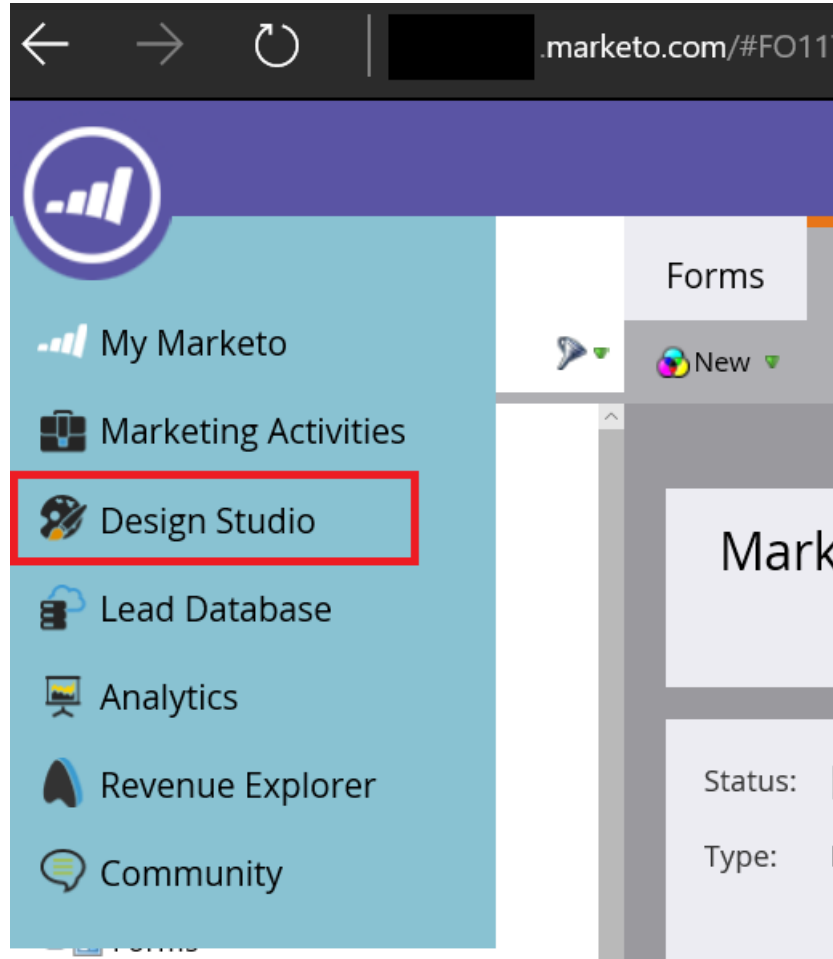
2. Select **Design Studio**.

3. Select **New Form**.
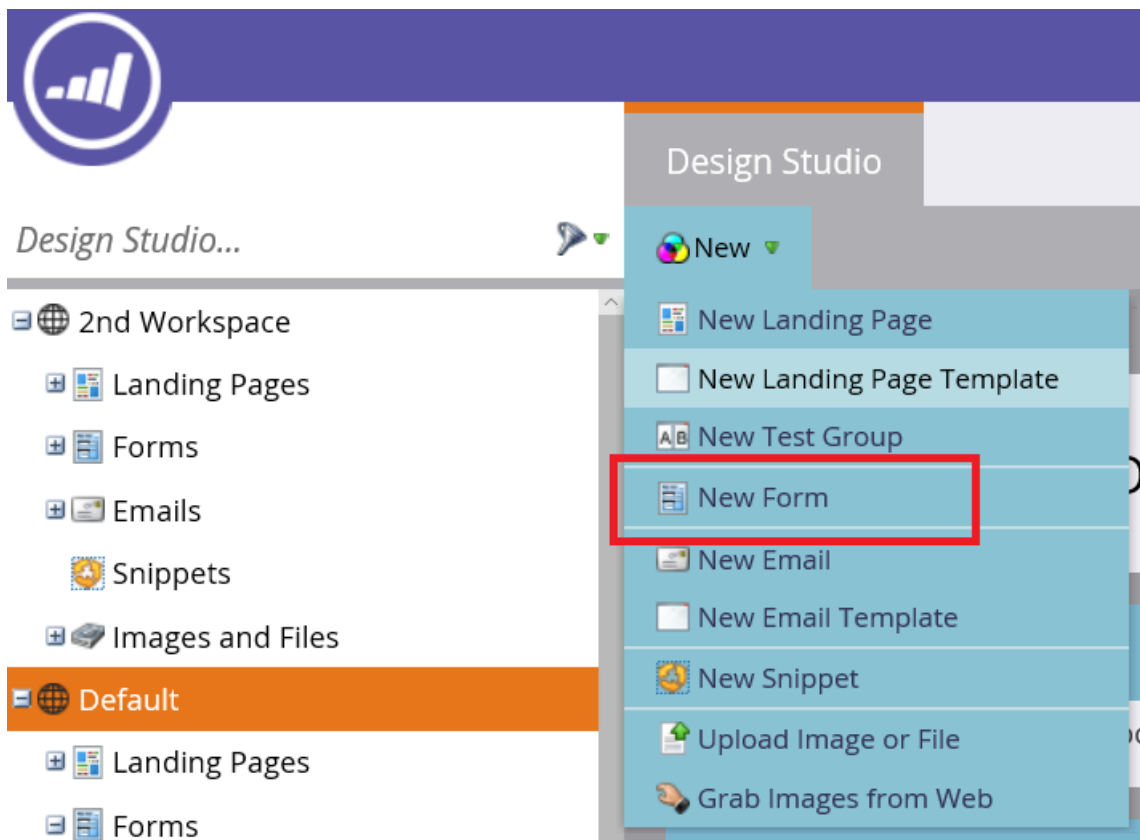
4. Fill the required fields in the New Form and then select **Create**.

5. On Field Details, select **Finish**.
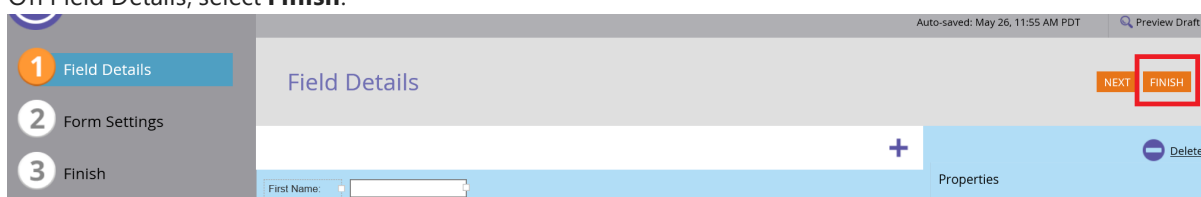
6. Approve and Close.

7. On the MarketplaceLeadBacked tab, select **Embed Code**.
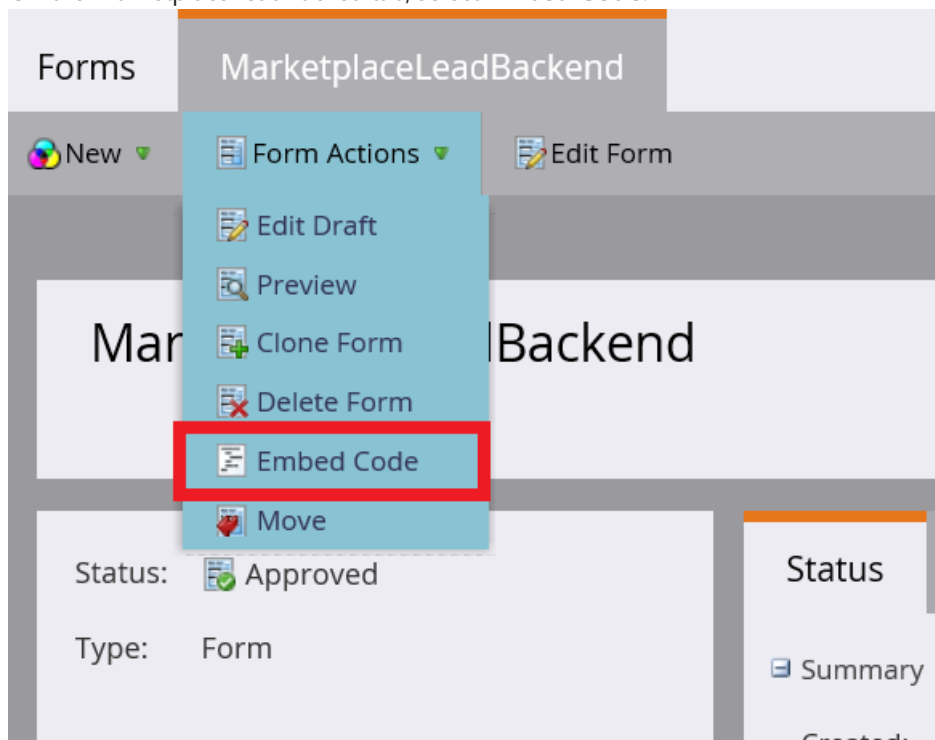
8. Marketo Embed Code displays code similar to the following example.

```
<script src="//app-ys12.marketo.com/js/forms2/js/forms2.min.js"></script>
```

```
<form id="mktoForm_1179"></form>
<script>MktoForms2.loadForm("("//app-ys12.marketo.com", "123-PQR-789", 1179);</script>
```

1. Copy the values shown in Embed Code so you can configure the **Server Id**, **Munchkin Id**, and **Form Id** in the Marketo fields on the Cloud Partner Portal.

Use the next example as a guide for getting the Ids you need from the Marketo Embed Code example.

- Server Id = **ys12**
- Munchkin Id = **123-PQR-789**
- Form Id = **1179**\

Configure lead management for Salesforce

10/4/2018 • 2 minutes to read • Edit Online

This article describes how to setup your Salesforce system to handle sales leads.

1. Sign in to Salesforce.
2. Select **Setup**.
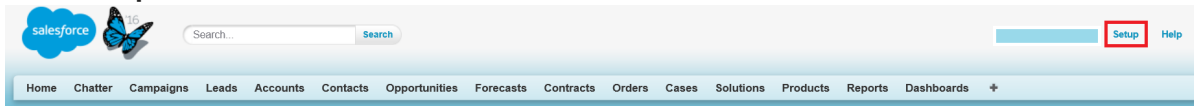
3. Expand the **Build** menu to **Customize/Leads/Web-to-Lead**.

4. On **Web-to-Lead Setup**, select **Create Web-to-Lead Form**.

Web-to-Lead Setup

Using pre-existing pages on your company's website, you can capture contact and profile information from users and automatically generate new lead requests.

Web-to-Lead Settings   Edit   **Create Web-to-Lead Form**

Web-to-Lead Enabled	✓
Default Lead Creator	Yashesvi Sharma
Default Response Template	

5. On **Create a Web-to-Lead Form**, select **Generate**

6. Copy the OID in the sample and save it. You'll paste the OID in the **Object Identifier** field on the Cloud Partner Portal.

Getting Started with Seller Insights

10/4/2018 • 2 minutes to read • Edit Online

This article discusses the Seller Insights feature available to you within the Cloud Partner Portal.

Insights Tour

The Cloud Partner Portal offers you insights related to your Azure and VS Marketplace customers and usage. Here's a quick overview of the various data and insights that you will likely interact with the most.

Top Navigation Bar

After you select **Insights** from the left menubar, you will see a navigation bar across the top indicating which insights modules you have access to.

1. **Summary** - This tab shows graphs, trends, and values of the data that is most sought after by publishers.

2. **Payout** - This tab shows information on payouts and related transactions in graphs and downloadable formats.

3. **Orders & Usage** - This tab shows orders and usage information in graphs and downloadable formats.

4. **Customer** - This tab shows information about your customers and their purchases.

5. **Deployment** - This tab shows deployment success and failure information in both graphs and event level formats.

6. **Downloads** - Downloading big data sets is easier and less disruptive with a new download experience.

You may find that you can only see a limited set of the modules listed above. Only users with *Owner* permissions can see the **Payout** and **Customer** modules due to sensitive customer and company information. Work with an Owner role inside of your organization to change your permissions if you need access to these modules.

Tips:

- Be sure to adjust the dates to view the information you are most interested in.
- Download the transaction level data to perform additional analysis on the information provided by Seller Insights.
- If you are looking for payout or customer information, make sure you are logged in as an Owner role and not a Contributor role. To learn more about user permissions, see Manage users.

