```
############################################################
Lab 02 - Exchange 2019 Installation
Exercise 1 - Installing Exchange 2019 Prerequisites
Author: Guillermo Padilla Keymole
This script prepares the ad07 server for Exchange installation
############################################################
```

I started the ad07 virtual machine and logged in as domain07\Administrator
Then I opened PowerShell as Administrator to begin installing all required
prerequisites

```
############################################################
Step 1 - Install Visual C++ Redistributable for Visual Studio 2013
############################################################
```

I opened a browser and downloaded the following file:

https://www.microsoft.com/en-us/download/details.aspx?id=40784

From the download page, I clicked "Download", selected "vcredist_x64.exe",
and saved the file to the desktop

Visual C++ Redistributable Packages for Visual Studio 2013

The Visual C++ Redistributable Packages install run-time components that are required to run C++
applications that are built by using Visual Studio 2013. For an updated version of these redistributable
packages, see KB 3138367.

Important! Selecting a language below will dynamically change the complete page content to that language.
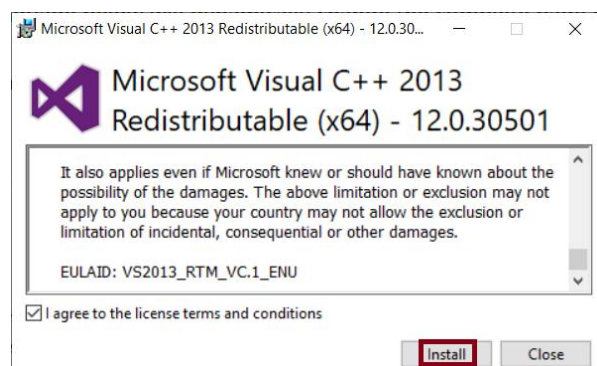
Select language | English ▾ | Download

Choose the download you want

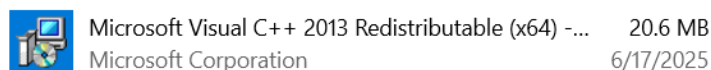| ☐ File Name	Size
☐ vcredist_arm.exe	1.4 MB
☐ vcredist_x86.exe	6.2 MB
☑ vcredist_x64.exe	6.9 MB

Download   Total size: 6.9 MB

I double-clicked the file and completed the installation wizard

Once the setup completed, I verified that the installation was successful by checking Programs and Features


```
#########################################################
Step 2 – Verify .NET Framework 4.8 Installation
#########################################################
```

To verify that .NET Framework 4.8 is installed (already present on Server 2022), I ran this command in PowerShell:

```
(Get-ItemProperty "HKLM:\SOFTWARE\Microsoft\NET Framework
Setup\NDP\v4\Full").Release
```


If the output value is 528040 or higher, then .NET 4.8 is confirmed installed

The output showed 528449, which means .NET 4.8 is installed

```
#########################################################
Step 3 – Install the IIS URL Rewrite Module
#########################################################
```

I visited the following URL in the browser:

https://www.iis.net/downloads/microsoft/url-rewrite

Download URL Rewrite Module 2.1

- English: x86 installer / x64 installer

I clicked "Download" and saved the installer, then ran it from the desktop
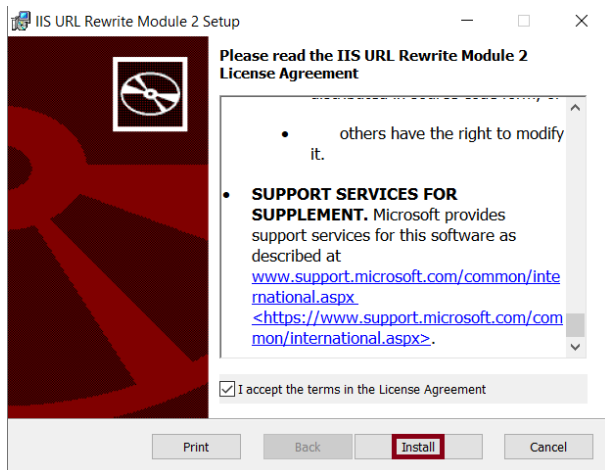
Once the installation was complete, I confirmed the module was added by opening IIS Manager and verifying that "URL Rewrite" was listed under the server node

```
##########################################################
Step 4 – Install Required Windows Server Features
##########################################################
```

In PowerShell, I ran the following single-line command to install all features required by Exchange 2019

