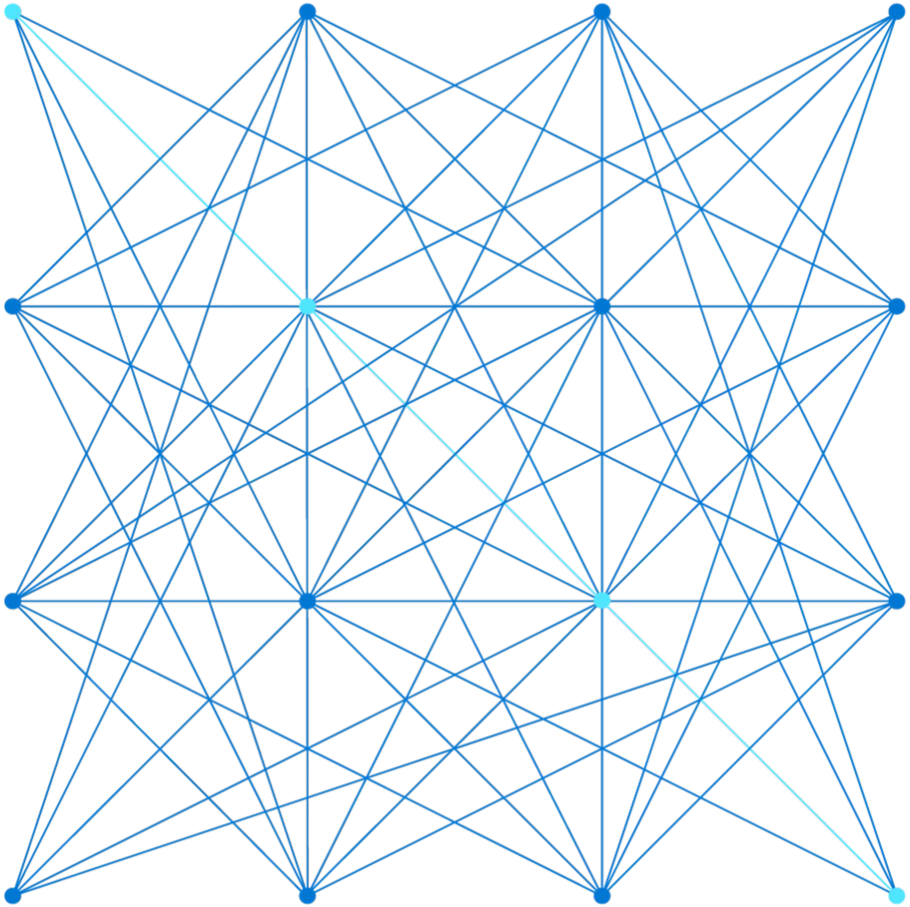
Microsoft Azure

# AZ-104T00A
# Module 01: Identity



# Module Overview

Lesson 01: Azure Active Directory

Lesson 02: Users and Groups

Lesson 03: Module 01 Lab and Review

# Lesson 01: Azure Active Directory

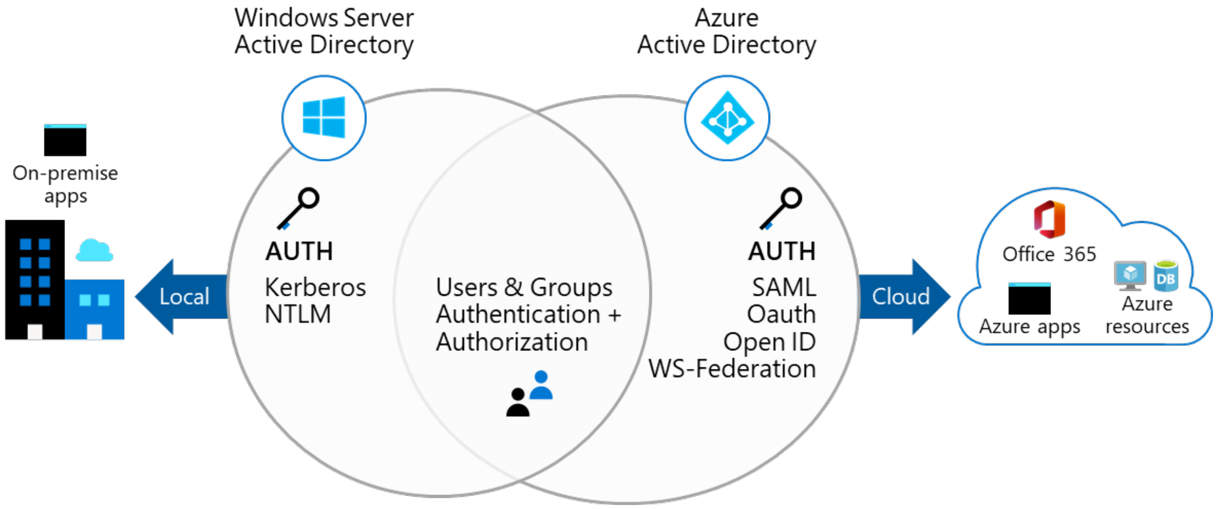
# Azure Active Directory Overview

- Azure Active Directory
- Azure AD Concepts
- AD DS vs. Azure Active Directory
- Azure Active Directory Editions
- Azure AD Join
- Self-Service Password Reset

# Azure Active Directory

A cloud-based suite of identity management capabilities that enables you to securely manage access to Azure services and resources for your users

Provides application management, authentication, device management, and hybrid identity



# Azure AD Concepts

| Concept | Description |
|---|---|
| **Identity** | An object that can be authenticated |
| **Account** | An identity that has data associated with it |
| **Azure AD account** | An identity created through Azure AD or another Microsoft cloud service |
| **Azure AD tenant/directory** | A dedicated and trusted instance of Azure AD, a Tenant is automatically created when your organization signs up for a Microsoft cloud service subscription<br>• Additional instances of Azure AD can be created<br>• Azure AD is the underlying product providing the identity service<br>• The term *Tenant* means a single instance of Azure AD representing a single organization<br>• The terms *Tenant* and *Directory* are often used interchangeably |
