

E-Book

How to Set Up and Enhance Microsoft Universal Print with ezeep Blue



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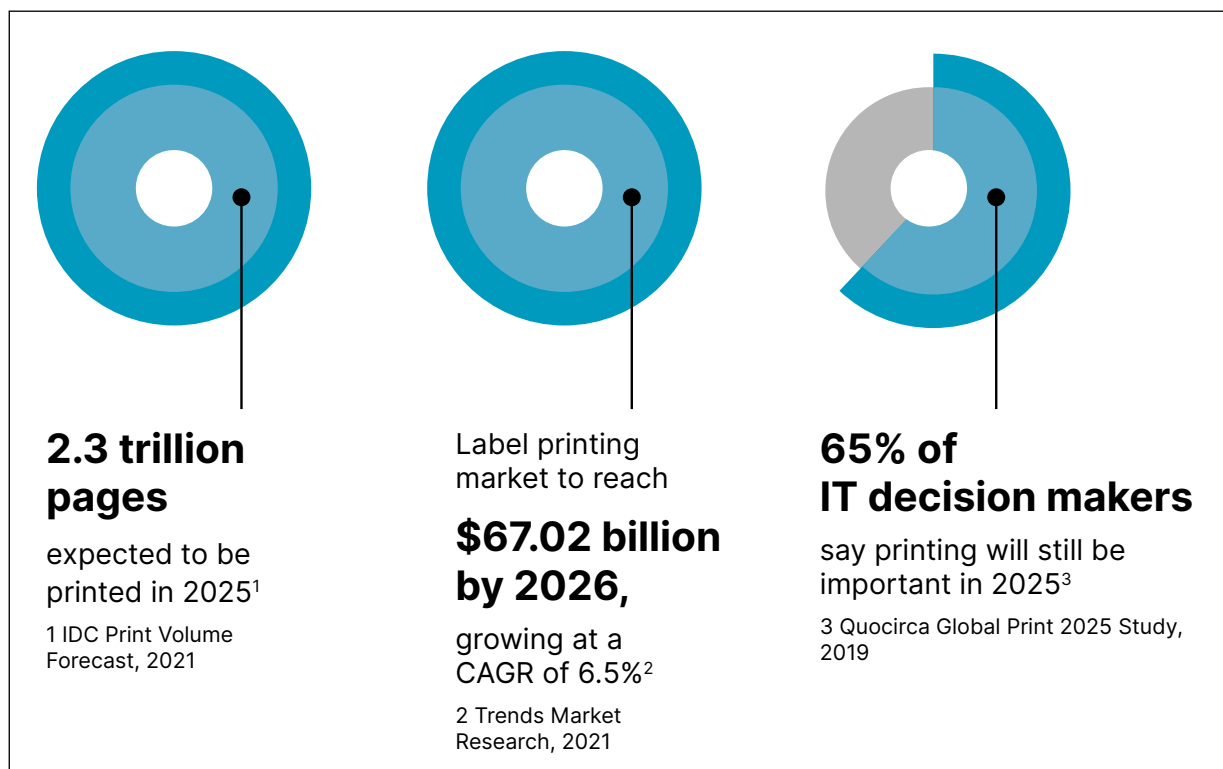
Introduction

Office 365, Azure Virtual Desktop, Windows 365 Cloud PC: Across all of these products, printing remains an invaluable process for bringing digital ideas into the physical world.

Microsoft Universal Print, also referred to simply as 'Universal Print' in this e-book, promises to meet these needs with a modern Azure-based printing service.

In this e-book, you will find the most important information about Universal Print: We list the costs, explain the setup process, and provide an overview of the advantages and disadvantages of the solution.

In the final sections of this e-book, we recommend the Universal Print Connector by ezeep or the ezeep Blue printing solution to overcome the drawbacks of Universal Print. We show how you can deliver a more comprehensive printing solution for your company by using ezeep Blue.



What Is Universal Print?

Universal Print from Microsoft is an Azure service that allows Windows 10 & 11 computers to send print jobs via a print service in the cloud to printers that have this service installed.

If printers do not support this service out of the box, a Universal Print Connector can be installed on a local print server.

The Printer Working Group protocol is used for printing. The print job is stored temporarily in the cloud, then the client is notified and the print job downloaded and processed.

The printers can be provided with quite extensive location information so that they can be found. For a printer to be found by the user, the device must be marked as discoverable in the Universal Print Admin Portal.

How Much Does Universal Print Cost?

Universal Print is not entirely free of charge. The price for Universal Print consists of a subscription and a consumption component based on print jobs.

