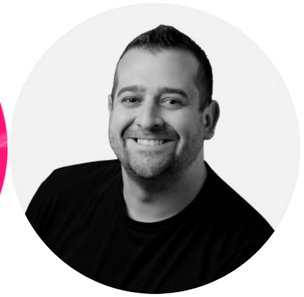
# Microsoft Security, Compliance, and Identity Fundamentals: Identity and Access Management Solutions

## Introduction to Microsoft Entra ID



**Vlad Catrinescu**

Microsoft MVP | Independent Consultant

@vladcatrinescu | VladTalksTech.com | YouTube.com/@VladTalksTech

# Overview

Introduction to Microsoft Entra ID

Collaborating with external users

Hybrid identities

# Introduction to Microsoft Entra ID

# Microsoft Entra ID


**Microsoft's cloud-based identity and access management service**

**Provide a single identity system for cloud and on-premises applications**

- Internal and external users

**Entra ID is at the center of each Microsoft cloud service**

- Microsoft 365
- Azure
- Dynamics 365 and Power Platform

**Microsoft Entra ID was named Azure Active Directory**

Rebranded in 2023

**Many online resources still refer to Azure AD**

Only the name changed

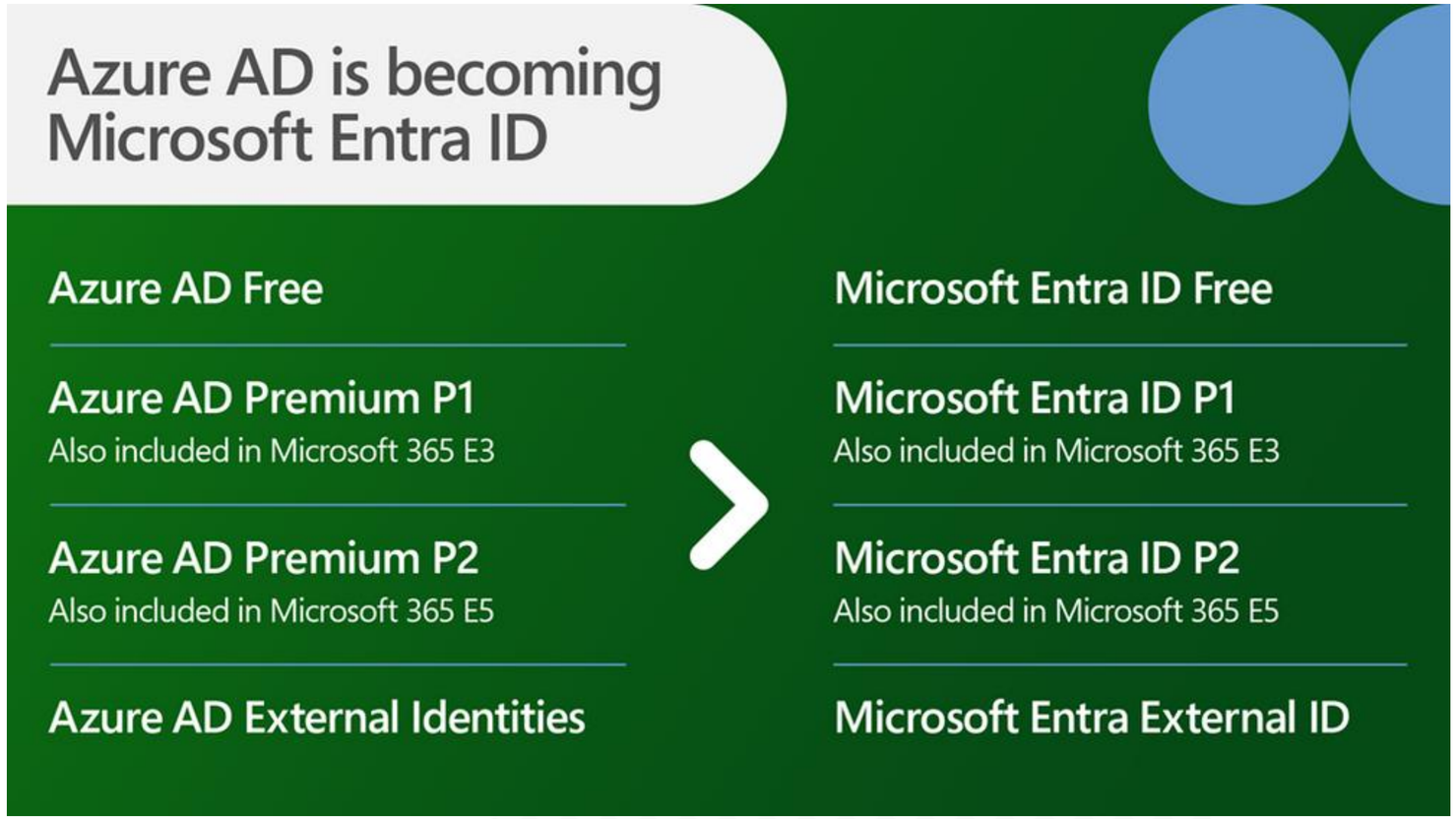



Image Source: https://techcommunity.microsoft.com/t5/microsoft-entra-azure-ad-blog/azure-ad-is-becoming-microsoft-entra-id/ba-p/2520436

# Entra ID Identities

| | |
|---|---|
| Human Identities | Employees, partners, customers |
| Device Identities | Desktop and laptop computers, IoT devices, mobile devices |
| Workload Identities | Applications, services, containers |

# Entra ID Identities: Technical Terms

Users

Devices

Service Principals

Managed Identities

# Groups

## Security Groups

Give permissions/assign policies to a group of identities

## Microsoft 365 Groups

A security group that also provisions collaboration workloads such as a SharePoint site, Microsoft Teams team, Exchange shared mailbox

# Entra ID Licensing

**Entra ID has multiple licensing tiers/editions**

**Some features we will talk about require premium licensing**

**Licensing always changes**

- Make sure to always check the latest information
