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Exercise 1 – Setting up Exchange ActiveSync (EAS) Services

Part 1 – Using Exchange Admin Center (EAC)

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Objective:

This task configures Exchange ActiveSync (EAS) to allow mobile devices like smartphones and tablets to securely connect to Exchange mailboxes. We'll set the proper access URL, enable secure authentication, and create policies that control how mobile devices interact with the Exchange server.

Step 1 – Log in to Exchange Admin Center (EAC)

Access the EAC from your Exchange server by opening the browser and navigating to:

<https://ad07.domain07.com/ecp>

EAC is the web-based GUI for managing Exchange. You'll use your administrator credentials to log in.

Step 2 – Set the External URL for Exchange ActiveSync (EAS)

Navigate to:

Servers > Virtual directories

At the top of the page:

- Under **Select server**, choose: ad07.domain07.local
- Leave **Select type** as: All types

From the list of virtual directories, select:

Microsoft-Server-ActiveSync (Default Web Site)

Exchange admin center

recipients servers databases database availability groups **virtual directories** cert

permissions

compliance management

organization

protection

mail flow

mobile

public folders

servers

hybrid

NAME	SERVER	TYPE	VERSION	LAST MODIFIED TI...
Autodiscover (Default Web ...)	AD07	Autod...	Version 15.2 (Build 17...	6/17/2025 9:01 P...
ecp (Default Web Site)	AD07	ECP	Version 15.2 (Build 17...	6/17/2025 9:01 P...
EWS (Default Web Site)	AD07	EWS	Version 15.2 (Build 17...	6/17/2025 9:01 P...
mapi (Default Web Site)	AD07	Mapi	Version 15.2 (Build 17...	6/24/2025 9:41 P...
Microsoft-Server-ActiveSync...	AD07	EAS	Version 15.2 (Build 17...	6/17/2025 9:01 P...
OAB (Default Web Site)	AD07	OAB	Version 15.2 (Build 17...	6/17/2025 9:01 P...
owa (Default Web Site)	AD07	OWA	Version 15.2 (Build 17...	6/17/2025 9:01 P...
PowerShell (Default Web Site)	AD07	Power...	Version 15.2 (Build 17...	6/17/2025 9:01 P...

Click the pencil icon (✍) to open the configuration window.

In the **External URL** field, enter the following:
`https://mail.domain07.ca/Microsoft-Server-ActiveSync`

Microsoft-Server-ActiveSync (Default Web Site)

▶ general

authentication

Server: `AD07`

Last modified time: `6/17/2025 9:01 PM`

Internal URL: `https://ad07.domain07.local/Microsoft-Server-ActiveSync`

External URL: `https://mail.domain07.ca/Microsoft-Server-ActiveSync`

The ExternalURL is the URL that clients will use to connect outside your firewall.

Explanation:

This is the public-facing URL that mobile clients use to reach the ActiveSync service over the internet. Setting it correctly ensures devices can discover and connect using AutoDiscover. Leaving the type filter set to "All types" helps display all available virtual directories for the selected server, avoiding any oversight during configuration.

Click **Save** to apply your changes.

Step 3 – Set Authentication to Basic

Still in the Microsoft-Server-ActiveSync virtual directory settings, go to the **Authentication** tab.

Select: Basic Authentication

Click Save.

Microsoft-Server-ActiveSync (Default Web Site)

general

▶ authentication

SSL enabled: `True`

Select the authentication method or methods that this virtual directory accepts. To enable authentication between the Exchange server and a mobile device, either Basic authentication or Client Certificate authentication is required.

Basic authentication
(Requires the use of SSL certificates to encrypt the passwords that are normally sent in clear text)

Client certificate authentication:

Ignore client certificates
 Accept client certificates
 Require client certificates

Explanation:

Basic authentication is commonly used with SSL/TLS (HTTPS) to secure the username and password in transit. This is a typical setup for mobile devices connecting via Exchange ActiveSync.

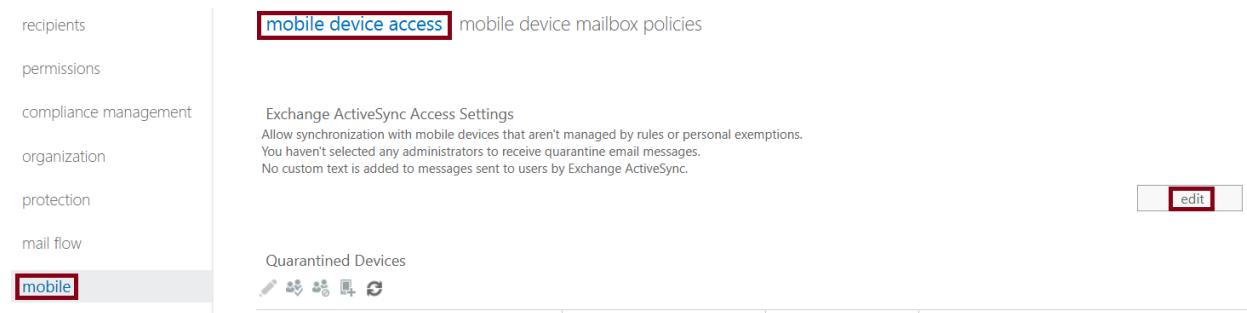
Step 4 – Set Default Access Rule to Quarantine

Navigate to:

mobile > mobile device access

In the main window, locate the section titled:
Exchange ActiveSync Access Settings

Click the **Edit** button on the right-hand side to open the configuration window.



Under **Connection Settings**, select the radio button:
Quarantine - Let me decide to block or allow later

Exchange ActiveSync access settings

Connection Settings

When a mobile device that isn't managed by a rule or personal exemption connects to Exchange:

- Allow access
- Block access
- Quarantine - Let me decide to block or allow later

Explanation:

This setting ensures that when a mobile device connects to Exchange and isn't governed by a rule or exemption, it won't be allowed immediate access. Instead, it will be placed in a quarantine state, giving administrators full control over whether to permit or deny access after review. This minimizes the risk of unauthorized device synchronization and strengthens control over mobile data access.

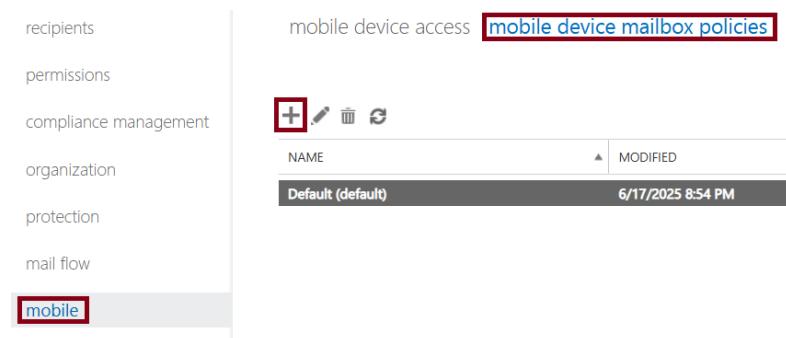
Click **Save** to confirm and apply the setting.

Step 5 – Create a Mobile Device Mailbox Policy

Go to:

mobile > mobile device mailbox policies

Click the ****+ (Add)**** button to create a new policy.



