

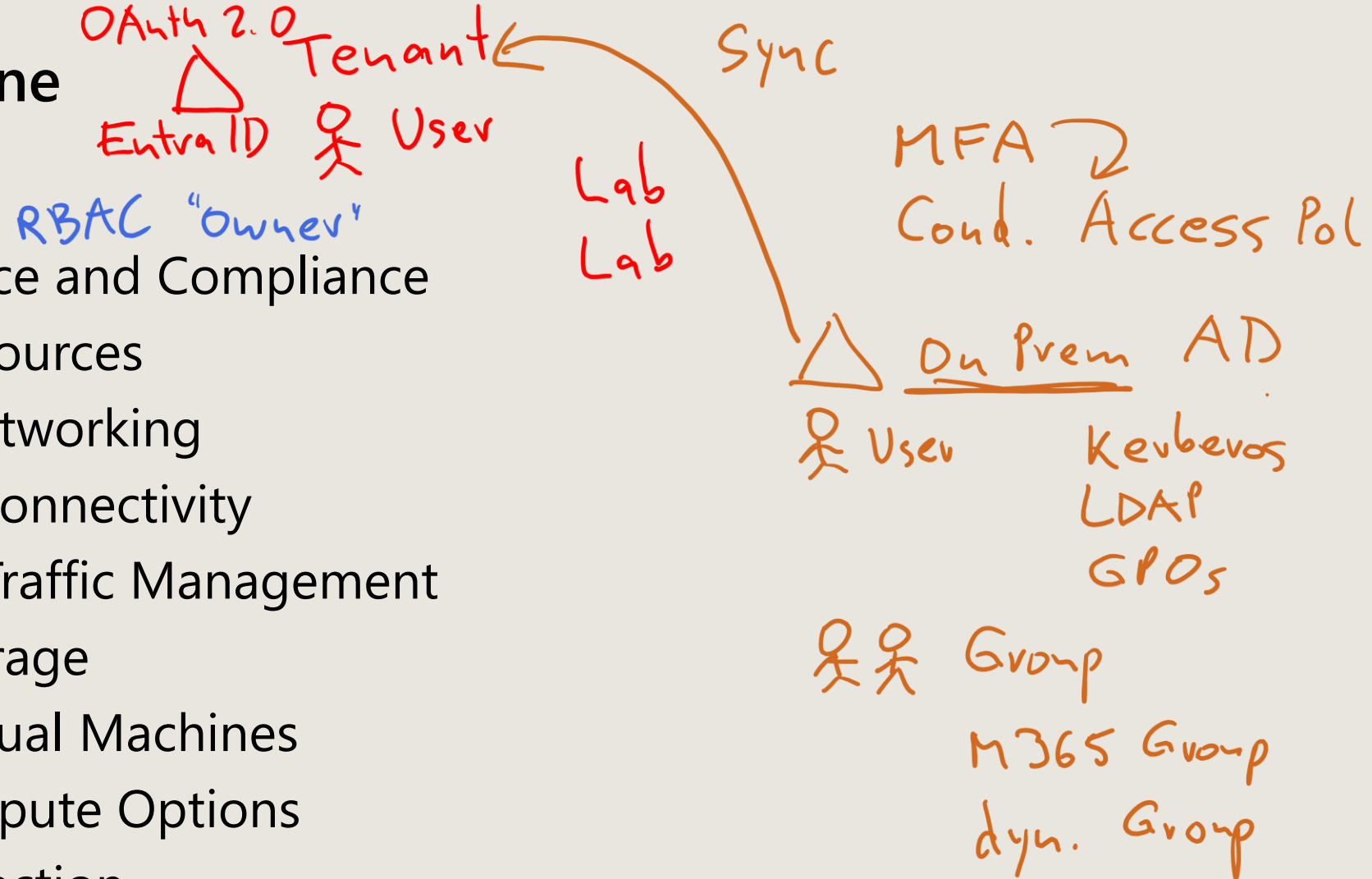
# AZ-104

## Administer Identity



# AZ-104 Course Outline

- 01: Administer Identity
- 02: Administer Governance and Compliance
- 03: Administer Azure Resources
- 04: Administer Virtual Networking
- 05: Administer Intersite Connectivity
- 06: Administer Network Traffic Management
- 07: Administer Azure Storage
- 08: Administer Azure Virtual Machines
- 09: Administer PaaS Compute Options
- 10: Administer Data Protection
- 11: Administer Monitoring



