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Setting up ExchangeMWI 2.8

- Set a user to have impersonation rights on Exchange (Add these commands with Exchange Management Shell PowerShell)
 - This user will be allowed to search user's inbox for new voicemails

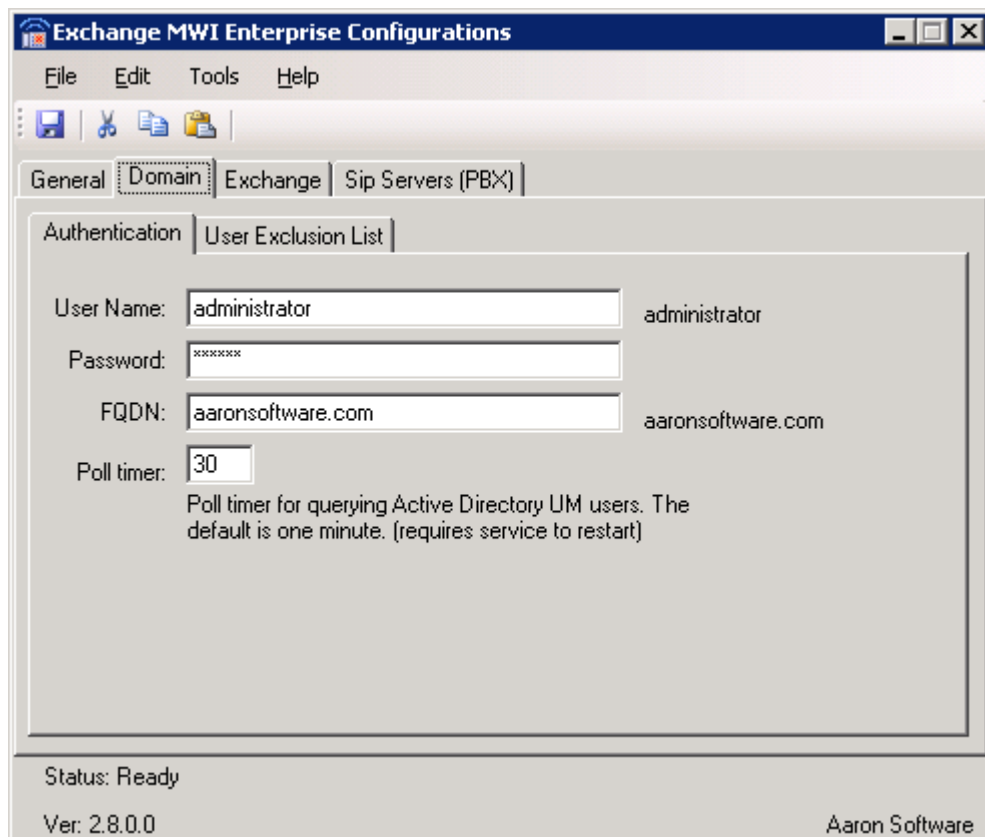
Add-ADPermission -Identity (get-exchangeserver -Identity **MyMailServer**).DistinguishedName -User (Get-User -Identity **MyUserName** | select-object).identity -extendedRight ms-Exch-EPI-Impersonation

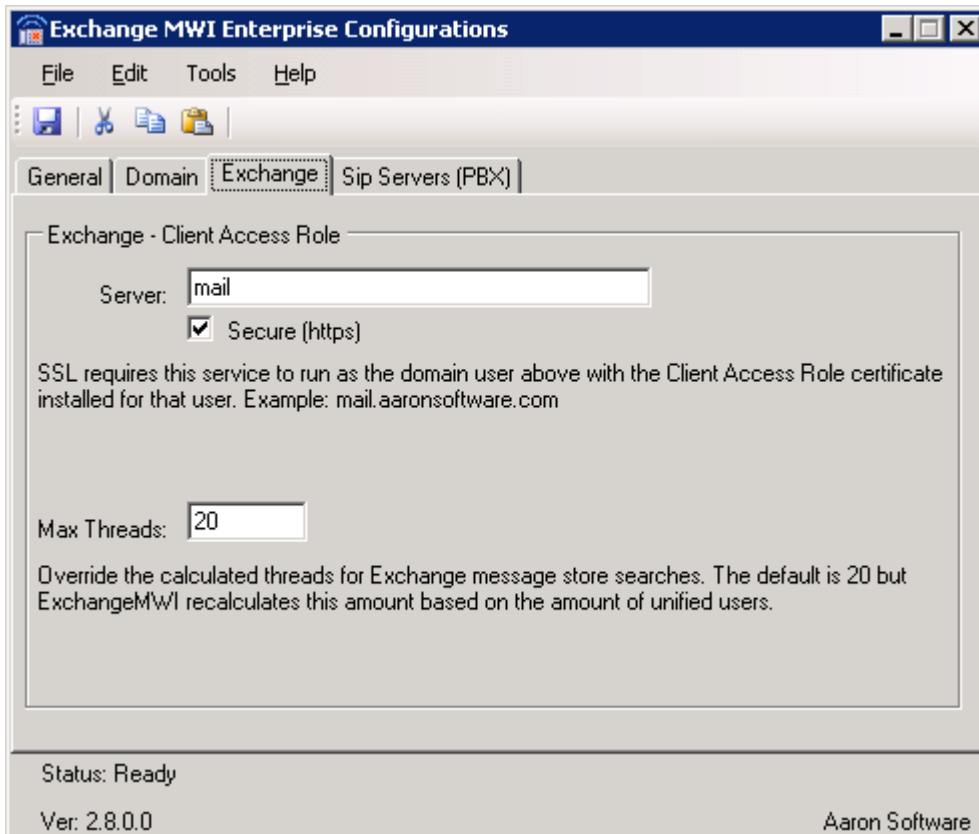
Get-MailboxDatabase | Add-ADPermission -User **MyUserName** -ExtendedRights ms-exch-EPI-May-Impersonate

