

E-Book

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



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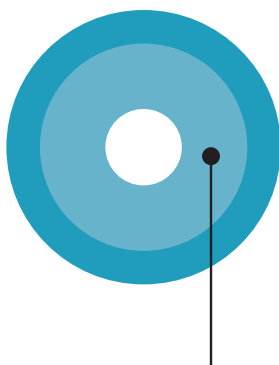
Introduction

Microsoft has joined the trend to support printing from the cloud. For years, the company has pursued a targeted strategy of expanding its range of cloud-based products and managed services.

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, promises to address these needs with a modern Azure-based print service. In this e-book, you'll find all the important information about Universal Print: we list the costs, explain the setup process, and provide an overview of the pros and cons of the solution.

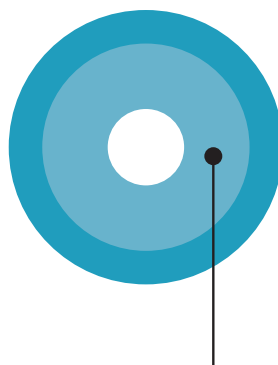
In the final sections of this E-Book, we also show how to use the ezeep Blue printing solution and the Universal Print Connector by ezeep improve Universal Print. We demonstrate how you can combine Universal Print with other cloud printing services, such as ezeep Blue, to create a more comprehensive printing solution for your business.



**2.3 trillion
pages**

expected to be
printed in 2025¹

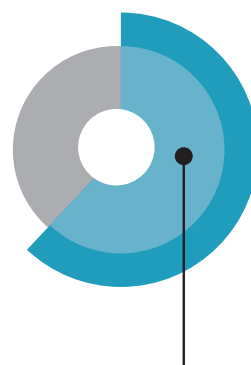
¹ IDC Print Volume
Forecast, 2021



Label printing
market to reach
**\$67.02 billion
by 2026,**

growing at a
CAGR of 6.5%²

² Trends Market
Research, 2021



**65% of
IT decision makers**

say printing will still be
important in 2025³

³ Quocirca Global Print 2025 Study,
2019

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 informed via notification and the print job is downloaded and processed.

The printers can be provided with quite extensive location information so that they can be found. For a printer to be discovered 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:

Microsoft 365 Enterprise F3, E3, E5

Microsoft 365 Education A3, A5

Windows 10 Enterprise E3, E5

Windows 10 Education A3, A5

Microsoft 365 Business Premium

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 Universal Print print job packages.

How much does a Universal Print print job bundle cost?

Customers can add additional volume add-on packages. These are offered in units of 500. A 500-unit package costs \$25. At approximately 5 pages per print job, this is roughly equivalent to the cost of paper. So, as a rough guide, the cost of Universal Print can be calculated by simply doubling the cost of your paper.

Which Printers Will Work with Universal Print?

Which printer models does Universal Print support?

Unfortunately, Universal Print will 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 printers is compatible with the Microsoft's connector software. Information on compatibility with major printer manufacturers can be found on Microsoft's website (Date of publication 2021).

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 („What Are Universal Print's Limitations and What Is ezeep Blue's Value-Add?" ([See 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?

Prerequisites

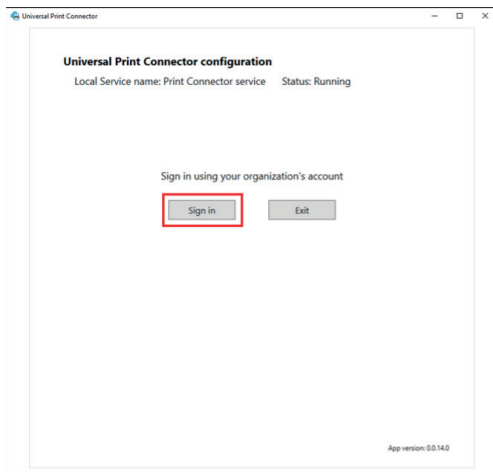
Please check the follow requirements before starting:

- › Universal Print is enabled in your Azure tenant
- › Your user account has the role Printer Administrator or Global Administrator
- › Your user account is assigned a Universal Print license
- › 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 endpoint
 - › *.print.microsoft.com
 - › *.microsoftonline.com
 - › *.azure.com
 - › *.msftauth.net
 - › go.microsoft.com
 - › aka.ms