Finding More Help

- Seller Insights Definitions - Find definitions for metrics and data

- Getting started with Seller Insights - Introduction to the Seller Insights feature.

Seller Insights release notes

10/4/2018 • 2 minutes to read • Edit Online

(Release date: July 28, 2018)

This article provides information on changes to the Seller Insights feature in the Cloud Partner Portal.

Release highlights

- *Estimated prices* provide a view of customer charges with currency conversion implications.
- *Forecasted payouts* provide an earlier view into potential payouts.
- *Usage reference identifiers* provide data fidelity between customer usage and orders with payouts
- *Usage at a daily grain* provides more granularity and better insights into customer usage.

Changes to data structure and taxonomy

The following table lists the metrics that have been added or substantially changed with this release.
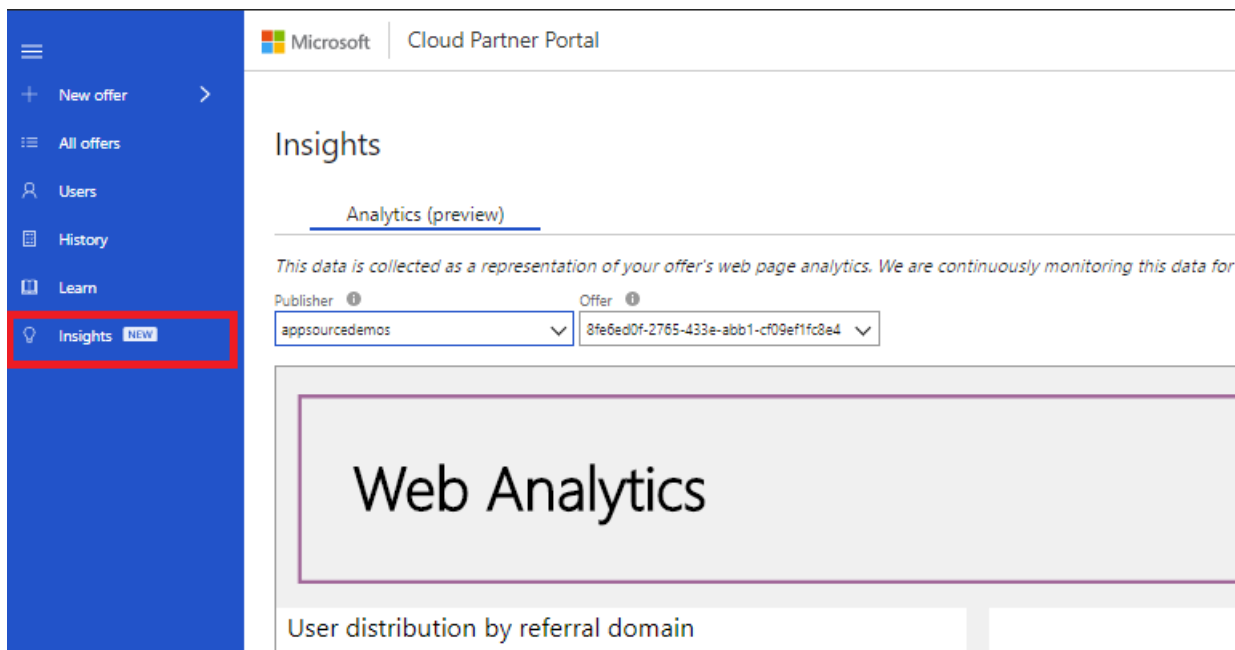
NEW TERM	DEFINITION
Price (CC)	Price for a unit of usage for a given SKU (in the customer's currency).
Estimated Extended Charge (CC)	Estimated extended charge for the quantity of units of usage for a given SKU (in the customer's currency). This value may not be exact due to rounding or truncation errors.
Publisher Currency (PC)	Currency preferred by the publisher for payout.
Estimated Price (PC)	Estimated price for a unit of usage for a given SKU based on foreign exchange conversion on the date usage is calculated (in the publisher's currency). This value may not be exact due to rounding or truncation errors.
Estimated Extended Charge (PC)	Estimated extended charge for the quantity of units of usage for a given SKU based on foreign exchange conversion on the date usage is calculated (in the publisher's currency). This value may not be exact due to rounding or truncation errors.
Estimated Payout (PC)	Estimated payment for the quantity of units of usage for a given SKU based on foreign exchange conversion on the date the usage is calculated (in the publisher's currency). This value may not be exact due to rounding or truncation errors.
Usage Reference	The identifier for one or more days of customer usage for a given SKU associated with an entry in the payout report.

Web Analytics

10/4/2018 • 3 minutes to read • Edit Online

This article provides you with instructions on how to learn and use Web Analytics to best grow your business. Currently this Insights tab is available for any AppSource offers.

Now that you've built and published your offer, the next part of your journey is to track and measure its' success. With **Web Analytics**, we have added the ability to see exactly how well each of your offers is doing on the marketplace. To start your journey, navigate to the Insights page on the left side of Cloud Partner Portal to see the new Analytics tab.

You will see a rich dashboard for your Publisher ID that has been built with Microsoft Power BI and enables you to see each of your offers' data, which is refreshed daily.

Microsoft Campaigns

In order to grow your offers and track the growth of your offers, we have enabled the ability to use **Microsoft campaigns** on the Cloud Partner Portal. Campaigns are a newly supported feature for the marketplace that will allow for you to track the different channels that are sending customers into your app details page.

How to make a Campaign

The simplest way to describe campaigns is that you are adding a custom word/term to your URL that lands on your app detail page in the marketplace. Google, Bing, LinkedIn, and many other sites encourage you to build an advertisement, link from their site into your desired site.

In general, these efforts are to help drive new customers into your product and it is essential to measure the success of how each of your channels is doing. This is where campaigns come in.

There are two ways to generate your own campaign.

1. Add to your URL the query parameter **mktcmpid** that describes what the campaign is and what page/event these customers are coming from.

For example you can use: https://appsource.microsoft.com/product/dynamics-365/contoso.offername?

mktcmpid=NewCampaign

1. (Advanced): Use one of our supported, generic campaign IDs in the URL. We want to be accommodating with additional ref tags that you need to use, so we support the convention to automatically recognize these additional tags:

    a. **utm_campaign**
    b. **utm_source**
    c. **ref**
    d. **src**

For example you can use: https://appsource.microsoft.com/product/dynamics-365/contoso.offername?utm_campaign=NewCampaign

You can choose to have a combination of multiple of these campaign IDs to further identify multiple sources driving traffic for the campaign such as where the customer came from (email, blog, social media source, etc.).

For example:

1. Newsletter referrer: https://appsource.microsoft.com/product/dynamics-365/contoso.offername?mktcmpid=NewCampaign&src=newsletter
2. LinkedIn referrer: https://appsource.microsoft.com/product/dynamics-365/contoso.offername?mktcmpid=NewCampaign&src=LinkedIn

Ensuring campaigns pass through all your pages

There may be a scenario where your campaigns have an intermediate page that you are driving traffic to that then proceeds to send the customers to the marketplace. It is important to pass through your initial campaign IDs into the final URL that you send to the marketplace.

Here is an example:

1. Marketing employee buys ads from Google to drive traffic to the company's landing page https://contoso.com. This landing page has a "try my product" link that goes to https://appsource.com.
2. A user clicks the ad and lands on his company's landing page.
    a. Referral URL = google.com
    b. Landing Page URL = https://contoso.com/?utm_campaign=MyCampaignAdName&utm_source=MySourceAdName
3. The user clicks the "try my product" link and goes into AppSource.
    a. Referral URL = https://contoso.com/?utm_campaign=MyCampaignAdName&utm_source=MySourceAdName
    b. Landing Page URL (**Ensure that this URL has utm_campaign and utm_source added to this URL**) = https://appsource.microsoft.com/en-us/product/dynamics-365/contoso.offername?**utm_campaign=MyCampaignAdName&utm_source=MySourceAdName**

How to evaluate the success of a Campaign

Page Visits by campaign
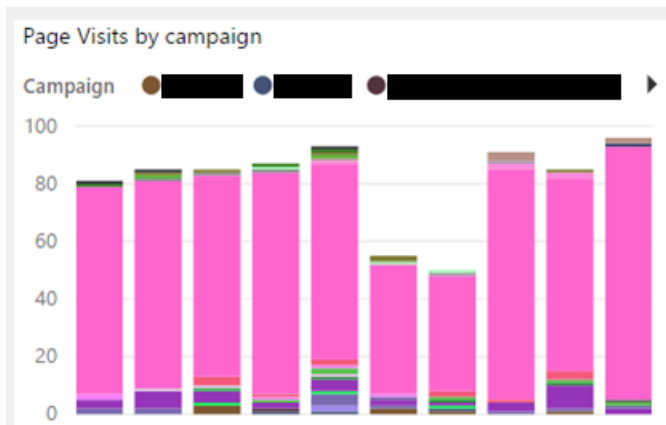
This is the breakdown of each of your daily page visits by the campaign they came from.

Conversion rate by campaign
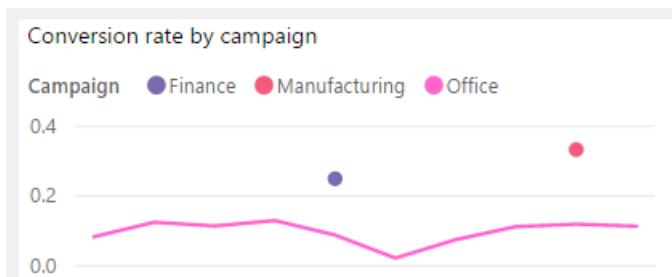
Similar to how we show the conversion rate of your entire offer, in this chart you can see the breakdown of how your different campaigns are doing. This chart should help you to identify where your higher conversion rate campaigns are coming from.

Distribution by campaign

Campaign	Page Visits	Acquisitions
_NoCampaign	338	37
Office	168	7
Manufacturing	4	1
Citynext	1	
Finance	1	
Healthcare	1	
Professional-services	1	

Similar to how we look at the domains of your customers, this chart allows you to see the distribution of your data per campaign that the users are coming to the marketplace under. _NoCampaign means that the customer did not have a campaign ID in the url when they navigated to the marketplace.

Next Steps

Now that you have the ability to track your offers' success, we want to encourage you to create your own campaigns.

If you have questions/feature requests, share them via Feedback, located in the upper right corner.

Seller Insights Definitions

10/4/2018 • 9 minutes to read • Edit Online

The following table provides definitions for many of the terms used in Seller Insights.

TERM	DEFINITION
Azure License Type	The type of licensing agreement used by customers to purchase Azure. Also known as Channel.
Azure License Type: Cloud Solution Provider	The end customer procures Azure and your Marketplace offer through their Cloud Solution Provider, who acts as your reseller.
Azure License Type: Enterprise	The end customer procures Azure and your Marketplace offer through an Enterprise Agreement, signed directly with Microsoft.
Azure License Type: Enterprise through Reseller	The end customer procures Azure and your Marketplace offer through a Reseller who facilitates their Enterprise Agreement with Microsoft.
Azure License Type: Pay as You Go	The end customer procures Azure and your Marketplace offer through a Pay as You Go agreement, signed directly with Microsoft.
Azure Subscription GUID	The Global Unique Identifier (GUID) of the Azure subscription that the customer used to purchase your Marketplace offer.
Charge Amount (CC)	The amount charged to the customer, in the customer's billing currency (CC).
Charge Amount (PC)	The amount charged to the customer, in the *Payout Currency (PC)*.
Charge Date	The date the customer's charge was calculated, typically immediately following the usage period.
Cloud Instance Name	The Microsoft Cloud in which a VM deployment occurred. (Azure Gov - Microsoft Cloud instance for the US Government; Azure China - Microsoft Cloud instance within China; Azure Germany - Microsoft Cloud instance within Germany; Azure Global - Microsoft Cloud instances for all other Global locations)
Custom Meter Usage	Measured units being consumed on custom meter offers.
Customer	Any Azure customer or end user who acquires, makes use of, or otherwise views an offer published through the Marketplace. Customers are identifiable by unique *Azure Subscription GUID*.
Customer City	The city name provided by the end customer.