-Replace **MyUserName** and **MyMailServer** with your information.

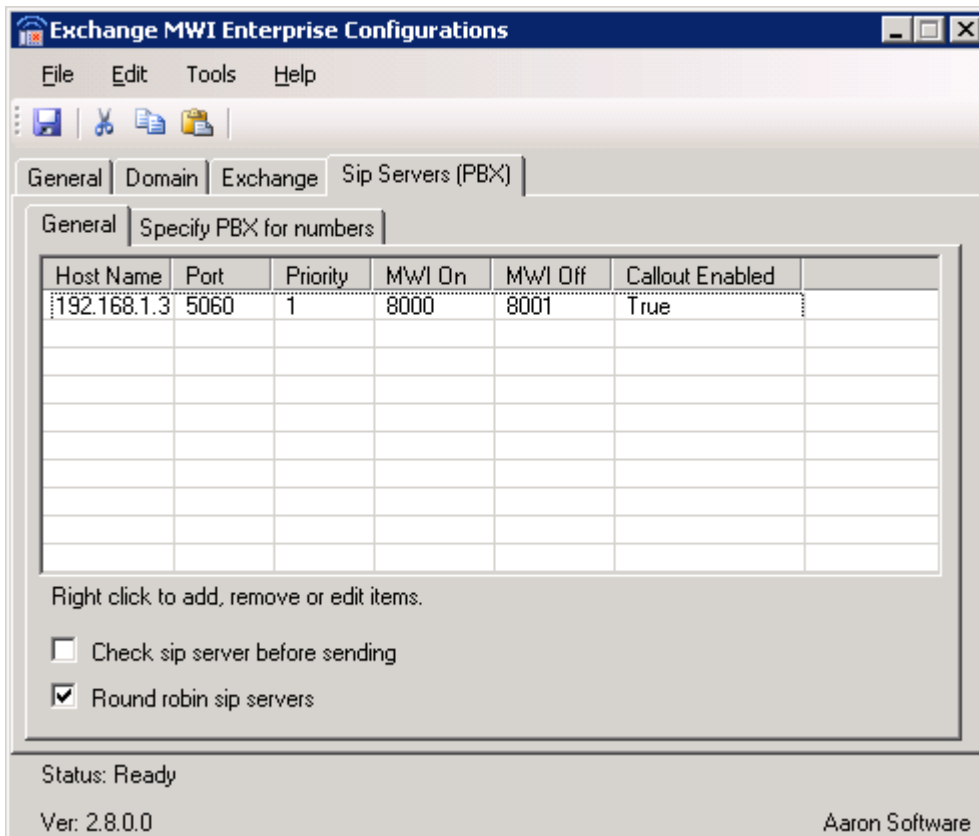
- I've noticed copying from the PDF will add little spaces and character returns. I suggest copying and pasting into Notepad to clean up the commands before executing.

- With the same user you used above fill out the Domain section with that information.
- Set the desired polling time for querying Active Directory.
- Enter in your OWA server in the Client Access Role section under the Exchange tab
- Enter in your SIP server. This is the same SIP server Exchange points to.
- Save your settings and click start.





Enter in your OWA server in the Client Access Role section under the Exchange tab

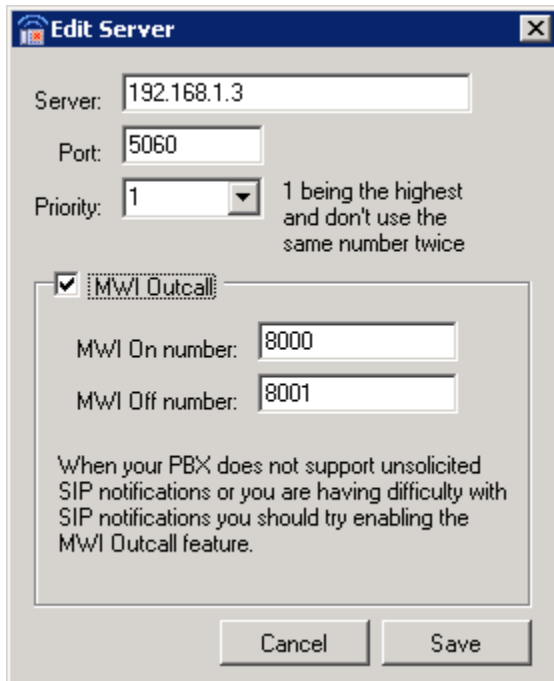


Enter in your SIP server. This is the same SIP server Exchange points to.