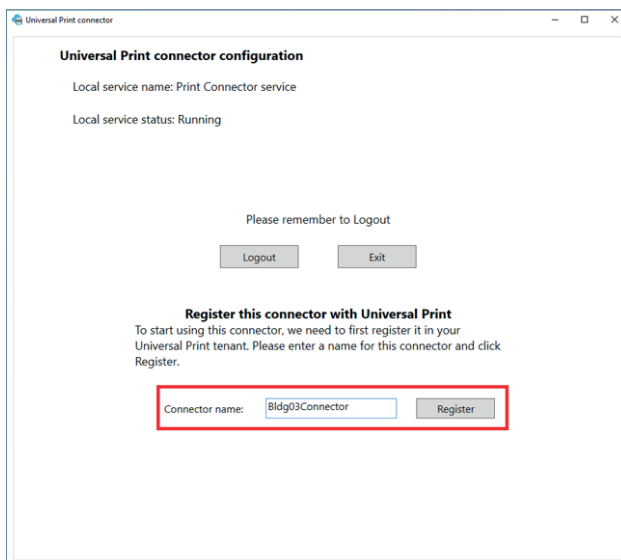
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Step 1: Register Connector

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.

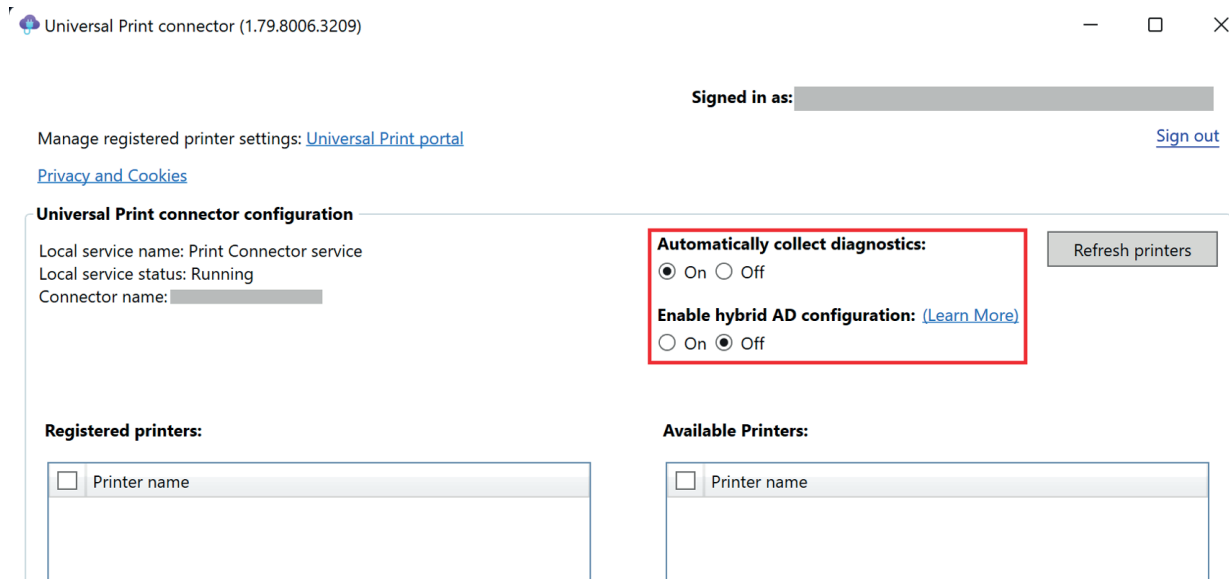


After the connector registration finishes, the app displays a list of available printers that are ready to be registered with Universal Print.

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Step 2: Configure Your Connector

