

Microsoft 365 for frontline workers

Microsoft 365 for frontline workers provides simple, intuitive, and secure solutions you can deploy to support the frontline workers who are essential to your business.



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**What is
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WHAT'S NEW
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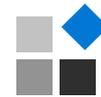
Solutions to transform your business

- Communication
- Wellbeing & engagement
- Training & onboarding
- Schedule management
- Digitized processes
- Virtual Appointments



Solutions for your industry

- Healthcare
- Retail
- Financial services
- Manufacturing



Manage apps

- Approvals
- Bookings
- Shifts
- Tasks
- Updates
- More >



Set up and configure Microsoft 365 for frontline workers

Set up a trial team, start with a pilot deployment, or deploy at scale with this guidance.



Adoption resources [↗](#)

Go from inspiration to execution with these adoption resources.



End user training [↗](#)

Get your frontline workforce up and running quickly with these training videos.

Get started with Microsoft 365 for frontline workers

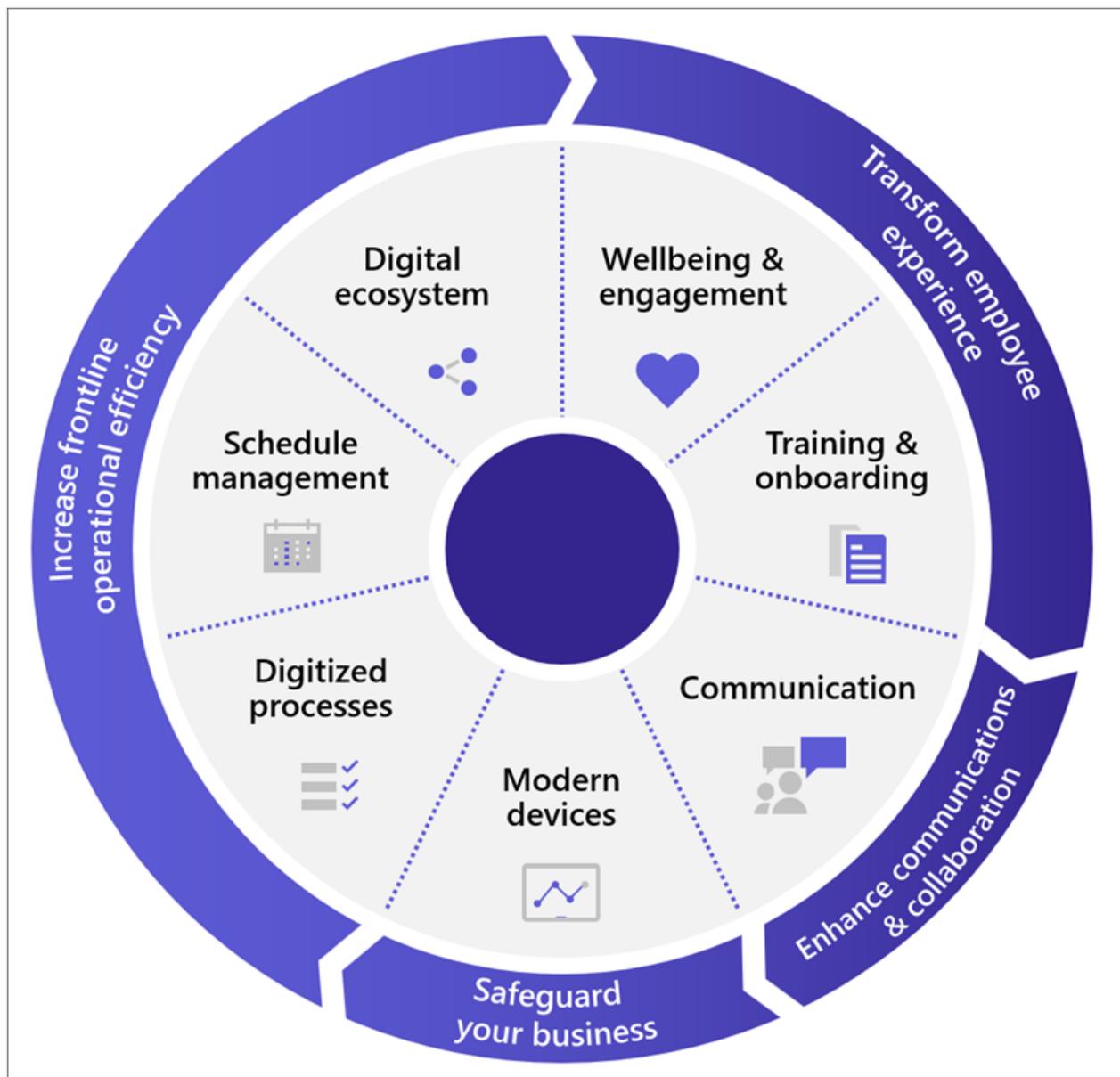
Article • 02/22/2023 • Applies to: Microsoft Teams, Microsoft 365 for frontline workers

What is Microsoft 365 for frontline workers?

Frontline workers are employees whose primary function is to work directly with customers or the general public providing services, support, and selling products, or employees directly involved in the manufacturing and distribution of products and services. Microsoft 365 for frontline workers helps support employee experiences in the following areas so that your frontline workers can do their best work and help your customers:

- [Enhance communications and collaboration](#)
- [Transform employee experiences](#)
- [Increase frontline operational efficiency](#)
- Helps [safeguard your business](#) with security and compliance offerings, including providing [support for modern devices](#)

The following image shows the employee experiences that are key to frontline workers, and common areas where Microsoft 365 can improve experiences for frontline workers:



Licensing for your frontline workers

[Microsoft 365 for frontline workers](#) is optimized for a mobile workforce that primarily interacts with customers, but also needs to stay connected to the rest of your organization.

Microsoft 365 for frontline workers refers to the Microsoft 365 F3 and F1 licenses or Office 365 F3 license, but you can also use an Enterprise license (E1, E3, E5) to implement any of the frontline scenarios. Learn more about [licensing options for frontline workers](#) and which license types you should use for different types of users in your organization.

Some features are available for F3 licenses, but not F1, such as Power Apps and Power Automate. For a detailed comparison of what's included in Microsoft 365 with various licenses, see this [Comparison table](#).

Enhance communications and collaboration

Streamline team and one-on-one communication across your entire organization with Microsoft 365 for frontline workers capabilities. You can enrich and expand corporate communications with Viva Connections to make sure each of your workers feels connected to your broader organization. Make sure your workforce is able to seamlessly communicate with Teams chats, notifications, Walkie Talkie, and more.

Icon	Solution area	Description
	Communication	Connect your frontline workforce and enable them to communicate and share information effectively, whether within their team, across locations, or across your entire company.

Transform employee experiences

Foster an inclusive company culture and increase employee wellbeing while making sure all of your workers have the resources they need to succeed. Using Microsoft Teams, SharePoint, Viva Connections, and Viva Learning, you can connect employees with the tools, people, and devices they need to do their best work and build skills faster. For example:

Icon	Solution area	Description
	Wellbeing & engagement	Nurture a sense of belonging with your frontline employees by helping them engage with your entire organization.
	Training & onboarding	Promote continual growth for your employees and encourage knowledge sharing and exchange.

Increase frontline operational efficiency

Microsoft 365 includes apps like Lists, Tasks, and Approvals that can help you streamline operations and bring them from paper-based to digitally tracked processes. You can enhance these by adding workflow automation, custom apps, and business data tracking with Power Automate, Power Apps, and Power BI from the Power Platform. Extend even further with solutions provided by our partners in the digital ecosystem.

Enhance workforce management with [Shifts](#), the schedule management tool in Teams that keeps your frontline workforce connected and in sync. [Shifts connectors](#) enable you to integrate Shifts with your workforce management (WFM) system. After you set up a

connection, your frontline workers can seamlessly view and manage their schedules in your WFM system from within Shifts.

Icon	Solution area	Description
	Schedule management	Simplify and streamline schedule coordination with your frontline workforce. Gain visibility into their schedules and enable them to arrange for cover and leave.
	Digitize your business processes	Drive operational efficiency by digitizing paper-based processes, and automating routine, repetitive steps.
	Digital ecosystem	Unite the technology your frontline workforce depends on behind a single pane of glass for a seamless end-to-end experience. Include partner solutions and take advantage of integrations that help streamline processes.

Safeguard your business

Safeguard your business with best-in-class security and compliance features. Microsoft 365 for frontline workers offers identity and access management, identity and threat protection, and security management. The offerings available to your workforce in these areas depends on the licenses you assign to your users in the Microsoft 365 admin center.

Manage identities and access with Azure Active Directory

Capability	License availability
Azure Active Directory fundamentals	Enterprise, F1, F3

Mitigate compliance and privacy risks

Capability	License availability
Introduction to security in Microsoft 365	Enterprise, F1, F3
Introduction to compliance tools in Microsoft 365	Enterprise, F1, F3
Quick tasks for getting started with Microsoft Purview	Enterprise, available as an add-on for F3

Simplify deployment and management at scale

Capability	License availability
Deploy Teams at scale for frontline workers	Enterprise, F1, F3
Teams policy packages for frontline workers	Enterprise, F1, F3

Secure endpoints and apps across device types and operating systems

Equip your employees with industry-specific devices tailored for their needs, or provide a more secure way to communicate on shared or personal devices with Microsoft 365 and Microsoft Teams.

Capability	License availability
Manage mobile devices for frontline workers	Enterprise, F1, F3
Manage devices with Intune	Enterprise, F1, F3
Microsoft Intune family of products	Enterprise, F1, F3
Device partner integrations with Intune	Enterprise, F1, F3

Adoption principles to help envision and implement business scenarios

You can implement many helpful scenarios for frontline workers quickly, using out-of-the-box capabilities. For a list of scenarios we recommend and provide guidance for, see [Choose your scenarios](#).

However, it also pays to spend time thinking through exactly what you want to achieve organizationally and setting the appropriate groundwork. Particularly if you need to enhance out-of-the-box scenarios with integrated or custom solutions from solution providers or partners, you'll want to spend time planning and envisioning before you dive in.

The principles below are based on information from the [Frontline Worker Solutions Success Kit](#) [↗](#). Find more adoption resources on the [frontline worker section of the Microsoft Adoption site](#) [↗](#).

Start	Discover	Envision	Build	Grow
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Start	Discover	Envision	Build	Grow
Assess and prepare	Align on value	Identify solutions	Build and validate	Roll out and expand

Start

- ✓ Assess your existing frontline environment and processes.
- ✓ Identify core stakeholders - business, IT, and frontline.
- ✓ Identify motivations, goals, assumptions, and potential blockers.
- ✓ Identify any other in-progress initiatives that might be related, to understand any potential overlaps, conflicts, or potential for alignment.

Discover

- ✓ Define what's needed and why with personas, problem analysis, and stories.
- ✓ Understand current workarounds and gaps.
- ✓ Confirm "what's in it for me" for all of your personas.
- ✓ Get executive sponsorship.

Envision

- ✓ Evaluate what you need technically to enable the scenarios.
- ✓ Map apps and capabilities to light up key scenarios and user stories.
- ✓ Think through questions about device management, such as: how will workers access Teams (install themselves? pushed to them?), how will they log in and how will you manage their identities? What's your approach to bring-your-own, corporate shared, or assigned devices?
- ✓ Identify relevant roles and responsibilities for the execution phase.

Build

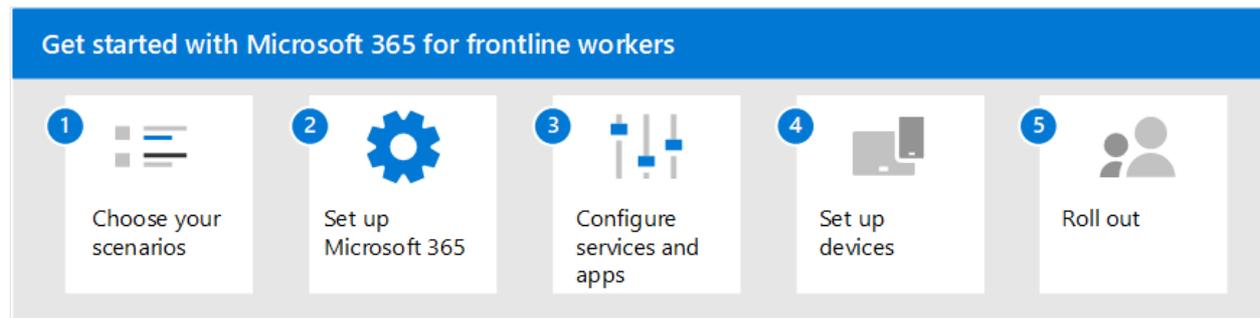
- ✓ Implement your scenario or solution at a small scale.
- ✓ Use a [pilot program](#) to validate your solutions and scenarios with a subset of users.

Grow

- ✓ Roll out your solution at scale.
- ✓ Continue to gather feedback and establish ongoing maintenance and governance.
- ✓ Plan for continuous education and readiness.
- ✓ Expand scenarios as needed, over time.

Ready to get started?

Get started by following these steps:

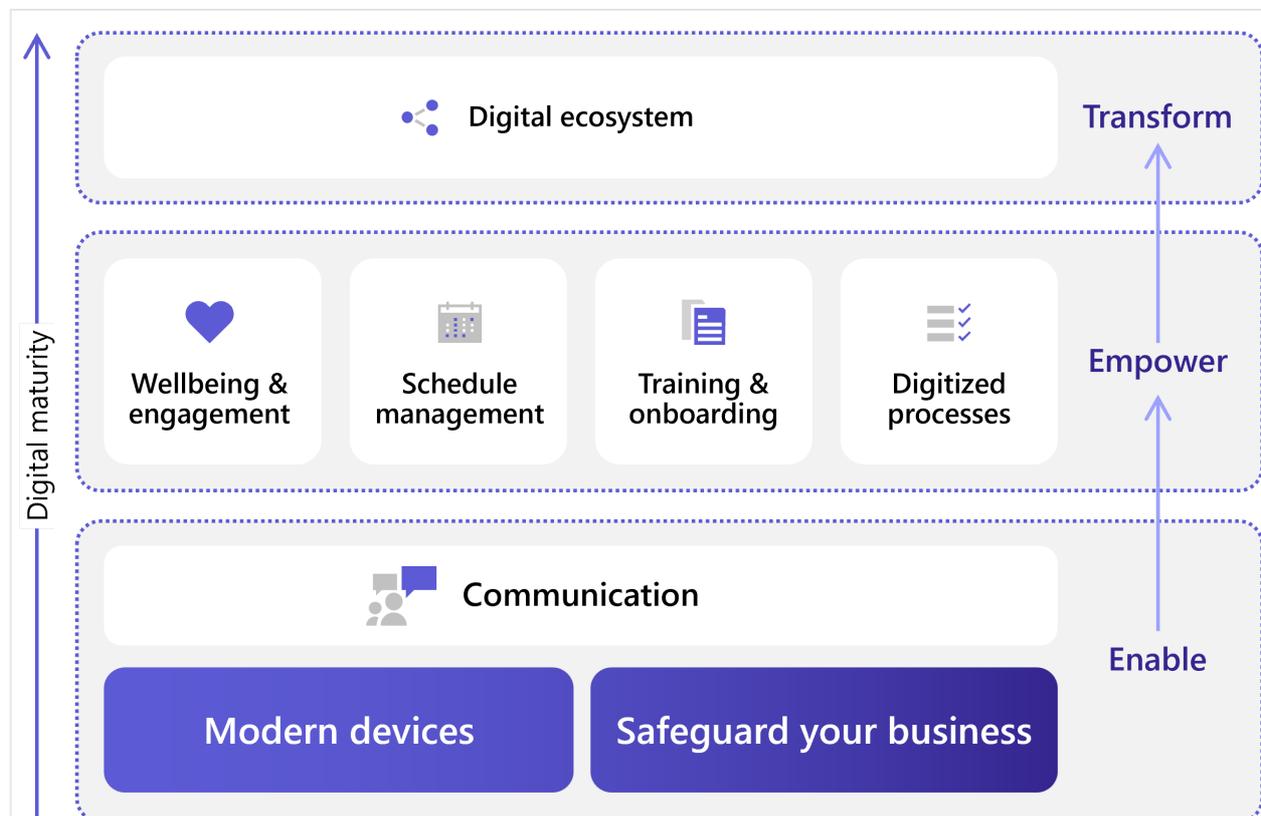


1. **Choose your scenarios:** Discover the ways you can use Microsoft 365 for frontline workers to connect and engage your workforce, manage your workforce, and streamline operations.
2. **Set up Microsoft 365:** Set up Microsoft 365's core elements, Microsoft Teams, and any other services you need.
3. **Configure services and apps:** Configure the services and apps you need for your scenarios. The steps to configure each scenario, plus training resources you can provide to your end users are included in each scenario article.
4. **Set up devices:** Learn how to set up shared and personal devices to work with Microsoft 365 and Microsoft Teams and to allow your frontline workers to communicate more securely within your organization.
5. **Roll out:** Roll out communications and training for your frontline managers and workers. Learn more about helping your organization adopt and use Microsoft 365 for frontline workers on the [Adoption site](#).

Choose your scenarios for Microsoft 365 for frontline workers

Article • 02/01/2023 • Applies to: Microsoft Teams, Microsoft 365 for frontline workers

Microsoft 365 for frontline workers can help you connect and engage your workforce, enhance workforce management, and increase operational efficiency. There are several solution areas that can help you achieve these goals. Think of Microsoft 365's foundational security and device management capabilities as setting a secure baseline, above which you can build scenarios that enable, empower, and transform your frontline business. You can use the capabilities included with Microsoft 365 for frontline workers, from Microsoft Teams, to SharePoint, Viva Connections, Viva Engage, and the Power Platform, or add in solutions from our partners in the digital ecosystem to connect with existing systems or create custom solutions for your business.



Download a poster with scenario overviews

Use these scenario overviews to start envisioning what your organization can do with Microsoft 365 for frontline workers, then follow the links to find out how to implement these scenarios.

Item	Description
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Item	Description
 <p>PDF Visio</p> <p>Updated September 2022</p>	<p>This poster provides an overview of the scenarios you can implement for your frontline workforce to increase communications, enhance wellbeing and engagement, train and onboard your workers, and manage your workforce and operations.</p>

Communications



Communications solutions connect your frontline workers and allow them to collaborate with each other, with others in the organization, and with your customers.

Watch the following video to see an example of how you can help your frontline workers connect and collaborate in retail organizations:

<https://www.microsoft.com/en-us/videoplayer/embed/RWRJVw?postJsllMsg=true>

Scenario	Description	Services	Teams apps
Team communication and collaboration	Help your frontline workforce communicate within their store, shift, or team with Microsoft Teams. Viva Connections helps you create a dashboard that puts the information they need front and center on their devices, so they can reach out whenever they need to.	Microsoft Teams Outlook SharePoint Viva Connections Power Platform and Power Apps	Approvals, Chat, Files, Lists, Meet, Praise, Shifts, Tasks, Walkie Talkie
Corporate communications	Employee engagement is a significant contributor to workplace satisfaction, loyalty, and productivity at any organization. Learn how to keep everyone informed and engaged using SharePoint, Teams, Stream, and Viva Engage. Bring it all together with Viva Connections.	Microsoft Teams Outlook SharePoint Viva Engage Viva Connections	Meet

Wellbeing & engagement



Nurture a sense of belonging with your frontline employees by helping them engage with your entire organization.

Scenario	Description	Services	Teams apps
Engage your employees and focus on employee wellbeing	Build deeper connections across your organization and create an inclusive workplace.	Microsoft Teams SharePoint Microsoft Stream Viva Connections Viva Engage	Praise

Training & onboarding



Promote continual growth for your employees and encourage knowledge sharing and exchange.

Scenario	Description	Services	Teams apps
Onboard new employees	Make new employee onboarding a great experience by fostering an all-in-one hybrid work environment where new employees can find important resources, meet people in their organization, and prepare to be successful in their new role.	SharePoint Viva Learning Viva Connections Viva Engage	Lists Live meetings
Ongoing training	After they're onboarded, help your workforce keep their skills up to date with ongoing training in Viva Learning.	SharePoint Viva Learning Viva Connections Viva Engage	

Schedule management



Simplify and streamline schedule coordination with your frontline workforce. Gain visibility into their schedules and enable them to arrange for cover and leave.

Scenario	Description	Services	Teams apps
Schedule your team with Shifts	Use Shifts and Shifts Connectors to schedule your team and connect with your workforce management tools.	Microsoft Teams	Shifts

Digitized processes



Drive operational efficiency by digitizing paper-based processes and automating routine, repetitive steps.

Watch the following video to see an example of how you can simplify business processes in retail environments:

<https://www.microsoft.com/en-us/videoplayer/embed/RWRzfc?postJsllMsg=true>

Scenario	Description	Services	Teams apps
Simplify business processes	Use task publishing to create standard processes across sites, lists to manage information and track ongoing processes, and streamline requests with Approvals. Automated workflows can speed up and automate actions, like collecting data or routing notifications.	Microsoft Teams Power Platform	Tasks Lists Approvals

Virtual Appointments



Use the Virtual Appointments app or the Bookings app and Microsoft Teams to schedule, manage, and host virtual appointments with clients and customers. You can integrate Forms with your virtual appointments to get the right information about your customers, or as part of your customer support experience to learn what your customers need.

Watch the following video for an overview of the virtual appointments experience in Teams:

<https://www.microsoft.com/en-us/videoplayer/embed/RE4TQop?postJsllMsg=true>

More information: [Virtual Appointments with Microsoft Teams](#)

Help your team, clients, and customers

Find resources to share with your team to help them get comfortable using Teams apps and features. Get customizable infographics and web content to help your clients and customers use Virtual Appointments with your organization.

Scenario	Description
Help your clients and customers use virtual appointments scheduled with Bookings	Customizable infographics and FAQ that you can add to your website to make it easy for your clients to use virtual appointments with your organization.
Help your frontline workers track time and attendance	Videos to help your frontline managers and employees learn about how to use Shifts in Microsoft Teams.
Help your frontline workers use collaboration apps and features	Videos to help your frontline team use Microsoft Teams apps and features.

More scenarios and solutions with the digital ecosystem

All of the scenarios above can be achieved with out of the box capabilities from Microsoft. But you can extend even further with third-party apps in [AppSource](#) and custom apps that you or our partners build for you with Power Platform, Teams, and Viva extensibility.

Learn more about third-party apps in Teams at [Overview of third-party apps in Microsoft Teams](#).

Power Platform integration

Quickly build custom apps and digital tools for Microsoft Teams, with little or no development experience using the [Power Platform](#).

- **Power Apps:** Create custom apps to digitize processes and improve efficiency.
- **Power Automate:** Automate repetitive tasks and connect data to improve agility and productivity.

- **Power Virtual Agents:** Build low-code chatbots to provide conversational, AI-driven insights and information.
- **Power BI:** Discuss and visualize data to align teams and confidently make data-driven decisions.

Access to the Power Platform features in Teams is available with the F3 license in Microsoft 365 for frontline workers. For a detailed comparison of what's included in Microsoft 365 with various licenses, see this [Comparison table](#) [↗].

Custom apps built on the Teams platform

With code from scratch or leveraging templated and sample code, you can build custom apps on the [Teams platform](#).

- **Developer tools:** Enjoy frictionless app development with our set of Microsoft Teams toolkits.
- **Extensibility points:** Expand the reach of your app with tabs, bots, and messaging extensions.
- **UI Elements:** Create rich experiences with adaptive cards, task modules, and notifications.
- **APIs:** Use the Microsoft Graph to enhance apps inside and outside of Teams.

Viva platform extensibility

Developers can [extend Microsoft Viva Connections](#) for building engaging experiences with the widely adopted [SharePoint Framework \(SPFx\)](#). Viva Connections is your gateway to a modern employee experience where you can build and integrate apps that shape culture and foster connections to help employees thrive. With SPFx, you have multiple ways to extend – using the same out-of-the-box or custom SPFx web parts, SPFx extensions (for example, header, footer), and specific components for optimized mobile experiences.

Microsoft 365 for frontline workers - scenario posters

Article • 11/21/2022 • Applies to: Microsoft Teams, Microsoft 365 for frontline workers

Use these scenario overviews to start envisioning what your organization can do with Microsoft 365 for frontline workers. You can download these posters in PDF or Visio format and customize them for your organization.

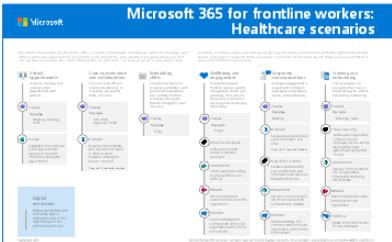
To learn more about how Microsoft 365 can help your frontline workers, see [Choose your scenarios for Microsoft 365 for frontline workers](#). To learn more about planning and implementing scenarios, see [Technical planning guide for deploying frontline solutions \(white paper\)](#).

Scenarios for frontline workers

Item	Description
 PDF Visio Updated September 2022	<p>This poster provides an overview of the scenarios you can implement for your frontline workforce to increase communications, enhance wellbeing and engagement, train and onboard your workers, and manage your workforce and operations.</p>

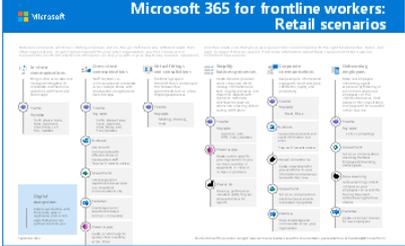
Scenarios for healthcare organizations

Use the following poster to start envisioning what your organization can do with Microsoft 365 for frontline workers.

Item	Description
 PDF Visio Updated September 2022	<p>This poster provides an overview of the scenarios you can implement for your frontline workforce in a healthcare setting.</p>

Scenarios for retail organizations

Use the following poster to start envisioning what your organization can do with Microsoft 365 for frontline workers.

Item	Description
 <p>PDF Visio</p> <p>Updated September 2022</p>	<p>This poster provides an overview of the scenarios you can implement for your frontline workforce in a retail setting.</p>

See also

[Microsoft 365 productivity illustrations](#)

Manage the Frontline Trial in Teams

Article • 10/20/2023 • Applies to: Microsoft Teams, Microsoft 365 for frontline workers

ⓘ Note

This trial experience is coming soon. You can check when this is available to your organization by looking for a message in the **Message center** [↗](#) in your Microsoft 365 Admin center.

The Microsoft Teams Frontline Trial experience lets users in your organization who are in Teams initiate a Teams experience for their entire frontline team, as long as the other members are in Microsoft Entra ID. You can disable this feature for users in your organization by using the [AllowSelfServicePurchase PowerShell module](#).

What services are included

The trial includes everything in the [Microsoft 365 F3 license](#) [↗](#) with the following exceptions:

- The Frontline Trial includes Exchange Foundation rather than Exchange Kiosk. Users may be missing other Teams functionalities due to this change.

Eligibility

ⓘ Note

You can check if your organization is part of the trial pilot by looking for an announcement in the **Message center** [↗](#) in your Microsoft 365 Admin center. Your organization will need to be a part of the trial pilot for users to initiate or participate in a trial. This offer isn't available for GCC, GCC High, DoD, or EDU customers.

The Frontline Trial can accommodate a maximum of 300 users per trial.

Users can start a frontline trial for their team if they:

- Have an active license that gives them access to Teams.
- Haven't previously started a frontline worker trial.

Important

If the user who initiated the trial leaves your organization before the trial ends, you as admin will need to monitor the trial, check in with the team to see who's benefiting from these features, and decide which users you'll need to upgrade to a paid license.

Users can participate in a frontline worker trial if they have a managed Microsoft Entra domain email address.

Users can participate if they've previously started a trial, but can't initiate another trial.

Note

Users without existing access to Teams can only be added to the trial team at the time of team creation. Existing Teams users can still be added to the trial after the team has been created.

Set up the trial

Eligible users can start a Frontline Trial by signing into the Tasks app in Teams from the desktop or [web app](#). At this time, starting a Frontline Trial through mobile is not supported. When a trial is initiated, the entire team will be assigned the Frontline Trial license automatically. Users with existing paid licenses that give them access to Teams will also be assigned trial licenses, but will maintain the functionality of their existing licenses throughout the trial, and will keep their existing paid licenses after the trial ends. The user who started the trial will receive email notifications throughout the course of the trial.

Manage the frontline trials experience

Admins can prevent end users from starting the Frontline Trial within their organization by using the `AllowSelfServicePurchase` PowerShell module. This is only for trial licenses. [Learn how to use the AllowSelfServicePurchase PowerShell module.](#)

Manage Teams for users who have the Frontline Trial license

You can manage users who have the Frontline Trial license just like you manage users who have a regular paid license. For more information, see [Manage Teams settings for your organization](#).

Remove a trial license

You can remove the Frontline Trial license through PowerShell or your Microsoft 365 admin center.

[Learn how to remove with PowerShell.](#)

[Learn how to remove in the admin center.](#)

Upgrade users from Frontline Trial

Users may reach out to you to ask for licenses when the trial is ending. You'll need admin privileges to upgrade your users.

When to upgrade

Near the end of the 90-day trial, you'll need to check with your users to see who needs to continue with a paid license. Make sure to do this before the Frontline Trial subscription expires to avoid any disruption to the users' experiences.

Important

If the Frontline Trial license ends and a user isn't immediately assigned a license that includes Teams, they lose access to Teams. After 30 days, their data (files, messages, and more) is deleted. The user still exists in Microsoft Entra ID. If a new license is assigned to the user to enable Teams functionality within the 30-day period, all their content in Teams will still exist.

Choose an upgrade path

Tip

The Frontline Trial is based on the [Microsoft 365 F3 license](#).

Depending on the subscriptions your organization currently has, there are three ways to upgrade from a Frontline Trial to a paid license:

- **Upgrade an existing Microsoft 365 subscription.** Use this option if your organization has subscriptions to other Office products that don't include Teams. For more information, see [Upgrade to a different plan](#). To see active users for an existing subscription, go to **Users > Active users** [↗](#) in the Microsoft 365 admin center.
- **Add users to an existing Microsoft 365 subscription.** Use this option if your organization doesn't have enough paid Teams licenses to cover your frontline team. For more information, see [Buy or remove licenses](#). To add users to an existing subscription that already has enough available licenses, see [Move users to a different subscription](#). To see active users for an existing subscription, go to **Users > Active users** [↗](#) in the Microsoft 365 admin center.
- **Buy a new Microsoft 365 subscription.** Use this option if your organization doesn't have any existing subscriptions to Office products, or if your organization wants to buy a subscription that's different from their existing subscription to cover frontline users. For more information, see [Microsoft 365 for frontline workers](#) [↗](#).

If you're not sure which Microsoft 365 subscription to upgrade to, see [Microsoft 365 for frontline workers](#) [↗](#). If you need additional help choosing a subscription, or if your organization needs more than 300 licenses, contact your [Microsoft partner](#) [↗](#) or Microsoft account representative.

Assign paid licenses

To assign your newly acquired licenses, see [Assign licenses to users](#).

After you assign the new licenses, unassign the Teams Exploratory licenses. See [Assign or unassign licenses for users in the Microsoft 365 admin center](#), for more information.

FAQ

How long does the trial last

The Frontline Trial lasts for 90 days.

What should administrators do at the end of the 90-day Frontline Trial experience?

At the end of the 90-day trial, you'll need to check with your users to see who needs to continue with a paid license. Then you'll need to [Upgrade your users](#).

What happens if the user who started the trial leaves your organization?

You as admin will need to monitor the trial for the rest of the 90-day period, and upgrade to paid licenses for users who need them when the trial ends.

What is the data retention policy?

You can learn about data retention from the [Microsoft 365 subscription information](#).

What if a user encounters an error when starting the Frontline Trial?

Make sure that your organization, the user starting the trial, and the users being added to the trial meet the [eligibility criteria](#).

Learn where to start with a frontline deployment

Article • 10/10/2023 • Applies to: Microsoft Teams, Microsoft 365 for frontline workers

Thanks for choosing Microsoft 365 for frontline workers. Whether you're an independent business or a large multi-national enterprise, Microsoft 365 and Teams for frontline workers can help bring your organization together with tools for communication, collaboration, and productivity. And no matter whether you're just getting into collaboration tools for the first time, or you've already been using Microsoft 365 and Teams for your non-frontline workers, we can help you get up and running.

Article	Description
Trial setup for frontline managers	If you're a manager of a frontline worker team, you can set up a trial for your frontline workforce from within Microsoft Teams. Admins can learn more about the manager-led setup at Manage the Frontline Trial in Teams .
Start with a pilot deployment of Microsoft 365 for frontline workers	Before you commit to a full rollout of Microsoft 365 for frontline workers across your organization, it's a good idea to try it out first with a small set of real people in your organization.
Set up Microsoft 365 for frontline workers	Follow this setup path if you're an IT pro or responsible for planning, or deploying Teams for Frontline Workers. It walks through preparing your environment, setting up the core of Microsoft 365, and then setting up the services you need for your scenarios.
Deploy Teams at scale for your frontline workers	After you've set up Microsoft 365 and assigned licenses to your users, you can use the Teams admin center or PowerShell to create and manage Teams for your whole frontline workforce. <ul style="list-style-type: none">• Deploy frontline dynamic teams at scale• Deploy frontline static teams at scale with PowerShell

After you've set up Microsoft 365, Microsoft Teams, and any services you need, you can configure Teams and the apps in Teams to support your scenarios. Each of the paths walks you through the whole process, from initial setup to a configured team with the apps that your frontline workforce need to start working.

Managers - Get your team started with Microsoft 365 for frontline workers

Article • 11/21/2022 • Applies to: Microsoft Teams, Microsoft 365 for frontline workers

Microsoft 365 for frontline workers includes a variety of capabilities to help your team do their best. Here are a few things you can start doing right away to get your team working together:

Path	Description	Teams apps you'll need
Enable quick communication	Help your frontline team stay in touch.	Chats and Walkie Talkie
Manage frontline schedules, time, and attendance	Set up a schedule that you can manage in Teams.	Shifts
Manage work items	Use Teams and Microsoft 365 apps to assign and keep track of work items.	Tasks, Lists, Approvals, and Updates
Foster connections and boost morale	Send praise to your team members to help them feel appreciated.	Praise

The apps that support these capabilities are included in Teams and most are ready to use right away. Some you'll need to add to your team or set up before you're ready to use it. Also, most of these apps are pinned by default, meaning that members of your frontline team will see them by default in the app bar, which is the bar at the bottom of the Teams mobile clients (iOS and Android) and on the side of the Teams desktop client. You can always add apps that aren't pinned based on your needs. [Learn how to add apps in Teams](#).

This article will help you get Teams for frontline workers, set up a team, and then configure the features and apps you need to get your team going with these capabilities.

Get Teams for frontline workers

First, you'll need to [initiate the frontline trial experience](#) from within the Tasks app in Microsoft Teams. If you already have Microsoft 365 for frontline workers, you can skip this step and follow the rest of this article to learn how to get the most out of your licenses.

ⓘ Note

The Frontline Trial is based on the Microsoft 365 F3 license.

Enable quick communication

Use the inbuilt communication tools in Microsoft Teams to enable your frontline workers to stay in touch. You don't need to do any additional setup for the communication apps or to use them in your team. You'll always see the Teams, Chats, and Activity icons when you open Teams, either on desktop or mobile, while Walkie Talkie is only available on mobile.

Teams

You and your frontline workers can create teams to help specific groups stay in touch. For example, you could create a Cashiers team so all your cashiers can communicate with each other and share information. If there's a policy change that only applies to cashiers, you can post it in the Cashiers team so it reaches the people who need to see it. [Learn how to create a team in Teams](#) [↗].

Chats

Teams chat allows members of your frontline workforce to communicate seamlessly without having to use their personal messaging apps. [Learn more about chats](#) [↗].

Activity

You can @Mention a team member to call their attention to a conversation. @Mentions send users a notification, so they'll see the message in Activity even if they miss it in the chat.

Walkie Talkie

Walkie Talkie empowers your workers to have real-time conversations with workers at any location without leaving their station. For example, if an employee is helping a customer and needs assistance, they can use Walkie Talkie to contact an expert or manager without having to walk away from the customer.

Walkie Talkie is supported on Android devices with Google Mobile Services (GMS) and iOS devices.

Manage frontline schedules, time, and attendance

You can use the Shifts app to create and manage schedules. With Shifts, employees can request time off, volunteer for open shifts, and request to swap shifts with coworkers. You can also use shifts to share schedules so it's easy for everyone on your team to know when they're working. Employees can use Shifts to clock in and out. To create a schedule in Shifts:

1. Go into the app and select **Create a new schedule**.
2. Then select **Add group** to organize the schedule based on job type or location. You can have multiple groups on one schedule. For example, a healthcare organization could have a group for receptionists and a group for nurses.
3. Select the ellipses (...) and then **Rename** to name the group.
4. To create a shift for a team member, select their row and then select **More options** > **add shift**.

Watch [this video](#) to learn more about creating schedules in shifts.

If your organization is already using a workforce management system for scheduling, your IT team can integrate it with Teams to pull all of your schedules into shifts. Right now Shifts is able to integrate with Blue Yonder and Reflexis workforce management systems. [Learn more about connecting your workforce management system](#).

Manage work items

You can use the Tasks, Lists, Approvals, and Updates apps to manage and keep track of work items. You can choose to use just one app, or use several of them based on your needs. Anyone can create and assign tasks to themselves and team members.

Tasks

Tasks is powered by Planner, and lets you create and assign work items for your team. To create and assign a task in Tasks:

1. Open the Tasks app.
2. Select + **New list or plan** to create a task list for your team.

3. Give your plan a name. Under **Create in**, choose the team and channel you want the task plan to apply to. Then select **Create**.

New list or plan ✕

Name

Set up the seasonal display

Create in

Retail ▾ General ▾

Create a list for yourself in My tasks or choose a team and channel to create a shared plan.

Create

4. To create a new task, give it a name. Then assign it to a member of the team that you created the plan in. You can also choose a due date.

Set up the seasonal display

Task title	Assigned to	Priority	Due	Bucket ↓
○ Move the cookies to aisle 2		●		To do

Assignment picker

5. Once you've created and assigned the task, it will appear in the Tasks app for members of the team. If you don't assign the task to a specific person, it will still show up for the team.

Tasks is powered by Planner. Watch [this playlist](#) to learn more about how you can use Planner and Tasks together.

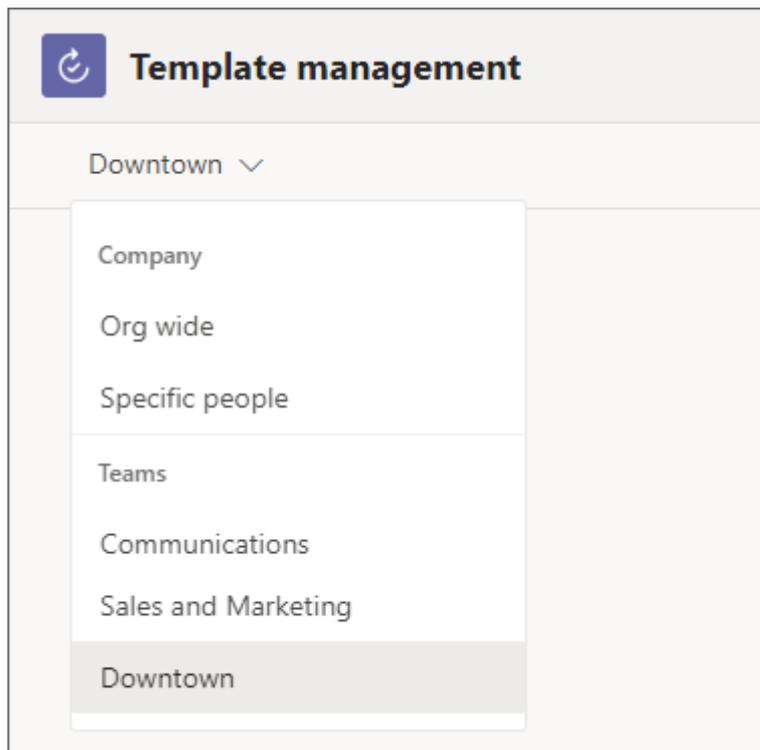
Approvals

Approvals lets your team submit requests for approval from within Teams. For example, if one of your team members wants to offer a discount on a large order, they can submit an approval request to get permission.

You can create templates for your frontline team that will allow them to submit streamlined approval requests.

1. From the Approvals hub, select **Create or manage templates**.

2. From the menu, select which team you want the template to apply to.



3. Select **New template** and then either choose an existing template from the template store or create one from scratch to suit your needs.

4. Choose who you want the template to apply to. Choose **Team wide** to make this template apply to everyone in the team you selected in step 2.

5. Select the team from the list.

6. Fill in the Basic settings, Form design, and Workflow settings. Then select **Preview**.

7. If the template looks good to you, choose **Publish**.

8. Members of your team will now be able to submit approval requests from the template you created.

[Learn more about creating templates for your team in Approvals](#) [↗](#).

Lists

The Lists app helps you track information and organize work. You and your team can create lists for inventory, customer requests, supply needs, and more.

You can create a list from a template by choosing **+New List** from the Lists app. [Learn about what templates are available](#) [↗](#).

If you have a spreadsheet that you collaborate on with your team, you can convert it to a list.

1. From the Lists app, select **+New List**.
2. Choose **From Excel** and upload the spreadsheet you want to turn into a list.
3. Confirm the column types are correct and adjust them if necessary. Then select **Next**.
4. Give your list a name, color, icon, and location. Then choose **Create**.

ⓘ Note

The Lists app isn't pinned by default, but you can [add it from the Teams app store](#).

Updates

Updates allows you to create, submit, and review updates. People can easily see their employee updates, check-ins, and reports in one place to make sure the team is on track for success, whether those are recurring processes that happen on a regular basis or in-the-moment updates that might be needed at any time.

You can assign updates to your team members. Team members can also submit updates without being assigned.

1. In the Updates app, select **Create and manage templates**.
2. Choose a popular template, or choose **View more** to see all template options. You can choose a template or start from blank.
3. Fill in the Basic settings and Form design.
4. In Workflow settings, choose who you want to submit this update, view this update, and the times and due dates for the update.
5. The submitters you assigned will now be able to see and submit the required update.

ⓘ Note

The Updates app isn't pinned by default, but you can [add it from the Teams app store](#).

Foster connections and boost morale with Praise

The Praise app in Teams helps you show appreciation to members of your team. You can send badges to team members to recognize their achievement, and team members can send badges to each other. You can also send badges in a channel conversation to recognize a group of people. Praise uses pre-made badges that call out positive qualities such as **Team Player** and **Awesome**.

1. Open a Teams chat or channel. Below the space where you write a message, choose the Praise icon or select the ellipses (...) to find it.



2. Select a badge from the **Badge** dropdown menu.
3. Add the name of the people you want to praise and an optional description.
4. Select **Preview** to check it, and then select **Send**.

Share training videos with your users

Help your team get comfortable and confident using their Microsoft 365 capabilities with these training resources. Each of these articles and videos only takes a few minutes to go through.

[Get started with Microsoft Teams](#) 

[Get started with Walkie Talkie](#) 

[Get started with Shifts](#) 

Shifts also includes a clock in and out feature. [Learn how to clock in and out with Shifts](#) 

[Get started with Tasks](#) 

[Learn about Approvals](#) 

[Learn about Lists](#) 

[Learn about the Updates mobile experience](#) 

[Learn how to send Praise](#) ↗

Start with a pilot deployment of Microsoft 365 for frontline workers

Article • 05/03/2023 • Applies to: Microsoft Teams, Microsoft 365 for frontline workers

Before you commit to a full rollout of Microsoft 365 for frontline workers across your organization, it's a good idea to try it out first with a small set of real people in your organization. Starting with a pilot program first can help you identify:

- Validate user readiness.
- Identify and mitigate issues.
- Help ensure a successful, organization-wide rollout.

For example, a pilot can help you determine:

- Whether the scenarios you've identified match the business needs of your organization.
- What elements will need to be modified or further customized for your organization.
- What training and orientation information you'll need to provide to users before, during, and after they start working with these new tools.

Running a pilot program is part of the overall adoption process. For more information about adopting Microsoft 365 in your organization, see:

- [Microsoft 365 Adoption](#) 
- [Microsoft 365 Adoption best practices](#) 
- [Microsoft Teams Adoption](#) 
- [Enabling your frontline workers with Microsoft Teams](#) 
- [Three ways to support frontline workers in a hybrid world](#) 

We recommend that you prepare for deployment by completing this 30-minute learning path: [Prepare for a Teams deployment with Microsoft 365](#).

Steps to run a pilot program

- ✓ [Get your people together](#)
- ✓ [Plan your pilot](#)
- ✓ [Set up Microsoft 365 and Teams](#)
- ✓ [Communicate](#)
- ✓ [Measure](#)
- ✓ [Iterate and expand](#)

Get your people together

Assemble a group of individuals from your business, IT, and frontline communities to act as the stakeholder and decision-making group for your Microsoft 365 pilot for frontline workers. Be sure to include individuals from all three communities to give yourself the best chance for success:

Next, identify your phase 1 pilot community and make sure it includes actual frontline workers in the smallest logical grouping for your organization. For example, one restaurant, one division of a department store, one store, one clinical ward, one precinct, one plant, one distribution center, etc. The key is to optimize around the average frontline worker being part of one team only. Managers or specialists may be in more than one.

Best practice

It's important to include all roles within that smallest logical grouping, from managers to part time or seasonal workers, to uncover valuable insights and enable modern communication scenarios. Your most junior staff will surprise you! Some key delightful and unintended valuable scenarios uncovered during pilots with sample customers include:

- Standardized Expectations and Training: Taking a picture of a clean stove to illustrate to kitchen staff what clean means. "If it doesn't look like this, then it isn't clean!"
- Reducing shrinkage: Taking a picture of a known shoplifter and notifying other employees immediately. Teams on future shifts will also see this picture to mitigate future risk.

Decision points

At the end of this phase, you should be able to answer these questions:

- Who will participate in your pilot?
- What's the smallest logical grouping for your organization?

Plan your pilot

A successful pilot includes the following:

- Defined start and end dates and clearly defined goals for measuring success. These goals can help you plan the rollout after the pilot is complete.

- Create a test plan and process for gathering feedback, plus a communication plan.
- Allow enough time to run the pilot and assess its impact. A minimum of 30 days is recommended.
- Include the right stakeholders and participants, knowing you can add more users throughout the pilot, if necessary. For Microsoft 365 for frontline workers, make sure your stakeholders and participants include not only the business leaders and IT staff, but your frontline managers and workers, so you can both:
 - Ensure you understand their challenges while planning the implementation.
 - You can check to make sure your implementation is having a positive impact on those challenges.
- Start small and take time to pause, assess results, and adjust the pilot.

For a successful pilot for frontline workers, simplicity is key! For most organizations, this community typically isn't provided any company-supported communication or collaboration technology, but are likely already using unsupported consumer tools to accomplish some basic needs. A recommended best practice is to begin where your users are and mimic the capabilities they're using in consumer tools today. As your pilot progresses and the iteration process begins, you can grow the experience.

Decision points

- Which capabilities will be in Phase 1 of your pilot for frontline workers?
- Do your frontline workers need Shifts?
- Which chat configuration will you use?

Not sure what consumer tools these users are currently using?

Use a pre-pilot survey to inventory the tools, capabilities and scenarios your users rely on today.

Set up Microsoft 365 and Teams

Determine what devices you'll support. For example, you can use the Teams mobile clients on Android and iOS to provide secure access to Teams and frontline worker apps. See [Manage shared and personal devices](#) and [Get the Teams desktop, web, and mobile clients](#).

See [Set up Microsoft 365 for frontline workers](#) for guidance on how to set up Microsoft 365, Microsoft Teams, and the other services you'll need for your pilot.

When you have set up and configured all of the other services you need, you can set up Microsoft Teams.

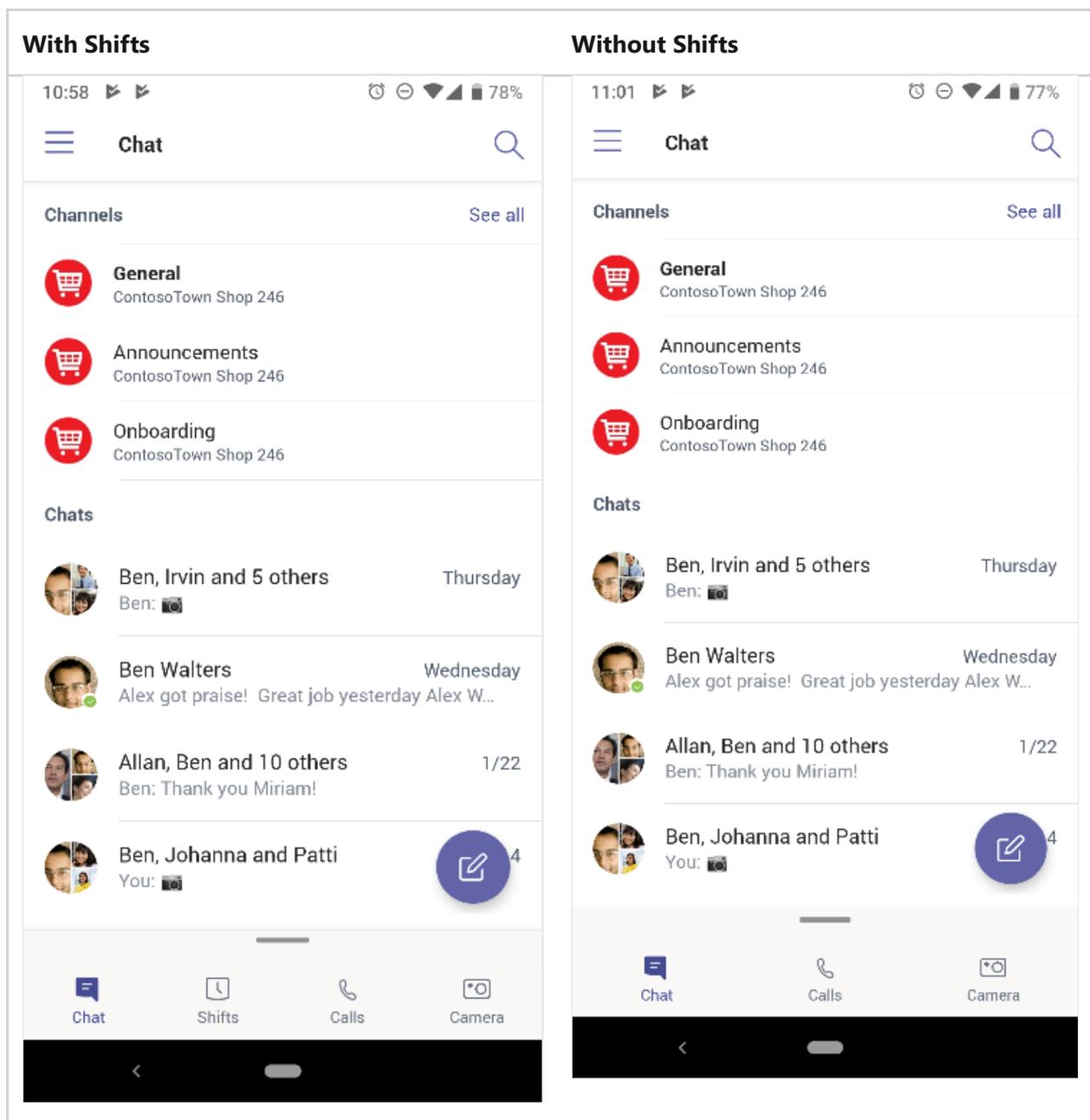
Chat configuration options

Within Teams Chat on mobile, you can have the normal traditional chat layout for Teams OR a layout that includes favorite channels in Chat. This second, simplified UI works well for frontline workers who are only in one team, and is the recommended best practice. Configuring "Show favorite channels in chat" also creates an opportunity to remove the Teams button from the frontline worker app setup policy to further streamline and simplify the end user experience without a loss of functionality. For users who will be in multiple teams, this isn't recommended. You can configure this on a per-user basis and grow in sophistication as needed.

Best practice

Configure Phase 1 of the frontline Teams experience to mimic the consumer tools these users are already using! We recommend starting your pilot for frontline workers with "Show favorite channels in Chat" for simplified communications and Shifts (optional).

With Shifts	Without Shifts

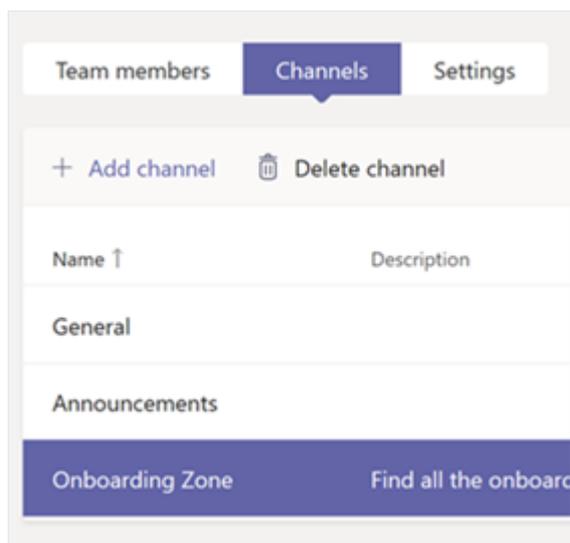


Decision points

- How many channels/conversation topics do you want for your pilot?
- Which topics feel right for your scenarios?

Best practice

Keep the channels simple. We recommend resisting the urge to create a channel for every possible topic of conversation and instead keep things simple. It's ok if channels are created over time as needed.



After you have Teams set up and you have your teams and channels created, you can configure any additional frontline apps that you want to use in the pilot, including:

- The [Virtual Appointments](#) app or the [Bookings](#) app to schedule appointments with clients or customers.
- [Shifts](#) to schedule your frontline workforce.
- [Viva Learning](#) to build learning and training experiences for employees.

Communicate

Inform your frontline workers of their participation in the pilot, the pilot goals, and provide training, if necessary, on the basic functions. For most customers, this can be a simple instruction to these users to go to the Google Play or Apple Store on their personal mobile devices, download the Microsoft Teams application, and sign in with their company credentials. We've designed Microsoft Teams with a simple and easy to use interface that most frontline workers should find intuitive.

Best practice

Don't forget to train your managers on Shifts! If you're going to include Shifts in your pilot, then make sure to conduct a separate training session with your managers on how to create, manage, and publish schedules to their team. If you would like additional training materials and communication templates, you can find them in your frontline Pilot in a Box.

Measure

Empowering your frontline workers is more about people than technology. To understand the impact of Teams, stay focused on your frontline workers' experience.

Survey them before, during and after the pilot in order to understand their needs, pain points, and reactions. If you're iterating your pilot and adding new features over time, this feedback can help guide the order, pace, or even whether additional features are needed. In order to help you evaluate the success of your pilot, you can find them in your frontline Pilot in a Box.

Best practice

Nurture your champions and highlight your wins. Reward your frontline workers for embracing these new tools and using them in innovative ways that relate to business outcomes for your company. This, above anything, will ensure continued adoption of Teams and value to your company.

Iterate and expand

Now that you've successfully completed your first pilot with an initial group of frontline workers, it's time to expand! It's time to go back to Step 1 with one of the several expansion options below. We recommend working through this process as many times as needed to arrive at a solution, set of best practices, and training documentation for all of your frontline workers.

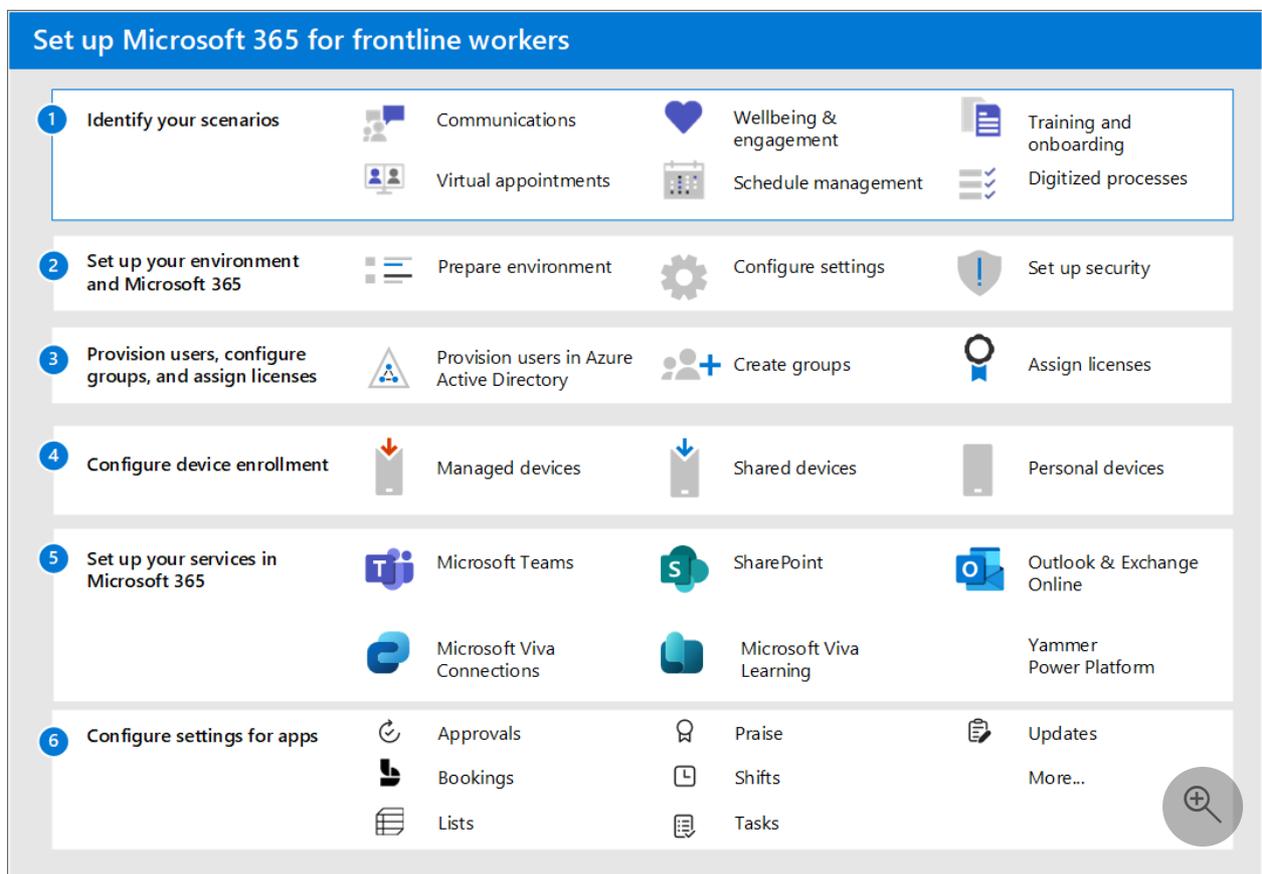
- Expand the number of teams.
 - Instead of one location, can you do one region?
 - Would you want one team for the whole region or individual teams for each location?
- Expand the features provided.
 - Was there a key feature that your frontline workers suggested in your feedback forms, like Shifts, that you didn't include in your initial feature set?

Set up Microsoft 365 for frontline workers

Article • 10/20/2023 • Applies to: Microsoft Teams, Microsoft 365 for frontline workers

To set up Microsoft 365 for frontline workers, follow this overall process:

1. **Identify your scenarios:** Which scenarios do you want to implement for your frontline workers? After you have determined which scenarios you want, use the table below to identify the required apps and services for each scenario that you want to implement.
2. **Set up your environment and core Microsoft 365:** Follow the Setup Guides in the Microsoft 365 admin center to set up Microsoft 365. Keep reading to learn how to access these guides.
3. **Provision users, configure groups, and assign licenses:** Learn how to provision users and create groups in Microsoft Entra ID, then assign frontline licenses to your users.
4. **Configure device enrollment:** Set up shared and personal devices to work with Microsoft 365 and Microsoft Teams and to allow your frontline workers to communicate more securely within your organization.
5. **Set up any other services needed for your scenario:** Set up services including Exchange, Outlook, SharePoint, and Microsoft Viva.
6. **Configure security:** Learn how to create security policies to keep your organization secure.
7. **Configure apps:** After everything is set up and configured in the admin center, you can follow the guidance for your scenarios to further configure the apps you need for each scenario.



Step 1: Identify your scenarios

The following table lists the scenarios for your frontline workers. You can read a summary of each scenario in [choose your scenarios](#), and find out exactly what you need to configure by following the links to each scenario and to each app or service that's required.

Scenario	Required services
Team communication and collaboration	Microsoft Teams Email with Exchange Online
Corporate communications	Microsoft Teams SharePoint Viva Connections Viva Engage
Virtual Appointments	Microsoft Teams
Engage your employees and focus on employee wellbeing	Microsoft Teams SharePoint Viva Connections Viva Engage
Schedule your team with Shifts	Microsoft Teams

Scenario	Required services
Onboard new employees	Microsoft Teams SharePoint Viva Connections Viva Learning
Ongoing training	Microsoft Teams Viva Learning
Simplify business processes	Microsoft Teams Power Apps, Power Automate, and Power BI

Some services are only included with F3 licenses, such as email and the Power Platform. Check out [Understand frontline worker user types and licensing](#) to determine the type of licenses you'll need for your users.

Step 2: Set up your environment and core Microsoft 365

The Microsoft 365 admin center has a set of [Setup guides](#) that walk you through the steps to set up the products, security features, and collaboration tools in Microsoft 365. The setup guides are accessible from the [Setup guidance page](#) in the Microsoft 365 admin center.

1. Use the [Prepare your environment](#) guide to prepare your organization's environment for Microsoft 365 and Office 365 services.
2. Use the [Microsoft 365 setup](#) guide to set up productivity tools, security policies, and device management capabilities. You can also use this advisor to set up and configure your organization's devices.

Step 3: Provision users, configure groups, and assign licenses

Now that you have Microsoft 365 set up, you can start to add users, organize them into groups, and assign licenses. Much of this information is also in the [downloadable technical planning guide](#).

Provision users

Now that you have Microsoft 365 set up, you can start to add users, organize them into groups, and assign licenses. Before you provision frontline users, you should create new administrator accounts or review and update your existing [administrator accounts in Microsoft Entra ID](#). [Learn more about what Microsoft Entra admin roles you might need for Microsoft 365](#).

In this step, you'll create user identities for your frontline workers in Microsoft Entra ID. You can import users in three ways:

- **Integrate Microsoft Entra ID with an existing Active Directory instance:** [Microsoft Entra Connect](#) replicates Active Directory user accounts to Microsoft Entra ID, allowing a user to have a single identity capable of accessing both local and cloud-based resources.
- **Integrate Microsoft Entra ID with a third-party identity solution:** Microsoft Entra ID supports integration with some third-party providers through federation.
 - [Learn how to use Okta for Hybrid Microsoft AAD Join](#).
 - [Learn how to configure PingFederate with Microsoft Entra Connect](#).
- **Import users from your organization's HR systems:** [Microsoft Entra user provisioning service](#) automates the creation, maintenance, and removal of user identities based on rules set by your organization.
 - **On-premises HR systems:** You can use [Microsoft Identity Manager](#) to provision users from your on-premises HR systems to Active Directory or directly to Microsoft Entra ID.
 - **Cloud-based HR systems:** Learn how to connect [SAP SuccessFactors](#) and [Workday](#) to Microsoft Entra ID.

Use this table to validate your HR-driven user provisioning.

Test scenario	Expected results
New employee is created in the cloud HR app	The user account is provisioned in Microsoft Entra ID and can access assigned cloud resources. If Microsoft Entra Connect Sync is configured, the user account also gets created in Active Directory. The user can sign into Active Directory domain apps and perform their desired actions.
User is terminated in the cloud HR app	The user account is disabled in Microsoft Entra ID, and, if applicable, Active Directory. The user can't sign into cloud or on-premises applications and resources assigned to them.
Supervisor is updated in the cloud HR app	User remains active with the new mapping.

Test scenario	Expected results
HR rehires an employee into a new role.	The results depend on how the cloud HR app is configured to generate employee IDs. If the old employee ID is reused for a rehire, the connector enables the existing Active Directory account for the user. If the rehire gets a new employee ID, the connector creates a new Active Directory account for the user.
HR converts the employee to a contract worker or vice-versa	A new Active Directory account is created for the new persona and the old account is disabled on the effective date of the conversion.

[Learn more about Microsoft Entra deployment.](#)

Configure Microsoft Entra groups

Configuring groups in Azure AD allows you to create and manage policies and license assignments at scale.

- **Assign a unique attribute to frontline workers:** The ability to identify all frontline workers is useful when applying groups to the frontline workforce or for validating that integrations between Microsoft Entra ID and HR systems are functioning properly. Organizations frequently use the Job ID attribute for this purpose. Depending on your organization's structure, you may also need [custom security attributes](#) or [directory extension attributes](#).
- **Create Microsoft Entra groups and assign frontline users:** With Microsoft Entra groups, you can grant access and permissions to a group of users instead of for each individual user. Groups are used to manage users that all need the same access and permissions to resources, such as potentially restricted apps and services. Instead of adding special permissions to individual users, you create a group that applies the special permissions to every member of that group.

The table below includes recommendations for applying groups in frontline implementations. For more information on group types, membership types, and assignment, see the [Microsoft Entra documentation for groups and membership and managing groups](#). For more information on security group limits and other Microsoft Entra service limits, see [Microsoft Entra service limits and restrictions](#).

Use case	Group type
Assign licenses, policies, and permissions automatically. If a member's attributes change, the system looks at dynamic group rules for the	Security group (limit 5,000 groups) dynamic user

Use case	Group type
directory to see if the member meets the rule requirements (is added), or no longer meets the rule requirements (is removed).	
Manage access for users without automatic assignment to groups.	Security groups or distribution list (no limit applies)
Create an email alias to distribute groups messages to groups of users without automatic user management.	Distribution list or assigned Microsoft 365 group
Create an email alias or team in Microsoft Teams and manage membership automatically.	Microsoft 365 groups, dynamic user
Use My Staff to delegate permissions to frontline managers to view employee profiles, change phone numbers, and reset passwords.	Administrative Unit

[Learn more about the different types of groups you can create in the Microsoft 365 admin center.](#)

Assign frontline licenses

You can add licenses to individual users or to groups of users in Microsoft Entra ID. Group assignment is the most scalable way to assign licenses to your frontline workers. You can assign one or more product licenses to a group.

[Learn more about group-based licensing](#) and [assigning licenses to groups](#).

You may need to [unassign licenses](#) if you're changing some users from E to F licenses. [Learn more about how to switch specific users from E to F licenses.](#)

Step 4: Configure device enrollment

Registering devices in Microsoft Entra ID creates a unique identity that can be used to secure and manage devices. [Learn more about Microsoft Entra device identity.](#)

Shared device enrollment with Intune

Android: Automatically enroll Android devices into shared device mode with [Microsoft Intune](#). [Learn more about enrolling shared devices in Intune](#) [↗](#).

iOS: Not currently available.

BYOD device enrollment with Intune

Use Microsoft Intune to keep your frontline workers' devices secure and protected. Learn more about how to enroll different types of BYOD devices in Intune:

- [Windows](#)
- [Android](#)
- [iOS](#)

Configuring devices for shared device mode with third-party mobile device management

Zero-touch provisioning of shared device mode isn't currently supported by third-party mobile device management(MDM) solutions. However, you can [manually configure shared device mode](#) for Android and iOS devices managed in third-party MDM solutions.

ⓘ Note

While these steps register the device in Microsoft Entra ID, they don't connect Microsoft Entra ID to the MDM solution. Conditional access won't be available for these devices.

[Learn more about configuration with VMware Workspace ONE](#) [↗](#) and [SOTI](#) [↗](#).

If you choose to manually configure devices in shared device mode, you'll need to take more steps to re-enroll Android devices in shared device mode when third-party MDM support is available by uninstalling and reinstalling Authenticator from the device.

To set up shared and personal devices to work with Microsoft 365 and Microsoft Teams and to allow your frontline workers to communicate more securely within your organization, see [Manage mobile devices for frontline workers](#).

Step 5: Set up other services

Depending on your scenarios, you'll need to configure additional Microsoft 365 services, such as Exchange and Outlook for email or Microsoft Viva to expand your employee experience. Read on for information about each service.

Set up email with Exchange Online

If you want your frontline managers and workers to have access to email, you need to set up email in Microsoft 365. Users must have an F3 license to get access to email. Follow the [Email setup guide](#) to set it up.

Your users can also install the Outlook app to use for their email, so you'll want to make sure you share where to download the Outlook app with them.

Outlook

Using dynamic group backed shared mailboxes based on attributes such as Location, Department, and Role enables your organization to send targeted communications to dynamic groups that don't require administrator intervention.

Set up sites with SharePoint in Microsoft 365

[SharePoint](#) lets you share documents and create sites. Use the [SharePoint setup guide](#) in the Microsoft 365 admin center to set it up.

Set up Microsoft Teams

Follow the guidance in [Deploy Teams at scale for frontline workers](#).

Set up employee experiences with Microsoft Viva

[Microsoft Viva](#) helps connect employees with an integrated employee experience that brings together communications, knowledge, learning, resources, and insights into the flow of work. Microsoft Viva has several modules that can be used with Microsoft Teams to create employee experiences.

Set up Viva Connections

Use [Viva Connections](#) to create a dashboard that helps engage and inform your frontline workers. Viva Connections is a customizable app in Microsoft Teams that gives everyone a personalized destination to discover relevant news, conversations, and the tools they need to succeed.

Follow the [Build your employee experience setup guide](#) to set it up. Learn more about [setting up Viva Connections](#).

Set up Viva Learning

[Viva Learning](#) is an app in Microsoft Teams that empowers employees to make learning a natural part of the day by bringing learning into the flow of work within the tools and platforms they already use. See [Set up Microsoft Viva Learning in the Teams admin center](#) to learn how to set up Viva Learning.

Set up your organization's social network with Viva Engage

[Viva Engage](#) helps connect your workforce across your company. Learn how to [Set up Viva Engage](#) to set it up.

Set up Power Apps, Power Automate, and Power BI

You can use all of these apps within Microsoft Teams. For more information about how to set them up, see:

- [Power Apps and Microsoft Teams integration](#)
- [Power Automate - use flows in Microsoft Teams](#)
- [Collaborate in Microsoft Teams with Power BI](#)
- [Power Virtual Agents app in Microsoft Teams](#)
- [Power Apps](#)

Step 6: Configure security

After provisioning users, enrolling your devices, and configuring your applications, you're now ready to create policies to secure your organization's infrastructure resources.

- **Conditional access:** Plan an [Microsoft Entra Conditional Access deployment](#).
- **App protection policies:** [Learn about app management in Microsoft Intune](#).
- **Multi-factor authentication:** Require [multi-factor authentication for Intune device enrollment](#).

Once you're done setting up security policies, it's important for you to use a test user (non-admin) account to verify the policies work as expected, and to ensure that the end-user experience is right for your frontline workforce's needs. Some capabilities like multi-factor authentication and app protection policies can add additional steps to device enrollment or sign-on flows, which may not be acceptable for some frontline scenarios.

Step 7: Configure apps for your scenario

After everything is set up and configured in the admin center, you can follow the guidance for your scenarios to further configure the apps you need for each scenario.

Follow these best practices to set up Microsoft Teams for your frontline workforce.

Policy packages are a collection of predefined policies and policy settings that you can assign to users who have similar roles in your organization. Policy packages simplify, streamline, and help provide consistency when managing policies. Teams provides [predefined policy packages](#) for frontline workers and managers. You can also create a custom policy package and assign them to your frontline workers at scale in the Teams admin center.

Use **team templates** in the Teams admin center or by using PowerShell. You can use prebuilt templates or [create your own](#). You can also apply template policies to control which templates are available to your users in Teams. Learn more about [how to get started with team templates in the Teams admin center](#) and [how to set up and deploy teams](#). A prebuilt frontline template is accessible from the Teams admin center with the template ID "com.microsoft.teams.template.Frontline".

The table below shows Teams applications commonly utilized in frontline solutions. Shifts, Approvals, and Walkie Talkie are present in the Teams mobile client out of the box. You can control which applications are available to all users in the Teams admin center.

Scenarios and apps

Scenario	Approvals	Virtual Appointments or Bookings	Lists	Praise	Shifts	Tasks	Updates
Team communication and collaboration	✓		✓	✓		✓	✓
Corporate communications							
Virtual Appointments with Microsoft Teams		✓			✓		
Wellbeing & engagement				✓			✓
Schedule your team with Shifts			✓		✓	✓	✓

Scenario	Approvals	Virtual Appointments or Bookings	Lists	Praise	Shifts	Tasks	Updates
Training: Onboard new employees			✓			✓	✓
Ongoing training			✓			✓	✓
Simplify business processes	✓		✓			✓	✓
Manage sites, stores, and projects	✓		✓			✓	✓

[Learn more about Microsoft Teams apps.](#)

How to find the best frontline team solution for your organization

Article • 10/20/2023 • Applies to: Microsoft Teams, Microsoft 365 for frontline workers

Overview

Frontline teams are a collection of people, content, and tools within an organization for different frontline worker locations. When deploying your frontline teams you have different options for how you can manage team membership. You can choose between dynamic team membership, static team membership, or a combination of both.

Important

The ability to deploy frontline dynamic teams at scale will begin rolling out for public preview in July 2023.

Licensing

For dynamic groups, users need one of the following licenses: Microsoft 365 F1, F3, E1, E3, or E5. If a user doesn't have one of these licenses, they'll need a Microsoft Entra ID P1 add-on license to leverage dynamic teams. [Learn more about frontline licensing.](#)

Key considerations

- You can choose a mix of dynamic frontline teams and static frontline teams for your organization.
- You can convert static frontline teams to dynamic frontline teams in your [Microsoft Entra admin center](#) by converting the group membership type to Dynamic and setting your dynamic team membership rules. Teams you convert with this method aren't currently possible to view in the Dynamic team management view in your Teams admin center, but this functionality is planned for future releases.

When should I choose dynamic teams?

Dynamic teams will ensure your team membership is always up to date based on attributes you define in Microsoft Entra ID. As frontline employees onboard, offboard, or change locations, team membership will reflect the updates from Microsoft Entra ID.

You should use dynamic frontline teams if:

- You want your workers' team membership to be managed automatically.
- You have Microsoft Entra attributes that can define who is a frontline worker and what locations they work in.
- You want to simplify the process of creating a team for each frontline location, including support for creating new teams when a new location opens.

[Learn more about deploying dynamic frontline teams from your Teams admin center.](#)

ⓘ Note

You can't manually add members to dynamic teams. If you need to manually add or remove members, it's recommended that you use a **static team**.

When should I choose static teams?

Static teams let you choose which users to put in which team at the time of team creation. Team owners can manually add and remove members. Admins can also rerun the Deploy static teams at scale PowerShell script to keep membership up to date.

You should use static teams if:

- You want to manage team members and owners manually or delegate management to the team owner(s).
- You can't identify your frontline workforce with a Microsoft Entra attribute or you can't define your frontline locations with a Microsoft Entra attribute.
- Your users don't have the [required license](#) for dynamic teams.

[Learn more about deploying static frontline teams with PowerShell.](#)

Deploy frontline dynamic teams at scale

Article • 11/06/2023 • Applies to: Microsoft Teams, Microsoft 365 for frontline workers

Overview

Important

This feature will begin rolling out for public preview in July 2023. If you would like to provide feedback and improve this feature while in preview, please fill out [this form](#).

Frontline teams are a collection of people, content, and tools within an organization for different frontline worker locations. Membership of frontline dynamic teams is determined and managed by a set of Microsoft Entra attributes. [Learn more about Microsoft Entra attributes.](#)

In the setup process, you define the following information with Microsoft Entra attributes:

- Who your frontline workers are
- What locations they work at

You also determine team structure and team owners.

Then, you can choose which locations you want to create dynamic frontline teams for.

Team membership is automatically managed over time through the power of dynamic teams. As frontline workers are onboarded, offboarded, or change locations, their membership in these teams are updated accordingly.

Prerequisites

- Users must have a Microsoft 365 F3, F1, E3, or E5 license. If a user doesn't have one of these licenses, they'll need a Microsoft Entra ID P1 add-on license to use dynamic teams. [Learn more about frontline licensing.](#)
- The admin running the deployment process must be a Teams admin and Global admin.
- Ensure you can define your frontline workers and their work locations through data available in Microsoft Entra ID. If you don't have this data in Microsoft Entra ID, you

can sync it through a [human capital management \(HCM\) connector](#) or use the [PowerShell solution](#) to create teams at scale.

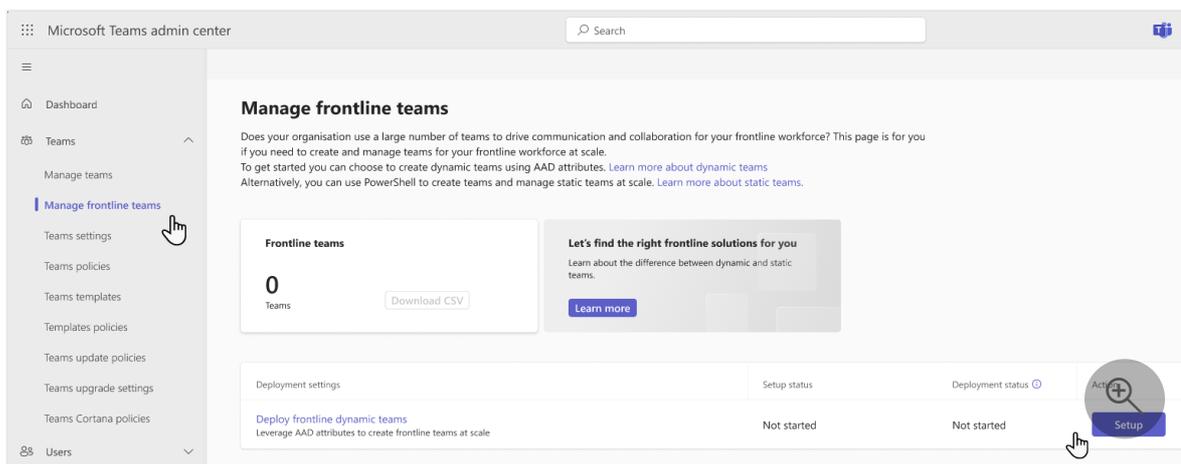
- When evaluating the right solution, we recommend you do the following:
 1. Plan your frontline deployment.
 2. Test the deploy tools (dynamic or static team creation).
 3. Deploy to a pilot location.
 4. Deploy to a broader set of locations using a phased approach.

ⓘ Note

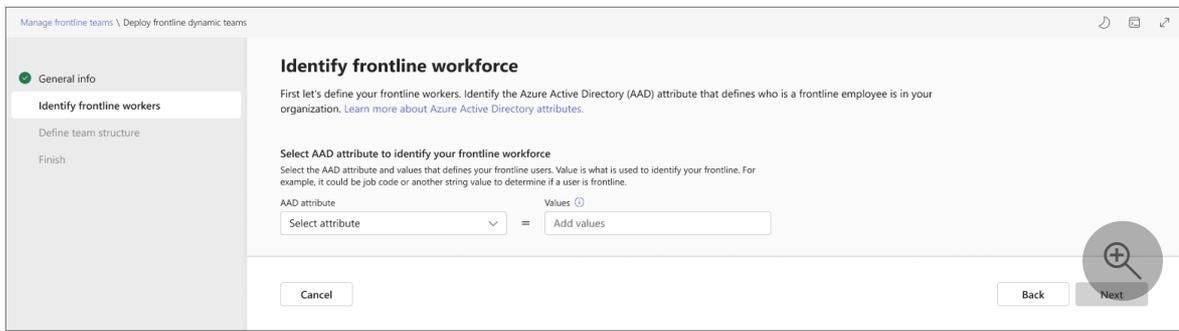
The PowerShell solution creates static teams, which aren't managed automatically.

Set up your frontline dynamic teams

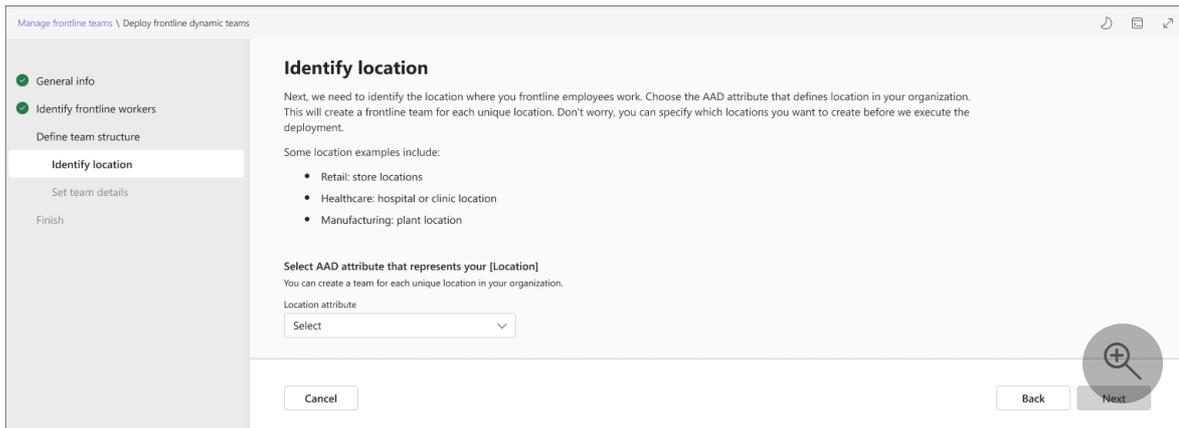
1. In the left navigation of the [Teams admin center](#), choose **Teams > Manage frontline teams**.
2. In the table, choose **Setup**.



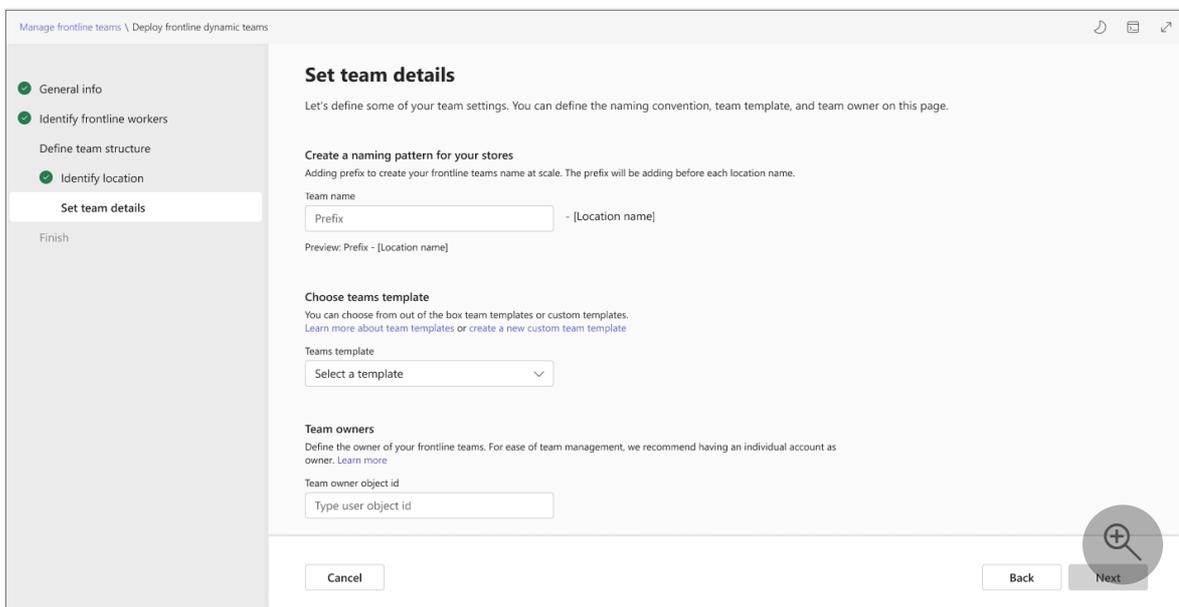
3. Review the prerequisites information.
4. Select the Microsoft Entra attribute that defines your frontline workers. You can only choose one Microsoft Entra attribute, but you can define multiple values by separating them with commas.



5. Select the Microsoft Entra attribute that defines the location your frontline employees work in. You can only choose one location attribute.



6. Define your team structure by choosing a prefix. The prefix is applied using the "prefix-location" format for all your teams.



7. Optionally, choose a team template. The team template you choose defines the channel structure for all your frontline teams. [Learn more about team templates.](#)

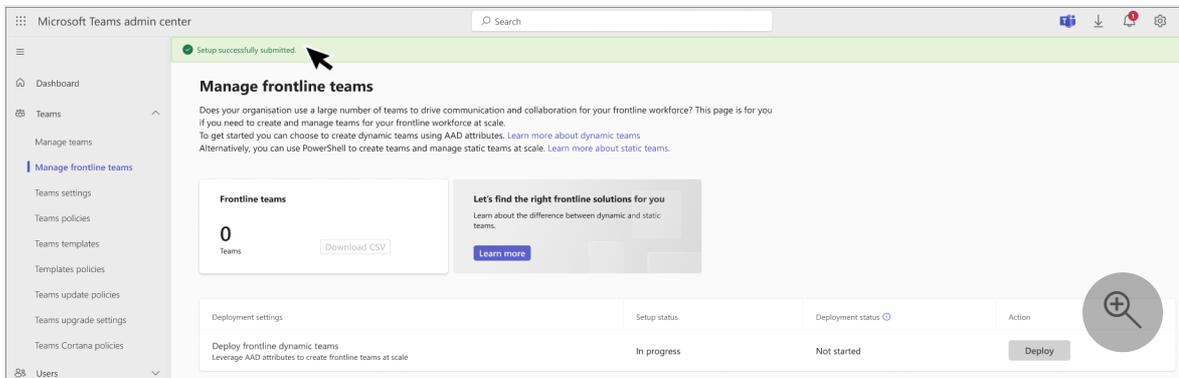
ⓘ Note

Currently, only team templates that are set to the English (United States) locale are supported. Keep in mind that the locale doesn't affect translation of the template or data residency. The locale setting is used only to distinguish between templates that have the same name that are created in different languages.

8. Enter a user account object ID to be the team owner. This account will be the owner for all frontline teams. It's recommended to choose a shared account rather than an individual person.
 - a. To get a user's object ID, go to the [Azure portal](#).
 - b. Select **Microsoft Entra ID**.
 - c. Select **Users**, and then choose your user.
 - d. Copy the user's object ID.
9. Review the settings, and then choose **Finish setup**.

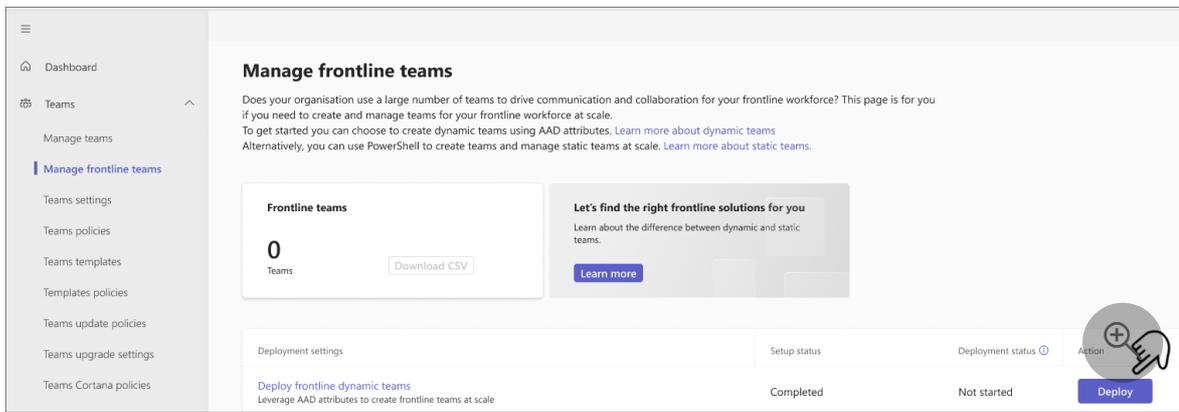
Note

Setup can take several hours to run. You can refresh the **Manage frontline teams** page to get the latest status of your setup.



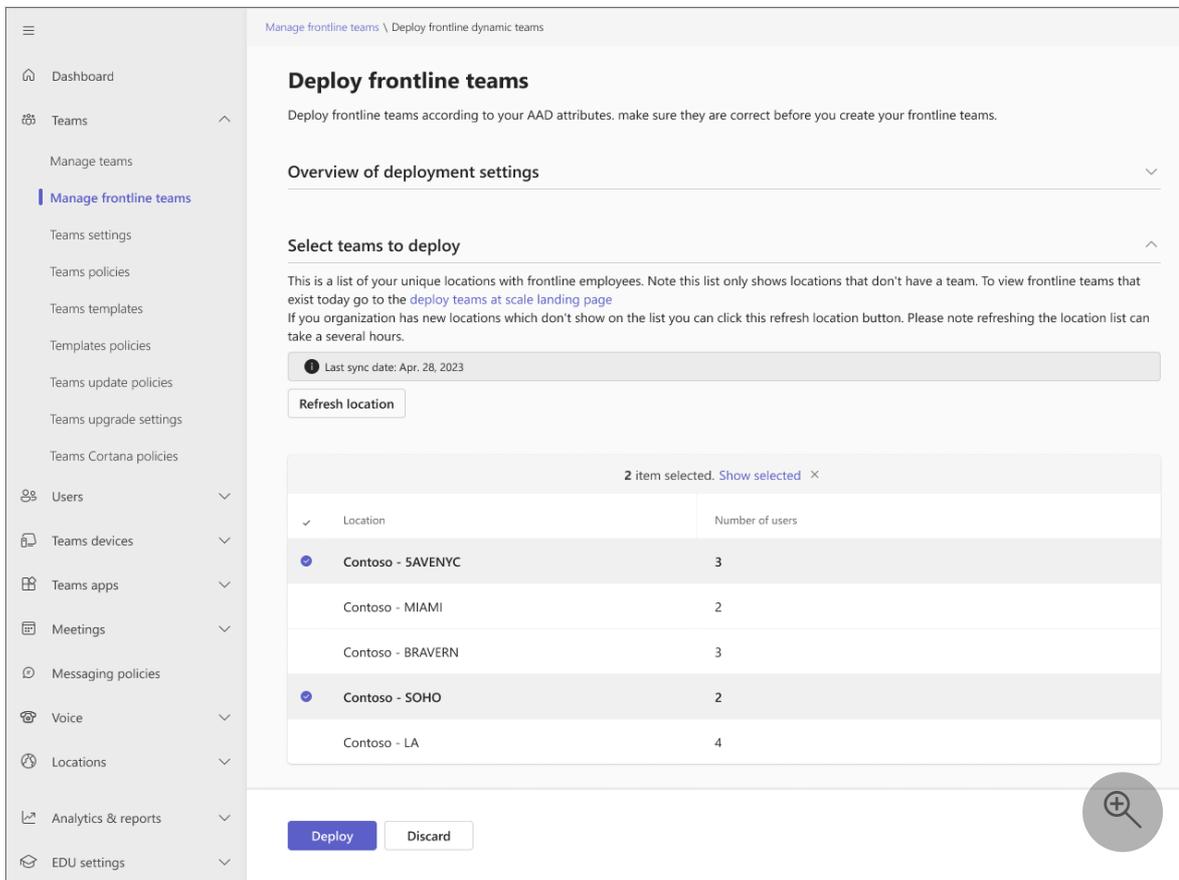
Deploy your frontline dynamic teams

1. After setup is completed, go to the **Manage frontline teams** page, and then select the **Deploy** button.

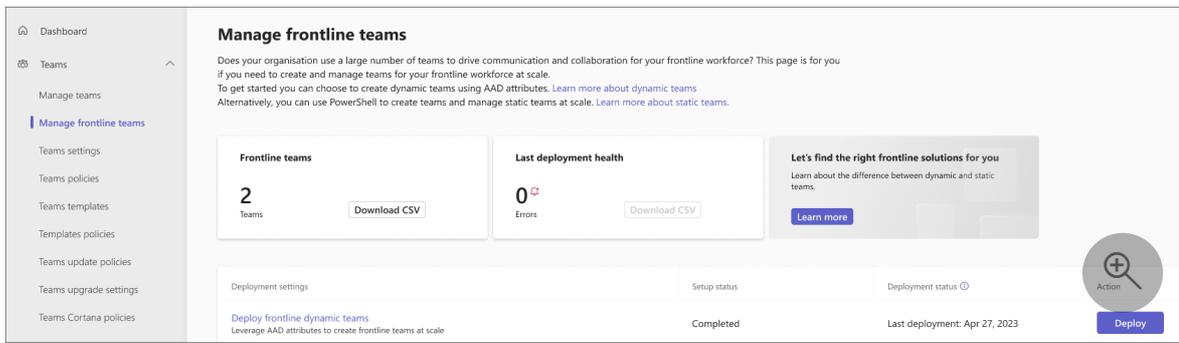


2. From here, you can review your settings and view the list of locations that don't yet have a frontline dynamic team created.

3. In the table, select the locations that you want to create teams for.



4. Select **Deploy**. This process can take several hours depending on how many teams you're creating. After deployment is completed, you'll see the number updated in the **Frontline teams** tile. On this tile, you can download a CSV file with a list of your frontline teams. If any errors occurred, you can download the error CSV file on the **Last deployment health** tile.



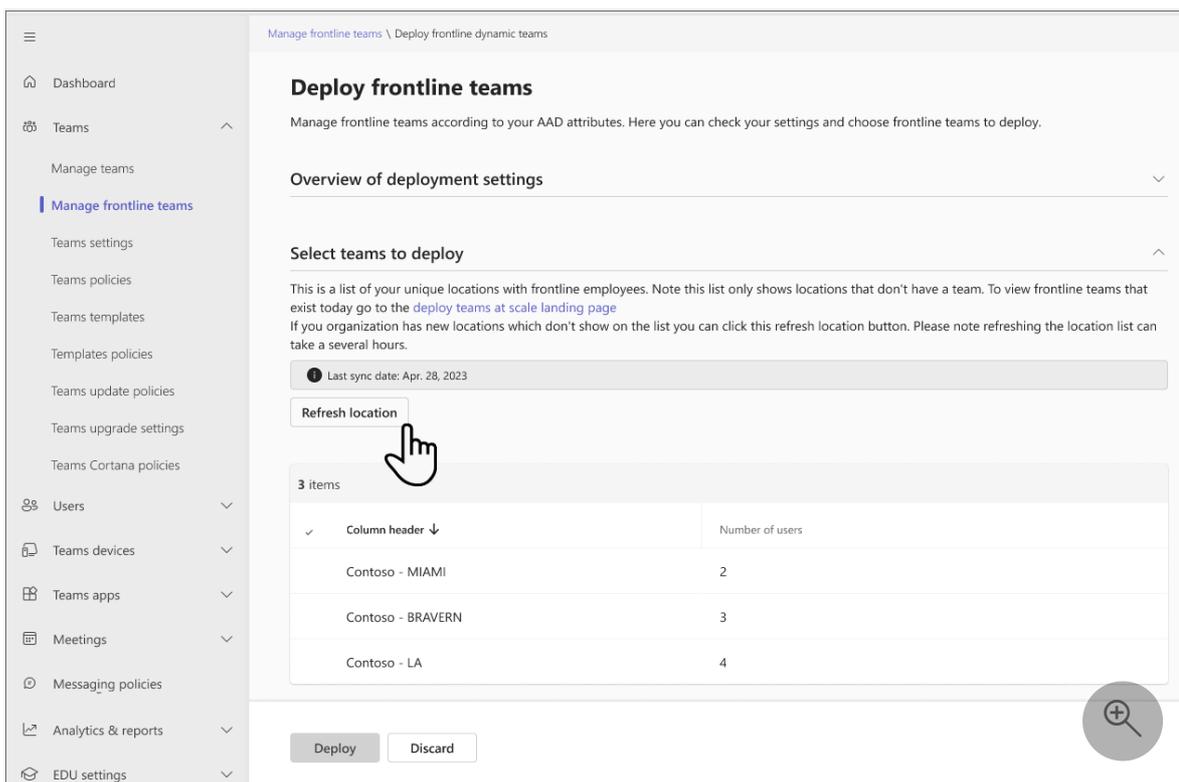
5. You can repeat this process for any frontline locations that don't have a team.

Managing your frontline dynamic teams

You can manage your teams when changes happen in your organization.

Create new teams for newly opened locations

1. In the left navigation of the [Teams admin center](#), choose **Teams > Manage frontline teams**.
2. In the table, choose **Deploy**.
3. Select the **Refresh location** button, and proceed when prompted by the dialog box. This process can take several hours depending on your number of new locations.



4. After the refresh is completed, your setup status shows as **Complete**. You can proceed to [deploy your new teams](#). Deployment can take several hours depending on how many new teams you're deploying.

Edit your frontline team settings

1. In the left navigation of the [Teams admin center](#), choose **Teams > Manage frontline teams**.
2. In the **Deploy settings** column, choose **Deploy frontline teams**.
3. Edit your settings on this page, and then select **Save**. Your settings might take several hours to update. See the following table for the effects of updating your settings.

Setting	Effect on existing frontline teams	Effect on new frontline teams
Define your frontline Microsoft Entra attribute.	All existing frontline teams will be members that have the new Microsoft Entra attribute defined.	All new frontline teams members will have the new Microsoft Entra attribute defined.
Choose the values applicable to your frontline Microsoft Entra attribute.	All existing frontline team membership will reflect your updated values.	All new teams will be populated with members who have the updated Microsoft Entra attributes that you defined.
Define your frontline locations.	Existing teams will continue to persist. If a team is no longer tied to a location, there will be no users in that team, and users are put in their respective location teams.	You can create new frontline teams based on the locations defined by your new Microsoft Entra attribute.
Set your team name prefix.	All existing team names will be updated to reflect the prefix and location name if that was changed.	All new teams will have the updated naming convention.
Select your team template.	No updates to the team structure will occur.	All new teams will use the updated team template.
Select your team owner.	The team owner will be updated for all existing teams.	All new teams will have the updated team owner.

Get analytics on frontline teams usage

The [Teams usage report](#) in Teams admin center gives you an overview of usage activity in Teams. You can use the report to view usage details for your frontline teams, including active users, active channels, total organized meetings, last activity date, and other information.

1. In the left navigation of the [Teams admin center](#), choose **Analytics & reports > Usage reports**.
2. On the **View reports** tab, under **Report**, select **Teams usage**.
3. Under **Date range**, select a date range of 7 days, 30 days, 90 days, or 180 days. Then, choose **Run report**.
4. In the upper-right corner, select **Export to Excel > Export table as CSV**.
5. Filter the spreadsheet based on your frontline team IDs.

ⓘ Note

To get a list of your frontline team IDs, in the Teams admin center, go to **Teams > Manage frontline teams**, and then in the **Frontline teams** section, select **Download CSV**.

Frequently asked questions

Why are channels missing when I create my teams?

It can take time for channels to propagate in Teams. The General channel is created first and the remaining channels are added over time. All channels should be available within 24 hours of team creation.

How do I delete a frontline team?

You can delete a team by using the [Teams client](#), [Teams admin center](#), [PowerShell](#), or [Graph](#).

Keep in mind that it can take up to 24 hours for a team and the Microsoft 365 group that's associated with the team to be fully deleted.

If you need to redeploy a frontline location team that was deleted, follow these steps:

1. [Refresh locations](#).

2. After the refresh is completed, choose the location you want to deploy.
3. Select **Deploy**.

Related articles

- [Learn where to start with a frontline deployment](#)
- [How to find the best frontline team solution for your organization](#)

Deploy frontline static teams at scale with PowerShell for frontline workers

Article • 10/10/2023 • Applies to: Microsoft Teams, Microsoft 365 for frontline workers

Overview

Does your organization use a large number of teams to drive communication and collaboration among your frontline workforce? This article is for you if you need to create and manage teams at scale.

You can use PowerShell to deploy up to 500 teams and add up to 25 users per team at a time. You can also add and remove users from existing teams at scale. Use this solution to meet your organization's scale needs and significantly reduce deployment time.

Deploying Teams at scale enables you to:

- Create teams using pre-built templates or your own custom templates.
- Add users to teams as owners or members.
- Manage teams at scale by adding or removing users from existing teams.
- Stay notified through email, including completion, status, and errors (if any). You can choose to notify up to five people about the status of each batch of teams you deploy. Team owners and members are automatically notified when they're added to a team.

This article walks you through how to deploy Teams at scale.

Deploy Teams at scale for frontline workers

Use PowerShell to create new teams or manage existing teams



Create up to 500 teams based on a template.



Add or remove users from existing teams.



Add up to 25 users to teams as owners or members.



Automatically notify people about batch status, and notify team owners and members when they're added.

Steps to deploy

1



Prepare 2 CSV files:

- Teams to create
- Users to add to each team

2



Set up your PowerShell environment:

- Get the latest modules
- Connect to Teams

3



Use PowerShell to deploy your teams

- Deploy a batch of teams
- Confirm status

Set up and deploy your teams

Important

Team owners must have a Teams license. Before you use these steps to deploy your teams, make sure that all teams owners have a license.

Follow these steps to deploy up to 500 teams at a time.

Step 1: Prepare your CSV files

You'll need to create two CSV files for each batch of teams that you deploy:

- **A CSV file that defines the teams you're creating.** This file must have a title line, and must contain these required columns, in the following order, starting with the first column:

Column name	Description
Team Name	The name of the team.
Existing Team ID	If you're adding or removing users from an existing team, specify the team ID of the team.

Column name	Description
Visibility	Whether the team is public (anyone in your organization can join) or private (users need approval from the team owners to join). Options are Public and Private .
Team Template ID	If you're creating a team from a pre-built or custom template, specify the team template ID. See Get started with team templates in the Teams admin center for a list pre-built team templates and IDs. If you want to use the standard default team template, leave this blank.

- A CSV file that maps the users you're adding to each team. This file must have a title line, and must contain these required columns, in the following order, starting with the first column:

Column name	Description
User Full Name	The display name of the user.
User UPN or ID	The user principal name (UPN) or ID of the user. For example, <code>averyh@contoso.com</code> .
Team Name	The name of the team.
ActionType	Whether you're adding or removing the user from the team. Options are <code>AddMember</code> and <code>RemoveMember</code> .
Owner or Member	Whether the user is a team owner or team member. Options are <code>Owner</code> and <code>Member</code> .

Examples

Use the following examples to help you create your CSV files. Here, we've named the files, `Teams.csv` and `Users.csv`.