Install-WindowsFeature Server-Media-Foundation, NET-Framework-45-Features, RPC-over-HTTP-proxy, RSAT-Clustering, RSAT-Clustering-CmdInterface, RSAT-Clustering-Mgmt, RSAT-Clustering-PowerShell, WAS-Process-Model, Web-Asp-Net45, Web-Basic-Auth, Web-Client-Auth, Web-Digest-Auth, Web-Dir-Browsing, Web-Dyn-Compression, Web-Http-Errors, Web-Http-Logging, Web-Http-Redirect, Web-Http-Tracing, Web-ISAPI-Ext, Web-ISAPI-Filter, Web-Lgcy-Mgmt-Console, Web-Metabase, Web-Mgmt-Console, Web-Mgmt-Service, Web-Net-Ext45, Web-Request-Monitor, Web-Server, Web-Stat-Compression, Web-Static-Content, Web-Windows-Auth, Web-WMI, Windows-Identity-Foundation, RSAT-ADDS
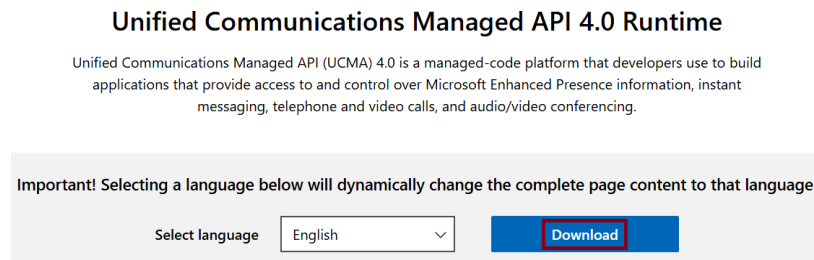

The installation took several minutes and returned Success with no errors

```
###################################################################
Step 5 – Install the Unified Communications Managed API 4.0 Runtime
###################################################################
```

I visited the following URL **in** my browser:

https://www.microsoft.com/en-us/download/details.aspx?id=34992

Unified Communications Managed API 4.0 Runtime

Unified Communications Managed API (UCMA) 4.0 is a managed-code platform that developers use to build applications that provide access to and control over Microsoft Enhanced Presence information, instant messaging, telephone and video calls, and audio/video conferencing.

Important! Selecting a language below will dynamically change the complete page content to that language.
Select language   English ▾   **Download**

I downloaded the file "UcmaRuntimeSetup.exe" and ran the installer
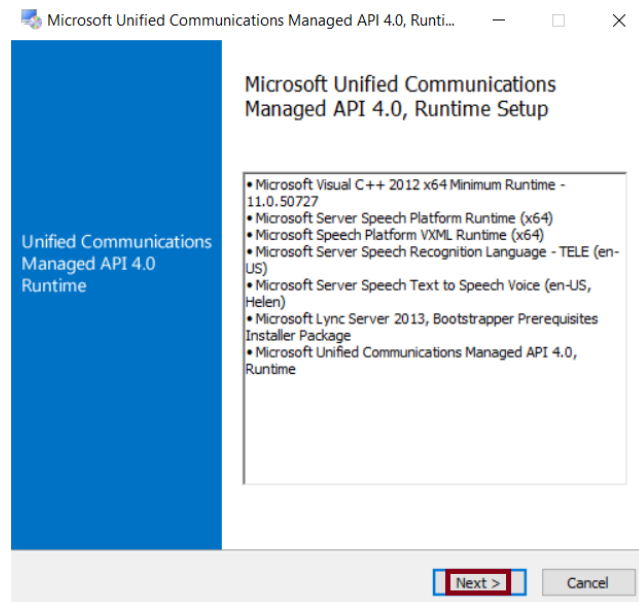
I followed the installation wizard to complete the setup

After installation, I verified it appeared under Programs and Features

```
#######################################################
Step 6 – Final Step: Restart the Server
#######################################################
```

Once all prerequisites were installed and verified, I restarted the server to finalize configuration

Restart-Computer

PS C:\Users\Administrator> Restart-Computer

```
############################################################
Exercise 2 - Installing Microsoft Exchange 2019
This script covers the installation of Exchange Server 2019 CU
############################################################
```

I logged into the ad07 server as domain07\Administrator

I opened a browser and navigated to the official Microsoft Exchange download page

I downloaded the latest cumulative update of Exchange Server 2019 from this link

https://support.microsoft.com/en-us/topic/cumulative-update-15-for-exchange-server-2019-kb5042461-6e24534e-40f4-4f3a-9dc7-7406a1117bbf

Method 2: Microsoft Download Center

- You can get the standalone update package through the Microsoft Download Center.

