

Azure - Identity services

Microsoft
CERTIFIED

FUNDAMENTALS

★

Identity

The fact of being *something* or *someone*.

A *user* with a username and password.

Also *applications* or other *servers* with secret keys or certificates.

ADAM

LISA

TOM

APP

SERVER

★

Authentication

The process of *verification/assertion* of identity

TOM

HI I'M TOM

PROVE IT

PASSWORD

HI TOM

AUTH
SERVER

Microsoft
CERTIFIED

FUNDAMENTALS

★

Authorization

The process of ensuring that only *authenticated identities* get access to the resources for which they have been granted access.

ACCESS APP

ACCESS GRANTED

SERVICE

DOES TOM HAVE ACCESS?

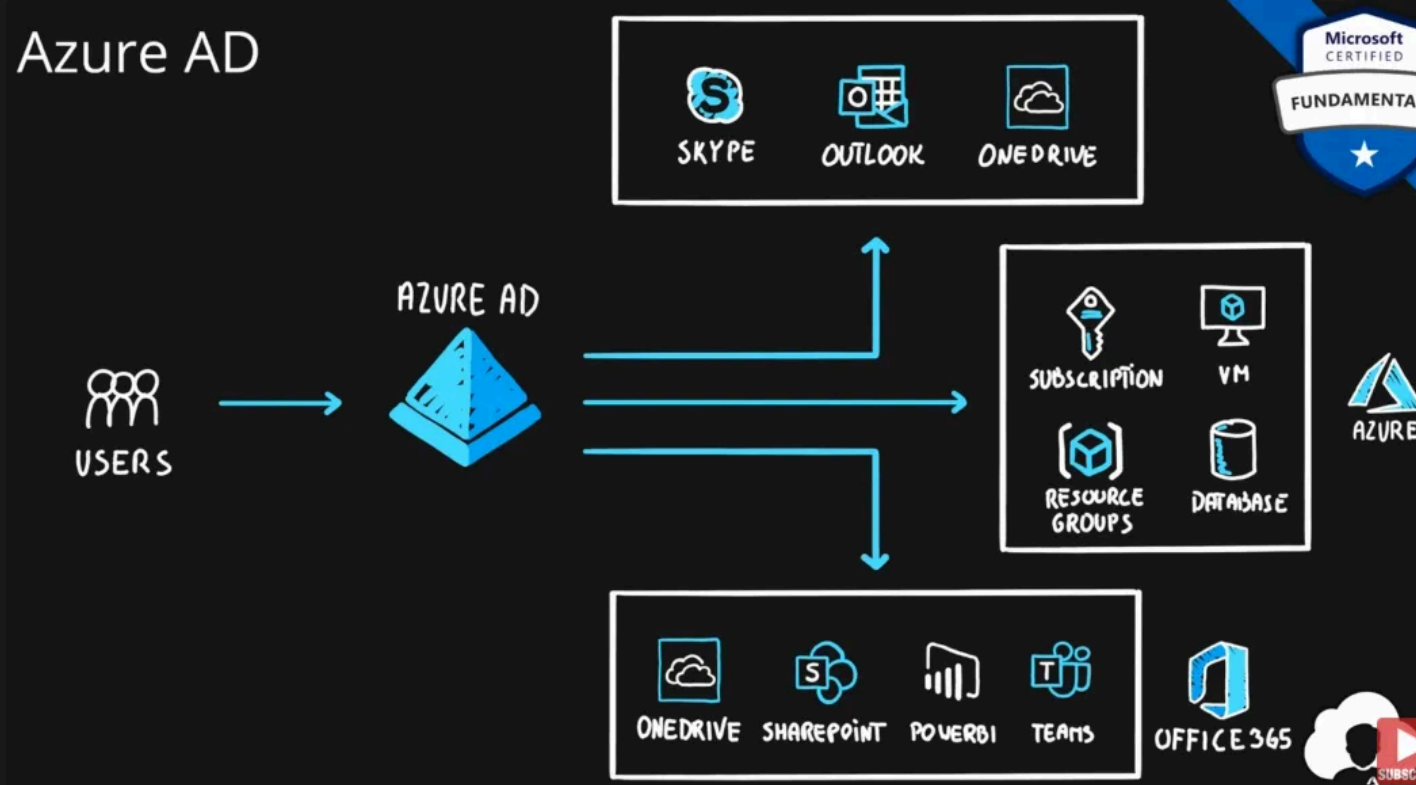
YES

TOM

USERNAME / PASSWORD

HI TOM

AUTH
SERVER



Microsoft Azure | Search resources, services, and docs (G+ /)