# Learning Objectives

- Understand Microsoft Entra ID
- Configure User and Group Accounts
- Lab 01 - Manage Microsoft Entra ID Identities



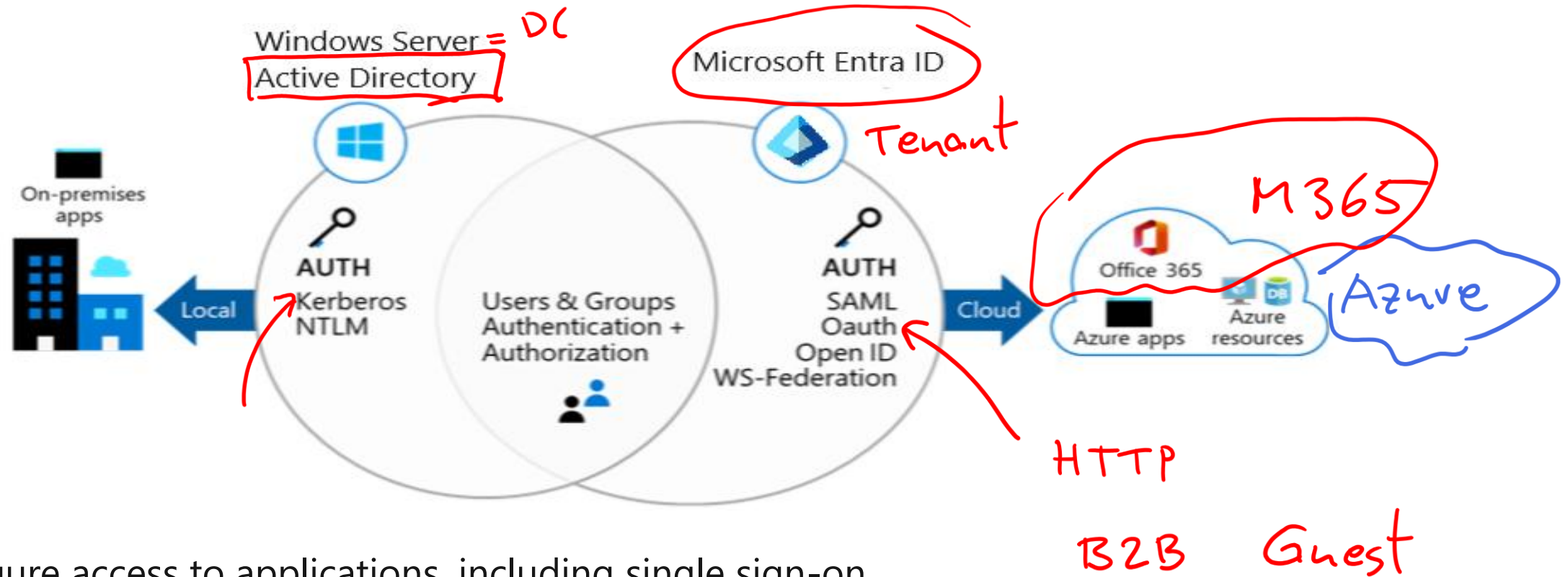
~~Azure AD~~

# Understand Microsoft Entra ID

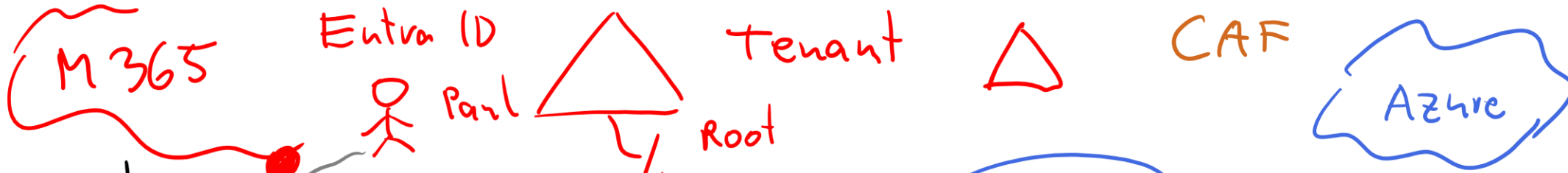
👤 User  
👤 (Service Principal) App  
☐ Device → Intune  
👤👤