The Universal Print subscription can be purchased individually per user for \$4 or as part of the following Microsoft plans:

Commercial Subscriptions:

Microsoft 365 Enterprise E3, E5, F3
Windows 10/11 Enterprise E3, E5
Microsoft 365 Business Premium

Educational Subscriptions:

Microsoft 365 A3, A5
Windows 10/11 Enterprise A3, A5

Universal Print Subscription allows up to five print jobs per user per month. However, these print jobs may be pooled between users. If the print volume is higher, businesses can purchase print job packages for Universal Print.

How much does a Universal Print print job bundle cost?

Customers can add additional print volume packages to meet their needs. These are offered in units of 500 print jobs or 10,000 print jobs. A 500-unit package costs \$25, while the 10,000-unit package is available for \$300.

With an average of 5 pages per print job, the cost of a 500-unit package roughly corresponds to the cost of paper. For a rough calculation, the costs associated with Universal Print can be estimated independently of the chosen package size by simply doubling the paper costs.

What Features Does Universal Print Offer?

Which printer models does Universal Print support?

Unfortunately, Universal Print does not work with all printer models. It is possible to check online if a printer is Universal Print Ready – i.e. a model which supports native Universal Print registration without a connector. Another option is to check if the printer is compatible with the Microsoft's connector software. Information on compatibility with major printer manufacturers can be found on Microsoft's website.

As there are dozens of printer brands, and even more legacy printer models which are in use, checking if a homogenous print environment supports Universal Print will require a bit of research. An alternative option would be to use Universal Print Connector appliance which provides support for all printers ([see "Comparison – ezeep Blue vs Universal Print", page 13](#)).

What Printing Options Does Universal Print Support?

Universal Print is able to provide a good range of different print options when printing. The range of options available depend on several factors. First, both the printer model and application which creates the print job must support the desired print option. In addition, Universal Print must support the print option too. According to the Microsoft Universal Print documentation, the service supports the following options:

- › Number of copies
- › Different paper sizes, like A4 or letter
- › Color, grayscale or monochrome
- › Specify paper tray
- › Pages per sheet
- › Duplex
- › Landscape or portrait
- › Print quality
- › Print resolution
- › Collation
- › Scale
- › Finishing options, such as (stapling and folding)
- › Different paper types, like photographic paper

How Do You Set Up Universal Print?

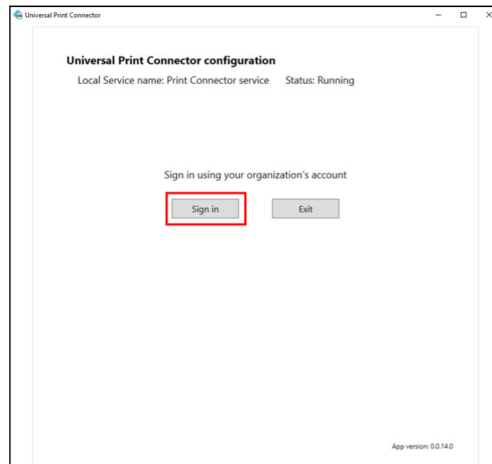
Please check the following requirements before starting:

- › Universal Print is enabled in your Azure tenant, and a Universal Print-eligible license is assigned to the user by a Global Administrator or another license administrator.
- › A client device (to install and use Universal Print) running a Windows client operating system, version 1903 or later. Using the latest version of the operating system provides the best user experience.
- › Alternatively, you can also print directly from a cloud application (such as OneDrive for Business in the web browser).
- › Your user account role is Printer Administrator
- › Windows 10 64-bit, Pro or Enterprise, version 1809 or later
- or
- › Windows Server 2016 64-bit or later (Windows Server 2019 64-bit or later is recommended)
- › .NET Framework 4.7.2 or later
- › A host PC that meets the following requirements:
 - › Running 24x7 (e.g. sleep/hibernate are disabled)
 - › Always has a connection to the internet
 - › Has access to the following internet endpoints
 - › *.microsoftonline.com
 - › *.azure.com
 - › *.msftauth.net
 - › go.microsoft.com
 - › aka.ms

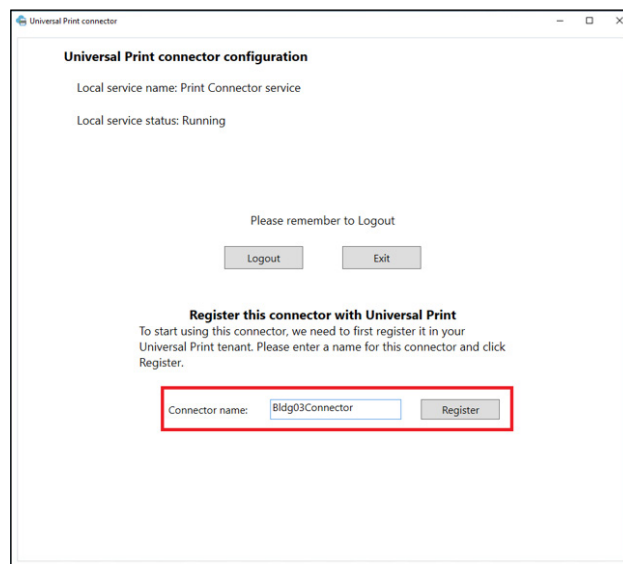
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Step 1: Register Connector