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

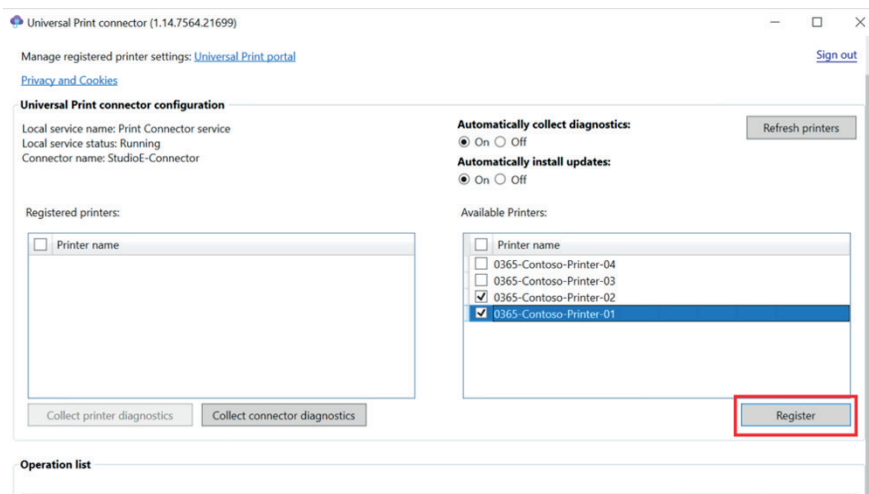


Register Printers with Universal Print Using the Universal Print Connector

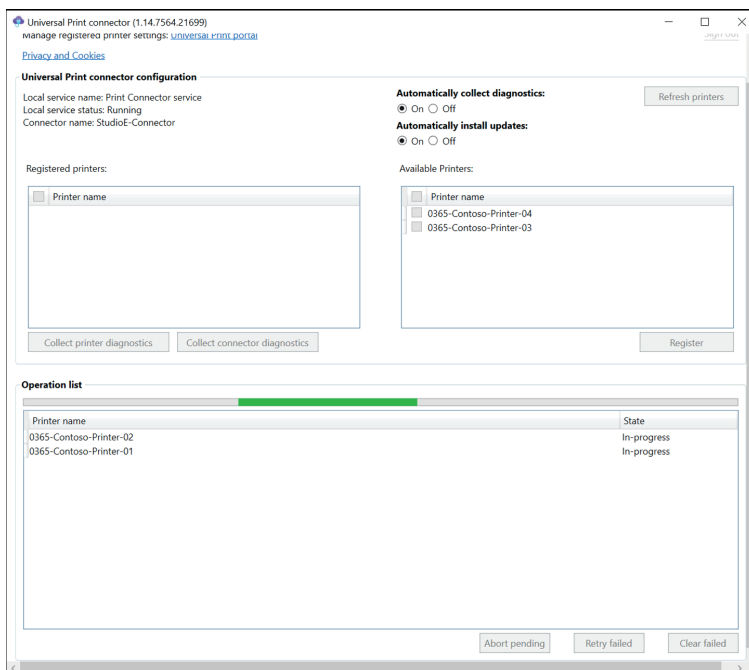
Important: The connector must have access to the following endpoints:

- > <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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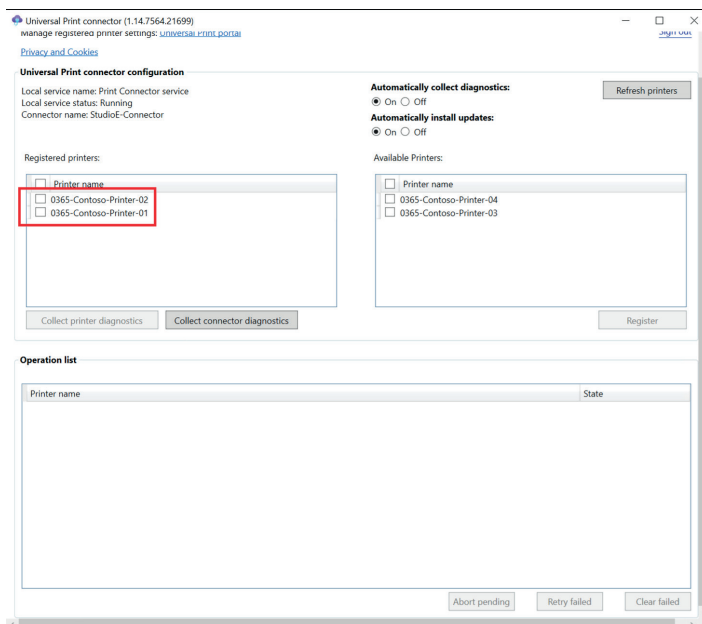


This will start the registration process which could take between 10 and 30 seconds per printer. The selected printers will move to the **Operation list**. You can scroll down to see the progress of the registration process there.



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

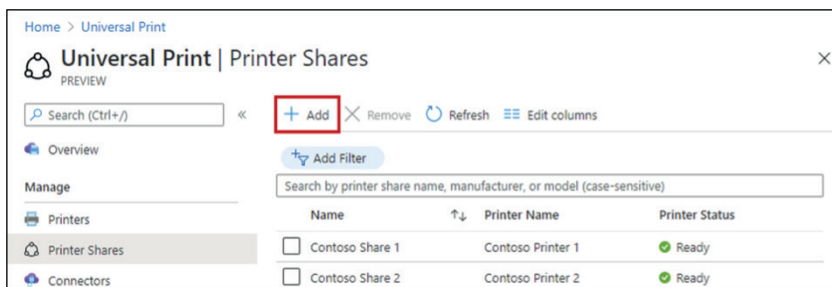
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If the registration process fails for a printer, it will remain in the **Operation list** and will show a failure state. The registration of such printers can be reattempted or cleared from the **Operation list**.

