

Azure AD Application Proxy - Adoption Kit

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Awareness

This section helps you to analyze the benefits of Azure Active Directory (Azure AD) Application Proxy. You will learn about the ease of use, pricing, and licensing model, as well as customer stories about how it helped improve their business. You will also receive up-to-date announcements and access to blogs that discuss ongoing improvements.

Business Overview

Azure AD Application Proxy (App Proxy) provides a secure remote access to on-premises web applications. App Proxy includes both the App Proxy service which runs in the cloud, and the App Proxy connector which runs on an on-premises server. Azure AD, the App Proxy service, and the App Proxy connector work together to securely pass the user sign-on token from Azure AD to the web application.

Watch this video - [What is Application Proxy in Azure Active Directory?](#)

After a single sign-on to Azure AD, users can access both cloud and on-premises applications through an external URL or an internal application portal. For example, App Proxy can provide remote access and single sign-on to Remote Desktop, SharePoint, Teams, Tableau, Qlik, and line of business (LOB) applications.

For more information, see [Remote access to on-premises applications through Azure Active Directory's Application Proxy.](#)

Azure AD App Proxy is one of two remote access solutions that Microsoft offers. The other is Web Application Proxy, the on-premises version. See [Compare remote access solutions.](#)

Pricing and Licensing Requirements

Azure AD App Proxy capability requires you to use Azure Active Directory Premium P1, Premium P2. For more information about licensing and editions, see [Sign up for Azure Active Directory Premium editions.](#)

For more information on pricing, see [Azure Active Directory pricing.](#)

Key Benefits

Here are the key benefits of using Azure AD App Proxy:



Simple to Use

Users can access your on-premises applications the same way they access Office365 and other SaaS apps integrated with Azure AD. You don't need to change or update your applications to work with App Proxy.



Security

On-premises applications can use Azure's authorization controls and security analytics. For example, on-premises applications can use conditional access and two-step verification. App Proxy doesn't require you to open inbound connections through your firewall.



Cost-effective

On-premises solutions typically require you to set up and maintain demilitarized zones (DMZs), edge servers, or other complex infrastructures. App Proxy runs in the cloud, which makes it easy to use. To use App Proxy, you don't need to change the network infrastructure or install additional appliances in your on-premises environment.

Customer stories/Case studies

Discover how most organizations get remote access to their on-premises applications with one identity using Azure AD App Proxy. The following featured stories demonstrate this scenario:



[Wipro drives mobile productivity with Microsoft cloud security tools to improve customer engagements.](#) Wipro has added highly secure remote access to its on-premises corporate applications through Azure AD Application Proxy, a feature that offers remote access as a service.



[Warsaw School of Economics establishes itself as a model university with Microsoft cloud technology.](#) With App Proxy, the school can access its internal applications from anywhere in the world without the need to set up VPN or other connections, therefore a browser will suffice.



[Hearst Corporation: Eight things this media giant likes about Microsoft Enterprise Mobility + Security and Azure Active Directory.](#) With App Proxy, Hearst can configure on-premises applications to provide remote authentication and access through a single sign-on in Azure AD.

To learn more about customer and partner experiences on Azure AD App Proxy, visit: [See the amazing things people are doing with Azure.](#)

Announcements/Blogs

Azure AD receives improvements on an ongoing basis. To stay up to date with the most recent developments, refer to [What's new in Azure Active Directory?](#)

Recent blogs by the Tech Community and Microsoft Identity Division:

- March 12, 2019, [Support for more apps with Azure AD Application Proxy](#)
- September 07, 2018, [New Azure AD Application Proxy Updates](#)
- September 07, 2018, [Faster Application Deployment in Azure AD Application Proxy](#)
- September 07, 2018, [Simplified Application Management using Wildcards in Azure AD Application Proxy](#)

Training

The article provides concepts, role-based guidance, and lists the various trainings available on Azure AD App Proxy.

Level 100 Knowledge/Concepts

Refer to the following links:

- How to [Remote access to on-premises applications through Azure Active Directory's Application Proxy](#).
- Watch this video - [What is Application Proxy in Azure Active Directory?](#)
- Follow [Tutorial: Add an on-premises application for remote access through Application Proxy in Azure Active Directory](#)
- [Understand Azure AD Application Proxy connectors](#)
- [Publish applications on separate networks and locations using connector groups](#)
- [Security considerations for accessing apps remotely with Azure AD Application Proxy](#)
- [Network topology considerations when using Azure Active Directory Application Proxy](#)
- How Azure AD App Proxy supports [Single sign-on to applications in Azure Active Directory](#)

Role-Based Guidance

IT Administrator Staff

Prepare your environment for use with Azure AD App Proxy. Refer to [Tutorial: Add an on-premises application for remote access through Application Proxy in Azure Active Directory](#)

You can also refer to the following links:

- [Remote access to on-premises applications through Azure Active Directory's Application Proxy](#)
- [Azure AD Application Proxy deployment plan](#).
- [Troubleshoot Application Proxy problems and error messages](#)
- [More troubleshooting issues](#)

Help Desk Staff

- Search the [Microsoft Support Knowledge Base](#) for solutions to common technical issues.
- Search for and browse technical questions and answers from the community, or ask your own question in the [Azure Active Directory Forum](#).