  Microsoft Exchange Server 2019 Cumulative Update 15 - Download the package now

Cumulative Update 15 Exchange Server 2019 (KB5042461)
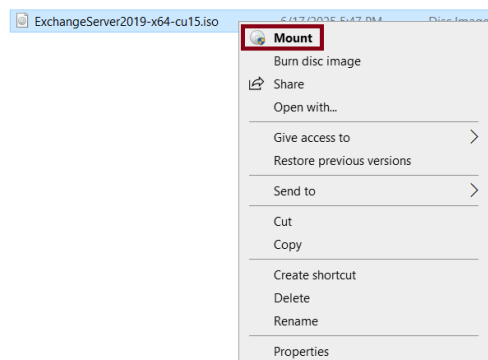
Cumulative Update 15 Exchange Server 2019 (KB5042461)

Important! Selecting a language below will dynamically change the complete page content to that language.

Select language   English   ⌄   **Download**

Once the download was complete, I right-clicked the ExchangeServer2019-x64-CU15.iso file and selected Mount

ExchangeServer2019-x64-cu15.iso

- **Mount**
  Burn disc image
  Share
  Open with...
  Give access to   >
  Restore previous versions
  Send to   >
  Cut
  Copy
  Create shortcut
  Delete
  Rename
  Properties

This opened the ISO and displayed its contents as a mounted DVD drive

```
##########################################################
Launching the Exchange 2019 Installer
##########################################################
```

From the mounted ISO, I right-clicked on Setup.exe and chose Run as
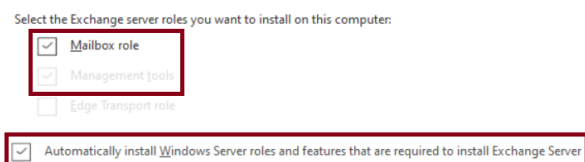Administrator
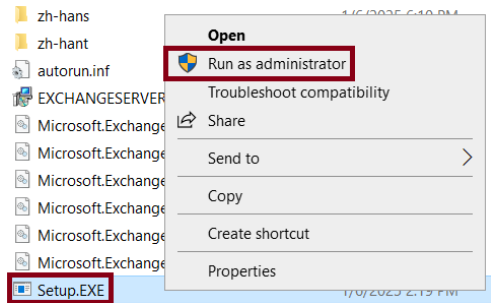
The Exchange installation wizard opened and began the initialization **process**

When prompted, I accepted the license agreement and clicked Next
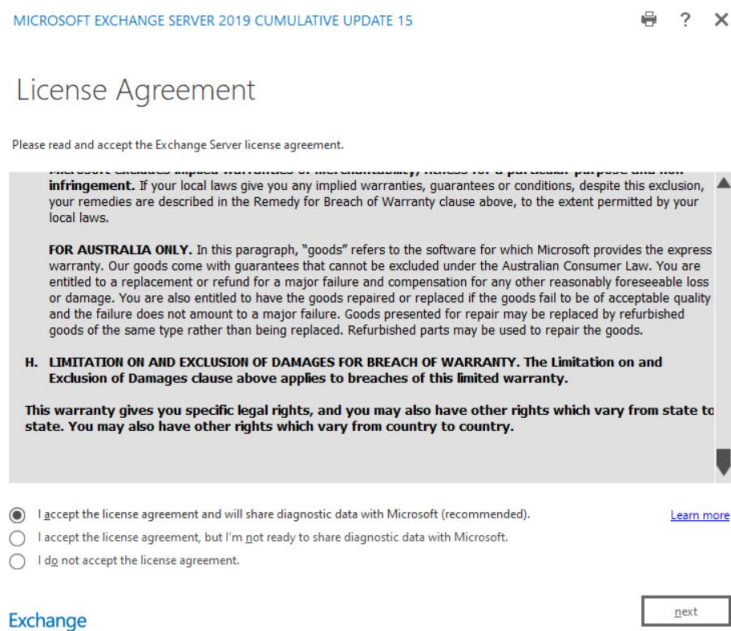
On the next screen, I left the option checked to automatically install
Windows Server roles and features required by Exchange Server

This ensures that any missing dependencies are added during setup

```
############################################################
```
Choosing Installation Path and Organization Name
```
############################################################
```

I continued through the wizard and left the default installation path

Installation Space and Location

Disk space required: 5711 MB

Disk space available: 179093 MB

Specify the path for the Exchange Server installation:

| C:\Program Files\Microsoft\Exchange Server\V15 | | browse |

When prompted **for** the Exchange Organization Name, I entered

AD07-Exchange

Exchange Organization

Specify the name for this Exchange organization:

| AD07-Exchange |

This name is used **in** Active Directory and **in** backend configuration but is not
shown to **end** users

```
############################################################
```
Malware Protection and Prerequisite Check
```
############################################################
```

I kept the default option to enable malware protection

Malware Protection Settings

Malware scanning helps protect your messaging environment by detecting messages that may contain viruses or spyware. It can be
turned off, replaced, or paired with other premium services for layered protection.