Teams.csv

Team Name	Existing Team ID	Visibility	Team Template ID
Contoso Store 1		Public	com.microsoft.teams.template.retailStore
Contoso Store 2		Public	com.microsoft.teams.template.retailStore

Team Name	Existing Team ID	Visibility	Team Template ID
Contoso Store 3		Public	com.microsoft.teams.template.retailStore
Contoso Store 4		Public	com.microsoft.teams.template.retailStore
Contoso Store 5		Public	com.microsoft.teams.template.ManageAProject
Contoso Store 6		Public	com.microsoft.teams.template.ManageAProject
Contoso Store 7		Public	
Contoso Store 8		Private	com.microsoft.teams.template.OnboardEmployees
Contoso Store 9		Private	com.microsoft.teams.template.OnboardEmployees
Contoso Store 10		Private	com.microsoft.teams.template.OnboardEmployees

Users.csv

User Full Name	User UPN or ID	Team Name	ActionType	Owner or Member
Avery Howard	averyh@contoso.com	Contoso Store 1	AddMember	Owner
Casey Jensen	caseyj@contoso.com	Contoso Store 2	AddMember	Owner
Jessie Irwin	jessiei@contoso.com	Contoso Store 3	AddMember	Owner
Manjeet Bhatia	manjeetb@contoso.com	Contoso Store 4	AddMember	Owner
Mikaela Lee	mikaelal@contoso.com	Contoso Store 5	AddMember	Owner
Morgan Conners	morganc@contoso.com	Contoso Store 6	AddMember	Member
Oscar Ward	oscarw@contoso.com	Contoso Store 7	AddMember	Member
Rene Pelletier	renep@contoso.com	Contoso Store 8	AddMember	Member
Sydney Mattos	sydney@contoso.com	Contoso Store 9	AddMember	Member

User Full Name	User UPN or ID	Team Name	ActionType	Owner or Member
Violet Martinez	violetm@contoso.com	Contoso Store 10	AddMember	Member

Step 2: Set up your environment

Follow these steps to install and connect to the latest version of the Teams PowerShell module.

1. Install PowerShell version 7 or later. For step-by-step guidance, see [Installing PowerShell on Windows](#).
2. Run PowerShell in administrator mode.
3. Run the following to uninstall any previously installed Teams PowerShell module.

```
PowerShell  
  
Uninstall-module -Name MicrosoftTeams -Force -Allversions
```

If you get an error message, you're already set. Go to the next step.

4. Download and install the [latest version of the Teams PowerShell module](#). You must be running version 4.7.0 (preview) or a later version.
5. Run the following to connect to Teams.

```
PowerShell  
  
Connect-MicrosoftTeams
```

When you're prompted, sign in using your admin credentials.

6. Run the following to get a list the commands in the Teams PowerShell module.

```
PowerShell  
  
Get-Command -Module MicrosoftTeams
```

Verify that `New-CsBatchTeamsDeployment` and `Get-CsBatchTeamsDeploymentStatus` are listed.

Step 3: Deploy your teams

Now that you've created your CSV files and set up your environment, you're ready to deploy your teams.

You use the [New-CsBatchTeamsDeployment](#) cmdlet to submit a batch of teams to create. An orchestration ID is generated for each batch. You can then use the [Get-CsBatchTeamsDeploymentStatus](#) cmdlet to track the progress and status of each batch.

1. Run the following to deploy a batch of teams. In this command, you specify the path to your CSV files and the email addresses of up to five recipients to notify about this deployment.

PowerShell

```
New-CsBatchTeamsDeployment -TeamsFilePath "Your CSV file path" -  
UsersFilePath "Your CSV file path" -UsersToNotify "Email addresses"
```

The recipients will receive email notifications about deployment status. The email contains the orchestration ID for the batch you submitted and any errors that may have occurred.

For example:

PowerShell

```
New-CsBatchTeamsDeployment -TeamsFilePath "C:\dscale\Teams.csv" -  
UsersFilePath "C:\dscale\Users.csv" -UsersToNotify  
"adminteam@contoso.com,adelev@contoso.com"
```

2. Run the following to check the status of the batch you submitted.

PowerShell

```
Get-CsBatchTeamsDeploymentStatus -OrchestrationId "OrchestrationId"
```

Get analytics on frontline teams usage

The [Teams usage report](#) in Teams admin center gives you an overview of usage activity in Teams. You can use the report to view usage details for your frontline teams, including active users, active channels, total organized meetings, last activity date, and other information.

1. In the left navigation of the [Teams admin center](#), choose **Analytics & reports** > **Usage reports**.
2. On the **View reports** tab, under **Report**, select **Teams usage**.
3. Under **Date range**, select a date range of 7 days, 30 days, 90 days, or 180 days. Then, choose **Run report**.
4. In the upper-right corner, select **Export to Excel** > **Export table as CSV**.
5. Filter the spreadsheet based on your frontline team IDs.

ⓘ **Note**

Your frontline team IDs are listed in the PowerShell output when you deploy your teams.

Related articles

- [New-CsBatchTeamsDeployment](#)
- [Get-CsBatchTeamsDeploymentStatus](#)
- [Teams PowerShell Overview](#)
- [Learn where to start with a frontline deployment](#)
- [How to find the best frontline team solution for your organization](#)

Manage devices for frontline workers

Article • 10/20/2023 • Applies to: Microsoft Teams, Microsoft 365 for frontline workers

Across every industry, frontline workers make up a large segment of the workforce. Frontline worker roles include retail associates, factory workers, field and service technicians, healthcare personnel, and many more.

Overview

Because the workforce is largely mobile and often shift-based, managing the devices that frontline workers use is a key fundamental. Some questions to consider:

- Do workers use company-owned devices or their own personal devices?
- Are company-owned devices shared between workers or assigned to an individual?
- Do workers take devices home or leave them at the workplace?

It's important to set a secure, compliant baseline to manage devices for your workforce, whether they're shared devices or workers' own devices. This article gives you an overview of common frontline worker device scenarios and management capabilities to help empower your workforce while safeguarding company data.

Device types

Shared, bring-your-own, and kiosk devices are the most common device types used by frontline workers.

Device type	Description	Why to use	Deployment considerations
Shared devices	Devices are owned and managed by your organization. Employees access devices while at work.	Worker productivity and customer experience are a top priority. Workers can't access organization resources while not at work. Local laws may prevent personal devices from being used for business purposes.	Sign in/out can add friction to worker experience. Potential for inadvertent sharing of sensitive data.

Device type	Description	Why to use	Deployment considerations
Bring-your-own devices (BYOD)	Personal devices are owned by the user and managed by your organization.	<p>Your existing mobile device management (MDM) solution prevents your organization from adopting a shared devices model.</p> <p>Shared devices or dedicated devices may be impractical from a cost or business-readiness perspective.</p>	<p>Support complexity may not be feasible in field locations.</p> <p>Personal devices vary in OS, storage, and connectivity.</p> <p>Some workers may not have reliable access to a personal mobile device.</p> <p>You could incur potential liability for wages if workers access resources while not clocked in.</p> <p>Personal device use may be against union rules or government regulations.</p>
Kiosk devices	Devices are owned and managed by your organization. Users don't need to sign in or out.	<p>Device has a dedicated purpose.</p> <p>Use case doesn't require user authentication.</p>	<p>Collaboration, communication, task, and workflow applications need a user identity to function.</p> <p>Not possible to audit user activity.</p> <p>Unable to use some security capabilities including multifactor authentication.</p>

Shared devices and BYOD are commonly adopted in frontline deployments. You can use capabilities discussed in subsequent sections of this article may resolve or mitigate your organization's concerns over user experience, unauthorized worker access to data, and resources and ability to deploy and manage devices at scale.

ⓘ Note

Kiosk device deployments aren't recommended because they don't allow user auditing and user-based security capabilities like multifactor authentication. [Learn](#)

more about kiosk devices.

Shared devices

Many frontline workers use shared mobile devices to do work. Shared devices are company-owned devices that are shared between employees across tasks, shifts, or locations.

Here's an example of a typical scenario. An organization has a pool of devices in charging cradles to be shared across all employees. At the start of a shift, an employee picks up a device from the pool, and signs in to Teams and other business apps essential to their role. At the end of their shift, they sign out and return the device to the pool. Even within the same shift, a worker might return a device when they finish a task or clock out for lunch, and then pick up a different one when they clock back in.

Shared devices present unique security challenges. For example, employees may have access to company or customer data that shouldn't be available to others on the same device.

Personal devices (BYOD)

Some organizations use a bring-your-own-device (BYOD) model where frontline workers use their own mobile devices to access Teams and other business apps. Here's an overview of some ways to manage access and compliance on personal devices.

Device operating system

The deployment model you select will partly determine the device operating systems you support. For example, if you implement a BYOD model, you'll need to support both Android and iOS devices. If you implement a shared devices model, the device OS you choose will determine the capabilities available. For example, Windows devices natively support the ability to store multiple user profiles for automated sign-on and easy authentication with Windows Hello. With Android and iOS, more steps and pre-requisites apply.

Device OS	Considerations
Windows	Native support for storing multiple user profiles on the device. Supports Windows Hello for passwordless authentication. Simplified deployment and management capabilities when used with Microsoft Intune.

Device OS	Considerations
Android	<p>Limited native capabilities for storing multiple user profiles on devices.</p> <p>Android devices can be enrolled in shared device mode to automate single sign-on and sign out.</p> <p>Robust management of controls and APIs.</p> <p>Existing ecosystem of devices built for frontline use.</p>
iOS and iPadOS	<p>iOS devices can be enrolled in shared device mode to automate single sign-on and sign out.</p> <p>Storing multiple user profiles on iPadOS devices is possible with Shared iPad for Business. Conditional access isn't available with Shared iPad for Business because of the way Apple partitions user profiles.</p>

In a shared devices deployment, the ability to store multiple user profiles on a device to simplify user sign on and the ability to clear app data from the previous user (single sign out) are practical requirements for frontline deployments. These capabilities are native on Windows devices and iPads using Shared iPad for Business.

User identity

Microsoft 365 for frontline workers uses Microsoft Entra ID as the underlying identity service for delivering and securing all applications and resources. Users must have an identity that exists in Microsoft Entra ID to access Microsoft 365 cloud applications.

If you choose to manage frontline user identities with Active Directory Domain Services (AD DS) or a third-party identity provider, you'll need to federate these identities to Microsoft Entra ID. [Learn how to integrate your third-party service with Microsoft Entra ID.](#)

The possible implementation patterns for managing frontline identities include:

- Microsoft Entra standalone:** Your organization creates and manages user, device, and application identities in Microsoft Entra ID as a standalone identity solution for your frontline workloads. This implementation pattern is recommended as it simplifies your frontline deployment architecture and maximizes performance during user sign-on.
- Active Directory Domain Services (AD DS) integration with Microsoft Entra ID:** Microsoft provides Microsoft Entra Connect to join these two environments. Microsoft Entra Connect replicates AD user accounts to Microsoft Entra ID, allowing a user to have a single identity capable of accessing both local and cloud-based resources. Although both AD DS and Microsoft Entra ID can exist as independent directory environments, you can choose to create hybrid directories.

- **Third-party identity solution sync with Microsoft Entra ID:** Microsoft Entra ID supports integration with third-party identity providers such as Okta and Ping Identity through federation. [Learn more about using third-party identity providers.](#)

HR-driven user provisioning

Automating user provisioning is a practical need for organizations that want frontline employees to be able to access applications and resources on day one. From a security perspective, it's also important to automate deprovisioning during employee offboarding to ensure that previous employees don't retain access to company resources.

Microsoft Entra user provisioning service integrates with cloud-based and on-premises HR applications, such as Workday and SAP SuccessFactors. You can configure the service to automate user provisioning and deprovisioning when an employee is created or disabled in the HR system.

My Staff

With the [My Staff](#) feature in Microsoft Entra ID, you can delegate common user management tasks to frontline managers through the My Staff portal. Frontline managers can perform password resets or manage phone numbers for frontline workers directly from the store or factory floor, without having to route the requests to helpdesk, operations, or IT.

My Staff also enables frontline managers to register their team members' phone numbers for SMS sign-in. If [SMS-based authentication](#) is enabled in your organization, frontline workers can sign in to Teams and other apps using only their phone numbers and a one-time passcode sent via SMS. This makes signing in for frontline workers simple, secure, and fast.

Mobile device management

Mobile device management (MDM) solutions can simplify deployment, management and monitoring of devices. Microsoft Intune natively supports features important for deploying shared devices to frontline workers. These capabilities include:

- **Zero-touch provisioning:** IT admins can enroll and pre-configure mobile devices without physical custody of the devices (for manual configuration). This capability is useful when deploying shared devices at scale to field locations because devices

can be shipped directly to the intended frontline location where automated configuration and provisioning steps can be completed remotely.

- **Single sign-out:** Stops background processes and automates user sign out across all applications and resources assigned to the previous user when a new user signs in. Android and iOS devices must be enrolled in shared device mode to use single sign out.
- **Microsoft Entra Conditional Access:** IT admins can implement automated access control decisions for cloud-based applications and resources through identity-driven signals. For example, it's possible to prevent access by a shared or BYOD device that doesn't have the latest security updates installed. [Learn more about how to secure your deployment.](#)

If you're using a third-party MDM solution for your shared devices deployment, such as VMware's Workspace ONE or SOTI MobiControl, it's important to understand the associated capabilities, limitations and available workarounds.

Some third-party MDMs can clear app data when a global sign out occurs on an Android device. However, app data clearing can miss data that is stored in a shared location, delete app settings, or cause first-run experiences to reappear. Android devices enrolled in shared device mode can selectively clear the necessary application data during device check-in or when the new user logs in to the device. [Learn more about authentication in shared device mode.](#)

You can manually configure shared device mode in third-party MDM solutions for iOS and Android devices, however, manual configuration steps don't mark the device compliant in Microsoft Entra ID, which means conditional access isn't supported in this scenario. If you choose to manually configure devices in shared device mode, you'll need to take additional steps to re-enroll Android devices in shared device mode with zero-touch provisioning to get conditional access support when third-party MDM support is available by uninstalling and reinstalling Authenticator from the device.

A device can only be enrolled in one MDM solution, but you can use multiple MDM solutions to manage separate pools of devices. For example, you could use Workspace ONE for shared devices and Intune for BYOD. If you use multiple MDM solutions, keep in mind that some users may not be able to access shared devices because of a mismatch in conditional access policies.

MDM solution	Single sign out	Zero touch provisioning	Microsoft Entra Conditional Access
Intune (Microsoft)	Supported for Android and iOS devices	Supported for Android and iOS devices enrolled in shared device mode	Supported for Android and iOS devices enrolled in shared device mode

MDM solution	Single sign out	Zero touch provisioning	Microsoft Entra Conditional Access
	enrolled in shared device mode		
Workspace ONE (VMware)	Supported with Clear Android app data capabilities. Unavailable for iOS	Currently unavailable for Android and iOS.	Currently unavailable for Android and iOS.
MobiControl (SOTI)	Supported with Wipe program data capabilities. Unavailable for iOS.	Currently unavailable for Android and iOS.	Currently unavailable for Android and iOS.

Windows devices enrolled in Intune support single sign out, zero touch provisioning, and Microsoft Entra Conditional Access. You don't need to configure shared device mode on Windows devices.

Intune is recommended for BYOD scenarios because it provides the best support and functionality out-of-the-box across device types.

Enroll Android and iOS personal devices

In addition to your company-owned devices, you can [enroll](#) users' personally owned devices into management in Intune. For BYOD enrollment, you add device users in the Microsoft Intune admin center, configure their enrollment experience, and set up Intune policies. Users complete enrollment themselves in the Intune Company Portal app that's installed on their device.

In some cases, users may be reluctant to enroll their personal devices into management. If device enrollment isn't an option, you can choose a mobile application management (MAM) approach and use [app protection policies](#) to manage apps that contain corporate data. For example, you can apply app protection policies to Teams and Office mobile apps to prevent company data from being copied to personal apps on the device.

To learn more, see "[Personal devices vs Organization-owned devices](#)" in the [Intune planning guide](#) and [Deployment guidance: Enroll devices in Microsoft Intune](#).

Authentication

Authentication features control who or what uses an account to gain access to applications, data, and resources. Organizations deploying shared devices to frontline workers need authentication controls that don't impede worker productivity while preventing unauthorized or unintended access to applications and data when devices are transferred between authenticated users.

Microsoft's frontline solution is delivered from the cloud and utilizes Microsoft Entra ID as the underlying identity service for securing Microsoft 365 applications and resources. These authentication features in Microsoft Entra ID address the unique considerations for shared devices deployments: automatic single sign-on, single sign out, and other strong authentication methods.

Shared device mode

[Shared device mode](#) is a feature of Microsoft Entra ID that enables you to configure devices to be shared by employees. This feature enables single sign-on (SSO) and device-wide sign out for Microsoft Teams and all other apps that support shared device mode. You can integrate this capability into your line-of-business (LOB) apps using the Microsoft Authentication Library (MSAL). Once a device is in shared device mode, applications that leverage Microsoft Authentication Library (MSAL) can detect that they're running on a shared device and determine who the current active user is. With this information, applications can accomplish these authentication controls:

- **Automatic single sign-on:** If a user has already signed into another MSAL application, the user will be logged into any application compatible with Shared Device Mode. This is an improvement to the previous single sign-on experience because it further reduces the time it takes to access applications after signing into the first application by removing the need for a user to select a previously signed in account.
- **Single sign-out:** Once a user signs out of an app using MSAL, all other applications integrated with shared device mode can stop background processes and commence sign out data clearing processes to prevent unauthorized or unintended access by the next user.

Here's how shared device mode works, using Teams as an example. When an employee signs in to Teams at the start of their shift, they're automatically signed in to all other apps that support shared device mode on the device. At the end of their shift, when they sign out of Teams, they're signed out globally from all other apps that support shared device mode. After sign out, the employee's data and company data in Teams (including apps hosted within it) and in all other apps that support shared device mode can no longer be accessed. The device is ready for the next employee and can be safely handed off.

Shared device mode is an improvement to the app data clear functionality for Android because it allows application developers to selectively clear personal user data without impacting app settings or cached data. With shared device mode, the flags that allow an application to remember if a first run experience is shown aren't deleted so users don't see a first run experience every time they sign-on.

Shared device mode also allows a device to be enrolled into Microsoft Entra ID once for all users so that you can easily create profiles that secure app and data usage on the shared device. This allows you to support conditional access without having to re-enroll the device every time a new user authenticates into the device.

You use a mobile device management (MDM) solution like Microsoft Intune or Microsoft Configuration Manager to prepare a device to be shared by installing the [Microsoft Authenticator app](#) and turning on shared mode. Teams and all other apps that support shared device mode use the shared mode setting to manage users on the device. The MDM solution you use should also perform a device cleanup when sign out occurs.

Note

Shared device mode isn't a full data loss prevention solution. Shared device mode should be used in conjunction with Microsoft Application Manager (MAM) policies to ensure that data doesn't leak to areas of the device that aren't leveraging shared device mode (e.g., local file storage).

Prerequisites and considerations

You'll need to meet the following prerequisites to use shared device mode.

- The device must first have Microsoft Authenticator installed.
- The device must be enrolled in shared device mode.
- All the applications that need these benefits need to integrate with the shared device mode APIs in MSAL.

MAM policies are required to prevent data from moving from shared device mode enabled applications to non-shared device mode enabled applications.

Currently, zero-touch provisioning of shared device mode is only available with Intune. If you're using a third-party MDM solution, devices must be enrolled in shared device mode using the [manual configuration steps](#).

ⓘ Note

Conditional access isn't fully supported for devices that are configured manually.

Some Microsoft 365 applications don't currently support shared device mode. The table below summarizes what is available. If the application you need lacks shared device mode integration, it's recommended that you run a web-based version of your application in either Microsoft Teams or Microsoft Edge to get the benefits of shared device mode.

Shared device mode is currently supported on Android devices. Here's some resources to help you get started.

Enroll Android devices into shared device mode

To manage and enroll Android devices into shared device mode using Intune, devices must be running Android OS version 8.0 or later, and have Google Mobile Services (GMS) connectivity. To learn more, see:

- [Set up Intune enrollment for Android Enterprise dedicated devices](#)
- [Enroll Android Enterprise dedicated devices into Microsoft Entra shared device mode](#) ↗

You can also choose to deploy the Microsoft Managed Home Screen app to tailor the experience for users on their Intune-enrolled Android dedicated devices. Managed Home Screen acts as a launcher for other approved apps to run on top of it, and lets you customize devices and restrict what employees can access. For example, you can define how apps appear on the home screen, add your company logo, set custom wallpaper, and allow employees to set a session PIN. You can even configure sign out to happen automatically after a specified period of inactivity. To learn more, see:

- [Configure the Microsoft Managed Home Screen app for Android Enterprise](#)
- [How to set up Microsoft Managed Home Screen on dedicated devices in multi-app kiosk mode](#) ↗

For developers creating apps for shared device mode

If you're a developer, see the following resources for more information about how to integrate your app with shared device mode:

- [Shared device mode for Android devices](#)
- [Shared device mode for iOS devices](#)

Multifactor authentication

Microsoft Entra ID supports several forms of multifactor authentication with the Authenticator app, FIDO2 keys, SMS, voice calls, and more.

Due to higher cost and legal restrictions, the most secure authentication methods may not be practical for many organizations. For example, FIDO2 security keys are typically considered too expensive, biometric tools like Windows Hello may run against existing regulations or union rules, and SMS sign in may not be possible if frontline workers aren't permitted to bring their personal devices to work.

multifactor authentication provides a high level of security for applications and data but adds ongoing friction to user sign-on. For organizations that choose BYOD deployments, multifactor authentication may or may not be a practical option. It's highly recommended that business and technical teams validate the user experience with multifactor authentication before broad rollout so that the user impact can be properly considered in change management and readiness efforts.

If multifactor authentication isn't feasible for your organization or deployment model, you should plan to leverage robust conditional access policies to reduce security risk.

Passwordless authentication

To further simplify access for your frontline workforce, you can leverage passwordless authentication methods so that workers don't need to remember or type in their passwords. Passwordless authentication methods are also typically more secure, and many can satisfy MFA requirements if necessary.

Before proceeding with a passwordless authentication method, you'll need to determine if it can work in your existing environment. Considerations like cost, OS support, personal device requirement, and MFA support can impact whether an authentication method would work for your needs. For example, FIDO2 security keys are currently considered too expensive, and SMS and Authenticator sign in may not be possible if frontline workers aren't permitted to bring their personal devices to work.

Refer to the table to assess passwordless authentication methods for your frontline scenario.

Method	OS support	Requires personal device	Supports multifactor authentication
SMS sign in	Android and iOS	Yes	No

Method	OS support	Requires personal device	Supports multifactor authentication
Windows Hello	Windows	No	Yes
Microsoft Authenticator	All	Yes	Yes
FIDO2 Key	Windows	No	Yes

If you're deploying with shared devices and the previous passwordless options aren't feasible, you can opt to disable strong password requirements so that users can provide simpler passwords while logging into managed devices. If you choose to disable strong password requirements, you should consider adding these strategies to your implementation plan.

- Only disable strong password requirements for users of shared devices.
- Create a conditional access policy that prevents these users from logging into non-shared devices on non-trusted networks.

Authorization

Authorization features control what an authenticated user can do or access. In Microsoft 365, this is achieved through a combination of Microsoft Entra Conditional Access policies and application protection policies.

Implementing robust authorization controls is a critical component of securing a frontline shared devices deployment, particularly if it isn't possible to implement strong authentication methods like multifactor authentication (MFA) for cost or practicality reasons.

Microsoft Entra Conditional Access

With conditional access, you can create rules that limit access based on the following signals:

- User or group membership
- IP location information
- Device (only available if the device is enrolled in Microsoft Entra ID)
- Application
- Real-time and calculated risk detection

Conditional access policies can be used to block access when a user is on a non-compliant device or while they're on an untrusted network. For example, you may want to use conditional access to prevent users from accessing an inventory application when they aren't on the work network or are using an unmanaged device, depending on your organization's analysis of applicable laws.

For BYOD scenarios where it makes sense to access data outside of work, such as HR-related information or non-business-related applications, you may choose to implement more permissive conditional access policies alongside strong authentication methods like multifactor authentication.

Conditional access is supported for:

- Shared Windows devices managed in Intune.
- Shared Android and iOS devices enrolled in shared device mode with zero-touch provisioning.
- BYOD for Windows, Android, and iOS managed with Intune or third-party MDM solutions.

Conditional access **not** supported for:

- Devices manually configured with shared device mode, including Android and iOS devices managed with third-party MDM solutions.
- iPad devices that use Shared iPad for Business.

Note

Conditional access for Android devices managed with select third-party MDM solutions is coming soon.

For more information on conditional access, see the [Microsoft Entra Conditional Access documentation](#).

App protection policies

With MAM from Intune, you can use app protection policies (APP) with applications that have integrated with Intune's [APP SDK](#). This allows you to further protect your organization's data within an application.

With app protection policies you can add access control safeguards, such as:

- Require a PIN to open an app in a work context.
- Control the sharing of data between applications

- Prevent the saving of company app data to a personal storage location
- Ensure the device's operating system is up to date

You can also use APPs to ensure that data doesn't leak to applications that don't support shared device mode. To prevent data loss, the following APPs must be enabled on shared devices:

- Disable copy/paste to non-shared device mode enabled applications.
- Disable local file saving.
- Disable data transfer capabilities to non-shared device mode enabled applications.

APPs are helpful in BYOD scenarios because they allow you to protect your data at the app level without having to manage the entire device. This is important in scenarios where employees may have a device managed by another tenant (for example, a university or another employer) and can't be managed by another company.

Application management

Your deployment plan should include an inventory and assessment of the applications that frontline workers will need to do their jobs. This section covers considerations and necessary steps to ensure that users have access to required applications and that the experience is optimized in the context of your frontline implementation.

For the purposes of this assessment, applications are categorized in three groups:

- **Microsoft applications** are built and supported by Microsoft. Microsoft applications support Microsoft Entra ID and integrate with Intune's APP SDK. However, not all Microsoft applications are supported with shared device mode. [See a list of supported applications and availability.]([authentication bookmark](#))
- **Third-party applications** are built and sold commercially by a third-party provider. Some applications don't support Microsoft Entra ID, Intune's APP SDK, or shared device mode. Work with the application provider and your Microsoft account team to confirm what the user experience will be.
- **Custom line-of-business applications** are developed by your organization to address internal business needs. If you build applications using Power Apps, your app will automatically be enabled with Microsoft Entra ID, Intune, and shared device mode.

The applications that frontline users access meet these requirements (as applicable) for global single-in and single sign out to be enabled.

- **Integrate custom and third-party applications with MSAL:** Users can authenticate into your applications using Microsoft Entra ID, enable SSO, and conditional access

policies can be applied.

- **Integrate applications with shared device mode (applies only to Android or iOS shared devices):** Applications can use the necessary shared device mode APIs in MSAL to perform automatic single sign-on and single sign out. Appropriately using these APIs allows you to integrate with shared device mode. This isn't necessary if you're running your application in Teams, Microsoft Edge, or PowerApps.
- **Integrate with Intune's APP SDK (applies only to Android or iOS shared devices):** Applications can be managed in Intune to prevent unintended or unauthorized data exposure. This isn't necessary if your MDM performs app data clears that wipe any sensitive data during device check-in flows (single sign out).

Once you've successfully validated your applications, you can deploy them to managed devices using your MDM solution. This allows you to preinstall all the necessary applications during device enrollment so that users have everything they need on day one.

App launchers for Android devices

On Android devices, the best way of providing a focused experience as soon as an employee opens a device is to provide a customized launch screen. With a customized launch screen, you can show only the relevant applications an employee needs to use and widgets that highlight key information.

Most MDM solutions provide their own app launcher that can be used. For example, Microsoft provides Managed Home Screen. If you want to build your own custom app launcher for shared devices, you'll need to integrate it with shared device mode so that single sign-on and single sign out works on your devices. The following table highlights some of the most common app launchers available today by Microsoft and third-party developers.

App launcher	Capabilities
Managed Home Screen	Use Managed Home Screen when you want your end users to have access to a specific set of applications on your Intune-enrolled dedicated devices. Because Managed Home Screen can be automatically launched as the default home screen on the device and appears to the end user as the only home screen, it's useful in shared devices scenarios when a locked down experience is required.
Microsoft Launcher	Microsoft Launcher lets users personalize their phone, stay organized on the go, and transfer work from their phone to their PC. Microsoft Launcher differs from Managed Home Screen because it allows the end user access to their standard home screen. Microsoft Launcher is therefore useful in BYOD scenarios.

App launcher	Capabilities
VMware Workspace ONE Launcher	For customers using VMware, the Workspace ONE Launcher is the best tool to curate a set of applications that your frontline workforce needs access to. The sign out option from this launcher is also what enables Android App Data Clear for single sign out on VMware devices. VMware Workspace ONE Launcher doesn't currently support shared device mode.
Custom app launcher	If you want a fully customized experience, you can build out your own custom app launcher. You can integrate your launcher with shared device mode so that your users only need to sign in and out once.

Related articles

- [Frontline worker management](#)

How different technologies affect Microsoft Teams sign-on

Article • 02/15/2023 • Applies to: Microsoft Teams

If you need to understand how technologies like single sign-on (SSO), modern authentication (MS), and multifactor authentication (MA) affect users' experience of sign-in, this article will help clarify what users and admins can expect to see. It also outlines the log-in behavior for macOS, android, and iOS devices, how login works using multiple accounts, how to remove automatically filled credentials or 'pre-fill' at the login screen, and how to restrict sign-on.

Bookmark this article if your role involves knowing Microsoft Team's expected behaviors during login.

Microsoft Teams and Windows users: sign-in recommendations

Microsoft recommends that organizations use recent versions of Windows 10 with either Hybrid Domain Join or Microsoft Entra join configuration. Using recent versions ensures that users' accounts are primed in Windows' Web Account Manager, which in turn enables single sign-on to Teams and other Microsoft applications. Single sign-on provides a better user experience (silent sign-in) and a better security posture.

Microsoft Teams uses modern authentication to keep the sign-in experience simple and secure. To see how users sign in to Teams, read [Sign in to Teams](#).

How modern authentication (MA) affects your sign-in: what users will see when MA is on

Modern authentication is part of a process that lets Teams know that users have already entered their credentials -- such as their work email and password -- elsewhere, and they shouldn't be required to enter them again to start the app. The experience varies depending on a couple factors, like if users are working in a Windows operating system, or on a Mac.

Sign-in behavior will also vary depending on whether your organization has enabled single-factor authentication or multifactor authentication. Multifactor authentication usually involves verifying credentials via a phone, providing a unique code, entering a PIN, or presenting a thumbprint.

Modern authentication is available for every organization that uses Teams. If users aren't able to complete the process, there might be an underlying issue with your organization's Microsoft Entra configuration. For more information, see [Why am I having trouble signing in to Microsoft Teams?](#)

Here's a rundown of the behavior users can expect with each modern authentication scenario.

- If users have already signed in to Windows or to other Office apps with their work or school account, when they start Teams they're taken straight to the app. There's no need for them to enter their credentials.
- Microsoft recommends using Windows 10 version 1903 or later for the best Single Sign-On experience.
- If users are not signed in to their Microsoft work or school account anywhere else, when they start Teams, they're asked to provide either single-factor or multifactor authentication (SFA or MFA). This process depends on what your organization has decided they'd like the sign-in procedure to require.
- If users are signed in to a domain-joined computer, when they start Teams, they might be asked to go through one more authentication step, depending on whether your organization opted to require MFA or if their computer already requires MFA to sign in. If their computer already requires MFA to sign in, when they open up Teams, the app automatically starts.
- On Domain joined PCs, when SSO isn't possible, Teams may pre-fill its login screen with the user principal name (UPN). There are cases where you may not want this, especially if your organization uses different UPNs on-premises and in Microsoft Entra ID. If that's the case, **you can use the following Windows registry key to turn off pre-population of the UPN:**

```
Computer\HKEY_CURRENT_USER\Software\Microsoft\Office\Teams  
SkipUpnPrefill(REG_DWORD)  
0x00000001 (1)
```

ⓘ Note

Skipping or ignoring user name pre-fill for user names that end in ".local" or ".corp" is on by default, so you don't need to set a registry key to turn these off.

Microsoft Teams sign-on to another account on a Domain Joined computer

Users on domain-joined computer may not be able to sign in to Teams with another account in the same Active Directory domain.

macOS users and Microsoft Teams sign-on prompts

On macOS, Teams will prompt users to enter their username and credentials and may prompt for multifactor authentication depending on your organization's settings. Once users enter their credentials, they won't be required to provide them again. From that point on, Teams automatically starts whenever they're working on the same computer.

Microsoft Teams sign-on for iOS and Android users

Upon sign in, mobile users will see a list of all the Microsoft 365 accounts that are either currently signed-in or were previously signed-in on their device. Users can tap on any of the accounts to sign in. There are two scenarios for mobile sign in:

1. If the selected account is currently signed in to other Office 365 or Microsoft 365 apps, then the user will be taken straight to Teams. There's no need for the user to enter their credentials.
2. If user isn't signed in to their Microsoft 365 account anywhere else, they will be asked to provide single-factor or multifactor authentication (SFA or MFA), depending on what your organization has configured for mobile sign-in policies.

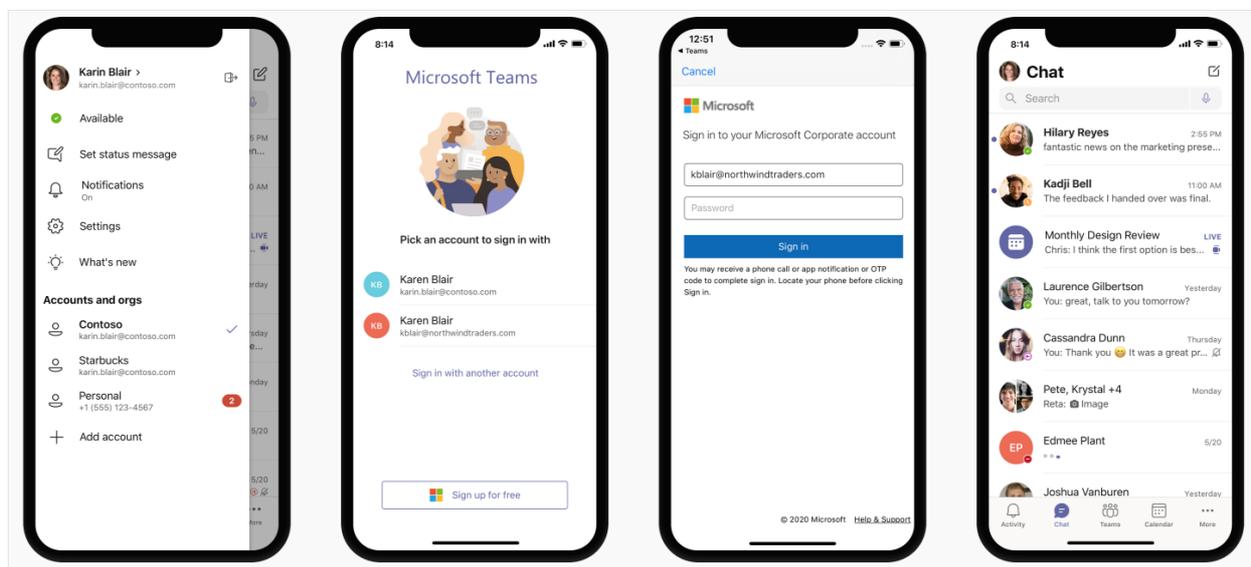
Note

For users to experience the sign on experience as described in this section, their devices must be running Teams for iOS version 2.0.13 (build 2020061704) or later, or Teams for Android version 1416/1.0.0.2020061702 or later.

Using Microsoft Teams with multiple sign-in accounts

Teams for iOS and Android supports the use of multiple work or school and multiple personal accounts side by side. Teams desktop applications will support one work/school and one personal account side by side in December 2020, with support for multiple work/school accounts coming at a later date.

The following images show how users can add multiple accounts in Teams mobile applications.



Restrict sign-in to Microsoft Teams

Organization may want to restrict how corporate-approved apps are used on managed devices, for example to restrict students' or employees' ability to access data from other organizations or use corporate-approved apps for personal scenarios. These restrictions can be enforced by setting Devices Policies that Teams applications recognize.

How to restrict Microsoft Teams sign-in on mobile devices

Teams for iOS and Android offers IT administrators the ability to push account configurations to Microsoft 365 accounts. This capability works with any Mobile Device Management (MDM) provider that uses the [Managed App Configuration](#) channel for iOS or the [Android Enterprise](#) channel for Android.

For users enrolled in Microsoft Intune, you can deploy the account configuration settings using Intune in the Azure portal.

Once account setup configuration has been configured in the MDM provider, and after the user enrolls their device, on the sign-in page, Teams for iOS and Android will only

show the allowed account(s) on the Teams sign-in page. The user can tap on any of the allowed accounts on this page to sign in.

Set the following configuration parameters in the Azure Intune portal for managed devices.

Platform	Key	Value
iOS	IntuneMAMAllowedAccountsOnly	Enabled: The only account allowed is the managed user account defined by the IntuneMAMUPN key. Disabled (or any value that is not a case insensitive match to Enabled): Any account is allowed.
iOS	IntuneMAMUPN	UPN of the account allowed to sign in to Teams. For Intune enrolled devices, the {{userprincipalname}} token may be used to represent the enrolled user account.
Android	com.microsoft.intune.mam.AllowedAccountUPNs	Only account(s) allowed are the managed user account(s) defined by this key. One or more semi-colons;]-delimited UPNs. For Intune enrolled devices, the {{userprincipalname}} token may be used to represent the enrolled user account.

Once the account setup configuration has been set, Teams will restrict the ability to sign in, so that only allowed accounts on enrolled devices will be granted access.

To create an app configuration policy for managed iOS/iPadOS devices, see [Add app configuration policies for managed iOS/iPadOS devices](#).

To create an app configuration policy for managed Android devices, see [Add app configuration policies for managed Android devices](#).

How to restrict Teams sign-in on desktop devices

Microsoft Teams apps on Windows and macOS are gaining support for device policies that restrict sign in to your organization. The policies can be set via usual Device

Management solutions such as MDM (Mobile Device Management) or GPO (Group Policy Object).

When this policy is configured on a device, users can only sign in with accounts homed in a Microsoft Entra tenant that is included in the "Tenant Allow List" defined in the policy. The policy applies to all sign-ins, including first and additional accounts. If your organization spans multiple Microsoft Entra tenants, you can include multiple Tenant IDs in the Allow List. Links to add another account may continue to be visible in the Teams app, but they won't be operable.

ⓘ Note

1. The policy only restricts sign-ins. It does not restrict the ability for users to be invited as a guest in other Microsoft Entra tenants, or switch to those other tenants (where users have been invited as a guest).
2. The policy requires Teams for Windows version 1.3.00.30866 or higher, and Teams for macOS version 1.3.00.30882 (released mid-November 2020).

Policies for Windows Administrative Template files (ADMX/ADML) are available from the [Download center](#) (the policy setting descriptive name in the administrative template file is "Restrict sign in to Teams to accounts in specific tenants"). Additionally, you can manually set keys in Windows Registry:

- Value Name: RestrictTeamsSignInToAccountsFromTenantList
- Value Type: String
- Value Data: Tenant ID, or comma-separated list of Tenant IDs
- Path: use one of the following

Computer\HKEY_CURRENT_USER\SOFTWARE\Policies\Microsoft\Cloud\Office\16.0\Teams
Computer\HKEY_CURRENT_USER\SOFTWARE\Policies\Microsoft\Office\16.0\Teams
Computer\HKEY_CURRENT_USER\SOFTWARE\Microsoft\Office\16.0\Teams

Example:

SOFTWARE\Policies\Microsoft\Office\16.0\Teams\RestrictTeamsSignInToAccountsFromTenantList = Tenant ID or

SOFTWARE\Policies\Microsoft\Office\16.0\Teams\RestrictTeamsSignInToAccountsFromTenantList = Tenant ID 1,Tenant ID 2,Tenant ID 3

Policies for macOS For macOS managed devices, use .plist to deploy sign-in restrictions. The configuration profile is a .plist file that consists of entries identified by a key (which denotes the name of the preference), followed by a value, which depends on the nature

of the preference. Values can either be simple (such as a numerical value) or complex, such as a nested list of preferences.

- Domain: com.microsoft.teams
- Key: RestrictTeamsSignInToAccountsFromTenantList
- Data Type: String
- Comments: Enter comma separate list of Microsoft Entra tenant ID(s)

Global sign in and Microsoft Teams

Our improved sign-in experience on shared device provides a hassle free sign-in for Frontline Workers. Employees can pick a device from the shared device pool and do a single sign in to "make it theirs" for the duration of their shift. At the end of their shift, they should be able to perform sign out to globally sign out on the device. See [Sign out of Teams](#) to learn more. This will remove all of their personal and company information from the device so they can return the device to the device pool. To get this capability, the device must be set in shared mode. Make sure to end any active meeting or call on the device before signing out.

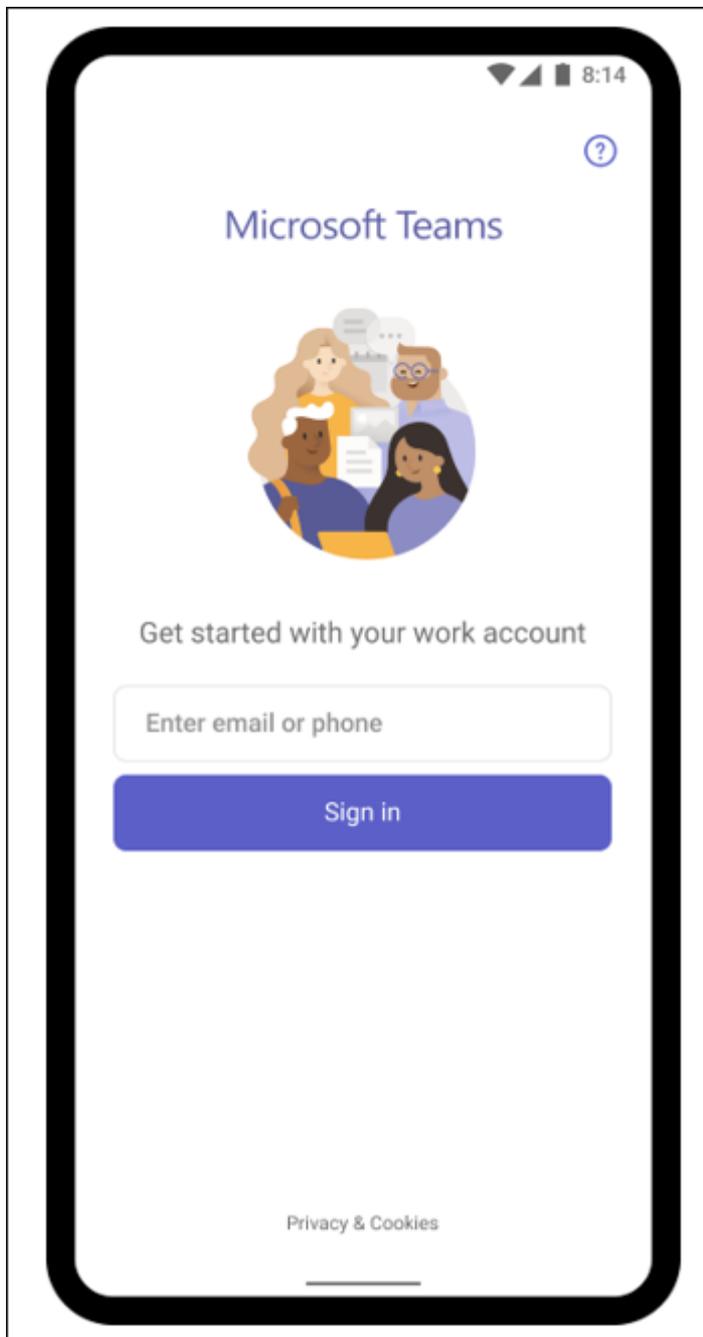
Android: To learn how to set up android devices in shared mode, see [How to use a shared device mode in Android](#).

iOS: Shared device mode support on iOS is in public preview. To set a device in shared mode on iOS, see [How to use shared device mode on iOS](#). Download Teams app from app store, once the device is set in shared mode. Launch Teams and leave it open for 30 seconds, close the app and relaunch (this step is only needed for public preview phase).

The sign-in experience looks similar to our standard Teams sign-in experience.

ⓘ Note

This feature is in public preview.



URLs and IP address ranges for Microsoft Teams

Teams requires connectivity to the Internet. To understand endpoints that should be reachable for customers using Teams in Office 365 plans, Government, and other clouds, read [Office 365 URLs and IP address ranges](#).

Related topics

[Teams Troubleshooting](#)

Sign out of Microsoft Teams

Article • 02/15/2023 • Applies to: Microsoft Teams

We recommend for users to remain signed in to the Microsoft Teams app to continue receiving chats, incoming calls, and other activities. We understand that, at times, users might want to sign out of the Teams application for several reasons:

- Because they're done using Teams for the day
- They want to use a different account
- Because they're on a device that they share with another person

For these reasons and others, Teams allows you to sign out of the app and end your session.

Account sharing between apps

Modern operating systems allow sharing of accounts between different apps on a device. This single sign-on (SSO) design allows users to use multiple apps on their device without requiring them to sign in to every single app. Teams doesn't control this behavior, but it does take advantage of the convenience this design provides for the end-user experience.

SSO has an important impact on sign out. When users sign out of Teams, the data associated with their account is removed from the Teams app, but other apps on the device could continue to have access to their account. It also means that users might not be prompted to reenter their credentials if they choose to sign back in to Teams with the same account.

Sign out of Teams on desktop

To sign out of the Teams desktop client or from the browser, select your profile picture at the top of the app, and then select **Sign out**.

For the desktop app, you can also right-click the app icon in the taskbar, and then select **Sign out**.

If you have multiple accounts added, you'll need to sign out of each individual account. Once you've signed out of the accounts in Teams, you might need to enter your credentials again on the next launch of the app to access your account.

Sign out of Teams on mobile devices

On mobile, you can sign out of Teams by going to the user icon, selecting **Settings**, and then selecting **Sign out**. Once signed out, you'll need to reenter their credentials the next time you launch the app.

Global sign-in and sign-out for Frontline workers

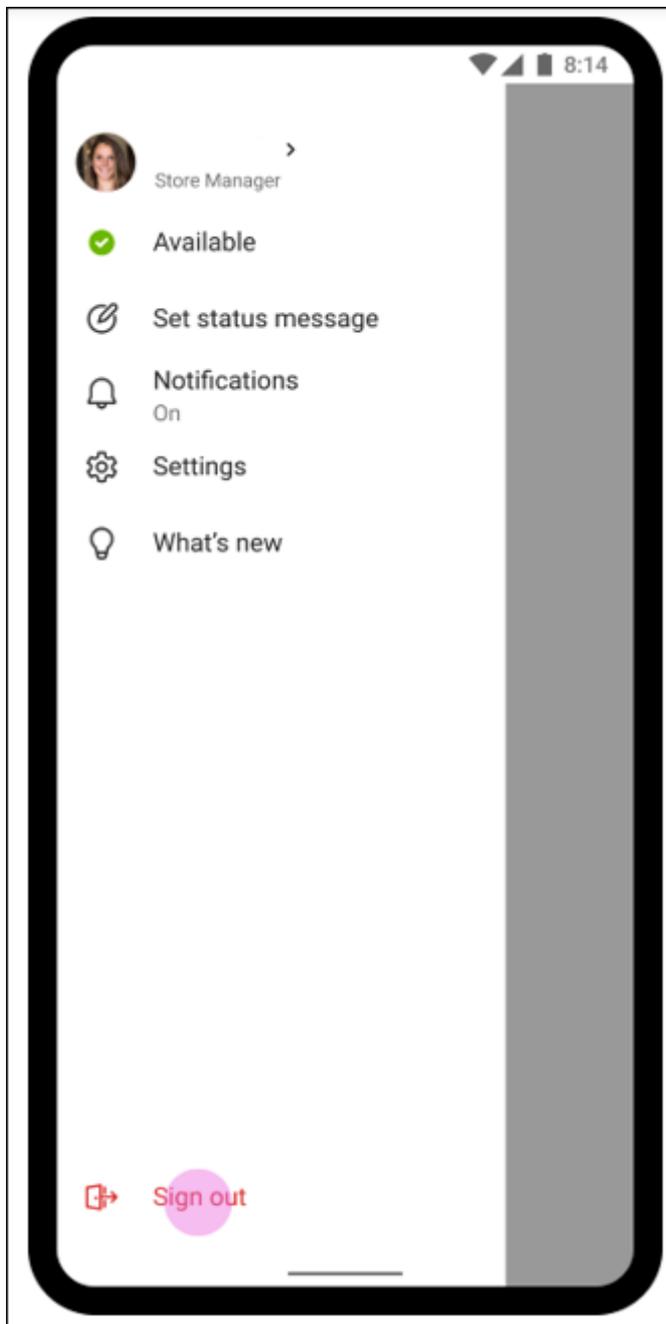
Our improved sign-in experience on shared device provides a hassle free sign-in for Frontline Workers. Employees can pick a device from the shared device pool and do a single sign in to "make it theirs" for the duration of their shift. At the end of their shift, they should be able to perform sign out to globally sign out on the device. See [Sign out of Teams](#) to learn more. This will remove all of their personal and company information from the device so they can return the device to the device pool. To get this capability, the device must be set in shared mode. Make sure to end any active meeting or call on the device before signing out.

Android: To learn how to set up android devices in shared mode, see [How to use a shared device mode in Android](#).

iOS: Shared device mode support on iOS is in public preview. To set a device in shared mode on iOS, see [How to use shared device mode on iOS](#).

ⓘ Note

This feature is in public preview.



Manual Cleanup

While rare, it's possible that Teams might not be able to clean up after itself fully on sign-out. Based on user reports, the common causes include files being locked by a service running on the system but there could be other reasons dependent on an individual's device configurations or policies and user permissions applied to the device.

One common manifestation of this problem is that Teams will try to automatically select an existing account to sign the user in. In situations like this, the user might want to manually clean up Teams' local cache. Learn more at [Sign in or remove an account from Teams](#).

Related topics

[Sign in or remove an account from Teams](#) ↗

Tailor Teams apps for your frontline workers

Article • 07/05/2023 • Applies to: Microsoft Teams, Microsoft 365 for frontline workers

Overview

Teams pins apps based on license to give your frontline workers an out-of-the-box experience in Teams that's tailored to their needs.

With the tailored frontline app experience, your frontline workers get the most relevant apps in Teams without any action needed from the admin.

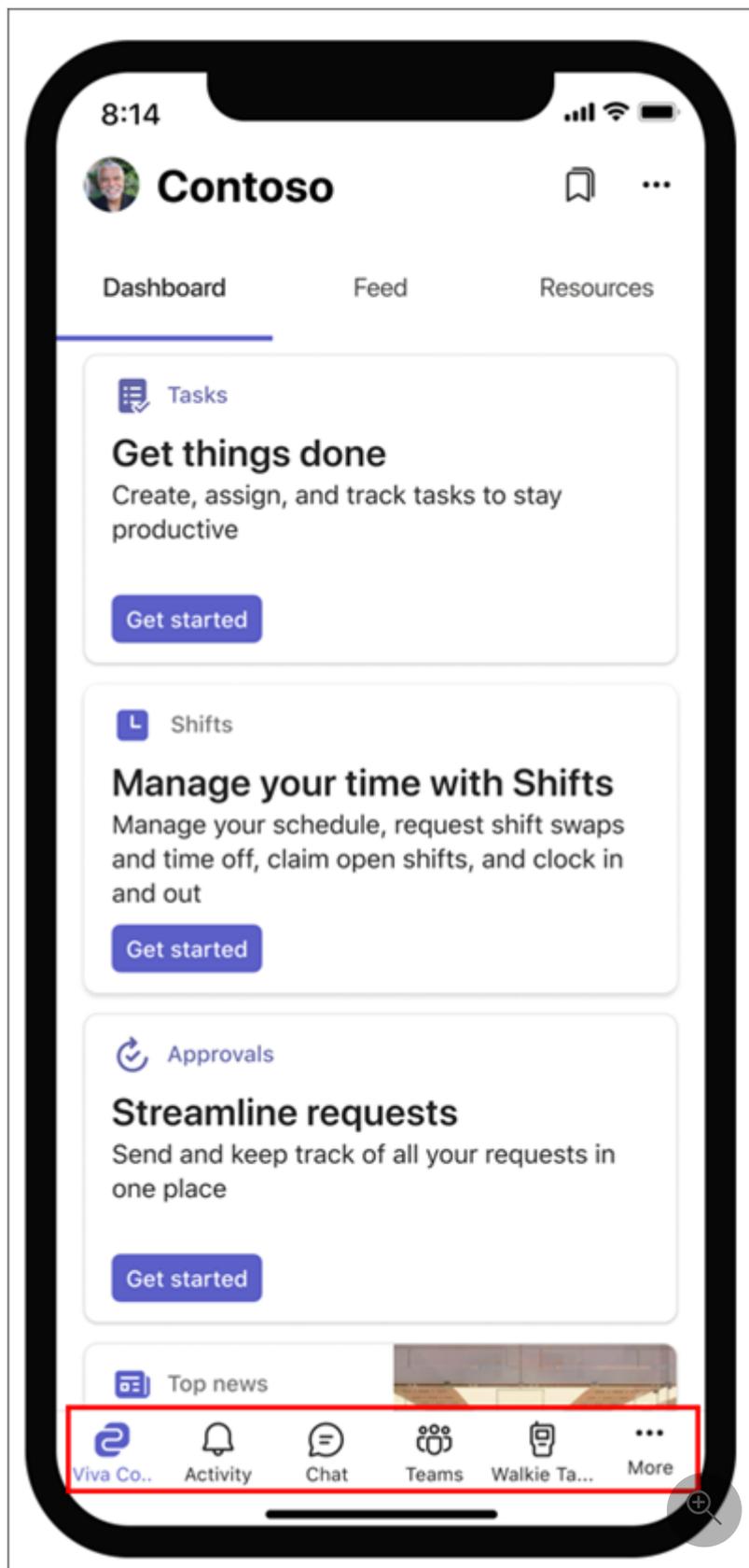
<https://www.microsoft.com/en-us/videoplayer/embed/RE4VuCH?postJsllMsg=true>

Tailored frontline app experience

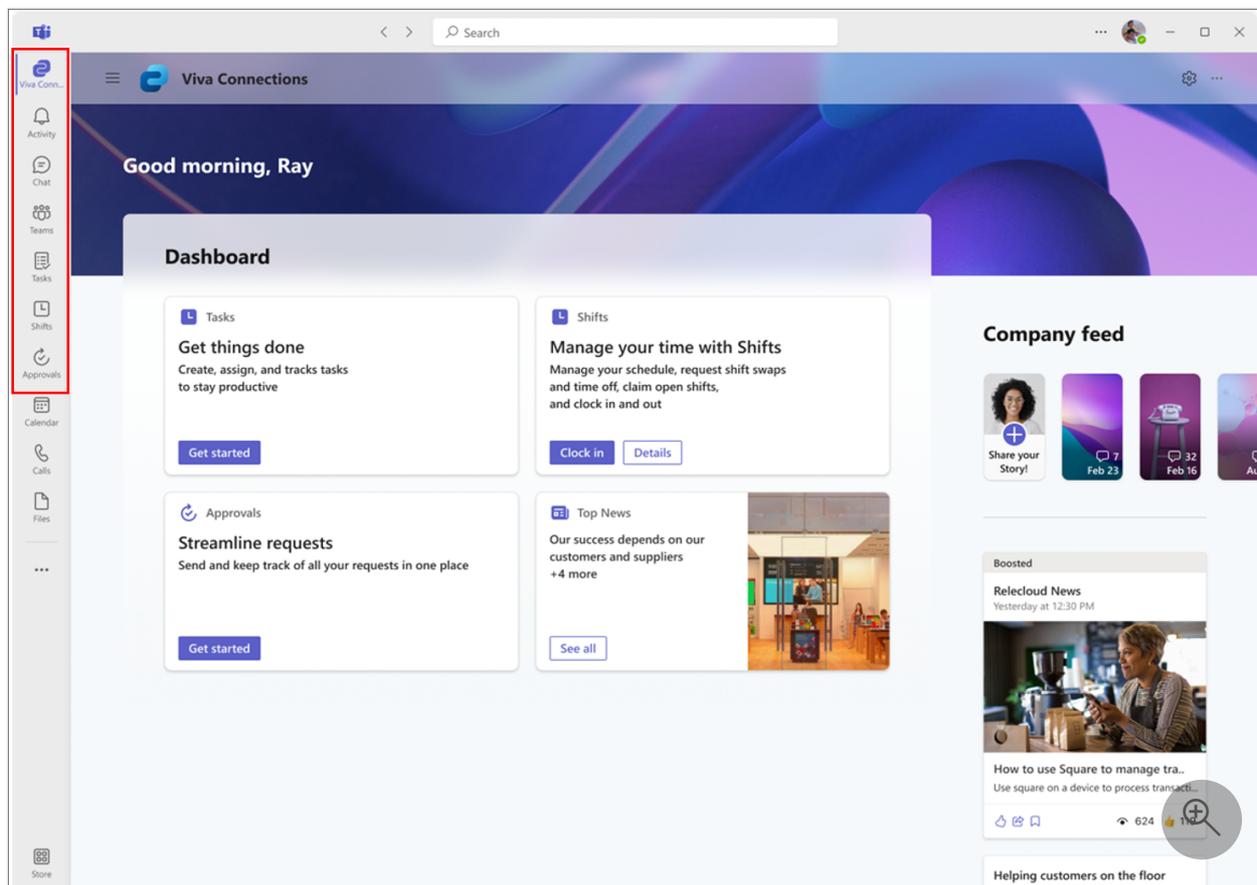
Apps are pinned to the app bar, which is the bar at the bottom of the Teams mobile clients (iOS and Android) and on the side of the Teams desktop client. The following apps are pinned for users who have an [F license](#):

- [Viva Connections](#) [Learn what Viva Connections is](#)
- [Activity](#)
- [Chat](#)
- [Teams](#)
- [Walkie Talkie](#)
- [Tasks](#)
- [Shifts](#)
- [Approvals](#)

Teams mobile



Teams desktop



Admin controls

ⓘ Note

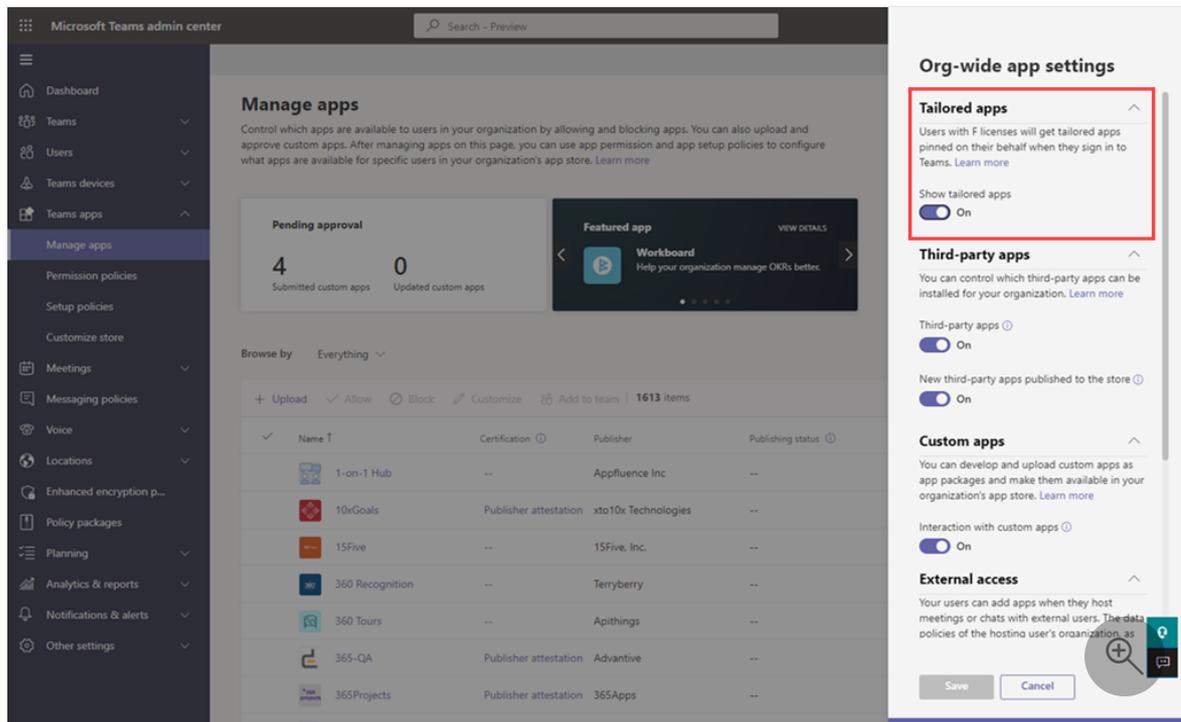
The **User pinning** setting must be turned on in the global (org-wide default) **app setup policy** for this feature to take effect.

The tailored frontline app experience is controlled by the **Show tailored apps** org-wide app setting on the [Manage apps](#) page of the Teams admin center. If the feature is on, all users in your organization who have an F license will get the tailored app experience.

Keep in mind that any custom [app setup policies](#) assigned to users take precedence. This means that if a user already has a custom app setup policy assigned to them, the user gets the configuration that's defined in the custom app setup policy. To learn more about how the feature works with Teams app policies, including the global app setup policy, see the [Scenarios](#) section later in this article.

This feature is on by default. However, if you don't want the tailored frontline app experience provided by Microsoft, you can turn off the feature. To turn the feature off or on:

1. In the left navigation of the Microsoft Teams admin center, go to **Teams apps > Manage apps**, and then select **Org-wide app settings**.
2. Under **Tailored apps**, switch the **Show tailored apps** toggle to **Off** or **On**.



Scenarios

How does the tailored frontline app experience affect my global app setup policy?

Learn how the tailored frontline app experience works together with the global app setup policy. The scenarios in this table apply to frontline workers who have an F license and the global app setup policy, with **User pinning** turned on.

If...	Then...
A frontline worker has the global app setup policy and the feature is off.	The frontline worker gets the apps defined in the global app setup policy.
A frontline worker has the global app setup policy and the feature is on.	The frontline worker gets the tailored frontline app experience. Apps defined in the global app setup policy are pinned below the tailored apps.

If...	Then...
You update the global app setup policy and the feature is on.	The frontline worker gets the tailored frontline app experience and the apps defined in the global app setup policy are pinned below the tailored apps.
A frontline worker has the global app setup policy and User pinning is turned off.	The frontline worker gets the apps defined in the global app setup policy.
A frontline worker has the global app setup policy, and the global app setup policy is changed to include a line-of-business (LOB) app in the second position in the app list.	The LOB app is pinned below the tailored apps. The frontline worker can change the app order if User pinning is on.
A frontline worker has the global setup policy and the global app setup policy is changed to include Shifts in the first position.	Shifts is pinned to the sixth position, as defined by the tailored frontline app experience. The frontline worker can change the app order if User pinning is on.

How does the tailored frontline app experience work with other Teams app policies?

Learn how the tailored frontline app experience works with other Teams app policies.

If...	Then...
The feature is off.	The frontline worker gets the apps defined in the global app setup policy or custom app setup policy assigned to them.
A frontline worker has a custom app setup policy and the feature is on.	The frontline worker gets the apps defined in the custom app setup policy.
An app in the tailored frontline app experience is blocked for a user or for your organization.	The tailored frontline app experience honors the app permission policy . If an app is blocked, the frontline worker won't see the blocked app.
An app in the tailored frontline app experience is already defined in an app setup policy and the feature is on.	The app is pinned based on the order defined by the tailored apps list.
A user has an E, A, or G license and the feature is on.	The user doesn't get the tailored frontline app experience. Currently, the experience applies only to users who have an F license.

 **Note**

You can't change the apps or order of apps in the tailored frontline app experience. For now, if you want to make changes, you can set up your own custom experience. To do this, first turn off the feature. Then, **create a custom app setup policy**, and **assign it to users or groups**.

Viva Connections

Viva Connections is part of the tailored apps experience. Frontline users who see the tailored app experience will have Viva Connections pinned in the first position on both mobile and desktop.

This experience includes a default dashboard with relevant frontline cards such as Tasks, Shifts, Approvals, and Top News that can be customized to fit the needs of your organization. If your organization has already set up a Viva Connections home site, it will take precedence over the default experience.

Related articles

- [Manage the Walkie Talkie app in Teams](#)
- [Manage the Tasks app in Teams](#)
- [Manage the Shifts app in Teams](#)
- [Manage the Approvals app in Teams](#)
- [Manage app setup policies in Teams](#)
- [Manage app permission policies in Teams](#)

Teams policy packages for frontline workers

Article • 02/15/2023 • Applies to: Microsoft Teams, Microsoft 365 for frontline workers

Overview

A [policy package](#) in Microsoft Teams is a collection of predefined policies and policy settings that you can assign to users who have similar roles in your organization. Policy packages simplify, streamline, and help provide consistency when managing policies.

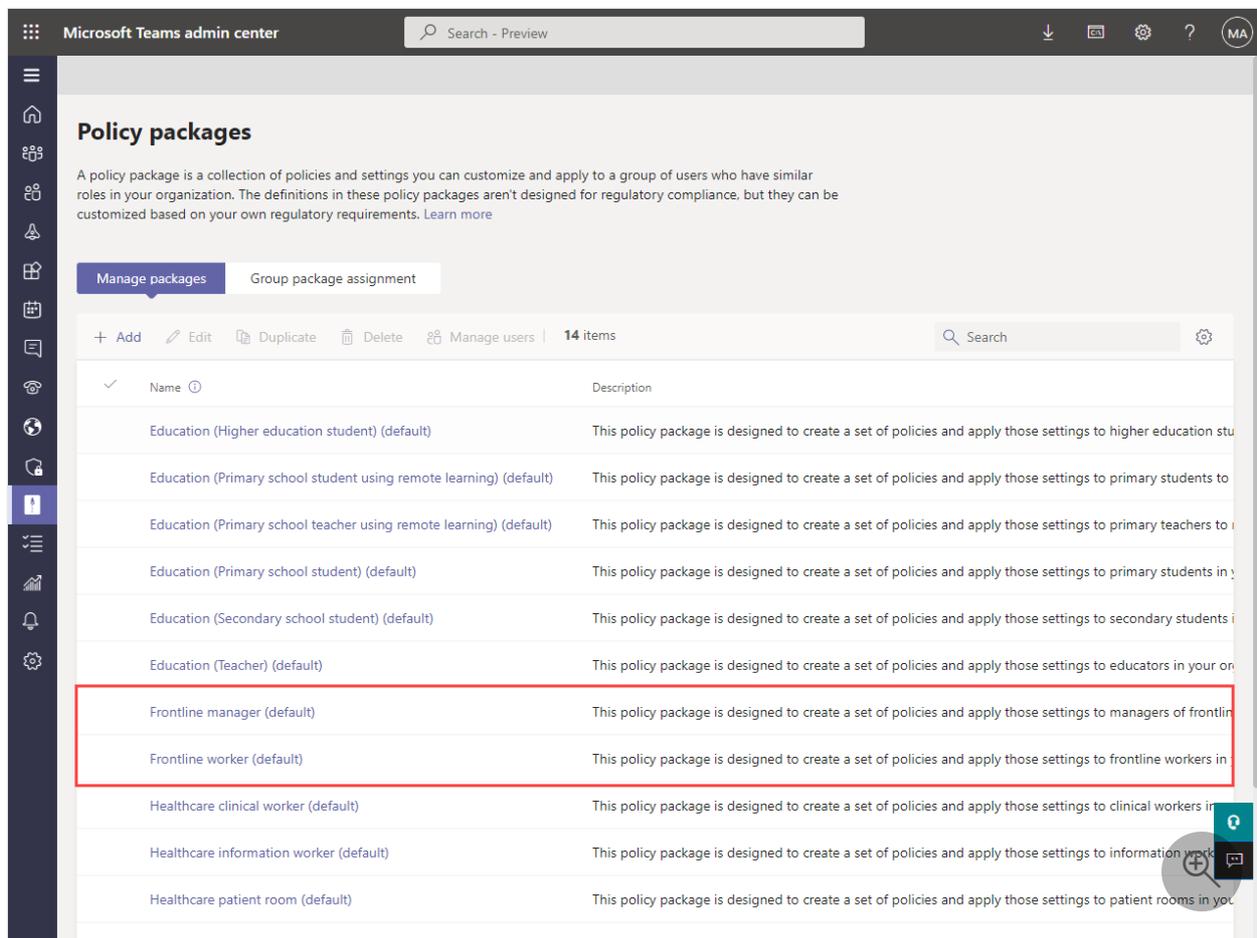
You can customize the settings of the policies in the package to suit the needs of your users. When you change the settings of policies in a policy package, all users who are assigned to that package get the updated settings. You can manage policy packages by using the Microsoft Teams admin center or PowerShell.

Policy packages pre-define policies for the following, depending on the package:

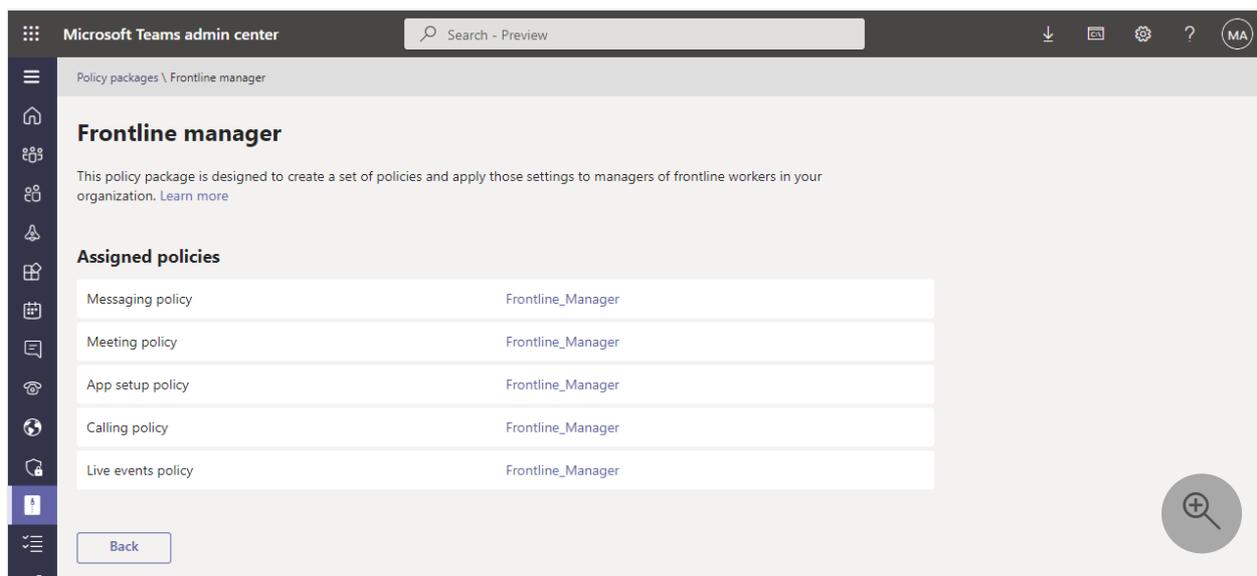
- Messaging
- Meetings
- Calling
- App setup
- Live events

Teams includes the **Frontline manager** and **Frontline worker** policy packages.

Package name in the Microsoft Teams admin center	Description
Frontline manager	Creates a set of policies and applies those settings to frontline managers in your organization.
Frontline worker	Creates a set of policies and applies those settings to frontline workers in your organization.



Each individual policy is given the name of the policy package so you can easily identify the policies that are linked to a policy package. For example, when you assign the Frontline manager policy package to store managers in your organization, a policy named Frontline_Manager is created for each policy in the package.



Manage policy packages

View

View the settings of each policy in a policy package before you assign a package. In the left navigation of the Microsoft Teams admin center, go to **Policy packages**, select the package name, and then select the policy name.

Decide whether the predefined values are appropriate for your organization or whether you need to customize them to be more restrictive or lenient based on your organization's needs.

Customize

Customize the settings of policies in the policy package, as needed, to fit the needs of your organization. Any changes you make to policy settings are automatically applied to users who are assigned the package. To edit the settings of a policy in a policy package, in the left navigation of the Microsoft Teams admin center, go to **Policy packages**, select the policy package, select the name of the policy you want to edit, and then select **Edit**.

Keep in mind that you can also change the settings of policies in a package after you assign the policy package. To learn more, see [Customize policies in a policy package](#).

Assign

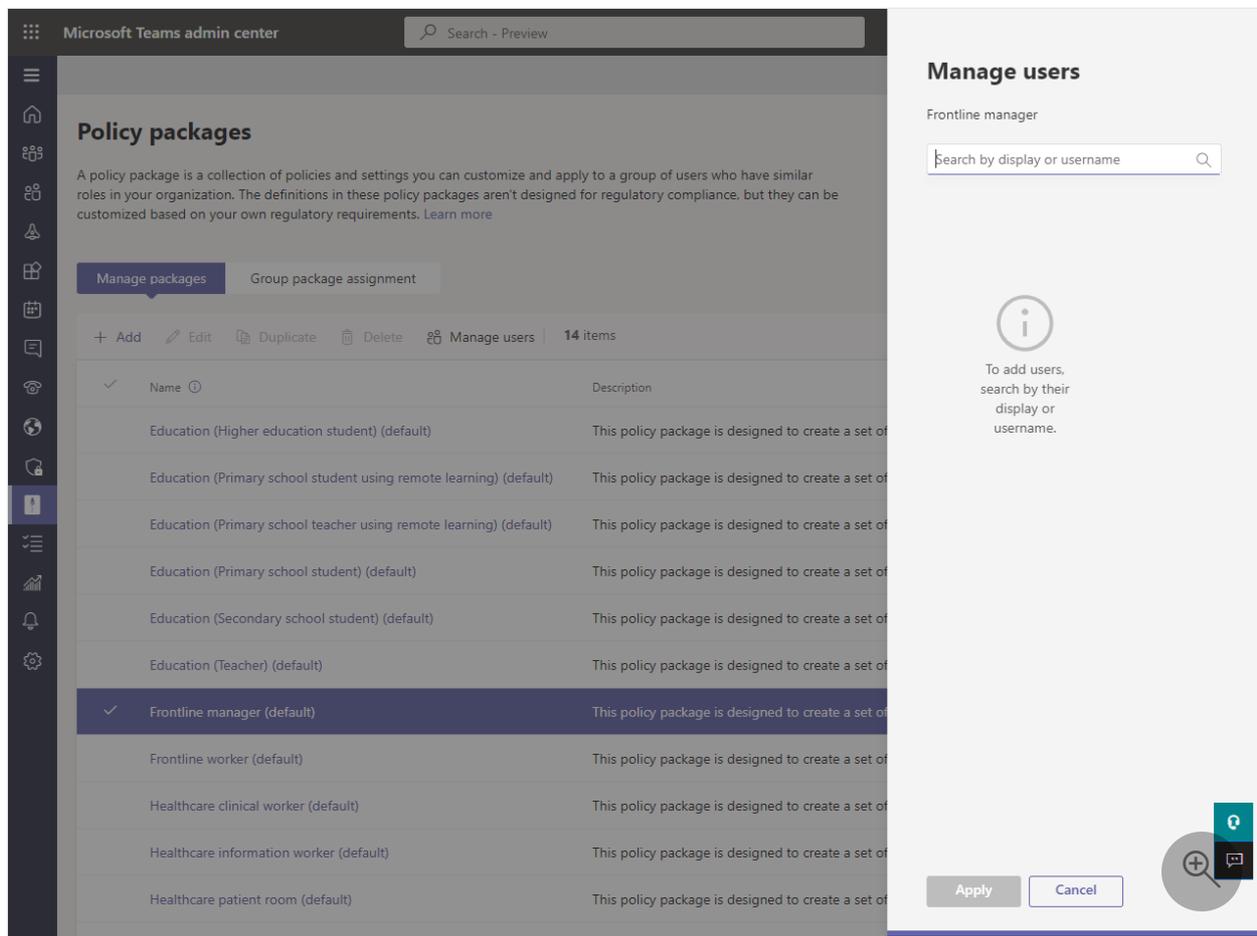
Assign the policy package to users. If a user has a policy assigned, and then later you assign a different policy, the most recent assignment will take priority.

Note

Each user will require the Advanced Communications add-on in order to receive a custom policy package assignment. For more information, see [Advanced Communications add-on for Microsoft Teams](#).

Assign a policy package to one or several users

To assign a policy package to one or multiple users, in the left navigation of the Microsoft Teams admin center, go to **Policy packages**, and then select **Manage users**.



To learn more, see [Assign policy packages to users](#).

Assign a policy package to a group

Policy package assignment to groups lets you assign multiple policies to a group of users, such as a security group or distribution list. The policy assignment is propagated to members of the group according to precedence rules. As members are added to or removed from a group, their inherited policy assignments are updated accordingly. This method is recommended for groups of up to 50,000 users but will also work with larger groups.

To learn more, see [Assign a policy package to a group](#).

Assign a policy package to a large set (batch) of users

Use batch policy package assignment to assign a policy package to large sets of users at a time. You use the [New-CsBatchPolicyPackageAssignmentOperation](#) cmdlet to submit a batch of users and the policy package that you want to assign. The assignments are processed as a background operation and an operation ID is generated for each batch.

A batch can contain up to 5,000 users. You can specify users by their object ID or Session Initiation Protocol (SIP) address. To learn more, see [Assign a policy package to a](#)

batch of users.

Related topics

- [Manage policy packages in Teams](#)
- [Assign policy packages to users and groups](#)

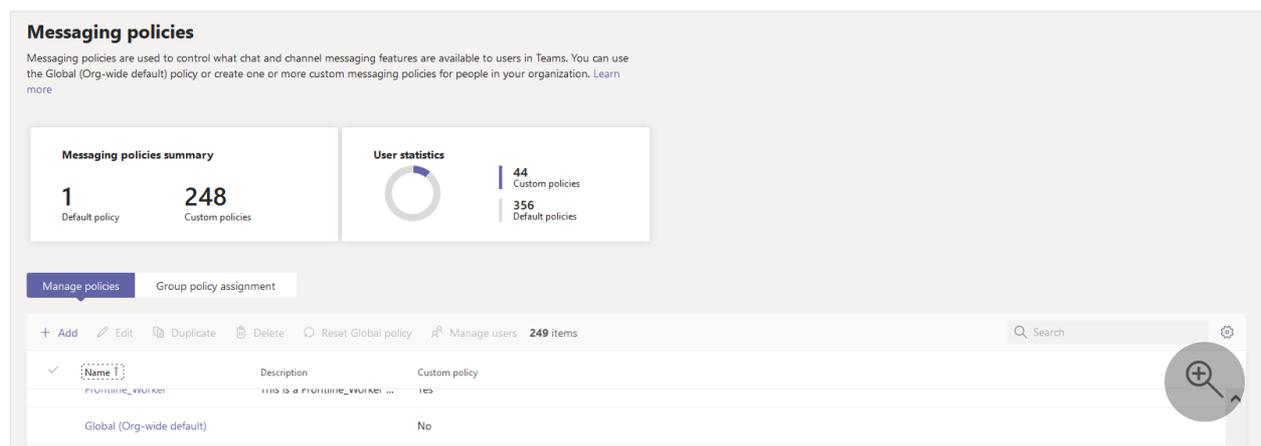
Secure Messaging for healthcare organizations

Article • 11/21/2022 • Applies to: Microsoft Teams, Microsoft 365 for frontline workers

Messaging policies are used to control which chat and channel messaging features are available to users in Microsoft Teams, and are part of the overall deployment of Secure Messaging for healthcare organizations like Hospitals, clinics, or doctor's offices, where having a message picked up and acted upon in a timely manner is crucial, as is knowing when crucial messages are read.

You can use the global (Org-wide default) policy or create one or more custom messaging policies for people in your organization. Users in your organization will automatically get the global policy unless you create and assign a custom policy. After you create a custom policy, assign it a user or groups of users in your organization. For example, you may choose to only allow certain job roles to use these features (perhaps doctors and nurses only) and other workers (like the janitorial or kitchen staff) to get a more limited set of features. Decide for yourself what needs your organization has, the guidance here is at most a suggestion.

Policies can be easily managed in the [Microsoft Teams admin center](#) by logging in with administrator credentials and choosing **Messaging policies** in the left navigation pane.



Messaging policies

Messaging policies are used to control what chat and channel messaging features are available to users in Teams. You can use the Global (Org-wide default) policy or create one or more custom messaging policies for people in your organization. [Learn more](#)

Messaging policies summary

1 Default policy 248 Custom policies

User statistics

44 Custom policies
356 Default policies

Manage policies Group policy assignment

+ Add Edit Duplicate Delete Reset Global policy Manage users 249 items Search

Name	Description	Custom policy
Future_Vyker	THIS IS A FUTURE_VYKER ...	Yes
Global (Org-wide default)		No

To edit the existing default Messaging policy for your organization, click **Global (Org-wide default)**, and then make your changes. To create a new custom messaging policy, click **Add** and then select your settings. Choose **Save** when you are done.

New messaging policy

This field is required.

Add a friendly description so you know why it was created

Owners can delete sent messages	<input type="checkbox"/> Off
Delete sent messages	<input type="checkbox"/> Off
Edit sent messages	<input type="checkbox"/> Off
Read receipts	User controlled
Chat ⓘ	<input type="checkbox"/> Off
Use Giphys in conversations	<input type="checkbox"/> Off
Giphy content rating	Strict
Use Memes in conversations	<input type="checkbox"/> Off
Use Stickers in conversations	<input type="checkbox"/> Off
Allow URL previews	<input type="checkbox"/> Off
Translate messages	<input type="checkbox"/> Off
Allow immersive reader for viewing messages	<input type="checkbox"/> Off
Send urgent messages using priority notifications ⓘ	<input type="checkbox"/> Off
Create voice messages	Allowed in chats and channels
On mobile devices, display favorite channels above recent chats	Disabled
Remove users from group chats	<input type="checkbox"/> Off

The following settings are of special interest for Healthcare applications, and should be considered when designing a custom policy used in the Healthcare field:

Read receipts

Read receipts allows the sender of a chat message to know when their message was read by the recipient in 1:1 and group chats 20 people or less. Use this setting to specify whether read receipts are user controlled, on for everyone, or off for everyone. Message read receipts are important in Healthcare organizations because they remove uncertainty about whether a message was read.

For Healthcare applications, choose either **User controlled** or **On for everyone**. Be aware that when using the **On for everyone** setting, the only way to set receipts for the whole tenant is either to have only one messaging policy for the whole tenant (the default policy named "Global (Org-wide Default)") or to have all messaging policies in the tenant use the same settings for receipts. The read receipts feature is most effective when the feature is enabled to **On for everyone**.

Usage example without read receipts: Jakob Roth, a high risk patient, is admitted to the hospital. Sofia Krause is a nurse working as part of the inter-disciplinary team (IDT) of medical workers, including different specialists, is assigned as the primary care coordinator in charge of this patient. Sofia sends emails and other instant messages to a groups of nurses and doctors who use a variety of messaging clients and apps, and often gets no response or indication whether a message was read by team members. Due to tangled communication processes, Jakob's medication is misapplied and his hospital stay is extended.

Usage example with read receipts: Jakob Roth, a high risk patient, is admitted to the hospital. Sofia Krause is a nurse working as part of the inter-disciplinary team (IDT) of medical workers, including different specialists, is assigned as the primary care coordinator in charge of this patient. Sofia starts a group chat with a set of doctors and other nurses who will be working with the patient to coordinate care and starts an emergency triage. The nurses and doctors communicate and collaborate over the patient's care plan throughout the care coordination process. Important and urgent messages are sent through 1:1 and group chat conversations. Sofia uses the read receipts functionality to determine if messages sent requesting support are delivered and read by the targeted physicians or nurses. Jakob's patient outcomes are near-optimal and he goes home sooner because his health team communicates smoothly.

Send urgent messages using priority notifications

A user can mark a message as *urgent* when sending chat messages to other users. This feature helps hospital staff alert one another when a critical incident requires their attention. Unlike regular *important* messages, [priority notifications](#) notify users every two minutes for up to 20 minutes or until the message is picked up and read by the recipient, maximizing the likelihood that the message is acted upon in a timely manner.

An admin can enable or disable the ability for users assigned this policy to send priority notifications. This feature is on by default. The recipient of the priority message might not have the same messaging policy, and will not have an option to disable receiving priority messages. For Healthcare applications, we recommend enabling the feature for at least some users, but you'll need to determine which ones.

Usage example: Sofia Krause is readmitting a high-risk patient, Jakob Roth. Manuela Carstens, a physician, is the primary care doctor for this patient. Sofia sends a message to Manuela using a priority notification asking for immediate help with triage of Jakob. Manuela's phone receives the message but Manuela didn't feel the phone vibration and does not reply. Teams re-notifies Manuela and will continue to persistently re-notify

until she reads the message. If read receipts are also enabled, Sofia can be aware that the message was read by Manuela, even before Manuela decides how to respond.

Related topics

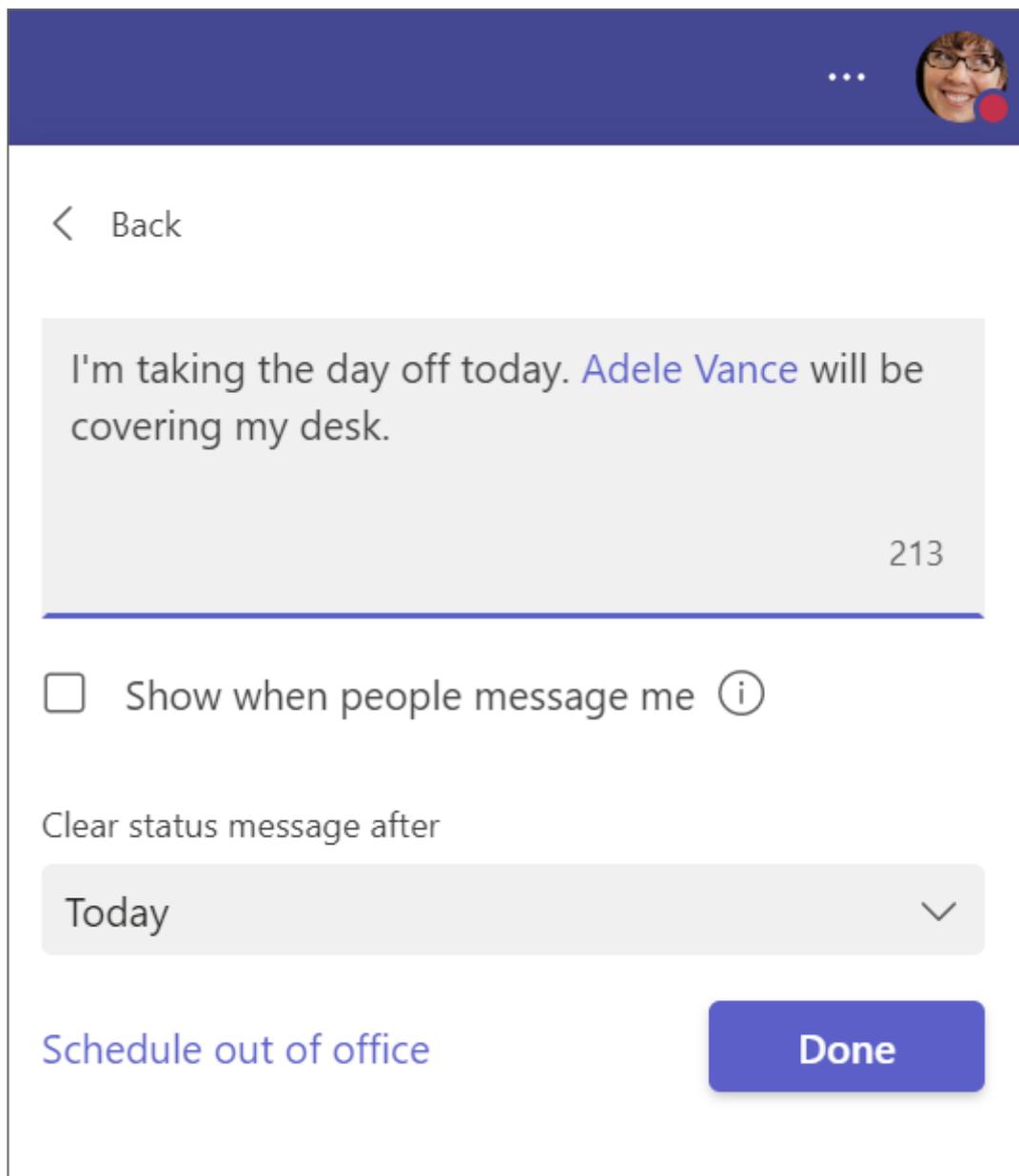
- [Manage messaging policies in Teams](#)
- [Get started with Teams for Healthcare organizations](#)

Use a Teams status message to assign a delegate

Article • 11/21/2022 • Applies to: Microsoft Teams, Microsoft 365 for frontline workers

Users in Microsoft Teams can set their status to Away or Do not Disturb, and include a custom text status message. A user who's going to be away can assign someone as a delegate who people can contact instead. The message delegation feature works as follows:

1. The user who's going to be away @mentions another user (the delegate) in their status message to let people know to contact the delegate instead while the user is away.



2. The user who's been @mentioned gets notified that they've been nominated as a delegate.
3. When someone opens a chat with the away user and sees their status message, they can hover over the delegate and easily message them instead.

Users can initiate the process themselves, and no admin involvement is required to enable the feature.

ⓘ Note

Status notes and delegation mention behaviors are also available in Skype for Business, but their availability depends on the user's co-existence mode. Skype for Business doesn't enforce a character limit on status notes. However, Microsoft Teams will only display the first 280 characters of a note set from Skype for Business. An ellipses (...) at the end of a note indicates that it's been truncated. Skype for Business doesn't support expiry times for notes. Skype for Business Online was retired on July 31, 2021. [Learn how to upgrade to Microsoft Teams.](#)

Teams status message delegation use scenario in Healthcare

Usage example without setting delegates

Dr. Franco Piccio is on call at the radiology department. He receives an urgent personal call and has to step away for the next couple of hours. He asks one of his peers in the radiology department, Dr. Lena Ehrle, to cover for him while he's gone. He informally hands over his pager to Dr. Ehrle, who listens for urgent messages and pings on the pager and responds to them on behalf of Dr. Piccio in addition to her current responsibilities. Others on the team may not realize the informal delegation happened. Confusion ensues with a patient's care.

Usage example with setting delegates

Dr. Franco Piccio is on call at the radiology department. He receives an urgent personal call and has to step away for the next couple of hours. He asks one of his peers in the radiology department, Dr. Lena Ehrle to cover for him while he's gone. He changes his custom status message to say "I am unavailable for the next few hours. Please contact @DrEhrle for any emergencies." Others on the team realize the delegation happened as

they're attempting to contact Dr. Piccio, so they now know to contact Dr. Ehrle in the meantime. Little to no confusion ensues with a patient's care.

Understand frontline worker user types and licensing

Article • 01/09/2023 • Applies to: Microsoft Teams, Microsoft 365 for frontline workers

Organizations in many industries, such as retail, manufacturing, hospitality, and more, have a mix of user types:

- Information workers, who probably have desktop or laptop computers and likely work more on documents than directly with customers, such as headquarters staff.
- Frontline workers, who often work on tablets or phones and work either directly with customers or the general public. They provide services, support, and sell products, or are employees directly involved in the manufacturing and distribution of products and services. For example: retail associates, healthcare clinicians and nursing staff, factory workers, and so on.

Microsoft 365 and Microsoft Teams have features and a licensing model to support both types of users for your organization. [Microsoft 365 for Frontline Workers](#) is optimized for a frequently mobile workforce that primarily interacts with customers, but also needs to stay connected to the rest of your organization.

<https://www.microsoft.com/en-us/videoplayer/embed/RWRoBo?postJsllMsg=true>

Assign appropriate licenses to support frontline worker and information worker user types

If it makes sense for your organization, you can assign different licenses to these different types of users. The following illustration shows one way to apply licenses and policies for Retail workers, for example:

Mix license types to support the different roles in your organization

Customer-focused workers use Frontline Worker licenses	Information workers use Enterprise licenses
 <p>Store managers, sales associates, shipping staff, stockers, pickers</p>	 <p>Headquarters staff</p>
<p>Quick access to the tools they need to work with customers:</p> <p> Access information on the go with Office apps on phones or tablets.</p> <p> Communicate on the go, schedule shifts, check off tasks, track items in lists, and more in Teams.</p> <p> Find organization-wide resources, communications, or training with SharePoint, OneDrive, Yammer, Stream.</p>	<p>Tools that support information worker tasks:</p> <p> Write, edit, and share documents with Office apps on desktops or laptops, as well as mobile apps on phones and tablets.</p> <p> Communicate over Teams with chat, meet, and call, and use other Teams apps.</p> <p> Create or consume organization-wide or team resources and communications with included Microsoft 365 services (depending on the specific license).</p>

With this example, you can mix license types for the two types of workers in your organization, like in the following table:

Frontline workers need quick access to tools that help them work with customers:	Information workers need tools to support their tasks like:
Frontline workers need access to information on the go - they have the Office apps on phones or tablets.	Information workers write, edit, and share documents and have Office apps on desktops or laptops, plus mobile apps on phones and tablets.
Frontline workers communicate on the go with Teams chat, schedule work with Shifts, check off to-do items with Tasks, and track items in Lists, along with other Teams functionality.	Information workers communicate over Teams with chat, meet, and call, and use other Teams apps (depending on the specific license).
Frontline workers can find organization-wide resources, communications, or training with SharePoint, OneDrive, Viva Engage, and Stream.	Information workers create or consume team or organization-wide resources and communications with included Microsoft 365 services (depending on the specific license).

For a detailed comparison of what's included in Microsoft 365 with various licenses, see this [Comparison table](#).

Related topics

[Limits and specifications for Microsoft Teams](#)

Changing from a Microsoft 365 E plan to a Microsoft 365 F plan

Article • 05/03/2023 • Applies to: Microsoft Teams, Microsoft 365 for frontline workers

If you're considering switching some of your users from a Microsoft 365 E plan to a Microsoft 365 [F3](#) or [F1](#) plan, this article provides guidance to help you prepare your organization for the change. Changing from an E plan to an F plan affects the services and features users have access to.

E plans are meant for information workers (employees who typically work at a desk) and F plans are meant for frontline workers (employees who are on the go, often on mobile devices, and work directly with customers or the general public). Each plan may continue to evolve over time to become more tailored for information workers and frontline workers respectively. To learn more, see [Understand frontline worker user types and licensing](#).

You'll get an overview of what to expect when users are switched to an F plan, how to prepare for the change, and what to do after switching plans to transition the frontline workers in your organization.

Understand the key differences between E and F plans

Start by getting familiar with the service and feature differences between the plans.

Some key differences include:

- F plans don't include Office desktop apps or the Outlook desktop app.
- F plans are limited to devices with integrated screens smaller than 10.9 inches on Office mobile apps.
- F plans [pin frontline worker apps](#) like Walkie Talkie, Tasks, Shifts, and Approvals by default in Microsoft Teams.

In this section, we've included more information about these key differences and highlighted some additional differences to pay attention to. Keep in mind that this isn't a comprehensive list. To learn more:

- See [Modern work plan comparison](#) for a detailed comparison of what's included in E and F plans.

- See [service availability](#) and [feature availability across plans](#) for a list of service and feature availability across E and F plans.

Office apps

Office desktop apps aren't included in F3 and F1 plans. Your frontline workers can use Office for the web and Office mobile apps to get things done. Keep in mind that F3 users have full access to documents in Office for the web and F1 users have read-only access.

Service or feature	Microsoft 365 E3/E5	Microsoft 365 F3	Microsoft 365 F1
Office desktop apps (Word, Excel, OneNote, PowerPoint, Access, Publisher)	Yes	No	No
Office for the web (Word, Excel, OneNote, PowerPoint)	Yes	Yes	Read-only
Office mobile apps (Word, Excel, PowerPoint, Outlook, OneNote)	Yes	Yes ¹	Read-only

¹Editing files supported on devices with integrated screens less than 10.9 inches.

Office for the web

With Office for the web, your frontline workers use a web browser to open Word, Excel, OneNote, and PowerPoint files.

Here's some differences to be aware when using Office for the web. For a detailed feature comparison between Office for the web and Office desktop apps, see [Office for the web service description](#).

Service or feature	Some differences	Learn more
Word for the web	<ul style="list-style-type: none"> • Can open and edit macro-enabled documents (.docm) and templates (.dotm) but macros don't run. • Can open but not edit User Defined Permission (UDP) Information Rights Management (IRM)-protected documents. 	<ul style="list-style-type: none"> • Word for the web service description • Differences between using a document in the browser and in Word ↗

Service or feature	Some differences	Learn more
Excel for the web	<ul style="list-style-type: none"> • Can open and edit macro-enabled workbooks (.xlsm) but macros don't run. • File size limitations <ul style="list-style-type: none"> ◦ To view or interact with a workbook stored in SharePoint Online, the workbook must be less than 100 MB. ◦ To open a workbook that's attached to an email message in Outlook on the web, the workbook must be less than 10 MB. 	<ul style="list-style-type: none"> • Excel for the web service description • Differences between using a workbook in the browser and in Excel • Most Excel functions work in a browser as they do in Excel. For a list of exceptions, see Functions in Excel and in Excel for the web.
OneNote for the web	<ul style="list-style-type: none"> • Search is limited to the current section. • Zoom in and out isn't available. Instead, users can use their browser's zoom feature. 	<ul style="list-style-type: none"> • OneNote for the web service description • Differences between using a notebook in the browser and in OneNote
PowerPoint for the web	<ul style="list-style-type: none"> • Can open files up to 2 GB. • Can open and edit macro-enabled presentations (.pptm, .potm, .ppsm) but macros don't run. 	<ul style="list-style-type: none"> • PowerPoint for the web service description • How certain features behave in web-based PowerPoint

Office mobile

Your frontline workers can get Office on their mobile devices in two ways:

- Install the Office mobile app that combines Word, Excel, and PowerPoint.
- Install individual Office mobile apps for Word, Excel, PowerPoint, and OneNote.

To learn more, see [Install and set up Office on an Android](#) and [Install and set up Office on an iPhone or iPad](#).

For more information about the features that are available in Office mobile, see [What you can do in the Office apps on mobile devices with a Microsoft 365 subscription](#).

Email

F3 users have a 2 GB mailbox that they can access through Outlook on the web. For a feature comparison between Outlook on the web and the Outlook desktop app, see [Compare Outlook for PC, Outlook on the web, and Outlook for iOS & Android](#).

F1 users don't have mailbox rights. Although a mailbox is provisioned for users through the Exchange Kiosk plan, they aren't entitled to use it. We recommend that you [disable Outlook on the web](#) for F1 users.

Service or feature	Microsoft 365 E3/E5	Microsoft 365 F3	Microsoft 365 F1
Exchange Online mailbox	Yes (100 GB mailbox)	Yes (2 GB mailbox)	No ¹
Outlook desktop app	Yes	No	No
Archive mailbox	Yes	No	No
Delegate access	Yes	No	No

¹F1 includes the Exchange Kiosk plan to enable Teams calendar only and doesn't include mailbox rights.

To learn more, see [Exchange Online service description](#).

Teams

F3 and F1 plans include the Teams desktop app, mobile app, and web app for frontline worker communication and collaboration. Your frontline workers have access to Teams features including meetings, chat, channels, content, and apps. However, they won't be able to create live events and webinars or use Teams Phone capabilities without the purchase of additional add-ons.

Service or feature	Microsoft 365 E3/E5	Microsoft 365 F3	Microsoft 365 F1
Live events	Yes	No	No
Webinars	Yes	No	No
Teams Phone	Yes	No	No

SharePoint

F3 and F1 users can collaborate on documents and access organization-wide resources such as training materials stored in SharePoint. Keep in mind that F3 and F1 plans don't include site mailboxes or personal sites.

Service or feature	Microsoft 365 E3/E5	Microsoft 365 F3	Microsoft 365 F1
Site mailbox	Yes	No	No
Personal site	Yes	No	No

To learn more about SharePoint limits, see [SharePoint limits](#).

Content services

F3 and F1 users have 2 GB of OneDrive storage to store and share files. To learn more, see [OneDrive service description](#).

Service or feature	Microsoft 365 E3/E5	Microsoft 365 F3	Microsoft 365 F1
OneDrive	Unlimited storage ¹	2 GB storage	2 GB storage
Microsoft Stream	Yes	Yes ²	Yes ²
Sway	Yes	Yes	No
Visio for the web	Yes	Yes	Read-only
Delve	Yes	No	No

¹Up to 5 TB of initial OneDrive storage per user based on the [default quota](#) of the tenant for subscriptions with more than five users. More storage can be requested.

²Users can record meetings and consume Stream content but can't publish to or share in Stream.

Insights and analytics

Service or feature	Microsoft 365 E3/E5	Microsoft 365 F3	Microsoft 365 F1
Viva Insights	Yes	No	No
Power BI	Yes	No	No

Work management and automation

Service or feature	Microsoft 365 E3/E5	Microsoft 365 F3	Microsoft 365 F1
Power Apps	Yes	Yes	No
Power Automate	Yes	Yes	No

Service or feature	Microsoft 365 E3/E5	Microsoft 365 F3	Microsoft 365 F1
Power Virtual Agents	Yes	Yes	No
Dataverse for Teams	Yes	Yes	No
Microsoft Forms	Yes ¹	Yes ¹	No
Microsoft To Do	Yes	Yes	No

¹Licensed users can create, share, and manage forms. A license isn't needed to complete or respond to a form.

Windows

Service or feature	Microsoft 365 E3/E5	Microsoft 365 F3	Microsoft 365 F1
Windows 11 Enterprise	Yes	Yes ¹	No

¹No Long-Term Servicing Channel (LTSC) or Microsoft Desktop Optimization Pack (MDOP). Virtual desktop infrastructure (VDI) only for licensed users of a shared device with a Quality of Service (QoS), (except for Azure Virtual Desktop).

What to expect

The following table lists important things to consider and recommended actions to take during the change process. Use this information to help you identify what to do before the switch and what to plan for after the switch is completed.

We'll be referring to this table in later sections of this article.

Service or feature	Before the switch	After the switch
---------------------------	--------------------------	-------------------------

Service or feature	Before the switch	After the switch
Office apps	<ul style="list-style-type: none"> Identify files that are stored on users' local computers and help users move them to their OneDrive. Keep in mind that Office desktop apps will go into reduced functionality mode after changing to an F plan. Be prepared to uninstall Office desktop apps after the switch. 	<p>Users:</p> <ul style="list-style-type: none"> Sign in to office.com to access Office for the web. Install and use Office mobile apps (if not already). Users can also directly collaborate on documents from SharePoint document libraries, OneDrive, Teams, and Yammer. <p>Admins:</p> <ul style="list-style-type: none"> Uninstall Office desktop apps from users' computers.
Email, Exchange, Outlook	<ul style="list-style-type: none"> Identify user mailboxes over 2 GB by using the Get-MailboxStatistics Exchange PowerShell cmdlet, and then reduce mailbox size, as needed. To learn more, see Mailbox storage limits in Outlook on the web. If users have an archive mailbox: <ul style="list-style-type: none"> Move archive mailbox content back to the user's mailbox. Check for any archive policies that may automatically move email based on the age of messages by using the Get-EXOMailbox Exchange Online PowerShell cmdlet. Identify site mailbox access and usage. Outlook desktop app, data, and configuration: <ul style="list-style-type: none"> Identify users and computers that are using Outlook data (.pst) files. Identify and document existing Outlook client-only rules. Export email signatures. 	<p>Users:</p> <ul style="list-style-type: none"> Sign in to office.com to access Outlook on the web. Set up email on mobile devices (if not already). Check and update mail signatures. Check and update mailbox rules. <p>Admins:</p> <ul style="list-style-type: none"> Disable Outlook on the web for F1 users and ask them not to access the mailbox through any other methods.