Log in to your Azure Portal and click on Universal Print to download the connector. On the start screen, click the **Sign In** button and sign in using your tenant's credentials.



In the **Connector name** box, enter the name you want, and then select the **Register** button.



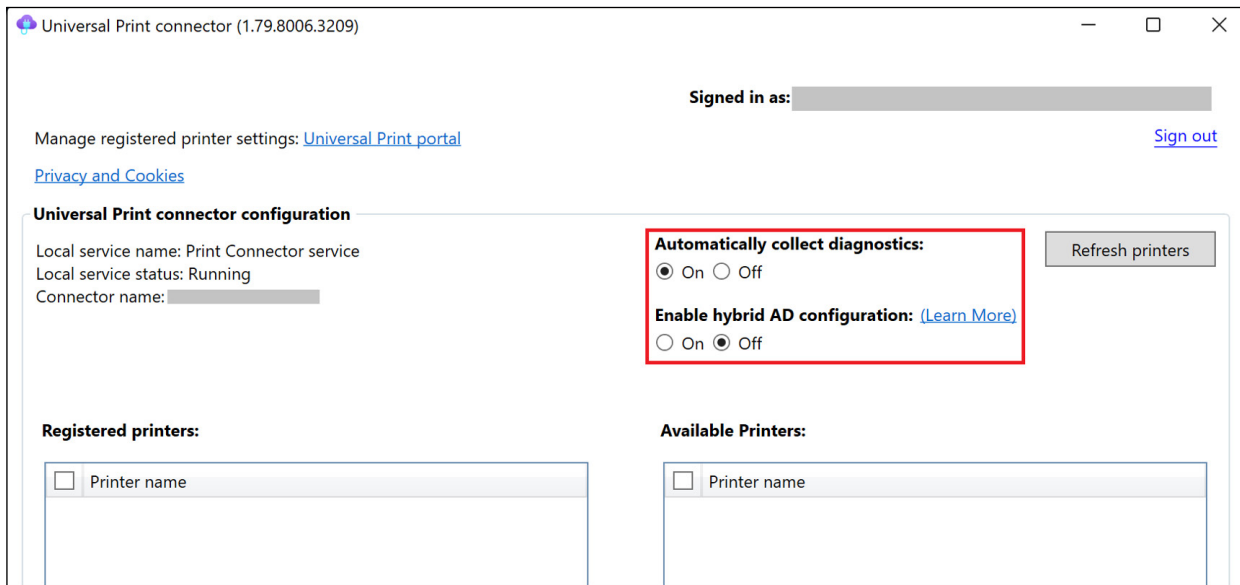
After the connector registration finishes, the app displays a list of available printers that are ready

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to be registered with Universal Print.

Step 2: Configure Your Connector

There are two options that need to be configured for the connector:

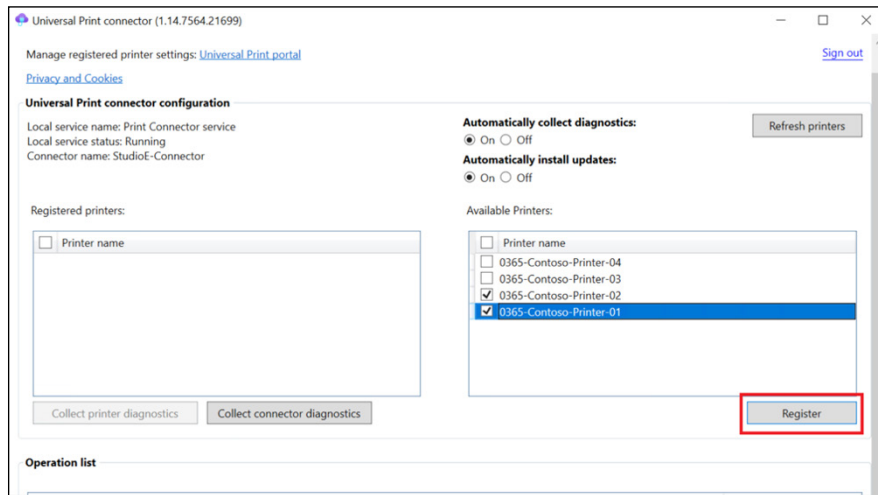


Register Printers with Universal Print Using the Universal Print Connector

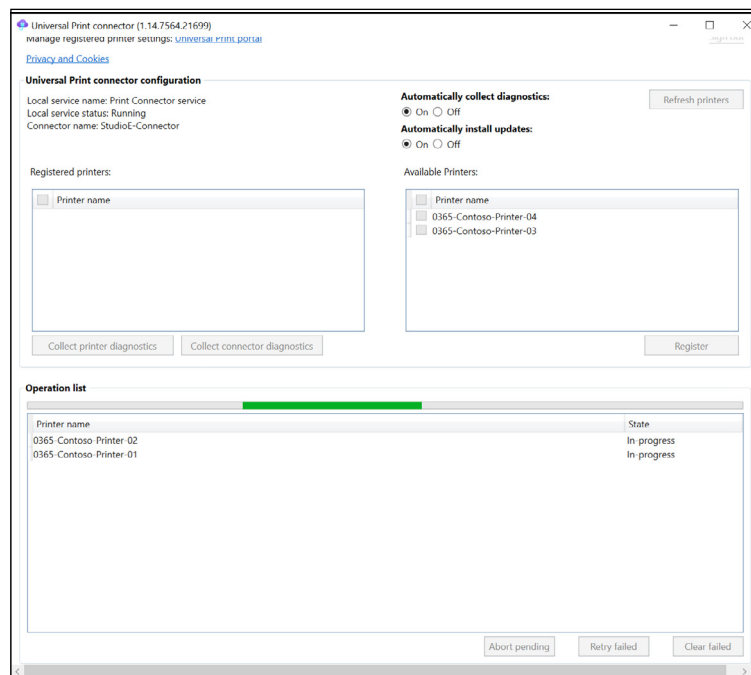
Important: The connector must have access to the following endpoints:

- > <https://login.microsoftonline.com>
- > <https://aadcdn.msftauth.net>
- > *.print.microsoft.com
- > Select the printers you want to register from the **Available Printers** list and click the **Register** button.

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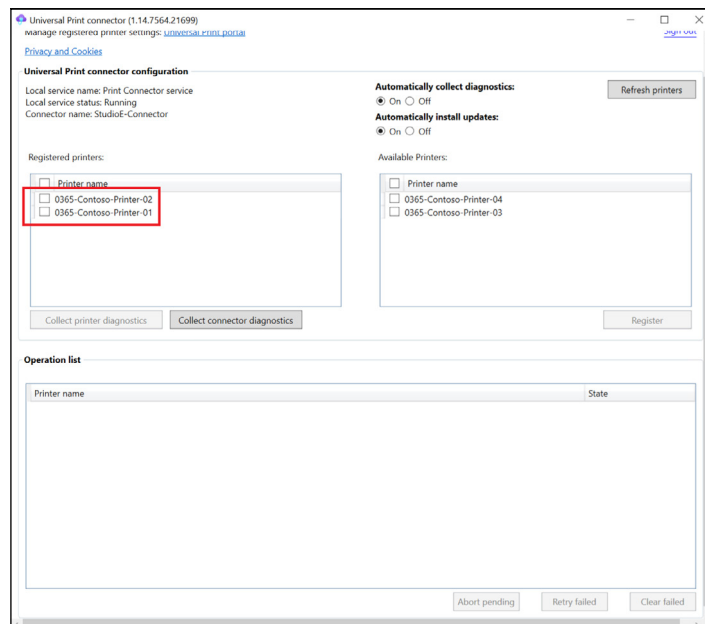


This will start the registration process which could take between 10 and 30 seconds per printer. The selected printers will move to the **Operation list**. You can scroll down to see the progress of the registration process there.



Once the registration process successfully completes for a printer, the printer is displayed in the **Registered printers** list.

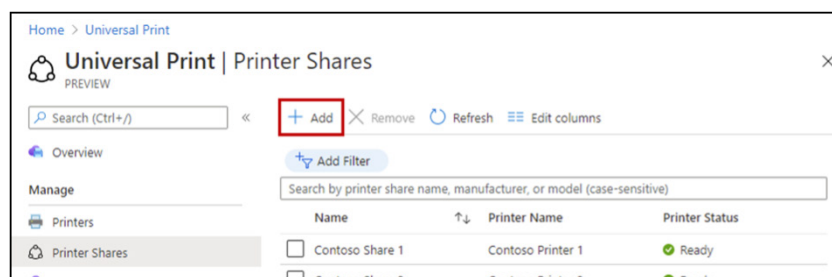
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If the registration process fails for a printer, it will remain in the **Operation list** and will show a failure status. The registration of such printers can be reattempted or cleared from the **Operation list**.