| **Azure subscription** | Used to pay for Azure cloud services |

# AD DS vs Azure Active Directory

Azure AD is primarily an identity solution, and designed for HTTP and HTTPS communications

Queried using the REST API over HTTP and HTTPS. Instead of LDAP

Uses HTTP and HTTPS protocols such as SAML, WS-Federation, and OpenID Connect for authentication (and OAuth for authorization). Instead of Kerberos

Includes federation services, and many third-party services (such as Facebook)

Azure AD users and groups are created in a flat structure, and there are no Organizational Units (OUs) or Group Policy Objects (GPOs)

# Azure Active Directory Editions

| Feature | Free | Microsoft 365 Apps | Premium P1 | Premium P2 |
|---|---|---|---|---|
| Directory Objects | 500,000 objects | No object limit | No object limit | No object limit |
| Single Sign-On | Unlimited | Unlimited | Unlimited | Unlimited |
| Core Identity and Access | X | X | X | X |
| B2B Collaboration | X | X | X | X |
| Identity & Access for O365 |  | X | X | X |
| Premium Features |  |  | X | X |
| Hybrid Identities |  |  | X | X |
| Advanced Group Access |  |  | X | X |
| Conditional Access |  |  | X | X |
| Identity Protection |  |  |  | X |
| Identity Governance |  |  |  | X |