MWI Outcall

Version 2.8 now supports a feature called Outcall. Some PBXs systems have two numbers that are used for turning the MWI light on or off. ExchangeMWI will impersonate the phone and dial one of the numbers, resulting in the light turning on or off. This feature is internal to the PBX and the end-user will not see the SIP transaction taking place or see their phone dialing another number.

Cisco CallManager Express users should use this feature due to a bug in some IOS versions with SIP notify.



Edit Server

Server: 192.168.1.3

Port: 5060

Priority: 1 1 being the highest and don't use the same number twice

MWI Outcall:

MWI On number: 8000

MWI Off number: 8001

When your PBX does not support unsolicited SIP notifications or you are having difficulty with SIP notifications you should try enabling the MWI Outcall feature.

Cancel Save

Cisco CME sample configuration

```
ephone-dn 9
  number 8001
  mwi off
!
!
ephone-dn 10
  number 8000
  mwi on
!
```

Common Setup Problems:

1. **Everything appears to be working but ExchangeMWI is not lighting my lamp**
 - I. Make sure you have two or more test UM users
2. **What demo users are MWI enabled**
 - I. Open the Event Viewer and look for the event ID 500. This will list the first five users that are enabled for MWI.
3. **When using a standard user account with SSL (not a Domain Admin) ExchangeMWI is unable to create preferences and a create preference error 100 is seen in the Event log.**

Reason: When using SSL the ExchangeMWI service is running as the user in the Domain section of "Exchange MWI Configurations". While running the service as that user it inherits the user's permissions and prevents standard user from altering the ExchangeMWI program's folder.

Remedy: There are three different ways you can fix this and only one remedy is needed.

- I. Give the user Domain Admin rights
- II. Add the user to the local administrator's group
- III. Give the user read/write permissions to the ExchangeMWI folder

4. **How to get SSL working if your domain doesn't have self enrollment enabled**
 - I. Using the user account in the Domain section of "Exchange MWI Configurations" log into Exchange OWA with Internet Explorer. <https://mailserver.yourdomain.com/owa>
 - II. Click on the certificate and then click "View Certificate"
 - III. On the bottom click Install Certificate
 - IV. The Certificate wizard appears
 - V. Leave the defaults and click next then click finish.
 - VI. Within "Exchange MWI Configurations" check Secure (http) in the Client Access Role section
 - VII. Click the save button
 - VIII. Start the service and review the event log for any errors

5. Exchange UM is working but ExchangeMWI is not

Possible Reason: Many times in CallManager the SIP trunk's inbound Calling Search Space doesn't include the internal phones. This will cause SIP error message 404, representing those users are not found in the realm.

Remedy:

- Double check your Calling Search Space and the partitions associated to it.
- Look at the route pattern associated with the SIP trunk and its partition

Windows 2008 Server Issues

1. **After installing ExchangeMWI the application “Exchange MWI Configurations” does not have proper rights to its own folder. This prevents the application from creating the preference file and working correctly.**

Reason: Do to the new security Improvement in Windows 2008 the program folders are protect with a more restricted ACL applied to the folder.

Remedy: Add the *user manually to the application’s folder, either
Program Files\AaronSoftware\ExchangeMWI
Program Files (x86)\AaronSoftware\ExchangeMWI

*The user to add depends on the user currently logged into the sever editing the applications preferences. Example: If you are logged in as bjones, bjones should be added with full permissions to the folder.

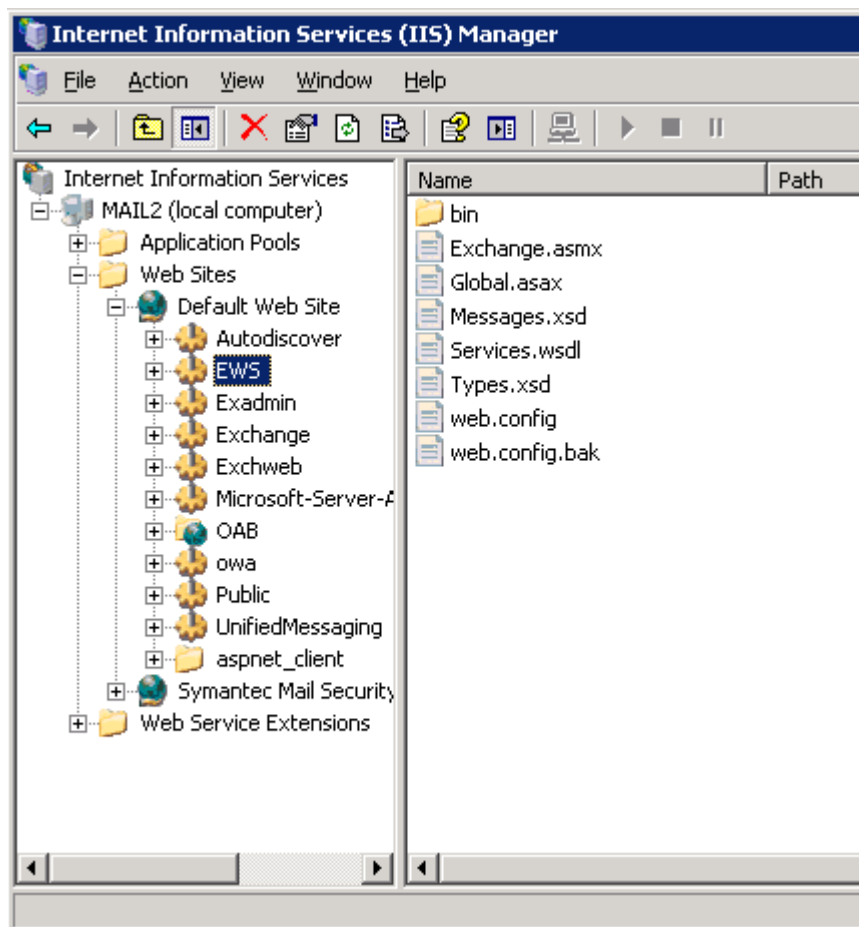
Notes: I’m highly considering moving the preferences to a better location to prevent this issue from occurring in the future.