Sharing Printers Using Universal Print

Before a user can print to a printer, it must be shared, and that user must be granted access. If you want to share a single printer, navigate to the Printer Shares list and click **"Add"**.



You will then be asked to specify a share name, select a printer to share, and indicate which users and groups should have access.

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Create printer share [X]

PREVIEW

Share name *
Contoso Share 3 ✓

Select printer
Search by printer name
Contoso Printer 1
Contoso Printer 2
Contoso Printer 3

Selected printer:
Contoso Printer 3

☐ Allow access to everyone in my organization

Select member(s)
Search by name
Contoso User 1
Contoso User 2
Contoso User 3

Selected members
Contoso User 1 Remove

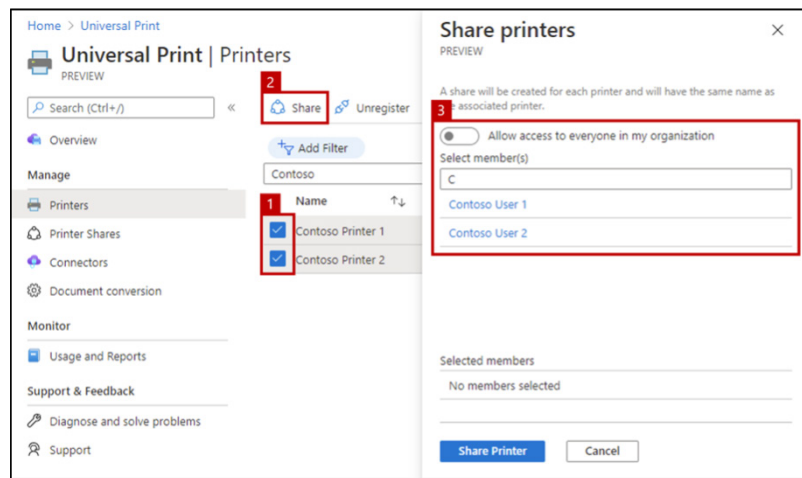
Share Printer Cancel

When setting up Universal Print, or after registering several new printers, it can be very time consuming to share each printer individually by using the method above.

If you need to share lots of printers and they happen to have the same access control settings, head over to the Printers list and try the following steps:

1. Select two or more printers in the printer list
2. Click the "Share" button above the list
3. Select which users and groups should have access to the newly created printer shares (the same access settings will be applied to all printer shares)

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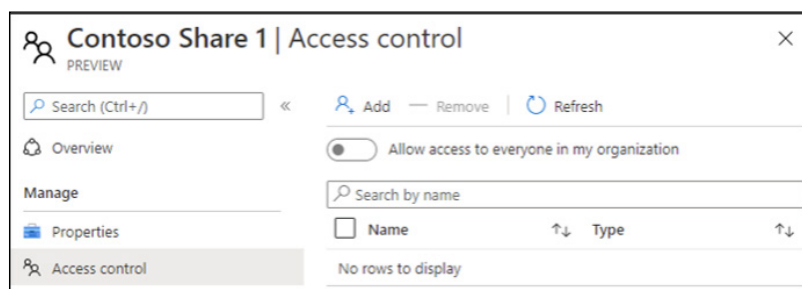
To stop sharing a printer, navigate to the printer share you want to delete and click Delete Printer Share. To stop sharing multiple printers, navigate to the **Printer Shares** list, select the shares you want to delete, and click **Remove**.

Important: Deleting a printer share and recreating it later will force users to reinstall the printer on their Windows devices. If you're replacing a broken or old printer device with a new one, use the **Swap Printer** feature instead, which will prevent breaking users' printer installations.

Configure User Permissions for a Printer Share

If you need to change permission settings after sharing a printer, navigate to the printer share in Azure Portal and click Access control.

To share the printer with all users in your organization, enable "Allow access to everyone in my organization". This will override any individual users or groups selected below. By adding or removing users/groups from the list, you can update who can use the printer share.



Limitations of Universal Print and how Universal Print Connector by ezeep Addresses Them

Universal Print covers the basic requirements for printing. When you remain within the Microsoft ecosystem, a relatively adequate printing environment can be created. That being said, when compared to other print management solutions, the scope of Universal Print is quite limited. As with any solution, there are some drawbacks that need to be considered.

