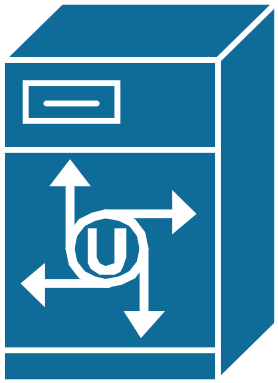
Unified Communications

Cisco Unity
Version 4.0(5)
To
Unity Connection
Version 7.0(1)
COBRAS tool Migration Lab



Presented by the Unified Communications Field Trainers

Introduction from Jeff Lindborg of CiscoUnitytools.com

The CiscoUnityTools.com site has been up in one form or another for almost 10 years at this point. It started out life as www.AnswerMonkey.net when our business unit was still the Active Voice corporation. Once we were picked up by Cisco in 2000 the site name was updated to CiscoUnityTools.com to better reflect its mission in life. In short we use an open public web site so we can rapidly deploy documentation, training information and tools directly to the field with the minimum of overhead. The Unity and Connection product lines support a rich set of tools that are not necessarily tied to specific released versions of the product – this allows us to produce new and updated tools independent of the mainline product groups themselves. Over the years a small group of dedicated tools engineers have set about providing functionality that the mainline team could not get to in the release schedule or tools that customers requested that were perhaps a little off the beaten path.

The web site provides a vehicle to offer unsupported tools directly to end user to try out at their own risk if they choose to – which is unique and very popular with a lot of our "bleeding edge" customers who whish to experiment in their lab setups. Both TAC supported and non supported tools are provided – each one is marked according to its supported status which means TAC will or will not provide assistance with the tool. Customers can decided for themselves the level of risk they're comfortable with, which allows us a way to put "beta" versions of new applications out for early feedback from the field. Aside from providing access to tools, training and documentation very quickly to both internal and external folks, the site provides a way to let end users sign up for automatic notifications via RSS and/or bulk email when there are any changes, adds or removals from the site – a very popular feature. Currently every time updates are made to the site more than 2000 emails go out the bulk email notification engine hooked to the site. As a result of this we try and limit any updates to the site to no more than once a week unless something critical comes up that requires it.

Most of the tools provided on the site also ship with the mainline product releases, at least as far as the Windows based Unity product line is concerned. However updates to these tools including adding new functionality as well as bug fixes can happen much more frequently and be delivered with much less overhead off the web site. Each supported tool has an automatic version update check built into it which makes it very straight forward for end users to see if they're at the latest version of a given application and to decide if they wish to upgrade by reviewing the release notes at the end of each tool's help file. In the case of the Linux based Connection server, the site is the only place where off box tools can be downloaded from.

The goal of CiscoUnityTools.com is to continue to provide a low-overhead vehicle for delivering new and updated tools and training material to the field well into the future – hence it's rather "plain" look. Most of the updates to the site are done with automated scripts and so making it more attractive with graphics and other design elements will bring with it unwanted overhead. Given it's utilitarian mission the rough and ready user interface is appropriate we think.

Thank You,

Jeff Lindborg

COBRAS Tool

COBRAS Overview

Cisco Object Backup and Restore Application Suite (COBRAS) is a set of tools designed to allow administrators to backup all subscribers, call handlers, interview handlers, public distribution lists, schedules and restore some or all of that information onto another Unity or Connection server. It is specifically designed to allow for partial restores, restores onto different versions or products than was backed up and "merges" of data from multiple system backups. This tool does not provide the same functionality as DiRT (Disaster Recovery Tools).

The focus of this lab is the COBRAS tool suite but here are some of the differences between DiRT and the COBRAS;

Key Differences

DiRT	COBRAS
Works only for backing up and restoring Windows based Unity installations.	Can backup Windows based Unity and Unity Connection 1.2 and restore onto Windows based Unity or Linux based Connection 7.0 and later.
Backs up entire Unity directory including holidays, name lookup handlers, interviewers etc…	Backs up only information about subscribers, call handlers, public distribution lists, schedules and routing rules.
Does a complete directory synchronization on restore and forces any existing users in AD that match a subscriber in the Unity database to "point" to the new restored box.	Will create new subscribers or bind to existing users in AD but will not "force" a user in AD to point to the server if that user is already assigned to another Unity server. Does not force a full rebuild of the global subscriber and global location information.
Only allows restores onto the same version of Unity or Connection 1.x that was backed up.	Allows for restores onto different versions (the same or newer than the version backed up) of Unity and Connection regardless of the version or product that was backed up. Be sure to review the differences in data provided in the different versions of Unity or Connection you back up in the help sections that follow.
Must restore the entire backup.	Allows for individual objects to be selected for restore.
Backup is very quick because it's getting entire SQL table as a single binary blob using MS SQL's backup capability.	Backup is somewhat slower given it pulls data for each object one at a time and constructs a set of MDB files that contain the object data and messages (if included).
Will not recreate membership information for public distribution lists in a new directory other than "top level" members.	Will create public distribution lists and include all members it can find in the new directory to that distribution list.

DiRT restores are very "heavy" in that they force an entire directory resync of all local and global object references.	Will ask for resyncs for only new subscribers or public distribution lists being created or when information about an existing subscriber that is being updated requires a directory sync.
DiRT wipes out the entire local installation during a restore.	COBRAS is designed to allow for "merging" objects from multiple backups into one Unity or Connection restore. No information is ever removed during a restore.
DiRT restores are very straight forward from an administrative standpoint because there are very few options.	Depending on the type and extent of the operation, the administrator may have quite a bit of legwork to do during a COBRAS restore. All references and conflicts must be addressed before the restore is allowed to continue. A 22 page wizard is involved and many items may need to be manually created to complete the operation such as COS instances and name lookup handlers.

COBRAS Gets Most Data For:

- Call Handlers
- Subscribers (optionally including messages)
- Interview Handlers (a.k.a. Interviewers)
- Public Distribution Lists (optionally including membership information)
- Schedules
- Routing rules (for restores onto Unity servers only)

COBRAS Does Not Get:

- Class of Service
- Restriction tables
- Name Lookup Handlers (a.k.a. Directory Handlers)
- Locations
- Contacts (includes SMTP/AMIS/Bridge/VPIM subscribers)
- Holidays
- System configuration data such as switch configuration, LDAP integration details, IMAP login data, RSA configuration, advanced settings etc..
- Subscriber templates
- Password policy information
- Secure (encrypted) messages. If you've selected to backup messages for subscribers on Unity, secure messages will not be included or if only part of the message is secure (such as a forwarded message with introduction) then that message part will not be playable when restored to another server.

Migration Facts
Migrating from Unity to Unity Connection

Here are a few questions about the migration process.

1. What are the costs associated to upgrade from Unity 4.x or later to Unity Connection 7.0?

Answer- Free if you have UCSS. All users/ports in Unity are migrated to Unity Connection 7.0. In addition, if you had Failover in Unity you will receive High Availability in Unity Connection 7.0. If you do not have UCSS, purchasing A La Carte is $24/user.

2. What steps are required to upgrade if I have UCSS?

Answer- Step 1: To obtain media for the upgrade, customers migrating must access the Product Upgrade Tool and selecting +1 Qty of product UNCN7-UTYMIG-K9=

Step 2: To obtain a license, customers will need to send an e-mail to connectionmigration@external.cisco.com with the following pieces of information:

*MAC address of existing Unity server
*MAC address of new Unity Connection server
*Sales order # validating UCSS upgrade

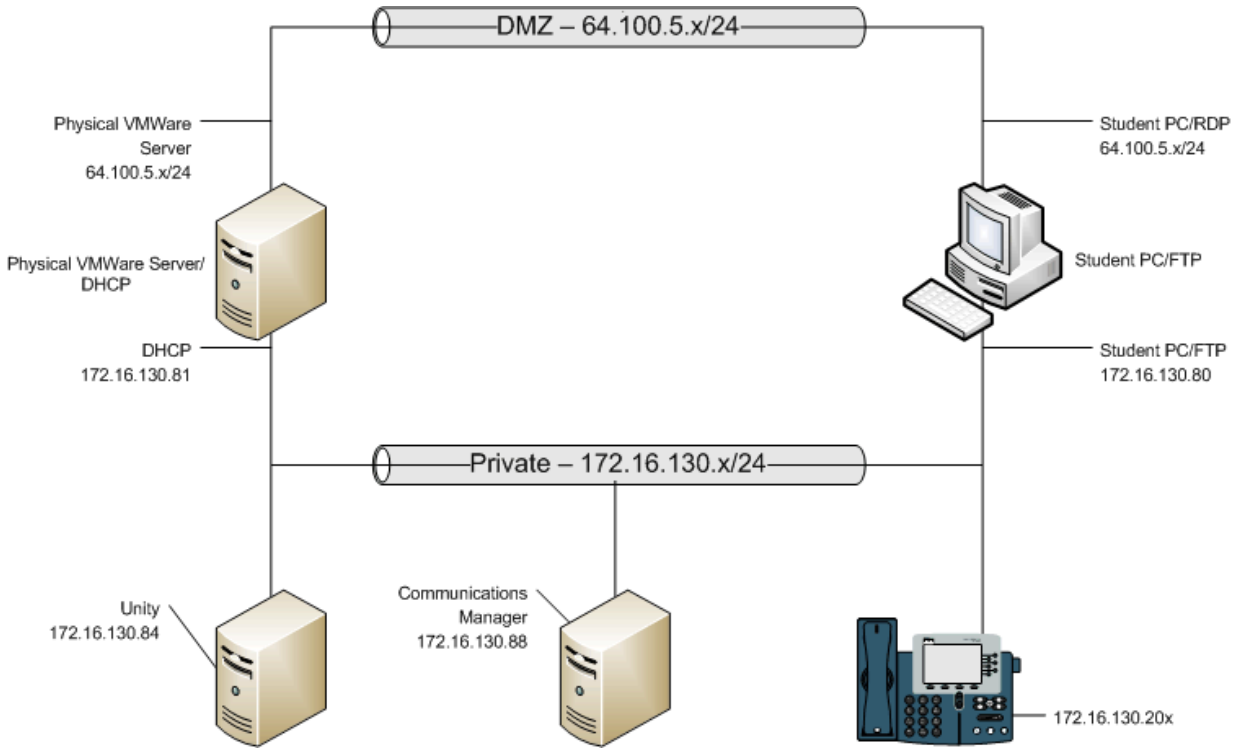
3) What steps are required to upgrade if I am upgrading A La Carte?

Answer- Step 1: To obtain media for the upgrade, customer will place an order for the following

+1 Qty: UNITYCN7-VUP-K9 $0
+x users Qty: UNITYCN7-USR-VUP @ $24/user

Step 2: To obtain a license, customers will need to send an e-mail to connectionmigration@external.cisco.com with the following pieces of information:

*MAC address of existing Unity server
*MAC address of new Unity Connection server
*Sales order # validating A La Carte purchase



With in this lab the student will be migrating Cisco Unity 4.0(5) TO Cisco Unity Connection 7.0 using the COBRAS tool suite.

The lab uses VMware images for each system which will be manipulated by the Student. Previous knowledge of VMware is not required to complete the lab tasks.

Logistics

System Name	IP Address	Username	Password
Student Workstation		Student	mo$4u
Unity Connect 7.0	172.16.130.84	administrator	Cisc0123
Unity 4.0(5)	172.16.130.84	Administrator	cisco123
CUCM 7.0		administrator	cisco

Connecting to the Lab

Log into the LabOps lab portal and access the Windows XP Workstation 1. Student Name information for logging into LabOps is assigned by your instructor.

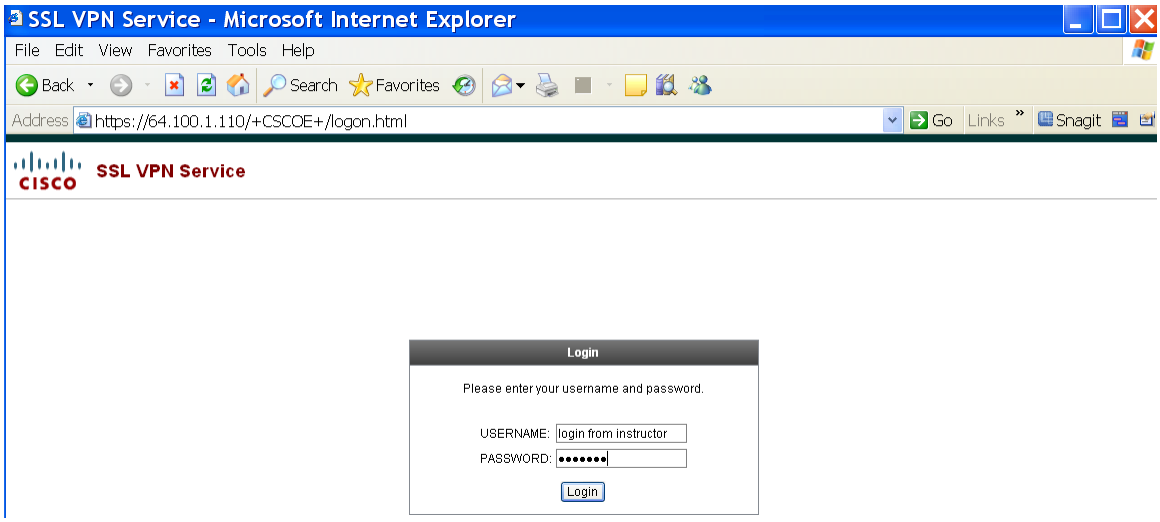
Step 1: Go to the following URL.

https://64.100.1.110

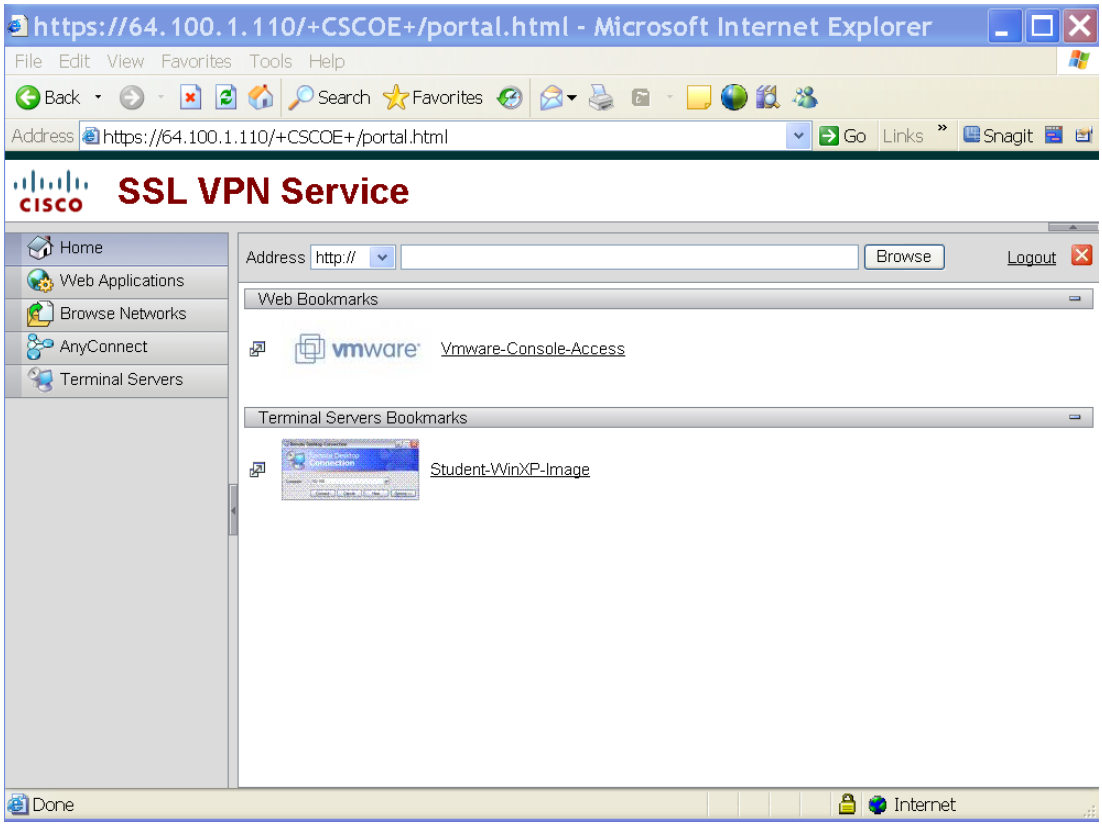
Click yes to accept the certificate

Browser Requirements: The recommended browser for this lab is Microsoft Internet Explorer 6. If you are accessing this lab via Gold Labs (LabOps) with IE7 please drop the security level of the browser, add the student URL into the list of trusted sites, ensure that pop ups are not being blocked. Restart IE7 after making these changes. Lab access cannot be guaranteed via Firefox/Mozilla nor is access guaranteed using the Vista Operating System.