IIS recommended setting for EWS Virtual Directory

Issue: Do to ExchangeMWI querying the Client Access Server role numerous times a minute, the IIS web log files become very large in size over time.

Remedy: You have two chooses in fixing this issue.

- 1) Turn off logging for the EWS virtual directory
- 2) Manually delete old log files
 - a. Usually found in C:\WINDOWS\system32\LogFiles\W3SVC1



EWS Properties [?] [X]

HTTP Headers Custom Errors ASP.NET

Virtual Directory Documents Directory Security

The content for this resource should come from:

- A directory located on this computer
- A share located on another computer
- A redirection to a URL

Local path:

Script source access Log visits

Read Index this resource

Write

Directory browsing

Application settings

Application name:

Starting point: <Default Web Site>\EWS...

Execute permissions:

Application pool:

Exchange Integration with Cisco CallManager Express

voice service voip

allow-connections h323 to h323

allow-connections h323 to sip

allow-connections sip to h323

allow-connections sip to sip

supplementary-service h450.12

no supplementary-service sip moved-temporarily

no supplementary-service sip refer

sip

bind control source-interface FastEthernet0/0

bind media source-interface FastEthernet0/0

header-passing

registrar server expires max 65535 min 3600

!

sip-ua

no remote-party-id

retry invite 2

retry register 10

timers connect 100

mwi-server ipv4:192.168.1.4 expires 3600 port 5060 transport tcp unsolicited

notify telephone-event max-duration 3000

!

ephone-dn 9

number 8001

mwi off

!

ephone-dn 10

number 8000

mwi on

!

Exchange Integration with Cisco CallManager

SIP Trunk Security Profile Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Refresh Mail Print Send To Favorites

Address <https://10.20.10.1:8443/ccmadmin/sipTrunkSecurityProfileEdit.do?key=0fd98c54-30ba-4bfd-83e7-> Go Links >>

Cisco Unified CM Administration Navigation Cisco Unified CM Administration Go

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System Call Routing Media Resources Voice Mail Device Application User Management Bulk Administration

SIP Trunk Security Profile Configuration Related Links: Back To Find/List Go

Save Delete Copy Reset Add New

SIP Trunk Security Profile Information

Name* Non Secure SIP Trunk Profile

Description Non Secure SIP Trunk Profile authenticated by null Str

Device Security Mode Non Secure

Incoming Transport Type* TCP+UDP

Outgoing Transport Type TCP

Enable Digest Authentication

Nonce Validity Time (mins)* 600

X.509 Subject Name

Incoming Port* 5060

Enable Application Level Authorization

Accept Presence Subscription

Accept Out-of-Dialog REFER

Accept Unsolicited Notification

Accept Replaces Header

Save Delete Copy Reset Add New

Done Internet

Make sure the "Accept Unsolicited Notification" is checked, ExchangeMWI does not login to CallManager. It only sends unsolicited Notifications.

Find and List Route Patterns - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address <https://10.20.10.1:8443/ccmadmin/routePattern2FindList.do?<%=reqParams%>&recCnt=08> Go Links >>

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Find and List Route Patterns

+ Add New Select All Clear All Delete Selected

Status
 14 records found

Route Patterns (1 - 14 of 14) Rows per Page 50

Find Route Patterns where Pattern begins with Find Clear Filter + -

<input type="checkbox"/>	Pattern ^	Description	Partition	Route Filter	Associated Device	Copy
<input type="checkbox"/>	1000	Exchange UM Route Pattern			e12_trunk	
<input type="checkbox"/>	1100	AA-Test	MetroPT		e12_trunk	
<input type="checkbox"/>	1101				e12_trunk	

Done Internet

Make sure your Route Pattern points to the e12_trunk (The SIP trunk to Exchange 2007)

Trunk Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites Refresh Print Mail Stop