Licensing Includes Additional Pay-What-You-Use Component

One potential downside for some customers will be the licensing system. As mentioned before, the price consists of a subscription and a consumption component related to print jobs. Universal Print may not be included in your licensing package, and if printing is critical to your business or to some of your employees, purchasing print job packages could become unattractive financially. It may make more sense in such cases to purchase an independent print management solution which doesn't require you to purchase print job packages and instead offers one regular subscription cost.

Many Printers Are Not Compatible with Universal Print

Another key deficit of Microsoft Universal Print is compatibility. To limit the impact this has, Microsoft works closely with third-party vendors to help increase the number of printers which support Universal Print.

To support existing printers (in-market), ezeep Blue has partnered up with Microsoft and offers the **Universal Print Connector**. This is an easy-to-use and cost-effective **hardware solution** that eliminates the need for Windows print servers and provides better connectivity for existing printers.

The Universal Print Connector by ezeep Blue supports printer properties even from printers that do not have direct Universal Print support. ezeep's Universal Print Connector can be rented for \$14.50 per month. It can connect up to 30 printers to Universal Print.

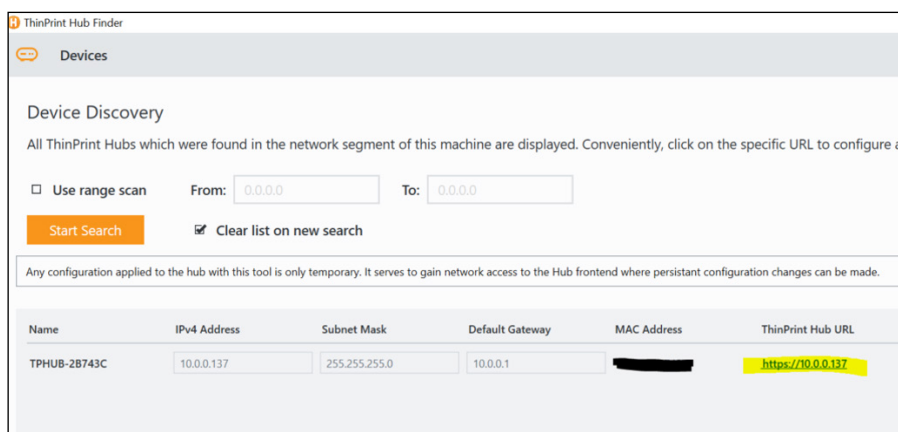
For customers who have requirements beyond that which Universal Print can offer, ezeep Blue is also recommended as a good alternative cloud printing platform to use instead. (see “[Comparison – ezeep Blue vs Universal Print](#)”, page 17)

Universal Print Connector by ezeep – Getting Started

The Universal Print Connector from ezeep Blue is added to a Universal Print account in a few easy steps.

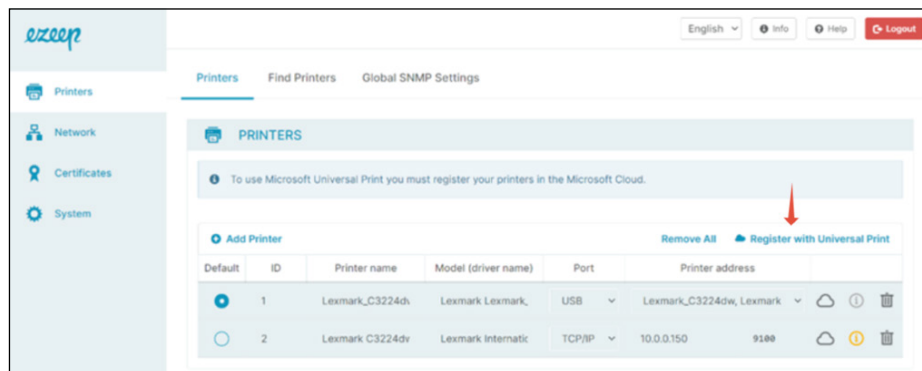
The first step is to register the Universal Print Connector by ezeep. Each Universal Print Connector has an Ethernet port and four USB ports. The connector is connected to the network and the printers are connected to ezeep either via USB or via TCP/IP.

You can use the tool TPHubFinder.exe (<https://download.thinprint.com/en/client-tool/thinprint-tools/>) to find the Universal Print Connector and access the management console.