  - https://www.microsoft.com/en-ca/security/business/microsoft-entra-pricing

# Entra ID Editions

Microsoft Entra ID Free

Microsoft Entra ID P1

Microsoft Entra ID P2

# Entra ID Feature Add-ons and Standalone Solutions

## Microsoft Entra ID Governance

Entra ID Governance is an advanced set of identity governance capabilities for Microsoft Entra ID P1 and P2 customers

## Microsoft Entra Permissions Management

Cloud infrastructure entitlement management (CIEM) solution that provides comprehensive visibility into permissions assigned to all identities – even across multicloud infrastructure

## Microsoft Entra Workload ID Premium

Workload ID is a standalone product that allows you to control workload identity access with adaptive policies, reduce the risk exposure from lost or stolen identities or credentials, and more!

# Demo

## Microsoft Entra ID overview

- Creating a user
- Entra ID pricing page

# Collaborating with External Users

# Collaborating with External Users

**Most organizations collaborate with external entities**

- External consulting organizations
- Freelancers

**Organizations also want to connect directly with customers**

- Online ordering
- Booking appointments

# Entra ID Makes It Easy to Collaborate with External Users

Microsoft Entra B2B

Microsoft Entra External ID for Customers

# Microsoft Entra B2B

**Entra B2B is meant for business-to-business (B2B) scenarios**

- SSO with all Entra ID connected apps is supported

**External users can sign in using their own credentials**

- Their own Entra ID credentials
- Microsoft account

**Entra B2B APIs allow developers to customize invitation process/portals**

**B2B users are managed in the same directory as internal users**

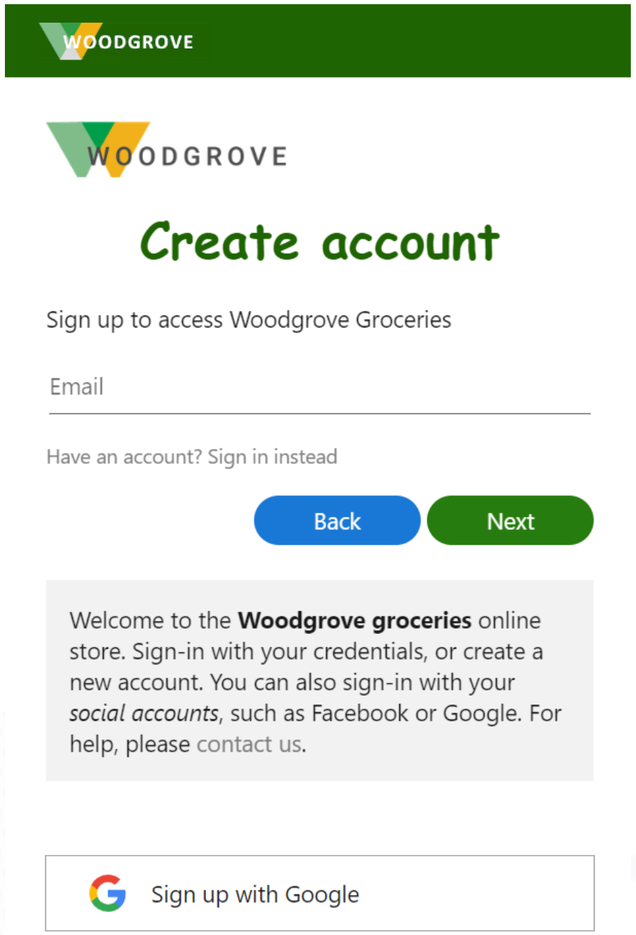
# Microsoft Entra External ID for Customers