Address <https://10.20.10.1:8443/ccmadmin/deviceEdit.do?key=8b6facf4-60cd-9cf7-b3f6-98bdbfc80e7> Go Links >>

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System Call Routing Media Resources Voice Mail Device Application User Management Bulk Administration Help

Trunk Configuration Related Links: Back To Find/List Go

Save Delete Reset Add New

Status: Ready

Device Information

Product:	SIP Trunk
Device Protocol:	SIP
Device Name*	<input type="text" value="e12_trunk"/>
Description	<input type="text"/>
Device Pool*	<input type="text" value="Default"/>
Common Device Configuration	<input type="text" value="< None >"/>
Call Classification*	<input type="text" value="Use System Default"/>
Media Resource Group List	<input type="text" value="< None >"/>
Location*	<input type="text" value="Hub_None"/>
AAR Group	<input type="text" value="< None >"/>
Packet Capture Mode*	<input type="text" value="None"/>
Packet Capture Duration	<input type="text" value="0"/>

Media Termination Point Required
 Retry Video Call as Audio
 Transmit UTF-8 for Calling Party Name
 Unattended Port

Done Internet

Trunk Configuration - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Refresh Home Search Favorites RSS Print Mail News Groups People

Address <https://10.20.10.1:8443/ccmadmin/deviceEdit.do?key=8b6facf4-60cd-9cf7-b3f6-98bdbfc80e7> Go Links >>

Cisco Unified CM Administration Navigation Cisco Unified CM Administration Go
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System Call Routing Media Resources Voice Mail Device Application User Management Bulk Administration Help

Trunk Configuration Related Links: Back To Find/List Go

Save Delete Reset Add New

Multilevel Precedence and Preemption (MLPP) Information

MLPP Domain < None >

Call Routing Information

Inbound Calls

Significant Digits* All

Connected Line ID Presentation* Default

Connected Name Presentation* Default

Calling Search Space Metro

AAR Calling Search Space < None >

Prefix DN

Redirecting Diversion Header Delivery - Inbound

Outbound Calls

Calling Party Selection* Originator

Calling Line ID Presentation* Default

Calling Name Presentation* Default

Caller ID DN

Caller Name

Redirecting Diversion Header Delivery - Outbound

Done Internet

The screenshot shows the Cisco Unified CM Administration web interface in Microsoft Internet Explorer. The browser address bar shows the URL: <https://10.20.10.1:8443/ccmadmin/deviceEdit.do?key=8b6facf4-60cd-9cf7-b3f6-98bdbfc80e7>. The page title is "Trunk Configuration". The navigation menu includes System, Call Routing, Media Resources, Voice Mail, Device, Application, User Management, and Bulk Administration. The current page is "Trunk Configuration" with a "Related Links" section containing "Back To Find/List".

At the top of the configuration area, there are buttons for Save, Delete, Reset, and Add New. Below these is a checkbox labeled "Redirecting Diversion Header Delivery - Outbound" which is checked.

The "SIP Information" section contains the following fields:

