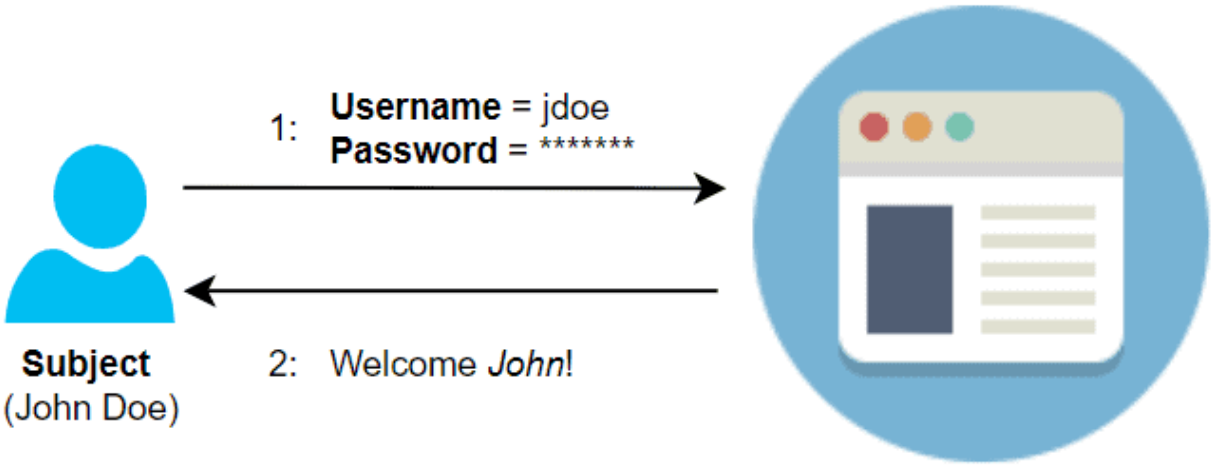
Azure Authentication And Authorization

What Is Authentication?

Authentication is the process of proving who you are and who you say you are? Microsoft identity platform implements the OpenID Connect protocol for handling authentication, authentication, and authorization

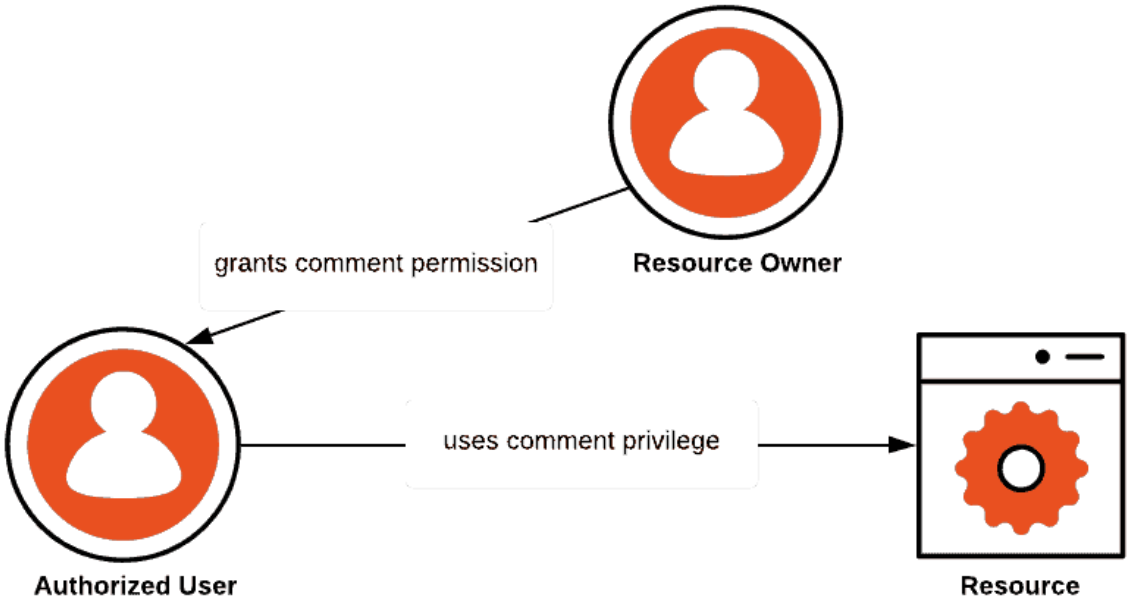
Azure App Service provides built-in authentication support, so you can sign in users and access data by writing minimal or no code in your web app



What Is Authorization?