**Entra External ID for customers is a fully customizable authentication solution**

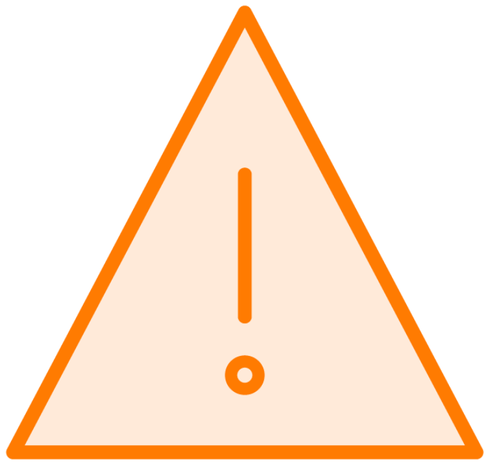
- Made to be used with your custom apps and websites

**Customers can use their preferred social, enterprise, or local identities**

**Allows you to fully customize every page to fit your brand**



# A Note on Azure AD B2C



**Azure AD B2C is Microsoft's original cloud offering for customer identity and access management**

- Often abbreviated as CIAM

**Microsoft Entra External ID for Customers is a brand-new platform and the future of CIAM in the Microsoft ecosystem**

**Azure AD B2C is still supported today**

- Microsoft continues to invest in security, availability, and reliability
  - You probably won't see any new features

# Demo

## Microsoft Entra B2B

- Inviting a new user to collaborate on a SharePoint site
- Viewing a guest user in Entra ID