Configure the following:

- Name: Sellers on the road
- Allow synchronization of non-compliant devices
- Require encryption on device
- Minimum password length: 12 characters
- Password expiration: 90 days

new mobile device mailbox policy

*Required fields

*Name:

This is the default policy

Allow mobile devices that don't fully support these policies to synchronize

Policies for Exchange ActiveSync and OWA for Devices

Select the policies that you want to enable for Exchange ActiveSync and OWA for Devices. [Learn more](#)

Require a password

Allow simple passwords

Require an alphanumeric password

 Password must include this many character sets:

Require encryption on device

Minimum password length:

Number of sign-in failures before device is wiped:

Require sign-in after the device has been inactive for (minutes):

minutes

Enforce password lifetime (days):

days

 Password recycle count:

Explanation:

Mobile device mailbox policies enforce security rules on users phones/tablets.

This policy is designed **for** users who travel and may use different mobile devices. It enforces strong passwords and device encryption to protect mailbox **data**. Allowing sync of non-compliant devices gives flexibility **in** environments **where** strict enforcement might prevent business needs.

Click Save to finish creating the policy.

```
=====  
Exercise 1 - Setting up Exchange ActiveSync (EAS) Services  
Part 2 - Using Exchange Management Shell (EMS)  
=====
```

Objective:

This section configures Exchange ActiveSync **using** PowerShell **in** the Exchange Management Shell.

Using EMS helps automate tasks, apply changes quickly, and better understand the server-side commands behind the EAC interface.

Step 1 - Identify the ActiveSync Virtual Directory

```
Get-ActiveSyncVirtualDirectory | Format-List Name, Server
```

```
[PS] C:\Users\Administrator>Get-ActiveSyncVirtualDirectory | Format-List Name, Server  
  
Name : Microsoft-Server-ActiveSync (Default Web Site)  
Server : AD07
```

Explanation:

Lists all ActiveSync virtual directories on the Exchange server. This helps identify the exact name and location of the directory to target **in** later commands.

Step 2 - View the ActiveSync Virtual Directory Settings

```
Get-ActiveSyncVirtualDirectory | Format-List Name, Server, InternalUrl,  
ExternalUrl, BasicAuthEnabled
```

```
[PS] C:\Users\Administrator>Get-ActiveSyncVirtualDirectory | Format-List Name, Server, InternalUrl,  
ExternalUrl, BasicAuthEnabled  
  
Name : Microsoft-Server-ActiveSync (Default Web Site)  
Server : AD07  
InternalUrl : https://ad07.domain07.local/Microsoft-Server-ActiveSync  
ExternalUrl : https://mail.domain07.ca/Microsoft-Server-ActiveSync  
BasicAuthEnabled : True
```

Explanation:

This command displays key properties **for** all ActiveSync virtual directories across the Exchange environment. **It** includes each directory's name, server association, internal and external URLs, and whether Basic Authentication is enabled.

We used this broader command instead of the **more** specific:

```
Get-ActiveSyncVirtualDirectory -Identity "ad07\Microsoft-Server-ActiveSync  
(Default Web Site)" | Format-List
```

```
[PS] C:\Users\Administrator>Get-ActiveSyncVirtualDirectory -Identity "ad07\Microsoft-Server-ActiveSync (Default Web Site)" | Format-List

RunspaceId : 06fffec9-5c96-4ffd-b8e7-99569d103a96
MobileClientFlags : BadItemReportingEnabled, SendWatsonReport
MobileClientCertificateProvisioningEnabled : False
BadItemReportingEnabled : True
SendWatsonReport : True
MobileClientCertificateAuthorityURL :
MobileClientCertTemplateName :
ActiveSyncServer : https://mail.domain07.ca/Microsoft-Server-ActiveSync
RemoteDocumentsActionForUnknownServers : Allow
RemoteDocumentsAllowedServers : {}
RemoteDocumentsBlockedServers : {}
RemoteDocumentsInternalDomainSuffixList :
MetabasePath : IIS://ad07.domain07.local/W3SVC/1/ROOT/Microsoft-Server-ActiveSync
BasicAuthEnabled : True
WindowsAuthEnabled : False
CompressionEnabled : False
ClientCertAuth : Ignore
WebsiteName : Default Web Site
WebsiteSSLEnabled : True
VirtualDirectoryName : Microsoft-Server-ActiveSync
```

Activate Windows
Go to Settings to activate Windows.

This approach provides a complete overview of all available ActiveSync configurations. It's especially helpful for confirming that the correct server and virtual directory are in place before making changes. In a production environment, seeing the full list helps catch inconsistencies or misconfigurations across multiple servers. Later, when making specific modifications, the '-Identity' parameter will be used to target individual directories.

Step 3 – Set the External URL

```
Set-ActiveSyncVirtualDirectory -Identity "ad07\Microsoft-Server-ActiveSync (Default Web Site)" -ExternalUrl "https://mail.domain07.ca/Microsoft-Server-ActiveSync"
```

```
[PS] C:\Users\Administrator>Set-ActiveSyncVirtualDirectory -Identity "ad07\Microsoft-Server-ActiveSync (Default Web Site)" -ExternalUrl "https://mail.domain07.ca/Microsoft-Server-ActiveSync"
[PS] C:\Users\Administrator>
```

Explanation:

Sets the public-facing URL for the ActiveSync service, used by mobile devices to connect over the internet. The URL must match the organization's external domain and must be secured by a valid certificate.

Step 4 – Disable Basic Authentication

```
Set-ActiveSyncVirtualDirectory -Identity "ad07\Microsoft-Server-ActiveSync (Default Web Site)" -BasicAuthEnabled $false
```

```
[PS] C:\Users\Administrator>Set-ActiveSyncVirtualDirectory -Identity "ad07\Microsoft-Server-ActiveSync (Default Web Site)" -BasicAuthEnabled $false
[PS] C:\Users\Administrator>Get-ActiveSyncVirtualDirectory | Format-List Name, Server, InternalUrl, ExternalUrl, BasicAuthEnabled

Name : Microsoft-Server-ActiveSync (Default Web Site)
Server : AD07
InternalUrl : https://ad07.domain07.local/Microsoft-Server-ActiveSync
ExternalUrl : https://mail.domain07.ca/Microsoft-Server-ActiveSync
BasicAuthEnabled : False
```

Explanation:

Disables Basic Authentication for the ActiveSync virtual directory to enhance security. Other authentication methods like Modern Auth or OAuth are recommended for secure environments.

Step 5 – List Mobile Device Mailbox Policies

Get-MobileDeviceMailboxPolicy | Format-List Identity

```
[PS] C:\Users\Administrator>Get-MobileDeviceMailboxPolicy | Format-List Identity

Identity : Default

Identity : Sellers on the road
```

Explanation:

This command lists all existing mobile device mailbox policies configured on the Exchange server.

Using Format-List Identity displays the full identity label **for** each policy, such as Default or Sellers on the road, which can be useful **for** later referencing the exact policy name **in** commands.

Compared to **Select Name**, which shows just the raw names, **Format-List Identity** adds **context** that aligns with other cmdlets that expect full identity strings.