# Hybrid Identity

## Examine Microsoft Entra ID



- Configure access to applications, including single sign-on
- Manage and provision users and groups
- Providing an identity management solution, including federation
- Implement security features like multi-factor authentication and conditional access



Deployment

PowerShell az

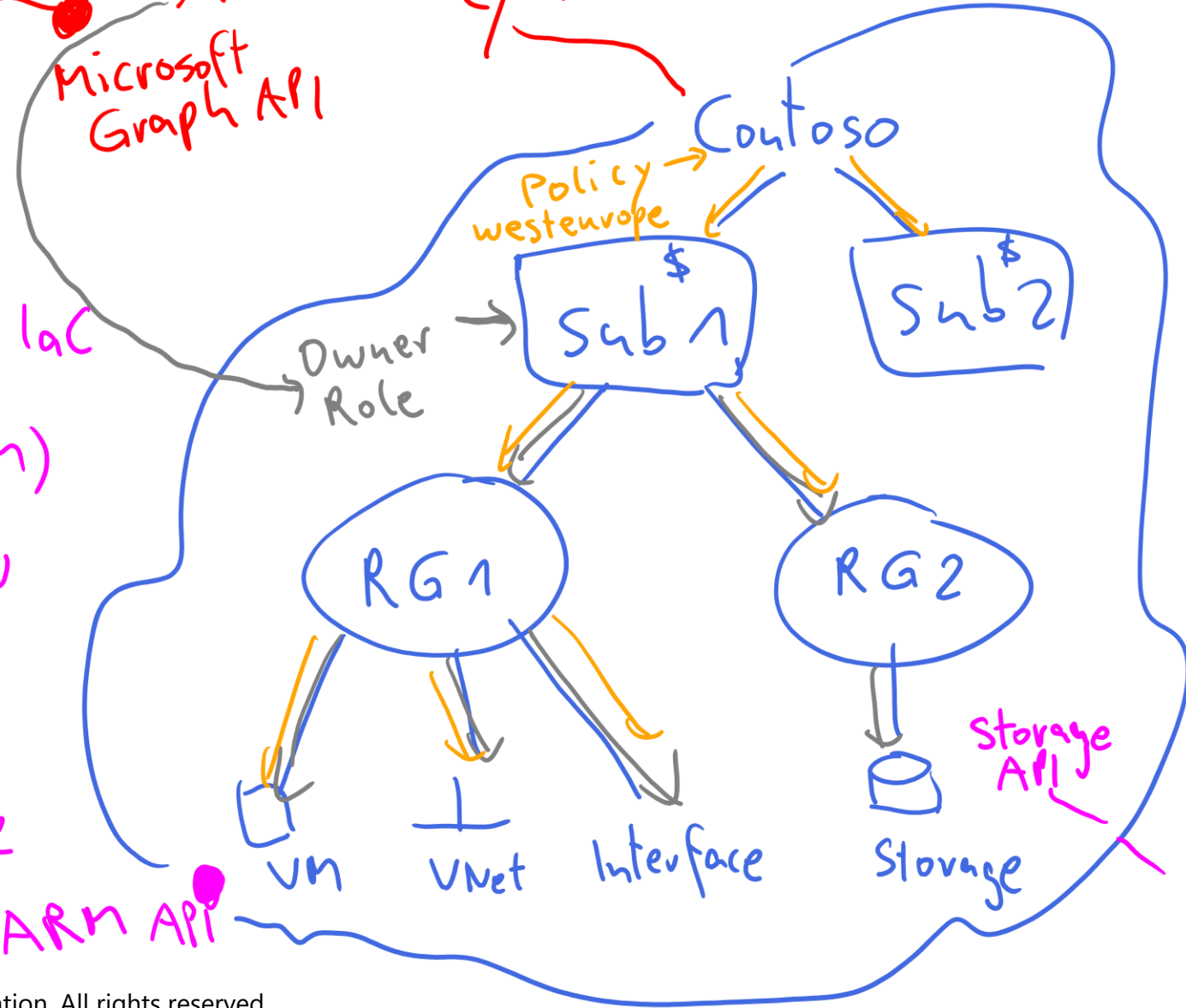
Infra as Code IaC

Terraform (IBM)

openTofu

Bicep

ARM template



Management Group 6 each

Subscription

Resource Group flat

Resource

Region (= Location)