## Microsoft Entra External ID for Customers

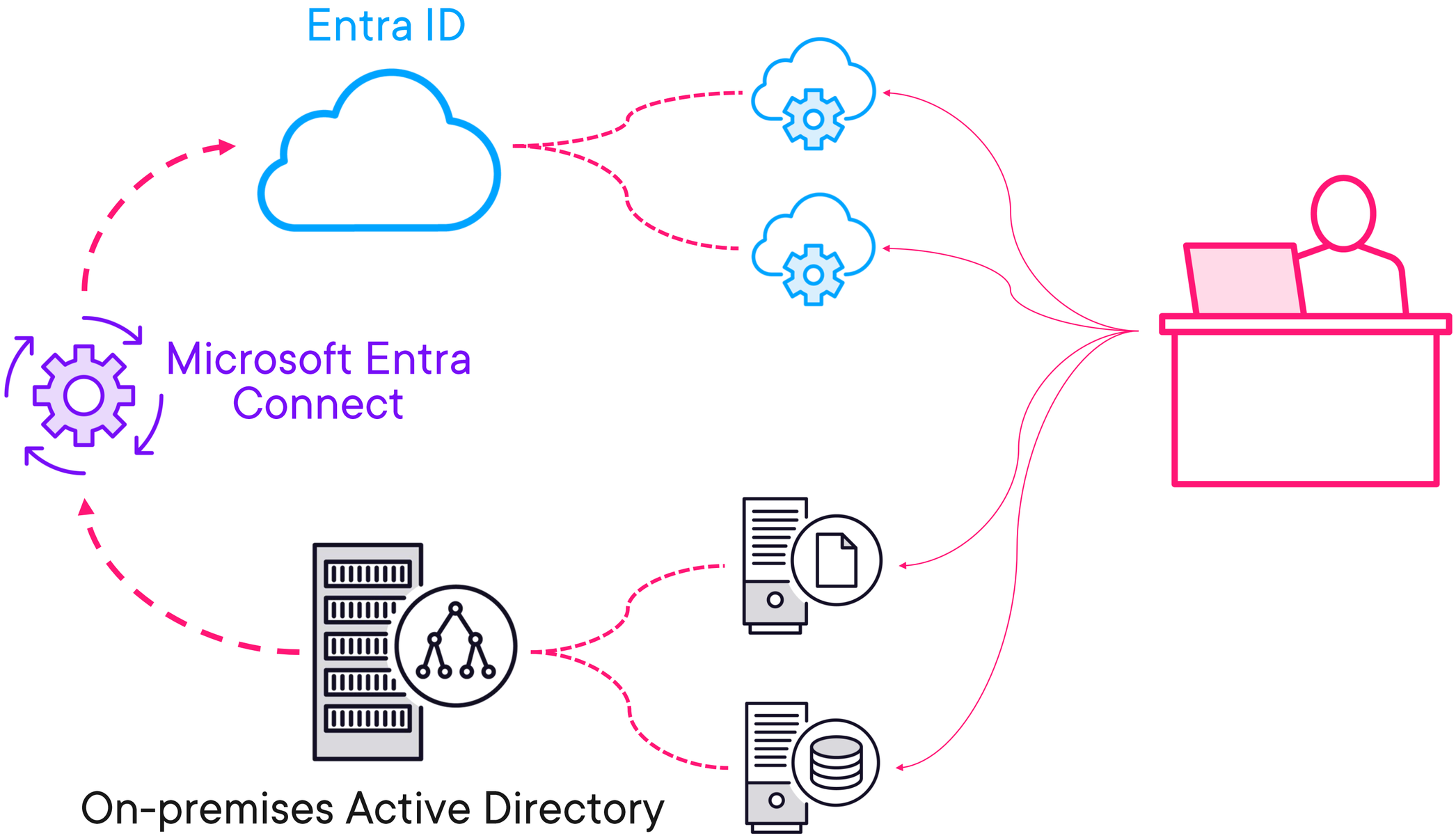
# Hybrid Identities

# Hybrid Identities

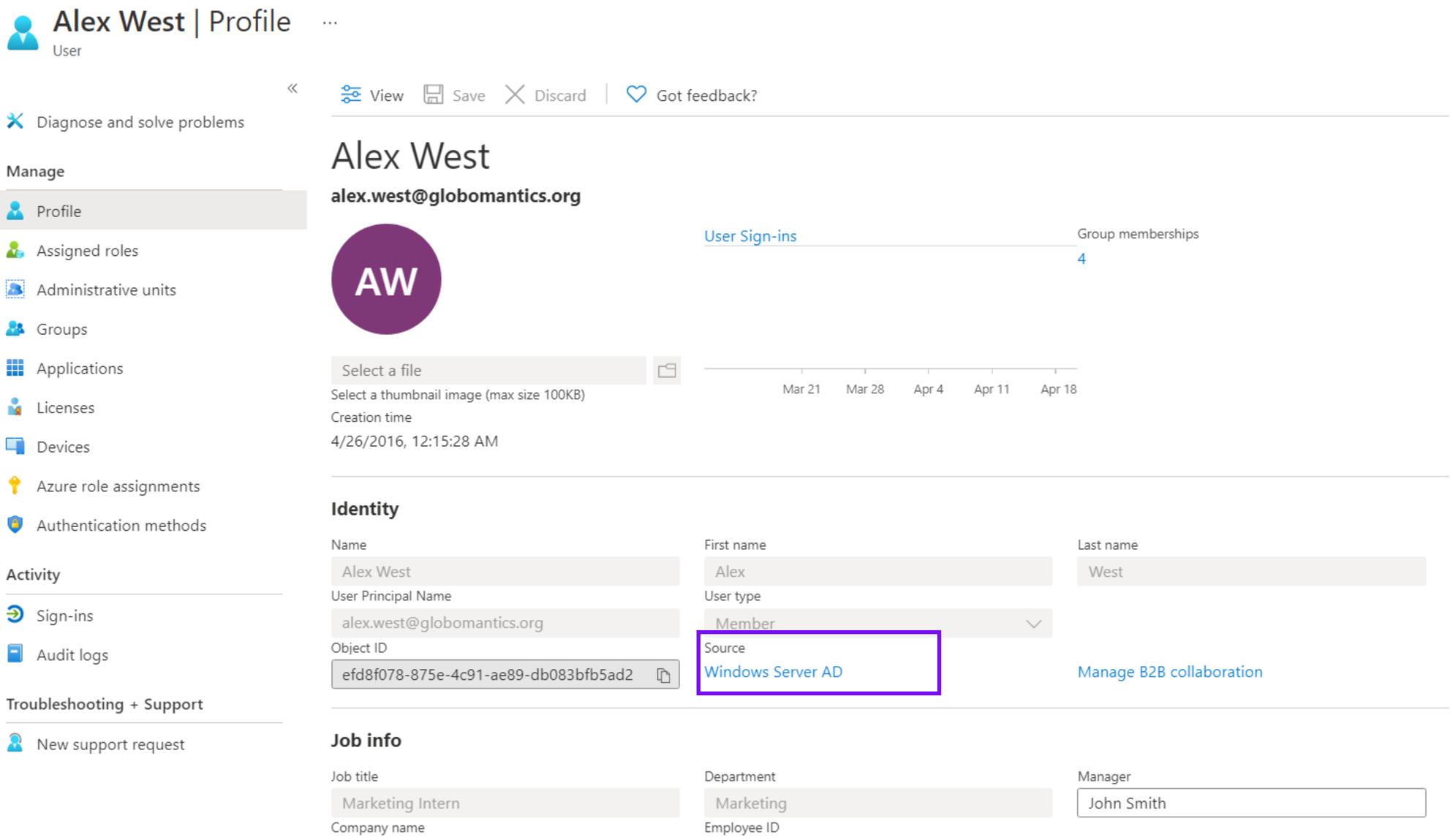
**Most enterprises started with an on-premises infrastructure**