adam@marczak.io | DEFAULT DIRECTORY

Default Directory | Overview

Azure Active Directory

Switch tenant | Delete tenant | Create a tenant | What's new | Preview features | ...

Azure Active Directory can help you enable remote work for your employees and partners. [Learn more](#)

Default Directory

Search your tenant

Tenant information

Your role: Global administrator [More info](#)

License: Azure AD Free

Tenant ID: 61a089d3-5ab4-4818-a1c8-9e43...

Azure AD Connect

Status: Not enabled

Last sync: Sync has never run

[SUBSCRIBE](#)

resource groups > az-900-firewall

firewall | Access control (IAM)

+ Add | Download role assignments

Check access | Role assignments | Roles

My access
View my level of access to this resource.
[View my access](#)

Check access
Review the level of access a user, group, service principal, or managed identity has to this resource. [Learn more](#)

Find: User, group, or service principal
Search by name or email address

Add role assignment

Role: Owner

Assign access to: User, group, or service principal

Select: develop

Searching...

Selected members:
No members selected. Search for and add one or more members you want to assign to the role for this resource.

[Learn more about RBAC](#)

Save | Discard

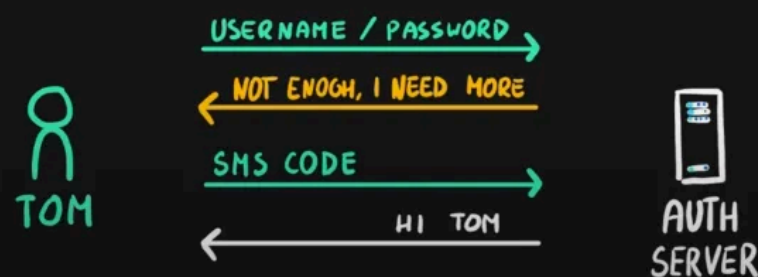
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Key Characteristics

- Identity and Access Management service in Azure
- Identities management – users, groups, applications
- Access management – subscriptions, resource groups, roles, role assignments, authentication & authorization settings, etc.
- Used by multiple Microsoft cloud platforms
 - Azure
 - Microsoft 365
 - Office 365
 - Live.com services (Skype, OneDrive, etc.)
- Syncs with on-premises Active Directory via sync services

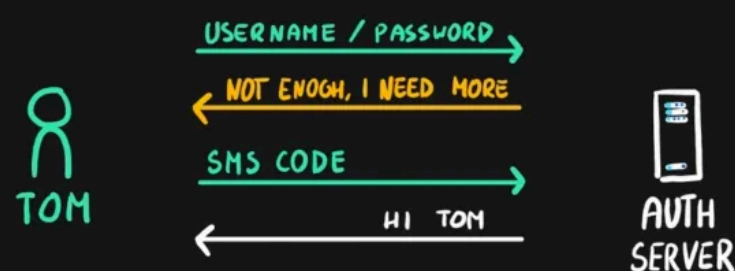
Multi-factor Authentication

Process of presenting *two or more* pieces of evidence to prove one's identity



Multi-factor Authentication

Process of presenting *two or more* pieces of evidence to prove one's identity



Key Characteristics

- Process of authentication using more than one factor (evidence) to prove identity
- Factor types
 - Knowledge Factor – “Something you know”, ex. password, pin
 - Possession Factor – “Something you have”, ex. phone, token, card, key
 - Physical Characteristic Factor – “Something you are”, ex. fingerprint, voice, face, eye iris
 - Location Factor – “Somewhere you are”, ex. GPS location