# Azure AD Join

Single-Sign-On to your Azure managed SaaS apps and services

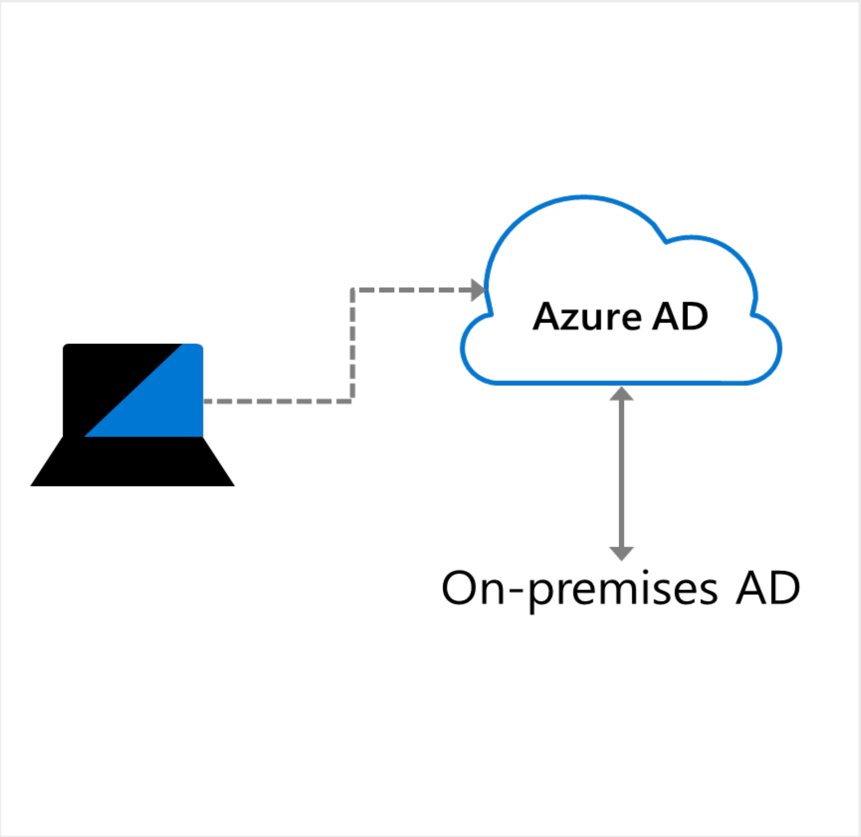
Enterprise state roaming of user settings across joined devices

