Exchange Server 2016: Installation and Configuration on Windows Server 2016.
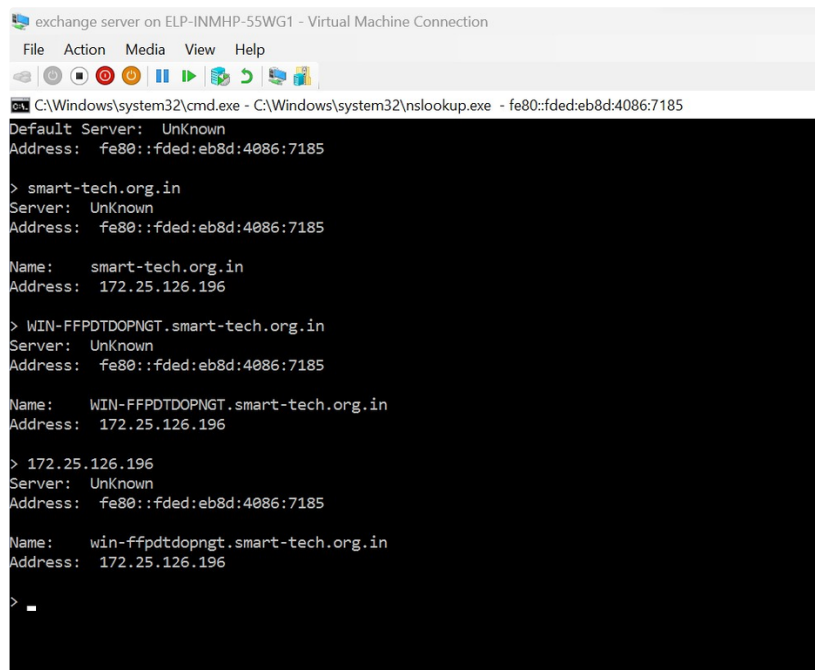
Date: 21-08-2023

Exchange Server:

Exchange Server is a **server that is used to provide root to send mails from source to destination.** Microsoft Exchange Server is an email server that runs on Windows server operating system. It provides email services, calendaring, task management, and other features for organizations and businesses. Exchange Server needs to prepare Active Directory so that it can store information about our users, mailboxes and configuration of Exchange Server in an organization.

1. Exchange Server is a Microsoft messaging system.
2. Secure way to send/receive emails inside/outside an organization.
3. Exchange Server reduces the communication cost.
4. Exchange Server enables companies to be responsive and have happy customers.
5. No additional cost when enabling features. Exchange Servers are smart now. For example, by using Gmail we sent mail publicly, but we cannot know what is happening in the background we don't have control over it.
6. If we have an Exchange Server, **we are the administrator with full control and rights** over Exchange Server. We can **see, track messages and we can assign permissions.** The messages that we send and receive on a daily basis they are **encrypted and secure.**
7. Alternative options for Exchange Server for managing email and collaboration services are Google Workspace, Zimbra, Zoho Mail, IBM Domino, HCL Notes and HCL Domino etc.

Installation Of Exchange Server 2016 on Windows Server 2016:

- Create a Virtual Machine using Hyper-V Manager and install Windows Server 2016 in the virtual machine.
- Assign a static IP address to the virtual machine and make sure of internet access in the virtual machine.
- Prepare Active Directory and Configure DNS Server.
- Create a forward lookup zone and reverse lookup zone, and check both the zones are working correctly.

- Before proceeding check for the system updates and make sure your system is up to date.
- Now open Windows PowerShell with administrator privileges and use the following command to install the required prerequisites.
- Command: Install-WindowsFeature RSAT-ADDS, Web-Server, Web-Dyn-Compression, Web-Windows-Auth, Web-Asp-Net45, Web-Net-Ext45, Web-ISAPI-Ext, Web-ISAPI-Filter, Web-Http-Logging, Web-Log-Libraries, Web-Request-Monitor, Web-Http-Tracing, Web-

Basic-Auth, Web-Windows-Auth, Web-Client-Auth, Web-Dir-Browsing, Web-Http-Errors, Web-App-Dev, Web-Net-Ext, Web-WebSockets.