Step 6 – View Properties of the “Sellers on the road” Policy

Get-MobileDeviceMailboxPolicy -Identity "Sellers on the road" | Format-List

```
[PS] C:\Users\Administrator>Get-MobileDeviceMailboxPolicy -Identity "Sellers on the road" | Format-List

RunspaceId : 06fffec9-5c96-4ffd-b8e7-99569d103a96
AllowNonProvisionableDevices : True
AlphanumericPasswordRequired : False
AttachmentsEnabled : True
DeviceEncryptionEnabled : False
RequireStorageCardEncryption : False
PasswordEnabled : True
PasswordRecoveryEnabled : False
DevicePolicyRefreshInterval : Unlimited
AllowSimplePassword : False
MaxAttachmentSize : Unlimited
WSSAccessEnabled : True
UNCAccessEnabled : True
MinPasswordLength : 12
MaxInactivityTimeLock : Unlimited
MaxPasswordFailedAttempts : Unlimited
PasswordExpiration : 90.00:00:00
PasswordHistory : 0
IsDefault : False
AllowApplePushNotifications : True
AllowMicrosoftPushNotifications : True
AllowGooglePushNotifications : True
AllowStorageCard : True
AllowCamera : True
RequireDeviceEncryption : True
AllowUnsignedApplications : True
AllowUnsignedInstallationPackages : True
AllowWiFi : True
AllowTextMessaging : True
AllowPOPIMAPEmail : True
AllowIrDA : True
RequireManualSyncWhenRoaming : False
AllowDesktopSync : True
AllowHTMLEmail : True
RequireSignedSMIMEMessages : False
RequireEncryptedSMIMEMessages : False
AllowSMIMESoftCerts : True
AllowBrowser : True
AllowConsumerEmail : True
AllowRemoteDesktop : True
AllowInternetSharing : True
AllowBluetooth : Allow
```

Activate Windows
Go to Settings to activate Windows.

```

MaxCalendarAgeFilter          : All
MaxEmailAgeFilter             : All
RequireSignedSMIMEAlgorithm   : SHA1
RequireEncryptionSMIMEAlgorithm: TripleDES
AllowsMIMEEncryptionAlgorithmNegotiation : AllowAnyAlgorithmNegotiation
MinPasswordComplexCharacters : 3
MaxEmailBodyTruncationSize   : Unlimited
MaxEmailHTMLBodyTruncationSize: Unlimited
UnapprovedInROMApplicationList: {}
ApprovedApplicationList      : {}
AllowExternalDeviceManagement: False
MobileOTAUpdateMode          : MinorVersionUpdates
AllowMobileOTAUpdate          : True
IrmEnabled                    : True
AdminDisplayName               :
ExchangeVersion                :
Name                           :
DistinguishedName              :

Identity                       :
Guid                           :
ObjectCategory                 :
ObjectClass                     :
WhenChanged                     : 0.1 (8.0.535.0)
WhenCreated                     : Sellers on the road
WhenChangedUTC                 : CN=Sellers on the road,CN=Mobile Mailbox Policies,CN=AD07-Exchange,CN=Microsoft Exchange,CN=Services,CN=Configuration,DC=domain07,DC=local
WhenCreatedUTC                 : Sellers on the road
WhenCreatedUTC                 : 039590ce-7036-4aa6-b283-268cca924976
WhenCreatedUTC                 : domain07.local/Configuration/Schema/ms-Exch-Mobile-Mailbox-Policy
WhenCreatedUTC                 : {top, msExchRecipientTemplate, msExchMobileMailboxPolicy}
WhenCreatedUTC                 : 6/26/2025 1:26:30 PM
WhenCreatedUTC                 : 6/26/2025 1:26:30 PM
WhenCreatedUTC                 : 6/26/2025 7:26:30 PM
WhenCreatedUTC                 : 6/26/2025 7:26:30 PM
OrganizationId                 :
Id                            : Sellers on the road
OriginatingServer              : ad07.domain07.local
IsValid                        : True
ObjectState                     : Unchanged

```

Explanation:

Shows all policy settings applied under "Sellers on the road." This includes password requirements, encryption, and other mobile security configurations.

Step 7 – Display Bluetooth Settings of "Sellers on the road"

```
Get-MobileDeviceMailboxPolicy -Identity "Sellers on the road" | Format-List
*bluetooth*
```

```
[PS] C:\Users\Administrator>Get-MobileDeviceMailboxPolicy -Identity "Sellers on the road" | Format-List *bluetooth*
AllowBluetooth : Allow
```

Explanation:

Filters and displays only the Bluetooth-related configuration of the selected policy. Helps verify current restrictions or permissions on Bluetooth use.

Step 8 – Allow Only Hands-Free Bluetooth

```
Set-MobileDeviceMailboxPolicy -Identity "Sellers on the road" -AllowBluetooth
HandsFreeOnly
```

```
[PS] C:\Users\Administrator>Set-MobileDeviceMailboxPolicy -Identity "Sellers on the road" -AllowBluetooth
HandsFreeOnly
```

Explanation:

Restricts mobile devices to only use hands-free Bluetooth mode. This helps mitigate risks associated with full Bluetooth access, especially in regulated environments.

Step 9 – Verify Bluetooth Setting After Modification

```
Get-MobileDeviceMailboxPolicy -Identity "Sellers on the road" | Format-List  
*bluetooth*
```

```
[PS] C:\Users\Administrator>Get-MobileDeviceMailboxPolicy -Identity "Sellers on the road" | Format-  
List *bluetooth*  
  
AllowBluetooth : HandsfreeOnly
```

Explanation:

Confirms that the Bluetooth setting was correctly changed to "HandsFreeOnly" **for** the specified policy.

Step 10 – Create a New Policy Named "Basic Policy"

```
New-MobileDeviceMailboxPolicy -Name "Basic Policy"  
-AllowCamera $true  
-AllowBluetooth Disable
```

```
[PS] C:\Users\Administrator>New-MobileDeviceMailboxPolicy -Name "Basic Policy"  
-> -AllowCamera $true  
-> -AllowBluetooth Disable
```

RunspaceId	:	06ffffec9-5c96-4ffd-b8e7-99569d103a96
AllowNonProvisionableDevices	:	False
AlphanumericPasswordRequired	:	False
AttachmentsEnabled	:	True
DeviceEncryptionEnabled	:	False
RequireStorageCardEncryption	:	False
PasswordEnabled	:	False
PasswordRecoveryEnabled	:	False
DevicePolicyRefreshInterval	:	Unlimited
AllowSimplePassword	:	True
MaxAttachmentSize	:	Unlimited
WSSAccessEnabled	:	True
UNCAccessEnabled	:	True
MinPasswordLength	:	Unlimited
MaxInactivityTimeLock	:	Unlimited
MaxPasswordFailedAttempts	:	Unlimited
PasswordExpiration	:	0
PasswordHistory	:	0
IsDefault	:	False
AllowApplePushNotifications	:	True
AllowMicrosoftPushNotifications	:	True
AllowGooglePushNotifications	:	True
AllowStorageCard	:	True
AllowCamera	:	True
RequireDeviceEncryption	:	False
AllowUnsignedApplications	:	True
AllowUnsignedInstallationPackages	:	True
AllowWiFi	:	True
AllowTextMessaging	:	True
AllowPOPIMAPEmail	:	True
AllowIrDA	:	True
RequireManualSyncWhenRoaming	:	False
AllowDesktopSync	:	True
AllowHTMLEmail	:	True
RequireSignedSMIMEMessages	:	False
RequireEncryptedSMIMEMessages	:	False
AllowSMIMESoftCerts	:	True
AllowBrowser	:	True
AllowConsumerEmail	:	True

Explanation:

Creates a new mobile device policy that allows the device camera but completely disables Bluetooth. This could be used **for** users **in** secure areas **where** Bluetooth is not permitted but camera usage is acceptable.