Access to Microsoft Store for Business

Windows Hello support

Restriction of access to apps from only compliant devices

Seamless access to on-premises resources

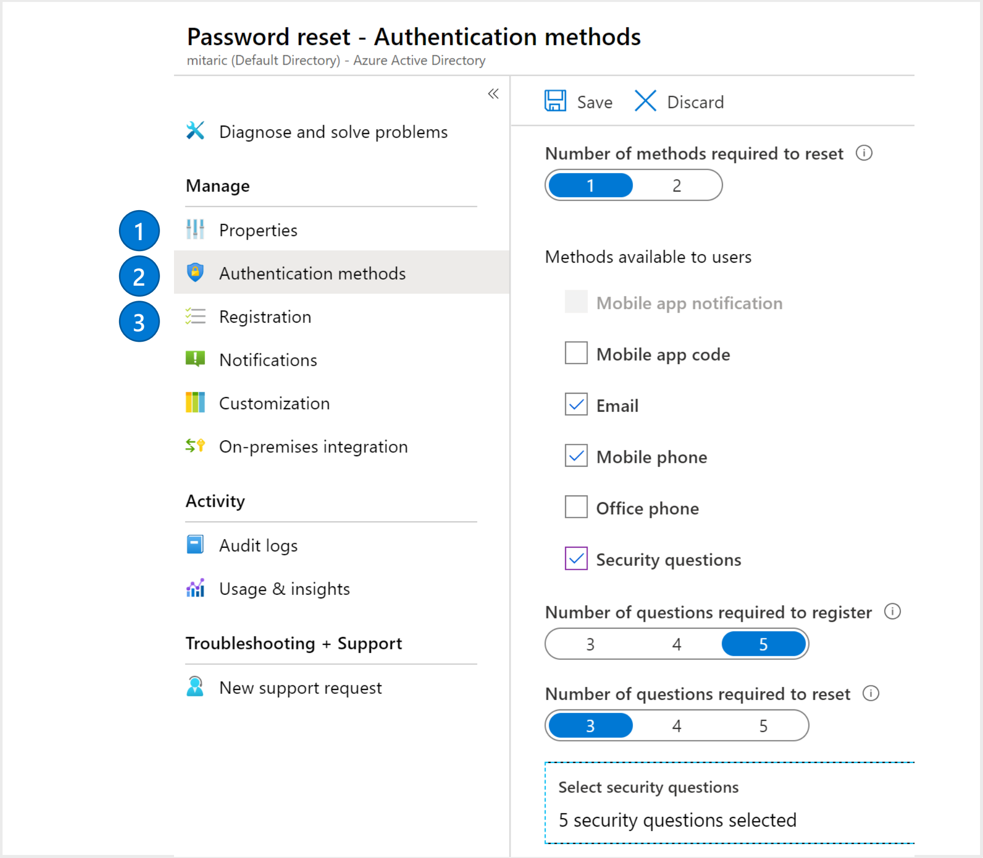


# Self-Service Password Reset

1. Determine who can use self-service password reset

2. Choose the number of authentication methods required and the methods available (email, phone, questions)

3. You can require users to register for SSPR (same process as MFA)



Number of methods required to reset ⓘ
● 1 ○ 2

Methods available to users

□ Mobile app notification

□ Mobile app code

☑ Email

☑ Mobile phone

□ Office phone

☑ Security questions

Number of questions required to register ⓘ
○ 3 ○ 4 ● 5

Number of questions required to reset ⓘ
● 3 ○ 4 ○ 5

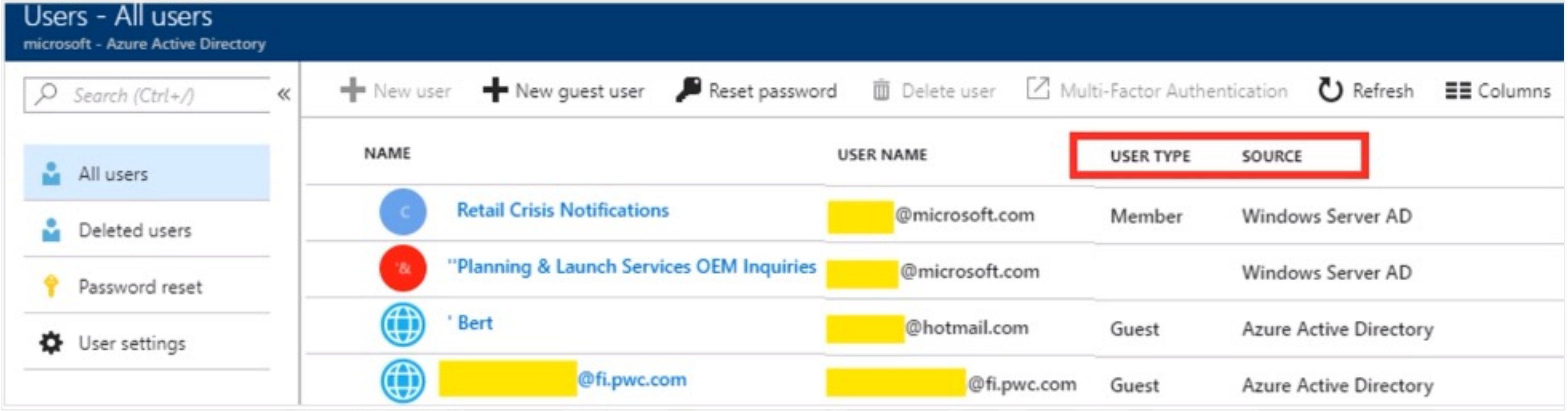
Select security questions
5 security questions selected

# Lesson 02: Users and groups

# Users and Groups Overview

- User Accounts
- Managing User Accounts
- Bulk User Accounts
- Group Accounts
- Managing Multiple Directories
- Demonstration – Users and Groups