Malware scanning is enabled by default. However, you can disable it if you're using another product for malware scanning. If you
choose to disable malware scanning now, you can enable it at any point after you've installed Exchange.
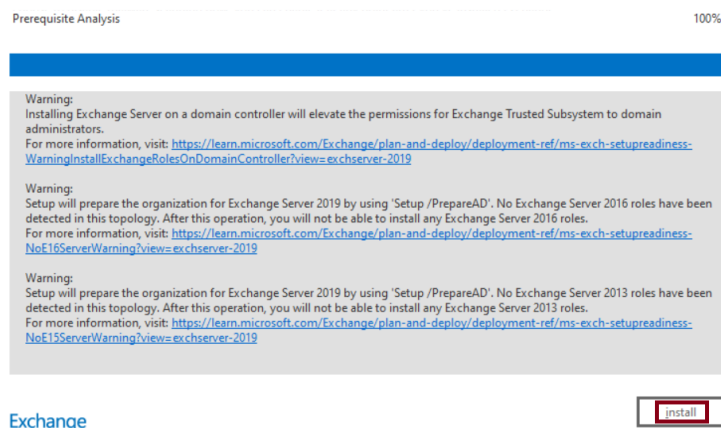
Disable malware scanning.

○ Yes

◉ No

Internet access is required to download the latest anti-malware engine and definition updates.

The setup wizard ran a Prerequisite Check

Even though it showed a few warnings, the Install button became available
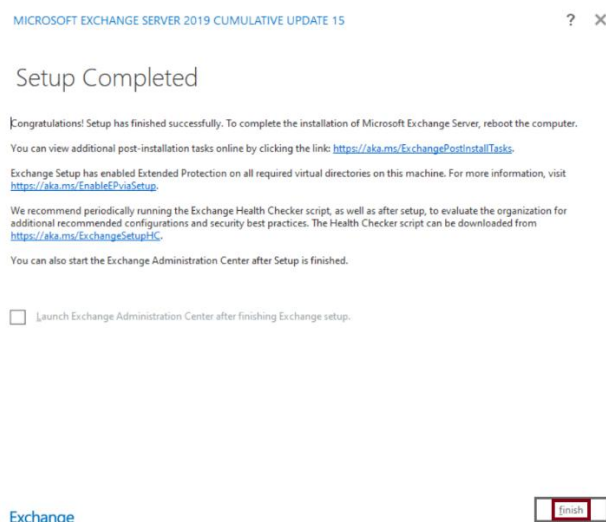because all required checks passed

I clicked Install to **begin** the full installation of Exchange Server 2019

```
######################################################
```
Installation Progress and Completion
```
######################################################
```

The Exchange setup completed all 14 installation steps

This **process** took approximately 45 minutes **in** my virtual machine environment

Once the setup finished, I clicked the Finish button

Then I restarted the server to apply all configuration changes

Restart-Computer

```
PS C:\Users\Administrator> Restart-Computer
```

```
####################################################################
Exercise 3 – Validating Exchange 2019 Installation
This exercise confirms that Exchange Server 2019 was successfully installed
and operational
####################################################################
```

After the Exchange installation completed and the server restarted, I logged
in as domain07\Administrator

```
#######################################################
Step 1 – Check Exchange Installation Log
#######################################################
```

I opened File Explorer and browsed to the following path

C:\ExchangeSetupLogs\ExchangeSetup.log

I scrolled through the log to confirm that all setup steps completed
successfully and that no critical errors occurred

The log file provided detailed status information for all 14 installation
phases

```
###############################################################
Step 2 — Load Exchange PowerShell Snap-in and Validate Services
###############################################################
```

I opened PowerShell as Administrator

I ran this command to load the Exchange PowerShell module

Add-PSSnapin *exc*

```
PS C:\Users\Administrator> Add-PSSnapin *exc*
```

This command loaded all Exchange-related cmdlets into the session

Next, I ran the following command to list mailboxes

Get-Mailbox

```
PS C:\Users\Administrator> Add-PSSnapin *exc*
PS C:\Users\Administrator> Get-Mailbox

Name                      Alias                 ServerName      ProhibitSendQuota
----                      -----                 ----------      -----------------
Administrator             Administrator         ad07            Unlimited
DiscoverySearchMailbox... DiscoverySearchMa...  ad07            50 GB (53,687,091,200 bytes)
```