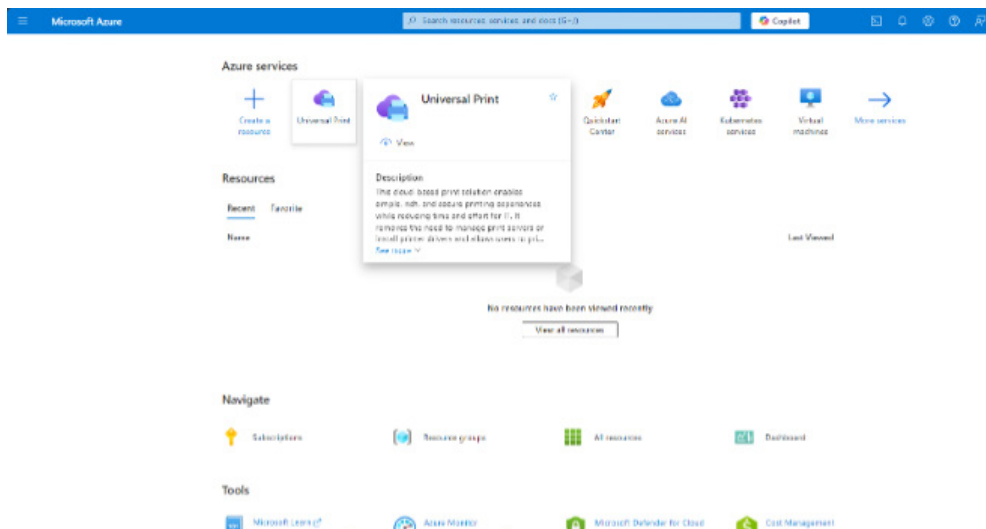
After logging in with the default password print4life, all USB or TCP/IP printers are displayed in the PRINTERS overview of the ezeep Blue Management Console.

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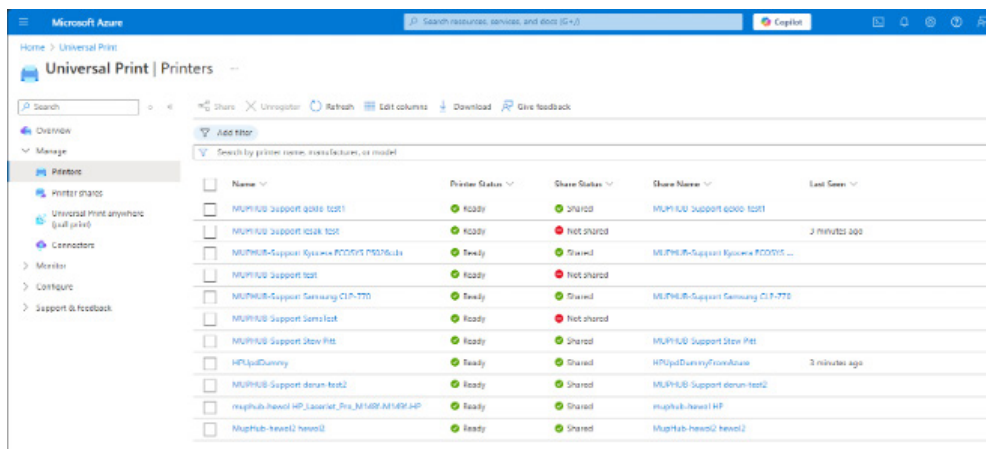
Clicking **REGISTER WITH UNIVERSAL PRINT** will generate a code that can be added to the Microsoft Azure Portal to connect the printer to Azure. A green cloud in the console shows when the printers can be successfully shared with other users using Universal Print.

Sharing ezeep Blue Printers via the Universal Print Portal

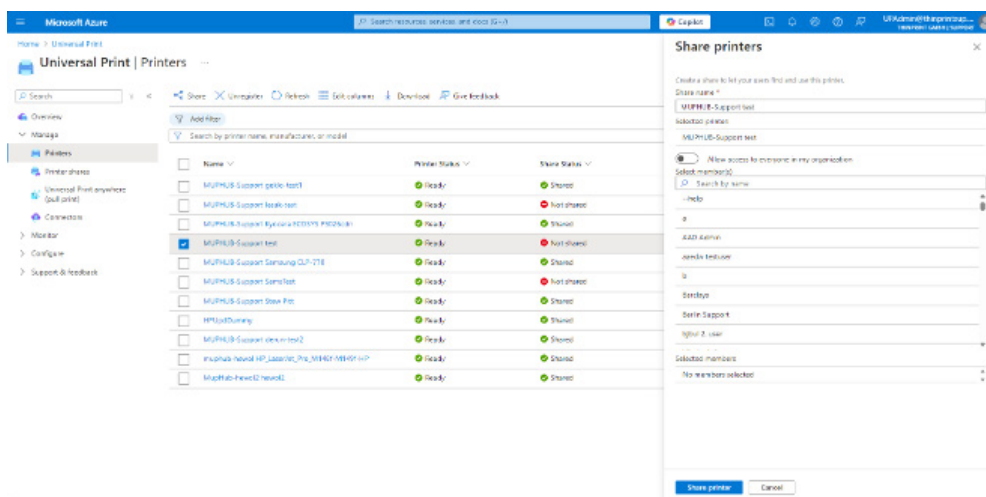


In the Microsoft Azure portal, navigate to the **UNIVERSAL PRINT** menu item. If the Universal Print Connector has already been registered, the connector's printers will be listed in the **PRINTERS** section on the left and will be displayed as **READY**.