- Install-WindowsFeature RSAT-ADDS is used to install the **Remote Server Administration Tools (RSAT) for Active Directory Domain Services (AD DS),** including the RSAT-ADDS feature, on a Windows Server.

- Install-WindowsFeature Web-Server is the command you provided installs the "Web Server (IIS)" feature on the system. This feature is essential for hosting websites and web applications using Internet Information Services (IIS).

- The command Install WindowsFeature Web-Static-Content adds these features in Windows Server adds support for serving static content (HTML, CSS, JavaScript, images, etc.) through Internet Information Services (IIS).

- The command Install WindowsFeature Web-Dynamic-compression is used to install the "Dynamic Compression" feature for Internet Information Services (IIS).

- The command Install WindowsFeature Web-Windows-Auth is used to install "Web-Windows-Auth" feature is used to enable Windows Authentication for web applications hosted on Internet Information Services (IIS).

- The command Install WindowsFeature Web-Apps-Net45 is used to install the ".NET Framework 4.5" feature for Windows applications.

- The command Install WindowsFeature Web-Net-Ext45 is used to install .NET Extensibility 4.5 feature for Internet Information Services (IIS) on Windows.

- The command Install WindowsFeature Web-ISAPI-Ext is used to install the ISAPI Extensions feature for Internet Information Services (IIS).

- The command Install WindowsFeature Web-ISAPI-Filter is used to install the ISAPI Filters feature for Internet Information Services (IIS).

- The command Install WindowsFeature Web-HTTP-Logging is used to install the HTTP Logging feature for Internet Information Services (IIS).

- The command Install WindowsFeature Web-Log-Libraries is used to install the Log libraries feature for Internet Information Services (IIS).

- The command Install WindowsFeature Web-Request-Monitor is used to install the Request Monitor feature for Internet Information Services (IIS).

- The command Install WindowsFeature Web-HTTP-Tracing is used to install the HTTP Tracing feature for Internet Information Services (IIS).

- The command Install WindowsFeature Web-Basic-Auth is used to install the Basic Authentication feature for Internet Information Services (IIS).

- The command Install WindowsFeature Web-Windows-Auth is used to install the Windows Authentication feature for Internet Information Services (IIS).

- The command Install WindowsFeature Web-Client-Auth is used to install the Authentication feature of client for Internet Information Services (IIS).

- The command Install WindowsFeature Web-Dir-Browsing is used to install the Directory Browsing feature for Internet Information Services (IIS).

- The command Install WindowsFeature Web-HTTP-Errors is used to install the HTTP Errors feature for Internet Information Services (IIS).

- The command Install WindowsFeature Web-App-Dev is used to install the feature in Windows is a meta-feature that includes several sub-features related to web application development with Internet Information Services (IIS).

- The command Install WindowsFeature Web-Net-Ext is used to install meta-feature that includes various sub-features related to .NET Framework support for Internet Information Services (IIS).