# Describe Microsoft Entra ID Concepts

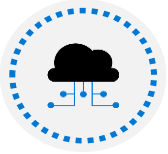
Concept	Description
Identity	An object that can be authenticated
Account	An identity that has data associated with it
Microsoft Entra ID account	An identity created through Microsoft Entra ID or another Microsoft cloud service
Tenant/directory	<p>A dedicated and trusted instance. A tenant is automatically created when your organization signs up for a Microsoft cloud service subscription.</p> <ul style="list-style-type: none"> <li>• Additional instances can be created</li> <li>• Microsoft Entra ID is the underlying product providing the identity service</li> <li>• The term <i>Tenant</i> means a single instance representing a single organization</li> <li>• The terms <i>Tenant</i> and <i>Directory</i> are often used interchangeably</li> </ul>
Azure subscription \$	Used to pay for Azure cloud services

# Compare Microsoft Entra ID to Active Directory Domain Services

on Prem



Microsoft Entra ID is primarily an identity solution



Queried using the REST API over HTTP and HTTPS

OAuth  
SAML

Kerberos  
NTLM



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



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

Guest  
B2B



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



# Compare Microsoft Entra ID P1 and P2 plans

Feature	Free	P1	P2	Governance
Single Sign-On (unlimited)	✓	✓	✓	
Cloud and Federated authentication	✓	✓	✓	
Advanced group management		✓	✓	
Self-service account management portal	✓	✓	✓	
Multifactor authentication (MFA)	✓	✓	✓	
Conditional access		✓	✓	
Risk-based Conditional Access (sign-in risk, user risk)			✓	
Automated user and group provisioning to apps		✓	✓	✓
Privileged identity management (PIM)			✓	✓

✓ Packages  
✓

# What is self-service password reset in Microsoft Entra ID?

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)

**Password reset - Authentication methods**  
mitanic (Default Directory)

« Save X Discard

✖ Diagnose and solve problems

**Manage**

- 1 Properties
- 2 **Authentication methods**
- 3 Registration
- Notifications
- Customization
- On-premises integration

**Activity**

- Audit logs
- Usage & insights

**Troubleshooting + Support**

- New support request

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

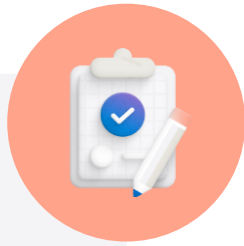
Number of questions required to reset ⓘ

3 4 5

Select security questions

5 security questions selected

# Learning Recap – Understand Microsoft Entra ID




**Check your  
knowledge  
questions and  
additional  
study**

- Understand Microsoft Entra ID
- Allow users to reset their password with self-service password reset
- Implement and manage hybrid identity


# Configure User and Group Accounts





# Create User Accounts


 **Users** | All users


Microsoft


 All users


 Deleted users


 Password reset


 User settings


 Diagnose and solve problems


 New user


 New guest user








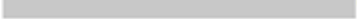
 Bulk operations

 Refresh

 Reset password

 Multi-Factor Authentication

 Delete user

Name	User principal name	↑↓	User type	Directory synced
 Retail Crisis Notifications	 @microsoft.com		Member	Yes
 Rumon Sinha	 @microsoft.onmicrosoft.com		Guest	No
 Momir Radojkovic	 @microsoft.onmicrosoft.com		Guest	No
 Mika Robertson	 @microsoft.onmicrosoft.com		Member	No

All users must have an account

The account is used for authentication and authorization

Each user account has additional properties

# Manage User Accounts

PowerShell Module AzureAD (old)  
Microsoft.Graph (new)  
Microsoft Entra (schön)

+ New user + New guest user **↑ Bulk create** ↑ Bulk invite ↑ Bulk delete ↓ Download users ↻ Refresh 🔑 Reset password ↗ Multi-Factor Authentication ...

## 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

# Create Group Accounts

+ Add filters

	Name	↑↓	Group Type	Membership Type
<input type="checkbox"/>	<div>MA</div> Managers		Security	Assigned
<input type="checkbox"/>	<div>VM</div> Virtual Machine Administrators		Security	Assigned
<input type="checkbox"/>	<div>VN</div> Virtual Network Administrators		Security	Assigned

## Group Types

- Security groups
- Microsoft 365 groups

email  
cal → team

## Membership Types

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

if Department "Sales" → Sales

# Assign Licenses to Users and Groups

Azure is a cloud service that provides many built-in services for free.