Service or feature	Before the switch	After the switch
Teams	<ul style="list-style-type: none"> • Identify usage of live events and webinars. • Identify users who have Teams Phone enabled. If users are using this feature, they may not be the appropriate set of users to transition to an F plan. 	
OneDrive	<ul style="list-style-type: none"> • Identify users who are using more than or close to 2 GB of storage. (OneDrive will become read-only for users who are over the 2 GB limit after the switch to an F plan.) • Help users reduce the number of files stored in OneDrive and the overall amount of storage used. • Make sure all files are fully synchronized from users' computers to OneDrive. 	

Prepare to switch plans

Create a change management strategy

An optimal change management strategy includes how you'll communicate with, train, and support your users before and after you switch them to an F plan. For example, here are a few things to consider:

- How will users be aware of the switch?
- How will users learn to navigate the differences in services and features? The switch to an F plan might need an increased effort in training as it requires a change in behavior.
- How will users get help and support?

When building your strategy, consider communication and training preferences. To help ensure a successful transition, tailor your messaging, training, and support to the specific needs of your frontline workers and company culture.

Here's some ideas to help plan your strategy.

Communication	Training	Support
----------------------	-----------------	----------------

Communication	Training	Support
<ul style="list-style-type: none"> • Email • Department or store managers • Champions • Teams and channels • Yammer communities 	<ul style="list-style-type: none"> • Microsoft online help, training, and video resources • In-house training 	<ul style="list-style-type: none"> • In-house helpdesk • Self-serve intranet site • Microsoft online help, training, and video resources • Floor walkers and champions

You may also want to check out these adoption resources to help you engage and train your users:

- [Microsoft 365 – Microsoft Adoption](#) 
- [Teams for frontline workers – Microsoft Adoption](#) 

Back up or prepare data

Identify and back up or prepare data that users want to keep. Follow the guidance in the [What to expect](#) section earlier in this article and complete the recommended actions in the **Before the switch** column of the table for each of the following components:

- Office apps
- Email, Exchange, Outlook
- Teams
- OneDrive

For more information, see [Back up data before switching plans](#).

Switch users to a Microsoft 365 F plan

You can use the Microsoft 365 admin center to manually change plans or a scripted approach through PowerShell cmdlets. Whichever method you choose, it's important to complete the license change assignment in one operation. In other words, remove an existing E license and replace it by assigning an F license in the same operation.

Avoid removing an existing license for a user and then reassigning a new one at a later point in time. Doing this can impact a user's data. To learn more, see [What happens to a user's data when you remove their license?](#)

For step-by-step guidance on how to change plans in the Microsoft admin center, see [Manually change Microsoft plans](#)

What to do after switching plans

Follow the guidance in the [What to expect](#) section earlier in this article and complete the recommended actions in the **After the switch** column of the table for each of the following components:

- Office apps
- Email, Exchange, Outlook
- Teams
- OneDrive

Communicate to your users that the change is completed and let them know how to get help as defined in your change management strategy. You may want to include links to [help and learning resources](#) to support them in the transition.

User setup, help, and learning resources

Here are some links to setup, help, and learning resources that you can share with your frontline workers for training and support.

App	Links
Office for the web	<ul style="list-style-type: none">• Office for the web training ↗• Get started with Office for the web in Microsoft 365 ↗
Outlook on the web	<ul style="list-style-type: none">• Get to know Outlook on the web ↗• Get help with Outlook on the web ↗• Outlook on the web videos ↗

App	Links
Office mobile	<p>Setup:</p> <ul style="list-style-type: none"><li>• Set up Office apps and email on Android<li>• Set up Office apps and email on iOS devices <p>Office mobile app help:</p> <ul style="list-style-type: none"><li>• Office mobile app for Android help<li>• Office app for iOS help <p>Individual Office mobile app help:</p> <ul style="list-style-type: none"><li>• Word for Android Phones, Word for Android tablets, Word for iPhone, Word for iPad<li>• Excel for Android Phones, Excel for Android Tablets, Excel for iPhone, Excel for iPad<li>• PowerPoint for Android Phones, PowerPoint for Android Tablets, PowerPoint for iPhone, PowerPoint for iPad<li>• OneNote for Android, OneNote for iPhone, OneNote for iPad
Teams	<ul style="list-style-type: none"><li>• Teams video training<li>• Teams help & learning

Frontline team collaboration

Article • 11/21/2022 • Applies to: Microsoft Teams, Microsoft 365 for frontline workers

Bring your frontline together to communicate, collaborate, and streamline operations with Microsoft Teams. Microsoft 365 and Teams can empower retail associates, healthcare workers, financial services providers, nonprofit organizers, manufacturing workers, and more to seamlessly communicate and collaborate.

ⓘ Note

These scenarios are also part of Microsoft Clouds for **Financial Services**, **Healthcare**, **Nonprofit**, and **Retail**. You can do more with these scenarios when you also use other capabilities from the Microsoft Clouds, such as Microsoft Dynamics 365 and Azure.

Day-to-day communications and collaboration in Teams

Microsoft Teams enables your on-the-ground staff to collaborate efficiently with included collaboration features and apps. Your frontline workforce can use Teams on either personal or shared devices depending on the needs of your organization.

Teams includes the following ways to communicate and share information:

Task	Description	Manage this capability	End-user training
Chat, post messages, and communicate	Your frontline workers can seamlessly communicate within and across locations to with individual and channel chat messaging. Teams provides a great out-of-the-box collaboration experience for your organization, and most organizations find that the default settings work for them.	Manage Chat, teams, channels, and apps.	Start chats and Work with posts and messages . Watch the Tags in Microsoft Teams video .

Task	Description	Manage this capability	End-user training
Call and meet with team members	Managers can set up individual meetings, or use channel meetings to manage daily meetings, both with the power of Teams audio, video, screen sharing, recording, and transcription features. You'll need to configure settings for meetings and conferencing, and enable a voice solution to use calling.	Manage calling and meeting in Teams and Plan your Teams voice solution	Make calls and Join a meeting
Store and share files and documents	Sharing files allows in-store staff to easily access information such as merchandising diagrams without having to leave the sales floor or get help from a manager. Every team automatically comes with a Files tab that you can use to store and share documents. This tab actually represents a folder within the default team site document library in SharePoint that is automatically created when the team is created.	Overview of Teams and SharePoint integration	Upload and share files

See examples of how different industries can use communication capabilities in Teams

These examples are for industries included in the Microsoft industry clouds, but you can use these capabilities for an organization in any sector.

Retail

Retail employees can use Teams to keep in touch and better serve customers. Different locations and departments can use chats and channels to share information about products and policies, such as which items are being promoted or going on sale. Employees in different departments or locations can use Teams meetings to get important updates without leaving their stations. Managers or merchandising specialists can use file sharing to send out diagrams for new displays or new product labels.

Healthcare

Healthcare workers in a hospital use Teams capabilities to coordinate care. Everyone in the office is part of a general chat, and each group of workers (doctors, nurses, receptionists, and other staff) has their own channel where they can ask questions and communicate. Staff in different departments use Teams meetings and calls to keep up to

date without having to leave their stations. When multiple staff are attending to one patient, they share notes and care plans over Teams. Staff who work with instruments and machinery, such as medical instrument technicians, can share fact and care sheets about equipment.

Financial services

Bank employees can use Teams to communicate across branches and share information. Each branch can use a separate channel, as can different work groups such as tellers and advisors. Banks can hold Teams meetings for different branches to learn about new policies and products. They can also hold morning meetings with the whole region before the branches open. When the bank launches a new product, such as a credit card or account type, fact sheets can be shared in Teams so everyone has quick access to new information.

Manufacturing

Manufacturing workers can use Teams to communicate and coordinate production within and across locations. Plants can hold morning stand-up meetings without anyone having to leave their stations. Workers can use chat to get in touch with each other and foremen or supervisors so they don't need to search across large areas to find help. Your team can use file sharing to make sure everyone has on-the-go access to manuals, instruction sheets, inspection records, and any other information your workers need.

Apps in Teams

Your team can use apps in Teams to coordinate and collaborate with each other on everyday tasks, such as the following:

- [Create, manage, and share schedules with Shifts](#)
- [Keep in touch with Walkie Talkie](#)
- [Boost morale with Praise](#)
- [Track and monitor work with Tasks](#)
- [Streamline approvals with Approvals](#)
- [Check in on progress with Updates](#)

Financial services organizations can also use the [Collaboration Manager for Loans](#) to seamlessly collaborate on the lending process.



Examples are given for the financial services, healthcare, nonprofit, and retail industries, but you can use these apps for an organization in any sector.

[View videos and resources](#) to share with your team to help them use collaboration apps and features in Teams.

Create, manage, and share schedules with Shifts

Use Shifts to seamlessly manage and share schedules. Managers can create custom groups such as cashiers, nurses, or mortgage specialists, assign shifts to employees, add custom labeling and breaks, and add open shifts that employees can request to take. Employees can use Shifts to set their availability, view their schedules, swap shifts with coworkers, and clock in and out. Managers can also create open shifts that employees can request. For example, a volunteer coordinator at a nonprofit could create open shifts that volunteers can request to take.

Learn how to [Manage Shifts for your organization](#).

Learn how to [help your employees track time and attendance with Shifts](#).

Share this [Shifts video training](#) [↗](#) with your users.

[View videos and resources](#) to share with your team to help them use features in Shifts.

Keep in touch with Walkie Talkie

The Walkie Talkie app provides instant push-to-talk communication. By using Walkie Talkie, employees and managers can communicate from anywhere in the store. For example, if a customer on one side of the store asks an employee if an item is in stock on the other side of the store, the employee can use Walkie Talkie to contact someone who works near the item. Because Walkie Talkie doesn't have limited range, employees can also easily consult with experts in other stores or corporate offices.

Industry	Example
Retail	If a customer asks a store associate a question they don't know the answer to, the associate can use Walkie Talkie to call a manager or another expert without having to leave the customer.
Healthcare	A medical staff member who has a question about a patient's treatment can use Walkie Talkie to call another staff member who works with the patient.
Financial services	A bank employee discussing loan options with a customer can use Walkie Talkie to consult a loan expert to determine the best option for the customer.

Industry	Example
Manufacturing	A technician can use Walkie Talkie to consult with an expert in another location while performing equipment maintenance or repair.

Learn how to [manage Walkie Talkie for your organization](#).

Share this [Walkie Talkie video training](#) with your users.

Watch the [Walkie Talkie featurette video](#).

Boost morale with Praise

The Praise app allows management and frontline team members to congratulate each other and share appreciation by sending badges. Praise helps employees feel recognized for achievements such as making sales goals and going above and beyond to help customers.

Industry	Example
Retail	A store manager can send the Awesome badge to an associate who meets their sales goals.
Healthcare	A healthcare worker can send the Kind heart badge to a peer who puts extra effort into patient care.
Financial services	A bank manager can send the Achiever badge to a relationship manager who helps to retain an important client.
Manufacturing	A supervisor can send the Leadership badge to a foreman whose team is performing well.

Learn how to [manage the Praise app for your organization](#).

Share this [Praise video training](#) with your users.

Track and monitor work with Tasks

Use Tasks in Teams to track to-do items for your whole frontline team. Store managers and employees can create, assign, and schedule tasks, categorize tasks, and update status at any time from any device running Teams. IT pros and admins can also publish tasks to specific teams for your organization. For example, you could publish a set of tasks for daily cleaning or steps to set up a new display.

Industry	Example
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Industry	Example
Retail	A store manager could assign associates a task to set up a new seasonal display.
Healthcare	A team leader at a doctor's office could assign a nurse a task to attend a training session.
Financial services	A bank manager can assign mortgage specialists a task to review and get familiar with new rates or policies.
Manufacturing	A supervisor can assign a worker a task to inspect a new batch of products.

Learn how to [manage the Tasks app for your organization](#).

Share this [Tasks video training](#) with your users.

Watch the [Tasks featurette video](#).

Streamline approvals with Approvals

Use Approvals to streamline requests and processes with your team. Create, manage, and share approvals directly from your hub for teamwork. Start an approval flow from the same place you send a chat, in a channel conversation, or from the Approvals app itself. Just select an approval type, add details, attach files, and choose approvers. Once submitted, approvers are notified and can review and act on the request. You can allow the Approvals app for your organization and add it to Teams.

Industry	Example
Retail	A sales associate could submit an approval request to offer a discount or special rate to a customer.
Healthcare	A nurse could submit an approval request to change an inpatient's medication.
Financial services	A lending specialist could submit an approval request to a supervisor to offer a special interest rate.
Manufacturing	A machine operator can submit a request for approval to adjust the settings on a piece of equipment.

Learn how to [manage the Approvals app for your organization](#).

Share this [Approvals video training](#) with your users.

Watch the [Approvals featurette video](#).

Check in on progress with Updates

The Updates in Microsoft Teams app provides a centralized place for members of your organization to create, review, and submit updates. By creating templates, you can use the Updates app to keep track of anything your organization needs. Updates is available for both desktop and mobile.

Industry	Example
Retail	A manager could assign the out-of-the-box Store Opening template for the shift lead to complete every morning.
Healthcare	A team leader could create and assign a recurring daily template with a checklist for equipment preparation.
Financial services	A bank manager could create and assign a recurring daily template for tellers to confirm morning counts.
Manufacturing	A supervisor can create and assign a template to keep track of progress on production of a new batch of items.

Learn how to [manage the Updates app for your organization](#).

Share this [Updates video training](#) with your users.

Watch the [Updates featurette video](#).

Set up your teams, channels, and apps

When you're ready to connect your retail associates in Teams, you can set up teams and channels for your store teams and managers with pre-built or custom templates. The easiest way is to start with a template. The **Organize a store** and **Retail for managers templates** are pre-made templates that include channels and apps designed for retail. You can also create a template based off of an existing team. Even when you start with a template, you can customize the team and channels, and add more apps to suit your team's needs.

- Use channels with tabs to share news, keep employees in touch across shifts, and build community.
- Use teams templates to set up teams with similar structures (such as channels and tabs) across stores or regions.

Create a team based on a template

1. In Microsoft Teams, select **Join or create a team**.
2. Select **Create a team** and then scroll down to see available templates.

More information: [Create a team with templates](#) 

Manage apps

Refine what's in your team with apps. You can allow or block apps for your organization, or configure settings for apps, in the Microsoft Teams admin center. For more information about managing apps, see [Manage apps in the Microsoft Teams admin center](#).

Your users can add any apps that you have allowed to their teams. Share this training with your users to show them how: [Find and use apps](#) .

Communicate over email with Exchange Online and Outlook

Email is a core communication tool for most workplaces. [Set up email with Exchange Online](#) to let your frontline managers and workers communicate with each other, with employees in other locations, or with headquarters. Users must have an F3 license to have an email mailbox.

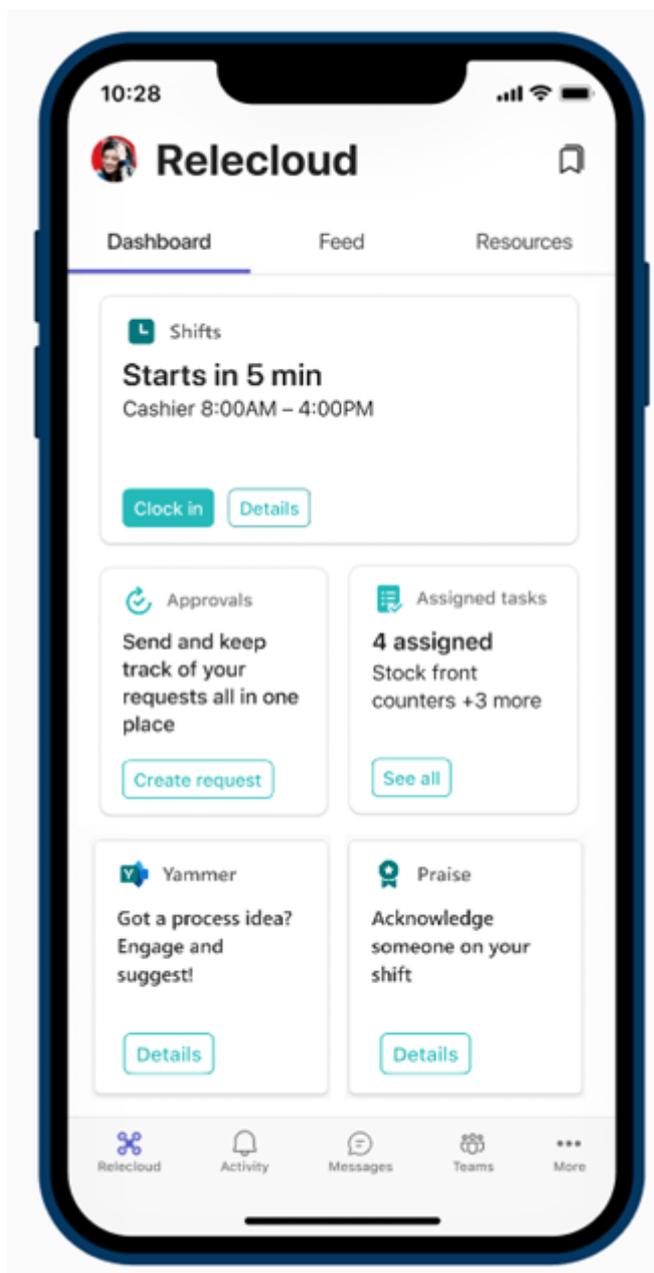
You can also set up shared mailboxes to allow for incoming mail from customers (such as for customer service or scheduling requests) and have a group of workers who monitor and send email from a public email alias like info@contoso.com. For more information about shared mailboxes, see [About shared mailboxes](#) and [Open and use a shared mailbox in Outlook](#) .

Use Viva Connections to create a personalized experience

Note

Viva Connections isn't currently available for tablets.

Viva Connections is part of the [Microsoft Viva suite](#) and enables you to create a personalized landing experience in Teams.



Use the Viva Connections Dashboard and add the Shifts, Tasks, and Approvals cards. Cards are connected to the Shifts, Tasks, and Approvals apps in Teams. Content in the cards is dynamic and personalized to the user.

Learn more about [how to get Viva Connections](#) and [how to create a Viva Connections Dashboard](#).

Learn more about Teams capabilities for specific industries

- [Teams for Retail](#)
- [Teams for Healthcare](#)
- [Collaboration Manager for Loans for Financial Services](#)

Corporate communications with frontline workers

Article • 11/23/2022 • Applies to: Microsoft Teams, Microsoft 365 for frontline workers

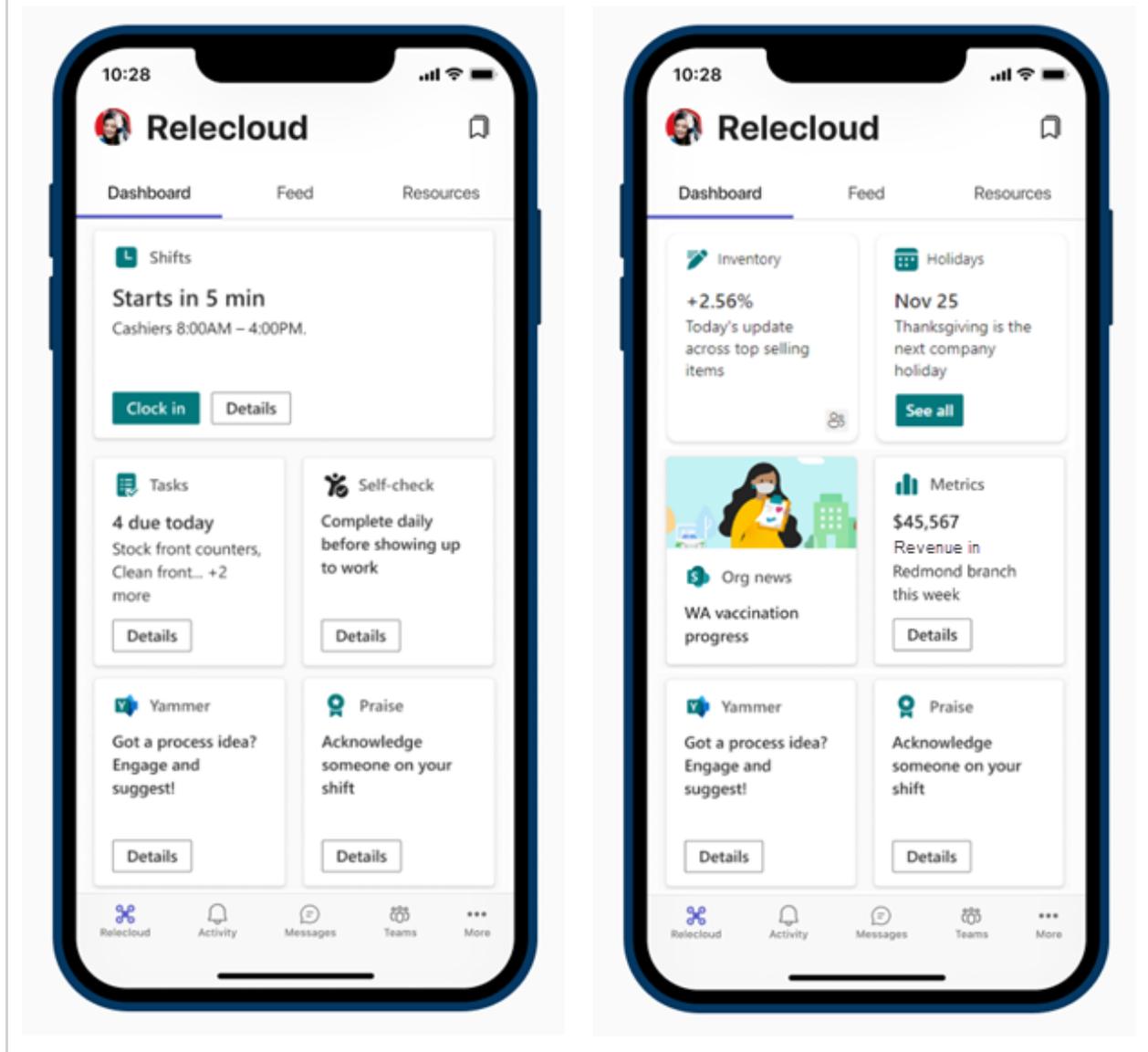
Keep your frontline team connected with your broader organization by using Viva Engage and Viva Connections.

Connect information from across the organization with Viva Connections

Engage and inform workers with Viva Connections. Viva Connections creates a hub in Teams where your frontline team can view a tailored news feed from your organization and a personalized dashboard with resources they need. When employees use Viva Connections, they're able to get important information faster, meaning that managers don't have to spend valuable time relaying updates. Surface key information, personalized news, tasks, announcements, and other resources on the Viva Connections Dashboard. For example, a retailer could share new product and promotion announcements with their store associates, or a fundraising coordinator for a nonprofit could share quarterly goals with volunteers.

View for a retail worker

View for a retail manager



Learn more about [Viva Connections](#) and help your employees and associates get started with [Viva Connections in Microsoft Teams](#) [↗](#).

With Microsoft Teams, Viva Connections, and SharePoint, you can enable these scenarios:

- Onboard new employees [Learn how](#).
- Connect leadership teams with frontline workers [Learn how](#).
- Distribute news to your organization [Learn how](#).

[Learn more about how to drive communication in your organization.](#)

Connect across your organization with Viva Engage

Engage with communities in Viva Engage, which brings the power of Viva Engage into Teams. Communities in Viva Engage serve the needs of knowledge-sharing, employee experience, company-wide communications, and leadership engagement by providing a central place for your conversations, files, events, and updates. Associates can raise issues, provide feedback, and ask and answer questions in Viva Engage Communities. Hold live events and town halls to keep everyone in your organization in the loop.

You can create communities for individual locations, identity or interest groups, or work groups such as nurses and financial advisors.

Learn more about [Viva Engage](#) and help your employees and associates [Get started with Viva Engage](#) .

More information about Viva Engage:

- [Set up Viva Engage for your organization.](#)
- [Read the Viva Engage FAQ.](#) 

Connect over email with Exchange Online and Outlook

Email is a core communication tool for most workplaces. [Set up email with Exchange Online](#) and create mailboxes for your frontline workers and managers so you can send broadcast communications over email. Users must have an F3 license to have an email mailbox.

Help your frontline workers use collaboration apps and features

Article • 11/21/2022 • Applies to: Microsoft Teams, Microsoft 365 for frontline workers

Now that your organization has begun using Microsoft 365 for frontline workers and Microsoft Teams, you'll need to make sure your workforce is comfortable using the apps and features available to them.

Use your [corporate communications strategy](#) to share these video resources to help your frontline team make the most out of the tools available to them.

Tags in Microsoft Teams

Tagging users and teams in posts and chat helps your frontline workers reach the right people faster by finding team members by attributes such as role, location, or project.

[End user training for posts and messages in Teams](#) 

[View the Tags in Microsoft Teams video on YouTube](#) 

<https://www.microsoft.com/en-us/videoplayer/embed/RE54jBN?postJsllMsg=true> 

Walkie Talkie

Walkie Talkie provides instant push-to-talk communication so your frontline workers can communicate easily and securely across locations.

[End user training for Walkie Talkie](#) 

[View the Walkie Talkie video on YouTube](#) 

<https://www.microsoft.com/en-us/videoplayer/embed/RE546Fv?postJsllMsg=true> 

Approvals

Approvals helps frontline workers get approvals for tasks, documents and more.

[End user training for Approvals](#) 

[View the Approvals video on YouTube](#) 

<https://www.microsoft.com/en-us/videoplayer/embed/RE54mcl?postJsllMsg=true> 

Tasks

Frontline workers can use Tasks to view, track and complete important tasks throughout the day.

[End user training for Tasks](#) 

[View the Tasks video on YouTube](#) 

<https://www.microsoft.com/en-us/videoplayer/embed/RE54m8E?postJsllMsg=true> 

Updates

See how Updates helps frontline workers create, submit and review all updates in the flow of work.

[End user training for Updates](#) 

[View the Updates video on YouTube](#) 

<https://www.microsoft.com/en-us/videoplayer/embed/RE5443c?postJsllMsg=true> 

Shifts

[Learn how to help your employees use Shifts.](#)

Engage your frontline workers and focus on wellbeing

Article • 07/12/2023 • Applies to: Microsoft Teams, Microsoft 365 for frontline workers

Nurture a sense of belonging among your frontline team by empowering to engage with your entire organization.

Survey's like Microsoft's [Work Trend Index Pulse Report](#) show that many frontline workers:

- Wish more was being done to support their mental health
- Say leadership does not prioritize building culture
- Believe that work stress will either stay the same or worsen in the coming year

You can help your frontline team overcome these challenges and feel supported in your organization by using [Viva Connections](#), [Viva Engage](#), [Praise](#), [SharePoint](#), and [Microsoft Stream](#).

Connect frontline workers to your broader organization with Viva Connections

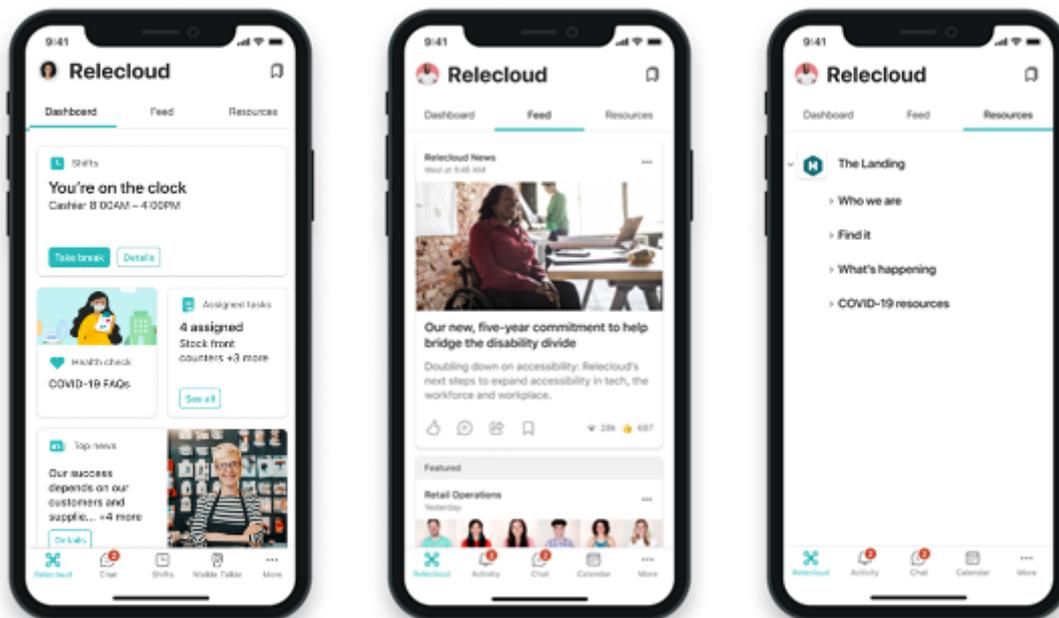
<https://www.microsoft.com/en-us/videoplayer/embed/RE4Vpnn?postJsllMsg=true>

[Viva Connections](#) brings the power of SharePoint into Microsoft Teams, so your frontline workers can easily access everything they need on the go. Use the Viva Connections app for Microsoft Teams to:

- Connect frontline workers and create opportunities to engage, communicate, and collaborate
- Make it easy for frontline workers to access important news and announcements
- Empower frontline workers around a common mission and goal
- Create a sense of belonging and provide tools that help foster wellbeing.

Increase engagement with communications

Viva Connections is comprised of three main components that can be set up and customized in different ways to highlight tools and resources: the dashboard, feed and resources, shown below.



Component	Description	Capabilities
Dashboard	The Dashboard is your employee's digital toolset and enables quick access to popular tasks.	Prioritize cards that help frontline workers accomplish popular tasks like clocking in and out, or viewing assigned tasks. Cards can be targeted to distinct roles and regions.
Feed	The Feed aggregates content from Viva Engage, SharePoint news, and Stream to display a personalized news stream.	Content in the Feed gets automatically aggregated based on sites and Viva Engage communities that the user follows. Content can be prioritized to display more prominently in the Feed. Use audience targeting to display content to specific audiences.
Resources	The Resources surface links to popular SharePoint portals and other content.	Resources are inherited from global navigation in SharePoint. Link to popular SharePoint portals like HR benefits and training resources. Modern SharePoint portals will display in Teams to provide the best possible viewing experience.

There are several ways to use Viva Connections to communicate with your workforce. Viva Connections features a [Feed where news, content from Viva Engage, and videos are aggregated and displayed](#) in a personalized view based on the sites and communities that the viewer follows. The [Dashboard](#) can also be used to highlight certain cards that link to important news sources.

As you prioritize and align the scenarios to support, consider how and where certain tools and resources should be located. [Learn more about the differences between desktop and mobile apps.](#)

Empower your workers to share feedback

Creating channels for your frontline workers to share feedback helps these teams feel engaged and like their voices matter. In addition, getting feedback from these teams can provide insights into how your organization can improve processes.

- **On the Dashboard:** Use a [web link card](#) to make it easy to link to feedback channels such as [Microsoft Forms](#) and [Viva Engage communities](#). You can also [integrate third-party solutions into the Dashboard](#).

ⓘ Note

Form creation requires an F3 or Enterprise license. Workers with F1 licenses can fill out forms, but they'll need to be created by someone with an F3 or Enterprise license. [Learn more about license types](#) or [View the detailed license comparison table](#).

- **In the Feed:** Strategically [publish a SharePoint news post](#) targeted to frontline workers to highlight different ways to collect feedback and explains how feedback can improve the frontline worker experience.
- **In Resources:** Link to feedback tools so that frontline workers know where to go to provide feedback.

Promote health and wellbeing

Frontline workers need extra support when it comes to managing health and wellbeing. Not only are their jobs fast paced, but they can also be physically and emotionally demanding.

- **On the Dashboard:** Surface daily health checks, wellness reminders, and [other third-party solutions that keep people feeling connected and productive](#).
- **In the Feed:** Use [SharePoint news posts](#) and [Video news links](#) to spotlight wellness and health resources. You can use audience targeting to make sure that posts reach the most relevant people.
- **In Resources:** Link to wellness and health resources to your workers can access them at any time.

Create a supportive digital ecosystem

Empowering frontline workers with the right technology makes their jobs easier and helps your organization quickly adapt to ever-changing work conditions. Use Viva

Connections to create a digital ecosystem and curated employee experience.

- **On the Dashboard:** Use [Adaptive card templates](#), the [Card designer](#), and [third-party integrations](#) to create custom cards and quick views that help workers access information and complete every day tasks such as:
 - Finding or securing parking spaces
 - Accessing pay and benefits information
 - Requesting new uniforms and supplies
- **In the Feed:** [SharePoint news posts](#) and [Video news links](#) allow you to digitize organizational announcements. News posts are highlighted throughout the entire Microsoft 365 ecosystem, can be translated into different languages, and can be easily found when employees are searching for content.
- **In Resources:** Link to tools that your teams use to manage work, such as [Teams apps](#).

Get started planning, building, and launching Viva Connections

Review Viva Connections capabilities, technical requirements, and customization options. Then, work with stakeholders (such as representatives from HR and operations and process owners) who can accurately represent the needs of your frontline workforce. Take inventory of the highest priority needs and align them to Viva Connections capabilities to build a custom experience in Teams. [Get started planning, building, and launching Viva Connections for your organization](#).

Create communities with Viva Engage

Viva Engage is an internal social network that gives members of your organization opportunities to connect with each other. You can create communities where members of your organization can post messages and communicate. Having a variety of communities that span both frontline and non-frontline teams helps your on-the-ground workforce connect to each other and the broader organization. Communities can be based on:

- Location
- Roles, such as cashiers or nurses
- Interests, such as outdoor activities or pop culture
- Identity groups
- And more

Host live events

Members of your leadership or management team can host live events on Viva Engage where employees can engage and ask questions in real time over chat. Your communications and management teams can use live events to share announcements, host morale events, and more.

ⓘ Note

Only users with an E3 or E5 license can host live events, but users with F licenses can join them. [Learn more about who can host and join live events in Viva Engage.](#)

[Learn more about Viva Engage](#) .

Boost morale with Praise

The Praise app in Microsoft Teams lets managers and employees congratulate each other and share appreciation by sending badges in Teams chat and channels. Praise helps employees feel recognized for achievements such as meeting goals and going above and beyond to help customers.

[Learn how to manage Praise for your organization.](#)

Support engagement with SharePoint and Microsoft Stream

One of the biggest struggles for frontline workers is feeling included in the broader organization. By recording important meetings in SharePoint and hosting videos in Microsoft Stream.

Record Teams meetings and store them in SharePoint

If your organization already uses Microsoft Teams, you may have recorded some of your meetings so that team members can catch up on meetings that they missed. Recording meetings can also benefit your frontline team by making them feel included in the organization. Some ways you can use recorded meetings to help frontline teams include:

- Give them earlier access to announcements such as product releases and new policies.
- Help them understand your organization's broader business goals.
- Familiarize them with the leadership team that drives decisions that affect them.

[Learn how to record Teams meetings and store them in SharePoint](#).

Once a meeting is recorded and saved in SharePoint, your corporate communications team can [add a card in Viva Connections](#) to make it easily accessible for your frontline team.

Host live events and share video content on Microsoft Stream

Microsoft Stream is your organization's own streaming video platform. With Stream, anyone in your organization can record and upload videos to share. Ways you can use Stream to engage your frontline workers include:

- Share announcements such as product releases and new policies so your frontline team isn't the last to know.
- Members of the leadership team can introduce themselves and discuss their goals so your frontline team understands who drives decisions and why.
- Frontline teams from different locations can create videos introducing themselves and showcasing their location so workers in different places can feel connected.

ⓘ Note

Only users with an Enterprise license can host events or publish to stream. Users with F licenses can join events and view videos.

[Learn more about Microsoft Stream](#).

Your corporate communications team can make sure everyone has easy access to stream videos by [adding a card in Viva Connections](#).

Provide initial and ongoing training to help onboard your frontline workers

Article • 11/21/2022 • Applies to: Microsoft Teams, Microsoft 365 for frontline workers

Get your employees ready to start and succeed in their roles on your frontline team with a custom onboarding and training process. You can use initial onboarding to welcome new team members, familiarize them with roles and duties, and teach them about how your organization operates. Then, use ongoing training to help your team maintain and grow their skills.

Initial training and onboarding

A smooth onboarding and initial training process is essential for new members of your frontline team to get up and running quickly. If your team tends to have low turnover, your workers may benefit from a longer and more in-depth onboarding process. If you employ a lot of seasonal or temporary workers on your frontline team, you may need a lighter onboarding experience. You can also customize your onboarding process for different teams that require different levels of initial training.

[Learn how to plan, build, and launch your employee onboarding experience.](#)

Tip

If your frontline team will primarily be using Teams on mobile devices to communicate and collaborate, you can use **Viva Connections** and **Viva Learning** to make SharePoint content easily visible in Teams.

Ongoing training

This article will show you how Viva Learning can help you streamline ongoing training for your frontline team. Viva Learning pulls content from your chosen sources into Teams, making it easy for your frontline team to access. You can use Viva Learning to manage types of ongoing training including:

- Maintaining and refreshing necessary skills such as customer service or procedures for regular tasks
- Learning new skills such as management responsibilities or using new equipment
- Company policy training such as diversity and inclusion or security

These are the steps to get Viva Learning up and running for your frontline workers:

1. [Get and set up Viva Learning](#)
2. [Choose and manage your content](#)
3. [Distribute and promote your content](#)

Get and set up Viva Learning

Viva Learning with basic features is included with your F1 or F3 license. However, in order to access all Viva Learning features including third-party content provider integration, you'll need a Viva Suite or Viva Learning license. [Learn more about licensing](#) .

Viva Learning is automatically enabled for Teams users, so your admin won't need to do additional setup in the Teams admin center. Your IT admin can [pin the Viva Learning app in Teams](#) to make sure your frontline workers can find it easily.

[Learn more about getting and setting up Viva Learning.](#)

Choose and manage your content

Content from Microsoft, as well as select content from LinkedIn Learning, is available by default in Viva Learning. Your IT admin can also [integrate SharePoint with Viva Learning](#) to bring in custom content created by your organization. Using SharePoint allows you to create and distribute learning content created by and for your organization, so you can choose to share exactly what your workforce needs.

Managers can also bring in content from SharePoint that they can share with their teams by using the [Bring your own content](#)  feature.

Note

Content brought in using the Bring your own content capability isn't searchable in Viva Learning. However, the person who brings in the content can share and recommend it with team members to make it available to them. If you want content from SharePoint to be searchable, you'll need to have your IT admin follow the process to integrate SharePoint.

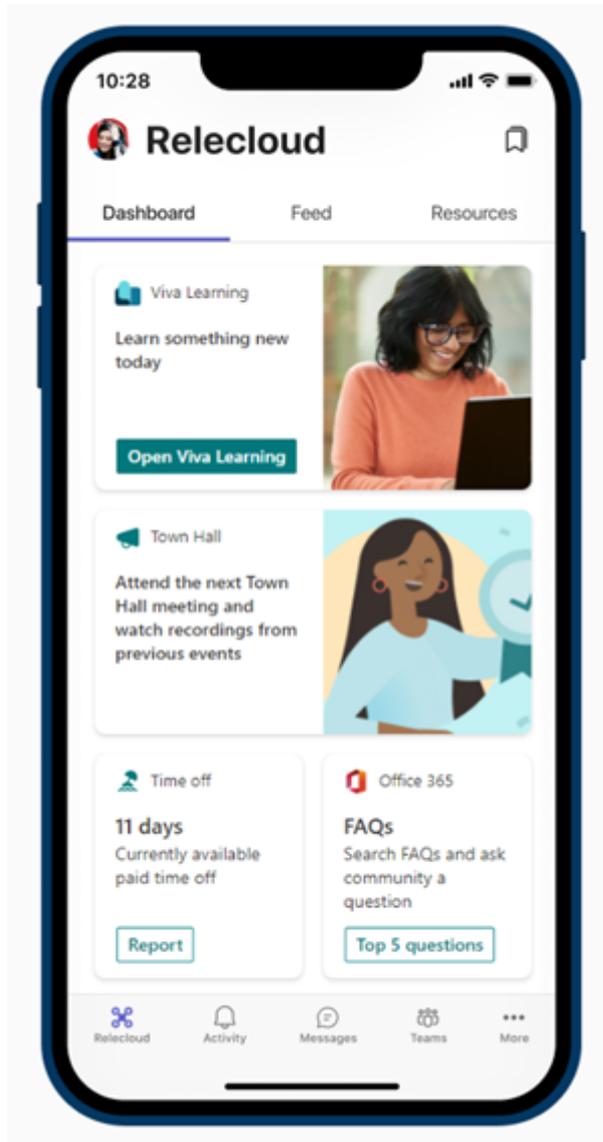
If you have a Viva Suite or Viva Learning license and your organization is subscribed to one, you can [integrate third-party content providers](#) and [integrate learning management systems](#).

[Learn more about how to choose and curate your content.](#)

Distribute and promote your content

Make sure your frontline team knows what training in Viva Learning is available to and required for them.

Managers can [recommend learning content](#) to their teams to ensure required trainings are complete.



Corporate communications specialists can use [Viva Connections](#) to distribute a SharePoint news post that highlights new learning opportunities or required trainings.

[Learn how different roles in your organization can promote learning and training.](#)

End-user training

Make sure your workforce knows how to use Viva Learning. Share [the Viva Learning user training content set](#) to help your frontline team get comfortable using Viva Learning.

Shifts for frontline workers

Article • 10/02/2023 • Applies to: Microsoft Teams, Microsoft 365 for frontline workers

Shifts, the schedule management tool in Teams, keeps your frontline workforce connected and in sync. It's built mobile first for fast and effective schedule management and communications. With Shifts, frontline managers and workers can seamlessly manage schedules and keep in touch.

Managers can create, update, and manage shift schedules for their teams. They can assign shifts, add open shifts, and approve schedule requests from employees.

Employees can view their own and their team's schedules, set their availability, request to swap or offer a shift, request time off, and clock in and out.

<https://www.microsoft.com/en-us/videoplayer/embed/RE42FjP?postJsllMsg=true> 

Use the following resources to help you set up and manage Shifts in your organization.

Set up and manage Shifts

	Manage Shifts Get an overview of how to manage Shifts for your organization. Learn how to control access to Shifts, pin Shifts to the Teams app bar for easy access, enable shift-based tags, and more.
	Manage schedule owners for shift management This feature lets you elevate the permissions of a team member to a schedule owner without making the employee a team owner.
	Shifts data FAQ Learn where Shifts data is stored and other topics related to Shifts data, including retention, retrieval, and encryption.

Shifts connectors

If you're using a third-party workforce management (WFM) system for scheduling, you can integrate directly with Shifts through managed Shifts connectors. After you set up a connection, your frontline workers can seamlessly view and manage their schedules in your WFM system from within Shifts.

	Overview Get an overview of Shifts connectors and how they work. Learn about the managed connectors that are available and the supported WFM systems.
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[Teams Shifts connector for Blue Yonder](#)

- Learn how to set up a connection to Blue Yonder Workforce Management by using the [Shifts connector wizard](#) or [PowerShell](#).
- Learn how to manage your connection to Blue Yonder Workforce Management by using the [Microsoft 365 admin center](#) or [PowerShell](#).

[Teams Shifts connector for UKG Pro Workforce Management](#) (Preview)

- Learn how to set up a connection to UKG Pro Workforce Management by using the [Shifts connector wizard](#) or [PowerShell](#).
- Learn how to manage your connection to UKG Pro Workforce Management by using the [Microsoft 365 admin center](#) or [PowerShell](#).

 [Reflexis Shifts connector for Microsoft Teams](#) Learn about integrating Shifts with the Reflexis WFM system through the connector.

Shifts extensions

 [Shift Graph APIs](#) Shifts Graph APIs allow you to integrate Shifts data with external WFM systems. You'll have the flexibility to build custom Shifts experiences in the back end, while giving users a rich, front-end experience in Teams.

 [Shifts + Power Automate](#)  Shifts + Power Automate lets you take info from Shifts and create custom workflows with other apps and perform operations at scale. Automate key processes with little to no code. The triggers and templates support various scenarios such as enabling auto-approvals for shift requests when a manager's approval isn't needed.

Featured training



[Video: What is Shifts?](#) 



[Video: Create a shifts schedule](#) 



[Video: Manage a Shifts schedule](#) 

Schedule Owner for shift management

Article • 07/25/2023 • Applies to: Microsoft Teams, Microsoft 365 for frontline workers

Overview

The Schedule Owner feature lets you elevate the permissions of a team member so that they can manage schedules without making the employee a team owner. With Schedule Owner permissions, an employee can manage their team's schedule without being able to modify any other team properties such as updating, editing, or deleting team channels.

What can a user with schedule owner permissions do?

- Create, edit, and publish schedules to manage their team's shift assignments.
- View and approve shift requests including requests to swap shifts and take open shifts.
- Manage settings in Shifts to enable certain features for the team.
- View and modify their team's timesheet to process employee payrolls.

Why Schedule Owner?

Without the Schedule Owner feature, day-to-day business functions could be disrupted. While the team owner helps to run the team, they might not necessarily be the person in charge of day-to-day scheduling. In this case, transferring only the schedule management responsibility to another team member streamlines daily operations within the team and eliminates the confusion of two team members having the same access privileges.

Scenario

Here's an example of how your organization can use the Schedule Owner feature.

You work in a large organization where department managers report directly to the store manager. The store manager has more authority within your company and is the team owner in Shifts. Department managers, on the other hand, are only ever added to Shifts as team members. While store managers have more seniority than department managers, it makes more sense for department managers to handle the day-to-day scheduling of their team's employees.

Without Schedule Owner, department managers must be given the exact same privileges as the team owner. Recently, department managers have been moving information around, and changing the name of channels, and it has caused complications with the store manager's work. The store manager wants the department managers to be able to organize their schedules, but doesn't want them to be able to change anything else on the team, outside of Shifts.

With Schedule Owner, the department managers can be given scheduling privileges, without any other team owner privileges.

Manage schedule ownership

As an admin, you use policies to control schedule management ownership in your organization. You manage these policies by using the following PowerShell cmdlets:

- [New-CsTeamsShiftsPolicy](#)
- [Get-CsTeamsShiftsPolicy](#)
- [Set-CsTeamsShiftsPolicy](#)
- [Grant-CsTeamsShiftsPolicy](#)
- [Remove-CsTeamsShiftsPolicy](#)

Example 1

Here, we create a new policy named ScheduleOwnerPolicy with the Schedule Owner feature turned on.

PowerShell

```
New-CsTeamsShiftsPolicy -Identity ScheduleOwnerPolicy -  
EnableScheduleOwnerPermissions $true -AccessType UnrestrictedAccess_TeamsApp
```

Example 2

In this example, we assign a policy named ScheduleOwnerPolicy to a user named remy@contoso.com.

PowerShell

```
Grant-CsTeamsShiftsPolicy -Identity remy@contoso.com -PolicyName  
ScheduleOwnerPolicy
```

Example 3

In this example, we assign a policy named ScheduleOwnerPolicy to a group specified by its object id.

```
PowerShell
```

```
Grant-CsTeamsShiftsPolicy -Group 83d3ca56-50e9-46fb-abd4-4f66939188f8 -  
PolicyName ScheduleOwnerPolicy
```

Related articles

- [Manage the Shifts app for your organization in Teams](#)

Shifts data FAQ

Article • 02/15/2023 • Applies to: Microsoft Teams

This article covers frequently asked questions about Shifts data, including where Shifts data is stored, data retention, retrieval, and encryption.

Where is Shifts data stored?

Shifts data is stored in one of three geographies (geos): Asia Pacific (APAC), the European Union (EU), or the United States. Each geo stores data in at least two Azure data center regions for High Availability (HA) and Disaster Recovery (DR). Today, the United States/North America geo uses data centers in North Central and South Central United States. To learn more, see [Where is Microsoft 365 customer data stored](#).

Currently, Shifts offers data residency in Australia, Canada, France, Japan, and the United Kingdom. We're actively working to expand support to more locations.

Can I choose where Shifts data is stored?

When you first set up Teams, you choose a country or region, which is set at the subscription level. Shifts honors this selection and uses the locale and region that's set in Teams if we support that region. If we aren't yet in that region, we store data in a nearby region that we support. In the future, we plan to migrate existing data, if stored in a nearby region, to the region that's provisioned in Teams.

Can I access and export or delete a user's personal data in Shifts?

Shifts is General Data Protection Regulation (GDPR) compliant. A formal request by a person (known as a data subject) to take an action on their personal data is called a Data Subject Request (DSR). You can find and act on personal data in Shifts in response to a DSR.

You can use in Shifts capabilities to export schedule and time clock data to Excel. To learn more, see [Export Shifts schedule data](#) and [Export time reporting in Shifts](#).

You can also manually delete schedule data in Shifts by either selecting individual or multiple shifts, using a right-click, long press, or other method select to bring up the shortcut menu, and selecting **Delete** on that menu.

To learn more, see [Office 365 Data Subject Requests for the GDPR and CCPA](#).

What happens to Shifts data if I turn off Shifts for my organization?

Turning off Shifts in your organization *does not* delete data. If you turn off Shifts, and then later turn on Shifts, your Shifts data will still be available.

If you delete your tenant, all Shifts data is deleted after the retention period ends.

There's no option to delete only Shifts data. If you delete a team in Teams, Shifts schedule data that's associated with that team is deleted after the retention period ends.

To learn more, see [Data retention, deletion, and destruction in Microsoft 365](#).

Can I recover a Shifts schedule that was deleted?

You can recover a deleted schedule if the Microsoft 365 group that backs it (or the team in Teams) is restored.

By default, a deleted Microsoft 365 group is retained for 30 days. This 30-day period is called "soft-delete" because you can still restore the group. To learn more, see [Restore a deleted Microsoft 365 group](#).

Can I use custom retention policies for Shifts data?

Currently, Shifts doesn't support custom retention policies.

To learn more about retention policies in Teams, see [Learn about retention for Teams](#) and [Manage retention policies for Teams](#).

Can I retrieve Shifts data for a user whose license was revoked?

Today, we don't offer the ability to retrieve data for a user whose license was revoked. This capability is something we're working towards.

What type of encryption does Shifts use for data at rest and in transit?

Shifts data is encrypted at rest by Azure Cosmos DB and Azure Storage. To learn more, see [Azure data encryption at rest](#) and [Data encryption in Azure Cosmos DB](#).

Shifts follows Microsoft 365 guidelines for encryption of data in transit. To learn more, see [Encryption for data-in-transit](#).

Shifts encryption of data at rest and in transit are verified yearly by the SOC2 compliance audit.

Can I access immutable copies of Shifts data?

We don't store immutable copies of Shifts data. For example, a manager can make changes to a schedule, such as add notes, change shift times, assign tasks, and so on.

Can Shifts data be edited?

There are certain aspects of Shifts that can't be changed and certain aspects that can be changed. For example, shift details such as notes and colors can be edited similar to how they can be changed in the Shifts app. Shift requests can't be edited unless the request is withdrawn.

To see which what fields have been changed, you can search the Microsoft 365 audit log for Shifts events. To learn more about the events that are logged for Shifts activities in the Microsoft 365 audit log, see [Shifts in Teams activities](#).

My organization uses a workforce management system for scheduling. Can we integrate with and access Shifts data?

Shifts Graph APIs let you integrate Shifts data with external workforce management (WFM) systems. To learn more, see [Shifts Graph APIs](#).

We also offer managed Shifts connectors. With these connectors, you can integrate your WFM system directly with Shifts. To learn more about Shifts connectors and supported WFM systems, see [Shifts connectors](#).

Can Shifts data be deleted permanently after a specified period of time?

Today, we don't delete your Shifts data at all. Using [Shifts Graph APIs](#), it's possible to [create an app using Power Apps](#) to retain data for a specified period of time. However, we don't support this natively.

Can Shifts data be moved in a tenant-to-tenant migration?

To migrate your existing Shifts data to another tenant, you'll need to export Shifts schedules for a date range, modify user names (if necessary), and then import the schedules to the destination tenant. You can export up to 100 days of Shifts data at a time. The date range can be in the past or future. If you need to export data for a longer timeframe than 100 days, repeat the process.

Before you migrate your Shifts data, make sure the following requirements are met:

- The destination tenant domain, teams, and team members must already exist. The migration doesn't create teams or change team membership or ownership.
- The Shifts app must be set up in teams in the destination tenant and have an empty schedule. Keep in mind that the migration doesn't replace or delete existing data. This means that if a team has an existing schedule, users may see duplicate or conflicting shifts, which need to be manually resolved.
- Open requests (such as swap and time off requests) that are pending approval aren't migrated. We recommend closing any open requests before you start migrating data.

Here's an overview of the steps to migrate your Shifts data to another tenant.

1. In the source tenant, for each team, export the Shifts schedule:
 - a. In Shifts, on the **Schedule** page, go to **More options (...)** > **Export schedule**.
 - b. Select a date range.
 - c. Turn on **Export in a format that can be imported**, and then select **Export**. Shifts schedule data is exported to an Excel file.
2. As part of the migration, if any team members are switching their email domain, manually update the Excel file to change the user principal name (UPN) of those users to the destination tenant domain.
3. In the destination tenant, import the schedule to each team.
 - a. In Shifts, on the **Schedule** page, go to **More options (...)** > **Import schedule**.
 - b. Select **Upload file**, go to the Excel file for that team, and then select **Open**.

To learn more, see [The Excel template for Shifts](#) .

Related articles

- [Shifts for Teams](#)
- [Manage the Shifts app](#)

Help your frontline workers track time and attendance

Article • 11/21/2022 • Applies to: Microsoft Teams, Microsoft 365 for frontline workers

Now that your organization has begun using Shifts to manage schedules, you'll need to make sure that your frontline workers understand how to track their time and attendance.

Use your [corporate communications strategy](#) to share Shifts training content with your team and make sure they have access to the resources they need:

1. Share the [Shifts video training](#) with your team to help them understand the basics.
2. Share [Videos for frontline managers](#) with your managers to help them set up and manage schedules for their teams.
3. Share [Videos for users](#) with all of your frontline staff to help them perform regular tasks such as clocking in and swapping shifts.

Shifts videos for managers

Create a schedule with Shifts

[View Create a schedule with Shifts on YouTube](#)

<https://www.microsoft.com/en-us/videoplayer/embed/RE546xr?postJsllMsg=true>

Copy a schedule with Shifts

[View Copy a schedule with Shifts on YouTube](#)

<https://www.microsoft.com/en-us/videoplayer/embed/RE54jxu?postJsllMsg=true>

Reuse a weekly schedule from Excel with Shifts

[View Reuse a weekly schedule from Excel with Shifts on YouTube](#)

<https://www.microsoft.com/en-us/videoplayer/embed/RE546xQ?postJsllMsg=true>

Shifts videos for users

Clocking in with Shifts

[View Clocking in with Shifts on YouTube](#)

<https://www.microsoft.com/en-us/videoplayer/embed/RE54uyx?postJsllMsg=true>

Swap Shifts

[View Swap Shifts on YouTube](#)

<https://www.microsoft.com/en-us/videoplayer/embed/RE54jBv?postJsllMsg=true> ↗

Tags with Shifts

[View Tags with Shifts on YouTube](#) ↗

<https://www.microsoft.com/en-us/videoplayer/embed/RE5443n?postJsllMsg=true> ↗

Shifts connectors

Article • 10/02/2023 • Applies to: Microsoft Teams, Microsoft 365 for frontline workers

Overview

Shifts connectors enable you to integrate Shifts, the schedule management tool in Microsoft Teams, with your workforce management (WFM) system. After you set up a connection, your frontline workers can seamlessly view and manage their schedules in your WFM system from within Shifts.

Connecting your WFM system to Teams empowers your frontline workforce to manage schedules more effectively and streamlines everyday processes for higher engagement and productivity. Your frontline workers have one place for their scheduling, communication, and collaboration needs to get work done, from anywhere, on any device.

This article gives you an overview of Shifts connectors and how they work.

How Shifts connectors work

Connectors sync schedule data between your WFM system and Shifts, bringing your organization's schedules into Teams. Shifts is where your frontline workers engage for their scheduling needs. Your WFM system is the system of record for business rules, compliance, and intelligence.

Data flows via the connector both ways to ensure schedules are always up to date. Schedules in your WFM system are synced to Shifts. And, changes made to schedules in Shifts are synced back to your WFM system. As the system of record, all business rules are enforced by your WFM system before data is saved to Shifts.

Managed Shifts connectors

Managed Shifts connectors are connectors developed in collaboration with our partners. Managed connectors are hosted and managed either by us or our partners. With managed connectors, only minimal setup is needed.

Connector	Description	Requirements
Microsoft Teams Shifts connector for	Use this connector to integrate Shifts with Blue	Prerequisites for setting up a connection:

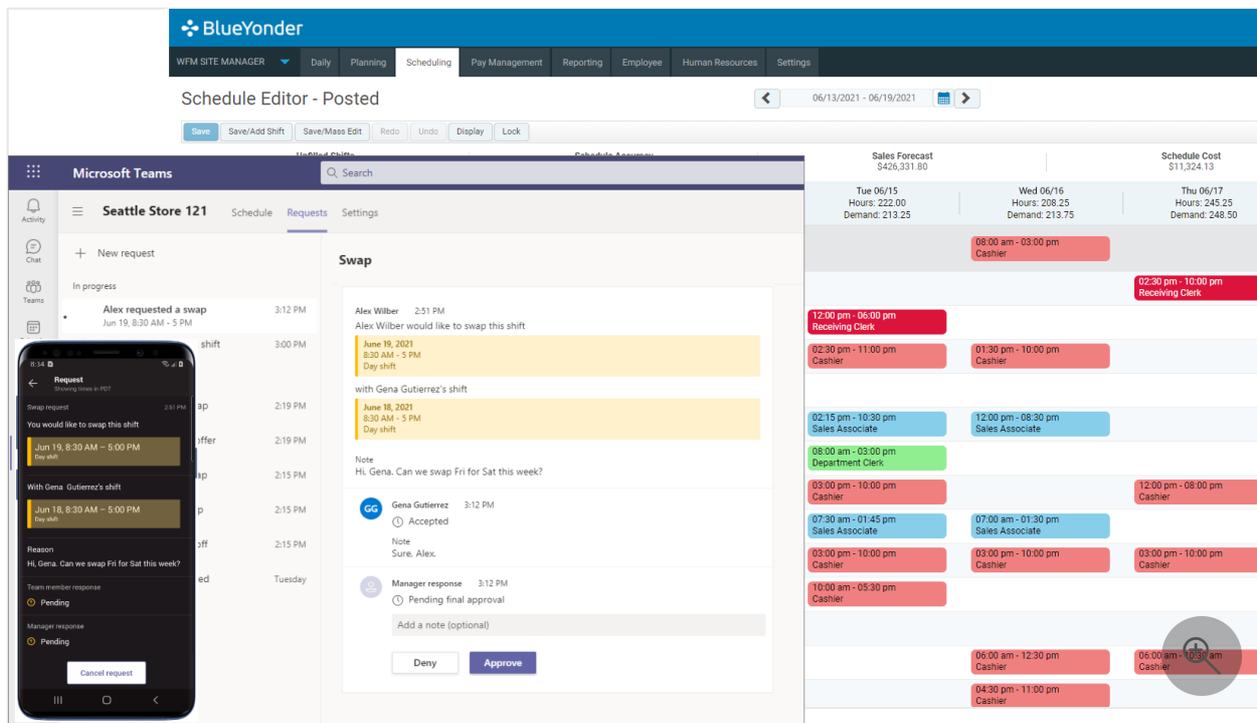
Connector	Description	Requirements
Blue Yonder	Yonder Workforce Management. This connector is hosted and managed by Microsoft.	<ul style="list-style-type: none"> Using the Shifts connector wizard in the Microsoft 365 admin center. Before you run the wizard, remove schedules from existing teams that you want to map. Using PowerShell
Microsoft Teams Shifts connector for UKG Pro Workforce Management (Preview)	Use this connector to integrate Shifts with UKG Pro Workforce Management (UKG Pro WFM). This connector is hosted and managed by Microsoft.	See Prerequisites and requirements for the Teams Shifts connector for UKG Pro Workforce Management .
Reflexis Shifts connector for Microsoft Teams	Use this connector to integrate Shifts with Reflexis Workforce Management. This connector is hosted and managed by Zebra.	To learn more, go to https://connect.zebra.com/microsoft-connectors .

Microsoft Teams Shifts connector for Blue Yonder

The Teams Shifts connector for Blue Yonder is a first-party offering that's hosted and managed by Microsoft. With this connector, you can integrate Shifts with Blue Yonder Workforce Management (Blue Yonder WFM) versions 2020.3, 2021.1, or 2021.2 to manage your schedules and keep them up to date.

ⓘ Note

If you have Blue Yonder WFM version 2020.3 or 2021.1, apply the 2020.3.0.4 or 2021.1.0.3 patch. This patch fixes an issue where users get a persistent error message in Shifts. It also fixes an issue that prevents users from updating their availability in Shifts.



Frontline managers can:

- Publish shifts and schedules in Blue Yonder WFM and view them in Shifts.
- Create, manage, and assign open shifts in Blue Yonder WFM and view them in Shifts.
- Assign open shifts that were created in Blue Yonder WFM in Shifts.
- Create, edit, and delete time off in Blue Yonder WFM and view in Shifts.
- View and approve schedule requests from workers in both Blue Yonder WFM and Shifts.
- Set and update worker availability in Blue Yonder WFM and view in Shifts.

Frontline workers can:

- See their own and their team's shifts and schedules in Shifts.
- Request time off, open shifts, and swap shifts in Shifts.
- Set their availability in Shifts.

The following actions are currently not supported:

- Add, edit, delete, save, or publish shifts in Shifts.
- Add, edit, delete, save, or publish time off in Shifts.
- Add, edit, delete, save, or publish open shifts in Shifts.

When a frontline manager or worker tries to do any of these actions in Shifts, they'll receive a message to let them know the action isn't supported.

Example scenario

Eden, a manager, publishes a schedule in Blue Yonder WFM, which is synced to Shifts in Teams through the connector. Alex, a staff member, gets notified in Teams on his mobile device, and views his schedule and assigned shifts.

Alex needs to take some time off and requests a day off using Shifts. The request is sent to Blue Yonder WFM through the connector. Blue Yonder WFM ensures that the request is compliant with business rules and the request is created. Eden sees and approves the request in Blue Yonder WFM, and the approval is synced to Teams. (Eden can also see and approve the request in Shifts). Alex is notified in Teams that his request is approved and views his updated schedule.

Alex wants to swap a shift with a coworker. In Shifts, Alex sees a list of all shifts that are eligible for a swap based on business rules in Blue Yonder WFM. Alex chooses a shift that's currently assigned to Gena. Gena is notified in Teams on their mobile device and accepts the swap request. Eden sees and approves the request in Shifts, and the approval is synced to Blue Yonder WFM. (Eden can also see and approve the request in Blue Yonder WFM). Alex and Gena are notified in Teams, and view their updated schedules.

Set up a connection to Blue Yonder Workforce Management

Integrating Shifts with Blue Yonder WFM using the connector takes just a few steps. You can use the Shifts connector wizard in the Microsoft 365 admin center to set up a connection. The wizard configures the connector based on the settings you choose and creates the connection. If you prefer to use PowerShell, we also provide PowerShell scripts that you can use to get connected.

For step-by-step guidance, see:

- [Use the Shifts connector wizard to connect Shifts to Blue Yonder Workforce Management](#)
- [Use PowerShell to connect Shifts to Blue Yonder Workforce Management](#)

After a connection is set up, you can update and change connection settings at any time, as needed. To learn more, see:

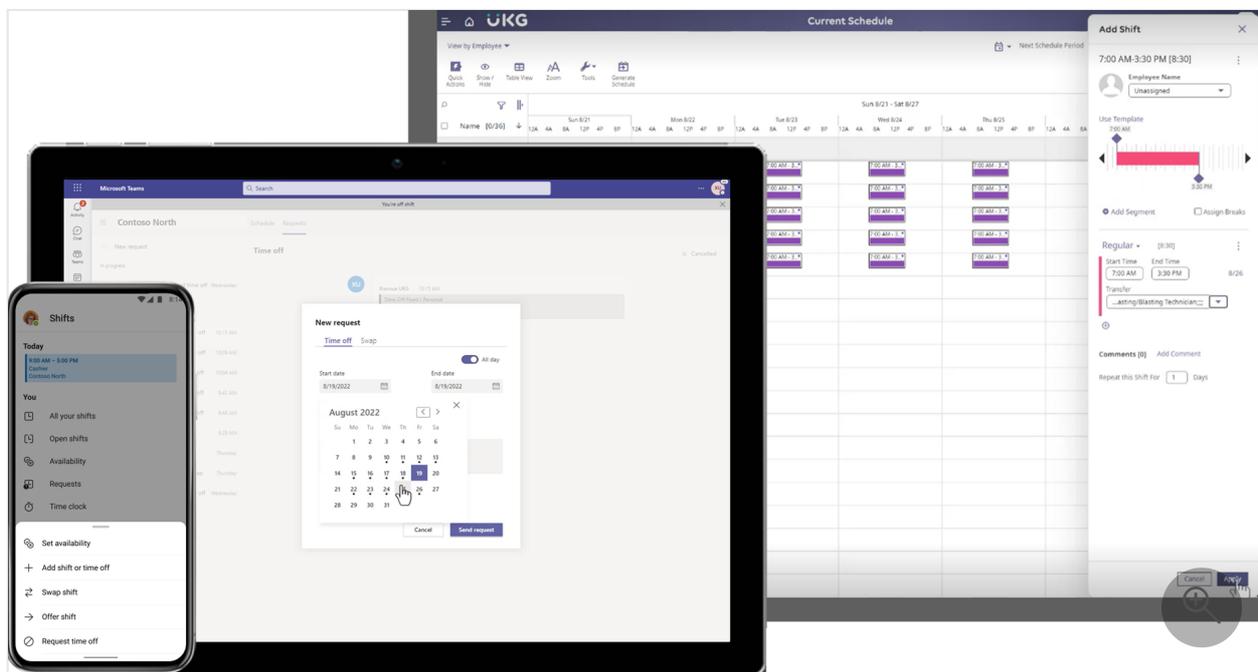
- [Use the Microsoft 365 admin center to manage your Shifts connection to Blue Yonder Workforce Management](#)
- [Use PowerShell to manage your Shifts connection to Blue Yonder Workforce Management](#)

As for the connector itself, you don't need to worry about upgrades or maintenance. We take care of that.

Microsoft Teams Shifts connector for UKG Pro Workforce Management

This is a preview or early release feature.

The Teams Shifts connector for UKG Pro Workforce Management is a first-party offering that's hosted and managed by Microsoft. With this connector, you can integrate Shifts with UKG Pro Workforce Management (UKG Pro WFM) to manage your schedules and keep them up to date.



Frontline managers can:

- Publish shifts and schedules in UKG Pro WFM and view them in Shifts.
- Create, view, manage, and assign open shifts in UKG Pro WFM and Shifts on Teams desktop and Teams web app. (Currently, managers can't view or assign open shifts in Shifts on Teams mobile.)
- Create, edit, and delete time off in UKG Pro WFM and view in Shifts.
- View and approve schedule requests from workers in both UKG Pro WFM and Shifts.
- Set and update worker availability in UKG Pro WFM and view in Shifts.

Frontline workers can:

- See their own and their team's shifts and schedules in Shifts.

- Request time off, view time off information, and view their team's open shifts in Shifts.
- View and post timecard entries in Shifts.
- Request open shifts, swap shifts, and offer a shift to a specific teammate in Shifts.
- Set their availability in Shifts on Teams mobile.

The following actions are currently not supported:

- Add, edit, delete, save, or publish shifts in Shifts.
- Add, edit, delete, save, or publish time off in Shifts.
- Add, edit, delete, save, or publish open shifts in Shifts.

When a frontline manager or worker tries to do any of these actions in Shifts, they'll receive a message to let them know the action isn't supported.

Example scenario

Ravi, a manager, publishes a schedule in UKG Pro WFM, which is synced to Shifts in Teams through the connector. Camille, a staff member, gets notified in Teams on her mobile device, and views her schedule and her team's schedule. Within the assigned shifts, Camille can also see detailed information, such as tasks, set by the manager.

Camille needs to take some time off and requests a day off using Shifts. The request is sent to UKG Pro WFM through the connector. UKG Pro WFM ensures that the request is compliant with business rules and the request is created. Ravi sees and approves the request in UKG Pro WFM, and the approval is synced to Teams. (Ravi can also see and approve the request in Shifts). Camille is notified in Teams that the request is approved and views her updated schedule.

Camille wants to swap a shift with a coworker. In Shifts, Camille sees a list of all shifts that are eligible for a swap based on business rules in UKG Pro WFM. Camille chooses a shift that's currently assigned to Kristen. Kristen is notified in Teams on their mobile device and accepts the swap request. Ravi sees and approves the request in Shifts, and the approval is synced to UKG Pro WFM. (Ravi can also see and approve the request in UKG Pro WFM). Camille and Kristen are notified in Teams, and view their updated schedules.

Set up a connection to UKG Pro Workforce Management

Integrating Shifts with UKG Pro WFM using the connector takes just a few steps. You can use the Shifts connector wizard in the Microsoft 365 admin center to set up a connection. The wizard configures the connector based on the settings you choose and

creates the connection. If you prefer to use PowerShell, we also provide PowerShell scripts that you can use to get connected.

For prerequisites, see:

- [Prerequisites and requirements for the Teams Shifts connector for UKG Pro Workforce Management](#)

For step-by-step guidance, see:

- [Use the Shifts connector wizard to connect Shifts to UKG Pro Workforce Management](#)
- [Use PowerShell to connect Shifts to UKG Pro Workforce Management](#)

After a connection is set up, you can update and change connection settings at any time, as needed. To learn more, see:

- [Use the Microsoft 365 admin center to manage your Shifts connection to UKG Pro Workforce Management](#)
- [Use PowerShell to manage your Shifts connection to UKG Pro Workforce Management](#)

As for the connector itself, you don't need to worry about upgrades or maintenance. We take care of that.

Reflexis Shifts connector for Microsoft Teams

The Reflexis Shifts connector for Microsoft Teams is hosted and managed by Zebra. With this connector, you can integrate Shifts with Reflexis Workforce Management (WFM) to manage your schedules and keep them up to date.

Frontline workers have access to their schedule in Shifts in Teams, and their requests are synchronized from Shifts to Reflexis WFM. The status of requests and shifts created in Reflexis WFM are synced to Shifts in Teams. This solution is available in Reflexis WFM versions 4.3.2, 4.4, and 4.5.

To learn more, go to <https://connect.zebra.com/microsoft-connectors> [↗](#).

Frontline managers can:

- Publish shifts and schedules in Reflexis WFM and view them in Shifts.
- Edit shifts in Reflexis WFM.
- Create, manage, and assign open shifts in Reflexis WFM and view them in Shifts.
- View shifts in both Reflexis WFM and Shifts.
- Create, edit, and delete time off in Reflexis WFM and view in Shifts.
- View and approve schedule requests from workers in both Reflexis WFM and Shifts.

Frontline workers can:

- See their own and their team's shifts and schedules in Shifts.
- Request time off, request open shifts, and swap and offer shifts in Shifts.
- View time off information in Shifts.
- View their team's open shifts in Shifts.

The following actions are currently not supported:

- Add, edit, delete, save, or publish shifts in Shifts.
- Add, edit, delete, save, or publish time off in Shifts.
- Add, edit, delete, save, or publish open shifts in Shifts.
- Set and update worker availability in Reflexis WFM and view in Shifts (frontline managers)
- Assign open shifts that were created in Reflexis WFM in Shifts (frontline managers)
- Set availability in Shifts (frontline workers)
- View and post timecard entries in Shifts (frontline workers)

Example scenario

Diego, a manager, publishes a schedule in Reflexis WFM, which is synced to Shifts in Teams through the connector. Hayden, a staff member, gets notified in Teams on their mobile device, and views their (and their team's) new schedule. Hayden can also see detailed information, such as tasks set by the manager, within the assigned shifts.

Hayden wants to take a short vacation and requests a day off using Shifts. The request is sent to Reflexis WFM through the connector. Reflexis WFM ensures that the request is compliant with business rules and then creates the request. Diego sees and approves the request in Reflexis, and the approval is synced to Teams. (Diego can also see and approve the request in Shifts). Hayden is notified in Teams that the request has been approved and reviews their updated schedule.

In another example, Hayden wants to swap a shift with a coworker. In Shifts, Hayden sees a list of swap-eligible shifts based on business parameters set in Reflexis WFM. Hayden selects a shift that's currently assigned to Joanna. Joanna is notified in Teams on her phone and accepts the swap request in the app. Diego sees and approves the request in Shifts, and the approval is synced with Reflexis WFM. (Diego can also see and approve the request in Reflexis WFM). Hayden and Joanna are each notified in Teams and view their respective updated schedules.

Connection setup overview

Prerequisites for setting up a connection

- Reflexis WFM version 4.3.2 or later
- Microsoft Teams and the Shifts app
- All workers' data is in sync between Reflexis WFM and Teams

Here's an overview of the connection setup process.

1. Register a new app in Microsoft Entra ID, which will be used to communicate with Shifts.
2. Take a note of the client ID and secret that's generated by registration.
3. Give permissions for Microsoft Graph API to the app that you registered.
4. Use the client ID and secret to configure the WFM app to connect with Teams through the connector.
5. Do a one-time sync to import basic data to map entities between Teams and Reflexis WFM.

6. Sign in to Teams and go to the Shifts app.

Schedule data is synced from Reflexis WFM to Shifts when a schedule is published and workers' schedules and shifts are displayed in Shifts. Shifts communicates with Reflexis WFM to sync changes that happened in Shifts.

Related articles

- [Manage the Shifts app](#)

Use the Shifts connector wizard to connect Shifts to Blue Yonder Workforce Management

Article • 10/17/2023 • Applies to: Microsoft Teams, Microsoft 365 for frontline workers

Overview

The [Microsoft Teams Shifts connector for Blue Yonder](#) enables you to integrate the Shifts app in Microsoft Teams with Blue Yonder Workforce Management (Blue Yonder WFM). Your frontline workers can seamlessly view and manage their schedules in Blue Yonder WFM from within Shifts.

In this article, we walk you through how to run the Shifts connector wizard in the Microsoft 365 admin center to connect Shifts to Blue Yonder WFM.

ⓘ Note

If you prefer, you can use PowerShell to integrate Shifts with Blue Yonder WFM. To learn more, see [Use PowerShell to connect Shifts to Blue Yonder Workforce Management](#).

The wizard creates a connection to your Blue Yonder WFM system and a connection instance. A connection instance applies the sync settings and team mappings you choose.

- Sync settings determine the schedule information and what entities sync between Blue Yonder WFM and Shifts.
- Team mappings define the sync relationship between your Blue Yonder WFM instances and teams in Teams.

You can create one or more connection instances, each with different sync settings. For example, if your organization has multiple locations with different schedule requirements, create a connection instance with unique sync settings for each location. A Blue Yonder WFM instance should only be mapped once to a team in Teams at any given time. However, it's possible in the wizard to have different connection instances with the same mappings. This means that you can create connection instances with duplicate mappings.

With Blue Yonder WFM as your system of record, your frontline workers can efficiently manage their schedules and availability in Shifts on their devices. Frontline managers can continue to use Blue Yonder WFM to set up schedules.

Terms used in this article

Term	Definition
Connection	A connection enables access to all WFM instances created in your Blue Yonder WFM system. To create a connection, you provide your Blue Yonder WFM details, which include your service account name, password, and service URLs.
Connection instance	To create a connection instance, you configure the following settings: <ul style="list-style-type: none">• Sync settings that determine how and which schedule information syncs between Blue Yonder WFM and Shifts• Team mappings to define the relationship between your WFM instances and teams in Teams.
WFM instance	This term refers to a site in your Blue Yonder WFM system.

Prerequisites

Before you get started, make sure you meet all the following prerequisites.

- You're a Microsoft 365 global admin.
- You have Blue Yonder WFM version 2020.3, 2021.1, or 2021.2.

ⓘ Note

If you have Blue Yonder WFM 2020.3 or 2021.1, apply the 2020.3.0.4 or 2021.1.0.3 patch. This patch fixes an issue where users get a persistent error message in Shifts. It also fixes an issue that prevents users from updating their availability in Shifts.

- You know your Blue Yonder WFM service account name, password and service URLs:
 - Federated authentication URL
 - Cookie authentication URL
 - Employee self-service URL
 - Retail web API URL
 - Site manager API URL

- Administration API URL

If you don't have all this information, contact Blue Yonder support. A Blue Yonder account is created at the root enterprise level by a Blue Yonder enterprise administrator. It must have API Access, Client Admin, Store Manager, and Worker access. The account and password are required to create a connection.

- Federated SSO authentication is enabled in your Blue Yonder WFM environment. Contact Blue Yonder support to make sure federated SSO is enabled. They'll need the following information:
 - federatedSSOValidationService:
`https://wfmconnector.teams.microsoft.com/api/v1/fedauth/{tenantId}/6A51B888-FF44-4FEA-82E1-839401E9CD74/authorize` where `{tenantId}` is your tenantId
 - proxyHeader: X-MS-AuthToken
- You have at least one team set up in Teams.
- You added a general account, what we call the Microsoft 365 system account, as team owner to all teams you want to map.

[Create this account in the Microsoft 365 admin center](#) and assign it a Microsoft 365 license. Then, add the account as a team owner to all teams that you want to map. The Shifts connector uses this account when syncing Shifts changes from Blue Yonder WFM. We recommend you create an account specifically for this purpose and not use your personal user account.

- Make sure the teams you want to map don't have any schedules in Shifts or Blue Yonder WFM. If a team has an existing schedule, follow the steps in the next section to [remove schedule entities from the team](#) before you map a WFM instance to it. Otherwise, you'll see duplicate shifts.

Remove schedule entities from teams you want to map

ⓘ Note

Complete this step if you're mapping WFM instances to existing teams that have schedule entities. If you're mapping to teams that don't have any schedules or if you're creating new teams to map to, you can skip this step.

Use PowerShell to remove schedule entities from teams.

1. First, you'll need to install the PowerShell modules and get set up. Follow the steps to [set up your environment](#).
2. Run the following command:

```
PowerShell

Remove-CsTeamsShiftsScheduleRecord -TeamId <Teams team ID> -
DateRangeStartDate <start time> -DateRangeEndDate <end time> -
ClearSchedulingGroup:$false -EntityType <the scenario entities that you
want to remove, the format is @(scenario1, scenario2, ...)> -
DesignatedActorId <Teams team owner ID>
```

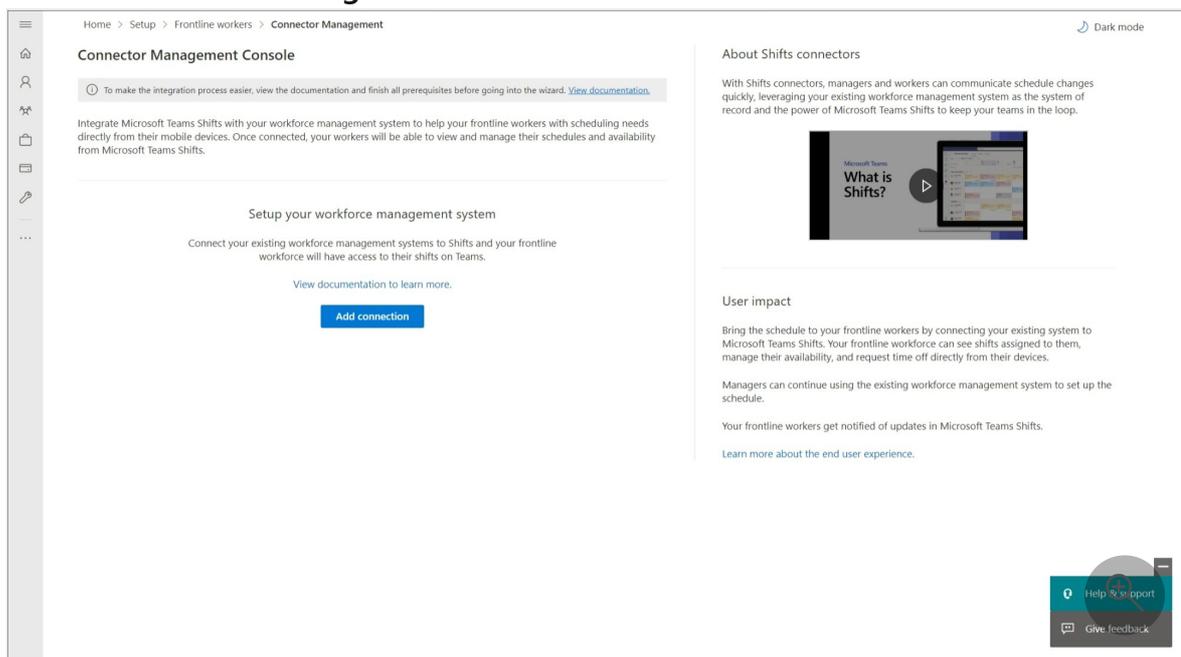
To get a list of scenarios for the `EntityType` parameter, run [Get-CsTeamsShiftsConnectionConnector](#). Schedule data will be removed for the date and time range that you specify.

To learn more, see [Remove-CsTeamsShiftsScheduleRecord](#).

Run the Shifts connector wizard

Create a connection

1. In the left navigation of the [Microsoft 365 admin center](#), choose **Setup**, and then under **Featured collections**, select **Frontline workers**.
2. Select **Connector Management Console**.



3. To create a new connection, choose **Add connection**.

4. In the Choose your connector pane, choose **Blue Yonder Workforce Management**, and then select **Next** to create a Blue Yonder WFM connection.
5. In the Connection settings pane, give your connection a unique name. It can't be longer than 100 characters or have any special characters.
6. Enter your Blue Yonder WFM service account name and password and service URLs. If you don't know one or more of your connection details, contact Blue Yonder support.

Connection settings ✕

Enter a name for this connection that helps you identify it in case you have many. Please contact your Blue Yonder WFM Delivery Partner or Technical Account Manager for Account and URL information. [Learn more about connection details.](#)

Connection name *

To connect to your Blue Yonder WFM, enter the following details. Then test your connection to ensure that we can connect.

Blue Yonder WFM service account name *	Blue Yonder WFM service account password *
<input type="text" value="Blue Yonder Superuser"/>	<input type="password" value="*****"/>

Federated authentication URL *

Cookie authentication URL *

Employee self-service URL *

Retail web API URL *

Site manager API URL *

Administration API URL *



7. When you're done, select **Save connection**.

ⓘ Note

If you need to create another connection, go to the Connector Management Console page, and then select **Add connection**.

Create a connection instance

After you create a connection, you can set up one or more connection instances in that connection.

The connections that you created are listed on the Connector Management Console page. Under the connection where you want to create a new instance, select **Create instance**.

The screenshot shows the 'Connector Management Console' page. At the top, there is a breadcrumb trail: 'Home > Setup > Frontline workers > Connector Management'. Below this is the title 'Connector Management Console'. A note with an information icon states: 'To make the integration process easier, view the documentation and finish all prerequisites before going into the wizard. [View documentation.](#)' Below the note is a description: 'Integrate Microsoft Teams Shifts with your workforce management system to help your frontline workers with scheduling needs directly from their mobile devices. Once connected, your workers will be able to view and manage their schedules and availability from Microsoft Teams Shifts.' There is a blue 'Add connection' button. Below that is a section for 'Contoso US connection'. A table lists the connection details:

Connection health	Connector	Last modified d...	Actions
Healthy	Blue Yonder WFM	2023-01-31T15:...	Edit

Below the table is a 'Create instance' button. In the bottom right corner, there is a circular icon with a plus sign and a magnifying glass.

Choose settings

On the Instance settings page, you choose the information to sync from Blue Yonder WFM to Shifts, the sync frequency, and whether Shifts users can make changes to the

data.

1. Enter a name for your connection instance. It can't be longer than 100 characters or have any special characters.
2. Enter your Microsoft 365 system account. This is the [account that you created as a prerequisite](#) that's a team owner of all the teams you want to map.
3. Under **Email notification recipients**, choose who receives email notifications about this connection instance. You can add individual users and groups. The email notifications contain information about setup status and any issues or errors that may occur after the connection instance is set up.
4. Choose your sync settings.
For each of these settings, you have the following options to choose from:

- **Shifts users will not see provider data:** Data won't sync between Blue Yonder WFM and Shifts.
- **Shifts users can see provider data:** Data syncing is unidirectional from Blue Yonder WFM to Shifts.
- **Shifts users can see and change provider data:** Data syncing is bidirectional between Blue Yonder WFM and Shifts.

 **Important**

Before you disable a feature by selecting the **Shifts users will not see provider data** option, be aware that:

- If the **Schedules, groups, shifts, and activities** setting is disabled, then all other settings, such as **Time off** and **Employee availability**, and more, are also disabled.
- If the **Open shift** setting is disabled, **Open shift request** is also disabled.
- If the **Time off** setting is disabled, **Time off request** is also disabled.

5. Choose your sync frequency.

6. When you're done choosing your settings, select **Next**.

Important

If you chose any of the following options to disable open shifts, open shift requests, swap requests, or time off requests, there's another step you need to do to hide the capability in Shifts.

- Open shifts: **Shifts users will not see provider data**
- Swap requests: **Shifts users will not see provider data**
- Time off requests: **Shifts users will not see provider data**

After you run the wizard, make sure you follow the steps in the **Disable open shifts, open shifts requests, swap requests, and time off requests** section later in this article.

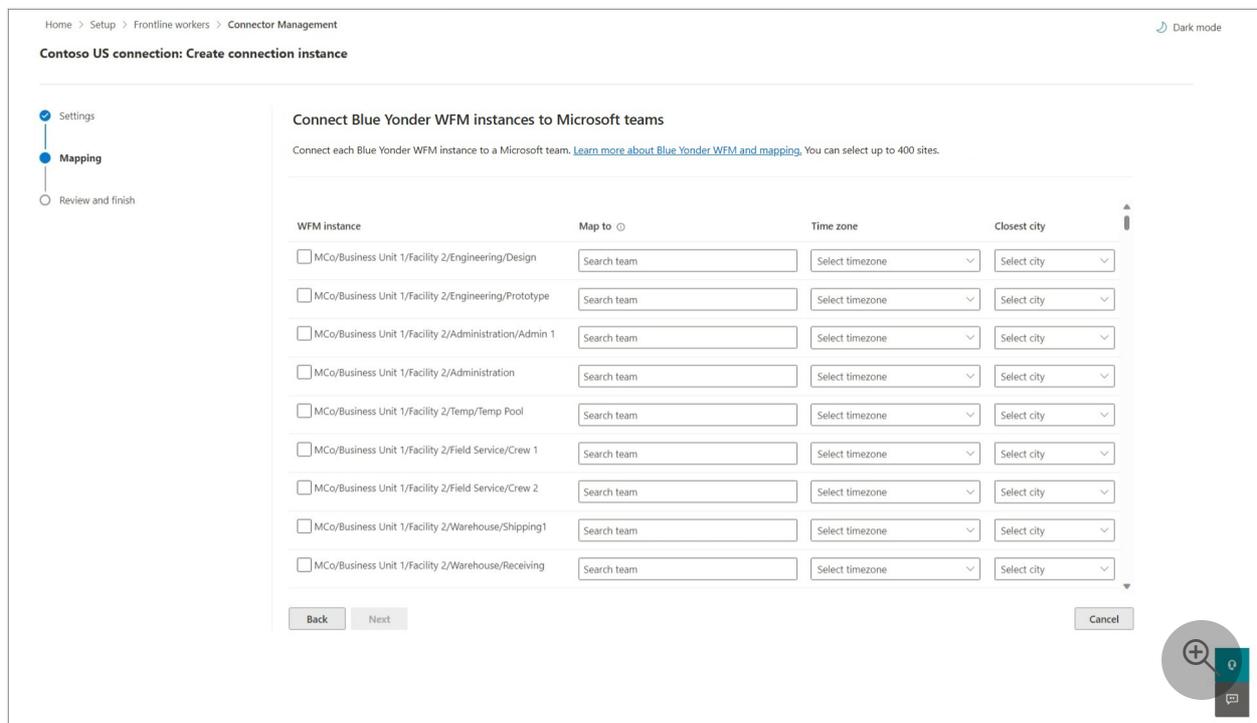
Map WFM instances to teams

Choose the WFM instances that you want to connect to Shifts, and then map each instance to a team in Teams. You can map up to 400 instances.

To complete this step, you can:

- [Manually map WFM instances](#)
- [Use a CSV file to map WFM instances](#)

Manually map WFM instances to teams



1. On the Mapping page, start by choosing the WFM instances that you want to map to teams in Teams.
2. Select the checkbox for each WFM instance you want to map. An instance is only mapped if the checkbox is selected.
3. Next, search for and choose the correct team in Teams. Keep in mind that teams that are already mapped to a WFM instance in this connection instance aren't available to map again.
4. Choose the time zone. The closest city is automatically filled in, but you can change it.
5. When you're done mapping all your teams, select **Next**.

Use a CSV file to map WFM instances to teams

1. On the Mapping page, choose **CSV upload tool**.
2. Select **Download template** to get the CSV mapping file. The template includes a list of all your WFM instances and their IDs. The top rows of your template will look like this:

Blue Yonder WFM Instance ID	Blue Yonder WFM Instance Name	Team ID	Team Name	Time Zone
Automatically prefilled	Automatically prefilled	Blank	Blank	Default*

And the bottom rows of your template will look like this:

Blue Yonder WFM Instance ID	Blue Yonder WFM Instance Name	Team ID	Team Name	Time Zone
Blank	Blank	Automatically prefilled	Automatically prefilled	Default*

3. Choose a team that you want to map to a WFM instance. Cut and paste the Team ID and Team Name from the bottom half of your template to be in line with the WFM instance that you want. A completed row of your template should look like this:

Blue Yonder WFM Instance ID	Blue Yonder WFM Instance Name	Team bottomID	Team Name	Time Zone
Automatically pre-filled	Automatically pre-filled	Team ID that you moved	Team Name that you moved	Default*

Repeat this step for all your mappings.

4. Enter the correct location in the Time Zone column if needed.

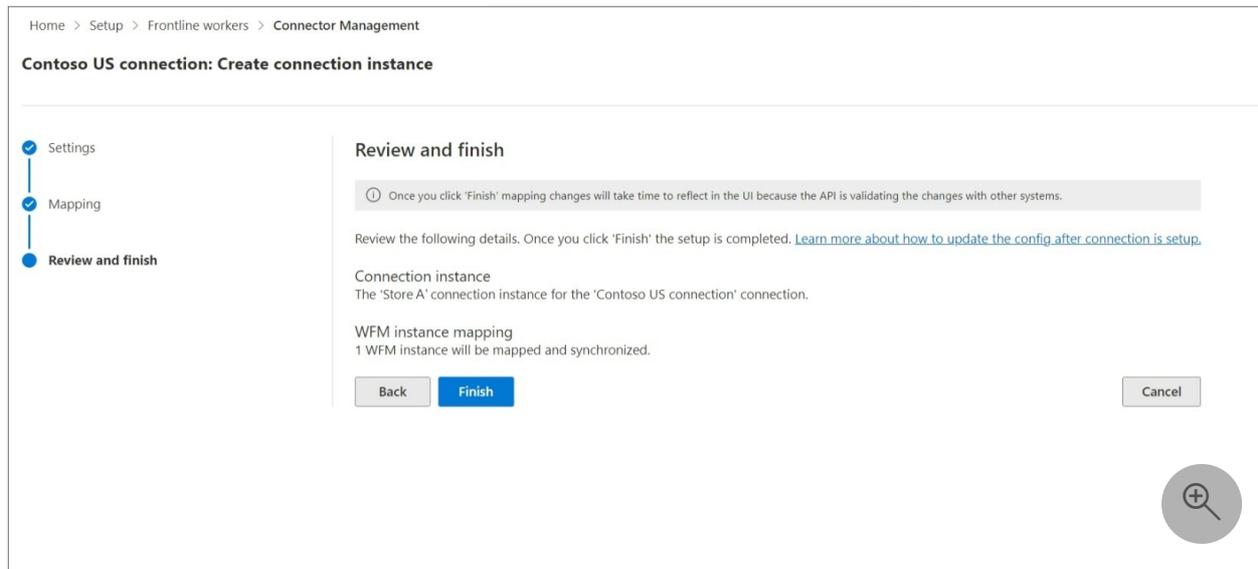
ⓘ Note

The wizard supports approximately 460 locations. The time zone must be in tz format. If the specific location that you chose isn't supported, you'll see an error in the wizard. Try using the closest city or major city within the same time zone.

5. On the Mapping page, select **Browse** to find and upload your completed CSV file.
6. Choose **Done** if your file uploaded correctly. Otherwise, review the error report and upload a corrected file.
7. Your new mappings are listed on the Mappings page.
8. Choose **Next**.

Review and finish

Before finishing, review the summary of the connection instance creation process. If you need to make changes during the connection instance creation process, choose **Back**. When you're ready, select **Finish**.



The wizard starts the process to set up the connection instance, which may take some time to complete. If you try to edit the connection instance before setup is complete, you most likely won't be able to view the mappings you created previously.

The email notification recipients you chose will receive email notifications about setup status in case there are any errors.

Select **Done** to exit the wizard.

Disable open shifts, open shifts requests, swap requests, and time off requests

Important

Follow these steps only if you chose any of the following options to disable open shifts, open shift requests, swap requests, or time off requests in the wizard. Completing this step hides the capability in Shifts.

- Open shifts: **Shifts users will not see Blue Yonder WFM data**
- Swap requests: **Feature is disabled for all users**
- Time off requests: **Feature is disabled for all users**

Without this second step, users will still see the capability in Shifts, and will get an "unsupported operation" error message if they try to use it.

To hide open shifts, swap requests, and time off requests in Shifts, use the Graph API [schedule resource type](#) to set the following parameters to `false` for each team that you mapped to a Blue Yonder WFM instance:

- Open shifts: `openShiftsEnabled`
- Swap requests: `swapShiftsRequestsEnabled`
- Time off requests: `timeOffRequestsEnabled`

To hide open shifts requests in Shifts, go to **Settings** in Shifts, and then turn off the **Open shifts** setting.

Manage your connection and connection instance

After a connection is set up, you can manage and make changes to it in the Microsoft 365 admin center or by using PowerShell.

Use the Microsoft 365 admin center

The Connector Management Console page lists each connection and connection instance that you've set up, along with information such as health status and sync interval details. You can also access the wizard to create new connections and connection instances and make changes to any of your existing ones. For example, you can update sync settings and team mappings.

To learn more, see [Use the Microsoft 365 admin center to manage your Shifts connection to Blue Yonder Workforce Management](#).

Use PowerShell

You can use PowerShell to view an error report, change connection settings, disable sync, and more. For step-by-step guidance, see [Use PowerShell to manage your Shifts connection to Blue Yonder Workforce Management](#).

Related articles

- [Shifts connectors](#)
- [Manage the Shifts app in Teams](#)

Use PowerShell to connect Shifts to Blue Yonder Workforce Management

Article • 10/17/2023 • Applies to: Microsoft Teams, Microsoft 365 for frontline workers

Overview

Use the [Microsoft Teams Shifts connector for Blue Yonder](#) to integrate the Shifts app in Microsoft Teams with Blue Yonder Workforce Management (Blue Yonder WFM). Your frontline workers can seamlessly view and manage their schedules in Blue Yonder WFM from within Shifts.

In this article, we walk you through how to use PowerShell to set up and configure the connector to integrate Shifts with Blue Yonder WFM.

To set up the connection, you run a PowerShell script. The script configures the connector, applies sync settings, creates the connection, and maps Blue Yonder WFM instances to teams. Sync settings determine the features enabled in Shifts and the schedule information that's synced between Blue Yonder WFM and Shifts. Mappings define the sync relationship between your Blue Yonder WFM instances and teams in Teams. You can map to existing teams and new teams.

We provide two scripts. You can use either script, depending on whether you want to map to existing teams or create new teams to map to.

You can set up multiple connections, each with different sync settings. For example, if your organization has multiple locations with different schedule requirements, create a connection with unique sync settings for each location. Keep in mind that a Blue Yonder WFM instance can only be mapped to one team at any given time. If an instance is already mapped to a team, it can't be mapped to another team.

With Blue Yonder WFM as the system of record, your frontline workers can efficiently manage their schedules and availability in Shifts on their devices. Frontline managers can continue to use Blue Yonder WFM to set up schedules.

ⓘ Note

You can also use the [Shifts connector wizard](#) in the Microsoft 365 admin center to connect Shifts to Blue Yonder WFM.

Before you begin

Prerequisites

Before you get started, make sure you meet all the following prerequisites:

- You have Blue Yonder WFM version 2020.3, 2021.1, or 2021.2.

ⓘ Note

If you have Blue Yonder WFM 2020.3 or 2021.1, apply the 2020.3.0.4 or 2021.1.0.3 patch. This patch fixes an issue where users get a persistent error message in Shifts. It also fixes an issue that prevents users from updating their availability in Shifts.

- You know your Blue Yonder WFM service account name, password and service URLs:
 - Federated authentication URL
 - Cookie authentication URL
 - Employee self-service URL
 - Retail web API URL
 - Site manager API URL
 - Administration API URL

If you don't have all this information, contact Blue Yonder support. A Blue Yonder account is created at the root enterprise level by a Blue Yonder enterprise administrator. It must have API Access, Client Admin, Store Manager, and Worker access. The account and password are required to create a connection.

- Federated SSO authentication is enabled in your Blue Yonder WFM environment. Contact Blue Yonder support to make sure federated SSO is enabled. They'll need the following information:
 - federatedSSOValidationService:
`https://wfmconnector.teams.microsoft.com/api/v1/fedauth/{tenantId}/6A51B888-FF44-4FEA-82E1-839401E9CD74/authorize` where `{tenantId}` is your tenantId
 - proxyHeader: X-MS-AuthToken
- You have at least one team set up in Teams.
- You added a general account, what we call the Microsoft 365 system account, as team owner to all teams you want to map.

Create this account in the [Microsoft 365 admin center](#) and assign it a Microsoft 365 license. Then, add the account as a team owner to all teams that you want to map. The Shifts connector uses this account when syncing Shifts changes from Blue Yonder WFM. We recommend you create an account specifically for this purpose and not use your personal user account.

Admin role to manage the connector using PowerShell

You must be a Microsoft 365 global admin or a Shifts connector admin to complete the steps in this article.

The Shifts connector admin role is a custom role that you create in Microsoft Entra ID and assign to a user. The name of the role must be "Shifts connector admin". The role doesn't need to have any specific permissions, although, at least one permission must be set when you create it. The service relies on the presence of the role on the user, and not its permissions.

To learn more, see [Create and assign a custom role in Microsoft Entra ID](#) and [Assign Microsoft Entra roles to users](#). Keep in mind that it can take up to 24 hours for the role to be created and applied to a user.

Set up your environment

1. Install PowerShell version 7 or later. For step-by-step guidance, see [Installing PowerShell on Windows](#).
2. Run PowerShell in administrator mode.
3. Install the Microsoft Graph PowerShell module.

```
PowerShell
```

```
Install-Module Microsoft.Graph  
Import-Module Microsoft.Graph
```

Verify that it's version 1.6.1 or later.

```
PowerShell
```

```
Get-InstalledModule Microsoft.Graph
```

4. Install the Teams Preview PowerShell module.

PowerShell

```
Install-Module -Name MicrosoftTeams -AllowPrerelease -Force  
Import-Module MicrosoftTeams
```

Verify that it's at least version 4.7.0 and contains the Shifts connector cmdlets.

PowerShell

```
Get-Command -Module MicrosoftTeams -Name *teamsshiftsconnection*
```

5. Set PowerShell to exit if an error occurs when running the script.

PowerShell

```
$ErrorActionPreference = "Stop"
```

6. Enable scripts to run in Windows.

PowerShell

```
Set-ExecutionPolicy bypass
```

Connect to Teams

Run the following to connect to Teams.

PowerShell

```
Connect-MicrosoftTeams
```

When you're prompted, sign in using your admin credentials. You're now set up to run the scripts in this article and Shifts connector cmdlets.

Identify the teams you want to map

ⓘ Note

Complete this step if you're mapping Blue Yonder WFM instances to existing teams. If you're creating new teams to map to, you can skip this step.

In the Azure portal, go to the [All groups](#) page to get a list of the TeamIds of teams in your organization.

Take note of the TeamIds of the teams you want to map. The script will prompt you to enter this information.

ⓘ Note

If one or more teams have an existing schedule, the script will remove the schedules from those teams. Otherwise, you'll see duplicate shifts.

Run the script

Run one of the following scripts, depending on whether you're creating a new team or mapping to an existing team:

- To set up a connection, create a new team in Teams, and map a Blue Yonder WFM instance to the new team, run the [new teams script](#).
- To set up a connection and map Blue Yonder WFM instances to existing teams in Teams, run the [existing teams script](#).

Follow the on-screen instructions when you run the script. The script completes the following actions:

1. Test and verify the connection to Blue Yonder WFM using the Blue Yonder WFM service account credentials and service URLs that you enter.
2. Apply sync settings. These settings include the sync frequency (in minutes) and the schedule data synced between Blue Yonder WFM and Shifts. You can enable schedule data defined by these scenarios: `Shift`, `SwapRequest`, `UserShiftPreferences`, `OpenShift`, `OpenShiftRequest`, `TimeOff`, `TimeOffRequest`.

To learn more, see [New-CsTeamsShiftsConnectionInstance](#). To see the list of supported sync options for each parameter, run [Get-CsTeamsShiftsConnectionConnector](#).

ⓘ Note

The script enables sync for each supported sync option. If you want to change sync settings, you can do so after the connection is set up. To learn more, see

Use PowerShell to manage your Shifts connection to Blue Yonder Workforce Management.

3. Map Blue Yonder WFM instances to your teams in Teams.

- If you chose to run the [new teams script](#) to create new teams, mappings are based on the new teams you create.
- If you chose to run the [existing teams script](#) to map existing teams, mappings are based on Blue Yonder instance IDs and TeamIDs that you enter. If a team has an existing schedule, the script removes all schedule data.

After you run the script, a **Success** message confirms if your connection is successfully set up.