- And used Active Directory Domain Services
- Most enterprises still have an on-premises infrastructure
  - File shares
  - Collaboration (Ex: SharePoint Server)
  - Line of business applications

# Hybrid Identities: High Level



# Hybrid Identity User



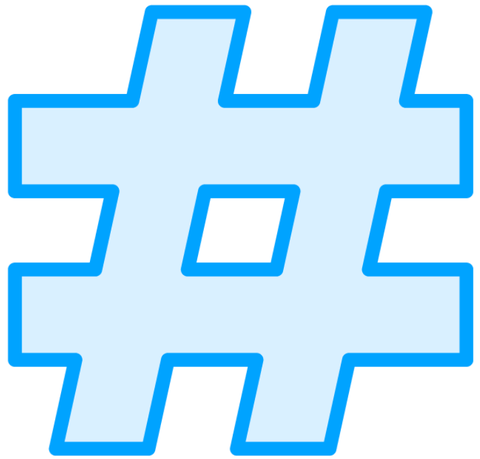
# Three Ways to Enable Hybrid Identity

Password hash synchronization

Pass-through authentication (PTA)

Federated authentication

# Password Hash Synchronization



**Entra Connect synchronizes a hash, of the hash of a user's password from on-premises AD to Entra ID**

**Entra ID can authenticate users**

- Users can login same password

**This method also enables leaked credential detection**

- Microsoft works with various agencies to find leaked username/password pairs
- Account moved to high risk if there's a match