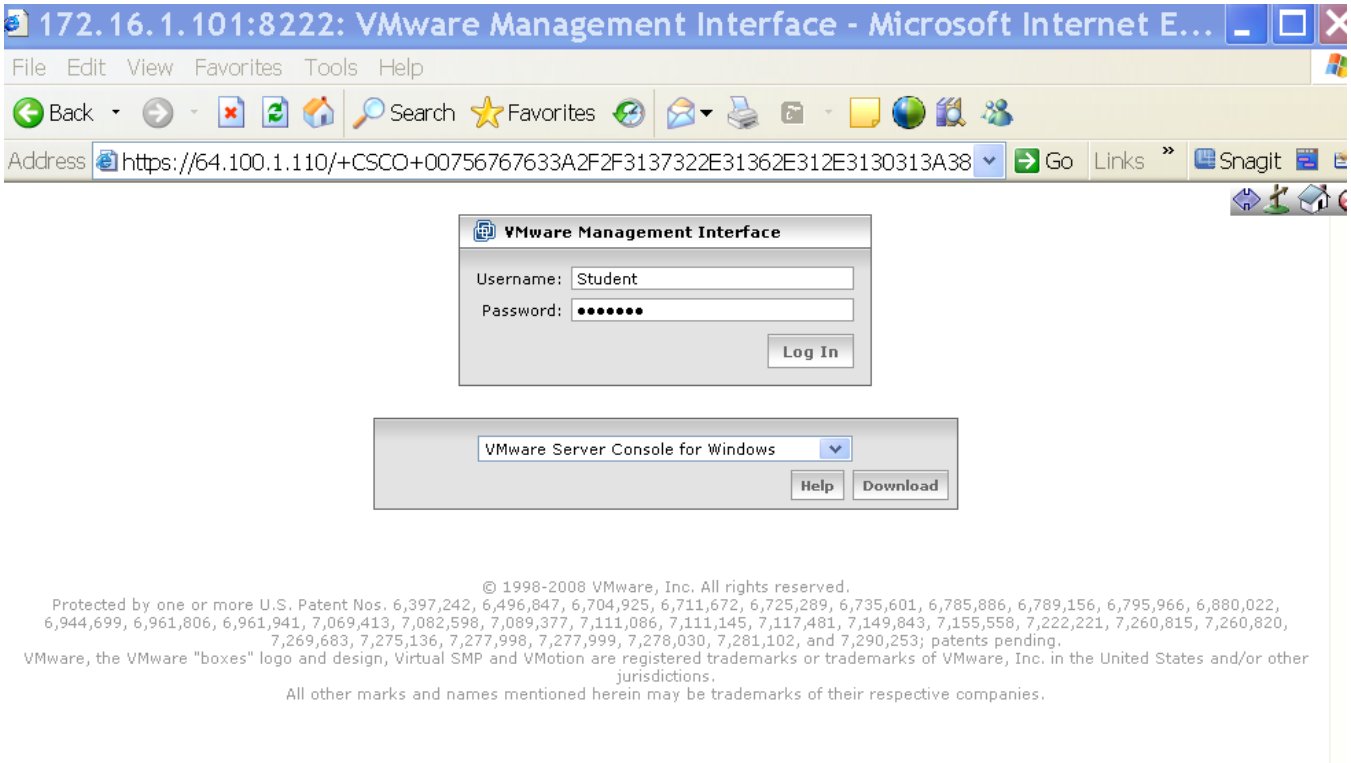
Step 2: Login with the username and password assigned by the instructor. Each username is unique to the pod that the student will use for the lab duration.



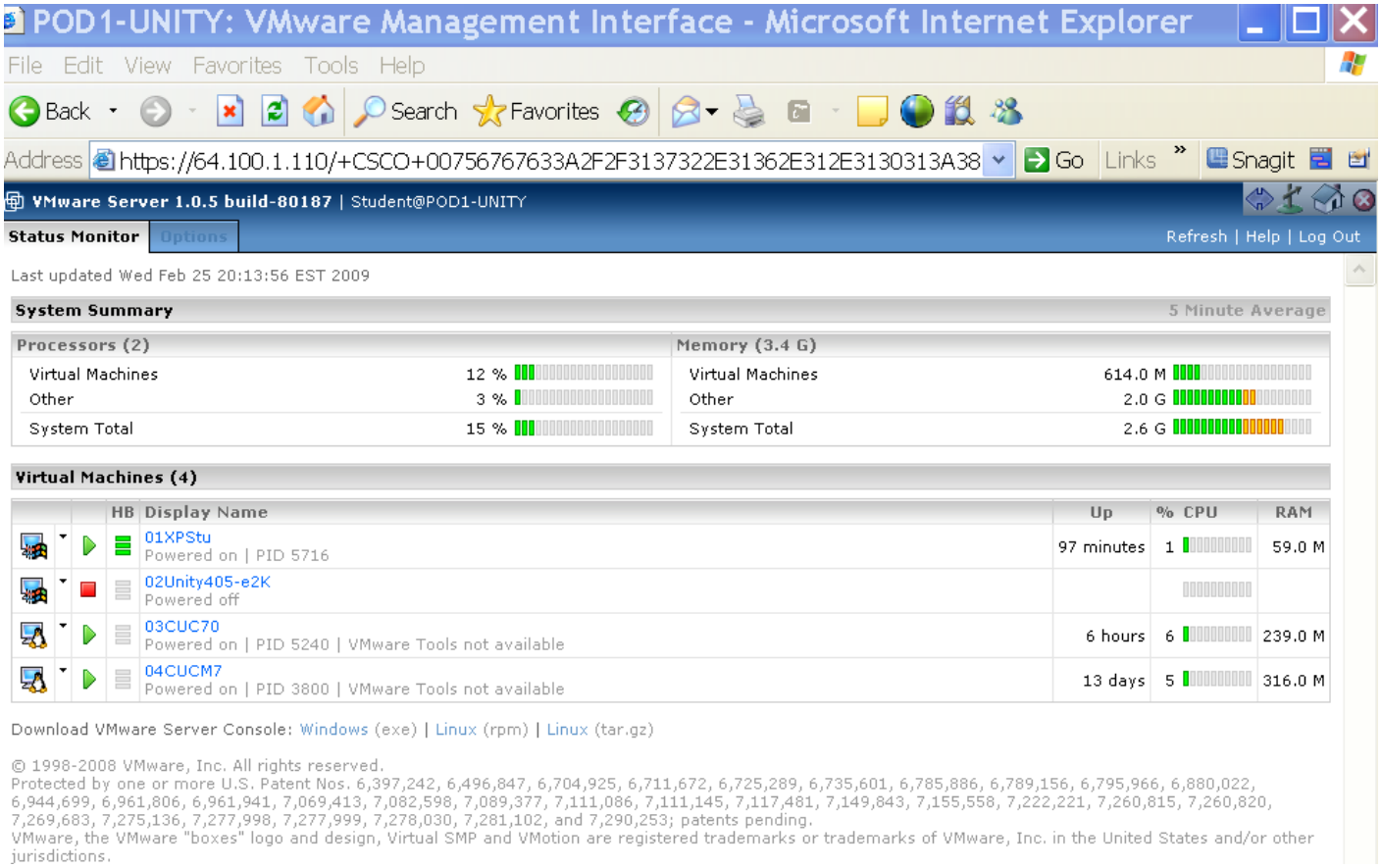
Step 3: Open the Vmware-Console-Access.



Step 4: Login to the VMware Management Interface as Student with the password of student.



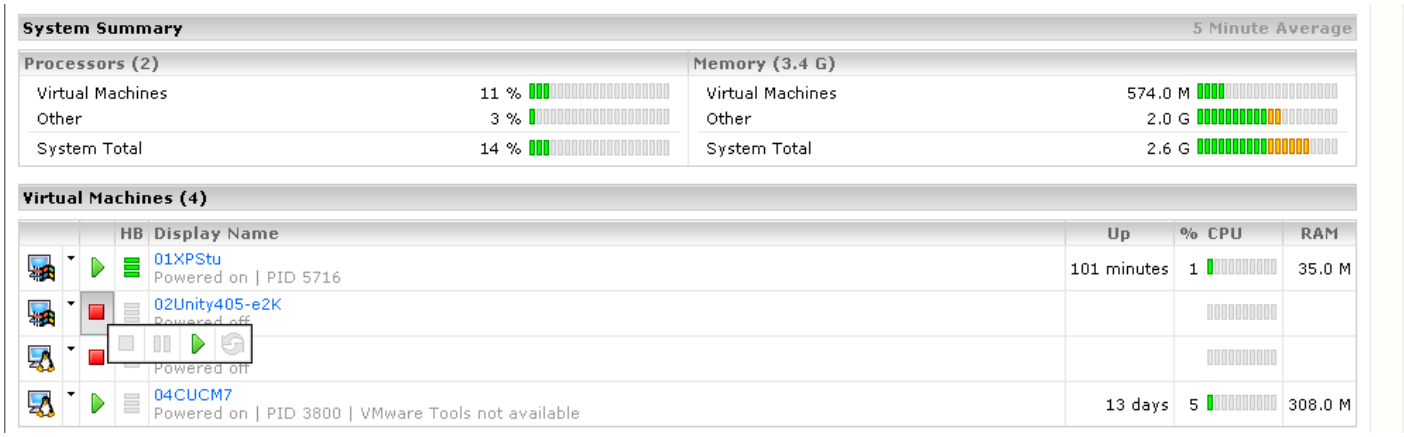
Step 5: All the images that will be used for the class are displayed. Images can be started and stopped from this location.



Note: At no point in the lab should the student workstation be started or stopped. Doing so will erase data that is necessary for the lab.

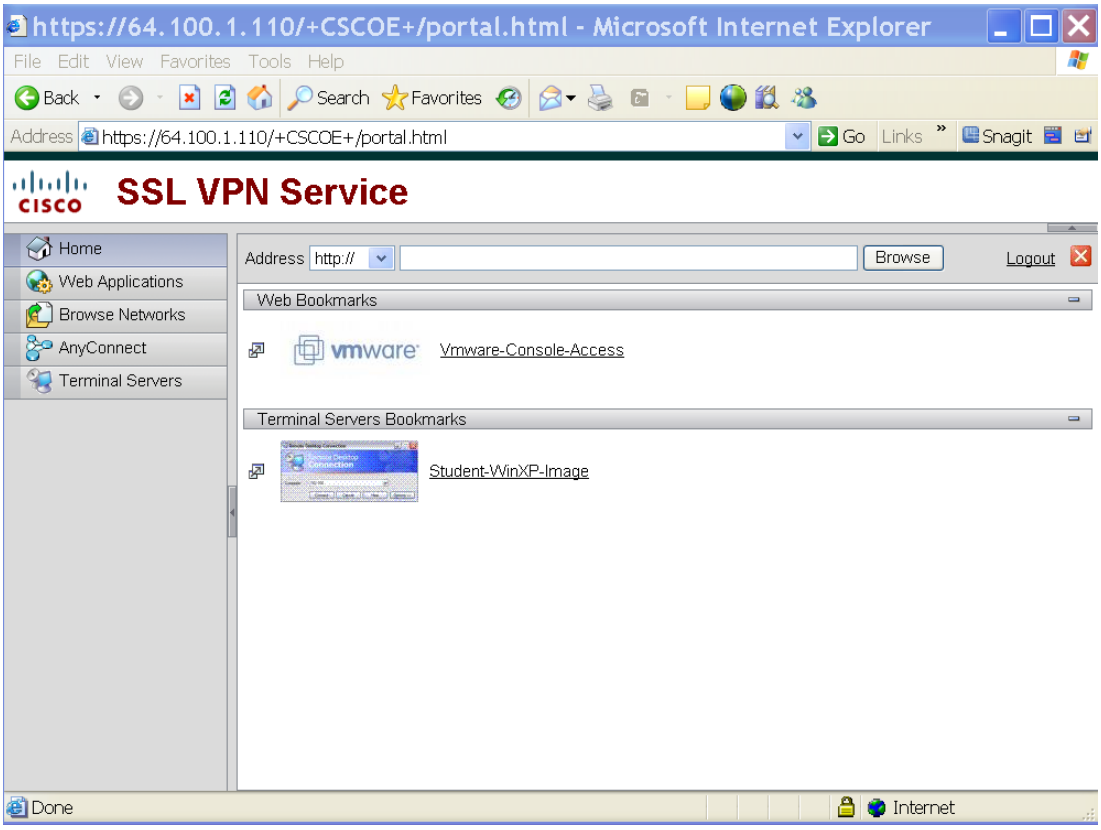
Starting Unity

Step 1: From the inventory pane, select the red box next to the 02-405-e2k image and click the green arrow to start it. Make sure that the 03-CUC70 image is stopped.



Note: By leaving this window open for the duration of the lab you will have an easier way of starting and stopping server images. Thought the lab will specify other methods you can use this interface.

Step 2: Go back to the VMware-Console-Access. (steps 1-3 of the previous exercise)



Step 3: Click on the Student-WinXPImage. Accept the ActiveX warning. Login to the workstation as Student, mo$4u.

Step 4: Launch the VMWare Server Console by double clicking on the 

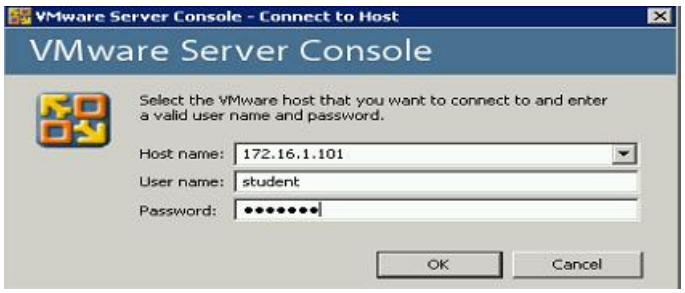
icon.

Step 2: Log into the VMware server console with the following credentials:

Host name: 172.16.1.10X - where x is your pod number.