Training

On-Demand Webinars

Reserve here: [Accessing Your Organization's Internal Applications via Azure AD App Proxy](#)

Videos

- YouTube - [What is Application Proxy in Azure Active Directory?](#)
- YouTube - [How to deploy Application Proxy in Azure Active Directory](#)
- YouTube - [How to roll out Application Proxy in Azure Active Directory](#)
- Azure videos - [Azure API Apps for Web, Mobile and Logic Apps](#)

Online Courses

- PluralSight- [Get Started with the Microsoft Enterprise Mobility Suite](#)
"This course provides best practices you need to know for extending on-premises assets to the cloud in a manner that allows for authentication, authorization, encryption, and a secured mobile experience." Learn how to configure Azure Application Proxy in the "Configuring Advanced Features of Microsoft Azure Active Directory Premium" module.
- PluralSight- [Microsoft Hybrid Identity – Overview](#)
"In this course, you'll learn how the hybrid environment works and how to join your user directory to the Azure Active Directory." Azure Application Proxy is covered in the "Utilizing Your Hybrid Identity" module.
- SkillUp Online- [Managing Identities](#)
"This course teaches IT Professional how to use Azure Active Directory (AD) to provide employees and customers with a multi-tenant, cloud-based directory and identity management system." Learn how to use Azure AD Application Proxy to provide users with remote access to web applications that are published on-premises.

Books

Microsoft Press - [Modern Authentication with Azure Active Directory for Web Applications \(Developer Reference\) 1st Edition](#). "Application Proxy is notable because it offers an infrastructural alternative to using claims-based identity to cross a boundary, and this comes in handy when you are working with legacy apps whose source has been lost or is as brittle as a reliquary." Page 67.

Tutorials

Learn how to prepare your environment for use with Azure AD App Proxy. See [Tutorial: Add an on-premises application for remote access through Application Proxy in Azure Active Directory](#).

Publishing Walkthroughs

With Azure AD App Proxy, you can configure on-premises application publishing in your environment. Here are few publishing walkthroughs:

- [Configure real-time application access monitoring with Microsoft Cloud App Security and Azure Active Directory](#)
- [Publish Remote Desktop with Azure AD Application Proxy](#)
- [Enable remote access to SharePoint with Azure AD Application Proxy](#)
- [Access your on-premises applications through Microsoft Teams](#)
- [Azure Active Directory Application Proxy and Tableau](#)

- [Application Proxy and Qlik Sense](#)

Whitepaper

- Published August 2018, [Security best practices for Azure solutions](#)
This whitepaper contains security best practices to use when designing, deploying, and managing cloud solutions using Azure.
- Published May 2018, [How hybrid identity allows digital transformation](#)
In this whitepaper, learn more about hybrid identity framework that works with existing on-premises solutions.

End-user Readiness and Communication

This section provides customizable posters and email templates to roll out Azure AD App Proxy to your guest users.

End-user communication specific to this feature is not required.

Planning and Change Management

This section provides the resource links to readiness material, a deployment plan, topology, testing plans, and deployment steps to rollout Azure AD App Proxy into production.

Deployment Plan

Learn how to prepare your environment for use with Azure AD App Proxy. Refer to [Plan an Azure AD Application Proxy deployment](#) and follow the links below:

- [Prerequisites](#)
- [Important considerations before configuring Azure AD Application Proxy](#)
- [Application Discovery](#)
- [Define organizational requirements](#)

You can also refer to the [Tutorial: Add an on-premises application for remote access through Application Proxy in Azure Active Directory](#).