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Printers can be shared by clicking on the printer and then selecting **SHARE**. A window will appear where you can select the user accounts to which these printers should be assigned.



End-User Setup – Installing Printers

Now the users can log on to their Windows computers. In the **PRINTERS & SCANNERS** window, they click on **ADD DEVICE** and search for **WORK OR SCHOOL** (e.g. Windows 11). The MS Universal printers are displayed in the list. Here they click on **ADD DEVICE** again.

Comparison – ezeep vs Universal Print

Universal Print covers basic printing requirements and may potentially be used free of charge if your active Microsoft license includes the service. In this e-book, we have shown how to install the service and use it within Microsoft's cloud portfolio to print documents.

While this support is undoubtedly helpful in the printing realm, many organizations may quickly encounter challenges, such as compatibility issues. This is where ezeep's Universal Print Connector – a small IoT appliance – provides a practical solution. It enables existing printers to be connected to Universal Print even if they are not officially supported. Another important advantage of this appliance is that there's no need for a Windows PC running the connector software to be present and constantly powered on.

Upgrade to ezeep Blue

For businesses with more extensive printing needs, we recommend upgrading the Universal Print Connector to the ezeep Hub. This allows you to make full use of the ezeep Blue cloud printing solution and benefit from even more efficient and secure printing infrastructure.

Advantages of ezeep Blue Compared to Microsoft Universal Print	
Print at a fixed rate	The use of ezeep Blue is free for up to 10 users. Our more advanced paid plans come with a fixed monthly fee.
Mobile Printing	Easy printing from iOS and Android devices. MacOS and Chromebook devices are also supported.
Pull Printing	Keep all printouts confidential with user authentication on shared printers. This protects print workflows and reduces printing costs.
Advanced Login Options	In addition to logging in with a Microsoft account, it is also possible to register and log in to ezeep Blue with Google sign in, Apple sign in or simply via your email.

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Advantages of ezeep Blue Compared to Microsoft Universal Print	
Not Entra-ID-dependent	Print from endpoints that are not included in Entra-ID.
Consistent User Experience Across Multiple Platforms	ezeep Blue is also optimized for Azure Virtual Desktop and Windows 365 Cloud PC Enterprise and Business.
High Print Output Speed	Users can receive their printouts instantly thanks to print job streaming and unique compression algorithms.
Automatic Creation of Printers in a Remote Desktop Session	ezeep Blue ensures that users can always have the right printer without having to search for it or install it themselves.
Comprehensive Compatibility	With our cloud-rendering technology, we host over 6,000 printer drivers in the cloud, and this driver pool can easily be expanded as needed.
All Print Jobs are Offset for CO₂	With our cooperation with Justdiggitt, we offset the CO ₂ emissions created by printing with ezeep Blue.

In the following checklist, we have compared ezeep Blue and Microsoft Universal Print once again to provide a clearer comparison:

	ezeep Blue	Microsoft Universal Print
Licensing	Monthly subscription cost / free for 10 users	Monthly subscription cost plus print job packages
Can the solution print from any Windows, macOS, iOS, iPadOS, Android or Chrome device?	✓	With conditions

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Does the solution provider take care to offset the carbon footprint caused by the printouts?	✓	X
Does the solution support multi-tenant setups for complex enterprise structures or MSP offerings?	✓	X
Does the solution provide APIs for easy integration with SaaS applications?	✓	✓
Does the solution integrate easily with proprietary web applications?	✓	X
Can the solution support label printers?	✓	With conditions
Can you print to endpoints that are not in Entra-ID?	✓	X

Conclusion

Microsoft Universal Print provides a solid foundation for cloud-based printing in the Microsoft ecosystem. However, many companies face limitations due to licensing models, compatibility issues, and a restricted range of features. That's where ezeep comes in: The Universal Print Connector and ezeep Blue perfectly complement Universal Print by seamlessly integrating existing printers, offering enhanced security, and providing more comprehensive printing options.

Especially for businesses with more demanding printing requirements, ezeep Blue serves as an efficient and cost-effective alternative, enabling mobile printing, pull printing, and an optimized user experience. With ezeep, you benefit from a modern, flexible, and sustainable printing infrastructure tailored precisely to your needs.

Get started today and discover the advantages of a future-proof cloud printing solution with ezeep Blue.