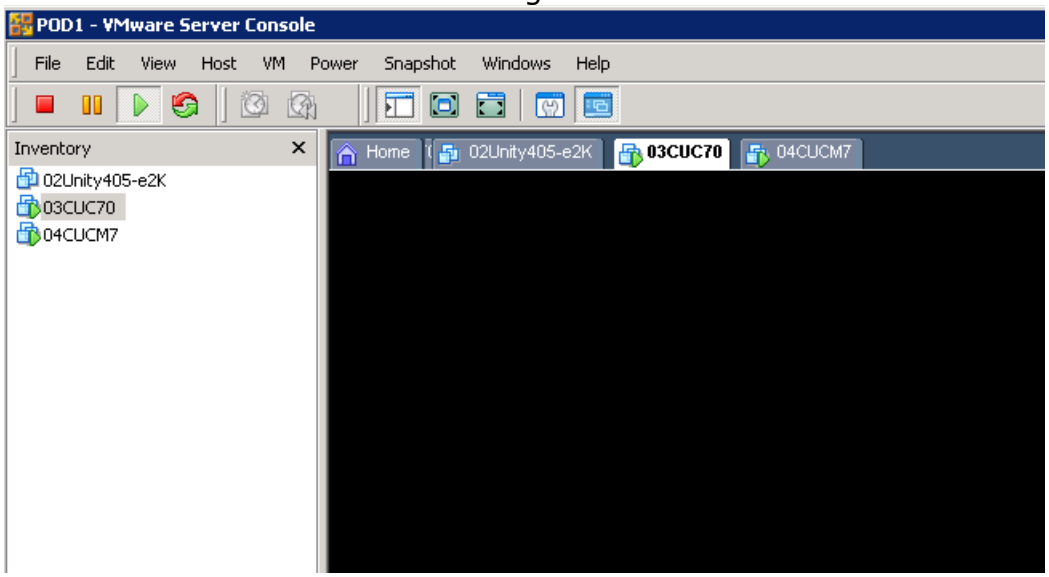
User name: Student

Password: student

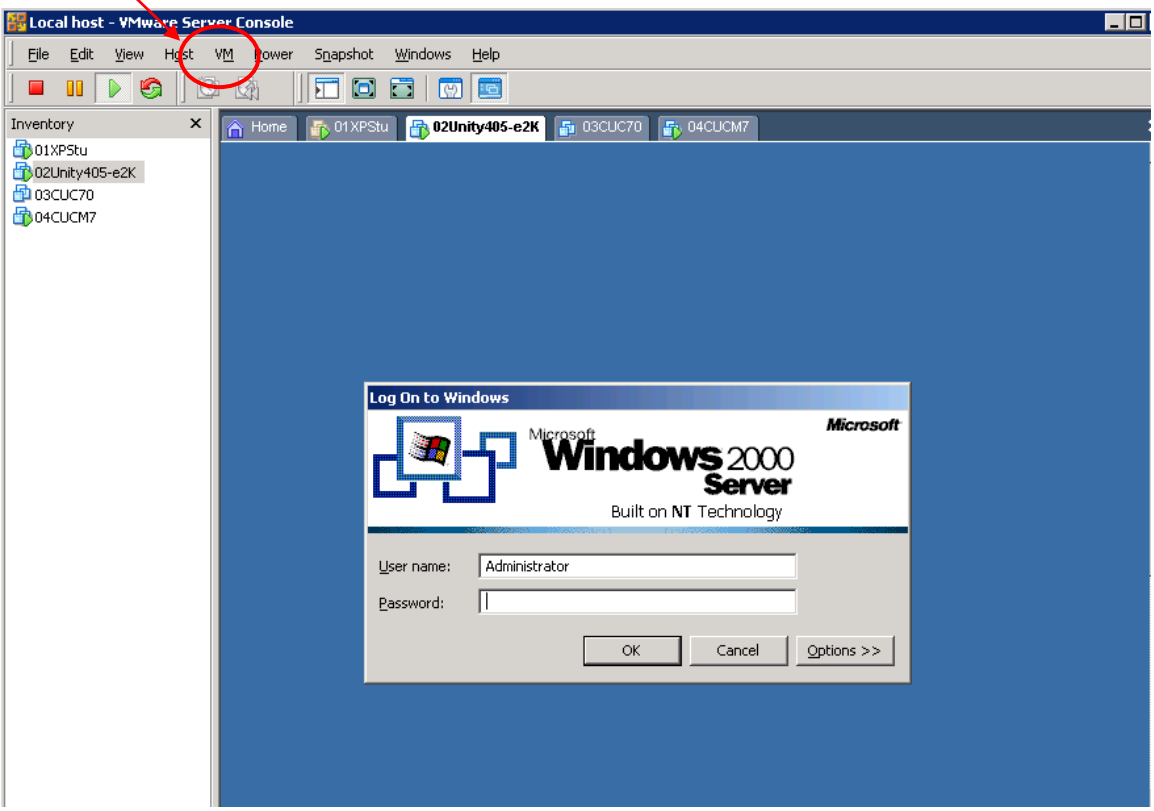


Step 3: Click OK.

Step 4: From the inventory pane, select the 02-405-e2k and start it. When the image has started select the 04CUCM7 image and start it.



Step 5: Select the unity server tab (02Unity405-e2k) and login to Cisco Unity Server. Click on the VM menu on the top of the VMware server and choose Send Ctrl+Alt+Delete to login. Username: Administrator, Password: cisco123. (see page 4 of this lab guide.)



Step 6: Make sure Unity is up and running and can communicate with the student workstation and Communications Manager 7. (Go to CMD and ping 172.16.1.20x where x is your pod number (for the workstation) and 172.16.130.88 for CUCM.)

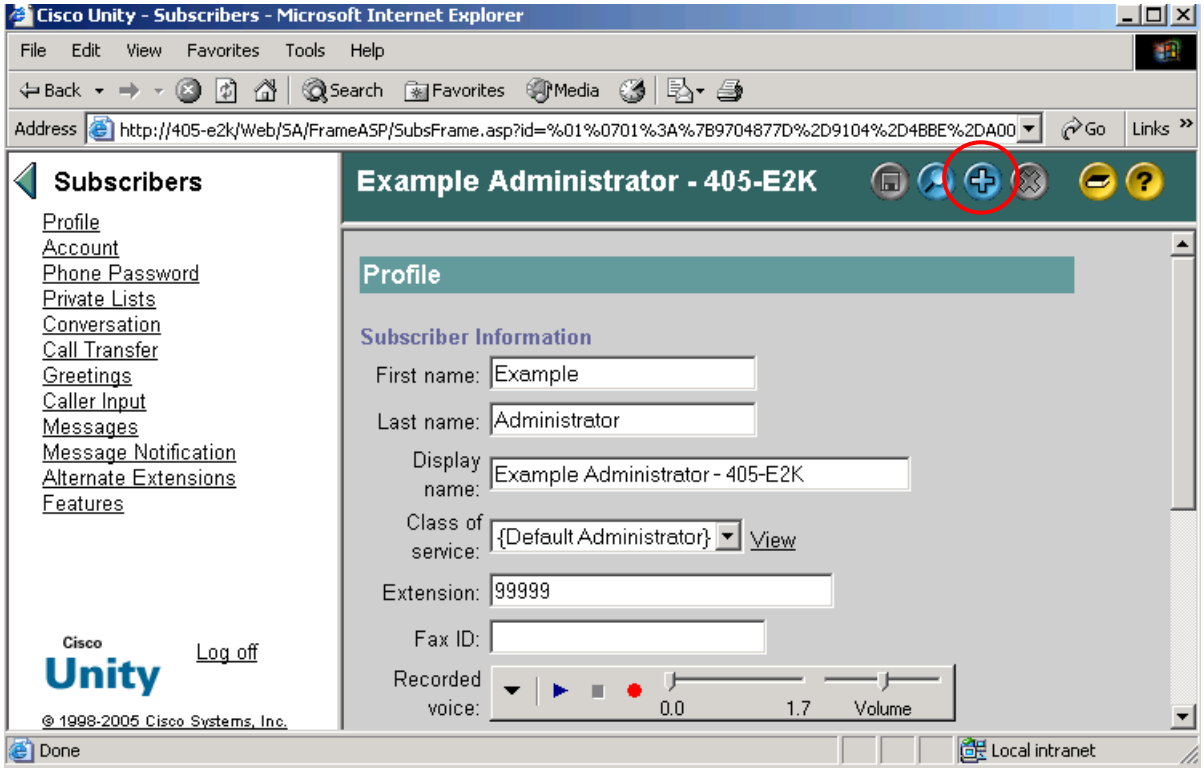
Creating a Subscriber on Unity 4.0 to Export

Step 1: From the Unity server that was opened in the last exercise open the System Administration icon on the desktop.

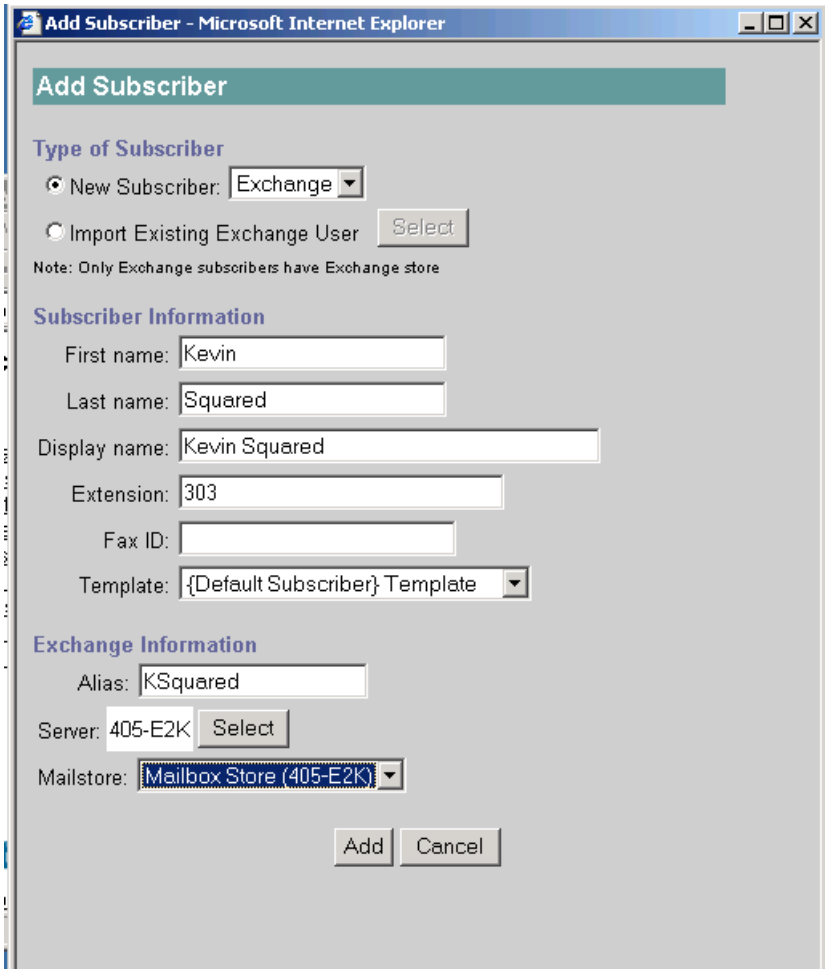
Step 2: From the left panel choose the Subscriber -> Subscriber menu.

Step 3: Click on the plus sign on the top right side of the screen to add a subscriber.

Note: If you get an error just refresh Internet Explorer on Unity> go to view> scroll down and refresh.



Step 4: Give the subscriber your name and information and any extension you choose.



Step 5: Click Add to add the subscriber.

Exporting Unity Users with the COBRAS tool

Note – This Section covers the migration from Unity 4.0(5) to Cisco Unity Connection 7.0.

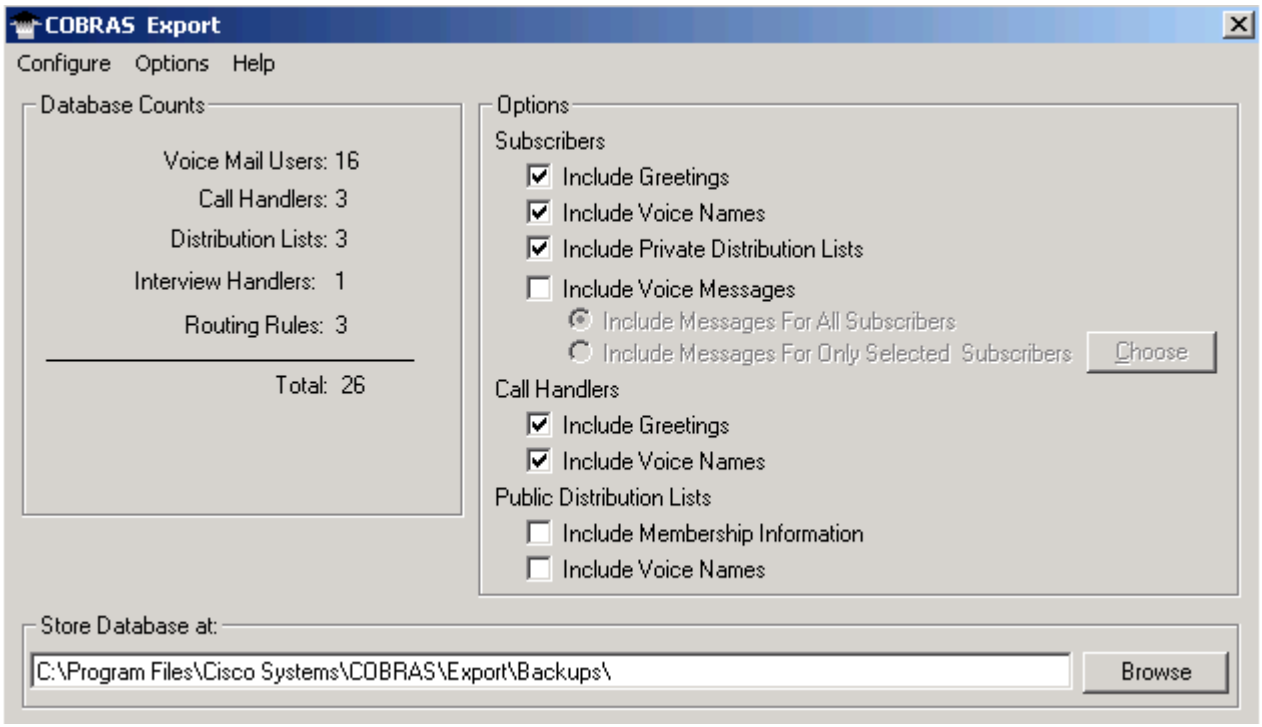
Exporting Unity 4.0(5) Users

The following steps are necessary to migrate user data from a Unity system to a CUC 7.x system and completing the installation process of a new 7.x system.

The Cisco Unity Tools web site is where there are many EXCELLENT tools, training videos and help files for completing a successful migration of user data for all versions of Unity and Unity Connection. http://www.ciscounitytools.com

Before starting COBRAS you should first read the documentation and watch the videos to get a better understanding about how this suite of tools is used.

The COBRAS export tool is very easy to use and but only has a few options.



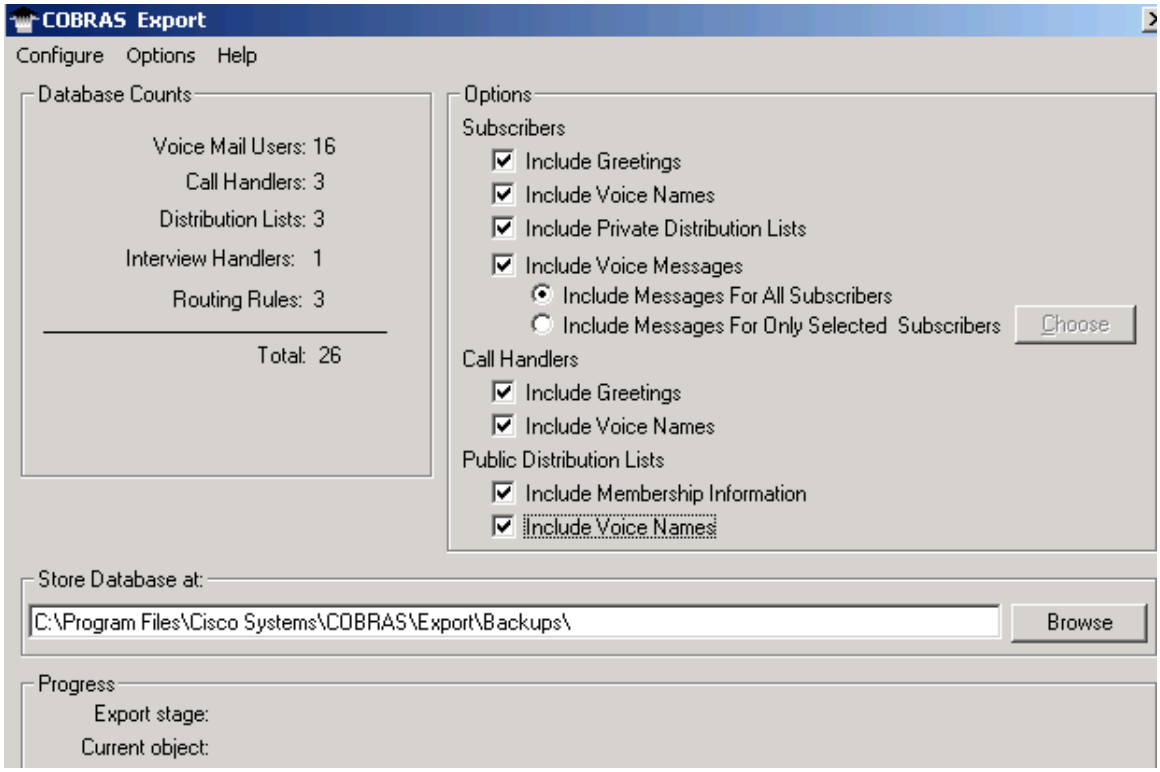
Note: Because this is a lab environment we will back up all information from Unity. In the real world we would have to take into consideration the number of users, messages and the health of the data base.