# User Accounts



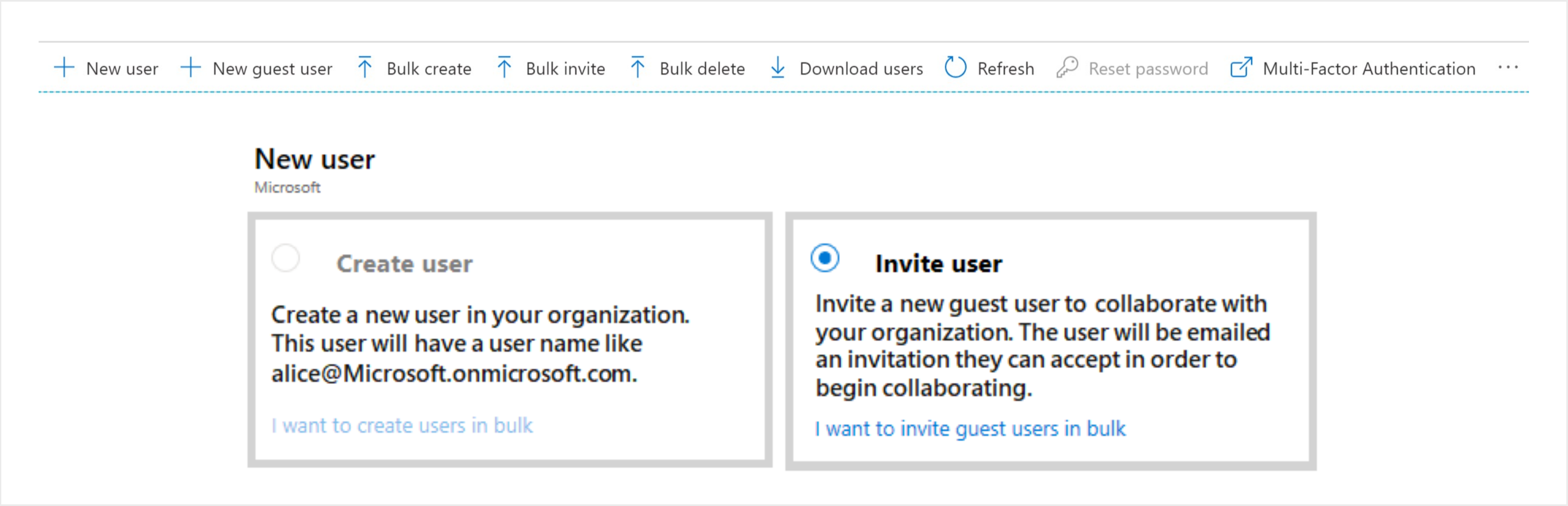
| NAME | USER NAME | USER TYPE | SOURCE |
|---|---|---|---|
| Retail Crisis Notifications | [redacted]@microsoft.com | Member | Windows Server AD |
| "Planning & Launch Services OEM Inquiries | [redacted]@microsoft.com | | Windows Server AD |
| ' Bert | [redacted]@hotmail.com | Guest | Azure Active Directory |
| [redacted]@fi.pwc.com | [redacted]@fi.pwc.com | Guest | Azure Active Directory |

All users must have an account

The account is used for authentication and authorization

Identity Sources: Cloud, Directory-synchronized, and Guest

# Managing User Accounts



New user

Microsoft

○ Create user

Create a new user in your organization. This user will have a user name like alice@Microsoft.onmicrosoft.com.

I want to create users in bulk

● Invite user

Invite a new guest user to collaborate with your organization. The user will be emailed an invitation they can accept in order to begin collaborating.