TERM	DEFINITION
Customer Communication Language	The language preferred by the customer for communication.
Customer Company Name	The company name provided by the end customer.
Customer Country	The country name provided by the end customer.
Customer Currency (CC)	The currency preferred by the customer for pricing and billing.
Customer Email	The email address provided by the end customer.
Customer First Name	The first name of the customer.
Customer Last Name	The last name of the customer.
Customer Payment Type	The type of payment instrument used by the customer.
Customer Postal Code	The postal code provided by the end customer.
Customer State	The state provided by the end customer.
Date Acquired	The first date the Azure subscription purchased any offer published by you.
Date Lost	The date the Azure subscription canceled all offer(s) published by you.
Estimated Extended Charge (CC)	The estimated extended charge for the quantity of units of usage for a given SKU (in the customer's currency). This value may not be exact due to rounding or truncation errors.
Estimated Extended Charge (PC)	The estimated extended charge for the quantity of units of usage for a given SKU based on foreign exchange conversion on the date usage is calculated (in the publisher's currency). This value may not be exact due to rounding or truncation errors.
Estimated Payout (PC)	The estimated payment for the quantity of units of usage for a given SKU based on foreign exchange conversion on the date the usage is calculated (in the publisher's currency). This value may not be exact due to rounding or truncation errors.
Estimated Price (PC)	The estimated price for a unit of usage for a given SKU based on foreign exchange conversion on the date usage is calculated (in the publisher's currency). This value may not be exact due to rounding or truncation errors.
Final Collection Status	For a specific charge, the latest status of the billing and collection lifecycle. This could be: *Collection in Progress*, *Collected*, *Paid Out*, *Refund*, or *Write Off*.
Final Collection Status: Collected	The charge was collected.

TERM	DEFINITION
Final Collection Status: Collection In Progress	The charge has not yet been collected from the customer. Microsoft Azure billing is still billing or collecting from the customer.
Final Collection Status: Refund	The charge was refunded (either the entire charge or a partial amount).
Final Collection Status: Write Off	The charge was written off as bad debt.
IsNew Customer	The customer deployed this *SKU* for the first time within the calendar month.
Market	The country name provided by the end customer.
Marketplace License Type	The billing method of the Marketplace offer.
Marketplace License Type: Billed Through Azure	Microsoft is your agent for this Marketplace offer and bills customers on your behalf. (Either PAYG Credit Card or Enterprise Invoice)
Marketplace License Type: Bring Your Own License	The VM requires a license key provided by the customer in order to deploy. Microsoft does not bill customers for their usage of this Marketplace offers.
Marketplace License Type: Free	The Marketplace offer is configured to be free to all users. Microsoft does not bill customers for their usage of this Marketplace offer.
Marketplace License Type: Microsoft as Reseller	Microsoft is your reseller for this Marketplace offer.
Marketplace Order	For VMs, a Marketplace order represents the deployment of one or many VMs tied to a single *SKU* on a unique Azure Subscription. A single Marketplace order can represent many deployments with variable core sizes. For Managed Applications and Dev Services, a Marketplace order represents a single *SKU* purchase by an *Azure Subscription GUID*.
Microsoft Fee (CC)	The Microsoft fee on the transaction in customer's currency.
Normalized Usage	Usage hours normalized to account for the number of VM cores involved in the usage: [Number of VM Cores] x [Hours of Raw Usage]. VMs designated as "SHAREDCORE" use 1/6 (or 0.1666) as the [Number of VM Cores] multiplier.
Offer Name	The name of the Marketplace offer.
Offer Type	The type of solution.
Offer Type: Custom Meter Solution	The customer deployed your custom metered solution from the Marketplace.
Offer Type: Managed Application	The customer purchased a subscription to your managed service application.

TERM	DEFINITION
Offer Type: Single VM	The customer deployed an image by selecting a single VM.
Offer Type: Solution Template	The customer deployed your solution template.
Order Cancel Date	The date the Marketplace order was canceled.
Order Count	The number of orders (active and canceled) this specific *Azure Subscription GUID* has of any of your offers.
Order Purchase Date	The date the *Marketplace Order* was created. For VMs, this is the first date that your image was deployed to the customer's Azure subscription. Subsequent deployments of that same image to the same Azure subscription are all considered one order.
Order Status	The status of a Marketplace order at the time the data was last refreshed.
Order Status: Active	For managed applications, the order is active. For VMs, the customer has at least one deployment of the image on their Azure subscription.
Order Status: Canceled	For managed applications, the order has been canceled. For VMs, the customer has deleted all deployments of the *SKU* from their Azure subscription.
OrderID	The unique identifier of the order. For managed applications, the customer has purchased a monthly subscription to your service. For VMs, the customer has deployed your image. Subsequent deployments of that same image to the same Azure subscription are all considered one order.
Payment Type: Card	The customer pays for their Marketplace charges with a credit card.
Payment Type: Invoice	The customer pays for their Marketplace charges via invoice.
Payout Amount (PC)	The amount paid to you, in your preferred *Payout Currency (PC)*.
Payout Currency (PC)	The currency used for your payouts.
Payout Date	The date the payment request was sent from Microsoft to your bank.
Payout Status	Indicates where the transaction is in the payout lifecycle: *Paid Out*, *Upcoming Payout*, or *Not Ready for Payout*.
Payout Status: Not Ready for Payout	The transaction is not ready for payout. (See *Final Collection Status* for more details)
Payout Status: Paid Out	The transaction was included in a past payout calculation. Positive values are paid, and negative values are netted against total amount due.

TERM	DEFINITION
Payout Status: Upcoming Payout	The transaction is ready for payout and will be included in the next available payout calculation.
Preview SKU	You have tagged the *SKU* as "preview," and only Azure subscriptions whitelisted by you can deploy and use this image.
Price (CC)	The price for a unit of usage for a given SKU (in the customer's currency).
Promotional Contact Opt In	Indicates whether the customer proactively opted in for promotional contact from publishers. At this time, we are not presenting the option to customers, so we have indicated "No" across the board. Once this feature is deployed, we will start updating accordingly.
Publisher Currency (PC)	The currency preferred by the publisher for payout.
Raw Usage	Usage hours for your Marketplace offer.
Reseller Email	The email address of the reseller involved in the sale to the end customer.
Reseller Name	The name of the Microsoft reseller managing the end customer.
Resource URI	A unique identifier for individual VMs or developer services deployments.
SKU	*SKU* name as defined during publishing. An offer may have many *SKUs*, but a *SKU* can only be associated with a single offer.
SKU Billing Type	The billing method of the *SKU*.
SKU Billing Type: BYOL	The VM requires a license key provided by the customer in order to deploy. Microsoft does not bill customers for their usage of this Marketplace offers.
SKU Billing Type: Free	The *SKU* is configured to be free to all users. Microsoft does not bill customers for their usage of this *SKU*.
SKU Billing Type: Microsoft as Reseller	Microsoft is your reseller for this *SKU*.
SKU Billing Type: Paid	Microsoft is your agent for this *SKU* and bills customers on your behalf. (Either PAYG Credit Card or Enterprise Invoice)
SKU Billing Type: Trial	The customer is in their trial period and will be converted to paid if they do not cancel or delete.
Tax Amount (CC)	The tax amount applied to the customer's bill in the *Customer Currency (CC)*.
Transaction Date	The date of the transaction recorded in your payout reporting.

TERM	DEFINITION
Transaction Type	The type of transaction that is being reported.
Transaction Type: Charge	The transaction is a positive value representing the amount charged to the customer.
Transaction Type: Customer Refund	The customer's charge was refunded. This transaction is a negative value equal to the amount of the customer's positive charge. You can identify the corresponding positive value, which was previously paid by identifying the transaction with the same *Charge Date* and *Transaction Type* = "Charge" and *Final Collection Status* = "Refund."
Transaction Type: Payout Adjustment	The transaction represents a positive or negative adjustment applied to your balance by Microsoft, created to account for a previous billing or payout error.
Transaction Type: Write off	The customer's charge was written off to bad debt. This transaction is a negative value equal to the amount of the customer's positive charge. You can identify the corresponding positive value that was previously paid by identifying the transaction with the same *Charge Date* and *Transaction Type* = "Charge" and *Final Collection Status* = "Write Off."
Transaction Type: Write off reversal	The transaction is a positive value representing a reversal of a previously written off transaction.
Trial End Date	The date the trial period for this order will end or has ended.
Usage	The reported customer usage of the *SKU*. For VM Images, usage records represent the usage for the reported period for that VM size and *SKU*.
Usage End Date	The end date of the usage period being reported.
Usage Date	The date customer usage occurred.
Usage Reference	The identifier for one or more days of customer usage for a given SKU associated with an entry in the payout report.
Usage Start Date	The start date of the usage period being reported.
Usage Type	A description of the usage being measured. (*Normalized Usage* or *Raw Usage*)
Usage Units	The unit of measurement for the stated usage. VMs are always measured with hourly units of measurement.
VM Size	Represents the virtual machine hardware size aligned with the Azure offering. Examples include `Basic_A0`, `Standard_A11`, `Standard_D12`, and `Standard_G4`.

Seller Insights FAQ

10/4/2018 • 3 minutes to read • Edit Online

This article provides guidance for common user procedures within and questions about Seller Insights.

Find definitions for the values in the downloaded transaction file

The definitions of the metric values in the transaction file are found in the article Seller Insights Definitions.

See customer details of transactions for which I've been paid

After downloading your transactions from the Payout module, locate the column labeled **Payout Status**, and apply the filter to only display the value "Paid Out." The following columns will appear containing the customer details: **Company Name**, **Customer Email**, **Customer Country**, **Customer State**, and **Customer Postal Code**.

Calculate my open accounts receivable

After downloading your transactions from the Payout module, locate the column labeled **Payout Status**, and apply the filter to only display the value "Upcoming Payout" and "Not Ready for Payout." Then sum the column labeled **Payout Amount (PC)**.

Calculate revenue by customer usage period

After downloading your transactions from the Payout module, locate the column labeled **Transaction Status**, and filter the value "Paid". For each transaction listed, the column labeled **Payout Amount (PC)** represents the amount you were paid. To estimate the usage period associated with the transaction, use the column **Charge Date**, which is a close approximation of the last day of usage for the period to which the transaction applies.

Calculate your bad debt

After downloading your transactions from the Payout module, locate the column labeled **Final Collection Status**, and apply the filter to only display the value "Write Off." Then sum the column labeled **Payout Amount (PC)**.

View payout or customer contact information

Sign in as a user with the "owner" role and not the "contributor" role. Only the owner role will see payout and customer information. You can find out more about user roles in the article Manage users.

Calculate my advance payouts

After downloading your transactions from the Payout module, locate the column labeled **Transaction Type**, and apply the filter to only display the value "Charge." Next, locate the column labeled **Final Collection Status**, and apply the filter to only display the value "In Progress". Finally, sum the **Payout Amount (PC)** column to calculate all advances paid to you prior to collection from the customer.

Calculate customer refunds

After downloading your transactions from the Payout module, locate the column labeled **Final Collection Status**, and apply the filter to only display the value "Refund." Sum the **Charge Amount (PC)** column to calculate all refunds processed for your customers.

Identify which transactions involved a Microsoft Channel Partner

All transactions in the column **Azure License Type** that are filtered to display the values "Enterprise through Reseller" and "Cloud Solution Provider" involve a Microsoft Channel Partner. For more details on the partner, you can find their **Reseller Name** and **Reseller Email** in the Payout module download and the Customer module download.

Identify trial usage and trial conversions

Order, Usage and Payout module downloads now contain **Trial End Date** to help you understand when the trial period ended for that specific order, where applicable. To see trial usage and orders, locate the **SKU Billing Type** column in the downloads, and apply the filter to only display the value "Trial." To see trial conversions, locate the **Trial End Date** column in the downloads, and apply the filter to only display orders when the **Trial End Date** is past today's date and **Cancel Date** column is empty or later than the **Trial End Date**.

When is my monthly payout calculated

Your payouts are issued to you by the 15th of each month for all amounts ready for payout by the last calendar day of the preceding month. On the third day of the month, Microsoft will calculate the previous month's payout amount and update all applicable charge transactions in your download with "Upcoming Payout" in the **Payout Status** column. Those transactions will stay in that state until the payment request is sent to your bank account, at which time their **Payout Status** will be updated to "Paid Out," and the "Payout Date" will be updated to show the date we submitted the payment request to your bank.

Calculate customer acquisition and loss

You can see the date when the customer first bought one of your offers by locating the **Date Acquired** column in the customer download. Similarly, you can see the date after which they no longer had any offer published by you by locating the **Date Lost** column in the customer download.