Manage your connection

After a connection is set up, you can manage and make changes to it in the Microsoft 365 admin center or by using PowerShell.

Use the Microsoft 365 admin center

The Connector Management page lists each connection that you've set up, along with information such as health status and sync interval details. You can also access the wizard to make changes to any of your connections. For example, you can update sync settings and team mappings.

To learn more, see [Use the Microsoft 365 admin center to manage your Shifts connection to Blue Yonder Workforce Management](#).

Use PowerShell

You can use PowerShell to view an error report, change connection settings, disable sync, and more. For step-by-step guidance, see [Use PowerShell to manage your Shifts connection to Blue Yonder Workforce Management](#).

Scripts

Set up a connection and create a new team

```

#Map WFM sites to teams script
Write-Output "Map WFM sites to teams"
Start-Sleep 1

#Ensure Teams module is at least version x
Write-Output "Checking Teams module version"
try {
    Get-InstalledModule -Name "MicrosoftTeams" -MinimumVersion 5.2.0
} catch {
    throw
}

#Connect to MS Graph
Connect-MgGraph -Scopes "User.Read.All","Group.ReadWrite.All"

#List connector types available (comment out if not implemented for preview)
Write-Output "Listing connector types available"
$BlueYonderId = "6A51B888-FF44-4FEA-82E1-839401E9CD74"
$connectors = Get-CsTeamsShiftsConnectionConnector
Write-Output $connectors

#Prompt for entering of WFM username and password
$WfmUserName = Read-Host -Prompt 'Input your Blue Yonder account username'
$WfmPwd = Read-Host -Prompt 'Input your Blue Yonder account password' -
AsSecureString
$plainPwd =
[Runtime.InteropServices.Marshal]::PtrToStringAuto([Runtime.InteropServices.
Marshal]::SecureStringToBSTR($WfmPwd))

#Test connection settings
Write-Output "Testing connection settings"
$ConnectionName = Read-Host -Prompt 'Input connection name'
$adminApiUrl = Read-Host -Prompt 'Input admin api url'
$cookieAuthUrl = Read-Host -Prompt 'Input cookie authorization url'
$essApiUrl = Read-Host -Prompt 'Input ess api url'
$federatedAuthUrl = Read-Host -Prompt 'Input federated authorization url'
$retailWebApiUrl = Read-Host -Prompt 'Input retail web api url'
$siteManagerUrl = Read-Host -Prompt 'Input site manager url'

$testResult = Test-CsTeamsShiftsConnectionValidate `
    -Name $ConnectionName `
    -ConnectorId $BlueYonderId `
    -ConnectorSpecificSettings (New-Object
Microsoft.Teams.ConfigAPI.Cmdlets.Generated.Models.ConnectorSpecificBlueYond
erSettingsRequest `
    -Property @{
        AdminApiUrl = $adminApiUrl
        SiteManagerUrl = $siteManagerUrl
        EssApiUrl = $essApiUrl
        RetailWebApiUrl = $retailWebApiUrl
        CookieAuthUrl = $cookieAuthUrl
        FederatedAuthUrl = $federatedAuthUrl
        LoginUserName = $WfmUserName
        LoginPwd = $plainPwd
    }

```

```

    })
    if ($NULL -ne $testResult.Code) {
        Write-Output $testResult
        throw "Validation failed, conflict found"
    }
    Write-Output "Test complete, no conflicts found"

    #Create a connection
    Write-Output "Creating a connection"
    $ConnectionResponse = New-CsTeamsShiftsConnection `
        -Name $ConnectionName `
        -ConnectorId $BlueYonderId `
        -ConnectorSpecificSettings (New-Object
Microsoft.Teams.ConfigAPI.Cmdlets.Generated.Models.ConnectorSpecificBlueYond
erSettingsRequest `
            -Property @{
                AdminApiUrl = $adminApiUrl
                SiteManagerUrl = $siteManagerUrl
                EssApiUrl = $essApiUrl
                RetailWebApiUrl = $retailWebApiUrl
                CookieAuthUrl = $cookieAuthUrl
                FederatedAuthUrl = $federatedAuthUrl
                LoginUserName = $WfmUserName
                LoginPwd = $plainPwd
            })

    $ConnectionId = $ConnectionResponse.Id
    if ($null -ne $ConnectionId){
        Write-Output "Successfully created connection"
    } else {
        throw "Connection creation failed"
    }
}

#Create a connection instance
Write-Output "Creating a connection instance"
$designatedActorName = Read-Host -Prompt "Input Microsoft 365 System Account
(person@contoso.com)"
$designator = Get-MgUser -UserId $designatedActorName
$teamsUserId = $designator.Id
$syncFreq = Read-Host -Prompt "Input sync frequency in minutes"
$instanceName = Read-Host -Prompt "Input connection instance name"

#Read sync scenarios for connection instance
function GetSyncScenarioSetting {
    param (
        $SettingName
    )
    $TwoWay = New-Object System.Management.Automation.Host.ChoiceDescription
'&TwoWay', 'TwoWay'
    $Disabled = New-Object
System.Management.Automation.Host.ChoiceDescription '&Disabled', 'Disabled'
    $FromWfmToShifts = New-Object
System.Management.Automation.Host.ChoiceDescription '&FromWfmToShifts',
'FromWfmToShifts'
    $options = [System.Management.Automation.Host.ChoiceDescription[]]

```

```

($TwoWay, $Disabled, $FromWfmToShifts)
    $result = $host.ui.PromptForChoice("Set sync scenario for $SettingName",
    "", $options, 0)

    switch ($result)
    {
        0 { return "TwoWay" }
        1 { return "Disabled" }
        2 { return "FromWfmToShifts" }
    }
}
$SyncScenarioOpenShift = GetSyncScenarioSetting "Open Shift"
$SyncScenarioOpenShiftRequest = GetSyncScenarioSetting "Open Shift Request"
$SyncScenarioShift = GetSyncScenarioSetting "Shift"
$SyncScenarioSwapRequest = GetSyncScenarioSetting "Swap Request"
$SyncScenarioTimeCard = GetSyncScenarioSetting "Time Card"
$SyncScenarioTimeOff = GetSyncScenarioSetting "Time Off"
$SyncScenarioTimeOffRequest = GetSyncScenarioSetting "Time Off Request"
$SyncScenarioUserShiftPreference = GetSyncScenarioSetting "User Shift
Preferences"

#Read admin email list
[psobject[]]$AdminEmailList = @()
while ($true){
    $AdminEmail = Read-Host -Prompt "Enter admin's email to receive error
report"
    $AdminEmailList += $AdminEmail
    $title = 'Adding another email'
    $question = 'Would you like to add another admin email?'
    $choices = '&Yes', '&No'
    $decision = $Host.UI.PromptForChoice($title, $question, $choices, 1)
    if ($decision -eq 1) {
        break
    }
}
$instanceResponse = New-CsTeamsShiftsConnectionInstance `
    -ConnectionId $ConnectionId `
    -ConnectorAdminEmail $AdminEmailList `
    -DesignatedActorId $teamsUserId `
    -Name $InstanceName `
    -SyncFrequencyInMin $syncFreq `
    -SyncScenarioOpenShift $SyncScenarioOpenShift `
    -SyncScenarioOpenShiftRequest $SyncScenarioOpenShiftRequest `
    -SyncScenarioShift $SyncScenarioShift `
    -SyncScenarioSwapRequest $SyncScenarioSwapRequest `
    -SyncScenarioTimeCard $SyncScenarioTimeCard `
    -SyncScenarioTimeOff $SyncScenarioTimeOff `
    -SyncScenarioTimeOffRequest $SyncScenarioTimeOffRequest `
    -SyncScenarioUserShiftPreference $SyncScenarioUserShiftPreference

$instanceId = $instanceResponse.id
if ($null -ne $instanceId){
    Write-Output "Success"
} else {
    throw "Connector instance creation failed"
}

```

```

}

#Keep mapping teams until user stops it
$mappings=@()
while ($true)
{
    #Create a new Teams team with owner set to system account and name set
to the site name
    Write-Output "Creating a Teams team"
    $teamsTeamName = Read-Host -Prompt "Input the Teams team name"
    $Team = New-Team -DisplayName $teamsTeamName -Visibility "Public" -Owner
$teamsUserId
    Write-Output "Successfully created a team"
    $TeamsTeamId=$Team.GroupId

    #Retrieve the list of wfm locations
    Write-Output "Listing the WFM team sites"
    $WfmTeamIds = Get-CsTeamsShiftsConnectionWfmTeam -ConnectorInstanceId
$instanceId
    Write-Output $WfmTeamIds
    if (($NULL -ne $WfmTeamIds) -and ($WfmTeamIds.Count -gt 0)){
        [System.String]$WfmTeamId = Read-Host -Prompt "Input the ID of WFM
team you want to map"
    }
    else {
        throw "The WfmTeamId list is null or empty"
    }

    #Retrieve the list of WFM users and their roles
    Write-Output "Listing WFM users and roles"
    $WFMUsers = Get-CsTeamsShiftsConnectionWfmUser -ConnectorInstanceId
$instanceId -WfmTeamId $WfmTeamId
    Write-Output $WFMUsers

    #Add users to the Team for Shifts
    Write-Output "Adding users to Teams team"
    $currentUser = Read-Host -Prompt "Input the current user's user name or
AAD ID"
    Add-TeamUser -GroupId $TeamsTeamId -User $currentUser -Role Owner
    $failedWfmUsers=@()
    foreach ($user in $WFMUsers) {
        try {
            $userEmail = $user.Name + "@" + $domain
            Add-TeamUser -GroupId $TeamsTeamId -User $userEmail
        } catch {
            $failedWfmUsers+=$user
        }
    }
    if($failedWfmUsers.Count -gt 0){
        Write-Output "There are WFM users not existed in Teams tenant:"
        Write-Output $failedWfmUsers
    }

    #Enable scheduling in the group
    $RequestBody = @{

```

```

        Enabled = $true
        TimeZone = "America/Los_Angeles"
    }

$teamUpdateUrl="https://graph.microsoft.com/v1.0/teams/"+$TeamsTeamId+"/schedule"
    Invoke-MgGraphRequest -Uri $teamUpdateUrl -Method PUT -Body $RequestBody

#Create a mapping of the new team to the instance
Write-Output "Create a mapping of the new team to the site"
$TimeZone = Read-Host -Prompt "Input the time zone of team mapping"
$mapping = @{
    teamId = $TeamsTeamId
    wfmTeamId = $WfmTeamId
    timeZone = $TimeZone
}
$mappings += , $mapping

$title = 'Connecting another team'
$question = 'Would you like to connect another team?'
$choices = '&Yes', '&No'

$decision = $Host.UI.PromptForChoice($title, $question, $choices, 1)
if ($decision -eq 1) {
    break
}
}
}
$batchMappingResponse = New-CsTeamsShiftsConnectionBatchTeamMap -
ConnectorInstanceId $InstanceId -TeamMapping @($mappings)
if ($null -ne $batchMappingResponse.OperationId){
    "The mapping has begun asynchronously. To query mapping results run Get-
CsTeamsShiftsConnectionOperation with the operation Id."
}
else {
    throw "The mapping has failed due to validation errors."
}
Write-Output $batchMappingResponse

Remove-TeamUser -GroupId $TeamsTeamId -User $currentUser -Role Owner
Disconnect-MgGraph

```

Set up a connection and map an existing team

PowerShell

```

#Map WFM sites to existing teams script
Write-Output "Map WFM sites to existing teams"
Start-Sleep 1

#Ensure Teams module is at least version x
Write-Output "Checking Teams module version"
try {

```

```

    Get-InstalledModule -Name "MicrosoftTeams" -MinimumVersion 5.2.0
} catch {
    throw
}

#Connect to MS Graph
Connect-MgGraph -Scopes "User.Read.All","Group.ReadWrite.All"

#List connector types available (comment out if not implemented for preview)
Write-Output "Listing connector types available"
$BlueYonderId = "6A51B888-FF44-4FEA-82E1-839401E9CD74"
$connectors = Get-CsTeamsShiftsConnectionConnector
Write-Output $connectors

#Prompt for entering of WFM username and password
$WfmUserName = Read-Host -Prompt 'Input your Blue Yonder account username'
$WfmPwd = Read-Host -Prompt 'Input your Blue Yonder account password' -
AsSecureString
$plainPwd =
[Runtime.InteropServices.Marshal]::PtrToStringAuto([Runtime.InteropServices.
Marshal]::SecureStringToBSTR($WfmPwd))

#Test connection settings
Write-Output "Testing connection settings"
$ConnectionName = Read-Host -Prompt 'Input connection name'
$adminApiUrl = Read-Host -Prompt 'Input admin api url'
$cookieAuthUrl = Read-Host -Prompt 'Input cookie authorization url'
$essApiUrl = Read-Host -Prompt 'Input ess api url'
$federatedAuthUrl = Read-Host -Prompt 'Input federated authorization url'
$retailWebApiUrl = Read-Host -Prompt 'Input retail web api url'
$siteManagerUrl = Read-Host -Prompt 'Input site manager url'

$testResult = Test-CsTeamsShiftsConnectionValidate `
    -Name $ConnectionName `
    -ConnectorId $BlueYonderId `
    -ConnectorSpecificSettings (New-Object
Microsoft.Teams.ConfigAPI.Cmdlets.Generated.Models.ConnectorSpecificBlueYond
erSettingsRequest `
    -Property @{
        AdminApiUrl = $adminApiUrl
        SiteManagerUrl = $siteManagerUrl
        EssApiUrl = $essApiUrl
        RetailWebApiUrl = $retailWebApiUrl
        CookieAuthUrl = $cookieAuthUrl
        FederatedAuthUrl = $federatedAuthUrl
        LoginUserName = $WfmUserName
        LoginPwd = $plainPwd
    })

if ($NULL -ne $testResult.Code) {
    Write-Output $testResult
    throw "Validation failed, conflict found"
}
Write-Host "Test complete, no conflicts found"

```

```

#Create a connection
Write-Output "Creating a connection"
$ConnectionResponse = New-CsTeamsShiftsConnection `
    -Name $ConnectionName `
    -ConnectorId $BlueYonderId `
    -ConnectorSpecificSettings (New-Object
Microsoft.Teams.ConfigAPI.Cmdlets.Generated.Models.ConnectorSpecificBlueYond
erSettingsRequest `
    -Property @{
        AdminApiUrl = $adminApiUrl
        SiteManagerUrl = $siteManagerUrl
        EssApiUrl = $essApiUrl
        RetailWebApiUrl = $retailWebApiUrl
        CookieAuthUrl = $cookieAuthUrl
        FederatedAuthUrl = $federatedAuthUrl
        LoginUserName = $WfmUserName
        LoginPwd = $plainPwd
    })

$ConnectionId = $ConnectionResponse.Id
if ($null -ne $ConnectionId){
    Write-Output "Successfully created connection"
} else {
    throw "Connection creation failed"
}

#Create a connection instance
Write-Output "Creating a connection instance"
$designatedActorName = Read-Host -Prompt "Input Microsoft 365 System Account
(person@contoso.com)"
$designator = Get-MgUser -UserId $designatedActorName
$teamsUserId = $designator.Id
$syncFreq = Read-Host -Prompt "Input sync frequency in minutes"
$instanceName = Read-Host -Prompt "Input connection instance name"

#Read sync scenarios for connection instance
function GetSyncScenarioSetting {
    param (
        $SettingName
    )
    $TwoWay = New-Object System.Management.Automation.Host.ChoiceDescription
'&TwoWay', 'TwoWay'
    $Disabled = New-Object
System.Management.Automation.Host.ChoiceDescription '&Disabled', 'Disabled'
    $FromWfmToShifts = New-Object
System.Management.Automation.Host.ChoiceDescription '&FromWfmToShifts',
'FromWfmToShifts'
    $options = [System.Management.Automation.Host.ChoiceDescription[]]
($TwoWay, $Disabled, $FromWfmToShifts)
    $result = $host.ui.PromptForChoice("Set sync scenario for $SettingName",
"", $options, 0)

    switch ($result)
    {
        0 { return "TwoWay" }
    }
}

```

```

    1 { return "Disabled" }
    2 { return "FromWfmToShifts" }
}
}
$SyncScenarioOpenShift = GetSyncScenarioSetting "Open Shift"
$SyncScenarioOpenShiftRequest = GetSyncScenarioSetting "Open Shift Request"
$SyncScenarioShift = GetSyncScenarioSetting "Shift"
$SyncScenarioSwapRequest = GetSyncScenarioSetting "Swap Request"
$SyncScenarioTimeCard = GetSyncScenarioSetting "Time Card"
$SyncScenarioTimeOff = GetSyncScenarioSetting "Time Off"
$SyncScenarioTimeOffRequest = GetSyncScenarioSetting "Time Off Request"
$SyncScenarioUserShiftPreference = GetSyncScenarioSetting "User Shift
Preferences"

#Read admin email list
[psobject[]]$AdminEmailList = @()
while ($true){
    $AdminEmail = Read-Host -Prompt "Enter admin's email to receive error
report"
    $AdminEmailList += $AdminEmail
    $title = 'Adding another email'
    $question = 'Would you like to add another admin email?'
    $choices = '&Yes', '&No'
    $decision = $Host.UI.PromptForChoice($title, $question, $choices, 1)
    if ($decision -eq 1) {
        break
    }
}
$instanceResponse = New-CsTeamsShiftsConnectionInstance `
    -ConnectionId $ConnectionId `
    -ConnectorAdminEmail $AdminEmailList `
    -DesignatedActorId $teamsUserId `
    -Name $InstanceName `
    -SyncFrequencyInMin $syncFreq `
    -SyncScenarioOpenShift $SyncScenarioOpenShift `
    -SyncScenarioOpenShiftRequest $SyncScenarioOpenShiftRequest `
    -SyncScenarioShift $SyncScenarioShift `
    -SyncScenarioSwapRequest $SyncScenarioSwapRequest `
    -SyncScenarioTimeCard $SyncScenarioTimeCard `
    -SyncScenarioTimeOff $SyncScenarioTimeOff `
    -SyncScenarioTimeOffRequest $SyncScenarioTimeOffRequest `
    -SyncScenarioUserShiftPreference $SyncScenarioUserShiftPreference

$instanceId = $instanceResponse.id
if ($null -ne $instanceId){
    Write-Output "Success"
} else {
    throw "Connector instance creation failed"
}

#Keep mapping teams until user stops it
$mappings=@()
while ($true)
{
    $TeamsTeamId = Read-Host -Prompt "Input the ID of the Teams team to be

```

```

mapped"
    #Clear schedule of the Teams team
    Write-Host "Clear schedule of the existing team"

    $entityTypeString = Read-Host -Prompt 'Input the entity types of clear
schedule'
    $Delimiters = ",",".",":",";", " ", "`t"
    $entityType = $entityTypeString -Split {$Delimiters -contains $_}
    $entityType = $entityType.Trim()
    $entityType = $entityType.Split(' ',
[System.StringSplitOptions]::RemoveEmptyEntries)
    Remove-CsTeamsShiftsScheduleRecord -TeamId $TeamsTeamId -
ClearSchedulingGroup:$True -EntityType $entityType

    #Retrieve the list of wfm locations
    Write-Output "Listing the WFM team sites"
    $WfmTeamIds = Get-CsTeamsShiftsConnectionWfmTeam -ConnectorInstanceId
$InstanceId
    Write-Output $WfmTeamIds
    if (($NULL -ne $WfmTeamIds) -and ($WfmTeamIds.Count -gt 0)){
        [System.String]$WfmTeamId = Read-Host -Prompt "Input the ID of WFM
team you want to map"
    }
    else {
        throw "The WfmTeamId list is null or empty"
    }

    #Retrieve the list of WFM users and their roles
    Write-Output "Listing WFM users and roles"
    $WFMUsers = Get-CsTeamsShiftsConnectionWfmUser -ConnectorInstanceId
$InstanceId -WfmTeamId $WfmTeamId
    Write-Output $WFMUsers

    #Create a mapping of the existing team to the instance
    Write-Host "Create a mapping of the existing team to the site"
    $TimeZone = Read-Host -Prompt "Input the time zone of team mapping"
    $mapping = @{
        teamId = $TeamsTeamId
        wfmTeamId = $WfmTeamId
        timeZone = $TimeZone
    }
    $mappings += , $mapping

    $title = 'Connecting another team'
    $question = 'Would you like to connect another team?'
    $choices = '&Yes', '&No'

    $decision = $Host.UI.PromptForChoice($title, $question, $choices, 1)
    if ($decision -eq 1) {
        break
    }
}
$batchMappingResponse = New-CsTeamsShiftsConnectionBatchTeamMap -
ConnectorInstanceId $InstanceId -TeamMapping @($mappings)
if ($null -ne $batchMappingResponse.OperationId){

```

```
"The mapping has begun asynchronously. To query mapping results run Get-
CsTeamsShiftsConnectionOperation with the operation Id."
}
else {
    throw "The mapping has failed due to validation errors."
}
Write-Output $batchMappingResponse

Disconnect-MgGraph
```

Shifts connector cmdlets

For help with Shifts connector cmdlets, including the cmdlets used in the scripts, search for **CsTeamsShiftsConnection** in the [Teams PowerShell cmdlet reference](#). Here are links to some commonly used cmdlets, grouped by category:

Connections

- [New-CsTeamsShiftsConnection](#)
- [Get-CsTeamsShiftsConnection](#)
- [Update-CsTeamsShiftsConnection](#)

WFM systems credentials

- [Test-CsTeamsShiftsConnectionValidate](#)

Sync options for supported scenarios

- [Get-CsTeamsShiftsConnectionConnector](#)

Remove schedule data

- [Remove-CsTeamsShiftsScheduleRecord](#)

Connection instances

- [New-CsTeamsShiftsConnectionInstance](#)
- [Get-CsTeamsShiftsConnectionInstance](#)
- [Set-CsTeamsShiftsConnectionInstance](#)
- [Update-CsTeamsShiftsConnectionInstance](#)
- [Remove-CsTeamsShiftsConnectionInstance](#)

User mapping and successful syncing

- [Get-CsTeamsShiftsConnectionSyncResult](#)
- [Get-CsTeamsShiftsConnectionWfmUser](#)

Team mapping

- [Get-CsTeamsShiftsConnectionTeamMap](#)
- [Remove-CsTeamsShiftsConnectionTeamMap](#)

Operation ID

- [Get-CsTeamsShiftsConnectionOperation](#)

Error reports

- [Get-CsTeamsShiftsConnectionErrorReport](#)

Related articles

- [Shifts connectors](#)
- [Use PowerShell to manage your Shifts connection to Blue Yonder Workforce Management](#)
- [Use the Microsoft 365 admin center to manage your Shifts connection to Blue Yonder Workforce Management](#)
- [Manage the Shifts app](#)
- [Teams PowerShell overview](#)
- [Teams PowerShell cmdlet reference](#)

Use the Microsoft 365 admin center to manage your Shifts connection to Blue Yonder Workforce Management

Article • 10/17/2023 • Applies to: Microsoft Teams, Microsoft 365 for frontline workers

Overview

The [Microsoft Teams Shifts connector for Blue Yonder](#) enables you to integrate the Shifts app in Microsoft Teams with Blue Yonder Workforce Management (Blue Yonder WFM). Your frontline workers can seamlessly view and manage their schedules in Blue Yonder WFM from within Shifts.

You can use the [Shifts connector wizard](#) in the Microsoft 365 admin center or [PowerShell](#) to create a connection and connection instances. After they're set up, you can manage them in the Microsoft 365 admin center.

The Connector Management Console page lists each connection and connection instance that you've set up, along with information such as health status and sync interval details. You can also access the wizard to create a new connection and connection instances or make changes to any of your existing ones. Select the name of a connection instance to view the details of any errors.

ⓘ Note

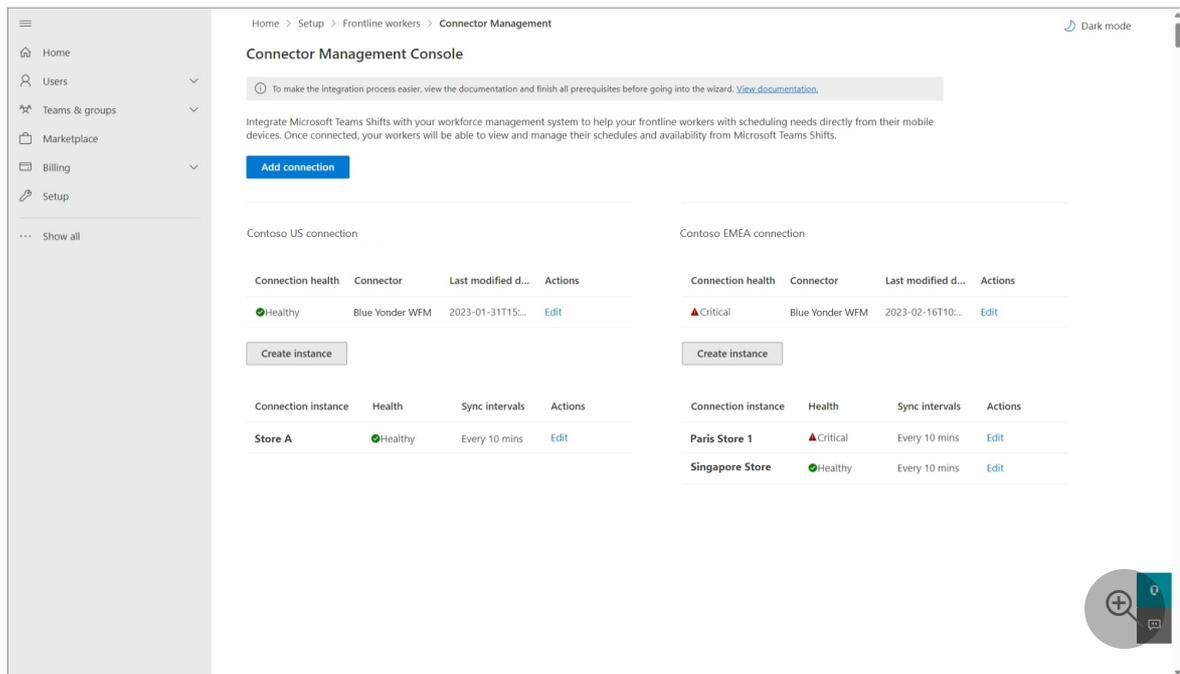
You can also use PowerShell to manage a connection. For example, you can view an error report, change connection settings, and disable sync. To learn more, see [Use PowerShell to manage your Shifts connection to Blue Yonder Workforce Management](#).

Manage

1. In the left navigation of the [Microsoft 365 admin center](#), choose **Setup**, and then under **Featured collections**, select **Frontline workers**.
2. Select **Connector Management Console**.

Here, you'll see a list of all the connections and connection instances if you've already set them up through the wizard or PowerShell, along with information

about each one.



Manage your connection

- To create a new connection, select **Add connection** at the top of the page.
- To update connection settings, choose **Edit** next to an existing connection. You'll see the Connection settings pane, where you can update the settings that you want.

Manage your connection instances

Important

Before you map a Blue Yonder WFM instance to a team in Teams, check whether the team has schedule entities such as shifts or time off. If the team has an existing schedule with schedule entities, **remove the schedule entities from the team** before you map a Blue Yonder WFM instance to it. If you don't remove schedule entities before mapping, you'll see duplicate shifts.

- To create a new connection instance, select **Create instance**. You're taken to the wizard, where you can [choose your settings and create mappings](#).
- To change an existing connection instance, under **Actions**, select **Edit**. You're taken to the wizard, where you can [update the settings and mappings](#).

- To delete an existing connection instance, under **Actions**, select **Delete**. You can't undo this action.
- To view more details about an existing connection instance, select its name. On the details page, you'll see health information, including ongoing errors (if any), and mappings. You can also choose **Edit** to update settings in the wizard or **Back** to return to the Connector Management Console page.

Home > Setup > Frontline workers > Connector Management Dark mode

Store A

Integrate Microsoft Teams Shifts with your workforce management system to help your frontline workers with scheduling needs directly from their mobile devices. Once connected, your workers will be able to view and manage their schedules and availability from Microsoft Teams Shifts.

Health Healthy
Connection Contoso US connection
Connector Blue Yonder WFM
Sync intervals Every 10 mins

Back Edit

Errors

Error type	Severity	WFM instance	Team	Details
BatchTeamMappingErrorMessageType	▲Warning	--	--	This designated actor profile doesn't have team ownership privileges.
BatchTeamMappingErrorMessageType	▲Warning	--	--	This designated actor profile doesn't have team ownership privileges.
BatchTeamMappingErrorMessageType	▲Warning	--	--	This designated actor profile doesn't have team ownership privileges.
UserMappingErrorMessageType	▲Warning	MCo/Business Unit 1/Facility 2/Admi...	Store A	Mapping failed for some users: 0 succeeded, 2 failed AAD user(s) and ...

Mapping

WFM instance name	WFM instance ID	Map to team	Map to team ID
MCo/Business Unit 1/Facility 2/Administration	456	Store A	ee4cf5f2-f87f-4e60-8745-c4822ec05b29

For a complete list of error messages and how to resolve them, see [List of error messages](#) later in this article.

Edit connection instance

To edit your connection instance settings, choose the data that your Shifts users can see and change. You have the following options for these settings:

- **Shifts users will not see provider data:** Data won't sync between Blue Yonder WFM and Shifts.
- **Shifts users can see provider data:** Data syncing is unidirectional from Blue Yonder WFM to Shifts.
- **Shifts users can see and change provider data:** Data syncing is bidirectional between Blue Yonder WFM and Shifts.

Important

Before you disable a feature by selecting the **Shifts users will not see provider data** option, be aware that:

- If the **Schedules, groups, shifts, and activities** setting is disabled, then all other settings, such as **Time off** and **Employee availability**, and more, are also disabled.
- If the **Open shift** setting is disabled, **Open shift request** is also disabled.
- If the **Time off** setting is disabled, **Time off request** is also disabled.

i Important

If you chose any of the following options to disable open shifts, open shift requests, swap requests, or time off requests, there's another step you need to do to hide the capability in Shifts.

- Open shifts: **Shifts users will not see provider data**
- Swap requests: **Shifts users will not see provider data**
- Time off requests: **Shifts users will not see provider data**

After you edit your settings, make sure you follow the steps to **disable open shifts, open shifts requests, swap requests, and time off requests**.

To edit your connection instance mappings, you can:

- Add new mappings, by following the same process as when you first create your connection instance. See [Map Blue Yonder WFM instances to teams](#)
- Edit existing mappings to update the team in Teams to which a Blue Yonder WFM instance is connected. If you're mapping to team in Teams that previously used Shifts, make sure you [remove schedule entities from teams you want to map](#).
- Delete active mappings, either by clearing the checkbox of the mapped Blue Yonder WFM instance, or by uploading the CSV file with the mapping rows removed.

List of error messages

Here's the list of error messages that you may encounter and information to help you resolve them.

Error type	Error details	Resolution
Unable to authenticate workforce	The workforce management system account credentials you've provided are	Update your WFM service account credentials in the connection settings page. To do this, go to your Microsoft 365 admin center and choose Edit next to the

Error type	Error details	Resolution
management system.	invalid or this account doesn't have the required permissions.	connection on the Connector Management Console page.
Unable to authenticate Graph.	Authentication failed. Ensure that you've entered valid credentials for the designated actor and have the required permissions.	Make sure that your Microsoft 365 system account (also known as designated actor) is added as a team owner. Or, update your Microsoft 365 system account to the correct team owner. To do this, in the Microsoft 365 admin center, choose Edit next to the connection instance on the Connector Management Console page. You're redirected to the wizard and, on the Sync Settings page, you can update the Microsoft 365 system account.
Some users have failed to map correctly	Mapping failed for some users: <X> succeeded, <X> failed Microsoft Entra users and <X> failed workforce management system users.	Use the Get-CsTeamsShiftsConnectionSyncResult cmdlet or this PowerShell script to identify the users for whom the mapping failed. Make sure that the users in the mapped team match the users in the WFM instance.
Unable to map a team or teams in this batch	This designated actor profile doesn't have team ownership privileges.	Make sure that your Microsoft 365 system account (also known as designated actor) is added as a team owner. Or, update your Microsoft 365 system account to the correct team owner. To do this, in the Microsoft 365 admin center, choose Edit next to the connection instance on the Connector Management Console page. You're redirected to the wizard and, on the Sync Settings page, you can update the Microsoft 365 system account.
	This team is already mapped to an existing connection instance.	Unmap the team from the existing connection instance by using the Remove-CsTeamsShiftsConnectionTeamMap cmdlet. Or, create a new connection to remap the team.
	This timezone is invalid. The timezone passed in isn't using tz database format.	Make sure that the time zone is correct, and then remap the team.
	We can't find this connection instance.	Map the team to an existing connection instance.
	This Microsoft Entra team couldn't be found.	Make sure that the team exists or create a new team.

Related articles

- [Shifts connectors](#)
- [Use the Shifts connector to connect Shifts to Blue Yonder Workforce Management](#)
- [Use PowerShell to connect Shifts to Blue Yonder Workforce Management](#)
- [Use PowerShell to manage your Shifts connection to Blue Yonder Workforce Management](#)
- [Manage the Shifts app](#)

Use PowerShell to manage your Shifts connection to Blue Yonder Workforce Management

Article • 10/17/2023 • Applies to: Microsoft Teams, Microsoft 365 for frontline workers

Overview

The [Microsoft Teams Shifts connector for Blue Yonder](#) enables you to integrate the Shifts app in Microsoft Teams with Blue Yonder Workforce Management (Blue Yonder WFM). Your frontline workers can seamlessly view and manage their schedules in Blue Yonder WFM from within Shifts.

You can use the [Shifts connector wizard](#) in the Microsoft 365 admin center or [PowerShell](#) to set up a connection. After a connection is set up, you can manage it by using [Shifts connector PowerShell cmdlets](#).

This article describes how to use PowerShell to do the following:

- [Check connection setup status](#)
- [View an error report for a connection](#)
- [Resolve connection errors](#)
- [Change connection settings](#)
- [Unmap a team from one connection and map it to another connection](#)
- [Disable sync for a connection](#)

This article assumes that you've already set up a connection to Blue Yonder WFM, either by using the wizard or PowerShell.

ⓘ Note

You can also manage your connection in the Microsoft 365 admin center. For example, you can check the health status and access the wizard to change connection settings. To learn more, see [Use the Microsoft 365 admin center to manage your Shifts connection to Blue Yonder Workforce Management](#).

Before you begin

You must be a Microsoft 365 global admin or a Shifts connector admin to complete the steps in this article.

The Shifts connector admin role is a custom role that you create in Microsoft Entra ID and assign to a user. The name of the role must be "Shifts connector admin". The role doesn't need to have any specific permissions, although, at least one permission must be set when you create it. The service relies on the presence of the role on the user, and not its permissions.

To learn more, see [Create and assign a custom role in Microsoft Entra ID](#) and [Assign Microsoft Entra roles to users](#). Keep in mind that it can take up to 24 hours for the role to be created and applied to a user.

Set up your environment

ⓘ Note

Make sure you follow these steps to set up your environment before running any of the commands or scripts in this article.

1. Install PowerShell version 7 or later. For step-by-step guidance, see [Installing PowerShell on Windows](#).
2. Run PowerShell in administrator mode.
3. Install the Microsoft Graph PowerShell module.

```
PowerShell
```

```
Install-Module Microsoft.Graph  
Import-Module Microsoft.Graph
```

Verify that it's version 1.6.1 or later.

```
PowerShell
```

```
Get-InstalledModule Microsoft.Graph
```

4. Install the Teams Preview PowerShell module.

```
PowerShell
```

```
Install-Module -Name MicrosoftTeams -AllowPrerelease -Force
Import-Module MicrosoftTeams
```

Verify that it's at least version 4.7.0 and contains the Shifts connector cmdlets.

```
PowerShell
```

```
Get-Command -Module MicrosoftTeams -Name *teamsshiftsconnection*
```

5. Set PowerShell to exit if an error occurs when running the script.

```
PowerShell
```

```
$ErrorActionPreference = "Stop"
```

6. Enable scripts to run in Windows.

```
PowerShell
```

```
Set-ExecutionPolicy bypass
```

7. Connect to Teams.

```
PowerShell
```

```
Connect-MicrosoftTeams
```

When you're prompted, sign in using your admin credentials. You're now set up to run the scripts in this article and the Shifts connector cmdlets.

Check connection setup status

To check the status of the connection you set up using the operation ID that you received in email:

1. [Set up your environment](#) (if you haven't already).
2. Run the following command. This command gives you the overall status of the team mappings for the connection.

```
PowerShell
```

```
Get-CsTeamsShiftsConnectionOperation -OperationId <YourOperationId>
```

To learn more, see [Get-CsTeamsShiftsConnectionOperation](#).

View an error report for a connection

You can run a report that shows error details for a connection. The report lists team and user mappings that succeeded and failed. It also provides information about any issues related to the accounts associated with the connection.

1. [Set up your environment](#) (if you haven't already).
2. Get a list of error reports for a connection.

PowerShell

```
Get-CsTeamsShiftsConnectionErrorReport -ConnectorInstanceId  
<ConnectorInstanceId>
```

3. To view a specific error report, run the following command:

PowerShell

```
Get-CsTeamsShiftsConnectionErrorReport -ErrorReportId <ErrorReportId>
```

To learn more, see [Get-CsTeamsShiftsConnectionErrorReport](#).

ⓘ Note

For a complete list of error messages, see [List of error messages](#) later in this article.

Resolve connection errors

User mapping errors

User mapping errors may occur if one or more users in a WFM instance isn't a member of the mapped team in Teams. To resolve this issue, make sure that the users in the mapped team match the users in the WFM instance.

To view details of unmapped users, [set up your environment](#) (if you haven't already), and then run the following script.

PowerShell

```
#View sync errors script
Write-Host "View sync errors"
Start-Sleep 1

#Ensure Teams module is of version x
Write-Host "Checking Teams module version"
try {
    Get-InstalledModule -Name "MicrosoftTeams" -MinimumVersion 4.7.0
} catch {
    throw
}

#List connection instances available
Write-Host "Listing connection instances"
$instanceList = Get-CsTeamsShiftsConnectionInstance
write $instanceList

#Get an instance
if ($instanceList.Count -gt 0){
    $instanceId = Read-Host -Prompt 'Input the instance ID that you want to
retrieve user sync results from'
}
else {
    throw "Instance list is empty"
}

#Get a list of the mappings
Write-Host "Listing team mappings"
$mappings = Get-CsTeamsShiftsConnectionTeamMap -ConnectorInstanceId
$instanceId
write $mappings

#For each mapping, retrieve the failed mappings
ForEach ($mapping in $mappings){
    $teamsTeamId = $mapping.TeamId
    $wfmTeamId = $mapping.WfmTeamId
    Write-Host "Failed mapped users in the mapping of ${teamsTeamId} and
${wfmTeamId}:"
    $userSyncResult = Get-CsTeamsShiftsConnectionSyncResult -
ConnectorInstanceId $instanceId -TeamId $teamsTeamId
    Write-Host "Failed AAD users:"
    write $userSyncResult.FailedAadUser
    Write-Host "Failed WFM users:"
    write $userSyncResult.FailedWfmUser
}
```

Account authorization errors

Account authorization errors may occur if the WFM service account or Microsoft 365 system account credentials are incorrect or don't have the required permissions.

To change your WFM service account or Microsoft 365 system account credentials for the connection, you can run the [Set-CsTeamsShiftsConnectionInstance](#) cmdlet or use the PowerShell script in the [Change connection settings](#) section of this article.

Change connection settings

Use this script to change connection settings. Settings that you can change include your WFM service account and password, Microsoft 365 system account, team mappings, and sync settings.

Sync settings include the sync frequency (in minutes) and the schedule data that's synced between your WFM system and Shifts. Schedule data is defined in the following parameters, which you can view by running [Get-CsTeamsShiftsConnectionConnector](#).

- The **enabledConnectorScenarios** parameter defines data that's synced from your WFM system to Shifts. Options are `Shift`, `SwapRequest`, `UserShiftPreferences`, `OpenShift`, `OpenShiftRequest`, `TimeOff`, `TimeOffRequest`.
- The **enabledWfiScenarios** parameter defines data that's synced from Shifts to your WFM system. Options are `SwapRequest`, `OpenShiftRequest`, `TimeOffRequest`, `UserShiftPreferences`.

ⓘ Note

If you choose not to sync open shifts, open shift requests, swap requests, or time off requests between Shifts and your WFM system, there's another step you need to do to hide the capability in Shifts. After you run this script, make sure you follow the steps in the [Disable open shifts, open shifts requests, swap requests, and time off requests](#) section later in this article.

ⓘ Important

For settings that you don't want to change, you'll need to re-enter the original settings when you're prompted by the script.

[Set up your environment](#) (if you haven't already), and then run the following script.

PowerShell

```
#Update connector instance and mapping script
Write-Host "Update Connector instance and mapping"
Start-Sleep 1

#Ensure Teams module is at least version x
Write-Host "Checking Teams module version"
try {
    Get-InstalledModule -Name "MicrosoftTeams" -MinimumVersion 4.7.0
} catch {
    throw
}

#Connect to MS Graph
Connect-MgGraph -Scopes "User.Read.All","Group.ReadWrite.All"

#List connector types available (comment out if not implemented for preview)
Write-Host "Listing connector types available"
$BlueYonderId = "6A51B888-FF44-4FEA-82E1-839401E9CD74"
$connectors = Get-CsTeamsShiftsConnectionConnector
write $connectors
$blueYonder = $connectors | where {$_.Id -match $BlueYonderId}

#List connection instances available
Write-Host "Listing connection instances available"
$instanceList = Get-CsTeamsShiftsConnectionInstance | where {$_.ConnectorId
-match $BlueYonderId}
write $instanceList

#Prompt for the WFM username and password
$WfmUserName = Read-Host -Prompt 'Input your WFM user name'
$WfmPwd = Read-Host -Prompt 'Input your WFM password' -AsSecureString
$plainPwd =
[Runtime.InteropServices.Marshal]::PtrToStringAuto([Runtime.InteropServices.
Marshal]::SecureStringToBSTR($WfmPwd))

#Get the instance ID
$instanceId = Read-Host -Prompt 'Input the instance ID that you want to
update'
$instance = Get-CsTeamsShiftsConnectionInstance -ConnectorInstanceId
$instanceId
$Etag = $instance.etag

#Change sync setting
$designatorName = Read-Host -Prompt "Input designated actor's user name"
$designator = Get-MgUser -UserId $designatorName
$teamsUserId = $designator.Id
$updatedInstanceName = Read-Host -Prompt 'Input new connection instance
name'
$updatedConnectorScenarioString = Read-Host -Prompt 'Input new enabled
connector scenarios'
$updatedWfiScenarioString = Read-Host -Prompt 'Input new enabled WFI
scenarios'
```

```

$Delimiters = ",",".",":",";", " ", "`t"
$updatedConnectorScenario = $updatedConnectorScenarioString -Split
{$Delimiters -contains $_}
$updatedConnectorScenario = $updatedConnectorScenario.Trim()
$updatedConnectorScenario = $updatedConnectorScenario.Split(' ',
[System.StringSplitOptions]::RemoveEmptyEntries)
$updatedWfiScenario = $updatedWfiScenarioString -Split {$Delimiters -
contains $_}
$updatedWfiScenario = $updatedWfiScenario.Trim()
$updatedWfiScenario = $updatedWfiScenario.Split(' ',
[System.StringSplitOptions]::RemoveEmptyEntries)
$adminApiUrl = $Instance.ConnectorSpecificSettingAdminApiUrl
$cookieAuthUrl = $Instance.ConnectorSpecificSettingCookieAuthUrl
$essApiUrl = $Instance.ConnectorSpecificSettingEssApiUrl
$federatedAuthUrl = $Instance.ConnectorSpecificSettingFederatedAuthUrl
$retailWebApiUrl = $Instance.ConnectorSpecificSettingRetailWebApiUrl
$siteManagerUrl = $Instance.ConnectorSpecificSettingSiteManagerUrl
$syncFreq = Read-Host -Prompt 'Input new sync frequency'

#Read admin email list
[psobject[]]$AdminEmailList = @()
while ($true){
$AdminEmail = Read-Host -Prompt "Enter admin's email to receive error
report"
$AdminEmailList += $AdminEmail
$title = 'Adding another email'
$question = 'Would you like to add another admin email?'
$choices = '&Yes', '&No'
$decision = $Host.UI.PromptForChoice($title, $question, $choices, 1)
if ($decision -eq 1) {
break
}
}
}
$UpdatedInstance = Set-CsTeamsShiftsConnectionInstance `
-ConnectorInstanceId $InstanceId `
-ConnectorId $BlueYonderId `
-ConnectorAdminEmail $AdminEmailList `
-DesignatedActorId $teamsUserId `
-EnabledConnectorScenario $updatedConnectorScenario `
-EnabledWfiScenario $updatedWfiScenario `
-Name $UpdatedInstanceName `
-SyncFrequencyInMin $syncFreq `
-ConnectorSpecificSettings (New-Object
Microsoft.Teams.ConfigAPI.Cmdlets.Generated.Models.ConnectorSpecificBlueYond
erSettingsRequest `
-Property @{
AdminApiUrl = $adminApiUrl
SiteManagerUrl = $siteManagerUrl
EssApiUrl = $essApiUrl
RetailWebApiUrl = $retailWebApiUrl
CookieAuthUrl = $cookieAuthUrl
FederatedAuthUrl = $federatedAuthUrl
LoginUserName = $WfmUserName
LoginPwd = $plainPwd
}) `

```

```

    -IfMatch $Etag
if ($UpdatedInstance.Id -ne $null) {
    Write-Host "Success"
}
else {
    throw "Update instance failed"
}
#Get a list of the mappings
Write-Host "Listing mappings"
$TeamMaps = Get-CsTeamsShiftsConnectionTeamMap -ConnectorInstanceId
$InstanceId
write $TeamMaps

#Modify a mapping
#Remove a mapping
Write-Host "Removing a mapping"
$TeamsTeamId = Read-Host -Prompt 'Input the Teams team ID that you want to
unlink'
$WfmTeamId = Read-Host -Prompt 'Input the WFM team ID that you want to
unlink'
Remove-CsTeamsShiftsConnectionTeamMap -ConnectorInstanceId $InstanceId -
TeamId $TeamsTeamId
Write-Host "Success"

#Add a mapping
Write-Host "Adding a mapping"
$TeamsTeamId = Read-Host -Prompt 'Input the Teams team ID that you want to
link'
$WfmTeamId = Read-Host -Prompt 'Input the WFM team ID that you want to link'
New-CsTeamsShiftsConnectionTeamMap -ConnectorInstanceId $InstanceId -TeamId
$TeamsTeamId -TimeZone "America/Los_Angeles" -WfmTeamId $WfmTeamId
Write-Host "Success"

```

Disable open shifts, open shifts requests, swap requests, and time off requests

Important

Follow these steps only if you chose to disable open shifts, open shift requests, swap requests, or time off requests using the script in the [Change connection settings](#) section earlier in this article or by using the [Set-CsTeamsShiftsConnectionInstance](#) cmdlet. Completing this step hides the capability in Shifts. Without this second step, users will still see the capability in Shifts, and will get an "unsupported operation" error message if they try to use it.

To hide open shifts, swap requests, and time off requests in Shifts, use the Graph API [schedule resource type](#) to set the following parameters to `false` for each team that you

mapped to a WFM instance:

- Open shifts: `openShiftsEnabled`
- Swap requests: `swapShiftsRequestsEnabled`
- Time off requests: `timeOffRequestsEnabled`

To hide open shifts requests in Shifts, go to **Settings** in Shifts, and then turn off the **Open shifts** setting.

Unmap a team from one connection and map it to another connection

ⓘ Note

The Microsoft 365 system account must be the same for both connections. If it isn't, you'll get a "This designated actor profile doesn't have team ownership privileges" error message.

If you want to unmap a team from one connection and map it to another connection:

1. [Set up your environment](#) (if you haven't already).
2. View a list of all team mappings for a connection.

PowerShell

```
Get-CsTeamsShiftsConnectionTeamMap -ConnectorInstanceId  
<ConnectorInstanceId>
```

3. Remove a team mapping from the connection.

PowerShell

```
Remove-CsTeamsShiftsConnectionTeamMap -ConnectorInstanceId  
<ConnectorInstanceId> -TeamId <TeamId>
```

4. Map the team to another connection.

PowerShell

```
New-CsTeamsShiftsConnectionTeamMap -ConnectorInstanceId  
<ConnectorInstanceId> -TeamId <TeamId> -WfmTeamId <SiteId> -TimeZone
```

```
<TimeZone>
```

To learn more, see [Get-CsTeamsShiftsConnectionTeamMap](#), [Remove-CsTeamsShiftsConnectionTeamMap](#), and [New-CsTeamsShiftsConnectionTeamMap](#).

Disable sync for a connection

Use this script to disable sync for a connection. Keep in mind this script doesn't remove or delete a connection. It turns off sync so that no data is synced between Shifts and your WFM system for the connection that you specify.

[Set up your environment](#) (if you haven't already), and then run the following script.

PowerShell

```
#Disable sync script
Write-Host "Disable sync"
Start-Sleep 1

#Ensure Teams module is at least version x
Write-Host "Checking Teams module version"
try {
    Get-InstalledModule -Name "MicrosoftTeams" -MinimumVersion 4.7.0
} catch {
    throw
}

#List connection instances available
$BlueYonderId = "6A51B888-FF44-4FEA-82E1-839401E9CD74"
Write-Host "Listing connection instances"
$instanceList = Get-CsTeamsShiftsConnectionInstance | where {$_.ConnectorId
-match $BlueYonderId}
write $instanceList

#Get an instance
if ($instanceList.Count -gt 0){
    $instanceId = Read-Host -Prompt 'Input the instance ID that you want to
disable sync'
    $instance = Get-CsTeamsShiftsConnectionInstance -ConnectorInstanceId
$instanceId
    $Etag = $instance.etag
    $instanceName = $instance.Name
    $designatedActorId = $instance.designatedActorId
    $adminApiUrl = $instance.ConnectorSpecificSettingAdminApiUrl
    $cookieAuthUrl = $instance.ConnectorSpecificSettingCookieAuthUrl
    $essApiUrl = $instance.ConnectorSpecificSettingEssApiUrl
    $federatedAuthUrl = $instance.ConnectorSpecificSettingFederatedAuthUrl
    $retailWebApiUrl = $instance.ConnectorSpecificSettingRetailWebApiUrl
    $siteManagerUrl = $instance.ConnectorSpecificSettingSiteManagerUrl
    $connectorAdminEmail = $instance.ConnectorAdminEmail
```

```

}
else {
    throw "Instance list is empty"
}

#Remove scenarios in the mapping
Write-Host "Disabling scenarios in the team mapping"
$UpdatedInstanceName = $InstanceName + " - Disabled"
$BlueYonderId = "6A51B888-FF44-4FEA-82E1-839401E9CD74"
$WfmUserName = Read-Host -Prompt 'Input your WFM user name'
$WfmPwd = Read-Host -Prompt 'Input your WFM password' -AsSecureString
$plainPwd =
[Runtime.InteropServices.Marshal]::PtrToStringAuto([Runtime.InteropServices.
Marshal]::SecureStringToBSTR($WfmPwd))

$UpdatedInstance = Set-CsTeamsShiftsConnectionInstance `
    -ConnectorInstanceId $InstanceId `
    -ConnectorId $BlueYonderId `
    -ConnectorAdminEmail $ConnectorAdminEmail `
    -DesignatedActorId $DesignatedActorId `
    -EnabledConnectorScenario @() `
    -EnabledWfiScenario @() `
    -Name $UpdatedInstanceName `
    -SyncFrequencyInMin 10 `
    -ConnectorSpecificSettings (New-Object
Microsoft.Teams.ConfigAPI.Cmdlets.Generated.Models.ConnectorSpecificBlueYond
erSettingsRequest `
    -Property @{
        AdminApiUrl = $adminApiUrl
        SiteManagerUrl = $siteManagerUrl
        EssApiUrl = $essApiUrl
        RetailWebApiUrl = $retailWebApiUrl
        CookieAuthUrl = $cookieAuthUrl
        FederatedAuthUrl = $federatedAuthUrl
        LoginUserName = $WfmUserName
        LoginPwd = $plainPwd
    }) `
    -IfMatch $Etag

if ($UpdatedInstance.Id -ne $null) {
    Write-Host "Success"
}
else {
    throw "Update instance failed"
}

```

List of error messages

Here's the list of error messages that you may encounter and information to help you resolve them.

Error type	Error details	Resolution
Unable to authenticate workforce management system.	The workforce management system account credentials you've provided are invalid or this account doesn't have the required permissions.	<p>Update your WFM service account credentials in the connection settings. To do this, do one of the following:</p> <ul style="list-style-type: none"> • In the Microsoft 365 admin center, choose Edit next to the connection on the Connector Management Console page. • Use the Set-CsTeamsShiftsConnectionInstance or Update-CsTeamsShiftsConnectionInstance cmdlet. • Use this PowerShell script.
Unable to authenticate Graph.	Authentication failed. Ensure that you've entered valid credentials for the designated actor and have the required permissions.	<p>Make sure that your Microsoft 365 system account (also known as designated actor) is added as a team owner.</p> <p>Or, update your Microsoft 365 system account credentials in the connection settings.</p>
Some users have failed to map correctly	Mapping failed for some users: <X> succeeded, <X> failed AAD user(s) and <X> failed workforce management system user(s).	Use the Get-CsTeamsShiftsConnectionSyncResult cmdlet or this PowerShell script to identify the users for whom the mapping failed. Make sure that the users in the mapped team match the users in the WFM instance.
Unable to map a team or teams in this batch.	This designated actor profile doesn't have team ownership privileges.	<p>Make sure your Microsoft 365 system account (also known as designated actor) is added as a team owner.</p> <p>If you've changed your Microsoft 365 system account, add that account as a team owner, and update the connection settings to use that account.</p>
	This team is already mapped to an existing connector instance.	Unmap the team from the existing connector instance by using the Remove-CsTeamsShiftsConnectionTeamMap cmdlet. Or, create a new connection to remap the team.
	This timezone is invalid. The timezone passed in is not using tz database format.	Make sure that the time zone is correct, and then remap the team.
	We can't find this connector instance.	Map the team to an existing connection.

Error type	Error details	Resolution
	This AAD team couldn't be found.	Make sure that the team exists or create a new team.

Shifts connector cmdlets

For help with Shifts connector cmdlets, search for **CsTeamsShiftsConnection** in the [Teams PowerShell cmdlet reference](#). Here are links to some commonly used cmdlets.

- [Get-CsTeamsShiftsConnectionOperation](#)
- [New-CsTeamsShiftsConnectionInstance](#)
- [Get-CsTeamsShiftsConnectionInstance](#)
- [Set-CsTeamsShiftsConnectionInstance](#)
- [Update-CsTeamsShiftsConnectionInstance](#)
- [Remove-CsTeamsShiftsConnectionInstance](#)
- [Test-CsTeamsShiftsConnectionValidate](#)
- [New-CsTeamsShiftsConnectionTeamMap](#)
- [Get-CsTeamsShiftsConnectionTeamMap](#)
- [Remove-CsTeamsShiftsConnectionTeamMap](#)
- [Get-CsTeamsShiftsConnectionConnector](#)
- [Get-CsTeamsShiftsConnectionSyncResult](#)
- [Get-CsTeamsShiftsConnectionWfmUser](#)
- [Get-CsTeamsShiftsConnectionWfmTeam](#)
- [Get-CsTeamsShiftsConnectionErrorReport](#)
- [Remove-CsTeamsShiftsScheduleRecord](#)

Related articles

- [Shifts connectors](#)
- [Use the Shifts connector wizard to connect Shifts to Blue Yonder Workforce Management](#)
- [Use PowerShell to connect Shifts to Blue Yonder Workforce Management](#)
- [Use the Microsoft 365 admin center to manage your Shifts connection to Blue Yonder Workforce Management](#)
- [Manage the Shifts app](#)
- [Teams PowerShell overview](#)

Known issues: Teams Shifts connector for Blue Yonder

Article • 10/17/2023 • Applies to: Microsoft Teams, Microsoft 365 for frontline workers

This article lists known issues for the [Microsoft Teams Shifts connector for Blue Yonder](#).

You can map an instance to more than one team using PowerShell or the Microsoft 365 admin center

A Blue Yonder Workforce Management (Blue Yonder WFM) instance should only be mapped to one team at any given time in a connection instance.

However, when you use PowerShell or the Microsoft 365 admin center to set up a connection instance, it's possible to map an instance to more than one team. We recommend that you avoid mapping an instance to multiple teams as it can result in syncing issues and unexpected behavior.

Related articles

- [Shifts connectors](#)
- [Use the Shifts connector wizard to connect Shifts to Blue Yonder Workforce Management](#)
- [Use PowerShell to connect Shifts to Blue Yonder Workforce Management](#)
- [Use the Microsoft 365 admin center to manage your Shifts connection to Blue Yonder Workforce Management](#)
- [Use PowerShell to manage your Shifts connection to Blue Yonder Workforce Management](#)
- [Manage the Shifts app](#)

Prerequisites and requirements for the Teams Shifts connector for UKG Pro Workforce Management (Preview)

Article • 10/31/2023 • Applies to: Microsoft Teams, Microsoft 365 for frontline workers

Overview

The [Microsoft Teams Shifts connector for UKG Pro Workforce Management \(Preview\)](#) enables you to integrate the Shifts app in Microsoft Teams with your UKG Pro Workforce Management (UKG Pro WFM) system. Your frontline workers can seamlessly view and manage their schedules in UKG Pro WFM from within Shifts.

You can use the [Shifts connector wizard](#) in the Microsoft 365 admin center or [PowerShell](#) to create a connection and connection instances. After they're set up, you can manage them in the Microsoft 365 admin center or by using PowerShell.

This article lists requirements, prerequisites, and configuration tasks that you must complete before you use the [wizard](#) or [PowerShell](#) to create a connection. It also gives you an overview of how to set up your teams in Teams based on your UKG Pro WFM organizational structure.

Before you begin

Before you integrate Shifts with UKG Pro WFM, your organization must have the following environment requirements already set up.

- Your UKG Pro WFM environment is configured. This means that your organization has completed the following:
 - You've established how "teams" (groupings of users) are organized to match your organizational structure and business needs, and your users are grouped by location.

Important

Shifts currently supports grouping users by location in UKG Pro WFM. Other user grouping types aren't supported.

- You've set up relevant requests, such as shift requests and time off requests, according to your business needs.

Important

Shifts currently supports the following UKG Pro WFM request types:

- Open shift requests. Partial shift criteria aren't supported.
- Swap requests.
- Requests to cover shifts. Partial shift criteria aren't supported.
- Time off requests.
- Availability patterns change request subtype.

- You're using Microsoft Entra ID as your identity provider.

Prerequisites

Make sure you gather the following information and complete the following configuration tasks before you use the [wizard](#) or [PowerShell](#) to create a connection.

Accounts

- You're a Microsoft 365 global admin.
- You know your UKG Pro WFM account username and password, along with the following service URLs:
 - API URL
 - Application key
 - Client ID
 - Client secret
 - [Single Sign On \(SSO\) URL](#)

If you don't have all this information, contact UKG Pro WFM support.

Enable SSO by setting up integration between Microsoft Entra ID and UKG Pro Workforce Management

For a step-by-step tutorial, see [Tutorial: Microsoft Entra SSO integration with Kronos Workforce Dimensions](#). If you need help or more information about setting up SSO, contact UKG Pro WFM support.

Configure federated SSO authentication in UKG Pro Workforce Management

Follow these steps to configure federated SSO authentication in your UKG Pro WFM environment.

Important

Make sure that the username and email in Microsoft Entra ID match what's in each user's profile in UKG Pro WFM.

Step 1: Change user accounts to federated accounts

Each Shifts user who you want to connect to UKG Pro WFM needs a federated account in UKG Pro WFM.

1. Sign in to UKG Pro WFM by using an admin or super user account that has access to Application Setup.
2. On the left menu, go to **Maintenance > People information**.
3. Open the user's profile.
4. Under the **Employee** section, expand **Information**.
5. Change the **Authentication Type** to **Federated**.
6. Save your changes and repeat the process for all Shifts users who you want to connect to UKG Pro WFM.

Step 2: Allow Shifts SSO redirection URLs

Configure the connector's redirection URL. This allows UKG Pro WFM to redirect the user to the Shifts app in Teams as part of the SSO flow.

1. Sign in to UKG Pro WFM by using an admin or super user account that has access to Application Setup.
2. On the left menu, go to **Administration > Application Setup**.
3. Then, go to **System Configuration** and choose **System Settings**.
4. Select **Global Values**.
5. In the `global.oAuth.authCode.redirection.uris` field, enter the value, "https://aka.ms/shifts/connector/ukgdimensions/auth".
6. In the `global.oAuthToken.redirection.domain.whiteList` field, enter the value, "aka.ms".
7. Select **Save**.

Create at least one team in Teams

Create at least one team in Teams, and add the following people and account to it:

- Frontline workers as team members.
- Frontline managers as team owners and/or schedule owners. To learn more about schedule owners, see [Schedule Owner for shift management](#).

ⓘ Note

When adding people to your teams, make sure you do the following:

- Add frontline workers to every team that they're allowed to work at, based on their UKG Pro WFM locations.
- Add frontline managers to every team in which they have frontline workers as direct reports. Otherwise, managers will only receive workers' requests in UKG Pro WFM and not in Shifts.

- A general account, what we call the Microsoft 365 system account, as team owner.

The Microsoft 365 system account is a general account must be added as team owner to all teams you want to map. [Create this account in the Microsoft 365 admin center](#) and assign it a Microsoft 365 license. Then, add the account as a team owner. The Shifts connector uses this account when syncing Shifts changes from UKG Pro WFM. We recommend you create an account specifically for this purpose and not use your personal user account.

For guidance on creating frontline teams, see [How to find the best frontline team solution for your organization](#). If you want to create more than one team, see [Deploy frontline dynamic teams at scale](#) and [Deploy frontline static teams at scale](#).

Make sure the teams that you want to map don't have any existing schedules

ⓘ Note

This step applies only if you're running the wizard to create a connection. If you're using PowerShell to create a connection, the PowerShell script removes existing schedules from teams for you.

If a team has an existing schedule that was created in Shifts, follow these steps to remove schedule entities from the team before you map a UKG Pro WFM location (also called a WFM instance) to it. Otherwise, you'll see duplicate shifts.

Use PowerShell to remove schedule entities from teams.

1. [Install the PowerShell modules and set up your PowerShell environment](#) (if you haven't already).
2. Run the following command:

```
PowerShell

Remove-CsTeamsShiftsScheduleRecord -TeamId <Teams team ID> -
DateRangeStartDate <start time> -DateRangeEndDate <end time> -
ClearSchedulingGroup:$false -EntityType <the scenario entities that you
want to remove, the format is @(scenario1, scenario2, ...)> -
DesignatedActorId <Teams team owner ID>
```

To get a list of scenarios for the `EntityType` parameter, run [Get-CsTeamsShiftsConnectionConnector](#). Schedule data will be removed for the date and time range that you specify.

To learn more, see [Remove-CsTeamsShiftsScheduleRecord](#).

Understand how your UKG Pro Workforce Management organizational structure influences Teams and Shifts setup

As mentioned earlier, Shifts supports grouping users by location in UKG Pro WFM. In UKG Pro WFM, the nodes in each location represent the hierarchy in your organizational chart. A location path reaches its endpoint when a job type is configured.

Users in UKG Pro WFM are assigned and grouped by jobs that exist within a location. This means that from a Teams and Shifts standpoint, employees who have the same location path up to the node before the job type are considered as part of the same team. The job types in the location path are synced and represented as [schedule groups](#) in Shifts.

Example

Here's an example to help you understand how your UKG Pro WFM structure influences the way you set your teams, mapping considerations, and how information syncs to Shifts.

Scenario

Contoso has hundreds of retail stores spread across the United Kingdom. Each store is located within an Area in the United Kingdom. To simplify this example, we focus on three stores in the Central London Area, to which Contoso wants to start rolling out Teams and Shifts for their frontline employees.

Assumptions:

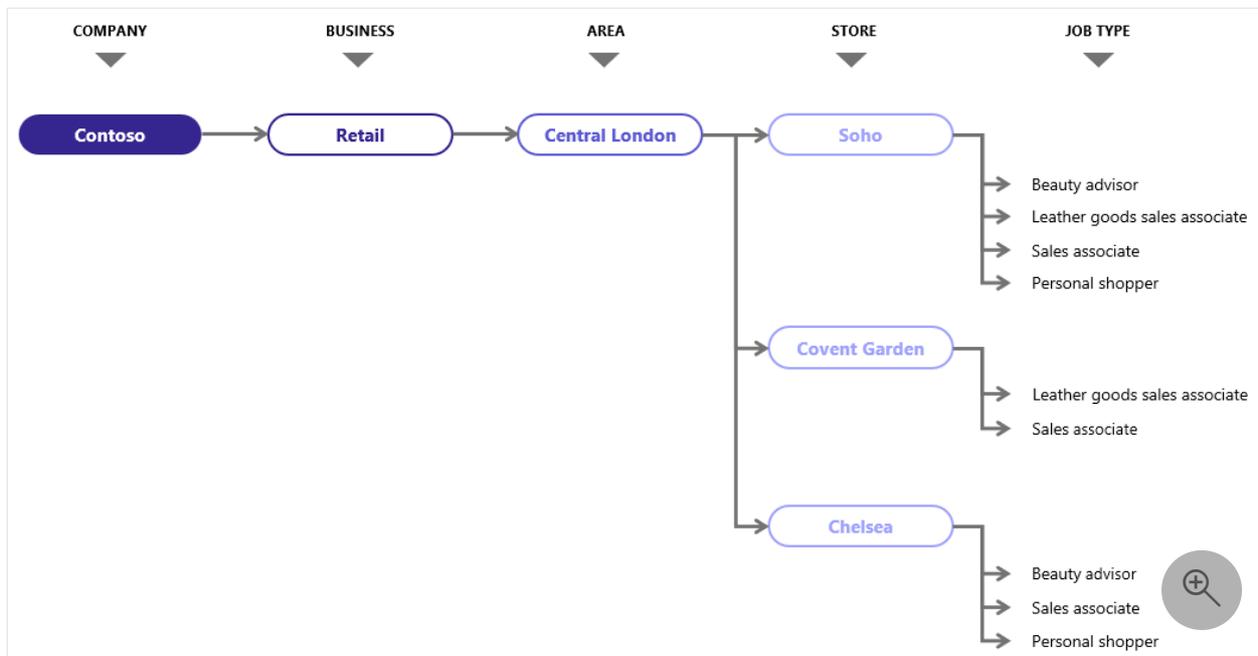
- Each store is managed by a different manager.
- Some frontline workers are allowed to take shifts from other stores within the Central London Area. In other words, in UKG Pro WFM, these frontline workers are part of a job transfer set.

ⓘ Note

Shifts doesn't yet support workers' requests across different teams. This means that workers can't offer or swap shifts with workers who are in different locations (that is, on different teams in Teams). Workers can only perform these actions within their own team.

UKG Pro Workforce Management location structure

In this scenario, the UKG Pro WFM location structure looks something like this, in which the Company node represents the top-most level in the hierarchy.



Here's how frontline managers (FLM) and frontline workers (FLW) are set up in the location structure in UKG Pro WFM. The table lists each workers' primary job and who they report to.

UKG Pro WFM location	Users	Primary job	Reports to
Contoso/Retail/Central London/Soho	FLW1 ¹ , FLW2 FLW3, FLW4 FLW5 ² , FLW6, FLW7 FLW8, FLW9, FLW10	Beauty advisor Leather goods sales associate Sales associate Personal shopper	FLM1
Contoso/Retail/Central London/Covent Garden	FLW11, FLW12 FLW13, FLW14	Leather goods sales associate Sales associate	FLM2
Contoso/Retail/Central London/Chelsea	FLW15 FLW16 FLW17	Sales associate Personal shopper Beauty advisor	FLM3

¹FLW1 can also work as a beauty advisor in Central London/Chelsea.

²FLW5 can also work as a sales associate in Central London/Covent Garden and Central London/Chelsea.

What does this mean when I set up teams in Teams?

In this scenario, the IT admin organizes teams in Teams as follows.

1. Create three different teams in Teams for each store within the Central London area: Soho Store, Covent Garden Store, Chelsea Store.
2. Add employees that belong to the corresponding UKG Pro WFM location to each team, including managers that the employees report to. Frontline workers are added as team members and frontline managers are added as team owners and/or schedule owners.

Here's the list of teams and the people added to each team.

Team name	Team members	Team owners and/or schedule owners
Soho Store	FLW1, FLW2, FLW3, FLW4, FLW5, FLW6, FLW7, FLW8, FLW9, FLW10	FLM1
Covent Garden Store	FLW5, FLW11, FLW12, FLW13, FLW14	FLM2
Chelsea Store	FLW1, FLW5, FLW15, FLW16, FLW17	FLM3

Keep in mind that FLW1 and FLW5 are added to all teams for the store locations that they're allowed to work at. The other frontline workers aren't allowed to work at other stores, and are added only to the team that represents their primary job location.

ⓘ Note

In UKG Pro WFM, if you have departments with business locations, create teams for each department (instead of for each store). As mentioned earlier in this article, to establish the mapping between platforms, we take the location path up to the node and consider that a team.

What does this mean when I run the Shifts connector wizard?

When the IT admin sets up a connection instance in the [wizard](#), they map each store location to the relevant team, as shown in the following table.

Store location	Team name
Contoso/Retail/Central London/Soho	Soho Store
Contoso/Retail/Central London/Covent Garden	Covent Garden Store

Store location	Team name
Contoso/Retail/Central London/Chelsea	Chelsea Store

What does this look like in Shifts?

In Shifts, the schedule groups of each team represent the jobs defined for the store location.

Within each store, in Shifts:

- Frontline managers see employees within their respective schedule groups (that is, job types).
- Frontline workers see their own schedule and their team's schedule.
- Frontline workers can communicate with coworkers in their own store through chat.
- Frontline workers and managers can request time off, swap shifts, offer shifts and open shifts if the requests are configured in UKG Pro WFM and set to be synced in the connection instance settings that you configure in the [wizard](#).
- Frontline workers and managers can reach other employees in their store who are on shift, if [shift-based tags](#) are enabled.

For employees who work at multiple stores, in Shifts:

- Frontline workers and managers can only make requests within a particular store. Shifts currently doesn't support workers' request between different stores.
- Frontline workers can view their schedule and their team's schedule in any store they work at.

Related articles

- [Shifts connectors](#)
- [Manage the Shifts app in Teams](#)

Use the Shifts connector wizard to connect Shifts to UKG Pro Workforce Management (Preview)

Article • 10/02/2023 • Applies to: Microsoft Teams, Microsoft 365 for frontline workers

Overview

The [Microsoft Teams Shifts connector for UKG Pro Workforce Management \(Preview\)](#) enables you to integrate the Shifts app in Microsoft Teams with your UKG Pro Workforce Management (UKG Pro WFM) system. Your frontline workers can seamlessly view and manage their schedules in UKG Pro WFM from within Shifts.

In this article, we walk you through how to use the Shifts connector wizard in the Microsoft 365 admin center to connect Shifts to UKG Pro WFM.

ⓘ Note

If you prefer, you can use PowerShell to integrate Shifts with UKG Pro WFM. To learn more, see [Use PowerShell to connect Shifts to UKG Pro Workforce Management](#).

The wizard creates a connection to your UKG Pro WFM system and a connection instance. A connection instance applies the sync settings and team mappings that you choose.

- Sync settings determine the schedule information and what entities sync between UKG Pro WFM and Shifts.
- Team mappings define the sync relationship between your UKG Pro WFM instances (also called WFM instances) and teams in Teams.

You can create one or more connection instances, each with different sync settings. For example, if your organization has multiple locations with different schedule requirements, create a connection instance with unique sync settings for each location. A WFM instance should only be mapped once to a team in Teams at any given time. However, it's possible in the wizard to have different connection instances with the same mappings. This means that you can create connection instances with duplicate mappings.

With UKG Pro WFM as the system of record, your frontline workers can efficiently manage their schedules and availability in Shifts on their devices. Frontline managers can continue to use UKG Pro WFM to set up schedules.

Note

UKG Pro Workforce Management was formerly known as UKG Dimensions. You may see references to UKG Dimensions in the wizard.

Terms used in this article

Term	Definition
Connection	A connection enables access to all WFM instances created in your UKG Pro WFM system. To create a connection, you provide your UKG Pro WFM details, which include your account username, password, and service URLs.
Connection instance	To create a connection instance, you configure the following settings: <ul style="list-style-type: none">• Sync settings that determine how and which schedule information syncs between UKG Pro WFM and Shifts• Team mappings to define the relationship between your WFM instances and teams in Teams
WFM instance	This term refers to a team in your UKG Pro WFM system, which is different than a team in Teams.

Prerequisites

Before you run the wizard, take time to review the information and complete all prerequisite and configuration tasks in [Prerequisites and requirements for the Teams Shifts connector for UKG Pro Workforce Management](#).

Make sure that you complete all the tasks before you follow the steps in this article.

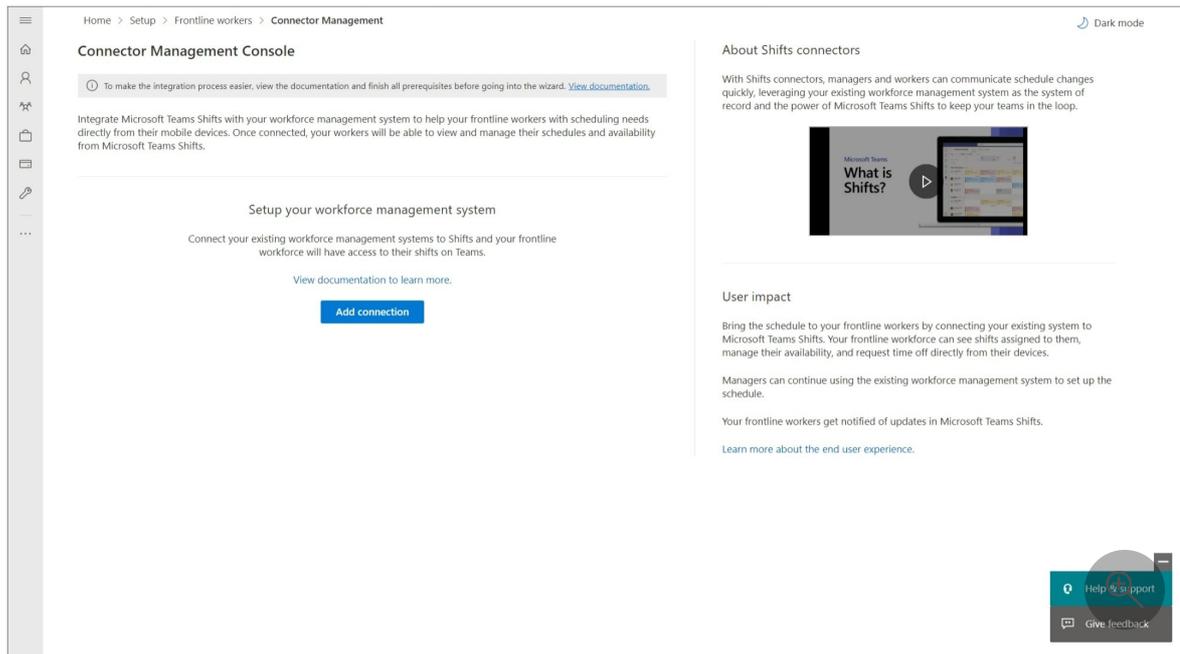
Run the Shifts connector wizard

After you confirm that you meet all the prerequisites, you're ready to run the wizard and connect your UKG Pro WFM system to Shifts in Teams.

Create a connection

1. In the left navigation menu of the [Microsoft 365 admin center](#), choose **Setup**, and then under **Featured collections**, select **Frontline workers**.

2. Select **Connector Management Console**.



3. To create a new connection, choose **Add connection**.

4. In the Choose your connector pane, choose **UKG Dimensions**, and then select **Next** to create a UKG Pro WFM connection.

5. In the Connection settings pane, give your connection a unique name. It can't be longer than 100 characters or have any special characters.

Connection settings ✕

Enter a name for this connection that helps you identify it in case you have many. Please contact your UKG Dimensions Delivery Partner or Technical Account Manager for Account and URL information. [Learn more about connection details.](#)

Connection name *

To connect to your UKG Dimensions, enter the following details. Then test your connection to ensure that we can connect.

Account username * ⓘ **Account password *** ⓘ

API URL *

Application key *

Client ID *

Client secret *

SSO URL *



6. Enter your UKG Pro WFM information, and then select **Save connection**.

- Account username
- Account password
- API URL
- Application key
- Client ID
- Client secret
- SSO URL

Signing in with your username enables access to all instances created in UKG Pro WFM. If you don't know one or more of your connection details, contact UKG Pro

WFM support.

ⓘ Note

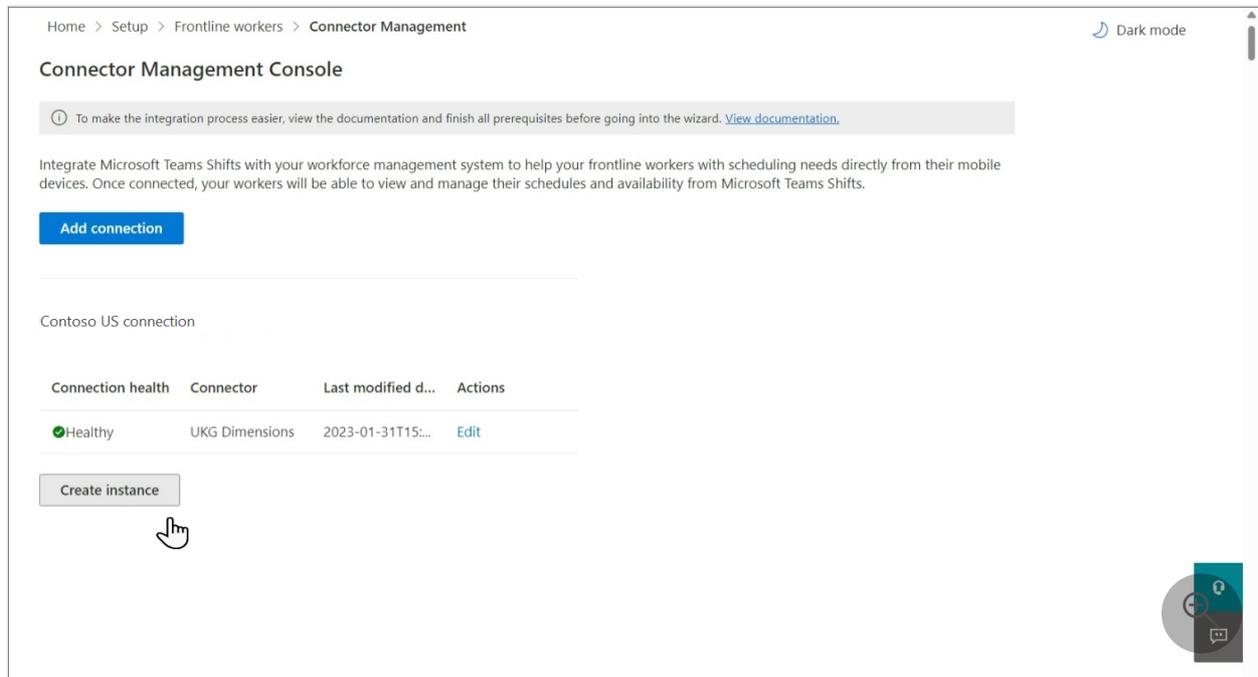
- Check that your SSO URL is structured like this sample URL, <https://contoso-ss0.mykronos.com>.
- Then, add this extra text at the end of the URL (after .com), structured like this (for a sample client ID XDV45GTaaaaab43342XA), https://contoso-ss0.mykronos.com/oauth2/authorize?client_id=XDV45GTaaaaab43342XA.

To create another connection, go to the Connector Management Console page, and then select **Add connection**.

Create a connection instance

After you create a connection, you can set up one or more connection instances in that connection.

The connections that you created are listed on the Connector Management Console page. Under the connection where you want to create a new instance, select **Create instance**.



The screenshot shows the 'Connector Management Console' interface. At the top, there is a breadcrumb trail: 'Home > Setup > Frontline workers > Connector Management'. A 'Dark mode' toggle is visible in the top right. Below the breadcrumb, there is a blue 'Add connection' button. A message box states: 'To make the integration process easier, view the documentation and finish all prerequisites before going into the wizard. [View documentation.](#)' Below this, there is a section for 'Contoso US connection' with a description: 'Integrate Microsoft Teams Shifts with your workforce management system to help your frontline workers with scheduling needs directly from their mobile devices. Once connected, your workers will be able to view and manage their schedules and availability from Microsoft Teams Shifts.' Below the description is a table with columns: 'Connection health', 'Connector', 'Last modified d...', and 'Actions'. The table contains one row: 'Healthy', 'UKG Dimensions', '2023-01-31T15:...', and 'Edit'. Below the table is a 'Create instance' button, which is highlighted with a hand cursor. In the bottom right corner, there is a circular navigation menu with icons for home, search, and other functions.

Choose settings

On the Instance settings page, you choose the information to sync from UKG Pro WFM to Shifts, the sync frequency, and whether Shifts users can make changes to the data.

Home > Setup > Frontline workers > Connector Management

Dark mode

Contoso US connection: Create connection instance

Settings

Mapping

Review and finish

Instance settings

Your provider is the source of record. Choose what information you want to sync from your provider to Shifts, how often it is retrieved, and whether Shifts users can make changes to the data. [Learn more about sync settings.](#)

Connection name * Instance name *

Microsoft 365 system account

Synchronized changes are stamped with this account for audit history. [Learn more about system account.](#)

Microsoft 365 system account *

Email notification recipients

Add recipients to receive emails regarding errors and configuration changes for this connection instance. Search to add individuals or groups. [Learn more.](#)

Email notification recipients

To connect to your provider, enter the following details. Then test your connection to ensure that we can connect.

Open shifts ○ *

Schedules, groups, shifts, and activities ○ *

Time off ○ *

Employee availability *

Sync frequency *

Time card

Time card entries *

1. Enter a name for your connection instance. It can't be longer than 100 characters or have any special characters.
2. Enter your Microsoft 365 system account. This is the [account that you created as a prerequisite](#) that's a team owner of all the teams you want to map.
3. Under **Email notification recipients**, choose who receives email notifications about this connection instance. You can add individual users and groups. The email notifications contain information about setup status and any issues or errors that may occur after the connection instance is set up.
4. Choose your sync settings.

For each of these settings, you have the following options to choose from:

- **Shifts users will not see provider data:** Data won't sync between UKG Pro WFM and Shifts.
- **Shifts users can see provider data:** Data syncing is unidirectional from UKG Pro WFM to Shifts.
- **Shifts users can see and change provider data:** Data syncing is bidirectional between UKG Pro WFM and Shifts.

Important

Before you disable a feature by selecting the **Shifts users will not see provider data** option, be aware that:

- If the **Schedules, groups, shifts, and activities** setting is disabled, then all other settings, such as **Time off** and **Employee availability**, and more, are also disabled.
- If the **Open shift** setting is disabled, **Open shift request** is also disabled.
- If the **Time off** setting is disabled, **Time off request** is also disabled.

5. Choose your sync frequency.

6. When you're done choosing your settings, select **Next**.

Important

If you chose any of the following options to disable open shifts, open shift requests, swap requests, offer shift requests, or time off requests, there's another step you need to do to hide the capability in Shifts.

- Open shifts: **Shifts users will not see provider data**
- Swap requests: **Shifts users will not see provider data**
- Time off requests: **Shifts users will not see provider data**
- Offer shift requests: **Shifts users will not see provider data**

After you run the wizard, make sure you follow the steps in the [Disable open shifts, open shifts requests, swap requests, and time off requests](#) section later in this article.

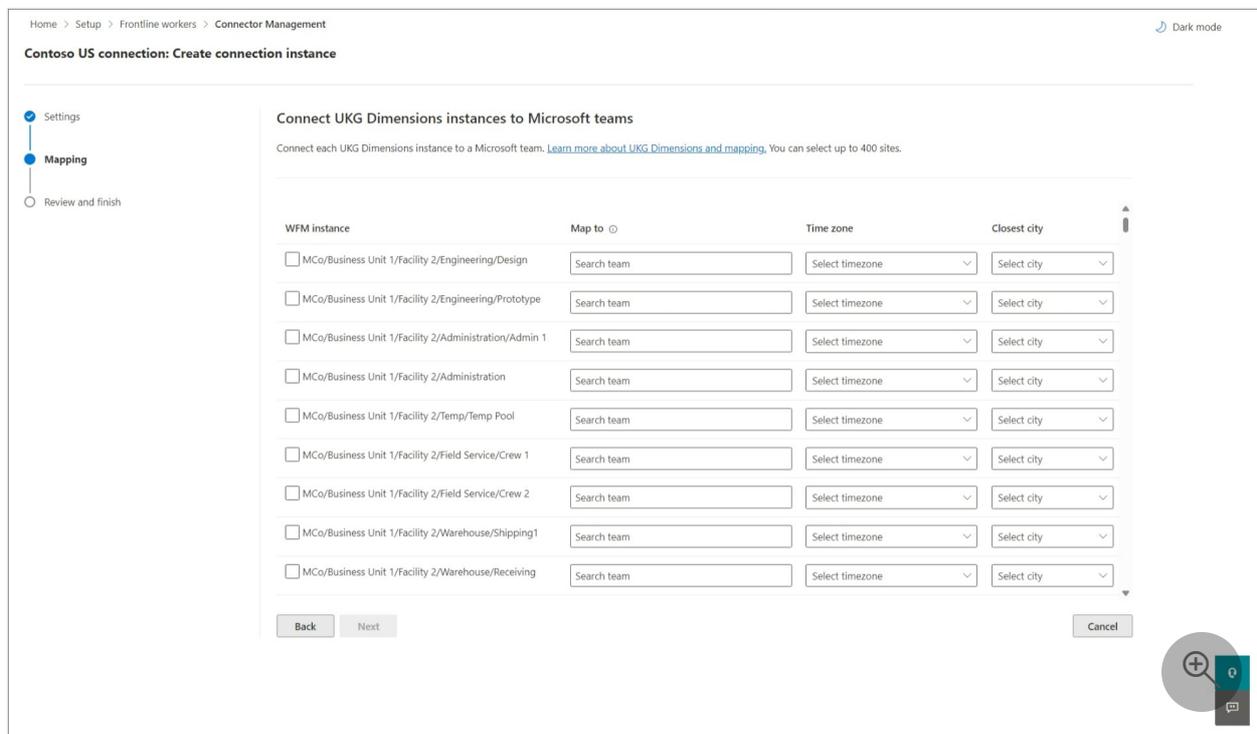
Map WFM instances to teams

Choose the WFM instances that you want to connect to Shifts, and then map each instance to a team in Teams. You can map up to 400 instances.

To complete this step, you can:

- [Manually map WFM instances](#)
- [Use a CSV file to map WFM instances](#)

Manually map WFM instances to teams



1. On the Mapping page, start by choosing the WFM instances that you want to map to teams in Teams.
2. Select the checkbox for each WFM instance you want to map. An instance is only mapped if the check box is selected.
3. Next, search for and choose the correct team in Teams.
Keep in mind that teams that are already mapped to a WFM instance in this connection instance aren't available to map again.
4. Choose the time zone. The closest city is automatically filled in, but you can change it.
5. When you're done mapping all your teams, select **Next**.

Use a CSV file to map WFM instances to teams

1. On the Mapping page, choose **CSV upload tool**.
2. Select **Download template** to get the CSV mapping file. The template includes a list of all your WFM instances and their IDs. The top rows of your template will look like this:

UKG Dimensions Instance ID	UKG Dimensions Instance Name	Team ID	Team Name	Time Zone
Automatically prefilled	Automatically prefilled	Blank	Blank	Default*

And the bottom rows of your template will look like this:

UKG Dimensions Instance ID	UKG Dimensions Instance Name	Team ID	Team Name	Time Zone
Blank	Blank	Automatically prefilled	Automatically prefilled	Default*

3. Choose a team that you want to map to a WFM instance. Cut and paste the Team ID and Team Name from the bottom half of your template to be in line with the WFM instance that you want. A completed row of your template should look like this:

UKG Dimensions Instance ID	UKG Dimensions Instance Name	Team ID	Team Name	Time Zone
Automatically prefilled	Automatically prefilled	Team ID that you moved	Team Name that you moved	Default*

Repeat this step for all your mappings.

4. Enter the correct location in the **Time Zone** column if needed.

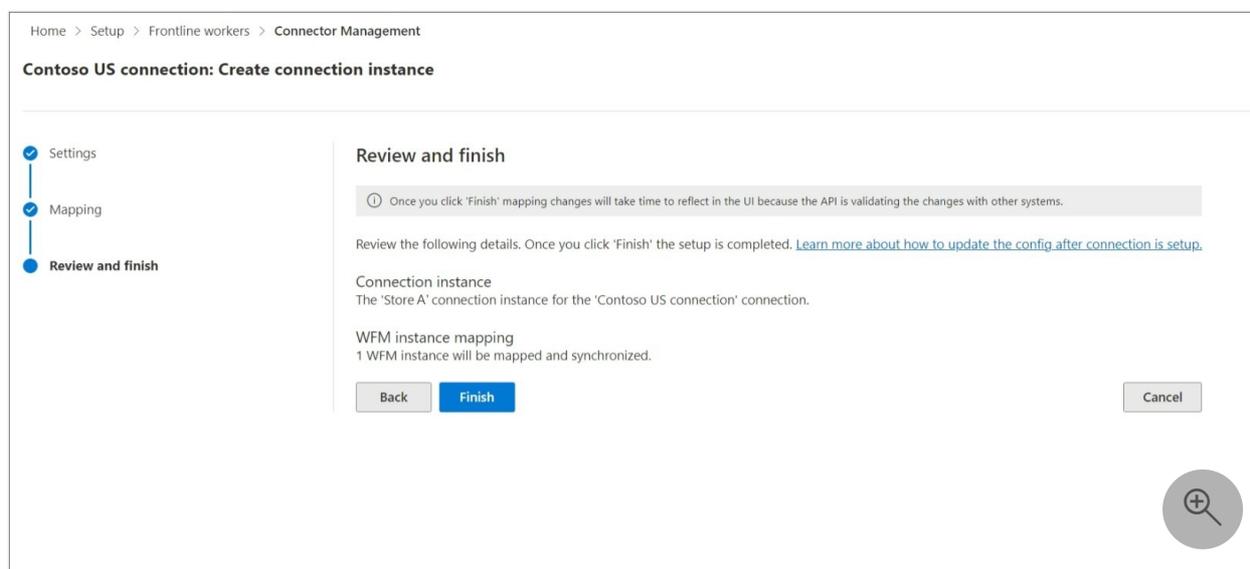
ⓘ Note

The wizard supports approximately 460 locations. The time zone must be in tz format. If the specific location that you chose isn't supported, you'll see an error in the wizard. Try using the closest city or major city within the same time zone.

5. On the Mapping page, select **Browse** to find and upload your completed CSV file.
6. Choose **Done** if your file uploaded correctly. Otherwise, review the error report and upload a corrected file.
7. Your new mappings are listed on the Mappings page. Choose **Next**.

Review and finish

Before finishing, review the summary of the connection instance creation process. If you need to make changes during the connection instance creation process, choose **Back**. When you're ready, select **Finish**.



The wizard starts the process to set up the connection instance, which may take some time to complete. If you try to edit the connection instance before setup is complete, you most likely won't be able to view the mappings you created previously.

The email notification recipients you chose will receive email notifications about setup status in case there are any errors.

Disable open shifts, open shifts requests, swap requests, and time off requests

Important

If you chose any of the following options to disable open shifts, open shift requests, swap requests, offer shift requests, or time off requests, there's another step you need to do to hide the capability in Shifts.

- Open shifts: **Shifts users will not see provider data**
- Swap requests: **Shifts users will not see provider data**
- Time off requests: **Shifts users will not see provider data**
- Offer shift requests: **Shifts users will not see provider data**

After you edit your settings, make sure you follow the steps to [Disable open shifts, open shifts requests, swap requests, and time off requests](#).

To hide open shifts, swap requests, and time off requests in Shifts, use the Graph API [schedule resource type](#) to set the following parameters to `false` for each team that you mapped to a WFM instance:

- Open shifts: `openShiftsEnabled`
- Swap requests: `swapShiftsRequestsEnabled`
- Time off requests: `timeOffRequestsEnabled`
- Offer shift requests: `offerShiftRequestsEnabled`

To hide open shifts requests in Shifts, go to **Settings** in Shifts, and then turn off the **Open shifts** setting.

Manage your connection and connection instance

After a connection is set up, you can manage and make changes to it in the Microsoft 365 admin center or by using PowerShell.

Use the Microsoft 365 admin center

The Connector Management Console page lists each connection and connection instance that you've set up, along with information such as health status and sync interval details. You can also access the wizard to create new connections and connection instances and make changes to any of your existing ones. For example, you can update sync settings and team mappings.

To learn more, see [Use the Microsoft 365 admin center to manage your Shifts connection to UKG Pro Workforce Management](#).

Use PowerShell

You can use PowerShell to view an error report, change connection settings, disable sync, and more. For step-by-step guidance, see [Use PowerShell to manage your Shifts connection to UKG Pro Workforce Management](#).

Related articles

- [Shifts connectors](#)
- [Manage the Shifts app in Teams](#)

Use PowerShell to connect Shifts to UKG Pro Workforce Management (Preview)

Article • 10/02/2023 • Applies to: Microsoft Teams, Microsoft 365 for frontline workers

Overview

Use the [Microsoft Teams Shifts connector for UKG Pro Workforce Management \(Preview\)](#) to integrate the Shifts app in Microsoft Teams with UKG Pro Workforce Management (UKG Pro WFM). Your frontline workers can seamlessly view and manage their schedules in UKG Pro WFM from within Shifts.

In this article, we walk you through how to use PowerShell to set up and configure the connector to integrate Shifts with UKG Pro WFM.

To set up the connection, you run a PowerShell script. The script configures the connector, applies sync settings, creates the connection, and maps UKG Pro WFM instances (also called WFM instances) to teams in Teams. Sync settings determine the features enabled in Shifts and the schedule information that's synced between UKG Pro WFM and Shifts. Mappings define the sync relationship between your WFM instances and teams in Teams. You can map to existing teams and new teams.

We provide two scripts. You can use either script, depending on whether you want to map to existing teams or create new teams to map to.

You can set up multiple connections, each with different sync settings. For example, if your organization has multiple locations with different schedule requirements, create a connection with unique sync settings for each location. Keep in mind that a WFM instance can only be mapped to one team at any given time. If an instance is already mapped to a team, it can't be mapped to another team.

With UKG Pro WFM as the system of record, your frontline workers can efficiently manage their schedules and availability in Shifts on their devices. Frontline managers can continue to use UKG Pro WFM to set up schedules.

ⓘ Note

You can also use the [Shifts connector wizard](#) in the Microsoft 365 admin center to connect Shifts to UKG Pro WFM.

Before you begin

Prerequisites

Take time to review the information and complete all prerequisite and configuration tasks in [Prerequisites and requirements for the Teams Shifts connector for UKG Pro Workforce Management](#).

Make sure that you complete all the tasks before you follow the steps in this article.

Admin role to manage the connector using PowerShell

You must be a Microsoft 365 global admin or a Shifts connector admin to complete the steps in this article.

The Shifts connector admin role is a custom role that you create in Microsoft Entra ID and assign to a user. The name of the role must be "Shifts connector admin". The role doesn't need to have any specific permissions, although, at least one permission must be set when you create it. The service relies on the presence of the role on the user, and not its permissions.

To learn more, see [Create and assign a custom role in Microsoft Entra ID](#) and [Assign Microsoft Entra roles to users](#). Keep in mind that it can take up to 24 hours for the role to be created and applied to a user.

Set up your environment

1. Install PowerShell version 7 or later. For step-by-step guidance, see [Installing PowerShell on Windows](#).
2. Run PowerShell in administrator mode.
3. Install the Microsoft Graph PowerShell module.

```
PowerShell
```

```
Install-Module Microsoft.Graph  
Import-Module Microsoft.Graph
```

Verify that it's version 1.6.1 or later.

```
PowerShell
```

```
Get-InstalledModule Microsoft.Graph
```

4. Install the Teams Preview PowerShell module.

```
PowerShell
```

```
Install-Module -Name MicrosoftTeams -AllowPrerelease -Force  
Import-Module MicrosoftTeams
```

Verify that it's at least version 4.7.0 and contains the Shifts connector cmdlets.

```
PowerShell
```

```
Get-Command -Module MicrosoftTeams -Name *teamsshiftsconnection*
```

5. Set PowerShell to exit if an error occurs when running the script.

```
PowerShell
```

```
$ErrorActionPreference = "Stop"
```

6. Enable scripts to run in Windows.

```
PowerShell
```

```
Set-ExecutionPolicy bypass
```

Connect to Teams

Run the following to connect to Microsoft Teams.

```
PowerShell
```

```
Connect-MicrosoftTeams
```

When you're prompted, sign in using your admin credentials. You're now set up to run the scripts in this article and Shifts connector cmdlets.

Identify the teams you want to map

ⓘ Note

Complete this step if you're mapping WFM instances to existing teams. If you're creating new teams to map to, you can skip this step.

In the Azure portal, go to the [All groups](#) page to get a list of the TeamIds of teams in your organization.

Take note of the TeamIds of the teams you want to map. The script will prompt you to enter this information.

ⓘ Note

If one or more teams have an existing schedule, the script will remove the schedules from those teams. Otherwise, you'll see duplicate shifts.

Run the script

Run one of the following scripts, depending on whether you're creating a new team or mapping to an existing team:

- To set up a connection, create a new team in Teams, and map a WFM instance to the new team, run the [new teams script](#).
- To set up a connection and map WFM instances to existing teams in Teams, run the [existing teams script](#).

Follow the on-screen instructions when you run the script. The script completes the following actions:

1. Test and verify the connection to UKG Pro WFM using the UKG Pro WFM service account credentials and service URLs that you enter.
2. Apply sync settings. These settings include the sync frequency (in minutes) and the schedule data synced between UKG Pro WFM and Shifts. You can enable schedule data defined by these scenarios: `Shift`, `SwapRequest`, `OfferShiftRequest`, `UserShiftPreferences`, `OpenShift`, `OpenShiftRequest`, `TimeOff`, `TimeOffRequest`.

To learn more, see [New-CsTeamsShiftsConnectionInstance](#). To see the list of supported sync options for each parameter, run [Get-CsTeamsShiftsConnectionConnector](#).

ⓘ Note

The script enables sync for each supported sync option. If you want to change sync settings, you can do so after the connection is set up. To learn more, see [Use PowerShell to manage your Shifts connection to UKG Pro Workforce Management](#).

3. Map WFM instances to your teams in Teams.

- If you chose to run the [new teams script](#) to create new teams, mappings are based on the new teams you create.
- If you chose to run the [existing teams script](#) to map existing teams, mappings are based on WFM instance IDs and TeamIds that you enter. If a team has an existing schedule, the script removes all schedule data.

After you run the script, a **Success** message confirms if your connection is successfully set up.

Manage your connection

After a connection is set up, you can manage and make changes to it in the Microsoft 365 admin center or by using PowerShell.

Use the Microsoft 365 admin center

The Connector Management page lists each connection that you've set up, along with information such as health status and sync interval details. You can also access the wizard to make changes to any of your connections. For example, you can update sync settings and team mappings.

To learn more, see [Use the Microsoft 365 admin center to manage your Shifts connection to UKG Pro Workforce Management](#).

Use PowerShell

You can use PowerShell to view an error report, change connection settings, disable sync, and more. For step-by-step guidance, see [Use PowerShell to manage your Shifts connection to UKG Pro Workforce Management](#).