I want to invite guest users in bulk

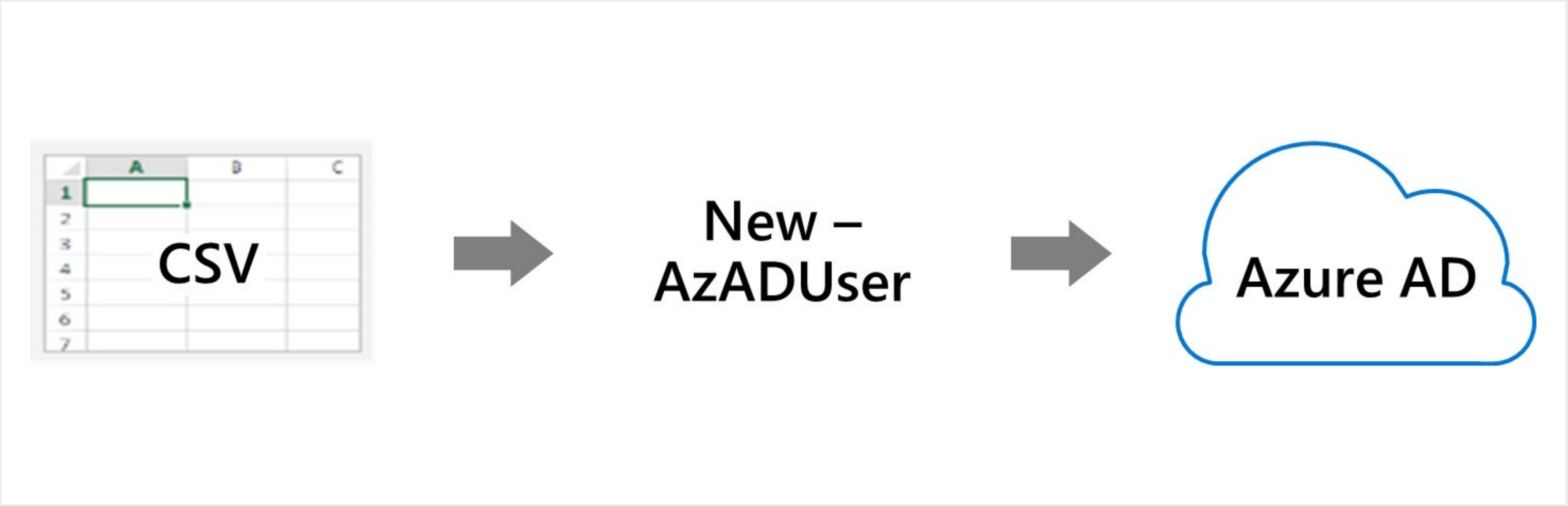
Must be Global Administrator or User Administrator to manage users

User profile (picture, job, contact info) is optional

Deleted users can be restored for 30 days

Sign in and audit log information is available

# Bulk User Accounts



CSV

New – AzADUser

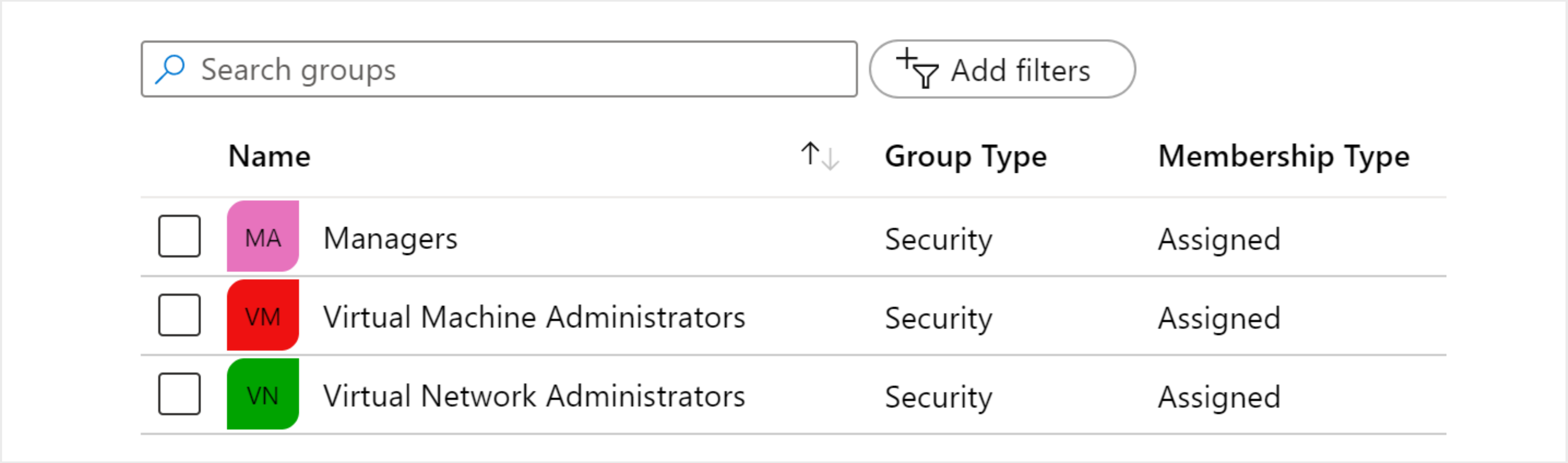
Azure AD

Create the comma-separated values (CSV) file with the list of all the users and their properties