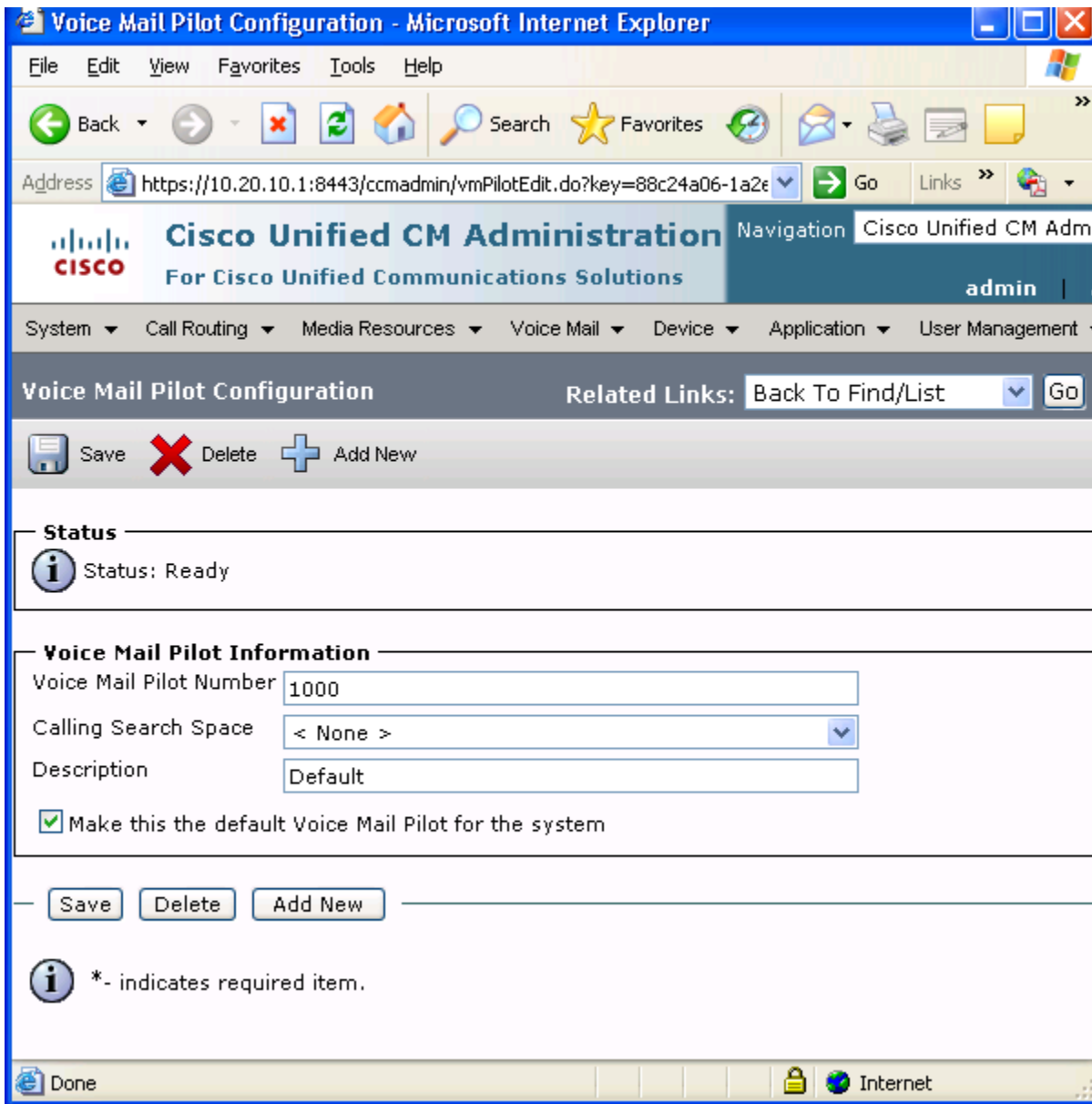
- Destination Address*: 10.0.10.7
- Destination Address is an SRV
- Destination Port*: 5060
- MTP Preferred Originating Codec*: 711ulaw
- Presence Group*: Standard Presence group
- SIP Trunk Security Profile*: Non Secure SIP Trunk Profile
- Rerouting Calling Search Space: Metro
- Out-Of-Dialog Refer Calling Search Space: < None >
- SUBSCRIBE Calling Search Space: < None >
- SIP Profile*: Standard SIP Profile
- DTMF Signaling Method*: No Preference

At the bottom of the configuration area, there are buttons for Save, Delete, Reset, and Add New. Below these are two information icons:

- *- indicates required item.
- ** - Device reset is not required for changes to Packet Capture Mode and Packet Capture Duration.

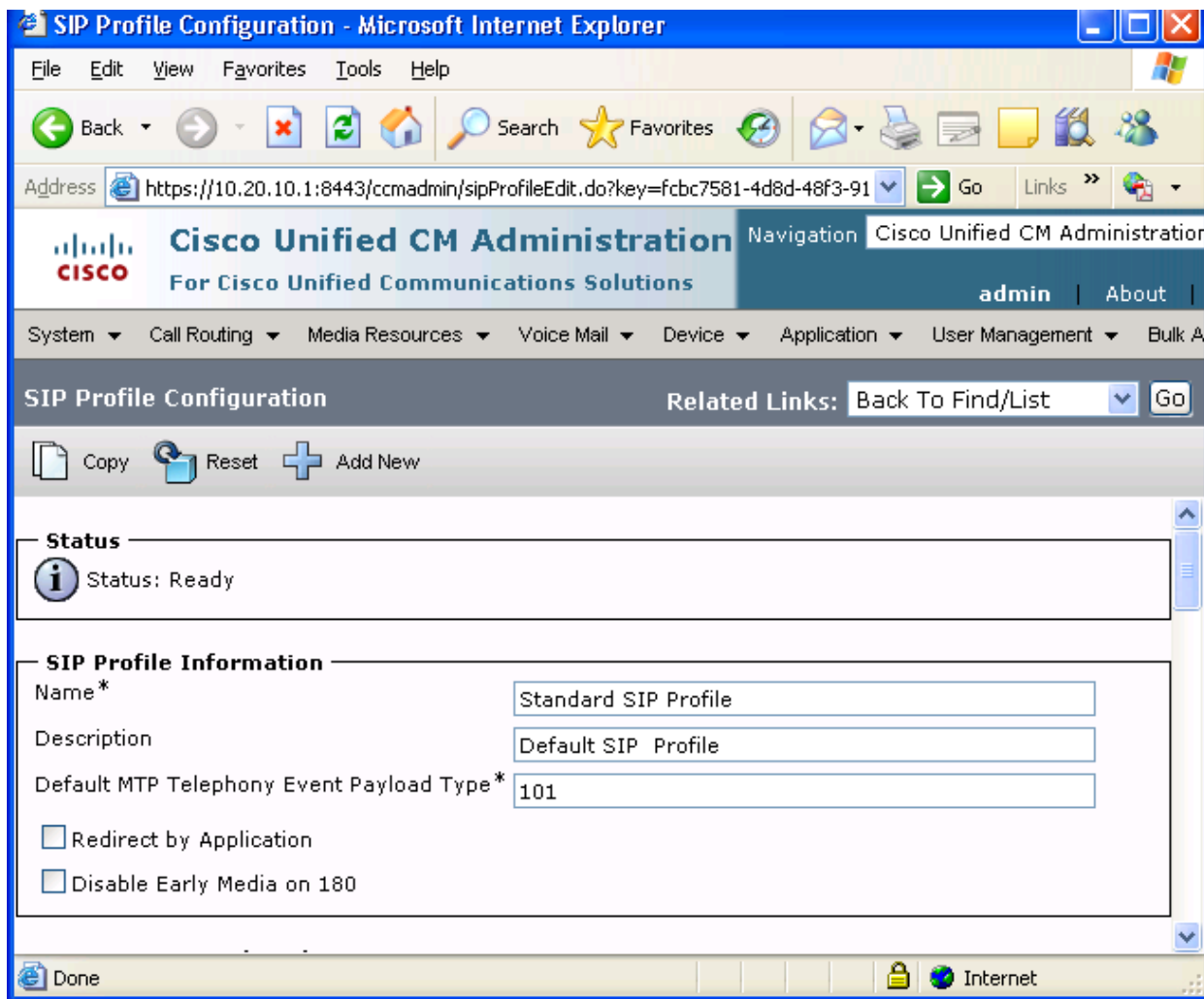
The browser status bar at the bottom shows "Done" and "Internet".