Scripts

Set up a connection and create a new team

PowerShell

```
#Map WFM instances to teams script
Write-Output "Map WFM sites to teams"
Start-Sleep 1

#Ensure Teams module is at least version x
Write-Output "Checking Teams module version"
try {
    Get-InstalledModule -Name "MicrosoftTeams" -MinimumVersion 5.2.0
} catch {
    throw
}

#Connect to MS Graph
Connect-MgGraph -Scopes "User.Read.All","Group.ReadWrite.All"

#List connector types available
Write-Output "Listing connector types available"
$UkgId = "95BF2848-2DDA-4425-B0EE-D62AEED4C0A0"
$connectors = Get-CsTeamsShiftsConnectionConnector
Write-Output $connectors
$Ukg = $connectors | Where-Object {$_.Id -match $UkgId}
if ($NULL -eq $Ukg) {
    throw "UKG Dimensions not currently supported"
}

#Prompt for entering of WFM username and password
$WfmUserName = Read-Host -Prompt 'Input your UKG account username'
$WfmPwd = Read-Host -Prompt 'Input your UKG account password' -
AsSecureString
$plainPwd =
[Runtime.InteropServices.Marshal]::PtrToStringAuto([Runtime.InteropServices.
Marshal]::SecureStringToBSTR($WfmPwd))

#Test connection settings
Write-Output "Testing connection settings"
$ConnectionName = Read-Host -Prompt 'Input connection name'
$apiUrl = Read-Host -Prompt 'Input connector api url'
$sssoUrl = Read-Host -Prompt 'Input connector sso url'
$clientId = Read-Host -Prompt 'Input connector client id'
$AppKey = Read-Host -Prompt 'Input your app key' -AsSecureString
$plainKey =
[Runtime.InteropServices.Marshal]::PtrToStringAuto([Runtime.InteropServices.
Marshal]::SecureStringToBSTR($AppKey))
$clientSecret = Read-Host -Prompt 'Input your client secret' -AsSecureString
$plainSecret =
[Runtime.InteropServices.Marshal]::PtrToStringAuto([Runtime.InteropServices.
Marshal]::SecureStringToBSTR($ClientSecret))

$testResult = Test-CsTeamsShiftsConnectionValidate `
    -Name $ConnectionName `
```

```

-ConnectorId $UkgId `
-ConnectorSpecificSettings (New-Object
Microsoft.Teams.ConfigAPI.Cmdlets.Generated.Models.ConnectorSpecificUkgDimen
sionsSettingsRequest `
-Property @{
    apiUrl = $apiUrl
    ssoUrl = $ssoUrl
    appKey = $plainKey
    clientId = $clientId
    clientSecret = $plainSecret
    loginUserName = $WfmUserName
    loginPwd = $plainPwd
})
if ($NULL -ne $testResult.Code) {
    Write-Output $testResult
    throw "Validation failed, conflict found"
}
Write-Output "Test complete, no conflicts found"

#Create a connection
Write-Output "Creating a connection"
$ConnectionResponse = New-CsTeamsShiftsConnection `
-Name $ConnectionName `
-ConnectorId $UkgId `
-ConnectorSpecificSettings (New-Object
Microsoft.Teams.ConfigAPI.Cmdlets.Generated.Models.ConnectorSpecificUkgDimen
sionsSettingsRequest `
-Property @{
    apiUrl = $apiUrl
    ssoUrl = $ssoUrl
    appKey = $plainKey
    clientId = $clientId
    clientSecret = $plainSecret
    loginUserName = $WfmUserName
    loginPwd = $plainPwd
})

$ConnectionId = $ConnectionResponse.Id
if ($null -ne $ConnectionId){
    Write-Output "Successfully created connection"
} else {
    throw "Connection creation failed"
}

#Create a connection instance
Write-Output "Creating a connection instance"
$designatedActorName = Read-Host -Prompt "Input Microsoft 365 System Account
(person@contoso.com)"
$designator = Get-MgUser -UserId $designatedActorName
$teamsUserId = $designator.Id
$syncFreq = Read-Host -Prompt "Input sync frequency in minutes"
$instanceName = Read-Host -Prompt "Input connection instance name"

#Read sync scenarios for connection instance
function GetSyncScenarioSetting {

```

```

    param (
        $SettingName
    )
    $TwoWay = New-Object System.Management.Automation.Host.ChoiceDescription
    '&TwoWay', 'TwoWay'
    $Disabled = New-Object
    System.Management.Automation.Host.ChoiceDescription '&Disabled', 'Disabled'
    $FromWfmToShifts = New-Object
    System.Management.Automation.Host.ChoiceDescription '&FromWfmToShifts',
    'FromWfmToShifts'
    $options = [System.Management.Automation.Host.ChoiceDescription[]]
    ($TwoWay, $Disabled, $FromWfmToShifts)
    $result = $host.ui.PromptForChoice("Set sync scenario for $SettingName",
    "", $options, 0)

    switch ($result)
    {
        0 { return "TwoWay" }
        1 { return "Disabled" }
        2 { return "FromWfmToShifts" }
    }
}
$SyncScenarioOfferShiftRequest = GetSyncScenarioSetting "Offer Shift
Request"
$SyncScenarioOpenShift = GetSyncScenarioSetting "Open Shift"
$SyncScenarioOpenShiftRequest = GetSyncScenarioSetting "Open Shift Request"
$SyncScenarioShift = GetSyncScenarioSetting "Shift"
$SyncScenarioSwapRequest = GetSyncScenarioSetting "Swap Request"
$SyncScenarioTimeCard = GetSyncScenarioSetting "Time Card"
$SyncScenarioTimeOff = GetSyncScenarioSetting "Time Off"
$SyncScenarioTimeOffRequest = GetSyncScenarioSetting "Time Off Request"
$SyncScenarioUserShiftPreference = GetSyncScenarioSetting "User Shift
Preferences"

#Read admin email list
[psobject[]]$AdminEmailList = @()
while ($true){
    $AdminEmail = Read-Host -Prompt "Enter admin's email to receive error
report"
    $AdminEmailList += $AdminEmail
    $title = 'Adding another email'
    $question = 'Would you like to add another admin email?'
    $choices = '&Yes', '&No'
    $decision = $Host.UI.PromptForChoice($title, $question, $choices, 1)
    if ($decision -eq 1) {
        break
    }
}
$instanceResponse = New-CsTeamsShiftsConnectionInstance `
    -ConnectionId $ConnectionId `
    -ConnectorAdminEmail $AdminEmailList `
    -DesignatedActorId $teamsUserId `
    -Name $InstanceName `
    -SyncFrequencyInMin $syncFreq `
    -SyncScenarioOfferShiftRequest $SyncScenarioOfferShiftRequest `

```

```

-SyncScenarioOpenShift $SyncScenarioOpenShift `
-SyncScenarioOpenShiftRequest $SyncScenarioOpenShiftRequest `
-SyncScenarioShift $SyncScenarioShift `
-SyncScenarioSwapRequest $SyncScenarioSwapRequest `
-SyncScenarioTimeCard $SyncScenarioTimeCard `
-SyncScenarioTimeOff $SyncScenarioTimeOff `
-SyncScenarioTimeOffRequest $SyncScenarioTimeOffRequest `
-SyncScenarioUserShiftPreference $SyncScenarioUserShiftPreference

$InstanceId = $InstanceResponse.id
if ($null -ne $InstanceId){
    Write-Output "Success"
} else {
    throw "Connector instance creation failed"
}

#Keep mapping teams until user stops it
$mappings=@()
while ($true)
{
    #Create a new Teams team with owner set to system account and name set
to the site name
    Write-Output "Creating a Teams team"
    $teamsTeamName = Read-Host -Prompt "Input the Teams team name"
    $Team = New-Team -DisplayName $teamsTeamName -Visibility "Public" -Owner
$teamsUserId
    Write-Output "Successfully created a team"
    $TeamsTeamId=$Team.GroupId

    #Retrieve the list of wfm locations
    Write-Output "Listing the WFM team sites"
    $WfmTeamIds = Get-CsTeamsShiftsConnectionWfmTeam -ConnectorInstanceId
$InstanceId
    Write-Output $WfmTeamIds
    if (($NULL -ne $WfmTeamIds) -and ($WfmTeamIds.Count -gt 0)){
        [System.String]$WfmTeamId = Read-Host -Prompt "Input the ID of WFM
team you want to map"
    }
    else {
        throw "The WfmTeamId list is null or empty"
    }

    #Retrieve the list of WFM users and their roles
    Write-Output "Listing WFM users and roles"
    $WFMUsers = Get-CsTeamsShiftsConnectionWfmUser -ConnectorInstanceId
$InstanceId -WfmTeamId $WfmTeamId
    Write-Output $WFMUsers

    #Add users to the Team for Shifts
    Write-Output "Adding users to Teams team"
    $currentUser = Read-Host -Prompt "Input the current user's user name or
AAD ID"
    Add-TeamUser -GroupId $TeamsTeamId -User $currentUser -Role Owner
    $failedWfmUsers=@()
    foreach ($user in $WFMUsers) {

```

```

    try {
        $userEmail = $user.Name + "@" + $domain
        Add-TeamUser -GroupId $TeamsTeamId -User $userEmail
    } catch {
        $failedWfmUsers+=$user
    }
}
if($failedWfmUsers.Count -gt 0){
    Write-Output "There are WFM users not existed in Teams tenant:"
    Write-Output $failedWfmUsers
}

#Enable scheduling in the group
$RequestBody = @{
    Enabled = $true
    TimeZone = "America/Los_Angeles"
}

$teamUpdateUrl="https://graph.microsoft.com/v1.0/teams/"+$TeamsTeamId+"/sche
dule"
Invoke-MgGraphRequest -Uri $teamUpdateUrl -Method PUT -Body $RequestBody

#Create a mapping of the new team to the instance
Write-Output "Create a mapping of the new team to the site"
$TimeZone = Read-Host -Prompt "Input the time zone of team mapping"
$mapping = @{
    teamId = $TeamsTeamId
    wfmTeamId = $WfmTeamId
    timeZone = $TimeZone
}
$mappings += , $mapping

$title = 'Connecting another team'
$question = 'Would you like to connect another team?'
$choices = '&Yes', '&No'

$decision = $Host.UI.PromptForChoice($title, $question, $choices, 1)
if ($decision -eq 1) {
    break
}
}
$batchMappingResponse = New-CsTeamsShiftsConnectionBatchTeamMap -
ConnectorInstanceId $InstanceId -TeamMapping @($mappings)
if ($null -ne $batchMappingResponse.OperationId){
    "The mapping has begun asynchronously. To query mapping results run Get-
CsTeamsShiftsConnectionOperation with the operation Id."
}
else {
    throw "The mapping has failed due to validation errors."
}
Write-Output $batchMappingResponse

Remove-TeamUser -GroupId $TeamsTeamId -User $currentUser -Role Owner
Disconnect-MgGraph

```

Set up a connection and map an existing team

PowerShell

```
#Map WFM instances to existing teams script
Write-Host "Map WFM sites to existing teams"
Start-Sleep 1

#Ensure Teams module is at least version x
Write-Host "Checking Teams module version"
try {
    Get-InstalledModule -Name "MicrosoftTeams" -MinimumVersion 5.2.0
} catch {
    throw
}

#Connect to MS Graph
Connect-MgGraph -Scopes "User.Read.All","Group.ReadWrite.All"

#List connector types available
Write-Output "Listing connector types available"
$UkgId = "95BF2848-2DDA-4425-B0EE-D62AEED4C0A0"
$connectors = Get-CsTeamsShiftsConnectionConnector
Write-Output $connectors
$Ukg = $connectors | Where-Object {$_.Id -match $UkgId}
if ($NULL -eq $Ukg) {
    throw "UKG Dimensions not currently supported"
}

#Prompt for entering of WFM username and password
$WfmUserName = Read-Host -Prompt 'Input your UKG account username'
$WfmPwd = Read-Host -Prompt 'Input your UKG account password' -
AsSecureString
$plainPwd =
[Runtime.InteropServices.Marshal]::PtrToStringAuto([Runtime.InteropServices.
Marshal]::SecureStringToBSTR($WfmPwd))

#Test connection settings
Write-Output "Testing connection settings"
$ConnectionName = Read-Host -Prompt 'Input connection name'
$apiUrl = Read-Host -Prompt 'Input connector api url'
$sssoUrl = Read-Host -Prompt 'Input connector sso url'
$clientId = Read-Host -Prompt 'Input connector client id'
$AppKey = Read-Host -Prompt 'Input your app key' -AsSecureString
$plainKey =
[Runtime.InteropServices.Marshal]::PtrToStringAuto([Runtime.InteropServices.
Marshal]::SecureStringToBSTR($AppKey))
$ClientSecret = Read-Host -Prompt 'Input your client secret' -AsSecureString
$plainSecret =
[Runtime.InteropServices.Marshal]::PtrToStringAuto([Runtime.InteropServices.
Marshal]::SecureStringToBSTR($ClientSecret))

$testResult = Test-CsTeamsShiftsConnectionValidate `
    -Name $ConnectionName `
```

```

-ConnectorId $UkgId `
-ConnectorSpecificSettings (New-Object
Microsoft.Teams.ConfigAPI.Cmdlets.Generated.Models.ConnectorSpecificUkgDimen
sionsSettingsRequest `
-Property @{
    apiUrl = $apiUrl
    ssoUrl = $ssoUrl
    appKey = $plainKey
    clientId = $clientId
    clientSecret = $plainSecret
    LoginUserName = $WfmUserName
    LoginPwd = $plainPwd
})
if ($NULL -ne $testResult.Code) {
    Write-Output $testResult
    throw "Validation failed, conflict found"
}
Write-Output "Test complete, no conflicts found"

#Create a connection
Write-Output "Creating a connection"
$ConnectionResponse = New-CsTeamsShiftsConnection `
-Name $ConnectionName `
-ConnectorId $UkgId `
-ConnectorSpecificSettings (New-Object
Microsoft.Teams.ConfigAPI.Cmdlets.Generated.Models.ConnectorSpecificUkgDimen
sionsSettingsRequest `
-Property @{
    apiUrl = $apiUrl
    ssoUrl = $ssoUrl
    appKey = $plainKey
    clientId = $clientId
    clientSecret = $plainSecret
    LoginUserName = $WfmUserName
    LoginPwd = $plainPwd
})

$ConnectionId = $ConnectionResponse.Id
if ($null -ne $ConnectionId){
    Write-Output "Successfully created connection"
} else {
    throw "Connection creation failed"
}

#Create a connection instance
Write-Output "Creating a connection instance"
$designatedActorName = Read-Host -Prompt "Input Microsoft 365 System Account
(person@contoso.com)"
$designator = Get-MgUser -UserId $designatedActorName
$teamsUserId = $designator.Id
$syncFreq = Read-Host -Prompt "Input sync frequency in minutes"
$instanceName = Read-Host -Prompt "Input connection instance name"

#Read sync scenarios for connection instance
function GetSyncScenarioSetting {

```

```

    param (
        $SettingName
    )
    $TwoWay = New-Object System.Management.Automation.Host.ChoiceDescription
    '&TwoWay', 'TwoWay'
    $Disabled = New-Object
    System.Management.Automation.Host.ChoiceDescription '&Disabled', 'Disabled'
    $FromWfmToShifts = New-Object
    System.Management.Automation.Host.ChoiceDescription '&FromWfmToShifts',
    'FromWfmToShifts'
    $options = [System.Management.Automation.Host.ChoiceDescription[]]
    ($TwoWay, $Disabled, $FromWfmToShifts)
    $result = $host.ui.PromptForChoice("Set sync scenario for $SettingName",
    "", $options, 0)

    switch ($result)
    {
        0 { return "TwoWay" }
        1 { return "Disabled" }
        2 { return "FromWfmToShifts" }
    }
}
$SyncScenarioOfferShiftRequest = GetSyncScenarioSetting "Offer Shift
Request"
$SyncScenarioOpenShift = GetSyncScenarioSetting "Open Shift"
$SyncScenarioOpenShiftRequest = GetSyncScenarioSetting "Open Shift Request"
$SyncScenarioShift = GetSyncScenarioSetting "Shift"
$SyncScenarioSwapRequest = GetSyncScenarioSetting "Swap Request"
$SyncScenarioTimeCard = GetSyncScenarioSetting "Time Card"
$SyncScenarioTimeOff = GetSyncScenarioSetting "Time Off"
$SyncScenarioTimeOffRequest = GetSyncScenarioSetting "Time Off Request"
$SyncScenarioUserShiftPreference = GetSyncScenarioSetting "User Shift
Preferences"

#Read admin email list
[psobject[]]$AdminEmailList = @()
while ($true){
    $AdminEmail = Read-Host -Prompt "Enter admin's email to receive error
report"
    $AdminEmailList += $AdminEmail
    $title = 'Adding another email'
    $question = 'Would you like to add another admin email?'
    $choices = '&Yes', '&No'
    $decision = $Host.UI.PromptForChoice($title, $question, $choices, 1)
    if ($decision -eq 1) {
        break
    }
}
$instanceResponse = New-CsTeamsShiftsConnectionInstance `
    -ConnectionId $ConnectionId `
    -ConnectorAdminEmail $AdminEmailList `
    -DesignatedActorId $teamsUserId `
    -Name $InstanceName `
    -SyncFrequencyInMin $syncFreq `
    -SyncScenarioOfferShiftRequest $SyncScenarioOfferShiftRequest `

```

```

-SyncScenarioOpenShift $SyncScenarioOpenShift `
-SyncScenarioOpenShiftRequest $SyncScenarioOpenShiftRequest `
-SyncScenarioShift $SyncScenarioShift `
-SyncScenarioSwapRequest $SyncScenarioSwapRequest `
-SyncScenarioTimeCard $SyncScenarioTimeCard `
-SyncScenarioTimeOff $SyncScenarioTimeOff `
-SyncScenarioTimeOffRequest $SyncScenarioTimeOffRequest `
-SyncScenarioUserShiftPreference $SyncScenarioUserShiftPreference

$InstanceId = $InstanceResponse.id
if ($null -ne $InstanceId){
    Write-Output "Success"
} else {
    throw "Connector instance creation failed"
}

#Keep mapping teams until user stops it
$mappings=@()
while ($true)
{
    $TeamsTeamId = Read-Host -Prompt "Input the ID of the Teams team to be mapped"
    #Clear schedule of the Teams team
    Write-Host "Clear schedule of the existing team"

    $entityTypeString = Read-Host -Prompt 'Input the entity types of clear schedule'
    $Delimiters = ",",".",":",";", " ", "`t"
    $entityType = $entityTypeString -Split {$Delimiters -contains $_}
    $entityType = $entityType.Trim()
    $entityType = $entityType.Split(' ',
[System.StringSplitOptions]::RemoveEmptyEntries)
    Remove-CsTeamsShiftsScheduleRecord -TeamId $TeamsTeamId -
ClearSchedulingGroup:$True -EntityType $entityType

    #Retrieve the list of wfm locations
    Write-Output "Listing the WFM team sites"
    $WfmTeamIds = Get-CsTeamsShiftsConnectionWfmTeam -ConnectorInstanceId
$InstanceId
    Write-Output $WfmTeamIds
    if (($NULL -ne $WfmTeamIds) -and ($WfmTeamIds.Count -gt 0)){
        [System.String]$WfmTeamId = Read-Host -Prompt "Input the ID of WFM
team you want to map"
    }
    else {
        throw "The WfmTeamId list is null or empty"
    }

    #Retrieve the list of WFM users and their roles
    Write-Output "Listing WFM users and roles"
    $WFMUsers = Get-CsTeamsShiftsConnectionWfmUser -ConnectorInstanceId
$InstanceId -WfmTeamId $WfmTeamId
    Write-Output $WFMUsers

    #Create a mapping of the existing team to the instance

```

```

Write-Host "Create a mapping of the existing team to the site"
$TimeZone = Read-Host -Prompt "Input the time zone of team mapping"
$mapping = @{
    teamId = $TeamsTeamId
    wfmTeamId = $WfmTeamId
    timeZone = $TimeZone
}
$mappings += , $mapping

$title = 'Connecting another team'
$question = 'Would you like to connect another team?'
$choices = '&Yes', '&No'

$decision = $Host.UI.PromptForChoice($title, $question, $choices, 1)
if ($decision -eq 1) {
    break
}
}
$batchMappingResponse = New-CsTeamsShiftsConnectionBatchTeamMap -
ConnectorInstanceId $InstanceId -TeamMapping @($mappings)
if ($null -ne $batchMappingResponse.OperationId){
    "The mapping has begun asynchronously. To query mapping results run Get-
CsTeamsShiftsConnectionOperation with the operation Id."
}
else {
    throw "The mapping has failed due to validation errors."
}
Write-Output $batchMappingResponse

Disconnect-MgGraph

```

Shifts connector cmdlets

For help with Shifts connector cmdlets, including the cmdlets used in the scripts, search for `CsTeamsShiftsConnection` in the [Teams PowerShell cmdlet reference](#). Here are links to some commonly used cmdlets, grouped by category:

Connections

- [New-CsTeamsShiftsConnection](#)
- [Get-CsTeamsShiftsConnection](#)
- [Update-CsTeamsShiftsConnection](#)

WFM systems credentials

- [Test-CsTeamsShiftsConnectionValidate](#)

Sync options for supported scenarios

- [Get-CsTeamsShiftsConnectionConnector](#)

Remove schedule data

- [Remove-CsTeamsShiftsScheduleRecord](#)

Connection instances

- [New-CsTeamsShiftsConnectionInstance](#)
- [Get-CsTeamsShiftsConnectionInstance](#)
- [Set-CsTeamsShiftsConnectionInstance](#)
- [Update-CsTeamsShiftsConnectionInstance](#)
- [Remove-CsTeamsShiftsConnectionInstance](#)

User mapping and successful syncing

- [Get-CsTeamsShiftsConnectionSyncResult](#)
- [Get-CsTeamsShiftsConnectionWfmUser](#)

Team mapping

- [Get-CsTeamsShiftsConnectionTeamMap](#)
- [Remove-CsTeamsShiftsConnectionTeamMap](#)

Operation ID

- [Get-CsTeamsShiftsConnectionOperation](#)

Error reports

- [Get-CsTeamsShiftsConnectionErrorReport](#)

Related articles

- [Shifts connectors](#)
- [Use PowerShell to manage your Shifts connection to UKG Pro Workforce Management](#)
- [Use the Microsoft 365 admin center to manage your Shifts connection to UKG Pro Workforce Management](#)
- [Manage the Shifts app](#)
- [Teams PowerShell overview](#)
- [Teams PowerShell cmdlet reference](#)

Use the Microsoft 365 admin center to manage your Shifts connection to UKG Pro Workforce Management (Preview)

Article • 10/02/2023 • Applies to: Microsoft Teams, Microsoft 365 for frontline workers

Overview

The [Microsoft Teams Shifts connector for UKG Pro Workforce Management \(Preview\)](#) enables you to integrate the Shifts app in Microsoft Teams with UKG Pro Workforce Management (UKG Pro WFM). Your frontline workers can seamlessly view and manage their schedules in UKG Pro WFM from within Shifts.

You can use the [Shifts connector wizard \(Preview\)](#) in the Microsoft 365 admin center or [PowerShell](#) to create a connection and connection instances. After they're set up, you can manage them in the Microsoft 365 admin center. The Connector Management Console page lists each connection and connection instance that you've set up, along with information such as health status and sync interval details. You can also access the wizard to create a new connection and connection instances or make changes to any of your existing ones. Select the name of a connection instance to view the details of any errors.

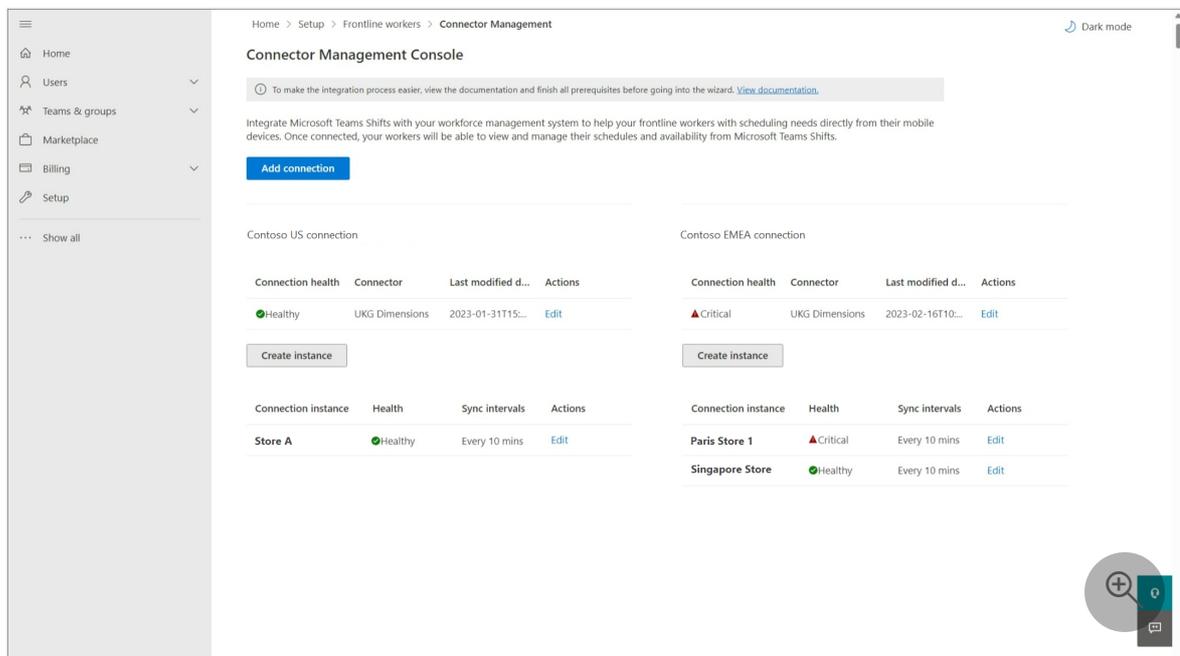
ⓘ Note

You can also use PowerShell to manage a connection. For example, you can view an error report, change connection settings, and disable sync. To learn more, see [Use PowerShell to manage your Shifts connection to UKG Pro Workforce Management](#).

Manage

1. In the left navigation of the [Microsoft 365 admin center](#), choose **Setup**, and then under **Featured collections**, select **Frontline workers**.
2. Select **Connector Management Console**.

Here, you'll see a list of all the connections and connection instances if you've already set them up through the wizard or PowerShell, along with information about each one.



Manage your connection

- To create a new connection, select **Add connection** at the top of the page.
- To update connection settings, choose **Edit** next to an existing connection. You'll see the Connection settings pane, where you can update the settings that you want.

Manage your connection instances

Important

Before you map a UKG Pro WFM instance (also called a WFM instance) to a team in Teams, check whether the team has schedule entities such as shifts or time off. If the team has an existing schedule with schedule entities, **remove the schedule entities from the team** before you map a WFM instance to it. If you don't remove schedule entities before mapping, you'll see duplicate shifts.

- To create a new connection instance, select **Create instance**. You're taken to the wizard, where you can [choose your settings and create mappings](#).
- To change an existing connection instance, under **Actions**, select **Edit**. You're taken to the wizard, where you can [update the settings and mappings](#).
- To delete an existing connection instance, under **Actions**, select **Delete**. You can't undo this action.

- To view more details about an existing connection instance, select its name. On the details page, you'll see health information, including ongoing errors (if any), and mappings. You can also choose **Edit** to update settings in the wizard or **Back** to return to the Connector Management Console.

Home > Setup > Frontline workers > Connector Management Dark mode

Store A

Integrate Microsoft Teams Shifts with your workforce management system to help your frontline workers with scheduling needs directly from their mobile devices. Once connected, your workers will be able to view and manage their schedules and availability from Microsoft Teams Shifts.

Health ● Healthy
Connection Contoso US connection
Connector UKG Dimensions
Sync intervals Every 10 mins

Errors

Error type	Severity	WFM instance	Team	Details
BatchTeamMappingErrorMessageType	▲Warning	--	--	This designated actor profile doesn't have team ownership privileges.
BatchTeamMappingErrorMessageType	▲Warning	--	--	This designated actor profile doesn't have team ownership privileges.
BatchTeamMappingErrorMessageType	▲Warning	--	--	This designated actor profile doesn't have team ownership privileges.
UserMappingErrorMessageType	▲Warning	MCo/Business Unit 1/Facility 2/Admi...	Store A	Mapping failed for some users: 0 succeeded, 2 failed AAD user(s) and ...

Mapping

WFM instance name	WFM instance ID	Map to team	Map to team ID
MCo/Business Unit 1/Facility 2/Administration	456	Store A	ee4cf512-f87f-4e60-8745-c4822ec05b26

For a complete list of error messages and how to resolve them, see [List of error messages](#) later in this article.

Edit connection instance

To edit your connection instance settings, you choose the data that your Shifts users can see and change. You have the following options for these settings:

- **Shifts users will not see provider data:** Data won't sync between UKG Pro WFM and Shifts.
- **Shifts users can see provider data:** Data syncing is unidirectional from UKG Pro WFM to Shifts.
- **Shifts users can see and change provider data:** Data syncing is bidirectional between UKG Pro WFM and Shifts.

Important

Before you disable a feature by selecting the **Shifts users will not see provider data** option, be aware that:

- If the **Schedules, groups, shifts, and activities** setting is disabled, then all other settings, such as **Time off** and **Employee availability**, and more, will also be disabled.

- If the **Open shift** setting is disabled, the **Open shift request** setting will also be disabled.
- If the **Time off** setting is disabled, the **Time off request** setting will also be disabled.

Important

If you chose any of the following options to disable open shifts, open shift requests, swap requests, offer shift requests, or time off requests, there's another step you need to do to hide the capability in Shifts.

- Open shifts: **Shifts users will not see provider data**
- Swap requests: **Shifts users will not see provider data**
- Time off requests: **Shifts users will not see provider data**
- Offer shift requests: **Shifts users will not see provider data**

After you edit your settings, make sure you follow the steps to **disable open shifts, open shifts requests, swap requests, and time off requests.**

To edit your connection instance mappings, you can:

- Add new mappings by following the same process as when you first created your connection instance. See [Map WFM instances to teams](#)
- Edit existing mappings to update the team in Teams to which a WFM instance is connected. If you're mapping to a team in Teams that previously used Shifts, make sure you [remove schedule entities from teams you want to map](#)
- Delete active mappings, either by clearing the check box of the mapped WFM instance, or by uploading the CSV file with the mapped row removed.

List of error messages

Here's the list of error messages that you may encounter and information to help you resolve them.

Error type	Error details	Resolution
Unable to authenticate workforce management system.	The workforce management system account credentials you've provided are invalid or this	Update your WFM service account credentials in the connection settings page. To do this, go to your Microsoft 365 admin center and choose Edit next to the connection on the Connector Management Console page.

Error type	Error details	Resolution
	account doesn't have the required permissions.	
Unable to authenticate Graph.	Authentication failed. Ensure that you've entered valid credentials for the designated actor and have the required permissions.	Make sure that your Microsoft 365 system account (also known as designated actor) is added as a team owner. Or, update your Microsoft 365 system account to the correct team owner. To do this, in the Microsoft 365 admin center, choose Edit next to the connection instance on the Connector Management Console page. You're redirected to the wizard and, in the Sync Settings page, you can update the Microsoft 365 system account.
Some users have failed to map correctly	Mapping failed for some users: <X> succeeded, <X> failed Microsoft Entra users and <X> failed workforce management system users.	Use the Get-CsTeamsShiftsConnectionSyncResult cmdlet or this PowerShell script to identify the users for whom the mapping failed. Make sure that the users in the mapped team match the users in the WFM instance.
Unable to map a team or teams in this batch	This designated actor profile doesn't have team ownership privileges.	Make sure that your Microsoft 365 system account (also known as designated actor) is added as a team owner. Or, update your Microsoft 365 system account to the correct team owner. To do this, in the Microsoft 365 admin center, choose Edit next to the connection instance on the Connector Management Console page. You're redirected to the wizard and, in the Sync Settings page, you can update the Microsoft 365 system account.
	This team is already mapped to an existing connection instance.	Unmap the team from the existing connection instance by using the Remove-CsTeamsShiftsConnectionTeamMap cmdlet. Or, create a new connection to remap the team.
	This timezone is invalid. The timezone passed in isn't using tz database format.	Make sure that the time zone is correct, and then remap the team.
	This connection instance couldn't be found.	Map the team to an existing connection instance.
	This Microsoft Entra team couldn't be found.	Make sure that the team exists or create a new team.

Related articles

- [Shifts connectors](#)
- [Use the Shifts connector wizard to connect Shifts to UKG Pro Workforce Management](#)
- [Use PowerShell to connect Shifts to UKG Pro Workforce Management](#)
- [Use PowerShell to manage your Shifts connection to UKG Pro Workforce Management](#)
- [Manage the Shifts app](#)

Use PowerShell to manage your Shifts connection to UKG Pro Workforce Management (Preview)

Article • 10/02/2023 • Applies to: Microsoft Teams, Microsoft 365 for frontline workers

Overview

The [Microsoft Teams Shifts connector for UKG Pro Workforce Management \(Preview\)](#) enables you to integrate the Shifts app in Microsoft Teams with UKG Pro Workforce Management (UKG Pro WFM). Your frontline workers can seamlessly view and manage their schedules in UKG Pro WFM from within Shifts.

You can use the [Shifts connector wizard](#) in the Microsoft 365 admin center or [PowerShell](#) to set up a connection. After a connection is set up, you can manage it by using [Shifts connector PowerShell cmdlets](#).

This article describes how to use PowerShell to do the following:

- [Check connection setup status](#)
- [View an error report for a connection](#)
- [Resolve connection errors](#)
- [Change connection settings](#)
- [Unmap a team from one connection and map it to another connection](#)
- [Disable sync for a connection](#)

This article assumes that you've already set up a connection to UKG Pro WFM, either by using the wizard or PowerShell.

ⓘ Note

You can also manage your connection in the Microsoft 365 admin center. For example, you can check the health status and access the wizard to change connection settings. To learn more, see [Use the Microsoft 365 admin center to manage your Shifts connection to UKG Pro Workforce Management](#).

Before you begin

You must be a Microsoft 365 global admin or a Shifts connector admin to complete the steps in this article.

The Shifts connector admin role is a custom role that you create in Microsoft Entra ID and assign to a user. The name of the role must be "Shifts connector admin". The role doesn't need to have any specific permissions, although, at least one permission must be set when you create it. The service relies on the presence of the role on the user, and not its permissions.

To learn more, see [Create and assign a custom role in Microsoft Entra ID](#) and [Assign Microsoft Entra roles to users](#). Keep in mind that it can take up to 24 hours for the role to be created and applied to a user.

Set up your environment

ⓘ Note

Make sure you follow these steps to set up your environment before running any of the commands or scripts in this article.

1. Install PowerShell version 7 or later. For step-by-step guidance, see [Installing PowerShell on Windows](#).
2. Run PowerShell in administrator mode.
3. Install the Microsoft Graph PowerShell module.

```
PowerShell
```

```
Install-Module Microsoft.Graph  
Import-Module Microsoft.Graph
```

Verify that it's version 1.6.1 or later.

```
PowerShell
```

```
Get-InstalledModule Microsoft.Graph
```

4. Install the Teams Preview PowerShell module.

```
PowerShell
```

```
Install-Module -Name MicrosoftTeams -AllowPrerelease -Force
Import-Module MicrosoftTeams
```

Verify that it's at least version 4.7.0 and contains the Shifts connector cmdlets.

```
PowerShell
```

```
Get-Command -Module MicrosoftTeams -Name *teamsshiftsconnection*
```

5. Set PowerShell to exit if an error occurs when running the script.

```
PowerShell
```

```
$ErrorActionPreference = "Stop"
```

6. Enable scripts to run in Windows.

```
PowerShell
```

```
Set-ExecutionPolicy bypass
```

7. Connect to Teams.

```
PowerShell
```

```
Connect-MicrosoftTeams
```

When you're prompted, sign in using your admin credentials. You're now set up to run the scripts in this article and Shifts connector cmdlets.

Check connection setup status

To check the status of the connection you set up using the operation ID that you received in email:

1. [Set up your environment](#) (if you haven't already).
2. Run the following command. This command gives you the overall status of the team mappings for the connection.

```
PowerShell
```

```
Get-CsTeamsShiftsConnectionOperation -OperationId <YourOperationId>
```

To learn more, see [Get-CsTeamsShiftsConnectionOperation](#).

View an error report for a connection

You can run a report that shows error details for a connection. The report lists team and user mappings that succeeded and failed. It also provides information about any issues related to the accounts associated with the connection.

1. [Set up your environment](#) (if you haven't already).
2. Get a list of error reports for a connection.

PowerShell

```
Get-CsTeamsShiftsConnectionErrorReport -ConnectorInstanceId  
<ConnectorInstanceId>
```

3. To view a specific error report, run the following command:

PowerShell

```
Get-CsTeamsShiftsConnectionErrorReport -ErrorReportId <ErrorReportId>
```

To learn more, see [Get-CsTeamsShiftsConnectionErrorReport](#).

ⓘ Note

For a complete list of error messages, see [List of error messages](#) later in this article.

Resolve connection errors

User mapping errors

User mapping errors may occur if one or more users in a WFM instance isn't a member of the mapped team in Teams. To resolve this issue, make sure that the users in the mapped team match the users in the WFM instance.

To view details of unmapped users, [set up your environment](#) (if you haven't already), and then run the following script.

PowerShell

```
#View sync errors script
Write-Host "View sync errors"
Start-Sleep 1

#Ensure Teams module is of version x
Write-Host "Checking Teams module version"
try {
    Get-InstalledModule -Name "MicrosoftTeams" -MinimumVersion 4.7.0
} catch {
    throw
}

#List connection instances available
Write-Host "Listing connection instances"
$instanceList = Get-CsTeamsShiftsConnectionInstance
write $instanceList

#Get an instance
if ($instanceList.Count -gt 0){
    $instanceId = Read-Host -Prompt 'Input the instance ID that you want to
retrieve user sync results from'
}
else {
    throw "Instance list is empty"
}

#Get a list of the mappings
Write-Host "Listing team mappings"
$mappings = Get-CsTeamsShiftsConnectionTeamMap -ConnectorInstanceId
$instanceId
write $mappings

#For each mapping, retrieve the failed mappings
ForEach ($mapping in $mappings){
    $teamsTeamId = $mapping.TeamId
    $wfmTeamId = $mapping.WfmTeamId
    Write-Host "Failed mapped users in the mapping of ${teamsTeamId} and
${wfmTeamId}:"
    $userSyncResult = Get-CsTeamsShiftsConnectionSyncResult -
ConnectorInstanceId $instanceId -TeamId $teamsTeamId
    Write-Host "Failed AAD users:"
    write $userSyncResult.FailedAadUser
    Write-Host "Failed WFM users:"
    write $userSyncResult.FailedWfmUser
}
```

Account authorization errors

Account authorization errors may occur if the WFM service account or Microsoft 365 system account credentials are incorrect or don't have the required permissions.

To change your WFM service account or Microsoft 365 system account credentials for the connection, you can run the [Set-CsTeamsShiftsConnectionInstance](#) cmdlet or use the PowerShell script in the [Change connection settings](#) section of this article.

Change connection settings

Use this script to change connection settings. Settings that you can change include your WFM service account and password, Microsoft 365 system account, team mappings, and sync settings.

Sync settings include the sync frequency (in minutes) and the schedule data that's synced between your WFM system and Shifts. Schedule data is defined in the following parameters, which you can view by running [Get-CsTeamsShiftsConnectionConnector](#).

- The **enabledConnectorScenarios** parameter defines data that's synced from your WFM system to Shifts. Options are `Shift`, `SwapRequest`, `OfferShiftRequest`, `UserShiftPreferences`, `OpenShift`, `OpenShiftRequest`, `TimeOff`, `TimeOffRequest`.
- The **enabledWfiScenarios** parameter defines data that's synced from Shifts to your WFM system. Options are `SwapRequest`, `OfferShiftRequest`, `OpenShiftRequest`, `TimeOffRequest`, `UserShiftPreferences`.

ⓘ Note

If you choose not to sync open shifts, open shift requests, swap requests, or time off requests between Shifts and your WFM system, there's another step you need to do to hide the capability in Shifts. After you run this script, make sure you follow the steps in the [Disable open shifts, open shifts requests, swap requests, and time off requests](#) section later in this article.

ⓘ Important

For settings that you don't want to change, you'll need to re-enter the original settings when you're prompted by the script.

[Set up your environment](#) (if you haven't already), and then run the following script.

PowerShell

```
#Update connector instance and mapping script
Write-Host "Update Connector instance and mapping"
Start-Sleep 1

#Ensure Teams module is at least version x
Write-Host "Checking Teams module version"
try {
    Get-InstalledModule -Name "MicrosoftTeams" -MinimumVersion 4.7.0
} catch {
    throw
}

#Connect to MS Graph
Connect-MgGraph -Scopes "User.Read.All","Group.ReadWrite.All"

#List connector types available (comment out if not implemented for preview)
Write-Host "Listing connector types available"
$UkgId = "95BF2848-2DDA-4425-B0EE-D62AEED4C0A0"
$connectors = Get-CsTeamsShiftsConnectionConnector
write $connectors
$Ukg = $connectors | where {$_.Id -match $UkgId}

#List connection instances available
Write-Host "Listing connection instances available"
$instanceList = Get-CsTeamsShiftsConnectionInstance | where {$_.ConnectorId
-match $UkgId}
write $instanceList

#Prompt for the WFM username and password
$WfmUserName = Read-Host -Prompt 'Input your WFM user name'
$WfmPwd = Read-Host -Prompt 'Input your WFM password' -AsSecureString
$plainPwd =
[Runtime.InteropServices.Marshal]::PtrToStringAuto([Runtime.InteropServices.
Marshal]::SecureStringToBSTR($WfmPwd))

#Get the instance ID
$instanceId = Read-Host -Prompt 'Input the instance ID that you want to
update'
$instance = Get-CsTeamsShiftsConnectionInstance -ConnectorInstanceId
$instanceId
$Etag = $instance.etag

#Change sync setting
$designatorName = Read-Host -Prompt "Input designated actor's user name"
$designator = Get-MgUser -UserId $designatorName
$teamsUserId = $designator.Id
$updatedInstanceName = Read-Host -Prompt 'Input new connection instance
name'
$updatedConnectorScenarioString = Read-Host -Prompt 'Input new enabled
connector scenarios'
$updatedWfiScenarioString = Read-Host -Prompt 'Input new enabled WFI
scenarios'
```

```

$Delimiters = ",",".",":",";", " ", "`t"
$updatedConnectorScenario = $updatedConnectorScenarioString -Split
{$Delimiters -contains $_}
$updatedConnectorScenario = $updatedConnectorScenario.Trim()
$updatedConnectorScenario = $updatedConnectorScenario.Split(' ',
[System.StringSplitOptions]::RemoveEmptyEntries)
$updatedWfiScenario = $updatedWfiScenarioString -Split {$Delimiters -
contains $_}
$updatedWfiScenario = $updatedWfiScenario.Trim()
$updatedWfiScenario = $updatedWfiScenario.Split(' ',
[System.StringSplitOptions]::RemoveEmptyEntries)
$apiUrl = $Instance.ConnectorSpecificSettingApiUrl
$ssoUrl = $Instance.ConnectorSpecificSettingSsoUrl
$clientId = $Instance.ConnectorSpecificSettingClientId
$syncFreq = Read-Host -Prompt 'Input new sync frequency'
$AppKey = Read-Host -Prompt 'Input your app key' -AsSecureString
$plainKey =
[Runtime.InteropServices.Marshal]::PtrToStringAuto([Runtime.InteropServices.
Marshal]::SecureStringToBSTR($AppKey))
$ClientSecret = Read-Host -Prompt 'Input your client secret' -AsSecureString
$plainSecret =
[Runtime.InteropServices.Marshal]::PtrToStringAuto([Runtime.InteropServices.
Marshal]::SecureStringToBSTR($ClientSecret))

#Read admin email list
[psobject[]]$AdminEmailList = @()
while ($true){
$AdminEmail = Read-Host -Prompt "Enter admin's email to receive error
report"
$AdminEmailList += $AdminEmail
$title = 'Adding another email'
$question = 'Would you like to add another admin email?'
$choices = '&Yes', '&No'
$decision = $Host.UI.PromptForChoice($title, $question, $choices, 1)
if ($decision -eq 1) {
break
}
}
}
$UpdatedInstance = Set-CsTeamsShiftsConnectionInstance `
-ConnectorInstanceId $InstanceId `
-ConnectorId $UkgId `
-ConnectorAdminEmail $AdminEmailList `
-DesignatedActorId $teamsUserId `
-EnabledConnectorScenario $updatedConnectorScenario `
-EnabledWfiScenario $updatedWfiScenario `
-Name $UpdatedInstanceName `
-SyncFrequencyInMin $syncFreq `
-ConnectorSpecificSettings (New-Object
Microsoft.Teams.ConfigAPI.Cmdlets.Generated.Models.ConnectorSpecificUkgDimen
sionsSettingsRequest `
-Property @{
apiUrl = $apiUrl
ssoUrl = $ssoUrl
appKey = $plainKey
clientId = $clientId

```

```

        clientSecret = $plainSecret
        LoginUserName = $WfmUserName
        LoginPwd = $plainPwd
    }) `
    -IfMatch $Etag
if ($UpdatedInstance.Id -ne $null) {
    Write-Host "Success"
}
else {
    throw "Update instance failed"
}
#Get a list of the mappings
Write-Host "Listing mappings"
$TeamMaps = Get-CsTeamsShiftsConnectionTeamMap -ConnectorInstanceId
$InstanceId
write $TeamMaps

#Modify a mapping
#Remove a mapping
Write-Host "Removing a mapping"
$TeamsTeamId = Read-Host -Prompt 'Input the Teams team ID that you want to
unlink'
$WfmTeamId = Read-Host -Prompt 'Input the WFM team ID that you want to
unlink'
Remove-CsTeamsShiftsConnectionTeamMap -ConnectorInstanceId $InstanceId -
TeamId $TeamsTeamId
Write-Host "Success"

#Add a mapping
Write-Host "Adding a mapping"
$TeamsTeamId = Read-Host -Prompt 'Input the Teams team ID that you want to
link'
$WfmTeamId = Read-Host -Prompt 'Input the WFM team ID that you want to link'
New-CsTeamsShiftsConnectionTeamMap -ConnectorInstanceId $InstanceId -TeamId
$TeamsTeamId -TimeZone "America/Los_Angeles" -WfmTeamId $WfmTeamId
Write-Host "Success"

```

Disable open shifts, open shifts requests, swap requests, and time off requests

📌 Important

Follow these steps only if you chose to disable open shifts, open shift requests, swap requests, or time off requests using the script in the [Change connection settings](#) section earlier in this article or by using the [Set-CsTeamsShiftsConnectionInstance](#) cmdlet. Completing this step hides the

capability in Shifts. Without this second step, users will still see the capability in Shifts, and will get an "unsupported operation" error message if they try to use it.

To hide open shifts, swap requests, and time off requests in Shifts, use the Graph API [schedule resource type](#) to set the following parameters to `false` for each team that you mapped to a WFM instance:

- Open shifts: `openShiftsEnabled`
- Swap requests: `swapShiftsRequestsEnabled`
- Time off requests: `timeOffRequestsEnabled`
- Offer shift requests: `offerShiftRequestsEnabled`

To hide open shifts requests in Shifts, go to **Settings** in Shifts, and then turn off the **Open shifts** setting.

Unmap a team from one connection and map it to another connection

ⓘ Note

The Microsoft 365 system account must be the same for both connections. If it isn't, you'll get a "This designated actor profile doesn't have team ownership privileges" error message.

If you want to unmap a team from one connection and map it to another connection:

1. [Set up your environment](#) (if you haven't already).
2. View a list of all team mappings for a connection.

```
PowerShell
```

```
Get-CsTeamsShiftsConnectionTeamMap -ConnectorInstanceId  
<ConnectorInstanceId>
```

3. Remove a team mapping from the connection.

```
PowerShell
```

```
Remove-CsTeamsShiftsConnectionTeamMap -ConnectorInstanceId  
<ConnectorInstanceId> -TeamId <TeamId>
```

4. Map the team to another connection.

PowerShell

```
New-CsTeamsShiftsConnectionTeamMap -ConnectorInstanceId  
<ConnectorInstanceId> -TeamId <TeamId> -WfmTeamId <SiteId> -TimeZone  
<TimeZone>
```

To learn more, see [Get-CsTeamsShiftsConnectionTeamMap](#), [Remove-CsTeamsShiftsConnectionTeamMap](#), and [New-CsTeamsShiftsConnectionTeamMap](#).

Disable sync for a connection

Use this script to disable sync for a connection. Keep in mind this script doesn't remove or delete a connection. It turns off sync so that no data is synced between Shifts and your WFM system for the connection that you specify.

[Set up your environment](#) (if you haven't already), and then run the following script.

PowerShell

```
#Disable sync script  
Write-Host "Disable sync"  
Start-Sleep 1  
  
#Ensure Teams module is at least version x  
Write-Host "Checking Teams module version"  
try {  
    Get-InstalledModule -Name "MicrosoftTeams" -MinimumVersion 4.7.0  
} catch {  
    throw  
}  
  
#List connection instances available  
$UkgId = "95BF2848-2DDA-4425-B0EE-D62AEED4C0A0"  
Write-Host "Listing connection instances"  
$InstanceList = Get-CsTeamsShiftsConnectionInstance | where {$_.ConnectorId  
-match $UkgId}  
write $InstanceList  
  
#Get an instance  
if ($InstanceList.Count -gt 0){  
    $InstanceId = Read-Host -Prompt 'Input the instance ID that you want to  
disable sync'  
    $Instance = Get-CsTeamsShiftsConnectionInstance -ConnectorInstanceId  
$InstanceId  
    $Etag = $Instance.etag  
    $InstanceName = $Instance.Name  
    $DesignatedActorId = $Instance.designatedActorId
```

```

    $apiUrl = $Instance.ConnectorSpecificSettingApiUrl
    $ssoUrl = $Instance.ConnectorSpecificSettingSsoUrl
    $clientId = $Instance.ConnectorSpecificSettingClientId
    $ConnectorAdminEmail = $Instance.ConnectorAdminEmail
}
else {
    throw "Instance list is empty"
}

#Remove scenarios in the mapping
Write-Host "Disabling scenarios in the team mapping"
$UpdatedInstanceName = $InstanceName + " - Disabled"
$UkgId = "95BF2848-2DDA-4425-B0EE-D62AEED4C0A0"
$WfmUserName = Read-Host -Prompt 'Input your WFM user name'
$WfmPwd = Read-Host -Prompt 'Input your WFM password' -AsSecureString
$plainPwd =
[Runtime.InteropServices.Marshal]::PtrToStringAuto([Runtime.InteropServices.
Marshal]::SecureStringToBSTR($WfmPwd))
$AppKey = Read-Host -Prompt 'Input your app key' -AsSecureString
$plainKey =
[Runtime.InteropServices.Marshal]::PtrToStringAuto([Runtime.InteropServices.
Marshal]::SecureStringToBSTR($AppKey))
$ClientSecret = Read-Host -Prompt 'Input your client secret' -AsSecureString
$plainSecret =
[Runtime.InteropServices.Marshal]::PtrToStringAuto([Runtime.InteropServices.
Marshal]::SecureStringToBSTR($ClientSecret))

$UpdatedInstance = Set-CsTeamsShiftsConnectionInstance `
    -ConnectorInstanceId $InstanceId `
    -ConnectorId $UkgId `
    -ConnectorAdminEmail $ConnectorAdminEmail `
    -DesignatedActorId $DesignatedActorId `
    -EnabledConnectorScenario @() `
    -EnabledWfiScenario @() `
    -Name $UpdatedInstanceName `
    -SyncFrequencyInMin 10 `
    -ConnectorSpecificSettings (New-Object
Microsoft.Teams.ConfigAPI.Cmdlets.Generated.Models.ConnectorSpecificUkgDimen
sionsSettingsRequest `
    -Property @{
        apiUrl = $apiUrl
        ssoUrl = $ssoUrl
        appKey = $plainKey
        clientId = $clientId
        clientSecret = $plainSecret
        loginUserName = $WfmUserName
        loginPwd = $plainPwd
    }) `
    -IfMatch $Etag

if ($UpdatedInstance.Id -ne $null) {
    Write-Host "Success"
}
else {

```

```
throw "Update instance failed"  
}
```

List of error messages

Here's the list of error messages that you may encounter and information to help you resolve them.

Error type	Error details	Resolution
Unable to authenticate workforce management system.	The workforce management system account credentials you've provided are invalid or this account doesn't have the required permissions.	Update your WFM service account credentials in the connection settings. To do this, do one of the following: <ul style="list-style-type: none">In the Microsoft 365 admin center, choose Edit next to the connection on the Connector Management Console page.Use the Set-CsTeamsShiftsConnectionInstance or Update-CsTeamsShiftsConnectionInstance cmdlet.Use this PowerShell script.
Unable to authenticate Graph.	Authentication failed. Ensure that you've entered valid credentials for the designated actor and have the required permissions.	Make sure that your Microsoft 365 system account (also known as designated actor) is added as a team owner. Or, update your Microsoft 365 system account credentials in the connection settings.
Some users have failed to map correctly	Mapping failed for some users: <X> succeeded, <X> failed AAD user(s) and <X> failed workforce management system user(s).	Use the Get-CsTeamsShiftsConnectionSyncResult cmdlet or this PowerShell script to identify the users for whom the mapping failed. Make sure that the users in the mapped team match the users in the WFM instance.
Unable to map a team or teams in this batch.	This designated actor profile doesn't have team ownership privileges.	Make sure your Microsoft 365 system account (also known as designated actor) is added as a team owner. If you've changed your Microsoft 365 system account, add that account as a team owner, and update the connection settings to use that account.
	This team is already mapped to an existing connector instance.	Unmap the team from the existing connector instance by using the Remove-

Error type	Error details	Resolution
		CsTeamsShiftsConnectionTeamMap cmdlet. Or, create a new connection to remap the team.
	This timezone is invalid. The timezone passed in is not using tz database format.	Make sure that the time zone is correct, and then remap the team.
	We can't find this connector instance.	Map the team to an existing connection.
	This AAD team couldn't be found.	Make sure that the team exists or create a new team.

Shifts connector cmdlets

For help with Shifts connector cmdlets, search for **CsTeamsShiftsConnection** in the [Teams PowerShell cmdlet reference](#). Here are links to some commonly used cmdlets.

- [Get-CsTeamsShiftsConnectionOperation](#)
- [New-CsTeamsShiftsConnectionInstance](#)
- [Get-CsTeamsShiftsConnectionInstance](#)
- [Set-CsTeamsShiftsConnectionInstance](#)
- [Update-CsTeamsShiftsConnectionInstance](#)
- [Remove-CsTeamsShiftsConnectionInstance](#)
- [Test-CsTeamsShiftsConnectionValidate](#)
- [New-CsTeamsShiftsConnectionTeamMap](#)
- [Get-CsTeamsShiftsConnectionTeamMap](#)
- [Remove-CsTeamsShiftsConnectionTeamMap](#)
- [Get-CsTeamsShiftsConnectionConnector](#)
- [Get-CsTeamsShiftsConnectionSyncResult](#)
- [Get-CsTeamsShiftsConnectionWfmUser](#)
- [Get-CsTeamsShiftsConnectionWfmTeam](#)
- [Get-CsTeamsShiftsConnectionErrorReport](#)
- [Remove-CsTeamsShiftsScheduleRecord](#)

Related articles

- [Shifts connectors](#)
- [Use the Shifts connector wizard to connect Shifts to UKG Pro Workforce Management](#)

- [Use PowerShell to connect Shifts to UKG Pro Workforce Management](#)
- [Use the Microsoft 365 admin center to manage your Shifts connection to UKG Pro Workforce Management](#)
- [Manage the Shifts app](#)
- [Teams PowerShell overview](#)

Known issues: Team Shifts connector for UKG Pro Workforce Management (Preview)

Article • 10/23/2023 • Applies to: Microsoft Teams, Microsoft 365 for frontline workers

This article lists known issues for the [Microsoft Teams Shifts connector for UKG Pro Workforce Management](#) (Preview).

You can map a WFM instance to more than one team using PowerShell or your Microsoft 365 admin center

A WFM instance should only be mapped to one team at any given time in a connection instance.

However, when you use PowerShell or Microsoft 365 admin center to set up a connection instance, it's possible to map a WFM instance to more than one team. We recommend that you avoid mapping a WFM instance to multiple teams as it can result in syncing issues and unexpected behavior.

Frontline managers can select a time zone for a schedule in Shifts that's different from the time zone that's set in UKG Pro WFM

The time zone setting of schedules in Shifts is synced from UKG Pro Workforce Management (UKG Pro WFM). However, it's possible for frontline managers to change the time zone of a schedule in Shifts to one that's different from what's configured in UKG Pro WFM. Doing so can result in syncing issues and unexpected behavior.

To work around this issue, keep the time zone setting as is.

Nothing happens when users try to start a break or manage their time sheet in Shifts

The following time clock capabilities aren't supported in an integration with UKG Pro WFM:

- Start and end a break. Users are unable to clock out or clock in to a break even though the **Start a break** and **End break** buttons are displayed in Shifts.
- Edit and confirm time sheet records. Users are unable to edit and confirm their clock ins and clock outs through their time sheet even though the button is displayed in Shifts.

Availability settings of users don't apply to the current week

Teams mobile users can set their personal availability in Shifts. However, if a user sets their availability after the day that's established as the start of the week in UKG Pro WFM, their availability applies to the following week onwards and not to the current week. For example, Sunday is set as the start of the week in UKG Pro WFM, and on Monday of the current week, a user changes their availability for Thursday and Friday. In this scenario, their availability settings are applied to the following week.

Users see a red "X" when a coworker accepts their swap request and the manager declines the request

Currently, if a user creates a swap request with a coworker and the coworker accepts the request but the manager denies it, the user unexpectedly sees a red "X" next to both the coworker's and manager's response.

The correct, expected behavior is a green check mark to indicate that the coworker accepted the request and a red "X" to indicate that the manager denied the request.

A user can't perform some actions in Shifts after another user has signed in to Shifts on the same device

This issue can occur if multiple users use the same device to connect to the Teams Shifts app and require a single sign-on (SSO) in UKG Pro WFM.

For example, user A signs in to Teams, submits a time off request, and signs out. To make the request, user A had to enter their Microsoft Entra credentials for SSO. On the same device, user B signs in to Teams and tries to perform another action in Shifts that requires SSO.

In this scenario, an issue occurs in which user B is signed in to Teams and Shifts and user A is still signed in to UKG Pro WFM.

To mitigate this issue, do one of the following actions:

- Close all open browser windows after each user signs out of the Teams web app. This must happen independently of whether the user accessed the Teams web app through the InPrivate window in Microsoft Edge or in Incognito mode in Google Chrome.
- Clear cookies and site data for the mykronos.com site in the browser after each user signs out of the Teams web app. To learn more, see [Delete cookies in Microsoft Edge](#) or [Clear, enable, and manage cookies in Chrome](#).

Availability can only be set for one team in Teams

If a user in Shifts belongs to multiple teams and one of those teams has availability syncing enabled, the user is unable to set their availability. Instead, they receive an error message. A user can only set availability in one team even if they belong to multiple teams in Shifts.

Related articles

- [Shifts connectors](#)
- [Use the Shifts connector wizard to connect Shifts to UKG Pro Workforce Management](#)
- [Use PowerShell to connect Shifts to UKG Pro Workforce Management](#)
- [Use the Microsoft 365 admin center to manage your Shifts connection to UKG Pro Workforce Management](#)
- [Use PowerShell to manage your Shifts connection to UKG Pro Workforce Management](#)
- [Manage the Shifts app](#)

Simplify business processes for frontline teams

Article • 11/21/2022 • Applies to: Microsoft Teams, Microsoft 365 for frontline workers

You can use Teams apps, Power Apps, and Power BI to simplify business processes for your frontline teams.

<https://www.microsoft.com/en-us/videoplayer/embed/RWRzfc?postJsIIMsg=true> 

Note

Additional capabilities for **financial services, healthcare, nonprofit, and retail** environments are available with the Microsoft industry clouds, which include capabilities from Dynamics 365 and Microsoft Azure as well as the Microsoft 365 features.

Manage schedules, tasks, approvals, updates, and lists

Teams includes many apps to help you and your frontline workforce manage their day-to-day work:

Task	App	Manage this capability	End-user training
Create and update schedules for your frontline team. Your workers can sign up for shifts, trade shifts as needed, and clock in when they start.	Shifts	Manage Shifts.	Shifts video training 
Publish and track tasks for your workers so they know what needs to be done every day.	Tasks	Manage the Tasks app.	Tasks video training 
Easily make and sign off on approval requests.	Approvals	Manage the Approvals app.	Approvals video training 
Check in on recurring responsibilities and track the progress of larger tasks.	Updates	Manage the Updates app.	Updates video training 

Task	App	Manage this capability	End-user training
Make custom lists to keep track of everything else.	Lists	Manage the Lists app.	Lists video training 

[Learn more about how your frontline team can communicate and collaborate with Microsoft Teams apps](#)

Create custom apps for your organization's needs

Add Power Apps to create low-code or no-code applications for your organization. You can build custom apps to connect your business data, so you can manage inventory or conduct store walks, for example.

Tip

Examples are given for the financial services, healthcare, nonprofit, and retail industries, but you can use these apps for an organization in any sector.

Industry	Example
Financial services	You can create an app for relationship and account managers to track calls and emails to clients.
Healthcare	You can create an app to track consumables inventory in exam rooms to make sure all rooms are ready for patients.
Retail	You can create an app to manage and track your inventory, or to conduct store walks where a person in charge checks all areas of a store before opening.
Manufacturing	You can create an app to track machinery and equipment inspections and repair needs.

More information: [Power Apps](#) and [Power Apps and Microsoft Teams integration](#).

Track key performance indicators (KPIs) with Power BI reports

Share and collaborate on interactive Power BI content in Microsoft Teams channels and chats. You can add a [Power BI tab](#) to Teams to embed interactive reports and chat in Teams about your reports, and get notified when important things happen in Power BI right in your Teams activity feed.

More information: [Collaborate in Microsoft Teams with Power BI](#).

Virtual Appointments with Microsoft Teams

Article • 10/26/2023 • Applies to: Microsoft Teams, Microsoft 365 for frontline workers

With Virtual Appointments in Microsoft Teams, you have a complete meeting platform to schedule, manage, and conduct business-to-customer engagements. For example:

- Financial advisors, claims adjusters, and other financial professionals can meet with clients remotely.
- Sales associates, product experts, and design consultants can conduct virtual fittings and consultations.
- Clinicians can meet with patients or other healthcare providers to discuss medical care.
- Human resources departments can conduct virtual interviews with job candidates.

<https://www.microsoft.com/en-us/videoplayer/embed/RE4TQop?postJsllMsg=true> 

This article gives you an overview of the capabilities available in Teams for scheduling and managing virtual appointments.

- [The Virtual Appointments app](#), for every organization
- [The Teams Electronic Health Record \(EHR\) connector](#), for healthcare organizations who use an EHR system
- [Virtual appointment meeting template](#), for every organization
- [Virtual Appointment Graph API](#), for developers in your organization

The Virtual Appointments app

Use the Virtual Appointments app for all your virtual appointment needs. The app enables a seamless end-to-end experience for business-to-customer engagements, integrating schedules, analytics, and management options, all in one place.

You can schedule, view, and manage virtual appointments, get real-time status updates in a queue view, send appointment reminders, view analytics and reports on virtual appointments activity, and configure calendar, staff, and booking page settings.

With Microsoft 365 A3, A5, E3, E5, F1, F3, Business Basic, Business Standard, and Business Premium licenses, you can use basic Virtual Appointments capabilities that make it easy to schedule and join business-to-customer meetings. For example, you can schedule appointments in the appointment calendar and external attendees can [join through a browser](#) without having to download Teams. [Teams Premium](#) unlocks

advanced Virtual Appointments capabilities that your organization can use to manage and customize the experience. These include a queue view of scheduled and on-demand appointments, SMS text notifications, custom waiting rooms, and analytics.

To learn more, see:

- [Virtual Appointments guided tour](#)
- [What is Virtual Appointments?](#)
- [Use the Virtual Appointments app](#)
- [Manage the Virtual Appointments app](#)

Users can find the Virtual Appointments app in the Teams app store, or you can share the [installation link](#) to help them find it. You can use an [app setup policy](#) to pin the app for your organization, or your users can [pin the app themselves](#).

Teams Electronic Health Record (EHR) connector

If your healthcare organization uses an EHR system, you can use the Teams EHR connector to integrate Teams for a more seamless virtual care experience. The Teams EHR connector requires an active subscription to Microsoft Cloud for Healthcare or a subscription to Microsoft Teams EHR connector standalone offer.

After you set up the Teams EHR connector, clinicians can launch visits with patients and consultations with other providers in Teams directly from the EHR system.

Currently, the Teams EHR connector supports integration with the Oracle Health EHR system and Epic EHR system. To learn more, see:

- [Virtual Appointments with Teams - Integration into Oracle Health EHR](#)
- [Virtual Appointments with Teams - Integration into Epic EHR](#)

Virtual appointment meeting template

The Virtual appointment template is a default meeting template in Teams that your users can use to schedule virtual appointments with external guests, such as customers, clients and other people outside your organization.

With this template, you can enable a consistent experience across your organization for virtual appointments scheduled directly within Teams.

To learn more, see [Manage the Virtual appointment meeting template in Teams](#).

Virtual Appointment Graph API

Developers can programmatically create and manage Virtual Appointments using Microsoft Graph. With the Virtual Appointment Graph API, virtual appointment join links can be embedded in any app, with features that include a waiting room and browser join experience for external attendees.

To learn more, see [virtualAppointment resource type](#).

Related articles

- [Manage the join experience for Teams Virtual Appointments on browsers](#)

Use the Virtual Appointments app in Microsoft Teams

Article • 09/18/2023 • Applies to: Microsoft Teams, Microsoft 365 for frontline workers

 Some features described in this article require [Teams Premium](#).

Before you begin

This article is intended primarily for users in your organization who will set up the Virtual Appointments app for staff members on their team. This can include managers, supervisors, schedulers, or other employees. Users who initially create a shared appointment calendar are automatically assigned the Virtual Appointments admin role for that calendar and can perform most of the tasks in this article.

If you're an IT admin, see [Manage the Virtual Appointments app](#) to learn how to control access to the app in your organization.

Team members can find the app in the Teams app store, or you can share the [installation link](#) to help them find it. IT admins can use an [app setup policy](#) to pin the app for your organization, or team members can [pin the app themselves](#).

Overview of the app

Use the [Virtual Appointments app](#) in Microsoft Teams for all your virtual appointment needs. The app enables a seamless end-to-end experience for business-to-customer engagements, integrating schedules, analytics, and management options, all in one place.

You can schedule, view, and manage virtual appointments, get real-time status updates in a queue view, send appointment reminders, view analytics and reports on virtual appointments activity, and configure calendar, staff, and booking page settings.

Use it to schedule and manage appointments such as financial consultations, healthcare visits, virtual fittings, interviews, customer support, education office hours, and more. You can also publish an online booking page for your clients, customers, and patients to book appointments with your staff.

The app makes it easy to manage the complex scheduling demands of any organization. Schedulers can manage multiple department and staff calendars, as well as communications with internal and external attendees, from a single experience.

The virtual appointments are held through Teams meetings, which offer robust video conferencing capabilities. For example, a doctor can share their screen and review test

results with a patient. Or, a banking advisor can request electronic signatures on documents, allowing them to close transactions remotely.

You get an experience that's tailored to your industry. Here are some examples of how you can use it in your organization.

Healthcare	Financial services	Retail	Sales	HR
<ul style="list-style-type: none">• Diagnosis or post-op follow-up sessions• Consultations with clinicians and insurance providers• Therapy sessions	<ul style="list-style-type: none">• Financial consultations• Insurance policy and claim support• Loan advisory/management	<ul style="list-style-type: none">• Showcase products• Virtual fittings or tour showrooms• Provide technical advice and resolve conflicts	<ul style="list-style-type: none">• High trust sales calls• Issue resolution• Customer service	<ul style="list-style-type: none">• Custom waiting rooms for applicants• Engage multiple interviewers• Post-interview action

With any Microsoft 365 license, you can use basic Virtual Appointments capabilities that make it easy to schedule and join business-to-customer meetings. For example, you can schedule appointments in the calendar and external attendees can [join through a browser](#) without having to download Teams. [Teams Premium](#) unlocks advanced Virtual Appointments capabilities to manage and personalize the experience. These include a queue view of scheduled and on-demand appointments, SMS notifications, custom waiting rooms, and analytics.

Set up an appointment calendar

To schedule and manage appointments in the app, you must first set up an appointment calendar. You must have the Virtual Appointments admin role to set up and manage most appointment calendar settings.

Step 1: Create a new appointment calendar or connect an existing calendar

To get started, [create a new appointment calendar](#) or [connect an existing one](#) that you previously created.

To create a new appointment calendar

1. On the **Home** tab or **Schedule** tab of the app, choose **Create appointment calendar**.

2. Complete the form and choose the relevant service category for your organization. If you're part of a larger organization, consider creating separate calendars for specific departments within your organization.

Create appointment calendar

The calendar name will appear in the email address used for sending your virtual appointment invites. For example, serviceappointments@contoso.com

Name *

Add calendar name

Service category *

Select a category

Send attendee responses to

Add email address (this won't be visible to the public)

Phone

Add your phone number

Cancel Save

To learn more, see [Create a calendar in Virtual Appointments](#).

To work with an existing appointment calendar

1. On the **Home** tab or **Schedule** tab of the app, choose **Connect existing calendar**.
2. Search for the calendar that you want, select it, and then choose **Done**.

Step 2: Add staff

You can add up to 100 staff members to an appointment calendar. Each person you add will have their calendar displayed on the **Schedule** tab. Schedulers can then view their availability in the app and schedule appointments for them.

1. On the **Manage** tab, select **Staff**.
2. Add staff members and assign a role to each person you add.

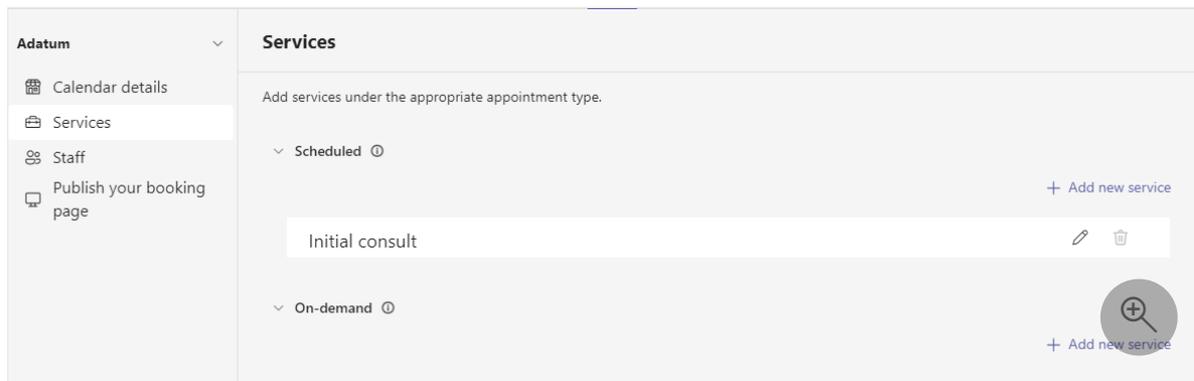
To learn more, see [Add and manage staff to make scheduling a breeze](#).

Step 3: Add services using appointment types

Next, add services to the calendar using the appropriate appointment type. Before you do that, it's important to understand the two different appointment types so that you can choose the appointment type that best represents the services offered by your organization:

- **Scheduled appointment type:** Used by schedulers to book scheduled appointments for staff and attendees. These appointments are scheduled for a specific date, time, and duration.
- **On-demand appointment type:** Used by your customers, clients, and patients for on-demand appointments. On-demand appointments are for services that are provided upon request, similar to a walk-in waiting room. This feature requires [Teams Premium](#).

1. To add a service, on the **Manage** tab, select **Services**, and then under **Scheduled** or **On-demand**, select **Add service**.



2. Do one of the following:

- If you chose **Scheduled**, follow the steps in [Scheduled appointments](#).
- If you chose **On-demand**, follow the steps in [On-demand appointments](#).

Scheduled appointments

1. Enter a name for the service. For example, Account opening, Prescription renewal, Loan consultation, or Tax preparation.
2. Specify any other information and settings you want. Schedulers can then use the appointment type to schedule an appointment. The information that you add is included in the email confirmation that's sent to attendees every time this type of appointment is booked.

You can configure options such as whether attendees can [join from a desktop or mobile browser](#) without having to download Teams, add an email reminder, [set up SMS text notifications](#), and [link forms](#).

Set up SMS text notifications

i This feature is now part of [Teams Premium](#).

Attendees need a valid United States, Canada, or United Kingdom phone number before they can receive SMS notifications.

To send SMS notifications to attendees by default, turn on **Send them text messages**. Attendees receive confirmation and reminder text messages that include the Teams meeting link and scheduled appointment details. They can opt out of receiving the messages by replying STOP, or resume receiving them by replying START.

Keep in mind that schedulers can later choose to turn off the setting on an as-needed basis when they use the appointment type to schedule an appointment.

To learn more, see [Use text messages to remind customers of their appointment](#) .

Note

Admins can use the **SMS notifications usage report** to see how your workforce is using SMS notifications with virtual appointments.

Link forms

You can link up to four forms for attendees to fill out each time a scheduled appointment type is booked. For example, you may require attendees to complete a registration form before they join an appointment.

1. To link a form, choose **Link a form**.
2. Enter the URL of the form, and then choose **Link**.

If this is the first time you're linking a form, you're prompted to create a Microsoft 365 group to store forms. Choose **Create group** to create the group. You only have to do this one time for the booking calendar.

When working with forms, keep in mind that:

- To make changes to a form that's already linked to an appointment type, select the form in the appointment type or from within the Microsoft 365 group at <https://forms.office.com> .
- Uploading files to forms that contain a [file upload question](#)  is supported when all attendees are from the same organization.

When a scheduler uses the appointment type to schedule an appointment, they can then choose to include the form, remove it, or add any other forms that you linked to the appointment type. Attendees must fill out the form before they join the appointment.

Note

If you're a healthcare provider, any information provided by you or patients in Teams (including the Forms app, Virtual Appointments app, meeting recordings if enabled by you, or any other Teams virtual appointments services) that's necessary for medical records continuity or retention purposes should be downloaded, copied, and/or notated directly in such records by you. This service does not maintain legal medical records or a designated record set.

On-demand appointments

i This feature requires [Teams Premium](#).

Enter a name for the service. For example, Drop-in appointment, Account opening, Prescription renewal, Loan consultation, or Tax preparation.

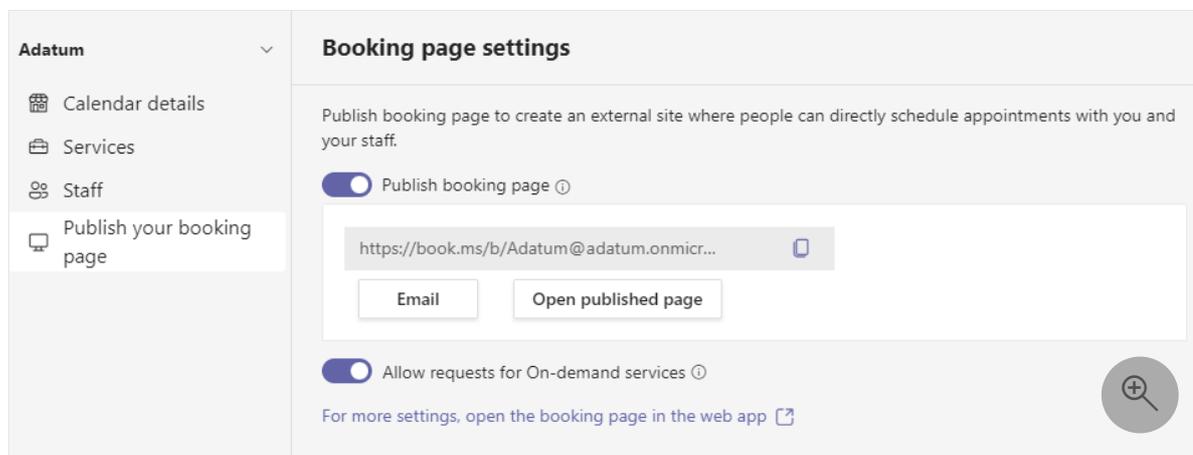
Your customers, clients, and patients can then choose the appointment type on your [booking page](#) to request an on-demand appointment with your staff.

Publish a booking page

If you're a Virtual Appointments admin, you can publish an online booking page where people can book scheduled and on-demand appointments with your staff.

1. On the **Manage** tab, select **Publish your booking page**.
2. Turn on **Publish booking page**.
3. To enable people to request on-demand appointments on your booking page, turn on **Allow requests for On-demand services**.

i This feature requires [Teams Premium](#).



Here's an example of what a published booking page looks like.

The screenshot shows a booking page for 'Contoso'. At the top, there's a dark blue header with the 'Contoso' logo. Below it, a section titled 'SELECT APPOINTMENT TYPE' offers two options: 'Schedule for a future date' (with an information icon) and 'Meet now' (highlighted in dark blue with an information icon). The 'Meet now' option includes the subtext 'Meet virtually during today's business hours'. Below this is a 'Select service' section with a dropdown menu currently showing 'Drop-in 30 min appointment' and a globe icon. The 'Add your details' section contains input fields for 'Name *', 'Email *', 'Address (optional)', and 'Phone number *'. To the right of these fields is a text area for 'Notes (optional)' with the prompt 'Please let us know if you have any special requests. Thank you.' At the bottom, there is a dark blue 'Meet now' button and a circular icon with a plus sign and a magnifying glass.

You can customize and manage your booking page settings in the Bookings web app. To learn more, see [Customize and publish your booking page for customers to schedule appointments](#) and [Customize and publish your booking page](#).

Monitor appointments and get real-time status updates in the queue view

i This feature requires [Teams Premium](#).

The queue view on the **Queue** tab provides your staff with a dashboard to monitor all scheduled and on-demand virtual appointments for the day, with updates in real time.

Requested time	Reason for visit	Customer name	Customer status	Sales associate	Join appt.
8:25 AM	Initial consultation	Juan Morgan	Appt. started 7m	William Beringer	Join
8:32 AM	Bathroom consult	Kendall Collins	Waiting 1m	-	Join

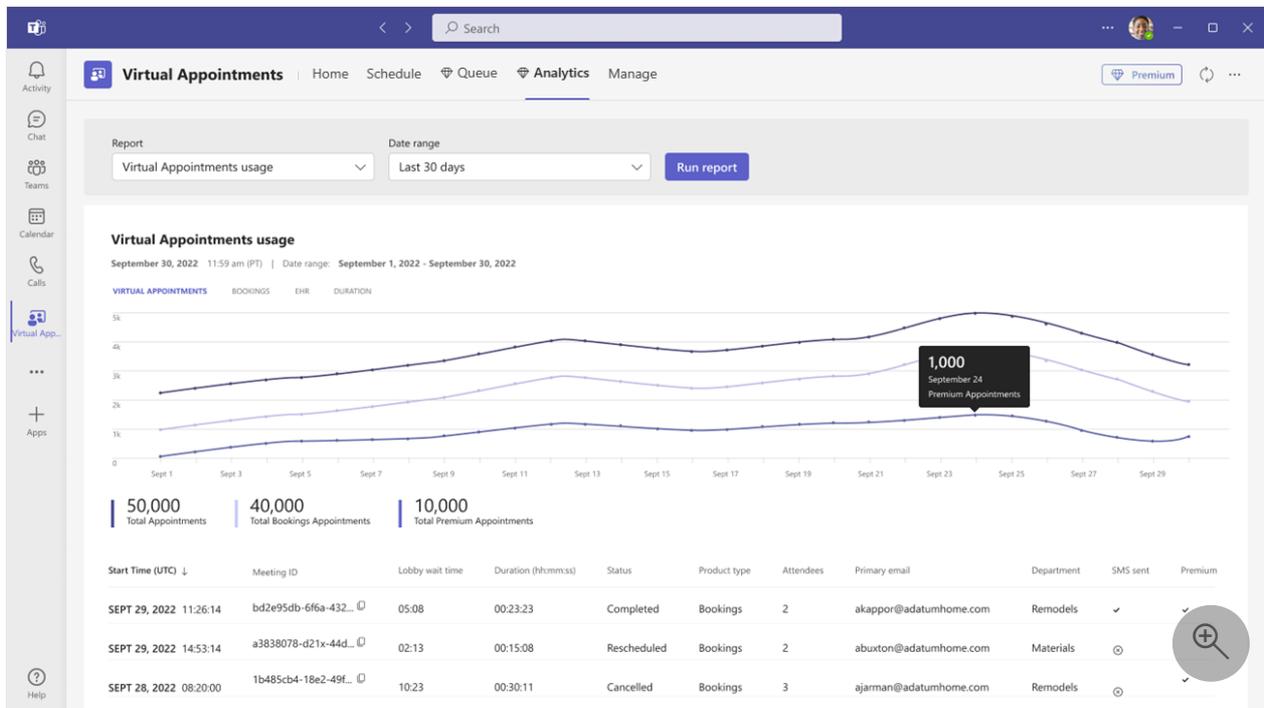
Appt. time	Duration	Appt. type	Customer name	Customer status	Sales associate	Join appt.
8:15 AM	15m	Bathroom consult	Ellis Turner	Completed 18m	Amari Rivera	-
8:15 AM	15m	Kitchen planning consulta...	Pisha Leelapun	Waiting 3m	Omer Dogan	Join
8:15 AM	15m	Materials overview	Olivia Wilson	Appt. started 15m	Michael Peltier	Join
8:15 AM	15m	Initial consultation	Sydney Mattos	Waiting 2m	Nathan Rigby	Join
8:15 AM	15m	Kitchen planning consulta...	Avery Howard	No show	Markus Long	-
8:30 AM	15m	In person Bathroom consult	Maria Sullivan	Late	Morgan Connors	-
8:30 AM	15m	Materials overview	Oscar Ward	Not started	Michael Peltier	Join
9:00 AM	15m	Materials overview	Tiara Hidayah	Not started	Omer Dogan	Join

From the queue, schedulers can add a new booking, view relevant appointment details, and see appointment statuses throughout the day. They can also send email reminders to assigned staff and attendees and send SMS notifications to attendees for scheduled appointments. Staff can join and manage appointments directly from the queue.

When an attendee joins the waiting room, the status changes, and their wait time is displayed and tracked. The view automatically refreshes with color-coded updates so that changes can easily be identified.

View analytics

The Virtual Appointments usage report in the **Analytics** tab gives you an overview of virtual appointments activity in your organization. The report provides key metrics such as total number of appointments, appointment duration, lobby wait time, and no shows. You can view detailed activity for virtual appointments scheduled and conducted through multiple scheduling entry points and drill down into individual appointment data.



The analytics experience depends on user role:

- Virtual Appointments admins get organizational analytics. If you're an admin, you'll see an org-level report showing aggregated analytics across all departments in your organization. To learn more, see [Virtual Appointments usage report](#).
- Non-admins get either departmental or individual analytics. Staff members who are associated with a department see a report that shows data for the given department. If a person isn't associated with a department, the report shows data for the appointments that they conducted. To learn more, see [Analyze your Virtual Appointment usage](#).

Related articles

- [What is Virtual Appointments?](#) help documentation for your users
- [Virtual Appointments with Teams](#)
- [Manage the join experience for Teams Virtual Appointments on browsers](#)
- [Teams Premium licensing](#)

Virtual Appointments with Teams - Integration into Oracle Health EHR

Article • 03/30/2023 • Applies to: Microsoft Teams, Microsoft 365 for frontline workers

The Microsoft Teams Electronic Health Record (EHR) connector makes it easy for clinicians to launch a virtual patient appointment or consult with another provider in Microsoft Teams directly from the Oracle Health EHR system. Built on the Microsoft 365 cloud, Teams enables simple, secure collaboration and communication with chat, video, voice, and healthcare tools in a single hub that supports compliance with HIPAA, HITECH certification, and more.

The communication and collaboration platform of Teams makes it easy for clinicians to cut through the clutter of fragmented systems so they can focus on providing the best possible care. With the Teams EHR connector, you can:

- Conduct Teams Virtual Appointments from your Oracle Health EHR system with an integrated clinical workflow.
- Enable patients to join Teams Virtual Appointments from email or SMS notifications.
- View consumption data reports and customizable Call Quality information for EHR-connected appointments.

This article describes how to set up and configure the Teams EHR connector to integrate with the Oracle Health platform. It also gives you an overview of the Teams Virtual Appointments experience from the Oracle Health EHR system.

ⓘ Note

Cerner has been renamed to Oracle Health. The video below refers to Oracle Health as Cerner.

<https://www.microsoft.com/en-us/videoplayer/embed/RE5d6gj?postJsllMsg=true> ↗

Before you begin

ⓘ Note

Make sure you talk to your Oracle Health representative and review your Oracle Health integration guide before you enable the integration.

Oracle Health integration is currently only available in the United States.

Prerequisites

Before you integrate the Teams EHR connector in your healthcare organization, you must have the following:

- An active subscription to Microsoft Cloud for Healthcare or a subscription to Microsoft Teams EHR connector standalone offer.
- Users have an appropriate Microsoft 365 or Office 365 license that includes Teams meetings.
- Teams is adopted and used in your healthcare organization.
- Identified a person in your organization who is a Microsoft 365 global admin with access to the [Teams admin center](#).
- Your systems meet all [software and browser requirements](#) for Teams.
- Oracle Health version November 2018 or later
- Contact Microsoft at teamsforhealthcare@service.microsoft.com to get enrolled in the Oracle Cerner Code program.

Important

PowerChart is only available in Microsoft Edge. Internet Explorer is no longer supported.

Set up the Teams EHR connector

The connector setup requires that you:

- [Launch the EHR connector configuration portal](#)
- [Enter configuration information](#)
- [Enable SMS notifications \(optional\)](#)
- [Review and finish the configuration](#)

Important

These steps must be completed by the Microsoft 365 global admin in your organization.

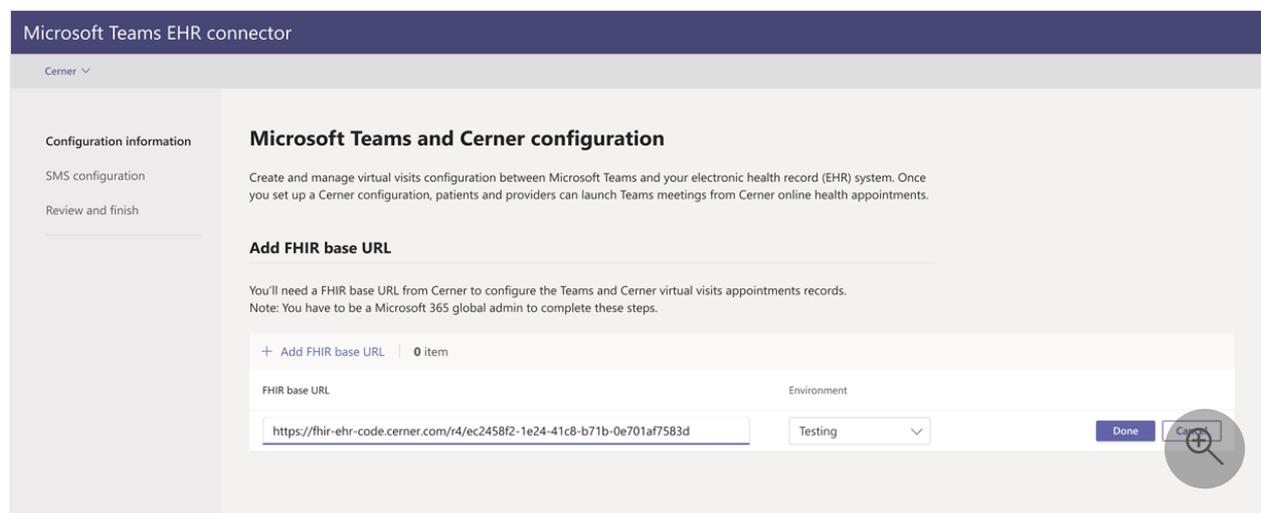
Launch the EHR connector configuration portal

To get started, your Microsoft 365 admin launches the [EHR connector configuration portal](#) and signs in using their Microsoft credentials.

Your Microsoft 365 admin can configure a single department or multiple departments to test the integration. Configure the test and production URL in the configuration portal. Make sure to test the integration from the Oracle Health test environment before moving to production.

Enter configuration information

Next, to set up the integration, your Microsoft 365 admin adds a Fast Health Interoperability Resources (FHIR) base URL from Oracle Health and specifies the environment. Configure as many FHIR base URLs as needed, depending on your organization's needs and the environments you want to test.



The screenshot shows the 'Microsoft Teams EHR connector' configuration page. The main heading is 'Microsoft Teams and Cerner configuration'. Below this, there is a section titled 'Add FHIR base URL'. The instructions state: 'You'll need a FHIR base URL from Cerner to configure the Teams and Cerner virtual visits appointments records. Note: You have to be a Microsoft 365 global admin to complete these steps.' There is a list of FHIR base URLs with one item: 'https://fhir-ehr-code.cerner.com/r4/ec2458f2-1e24-41c8-b71b-0e701af7583d'. The environment is set to 'Testing'. There are 'Done' and 'Cancel' buttons at the bottom right of the form.

- The FHIR base URL is a static address that corresponds to your server FHIR API endpoint. An example URL is `https://lamnahealthcare.com/fhir/auth/connect-ocurprd-oauth/api/FHDST`.
- You can set up the integration for test and production environments. For initial setup, we encourage you to configure the connector from a test environment before moving to production.

After the FHIR base URL is validated and the environment is selected, choose **Done**. Then, add more FHIR base URLs for other environments, as needed.

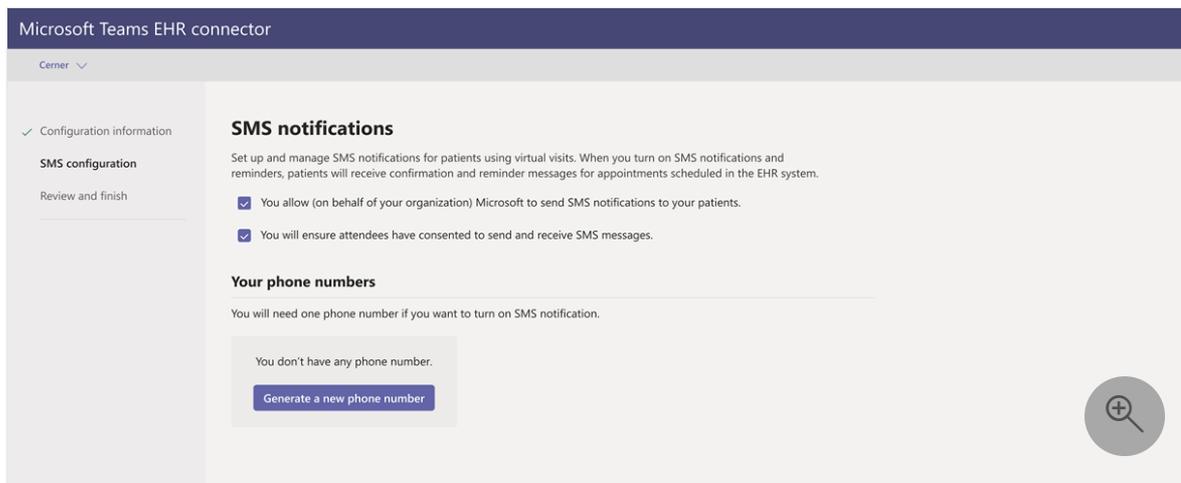
Select **Next** to go to the next step.

Enable SMS notifications (optional)

Complete this step if your organization wants Microsoft to manage SMS notifications for your patients. When you enable SMS notifications, your patients will receive confirmation and reminder messages for scheduled appointments.

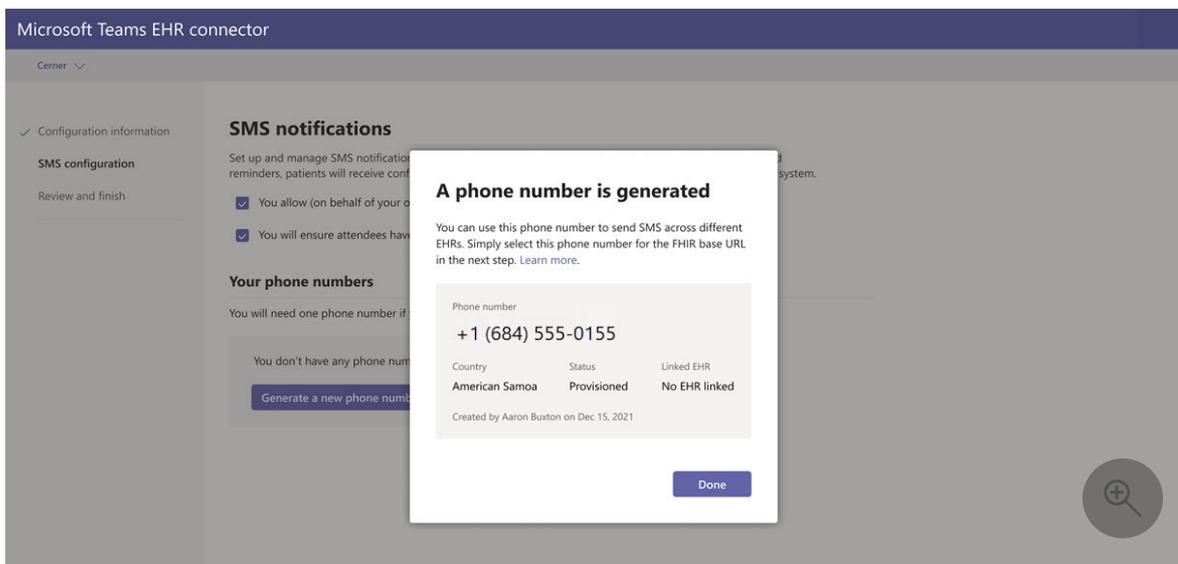
To enable SMS notifications, your Microsoft 365 admin completes the following steps:

1. On the SMS notifications page, select both consent checkboxes to:
 - Allow Microsoft to send SMS notifications to patients on behalf of your organization.
 - Acknowledge that you'll ensure attendees have consented to send and receive SMS messages.



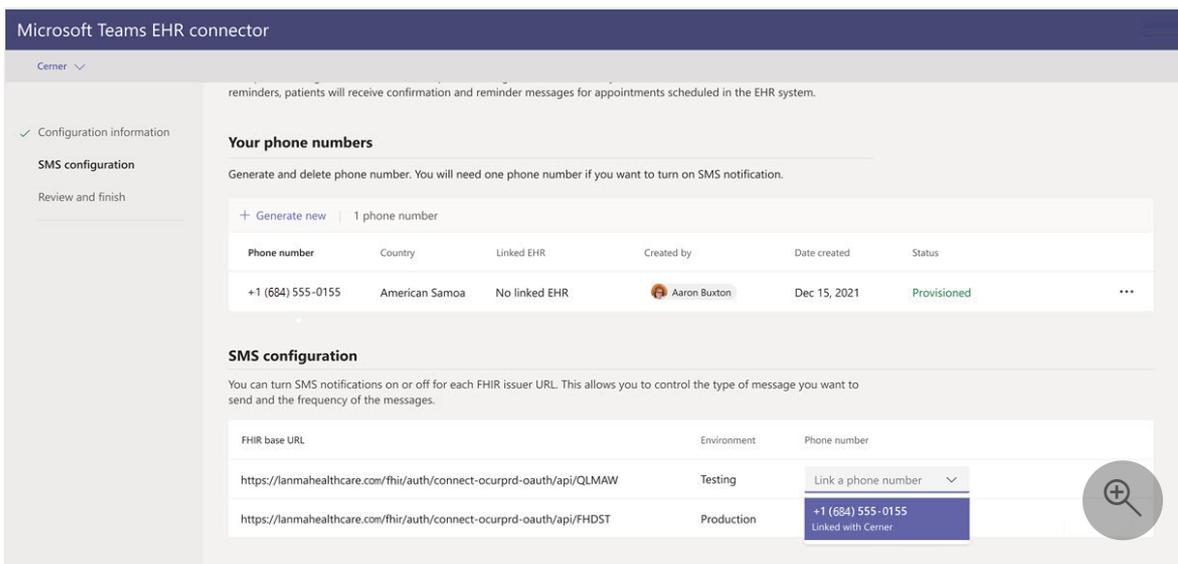
2. Under **Your phone numbers**, select **Generate a new phone number** to generate a phone number for your organization. Doing this starts the process to request and generate a new phone number. This process might take up to 2 minutes to complete.

After the phone number is generated, it's displayed on the screen. This number will be used to send SMS confirmations and reminders to your patients. The number has been provisioned but isn't linked to the FHIR base URL yet. You do that in the next step.



Choose **Done**, and then select **Next**.

- To link the phone number to a FHIR base URL, under **Phone number** in the **SMS configuration** section, select the number. Do this for each FHIR base URL for which you want to enable SMS notifications.



If you're configuring the connector for the first time, you'll see the FHIR base URL that was entered in the earlier step. The same phone number can be linked to multiple FHIR base URLs, which means that patients will receive SMS notifications from the same phone number for different organizations and/or departments.

Select **Next**.

- Some telephone carriers now [require unverified toll numbers to be verified](#). This requirement became effective October 1, 2022. Some carriers are following this more strictly than others.

You'll need to [register your generated phone number in this form](#). This will ensure none of your SMS messages will be blocked when sent to US phone numbers.

Review and finish the configuration

You'll be presented with integration records for patient and provider launch. These records are necessary to complete the virtual appointments configuration in Oracle Health. For more information, see the Oracle Health-Microsoft Teams Telehealth Integration guide.

ⓘ Note

At any time, your Microsoft 365 admin can sign in to the configuration portal to view integration records and change configuration settings, if needed.

Launch Teams Virtual Appointments

After completing the EHR connector steps and Oracle Health configuration steps, your organization is ready to support video appointments with Teams.

Virtual Appointments prerequisites

- Your systems must meet all [software and browser requirements](#) for Teams.
- You completed the integration setup between the Oracle Health organization and your Microsoft 365 organization.

Provider experience

Healthcare providers in your organization can join appointments using Teams from the PowerChart portal. The provider must navigate to the patient board where the Teams option is available.

From there, the provider can view appointment information, join appointments, and send the meeting link. After the one-time sign-in, the provider is taken directly to the virtual appointment in Teams.

Key features of the provider experience:

- Providers can join appointments using supported browsers or the Teams app.
- Providers can use all supported Teams meeting features, including screen sharing, custom background, and recording.
- Providers can see real-time updates of patients connecting to an appointment for a given appointment in PowerChart.
- Provider information isn't visible to patients during the appointment.

ⓘ Note

Any information entered in the meeting chat that's necessary for medical records continuity or retention purposes should be downloaded, copied, and notated by the healthcare provider. The chat doesn't constitute a legal medical record or a designated record set. Messages from the chat are stored based on settings created by the Microsoft Teams admin.

Patient experience

The connector supports patients joining appointments through a link in the SMS text message. At the time of the appointment, patients can start an appointment by tapping the link in the SMS text message.

Key features of the patient experience

- Patients can join appointments from [modern web browsers on desktop and mobile without having to install the Teams app](#).
- Patients can join appointments with a single click and no other account or sign-in is required.
- Patients aren't required to create a Microsoft account or sign in to launch a visit.
- Patients are placed in a lobby until the provider joins and admits them.
- Patients can test their video and microphone in the lobby before joining the appointment.

Troubleshoot Teams EHR connector setup and integration

If you're experiencing issues when setting up the integration, see [Troubleshoot Teams EHR connector setup and configuration](#) for guidance on how to resolve common setup and configuration issues.

Get insight into Virtual Appointments usage

The [EHR connector Virtual Appointments report](#) in the Teams admin center gives you an overview of EHR-integrated virtual appointment activity in your organization. You can view a breakdown of data for each appointment that took place for a given date range. The data includes the staff member who conducted the appointment, duration, the

number of attendees, department, and whether the appointment was within the allocation limit.

Privacy and location of data

Teams integration into EHR systems optimizes the amount of data that's used and stored during integration and virtual appointment flows. The solution follows the overall Teams privacy and data management principles and guidelines outlined in Teams Privacy.

The Teams EHR connector doesn't store or transfer any identifiable personal data or any health records of patients or healthcare providers from the EHR system. The only data that the EHR connector stores is the EHR user's unique ID, which is used during Teams meeting setup.

The EHR user's unique ID is stored in one of the three geographic regions described in [Where your Microsoft 365 customer data is stored](#). All chats, recordings, and other data shared in Teams by meeting participants are stored according to existing storage policies. To learn more about the location of data in Teams, see [Location of data in Teams](#).

Related articles

- [Teams Virtual Appointments usage report](#)
- [Teams EHR connector Virtual Appointments report](#)
- [Get started with Teams for healthcare organizations](#)

Virtual Appointments with Teams - Integration into Epic EHR

Article • 03/30/2023 • Applies to: Microsoft Teams, Microsoft 365 for frontline workers

The Microsoft Teams Electronic Health Record (EHR) connector makes it easy for clinicians to launch a virtual patient appointment or consultation with another provider in Microsoft Teams directly from the Epic EHR system. Built on the Microsoft 365 cloud, Teams enables simple, secure collaboration and communication with chat, video, voice, and healthcare tools in a single hub that supports compliance with HIPAA, HITECH certification, and more.

The communication and collaboration platform of Teams makes it easy for clinicians to cut through the clutter of fragmented systems so they can focus on providing the best possible care. With the Teams EHR connector, you can:

- Launch Teams Virtual Appointments from your Epic EHR system with an integrated clinical workflow.
- Enable patients to join Teams Virtual Appointments from within the patient portal or through SMS.
- Support other scenarios including multi-participant, group visits, and interpreter services.
- Write metadata back to the EHR system about Teams Virtual Appointments to record when attendees connect, disconnect, and enable automatic auditing and record keeping.
- View consumption data reports and customizable Call Quality information for EHR-connected appointments.

This article describes how to set up and configure the Teams EHR connector to integrate with the Epic platform in your healthcare organization. It also gives you an overview of the Teams Virtual Appointments experience from the Epic EHR system.

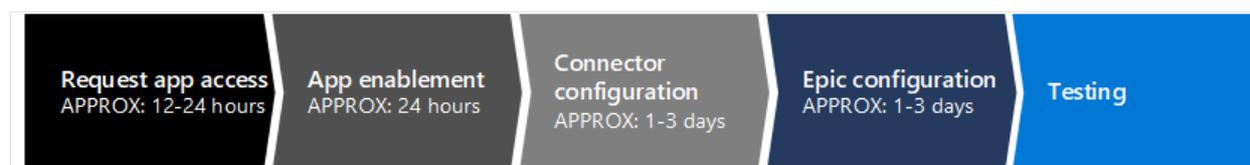
<https://www.microsoft.com/en-us/videoplayer/embed/RE5d3h4?postJsIIMsg=true> 

Before you begin

Before you get started, there's a few things to do to prepare for the integration.

Get familiar with the integration process

Review the following information to get an understanding of the overall integration process.



	Request app access	App enablement	Connector configuration	Epic configuration	Testing
Duration	Approximately 12-24 hours	Approximately 24 hours	Approximately 1-3 days	Approximately 1-3 days	
Action	You request access to the Teams app .	We create a public and private key certificate and upload them to Epic.	You complete configuration steps in the EHR connector configuration portal.	You work with your Epic technical specialist to configure FDI records in Epic.	You complete testing in your test environment.
Outcome	We authorize your organization for testing.	Epic syncs the public key certificate.	You receive FDI records for Epic configuration.	Configuration completed. Ready to test.	Full validation of flows and decision to move to production.

Request access to the Teams app

You'll need to request access to the Teams app.

1. Request to download the Teams app in the [Epic Connection Hub](#). Doing this triggers a request from Epic to the Microsoft EHR connector team.
2. After you make your request, send an email to TeamsForHealthcare@service.microsoft.com with your organization name, tenant ID, and the email address of your Epic technical contact.
3. The Microsoft EHR connector team will respond to your email with confirmation of enablement.

Review the Epic-Microsoft Teams Telehealth Integration guide

Review the [Epic-Microsoft Teams Telehealth Integration Guide](#) with your Epic technical specialist. Make sure that all prerequisites are met.

Prerequisites

- An active subscription to Microsoft Cloud for Healthcare or a subscription to Microsoft Teams EHR connector standalone offer (only enforced when testing in a production EHR environment).
- Epic version November 2018 or later.
- Users have an appropriate Microsoft 365 or Office 365 license that includes Teams meetings.
- Teams is adopted and used in your healthcare organization.
- Identified a person in your organization who is a Microsoft 365 global admin with access to the [Teams admin center](#) [↗].
- Your systems meet all [software and browser requirements](#) for Teams.

Important

Make sure you complete the pre-integration steps and all prerequisites are met before you move forward with the integration.

The integration steps are performed by the following people in your organization:

- **Microsoft 365 global admin:** The main person who is responsible for the integration. The admin configures the connector, enables SMS (if needed), and adds the Epic customer analyst who will be approving the configuration.
- **Epic customer analyst:** A person in your organization who has login credentials to Epic. They approve the configuration settings entered by the admin and provide the configuration records to Epic.

The Microsoft 365 admin and Epic customer analyst can be the same person.

Set up the Teams EHR connector

The connector setup requires that you:

- [Launch the EHR connector configuration portal](#)
- [Enter configuration information](#)
- [Enable SMS notifications \(optional\)](#)
- [Approve or view the configuration](#)
- [Review and finish the configuration](#)

Launch the EHR connector configuration portal

To get started, your Microsoft 365 admin launches the [EHR connector configuration portal](#) and signs in using their Microsoft 365 credentials.