Finding more help

- Seller Insights Definitions - Find definitions for metrics and data

- Getting started with Seller Insights - Introduction to the Seller Insights feature.

Cloud Partner Portal API Reference

10/4/2018 • 2 minutes to read • Edit Online

The Cloud Partner Portal REST APIs allow the programmatic retrieval and manipulation of workloads, offers, and publisher profiles. The APIs use role-based access control (RBAC) to enforce correct permissions at processing time.

This reference provides the technical details for the Cloud Partner Portal REST APIs. The payload samples in this document are for reference only and are subject to change as new functionality is added.

Prerequisites and considerations

Before using the APIs, you should review:

- The Prerequisites article to learn how to add a service principal to your account, and get an Azure Active Directory (Azure AD) access token for authentication.
- The two concurrency control. strategies available for calling these APIs.
- Additional API considerations, such as versioning and error handling.

Common tasks

This reference details APIs to perform the following common tasks.

Offers
- Retrieve all offers
- Retrieve a specific offer
- Retrieve offer status
- Create an offer
- Publish an offer

Operations
- Retrieve operations
- Cancel operations

Publish an app
- Go live

Other tasks
- Set pricing for virtual machine offers

Troubleshooting
- Troubleshooting authentication errors

API Prerequisites

10/4/2018 • 2 minutes to read • Edit Online

There are two required programmatic assets that you need to use the Cloud Partner Portal APIs: a service principal and an Azure Active Directory (Azure AD) access token.

Create a service principal in your Azure Active Directory tenant

First, you need to create a service principal in your Azure AD tenant. This tenant will be assigned its own set of permissions in the Cloud Partner Portal. Your code will call APIs using as this tenant instead of using your personal credentials. For a full explanation of creating a service principal, see Use portal to create an Azure Active Directory application and service principal that can access resources.

Add the service principal to your account

Now that you've created the service principal in your tenant, you can add it as a user to your Cloud Partner Portal account. Just like a user, the service principal can be an owner or a contributor to the portal.

Use the following steps to add the service principal:

1. Sign onto the Cloud Partner Portal.
2. Click on **Users** on the left menubar and choose **Add User**.
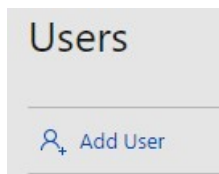
3. From the **Type** dropdown, select **Service Principal** and add the following details:

- A **Friendly Name** for the service principal, for example `spAccount`.
- The **Application ID**. To find this identifier, go to the Azure Portal, click **Azure Active Directory**, choose **App registrations**, and click on your app.
- The **Tenant ID**, also known as the **Directory ID**, for your Azure AD tenant. You can find this identifier in the Azure Active Directory page in the Azure portal, under **Properties**.
- The **Object ID** for your service principal object. You can get this identifier from the Azure portal. Go to **Azure Active Directory**, choose **App registrations**, click on your app and click on the app name under **Managed application in local directory**. Then, go to the **Properties** page, to find the Object ID. Make sure you are not grabbing the initial Object ID that is on your app, but instead the Object ID in the managed application.
- The **Role** associated with the account, which will be used for RBAC.
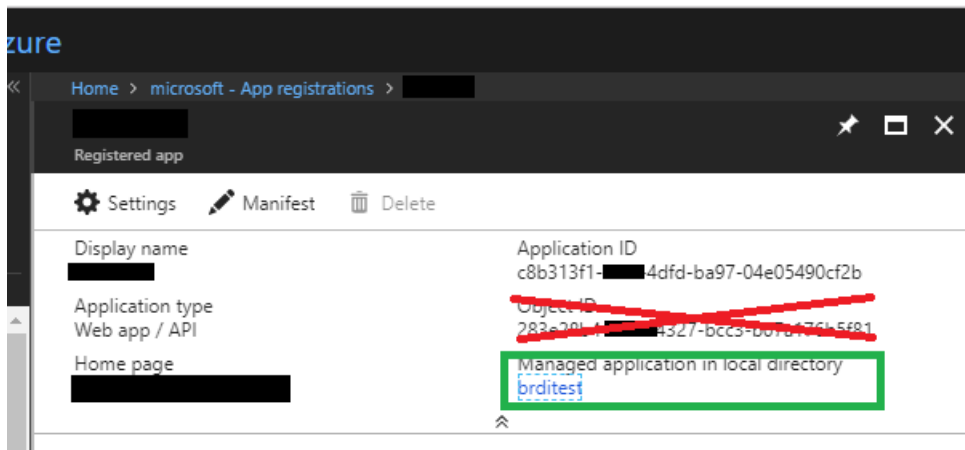
1. Click **Add** to add the service principal to your account.

Get an Azure AD access token

The Cloud Partner Portal APIs use the following assets and protocols during authentication:

- A JSON Web Token (JWT) bearer token to request access to resources
- The OpenID Connect (OIDC) protocol to verify identity
- Azure Active Directory (Azure AD) as the identity authority

There are two principle approaches to programmatically acquiring a JWT token:

- Use the Microsoft Authentication Library for .NET (MSAL.NET). This higher-level approach is recommended for .NET developers.
- Make an **HTTP POST** request to the Azure AD oauth **token** endpoint, which takes the form:

```
POST https://login.microsoftonline.com/<tenant-id>/oauth2/token
    client_id: <application-id>
    client_secret:<application-secret>
    grant_type: client_credentials
    resource: https://cloudpartner.azure.com
```

Now, you can pass this token as part of the authorization header for API requests.

```
GET https://cloudpartner.azure.com/api/offerTypes?api-version=2016-08-01-preview
    Accept: application/json
    Authorization: Bearer <access-token>
```

NOTE

For all the APIs in this reference, the authorization header is always assumed passed, so it not explicitly mentioned.

If you run into authentication errors in your request, see Troubleshooting authentication errors.

API Considerations

API versioning

There may be multiple versions of the API that are available at the same time. Clients must indicate which version they wish to invoke use by providing the `api-version` parameter as part of the query string.

```
GET https://cloudpartner.azure.com/api/offerTypes?api-version=2017-10-31
```

The response to a request with an unknown or invalid API version is an HTTP code 400. This error returns the collection of known API versions in the response body.

```
{
    "error": {
        "code":"InvalidAPIVersion",
        "message":"Invalid api version. Allowed values are [2016-08-01-preview]"
    }
}
```

Errors

The API responds to errors with the corresponding HTTP status codes and optionally, additional information in the response serialized as JSON. When you receive an error, especially a 400-class error, do not retry the request before fixing the underlying cause. For example, in the sample response above, fix the API version parameter before resending the request.

Authorization header

For all the APIs in this reference, you must pass the authorization header along with the bearer token obtained from Azure Active Directory (Azure AD). This header is required to receive a valid response; if not present, a `401 Unauthorized` error is returned.

```
GET https://cloudpartner.azure.com/api/offerTypes?api-version=2016-08-01-preview

    Accept: application/json
    Authorization: Bearer <YOUR_TOKEN>
```

Concurrency Control

10/4/2018 • 2 minutes to read • Edit Online

Every call to the Cloud Partner Portal publishing APIs must explicitly specify which concurrency control strategy to use. Failure to provide the **If-Match** header will result in an HTTP 400 error response. We offer two strategies for concurrency control.

- **Optimistic** - The client performing the update verifies if the data has changed since it last read the data.
- **Last one wins** - The client directly updates the data, regardless of whether another application has modified it since the last read time.

Optimistic concurrency workflow

We recommend using the optimistic concurrency strategy, with the following workflow, to guarantee that no unexpected edits are made to your resources.

1. Retrieve an entity using the APIs. The response includes an ETag value that identifies the currently stored version of the entity (at the time of the response).
2. At the time of update, include this same ETag value in the mandatory **If-Match** request header.
3. The API compares the ETag value received in the request with the current ETag value of the entity in an atomic transaction.
   - If the ETag values are different, the API returns a `412 Precondition Failed` HTTP response. This error indicates that either another process has updated the entity since the client last retrieved it, or that the ETag value specified in the request is incorrect.
   - If the ETag values are the same, or the **If-Match** header contains the wildcard asterisk character (`*`), the API performs the requested operation. The API operation also updates the stored ETag value of the entity.

> **NOTE**
>
> Specifying the wildcard character (*) in the **If-Match* header results in the API using the Last-one-wins concurrency strategy. In this case, the ETag comparison does not occur and the resource is updated without any checks.

Retrieve offers

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Retrieves a summarized list of offers under a publisher namespace.

```
GET https://cloudpartner.azure.com/api/publishers/<publisherId>/offers?api-version=2017-10-31
```

URI parameters

** NAME**	DESCRIPTION	DATA TYPE
publisherId	Publisher identifier, for example `contoso`	String
api-version	Latest version of API	Date

NAME	VALUE
Content-Type	`application/json`
Authorization	`Bearer YOUR_TOKEN`

Body example

Response

```
200 OK
[
    {
        "offerTypeId": "microsoft-azure-virtualmachines",
        "publisherId": "contoso",
        "status": "published",
        "id": "059afc24-07de-4126-b004-4e42a51816fe",
        "version": 1,
        "definition": {
            "displayText": "Contoso Virtual Machine"
        },
        "changedTime":"2017-05-23T23:33:47.8802283Z"
    }
]
```

Response body properties

NAME	DESCRIPTION
offerTypeId	Identifies the type of offer
publisherId	Identifier that uniquely identifies the publisher

NAME	DESCRIPTION
status	Status of the offer. For the list of possible values, see Offer status below.
id	GUID that uniquely identifies the offer in the publisher namespace.
version	Current version of the offer. The version property cannot be modified by the client. It's incremented after each publishing.
definition	Contains a summarized view of the actual definition of the workload. To get a detailed definition, use the Retrieve specific offer API.
changedTime	UTC time when the offer was last modified

Response status codes

CODE	DESCRIPTION
200	`OK` - The request was successfully processed and all the offers under the publisher were returned to the client.
400	`Bad/Malformed request` - The error response body may contain more information.
403	`Forbidden` - The client doesn't have access to the specified namespace.
404	`Not found` - The specified entity doesn't exist.

Offer Status

NAME	DESCRIPTION
NeverPublished	Offer has never been published.
NotStarted	Offer is new but is not started.
WaitingForPublisherReview	Offer is waiting for publisher approval.
Running	Offer submission is being processed.
Succeeded	Offer submission has completed processing.
Canceled	Offer submission was canceled.
Failed	Offer submission failed.

Retrieve a specific offer

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Retrieves the specified offer within the publisher namespace.

You can also retrieve a particular version of the offer, or retrieve the offer in draft, view, or production slots. If a slot is not specified, the default is `draft`. Attempting to retrieve an offer that has not been previewed or published will result in a `404 Not Found` error.