Step 11 - Confirm the New Policy Has Been Created

```
Get-MobileDeviceMailboxPolicy -Identity "Basic Policy" | Format-List  
AllowCamera, AllowBluetooth
```

```
[PS] C:\Users\Administrator>Get-MobileDeviceMailboxPolicy -Identity "Basic Policy" | Format-List Al  
lowCamera, AllowBluetooth  
  
AllowCamera : True  
AllowBluetooth : Disable
```

Explanation:

Displays the new policy's settings to confirm *it* was created successfully with the correct camera and Bluetooth configurations.

Exercise 2 – Configuring OWA Services

Part 1 – Using Exchange Admin Center (EAC)

Objective:

This task configures Outlook Web App (OWA) settings through the Exchange Admin Center. You will define the external access URL, enforce authentication methods, control file access, and apply user policies. The goal is to ensure secure and optimized access to OWA from both internal and external environments.

Step 1 – Set the External URL for OWA**Action:**

Update the external URL used by clients to access Outlook Web App.

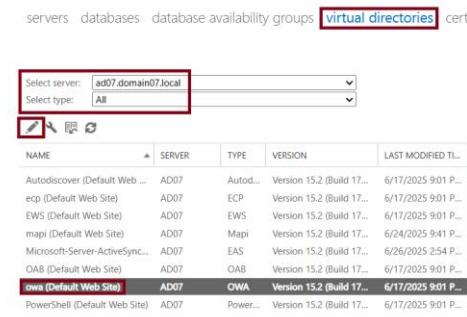
Navigation:

Servers > Virtual directories
From the top of the page:
- Select server: ad07.domain07.local
- Type: All types

Select: **owa (Default Web Site)**

Click the **Edit (✎)** icon.

Exchange admin center

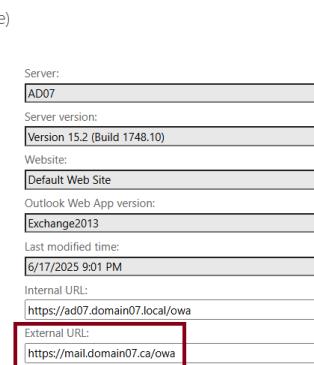


The screenshot shows the Exchange Admin Center interface with the 'servers' tab selected. In the top navigation bar, 'virtual directories' is highlighted. The main content area displays a list of virtual directories. A red box highlights the 'owa (Default Web Site)' entry, which is listed under the 'AD07' server. The table columns are NAME, SERVER, TYPE, VERSION, and LAST MODIFIED TIME.

NAME	SERVER	TYPE	VERSION	LAST MODIFIED TIME
Autodiscover (Default Web ...	AD07	Autod...	Version 15.2 (Build 17...	6/17/2025 9:01 P...
ecp (Default Web Site)	AD07	ECP	Version 15.2 (Build 17...	6/17/2025 9:01 P...
EWS (Default Web Site)	AD07	EWS	Version 15.2 (Build 17...	6/17/2025 9:01 P...
mapi (Default Web Site)	AD07	Mapi	Version 15.2 (Build 17...	6/24/2025 9:41 P...
Microsoft-Server-ActiveSync...	AD07	EAS	Version 15.2 (Build 17...	6/26/2025 2:54 P...
OAB (Default Web Site)	AD07	OAB	Version 15.2 (Build 17...	6/17/2025 9:01 P...
owa (Default Web Site)	AD07	OWA	Version 15.2 (Build 17...	6/17/2025 9:01 P...
PowerShell (Default Web Site)	AD07	Power...	Version 15.2 (Build 17...	6/17/2025 9:01 P...

In the **External URL** field, enter:

<https://mail.domain07.ca/owa>



The screenshot shows the 'owa (Default Web Site)' configuration page. The 'general' section is expanded, showing fields for Server (AD07), Server version (Version 15.2 Build 1748.10), Website (Default Web Site), Outlook Web App version (Exchange2013), Last modified time (6/17/2025 9:01 PM), Internal URL (https://ad07.domain07.local/owa), and External URL (https://mail.domain07.ca/owa). A red box highlights the 'External URL' field.

Click **Save** to apply the change.

Explanation:

This is the public-facing link used by web browsers to access OWA. Setting the external URL ensures proper redirection **for** external users and must match the organization's external domain name used **in** DNS and SSL certificates.

Step 2 - Configure Authentication Format**Action:**

Ensure authentication is **set** to Domain\Username.

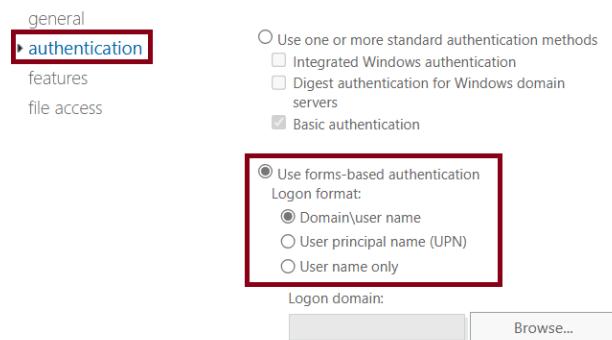
Navigation:

Still **in** the **owa (Default Web Site)** settings, go to the **Authentication** tab.

Under **Logon format**, **select**:

Domain\user name

owa (Default Web Site)



Click **Save** to confirm.

Explanation:

Choosing Domain\Username as the logon format ensures compatibility with corporate identity standards. This format is easier to manage **in** AD-integrated environments and avoids ambiguity **in** user identification.

Step 3 - Enable Time Management - Calendar**Action:**

Enable the Calendar feature under time management options.

Navigation:

Servers > Virtual directories > owa (Default Web Site) > Features tab

In the **Time management** section [more options], check:

Calendar

Click **Save** to enable.



Explanation:

The calendar feature allows users to manage appointments and events. Enabling this is essential **for** productivity and collaboration across users accessing OWA.

Step 4 – Disable Direct File Access

Action:

Uncheck all direct file access options to restrict how attachments are handled **in** OWA.

Navigation:

Servers > Virtual directories > owa (Default Web Site) > Features > File access

Under both sections:

- Public or shared computer: uncheck ****Direct file access****
- Private computer or OWA **for** Devices: uncheck ****Direct file access****

Click ****Save****.

owa (Default Web Site)

general	
authentication	Select how users can view and access attachments from public or private computers.
features	
file access	Public or shared computer: <input type="checkbox"/> Direct file access
	Private computer or OWA for Devices: <input type="checkbox"/> Direct file access

Explanation:

Disabling direct file access **for** both public and private computers ensures attachments cannot be opened directly within the browser. This reduces risk of **data** leakage or malware execution, especially on non-secure endpoints.

Optional Step - Synchronize ECP Virtual Directory URL

Action:

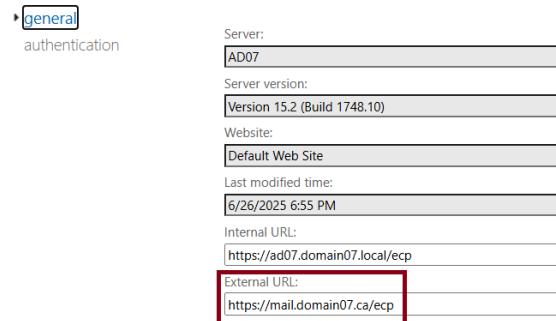
Apply the same external URL to the ECP (Exchange Control Panel) virtual directory as used **for** OWA.