Your Microsoft 365 admin can configure a single organization or multiple organizations to test the integration. Configure the test and production URL in the configuration portal. Make sure to test the integration from the Epic test environment before moving to production.

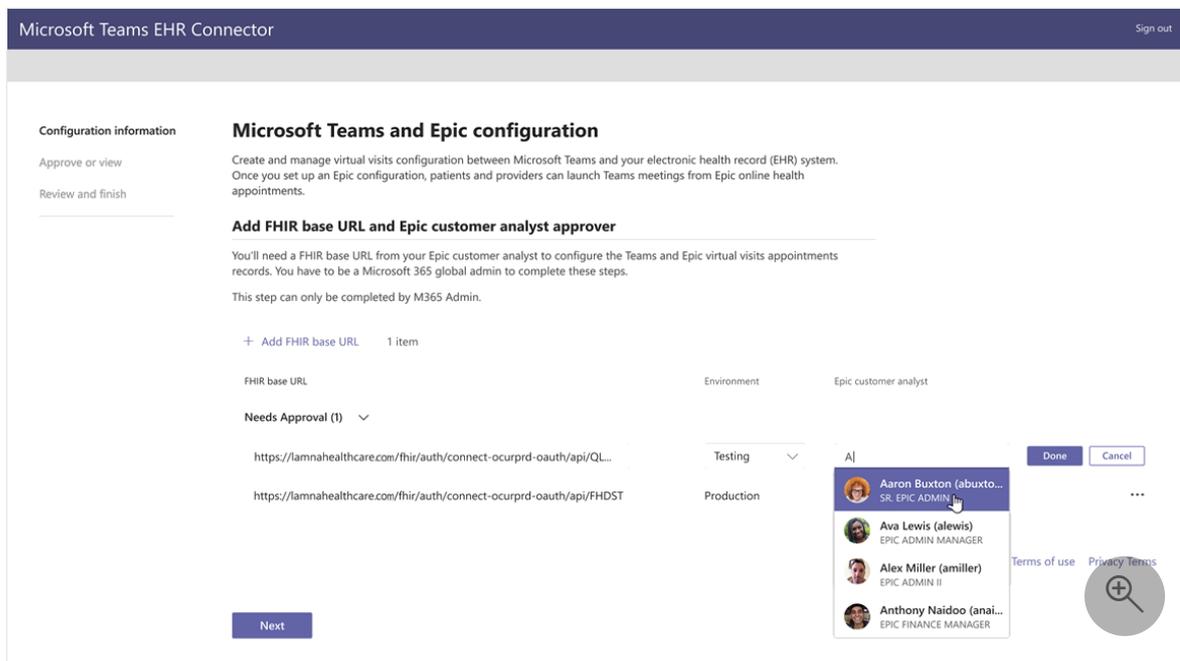
ⓘ Note

Your Microsoft 365 admin and Epic customer analyst must complete the integration steps in the configuration portal. For Epic configuration steps, contact the Epic technical specialist assigned to your organization.

Enter configuration information

Next, to set up the integration, your Microsoft 365 admin completes following steps:

1. Adds a Fast Health Interoperability Resources (FHIR) base URL from your Epic technical specialist and specifies the environment. Configure as many FHIR base URLs as needed, depending on your organization's needs and the environments you want to test.
 - The FHIR base URL is a static address that corresponds to your server FHIR API endpoint. An example URL is `https://lamnahealthcare.com/fhir/auth/connect-ocurprd-oauth/api/FHDST`.
 - You can set up the integration for test and production environments. For initial setup, we encourage you to configure the connector from a test environment before moving to production.
2. Adds the username of the Epic customer analyst who will be approving the configuration in a later step.



Enable SMS notifications (optional)

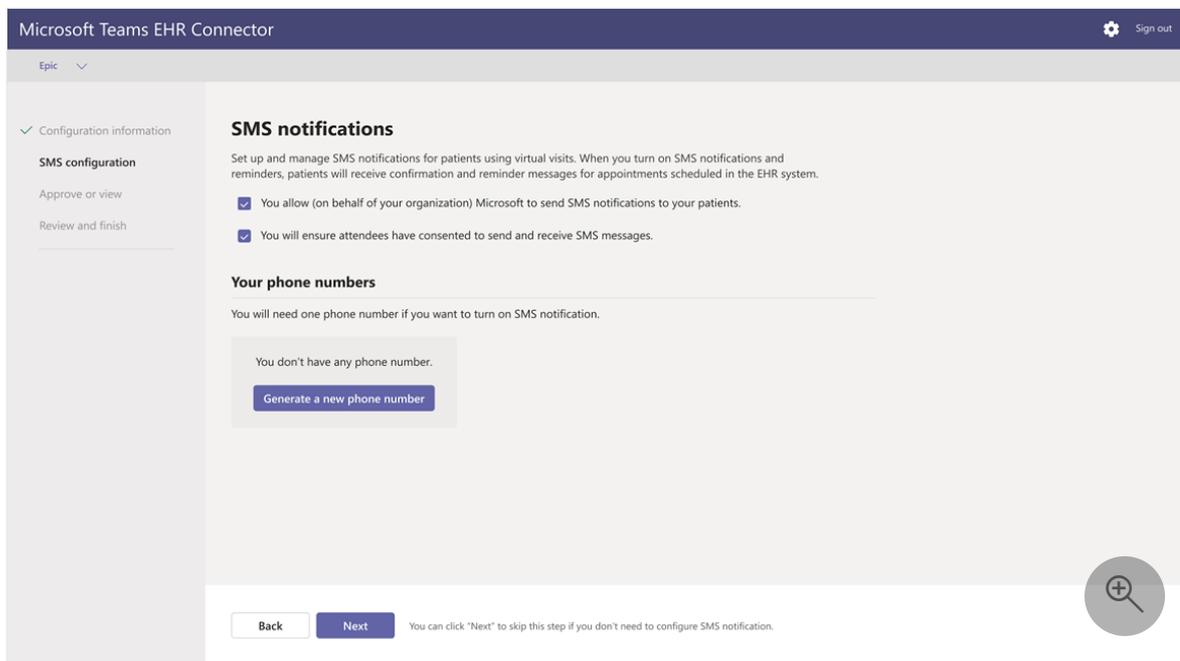
ⓘ Note

SMS notifications is currently only available in the United States. We're working on making this feature available in other regions in future releases of Teams and will update this article when available.

Complete this step if your organization wants Microsoft to manage SMS notifications for your patients. When you enable SMS notifications, your patients will receive confirmation and reminder messages for scheduled appointments.

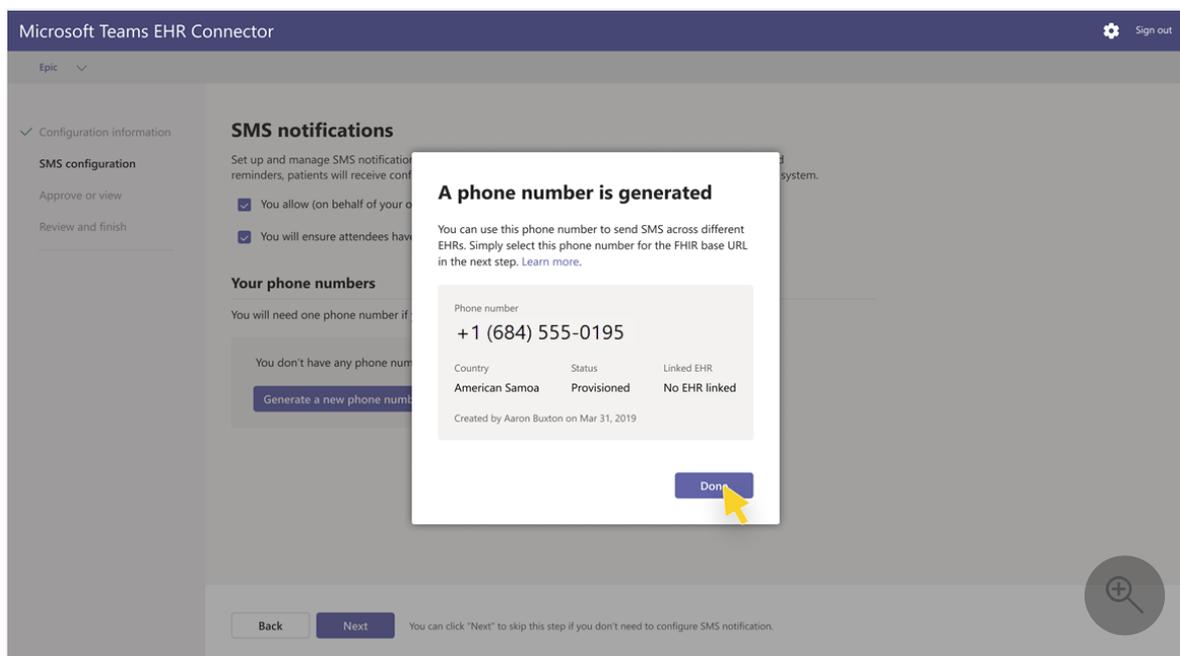
To enable SMS notifications, your Microsoft 365 admin completes the following steps:

1. On the SMS notifications page, select both consent checkboxes to:
 - Allow Microsoft to send SMS notifications to patients on behalf of your organization.
 - Acknowledge that you'll ensure attendees have consented to send and receive SMS messages.



2. Under **Your phone numbers**, select **Generate a new phone number** to generate a phone number for your organization. Doing this starts the process to request and generate a new phone number. This process might take up to 2 minutes to complete.

After the phone number is generated, it's displayed on the screen. This number will be used to send SMS confirmations and reminders to your patients. The number has been provisioned but isn't linked to the FHIR base URL yet. You do that in the next step.



Choose **Done**, and then select **Next**.

3. Some telephone carriers now **require unverified toll numbers to be verified**. This requirement became effective October 1, 2022. Some carriers are following this

more strictly than others.

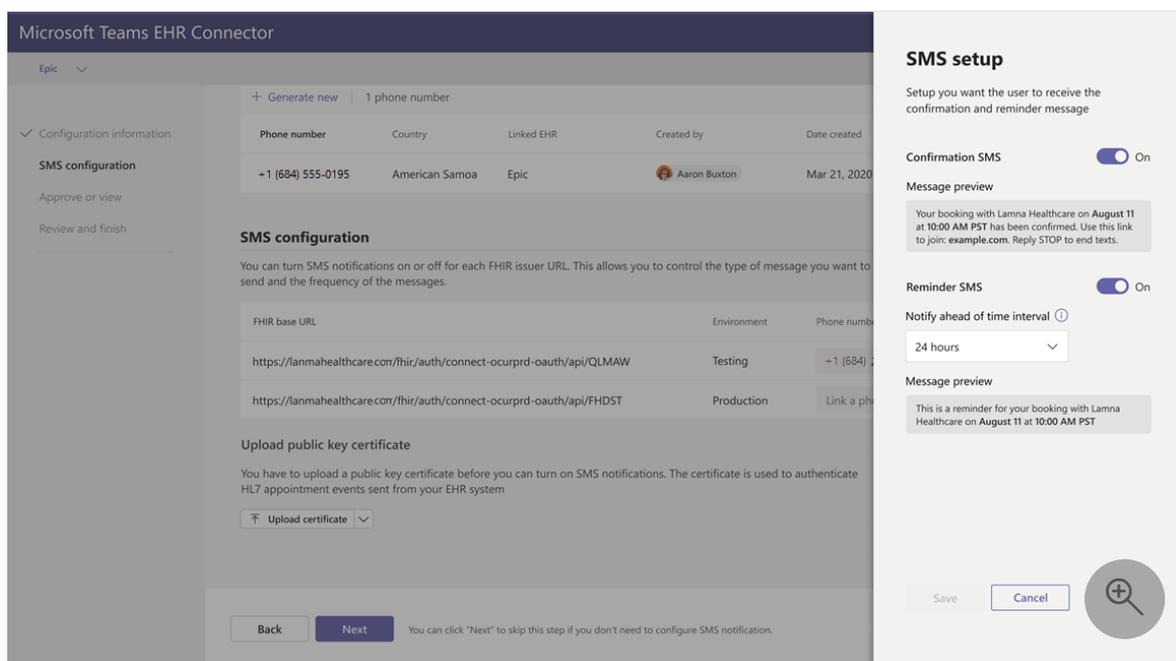
You'll need to [register your generated phone number in this form](#). This will ensure none of your SMS messages will be blocked when sent to US phone numbers.

4. To link the phone number to a FHIR base URL, under **Phone number** in the **SMS configuration** section, select the number. Do this for each FHIR base URL for which you want to enable SMS notifications.

The screenshot shows the 'Microsoft Teams EHR Connector' interface. At the top, there's a header with 'Epic' and a 'Sign out' button. Below the header, there's a sidebar with 'Configuration information' and 'SMS configuration' sections. The main content area shows a table of phone numbers and an 'SMS configuration' section. The table has columns for 'Phone number', 'Country', 'Linked EHR', 'Created by', 'Date created', and 'Status'. One row is visible with the phone number '+1 (684) 555-0195', country 'American Samoa', and status 'Provisioned'. Below the table, the 'SMS configuration' section allows users to turn SMS notifications on or off for each FHIR issuer URL. It includes a table with columns for 'FHIR base URL', 'Environment', and 'Phone number'. Two rows are shown: one for 'Testing' and one for 'Production'. The 'Production' row has the phone number '+1 (684) 555-0195' selected. Below this, there's an 'Upload public key certificate' section with an 'Upload certificate' button. At the bottom, there are 'Back' and 'Next' buttons, with a note that clicking 'Next' skips the step if configuration is not needed.

If you're configuring the connector for the first time, you'll see the FHIR base URL that was entered in the earlier step. The same phone number can be linked to multiple FHIR base URLs, which means that patients will receive SMS notifications from the same phone number for different organizations and/or departments.

5. Select **SMS setup** next to each FHIR base URL to set up the types of SMS notifications to send to your patients.



- **Confirmation SMS:** Notifications are sent to patients when an appointment is scheduled, updated, or canceled in the EHR system.
- **Reminder SMS:** Notifications are sent to patients according to the time interval you specify and the scheduled time of the appointment.

Choose **Save**.

6. Select **Upload certificate** to upload a public key certificate. You must upload a Base64 encoded (public key only) .cer certificate for each environment.

A public key certificate is required to receive appointment information for sending SMS notifications. The certificate is needed to verify that the incoming information is from a valid source.

When the connector is used to send SMS reminders, the patient's phone number is sent by Epic in a HL7v2 payload when appointments are created in Epic. These numbers are stored for each appointment in your organization's geography and are retained until the appointment takes place. To learn more about how to configure HL7v2 messages, see the [Epic-Microsoft Teams Telehealth Integration Guide](#).

Choose **Next**.

ⓘ Note

At any time, your Microsoft 365 admin can update any of the SMS settings. Keep in mind that changing settings might result in a stoppage of SMS service. For more information about how to view SMS reports, see [Teams EHR connector Virtual Appointments report](#).

Approve or view the configuration

The Epic customer analyst in your organization who was added as approver launches the [EHR connector configuration portal](#) and signs in using their Microsoft 365 credentials. After successful validation, the approver is asked to sign in using their Epic credentials to validate the Epic organization.

ⓘ Note

If the Microsoft 365 admin and Epic customer analyst are the same person, you'll still need to sign in to Epic to validate your access. The Epic sign-in is used only to validate your FHIR base URL. Microsoft won't store credentials or access EHR data with this sign-in.

Microsoft Teams EHR Connector Sign out

Approve or View Configuration

Use this page to approve or view your Epic configuration. You can login with an Epic customer analyst account and approve a FHIR base URL or view details on the FHIR base URLs.

Please log in with your Epic user account to continue on with the configuration process.

FHIR base URL	Attribute	Configuration status
 https://lamnahealthcare.com/fhir/auth/connect-ocurprd-oauth/api/QLMAW	Testing	Login and approve
 https://lamnahealthcare.com/fhir/auth/connect-ocurprd-oauth/api/FHDST	Production	Login and approve


Privacy Terms

After successful sign-in to Epic, the Epic customer analyst **must** approve the configuration. If the configuration isn't correct, your Microsoft 365 admin can sign in to the configuration portal and change the settings.

You're logged in as kat.larson@lamnahealth.com at Lamna Health.

Approve or view configuration

The configuration below was added by the Microsoft 365 administrator. Select Approve to complete the set up. You have to be an Epic customer analyst to approve the configuration. This step must be completed by an Epic administrator.

Configuration details

Lamna Healthcare
Microsoft Teams organization

If you don't recognize the FHIR base URL, or it's invalid, contact your Microsoft 365 administrator.

`https://lamnahealthcare.com/fhir/auth/connect-ocurprd-oauth/api/QLAMW` Testing

Approve

Back



Review and finish the configuration

When the configuration information is approved by the Epic administrator, you'll be presented with integration records for patient and provider launch. The integration records include:

- Patient and provider records
- Direct SMS record
- SMS configuration record
- Device test configuration record

The context token for device test can be found in the patient integration record. The Epic customer analyst must provide these records to Epic to complete the virtual appointments configuration in Epic. For more information, see the [Epic-Microsoft Teams Telehealth Integration Guide](#).

ⓘ Note

At any time the Microsoft 365 or Epic customer analyst can sign in to the configuration portal to view integration records and change organization configuration, as needed.

Review and Finish Epic Configuration

You have successfully map your organization with Microsoft Teams.

Lamna Healthcare 
Microsoft Teams organization

Finish configuration

To enable the integration, please follow the steps in the Microsoft Teams configuration guide. Contact the Epic technical specialist for a link to the guide. Once you finish the configuration, patients and providers can launch Teams meetings from Epic online health appointments.

[Patient integration details](#) [Provider integration details](#) [Patient direct join link integration record](#) [HL7 interface endpoint](#)

Launch URL	https://amer-ehrconnectorsvc.teams.microsoft.com/api/epic/launchmeetingpatienttest
Client ID	b547627f-2a0a-41d1-87c6-923670048001
Context token	sessionId=fc45510c-2e14-4675-a32d-c2b25919a5ac&upn=admin@ &organizerId=86ed85eb-6c8b-4c70-bd3c-0db5925d8987&us
Device test context token	sessionId=fc45510c-2e14-4675-a32d-c2b25919a5ac&upn=admin@ &organizerId=86ed85eb-6c8b-4c70-bd3c-0db5925d8987&us

Update



Note

The Epic customer analyst must complete the approval process for each FHIR base URL that's configured by the Microsoft 365 admin.

Launch Teams Virtual Appointments

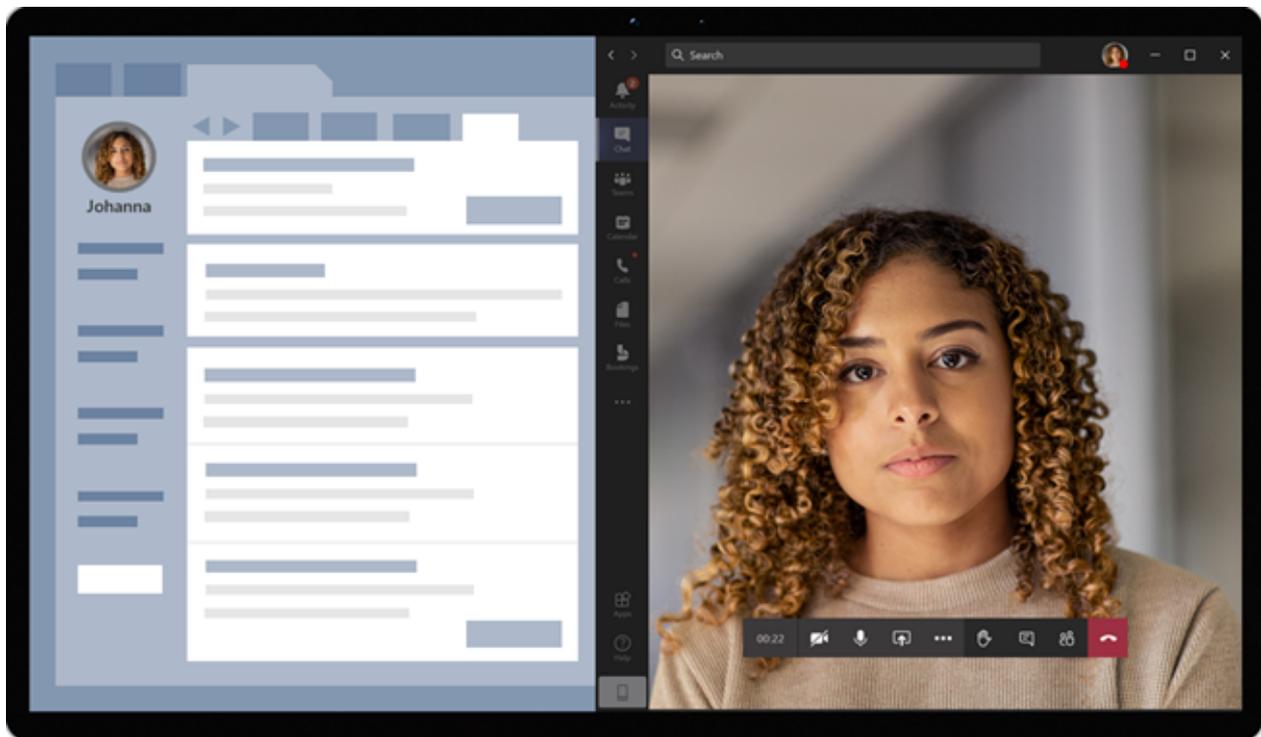
After completing the EHR connector steps and Epic configuration, your organization is ready to support video appointments with Teams.

Virtual Appointments prerequisites

- Your systems must meet all [software and browser requirements](#) for Teams.
- You completed the integration setup between the Epic organization and your Microsoft 365 organization.

Provider experience

Healthcare providers from your organization can join appointments using Teams from their Epic provider apps (Hyperspace, Haiku, Canto). The **Begin virtual visit** button is embedded in the provider flow.



Key features of the provider experience:

- Providers can join appointments using supported browsers or the Teams app.
- Providers must do a one-time sign-in with their Microsoft 365 account when joining an appointment for the first time.
- After the one-time sign-in, the provider is taken directly to the virtual appointment in Teams. (The provider must be signed in to Teams).
- Providers can see real-time updates of participants connecting and disconnecting for a given appointment. Providers can see when the patient is connected to an appointment.

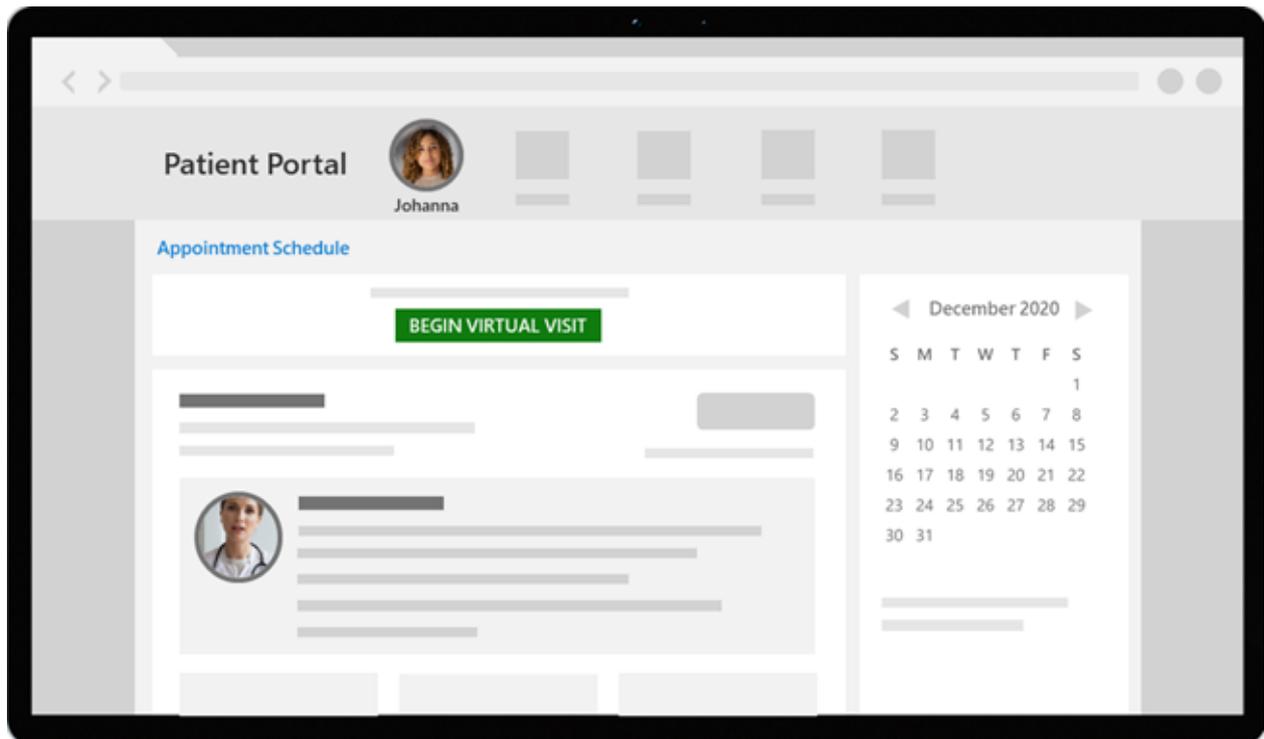
📌 Note

Any information entered in the meeting chat that's necessary for medical records continuity or retention purposes should be downloaded, copied, and notated by the healthcare provider. The chat doesn't constitute a legal medical record or a designated record set. Messages from the chat are stored based on settings created by the Microsoft Teams admin.

Patient experience

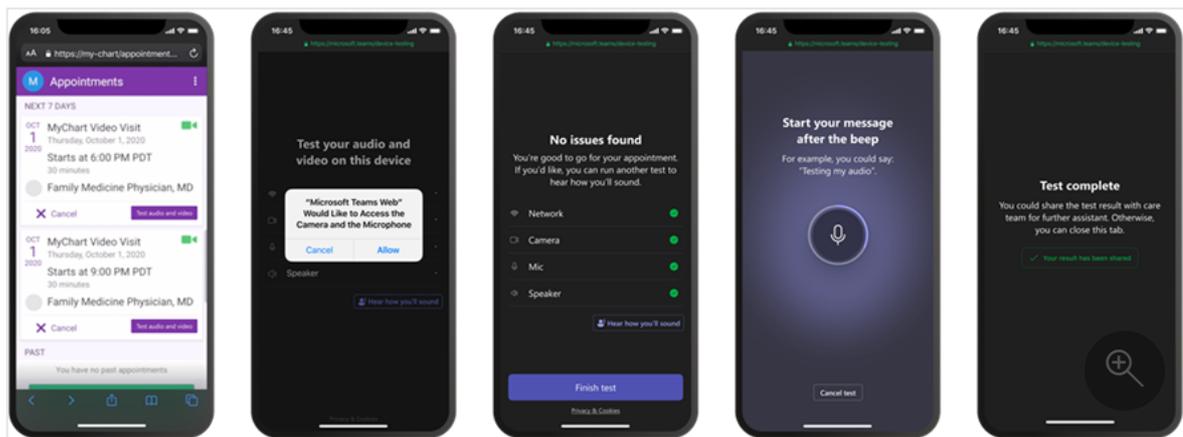
The connector supports patients joining appointments through a link in the SMS text message, MyChart web, and mobile. At the time of the appointment, patients can start

the appointment from MyChart using the **Begin virtual visit** button or by tapping the link in the SMS text message.



Key features of the patient experience:

- Patients can join appointments from [modern web browsers on desktop and mobile without having to install the Teams app](#).
- Patients can test their device hardware and connection before joining an appointment.



Device test capabilities:

- Patients can test their speaker, microphone, camera, and connection.
- Patients can complete a test call to fully validate their configuration.
- Results of the device test can be sent back to the EHR system.
- Patients can join appointments with a single click and no other account or sign-in is required.

- Patients aren't required to create a Microsoft account or sign in to launch an appointment.
- Patients are placed in a lobby until the provider joins and admits them.
- Patients can test their video and microphone in the lobby before they join the appointment.

ⓘ Note

Epic, MyChart, Haiku, and Canto are trademarks of Epic Systems Corporation.

Troubleshoot Teams EHR connector setup and integration

If you're experiencing issues when setting up the integration, see [Troubleshoot Teams EHR connector setup and configuration](#) for guidance on how to resolve common setup and configuration issues.

Get insight into Virtual Appointments usage

The [EHR connector Virtual Appointments report](#) in the Teams admin center gives you an overview of EHR-integrated virtual appointment activity in your organization. You can view a breakdown of data for each appointment that took place for a given date range. The data includes the staff member who conducted the appointment, duration, the number of attendees, department, and whether the appointment was within the allocation limit.

Privacy and location of data

Teams integration into EHR systems optimizes the amount of data that's used and stored during integration and virtual appointment flows. The solution follows the overall Teams privacy and data management principles and guidelines outlined in Teams Privacy.

The Teams EHR connector doesn't store or transfer any identifiable personal data or any health records of patients or healthcare providers from the EHR system. The only data that is stored by the EHR connector is the EHR user's unique ID, which is used during Teams meeting setup.

The EHR user's unique ID is stored in one of the three geographic regions described in [Where your Microsoft 365 customer data is stored](#). All chat, recordings, and other data shared in Teams by meeting participants are stored according to existing storage policies. To learn more about the location of data in Teams, see [Location of data in Teams](#).

Related articles

- [Teams Virtual Appointments usage report](#)
- [Teams EHR connector Virtual Appointments report](#)
- [Get started with Teams for healthcare organizations](#)

Troubleshoot Microsoft Teams EHR connector setup and configuration

Article • 04/27/2023 • Applies to: Microsoft Teams, Microsoft 365 for frontline workers

This article provides guidance for how to troubleshoot common setup and configuration issues for the Microsoft Teams Electronic Health Record (EHR) connector. Use it to help resolve blockers that you may experience when you set up and configure the EHR connector to integrate with your [Oracle Health EHR](#) or [Epic EHR](#) system.

FHIR URL isn't working

I get an "FHIR URL isn't valid" error when I try to configure the EHR connector

This issue can happen in the following scenarios:

- The FHIR base URL is missing the DSTU2 extension and you're using Teams version 1.1 or 1.2.
- The FHIR base URL is missing the R4 extension and you're using Teams version 1.3.

Contact your Epic technical specialist to provide the full FHIR base URL.

I'm an Epic analyst and I get an "OAUTH2" error from Epic when I try to approve the FHIR URL

This issue can occur if the keys aren't set up in the Epic instance or if OAuth configuration isn't completed by Epic. Contact your Epic technical specialist.

I'm an Epic analyst and when I try to approve the FHIR URL in the EHR connector configuration portal, I can't sign in to Epic using my Epic credentials

Your permissions need to be changed in Epic. Contact your Epic technical specialist to check and update your permissions.

Can't launch virtual appointments

I've set up the EHR connector for the first time and patients are unable to launch a virtual appointment from the patient portal

Here are some common reasons why you may be experiencing this issue and how to resolve it.

The FDI records in Epic don't match the values from the EHR connector configuration portal

The launch URL and the context tokens must be copied from the [EHR connector configuration portal](#) to the FDI records in Epic. Contact the Epic analyst in your organization to verify that the values were copied correctly. Keep in mind that in some cases, manipulating the FDI records after copying them from the EHR connector configuration portal is allowed.

The FDI records aren't updated in the correct Epic environment

The FHIR base URLs for the test and production environments in Epic are different. Check to make sure that the FDI records reflect the values for the correct environment.

You're using a production environment and you don't have a production license

Your organization must have at least one active license for either Microsoft Cloud for Healthcare, Microsoft Teams EHR Connector add-on, or Microsoft Teams EMR connector add-on. For Oracle Health customers, a license is also required for testing.

Users get a "Tenant config not found" error when launching a virtual appointment even though all our FHIR base URLs are configured correctly

This issue can happen if a user accidentally launches the virtual appointment in the EHR production environment by using the test FHIR base URL or vice versa.

To resolve this issue:

- Make sure that the production FHIR base URL is used only to launch virtual appointments in the production environment.

- Make that the test FHIR base URL is used only to launch virtual appointments in the test environment.

Group visits

Group visits aren't working in my organization

Currently, group visits are only supported in Epic.

Here are some common reasons why you may be experiencing this issue when integrating with Epic, and how to resolve it.

- You're using an incorrect version of Teams. Group visits require a minimum of Teams version 1.2 and an upgrade must be requested in Epic Connection Hub.
- New FDI records need to be added. Your Epic analyst will need to create new FDI records for group visits to support the provider and patient join experience. Additionally, you must change the context token in the group visit FDI records from `sessionId=%CSN%` to `sessionId=%CONFERENCEID%`. Contact your Epic technical specialist for help.
- If you're still experiencing this issue after trying the previous steps in this list, your tenant settings may need to be changed. Contact Microsoft Support to open a support ticket for the Teams EHR connector. Indicate in the ticket that group settings need to be enabled.

Provider experience

Providers don't get a Teams notification when patients join a virtual appointment

Often this can be solved by training. When a provider starts the virtual appointment, a temporary notification is displayed to the provider to admit the patient. This notification appears only briefly.

Providers can also select **People** in the meeting controls at the top of the screen to see the list of participants, and then under **Waiting in lobby**, select the green check mark next to the participant's name to admit them.

Patient experience

Patients are prompted to download the Teams app instead of joining from a web browser. We want patients to join from a web browser without having to install Teams

Contact Microsoft Support and open a support ticket for the Teams EHR connector. Indicate in the ticket that the web browser join setting needs to be turned on. This change needs to be done by the Teams EHR connector team.

After the web browser join setting is turned on, patients can join virtual appointments in a browser without having to install Teams.

Patients can send chat messages to providers in Teams after the virtual appointment ends from within the appointment. How can we block this?

This scenario can happen because of several reasons.

The provider leaves the appointment but didn't end it

If the provider leaves the appointment but didn't end it and the patient remains in the appointment, they can both continue to chat. To prevent the patient from sending chat messages, the provider must select **End meeting** in Teams to end the appointment.

The web browser join setting is turned off and the patient, who is also an employee of your organization, joins in the Teams app using their work credentials

If the patient is an employee of your organization and they join the appointment via the Teams app using their work credentials, they're joining the appointment as a member of your organization and not as a guest. This means that they can send chat messages even after the appointment ends.

To avoid this scenario, you can do one of the following actions:

- Contact Microsoft Support and open a support ticket for the Teams EHR connector. Indicate in the ticket that the web browser join setting needs to be turned on. This change needs to be done by the Teams EHR connector team.
- Train your employees to not sign in to Teams using their work credentials when they attend appointments as a patient.

Admin experience

I'm unable to access the EHR connector configuration portal or I can only see existing configurations and can't add new ones

You don't have admin access to the [EHR connector configuration portal](#). As a quick check, see whether you can access the [Teams admin center](#). If you can't access the Teams admin center, you don't have admin permissions.

Contact an admin in your organization to either grant you admin access or set up the integration in the portal.

My organization wants to share the EHR Connector integration with other organizations in my network

If you want to share your FHIR base URL, email us with the FHIR base URL you would like to share at [TeamsForHealthcare](#) with the following information:

1. FHIR base URL to be shared
2. Tenant ID of the parent/initial Microsoft tenant hosting the EHR Connector (such as the main hospital hosting the EHR)
3. Tenant ID(s) of the new tenant(s) that will share the EHR Connector (such as regional branches, related medical offices or clinics)

Virtual Desktop Infrastructure (VDI) support

My organization uses a Citrix environment. How do I configure it to use the EHR connector?

You can configure a Citrix environment to route certain URLs back to the local machine and not launch in the virtual machine. For example, to launch virtual appointments in Teams, configure all traffic for "*.teams.microsoft.com" to the local machine.

To learn more, see the following Citrix documentation:

- [Optimization for Microsoft Teams](#)
- [Browser content redirection](#)

Related articles

- [Virtual Appointments with Teams - Integration into Oracle Health EHR](#)
- [Virtual Appointments with Teams - Integration into Epic EHR](#)
- [EHR connector Virtual Appointments report](#)
- [Get started with Microsoft 365 for healthcare organizations](#)

Manage the join experience for Teams Virtual Appointments on browsers

Article • 05/09/2023 • Applies to: Microsoft Teams, Microsoft 365 for frontline workers

Microsoft Teams makes it easy for people to join [virtual appointments](#) without having to download Teams. For a more seamless experience, attendees can join appointments such as healthcare visits and financial consultations from a desktop or mobile browser. Attendees don't need to install the Teams app on their device.

With browser join, when an attendee joins an appointment, they aren't prompted to download Teams. Instead, Teams opens in a browser, where the attendee can select **Join now** to join. With this feature, keep in mind that if Teams is already installed on the device, Teams will open in a browser and not in the app.

Currently, browser join is available for appointments that are scheduled through the following:

- [The Virtual Appointments app](#) 
- [The Bookings app](#) 
- Microsoft Teams Electronic Health Record (EHR) connector
 - Integration with [Cerner EHR](#)
 - Integration with [Epic EHR](#)

Set up browser join

Appointments scheduled through the Virtual Appointments app or the Bookings app

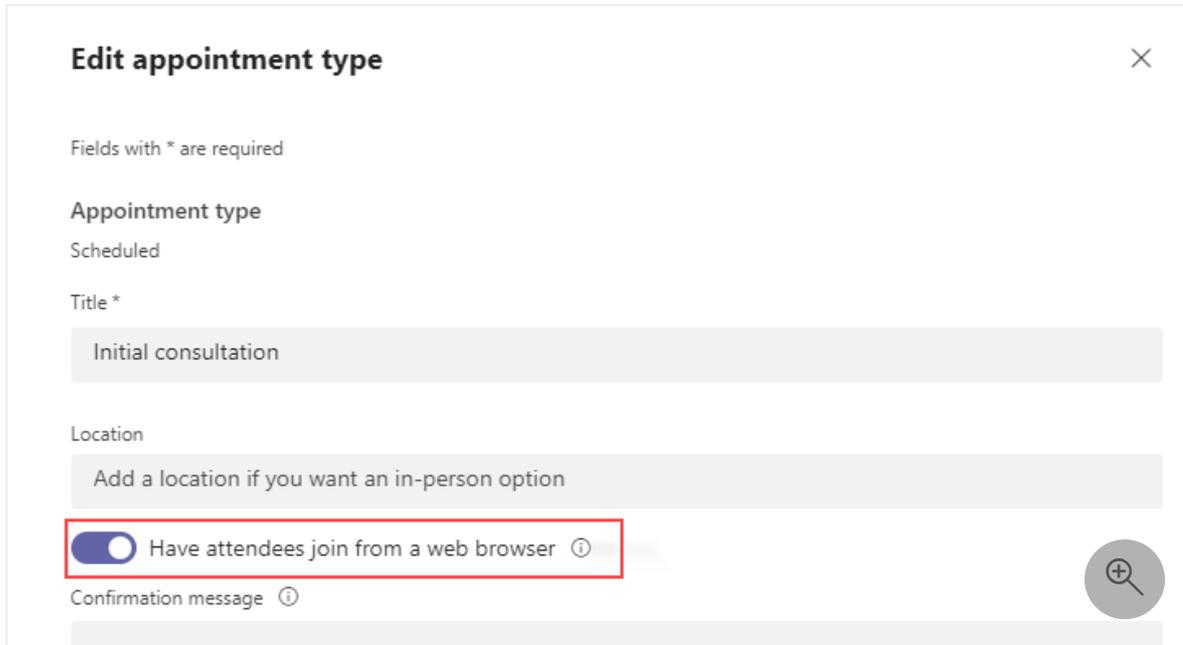
Schedulers in your organization can turn on this feature for specific appointment types and for scheduled individual appointments.

After this feature is turned on, the confirmation email or SMS text that's sent to attendees will contain a meeting join link that opens Teams in a desktop or mobile browser. For a list of supported browsers, see [Supported browsers](#).

Turn on browser join for an appointment type

1. Do one of the following:

- a. In the Virtual Appointments app, go to the **Manage** tab > **Appointment types**, and then under **Scheduled**, select an appointment type.
 - b. In the Bookings app, go to **Settings** > **Appointment types**, and then under **Scheduled**, select an appointment type.
2. Turn on **Have attendees join from a web browser**. Doing this enables browser join for all appointments of this type.



The screenshot shows a mobile application interface for editing an appointment type. The title is "Edit appointment type" with a close button (X) in the top right corner. Below the title, there is a note: "Fields with * are required". The form includes several sections: "Appointment type" with a dropdown menu set to "Scheduled"; "Title *" with a text input field containing "Initial consultation"; "Location" with a text input field containing "Add a location if you want an in-person option"; and a toggle switch for "Have attendees join from a web browser" which is currently turned on (blue). An information icon (i) is next to the toggle. At the bottom, there is a "Confirmation message" field with an information icon (i). A search icon (magnifying glass) is located in the bottom right corner of the form area.

Turn on browser join for an individual appointment

On the **Bookings schedule** tab of the Virtual Appointments app or in the Bookings app, select **New booking**, and then turn on **Have attendees join from a browser**.

Initial consult ▾

From: **A** Adatum

Attendee name * Attendee email * +1 Attendee phone number

Cc others

11/7/2022 1:00 PM → 11/7/2022 2:00 PM 1h

Add staff *

Add note for staff

Add a location if you want an in-person option

Make this a Teams meeting ⓘ

Have attendees join from a web browser ⓘ

Confirmation message

B *I* U | Paragraph ▾ |

Add links or info to include in the invite for this appointment type

Send them text messages ⓘ

Appointments scheduled through the Teams EHR connector

No setup is needed by you or your staff!

Integration with Cerner EHR: The Teams EHR connector supports patients joining virtual appointments through a link in the SMS text message. At the time of the appointment, patients can join by tapping the link in the SMS text message, and Teams opens in a browser.

Integration with Epic EHR: The Teams EHR connector supports patients joining virtual appointments through MyChart web and mobile. At the time of the appointment, patients can start the appointment from MyChart by using the **Begin virtual visit** button, and Teams opens in a browser.

Customize the waiting room with your company logo

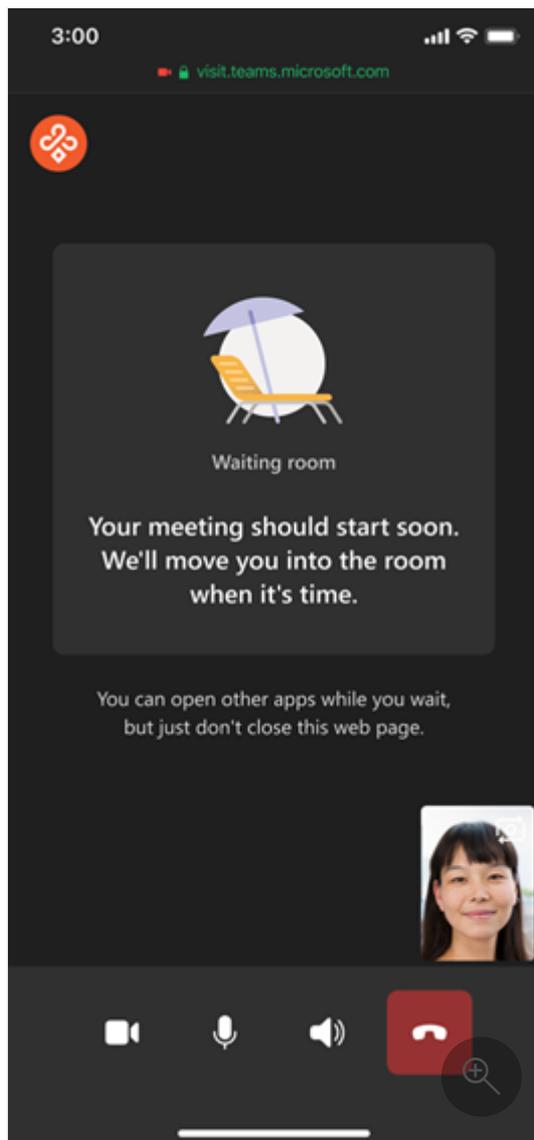
This feature requires [Teams Premium](#).

You can configure a custom waiting room experience for attendees by adding your company logo. As an admin, you use Teams meeting customization policies in the Teams

admin center to define your branding by creating a meeting theme. A meeting theme can include your company's logo, a custom image, and more.

Currently, browser join supports only the logo in the meeting theme. This means that if your meeting theme includes your company logo and a custom image, attendees who join in a browser will only see the logo.

After you create the policy, assign it to the users in your organization who schedule appointments. Users who are assigned the policy can create branding-enabled virtual appointments. Anyone who joins the appointments gets a custom-branded waiting room experience.



To learn more, see [Meeting themes for Teams meetings](#).

Supported browsers

Here are the browsers that are currently supported. We support the latest version plus two previous versions, unless otherwise indicated.

Platform	Google Chrome	Apple Safari	Microsoft Edge (Chromium)
Android	✓ ¹		
iOS		✓ ^{1 2}	
macOS	✓	✓	
Windows	✓		✓
Ubuntu/Linux	✓		

¹ Outgoing screen sharing isn't supported on iOS or Android.

² iOS apps on Safari can't select microphone and speaker devices. For example, Bluetooth devices. This is a limitation of the operating system, which controls the default device selection.

User experience

Here are some things about the user experience to know about with browser join.

Screen sharing

The staff member who conducts the appointment can share their screen from their Teams desktop, mobile, or web client with an attendee who joins from a desktop or mobile browser. Attendees can share their screen when joining on desktop, but can't share on a mobile browser.

Live captions

Teams can detect what's said during an appointment and display real-time captions.

To use captions, a staff member must first turn on live captions in Teams. Then, any attendee who wants to see captions can turn them on in Teams from their browser.

To turn on live captions, in the meeting controls in Teams, go to **More (...)** > **Turn on live captions**. Captions are only visible for attendees who turn them on and are permanently deleted when the appointment is over.

Staff members can change the language of the captions. The default language is English (US). To the right of the captions, go to **Captions settings (...)** > **Change spoken language**, and then select the language spoken during the appointment. The language

that's set applies to everyone who has captions turned on in the appointment. Captions aren't translated.

Joining appointments configured with Teams Premium protected meetings features

Currently, protected meeting capabilities that are part of [Teams Premium](#), such as sensitivity labels, watermarks, and end-to-end encryption (E2EE), aren't supported in browser join.

If you've configured any of these features in your organization, attendees won't be able to join appointments from a desktop or mobile browser. Instead, they're prompted to download Teams and the meeting link they receive opens Teams in the desktop, mobile, or web app.

Related articles

- [Virtual Appointments with Teams](#)
- [Use the Virtual Appointments app in Teams](#)
- [Teams Premium licensing](#)

Microsoft Teams Virtual Appointments usage report

Article • 02/07/2023 • Applies to: Microsoft Teams, Microsoft 365 for frontline workers

 This feature requires a [Teams Premium](#) or a [Teams EHR connector license](#).

The Virtual Appointments usage report in the Microsoft Teams admin center gives you an overview of Teams Virtual Appointments activity in your organization. You can view detailed activity for virtual appointments scheduled through the [Bookings app](#) and the [Microsoft Teams Electronic Health Record \(EHR\) connector](#).

To view the report, you must be a Global admin, Teams admin, Global reader, or Report reader.

The report contains the following tabs. The information you'll see in the report depends on the license you have.

Tab	Description
Virtual Appointments	Shows the total number of virtual appointments, with a breakdown of the number of Bookings appointments, Teams EHR-integrated meetings conducted from your EHR system, and premium appointments.
Duration	Shows the average duration of appointments and average lobby wait time of participants.
Bookings	Shows the number of Bookings appointments, with a breakdown of the number of premium appointments.
EHR	Shows the number of Teams EHR-integrated appointments conducted from your EHR system.

Note

Advanced appointments are appointments that use at least one premium Virtual Appointments capability available in [Teams Premium](#). For more analytics on advanced Virtual Appointments usage, see the [Advanced Virtual Appointments activity report](#).

Use this report to gain insight into virtual appointment activity and trends in your organization. The information can help you optimize Virtual Appointments to deliver better business outcomes.

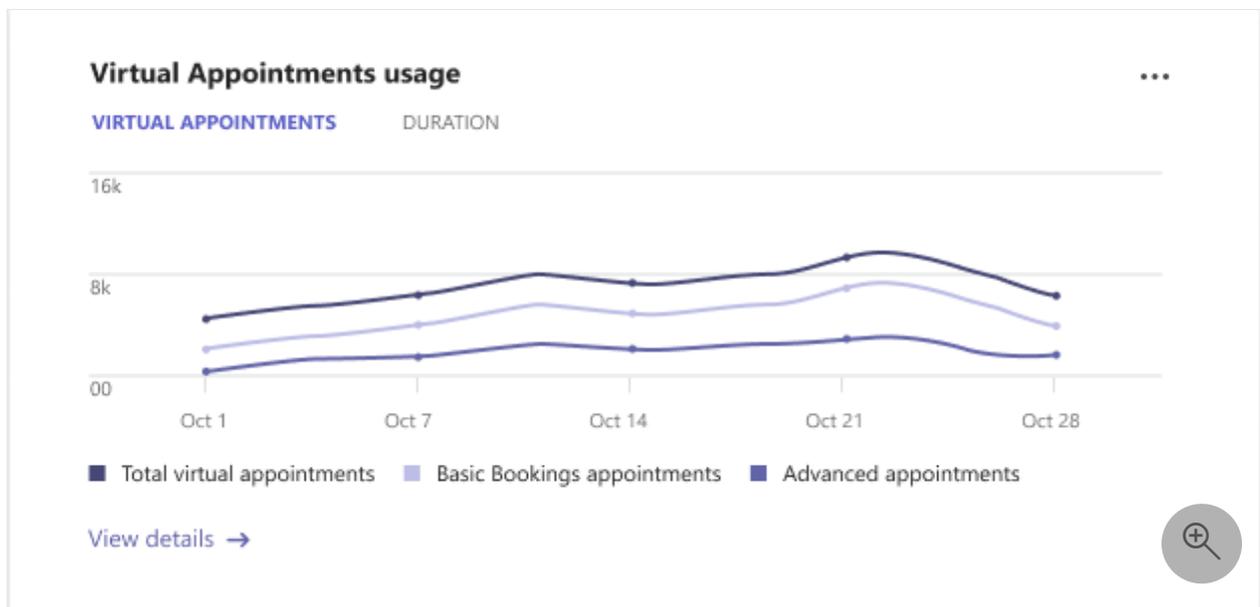
View the report

There are two ways to access and view the report in the Teams admin center.

- Through the [Virtual Appointments usage card](#) in the dashboard
- Directly by choosing [Virtual Appointments usage](#) in **Analytics & reports > Usage reports**.

The Virtual Appointments usage card

In the dashboard of the Teams admin center, go to the **Virtual Appointments usage** card. Here, you get an at-a-glance view of Virtual Appointments usage across your organization, including Bookings and Teams EHR-integrated appointments.



Select **View details** to view the report.

The Virtual Appointments usage report

1. In the left navigation of the Teams admin center, choose **Analytics & reports > Usage reports**. On the **View reports** tab, under **Report**, select **Virtual Appointments usage**.
2. Under **Date range**, select a date range of 7 days, 30 days, or 90 days. Then, choose **Run report**.

ⓘ Note

By default, Virtual Appointments analytics is on and the report is available. By using this report, you give Microsoft permission to collect data about virtual

appointments in your organization. For information about our data retention policies, see [Data retention, deletion, and destruction in Microsoft 365](#).

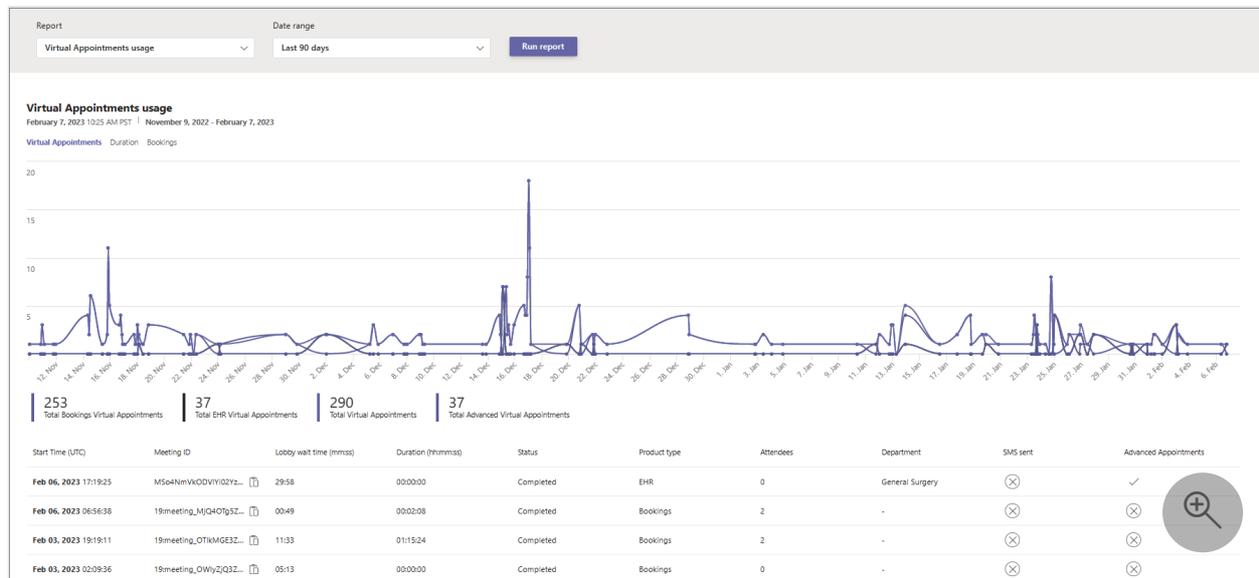
If you want to turn off the report for your organization, you can do so in **Settings** in the upper-right corner of the page. This setting may take between 0 (zero) to 2 hours to take effect after you change it.

Interpret the report

Here's what you'll see on each tab of the report.

Virtual Appointments

The graphs you'll see here depend on the license you have.

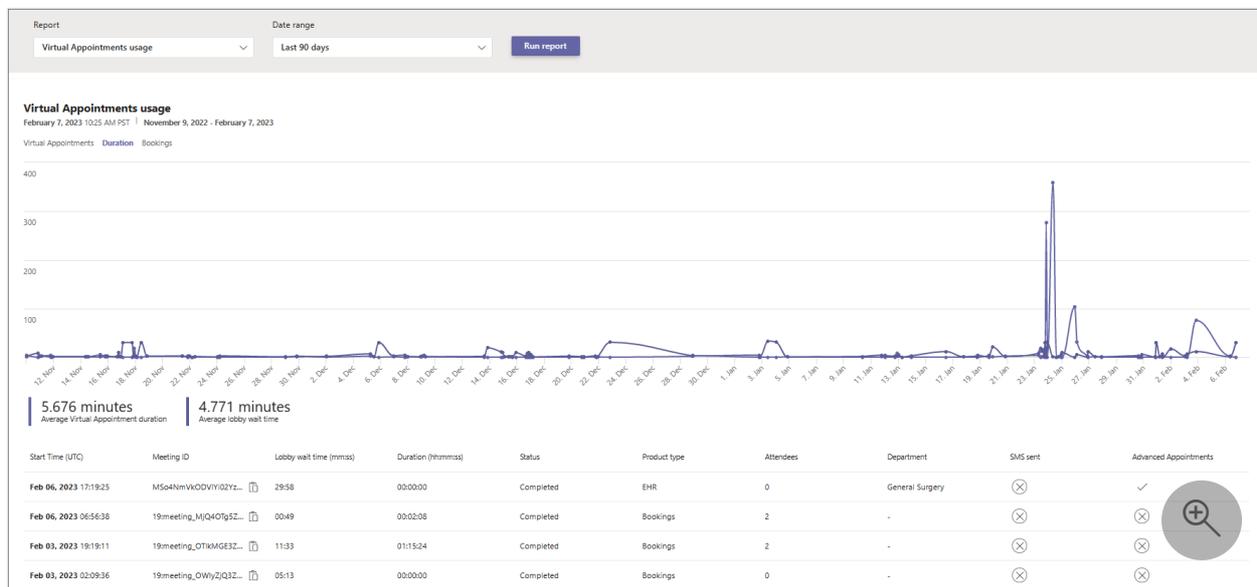


Callout Description

- 1 Each report has a date for when the report was generated. The reports usually reflect a 24 to 48-hour latency from time of activity.
- 2 The X axis is the selected date range for the report. The Y axis is the number of appointments. Hover over the dot on a given date to see the number of appointments on that date.
- 3 These numbers represent the total number of appointments per product for the date range. You can filter what you see on the chart by selecting an item. For example, select **Basic Bookings appointments** or **Advanced appointments** to see only the info related to each one. Changing this selection doesn't change the information in the table.

Callout	Description
4	<p>The table gives you detailed information about each appointment that took place during the selected date range.</p> <ul style="list-style-type: none"> • Start time (UTC) is the date and time when both a staff member and participant are present in the meeting or when the first activity by one of attendees happened in the meeting. • Meeting ID is the unique ID of the meeting. • Lobby wait time is the time difference between when a participant first joins the lobby to when that same participant or a different participant is admitted to the meeting by a staff member. • Duration is the time difference between the start time and when the last person leaves the meeting. If both a staff member and a participant didn't join the meeting, duration shows as 0 (zero). • Status shows the meeting status. <ul style="list-style-type: none"> ◦ Completed: If one or more staff members and participants join the meeting and the meeting has ended. Or, if one or more participants join the meeting and the meeting has ended. ◦ No show: If one staff member joins the meeting but no other people join, and the meeting has ended. • Product type indicates whether the virtual appointment was scheduled through Bookings or the Teams EHR connector. • Attendees is the maximum number of staff members and participants present in the meeting at any given time over the entire duration of the meeting. • Department is the Bookings calendar or hospital department to which the meeting belongs. • SMS sent indicates whether any SMS notification was sent to attendees. • Advanced Appointments indicates whether an appointment used a Premium feature capability in the Teams Premium offering.
5	<p>You can export the report to a CSV file for offline analysis. Select Export to Excel, and then on the Downloads tab, choose Download to download the report when it's ready.</p>
6	<p>Select Settings to open the Virtual Appointments analytics pane. From here, you can turn off or turn on Virtual Appointments analytics for your organization.</p>

Duration



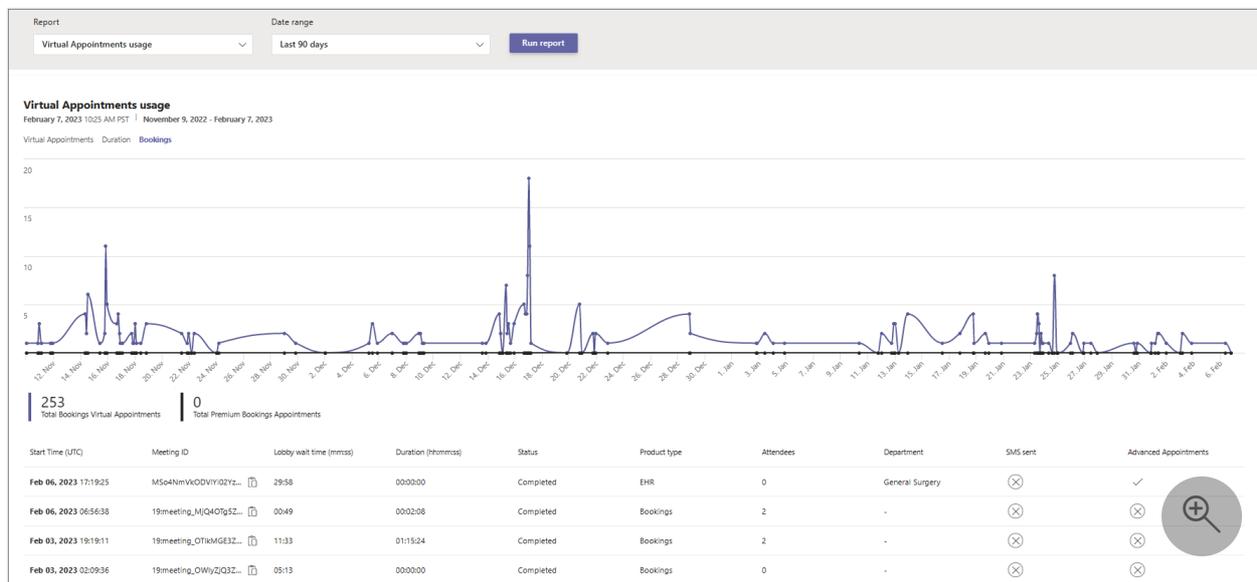
Callout Description

- 1 Each report has a date for when the report was generated. The reports usually reflect a 24 to 48-hour latency from time of activity.
- 2 The X axis is the selected date range for the report. The Y axis is the number of minutes. Hover over the dot on a given date to see the average appointment duration or average lobby wait time for a given date.
- 3 You can filter what you see on the chart by selecting an item in the legend. For example, select **Average Virtual Appointment duration** or **Average lobby wait time** to see only the info related to each one. Changing this selection doesn't change the information in the table.

Callout	Description
4	<p>The table gives you detailed information about each appointment that took place during the selected date range.</p> <ul style="list-style-type: none"> • Start time (UTC) is the date and time when both a staff member and participant are present in the meeting or when the first activity by one of attendees happened in the meeting. • Meeting ID is the unique ID of the meeting. • Lobby wait time is the time difference between when a participant first joins the lobby to when that same participant or a different participant is admitted to the meeting by a staff member. • Duration is the time difference between the start time and when the last person leaves the meeting. If both a staff member and a participant didn't join the meeting, duration shows as 0 (zero). • Status shows the meeting status. <ul style="list-style-type: none"> ◦ Completed: If one or more staff members and participants join the meeting and the meeting has ended. Or, if one or more participants join the meeting and the meeting has ended. ◦ No show: If one staff member joins the meeting but no other people join, and the meeting has ended. • Product type indicates whether the virtual appointment was scheduled through Bookings or the Teams EHR connector. • Attendees is the maximum number of staff members and participants present in the meeting at any given time over the entire duration of the meeting. • Department is the Bookings calendar or hospital department to which the meeting belongs. • SMS sent indicates whether any SMS notification was sent to attendees. • Advanced Appointments indicates whether an appointment used a Premium feature capability in the Teams Premium offering.
5	<p>You can export the report to a CSV file for offline analysis. Select Export to Excel, and then on the Downloads tab, choose Download to download the report when it's ready.</p>
6	<p>Select Settings to open the Virtual Appointments analytics pane. From here, you can turn off or turn on Virtual Appointments analytics for your organization.</p>

Bookings

This tab shows appointments scheduled through Bookings.



Callout	Description
1	Each report has a date for when the report was generated. The reports usually reflect a 24 to 48-hour latency from time of activity.
2	The X axis is the selected date range for the report. The Y axis is the number of Bookings appointments. Hover over the dot on a given date to see the number of Bookings appointments that occurred on that date.
3	You can filter what you see on the chart by selecting an item in the legend. For example, select Total Bookings appointments or Advanced Bookings appointments to see only the info related to each one. Changing this selection doesn't change the information in the table.

Callout	Description
4	<p>The table gives you detailed information about each appointment that took place during the selected date range.</p> <ul style="list-style-type: none"> • Start time (UTC) is the date and time when both a staff member and participant are present in the meeting or when the first activity by one of attendees happened in the meeting. • Meeting ID is the unique ID of the meeting. • Lobby wait time is the time difference between when a participant first joins the lobby to when that same participant or a different participant is admitted to the meeting by a staff member. • Duration is the time difference between the start time and when the last person leaves the meeting. If both a staff member and a participant didn't join the meeting, duration shows as 0 (zero). • Status shows the meeting status. <ul style="list-style-type: none"> ◦ Completed: If one or more staff members and participants join the meeting and the meeting has ended. Or, if one or more participants join the meeting and the meeting has ended. ◦ No show: If one staff member joins the meeting but no other people join, and the meeting has ended. • Product type indicates whether the virtual appointment was scheduled through Bookings or the Teams EHR connector. • Attendees is the maximum number of staff members and participants present in the meeting at any given time over the entire duration of the meeting. • Department is the Bookings calendar or hospital department to which the meeting belongs. • SMS sent indicates whether any SMS notification was sent to attendees. • Advanced Appointments indicates whether an appointment used a Premium feature capability in the Teams Premium offering.
5	<p>You can export the report to a CSV file for offline analysis. Select Export to Excel, and then on the Downloads tab, choose Download to download the report when it's ready.</p>
6	<p>Select Settings to open the Virtual Appointments analytics pane. From here, you can turn off or turn on Virtual Appointments analytics for your organization.</p>

EHR

You'll see this tab if you have a license that includes the Teams EHR connector. To learn more, see [Integration into Cerner EHR](#) or [Integration into Epic EHR](#).

Analytics & Reports

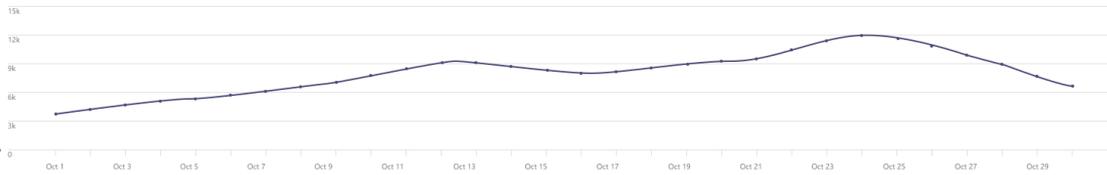
View reports Downloads

Report: Virtual Appointments usage Date range: Last 30 days Run report

Virtual Appointments usage

October 30, 2022 11:59 am (PT) | Date range: October 1, 2022 - October 30, 2022

VIRTUAL APPOINTMENTS DURATION BOOKINGS EHR



20,000
Total EHR Virtual Appointments

Start Time (UTC)	Meeting ID	Lobby wait time (mm:ss)	Duration (hh:mm:ss)	Status	Attendees	Department	SMS sent
OCT 01, 2022 11:26:14	bd2e95db-6f6a-432...	05:08	00:23:23	Completed	2	Cardiology	✓
OCT 01, 2022 14:53:14	a3838078-d21x-44d...	02:13	00:15:08	Completed	2	N/A	⊙

Callout Description

- 1 Each report has a date for when the report was generated. The reports usually reflect a 24 to 48-hour latency from time of activity.
- 2 The X axis is the selected date range for the report. The Y axis is the number of EHR appointments.
Hover over the dot on a given date to see the number of EHR appointments on that date.

Callout	Description
3	<p>The table gives you detailed information about each appointment that took place during the selected date range.</p> <ul style="list-style-type: none"> • Start time (UTC) is the date and time when both a staff member and participant are present in the meeting or when the first activity by one of attendees happened in the meeting. • Meeting ID is the unique ID of the meeting. • Lobby wait time is the time difference between when a participant first joins the lobby to when that same participant or a different participant is admitted to the meeting by a staff member. • Duration is the time difference between the start time and when the last person leaves the meeting. If both a staff member and a participant didn't join the meeting, duration shows as 0 (zero). • Status shows the meeting status. <ul style="list-style-type: none"> ◦ Completed: If one or more staff members and participants join the meeting and the meeting has ended. Or, if one or more participants join the meeting and the meeting has ended. ◦ No show: If one staff member joins the meeting but no other people join, and the meeting has ended. • Product type indicates whether the virtual appointment was scheduled through Bookings or the Teams EHR connector. • Attendees is the maximum number of staff members and participants present in the meeting at any given time over the entire duration of the meeting. • Department is the Bookings calendar or hospital department to which the meeting belongs. • SMS sent indicates whether any SMS notification was sent to attendees. • Advanced Appointments indicates whether an appointment used a Premium feature capability in the Teams Premium offering.
4	<p>You can export the report to a CSV file for offline analysis. Select Export to Excel, and then on the Downloads tab, choose Download to download the report when it's ready.</p>
5	<p>Select Settings to open the Virtual Appointments analytics pane. From here, you can turn off or turn on Virtual Appointments analytics for your organization.</p>

Related articles

- [Advanced Virtual Appointments activity report](#)
- [Virtual Appointments with Teams - Integration into Epic EHR](#)
- [Virtual Appointments with Teams - Integration into Cerner EHR](#)
- [Teams Premium licensing](#)

Microsoft Teams Advanced Virtual Appointments activity report

Article • 08/23/2023 • Applies to: Microsoft Teams, Microsoft 365 for frontline workers

i This feature requires your organization to have one Teams Premium license assigned. Learn more about [Teams Premium](#).

The Advanced Virtual Appointments activity report in the Microsoft Teams admin center provides user activity information for advanced Virtual Appointments capabilities that are available with [Teams Premium](#).

To view the report, you must be a Global admin, Teams admin, Global reader, or Report reader, and your organization must be using advanced Virtual Appointments capabilities.

The report shows usage information for the following features.

Feature	Description
SMS text notifications	Send appointment reminders and confirmations to external attendees on their mobile devices.
On-demand appointments	Service and manage on-demand virtual appointments.
Queue	Monitor scheduled and on-demand appointments, with status updates in real time.

Use this report to gain insight into overall user activity and usage per feature in your organization. This information can help you analyze trends, identify which users are using these advanced features the most, and measure business value.

View the report

There are two ways to access and view the report in the Teams admin center.

- Through the [Advanced Virtual Appointments usage card](#) in the dashboard
- Directly by choosing the [Advanced Virtual Appointments activity report](#) in [Analytics & reports > Usage reports](#).

The Advanced Virtual Appointments usage card

In the dashboard of the Teams admin center, go to the **Advanced Virtual Appointments usage** card. Here, you get an at-a-glance view of the aggregate number of active users across all features, by month.



Select **View details** to view the report.

The Advanced Virtual Appointments activity report

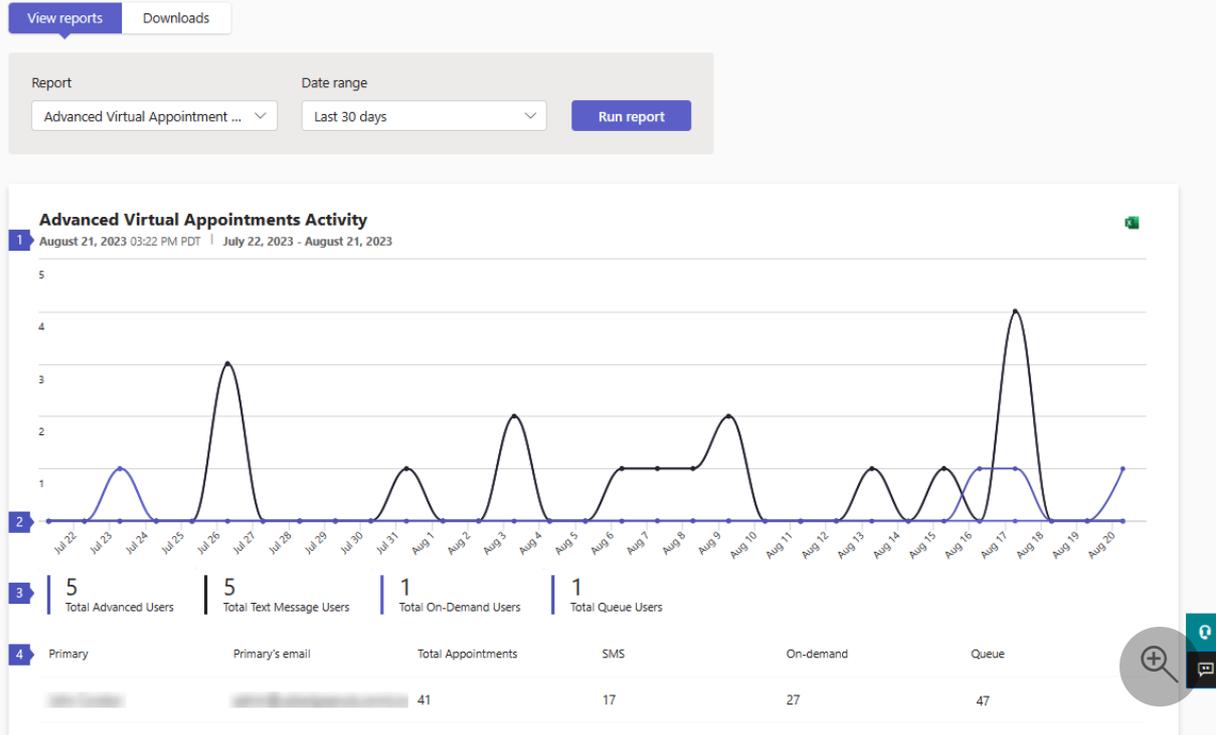
1. In the left navigation of the Teams admin center, choose **Analytics & reports** > **Usage reports**. On the **View reports** tab, under **Report**, select **Advanced Virtual Appointments activity**.
2. Under **Date range**, select a date range of 7 days, 30 days, or 90 days. Then, choose **Run report**.

Interpret the report

The graph provides an overview of feature usage. It changes depending on the date range you select. The table shows feature usage by individual users.

Usage reports

Analytics and reports will help you create different types of reports to get insights and information about Teams usage. These reports will help you better understand usage patterns so you make better business decisions. [Learn more](#)



Callout Description

- 1 Each report has a date for when the report was generated. The reports usually reflect a 24 to 48-hour latency from time of activity.
- 2 The X axis is the selected date range for the report. The Y axis is the number of active users per feature.
Hover over a dot on a given date to see the number of users using that feature on that date.
- 3 You can filter what you see on the chart by selecting an item. For example, select **Total Text Message Users**, **Total On-Demand Users**, or **Total Queue Users**, to see only the info related to each one. Changing this selection doesn't change the information in the table.
- 4 This table shows detailed usage information for each user in your organization during the selected date range.
 - **Primary** is the name of the user.
 - **Primary's email** is the email address of the user.
 - **Total Appointments** shows the total number of virtual appointments in which the user used an advanced feature.
 - **SMS** shows the total number of times the user used SMS in a virtual appointment.
 - **On-demand** shows the total number of times the user joined an on-demand appointment by selecting **Join** on the **Queue** tab in the Virtual Appointments app.
 - **Queue** shows the total number of times the user navigated to the **Queue** tab in the Virtual Appointments app.

Related articles

- [Virtual Appointments usage report](#)
- [Teams Premium licensing](#)

Microsoft Teams SMS notifications usage report

Article • 10/26/2023 • Applies to: Microsoft Teams, Microsoft 365 for frontline workers

 This feature requires [Teams Premium](#).

The SMS notifications usage report in the Microsoft Teams admin center gives you an overview of SMS notifications usage for virtual appointments in your organization. It provides usage data for SMS notifications sent in the Virtual Appointments app, in meetings scheduled using the Virtual appointment meeting template, and in Teams Electronic Health Record (EHR)-integrated appointments.

You can track key data for confirmation and reminder text messages sent to external attendees in virtual appointments scheduled by your staff. The report provides information such as date and time sent, notification type, distribution details, and delivery status.

To access the report, you must be a Global admin, Teams admin, Global reader, or Report reader.

View the report

1. In the left navigation of the Teams admin center, choose **Analytics & reports > Usage reports**. On the **View reports** tab, under **Report**, select **SMS notifications usage**.
2. Under **Date range**, select a date range of 7 days, 30 days, or 90 days. Then, choose **Run report**.

Interpret the report

On the **Distribution** tab, you'll see a chart that provides an overview of SMS notifications usage, by month, for the date range that you selected. The table shows details for each SMS notification that was sent.

Usage reports

Analytics and reports will help you create different types of reports to get insights and information about Teams usage. These reports will help you better understand usage patterns so you make better business decisions. [Learn more](#)

View reports

Downloads

Report

SMS notifications usage

Date range

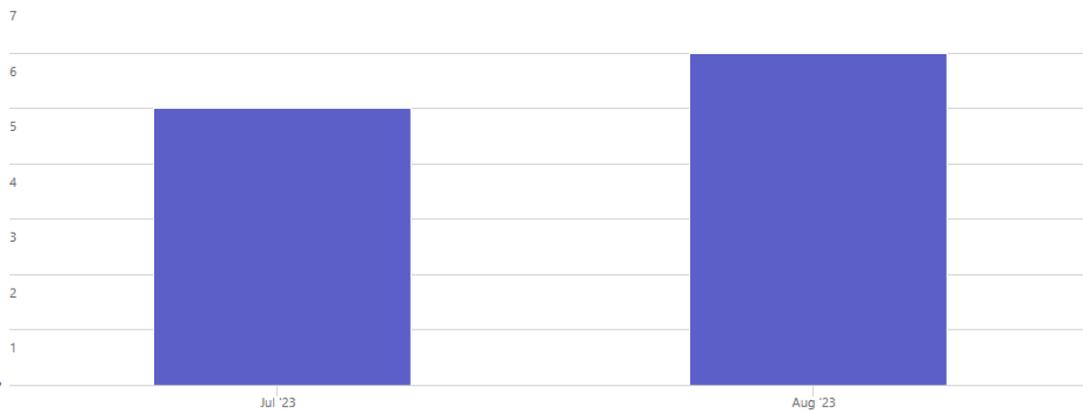
Last 30 days

Run report

SMS notifications usage

1 August 29, 2023 04:36 PM PDT | July 30, 2023 - August 29, 2023

Distribution



2

3 SMS sent in EHR SMS sent in Virtual Appointments

4

Sent Time (UTC)	Sent from	SMS notification type	Product type	Status
Aug 29, 2023 20:04:05	[REDACTED]	Reminder	Bookings	Delivered
Aug 29, 2023 20:03:54	[REDACTED]	Confirmation	VA Template	Delivered

Callout Description

- 1 Each report has a date for when the report was generated. The reports usually reflect a 24 to 48-hour latency from time of activity.
- 2 The X axis is the selected date range for the report, by month. The Y axis is the number of SMS notifications.
Hover over a given month to see the number of SMS notifications sent during that time period.
- 3 You can filter what you see on the chart by selecting an item. For example, select **SMS sent in EHR** or **SMS sent in Virtual Appointments** (which includes the Virtual Appointments app and the Virtual appointment meeting template) to see only the info related to each one. Changing this selection doesn't change the information in the table.
- 4 The table gives you detailed information about each SMS notification that was sent during the selected date range.
 - **Sent time (UTC)** is the date and time when the notification was sent.

Callout	Description
	<ul style="list-style-type: none"> • Sent from indicates the source of the notification (toll-free number or sender service). • SMS notification type shows whether the notification is an appointment reminder or confirmation. • Product type indicates the product used to schedule the appointment. For example, VA Template indicates that the appointment was scheduled using the Virtual appointment meeting template. • Status shows the delivery status. To learn more, see Delivery status descriptions.

Delivery status descriptions

Here are the delivery status values that you might see in the report and what they mean.

Status	Description
Delivered	Notification delivered to the recipient's phone.
Not Delivered – Blocked by recipient	Recipient doesn't want to receive messages and opted out.
Not Delivered – Invalid phone number	The number has an invalid format for the destination number
Not Delivered - Phone number doesn't exist	The number has a valid prefix and format but doesn't exist or isn't allocated.
Not Delivered - Blocked phone number	The number is reported as a spam number and is in the vendor's blocklist.
Not Delivered - Unreachable phone number	Recipient's phone is switched off or out of the coverage area.
Not Delivered - Spam detected	Keyword-based filter detected spam.
Not Delivered - Recipient blocked	Recipient's number is blocked from receiving SMS messages from any sender.
Not Delivered - Other error	Other internal server errors.

Related articles

- [Virtual Appointments usage report](#)
- [Advanced Virtual Appointments activity report](#)
- [Teams Premium licensing](#)

Microsoft Teams EHR connector Virtual Appointments report

Article • 12/16/2022 • Applies to: Microsoft Teams, Microsoft 365 for frontline workers

The Microsoft Teams Electronic Health Record (EHR) connector Virtual Appointments report in the Microsoft Teams admin center gives you a quick and easy way to view Teams EHR-integrated virtual appointments usage in your organization.

To view the report, you must be a Global admin, Teams admin, Global reader, or Report reader.

View the report

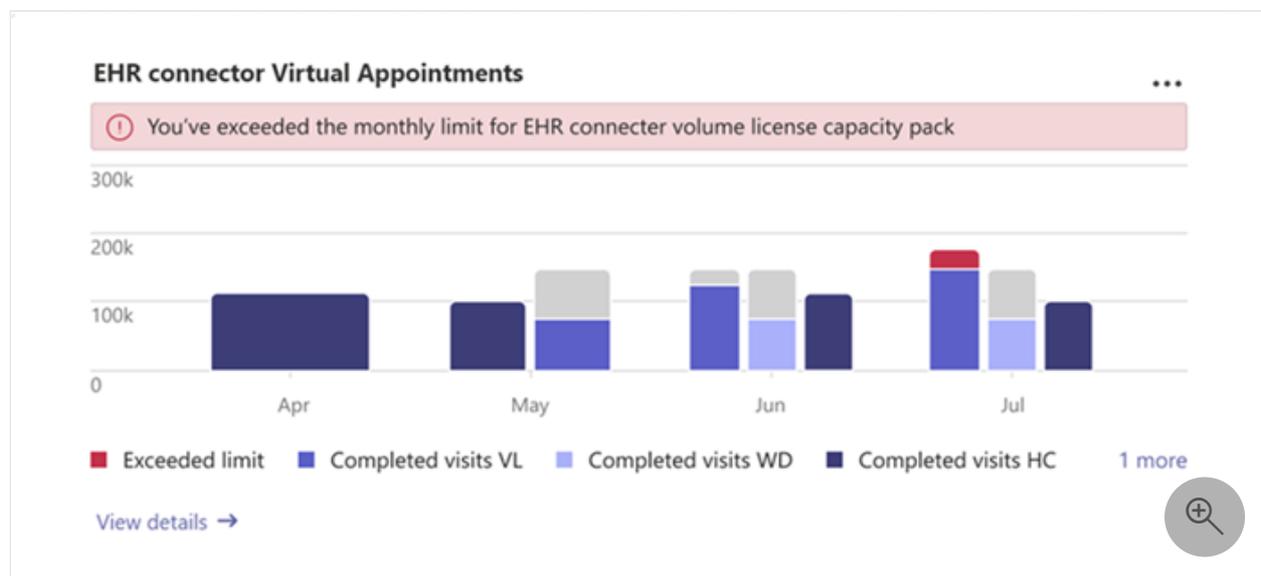
There are two ways to access and view the report in the Teams admin center.

- Through the [EHR connector Virtual Appointments card](#) in the dashboard
- Directly by choosing [EHR connector Virtual Appointments](#) in **Analytics & reports** > **Usage reports**

The EHR connector Virtual Appointments card

In the dashboard of the Microsoft Teams admin center, go to the **EHR connector Virtual Appointments** card.

Here, you get an at-a-glance view of Teams EHR-integrated virtual appointment activity by month, including completed appointments, remaining allocation, and whether you've exceeded the monthly limit (depending on the license you have).



Choose **View details** to view the report. To purchase more licenses, choose **Buy more**.

The Teams EHR connector Virtual Appointments report

1. In the left navigation of the Teams admin center, go to **Analytics & reports** > **Usage reports**.
2. On the **View reports** tab, choose **EHR connector Virtual Appointments** and a date range. Then, select **Run report**.

Analytics & Reports

View reports Downloads

Report: EHR connector Virtual Appointments Date range: Last 30 days Run report

EHR connector Virtual Appointments

APR 6, 2020 11:59:34 AM (UTC) | Date range: MAR 7, 2020 - APR 6, 2020

Sent time (UTC) ↓	Duration	Primary	Primary's email	Department	Attendants	Within limit
APR 06, 2020 11:26:14	00:23:23	Aadi Kapoor	akappor@contoso.com	1000001	2	✓
APR 06, 2020 14:53:14	00:15:08	Aaron Buxton	abuxton@contoso.com	1000002	2	⊘
APR 05, 2020 08:20:00	00:30:11	Adam Jarman	ajarman@contoso.com	1000003	3	⊘
APR 04, 2020 11:26:14	00:10:23	Amy McNeil	amy@contoso.com	1000001	2	✓
APR 01, 2020 16:26:14	00:04:45	Amy McNeil	amy@contoso.com	1000002	4	✓
APR 01, 2020 13:22:18	00:00:30	Babbak Shamas	bshamas@contoso.com	1000003	1	✓
APR 01, 2020 13:22:18	00:20:12	Babbak Shamas	bshamas@contoso.com	1000001	2	✓
APR 01, 2020 13:22:18	00:35:55	Amy McNeil	amy@contoso.com	1000002	3	✓

Interpret the report

Callout Description

- 1 Each report shows the date for when the report was generated and the date range you chose.

Callout	Description
2	<p>The table gives you detailed information about each appointment that took place during the selected date range. Keep in mind that you won't see entries for appointments in which either a staff member or patient didn't join.</p> <ul style="list-style-type: none"> • Start time (UTC) is the date and time when both a staff member and participant are in the appointment. • Duration is the time difference between the start time and when the last person leaves the appointment. • Primary is the name of the meeting organizer. • Primary's email is the email address of the meeting organizer. • Department is the department information for the appointment. If the information isn't displayed correctly, contact your EHR support team. For integration with Epic, make sure <code>&departmentId=%PERFDEPID;;; ; ; ;NONE;%</code> is part of the provider integration record. • Attendants is the total number of staff members and participants in the appointment. • Within limit indicates whether the appointment is within the allocation limit. • Appointment ID (coming soon) is the appointment identifier from the EHR system. For Epic-integrated appointments, the identifier refers to the appointment CSN number.
3	You can export the report to a CSV file for offline analysis. Select Export to Excel to download the report.
4	Select Filter to filter the report details view.
5	Select Full screen to view the report in full screen mode.
6	Select Edit columns to add or remove columns in the table

ⓘ Note

For more analytics on Teams EHR-integrated virtual appointments, see [Virtual Appointments usage report](#). With the Virtual Appointments usage report, you can view key metrics such as total appointments, lobby wait time, appointment duration, and no shows. Use this information to gain insight into usage trends to help you optimize Virtual Appointments to deliver better business outcomes.

Related articles

- [Virtual Appointments with Teams - Integration into Cerner EHR](#)
- [Virtual Appointments with Teams - Integration into Epic EHR](#)

Microsoft Teams Virtual Appointments in Call Quality Dashboard

Article • 02/08/2023 • Applies to: Microsoft Teams, Microsoft 365 for frontline workers

Call Quality Dashboard (CQD) is a self-service data environment that empowers you to access data on Teams usage throughout your organization, build reports to analyze call quality, and troubleshoot call issues. CQD tracks several hundred data points on your organization's Teams calls and stores them in a database that you can easily access using the Microsoft Call Quality connector for Power BI.

When you access this data, you can use it to analyze high-level metrics such as daily call errors and total call volume. You can also use it to determine things such as why a participant dropped a call or why [a particular building](#) has an unusually high rate of dropped calls. You can perform this analysis in Power BI by developing reports that can be published to the web, where they can automatically receive updated data at scheduled refresh times or at nearly real-time refresh rates. Once the reports are published to the web, you can distribute links within your organization and set permissions to allow users to explore the data themselves. This also allows users to export the underlying information to Excel.

ⓘ Note

Call Quality Dashboard is designed to be a quality and reliability analysis tool that relies on diagnostic telemetry returns from Teams service and client endpoints. Because of the unreliable nature of diagnostic telemetry, there may be slight variances in call counts or certain metrics. Keep this in mind as you use Call Quality Dashboard for **usage-focused reporting**.

ⓘ Note

Power BI reports published to the web are only accessible to authorized admins.

Get started

To begin, you'll want to get familiar with [using Call Quality Dashboard](#). You'll need [appropriate admin credentials](#) to [sign into CQD](#) and begin working with your data.

You can also access CQD from Teams Admin Center:

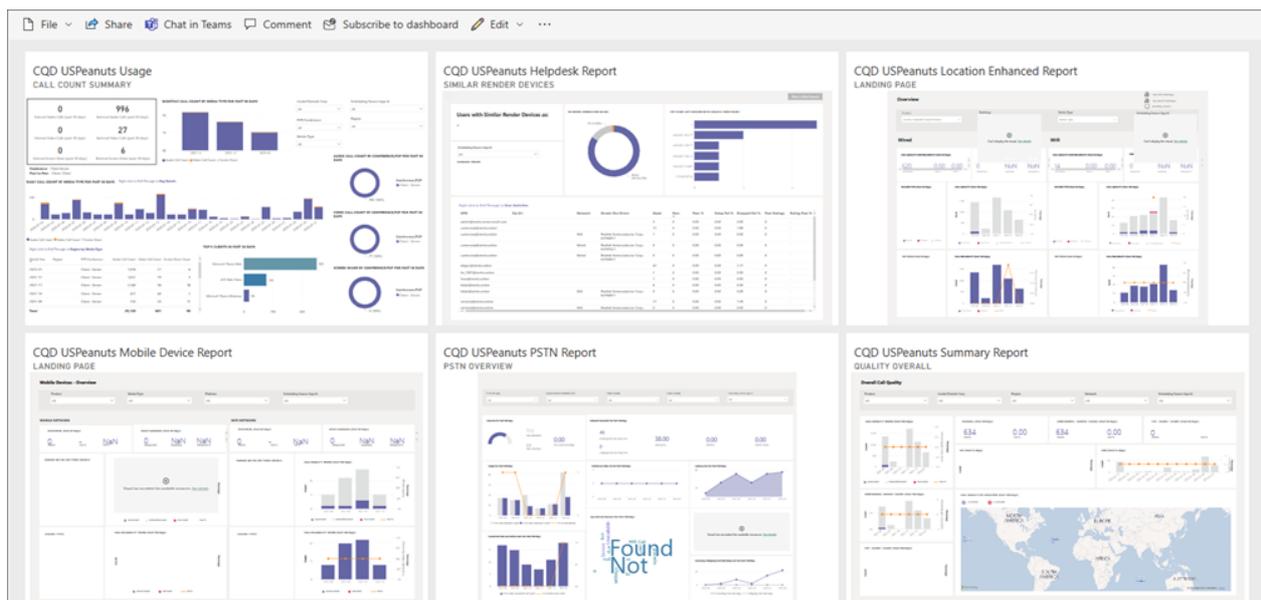
1. From the menu bar, select **Analysis & Reports**.
2. Then, choose **Call Quality Dashboard**.

Once you've logged into CQD, you can begin to analyze data from the existing dashboards. You can find these in the dropdown menu at the top of the page. You can also use [Power BI desktop](#) to create highly customizable reports. Use the [CQD Power BI template files](#) to get started. These template files contain many of the most frequently requested call quality metrics and charts.

Working with CQD data in Power BI

Before you begin analyzing organizational call quality data, you'll need to [install and learn to use](#) Power BI desktop. To access the CQD database through Power BI, you'll need to [download and install the Microsoft Call Quality connector](#). Make sure to install the connector in the appropriate Documents folder.

Once you've installed the connector, you'll be able to access your CQD data in Power BI.



💡 Tip

You can get a head start by using the **CQD Power BI template files**. The template files are already connected to the CQD data source. You still need to have the connector installed to use the template files.

Start a report from scratch

If you choose not to use the template files, you can create a Power BI report from scratch.

1. Follow the [setup](#) and [building queries](#) instructions in the CQD connector documentation.
2. Select **Get Data** in Power BI.
3. Search the connectors for **Microsoft Call Quality**.

Use cases

You can analyze Teams data in several different ways.

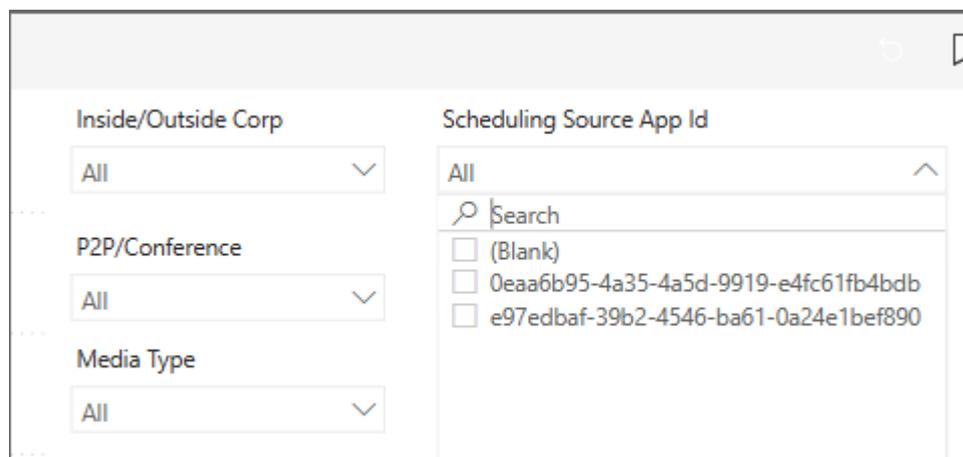
- [Teams Admin Center](#): You can find a pre-made and easy to read set of reports and insights inside Teams Admin Center. However, you can't extensively customize these reports.
- [Call Quality Dashboard](#): Here you can filter and customize reports that provide quick answers to many frequently asked questions.
- [Call Quality connector for Power BI](#): Using Power BI gives you the most customizable options for creating reports. Here you can use CQD data to understand user behavior, see usage patterns, and resolve individual call issues. You can use Power BI to supplement the aforementioned dashboards with answers that aren't available in the pre-made reports.

Virtual appointments data

You can also use CQD to gather and analyze data specific to Virtual Appointments.

Differentiate EHR and Bookings appointments

You can view the point of origin of a scheduled call by using the **Scheduling Source App ID** column. You can find this in the **Fields** list. Then drag and drop the slicer onto the canvas.



EHR connector appointments have the ID e97edbaf-39b2-4546-ba61-0a24e1bef890.
Bookings appointments have the ID 0eaa6b95-4a35-4a5d-9919-e4fc61fb4bdb.

ⓘ **Note**

Scheduling Source App ID isn't one of the default slicers in the PBIT templates.

Help your clients and customers use virtual appointments scheduled with Bookings

Article • 02/01/2023 • Applies to: Microsoft Teams, Microsoft 365 for frontline workers

Now that your organization has begun using Microsoft Teams and the Bookings app for virtual appointments, you'll need to make sure that your clients and customers understand how to join these appointments.

Watch this video for a quick overview of what Virtual Appointments can do for your organization.

<https://www.microsoft.com/en-us/videoplayer/embed/RE4TQop?postJsllMsg=true> 

What's included in this toolkit

This toolkit is intended to help you help your customers and clients successfully join a virtual appointment that's scheduled using Bookings. You can customize the resources we provide and include links to them in your communications about virtual appointments. This toolkit includes:

Guidance for your website:

An FAQ about virtual appointments that you can customize and then host on your website. Make sure to add your own links, and any additional information that your customers need to know about your policies.

Resources for your team:

Articles and videos to help your team get more comfortable conducting virtual appointments.

Resources for your clients:

A link to Microsoft's support content, which includes a video about joining a virtual appointment.

Infographics that you can customize for your organization.

Guidance for your website

Let your customers know what to expect with virtual appointments by answering common questions. All you need to do is edit this Q&A to align with your virtual appointment policies, and paste it on your website.

Virtual Appointments basics

What is a virtual appointment?

A virtual appointment is an online appointment conducted over Microsoft Teams. You'll be speaking one-on-one with one of our staff members, just like you would for an in-person visit.

How are virtual appointments different than in-person visits?

Let your customers know if there are differences in the services you provide virtually and in person. You can also describe any fee differences between virtual and in-person appointments.

How does a virtual appointment go?

When you join from the link in the email confirmation, you'll enter a virtual waiting room. Once a staff member joins the call, you'll enter a virtual room with them where your one-on-one visit will take place.

How does payment work for virtual appointments?

Let your customers know if you accept different types of payment for virtual Appointments.

Booking an appointment

How do I make an appointment?

Link to your organization's booking page. Let your customers know if there are alternative ways of making virtual appointments, such as over the phone, through email, or through social media.

Who can I make an appointment with?

Make sure your clients can maintain relationships with their preferred providers by sharing which, if any, staff members are operating exclusively virtually or in-person.

How do I cancel or reschedule a virtual appointment?

You can link to your organization's cancellation and rescheduling policy here, or describe any differences in the policy between virtual and in-person appointments.

Technology

What equipment do I need for a virtual appointment?

Customers can join a virtual appointment from any web browser or through the Microsoft Teams app. List here if your organization has additional specifications, such as a high-quality webcam or microphone. If your healthcare organization has integrated your Electronic Health Record (EHR) system with Teams, patients can join visits from your healthcare portal.

How do I join a virtual appointment?

Share the [Join a Virtual Appointment as an attendee](#) link with your customers for a detailed video and step-by-step process of how to join an appointment.

Resources for your team

Make the most of Virtual Appointments in your organization by making sure your staff members know how to conduct them. You can share these articles and videos with your team members to help them better understand virtual appointments.

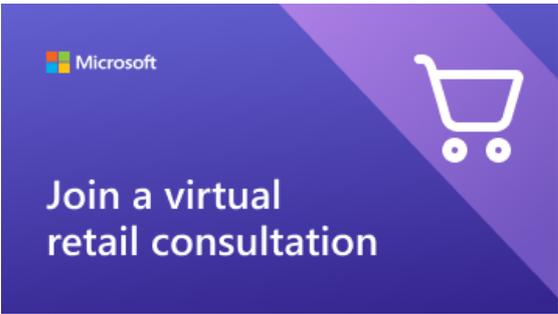
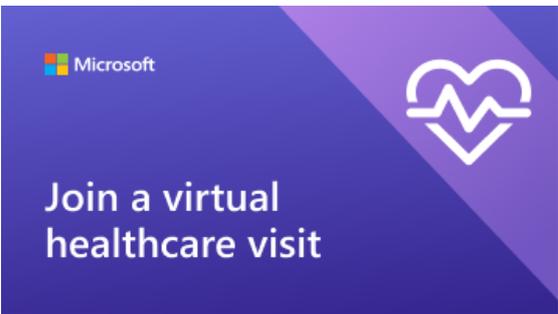
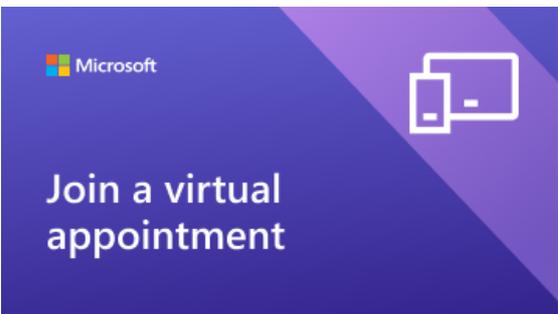
- [Learn how to use the Bookings app in Teams](#).
- [Learn how to join a Bookings appointment](#).
- [Conduct an appointment.](#)
- [Watch a video about virtual appointments.](#)
- [Watch a video about how to manage the queue in virtual appointments](#).
- [Watch a video about waiting room features in virtual appointments](#).

Resources for your clients

You can link out to this article to show your clients how to join virtual appointments: [Learn how to join a virtual appointment](#)

Download and [customize](#) one of these infographics to feature on your website. These give your clients a quick and visually engaging way to understand how virtual appointments with your organization work.

Graphic	Description and links
---------	-----------------------

Graphic	Description and links
 <p>Microsoft</p> <p>Join a virtual financial consultation</p>	<p>Customizable infographic for your financial services organization</p> <p>Download as a PDF</p> <p>Download as a PowerPoint</p>
 <p>Microsoft</p> <p>Join a virtual retail consultation</p>	<p>Customizable infographic for your retail organization</p> <p>Download as a PDF</p> <p>Download as a PowerPoint</p>
 <p>Microsoft</p> <p>Join a virtual healthcare visit</p>	<p>Customizable infographic for your healthcare organization</p> <p>Download as a PDF</p> <p>Download as a PowerPoint</p>
 <p>Microsoft</p> <p>Join a virtual appointment</p>	<p>Customizable infographic not specific to a particular industry</p> <p>Download as a PDF</p> <p>Download as a PowerPoint</p>

Customize your infographic

1. Choose one of the pre-made infographics depending on your organization's needs:
 - a. Healthcare
 - b. Financial services
 - c. Retail
 - d. Any industry
2. Customize the infographic in PowerPoint.

- a. Use your organization's colors and preferred fonts.
 - b. Add your organization's logo or branded images.
 - c. Link to pages on your website such as your booking page, billing information, or homepage.
 - d. Add any additional information that your customers need to know before joining a virtual appointment.
3. Export your customized infographic as a PDF.

Get started with Microsoft 365 for Financial Services

Article • 02/01/2023 • Applies to: Microsoft Teams, Microsoft 365 for frontline workers

Frontline workers in the financial services industry have unique needs for communicating and collaborating based on the services they offer. To get the most benefit for your frontline workforce, you first choose which scenarios Microsoft 365 can help you with in your day-to-day business operations, and then make sure that you prepare your environment with the right fundamentals, teams, and apps to support those scenarios.

1. [Choose your scenarios](#) you want to implement for your business.
2. [Set up Microsoft 365](#) - Set up Microsoft 365's core elements, Microsoft Teams, and any other services you need.
3. [Configure services and apps](#) - Use team templates to set up the teams you need quickly, including the channels and apps you need for your business. Add in other apps from Microsoft as needed to support your scenarios.

Choose your scenarios

Microsoft 365 and Microsoft Teams offer several capabilities that can help financial services organizations with their daily operations and digital transformation. We recommend the following scenarios for financial services organizations:

- [Communicate within and across locations](#)
- [Simplify business processes](#)
- [Onboard and train employees](#)
- [Strengthen corporate communications](#)
- [Collaborate on loan applications](#)

Note

These scenarios are also part of the Microsoft Cloud for Financial Services. You can do more with these scenarios when you also use other capabilities from the Microsoft Cloud for Financial Services, such as Microsoft Dynamics 365. Learn more about using this solution, which brings together capabilities from Dynamics 365, and Microsoft 365 at [Microsoft Cloud for Financial Services](#).

Communicate within and across locations

Bring associates and management together across branches to collaborate and streamline operations with Teams and Teams apps.

Key apps: Shifts, Walkie Talkie, Tasks, Approvals, Chat, Praise, Lists, Files, Updates

Additional services: Viva Connections, SharePoint, Power Platform and Power Apps

More information: [Frontline team collaboration](#)

Simplify business processes

- Create and manage schedules for your employees with Shifts
- Automate your organization's unique workflows with Power Apps
- Streamline approvals with the Approvals app
- Track key performance indicators (KPIs) with Power BI reports
- And more

Key apps: Approvals, Shifts, Updates

Additional services: Power Platform with Power Apps and Power BI

More information: [Simplify business processes](#)

Onboard and train employees

Financial services organizations have unique needs due to the high knowledge bases of frontline staff. From numeracy skills to up-to-date knowledge of company and governmental regulations, make sure your workforce is prepared with a strong onboarding and training process.

Key features and apps: Lists, meetings

Additional services: Viva Learning, Viva Connections, SharePoint, Viva Engage

More information: [Training and onboarding](#)

Strengthen corporate communications

Employee engagement is a significant contributor to workplace satisfaction, loyalty, and productivity at any organization. Learn how to keep everyone informed and engaged using SharePoint, Teams, Viva Engage, Stream, and Viva Connections.