> **WARNING**
>
> The secret values for secret type fields will not be retrieved by this API.

```
GET https://cloudpartner.azure.com/api/publishers/<publisherId>/offers/<offerId>?api-version=2017-10-31

GET https://cloudpartner.azure.com/api/publishers/<publisherId>/offers/<offerId>/versions/<version>?api-version=2017-10-31

GET https://cloudpartner.azure.com/api/publishers/<publisherId>/offers/<offerId>/slot/<slotId>?api-version=2017-10-31
```

URI parameters

NAME	DESCRIPTION	DATA TYPE
publisherId	publisherId. For example, Contoso	String
offerId	Guid that uniquely identifies the offer.	String
version	Version of the offer being retrieved. By default, the latest offer version is retrieved.	Integer
slotId	The slot from which the offer is to be retrieved, can be one of: - `Draft` (default) retrieves the offer version currently in draft. - `Preview` retrieves the offer version currently in preview. - `Production` retrieves the offer version currently in production.	enum
api-version	Latest version of API	Date

NAME	VALUE
Content-Type	`application/json`

NAME	VALUE
Authorization	`Bearer YOUR_TOKEN`

Body example

Response

```
{
    "offerTypeId": "microsoft-azure-virtualmachines",
    "publisherId": "contoso",
    "status": "failed",
    "id": "059afc24-07de-4126-b004-4e42a51816fe",
    "version": 5,
    "definition": {
        "displayText": "Contoso Virtual Machine Offer",
        "offer": {
            "microsoft-azure-marketplace-testdrive.enabled": false,
            "microsoft-azure-marketplace-testdrive.videos": [],
            "microsoft-azure-marketplace.title": "Contoso App",
            "microsoft-azure-marketplace.summary": "Contoso App makes dev ops a breeze",
            "microsoft-azure-marketplace.longSummary": "Contoso App makes dev ops a breeze",
            "microsoft-azure-marketplace.description": "Contoso App makes dev ops a breeze",
            "microsoft-azure-marketplace.offerMarketingUrlIdentifier": "contosoapp",
            "microsoft-azure-marketplace.allowedSubscriptions": [
                "59160c40-2e25-4dcf-a2fd-6514cb08bf08"
            ],
            "microsoft-azure-marketplace.usefulLinks": [
                {
                    "linkTitle": "Contoso App for Azure",
                    "linkUrl": "https://azuremarketplace.microsoft.com"
                }
            ],
            "microsoft-azure-marketplace.categories": [
                "devService",
                "networking",
                "database",
                "cache",
                "security"
            ],
            "microsoft-azure-marketplace.smallLogo":
"https://publishingapistore.blob.core.windows.net/testcontent/D6191_publishers_contoso/contosovirtualmachine/6
218c455-9cbc-450c-9920-f2e7a69ee132.png?sv=2014-02-
14&sr=b&sig=6O8MM9dgiJ48VK0MwddkyVbprRAnBszyhVkVHGShhkI%3D&se=2019-03-28T19%3A46%3A50Z&sp=r",
            "microsoft-azure-marketplace.mediumLogo":
"https://publishingapistore.blob.core.windows.net/testcontent/D6191_publishers_contoso/contosovirtualmachine/5
57e714b-2f31-4e12-b0cc-e48dd840edf4.png?sv=2014-02-
14&sr=b&sig=NwL67NTQf9Gc9VScmZehtbHXpYmxhwZc2foy3o4xavs%3D&se=2019-03-28T19%3A46%3A49Z&sp=r",
            "microsoft-azure-marketplace.largeLogo":
"https://publishingapistore.blob.core.windows.net/testcontent/D6191_publishers_contoso/contosovirtualmachine/1
42485da-784c-44cb-9523-d4f396446258.png?sv=2014-02-
14&sr=b&sig=xaMxhwx%2FlKYfz33mJGIg8UBdVpsOwVvqhjTJ883o0iY%3D&se=2019-03-28T19%3A46%3A49Z&sp=r",
            "microsoft-azure-marketplace.wideLogo":
"https://publishingapistore.blob.core.windows.net/testcontent/D6191_publishers_contoso/contosovirtualmachine/4
8af9013-1df7-4c94-8da8-4626e5039ce0.png?sv=2014-02-
14&sr=b&sig=%2BnN7f2tprkrqb45ID6JlT01zXcy1PMTkWXtLKD6nfoE%3D&se=2019-03-28T19%3A46%3A49Z&sp=r",
            "microsoft-azure-marketplace.screenshots": [],
            "microsoft-azure-marketplace.videos": [],
            "microsoft-azure-marketplace.leadDestination": "None",
            "microsoft-azure-marketplace.tableLeadConfiguration": {},
            "microsoft-azure-marketplace.blobLeadConfiguration": {},
            "microsoft-azure-marketplace.salesForceLeadConfiguration": {},
            "microsoft-azure-marketplace.crmLeadConfiguration": {},
            "microsoft-azure-marketplace.httpsEndpointLeadConfiguration": {},
```

```
                "microsoft-azure-marketplace.marketoLeadConfiguration": {},
                "microsoft-azure-marketplace.privacyURL": "https://azuremarketplace.microsoft.com",
                "microsoft-azure-marketplace.termsOfUse": "Terms of use",
                "microsoft-azure-marketplace.engineeringContactName": "Jon Doe",
                "microsoft-azure-marketplace.engineeringContactEmail": "jondoe@outlook.com",
                "microsoft-azure-marketplace.engineeringContactPhone": "555-555-5555",
                "microsoft-azure-marketplace.supportContactName": "Jon Doe",
                "microsoft-azure-marketplace.supportContactEmail": "jondoe@outlook.com",
                "microsoft-azure-marketplace.supportContactPhone": "555-555-5555",
                "microsoft-azure-marketplace.publicAzureSupportUrl": "",
                "microsoft-azure-marketplace.fairfaxSupportUrl": ""
            },
            "plans": [
            {
                "planId": "contososkuidentifier",
                "microsoft-azure-virtualmachines.skuTitle": "Contoso App",
                "microsoft-azure-virtualmachines.skuSummary": "Contoso App makes dev ops a breeze.",
                "microsoft-azure-virtualmachines.skuDescription": "This is a description for the Contoso App
    that makes dev ops a breeze.",
                "microsoft-azure-virtualmachines.hideSKUForSolutionTemplate": false,
                "microsoft-azure-virtualmachines.cloudAvailability": [
                    "PublicAzure"
                ],
                "microsoft-azure-virtualmachines.certificationsFairfax": [],
                "virtualMachinePricing": {
                    "isByol": true,
                    "freeTrialDurationInMonths": 0
                },
                "microsoft-azure-virtualmachines.operatingSystemFamily": "Windows",
                "microsoft-azure-virtualmachines.windowsOSType": "Other",
                "microsoft-azure-virtualmachines.operationSystem": "Contoso App",
                "microsoft-azure-virtualmachines.recommendedVMSizes": [
                    "a0-basic",
                    "a0-standard",
                    "a1-basic",
                    "a1-standard",
                    "a2-basic",
                    "a2-standard"
                ],
                "microsoft-azure-virtualmachines.openPorts": [],
                "microsoft-azure-virtualmachines.vmImages": {
                    "1.0.1": {
                    "osVhdUrl": "http://contosoteststorage.blob.core.windows.net/test/contosoVM.vhd?sv=2014-
    02-14&sig=WlDo6Q4xwYH%2B5QEJbItPUVdgHhBcrVxPBmntZ2vU96w%3D&st=2016-06-25T18%3A30%3A00Z&se=2017-06-
    25T18%3A30%3A00Z&sp=rl",
                    "lunVhdDetails": []
                    }
                },
                "regions": [
                    "DZ",
                    "AR"
                ]
            }
            ]
        },
        "changedTime": "2017-06-07T06:15:39.7349221Z"
    }
}
```

Response body properties

NAME	DESCRIPTION
offerTypeId	Identifies the type of offer

NAME	DESCRIPTION
publisherId	Unique Identifier of the publisher
status	Status of the offer. For the list of possible values, see Offer status below.
Id	GUID that uniquely identifies the offer
version	Current version of the offer. The version property cannot be modified by the client. It's incremented after each publishing.
definition	Actual definition of the workload
changedTime	UTC datetime when the offer was last modified

Response status codes

CODE	DESCRIPTION
200	`OK` - The request was successfully processed and all the offers under the publisher were returned to the client.
400	`Bad/Malformed request` - The error response body may contain more information.
403	`Forbidden` - The client doesn't have access to the specified namespace.
404	`Not found` - The specified entity doesn't exist. Client should check the publisherId, offerId, and version (if specified).

Offer status

NAME	DESCRIPTION
NeverPublished	Offer has never been published.
NotStarted	Offer is new but is not started.
WaitingForPublisherReview	Offer is waiting for publisher approval.
Running	Offer submission is being processed.
Succeeded	Offer submission has completed processing.
Canceled	Offer submission was canceled.
Failed	Offer submission failed.

Create or modify an offer

10/4/2018 • 3 minutes to read • Edit Online

This call updates a specific offer within the publisher namespace or creates a new offer.

```
PUT https://cloudpartner.azure.com/api/publishers/<publisherId>/offers/<offerId>?api-version=2017-10-31
```

URI parameters

NAME	DESCRIPTION	DATA TYPE
publisherId	Publisher identifier, for example `contoso`	String
offerId	Offer identifier	String
api-version	Latest version of the API	Date

NAME	VALUE
Content-Type	`application/json`
Authorization	`Bearer YOUR_TOKEN`

Body example

The following example creates an offer with offerID of `contosovirtualmachine` .

Request

```
{
    "publisherId": "contoso",
    "offerTypeId": "microsoft-azure-virtualmachines",
    "id": "contosovirtualmachine",
    "offerTypeVersions": {
        "microsoft-azure-virtualmachines": 87,
        "microsoft-azure-marketplace": 39
    },
    "definition": {
        "displayText": "Contoso Virtual Machine Offer",
        "offer": {
        "microsoft-azure-marketplace.title": "Contoso App",
        "microsoft-azure-marketplace.summary": "Contoso App makes dev ops a breeze",
        "microsoft-azure-marketplace.longSummary": "Contoso App makes dev ops a breeze",
        "microsoft-azure-marketplace.description": "Contoso App makes dev ops a breeze",
        "microsoft-azure-marketplace.offerMarketingUrlIdentifier": "contosoapp",
        "microsoft-azure-marketplace.allowedSubscriptions": ["59160c40-2e25-4dcf-a2fd-6514cb08bf08"],
        "microsoft-azure-marketplace.usefulLinks": [{
            "linkTitle": "Contoso App for Azure",
            "linkUrl": "https://azuremarketplace.microsoft.com"
        }],
        "microsoft-azure-marketplace.categories": ["devService", "networking", "database", "cache",
```

```
                    "security"],
            "microsoft-azure-marketplace.smallLogo":
"https://publishingapistore.blob.core.windows.net/testcontent/D6191_publishers_contoso/contosovirtualmachine/6
218c455-9cbc-450c-9920-f2e7a69ee132.png?sv=2014-02-
14&sr=b&sig=6O8MM9dgiJ48VK0MwddkyVbprRAnBszyhVkVHGShhkI%3D&se=2019-03-28T19%3A46%3A50Z&sp=r",
            "microsoft-azure-marketplace.mediumLogo":
"https://publishingapistore.blob.core.windows.net/testcontent/D6191_publishers_contoso/contosovirtualmachine/5
57e714b-2f31-4e12-b0cc-e48dd840edf4.png?sv=2014-02-
14&sr=b&sig=NwL67NTQf9Gc9VScmZehtbHXpYmxhwZc2foy3o4xavs%3D&se=2019-03-28T19%3A46%3A49Z&sp=r",
            "microsoft-azure-marketplace.largeLogo":
"https://publishingapistore.blob.core.windows.net/testcontent/D6191_publishers_contoso/contosovirtualmachine/1
42485da-784c-44cb-9523-d4f396446258.png?sv=2014-02-
14&sr=b&sig=xaMxhwx%2FlKYfz33mJGIg8UBdVpsOwVvqhjTJ883o0iY%3D&se=2019-03-28T19%3A46%3A49Z&sp=r",
            "microsoft-azure-marketplace.wideLogo":
"https://publishingapistore.blob.core.windows.net/testcontent/D6191_publishers_contoso/contosovirtualmachine/4
8af9013-1df7-4c94-8da8-4626e5039ce0.png?sv=2014-02-
14&sr=b&sig=%2BnN7f2tprkrqb45ID6JlT01zXcy1PMTkWXtLKD6nfoE%3D&se=2019-03-28T19%3A46%3A49Z&sp=r",
            "microsoft-azure-marketplace.heroLogo":
"https://publishingapistore.blob.core.windows.net/testcontent/D6191_publishers_contoso/contosovirtualmachine/c
46ec74d-d214-4fb5-9082-3cee55200eba.png?sv=2014-02-
14&sr=b&sig=RfDvjowFGpP4WZGAHylbF2CuXwO2NXOrwycrXEJvJI4%3D&se=2019-03-28T19%3A46%3A49Z&sp=r",
            "microsoft-azure-marketplace.screenshots": [],
            "microsoft-azure-marketplace.videos": [],
            "microsoft-azure-marketplace.leadDestination": "None",
            "microsoft-azure-marketplace.privacyURL": "https://azuremarketplace.microsoft.com",
            "microsoft-azure-marketplace.termsOfUse": "Terms of use",
            "microsoft-azure-marketplace.engineeringContactName": "Jon Doe",
            "microsoft-azure-marketplace.engineeringContactEmail": "jondoe@outlook.com",
            "microsoft-azure-marketplace.engineeringContactPhone": "555-555-5555",
            "microsoft-azure-marketplace.supportContactName": "Jon Doe",
            "microsoft-azure-marketplace.supportContactEmail": "jondoe@outlook.com",
            "microsoft-azure-marketplace.supportContactPhone": "555-555-5555",
            "microsoft-azure-marketplace.publicAzureSupportUrl": "",
            "microsoft-azure-marketplace.fairfaxSupportUrl": ""
        },
        "plans":
        [
            {
                "planId": "contososkuidentifier",
                "microsoft-azure-virtualmachines.skuTitle": "Contoso App",
                "microsoft-azure-virtualmachines.skuSummary": "Contoso App makes dev ops a breeze.",
                "microsoft-azure-virtualmachines.skuDescription": "This is a description for the Contoso App
that makes dev ops a breeze.",
                "microsoft-azure-virtualmachines.hideSKUForSolutionTemplate": false,
                "microsoft-azure-virtualmachines.cloudAvailability": ["PublicAzure"],
                "virtualMachinePricing": {
                    "isByol": true,
                    "freeTrialDurationInMonths": 0
                },
                "microsoft-azure-virtualmachines.operatingSystemFamily": "Windows",
                "microsoft-azure-virtualmachines.windowsOSType": "Other",
                "microsoft-azure-virtualmachines.operationSystem": "Contoso App",
                "microsoft-azure-virtualmachines.recommendedVMSizes": ["a0-basic", "a0-standard", "a1-basic",
"a1-standard", "a2-basic", "a2-standard"],
                "microsoft-azure-virtualmachines.openPorts": [],
                "microsoft-azure-virtualmachines.vmImages":
                {
                    "1.0.1":
                    {
                        "osVhdUrl": "http://contosoteststorage.blob.core.windows.net/test/contosoVM.vhd?sv=2014-
02-14&sr=c&sig=WlDo6Q4xwYH%2B5QEJbItPUVdgHhBcrVxPBmntZ2vU96w%3D&st=2016-06-25T18%3A30%3A00Z&se=2017-06-
25T18%3A30%3A00Z&sp=rl",
                        "lunVhdDetails": []
                    }
                },
                "regions": ["AZ"]
            }
        ]
    },
```

```
        "eTag": "W/\"datetime'2017-06-07T06%3A15%3A40.4771399Z'\"",
        "version": 5
    }
}
```