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

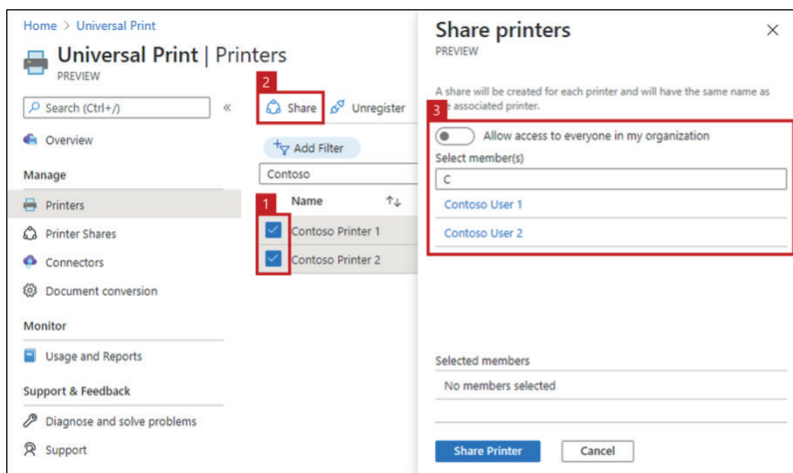
Share Printer Cancel

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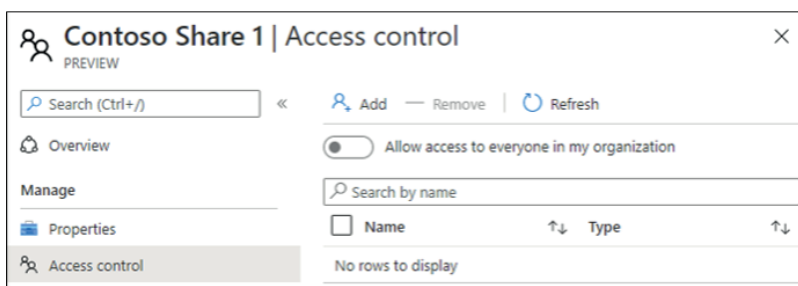
To stop sharing a printer navigate to the printer share you want to delete and click Delete Printer Share. To stop sharing multiple printers, navigate to the **Printer Shares** list, select the shares you want to delete, and click Remove.

Important: Deleting a printer share and re-creating 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. Add or remove users/groups from the list change control of who can use the printer share.



What Are Universal Print's Limitations and What Is ezeep Blue's Value-Add?

Universal Print covers the basic requirements for printing. When you stick 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 printjob 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 from ezeep Blue supports printer properties even from printers that do not have direct Universal Print support. ezeep Blue's Universal Print Connector is available for a single fee of €293.28 and can connect dozens of printers to Universal Print. In addition, 4 printers can be connected via USB. ezeep supports even special devices like label printers thanks to

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native print support. ezeep's extensive Cloud Driver Store, which currently includes about 6000 printer drivers, is continuously being expanded – If a driver is not available, it can simply be requested.

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.

What Are the Advantages of ezeep Blue Over Microsoft Universal Print?	
Print at a fixed rate – Either a Low Fee or Completely Free	ezeep Blue is free to use and our more advanced paid plans 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.
Not AAD-dependent	Print from endpoints that are not included in Azure Active Directory.
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 special 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.

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What Are the Advantages of ezeep Blue Over Microsoft Universal Print?	
Increased security	No printers need to be accessible via the Internet, only the Universal Print Connector. In addition, all print data and print metadata remain within the Microsoft Universal Print Service. The Universal Print Connector by ezeep processes them locally and does not send any information to ezeep. Only the standard TCP port 443 must be open.
All Print Jobs are Offset for CO₂	With our cooperation with Justdiggit, we offset the CO2 emissions created by printing with ezeep Blue.