PowerShell Command:

```
Set-EcpVirtualDirectory -Identity "ad07\ECP (Default Web Site)" -ExternalUrl  
"https://mail.domain07.ca/ecp"
```

```
[PS] C:\Users\Administrator>Set-EcpVirtualDirectory -Identity "ad07\ECP (Default Web Site)" -ExternalUrl  
"https://mail.domain07.ca/ecp"  
[PS] C:\Users\Administrator>
```

ecp (Default Web Site)

**Explanation:**

When you change the external URL **for** OWA, Exchange may display a warning recommending you **do** the same **for** the ECP directory. This ensures a consistent user and admin experience, particularly **for** redirection and remote access. **While** this step is not explicitly required by the lab instructions, including it demonstrates attention to system best practices and helps prevent misconfigurations.

Warning

You've changed the InternalURL or ExternalURL for the OWA virtual directory. Please make the same change for the ECP virtual directory in the same website.

OK

Step 5 – Create a New Outlook Web App Policy

Action:

Create a new policy limiting available features [in OWA](#).

Navigation:

Permissions > Outlook Web App policies

Click ***** Add**** to create a new policy.

[Exchange admin center](#)

The screenshot shows the Exchange admin center interface. On the left, there's a sidebar with categories: recipients, admin roles, user roles, **Outlook Web App policies**, permissions (which is the active tab), compliance management, organization, and protection. The main area has a header with '+', a pencil icon, and a trash bin icon. Below is a table with columns 'NAME' and 'LAST MODIFIED'. A single row is visible: 'Default' with a timestamp of '6/17/2025 8:28 PM'.

Set the following:

- Name: Sellers on the road
- Enable only these features:
 - Exchange ActiveSync
 - Contacts
 - Mobile contact sync
 - Logging
 - Calendar
 - Tasks
 - Direct file access ([public & private](#))

[new Outlook Web App mailbox policy](#)

Create an Outlook Web App mailbox policy to specify feature availability and file access settings. [Learn more](#)

*Policy name:

Select the features that you want to enable for this Outlook Web App mailbox policy.

Communication management

- Instant messaging
- Text messaging
- Exchange ActiveSync
- Contacts
- Mobile device contact sync
- All address lists

Time management

- Calendar
- Tasks
- Reminders and notifications

Select how users can view and access attachments from public or private computers.

Public or shared computer:

- Direct file access

Private computer or OWA for Devices:

- Direct file access

Click ****Save**** to create the policy.

Explanation:

This policy defines what features are available when users access OWA. Restricting features based on user roles (e.g., mobile salespeople) helps ensure security and better performance by tailoring access to user needs.

① Note on Logging:

Although the lab instructions require "Logging" to be enabled as part of the **Sellers on the road** OWA policy, no such checkbox is available in the Exchange Admin Center (EAC) when creating or editing an Outlook Web App mailbox policy.

Explanation:

In Exchange, **Logging** typically refers to diagnostic session-level logging, which is enabled temporarily for troubleshooting. This feature is **not part of the admin-configurable OWA policy options**. The only related setting visible under the **Information Management** section during policy creation is **Journaling**, which was selected in its place to fulfill the form.

While logging cannot be enabled directly within the OWA policy, **Outlook Web App (OWA) provides an end-user option to manually enable session logging** after login. This method will be used for validation in **Part 3 - Testing the OWA Policy**.

Optionally, **administrator-level mailbox auditing** can also be enabled using the following command:

```
Set-Mailbox -Identity "Username" -AuditEnabled $true
```

This provides audit-level tracking of mailbox actions (e.g., message deletions, folder accesses) and complements session logging but is not required for completing this lab.

Step 6 - Enable Offline Mode from Private Computers Only**Action:**

Configure how users access Outlook on the web when they are offline.

Navigation:

Still in the Sellers on the road policy, go to the **Offline access** tab.

In the left panel, select: **offline access**

Under "Enable offline access," select the radio button:
Private computer

Sellers on the road

The screenshot shows a configuration page for 'offline access'. On the left, there are several tabs: 'general', 'features', 'file access', and 'offline access', which is highlighted with a red box. To the right, under 'Enable offline access:', there are three radio buttons: 'Always', 'Private computer' (which is selected and highlighted with a red box), and 'Never'. A callout box points to the 'Private computer' option with the text: 'Offline access copies information from users' accounts to their device, which lets them use Outlook on the web when they're not connected to a network.'

Click ****Save**** to apply the changes.

Explanation:

This setting allows users to enable offline access to Outlook Web App ****only when using a private computer****. It enhances security by preventing offline **data** storage on public or shared machines. Offline access lets users view and manage mailbox items even without an active network connection, making it useful **for** mobile workers or areas with intermittent connectivity.

Step 7 – Apply OWA Policy to Elon Musk

Action:

Assign the "Sellers on the road" Outlook Web App (**OWA**) mailbox policy to Elon Musk.

Navigation:

Recipients > Mailboxes

Select user: Elon Musk

Click Edit (✎)

Exchange admin center

The screenshot shows the 'Mailboxes' section of the Exchange admin center. The left sidebar has a 'recipients' tab highlighted with a red box. The main area shows a list of mailboxes with columns for 'DISPLAY NAME', 'MAILBOX TYPE', and 'EMAIL ADDRESS'. The 'Elon Musk' entry is selected and highlighted with a red box. The list includes:

DISPLAY NAME	MAILBOX TYPE	EMAIL ADDRESS
Administrator	User	Administrator@domain07.local
Antoine Tohme	User	atohme@domain07.local
Elon Musk	User	emusk@domain07.local
Guillermo Padilla Keymole	User	gkeymole@domain07.local

In the left-hand pane, click Mailbox Features

Under the "Email Connectivity" section, locate: Outlook on the web: Enabled
Click View details

Elon Musk

general	Mobile Devices
mailbox usage	Disable Exchange ActiveSync
contact information	Disable OWA for Devices
organization	View details
email address	
mailbox features	Email Connectivity
member of	Outlook on the web: Enabled
MailTip	Disable View details
mailbox delegation	IMAP: Enabled
	Disable
	POP3: Enabled
	Disable

In the popup window, use the dropdown for "Outlook Web App mailbox policy" Select: Sellers on the road

The screenshot shows two overlapping windows from Microsoft Edge. The top window is titled 'Edit User Mailbox - [InPrivate] - Microsoft Edge' and displays the URL 'https://ad07.domain07.local/ecp/UsersGroups/EditMailbox.aspx?pwmid=3&ReturnObjectType=...'. It contains a list of mailbox features with 'mailbox features' highlighted by a red box. The bottom window is titled 'ad07.domain07.local/ecp/OwaMailboxPolicy/OwaMailboxPolicyPicker.aspx?pwmid=1&Launcher=Res...' and displays the URL 'https://ad07.domain07.local/ecp/OwaMailboxPolicy/OwaMailboxPolicyPicker.aspx?pwmid=1&L...'. This window shows a list of policies under 'NAME' with 'Default' selected and 'Sellers on the road' highlighted by a red box. A dropdown menu on the right lists various policy settings like 'Enabled Features', 'Information management', 'Security', and 'User experience'. At the bottom of the dropdown are 'OK' and 'Cancel' buttons.

Click Save

Click Save again to apply changes and **exit** the user settings

Explanation:

Assigning the OWA policy ensures the user (**Elon Musk**) receives the custom feature **set** and access controls defined earlier. This allows administrators to manage user experiences and enforce security requirements per user role.

```
=====  
Exercise 2 - Configuring OWA Services  
Part 2 - Using Exchange Management Shell (EMS)  
=====
```

Objective:

This section uses PowerShell (**Exchange Management Shell**) to manage Outlook Web App (**OWA**) virtual directories and mailbox policies. EMS provides faster access to **configuration** details, precise control over settings, and helps administrators script repeatable actions.