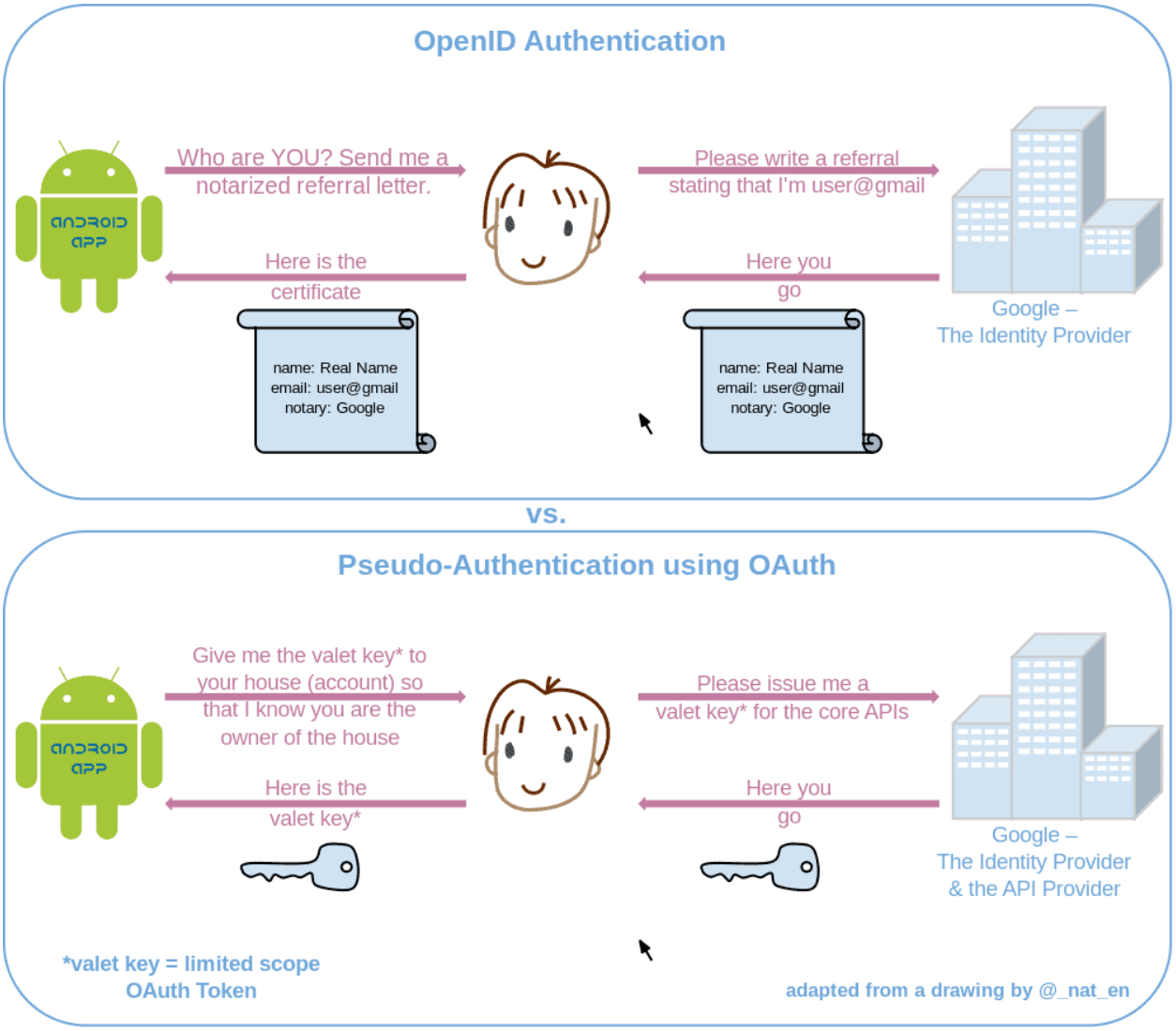
Authorization is the act of granting an authenticated party permission to do something. Microsoft identity platform implements the OAuth 2.0 protocol for handling authorization.

Azure App Service provides built-in authorization support, so you can sign in users and access data by writing minimal or no code in your web app, RESTful API, and mobile back end, and also Azure Functions.



Difference Between OAuth And OpenID Connect

OAuth is used for authorization and **OpenID connect** used for authentication. OpenID Connect is built on top of OAuth 2.0. So terminology and flow are similar between the two, you can both authenticate the user using OpenID Connect and get authorization to access a protected resource that the user owns using OAuth 2.0 in one request.