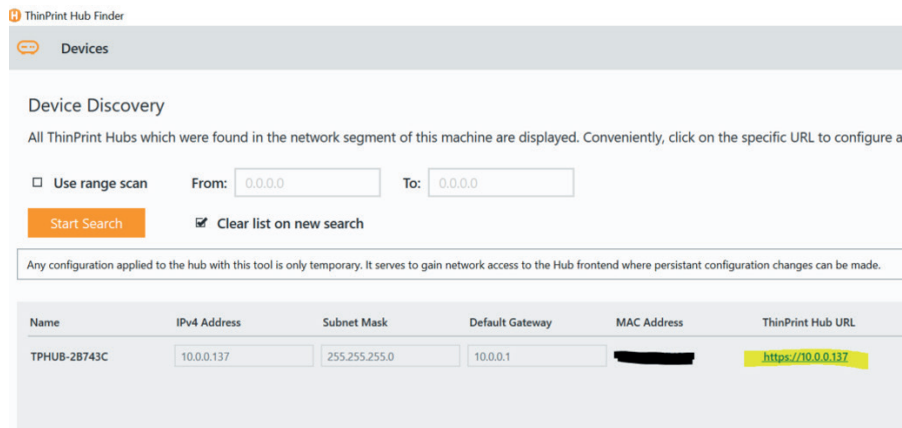
Universal Print Connector by ezeep – Erste Schritte

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

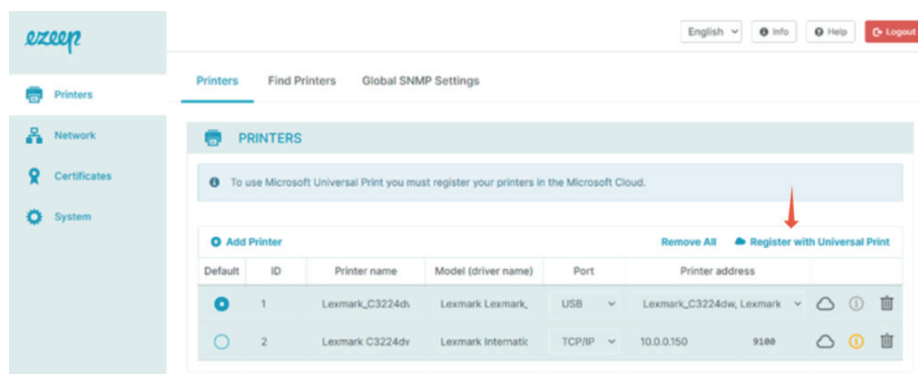
The first step is to register the Universal Print Connector by ezeep. Each Universal Print Connector has an Ethernet port and four USB ports. The Connector is connected to the network and the printers are connected to ezeep either via USB or via TCP/IP.

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

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



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.



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, you can find the UNIVERSAL PRINT / 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 from the list of printers you wish to share and clicking 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, click on ADD DEVICE and search for WORK OR SCHOOL (e.g. Windows 11). The MS Universal printers are displayed in the list. Click again on ADD DEVICE.

Conclusion and Comparison – ezeep vs Universal Print

In this E-Book we have shown how Universal Print can be installed and how the service can be used across Microsoft's cloud portfolio to print out documents.

Universal Print covers the basic requirements for printing, and you may be able to use it for free if your active Microsoft license includes the service. While this printing support is certainly something to welcome, many organisations may quickly run into issues with compatibility, or may notice that the running costs are too high due to its resource orientated payment model.

We have shown how ezeep Blue can help in these cases and many more. Firstly, the Universal Print Connector by ezeep helps you to connect your existing printers to Universal Print, even if they are not supported. With our Cloud Rendering technology, we host over 6000 printer drivers in the cloud, and this driver pool can be updated on demand with ease. This provides more comprehensive compatibility than Universal Print can alone. Furthermore, your printers are more secure when connected the Universal Print Connector, as only the Connector needs to be connected to the Internet, instead of your printers.

Organizations can also consider the ezeep Blue solution as an alternative to Universal Print, as it provides a more detailed feature set, which you can compare in this checklist below. ezeep Blue is also free to use. [Visit our website](#) to learn more.

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

	ezeep Blue	Microsoft Universal Print
Licensing	Monthly subscription cost / free	Monthly subscription cost plus print job packages.
Can the solution print from any Windows, macOS, iOS, iPadOS, Android or Chrome device?	✓	With conditions
Do printers need to be accessible via the internet	✗	✓
Does the solution provider take care to offset the carbon footprint caused by the printouts?	✓	✗
Does the solution support multi-tenant setups for complex enterprise structures or MSP offerings?	✓	✗
Does the solution provide APIs for easy integration with SaaS applications?	✓	✓
Does the solution integrate easily with proprietary web applications?	✓	✗
Can the solution support label printers	✓	With conditions
Can you print to endpoints that are not in Azure Active Directory?	✓	✗