- 10.0.10.7 is my Exchange Unified Messaging server role's IP address.
- The "Rerouting Calling Search Space" will allow Exchange to reroute a call from the directory to an extension.



Add the Voice Mail Pilot number for user's to dial to reach your Exchange Voice Mail Server

This number is then referenced in the Route Pattern that is associated to the e12_trunk (SIP Trunk)



Double check your SIP Profile has the payload of type 101.

Exchange Steps

1. Dial Plan

The image shows a screenshot of the "SIP-DP Properties" dialog box, specifically the "General" tab. The dialog has a blue title bar with a close button (X) in the top right corner. Below the title bar are three tabs: "Settings", "Dialing Rule Groups", and "Dialing Restrictions". Under "Settings", there are four sub-tabs: "General", "Subscriber Access", "Dial Codes", and "Features". The "General" sub-tab is selected.

Under the "General" sub-tab, there are two checked checkboxes:

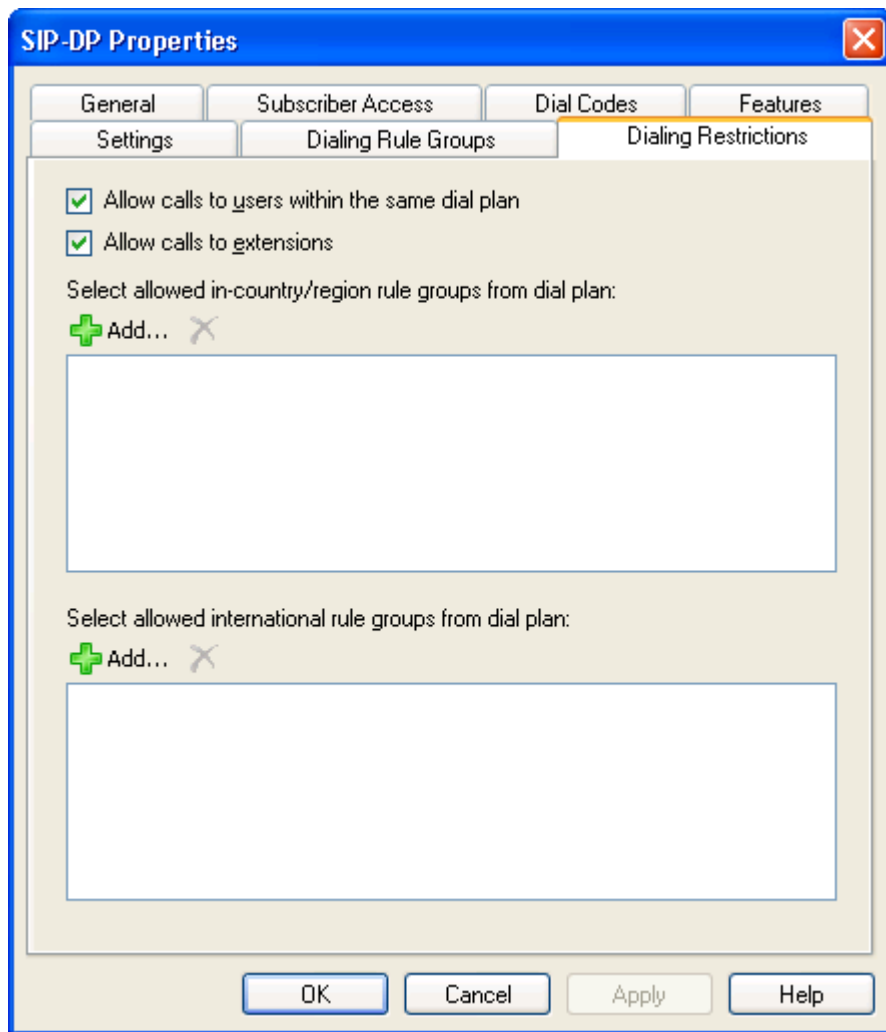
- Allow callers to transfer to users
- Allow callers to send voice messages