Additional services: Viva Connections, SharePoint, Stream, Viva Engage

More information: [Corporate communications with frontline workers](#)

ⓘ Note

For all of these capabilities, users must have an appropriate license. Microsoft 365 for frontline workers F1 and F3 or Office 365 F3, Office 365 A3, A5, E3, and E5, as well as Microsoft 365 Business Standard, Business Premium, A3, A5, E3, and E5 are all supported. For more information about general Teams licensing, see [Manage user access to Teams](#). See [Licensing options for frontline workers](#) for more about using Microsoft 365 for frontline workers in combination with other licenses.

Collaborate on loan applications

Use [Collaboration Manager for Loans](#) to accelerate the lending process with automation and collaboration tools, to quickly go from application to signing. Collaboration Manager for Loans includes tools for keeping track of loan records, taking notes, and managing customer communications and bookings.

ⓘ Note

Collaboration Manager for Loans is available as part of the Microsoft Cloud for Financial Services, which includes additional capabilities from Microsoft 365 and Dynamics 365. [Learn more about the Microsoft Cloud for Financial Services.](#)

More information: [Admin documentation for Collaboration Manager for Loans](#) and [Collaboration Manager for Loans user guide](#)

Configure services and apps

Teams and apps

Team templates
Set up teams quickly, including the channels and apps you need.

Approvals Chat Documents Praise Shifts Tasks Updates Bookings Power Apps SharePoint Viva Connections Viva Learning Yammer

Virtual Appointments Bookings

Apps and services for financial services

Ensure that your workers can communicate, collaborate, and deliver great customer service with apps like Shifts, Tasks, Lists, Praise, and more. You can determine which apps are available for your users by enabling them in the Teams admin center or by including them in a team template. More information about [managing Teams apps](#).

For financial services environments, the following apps and services can help you transform your business processes and support communication:

Teams apps and services	Description	Manage	Help
Approvals	Streamline the sign-off process by integrating Approvals into chat.	Manage Approvals	Use Approvals 
Chat	Enable quick conversations between staff with secure chat in Teams.	Chat, teams, channels & apps in Microsoft Teams	Chat in Teams 
Documents and files	Share standard operating procedures, regulatory compliance policies, company policies, and financial product fact sheets.	Teams and SharePoint integration	Share files 
Praise	Recognize coworkers for great teamwork with the Praise app.	Manage the Praise app	Send Praise to people 
Shifts	Manage schedules and clock in and out with Shifts.	Manage the Shifts app	Use Shifts 
Tasks	Help employees know what they should focus on when not with customers by assigning tasks. Your corporate office can use task publishing to send out tasks to locations and track progress across those locations.	Manage the Tasks app	Use Tasks 
Updates	Check in on recurring or one-off priorities such as daily counts. Managers can create templates for employees to fill out and submit.	Manage the Updates app	Use Updates 
Virtual Appointments	A central hub for all your virtual appointment needs. Schedule and manage virtual consultations with clients, view analytics, and configure options, all in one place.	Manage the Virtual Appointments app	What is the Virtual Appointments app? 
Bookings	Schedule and manage virtual consultations with clients.	Manage the Bookings app	Use Bookings 

More apps and services from Microsoft	Description	Manage	Help
Power Apps and the Power Platform	Integrate business processes and enable quick updates to data, such as sales numbers, KPIs, and other reports.	Teams integration with Microsoft Power Platform and Manage Microsoft Power Platform apps in the Microsoft Teams admin center	-
SharePoint	A new, connected SharePoint site is created whenever you create a new team. You can use SharePoint to store files, post news, and make sure your workers have access to important information.	Teams and SharePoint integration	Add a SharePoint page, list, or document library as a tab in Teams ↗
Viva Connections	Viva Connections creates a hub in Teams where your frontline team can view a tailored news feed from your organization and a personalized dashboard with resources they need.	Overview of Viva Connections	Viva Connections in Microsoft Teams ↗
Viva Learning	Provide initial and ongoing training to make sure your employees are up-to-date with their skills and knowledge base.	Manage Viva Learning	Use Viva Learning ↗
Viva Engage	Connect your entire organization and enable communication across departments and regions.	Overview of Viva Engage	Use Viva Engage ↗

For more about successfully implementing and adopting Teams, see [Adopt Microsoft Teams](#).

Get started with Microsoft 365 for healthcare organizations

Article • 04/25/2023 • Applies to: Microsoft Teams, Microsoft 365 for frontline workers

Microsoft 365 and Microsoft Teams offer a number of telemedicine features useful for hospitals and other Healthcare organizations. Teams features are under development to aid hospitals with:

- Virtual Appointments and Electronic Healthcare Record (EHR) integration
- Teams policy packages
- Secure messaging
- Teams templates
- Care coordination and collaboration

ⓘ Note

This functionality is also part of Microsoft Cloud for Healthcare. Learn more about using this solution, which brings together capabilities from Azure, Dynamics 365, and Microsoft 365 at [Microsoft Cloud for Healthcare](#).

Watch the following video to learn more about using the healthcare collection to enhance health team collaboration in Teams.

<https://www.microsoft.com/en-us/videoplayer/embed/RE4Hqan?postJsllMsg=true>

To get the most benefit for your healthcare organization, you first choose which scenarios Microsoft 365 and Microsoft Teams can help you with in your day-to-day activities, and then make sure that you prepare your Teams environment with the right fundamentals, teams, and apps to support those scenarios.

1. [Choose your scenarios](#) you want to implement.
2. [Set up Microsoft 365](#) - Set up Microsoft 365's core elements, Microsoft Teams, and any other services you need.
3. [Configure services and apps](#) - Use team templates to set up the teams you need quickly, including the channels and apps you need for your business. Add in other apps from Microsoft as needed to support your scenarios.

Scenarios for healthcare

Facilitate and centralize collaboration among care teams and across your entire healthcare organization.

- [Provide seamless virtual visits](#)
- [Connect and engage the healthcare workforce](#)
- [Efficiently manage and motivate care teams](#)

The following scenarios support these goals:

Scenario	Description	Requirements
Virtual Appointments	Schedule, manage, and conduct virtual appointments with patients. This scenario connects Teams and the Oracle Health or Epic platform to support virtual appointments.	Active subscription to Microsoft Cloud for Healthcare or subscription to Microsoft Teams EHR connector standalone offer. Users must have an appropriate Microsoft 365 or Office 365 license that includes Teams meetings*. Organizations must have Oracle Health version November 2018 or later or Epic version November 2018 or later. Details for Oracle Health EHR and Epic EHR requirements
Team communication and collaboration	Help your frontline workforce communicate within their store, shift, or team with Microsoft Teams. Viva Connections helps you create a dashboard that puts the information they need front and center on their devices, so they can reach out whenever they need to.	Users must have an appropriate license to use Microsoft Teams apps.*
Engage your employees and focus on employee wellbeing	Build deeper connections across your organization and create an inclusive workplace.	Users must have an appropriate license to use Microsoft Teams apps.*
Schedule your teams with Shifts	Use Shifts and Shifts Connectors to schedule your team and connect with your workforce management tools.	Users must have an appropriate license to use Microsoft Teams apps.*
Simplify business processes	Use task publishing to create standard processes across sites, lists to manage information and track ongoing processes,	Users must have an appropriate license to use Microsoft Teams apps.* To use

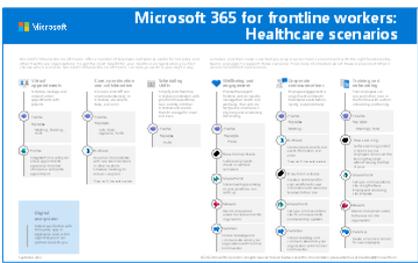
Scenario	Description	Requirements
	and streamline requests with Approvals. Automated workflows can speed up and automate actions, like collecting data or routing notifications.	Power Apps and Power Automate, users will need an appropriate license.**

*Office 365 A3, A5, E3, E5, F1, F3, Microsoft 365 A3, A5, E3, and E5, Business Standard are supported. For more information about general Teams licensing, see [Manage user access to Teams](#). **Office 365 E1, E3, E5, F3, Microsoft 365 E3, E5, F3. For a detailed comparison of what's included in Microsoft 365 with various licenses, see this [Comparison table](#).

Depending on your business needs, you can choose to incorporate more [scenarios](#) for Microsoft 365 for frontline workers.

Download a poster with scenario overviews

Use the following poster to start envisioning what your organization can do with Microsoft 365 for frontline workers.

Item	Description
 <p>PDF Visio Updated September 2022</p>	<p>This poster provides an overview of the scenarios you can implement for your frontline workforce in a healthcare setting.</p>

Provide seamless virtual visits

Use the complete meetings platform in Teams to schedule, manage, and conduct virtual appointments with patients.

- If your organization already uses an Electronic Health Record (EHR) system, you can integrate Teams for a more seamless experience. Teams Electronic Health Record (EHR) connector makes it easy for clinicians to launch a virtual patient appointment or consultation with another provider in Teams directly from the EHR system. To learn more, see [Virtual Appointments with Teams - Integration into](#)

Oracle Health EHR and Virtual Appointments with Teams - Integration into Epic EHR.

- If you aren't using a supported EHR system, you can use the Virtual Appointments app in Teams. To learn more, see [Virtual Appointments with Teams](#).

The chart compares two integration scenarios for virtual appointments. The left side, titled 'EHR integration', shows a workflow where scheduling and requests happen within the EHR, visits are started from the EHR, and appointments run as Teams meetings within the EHR. The right side, titled 'Virtual Appointments in Microsoft Teams', shows a workflow where scheduling and requests happen through the Virtual Appointments app or Bookings, visits are started from Microsoft Teams, and appointments run as Teams meetings with full Teams functionality.

EHR integration	Virtual Appointments in Microsoft Teams
Providers/staff can schedule in your EHR. Patients can request appointments through patient portal.	Providers/staff can schedule from Virtual Appointments app or Bookings. Patients can also request appointments.
Start the visit from your EHR.	Start the visit from Microsoft Teams.
Appointments run as meetings in Teams, inside your EHR with all Teams functionality.	Appointments run as meeting in Teams, with all Teams functionality.

Connect and engage the healthcare workforce

Bring your health team together to coordinate care and collaborate with Teams.

A grid of seven icons representing collaboration features in Microsoft Teams for healthcare teams.

Healthcare: Collaborate with your care team in Microsoft Teams						
Chat, post messages, and communicate	Call and meet with members of care team	Store and share files and documents	Share lists and track information	Track and monitor tasks	Streamline approvals	Create, manage, and share schedules

Teams enables physicians, clinicians, nurses, and other staff to collaborate efficiently with included collaboration features in Teams, such as:

- Set up teams and channels for your health teams and information workers. Use channels with tabs as a way to structure their work, with additional help from tabs to which they can pin information sources.
- Chat, post messages, and communicate. Your team can have persistent conversations about different patients needing attention.
- Call and meet with members of the health team. Set up individual meetings, or use channel meetings to manage daily meetings, both with the power of Teams audio, video, screen sharing, recording, and transcription features.
- Store and share files and documents. Your health team is part of a single virtualized team that works and collaborates on Office documents.

Secure messaging

Secure messaging supports collaboration within health teams, including several new features:

- A message sender can set a special priority for their message, so the recipient is repeatedly notified until they read the message.
- A message sender can request a read receipt, so they are notified when a message they sent was read by the message recipient.

Together, these features allow quicker attention to urgent messages and confidence that the message was received and read. New health teams using these features can be created on a per-patient basis. These features are policy-based, and can be assigned to individuals or entire Teams.

To learn more, see [Get started with Secure Messaging policies for Healthcare organizations](#).

Also related to secure messaging is the ability to have other tenants federated by Healthcare organizations, allowing richer inter-tenant communication. To learn more, see [Manage external meetings and chat in Microsoft Teams](#).

Coordinate over email with Exchange Online

Email is a core communication tool for most workplaces. [Set up email with Exchange Online](#) to help your frontline managers and workers coordinate with care team members in other locations or schedule meetings to discuss care plans. Users must have an F3 license to have an email mailbox.

You can also set up shared mailboxes to allow for incoming mail from customers (such as for customer service or scheduling requests) and have a group of workers who monitor and send email from a public email alias like info@contoso.com. For more information about shared mailboxes, see [About shared mailboxes](#) and [Open and use a shared mailbox in Outlook](#) [↗].

Efficiently manage and motivate care teams

Unburden and empower your teams with seamless shift scheduling, task management, and workflow automation so they can focus on what matters.

Teams policy packages

Apply Teams policy packages to define what different roles can do in Teams. For example, specify policies for:

- Clinical workers, such as registered nurses, charge nurses, physicians, and social workers, so that they can have full access to chat, calling, shift management, and meetings.
- Information workers in your healthcare organization, such as IT personnel, informatics staff, finance personnel, and compliance officers, can have full access to chat, calling, and meetings.
- Patient rooms, to control settings for patient room devices.

To learn more, see [Teams policy packages for healthcare](#).

Teams templates for healthcare organizations

Teams includes templates designed specifically for healthcare organizations, making it easier to create teams for staff to communicate and collaborate on patient care or operational needs. To learn more, see [Use healthcare team templates](#).

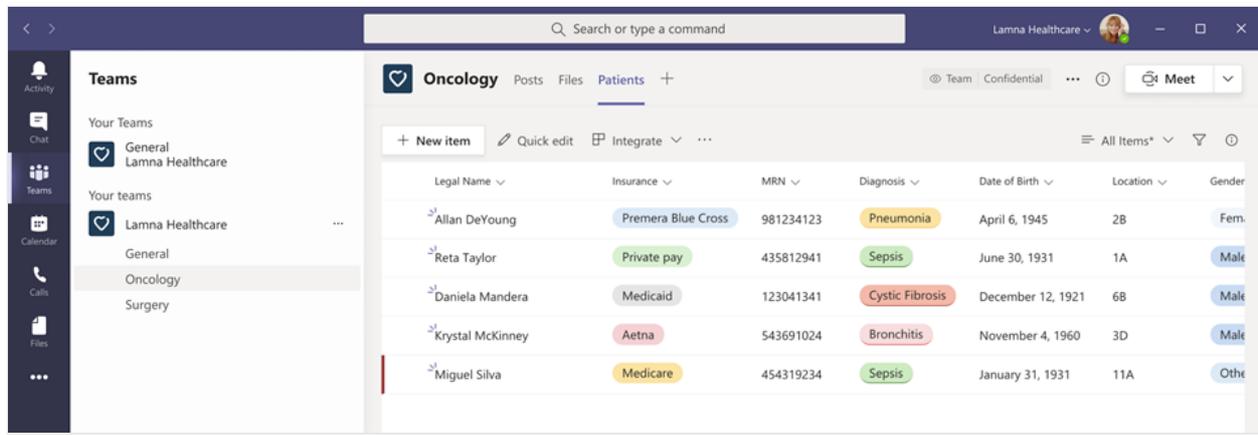
Share lists and track information with the Lists app

The Lists app in Teams helps teams track information and organize work. The app is pre-installed for all Teams users and is available as a tab in every team and channel. Lists can be created from scratch, from predefined templates, or by importing data to Excel.

Health teams can use the Patients template to get started. They can create lists to track the needs and status of patients. Existing patient data on Excel spreadsheets can be brought in to create a list in Teams. These lists can be used for scenarios such as rounds and patient monitoring to coordinate care.

For example, a charge nurse creates a patient list in a team that includes all health team members. During rounds, the health team access Teams on their mobile devices and update patient information in the list, which everyone on the team can view to stay in sync. At rounding sessions where the health team gathers to discuss and evaluate key health performance metrics to ensure a patient is on the right glide path to discharge, they can share this information using Teams on a large display screen. health team members who aren't on site can join remotely.

Here's an example list which was set up for patient rounding.



To learn more, see [Manage the Lists app for your organization in Teams](#).

Track and monitor tasks with the Tasks app

Use [Tasks](#) in Teams to track to do items for your whole health team. Your health team can create, assign, and schedule tasks, categorize tasks, and update status at any time, from any device running Teams. IT pros and admins can also publish tasks to specific teams for your organization. For example, you could publish a set of tasks for new safety protocols or a new intake step to be used across a hospital.

To learn more, see [Manage the Tasks app for your organization in Microsoft Teams](#)

Streamline approvals with the Approvals app

Use [Approvals](#) to streamline all of your requests and processes with your team. Create, manage, and share approvals directly from your hub for teamwork. Start an approval flow from the same place you send a chat, in a channel conversation, or from the Approvals app itself. Just select an approval type, add details, attach files, and choose approvers. Once submitted, approvers are notified and can review and act on the request.

You can allow the Approvals app for your organization and add it to your teams. To learn more, see [Manage the Approvals app](#).

Create, manage, and share schedules with the Shifts app and Frontline Worker integration

Teams integrates with the Shifts app and Frontline Worker, which can be used to coordinate shift staffing features and more. For example, in Shifts, Nurse managers can set up and coordinate schedules for their staff, and nurses can check schedules and swap shifts.

To learn more, see [Manage the Shifts app for your organization in Microsoft Teams](#).

Help your clinical and information workers get going with Teams

There are many resources available to help all of the users in your organization get comfortable with using Teams:

- Visit the [Teams adoption center](#) for advice on rolling out Teams if you are just starting your organization's journey with Teams, or expanding Teams into more areas of your organization.
- Consider setting up custom [learning pathways](#) for your users to cover just the tasks they need to do.
- Get help and training for your users on how to perform basic tasks in Teams on the [Teams support site](#), including [quick training videos](#). This site also has help and training for the Teams apps, including [Lists](#), [Tasks](#), [Approvals](#), [Bookings](#), and [Shifts](#).

Use healthcare team templates

Article • 02/15/2023 • Applies to: Microsoft Teams

Team templates in Microsoft Teams allow you to quickly and easily create teams by providing a predefined team structure of settings, channels, and pre-installed apps.

For healthcare organizations, team templates can be especially powerful, as they help you to quickly deploy consistent teams across your organization. Templates also help staff to get oriented with how to effectively use Teams.

Teams includes templates designed specifically for healthcare organizations. Use these pre-built templates to quickly create teams for staff to communicate and collaborate on patient care or operational needs. In this article, we introduce you to each of these templates and recommend how to use them.

How you manage and work with team templates depends on whether you're an admin or developer.

If you're:	Then, you:
An admin or IT pro	Manage team templates in the Teams admin center . View team templates and apply templates policies to control which templates your staff can use in Teams for creating teams.
A developer	Use Microsoft Graph to create teams from team templates.

Manage team templates in the Teams admin center

As an admin, you can manage team templates in the Microsoft Teams admin center. Here, you can view details about each template. You can also [create and assign templates policies](#) to your staff to control which templates they see in Teams for [creating teams](#) [↗].

To learn more about team templates in general, see [Get started with team templates in the Teams admin center](#).

We currently offer the following pre-built healthcare team templates. To view them, in the left navigation of the Teams admin center, go to **Teams > Team templates**.

Patient Care

Streamline healthcare communication and collaboration within a ward, pod, or department. Use this template to facilitate patient management and the operational needs of a ward. For example, post ward announcements in the *Announcements* channel and manage shifts in the *Staffing* channel.

Template type	TemplateId	Properties that come with this template
Patient Care	healthcareWard	<p>Channels:</p> <ul style="list-style-type: none"> • General • Announcements • Huddles • Rounds • Staffing • Training <p>Apps:</p> <ul style="list-style-type: none"> • Approvals • Bulletins • Inspection • Lists • Shifts • Tasks by Planner and To Do • Wiki

Hospital

Streamline communication and collaboration between multiple wards, pods, and departments within a hospital. This template includes a set of channels for hospital operations, and can be extended for further customization.

Template type	TemplateId	Properties that come with this template
Hospital	healthcareHospital	<p>Channels:</p> <ul style="list-style-type: none"> • General • Announcements • Compliance • Custodial • Human Resources • Pharmacy <p>Apps:</p> <ul style="list-style-type: none"> • Approvals • Bulletins • Employee ideas • Inspection

Template type	TemplateId	Properties that come with this template
		<ul style="list-style-type: none"> • Lists • Shifts • Tasks by Planner and To Do • Wiki

Use team templates with Microsoft Graph

Developers can use Microsoft Graph to create teams from pre-built team templates. To learn more about using team templates with Microsoft Graph, see [Get started with team templates using Microsoft Graph](#), [Microsoft Teams API overview](#), and [teamsTemplate resource type](#).

Here are the pre-built healthcare team templates.

Patient Care

This template is meant for communication and collaboration within a ward, pod, or department. Use this template to facilitate patient management and the operational needs of a ward. For example, ward announcements can be posted in the *Announcements* channel and shifts can be managed in *Staffing*. If you're looking to streamline your ward operations, then this template is for you.

Template Type	TemplateId	Template channels
Healthcare - Ward	<code>https://graph.microsoft.com/beta/teamsTemplates('healthcareWard')</code>	General Announcements ² Huddles ² Rounds ² Staffing ² Training ²

²Auto-favorited channels

Hospital

This template is meant for communication and collaboration between multiple wards, pods, and departments within a hospital. It includes several operational channels such as *Announcements*, *Custodial*, and *Pharmacy*. We also provide a script that you can use to

extend the template with more departments or specialty channels. You can edit it to fit your needs.

For example, if you have an *Endocrinology* department, but don't need a channel for *Ophthalmology*, you can adapt the script to include an *Endocrinology* channel and remove the *Ophthalmology* channel. We recommend that these specialty or ward-modeled channels not be auto-favorited to avoid notification saturation. Users generally favorite any channels that they find relevant.

Template type	TemplateId	Template channels
Healthcare - Hospital	<code>https://graph.microsoft.com/beta/teamsTemplates('healthcareHospital')</code>	General Announcements ² Compliance ² Custodial Human Resources Pharmacy

²Auto-favorited channels

How to use team templates with Microsoft Graph

To use these templates, change the 'template@odata.bind' property in the request body from 'standard' to the TemplateIds above. For more information on how to deploy team templates, see the Microsoft Graph article on how to [create a team](#).

ⓘ Note

The channels in the template will be automatically created under the **General** tab.

Example: Hospital template extension script

Powershell

```
{
  "template@odata.bind":
  "https://graph.microsoft.com/beta/teamsTemplates('healthcareHospital')",
  "DisplayName": "Contoso Hospital",
  "Description": "Team for all staff in Contoso Hospital",
  "Channels": [
    {
```

```
"displayName": "Ambulatory",
  "IsFavoriteByDefault": false
},
{
  "displayName": "Anesthesiology",
  "IsFavoriteByDefault": false
},
{
  "displayName": "Cardiology",
  "IsFavoriteByDefault": false
},
{
  "displayName": "CCU",
  "IsFavoriteByDefault": false
},
{
  "displayName": "Ear, Nose, and Throat",
  "IsFavoriteByDefault": false
},
{
  "displayName": "Emergency Care",
  "IsFavoriteByDefault": false
},
{
  "displayName": "Family Medicine",
  "IsFavoriteByDefault": false
},
{
  "displayName": "Gynecology",
  "IsFavoriteByDefault": false
},
{
  "displayName": "ICU",
  "IsFavoriteByDefault": false
},
{
  "displayName": "Mother-Baby",
  "IsFavoriteByDefault": false
},
{
  "displayName": "Neonatal",
  "IsFavoriteByDefault": false
},
{
  "displayName": "Neurology",
  "IsFavoriteByDefault": false
},
{
  "displayName": "Oncology",
  "IsFavoriteByDefault": false
},
{
  "displayName": "Ophthalmology",
  "IsFavoriteByDefault": false
},
},
```

```
{
  "displayName": "PACU",
  "IsFavoriteByDefault": false
},
{
  "displayName": "Psychiatric",
  "IsFavoriteByDefault": false
},
{
  "displayName": "Radiology",
  "IsFavoriteByDefault": false
},
{
  "displayName": "Rehabilitation",
  "IsFavoriteByDefault": false
},
{
  "displayName": "Surgical",
  "IsFavoriteByDefault": false
},
{
  "displayName": "Urology",
  "IsFavoriteByDefault": false
},
{
  "displayName": "Women's Health",
  "IsFavoriteByDefault": false
}
],
"Apps": [
  {
    "Id": "1542629c-01b3-4a6d-8f76-1938b779e48d"
  }
]
}
```

Related articles

- [Create a team from a template](#) 
- [Get started with team templates in the Teams admin center](#)
- [Get started with team templates using Microsoft Graph](#)
- [Get started with Teams for Healthcare organizations](#)

Teams policy packages for healthcare

Article • 02/15/2023 • Applies to: Microsoft Teams

Overview

A [policy package](#) in Microsoft Teams is a collection of predefined policies and policy settings that you can assign to users who have similar roles in your organization. Policy packages simplify, streamline, and help provide consistency when managing policies. You can customize the settings of the policies in the package to suit the needs of your users. When you change the settings of policies in a policy package, all users who are assigned to that package get the updated settings. You can manage policy packages by using the Microsoft Teams admin center or PowerShell.

<https://www.microsoft.com/en-us/videoplayer/embed/RE4Ht2o?postJsllMsg=true> 

Policy packages pre-define policies for the following, depending on the package:

- Messaging
- Meetings
- Calling
- App setup
- Live events

Teams currently includes the following healthcare policy packages.

Package name in the Microsoft Teams admin center	Best used for	Description
Healthcare clinical worker	Clinical workers in your healthcare organization	Creates a set of policies and policy settings that give clinical workers such as registered nurses, charge nurses, physicians, and social workers full access to chat, calling, shift management, and meetings.
Healthcare information worker	Information workers in your healthcare organization	Creates a set of policies and policy settings that give information workers such as IT personnel, informatics staff, finance personnel, and compliance officers, full access to chat, calling, and meetings.
Healthcare patient room	Patient room devices	Creates a set of policies and policy settings that apply to patient rooms in your healthcare organization.

Policy packages

A policy package is a collection of predefined policies and settings that can be customized and applied to a group of users that have similar roles within your organization. The definitions in these policy packages aren't meant to assist with regulatory compliance, rather they are provided for your convenience and can be customized based on your own regulatory requirements. [Learn more](#)

Manage users	
Name	Description
Education (Higher education student)	This policy package is designed to create a set of policies and apply those settings to higher education students in your organization.
Education (Primary school student using remote learn...	This policy package is designed to create a set of policies that apply to primary students to maximize student safety and collaboration wh
Education (Primary school teacher using remote learn...	This policy package is designed to create a set of policies that apply to primary teachers to maximize student safety and collaboration wh
Education (Primary school student)	This policy package is designed to create a set of policies and apply those settings to primary students in your organization.
Education (Secondary school student)	This policy package is designed to create a set of policies and apply those settings to secondary students in your organization.
Education (Teacher)	This policy package is designed to create a set of policies and apply those settings to teachers in your organization.
Firstline manager	The policy package is designed to create a set of policies and apply those settings to managers of firstline workers in your organization.
Firstline worker	This policy package is designed to create a set of policies and apply those settings to firstline workers in your organization.
Healthcare clinical worker	This policy package is designed to create a set of policies and apply those settings to clinical workers in your healthcare organization.
Healthcare information worker	This policy package is designed to create a set of policies and apply those settings to information workers in your healthcare organization
Healthcare patient room	This policy package is designed to create a set of policies and apply those settings to patient rooms in your healthcare organization.
Public safety officer	This policy package is designed to create a set of policies and apply those settings to public safety officers in your organization.
Small and medium business user (Business Union)	This policy package is designed to set an app setup policy that includes the app for a business union experience for Teams users

Each individual policy is given the name of the policy package so you can easily identify the policies that are linked to a policy package. For example, when you assign the Healthcare clinical worker policy package to clinicians in your organization, a policy named Healthcare_ClinicalWorker is created for each policy in the package.

Healthcare clinical worker

This policy package is designed to create a set of policies and apply those settings to clinical workers in your healthcare organization. [Learn more](#)

Assigned policies

Messaging policy	Healthcare_ClinicalWorker
Meeting policy	Healthcare_ClinicalWorker
App setup policy	Healthcare_ClinicalWorker

Get started with policy packages

To get you started with Healthcare policy packages, on the Microsoft Admin Center onboarding hub, select **Healthcare**, and then select **Assign policy settings by role**. Once you're ready to get started, decide which policy packages you'd like to assign individuals in your organization to.

Select **View policy details** to learn more about the specific policies in a package and their respective settings. These [can be customized](#) after assignment in the Teams Admin Center.

Choose one or multiple packages to assign and then click **Next**. You can search for and add people to the policy package best suited for their role. An individual can't be assigned to more than one policy package at one time.

Once you've added people to the right policy package, **Finish** finalizes your selections. You can continue to customize and manage policy packages in the Microsoft Teams admin center.

Manage policy packages

View

View the settings of each policy in a policy package before you assign a package. In the left navigation of the Microsoft Teams admin center, go to **Policy packages**, select the package name, and then select the policy name.

Decide whether the predefined values are appropriate for your organization or whether you need to customize them to be more restrictive or lenient based on your organization's needs.

Customize

Customize the settings of policies in the policy package, as needed, to fit the needs of your organization. Any changes you make to policy settings are automatically applied to users who are assigned the package. To edit the settings of a policy in a policy package, in the left navigation of the Microsoft Teams admin center, go to **Policy packages**, select the policy package, select the name of the policy you want to edit, and then select **Edit**.

Keep in mind that you can also change the settings of policies in a package after you assign the policy package. To learn more, see [Customize policies in a policy package](#).

Assign

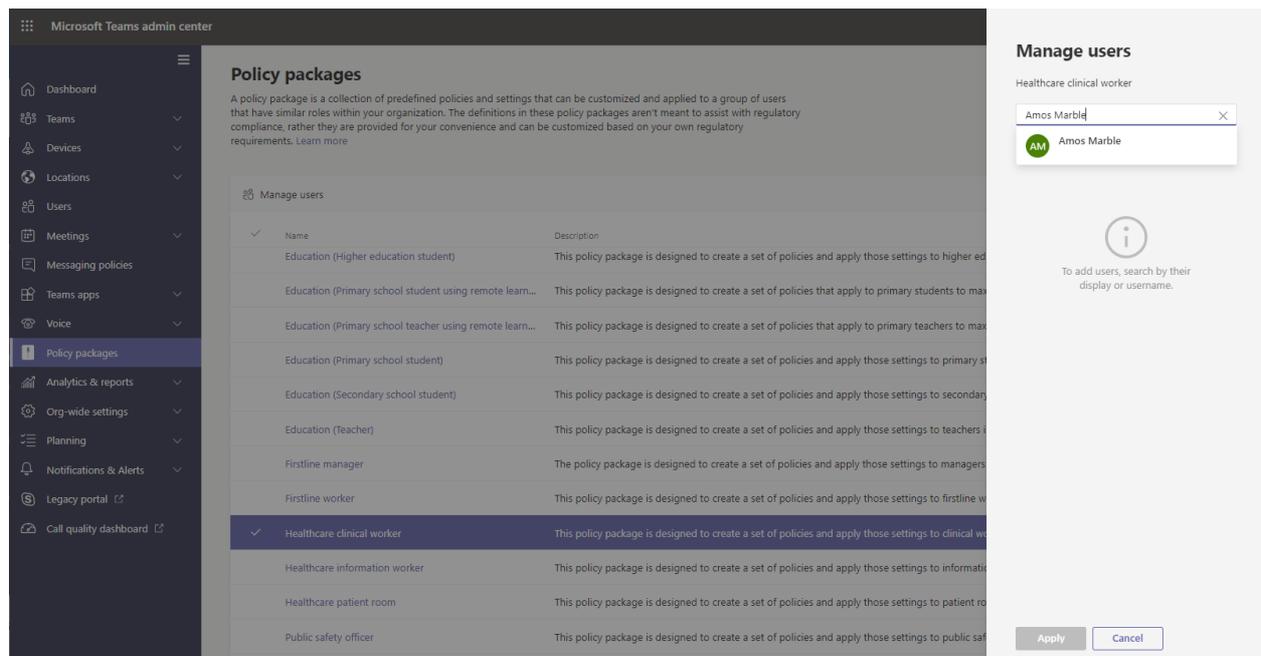
Assign the policy package to users. If a user has a policy assigned, and then later you assign a different policy, the most recent assignment will take priority.

 **Note**

Each user will require the Advanced Communications add-on in order to receive a custom policy package assignment. For more information, see [Advanced Communications add-on for Microsoft Teams](#).

Assign a policy package to one or several users

To assign a policy package to one or multiple users, in the left navigation of the Microsoft Teams admin center, go to **Policy packages**, and then select **Manage users**.



To learn more, see [Assign a policy package](#).

If a user has a policy assigned, and then later you assign a different policy, the most recent assignment will take priority.

Assign a policy package to a group

Policy package assignment to groups lets you assign multiple policies to a group of users, such as a security group or distribution list. The policy assignment is propagated to members of the group according to precedence rules. As members are added to or removed from a group, their inherited policy assignments are updated accordingly. This method is recommended for groups of up to 50,000 users but will also work with larger groups.

To learn more, see [Assign a policy package to a group](#).

Assign a policy package to a large set (batch) of users

Use batch policy package assignment to assign a policy package to large sets of users at a time. You use the [New-CsBatchPolicyPackageAssignmentOperation](#) cmdlet to submit a batch of users and the policy package that you want to assign. The assignments are processed as a background operation and an operation ID is generated for each batch.

A batch can contain up to 5,000 users. You can specify users by their object ID, UPN, SIP address, or email address. To learn more, see [Assign a policy package to a batch of users](#).

Related topics

[Manage policy packages in Teams](#)

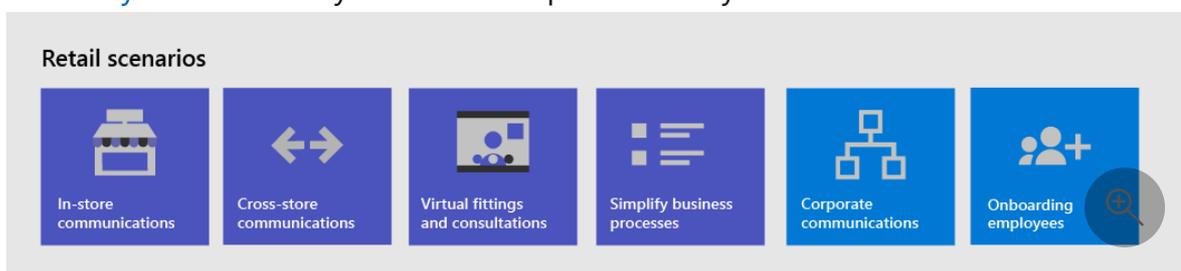
[Assign policy packages to users and groups](#)

Get started with Microsoft 365 for retail organizations

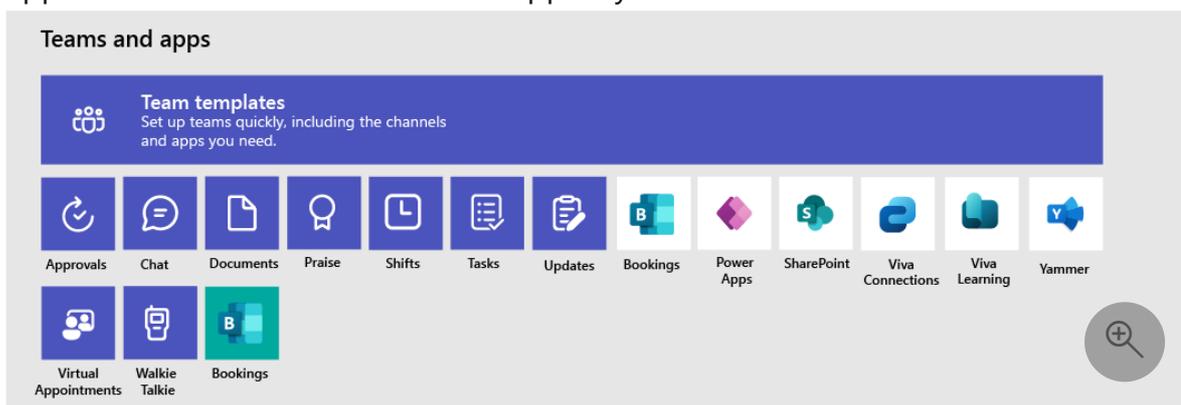
Article • 02/01/2023 • Applies to: Microsoft Teams, Microsoft 365 for frontline workers

Retail environments, with their rotating schedules and on-the-go staff, have very different needs than other organizations. To get the most benefit for your retail organization, you first choose which scenarios Microsoft 365 and Microsoft Teams can help you with in your day-to-day business operations, and then make sure that you prepare your Teams environment with the right fundamentals, teams, and apps to support those scenarios.

1. [Choose your scenarios](#) you want to implement for your business.



2. [Set up Microsoft 365](#) - Set up Microsoft 365's core elements, Microsoft Teams, and any other services you need.
3. [Configure services and apps](#) - Use team templates to set up the teams you need quickly, including the channels and apps you need for your business. Add in other apps from Microsoft as needed to support your scenarios.



Choose your scenarios

Microsoft 365 and Microsoft Teams offer several capabilities that can help retail organizations with their daily operations and digital transformation. We recommend the following scenarios for retail organizations:

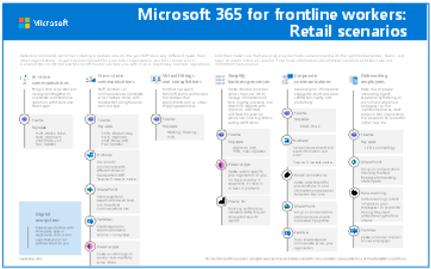


Note

These scenarios are also part of the Microsoft Cloud for Retail. You can do more with these scenarios when you also use other capabilities from the Microsoft Cloud for Retail, such as Microsoft Dynamics 365. Learn more about using this solution, which brings together capabilities from Azure, Dynamics 365, and Microsoft 365 at Microsoft Cloud for Retail.

Download a poster with scenario overviews

Use the following poster to start envisioning what your organization can do with Microsoft 365 for frontline workers.

Item	Description
	<p>This poster provides an overview of the scenarios you can implement for your frontline workforce in a retail setting.</p>
<p>PDF Visio Updated September 2022</p>	

Video overviews

Watch the following video to see how you can help your store associates connect and collaborate:

<https://www.microsoft.com/en-us/videoplayer/embed/RWRJVw?postJsllMsg=true>

Watch the following video to see how you can simplify business processes in retail environments:

<https://www.microsoft.com/en-us/videoplayer/embed/RWRzfc?postJsllMsg=true>

In-store communication and collaboration

Bring in-store associates and management together to collaborate and streamline operations with Teams and Teams apps.

Key apps: Shifts, Walkie Talkie, Tasks, Approvals, Chat, Praise, Lists, Files, Updates

Additional services: Outlook, Viva Connections, SharePoint, Power Platform and Power Apps

More information: [Frontline team collaboration](#)

Cross-store communication and collaboration

Staff members can communicate and collaboration across multiple stores in a region, or with headquarters using the same tools and apps you use within your store.

Key apps: Shifts, Walkie Talkie, Tasks, Approvals, Chat, Praise, Lists, Files, Updates

Additional services: Outlook, Viva Connections, Viva Engage, SharePoint, Power Platform and Power Apps

More information: [Frontline team collaboration](#)

Virtual fittings and consultations

Use the Virtual Appointments app or the Bookings app in Microsoft Teams to schedule and manage virtual appointments such as virtual shopping experiences for associates and customers.

Key features and apps: meetings, Virtual Appointments, Bookings

More information: [Virtual Appointments with Microsoft Teams](#)

Simplify business processes

You can use Teams apps, Power Apps, and Power BI to simplify business processes. For example, you can:

- Set and maintain schedules for your employees with Shifts.
- Conduct store walks and inventories with Power Apps.
- Track key performance indicators (KPIs) with Power BI reports.

Key apps: Shifts, Tasks, Lists, Approvals

Additional services: Power Platform with Power Apps and Power BI

More information: [Simplify business processes](#)

Corporate communications

Employee engagement is a significant contributor to workplace satisfaction, loyalty, and productivity at any organization. Learn how to keep everyone informed and engaged using SharePoint, Teams, Viva Engage, Stream, and Viva Connections.

Additional services: Viva Connections, SharePoint, Stream, Viva Engage

More information: [Corporate communications with frontline workers](#)

Onboarding new employees

Make new employee onboarding a great experience by fostering an all-in-one hybrid work environment where new employees can find important resources, meet people in their organization, and prepare to be successful in their new role.

Key apps: Lists, Live Meetings

Additional services: Viva Learning, SharePoint, Viva Engage

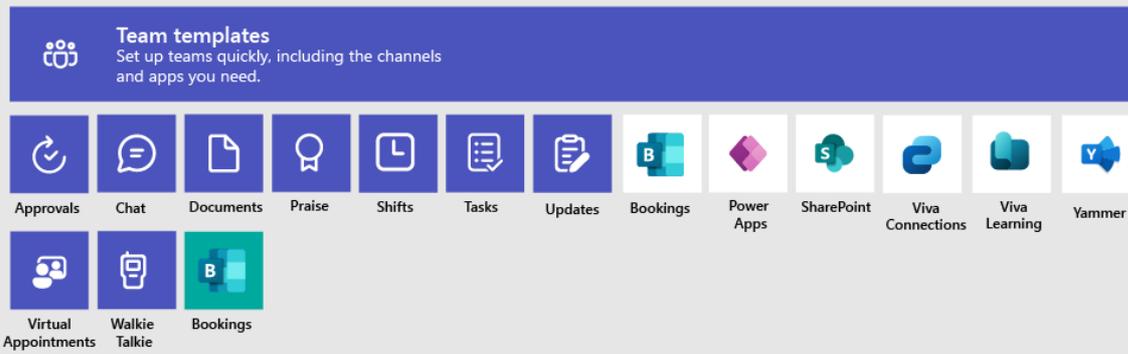
More information: [Onboard new employees](#)

ⓘ Note

For all of these capabilities, users must have an appropriate license. Microsoft 365 for frontline workers F1 and F3 or Office 365 F3, Office 365 A3, A5, E3, and E5, as well as Microsoft 365 Business Standard, Business Premium, A3, A5, E3, and E5 are all supported. For more information about general Teams licensing, see [Manage user access to Teams](#). See [Licensing options for frontline workers](#) for more about using Microsoft 365 for frontline workers in combination with other licenses.

Configure services and apps

Teams and apps



Apps and services for retail

Ensure that your workers can communicate, collaborate, and deliver great customer service with apps like Shifts, Walkie Talkie, Tasks, Lists, Praise, and more. You can determine which apps are available for your users by enabling them in the Teams admin center or by including them in a team template. More information about [managing Teams apps](#).

For retail environments, the following apps and services can help you transform your business processes and support communication:

Teams apps and services	Description	Manage	Help
Approvals	Approvals can be integrated into chat for easy sign-off.	Manage Approvals	Use Approvals
Chat	Enable quick conversations and checkins between staff with secure, enterprise-grade communications tools, instead of consumer grade apps or SMS.	Chat, teams, channels & apps in Microsoft Teams	Chat in Teams
Documents	Share standard operating procedures, store policies, plans, and more.	Teams and SharePoint integration	Share files
Praise	Recognize coworkers for great teamwork with the Praise app.	Manage the Praise app	Send Praise to people
RealWear devices	Handsfree communication with devices.	Microsoft Teams for RealWear	Use Microsoft Teams for RealWear
Shifts	Manage schedules and clock in and out with Shifts.	Manage the Shifts app	Use Shifts

Teams apps and services	Description	Manage	Help
Tasks	Help employees know what they should focus on when not with customers by assigning tasks. Operations can use task publishing to send out tasks to locations and track progress across those locations.	Manage the Tasks app	Use Tasks ↗
Updates	Check in on recurring or one-off priorities such as daily cleaning. Managers can create templates for employees to fill out and submit.	Manage the Updates app	Use Updates ↗
Walkie Talkie	Push to talk quick communication that's not constrained by geography like standard 2-way radios.	Manage the Walkie Talkie app	Use Walkie Talkie ↗
Virtual Appointments	A central hub for all your virtual appointment needs. Schedule and manage virtual fittings and consultations, view analytics, and configure options, all in one place.	Manage the Virtual Appointments app	What is the Virtual Appointments app? ↗
Bookings	Schedule and manage virtual fittings and consultations.	Manage the Bookings app	Use Bookings ↗

More apps and services from Microsoft	Description	Manage	Help
Power Apps and the Power Platform	Integrate business processes and enable quick updates to data, such as store inventory, sales numbers, incident reports, and more.	Teams integration with Microsoft Power Platform and Manage Microsoft Power Platform apps in the Microsoft Teams admin center	-
SharePoint	When you create a new team, a new SharePoint site is created and connected to the team. Many of the scenarios above rely on SharePoint features already embedded in Teams, such as sharing documents for team collaboration.	Teams and SharePoint integration	Add a SharePoint page, list, or document library as a tab in Teams ↗

More apps and services from Microsoft	Description	Manage	Help
Viva Connections	Viva Connections creates a hub in Teams where your retail associates can view a tailored news feed from your organization and a personalized dashboard with resources they need.	Overview of Viva Connections	Viva Connections in Microsoft Teams 
Viva Learning	Provide training when needed, right in the flow of their work.	Manage Viva Learning	Use Viva Learning 
Viva Engage	Connect your organization and allow communication across departments and regions with Viva Engage.	Overview of Viva Engage	Use Viva Engage 

Retail templates for teams

Create teams that include a predefined set of settings, channels, tabs, and pre-installed apps for communication and collaboration within an individual store, with a region, or between headquarters and your staff wherever they are.

- The Retail **Organize a store** template includes channels for General, Shift Handoff, Store Readiness, and Learning, and includes the Approvals, Tasks, and Wiki apps.
- The **Retail for managers** template includes channels for General, Operations, and Learning, and includes a Wiki tab.

You can also [create a custom template](#) to include the apps your store needs. More information: [Get started with Retail team templates](#)

Get ready to roll out your scenarios - identify roles and responsibilities for scenarios

Now that you know what scenarios you want to implement and what you need to support them, you can gather your team so you can plan, roll out, and monitor how they're working in your organization. For example, the following roles might be needed to roll out these scenarios in your organization:

Image	Role	Responsibilities	Department
	IT Administrator	<p>Work with operations and retail management staff to define scenarios and how they'll work for the organization.</p> <p>Configure settings in the Teams admin center, such as policies and templates, and enable apps.</p> <p>Set up app settings (such as global Shifts settings) for the organization.</p> <p>Add and license users.</p>	IT department
	Operations staff	<p>Work with Administrators to define scenarios, and determine which settings, policies, templates, and apps are needed for Teams.</p> <p>Create regional or divisional teams from templates.</p> <p>Set up tasks, lists, and approval flows for coordination between stores within a region, or between stores and headquarters.</p> <p>Set up learning framework for staff.</p>	Central operations
	Store manager	<p>Work with Administrators and Operations staff to define scenarios.</p> <p>Create teams for the store from templates.</p> <p>Set up channels and apps for the teams, as needed. For example: a channel for shift handovers.</p> <p>Set up store schedules in Shifts.</p> <p>Set up tasks, lists, updates, and approval flows that are specific to the store.</p> <p>Set up learning tasks for staff.</p>	Store management

For more about successfully implementing and adopting Teams, see [Adopt Microsoft Teams](#).

Use retail team templates

Article • 02/15/2023 • Applies to: Microsoft Teams

Overview

Team templates in Microsoft Teams allow you to quickly and easily create teams by providing a predefined team structure of settings, channels, and pre-installed apps.

For retailers, team templates can be especially powerful, as they help you to quickly deploy consistent teams across your organization. Templates also help staff to get oriented with how to effectively use Teams.

Teams includes templates designed specifically for retailer needs. Use these pre-built templates to quickly create teams for staff to communicate and collaborate. In this article, we introduce you to each of these templates and recommend how to use them.

How you manage and work with team templates depends on whether you're an admin or developer.

If you're:	Then, you:
An admin or IT pro	Manage team templates in the Teams admin center . View team templates and apply templates policies to control which templates your staff can use in Teams for creating teams.
A developer	Use Microsoft Graph to create teams from team templates.

Manage team templates in the Teams admin center

As an admin, you can manage team templates in the Microsoft Teams admin center. Here, you can view details about each template. You can also [create and assign templates policies](#) to your staff to control which templates they see in Teams for [creating teams](#) [↗].

To learn more about team templates in general, see [Get started with team templates in the Teams admin center](#).

We currently offer the following pre-built retail team templates. To view them, in the left navigation of the Teams admin center, go to **Teams > Team templates**.

ⓘ Note

An asterisk (*) indicates that the template is a *Microsoft 365 connected template*. When users create a team using the template, the connected SharePoint template is applied to the site and the team. SharePoint components such as pages, lists, and Power Platform integrations are automatically added and pinned as tabs to the General channel in the team. Users can edit these pages and lists right from within Teams.

To learn more about SharePoint templates, see [Apply and customize SharePoint site templates](#) .

Manage a Store*

Bring your retail employees together in one central experience to manage tasks, share documents, and resolve customer issues. Integrate additional applications to streamline shift start and end processes.

Template type	TemplateId	Properties that come with this template
Manage a Store	retailStore	<p>Channels:</p> <ul style="list-style-type: none">• General• Shift Handoff• Store Readiness• Learning <p>Apps:</p> <ul style="list-style-type: none">• Approvals• Inspection• Lists<ul style="list-style-type: none">◦ Inventory list• SharePoint Pages<ul style="list-style-type: none">◦ Our store• Shifts• Tasks by Planner and To Do• Wiki

Retail for Managers*

Create a team for a set of managers to collaborate across stores or regions. For example, if your organization has regions, you might create a team for the California

region and include all the store managers in that region, along with the regional manager for that region.

Template type	TemplateId	Properties that come with this template
Retail for Managers	retailManagerCollaboration	Channels: <ul style="list-style-type: none">• General• Operations• Learning Apps: <ul style="list-style-type: none">• Approvals• Inspection• SharePoint Pages<ul style="list-style-type: none">◦ Our store• Tasks by Planner and To Do• Wiki

Use team templates with Microsoft Graph

Developers can use Microsoft Graph to create teams from pre-built team templates. To learn more about using team templates with Microsoft Graph, see [Get started with team templates using Microsoft Graph](#), [Microsoft Teams API overview](#), and [teamsTemplate resource type](#).

Here are the pre-built retail team templates.

ⓘ Note

An asterisk (*) indicates that the template is a *Microsoft 365 connected template*. When users create a team using the template, the connected SharePoint template is applied to the site and the team. SharePoint components such as pages, lists, and Power Platform integrations are automatically added and pinned as tabs to the General channel in the team. Users can edit these pages and lists right from within Teams.

To learn more about SharePoint templates, see [Apply and customize SharePoint site templates](#).

Manage a Store*

Use this template to create a team for each retail store location in your organization.

Template type	TemplateId	Template channels
Retail - Store	<code>https://graph.microsoft.com/beta/teamsTemplates('retailStore')</code>	<p>Channels</p> <ul style="list-style-type: none"> • General • Shift Handoff • Store Readiness • Learning <p>Team properties</p> <ul style="list-style-type: none"> • Team visibility set to Public <p>Member permissions</p> <ul style="list-style-type: none"> • Can't create, update, or delete channels • Can't add or remove apps • Can't create, update, or remove tabs • Can't create, update, or remove connectors

Recommended ways to customize the Store template for your organization:

- If your organization has departments within each store, add a channel for each department. Adding a channel facilitates communication and collaboration within the department.
- If your organization has any internal websites (for example, a SharePoint site), consider pinning them as tabs in the relevant team channel.

Retail for Managers*

Use this template to create a team for a set of managers to collaborate across stores or regions. For example, if your organization has regions, you might create a team for the California region and include all the store managers in that region, along with the regional manager for that region.

Template type	TemplateId	Template channels
Retail - Manager Collaboration	<code>https://graph.microsoft.com/beta/teamsTemplates('retailManagerCollaboration')</code>	<p>Channels</p> <ul style="list-style-type: none"> • General • Operations • Learning

Template type	TemplateId	Template channels
		<p>Team properties</p> <ul style="list-style-type: none"> • Team visibility set to Private <p>Member permissions</p> <ul style="list-style-type: none"> • Can create, update, and delete channels • Can add and remove apps • Can create, update, and remove tabs • Can create, update, and remove connectors

Recommended ways to customize the Manager Collaboration template for your organization:

- If your organization has any internal websites, such as a SharePoint site, that are relevant for managers, consider pinning them as tabs in a relevant team channel.

How to use team templates with Microsoft Graph

To use these templates, change the 'template@odata.bind' property in the request body from 'standard' to the TemplateIds above. For more information on how to deploy team templates, see the Microsoft Graph article on how to [create a team](#).

ⓘ Note

The channels in the template will automatically be created under the **General** tab.

Example: Store template extension script

PowerShell

```
{
  "template@odata.bind":
  "https://graph.microsoft.com/beta/teamsTemplates('retailStore')",
  "DisplayName": "Contoso Store",
  "Description": "Team for all staff in Contoso Store",
  "Channels": [
```

```
{
  "displayName": "Additional store channel",
  "IsFavoriteByDefault": false
}
]
```

ⓘ Note

If you're using Microsoft Graph to create a team from an existing Microsoft 365 group or team using a Microsoft 365 connected template, the connected SharePoint template isn't automatically applied to the site or team. You'll need to manually apply the SharePoint site template after the team is created. In Teams, go to the team, select **More options** in the upper-right corner > **Open in SharePoint**. Then choose **Settings** > **Apply a site template** and select the corresponding site template.

Related articles

- [Get started with team templates in the Teams admin center](#)
- [Create a team from a template](#) 
- [Get started with team templates using Microsoft Graph](#)

Get started with Microsoft 365 for Manufacturing

Article • 11/23/2022 • Applies to: Microsoft Teams, Microsoft 365 for frontline workers

Empower your frontline workforce with digital tools and modern devices that offer the best experiences for collaboration and productivity. Microsoft 365 can help you transform your workforce with productivity apps, intelligent cloud services, and increased security.

1. [Choose your scenarios](#) you want to implement for your business.
2. [Set up Microsoft 365](#) - Set up Microsoft 365's core elements, Microsoft Teams, and any other services you need.
3. [Configure services and apps](#) - Use team templates to set up the teams you need quickly, including the channels and apps you need for your business. Add in other apps from Microsoft as needed to support your scenarios.

Choose your scenarios

Microsoft 365 and Microsoft Teams offer several capabilities that can help manufacturing organizations with their daily operations and digital transformation. We recommend the following scenarios for manufacturers:

- [Connect and engage your workforce](#)
- [Enhance workforce management](#)
- [Increase operational efficiency](#)
- [Onboard and train employees](#)

ⓘ Note

For all of these capabilities, users must have an appropriate license. Microsoft 365 for frontline workers F1 and F3 or Office 365 F3, Office 365 A3, A5, E3, and E5, as well as Microsoft 365 Business Standard, Business Premium, A3, A5, E3, and E5 are all supported. For more information about general Teams licensing, see [Manage user access to Teams](#) [↗]. See [Licensing options for frontline workers](#) for more about using Microsoft 365 for frontline workers in combination with other licenses.

Connect and engage your workforce

Empower your frontline workers to engage with each other and your broader organization using communication tools and platforms.

Key apps: Walkie Talkie, Chat, Praise

Additional services: Viva Connections, Viva Engage, SharePoint

More information: [Frontline team collaboration](#) and [Corporate communications](#)

Enhance workforce management

- Create and manage schedules for your employees with Shifts
- Check in on recurring and one-off priorities with Updates
- Streamline approvals with the Approvals app
- Assign and keep track of tasks with the Tasks app

Key apps: Approvals, Shifts, Updates, Tasks

More information: [Frontline team collaboration](#) and [Shifts](#)

Increase operational efficiency

- Automate your organization's unique workflows with Power Apps
- Track key performance indicators (KPIs) with Power BI reports
- Keep track of everything else with Lists

Key features and apps: Lists

Additional services: Power Platform with Power Apps and Power BI

More information: [Simplify business processes](#)

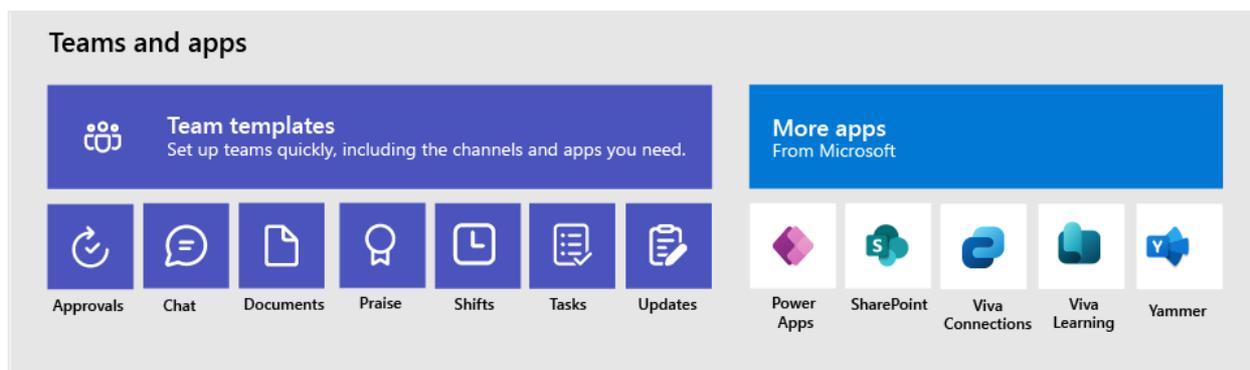
Onboard and train employees

Make sure that all your workers have the knowledge and capabilities they need to succeed.

Additional services: Viva Learning, Viva Connections, SharePoint, Stream, Viva Engage

More information: [Training and onboarding](#)

Configure services and apps



Apps and services for manufacturing

Ensure that your workers can communicate, collaborate, and deliver great products with apps like Shifts, Tasks, Lists, Praise, and more. You can determine which apps are available for your users by enabling them in the Teams admin center or by including them in a team template. More information about [managing Teams apps](#).

For manufacturing environments, the following apps and services can help you transform your business processes and support communication:

Teams apps and services	Description	Manage	Help
Approvals	Streamline the sign-off process by integrating Approvals into chat. For example, technicians and operators can request approval to perform an adjustment on a piece of equipment.	Manage Approvals	Use Approvals
Chat	Enable quick conversations between staff and managers with secure chat in Teams.	Chat, teams, channels & apps in Microsoft Teams	Chat in Teams
Documents and files	Share standard operating procedures, manuals, diagrams, inspection records, and more.	Teams and SharePoint integration	Share files
Praise	Recognize coworkers for great teamwork with the Praise app.	Manage the Praise app	Send Praise to people
Shifts	Manage schedules and clock in and out with Shifts.	Manage the Shifts app	Use Shifts

Teams apps and services	Description	Manage	Help
Tasks	Foremen and supervisors can assign tasks to let workers know what to focus on. Your organization's central office can use task publishing to send out tasks to locations and track progress across those locations.	Manage the Tasks app	Use Tasks 
Updates	Check in on recurring and one-off priorities such as machinery repairs and inspections. Supervisors can create templates for employees to fill out and submit.	Manage the Updates app	Use Updates 

More apps and services from Microsoft	Description	Manage	Help
Power Apps and the Power Platform	Integrate business processes and enable quick updates to data, such as machine downtime, KPIs, and other reports.	Teams integration with Microsoft Power Platform and Manage Microsoft Power Platform apps in the Microsoft Teams admin center	-
SharePoint	A new, connected SharePoint site is created whenever you create a new team. You can use SharePoint to store files, post news, and make sure your workers have access to important information.	Teams and SharePoint integration	Add a SharePoint page, list, or document library as a tab in Teams 
Viva Connections	Viva Connections creates a hub in Teams where your frontline team can view a tailored news feed from your organization and a personalized dashboard with resources they need. For example, you could create a Manuals card so your operators can find all the necessary manuals easily.	Overview of Viva Connections	Viva Connections in Microsoft Teams 
Viva Learning	Provide initial and ongoing training to make sure your employees are up to date with their skills and knowledge base.	Manage Viva Learning	Use Viva Learning 

More apps and services from Microsoft	Description	Manage	Help
Viva Engage	Connect your entire organization and enable communication across plants and regions.	Overview of Viva Engage	Use Viva Engage 

For more about successfully implementing and adopting Teams, see [Adopt Microsoft Teams](#).

Understand Microsoft Teams apps and their capabilities

Article • 06/27/2023 • Applies to: Microsoft Teams

Apps in Teams help users bring together their workplace tools and services and collaborate with others. A few examples are:

- Users using a pinned Calendar app in Teams to collaborate quickly with others
- An app with bots functionality informing users of the quality of a web service in a Teams channel
- An app to share and assign tasks to various users in a channel.

Microsoft Teams apps are just like web-based SaaS apps that don't need to be deployed locally, work only in the scope that's allowed, and reads the specified organization data only after an admin's consent. Adding an app to Teams client by your users doesn't require any installation, say of a binary file.

As an admin, you set an app governance process that balances wide-ranging requirements of users along with your organization's IT policies, standards, and risk-profiles.

Our extensive [catalog](#) of validated and secure Teams apps provides users the tools and services that your organization needs every day. Teams admin center provides admins with enterprise-grade controls and configurations to govern these apps. You control the availability of apps for each user across the various contexts such as meeting, chats, and channels.

This article helps you understand the types of apps and where from your users access those apps.

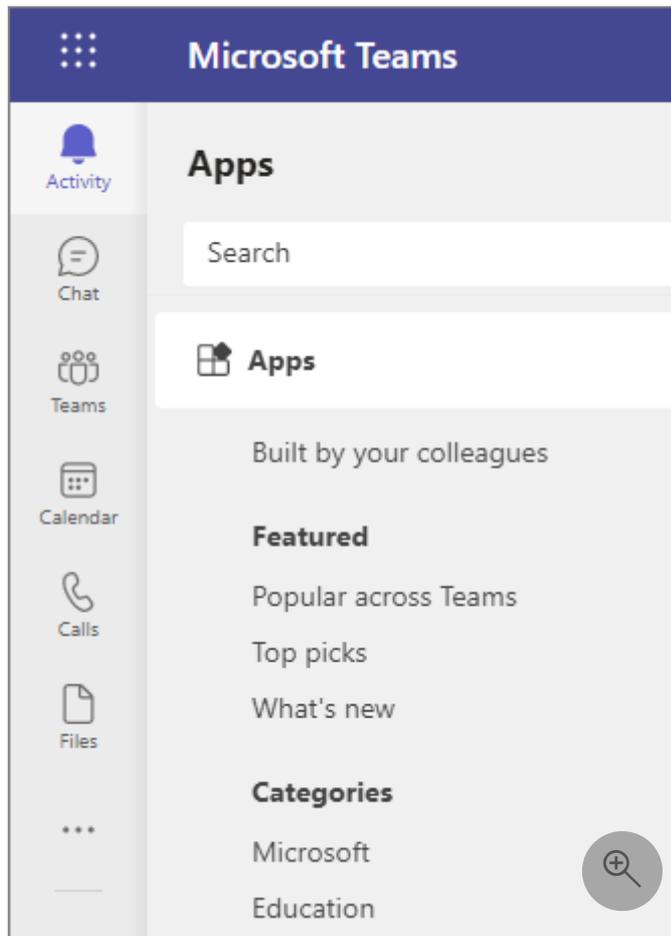
The different types of apps that your users can use in Teams are:

- [Core apps that are part of Teams](#).
- Other [apps created by Microsoft](#).
- [Third-party apps](#) created by partners (validated by Microsoft).
- [Custom apps](#) created by your own organization.

Core apps

Some Teams functionalities such as activity feed, teams, chat, calendar, calls, files, and assignments (education tenants) are available by default and pinned by default for ease

of access for users. For frontline workers, only activity, shifts, chat, and calling are available and pinned. As an admin, you can modify this default behavior using [setup policy](#).



Apps created by Microsoft

Microsoft provides many apps to improve productivity and collaboration. You and the users can find these apps by looking for Microsoft listed as the Publisher in Teams admin center or listed as Provider in the Teams store.

ⓘ Note

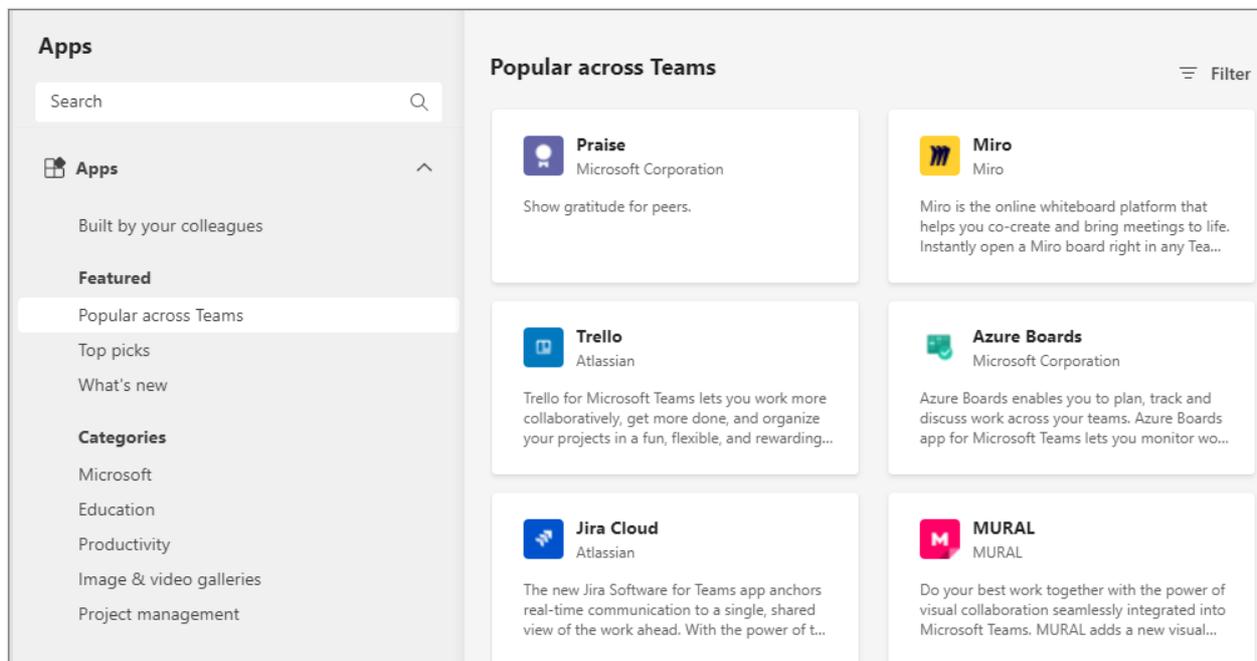
A known limitation in the Teams admin center is that you can only view and manage apps that are deployed in the same release channel as your tenant is. For example, if your tenant is in the general release channel then you can't manage apps that are deployed in the private or public preview channels. This isn't an issue for apps that are released to the general release channel.

Teams comes with a set of built-in apps, including Lists, Tasks, Praise, Approvals, and more. We recommend that you include the featured apps—such as Planner—in your initial Teams rollout.

+ Upload ✓ Allow ⓧ Block ✎ Customize 👤 Add to team 1479 items			
✓	Name	Certification ⓘ	Publisher ↑
	 Lists	--	Microsoft
	 Live Components	--	Microsoft
	 Tags	--	Microsoft
	 Admin - Microsoft 365	--	Microsoft
	 Power Automate Action	--	Microsoft Corporation
	 Milestones	--	Microsoft Corporation 

Third-party apps created by independent app developers

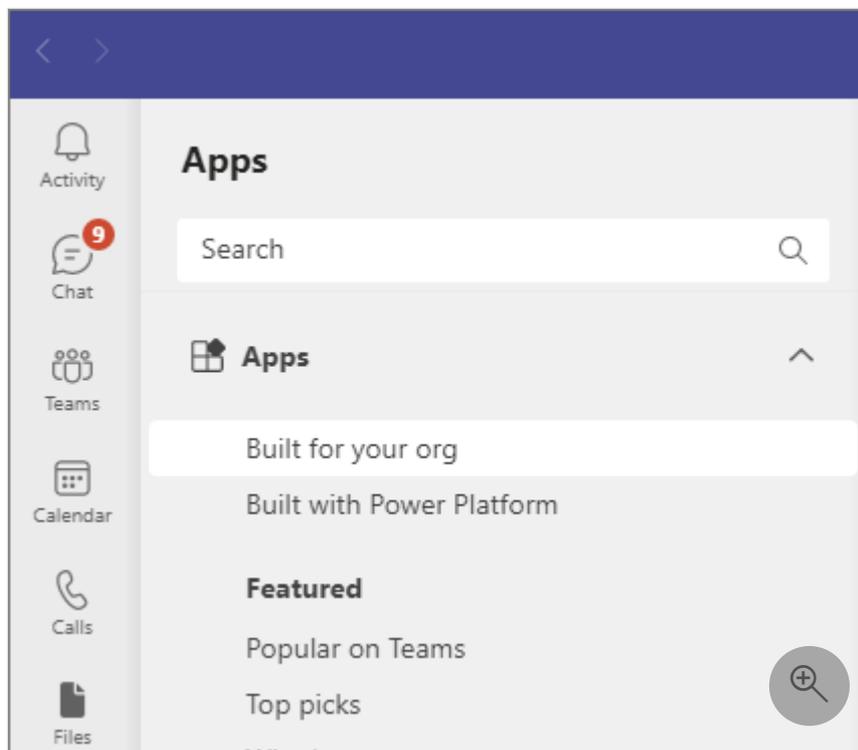
In addition to Microsoft-provided apps, you can use third-party apps. Microsoft rigorously validates the functionality and security of all of these apps. Elaborate manual and automated tests are executed before making these apps available in Teams store and many tests continue at a regular cadence even after an app is published live. To understand the benefits of app validation, see [validation of third-party apps](#). Some of the apps subscribe to the [Microsoft compliance program](#) to undergo multiple tiers of further checks beyond validation. See an [Overview of third-party apps](#).



Custom apps created within an organization for internal use

Apps created by developers in your organization are called custom apps (or Line of Business apps). Your organization may commission the creation of custom apps for org-specific requirements. You have the control to allow or block such apps for entire organization or for specific users. Developers in your organization can build custom low-code solutions by using Teams integration with [Microsoft Power Platform](#).

After an admin allows the use of custom apps, users can find such apps by selecting **Built for your org** in the left navigation of Teams store.



For more information, see [Understand and manage custom apps](#).

About App Templates

Using the app development methods, Microsoft creates and provides functional and production-ready sample apps. Collectively, these apps are called App templates for Teams and are provided to:

- Illustrate a few collaboration use cases in Teams.
- Showcase app development best practices and methods.
- Provide open-source apps that developers can extend to create their own apps.

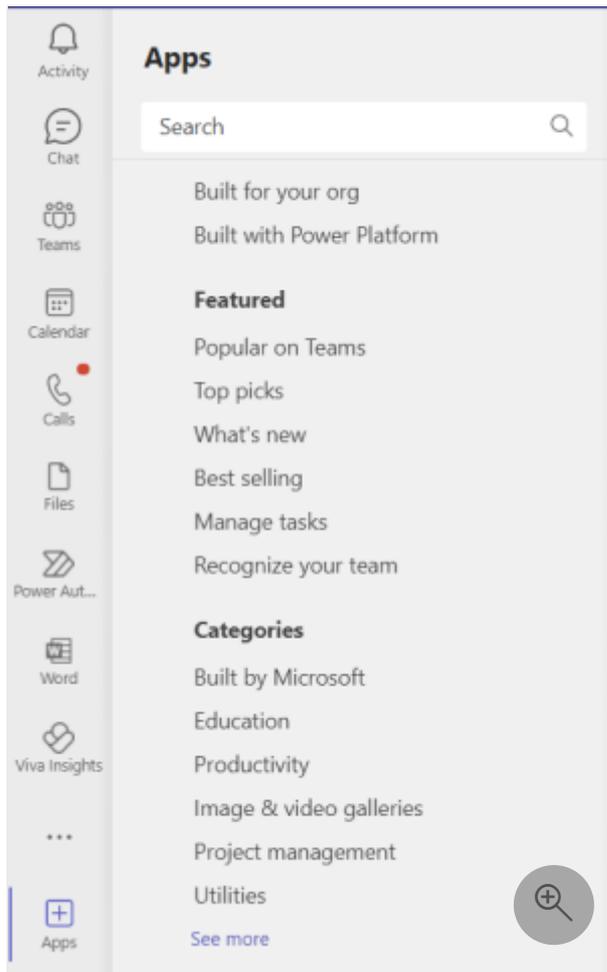
Your organization developers customize App Templates with simple changes to the provided source code. You provide these apps as custom apps for your users, to meet any organization needs.

To know more, see [Microsoft Teams App Templates](#).

Discover and use apps in Teams

Users can view all the apps available in Teams from the Teams apps store in a Teams desktop or web client. Users can search by name, browse by category, and browse by apps built for your org and built with Power Platform to discover and install apps in Teams.

Apps can be pinned to Teams for easy access. Users can [pin apps on their own](#) if their setup policy allows and if an admin allows the app for usage. Admins can pin apps and control the behavior of pinned apps, For more information, see [app setup policies](#).



Users can find and add apps to Teams from the Teams app store. They can also add apps directly from the context they're working in, such as chat or channel tab, Teams meeting, or messaging area. For more information, see [add an app to Microsoft Teams](#).

A user can add and use an app only when an admin allows the app and the app is made available to the user via [permission policies](#). An organization's IT admin has complete control over who can install which apps in which context. Users can't add apps that are blocked, any app with a lock icon in the Teams store is blocked for the user. However, [users can request their org's IT admin for their approval](#). After the app is approved, users can add the app from the Teams store.

ⓘ Note

Only individuals can request for an approval to add an app in Teams.

Teams apps that work across Microsoft 365

App developers can enhance their Microsoft Teams apps to work in Outlook and in Microsoft 365 App (formerly known as Office.com). Developers can create such apps either as a third-party app available on the Store or a custom app created for a specific organization. The users can then use the same app in Teams, in Microsoft Outlook and Microsoft 365 App.

To know more about governing such apps, see [Integrated apps in Microsoft 365 admin center](#).

Understand app capabilities

Teams app capabilities are the core functionalities that developers build in an app to fulfill various use cases of Teams apps. Admins only govern the apps using the common [app governance methods](#).

To provide a rich experience that allows users to work inside Teams, apps contain the following capabilities:

- **Tabs:** Tabs are Teams-aware webpages pinned at the top of a channel or a chat. Tabs let you interact with content and services with a web-like experience. They're simple HTML `iframe` tags that can be added as part of a channel inside a team, group chat, or personal app for an individual user. For more information, see [Microsoft Teams tabs](#).
- **Webhooks and connectors:** Webhooks and connectors help to connect various web services to channels and teams in Microsoft Teams. Webhooks are user-defined HTTP callback that notifies users about any action that has taken place in the Teams channel. It's a way for an app to get real-time data. Connectors allow users to receive notifications and messages from web services. For more information, see [Webhooks and connectors](#).

To allow users to use custom connectors in Teams, see [Use custom connectors in Teams](#).

- **Messaging extensions:** Messaging extensions are shortcuts to insert app content or to act on a message without the users having to move away from the conversation. Users can search or initiate actions in an external system from the compose message area, the command box, or directly from a message. For more information, see [Message extensions](#).

- **Meeting extensions:** Meeting extensions are apps that enhance live meetings and make meetings more productive. You can identify various participant roles and user types, get meeting events, and generate in-meeting dialogs. For more information, see [Apps for Teams meetings](#).
- **Bots:** Bots are also referred to as a chatbot or conversational bot. It's an app that executes simple and repetitive tasks. A bot interaction can be a quick question and answer, or it can be a complex conversation that provides access to services or assistance. Users can have a conversation with a bot in a personal chat, channel, or group chat. For more information, see [Bots in Microsoft Teams](#).
- **Cards and task modules:** Cards provide users with various visual, audio, and selectable messages and help in conversation flow. Task modules help you create modal pop-up experiences in Microsoft Teams. They're useful for starting and completing the tasks or displaying rich information like videos or Power business intelligence (BI) dashboards. For more information, see [Cards and task modules](#).
- **Activity feeds:** Activity Feed in Teams contains a notification of all the activity in various scopes like channels and chats. Apps can broadcast a message to all the members of say a team or a channel to notify of any updates. Users can customize what notifications they view.

To view common use cases mapped to Teams capabilities, see [Map your use cases to Teams app capabilities](#).

Related articles

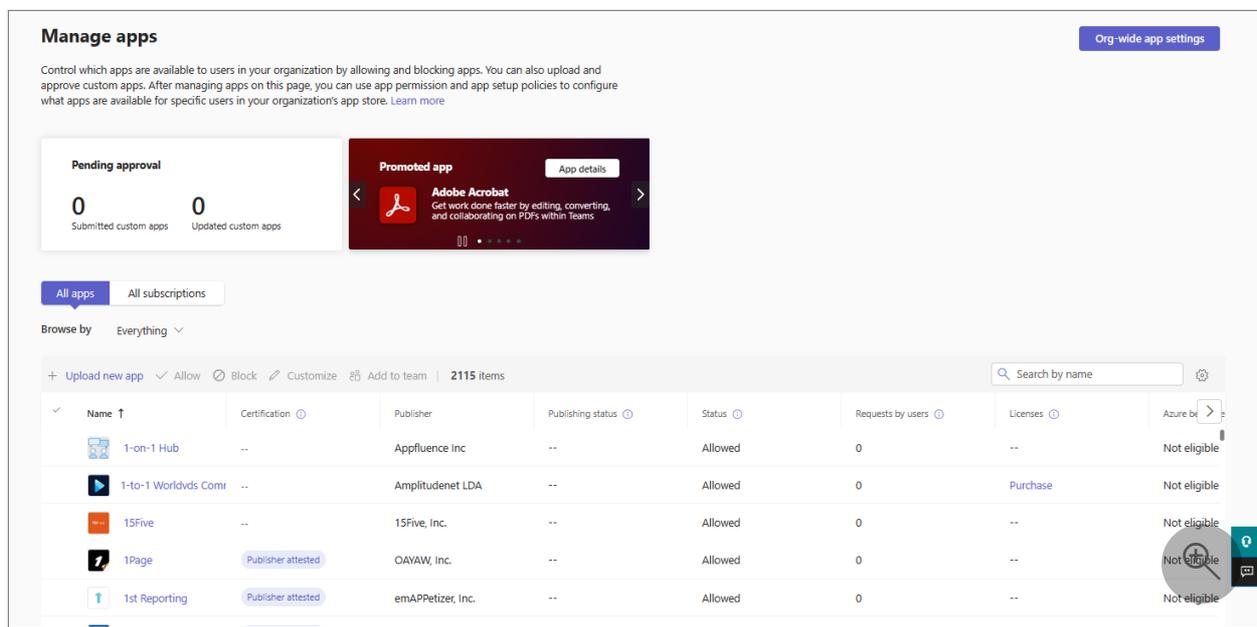
- [Overview of how apps are used by users](#) 
- [Learn more about App Templates for Teams](#)
- [Teams app updates and admin role](#)
- [Overview of app management and governance in Teams admin center](#)

Overview of app management and governance in Teams admin center

Article • 08/30/2023 • Applies to: Microsoft Teams

In the Teams admin center, we provide a few dedicated pages to manage your apps with granularity and complete control. You manage apps for your organization in the **Manage apps** page in the Teams admin center portal. Use the URL

<https://admin.teams.microsoft.com/policies/manage-apps> to view and govern all Teams apps that are available in your organization's app catalog, define access to apps using policies, cater to prominent use cases for app management, and more.



To use Teams admin center, you must have a Global Administrator or Teams Administrator role. For details, see [Teams administrator roles](#) and [Microsoft 365 administrator roles](#).

App management use cases and the available interfaces

The options to accomplish most of app management use cases are available in Teams admin center. In addition, some options are available in other portals or different pages in the Teams admin center.

App management tasks that are supported in admin center are in the table below.

App management use cases	Link to the interface	Documentation
<p>Control which apps are available to users in your organization by allowing and blocking apps. You can also upload and approve custom apps. After managing apps on this page, you can use app permission and app setup policies to configure what apps are available for specific users in your organization's app store.</p>	<p>Manage apps in Teams admin center </p>	<p>Current article</p>
<p>App permission policies control what apps you want to make available to Teams users in your organization. You can use the Global (Org-wide) default policy and customize it, or you can create one or more policies to meet the needs of your organization.</p>	<p>Permission policies </p>	<p>Manage app permission policies</p>
<p>App setup policies control how apps are made available to a user with the Teams app. Use the Global (Org-wide default) policy and customize it or create custom policies and assign them to a set of users.</p>	<p>Setup policies </p>	<p>Manage app setup policies</p>
<p>You can develop and upload custom apps as app packages and make them available in your organization's app store.</p>	<p>Org-wide app settings in Manage apps </p>	<p>Manage policy setting for custom apps</p>
<p>You can customize the Teams app store with your organization's logo, custom background, or color.</p>	<p>Customize store </p>	<p>Customize your organization's app store</p>
<p>The Teams app usage report provides information about which apps in use, active users, and other app usage information.</p>	<p>Usage reports </p>	<p>Teams app usage report</p>
<p>Your users can add apps when they host meetings or chats with guests. They can also use apps shared by guests when they join meetings or chats hosted externally. The data policies of the hosting user's organization, and the data sharing practices of any third-party apps shared by that user's organization, are applied.</p>	<p>External access </p>	<p>App behavior depending on types of users</p>
<p>With guest access, you can provide access to applications and other Teams functionality to people outside your organization, while maintaining control over your corporate data.</p>	<p>Guest access </p>	<p>Guest access in Teams</p>
<p>Teams update policies are used to manage Teams and Office preview users who can see prerelease or preview features in the Teams app.</p>	<p>Teams update policies </p>	<p>Teams public preview</p>

App management tasks that are supported on other portals are in the table below.

App management use cases	Link to the interface	Documentation
Manage licenses and subscriptions of third-party apps in Microsoft 365 admin center	Microsoft 365 admin center 	Manage third-party app subscriptions
Audit Teams app events on Microsoft Purview compliance portal.	Audit 	Teams activities
Applications can be granted permissions to your organization and its data by three methods: an admin consents to the application for all users, a user grants consent to the application, or an admin integrating an application and enabling self-service access or assigning users directly to the application. Verify the Graph permissions for apps. Verify the permissions that users provided or that the admins delegated.	Microsoft Entra admin center 	Review permissions granted to applications

Allow or block apps

As an admin, you control access to all types of apps that are used across all context by all your users. Teams provides granular controls to configure access for each app and for each user.

To allow an app, all the following settings must be done. To block an app, block it via any one of the following settings.

- **Org-wide app settings:** Use this setting to allow use of third-party apps in your org. You control the specific apps that are allowed and used.
- **Allow an individual app:** Use this setting to allow a specific app in your org. You control which users can use a specific app and which users can use apps.
- **App permission policy:** Use policies to allow all or allow specific users to use an app. You decide access on a per-user and per-app basis.

The Manage apps page is where you allow or block individual apps at the org level. The page displays all the available app and their current org-level app status. To allow or block an app, follow these steps:

1. Sign in to the Teams admin center and access **Teams apps** > [Manage apps](#) .
2. Select **Org-wide app settings** and allow the use of third-party apps.
3. On the **Manage apps** page, locate an app and select it.
4. Select **Allow** or **Block** option.

To allow an app for specific users, see [app permission policies](#).

When a developer publishes an app to the Teams store, some apps may need an admin to configure the app. Before an admin allows such an app, it shows as **Blocked by publisher** in the admin center. After following the publisher's guidance to set up the app, you can make it available to users by allowing it.

Allow access to an app for users and groups

As an admin, you use one of the following methods to define access to apps for your users:

- [App permission policies](#) if you use policy-based method to define app access.
- App assignment if you use [app centric management](#) to define app access.

Stop app usage and remove app

As an admin, you can [delete custom apps](#) from your organization's store but can't remove the third-party apps that are available in the Teams store. To prevent app addition and usage by users, you can [block an app for everyone](#) or [use permission policy](#) to stop selected users from using an app. You can't remove or uninstall the apps that are already added by users. Blocking the apps prevents users from using it.

Blocked apps may still have access to data from the teams that the apps were added to. To turn off app data access, a Global Administrator, an Application Administrator, or a Cloud Application Administrator must [turn off user sign-in in the Microsoft Entra admin center](#).

Manage org-wide app settings

Use org-wide app settings to control whether users with an [F license](#) get the tailored frontline app experience, whether users can install third-party apps, and whether users can upload custom apps in your organization.

1. On [Manage apps](#) page, select **Org-wide app settings**. You can then configure the settings you want in the pane.

Org-wide app settings

Tailored apps

Users with F licenses will get tailored apps pinned on their behalf when they sign in to Teams. [Learn more](#)

Show tailored apps On

Third-party apps

You can control which third-party apps can be installed for your organization. [Learn more](#)

Third-party apps  On

New third-party apps published to the store  On

Auto install approved apps  New Off

When you use Auto install approved apps, you accept the terms of use, privacy policies, and permissions of each app.

[Manage selected apps](#)

Custom apps

You can develop and upload custom apps as app packages and make them available in your organization's app store. [Learn more](#)

Upload custom apps for personal use  Off

External access

Your users can add apps when they host meetings or chats with external users. The data

2. Under **Tailored apps**, turn off or turn on **Show tailored apps**. When this setting is on, users with an [F license](#) get the tailored frontline app experience. This experience pins the most relevant apps in Teams for frontline workers. To learn more, see [Tailor Teams apps for your frontline workers](#).

This feature is available for F licenses. Other license types will be supported in the future.

3. Under **Third-party apps**, turn off or turn on these settings to control access to third-party apps in your organization:

- **Allow third-party apps:** This setting controls whether users can use third-party apps. If you turn off this setting, your users won't be able to install or use any third-party apps and the app status of these apps is displayed as **Blocked org-wide** in the table.

ⓘ **Note**

When **Allow third-party apps** is off, **outgoing webhooks** are still enabled for all users, but you can control them at the user level by allowing or blocking the Outgoing Webhook app through **app permission policies**.

- **Allow any new third-party apps published to the store by default:** This setting controls whether new third-party apps that are published to the Teams app store become automatically available in Teams. You can only set this option if you allow third-party apps.

4. Under **Custom apps**, turn off or turn on **Upload custom apps for personal use** option. This setting controls whether users can upload custom apps or not. To learn more about custom apps, see [how to manage custom apps](#).

5. Select **Save**. The settings take effect after a few hours.

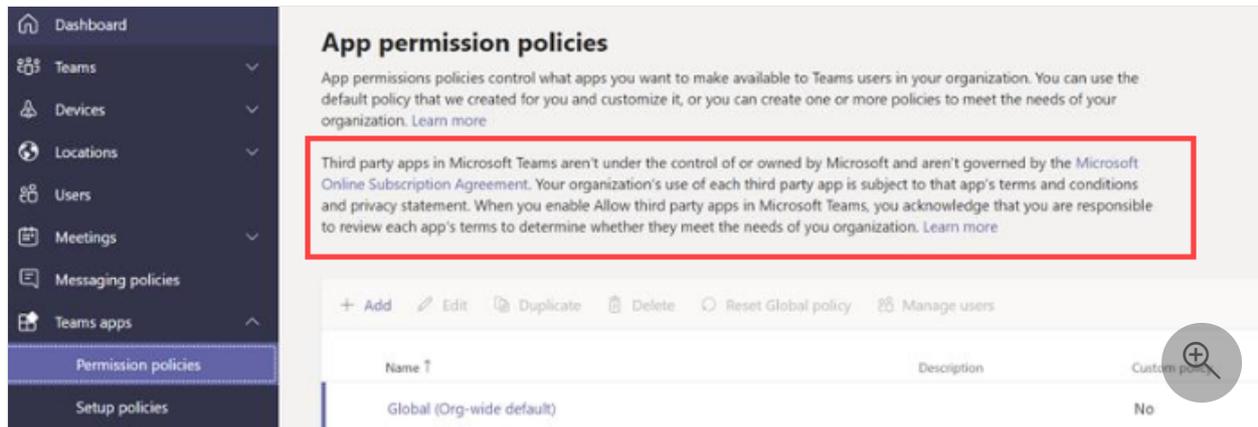
Admin center settings may allow your users to collaborate with users from other organizations. To understand how apps work with external users in meetings, see [Teams apps for external attendees](#).

Auto install approved apps based on admin approval

Auto install approved apps feature automatically adds approved apps in Teams client of the permitted users. The functionality respects all admin governance controls and only installs apps that the users have used although outside Teams. It reduces manual intervention to add an app and improves user productivity by preventing context-switching. To know more about the feature, see [Auto install approved apps in Teams](#).

Manage org-wide app settings for Microsoft 365 Government

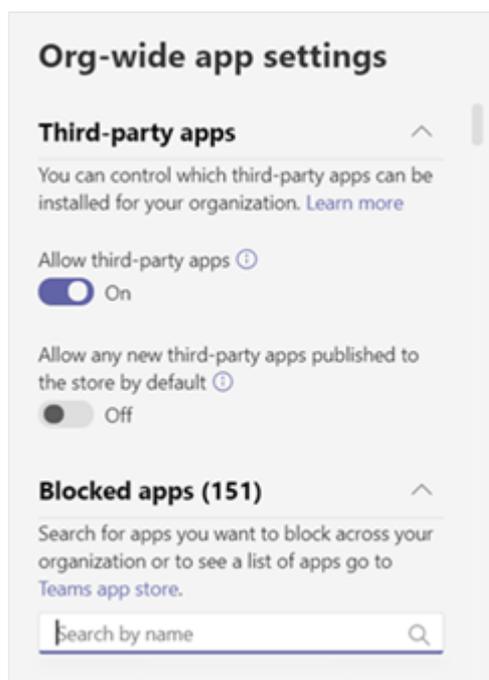
In a Microsoft 365 Government - GCC, GCCH and DoD deployment of Teams, all third-party apps are blocked by default. In GCCH and DOD clouds, the third-party apps aren't available. Additionally, in GCC, you see the following note about managing third-party apps on the app permission policies page in the Microsoft Teams admin center.



Use org-wide app settings to control whether users can install third-party apps. Org-wide app settings govern the behavior for all users and override any other app permission policies assigned to users.

For GCC clouds

1. On the Teams Apps > Manage apps page, select **Org-wide app settings**. You can then configure the settings you want in the panel.



2. Under **Third-party apps**, turn off or turn on these settings to control access to third-party apps:

- **Allow third-party apps:** This option controls whether users can use third-party apps. If you turn off this setting, your users won't be able to install or use any third-party apps. In a Microsoft 365 Government - GCCH and DoD deployment of Teams, this setting is off by default.
- **Allow any new third-party apps published to the store by default:** This option controls whether new third-party apps that are published to the Teams app store become automatically available in Teams. You can only set this option if you allow third-party apps.

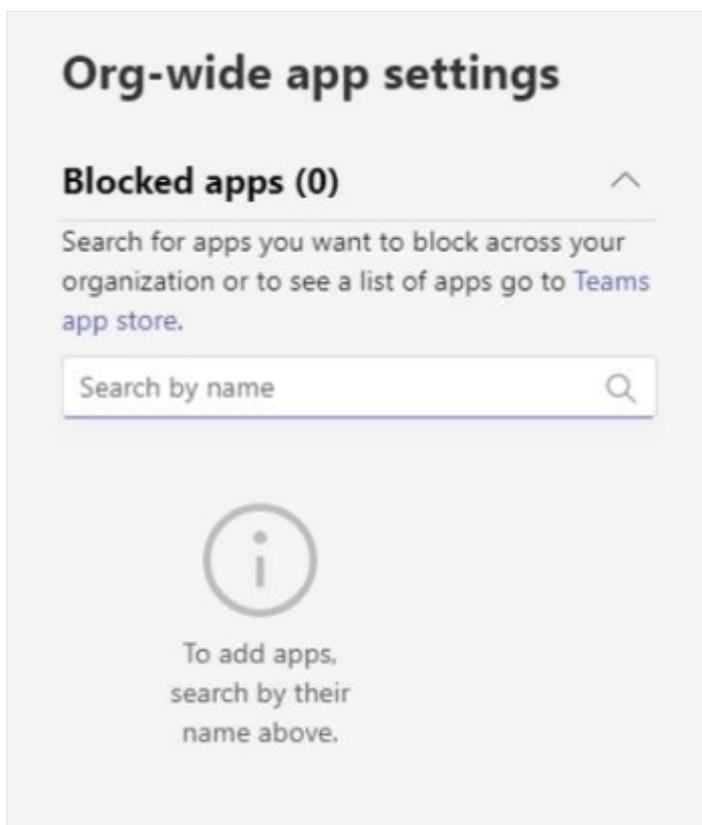
3. Under **Blocked apps**, add the apps you want to block across your organization. For any third-party app you want to allow in your organization, remove the app from this blocked apps list. A blocked app is not available to any user, regardless of app policies.

4. Select **Save** for org-wide app settings to take effect.

To allow third-party apps, either edit and use the global (Org-wide default) policy or create and assign an admin-created policy.

For GCCH and DoD clouds

1. Sign in to the Teams admin center and access **Teams Apps > Permission policies**. In GCCH environment, access <https://admin.gov.teams.microsoft.us> and in DoD environment, access <https://admin.dod.teams.microsoft.us>.
2. Select **Org-wide app settings**. Under **Blocked apps**, add the apps you want to block across your organization. All third-party apps are added to this list by default. A blocked app is not available to any user, regardless of app policies.



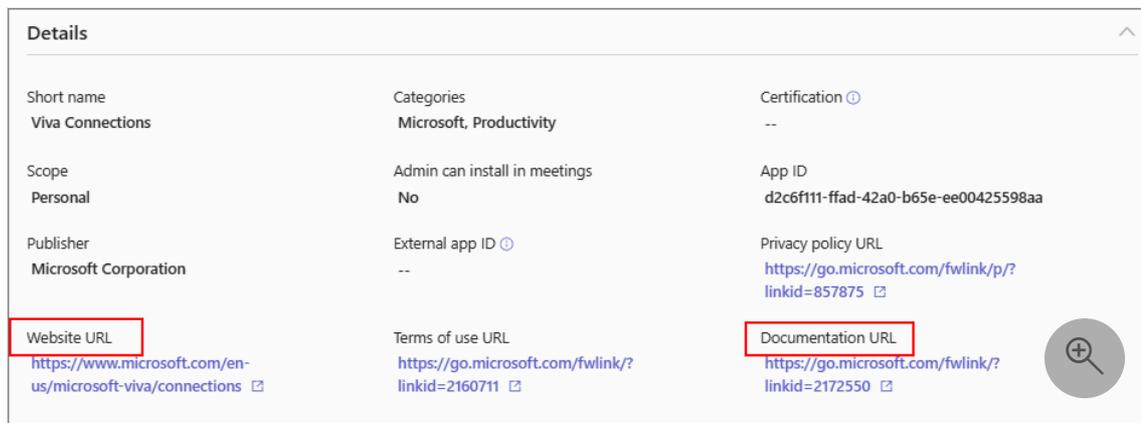
3. Select **Save** for org-wide app settings to take effect.

Support information for apps

You may have queries about admin settings or configuration, user flows and app features, app troubleshooting, and more. You receive support information about apps from the following two different sources:

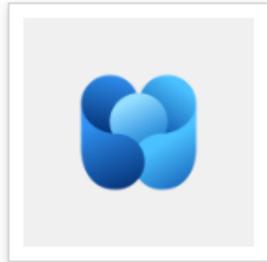
- We don't provide direct customer support for Teams apps but we provide the following value adds, useful information, platform features, and app quality checks to our customers:
 - We proactively check Teams apps for issues and inform the developer to update their app. Scenarios covered are related to app health, functional issues reported by users to Microsoft, security issues, and so on. For details, see [Microsoft enforcement actions for published apps](#).
 - For Publisher Attested and Microsoft 365 certified apps, Microsoft provides the [security and compliance information of apps](#).
 - Testing of all apps as part of its [app validation program](#) to ensure that all apps work as advertised. If apps don't work as suggested in the app listing, then we contact app developers to request either an update to the app or a removal of the app.
 - If app developers don't make the requested updates after a few reminders, we proactively remove the apps from Teams.

- Certification to apps via its [Microsoft 365 app compliance program](#) to reassure that app are compliant with the industry-standard frameworks.
- App developers provide customer support, updates to the apps, security and compliance information, bug fixes, and so on. The app security and compliance information are available in the admin center in app details page as mentioned above. App developers publish app updates, bug fixes, and vulnerability fixes as per their business requirements, issue severity, and service agreements. For direct support requests and inquiry about app updates, contact the app developer at their website address available at the following two places:
 - **App details** page of the app in [Manage apps](#) page in Teams admin center.



- **Details + support** tab of the app's [AppSource](#) page.

Apps > **Viva Engage**



Viva Engage

by Microsoft Corporation

 Teams

★ 5.0 (3 ratings)

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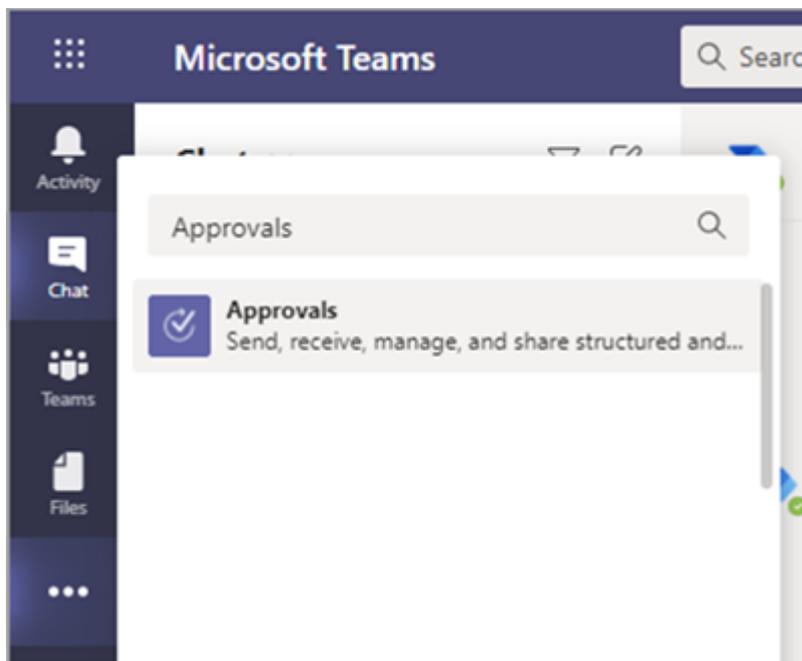
- [Manage user requests to allow apps.](#)

Manage the Approvals app in Microsoft Teams

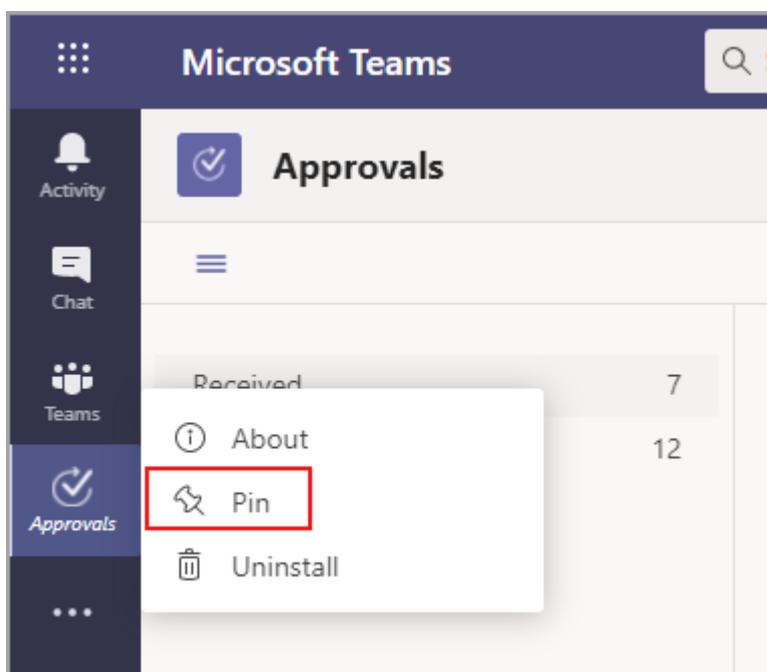
Article • 09/14/2023 • Applies to: Microsoft Teams

Overview of Approvals

The Approvals app is available as a personal app for all Microsoft Teams users. The Approvals app provides a simple way to bring auditing, compliance, accountability, and workflows to both structured and unstructured Approvals in Teams.



Users can pin the Approvals app to save it to the menu bar.



The first approval created from the Approvals app will trigger the provisioning of the Approval Solution in the default Microsoft Dataverse environment. Approvals created from the Approvals app are stored in the default Microsoft Dataverse environment.

This article describes the Approvals app requirements and roles.

ⓘ Note

This feature hasn't been released to Government Community Cloud High (GCCH) and Department of Defense (DOD) users yet.

Required permissions and licenses

To deploy the Approvals app, you need permission for the following items:

- Permissions to create a Microsoft Dataverse database.
- An account on powerautomate.microsoft.com [↗](#).
- Administrator role in the target environment.
- License for [Power Automate](#), Office 365, or Dynamics 365.
- License for Microsoft Forms is required for users to set up new approval templates.

To use the Approvals app, you need a license for Power Automate, and your account is automatically added to the Approvals User role in the target environment on your first approval assignment.

Storage with Microsoft Dataverse

The Common Data Model (CDM) is the shared data language used by business and analytical applications in the Microsoft Dataverse. It consists of a set of standardized, extensible data schemas published by Microsoft and our partners that enable consistency of data and its meaning across applications and business processes. Learn more about the [Common Data Model of the Microsoft Power Platform](#).

Learn more about the [Approval workflow](#).

Approvals that are created from a template still store data in Microsoft Dataverse, such as their title, details, template ID, and more. Responses that are submitted on the approval request are stored in Forms. Learn more about [Data storage for Microsoft Forms](#) [↗](#).

ⓘ Note

If you delete the Form template on the Microsoft Forms site, it'll break your Approval template and users are unable to start the request. Users get an error "CDB TableNotFound" when trying to open an Approval template that is deleted on Microsoft Forms.

Org-scoped templates share the same lifetime of the tenant and team-scoped templates share the same lifetime of the team. So, permanently deleting the team deletes the related templates.

Approvals Teams app permissions

The Approvals Teams app lets you access the following features:

- Receive messages and data that you provide to it.
- Send you messages and notifications.
- Render personal apps and dialogs without a Teams-provided header.
- Access your profile information such as your name, email address, company name, and preferred language.
- Receive messages and data that team members provide to it in a channel.
- Send messages and notifications in a channel.
- Access your team's information:
 - team name
 - channel list
 - roster (team member's names and email addresses).
- Use the team's information to contact them.

Approval Template Permissions

- All team owners can create an approval template for teams that they own.
- When an admin creates a template for their entire organization for the first time, it will automatically create a new Microsoft Entra group for all admins of the tenant, including the global and Teams service admins. These admins are added as owners of the group, so they can co-manage organizational templates. Admins that are new to the organization after the team has been created need to be manually

added as group owners so they have the same permissions to manage organization-wide templates.