Step 1 - Display the OWA Virtual Directory Name

Action:

List all OWA virtual directories to identify the one we'll configure.

Command:

```
Get-OwaVirtualDirectory | Format-List Name, Server
```

```
[PS] C:\Users\Administrator>Get-OwaVirtualDirectory | Format-List Name, Server  
  
Name : owa (Default Web Site)  
Server : AD07
```

Explanation:

This command lists all Outlook Web App virtual directories on the server. Each OWA virtual directory is linked to a specific IIS site (**e.g., Default Web Site**). We need to know the exact name and server ID to modify its settings **in** future steps.

Step 2 - View the OWA Virtual Directory Configuration Settings

Action:

Display full **configuration for** a specific virtual directory.

Command:

```
Get-OwaVirtualDirectory -Identity "ad07\owa (Default Web Site)" | Format-List
```

```
[PS] C:\Users\Administrator>Get-OwaVirtualDirectory -Identity "ad07\owa (Default Web Site)" | Format-List
```

Explanation:

Shows all **configuration** options applied to the selected OWA virtual directory. Useful **for** checking access settings, authentication methods, and supported features before making any changes.

Step 3 - View Only the External URL of the OWA Virtual Directory

Action:

Filter the output to show only the external URL.

Command:

```
Get-OwaVirtualDirectory -Identity "ad07\owa (Default Web Site)" | Format-List  
ExternalUrl
```

```
[PS] C:\Users\Administrator>Get-OwaVirtualDirectory -Identity "ad07\owa (Default Web Site)" | Format-List ExternalUrl  
  
ExternalUrl : https://mail.domain07.ca/owa
```

Explanation:

Narrowing the output to ExternalUrl helps verify what users outside the network will use to access OWA. This **should** match the organizations public mail domain (e.g., <https://mail.domain07.ca/owa>).

Step 4 – Disable Calendar Access from OWA Virtual Directory

Action:

Globally disable access to the Calendar feature **for** all users via OWA.

Command:

```
Set-OwaVirtualDirectory -Identity "owa (Default Web Site)" -CalendarEnabled $false
```

```
[PS] C:\Users\Administrator>Set-OwaVirtualDirectory -Identity "owa (Default Web Site)" -CalendarEnabled $false  
[PS] C:\Users\Administrator>_
```

Explanation:

This command disables Calendar access on the OWA virtual directory itself, which affects all users accessing Outlook on the web through this directory. It is applied globally—not per user or policy—and is often used when an organization wants to restrict web-based calendar usage entirely.

Step 5 – Verify the Calendar Setting Has Been Updated

Action:

Confirm that Calendar access has been disabled on the OWA virtual directory.

Command:

```
Get-OwaVirtualDirectory -Identity "owa (Default Web Site)" | Format-List Name, CalendarEnabled
```

```
[PS] C:\Users\Administrator>Get-OwaVirtualDirectory -Identity "owa (Default Web Site)" | Format-List Name, CalendarEnabled  
  
Name : owa (Default Web Site)  
CalendarEnabled : False
```

Explanation:

This command checks the status of the CalendarEnabled property **for** the specified OWA virtual directory. A value of `False` confirms that Calendar access is now disabled **for** all users accessing OWA through this endpoint.

Step 6 – List All OWA Mailbox Policies

Action:

Display a list of all OWA mailbox policies configured **in** the environment.

Command:

```
Get-OwaMailboxPolicy | Format-List Name
```

```
[PS] C:\Users\Administrator>Get-OwaMailboxPolicy | Format-List Name  
  
Name : Default  
Name : Sellers on the road
```

Explanation:

This command retrieves all mailbox policies available **for** Outlook Web App (OWA). Listing the policy names helps confirm that both the default and custom policies—like "Sellers on the road"—exist before assigning them to users.

Step 7 – Create a New OWA Mailbox Policy Called "Basic Policy"

Action:

Add a new policy with default settings.

Command:

```
New-OwaMailboxPolicy -Name "Basic Policy"
```

```
[PS] C:\Users\Administrator>New-OwaMailboxPolicy -Name "Basic Policy"
```

Explanation:

This creates a new Outlook Web App policy object named "Basic Policy". By default, **it** inherits standard settings that can be customized later. Policies allow admins to restrict or allow specific OWA features per user **group**.

Step 8 – Confirm the Creation of the Policy

Action:

Verify that the "Basic Policy" has been successfully created.

Command:

```
Get-OwaMailboxPolicy | Format-List Identity
```

```
[PS] C:\Users\Administrator>Get-OwaMailboxPolicy | Format-List Identity  
  
Identity : Default  
Identity : Sellers on the road  
Identity : Basic Policy
```

Explanation:

This lists the identities (**names**) of all existing OWA mailbox policies. Its a quick way to visually confirm that "Basic Policy" is present without checking individual properties. This is sufficient **for** verifying creation as per the lab instructions.

Step 9 – Disable Junk Email Filtering in the "Basic Policy"

Action:

Update the policy to turn off junk email filtering.

Command:

```
Set-OwaMailboxPolicy -Identity "Basic Policy" -JunkEmailEnabled $false
```

```
[PS] C:\Users\Administrator>Set-OwaMailboxPolicy -Identity "Basic Policy" -JunkEmailEnabled $false
[PS] C:\Users\Administrator>
```

Explanation:

Disabling this setting means users under this policy won't be able to access Junk Email filtering via OWA. This might be useful **in** organizations **using** third-party email filtering or central mail routing.

Step 10 – Verify That Junk Email Filtering is Now Disabled

Action:

Ensure the setting has been applied correctly.

Command:

```
Get-OwaMailboxPolicy -Identity "Basic Policy" | Format-List JunkEmailEnabled
```

```
[PS] C:\Users\Administrator>Get-OwaMailboxPolicy -Identity "Basic Policy" | Format-List JunkEmailEnabled
JunkEmailEnabled : False
```

Explanation:

Verifies that JunkEmailEnabled is now **set** to False. This confirmation is essential to ensure that the **configuration** change was applied successfully.

Step 11 – Assign the "Basic Policy" to Elon Musk

Action:

Apply the new OWA policy to the specific user mailbox.

Command:

```
Set-CASMailbox -Identity "Elon Musk" -OwaMailboxPolicy "Basic Policy"
```

```
[PS] C:\Users\Administrator>Set-CASMailbox -Identity "Elon Musk" -OwaMailboxPolicy "Basic Policy"
[PS] C:\Users\Administrator>
```

Explanation:

This links the "Basic Policy" to Elon Musk's mailbox. From now on, his OWA experience will follow the permissions and restrictions defined **in** that policy.

Step 12 - Reassign "Sellers on the road" to Elon Musk for Testing

Action:

Apply the testing policy back to the user.

Command:

```
Set-CASMailbox -Identity "Elon Musk" -OwaMailboxPolicy "Sellers on the road"
```

```
[PS] C:\Users\Administrator>Set-CASMailbox -Identity "Elon Musk" -OwaMailboxPolicy "Sellers on the road"
[PS] C:\Users\Administrator>
```

Explanation:

Since Part 3 of the lab requires testing features specific to the "Sellers on the road" policy, this command ensures Elon Musk is again using the correct policy for validation and demonstration.

Step 13 ** Bonus ** - Verify OWA Mailbox Policy Assignment

Action:

Confirm which OWA mailbox policy is currently assigned to the user Elon Musk.