- The command Install WindowsFeature Web-WebSockets is used to install the WebSockets feature for Internet Information Services (IIS).
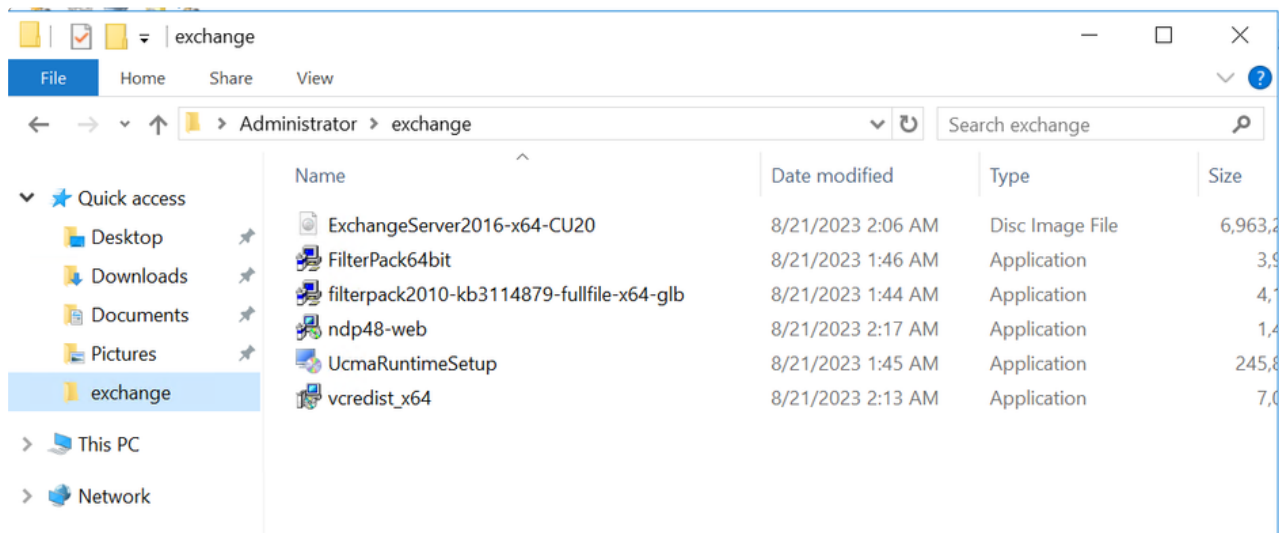
- Run Restart-Computer to reboot the server.
- Now download and install the prerequisites.
- Microsoft Unified Communications Managed API 4.0, Core Runtime 64-bit setup.
- Microsoft Office 2010 Filter Pack 64 bit.
- Microsoft Office 2010 Filter Pack SPI 64 bit.
- Ndp48-web and vcredist_64 setup.
- Download Exchange Server 2016 ISO from Microsoft webpage and extract the files.


- After completing the downloads, we need to run the setup of Exchange Server with administrator privileges. And follow the instructions to install the server, after completing the installation we will be redirected to webpage of exchange server. Otherwise, we can open it by entering https://localhost/owa/ in the browser. Now we need to login to the portal, using credentials of Administrator@smart-tech.org.in and password: Akhil@2005.
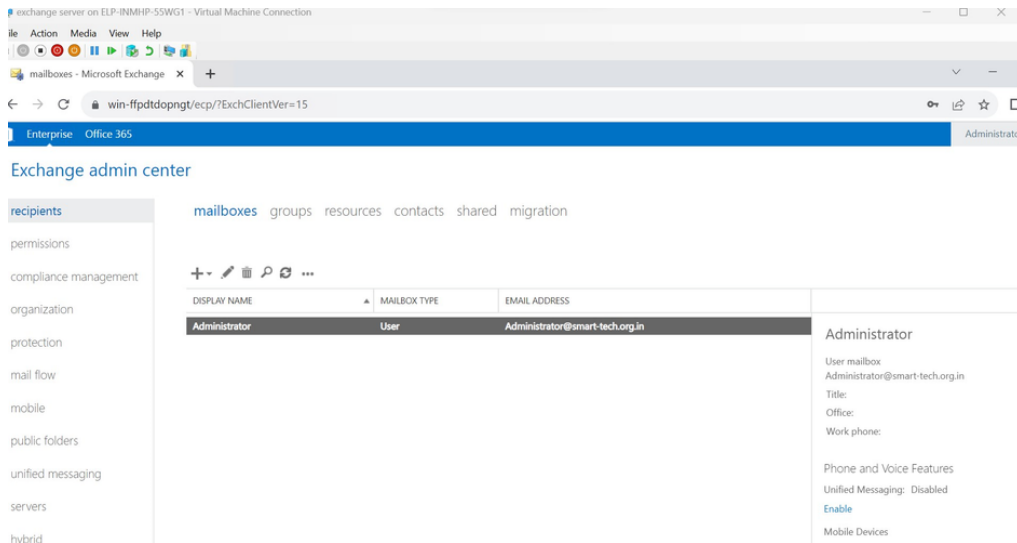
- To configure and understand the exchange server we need to create another two users in server manager using Active Directory Users and Computers and add those two users to the exchange server.