Since no mailboxes have been created yet, this returned no results — which is expected

Then I checked that all required Exchange services were running using this command

Test-ServiceHealth

```
PS C:\Users\Administrator> Test-ServiceHealth


Role                  : Mailbox Server Role
RequiredServicesRunning : True
ServicesRunning       : {IISAdmin, MSExchangeADTopology, MSExchangeDelivery, MSExchangeIS...}
ServicesNotRunning    : {}

Role                  : Client Access Server Role
RequiredServicesRunning : True
ServicesRunning       : {IISAdmin, MSExchangeADTopology, MSExchangeMailboxReplication,
                         MSExchangeRPC...}
ServicesNotRunning    : {}

Role                  : Hub Transport Server Role
RequiredServicesRunning : True
ServicesRunning       : {IISAdmin, MSExchangeADTopology, MSExchangeEdgeSync, MSExchangeServiceHost...}
ServicesNotRunning    : {}
```
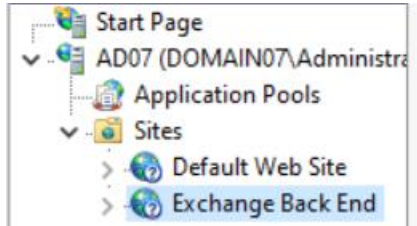
The output confirmed that all critical services were in a Healthy state

```
#########################################################
Step 3 – Review IIS for Exchange Web Services
#########################################################
```

I opened IIS Manager

Under the server node, I expanded Sites and saw that new Exchange-related
sites were created, including:

Default Web Site
Exchange Back End

These sites were using secure HTTPS bindings and linked to the SSL
certificate created earlier

They enable access to Exchange features like Outlook on the Web (OWA) and the
Exchange Admin Center (EAC)

```
#########################################################
Step 4 – Access the Exchange Admin Center
#########################################################
```

I opened a browser and navigated to the following address

https://ad07.domain07.local/ecp
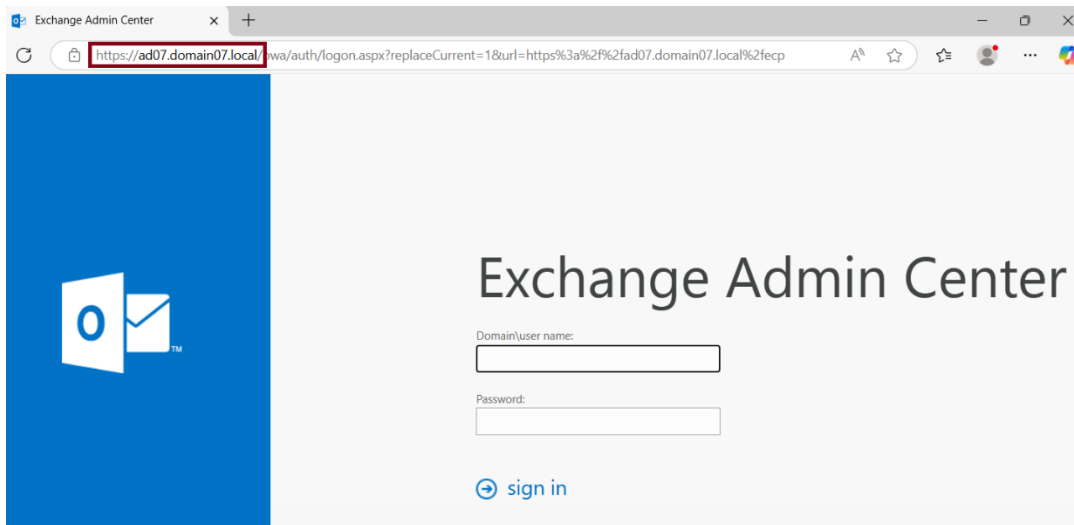
The Exchange Admin Center login screen appeared

```
#######################################################
Step 5 – Export and Shutdown
#######################################################
```

Once validation was complete, I shut down the server **using** this command

Stop-Computer

PS C:\Users\Administrator> Stop-Computer_

Then I exported the VM **in** VMware Workstation:

Clicked on the VM named ad07 and Selected File on the top right of VMware
Selected Export to OVF
Saved it as Exchange2019.ova to preserve the working Exchange server image

📦 Exchange2019.ova	2025-06-17 9:05 PM	Open Virtualizatio...	16,212,060 KB