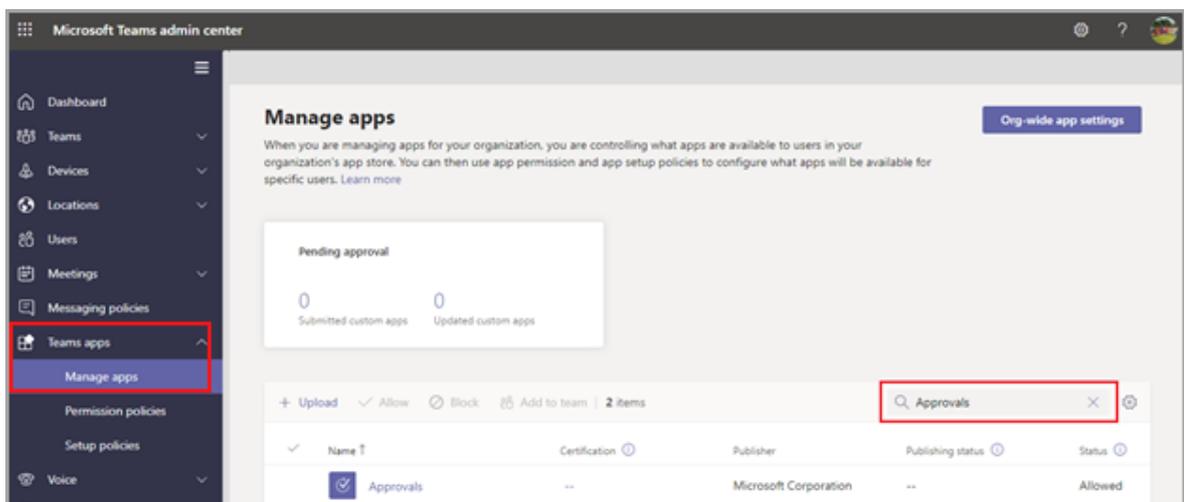
ⓘ Note

If an admin deletes the group, you have one month to restore it within the Microsoft Entra admin center to restore all related data. After one month, or if the admin deletes this group within the recycle bin, you will lose all related data.

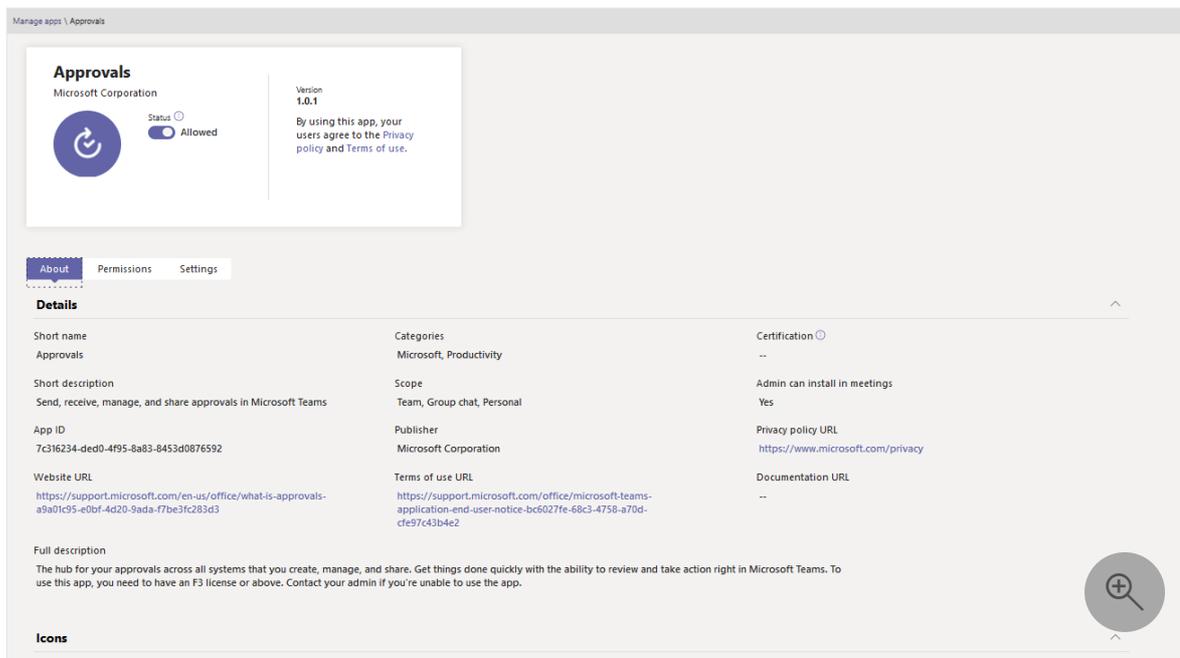
Disable the Approvals app

The Approvals app is available by default. You can disable the app in the Teams admin center.

1. Sign in to the Teams admin center.
2. Go to **Teams apps > Manage apps**.
3. Search for the Approvals app.



4. Select **Approvals**.
5. Select the toggle to disable the app for your organization.



Pin Approvals to Teams

Use the Tailored frontline app experience to pin Approvals and other apps to Teams

The tailored frontline app experience in Teams pins the most relevant apps in Teams for users who have an [F license](#). Pinned apps include Approvals, Walkie Talkie, Tasks, and Shifts. By default, this feature is on, giving your frontline workers an out-of-the-box experience that's tailored to their needs.

The apps are pinned to the app bar—the bar on the side of the Teams desktop client and at the bottom of the Teams mobile clients—where users can quickly and easily access them.

To learn more, including how the experience works with app policies that you set, see [Tailor Teams apps for your frontline workers](#).

Use an app setup policy to pin Approvals to Teams

App setup policies let you customize Teams to pin apps that are most important for your users in your users.

To pin the Approvals app for your users, you can edit the global (Org-wide default) policy or create and assign a custom policy in app setup policy. To learn more, see [Manage app setup policies in Teams](#).

Retention policy

Approvals created from the Approvals app are stored in the default Microsoft Dataverse environment, which doesn't support backups at this time. Learn more about how to [Back up and restore environments - Power Platform | Microsoft Docs](#).

Admins can set custom retention policies for data stored within Dataverse tables. To learn more, see [Dataverse long term data retention overview \(preview\)](#).

Data stored in Forms won't be deleted until the team owners clean it up from the **deleted forms** tab in the Microsoft Forms web app.

Conditional Access policies

Approvals supports [Continuous Access Evaluation \(CAE\)](#). With CAE, you can set up any conditional access policy to restrict any user, app, or service from accessing some resources. Once the policy is set, Microsoft Entra ID will reject when the selected entity requests tokens of that particular resource.

Data limitations

Each team can contain at most 400 approvals templates, and each template can collect a maximum of 50,000 requests based on the current capability in Microsoft Forms.

Auditing

The Approvals app logs audit events within the Microsoft Purview compliance portal. You can view the audit log.

1. Sign in to the [Microsoft Purview compliance portal](#) [↗](#).
2. In the left pane, select **Audit**.
3. Under **Activities**, choose the activities that you want to search for under **Microsoft Teams approvals activities**.

You can search for the following activities:

- Created new approval request
- Viewed approval request details
- Approved approval request

- Rejected approval request
- Canceled approval request
- Shared approval request
- File attached to approval request
- Reassigned approval request
- Added e-signature to approval request
- Viewed e-signature request details
- Reviewed e-signature request
- Canceled e-signature request
- Create a new template
- Edit an existing template
- Enable/disable a template
- Viewed template

For access to more auditing approvals within Power Automate, enable and configure auditing in the default environment for the primary approval entities Approval, Approval Request, and Approval Response. Create, update, and delete operations are auditable events for Approval records.

Learn more about [auditing data and user activity for security and compliance](#) and [Microsoft Dataverse and model-driven apps activity logging](#).

Security

From the Teams Approvals app, users have access to create new Approvals and view Approvals that they have sent and received. Users won't have access to Approvals that are created by others unless they're either a responder or a viewer of the request.

Note

A user is given a viewer role of a request if they are part of the chat or channel where the approval was created. They won't have the ability to take action on the request if they weren't given that role when the approval was created.

Approvals e-signature integration

To use the Approvals app e-signature feature, you need a license for the specific e-signature provider that you want to use. To obtain a license for your organization, you'll need to go to the provider's site.

Enable or disable e-signature providers

You can use the Teams admin center to control which third-party e-signature providers are available to your users in the Approvals app. By default, e-signature providers are enabled in the Approvals app. When you disable an e-signature provider, your users won't have access to that provider when they create approvals. Your users also won't be able to view e-signature requests that were created using that provider.

1. In the left pane of the Teams admin center, go to **Teams apps > Manage apps**.
2. Search for the Approvals app, and then select it.
3. Go to the **Settings** tab, and then do one or more of the following:
 - To enable or disable Adobe Sign, switch the toggle to **On** or **Off**.
 - To enable or disable DocuSign, switch the toggle to **On** or **Off**.
4. Select **Submit**.

E-signature approvals created from the Approvals app are stored in the selected provider's cloud environment. To export data about e-signatures, you'll need to go to the provider's site. For more information about storage, export, and retention of e-signature agreements, see the provider's documentation.

Give feedback or report an issue

To send us feedback or report an issue, select **Help** near the bottom of the left pane in Teams, and then select **Report a problem**. Select **Approvals**, and then enter your feedback or details about the issue you're experiencing.

Manage the Bookings app in Microsoft Teams

Article • 05/19/2023

Overview of Bookings

The Bookings app in Microsoft Teams offers a simple way to schedule in-person and virtual appointments. For example, healthcare visits, financial consultations, interviews, customer support, and education office hours. To learn more, see [What is Bookings?](#)

Schedulers can manage multiple department and staff calendars and communications with internal and external attendees, from a single experience. Virtual appointments are held via Teams meetings that offer robust videoconferencing capabilities.

Prerequisites to use the Bookings app in Teams

- The Exchange mailbox is in Exchange Online. On-premises Exchange Server mailboxes aren't supported.
- Microsoft Bookings is available for the organization.
- Users have an appropriate license. Office 365 A3, A5, E1, E3, E5, F1, F3, Microsoft 365 A3, A5, E3, E5, F1, F3, and Business Standard are supported.
- All users of the Bookings app and all staff participating in meetings have a license that supports Teams meeting scheduling.
- [Software and browser prerequisites](#).

Availability of Bookings in Teams

The Bookings app for Teams is available on the desktop and web. It can be found under [Apps in Teams](#) and under **Manage Apps** in the Teams admin center.

Control access to Bookings within your organization

There are several ways to control who has access to the Bookings app and to specific features of the app. You can make Microsoft Bookings app available or disable it from Microsoft 365 admin center. Alternately, you can create a Bookings app policy to allow select users to create Bookings calendars. See [Get access to Microsoft Bookings](#).

You can also [create a Teams app setup policy to pin the Bookings app for select users](#).

Recommended meeting policy settings

To enable the best experience for Bookings, create a Teams meeting policy to automatically admit **People in my organization** and assign the policy to your staff. The policy allows staff to join the appointment automatically and enable the lobby experience for external attendees. See [who can bypass the lobby to meetings](#).

For more information about meeting policies, see [Manage meeting policies in Teams](#) and [Meeting policies and meeting expiration in Teams](#).

SMS text notifications

 This feature is now part of [Teams Premium](#).

SMS text notifications are currently available in Canada, the United Kingdom, and the United States.

You can control whether SMS text notifications can be sent to external attendees for virtual appointments scheduled by your staff in your organization.

By default, this setting is on, and SMS text notifications are enabled for all Bookings calendars in your organization. Keep in mind that Bookings admins and schedulers can later choose to turn off or turn on SMS notifications on an as-needed basis in scheduled appointment types and scheduled individual appointments.

To configure this setting, go to the Microsoft 365 admin center > **Settings** > **Org settings**, and then choose **Bookings**. Select or clear the **Allow Microsoft to send SMS text message notifications** check box.

Learn more about how to [configure SMS text notifications for your organization](#). Use the [SMS notifications usage report](#) to understand how your organization is using SMS notifications.

Optional staff approvals setting

You can require staff to opt in before Bookings shares their schedule availability information and before others can schedule an appointment with them.

To enable this setting, go to the Microsoft 365 admin center > **Settings** > **Org settings**, and then choose **Bookings**. Select the **Require staff approvals** check box.

With this setting turned on, staff receive an email in which they're requested to approve membership to a booking calendar.

Learn more about [how to configure the staff approvals setting](#).

Changing your default domain when setting up a Bookings mailbox

When setting up a Bookings mailbox, the default email domain of your Microsoft 365 or Office 365 organization is used. However, the default domain might cause problems when sending meeting invites to external recipients. For example, your invite might get flagged as spam and moved to the recipient's junk folder, so the recipient might never see your invite.

We recommend that you change the default domain before you create your Bookings mailbox. See [Domains FAQ](#).

If you need to change the default domain after creating your Bookings mailbox, use PowerShell.

```
powerShell
```

```
Set-Mailbox -identity business@domain.onmicrosoft.com -WindowsEmailAddress  
business@domain.com -EmailAddresses business@domain.com
```

To learn more, see [Set Mailbox](#).

ⓘ Note

If you're using an Exchange hybrid configuration, we recommend that you thoroughly test mail flow between on-premises Exchange and Exchange Online when changing the default domain.

Give feedback or report an issue

To send feedback, select the **Help** option at bottom of the Teams left navigation bar, and then select **Report a Problem**. Select **Other**, and then enter your feedback or details about the issue you're experiencing. Indicate at the beginning of your feedback report that you're sending feedback about "Bookings" so we can easily identify Bookings issues.

Related articles

[Manage the join experience for Teams Virtual Appointments on browsers](#)

[Bookings documentation for end users](#) 

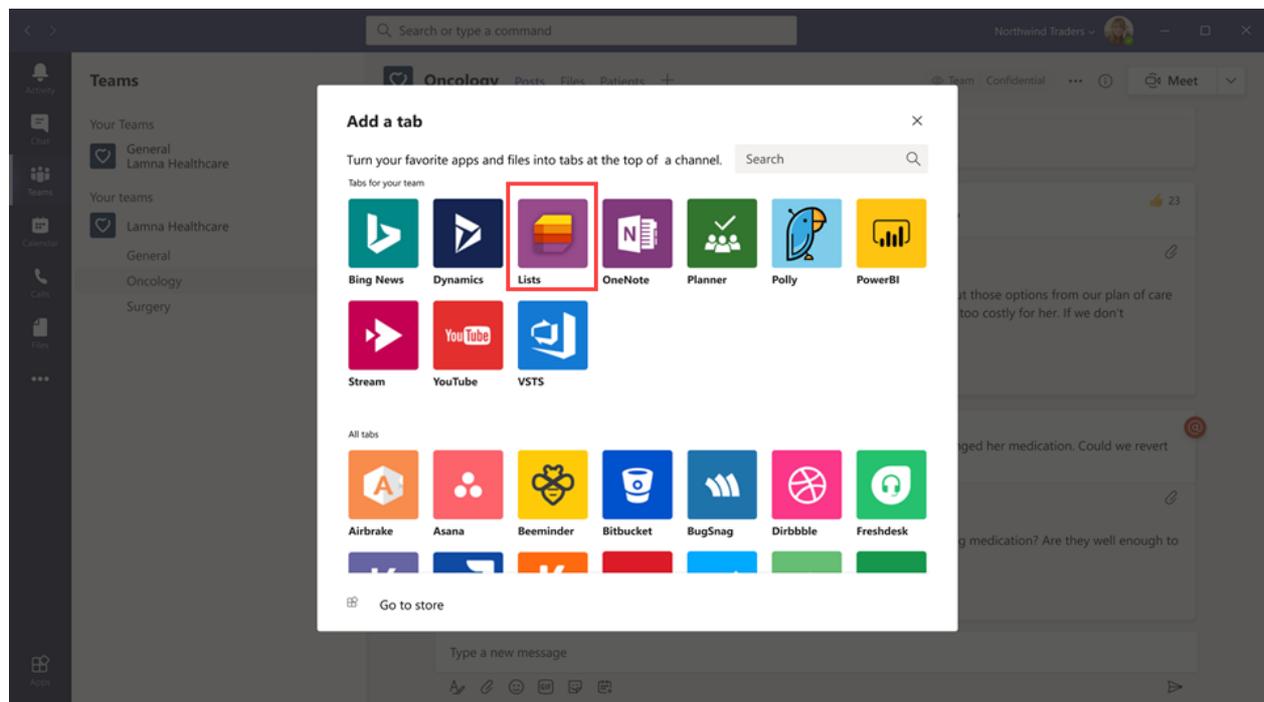
Manage the Lists app for your organization in Microsoft Teams

Article • 06/14/2023 • Applies to: Microsoft Teams

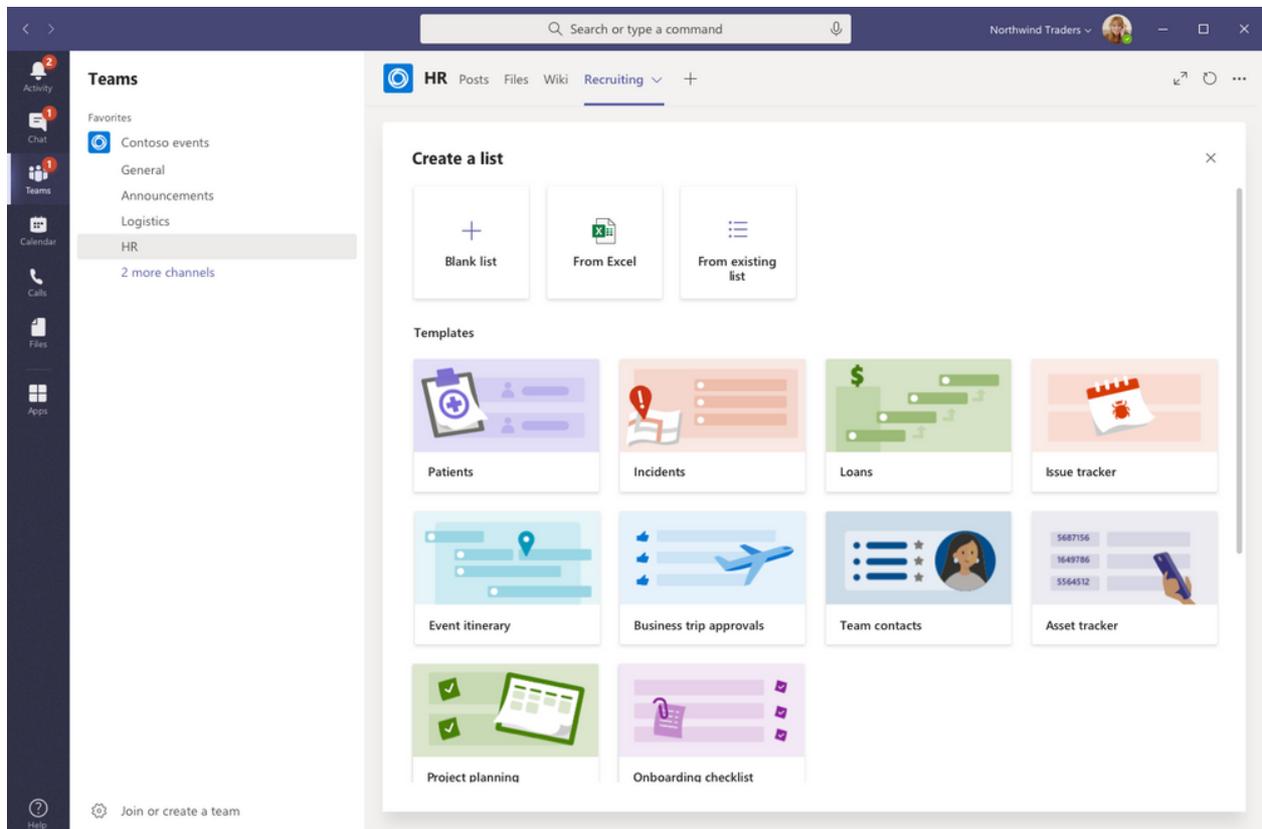
Overview of Lists

The Lists app in Microsoft Teams helps users in your organization track information, organize work, and manage workflows. With Lists, users can track data such as issues, assets, routines, contacts, inventory, incidents, loans, patients, and more using customizable views, rules, and alerts to keep everyone on the team in sync.

In Teams, users access Lists as a tab in a channel. Select + to open the tab gallery and add a new Lists app tab instance to a channel to get started.



Users can create new lists or pin existing lists from within the same team or from a different SharePoint site that they have access to. New lists can be created from scratch, from built-in templates, based on the structure of an existing list, or by importing data from an Excel workbook. The Lists app is available in Teams desktop, web, and mobile clients.



Templates

Templates in Lists are tailored to common information tracking scenarios for users. Each template comes with a predefined list structure, form layouts, and formatting options at both a list view and a details view level to help users get started quickly. After selecting a template, users get a preview of what the list will look like, along with some sample data. Here's some examples of how teams in your organization can use the predefined templates in Lists:

- Track issues and bring them to closure using the Issue tracker template.
- Organize all your event details with the Event itinerary template.
- Use the Patients template to record the needs and status of patients for health teams in your healthcare organization to monitor and coordinate care.
- Track the status of loan applications with the Loans template.

Example scenario

A local post office is responsible for sorting and delivering mail in their district. Each morning, the post office has a team huddle to review daily goals, share announcements, and discuss known incidents.

After the huddle, mail carriers pick up their mail and start their delivery route. Incidents can occur along a route, for example, a vehicle accident, dog-related issue, or social

unrest protest. When mail carriers encounter an incident, they use Teams on their mobile devices to record the incident details, which are tracked in a list in the team channel. Everyone on the team, including mail carriers in the field, can see this information and stay informed.

Before moving to Teams, mail carriers had to go back to the post office to complete a hard-copy form to report an incident, which was then entered in an Excel spreadsheet. Teams gives mail carriers a mobile first, experience where they can use Lists to report incidents in the field as they happen, share incident details with team members, have conversations about them on the channel, and drive incidents to resolution.

What you need to know about Lists

Lists is available in every team and channel

Lists is pre-installed for all Teams users and is available directly in the tab gallery of every team and channel. This means that users don't have to go to the Teams app store to install it.

Lists and SharePoint

Lists data is stored in the SharePoint Online team site. To learn more about how SharePoint Online interacts with Teams, see [How SharePoint Online and OneDrive for Business interact with Teams](#).

Permissions set in SharePoint apply to lists created in the Lists app. By default, lists inherit permissions from the site to which they belong. These permissions govern the types of actions that users can do, such as whether they can create or edit lists. To learn more, see [Permission levels in SharePoint](#) and [User permissions and permission levels in SharePoint Server](#).

In certain scenarios, you may want to restrict what actions users can do in lists. For example, a person on a team edits a list view, which changes it for all team members, and you want to allow only the team owner or certain team members to edit list views. To learn more, see [Customize permissions for a SharePoint list or library](#).

ⓘ Note

At this point, owner and member permissions in a team aren't linked in any way to permissions in the team site that govern the behavior of lists or the Lists App.

However, based on customer feedback and usage, this will be considered for a future iteration of the product.

Limitations

With Lists, users get a desktop, web, and mobile experience. It's important to know that users can't create new lists or pin existing lists using Lists on the Teams mobile client. To view or edit a list on the Teams mobile client, a list must first be created or added using Lists on the Teams desktop or web client.

Guests can't create or delete a list. They can add list items to existing lists, start new conversations about list items, and reply to existing conversations about list items.

Lists and the SharePoint app

If users in your organization created lists using the SharePoint app, those lists will be automatically moved to Lists without any action needed from the user. To get the best and richest lists integration experience in Teams, use the Lists app and pin your existing lists.

Set up Lists

Enable or disable Lists in your organization

Lists is enabled by default for all Teams users in your organization. You can turn off or turn on the app at the org level on the [Manage apps](#) page in the Microsoft Teams admin center.

1. In the left pane of the Microsoft Teams admin center, go to **Teams apps > Manage apps**.
2. Do one of the following:
 - To turn off Lists for your organization, search for the Lists app, select it, and then select **Block**.
 - To turn on Lists for your organization, search for the Lists app, select it, and then select **Allow**.

Enable or disable Lists for specific users in your organization

To allow or block specific users in your organization from using Lists, make sure Lists is turned on for your organization on the [Manage apps](#) page, and then create a custom policy for app permissions and assign it to those users. To learn more, see [Manage app permission policies in Teams](#).

Search the audit log for list events

Lists are enabled with enterprise level auditing so you can search for lists and list item events in the audit log in the Security & Compliance Center. To learn more, see [Search the audit log in the Security & Compliance Center](#).

For a list of audit events that are relevant to the Lists app in Teams, see [SharePoint list activities](#).

Before you can search the audit log, you have to first turn on auditing in the [Security & Compliance Center](#). Keep in mind that audit data is only available from the point at which you turned on auditing.

Power Automate, Power Apps, and Graph API

Lists supports [Power Automate](#) for workflows and [Power Apps](#) for list forms. Developers can use the [Lists API](#) to connect list data as a source through Microsoft Graph.

Lists data

The Lists app is based on SharePoint and Lists data is stored in the SharePoint Online team site. See [Data Residency for SharePoint Online and OneDrive for Business](#) for more information.

Give feedback or report an issue

To send us feedback or report an issue, select **Help** near the bottom of the left pane in Teams, and then select **Report a problem**. Select **Lists**, and then enter your feedback or details about the issue you're experiencing.

Related articles

- [Lists help documentation](#)

Manage the Praise app in the Microsoft Teams admin center

Article • 06/14/2023

Overview of Praise

The Praise app in Microsoft Teams helps users show appreciation to members of your organization or classroom. The badges in Praise are designed to help recognize the effort that goes into the wide range of work that Teams users do, from educators to frontline workers. To learn more, check out [Send Praise to people](#).

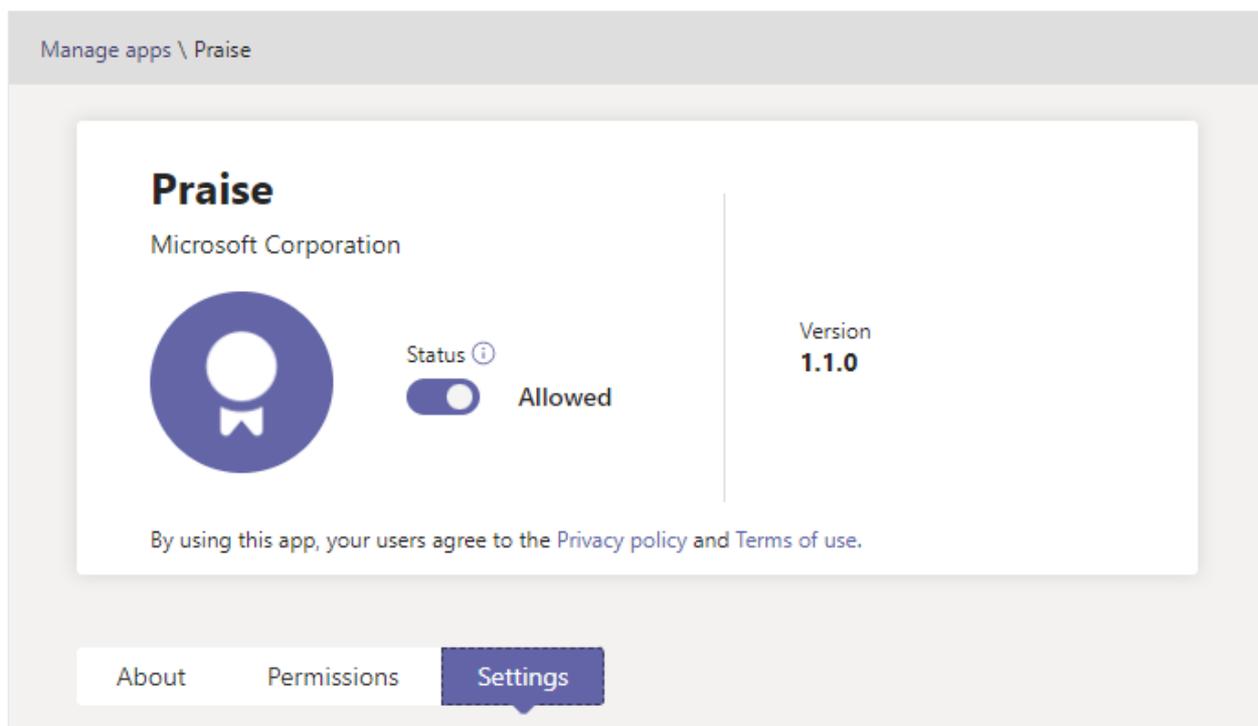
Admins must have a Teams license to access this feature. If you try to access this feature without a Teams license, you'll get an error message.

ⓘ Note

The Praise app is available for GCC or GCC High cloud environments, but not for DoD.

Enable or disable Praise in your organization

Praise is enabled by default for all Teams users in your organization. You can turn off or turn on the app at the org level on the [Manage apps](#) page in the Microsoft Teams admin center.



1. In the left pane of the Microsoft Teams admin center, go to **Teams apps > Manage apps**.
2. In the list of apps, search for the Praise app, select it, and then switch the **Status** toggle to **Blocked** or **Allowed**.

Keep in mind that this setting affects both the Praise app and the Praise feature in the Viva Insights app in Teams.

If you set the status to **Blocked**, the Praise app is blocked within a few minutes for Teams. However, Praise in Viva Insights can take up to 15 days to be blocked.

Enable or disable Praise for specific users in your organization

To allow or block specific users in your organization from using Praise, make sure Praise is turned on for your organization on the [Manage apps](#) page. Then create a custom policy for app permissions and assign it to those users. To learn more, see [Manage app permission policies in Teams](#).

Composer

Teams users in your organization can use the praise composer to recognize their peers for going above and beyond with their work. While crafting their message, they can pick from 14 titles—like **Courage**, **Optimism**, **Kind heart**, and **Creative**—to recognize their colleagues' contributions.

 **Praise** ✕

To  Chris Naidoo ✕

Where Chat Teams channel

Title  **Awesome**  Thank You  Achiever >

Note

0/500

Background

Is this helpful? Yes No

User data in Praise

Praise uses Viva Insights to process and store data. See the [Personal insights FAQ](#) to learn more about how Viva Insights processes and stores user data.

Give feedback or report an issue

To send feedback, select the **Help** option at bottom of the Teams left navigation bar, and then select **Report a Problem**. Select **Other**, and then enter your feedback or details about the issue you're experiencing. Indicate at the beginning of your feedback report that you're sending feedback about "Praise" so we can easily identify Praise issues.

Related articles

[Manage your apps in the Microsoft Teams admin center](#)

Manage the Shifts app for your organization in Microsoft Teams

Article • 02/15/2023 • Applies to: Microsoft Teams

Overview of Shifts

The Shifts app in Microsoft Teams keeps frontline workers connected and in sync. It's built mobile first for fast and effective time management and communication for teams. Shifts let frontline workers and their managers use their mobile devices to manage schedules and keep in touch.

- Managers create, update, and manage shift schedules for teams. They can send messages to one person ("there's a spill on the floor") or the entire team ("the regional GM is arriving in 20 minutes"). They can also send policy documents, news bulletins, and videos.
- Employees view their upcoming shifts, see who else is scheduled for the day, request to swap or offer a shift, and request time off.

It's important to know that Shifts currently don't support guests. This means that guests on a team can't be added to or use shift schedules when Guest access is turned on in Teams.

ⓘ Note

For details about Shifts capabilities on different platforms, see [Teams features by platform](#) [↗].

Availability of Shifts

Shifts is available in all Enterprise SKUs where Teams is available.

ⓘ Note

Shifts is available in Government Community Cloud (GCC) environments, but not in GCC High or DoD environments.

Location of Shifts data

Shifts data is currently stored in Azure in data centers in Asia Pacific (APAC), the European Union (EU), and North America. For more information about where data is stored, see [Where is my data](#)?

To learn more about Shifts data, including storage, retention, retrieval, and encryption of Shifts data, see [Shifts data FAQ](#).

Set up Shifts

Enable or disable Shifts in your organization

Shifts is enabled by default for all Teams users in your organization. You can turn off or turn on the app at the org level on the [Manage apps](#) page in the Microsoft Teams admin center.

1. In the left navigation of the Microsoft Teams admin center, go to **Teams apps > Manage apps**.
2. In the list of apps, search for the Shifts app, select it, and then switch the **Status** toggle to **Blocked** or **Allowed**.

Enable or disable Shifts for specific users in your organization

To allow or block specific users in your organization from using Shifts, make sure Shifts is turned on for your organization on the [Manage apps](#) page. Then create a custom policy for app permissions and assign it to those users. To learn more, see [Manage app permission policies in Teams](#).

Pin Shifts to Teams

Use the Tailored frontline app experience to pin Shifts and other apps to Teams

The tailored frontline app experience in Teams pins the most relevant apps in Teams for users who have an [F license](#). Pinned apps include Shifts, Walkie Talkie, Tasks, and Approvals. By default, this feature is on, giving your frontline workers an out-of-the-box experience that's tailored to their needs.

The apps are pinned to the app bar—the bar on the side of the Teams desktop client and at the bottom of the Teams mobile clients—where users can quickly and easily

access them.

To learn more, including how the experience works with app policies that you set, see [Tailor Teams apps for your frontline workers](#).

Use an app setup policy to pin Shifts to Teams

App setup policies let you customize Teams to pin the apps that are most important for your users.

You can create a [custom policy in app setup policy](#) by adding the Shifts app, and then [assign the policy](#) to your users. Or, you can use the app setup policy that's part of the Frontline Worker and Frontline Manager policy packages.

A [policy package](#) in Teams is a collection of predefined policies and policy settings that you can assign to users who have similar roles in your organization. The set of policies in the Frontline Worker and Frontline Manager policy packages include an app setup policy that pins the Shifts app and other apps that support communication and collaboration activities for that role.

We recommend using the Frontline Worker and Frontline Manager policy packages as they simplify, streamline, and help provide consistency when managing policies for your frontline workforce.

Enable shift-based tags in Teams

[Tags](#)  in Teams let users easily connect with a subset of people on a team. With shift-based tags, people are automatically assigned tags that match their schedule and shift group name in Shifts. The tag can be used in @mentions on the **To** line in a chat or in a post on any standard channel of the team.

Shift-based tags let your users reach people who are on-shift in real time. Notifications are sent only to those people who are on-shift at the time the tag is used in a chat or channel post. For example:

- A store manager uses the @Cashiers tag to post an announcement to a channel for all on-shift cashiers.
- A nurse uses the @CardiologistsOnCall tag to start a chat with all on-call cardiologists.

You can turn the feature on or off in the Microsoft Teams admin center. To learn more, see [Manage tags in Teams](#).

Search the audit log for Shifts events

You can search the audit log to view Shifts activity in your organization. To learn more about how to search the audit log and to see a list of [Shifts activities](#) that are logged in the audit log, see [Search the audit log for events in Teams](#).

Before you can search the audit log, you have to first turn on auditing in the [Security & Compliance Center](#) [↗](#). To learn more, see [Turn audit log search on or off](#) [↗](#). Keep in mind that audit data is only available from the point at which you turned on auditing.

Give feedback or report an issue

To send feedback, select the **Help** option at bottom of the Teams left navigation bar, and then select **Report a Problem**. Select **Other**, and then enter your feedback or details about the issue you're experiencing. Indicate at the beginning of your feedback report that you're sending feedback about "Shifts" so we can easily identify Shifts issues.

Related articles

- [Shifts for Teams](#)
- [Shifts data FAQ](#)
- [Shifts connectors](#)
- [Shifts Help for frontline workers](#) [↗](#)
- [Assign policies to your users in Teams](#)

Manage the Tasks app for your organization in Microsoft Teams

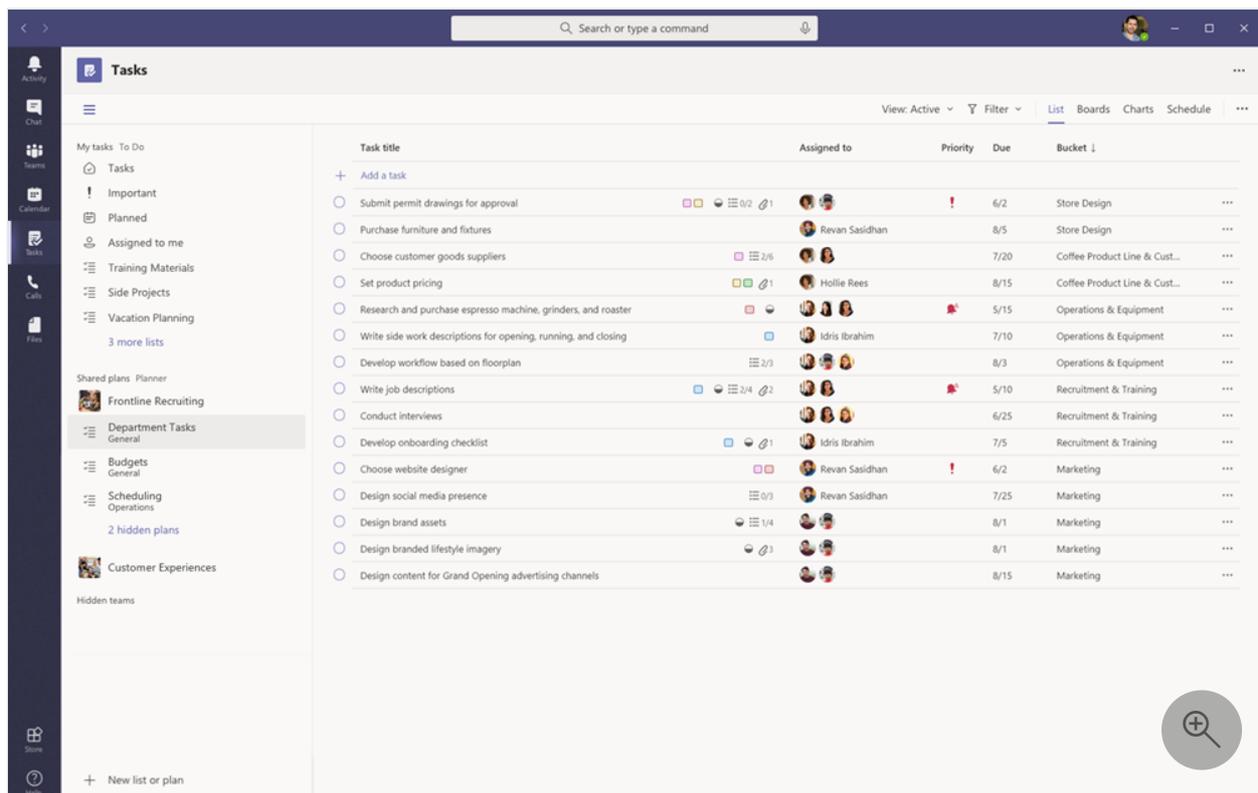
Article • 02/15/2023 • Applies to: Microsoft Teams

Overview of Tasks

The Tasks app brings a cohesive task management experience to Microsoft Teams, integrating individual tasks powered by [Microsoft To Do](#) and team tasks powered by Planner in one place. Users can access Tasks as an app on the left side of Teams and as a tab in a channel within individual teams. With **My tasks** and **Shared plans**, users can view and manage all their individual and team tasks and prioritize their work. Tasks is available in Teams desktop, web, and mobile clients.

! Note

As we roll out the Tasks experience on Teams desktop clients, the app name will initially appear as **Planner** to users. The name will then temporarily change to **Tasks by Planner and To Do**, and later on, it will be renamed to **Tasks**. On Teams mobile clients, users will always see the app name as **Tasks**. There may be a short delay in the availability of the mobile experience after the desktop experience is available.



The screenshot displays the Microsoft Teams interface with the Tasks app open. The left sidebar shows navigation options for 'My tasks To Do' (Tasks, Important, Planned, Assigned to me, Training Materials, Side Projects, Vacation Planning) and 'Shared plans Planner' (Frontline Recruiting, Department Tasks, Budgets, Scheduling, 2 hidden plans, Customer Experiences). The main area shows a list of tasks with columns for 'Task title', 'Assigned to', 'Priority', 'Due', and 'Bucket'. The tasks listed include 'Submit permit drawings for approval', 'Purchase furniture and fixtures', 'Choose customer goods suppliers', 'Set product pricing', 'Research and purchase espresso machine, grinders, and roaster', 'Write side work descriptions for opening, running, and closing', 'Develop workflow based on floorplan', 'Write job descriptions', 'Conduct interviews', 'Develop onboarding checklist', 'Choose website designer', 'Design social media presence', 'Design brand assets', 'Design branded lifestyle imagery', and 'Design content for Grand Opening advertising channels'.

Task title	Assigned to	Priority	Due	Bucket
Submit permit drawings for approval		High	6/2	Store Design
Purchase furniture and fixtures	Revan Sasidhan	Medium	8/5	Store Design
Choose customer goods suppliers		Medium	7/20	Coffee Product Line & Cust...
Set product pricing	Hollie Rees	Medium	8/15	Coffee Product Line & Cust...
Research and purchase espresso machine, grinders, and roaster		High	5/15	Operations & Equipment
Write side work descriptions for opening, running, and closing	Idris Ibrahim	Medium	7/10	Operations & Equipment
Develop workflow based on floorplan		Medium	8/3	Operations & Equipment
Write job descriptions		High	5/10	Recruitment & Training
Conduct interviews		Medium	6/25	Recruitment & Training
Develop onboarding checklist	Idris Ibrahim	Medium	7/5	Recruitment & Training
Choose website designer	Revan Sasidhan	High	6/2	Marketing
Design social media presence	Revan Sasidhan	Medium	7/25	Marketing
Design brand assets		Medium	8/1	Marketing
Design branded lifestyle imagery		Medium	8/1	Marketing
Design content for Grand Opening advertising channels		Medium	8/15	Marketing

For organizations who want to streamline task management for Frontline Workers, Tasks also includes capabilities that enable you to target, publish, and track tasks at scale across your Frontline Workforce. For example, corporate and regional leadership can create and publish task lists targeted to relevant locations, such as specific retail stores, and track progress through real-time reports. Managers can assign tasks to their staff and direct activities within their locations, and Frontline Workers have a prioritized list of their assigned tasks on mobile or desktop. To enable [task publishing](#), first set up a team targeting hierarchy for your organization, which defines how all teams in the hierarchy are related to each other.

What you need to know about Tasks

Tasks is available as an app and as a tab in a channel. The app shows both individual tasks from To Do and team tasks from Planner. The tab shows only team tasks.

With Tasks, users get a desktop, web, and mobile experience. If Tasks is installed on the Teams desktop client, users will also see it on their Teams web and mobile clients. The exception is guests. It's important to know that guests can only access Tasks as an app from the Teams mobile client. Guests will see Tasks tabs on both Teams desktop and web clients.

My tasks shows a user's individual tasks. **Shared plans** show tasks that the whole team is working on and includes any task list that's added as a Tasks tab to a channel. Note the following relationships between tasks in Tasks, To Do, and Planner:

- Task lists that a user creates in the Tasks app will also appear in To Do clients for that user. Similarly, task lists that a user creates in To Do will appear in **My tasks** in Tasks for that user. The same is true for individual tasks.
- Any Tasks tab that's added to a channel will also appear in Planner clients. When a user creates a plan in Planner, the plan won't show in the Tasks or Planner app unless it's added as a tab to a channel. When a user adds a new Tasks tab, they can create a new list or plan or choose an existing one.

Set up Tasks

Important

Settings and policies that you configured for Planner will also apply to Tasks.

Enable or disable Tasks in your organization

Tasks is enabled by default for all Teams users in your organization. You can turn off or turn on the app at the org level on the [Manage apps](#) page in the Microsoft Teams admin center.

1. In the left pane of the Microsoft Teams admin center, go to **Teams apps > Manage apps**.
2. In the list of apps, do one of the following actions:
 - To turn off Tasks for your organization, search for the Tasks app, select it, and then select **Block**.
 - To turn on Tasks for your organization, search for the Tasks app, select it, and then select **Allow**.

ⓘ Note

If you can't find the Tasks app, search for the names in the first note of this article. The app could still be in the process of being renamed.

Enable or disable Tasks for specific users in your organization

To allow or block specific users in your organization from using Tasks, make sure Tasks is turned on for your organization on the [Manage apps](#) page, and then create a custom policy for app permissions and assign it to those users. To learn more, see [Manage app permission policies in Teams](#).

Pin Tasks to Teams

Use the Tailored frontline app experience to pin Tasks and other apps to Teams

The tailored frontline app experience in Teams pins the most relevant apps in Teams for users who have an [F license](#). Pinned apps include Tasks, Walkie Talkie, Shifts, and Approvals. By default, this feature is on, giving your frontline workers an out-of-the-box experience that's tailored to their needs.

The apps are pinned to the app bar—the bar on the side of the Teams desktop client and at the bottom of the Teams mobile clients—where users can quickly and easily

access them.

To learn more, including how the experience works with app policies that you set, see [Tailor Teams apps for your frontline workers](#).

Use an app setup policy to pin Tasks to Teams

App setup policies let you customize Teams to pin apps that are most important for your users in your users.

To pin the Tasks app for your users, you can edit the global (Org-wide default) policy or create and assign a custom policy in app setup policy. To learn more, see [Manage app setup policies in Teams](#).

A user's My tasks is visible if the user is licensed for Exchange Online

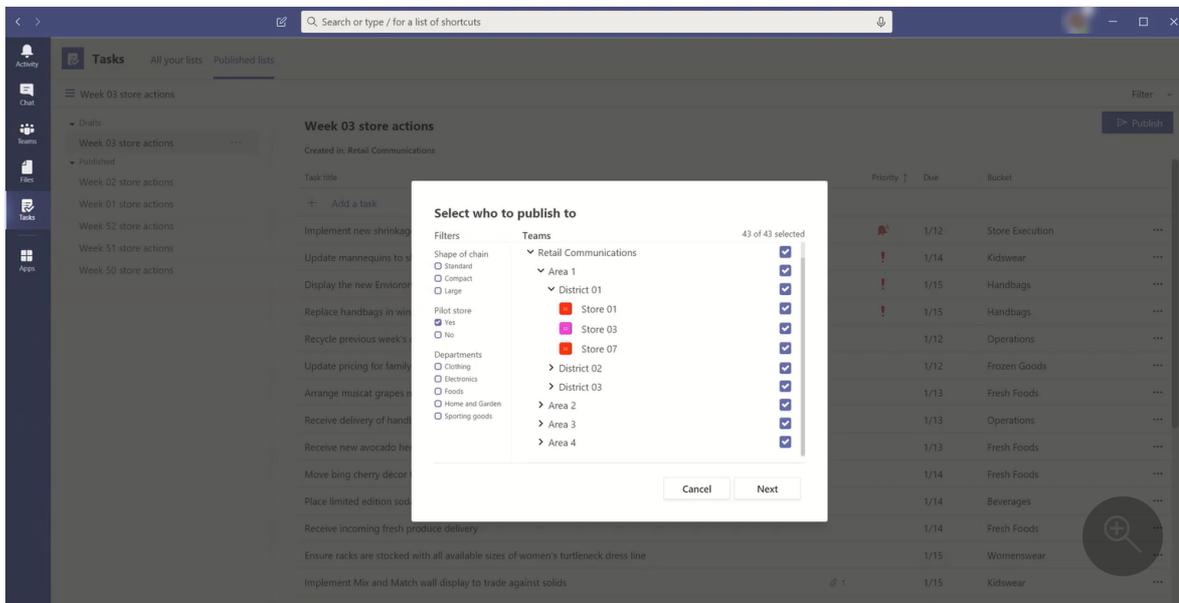
If you don't want a user to see **My tasks**, you can hide it. To hide **My tasks**, [remove the user's Exchange Online license](#). It's important to know that after you remove an Exchange Online license, the user no longer has access to their mailbox. Mailbox data is held for 30 days, after which the data will be removed and can't be recovered unless the mailbox is placed on [In-Place Hold or Litigation Hold](#).

We don't recommend removing an Exchange Online license for information workers, but there may be some scenarios where you can hide **My tasks** in this way, such as for Frontline Workers who don't depend on email.

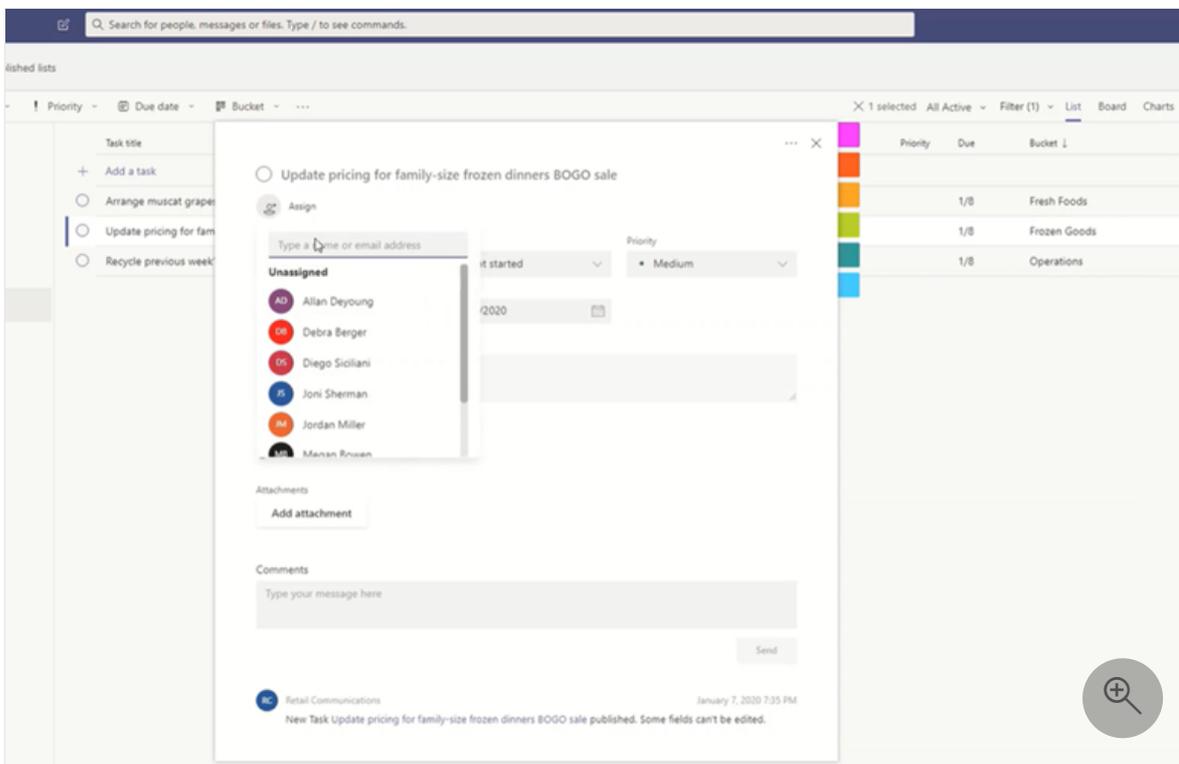
Task publishing

With task publishing, your organization can publish task lists targeted to specific locations (teams) across your organization to define and share a work plan to be completed at those locations.

- People on the publishing team, such as corporate or regional leadership, can create task lists and publish them to specific teams.

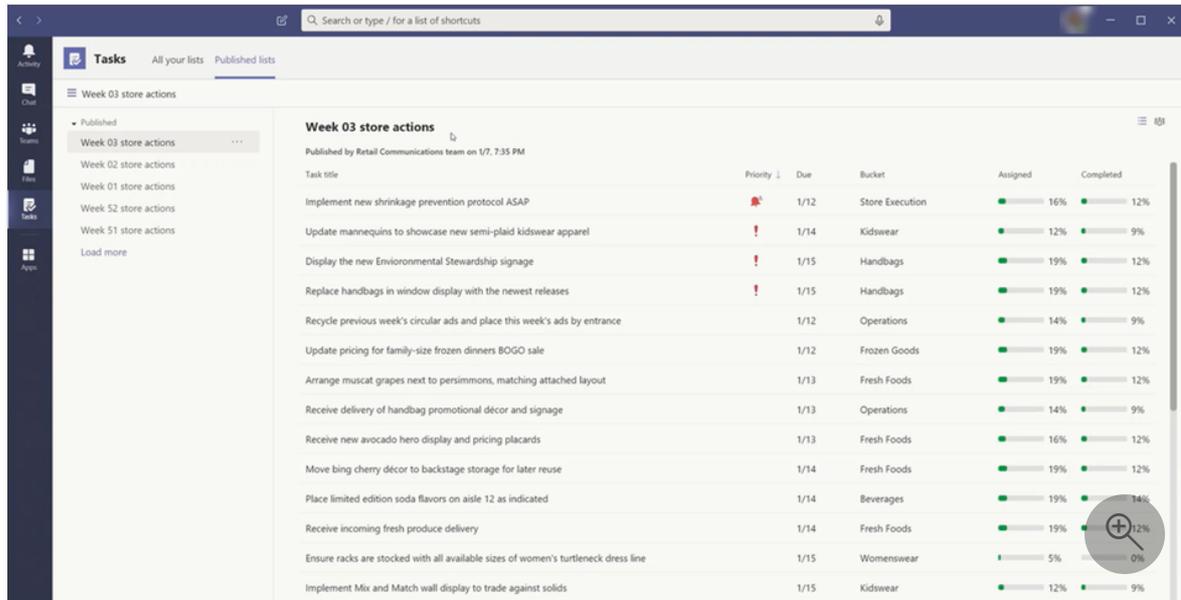


- Managers on the recipient teams can review the published task lists and assign individual tasks to team members.



- Frontline Workers have a simple mobile experience to see tasks assigned to them. They can attach photos to show their work when appropriate and mark their tasks as completed.
- Publishers and managers can view reports to see assignment and completion status of tasks at each level, including by location (team), task list, and individual

task.



Users create, manage, and publish task lists on the **Published lists** tab in the Tasks app. This tab only shows for a user if your organization [set up a team targeting hierarchy](#) and the user is on a team that's included in the hierarchy. The hierarchy determines whether the user can publish or receive task lists and view reporting for received lists.

Example scenario

Here's an example of how task publishing works.

Contoso is rolling out a new food takeout and delivery promotion. To maintain a consistent brand experience, they need to coordinate consistent execution of the rollout across over 300 store locations.

The Marketing team shares the promotion details and the corresponding list of tasks with the Retail Communications Manager. The Retail Communications Manager, who serves as the gatekeeper for stores, reviews the information. Then they create a task list for the promotion, and create a task for each unit of work that the affected stores need to perform. When the task list is complete, they need to select the stores that must complete the work. In this case, the promotion only applies to stores in the United States that have an in-store restaurant. In Tasks, they filter the store list based on the in-store restaurant attribute, select the matching United States locations in the hierarchy, and then publish the task list to those stores.

Store managers at each location receive a copy of the published tasks and assign those tasks to their team members. Managers can use the Tasks experience to understand all the work required across their store. They can also use the available filters to focus on a specific set of work, such as work due today or work in a particular area.

Frontline Workers at each store location now have a prioritized list of their work in Tasks on their mobile device. When they finish a task, they mark it complete. They can even choose to upload and attach a photo to the task to show their work.

Contoso headquarters and intermediate managers can view reporting to see the assignment and completion status of tasks at each store and across stores. They can also drill down to a specific task to see the status within different stores. As the launch date gets closer, they can spot any abnormalities and check in with their teams as needed. This visibility allows Contoso to improve the efficiency of the rollout and provide a more consistent experience across their stores.

Set up your team targeting hierarchy

To enable task publishing in your organization, you have to first set up your team targeting schema in a .CSV file. The schema defines how all the teams in your hierarchy are related to each other and also defines the attributes that can be used to filter and select teams. After you create the schema, upload it to Teams to apply it to your organization. Members of the publishing team, such as the Retail Communications Manager in the example scenario, can then filter teams by hierarchy, attributes, or a combination of both to select the relevant teams that should receive the task lists, and then publish the task lists to those teams.

For steps on how to set up your team targeting hierarchy, see [Set up your team targeting hierarchy](#).

Power Automate and Graph API

Tasks supports Graph APIs for Planner and Power Automate for To Do. To learn more, see:

- [Planner tasks and plans API overview](#)
- [Using Microsoft To Do with Power Automate](#) 

Data location

For more information about where your Planner data is stored, see [Data residency for other Microsoft services](#).

To Do uses Exchange Online for data storage. To learn more, see [Review data storage and compliance in Microsoft To Do](#) 

Give feedback or report an issue

To send us feedback or report an issue, select **Help** near the bottom of the left pane in Teams, and then select **Report a problem**. Select **Tasks**, and then enter your feedback or details about the issue you're experiencing.

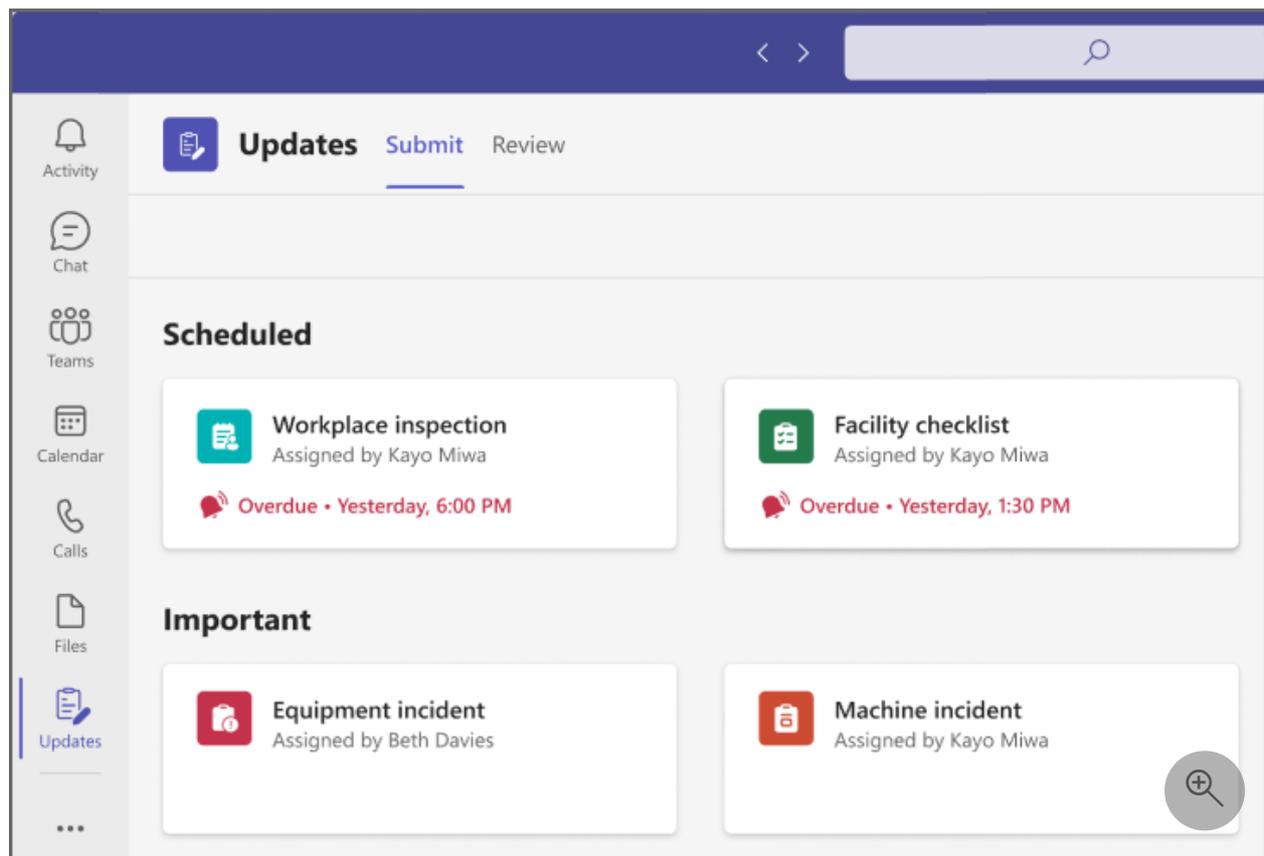
Manage the Updates app for your organization in Microsoft Teams

Article • 08/21/2023 • Applies to: Microsoft Teams

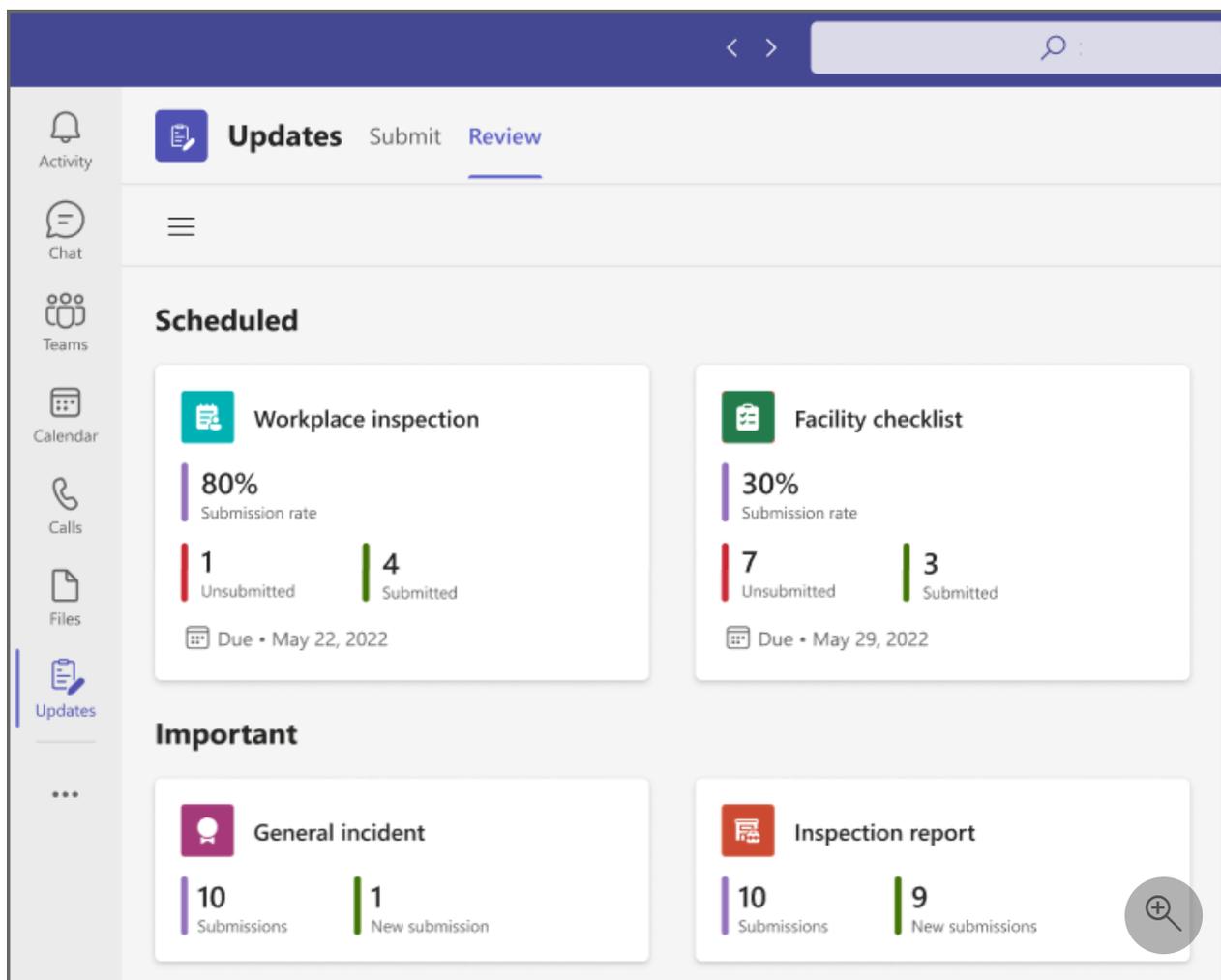
Overview of Updates

The Updates in Microsoft Teams app provides a centralized place for members of your organization to create, review, and submit updates. By creating update requests, you can use the Updates app to keep track of anything your organization needs. Updates is available for both desktop and mobile.

In Teams, users can get the Updates app from the Teams app store. They'll see all of the update requests they need to submit on the **Submit** page. You can share the [Get started in Updates article](#) with your users to help them get comfortable using Updates.



Users can view updates they've assigned in the **Review** page.



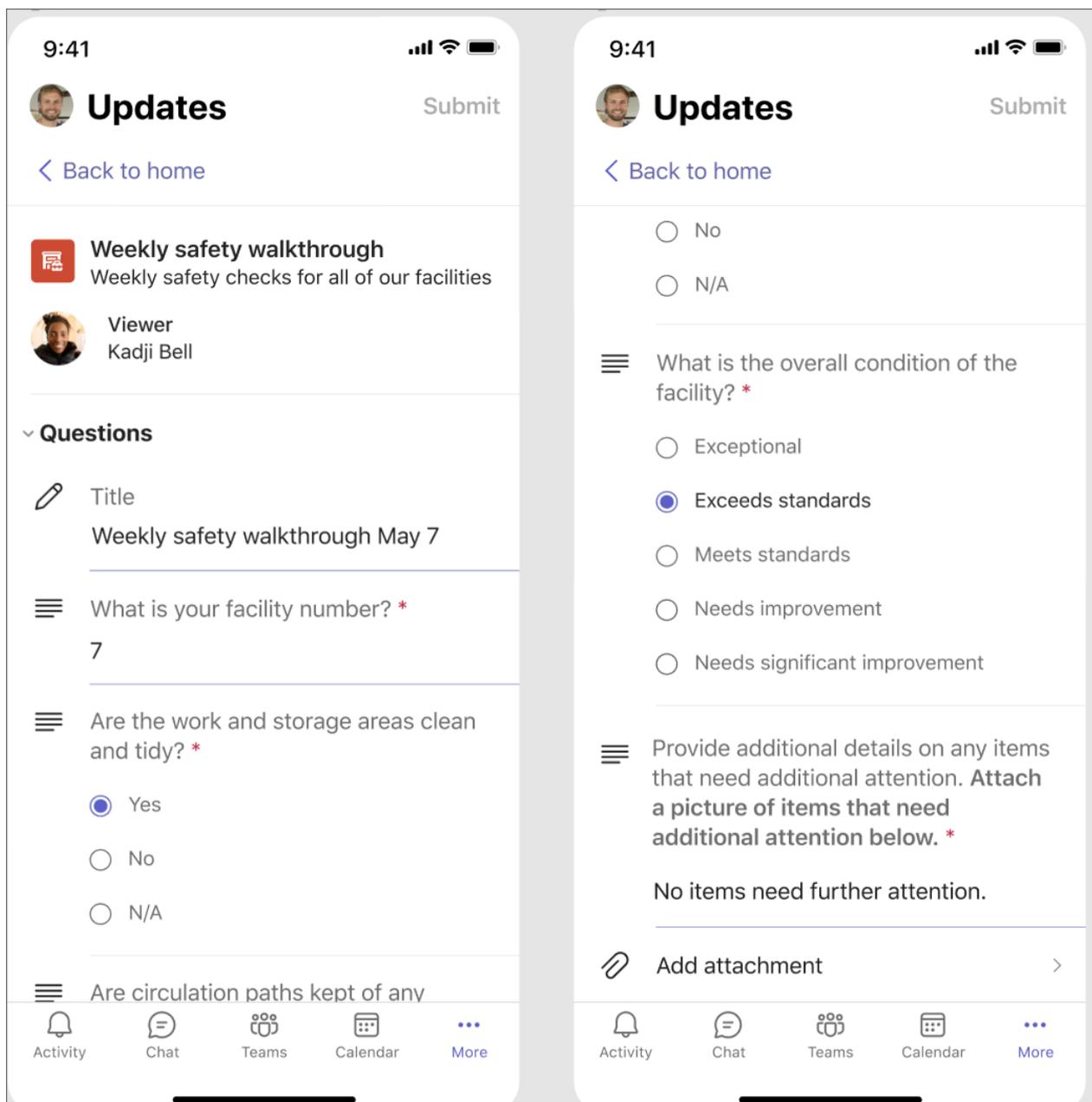
When a user is assigned an update request, it will show up in their Teams activity feed. Users can also view all their current update requests and previous submissions in the Updates app. In addition, anyone can create and send out update requests.

Updates comes with both out-of-the-box templates for common business scenarios and the option to create your own requests. Anyone can create an update request for new types of updates and ask others to submit updates to sync their work status.

Example scenario

Employees at a clothing store are responsible for opening and closing the store every day. Every morning, the shift leader fills out the Store opening update. In this update, they describe any issues with the previous night's closing, answer questions about the cleanliness of the store, and report any supplies that need replenished. Submitting an update lets them communicate their needs for the store and any problems quickly and efficiently. Daily updates also give the store associates an opportunity to highlight what's going well.

At the store's manufacturing facilities, employees perform safety checks with Updates using mobile devices.



Meanwhile, a team of remote workers is updating the store's website. They're spread across time zones, so daily stand-up meetings aren't convenient. Instead, each of the team members submits daily Updates reports on their progress to the team leader.

[Download the Updates lookbook](#) to see more examples of what you can do with Updates.

Required permissions and licenses

You need permission for the following items to deploy Updates:

- Permissions to create a Microsoft Dataverse database.
- An account on powerautomate.microsoft.com.
- Administrator role in your target environment.

- License for Power Automate, Office 365, or Dynamics 365.

Storage with Microsoft Dataverse

The Common Data Model (CDM) is the shared data language used by business and analytical applications in the Microsoft Dataverse. It consists of a set of standardized, extensible data schemas published by Microsoft and our partners that enables consistency of data and its meaning across applications and business processes. Learn more about the [Common Data Model](#).

Updates that are created from a template still store data in Microsoft Dataverse, such as their title, details, template ID, and more.

Updates Teams app permissions

The Updates Teams app lets you access the following features:

- Receive messages and data that you provide to it.
- Send you messages and notifications.
- Render personal apps and dialogs without a Teams-provided header.
- Access your profile information such as your name, email address, company name, and preferred language.
- Receive messages and data that team members provide to it in a channel.
- Send messages and notifications in a channel.
- Access your team's information:
 - team name
 - channel list
 - roster (team members' names and email addresses)
- Use the team's information to contact them.

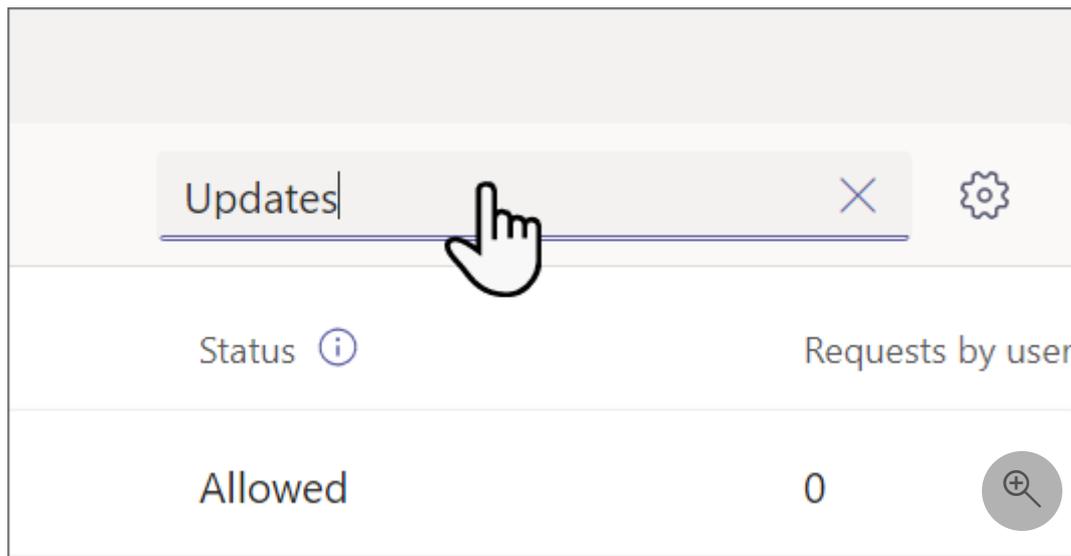
Disable the Updates app

The Updates app is available by default. You can disable the app in the Teams admin center.

1. Sign in to the Teams admin center.

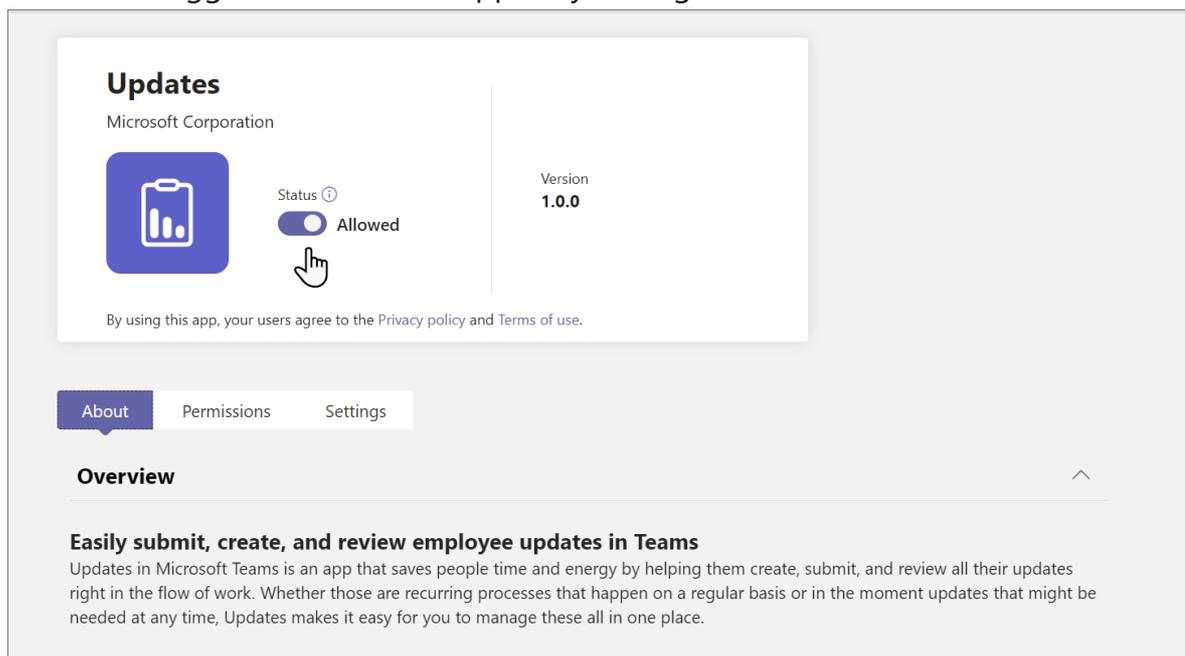
2. Go to Teams apps > Manage apps.

3. Search for the Updates app.



4. Select Updates.

5. Select the toggle to disable the app for your organization.



Pin Updates to Teams

App setup policies let you customize Teams to pin apps that are most important for your users in your users. The apps are pinned to the app bar—the bar on the side of the Teams desktop client and at the bottom of the Teams mobile clients—where users can quickly and easily access them.

To pin the Updates app for your users, you can edit the global (Org-wide default) policy or create and assign a custom policy in app setup policy. To learn more, see [Manage](#)

[app setup policies in Teams](#).

Retention policy

Updates created from the Updates app are stored in the default Microsoft Dataverse environment, which doesn't support backups at this time. Learn more about how to [back up and restore environments](#).

Conditional access and permission policies

The Updates app in Teams doesn't currently support Conditional Access policies that are set for Microsoft Teams.

You can use [Teams app permission policies](#) to manage Updates.

Security

From the Teams Updates app, users have access to create new updates and view updates that they have sent and received. Users can't view the Updates that are submitted by others unless they're a viewer of the update or update request.

Power Automate connector

Updates support the Power Automate connector **Updates App(Microsoft 365)**. Using this connector can help you automate your organization's workflow. [Learn more](#) .

Give feedback or report an issue

To send us feedback or report an issue, select **Help** near the bottom of the left pane in Teams, and then select **Report a problem**. Select **Updates app**, and then enter your feedback or details about the issue you're experiencing.

Manage the Virtual Appointments app for your organization in Microsoft Teams

Article • 09/18/2023 • Applies to: Microsoft Teams

Overview of Virtual Appointments

Use the Virtual Appointments app in Microsoft Teams for all your virtual appointment needs. The app enables a seamless end-to-end experience for business-to-customer engagements, integrating schedules, analytics, and management options, all in one place.

You can schedule, view, and manage virtual appointments, get real-time status updates in a queue view, send appointment reminders, view analytics and reports on virtual appointments activity, and configure calendar, staff, and booking page settings.

With any Microsoft 365 license, you can use basic Virtual Appointments capabilities to schedule and join business-to-customer meetings. For example, you can schedule appointments in the appointment calendar and external attendees can [join through a browser](#) without having to download Teams. [Teams Premium](#) unlocks advanced Virtual Appointments capabilities that your organization can use to manage and customize the experience. These features include a queue view of scheduled and on-demand appointments, SMS text notifications, custom waiting rooms, and analytics.

Users can find the Virtual Appointments app in the Teams app store, or you can share the [installation link](#) to help them find it. You can use an [app setup policy](#) to pin the app for your organization, or your users can [pin the app themselves](#).

To learn more, see [Use the Virtual Appointments app in Teams](#).

Overview of the Virtual Appointments app

The Virtual Appointments app has the following tabs.

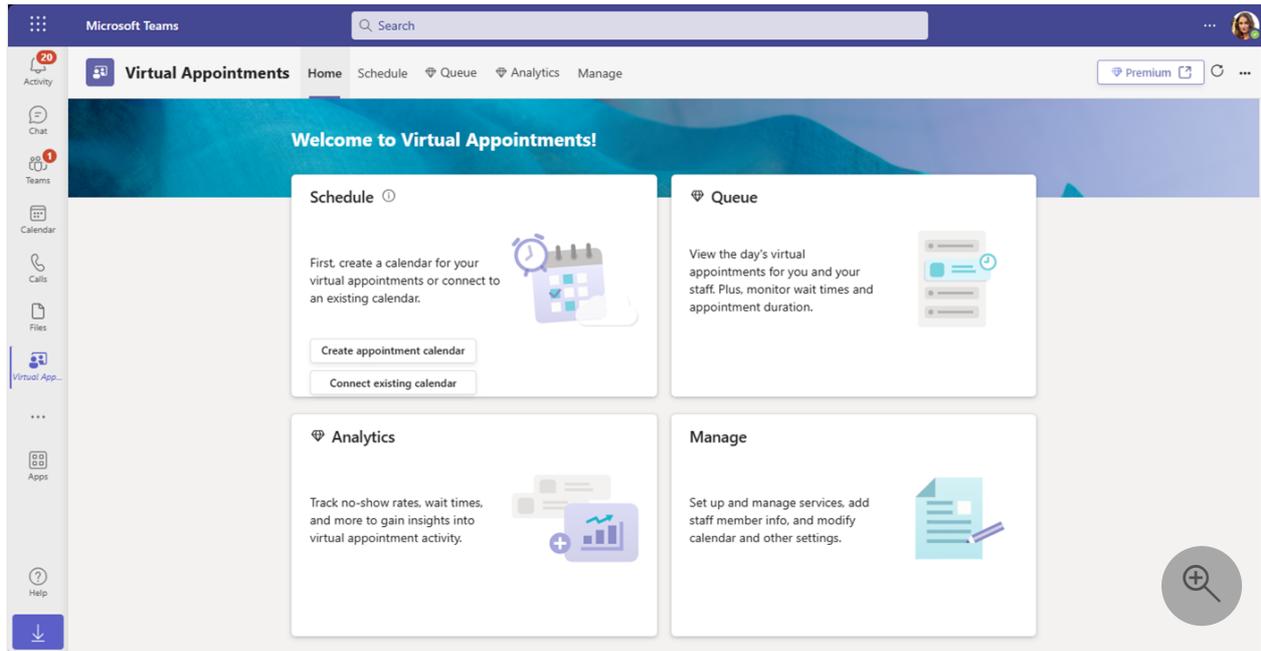
- [Home](#)
- [Schedule](#)
- [Queue](#)
- [Analytics](#)
- [Manage](#)

Here's an overview of what's on each tab.

Home

i The Queue and Analytics tiles require [Teams Premium](#).

Get easy access to key actions and information. The Home page provides a quick way to create or connect a shared appointment calendar, a summary of the queue of appointments for the day, a snapshot of appointment analytics, and management options.



Schedule

i SMS notifications are now part of [Teams Premium](#).

Access your appointment calendar to schedule virtual appointments such as healthcare visits, financial consultations, interviews, virtual fittings, and more. You can connect an existing calendar or create a new one. To learn more, see [Set up an appointment calendar](#).

Requested time	Reason for visit	Customer name	Customer status	Sales associate	Join appt.
8:25 AM	Initial consultation	Juan Morgan	Appt. started 7m	William Beringer	Join
8:32 AM	Bathroom consult	Kendall Collins	Waiting 1m	-	Join

Appt. time	Duration	Appt. type	Customer name	Customer status	Sales associate	Join appt.
8:15 AM	15m	Bathroom consult	Ellis Turner	Completed 18m	Amari Rivera	-
8:15 AM	15m	Kitchen planning consulta...	Pisha Leelapun	Waiting 3m	Omer Dogan	Join
8:15 AM	15m	Materials overview	Olivia Wilson	Appt. started 15m	Michael Peltier	Join
8:15 AM	15m	Initial consultation	Sydney Mattos	Waiting 2m	Nathan Rigby	Join
8:15 AM	15m	Kitchen planning consulta...	Avery Howard	No show	Markus Long	-
8:30 AM	15m	In person Bathroom consult	Maria Sullivan	Late	Morgan Connors	-
8:30 AM	15m	Materials overview	Oscar Ward	Not started	Michael Peltier	Join
9:00 AM	15m	Materials overview	Tiara Hidayah	Not started	Omer Dogan	Join

Analytics

i This feature requires [Teams Premium](#).

View usage activity and trends to help optimize Virtual Appointments and deliver better business outcomes.

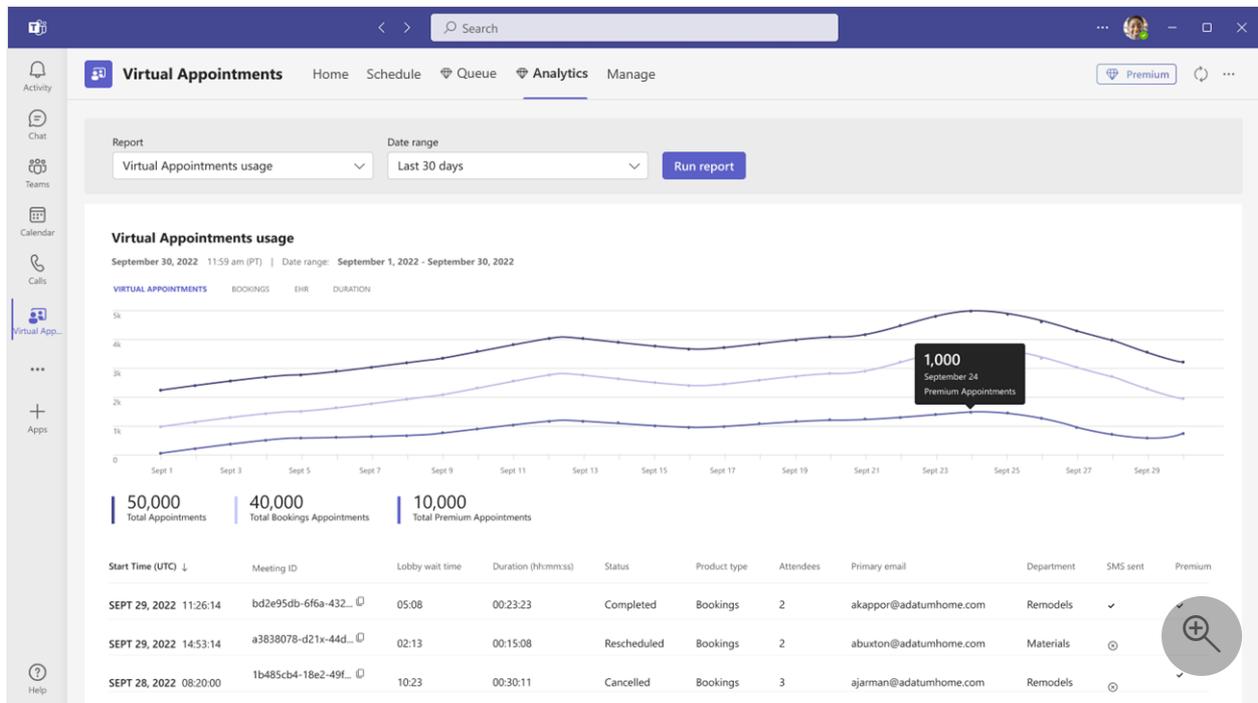
The Teams Virtual Appointments usage report gives admins, decision makers, and users an overview of virtual appointments activity in your organization. The report provides key metrics such as total number of appointments, appointment duration, lobby wait time, and no shows.

You can view detailed activity for virtual appointments scheduled and conducted through multiple scheduling entry points and drill down into individual appointment data.

The analytics experience depends on user role. Admins get [organizational analytics](#) and non-admins get [departmental or individual analytics](#).

Organizational analytics

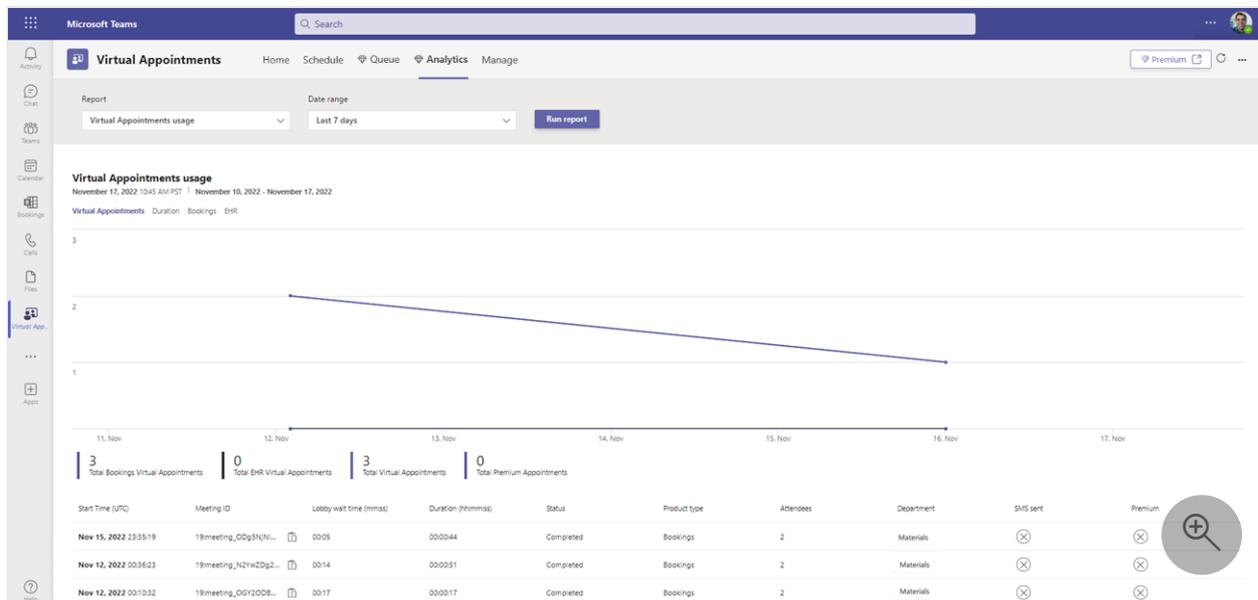
If you're a Virtual Appointments admin, you see an org-level report that shows aggregated analytics across all departments within your organization.



To learn more, see [Virtual Appointments usage report](#).

Departmental and individual analytics

Non-admins see a department-level report that provides data for the given department.



If a staff member isn't associated with a department, the report shows data for the appointments that they conducted.

Manage

Manage calendar details, add services using appointment types, add staff and assign roles, and configure your booking page settings. To learn more about these settings, see

Use the Virtual Appointments app in Teams.

Virtual Appointments Home Schedule Queue Analytics Manage Premium

Adatum Calendar details Services Staff Publish your booking page

Calendar details

Fields with * are required

Name *
Add calendar name

Service category *
Other

Send attendee responses to
Add email address (this won't be visible to the public)

Phone
Add your phone number

Save

Set up the Virtual Appointments app

Enable or disable the Virtual Appointments app in your organization

The Virtual Appointments app is enabled by default for all Teams users in your organization. You can turn off or turn on the app at the org level on the [Manage apps](#) page in the Microsoft Teams admin center.

1. In the left navigation of the Microsoft Teams admin center, go to **Teams apps > Manage apps**.
2. In the list of apps, search for the Virtual Appointments app, select it, and then switch the **Status** toggle to **Blocked** or **Allowed**.

Enable or disable the Virtual Appointments app for specific users in your organization

To allow or block specific users in your organization from using the app, make sure the app is turned on for your organization on the [Manage apps](#) page. Then create a custom policy for app permissions and assign it to those users. To learn more, see [Manage app permission policies in Teams](#).

Use an app setup policy to pin the Virtual Appointments app to Teams

App setup policies let you customize Teams to highlight the apps that are most important for users in your organization. The apps you set in a policy are pinned to the app bar—the bar on the side of the Teams desktop client and at the bottom of the Teams mobile clients—where users can quickly and easily access them.

To pin the Virtual Appointments app for your users, you can edit the global (Org-wide default) policy. Or, you can create and assign a custom app setup policy. To learn more, see [Manage app setup policies in Teams](#).

Terms of service

See [Terms of service](#).

Give feedback or report an issue

To send us feedback or report an issue, select **Help** near the bottom of the left pane in Teams, and then select **Report a problem**. Select **Virtual Visits**, and then enter your feedback or details about the issue you're experiencing.

Related articles

- [What is Virtual Appointments?](#) [↗](#) help documentation for your users
- [Virtual Appointments guided tour](#) [↗](#)
- [Teams Premium licensing](#)

Walkie Talkie app in Microsoft Teams

Article • 11/03/2023 • Applies to: Microsoft Teams

Overview of Walkie Talkie

The Walkie Talkie app in Microsoft Teams provides instant push-to-talk (PTT) communication for your teams and is available on Android and iOS devices. Walkie Talkie allows users to connect with their team using the same underlying channels they're members of.

Only users who connect to Walkie Talkie in a channel become participants and can communicate with each other by using PTT. Users continue to receive transmissions until they tap **Stop listening**. Walkie Talkie supports communicating in standard, open channels. It doesn't support or work on shared and private channels.

With Walkie Talkie in Teams, users can securely communicate with a familiar PTT experience without needing to carry bulky radios, and Walkie Talkie works anywhere with WiFi or cellular internet connectivity.

ⓘ Note

Walkie Talkie currently is not available in China.

License requirements

Walkie Talkie is included in all paid licenses of Teams in [Microsoft 365 and Office 365 subscriptions](#). For more information about getting Teams, check out [How do I get Microsoft Teams?](#) ↗

Prepare your network

Walkie Talkie requires connectivity to the internet. Use the following guidance to set up your organization's network for Walkie Talkie:

- Make sure that all endpoints listed for Teams in [Office 365 URLs and IP address ranges](#) are reachable by Teams users on your network.
- Prepare your network:
 - [Prepare your organization's network for Teams](#)

- [Proxy servers for Teams](#)
- Download and run the [Microsoft Teams Network Assessment Tool](#) to test your network performance and connectivity to determine how well your network will perform with Walkie Talkie.

Deploy Walkie Talkie

You can deploy and manage Walkie Talkie from the Teams admin center. Walkie Talkie is supported on Android devices with Google Mobile Services (GMS) and iOS devices.

Important

Deployment is a three-step process. You'll need to complete all three steps for your users to have access to Walkie Talkie.

Step 1: Make sure Walkie Talkie is enabled in your organization

You control whether the app is available at the organization level on the [Manage apps](#) page in the Microsoft Teams admin center. To confirm that the app is enabled in your organization:

1. In the left navigation of the Teams admin center, go to **Teams apps > Manage apps**.
2. In the list of apps, search for the Walkie Talkie app, select it, and then make sure the **Status** toggle is set to **Allowed**.

Step 2: Create and assign an app permission policy

Control which users in your organization can use Walkie Talkie by assigning app permission policies in the Teams admin center. To learn more, see [Manage app permission policies in Teams](#).

Make sure that Walkie Talkie is an allowed app in the app permission policy, and that you assign the policy to all users who need Walkie Talkie.

Step 3: Use an app setup policy to pin Walkie Talkie for your users

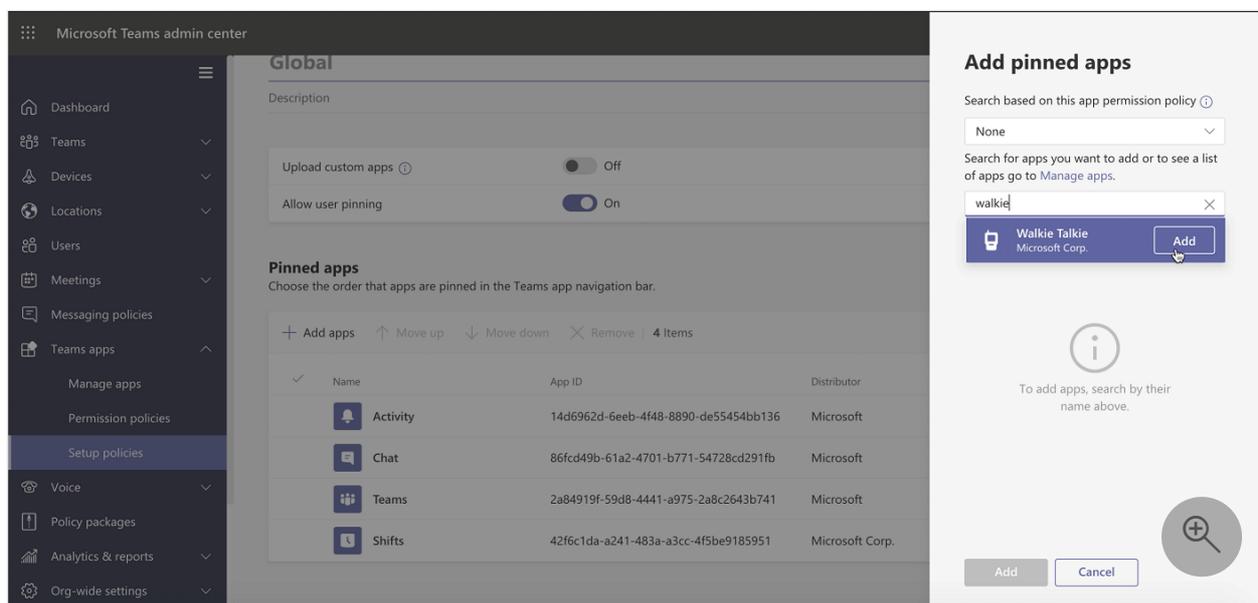
Step 3 depends on which license your users have.

- [If your users have E licenses](#)
- [If your users have F licenses](#)

E license: Use an app setup policy to pin Walkie Talkie to Teams

App setup policies let you customize Teams to pin apps that are most important for your users in your users.

To pin the Walkie Talkie app for your users, you can edit the global (Org-wide default) policy or create and assign a custom policy in app setup policy. To learn more, see [Manage app setup policies in Teams](#).



F license: Use the Tailored frontline app experience to pin Walkie Talkie and other apps to Teams

The tailored frontline app experience in Teams pins the most relevant apps in Teams for users who have an [F license](#). Pinned apps include Walkie Talkie, Shifts, Tasks, and Approvals. By default, this feature is on, giving your frontline workers an out-of-the-box experience that's tailored to their needs.

The apps are pinned to the app bar at the bottom of Teams mobile clients where users can quickly and easily access them.

To learn more, including how the experience works with app policies that you set, see [Tailor Teams apps for your frontline workers](#).

Network considerations

The following network conditions are required for an optimal experience.

Metric	Required
Latency (RTT)	< 300 ms
Jitter	< 30 ms
Packet Loss	< 1%

As noted, the quality of real-time media over an IP network is greatly affected by the quality of the network connectivity, but especially by the amount of:

- **Latency** - The time it takes to get an IP packet from point A to point B on the network. This network propagation delay is tied to the physical distance between the two points and the speed of light, including more overhead taken by the various routers in between. Latency is measured as Round-trip Time (RTT).
- **Inter-arrival jitter** - The average change in delay between successive packets.
- **Packet loss** - Packet loss is often defined as a percentage of packets that are lost in a given window of time. Packet loss directly affects audio quality—from small, individual lost packets that have almost no impact, to back-to-back burst losses that cause complete audio cut-out.

Expected data usage from Walkie Talkie is around 20 Kb/s when sending or receiving audio. When idle, expected data usage from Walkie Talkie is negligible.

Also, keep in mind the following:

- Walkie Talkie should work well in low bandwidth situations, or situations where the user's phone is connected and working. Walkie Talkie doesn't work when there's no connectivity at all.
- If users are using mobile data to communicate in Teams, Walkie Talkie will use the same method.

Walkie Talkie devices

Frontline workers often need to speak and receive Walkie Talkie calls even when their phones are locked. This experience is possible through specialized devices with a dedicated PTT button.

Headsets

- Wireless headsets (iOS and Android)

- [BlueParrott](#)
 - [B450-XT](#), firmware version 1.07
 - [C300-XT](#), firmware version 1.30
- Jabra
 - [Perform 45](#)
- Wired headsets (Android only)
 - [Klein Electronics](#)
 - 3.5mm
 - USBc

Rugged Android phones

- Crosscall [Core-X4](#), [Core-M5](#), [Action-X5](#), [Core-X5](#), and [Core-T5](#)
 - Manual setup: With Teams installed, go to **Settings** > **Buttons**. On the Dedicated button (1 or 2), select **Long press**, and then choose **PTT App**. Select the blue wheel next to **Custom**, and select **Teams**.
- Kyocera [DuraForce Ultra 5G](#) and [DuraSport 5G](#)
 - Manual setup: With Teams installed, go to **Settings** > **Programmable keys**. Choose **PTT key** or **Press and hold** (depending on the device), and select **Teams**.
- Honeywell [CT30 XP](#), [CT30 XP HC](#), [EDA51](#), [EDA52](#), [EDA52 HC](#),
 - Manual setup: With Teams installed, the dedicated PTT button works with Walkie Talkie by default.

Important

Customers using Honeywell CT30 should upgrade to Android version: **A11 HON4290 MR14**.

- Samsung [Galaxy XCover Pro](#), [Galaxy XCover 5](#), [Galaxy Tab Active 3](#)
 - Manual setup: With Teams installed, go to **Settings** > **Advanced Features** > **XCover/Active key**. Turn on **Control XCover key with app**, and select **Teams**.
 - [MDM setup](#)
- Sonim XP8
 - Manual setup: With Teams installed, go to **Settings** > **Programmable Keys**. Choose **Select PTT Key app**, and select **Teams**.
- Zebra [TC5x](#), [TC15](#), [TC5301](#), [TC7x](#), [TC2x](#), [EC5x](#), [EC30](#), [MC3300](#), [MC9300](#), [ET40](#)

- Manual setup: With Teams installed, the dedicated PTT button (LEFT_TRIGGER_2) works with Walkie Talkie by default.

ⓘ Note

These devices are not Teams certified. They have been validated to work with Teams Walkie Talkie.

Bluetooth devices

ⓘ Note

If your users are using Bluetooth accessories, make sure that your mobile device management (MDM) solution doesn't block Bluetooth devices.

On devices running Android OS version 12 or later, Bluetooth permissions are required and location permissions to connect using the BLE stack are no longer required. If "nearby permissions" aren't granted at the Teams level, a user receives a prompt for Bluetooth permissions. This prompt is displayed, whether or not a Bluetooth accessory, such as a headset, is connected to their device. If a Bluetooth accessory is connected, tapping **Allow** connects Walkie Talkie to the Bluetooth accessory.

Get insight into Walkie Talkie usage and performance

The [Walkie Talkie usage and performance report](#) in the Teams admin center gives you an overview of Walkie Talkie activity and performance in your organization. The report provides information such as the number of PTT transmissions made and received, channel activity, transmission duration, and device and participant details.

Data residency available

Walkie Talkie customer data for tenants in the European Union Data Boundary (EUDB) and in the United Kingdom is stored in data centers located in the EU. All other tenants have their Walkie Talkie customer data stored in data centers located in the United States. Tenants aren't provided with a choice for the specific deployment region for data storage.

To be considered a tenant in the EUDB

The tenant must have a *default geography* in a EUDB country/region or select a country/region in EUDB country/region as their residence during sign-up.

How can I determine customer data location?

See [Microsoft Entra ID and data residency](#).

End-user experience

To learn more about the end-user experience, see:

- [Get started with Teams Walkie Talkie](#) 
- [Communicate with your team with Walkie Talkie](#) 

Give feedback or report an issue

To send feedback, select **Help** at bottom of the navigation bar in Teams, and then select **Report a Problem**. Select **Other**, and then enter your feedback or details about the issue you're experiencing. Indicate at the beginning of your feedback report that you're sending feedback about "Walkie Talkie" so we can easily identify Walkie Talkie issues.

Allow users to provide feedback

Users in your organization can attach logs while sharing feedback to Microsoft, if you enable the policy to [set whether users can send feedback about Teams to Microsoft](#).

Microsoft Teams for RealWear

Article • 02/15/2023 • Applies to: Microsoft Teams

This article covers the Microsoft Teams client for RealWear head-mounted wearables. Frontline workers using RealWear HMT-1 and HMT-1Z1 can now collaborate with a remote expert using video calling on Teams. Through a voice-controlled user interface, Teams for RealWear allows field workers to remain 100% hands-free while maintaining situational awareness in loud and hazardous environments. By showing what they see in real-time, field workers can accelerate the time to resolve issues and reduce the risk of an expensive downtime.

How to deploy Microsoft Teams for RealWear

- RealWear devices updated to release 11.2 or above. More information [here](#).
- Access to [RealWear Foresight](#) for distributing the Microsoft Teams client for Realwear.

Required Licenses

Microsoft Teams licenses are part of Microsoft 365 and Office 365 subscriptions. No additional licensing is required to use Teams for RealWear. For more information about getting Teams, check out [How do I get access to Microsoft Teams](#).

Managing RealWear devices

Microsoft Endpoint Manager

RealWear devices can be managed using Android Device Administrator mode. Support for management via Android Enterprise is limited, as the devices currently don't have Google Mobile Services (GMS) available.

- To learn more about managing RealWear devices on Microsoft Endpoint Manager, see [Android device administrator enrollment in Intune](#).
- For more details on policies, see [How to use Intune in environments without Google Mobile Services](#).

Third-party Enterprise Mobility Managers (EMMs)

For guidance on third-party EMMs, see [Supported Enterprise Mobility Management Providers](#) .

End-user content

For further reading on this from an end-user perspective, check out [Using Microsoft Teams for RealWear](#) .