Command:

```
Get-CASMailbox -Identity "Elon Musk" | Format-List OwaMailboxPolicy
```

```
[PS] C:\Users\Administrator>Set-CASMailbox -Identity "Elon Musk" -OwaMailboxPolicy "Basic Policy"
[PS] C:\Users\Administrator>
[PS] C:\Users\Administrator>
[PS] C:\Users\Administrator>Set-CASMailbox -Identity "Elon Musk" -OwaMailboxPolicy "Sellers on the road"
[PS] C:\Users\Administrator>Get-CASMailbox -Identity "Elon Musk" | Format-List OwaMailboxPolicy
>>>

OwaMailboxPolicy : Sellers on the road
```

Explanation:

This command retrieves the current OWA policy applied to the users mailbox. Only one policy can be active at a time. Although the lab had us assign two policies ("Basic Policy" and "Sellers on the road"), the second assignment overwrites the first.

① Note:

In Exchange, a mailbox can have only **one OWA mailbox policy assigned** at a time. The most recent policy applied using `Set-CASMailbox` replaces any previously assigned policy. In this case, **"Sellers on the road"** is the effective policy for Elon Musk, as expected for the final validation step in Part 3.

```
#####
Exercise 2 - Part 3: Testing the OWA Policy
Objective: Validate that the "Sellers on the road" OWA policy works as
intended.
#####
Step 0 - Prepare the Environment for Policy Testing
```

Action:

Ensure the login page allows Public/Private selection and enable administrator-level audit logging.

Commands:

```
Set-OwaVirtualDirectory "owa (Default Web Site)" -
LogonPagePublicPrivateSelectionEnabled $true
```

```
[PS] C:\Users\Administrator>Set-OwaVirtualDirectory "owa (Default Web Site)" -LogonPagePublicPrivateSelectionEnabled $true
[PS] C:\Users\Administrator>_
```

Iisreset

```
[PS] C:\Users\Administrator>iisreset
```

```
Set-Mailbox -Identity "Elon Musk" -AuditEnabled $true
```

```
[PS] C:\Users\Administrator>Set-Mailbox -Identity "Elon Musk" -AuditEnabled $true
```

Explanation:

The first command enables the option **for** users to **select** between Public and Private computer modes on the OWA login screen – required to test policy behavior under both scenarios.

The second command activates mailbox audit logging **for** Elon Musk, allowing admin-side activity tracking.

Session logging must also be enabled manually by the user after login:
→ Navigate to Settings > General > Privacy and **Data** → Enable **Start Logging**

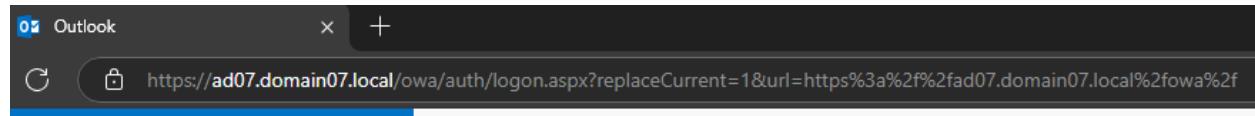
Step 1 - Open OWA URL

Action:

Access the Outlook Web App from a client workstation.

Navigation:

Windows Client VM, open a browser and enter:
<https://ad07.domain07.local/owa>



Explanation:

This URL opens the OWA login portal used to test the policy **in** a live session.

Step 2 – Log in as Elon Musk

Action:

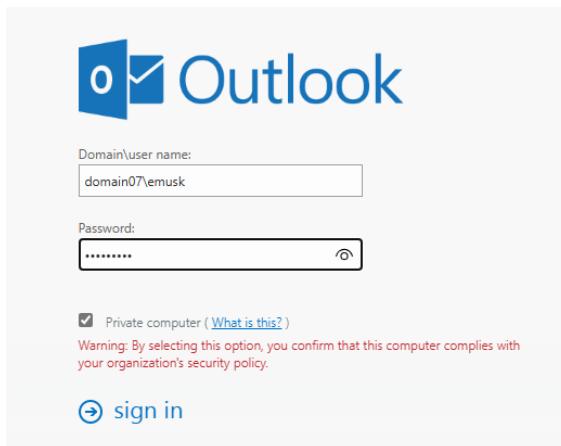
Authenticate **using** the test account.

Navigation:

Enter the following credentials:

Username: domain07\emusk

Password: [Lab Password]



Explanation:

This account is assigned the “Sellers on the road” OWA mailbox policy and will be used to test its effects during the session.

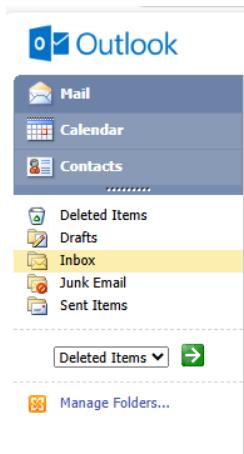
Step 3 – Verify Policy Features in OWA

Action:

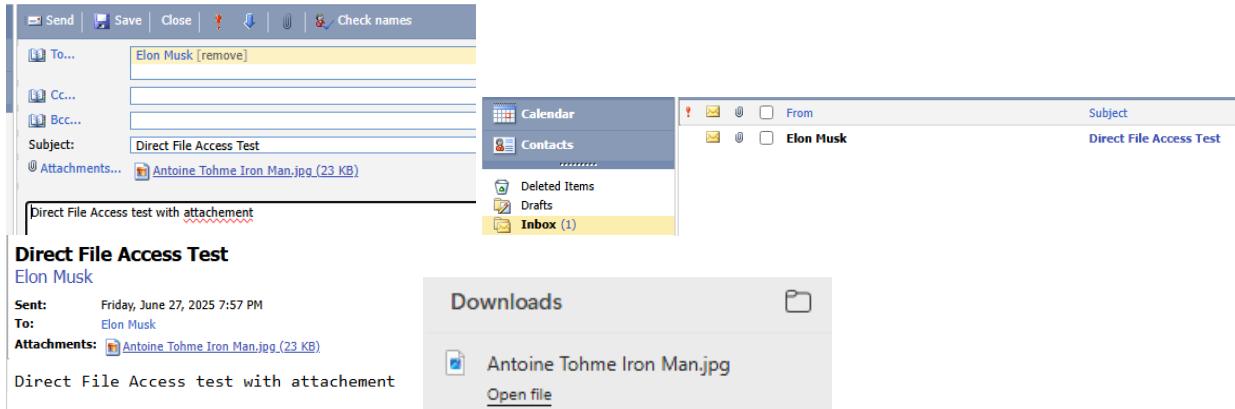
Confirm that only the intended features are accessible.