# Pass-through Authentication

Users still login with same password both on-premises and online

Useful for organizations who do not want passwords stored in the cloud

Password validation done by a software agent that runs on-premises

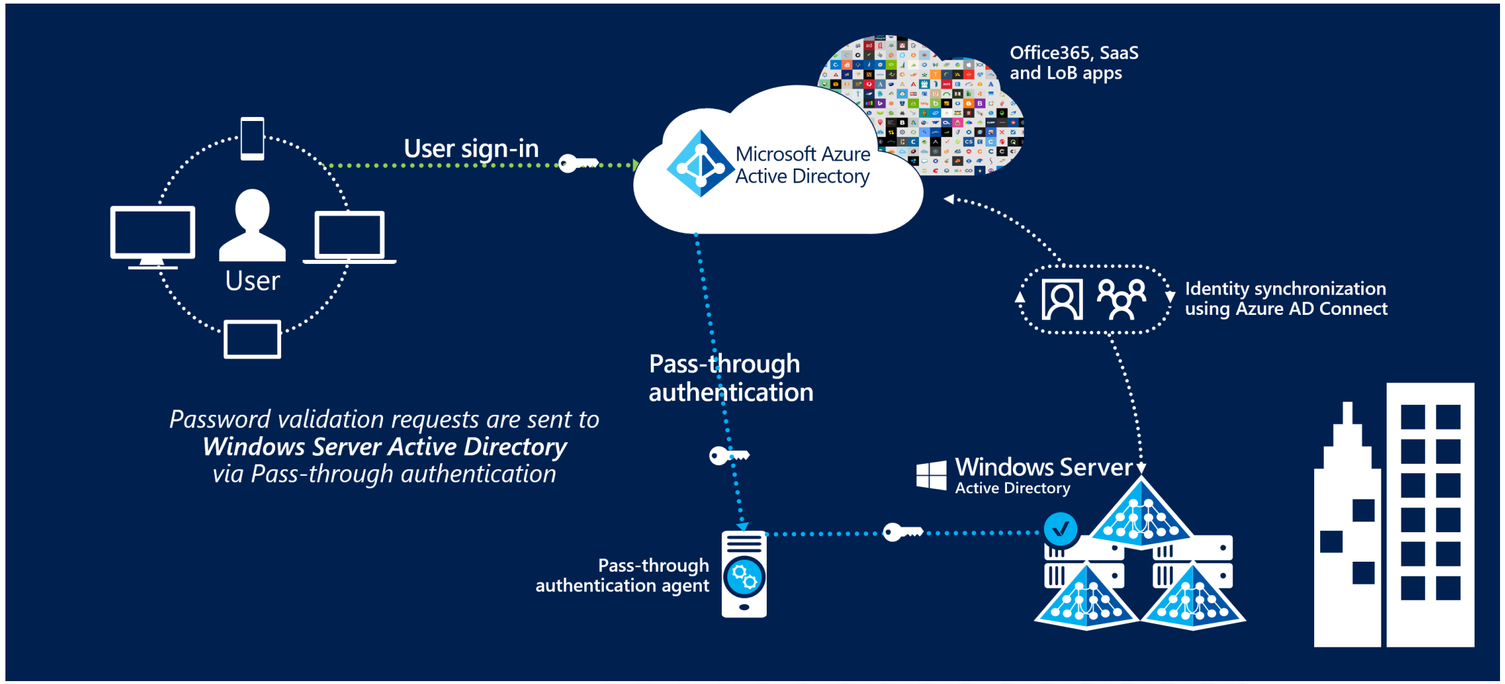
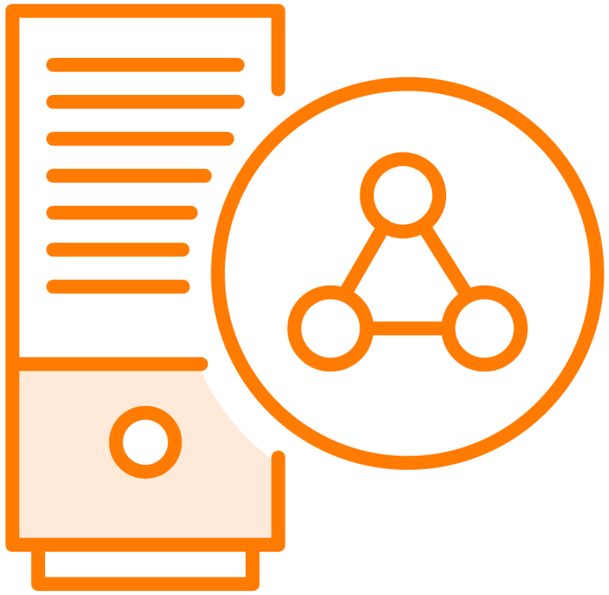



Image Source:
https://learn.microsoft.com/en-us/entra/identity/hybrid/connect/how-to-connect-pta

# Federated Authentication



**Federation establishes trust relationships between different identity providers**

**Entra ID hands off the authentication process to another authentication system**

- Active Directory Federation Services (AD FS)

**No passwords stored in the cloud**

# Module Conclusion

## Introduction to Microsoft Entra ID

- Microsoft’s cloud-based identity and access management service

## Collaborating with external users

- Microsoft Entra B2B
- Microsoft Entra External ID for Customers

## Hybrid identities

- Microsoft Entra Connect

Up Next:

# Microsoft Entra ID Authentication Capabilities