Migration from Unity to Unity Connection

COBRAS is unique in that it can take backed up data from a Unity 4.0(5) and restore it to a Unity 7.0 system or any combination of versions between 4.0(5) and 7.0. COBRAS can also move from Unity to Unity Connection 7.0. There are, of course, some items that cannot go between versions and products given the differences in features and data structures across them.

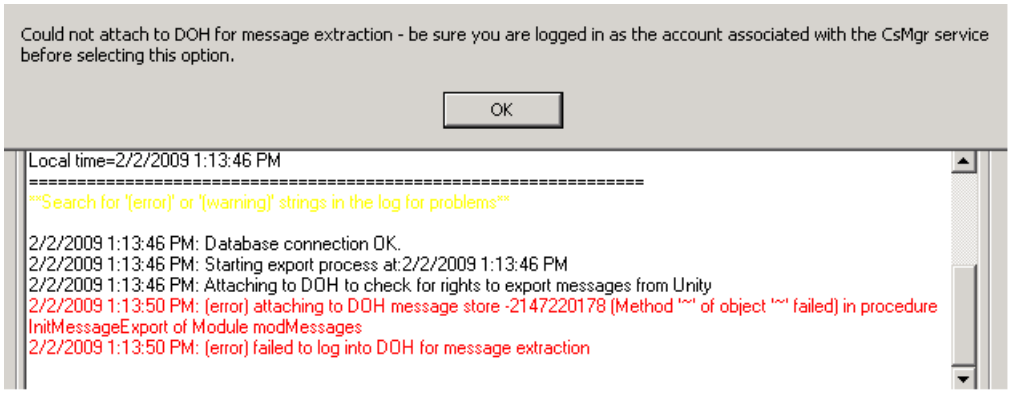
Step 1: From the Unity tools folder install the COBRAS Export tool (Cobras Export.msi) onto the desktop using all the defaults and launch.

Step 2: In this lab we will be backing up everything from Unity to Unity Connection 7.0. So check all boxes, all subscribers and call handlers. Make sure to note where the back up will be stored.

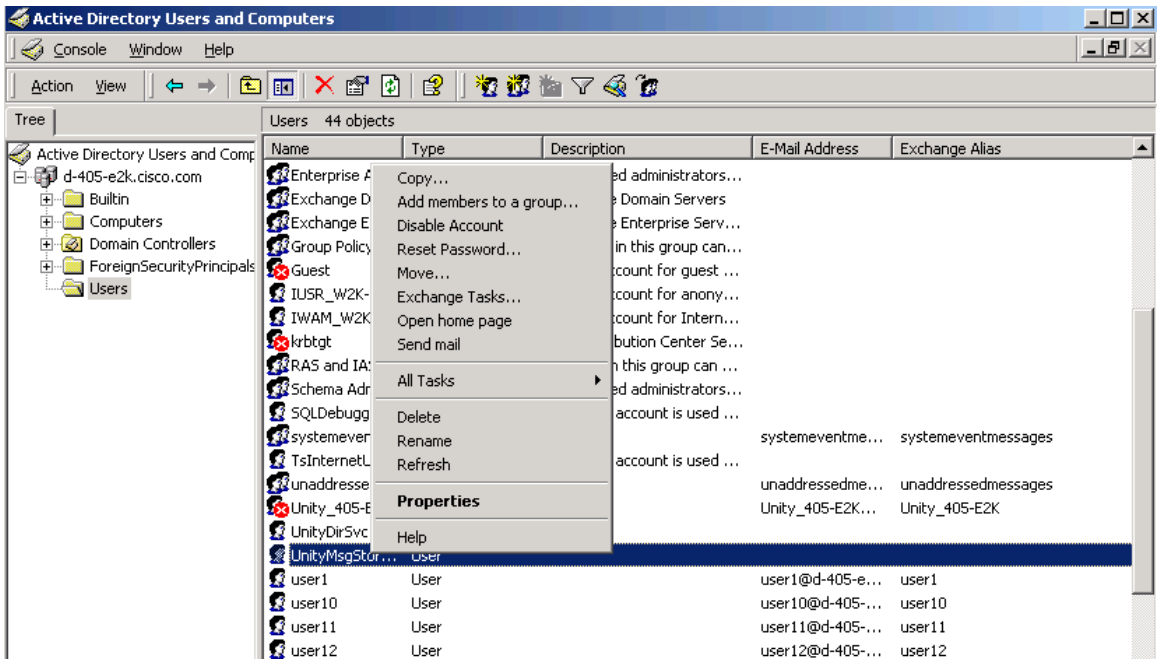


Step 3: After all selections have been made press the export data and start the backup process. What happens?

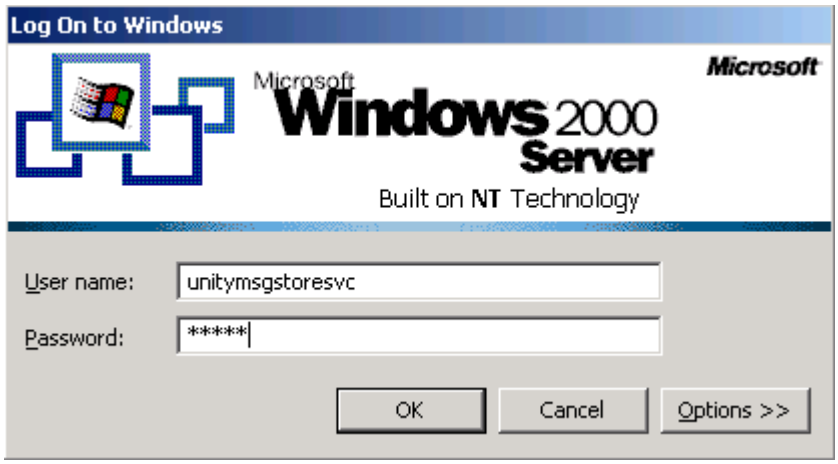
The export will fail. You must have a UnityMsgStoreSvc account and you must be logged in as such for the backup to take place. See below;



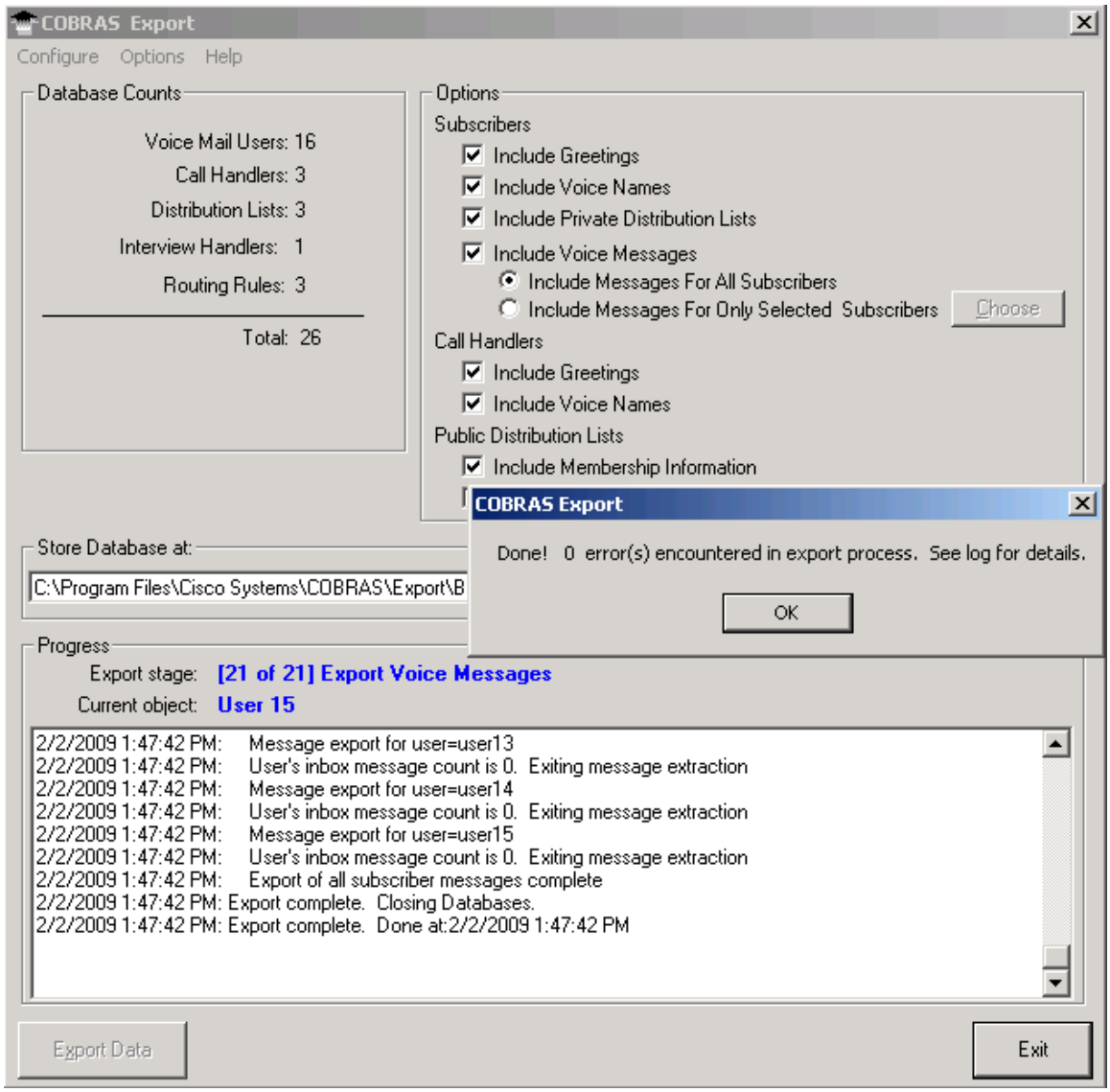
Step 4: Check the UnityMsgStoreSvc account and create a password to login so that you can complete the backup. Go to START -> Programs -> Microsoft Exchange -> Active Directory Users and Computers. Expand the d-405-e2k.cisco.com folder and select the Users folder icon. Select the UnityMsgStoreSvc user and with a right mouse click reset the account password to "cisco".



Step 5: Log off of Unity and login back in as UnityMsgStoreSvc and password cisco. (VM menu send Ctrl+Alt+Delete).



Step 6: Start the COBRAS tool by going to Start -> programs -> Cisco Systems -> COBRAS COBRAS Export -> and export all the data.



Step 7: Click OK to finish the export.

