

# **Simplifying Windows Virtual Desktop Printing**



**PrinterLogic**

# Introduction

## What is Windows Virtual Desktop?

[Windows Virtual Desktop \(WVD\)](#) is a Microsoft desktop and app virtualization service hosted on Azure. It allows organizations to deliver virtual Windows 7 and multi-user Windows 10 desktops to their workforce, regardless of where they're working. With an internet connection, users can access a secure virtual desktop from a wide variety of supported endpoints. Organizations can provide a complete Windows desktop experience, or they can limit access to specific apps.

## Market significance

WVD competes with established virtualization providers like VMware and Citrix, as well as a number of smaller cloud-based competitors. It's expected to have a significant market impact because it's a Microsoft service, and it will be integrated with other Microsoft solutions. The company is expected to offer customers favorable pricing and bundle deals on Azure, Windows and Office 365 licenses to accelerate adoption of the new virtualization platform.

## Windows Virtual Desktop benefits

- **Enhanced data security.** Storing sensitive information in a trusted and secure cloud environment is less risky than distributing that data across user endpoints.
- **Support for a wide range of endpoints.** This includes thin-clients and mobile devices and provides maximum workforce flexibility and mobility.
- **Virtualized Office 365 ProPlus, optimized for multi-user sessions.** A cost effective solution for many Microsoft customers with ties to Office 365.
- **Multi-session Windows 10.** A comparably easy and cost effective way for larger organizations to migrate to a Windows 10 desktop experience.
- **Free extended security updates for Windows 7.** Critically important to organizations that rely on legacy Windows 7 apps and face high ongoing maintenance costs when the OS support life ends in January 2020.
- **Unified management for all OS and app software.** IT teams can manage Windows 10, Windows 7 and Windows Server desktops, as well as virtualized apps, in one place.

# How PrinterLogic improves the WVD printing experience

## WVD printing challenges and redirected printers

WVD faces the same basic printing challenges as other VDI solutions: The user is interacting with a virtual computing environment, but network printers are connected to a local network that's separate from the virtual workspace.

Microsoft's answer to this challenge is the *redirected printers* functionality built into WVD. PrinterLogic SaaS enhances this core capability by integrating with WVD, while eliminating print servers and streamlining printer and driver deployment. PrinterLogic's direct IP architecture keeps print jobs local, which ensures the security of an organization's confidential data.

## How it works

Windows Virtual Desktop sessions begin when the user logs in using Microsoft's Remote Desktop Client (RDC), which resides on their local device. This connects their endpoint to a virtual Windows session in Azure. The RDC handles all necessary credentials and authentication, and connects to WVD-published applications or to a Windows 7 or Windows 10 virtual desktop session.

On the PrinterLogic side, the Sys Admin pushes out the PrinterLogic client to the organization's workstations or thin-clients. Supported endpoint OSes include Windows, Mac, Linux, and Chrome.<sup>1</sup> Using the PrinterLogic Admin Console, IT can [deploy and manage printers](#) and drivers on those endpoints. This is done without the need for print servers, scripting, or GPOs.

Printers installed by PrinterLogic on the endpoint will appear as redirected printers in the WVD session. The Microsoft client (RDC) serves as the go-between and queries the endpoint's OS to discover which printers are installed. The RDC then directs WVD to show those printers in the virtual session as redirected printers, and gives them the same name with a "redirected" tag. See figure 2.

When a user working in a WVD session chooses the print command, the print dialog appears and shows the redirected printers. The user picks a printer and initiates the print job. The Microsoft client goes to work and compresses the file data, packages it in EMF format, and sends it via secure Microsoft Remote Desktop Services (RDS) protocol to the user's endpoint.

Once it reaches the local workstation, the print job is handed off to the OS, which then processes it as it would any print job. The printer driver renders the file, which is then spooled and sent via direct IP to the designated printer.

<sup>1</sup> Endpoint support for Chrome OS will be available by late 2019.