Response

```
{
        "offerTypeId": "microsoft-azure-virtualmachines",
        "publisherId": "contoso",
        "status": "neverPublished",
        "id": "contosovirtualmachine",
        "version": 1,
        "definition": {
        "displayText": "Contoso Virtual Machine Offer",
        "offer":
        {
            "microsoft-azure-marketplace-testdrive.videos": [],
            "microsoft-azure-marketplace.title": "Contoso App",
            "microsoft-azure-marketplace.summary": "Contoso App makes dev ops a breeze",
            "microsoft-azure-marketplace.longSummary": "Contoso App makes dev ops a breeze",
            "microsoft-azure-marketplace.description": "Contoso App makes dev ops a breeze",
            "microsoft-azure-marketplace.offerMarketingUrlIdentifier": "contosoapp",
            "microsoft-azure-marketplace.allowedSubscriptions":
            [
                "59160c40-2e25-4dcf-a2fd-6514cb08bf08"
            ],
            "microsoft-azure-marketplace.usefulLinks":
            [
                {
                    "linkTitle": "Contoso App for Azure",
                    "linkUrl": "https://azuremarketplace.microsoft.com"
                }
            ],
            "microsoft-azure-marketplace.categories":
            [
                "devService",
                "networking",
                "database",
                "cache",
                "security"
            ],
            "microsoft-azure-marketplace.smallLogo":
"https://publishingstoredm.blob.core.windows.net/prodcontent/D6191_publishers_marketplace:2Dtest/testaoffer/8a
ffcd28-60a5-4839-adf8-c560e069fd61.png?sv=2014-02-
14&sr=b&sig=nGErAgn%2BDUecrX892wcmk32kh0MHgIZeJ5jcKyY%2Fuew%3D&se=2020-03-28T22%3A27%3A13Z&sp=r",
            "microsoft-azure-marketplace.mediumLogo":
"https://publishingstoredm.blob.core.windows.net/prodcontent/D6191_publishers_marketplace:2Dtest/testaoffer/39
550bca-1110-432c-9ea9-e12b3a2288cd.png?sv=2014-02-
14&sr=b&sig=4X0hlkXYtuZOmcYq%2BsbYVZz3k5k26kngcFX6yBAJjNI%3D&se=2020-03-28T22%3A27%3A13Z&sp=r",
            "microsoft-azure-marketplace.largeLogo":
"https://publishingstoredm.blob.core.windows.net/prodcontent/D6191_publishers_marketplace:2Dtest/testaoffer/ce
3576e3-df12-4074-b0a3-0b8d3f329df1.png?sv=2014-02-
14&sr=b&sig=mFhtCUQh%2FbFz10nlIWbqsz6jq5MBZ0M%2F5cIREE9P6V0%3D&se=2020-03-28T22%3A27%3A13Z&sp=r",
            "microsoft-azure-marketplace.wideLogo":
"https://publishingstoredm.blob.core.windows.net/prodcontent/D6191_publishers_marketplace:2Dtest/testaoffer/47
6d6edd-12d3-4414-9def-d2970c4a9de4.png?sv=2014-02-
14&sr=b&sig=pg4MDSZjAb8w8D%2FrQ9RT%2BodpynSy%2FlYOvpx0yeam2Bw%3D&se=2020-03-28T22%3A27%3A13Z&sp=r",
            "microsoft-azure-marketplace.heroLogo":
"https://publishingstoredm.blob.core.windows.net/prodcontent/D6191_publishers_marketplace:2Dtest/testaoffer/46
c85b7b-4438-4e0d-8218-24fb5651727a.png?sv=2014-02-
14&sr=b&sig=wIsCOO5%2BDj8NsLVSwwzwTgogF71oA7Q1XjKhNB1ni5g%3D&se=2020-03-28T22%3A27%3A13Z&sp=r",
            "microsoft-azure-marketplace.screenshots": [],
            "microsoft-azure-marketplace.videos": [],
            "microsoft-azure-marketplace.leadDestination": "None",
            "microsoft-azure-marketplace.tableLeadConfiguration": {},
            "microsoft-azure-marketplace.blobLeadConfiguration": {},
            "microsoft-azure-marketplace.salesForceLeadConfiguration": {},
```

```json
            "microsoft-azure-marketplace.crmLeadConfiguration": {},
            "microsoft-azure-marketplace.httpsEndpointLeadConfiguration": {},
            "microsoft-azure-marketplace.marketoLeadConfiguration": {},
            "microsoft-azure-marketplace.privacyURL": "https://azuremarketplace.microsoft.com",
            "microsoft-azure-marketplace.termsOfUse": "Terms of use",
            "microsoft-azure-marketplace.engineeringContactName": "Jon Doe",
            "microsoft-azure-marketplace.engineeringContactEmail": "jondoe@outlook.com",
            "microsoft-azure-marketplace.engineeringContactPhone": "555-555-5555",
            "microsoft-azure-marketplace.supportContactName": "Jon Doe",
            "microsoft-azure-marketplace.supportContactEmail": "jondoe@outlook.com",
            "microsoft-azure-marketplace.supportContactPhone": "555-555-5555",
            "microsoft-azure-marketplace.publicAzureSupportUrl": "",
            "microsoft-azure-marketplace.fairfaxSupportUrl": ""
        },
        "plans":
        [
            {
                "planId": "contososkuidentifier",
                "microsoft-azure-virtualmachines.skuTitle": "Contoso App (Old Title)",
                "microsoft-azure-virtualmachines.skuSummary": "Contoso App makes dev ops a breeze.",
                "microsoft-azure-virtualmachines.skuDescription": "This is a description for the Contoso App
that makes dev ops a breeze.",
                "microsoft-azure-virtualmachines.hideSKUForSolutionTemplate": false,
                "microsoft-azure-virtualmachines.cloudAvailability":
                [
                    "PublicAzure"
                ],
                "microsoft-azure-virtualmachines.certificationsFairfax": [],
                "virtualMachinePricing": {
                    "isByol": true,
                    "freeTrialDurationInMonths": 0
                },
                "microsoft-azure-virtualmachines.operatingSystemFamily": "Windows",
                "microsoft-azure-virtualmachines.operationSystem": "Contoso App",
                "microsoft-azure-virtualmachines.recommendedVMSizes":
                [
                    "a0-basic",
                    "a0-standard",
                    "a1-basic",
                    "a1-standard",
                    "a2-basic",
                    "a2-standard"
                ],
                "microsoft-azure-virtualmachines.openPorts": [],
                "microsoft-azure-virtualmachines.vmImages":
                {
                    "1.0.1":
                    {
                        "osVhdUrl": "http://contosoteststorage.blob.core.windows.net/test/contosoVM.vhd?
sv=2014-02-14&sr=c&sig=WlDo6Q4xwYH%2B5QEJbItPUVdgHhBcrVxPBmntZ2vU96w%3D&st=2016-06-25T18%3A30%3A00Z&se=2017-
06-25T18%3A30%3A00Z&sp=rl",
                        "lunVhdDetails": []
                    }
                },
                "regions":
                [
                    "AZ"
                ]
            }
        ]
    },
    "changedTime": "2018-03-28T22:27:13.8363879Z"
}
```

Response status codes

CODE	DESCRIPTION
200	`OK` . The request was successfully processed and offer was modified successfully.
201	`Created` . The request was successfully processed and the offer was created successfully.
400	`Bad/Malformed request` . The error response body could provide more information.
403	`Forbidden` . The client doesn't have access to the requested namespace.
404	`Not found` . The entity referred to by the client does not exist.
412	The server does not meet one of the preconditions that the requester specified in the request. The client should check the ETAG sent with the request.

Uploading artifacts

Artifacts, such as images and logos, should be shared by uploading them to an accessible location on the web, then including each as a URI in the PUT request, as in the example above. The system will detect that these files are not present in the Azure marketplace storage and download these files into storage. As a result, you will find that future GET requests will return an Azure marketplace service URL for these files.

Retrieve offer status

10/4/2018 • 2 minutes to read • Edit Online

Retrieves the current status of the offer.

```
GET https://cloudpartner.azure.com/api/publishers/<publisherId>/offers/<offerId>/status?api-version=2017-10-31
```

URI parameters

NAME	DESCRIPTION	DATA TYPE
publisherId	Publisher identifier, for example `Contoso`	String
offerId	GUID that uniquely identifies the offer	String
api-version	Latest version of API	Date

NAME	VALUE
Content-Type	`application/json`
Authorization	`Bearer YOUR_TOKEN`

Body example

Response

```
{
    "status": "succeeded",
    "messages": [],
    "steps": [
    {
        "estimatedTimeFrame": "< 15 min",
        "id": "displaydummycertify",
        "stepName": "Validate Pre-Requisites",
        "description": "Offer settings provided are validated.",
        "status": "complete",
        "messages": [
            {
                "messageHtml": "Step completed.",
                "level": "information",
                "timestamp": "2018-03-16T17:50:45.7215661Z"
            }
        ],
        "progressPercentage": 100
    },
    {
        "estimatedTimeFrame": "~2-3 days",
        "id": "displaycertify",
        "stepName": "Certification",
        "description": "Your offer is analyzed by our certification systems for issues.",
```

```
            "status": "notStarted",
            "messages": [],
            "progressPercentage": 0
        },
        {
            "estimatedTimeFrame": "< 1 day",
            "id": "displayprovision",
            "stepName": "Provisioning",
            "description": "Your virtual machine is being replicated in our production systems.",
            "status": "notStarted",
            "messages": [],
            "progressPercentage": 0
        },
        {
            "estimatedTimeFrame": "< 1 hour",
            "id": "displaypackage",
            "stepName": "Packaging and Lead Generation Registration",
            "description": "Your virtual machine is being packaged for customers. Additionally, lead systems are
 being configured and set up.",
            "status": "notStarted",
            "messages": [],
            "progressPercentage": 0
        },
        {
            "estimatedTimeFrame": "< 1 hour",
            "id": "publisher-signoff",
            "stepName": "Publisher signoff",
            "description": "Offer is available to preview. Ensure that everything looks good before making your
 offer live.",
            "status": "complete",
            "messages": [],
            "progressPercentage": 0
        },
        {
            "estimatedTimeFrame": "~2-5 days",
            "id": "live",
            "stepName": "Live",
            "description": "Offer is publicly visible and is available for purchase.",
            "status": "complete",
            "messages": [],
            "progressPercentage": 0
        }
        ],
        "previewLinks": [],
        liveLinks": [],
        "notificationEmails": "jdoe@contoso.com"
    }
```

Response body properties

NAME	DESCRIPTION
status	The status of the offer. For the list of possible values, see Offer status below.
messages	Array of messages associated with the offer
steps	Array of the steps that the offer goes through during an offer publishing
estimatedTimeFrame	Estimate of time it would take to complete this step, in friendly format

NAME	DESCRIPTION
id	Identifier of the step
stepName	Name of the step
description	Description of the step
status	Status of the step. For the list of possible values, see Step status below.
messages	Array of messages related to the step
processPercentage	Percentage completion of the step
previewLinks	*Not currently implemented*
liveLinks	*Not currently implemented*
notificationEmails	Comma-separated list of email addresses to be notified of the progress of the operation

Response status codes

CODE	DESCRIPTION
200	`OK` - The request was successfully processed, and the current status of the offer was returned.
400	`Bad/Malformed request` - The error response body may contain more information.
404	`Not found` - The specified entity doesn't exist.