Below these is the section "Callers can contact:" with four radio button options:

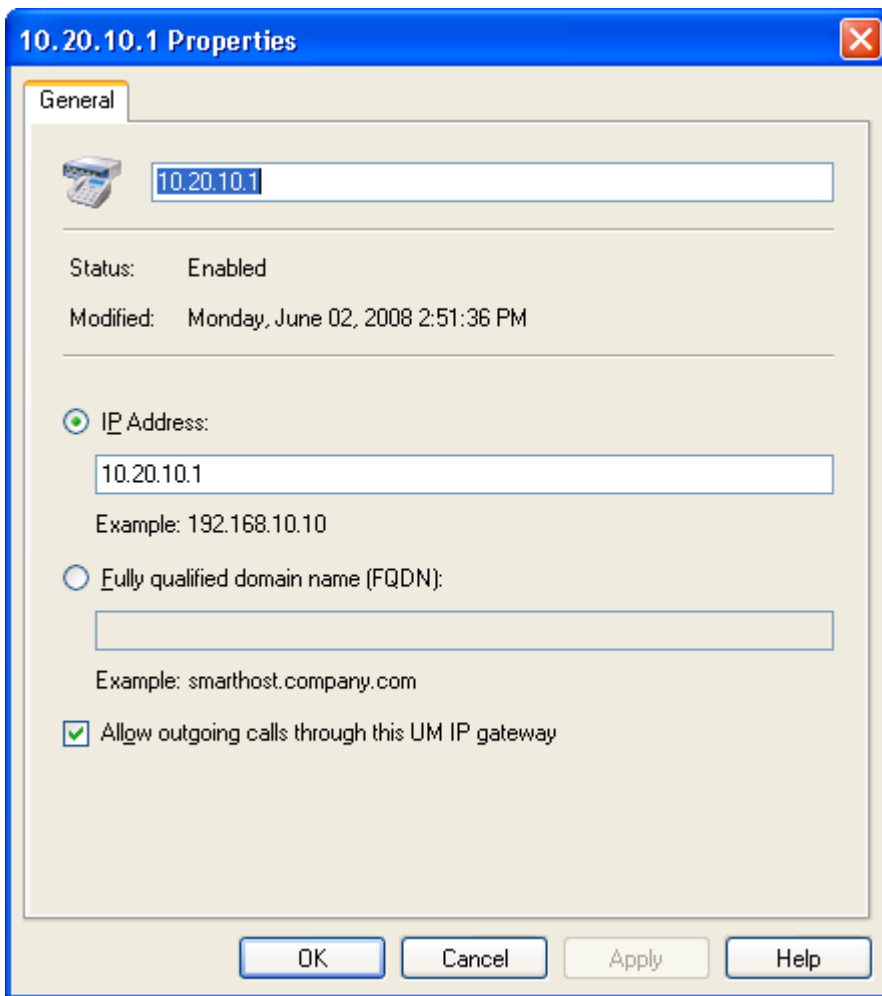
- Users within this dial plan
- Anyone in the default global address list
- Only this extension: [text box]
- Only this auto attendant: [text box with dropdown arrow]
- Anyone in this address list: [text box] [Browse... button]

At the bottom of the dialog is the "Matched name selection method:" section with a dropdown menu currently set to "None".

At the very bottom of the dialog are four buttons: "OK", "Cancel", "Apply", and "Help".



2. UM IP Gateways – This is the CallManager Server's IP address



I used the defaults for the rest of the "Unified Messaging" configurations within Organization Configuration. Except for the Dial Plan I used four digit numbers.

Auto Attendant

1. Create a new Route Pattern to an unused number and associate it to the e12_trunk(SIP Trunk)

AA-Test Properties

General | Greetings | Times | Features | Key Mapping | Dialing Restrictions

AA-Test

Status: Enabled

Associated dial plan: SIP-DP

Modified: Monday, June 02, 2008 2:46:18 PM

Extension number to associate:

+ Add Edit X

1100

Auto attendant is speech-enabled

Use this DTMF fallback auto attendant:

Browse

OK Cancel Apply Help

AA-Test Properties



- General
- Greetings
- Times
- Features
- Key Mapping**
- Dialing Restrictions

Enable business hours key mapping

+ Add... Edit... X

#	Name	Extension	Auto Attendant	Audi
1	1	2001		

Enable non-business hours key mapping

+ Add... Edit... X

#	Name	Extension	Auto Attendant	Audi
---	------	-----------	----------------	------

OK

Cancel

Apply

Help

AA-Test Properties



- General
- Greetings
- Times
- Features
- Key Mapping
- Dialing Restrictions

Allow calls to u users within the same dial plan

Allow calls to extensions

Select allowed in-country/region rule groups from dial plan:

+ Add... X

Select allowed international rule groups from dial plan:

+ Add... X

OK

Cancel

Apply

Help