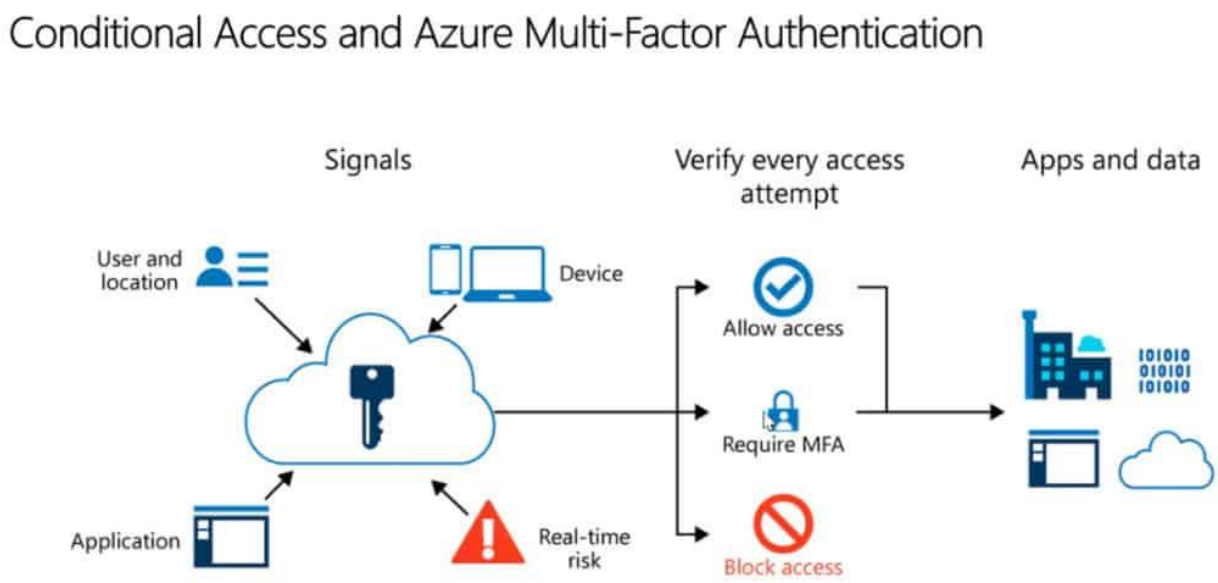
Multi-Factor Authentication

Azure Multi-Factor Authentication supplies added security to your identities by acquiring two or more elements complete the authentication, that elements fall in three categories:

- **Something you know:** Which might be a password or answer to a security question.
- **Something you possess:** This might be a mobile app that receives a notification or a token-generating device.
- **Something you are:** Which typically is a biometric property, such as a fingerprint or a face scan used on many mobile devices

Conditional Access

Conditional access is an Azure tool that brings signals together to make decisions and enforce organizational policies. this is the workflow and conditional access and architecture of Azure Multi-Factor Authentication



Five Steps For Securing Identity Infrastructure In Azure

These steps are the recommendation also which will help you to protect from cyber-attacks using Azure AD.

1. Strengthen your credentials

Use strong authentication, Ban common passwords and turn off traditional complexity and expiration rules, protect against leaking credentials, Take advantage of intrinsically secure, easier to use credentials

2. Reduce your attack surface area

Block invalid authentication entry points, Restrict user consent operations, Implement Azure AD privileged identity management

3. Automate threat response

Implement user risk security policy using Azure AD Identity protection, Implement sign-in risky policy using Azure AD identity protection

4. Utilize cloud intelligence

Monitor Azure AD Connect health in hybrid environments, Monitor Azure AD Identity protection events