Loop through the file processing each user

Consider error handling, duplicate users, initial password settings, empty properties, and when the account is enabled

# Group Accounts



| | Name | Group Type | Membership Type |
|---|---|---|---|
| ☐ | MA Managers | Security | Assigned |
| ☐ | VM Virtual Machine Administrators | Security | Assigned |
| ☐ | VN Virtual Network Administrators | Security | Assigned |

## Group Types

- Security groups
- Microsoft 365 groups

## Assignment Types

- Assigned
- Dynamic User
- Dynamic Device (Security groups only)

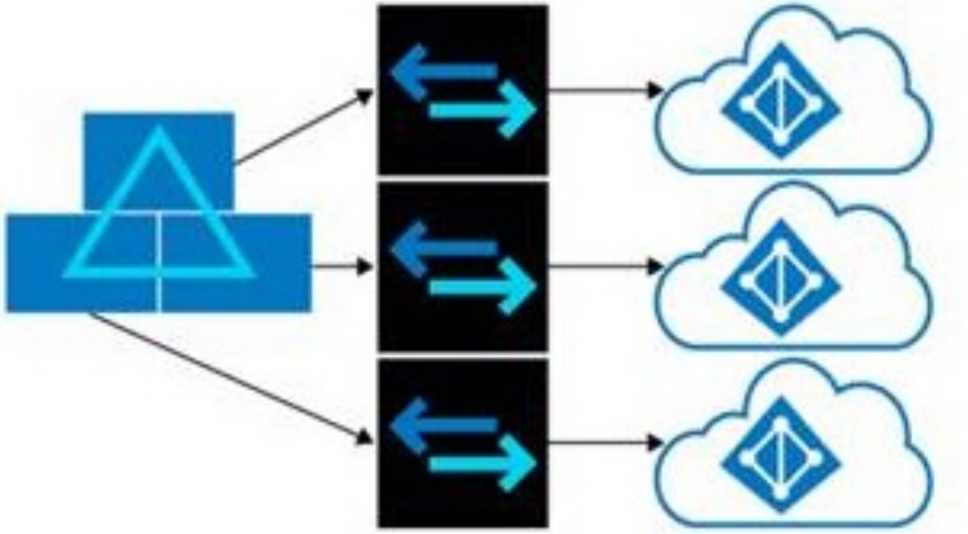
# Managing Multiple Directories

Each Azure AD organization is fully independent: a peer that is logically independent from the other Azure AD organizations you manage

There is no parent-child relationship between organizations

Independence includes:

- Resource independence
- Administration independence
- Synchronization independence



# Lesson 03: Module 01 Lab and Review

# Lab 01 – Manage Azure Active Directory identities

## Lab scenario

In order to allow Contoso users to authenticate by using Azure AD, you have been tasked with provisioning users and group accounts. Membership of the groups should be updated automatically based on the user job titles. You also need to create a test Azure AD tenant with a test user account and grant that account limited permissions to resources in the Contoso Azure subscription.