Step 8: Click ok again to view the export log.

```
============================================================
Running COBRASExport, version 7.0.45

Running COBRAS Export logged in as: D-405-E2K\UnityMsgStoreSvc
Local Unity version=4.0(5.0)
Local Unity server name=405-E2K
Local subscriber count=16
Local call handler count=3
Local distribution list count=3
Local interview handler count=1
Local routing rules count=3
Local time=2/2/2009 1:47:28 PM
============================================================
**Search for '(error)' or '(warning)' strings in the log for problems**

2/2/2009 1:47:28 PM: Database connection OK.
2/2/2009 1:47:28 PM: Starting export process at:2/2/2009 1:47:28 PM
2/2/2009 1:47:28 PM: Attaching to DOH to check for rights to export messages from Unity
2/2/2009 1:47:30 PM: [1 of 21] Export Routing Rules
2/2/2009 1:47:30 PM: [2 of 21] Export Switch Information
2/2/2009 1:47:30 PM: [3 of 21] Export COS Information
2/2/2009 1:47:30 PM: [4 of 21] Export Locations
2/2/2009 1:47:30 PM: [5 of 21] Export Schedules
2/2/2009 1:47:30 PM: [6 of 21] Export Public Distribution Lists
2/2/2009 1:47:30 PM:     System Event Messages - 405-E2K
2/2/2009 1:47:30 PM:         voice name exported to blob:C:\CommServer\Stream Files\SystemEventMessagesVoiceName.wav
2/2/2009 1:47:30 PM:     All Subscribers - 405-E2K
2/2/2009 1:47:31 PM:         voice name exported to blob:C:\CommServer\Stream Files\AllSubscribersVoiceName.wav
2/2/2009 1:47:31 PM:     Unaddressed Messages - 405-E2K
2/2/2009 1:47:31 PM:         voice name exported to blob:C:\CommServer\Stream Files\UnaddressedMessagesVoiceName.wav
2/2/2009 1:47:31 PM: [7 of 21] Export Interview Handlers
2/2/2009 1:47:31 PM:      No voice name recorded for this interviewer
2/2/2009 1:47:31 PM:         Interview question exported to blob:C:\CommServer\Stream Files\DefaultInterviewerQ1.wav
2/2/2009 1:47:31 PM:         Interview question exported to blob:C:\CommServer\Stream Files\DefaultInterviewerQ2.wav
2/2/2009 1:47:31 PM:         Interview question exported to blob:C:\CommServer\Stream Files\DefaultInterviewerQ3.wav
2/2/2009 1:47:31 PM:         Interview question exported to blob:C:\CommServer\Stream Files\DefaultInterviewerQ4.wav
2/2/2009 1:47:31 PM:         Interview question exported to blob:C:\CommServer\Stream Files\DefaultInterviewerQ5.wav
2/2/2009 1:47:31 PM: [8 of 21] Export Name Lookup Handlers
2/2/2009 1:47:31 PM: [9 of 21] Export Alternate Extensions
2/2/2009 1:47:31 PM: No alternate extensions found in the local system
2/2/2009 1:47:31 PM: [10 of 21] Export Primary Call Handlers
2/2/2009 1:47:31 PM:    Text Name=ch_user1, Alias=ch_user1
2/2/2009 1:47:31 PM:       Exporting Base Handler Data
2/2/2009 1:47:31 PM:      Starting top level items
2/2/2009 1:47:31 PM:       Skipping voice name
2/2/2009 1:47:31 PM:      Record complete.

2/2/2009 1:47:31 PM:    Text Name=ch_user2, Alias=ch_user2
2/2/2009 1:47:31 PM:       Exporting Base Handler Data
2/2/2009 1:47:31 PM:      Starting top level items
2/2/2009 1:47:31 PM:       Skipping voice name
2/2/2009 1:47:31 PM:      Record complete.
============================================================
Running COBRASExport, version 7.0.45

Running COBRAS Export logged in as: D-405-E2K\UnityMsgStoreSvc
Local Unity version=4.0(5.0)
Local Unity server name=405-E2K
Local subscriber count=16
Local call handler count=3
Local distribution list count=3
Local interview handler count=1
Local routing rules count=3
Local time=2/2/2009 1:47:28 PM
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2/2/2009 1:47:28 PM: Database connection OK.
2/2/2009 1:47:28 PM: Starting export process at:2/2/2009 1:47:28 PM
2/2/2009 1:47:28 PM: Attaching to DOH to check for rights to export messages from Unity
2/2/2009 1:47:30 PM: [1 of 21] Export Routing Rules
2/2/2009 1:47:30 PM: [2 of 21] Export Switch Information
2/2/2009 1:47:30 PM: [3 of 21] Export COS Information
2/2/2009 1:47:30 PM: [4 of 21] Export Locations
2/2/2009 1:47:30 PM: [5 of 21] Export Schedules
2/2/2009 1:47:30 PM: [6 of 21] Export Public Distribution Lists
2/2/2009 1:47:30 PM:     System Event Messages - 405-E2K
2/2/2009 1:47:30 PM:         voice name exported to blob:C:\CommServer\Stream Files\SystemEventMessagesVoiceName.wav
2/2/2009 1:47:30 PM:     All Subscribers - 405-E2K
2/2/2009 1:47:31 PM:         voice name exported to blob:C:\CommServer\Stream Files\AllSubscribersVoiceName.wav
2/2/2009 1:47:31 PM:     Unaddressed Messages - 405-E2K
2/2/2009 1:47:31 PM:         voice name exported to blob:C:\CommServer\Stream Files\UnaddressedMessagesVoiceName.wav
2/2/2009 1:47:31 PM: [7 of 21] Export Interview Handlers
2/2/2009 1:47:31 PM:      No voice name recorded for this interviewer
2/2/2009 1:47:31 PM:         Interview question exported to blob:C:\CommServer\Stream Files\DefaultInterviewerQ1.wav
2/2/2009 1:47:31 PM:         Interview question exported to blob:C:\CommServer\Stream Files\DefaultInterviewerQ2.wav
2/2/2009 1:47:31 PM:         Interview question exported to blob:C:\CommServer\Stream Files\DefaultInterviewerQ3.wav
2/2/2009 1:47:31 PM:         Interview question exported to blob:C:\CommServer\Stream Files\DefaultInterviewerQ4.wav
2/2/2009 1:47:31 PM:         Interview question exported to blob:C:\CommServer\Stream Files\DefaultInterviewerQ5.wav
2/2/2009 1:47:31 PM: [8 of 21] Export Name Lookup Handlers
2/2/2009 1:47:31 PM: [9 of 21] Export Alternate Extensions
2/2/2009 1:47:31 PM: No alternate extensions found in the local system
2/2/2009 1:47:31 PM: [10 of 21] Export Primary Call Handlers
2/2/2009 1:47:31 PM:    Text Name=ch_user1, Alias=ch_user1
2/2/2009 1:47:31 PM:       Exporting Base Handler Data
2/2/2009 1:47:31 PM:      Starting top level items
2/2/2009 1:47:31 PM:       Skipping voice name
2/2/2009 1:47:31 PM:      Record complete.

2/2/2009 1:47:31 PM:    Text Name=ch_user2, Alias=ch_user2
2/2/2009 1:47:31 PM:       Exporting Base Handler Data
2/2/2009 1:47:31 PM:      Starting top level items
2/2/2009 1:47:31 PM:       Skipping voice name
2/2/2009 1:47:31 PM:      Record complete.
```
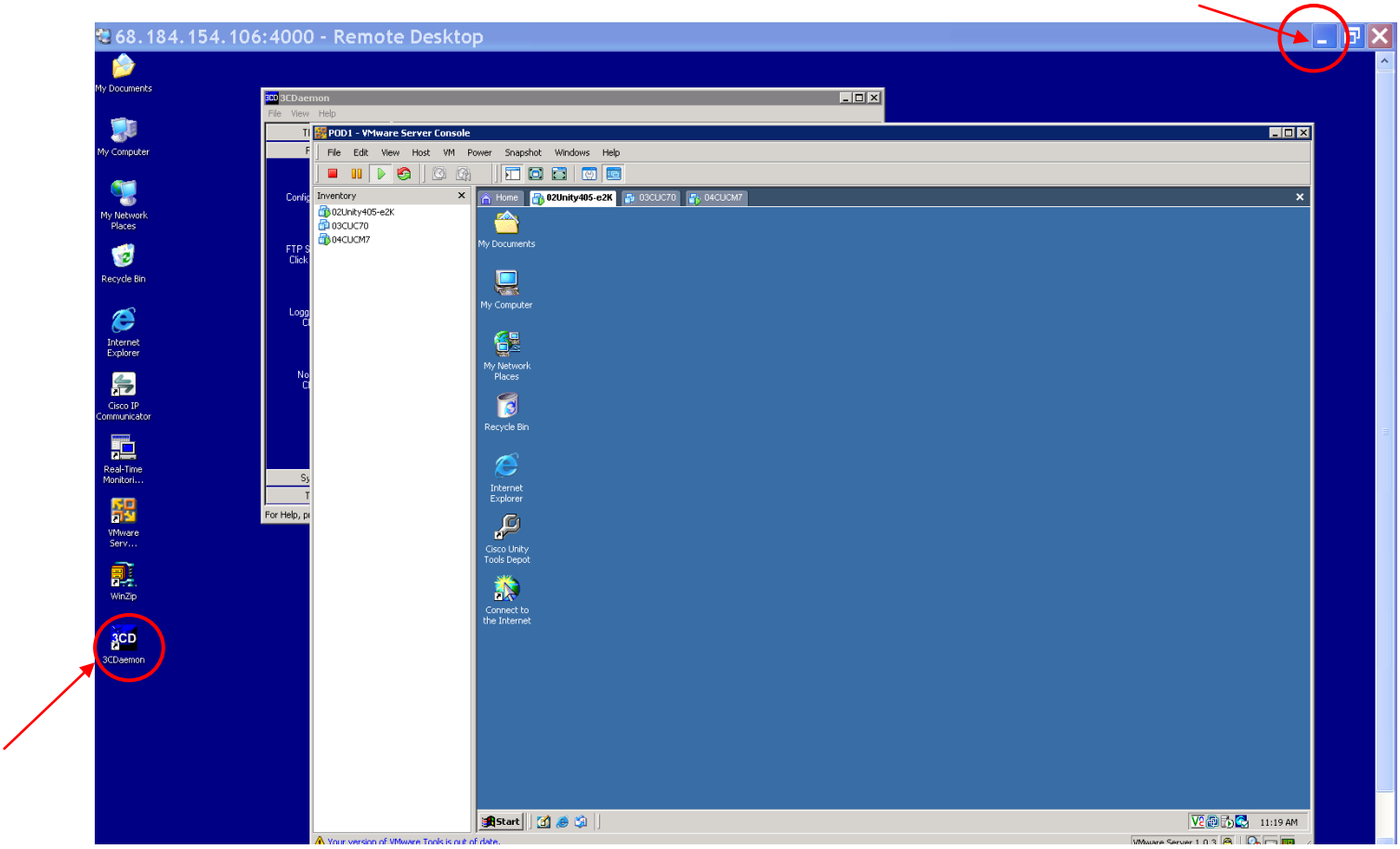

Note:

Log files are stored under the COBRAS Backup installation directory under the "Logs" folder. This is not configurable. By default COBRAS will keep 30 days worth of logs around before deleting old logs. Again, you can configure this from 5 days up to 90. Log files are only cleaned up when a backup is run so if you have not run COBRAS in a while there may be log files in the folder older than the number of days you have specified.

Step 8: You will need to FTP the files from Unity to the Student workstation. (These files will be later used for import into Unity Connection.) The student workstation is the one that you are logged into so click on the '-' sign to minimize the VMware server console window.

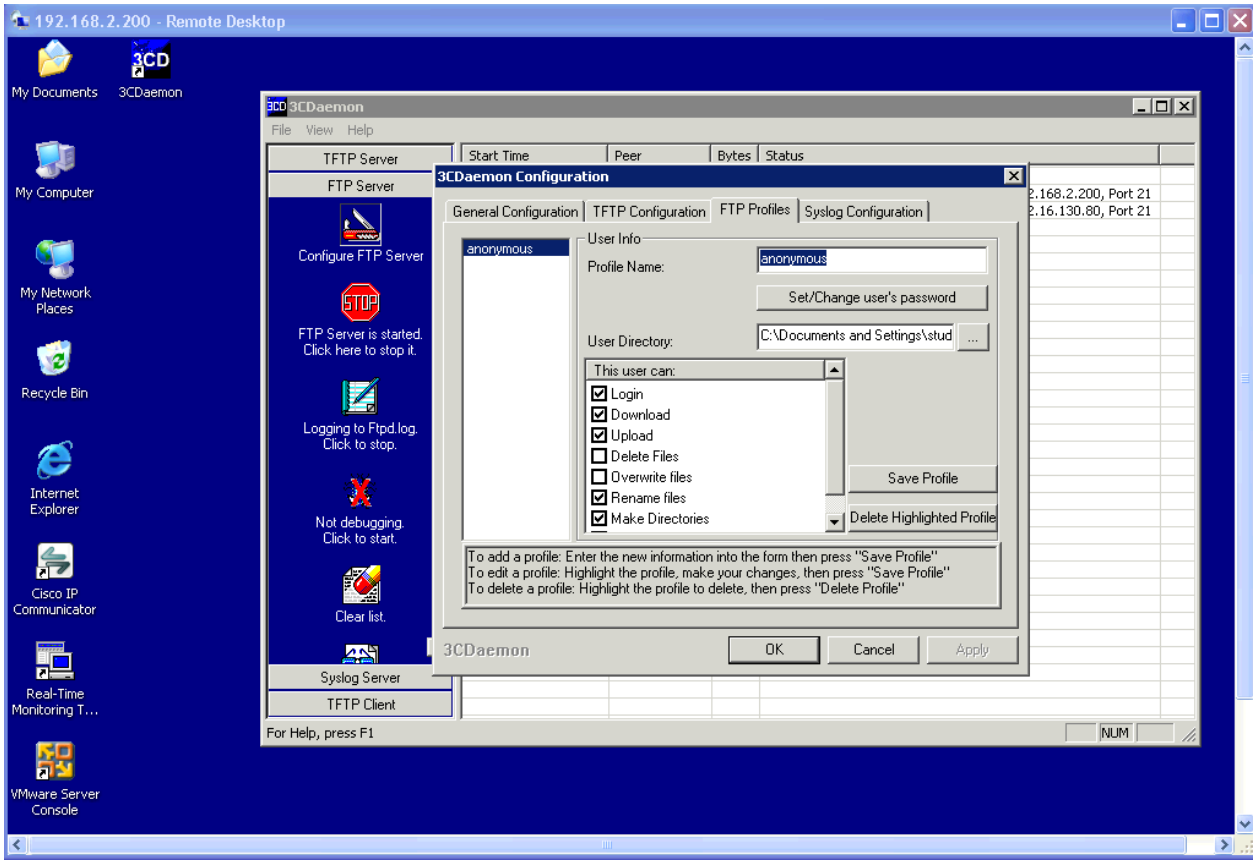


Note:
Do not click on the 01XPStu tab in the VMware window because that will close your session. You are working on the student image and logging in from the VMware server will log you out.

Step 9: From the student workstation launch the 3CDaemon program on the desktop.

Step 10: Select the FTP bar from the left toolbar and choose "Configure FTP Server". Change the default anonymous user permissions and make sure the following permissions are enabled: Login, Download, Upload, Rename files, Make Directories.

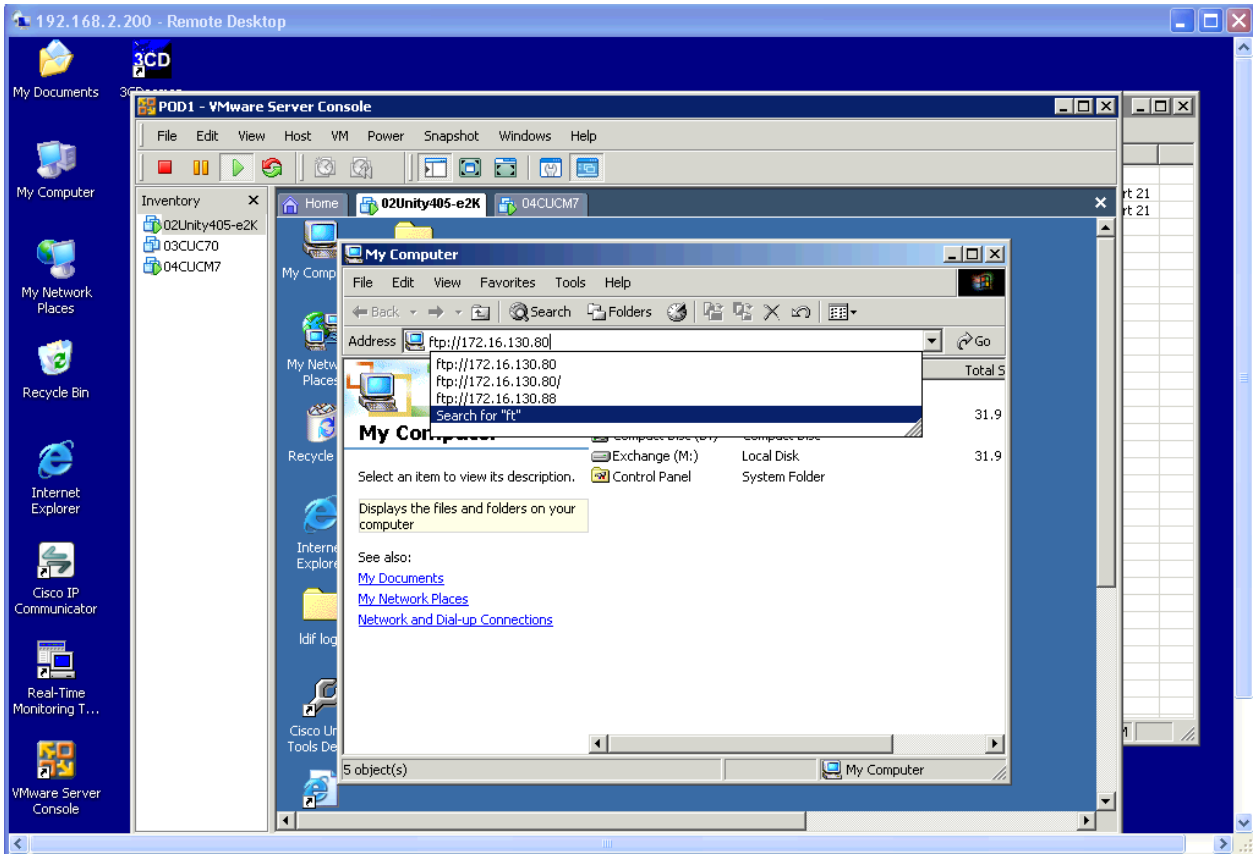
Step 11: Choose "SAVE PROFILE" and then choose okay to exit.



Step 12: Restore the VMware console and choose the Unity server.

Step 13: Double click on "My Computer" icon to launch an FTP session (Which can also be done via Explorer or IE.)

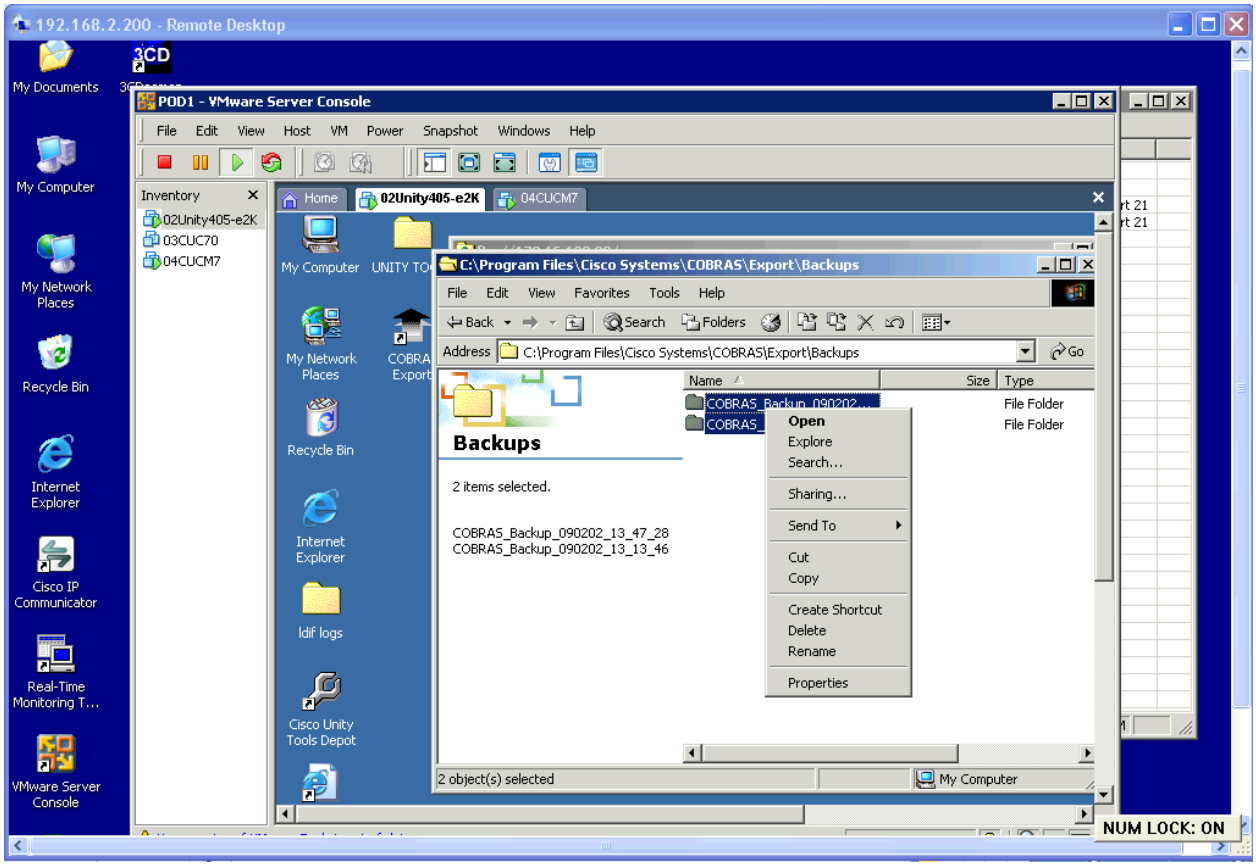
Step 14: In the toolbar of the My Computer window, type in the ftp address of the XP workstation: FTP://172.16.130.80.