Offer status

NAME	DESCRIPTION
NeverPublished	Offer has never been published.
NotStarted	Offer is new and not started.
WaitingForPublisherReview	Offer is waiting for publisher approval.
Running	Offer submission is being processed.
Succeeded	Offer submission has completed processing.
Canceled	Offer submission was canceled.
Failed	Offer submission failed.

NAME	DESCRIPTION

Step Status

NAME	DESCRIPTION
NotStarted	Step has not started.
InProgress	Step is running.
WaitingForPublisherReview	Step is waiting for publisher approval.
WaitingForApproval	Step is waiting for process approval.
Blocked	Step is blocked.
Rejected	Step is rejected.
Complete	Step is complete.
Canceled	Step was canceled.

Publish an offer

10/4/2018 • 2 minutes to read • Edit Online

Starts the publishing process for the specified offer. This call is a long running operation.

```
POST https://cloudpartner.azure.com/api/publishers/<publisherId>/offers/<offerId>/publish?api-version=2017-10-
31
```

URI parameters

NAME	DESCRIPTION	DATA TYPE
publisherId	Publisher identifier, for example `contoso`	String
offerId	Offer identifier	String
api-version	Latest version of the API	Date

NAME	VALUE
Content-Type	`application/json`
Authorization	`Bearer YOUR_TOKEN`

Body example

Request

```
{
    'metadata':
        {
            'notification-emails': 'jdoe@contoso.com'
        }
}
```

Request body properties

NAME	DESCRIPTION
notification-emails	Comma-separated list of email addresses to be notified of the progress of the publishing operation.

Response

```
Operation-Location: /api/operations/contoso$56615b67-2185-49fe-80d2-c4ddf77bb2e8$2$preview?api-version=2017-10-
31
```

Response Header

NAME	VALUE
Operation-Location	URL that can be queried to determine the current status of the operation.

Response status codes

CODE	DESCRIPTION
202	`Accepted` - The request was successfully accepted. The response contains a location that can be used to track the operation that is launched.
400	`Bad/Malformed request` - The error response body may provide more information.
422	`Un-processable entity` - Indicates that the entity to be published failed validation.
404	`Not found` - The entity specified by the client doesn't exist.

Retrieve operations

11/19/2018 • 2 minutes to read • Edit Online

Retrieves all the operations on the offer or to get a particular operation for the specified operationId. The client may use query parameters to filter on running operations.

```
GET https://cloudpartner.azure.com/api/publishers/<publisherId>/offers/<offerId>/submissions/?api-
version=2017-10-31&status=<filteredStatus>

GET https://cloudpartner.azure.com/api/publishers/<publisherId>/offers/<offerId>/operations/<operationId>?
api-version=2017-10-31
```

URI parameters

NAME	DESCRIPTION	DATA TYPE
publisherId	Publisher identifier, for example `Contoso`	String
offerId	Offer identifier	String
operationId	GUID that uniquely identifies the operation on the offer. The operationId may be retrieved by using this API, and is also returned in the HTTP header of the response for any long running operation, such as the Publish offer API.	Guid
filteredStatus	Optional query parameter used to filter by status (for example `running`) on the collection returned by this API.	String
api-version	Latest version of API	Date

NAME	VALUE
Content-Type	`application/json`
Authorization	`Bearer YOUR_TOKEN`

Body example

Response

GET operations

```
[
    {
        "id": "5a63deb5-925b-4ee0-938b-7c86fbf287c5",
        "offerId": "56615b67-2185-49fe-80d2-c4ddf77bb2e8",
        "offerVersion": 1,
        "offerTypeId": "microsoft-azure-virtualmachines",
        "publisherId": "contoso",
        "submissionType": "publish",
        "submissionState": "running",
        "publishingVersion": 2,
        "slot": "staging",
        "version": 636576975611768314,
        "definition": {
            "metadata": {
                "emails": "jdoe@contoso.com"
            }
        },
        "changedTime": "2018-03-26T21:46:01.179948Z"
    }
]
```

GET operation

```
[
    {
        "status" : "running",
        "messages" : [],
        "publishingVersion" : 2,
        "offerVersion" : 1,
        "cancellationRequestState": "canCancel",
        "steps": [
                {
                    "estimatedTimeFrame": "< 15 min",
                    "id": "displaydummycertify",
                    "stepName": "Validate Pre-Requisites",
                    "description": "Offer settings provided are validated",
                    "status": "complete",
                    "messages":
                    [
                        {
                            "messageHtml": "Step completed.",
                            "level": "information",
                            "timestamp": "2017-03-28T19:50:36.500052Z"
                        }
                    ],
                    "progressPercentage": 100
                },
                {
                    "estimatedTimeFrame": "< 5 day",
                    "id": "displaycertify",
                    "stepName": "Certification",
                    "description": "Your offer is analyzed by our certification systems for issues.",
                    "status": "blocked",
                    "messages":
                    [
                        {
                            "messageHtml": "No virtual machine image was found for the plan contoso.",
                            "level": "error",
                            "timestamp": "2017-03-28T19:50:39.5506018Z"
                        },
                        {
                            "messageHtml": "This step has not started yet.",
                            "level": "information",
                            "timestamp": "2017-03-28T19:50:39.5506018Z"
                        }
                    ],
                    "progressPercentage": 0
```

```
                        progressPercentage : 0
                    },
                    {
                        "estimatedTimeFrame": "< 1 day",
                        "id": "displayprovision",
                        "stepName": "Provisioning",
                        "description": "Your virtual machine is being replicated in our production
 systems.",
                        "status": "notStarted",
                        "messages": [],
                        "progressPercentage": 0
                    },
                    {
                        "estimatedTimeFrame": "< 1 hour",
                        "id": "displaypackage",
                        "stepName": "Packaging and Lead Generation Registration",
                        "description": "Your virtual machine is packaged for being shown to your
 customers. Additionally, we hookup our lead generation systems to send leads for your offer.",
                        "status": "notStarted",
                        "messages": [],
                        "progressPercentage": 0
                    },
                    {
                        "id": "publisher-signoff",
                        "stepName": "Publisher signoff",
                        "description": "Offer is available to preview. Ensure that everything looks good
 before making your offer live.",
                        "status": "notStarted",
                        "messages": [],
                        "progressPercentage": 0
                    },
                    {
                        "estimatedTimeFrame": "~2-5 days",
                        "id": "live",
                        "stepName": "Live",
                        "description": "Offer is publicly visible and is available for purchase.",
                        "status": "notStarted",
                        "messages": [],
                        "progressPercentage": 0
                    }
                ],
            "previewLinks": [],
            "liveLinks": [],
            "notificationEmails": "jondoe@contoso.com"
        }
    }
  ]
```

Response body properties

NAME	DESCRIPTION
id	GUID that uniquely identifies the operation
submissionType	Identifies the type of operation being reported for the offer, for example `Publish/GGoLive`
createdDateTime	UTC datetime when the operation was created
lastActionDateTime	UTC datetime when the last update was done on the operation

NAME	DESCRIPTION
status	Status of the operation, either `not started` | `running` | `failed` | `completed` . Only one operation can have status `running` at a time.
error	Error message for failed operations

Response status codes

CODE	DESCRIPTION
200	`OK` - The request was successfully processed and the operation(s) requested were returned.
400	`Bad/Malformed request` - The error response body may contain more information.
403	`Forbidden` - The client doesn't have access to the specified namespace.
404	`Not found` - The specified entity does not exist.

Cancel operation

This API cancels an operation currently in progress on the offer. Use the Retrieve operations API to get an `operationId` to pass to this API. Cancellation is usually a synchronous operation, however in some complex scenarios a new operation may be required to cancel an existing one. In this case, the HTTP response body contains the operation's location that should be used to query status.

You can provide a comma-separated list of email addresses with the request, and the API will notify these addresses about the progress of the operation.

```
POST https://cloudpartner.azure.com/api/publishers/<publisherId>/offers/<offerId>/cancel?api-version=2017-10-31
```

URI parameters

NAME	DESCRIPTION	DATA TYPE
publisherId	Publisher identifier, for example, `contoso`	String
offerId	Offer identifier	String
api-version	Current version of API	Date

NAME	VALUE
Content-Type	application/json
Authorization	Bearer YOUR TOKEN

Body example

Request

```
{
    "metadata": {
      "notification-emails": "jondoe@contoso.com"
    }
}
```

Request body properties

NAME	DESCRIPTION
notification-emails	Comma separated list of email Ids to be notified of the progress of the publishing operation.

Response

```
Operation-Location: https://cloudpartner.azure.com/api/publishers/contoso/offers/contoso-
virtualmachineoffer/operations/56615b67-2185-49fe-80d2-c4ddf77bb2e8
```

Response Header

NAME	VALUE
Operation-Location	URL, which can be queried to determine the current status of the operation.

Response status codes

CODE	DESCRIPTION
200	Ok. The request was successfully processed and the operation is canceled synchronously.
202	Accepted. The request was successfully processed and the operation is in the process of being canceled. Location of the cancellation operation is returned in the response header.
400	Bad/Malformed request. The error response body could provide more information.
403	Access Forbidden. The client does not have access to the namespace specified in the request.
404	Not found. The specified entity does not exist.

```
Operation-Location: https://cloudpartner.azure.com/api/publishers/contoso/offers/contoso-
virtualmachineoffer/operations/56615b67-2185-49fe-80d2-c4ddf77bb2e8
```

Go Live

10/4/2018 • 2 minutes to read • Edit Online

This API starts the process for pushing an app to production. This operation is usually long-running. This call uses the notification email list from the Publish API operation.

```
POST https://cloudpartner.azure.com/api/publishers/<publisherId>/offers/<offerId>/golive?api-version=2017-10-31
```

URI parameters

NAME	DESCRIPTION	DATA TYPE
publisherId	Publisher identifier for the offer to retrieve, for example `contoso`	String
offerId	Offer identifier of the offer to retrieve	String
api-version	Latest version of the API	Date

NAME	VALUE
Content-Type	`application/json`
Authorization	`Bearer YOUR_TOKEN`

Body example

Response

```
Operation-Location: https://cloudpartner.azure.com/api/publishers/contoso/offers/contoso-
virtualmachineoffer/operations/56615b67-2185-49fe-80d2-c4ddf77bb2e8
```

Response Header

NAME	VALUE
Operation-Location	URL to query to determine the current status of the operation

Response status codes

CODE	** DESCRIPTION**
202	`Accepted` - The request was successfully accepted. The response contains a location to track the operation status.
400	`Bad/Malformed request` - Additional error information is found within the response body.

CODE	** DESCRIPTION**
404	`Not found` - The specified entity does not exist.

Pricing for virtual machine offers

10/4/2018 • 2 minutes to read • Edit Online

There are three ways to specify pricing for virtual machine offers: customized core pricing, per-core pricing, and spreadsheet pricing.