- Microsoft Entra ID comes as a free service
- Gain additional functionality with a P1 or P2 license  
E3 E5

Additional Services (like O365 are paid cloud services)

- Microsoft paid cloud services require licenses
- Licenses are assigned to those who need access to the services
- Each user or group requires a separate paid license
- Administrators use management portals and PowerShell cmdlets to manage licenses

- ☐ View license plans and plan details
- ☐ Set the Usage Location parameter
- ☐ Assign licenses to users and groups
- ☐ Change license plans for users and groups
- ☐ Remove a license



# Demonstration – Users and Groups



- Review license and domain information
- Explore user accounts
- Explore group accounts

# Learning Recap – Configure User and Group Accounts



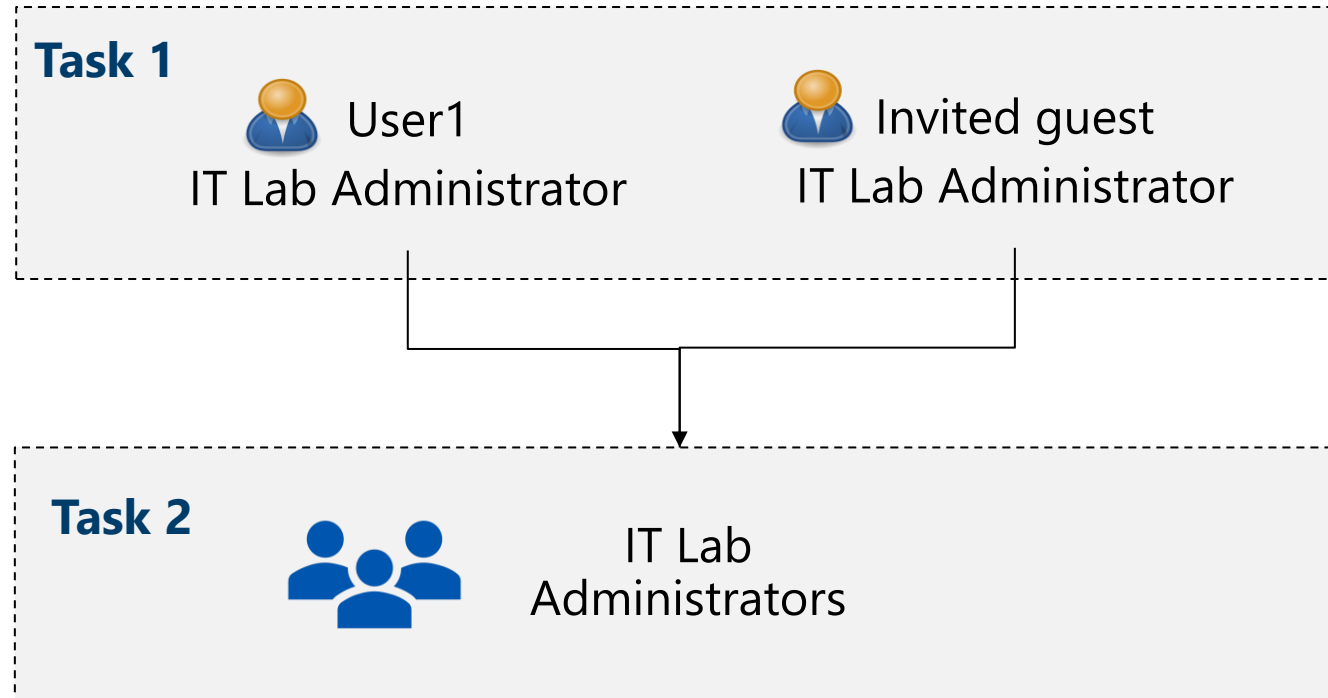
Check your  
knowledge  
questions and  
additional  
study

- Create Azure users and groups in Microsoft Entra ID
- Manage users and groups

# Lab – Manage Entra ID Identities



# Lab 01 – Manage Entra ID Identities (architecture diagram)



# End of presentation