Step 15: In this scenario, My Documents is the user directory and repository where all files will be placed on the workstation when transferred via ftp.

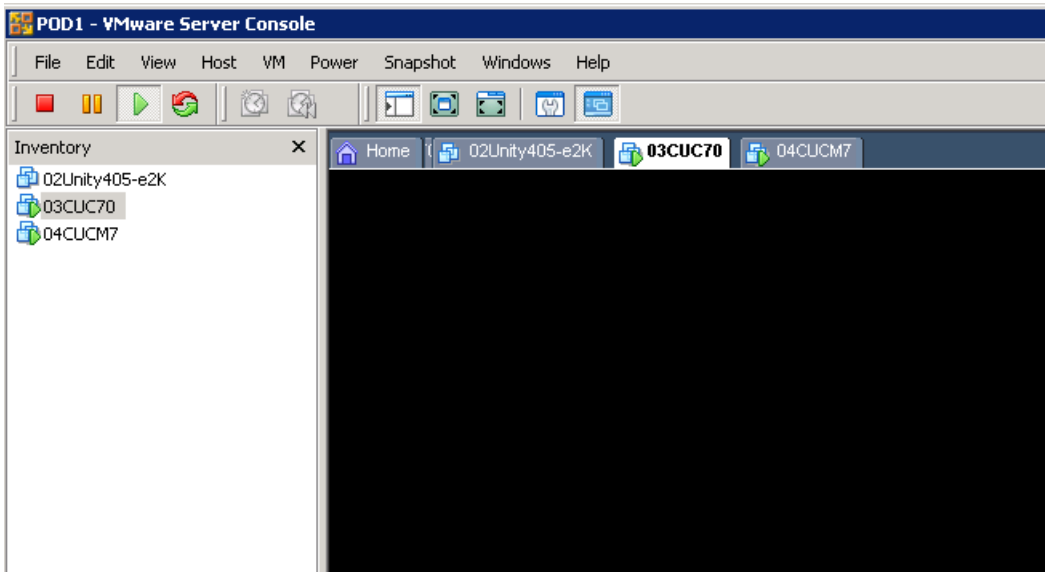
Step 16: On the Unity Server open the Backup files folder so the files are visible on the desktop. The COBRAS tool uses the Cisco Systems folder in Program Files. C:\Program Files\Cisco Systems\COBRAS\Export\Backups by default.

Step 17: Open the backup folder that was created when running the COBRAS tool, highlight and copy the two files (Unity DBData and UnityMessaging) and paste them into the open ftp window to the student workstation.



Now we have completed the backup of Cisco Unity and will start the process of migrating to Cisco Unity Connection 7.0.

Step 18: Before we start the import process we must shut down Unity image and start the Unity Connection 7.0 image. **You must not have both images running at the same time**.



Note that the Unity image has been stopped and the Unity Connection image has been started (03CUC70).

It will take some time for Unity Connection to load. Take a fifteen minute break before attempting to move on in the lab.

Configuring Connection 7.0 For Import

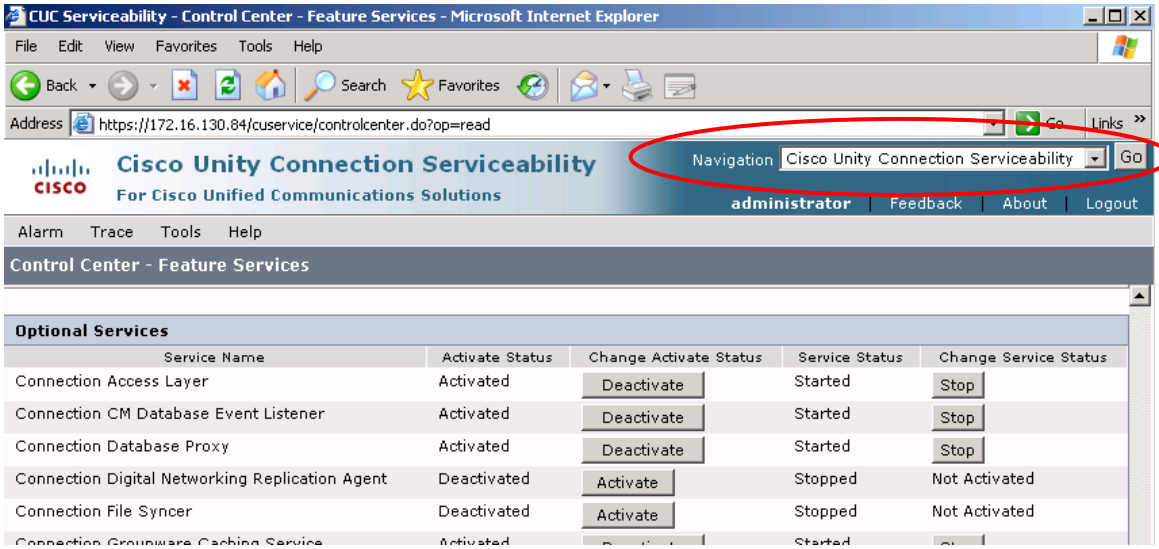
Connection 7.0(1) and later comes "out of the box" configured to not allow remote connections to the database for security reasons. To be able to run a data and message import into Connection requires you create a user with the rights to attach to the database remotely, activate the remote data service and, optionally, open access to inbound SMTP messages for importing messages.

Step 1: From the student workstation open IE and enter http://172.16.130.84 to connect to the Cisco Unity Connection Administrator Tool.

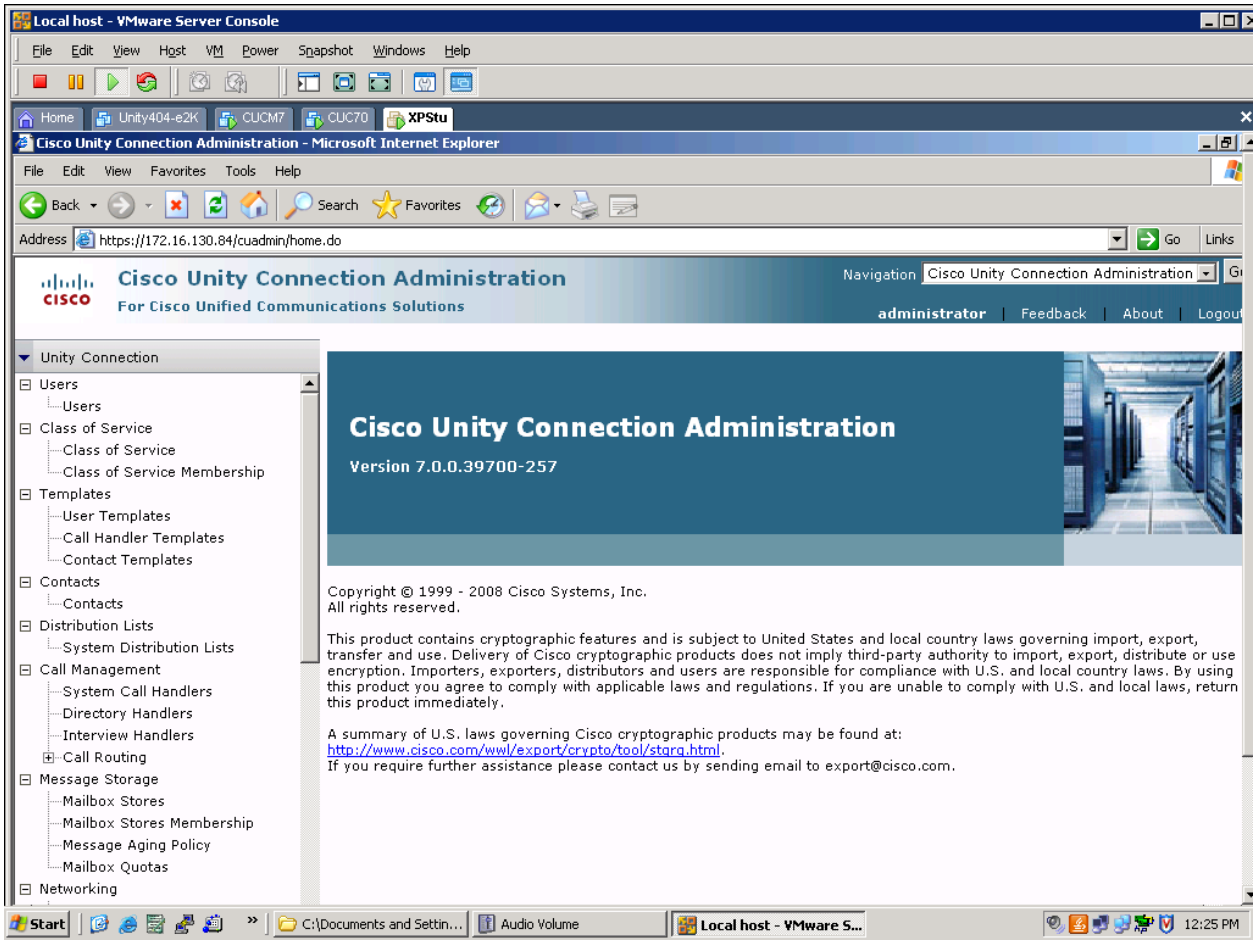
Step 2: Login to Unity Connection Administrator with the username: administrator and password: Cisc0123.

Step 3: From the menu on the upper right hand corner choose Cisco Unity Connection Serviceability and select GO.

Step 4: Choose Tools -> Service Management -> Connection Database Proxy. Activate this service as it is deactivated by default.

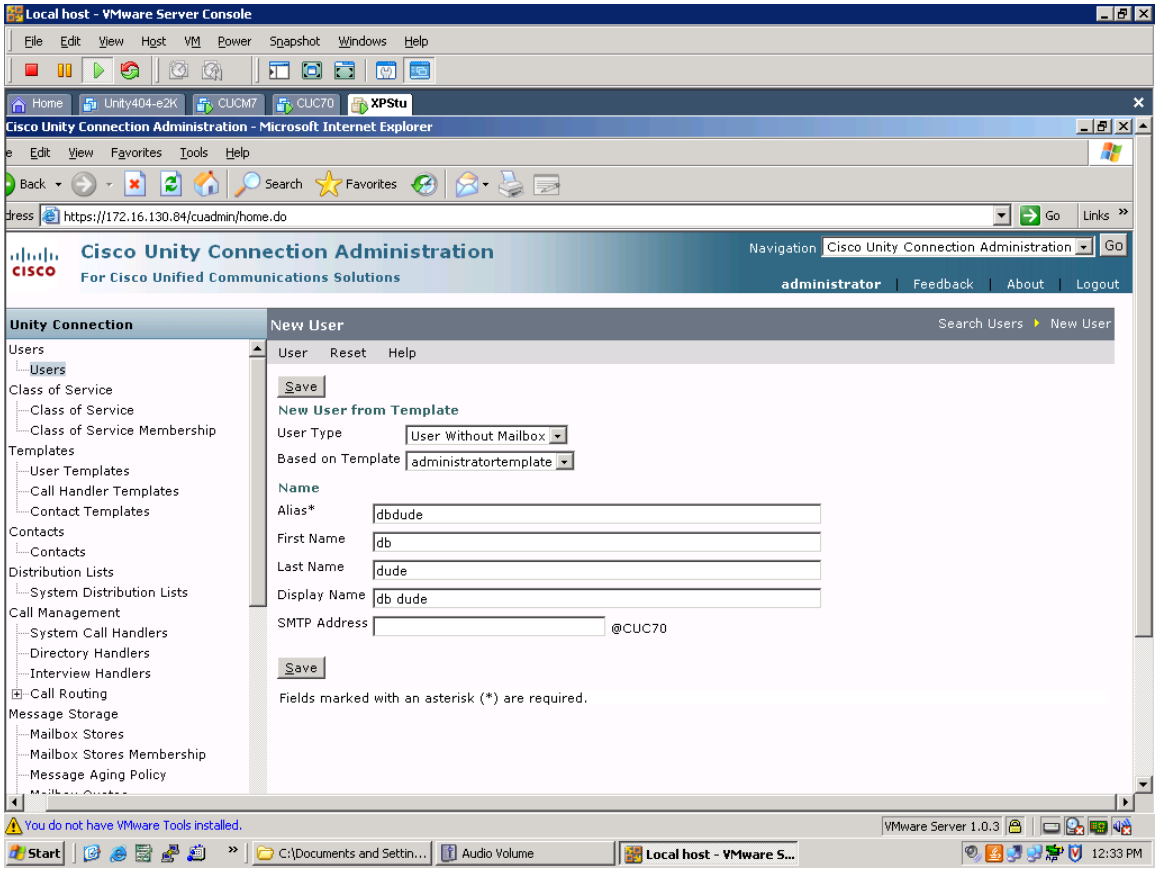


Step 5: Select the Cisco Unity Connection Administration from the navigation menu in the right upper hand corner and click GO. This will open up the Cisco Unity Connection Administrator.