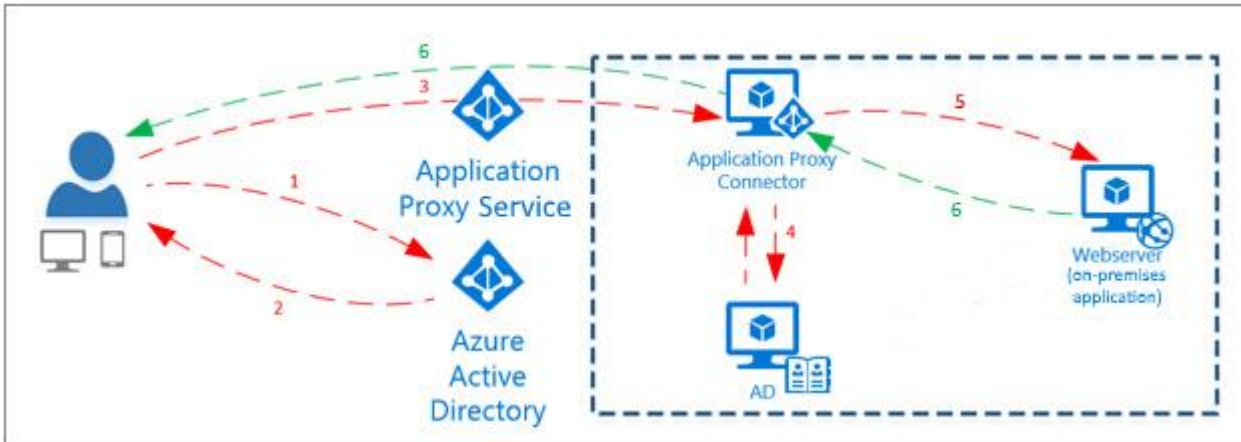
Architecture Plan/Topology

How App Proxy works.

1. After the user accesses the application through an endpoint, the user is directed to the Azure AD sign-in page.
2. After a successful sign-in, Azure AD sends a token to the user's client device.
3. The client sends the token to the Application Proxy service, which retrieves the user principal name (UPN) and security principal name (SPN) from the token. Application Proxy then sends the request to the Application Proxy connector.

4. If you have configured single sign-on, the connector performs any additional authentication required on behalf of the user.
5. The connector sends the request to the on-premises application.
6. The response is sent through the connector and Application Proxy service to the user.

The following diagram is an example of how Azure AD and Application Proxy work together to provide single sign-on to on-premises applications.



Testing

This section provides the plan to test the functionality of Azure AD App Proxy in a sandbox or test lab environment before the customer rolls it into production.

Once you have prepared your environment for Azure AD App Proxy, perform base line functional testing of applications. Refer to [Plan an Azure AD Application Proxy deployment](#), and follow [Best practices for a pilot](#).

Deployment

How can I get started with Azure AD App Proxy? This section provides resource links to help with implementation of your solution.

Deployment

Refer to [Plan an Azure AD Application Proxy deployment](#), and follow [Implement Your Solution](#).

You can also refer to the following links:

App Proxy Deployment Activity	Description
Tutorial: Add an on-premises application for remote access through Application Proxy.	This tutorial prepares your environment to use with Application Proxy.

App Proxy Deployment Activity	Description
Work with existing on-premises proxy servers	Configure Azure Active Directory (Azure AD) Application Proxy connectors to work with outbound proxy servers.
Working with claims-aware apps in Application Proxy	Configure your deployment for claims-aware apps.
Create an unattended installation script for the Azure AD Application Proxy connector	Create a Windows PowerShell script to enable unattended installation and registration for your Azure AD Application Proxy connector.
How to enable native client apps to interact with proxy applications	Publish a native application with Application Proxy and the Azure AD Authentication Library.
Set a custom home page for published apps by using Azure AD Application Proxy	Configure apps to direct users to a custom home page.
Redirect hardcoded links for apps published with Azure AD Application Proxy	Enable links transition to work the same both inside and outside of your corporate network.
Cookie settings for accessing on-premises applications in Azure Active Directory	Set the cookie settings in the Azure portal for accessing on-premises applications through Application Proxy.
Wildcard applications in the Azure Active Directory application proxy	Configure wildcard application publishing in your environment to publish and manage multiple applications at once.
Remove personal data for Azure Active Directory Application Proxy	Steps for how to delete personal data to improve privacy.
Working with custom domains in Azure AD Application Proxy	Configure a custom domain for your application.

Here are useful publishing walkthroughs to follow:

- [Configure real-time application access monitoring with Microsoft Cloud App Security and Azure Active Directory](#)
- [Publish Remote Desktop with Azure AD Application Proxy](#)
- [Enable remote access to SharePoint with Azure AD Application Proxy](#)
- [Access your on-premises applications through Microsoft Teams](#)
- [Azure Active Directory Application Proxy and Tableau](#)
- [Application Proxy and Qlik Sense](#)

Operations

This section provides the resource links for efficient operations, monitoring, troubleshooting and support of Azure AD App Proxy services.

Operations

Refer to [Plan an Azure AD Application Proxy deployment](#), and follow [Manage your implementation](#).

Monitoring

Refer to [Plan an Azure AD Application Proxy deployment](#), and follow [Reporting and monitoring](#).

Troubleshooting

Refer to [Plan an Azure AD Application Proxy deployment](#), and follow [Troubleshooting guide and steps](#).

References

Refer to [Azure AD Application Proxy: Version release history](#).

Support and Feedback

How can we improve Azure App Proxy? This section provides links to discussion forums and technical community support email IDs.

We encourage you to join our [Technical Community](#), a platform to Microsoft Azure Active Directory users and Microsoft to interact. It is a central destination for education and thought leadership on best practices, product news, live events, and roadmap.

If you have technical questions or need help with Azure, please try [StackOverflow](#) or visit the MSDN [Azure AD forums](#).

Tell us what you think of Azure and what you want to see in the future. If you have suggestions, please submit an idea or vote up an idea at our User Voice Channel - feedback.azure.com.