Customized core pricing

Pricing is specific for each region and core combination. Every region in the sell list must be specified in the **virtualMachinePricing/regionPrices** section of the definition. Use the correct currency codes for each region in your request. The following example demonstrates these requirements:

```
"virtualMachinePricing":
{
    ...
    "coreMultiplier":
    {
        "currency": "USD",
            "individually":
            {
                "sharedcore": 2,
                "1core": 2,
                "2core": 3,
                "4core": 4,
                "6core": 5,
                "8core": 2,
                "12core": 4,
                "16core": 4,
                "20core": 4,
                "24core": 4,
                "32core": 4,
                "36core": 4,
                "40core": 4,
                "64core": 4,
                "128core": 4
            }
    }
    ...
}
```

Per-core pricing

In this case, the publishers specify one price in USD for their SKU and all other prices are automatically generated. The price per core is specified in the **single** parameter in the request.

```
"virtualMachinePricing":
{
    ...
    "coreMultiplier":
    {
        "currency": "USD",
        "single": 1.0
    }
}
```

Spreadsheet pricing

The publisher may also upload their pricing spreadsheet to a temporary storage location, then include the URI in the request like other file artifacts. The spreadsheet is then uploaded, translated to evaluate the specified price schedule, and finally updates the offer with the pricing information. Subsequent GET requests for the offer will return the spreadsheet URI and the evaluated prices for the region.

```
    "virtualMachinePricing":
    {
        ...
        "spreadSheetPricing":
        {
            "uri": "https://blob.storage.azure.com/<your_spreadsheet_location_here>/prices.xlsx",
        }
    }
```

Regions

The following table shows the different regions that you can specify for customized core pricing, and their corresponding currency codes.

REGION	NAME	CURRENCY CODE
DZ	Algeria	DZD
AR	Argentina	ARS
AU	Australia	AUD
AT	Austria	EUR
BH	Bahrain	BHD
BY	Belarus	RUB
BE	Belgium	EUR
BR	Brazil	USD
BG	Bulgaria	BGN
CA	Canada	CAD
CL	Chile	CLP
CO	Colombia	COP
CR	Costa Rica	CRC
HR	Croatia	HRK
CY	Cyprus	EUR

REGION	NAME	CURRENCY CODE
CZ	Czech Republic	CZK
DK	Denmark	DKK
DO	Dominican Republic	USD
EC	Ecuador	USD
EG	Egypt	EGP
SV	El Salvador	USD
EE	Estonia	EUR
FI	Finland	EUR
FR	France	EUR
DE	Germany	EUR
GR	Greece	EUR
GT	Guatemala	GTQ
HK	Hong Kong SAR	HKD
HU	Hungary	HUF
IS	Iceland	ISK
IN	India	INR
ID	Indonesia	IDR
IE	Ireland	EUR
IL	Israel	ILS
IT	Italy	EUR
JP	Japan	JPY
JO	Jordan	JOD
KZ	Kazakhstan	KZT
KE	Kenya	KES
KR	Korea	KRW

REGION	NAME	CURRENCY CODE
KW	Kuwait	KWD
LV	Latvia	EUR
LI	Liechtenstein	CHF
LT	Lithuania	EUR
LU	Luxembourg	EUR
MK	Macedonia FYRO	MKD
MY	Malaysia	MYR
MT	Malta	EUR
MX	Mexico	MXN
ME	Montenegro	EUR
MA	Morocco	MAD
NL	Netherlands	EUR
NZ	New Zealand	NZD
NG	Nigeria	NGN
NO	Norway	NOK
OM	Oman	OMR
PK	Pakistan	PKR
PA	Panama	USD
PY	Paraguay	PYG
PE	Peru	PEN
PH	Philippines	PHP
PL	Poland	PLN
PT	Portugal	EUR
PR	Puerto Rico	USD
QA	Qatar	QAR

REGION	NAME	CURRENCY CODE
RO	Romania	RON
RU	Russia	RUB
SA	Saudi Arabia	SAR
RS	Serbia	RSD
SG	Singapore	SGD
SK	Slovakia	EUR
SI	Slovenia	EUR
ZA	South Africa	ZAR
ES	Spain	EUR
LK	Sri Lanka	USD
SE	Sweden	SEK
CH	Switzerland	CHF
TW	Taiwan	TWD
TH	Thailand	THB
TT	Trinidad and Tobago	TTD
TN	Tunisia	TND
TR	Turkey	TRY
UA	Ukraine	UAH
AE	United Arab Emirates	EUR
GB	United Kingdom	GBP
US	United States	USD
UY	Uruguay	UYU
VE	Venezuela	USD
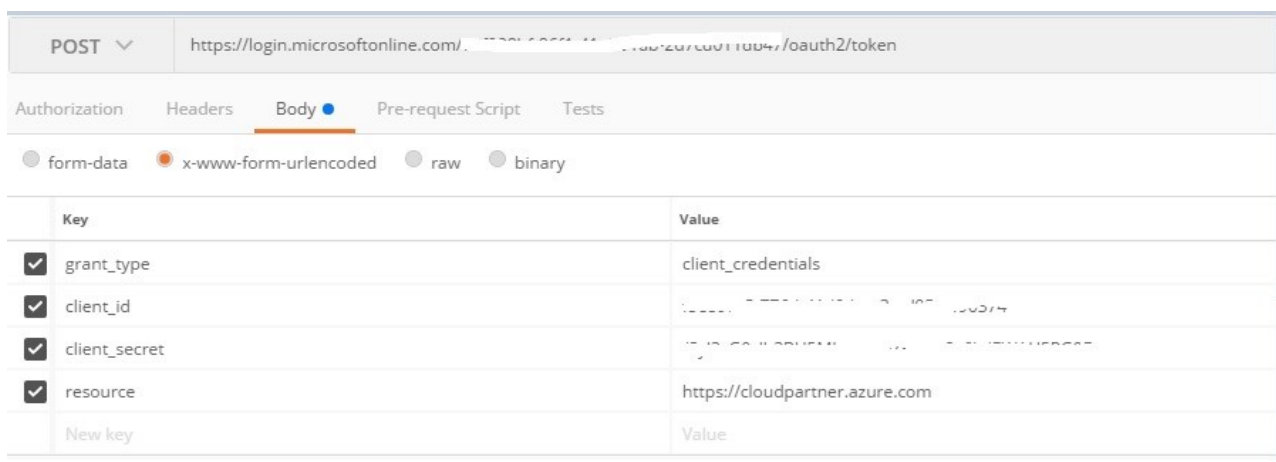
Troubleshooting common authentication errors

12/12/2018 • 2 minutes to read • Edit Online

This article provides assistance with common authentication errors when using the Cloud Partner Portal APIs.

Unauthorized error

If you consistently get `401 unauthorized` errors, verify that you have a valid access token. If you have not already done so, create a basic Azure Active Directory (Azure AD) application and a service principal as described in Use portal to create an Azure Active Directory application and service principal that can access resources. Then, use the application or a simple HTTP POST request to verify your access. You will include the Tenant ID, Application ID, Object ID, and the secret key to obtain the access token as shown in the following image:

Forbidden error

If you get a `403 forbidden` error, make sure that the correct service principal has been added to your publisher account in the Cloud Partner Portal. Follow the steps in the Prerequisites page to add your service principal to the portal.

If the correct service principal has been added, then verify all the other information. Pay close attention to the Object ID entered on the portal. There are two Object IDs in the Azure Active Directory app registration page, and you must use the local Object ID. You can find the correct value by going to the **App registrations** page for your app and clicking on the app name under **Managed application in local directory**. This takes you to the local properties for the app, where you can find the correct Object ID in the **Properties** page, as shown in the following figure. Also, ensure that you use the correct publisher ID when you add the service principal and make the API call.
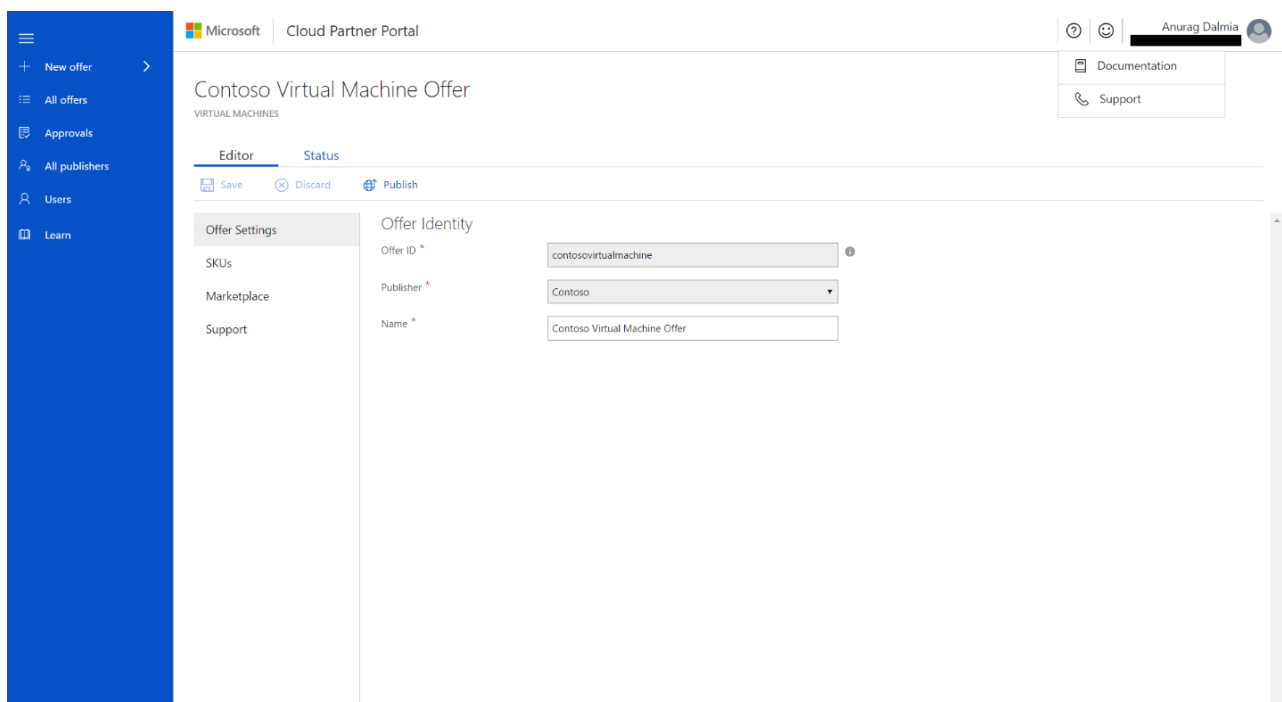
Get Support for Cloud Partner Portal

10/4/2018 • 2 minutes to read • Edit Online

Microsoft provides support for a wide variety of products and services. Ensuring that your query finds the right support team is important to ensure an appropriate and timely response. Consider the following scenarios, which should help you route your query to the appropriate team:

- If you're a publisher and have a question from a customer, ask your customer to request support using the support links at Azure Portal

- If you're a publisher and have a question relating to your app or service, review the following steps for opening a support ticket.

To open a support ticket

1. Go to Cloud Partner Portal and sign in with your work or school account.

2. In the upper menu on the right side of the page, select **Help** icon and then select **Support**.

1. On **Create an incident**, identify the **Problem type** and **Category**.

1. Select **Start request**.

2. Provide contact information and describe the problem. Describe the problem as fully as you can. Provide any files (for example, screen captures, error descriptions, or network traces) that might be helpful in resolving your issue.

1. Select **Submit** to create the ticket.

Support followup

We'll acknowledge receipt of your ticket within 24 hours and assign your issue a priority and severity. Our dedicated team of support engineers will assist with its resolution according to our Service Level Agreement response times.

The next screen capture shows the incident information that you'll receive as confirmation from Microsoft support.

Successfully submitted!

✓ Your question was successfully submitted to Microsoft. A Microsoft professional will contact you within 8 hours.

Confirmation number: 1150815130

If you are using a spam blocker tool, make sure that you can receive e-mail messages from *@microsoft.com and @surveysitemail.com. You may receive a web survey invitation for this support engagement. Invitations will come from either services.feedback@microsoft.com or microsoftsupport@surveysitemail.com with the subject line "Microsoft Customer Satisfaction Survey". Surveys may be completed within a week of receiving the email. We look forward to hearing about your experience with our services. Your responses are critical in our effort to continue to provide you with the highest level of service. We understand your time is valuable and appreciate you taking 5 minutes to complete the survey. Thank you for your time!

Incident Details   🖨 Print

Incident Title
Support Request Number: 1150815130
Severity rating: C
View incident online: Track your request online at any time at https://support.microsoft.com/my/supportrequests.
Response time: within 8 business hours
Name:
E-mail address:
Phone number:
Product: Azure Marketplace - Publisher

- If you need to talk to us about your issue, reply to the email you received for the support time and we can schedule time to talk to you.

- You can view the progress on your issue at any time by selected the **View incident online** link shown in the previous screen capture.