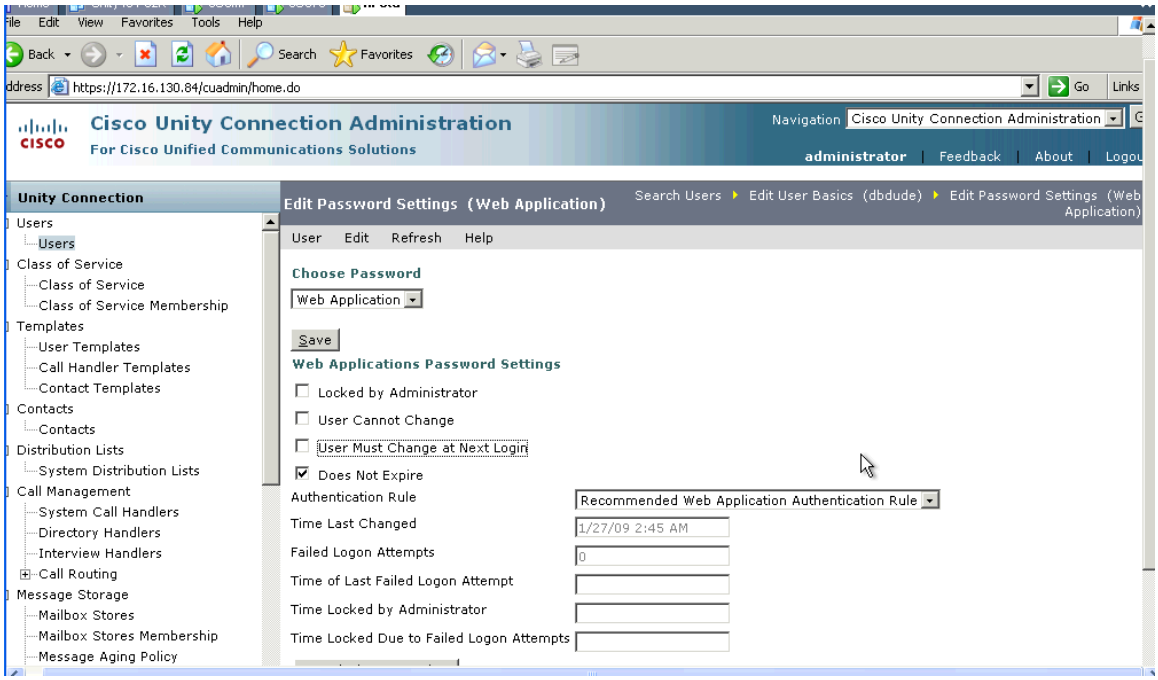
Step 3: To create a new user (not the administrator) select Users -> Users from the left hand menu. Choose the User menu and select new user. Create a new user with the following account information:
User type: User **without** a mailbox (so no license will be required).
Alias: dbdude
First Name: db
Last Name: dude
Display Name: db dude

Step 4: Click Save to save the user information

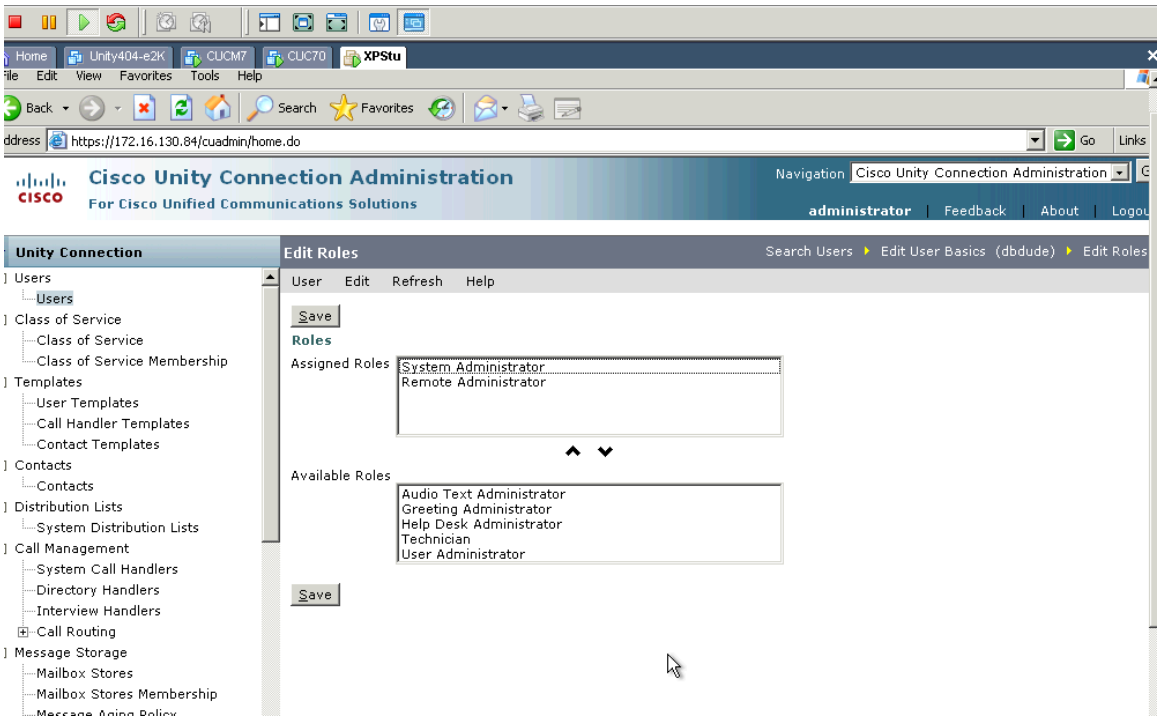


Step 5: Choose Edit -> change password, change the password to cisco123 and click save.

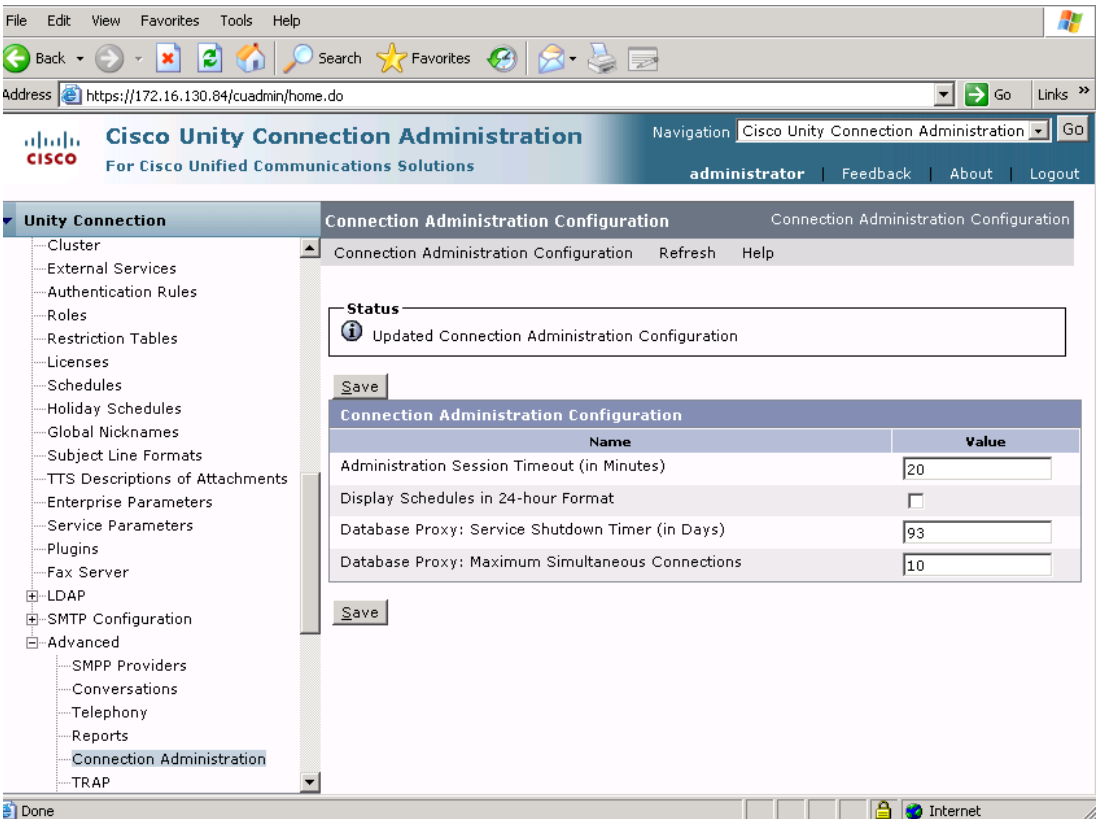
Step 6: Choose Edit -> password settings -> check 'Does not expire' and click save.



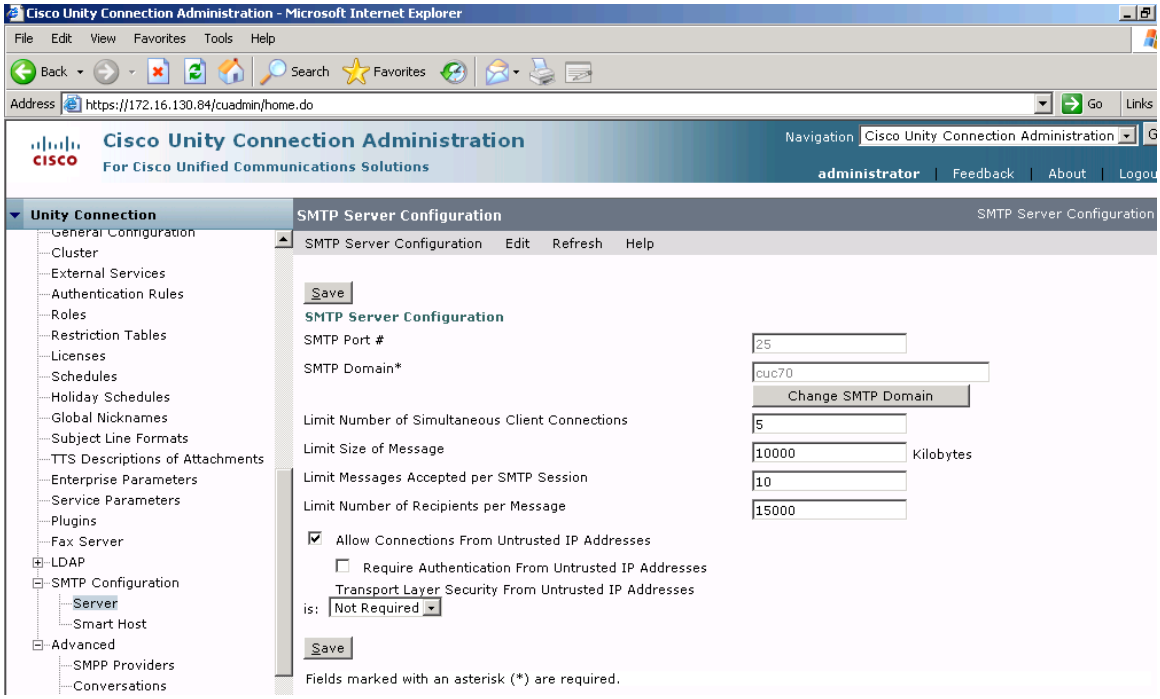
Step 7: Go to edit -> roles -> then add the assigned roles of System Administrator and Remote Administrator to this user and click save.



Step 8: Next go to the left menu and select Unity Connection -> System Settings -> Advanced -> Connection Administration menu. The Database Proxy Shutdown timer needs to be extended the recommended is 999 days. If the server is restarted these services still will not automatically restart. Click Save to save the configuration.



Step 9: Set up the SMTP server settings on Unity Connection to allow messages to be imported. Go to Unity Connection menu on the left side and scroll down to the System settings -> SMTP Configuration -> server menu and verify that 'Allow connection from untrusted IP Addresses' is selected and the transport layer security is set to 'Not Required'.



Now we are ready to launch the COBRAS import tool!

Step 1: From the student desktop go to My Documents -> Unity Tools -> and install the IBM Informix Database drivers. These drivers need to be installed before COBRAS.

Step 2: After the driver installation install the COBRAS import for Connection accepting all the default settings and then launch the tool.

Notes:

The restore has been tested on Windows 2000 and 2003 server, Windows XP and Windows Vista. Note that with Vista you will need to run the application with the "as administrator" option so it can create local WAV files on the file system and such.

Restore support on Unity 4.0(5), 4.1, 4.2, 5.0 and 7.0 with Exchange as the back end. No support for import into any version of Unity with Domino as the back end is planned given limitations imposed by IBM on the DUC interface. Export from system connected to Domino is supported, however.

COBRAS does not support backing up and restoring of secure messages. In most versions of Unity COBRAS will not backup secure messages – they will be noted explicitly as having been skipped in the backup logs. However in Unity 7.0 and in some cases with multiple message parts, the secure message will be backed up. *However when restoring onto another server these secure messages will not be allowed to play back properly.*

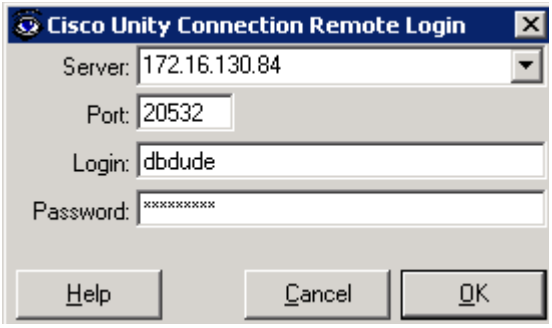
No import support for Connection 2.0(1) and earlier is planned due to limited off box access options in those versions.

Imports into Connection 7.x and later are only supported for stand alone Connection installs – no support for co-resident (Business Edition) installations.

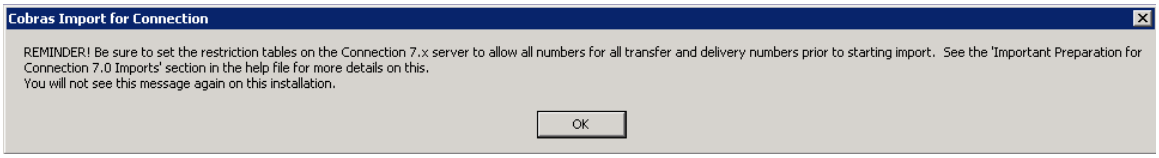
Unity or Connection must be up and running before the restore will be allowed to execute.

Both the COBRAS backup and restore tools run as lower priority processes and both can be run while Unity or Connection is running. However, even at a lower priority process they will use CPU cycles and take up database processing power that will affect the performance of running systems. It's always a good idea to do backups and, especially restores during off peak call times.

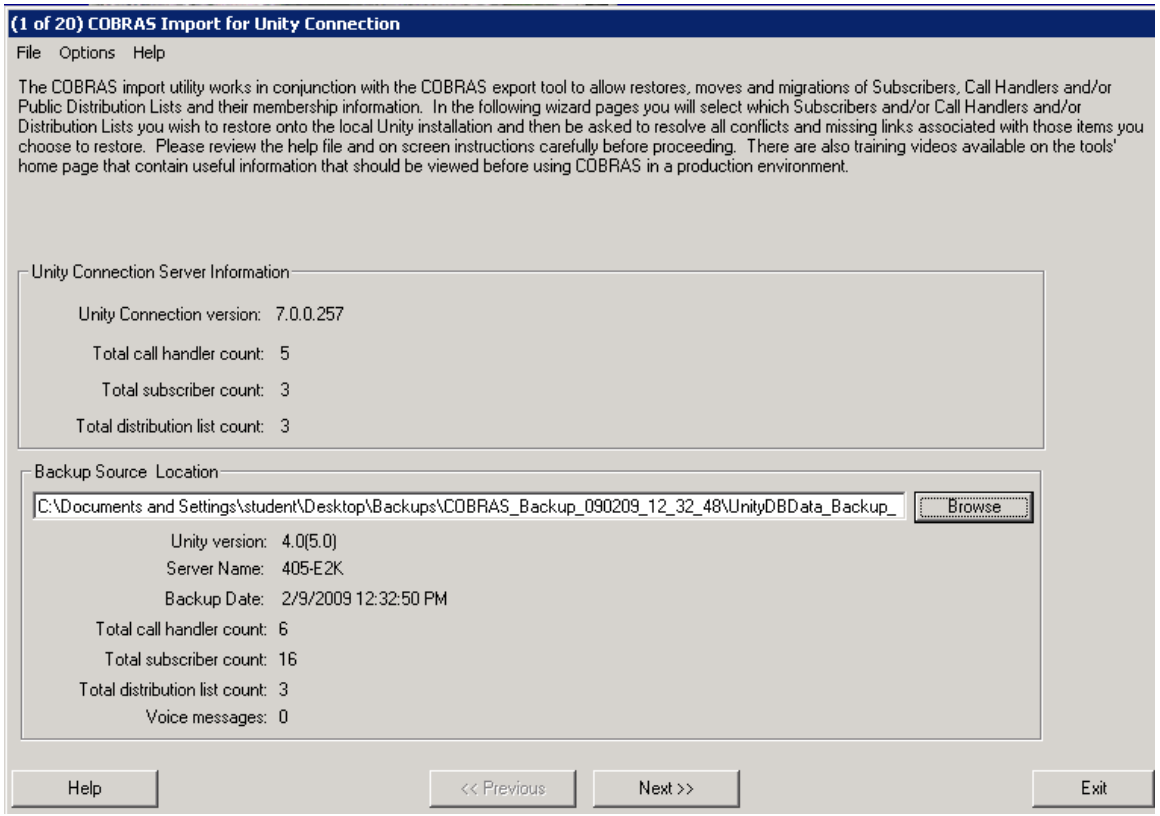
Step 3: Enter the IP address of the server (172.16.130.84) and the user information (dbdude, cisco123) into the COBRAS tool and press OK.