## Objectives

**Task 1:**
Create and configure Azure AD users

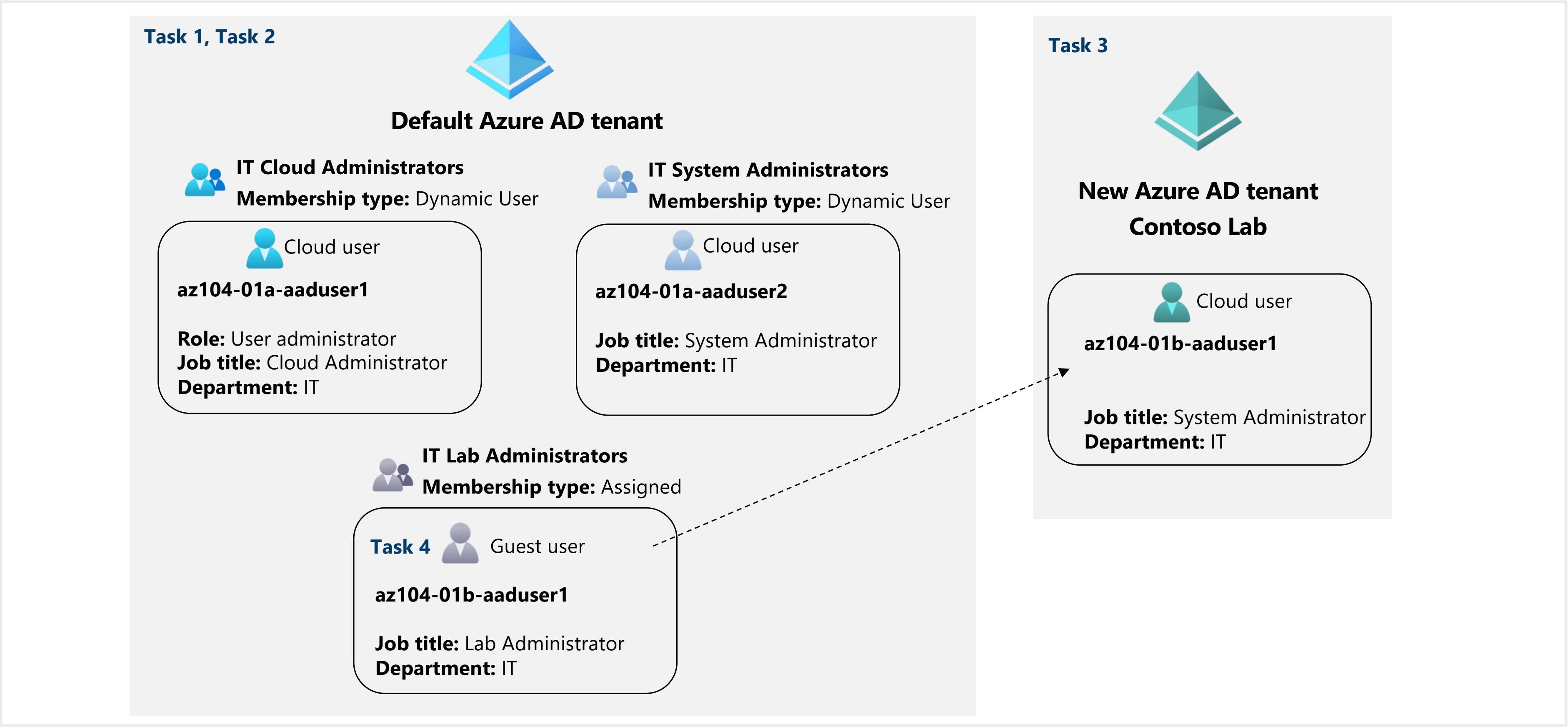
**Task 2:**
Create Azure AD groups with assigned and dynamic membership

**Task 3:**
Create an Azure Active Directory (AD) tenant

**Task 4:**
Manage Azure AD guest users

Next slide for an architecture diagram →

# Lab 01 – Architecture diagram



Task 1, Task 2

Default Azure AD tenant

**IT Cloud Administrators**
**Membership type:** Dynamic User

Cloud user

**az104-01a-aaduser1**

**Role:** User administrator
**Job title:** Cloud Administrator
**Department:** IT

**IT System Administrators**
**Membership type:** Dynamic User

Cloud user

**az104-01a-aaduser2**

**Job title:** System Administrator
**Department:** IT

**IT Lab Administrators**
**Membership type:** Assigned

Task 4

Guest user

**az104-01b-aaduser1**

**Job title:** Lab Administrator
**Department:** IT

Task 3

New Azure AD tenant
Contoso Lab

Cloud user

**az104-01b-aaduser1**

**Job title:** System Administrator
**Department:** IT

# Module Review

## Module Review Questions

## Microsoft Learn Modules (docs.microsoft.com/Learn)

Create Azure users and groups in Azure Active Directory

Manage users and groups in Azure Active Directory

Secure Azure Active Directory users with Multi-Factor Authentication

Allow users to reset their password with Azure Active Directory self-service password reset

Secure your application by using OpenID Connect and Azure AD

# End of presentation