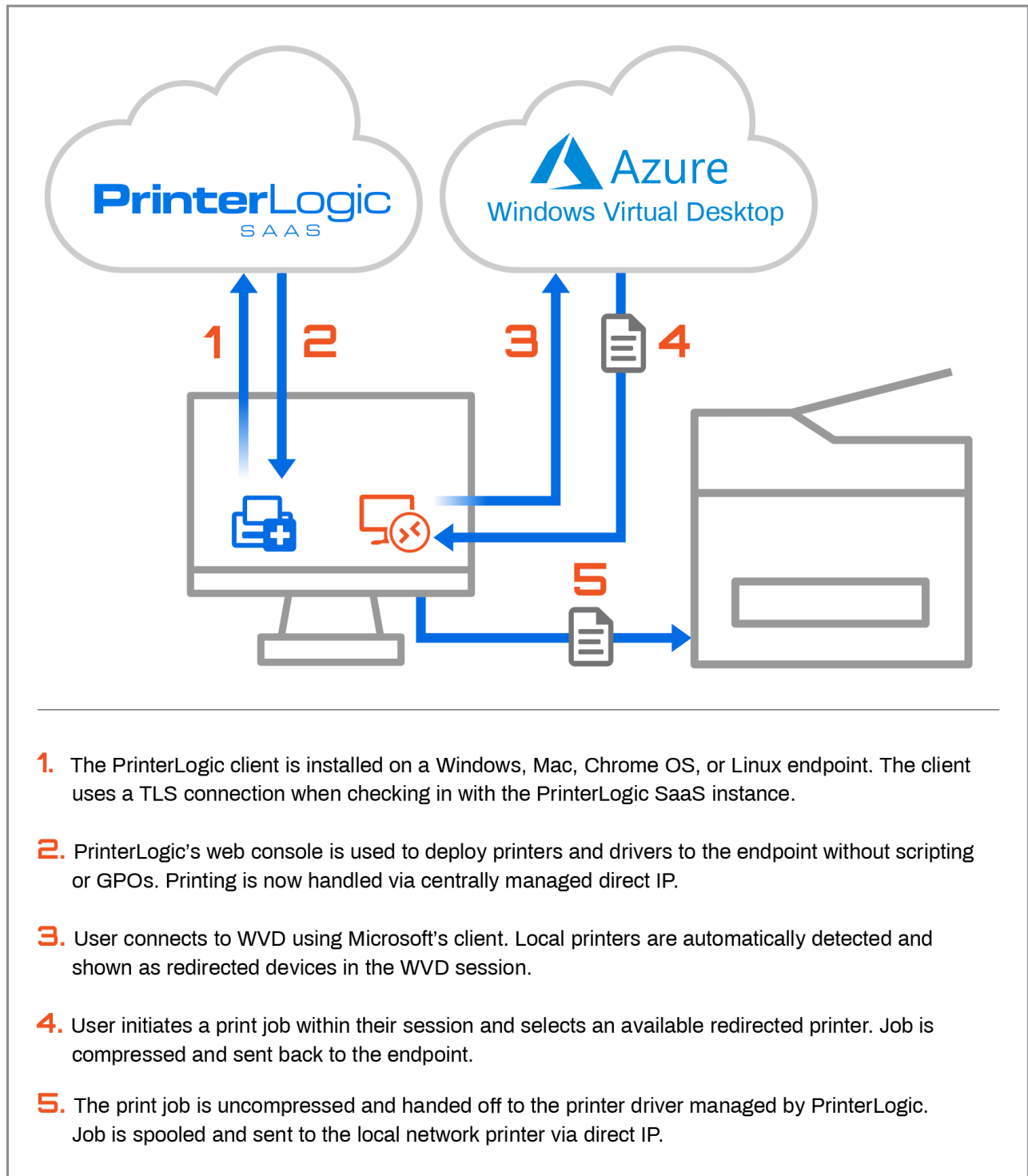


Figure 1. PrinterLogic's integration with WVD and the redirected printer workflow.

There are several key benefits when using PrinterLogic to manage WVD printing:

- **PrinterLogic keeps print traffic local.** No print data is transferred to/from third-party cloud services in order to complete a print job. A job originating in a WVD session goes from Azure to the endpoint over a secure RDS channel and is then handed off to the local printer driver. It's then processed and printed locally, behind the organization's firewall.
- **PrinterLogic includes Secure Release Printing.** Also known as pull printing, PrinterLogic can be configured to hold print jobs on the endpoint until the user walks over and releases their job(s) at the printer. This [provides additional security](#) for sensitive files so documents can't be accidentally seen by others, or left abandoned on the output tray.
- **PrinterLogic uses native drivers.** Native drivers, which are designed and supported by the printer manufacturer, give you access to a printer's complete feature set and are the best tool to enforce policies for saving consumables and reducing costs. Other brands often resort to using *universal drivers*, which are easier to implement but don't support the printer's full functionality.
- **PrinterLogic customers are ready to integrate.** For current PrinterLogic customers, integration with WVD is fast. There's no set-up required by IT for printer redirection to work. The deployed PrinterLogic clients automatically know what to do when they are handed an incoming print job from Microsoft's WVD software, and printing from a virtual session just works.



Figure 2. Redirected printers as they appear in a Windows 10 WVD session.

### Printing with web browser connections

WVD sessions using Microsoft's RDC deliver the most functional and intuitive printing experience. However, some organizations have endpoint devices that use an [HTML-5 browser](#) to spin up a virtual desktop session or app. In this scenario, printing is limited to a virtual PDF printer that's provided by Microsoft in the session. The file is sent down to the endpoint using the same secure (RDS) channel, where it can be saved and printed.

PrinterLogic SaaS offers [mobile printing](#) at no additional cost to facilitate printing a PDF document for iOS, Android, and Chrome OS devices.

## Why use PrinterLogic SaaS?

[PrinterLogic SaaS](#) is the software-as-a-service version of the company's serverless printing infrastructure. It's a true SaaS solution—not simply an executable hosted on a server in the cloud. Software updates and deployments of new features are automatically delivered. No VPN is required, and customers receive security and uptime service-level agreements.

PrinterLogic eliminates all print servers from your network environment, replacing them with simple, secure, and efficient centrally managed direct-IP printing. Single points of failure are removed, and the result is high availability in which printing stays local, and continues even when the internet is down.

Printer and driver deployments are managed centrally using a web-based Admin Console, eliminating the need for troublesome scripting and GPOs.

The platform also features location-based printing based on IP address range. If a worker changes locations, printers that are no longer relevant are dropped from the user's printer menu and new ones that are close by appear automatically.

PrinterLogic's solution delivers secure release printing, mobile printing, self-service printer installation for users, and a host of other features that conventional print-management software cannot deliver.

## Conclusion

Microsoft's Windows Virtual Desktop is a significant opportunity for organizations migrating to a virtualized, cloud-based desktop strategy. It is secure, supports a wide array of endpoints, and is especially well suited to the increasingly mobile workforce. PrinterLogic SaaS integrates with WVD in a powerful way, ensuring that users always have the redirected printers that they need in their virtual sessions. As a true SaaS solution, PrinterLogic SaaS helps IT teams eliminate all print servers and deliver a highly available direct IP printing infrastructure.

Start a free 30-day trial of PrinterLogic SaaS [here](#).