Checklist & Validation:

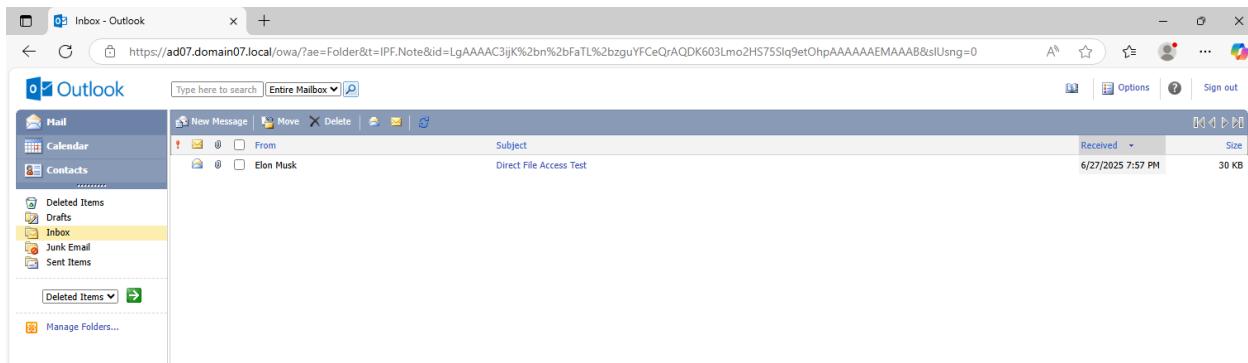
- ✓ Calendar, Contacts, and Tasks are accessible
- Use the left-side app menu to confirm visibility and access.
- ****Note:** If *Tasks* is not visible, this may be due to OWA operating **in Light mode**. You can verify this **in Step 4**.**



- ✓ Direct file access works **in** current session mode
- Try uploading/downloading attachments **in** a test email.



- ✓ Restricted features like Journal, Themes, and file previews are **hidden**
- Explore the interface and settings; these **should** be absent.



- Observe the OWA interface:
 - No Journal or Notes folders present **in** the left pane.
 - No gear icon (⚙️) at top-right **for** accessing personalization settings such as themes.
 - Minimalistic UI confirms that advanced features are unavailable.

- ✓ Logging is enabled
- Admin-side check:
Get-Mailbox -Identity "Elon Musk" | Format-List AuditEnabled
Expected result: AuditEnabled : True

```
[PS] C:\Users\Administrator>Get-Mailbox -Identity "Elon Musk" | Format-List AuditEnabled
AuditEnabled : True
```

- Optionally view logs:
Search-MailboxAuditLog -Identity "Elon Musk" -ShowDetails -LogonTypes Owner, delegate, Admin

→ User-side check (manual session logging):
Click Settings > General > Privacy and **Data** → Confirm **Start Logging** is enabled or toggle **it** on manually.

Explanation:

This step confirms that the mailbox policy is applied correctly and controls the interface as expected based on allowed/disallowed features.

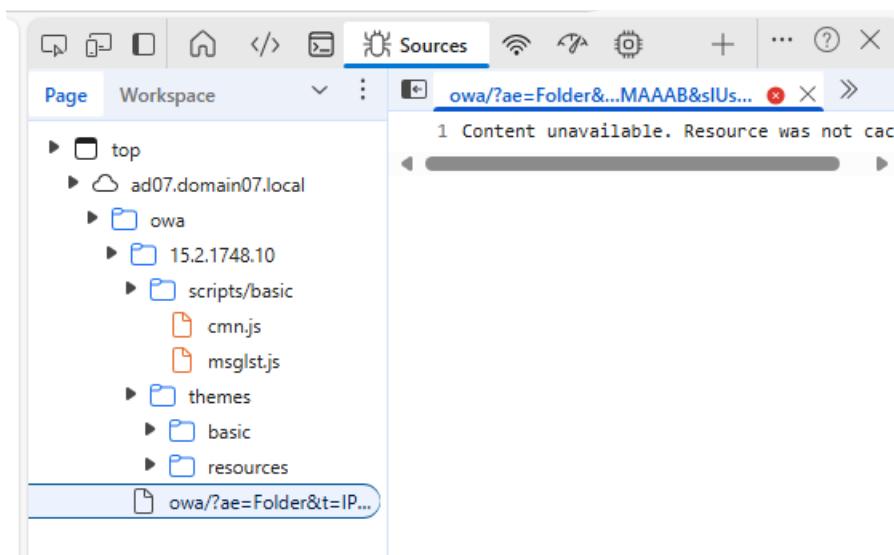
Step 4 – Confirm OWA Light Version Is Not Enforced

Action:

Check that the full-featured OWA interface is active.

Navigation:

While logged in, press F12 to open Developer Tools.
Inspect page source or confirm rich UI elements are present (e.g., side panel, icons, full layout).



Explanation:

This image shows the browser's **Developer Tools** opened to the **Sources** tab. The highlighted directories ('themes', 'scripts/basic') under the OWA path on the Exchange server ('ad07.domain07.local') confirm that only the essential client-side scripts and themes are loaded.

What's *missing*:

- No journal scripts or dynamic theme previews loaded.
- No additional JavaScript features for customizing UI appearance (which confirms 'themes' are restricted by policy).

This confirms that **restricted UI features are blocked**, and the applied OWA mailbox policy is working correctly.

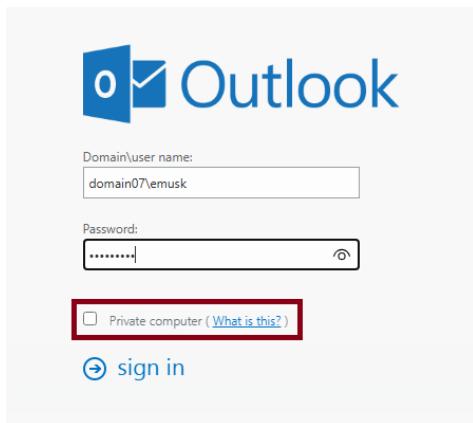
Step 5 – Re-test Access from Public Computer Mode

Action:

Verify feature access consistency **in** Public mode.

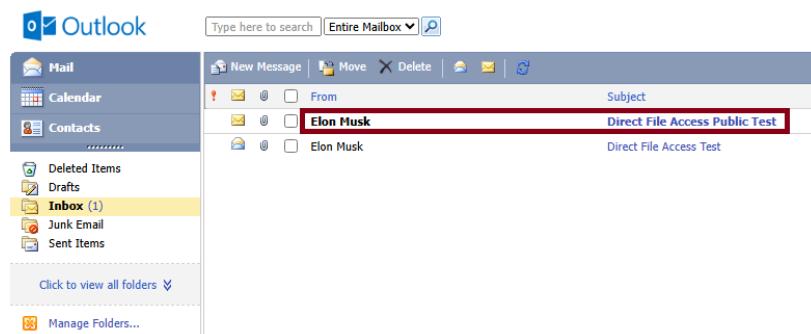
Navigation:

1. Log out from the current session.
2. On the login screen, **select** This is a public computer.
3. Log back **in using** Elon Musk credentials.



Checklist:

- ✓ Calendar, Contacts, and Tasks are still accessible
- ✓ Direct file access remains functional
- ✓ Restricted features are still **hidden**



Direct File Access Public Test

Elon Musk

Sent: Friday, June 27, 2025 8:25 PM

To: Elon Musk

Attachments: Antoine Tohme Iron Man.jpg (23 KB)

Public computer File access

Explanation:

This test validates that the OWA policy works identically across public/private modes as configured.

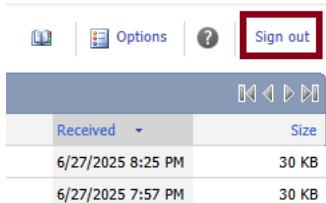
Step 6 – Log Out of OWA

Action:

Securely log out of the Outlook Web App (OWA) session.

Navigation:

Click on the profile icon (top-right corner) → Click on **Sign out**



Explanation:

Properly signing out ensures the session is closed securely and the mailbox audit policy test is completed cleanly **for** the user ****Elon Musk****. This step is critical **for** ensuring that access logs are correctly written and no session caching interferes with the audit results.