- Accounts: prabhu@smart-tech.org.in (Akhil@2005) and akhil@smart-tech.org.in (Prabhu@2005).
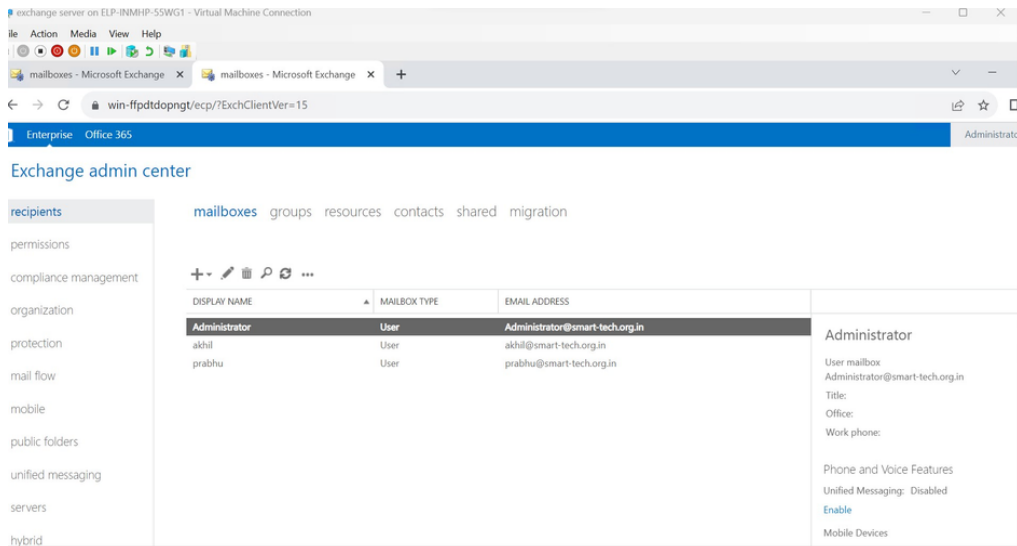
- After adding we need to sign-out from administrator account and logged into account named with prabhu. Now we are sending an email to the user named with akhil.
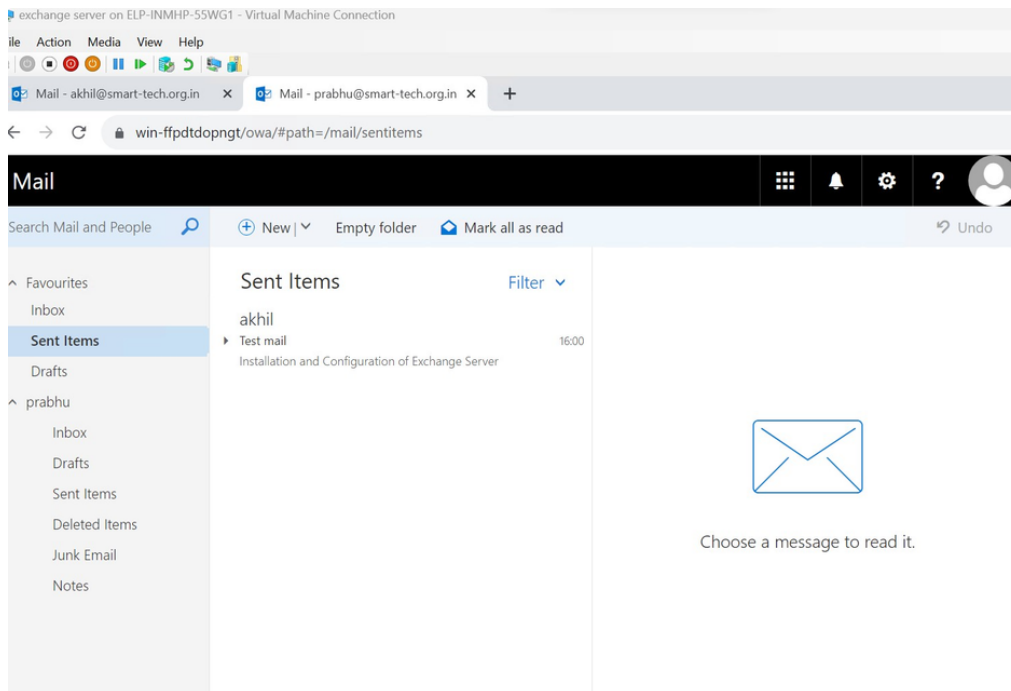
- Now email is sent from user prabhu@smart-tech.org.in to akhil@smart-tech.org.in, we can check it from the account of akhil.
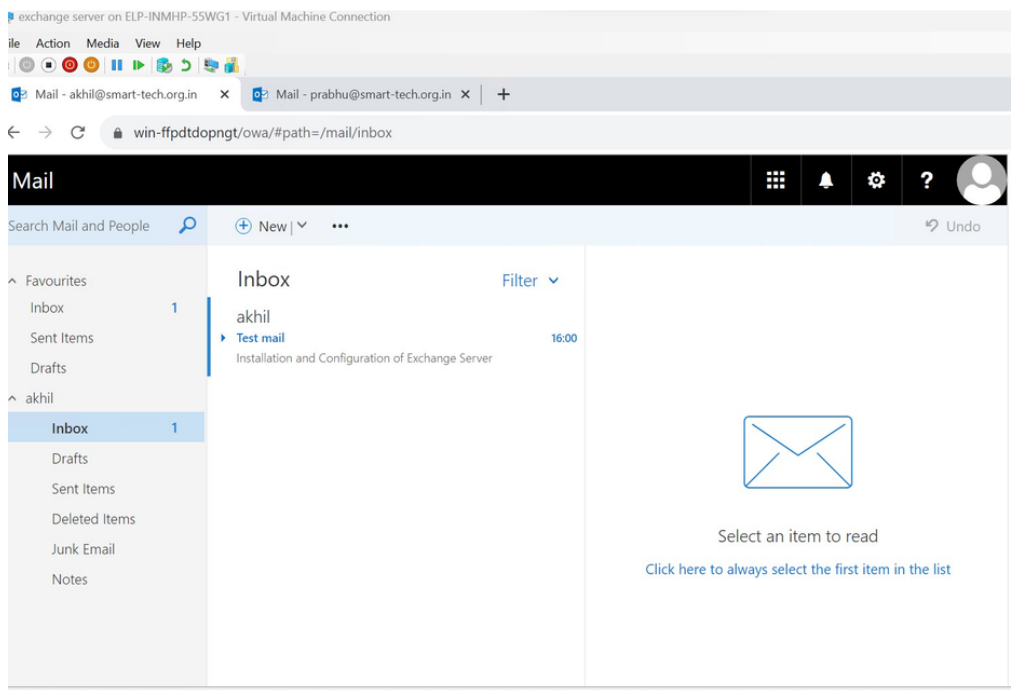
- This is the process of Installing and Configuring the Exchange Server 2016 on Windows Server 2016.
- Primary components of Exchange Server comprises various components, including the Mailbox Server, Client Access Server, Hub Transport Server, and Edge Transport Server.
- Over the years, there have been several versions of Exchange Server, including Exchange Server 2019, Exchange Server 2016, Exchange Server 2013, Exchange Server 2010, and earlier versions. Microsoft typically releases new versions every few years.
- Exchange Server offers features such as email, calendars, contacts, task management, and public folders. It also supports mobile device synchronization, role-based access control, and integration with other Microsoft services like SharePoint and Skype for Business.
- Microsoft offers a cloud-based version of Exchange Server known as Exchange Online, which is part of the Microsoft 365 suite. It provides email hosting and collaboration services without the need to maintain on-premises servers.

- **Role of the Client Access Server (CAS) in Exchange Server architecture**: In earlier Exchange Server versions, CAS handled client connections, including Outlook Web App (OWA), ActiveSync, and Outlook Anywhere. In more recent versions, these functions are integrated into the Mailbox role, and the CAS role is deprecated.
- Exchange Server data can be backed up and restored using various methods, including built-in tools like Windows Server Backup or third-party backup solutions. It's crucial to have a reliable backup and recovery strategy in place.
- Exchange Online Protection (EOP) is a cloud-based email filtering service provided by Microsoft. It helps protect organizations from spam, malware, and other email threats. It can be used with both Exchange Server and Exchange Online.