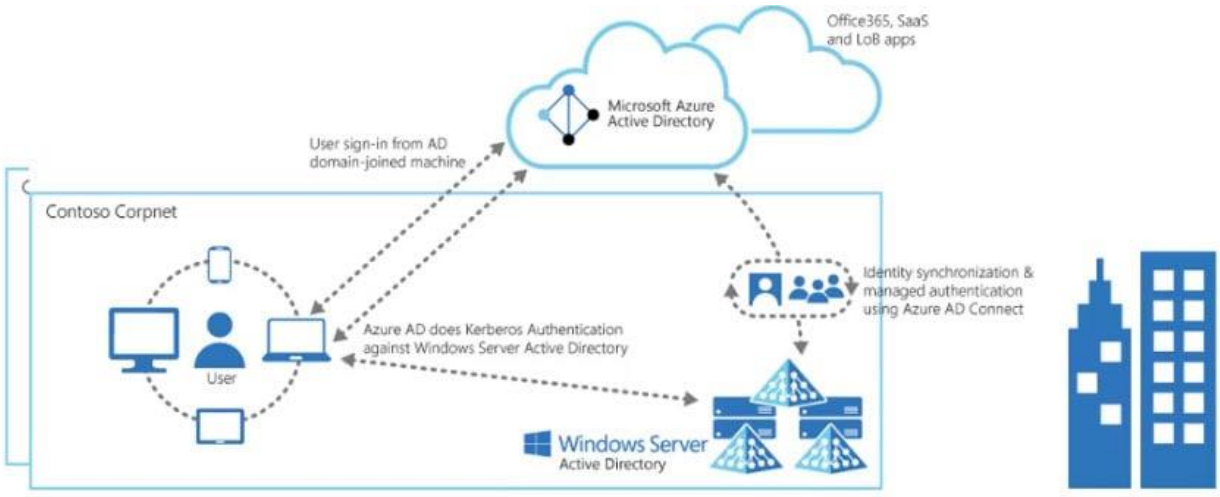
5. Enable end-user self-service

Implement self-service password reset, implement self-service group and application access, Implement Azure AD access reviews

Azure AD Seamless Single Sign-On (SSO)

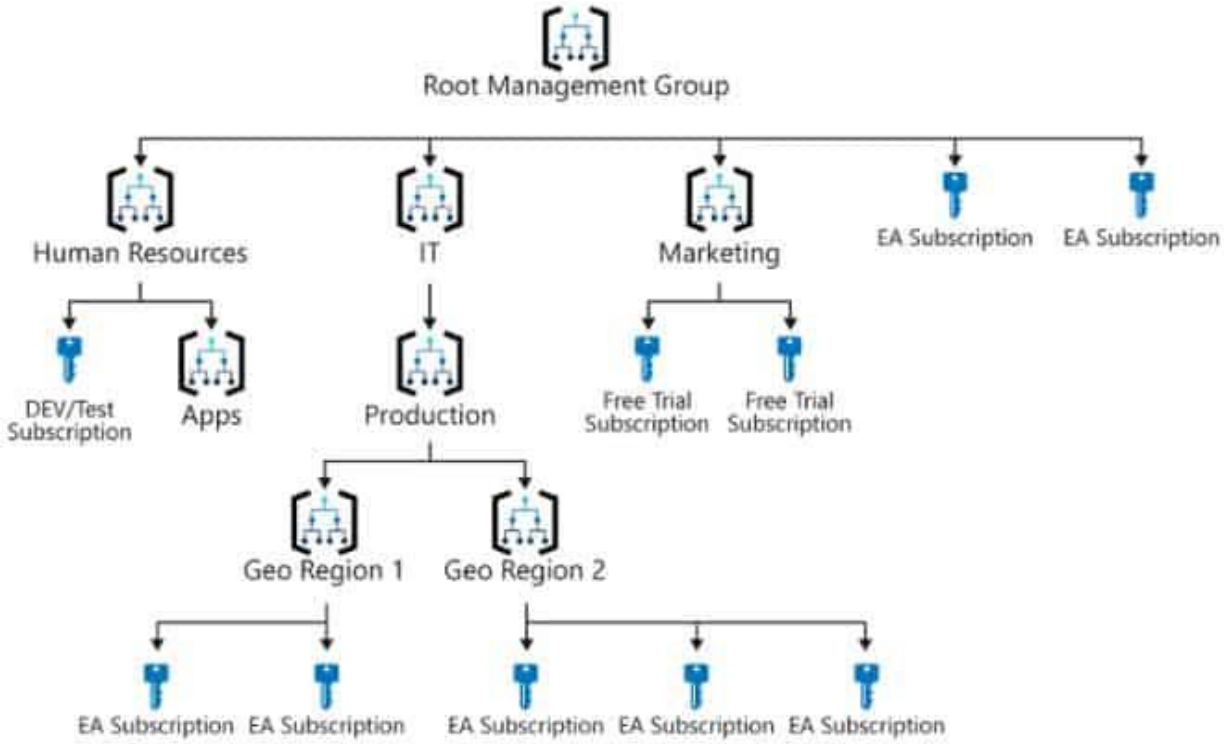
In this user automatically signed in from a corporate device to the corporate network. When enabled users don't need to type the password or sign in Azure AD. Seamless SSO can be combined with either password hash or pass-through authentication sign in methods

Seamless SSO is free, It does not require paid editions of Azure AD



Hierarchy Of Management Groups And Subscriptions In Azure

- 10000 management group in a single directory of Azure
- Each management group and subscription can only support one parent in Azure
- Each management group have many children
- All subscription and management groups are within a single hierarchy in each directory of Azure
- A management group tree up to six levels of depth (Doesn't include the root level and subscription level)


Root Management Group
Human Resources
IT
Marketing
EA Subscription
EA Subscription
DEV/Test Subscription
Apps
Production
Free Trial Subscription
Free Trial Subscription
Geo Region 1
Geo Region 2
EA Subscription
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