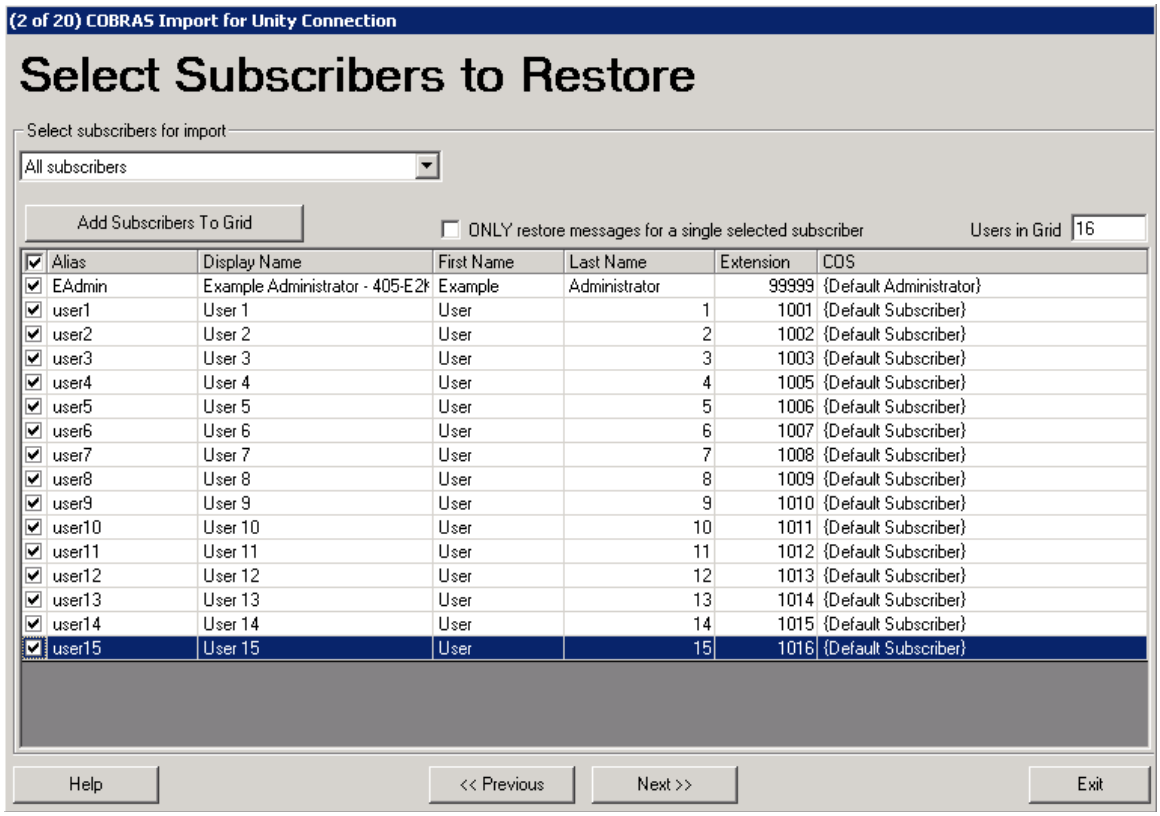
If you get a reminder prompt press OK and continue.



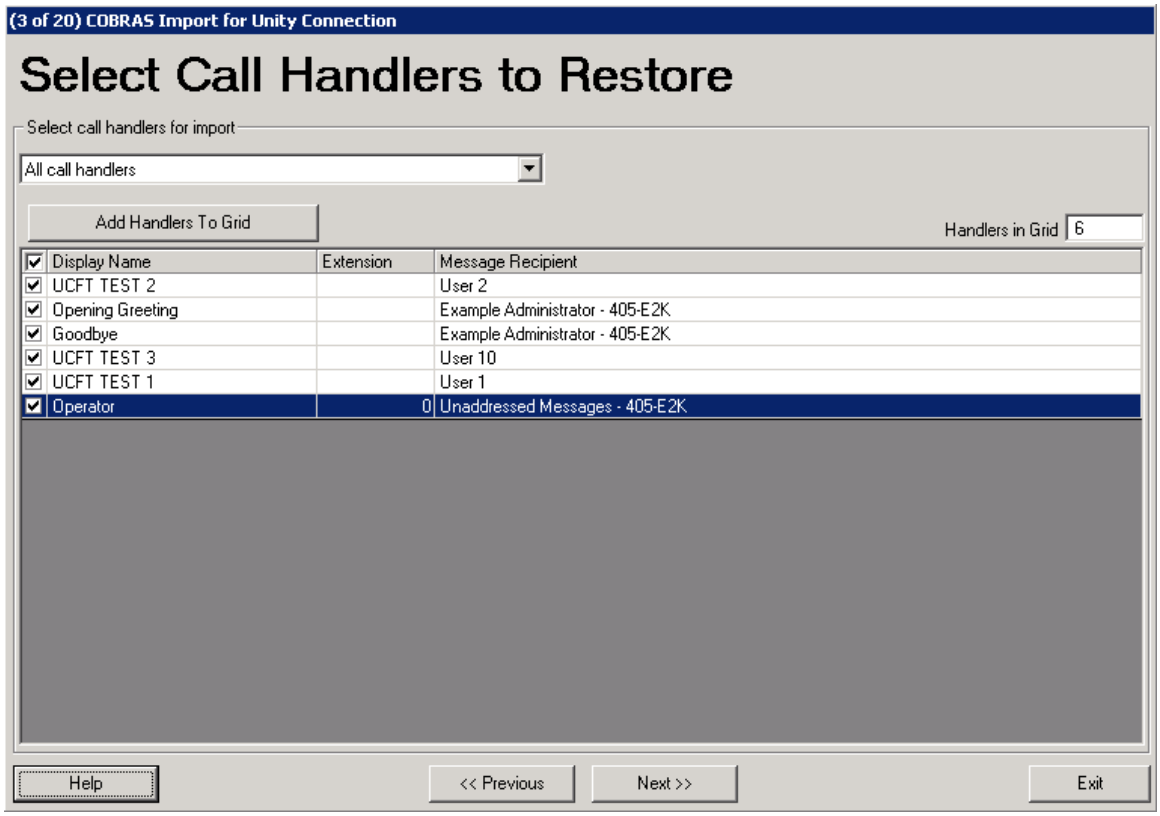
Step 4: At the first screen of the import process browse to the location of the Backup file (My documents folder) on the FTP workstation and select the DBData backup first to import into CUC 7.0. The messages will be imported into CUC 7.0 at a later time.



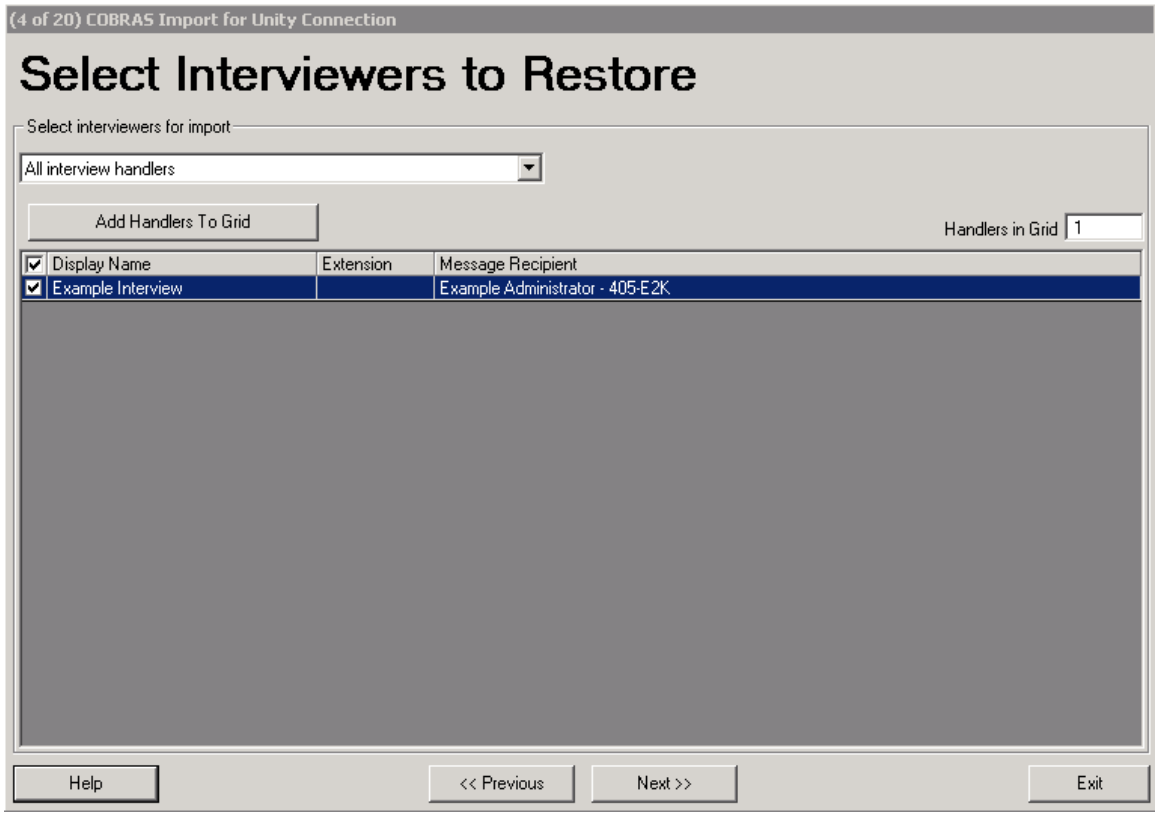
Step 5: Select the subscribers to add for import by clicking on 'Add Subscribers to Grid'. View the subscribers to add for import into CUC 7.0. (The subscriber that was created in the Unity exercise should appear in the grid) click next.



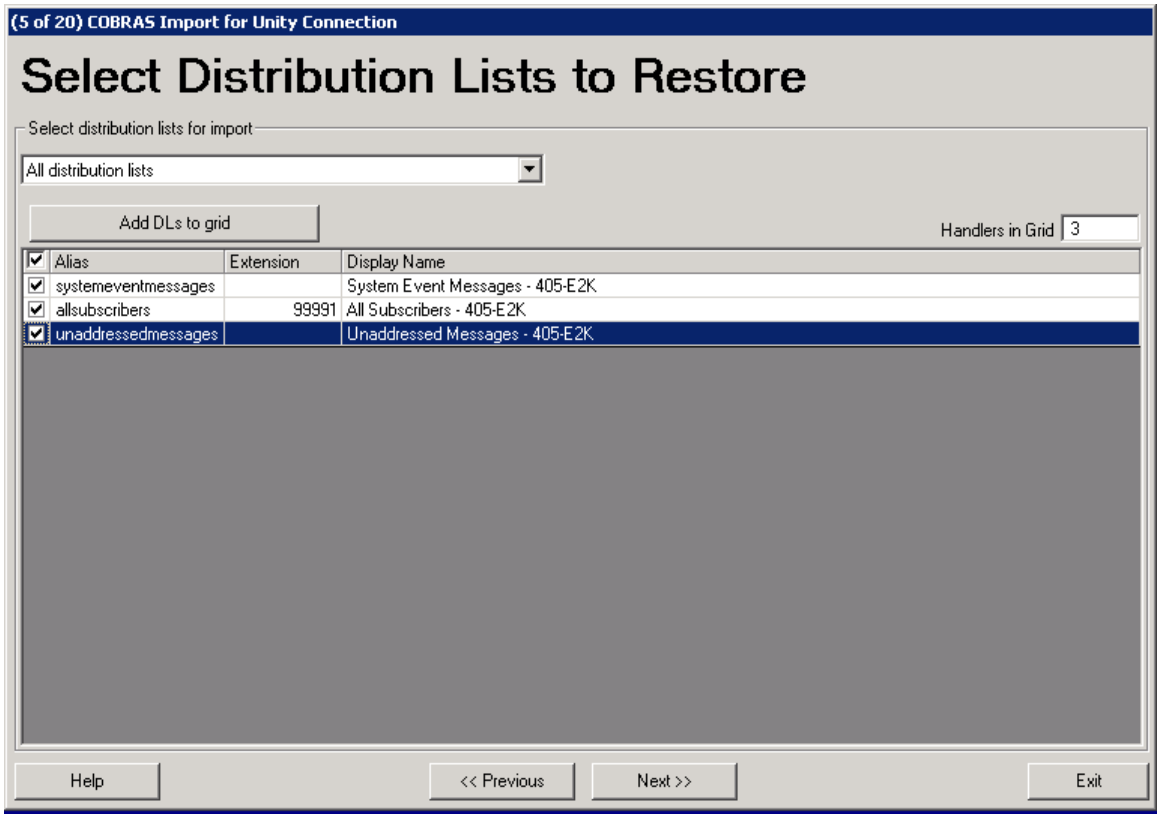
Step 6: To add Call Handlers click on 'Add Handlers to Grid' and view the call handlers to add to Unity Connect. Then click next.



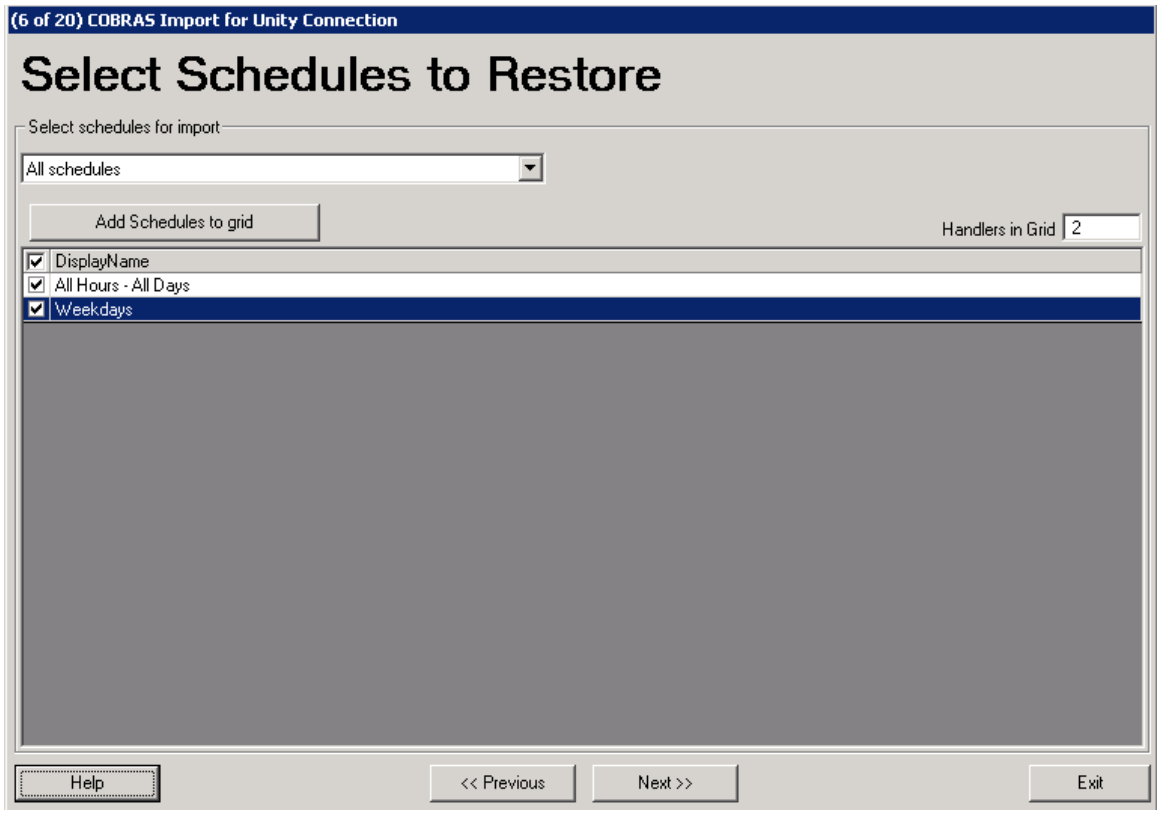
Step 7: Next restore the Interview Handlers. There is only an Example handler here so select and click next.



Step 8: Select Distribution lists to import. Click next



Step 9: Add Schedules to the Grid and click next.



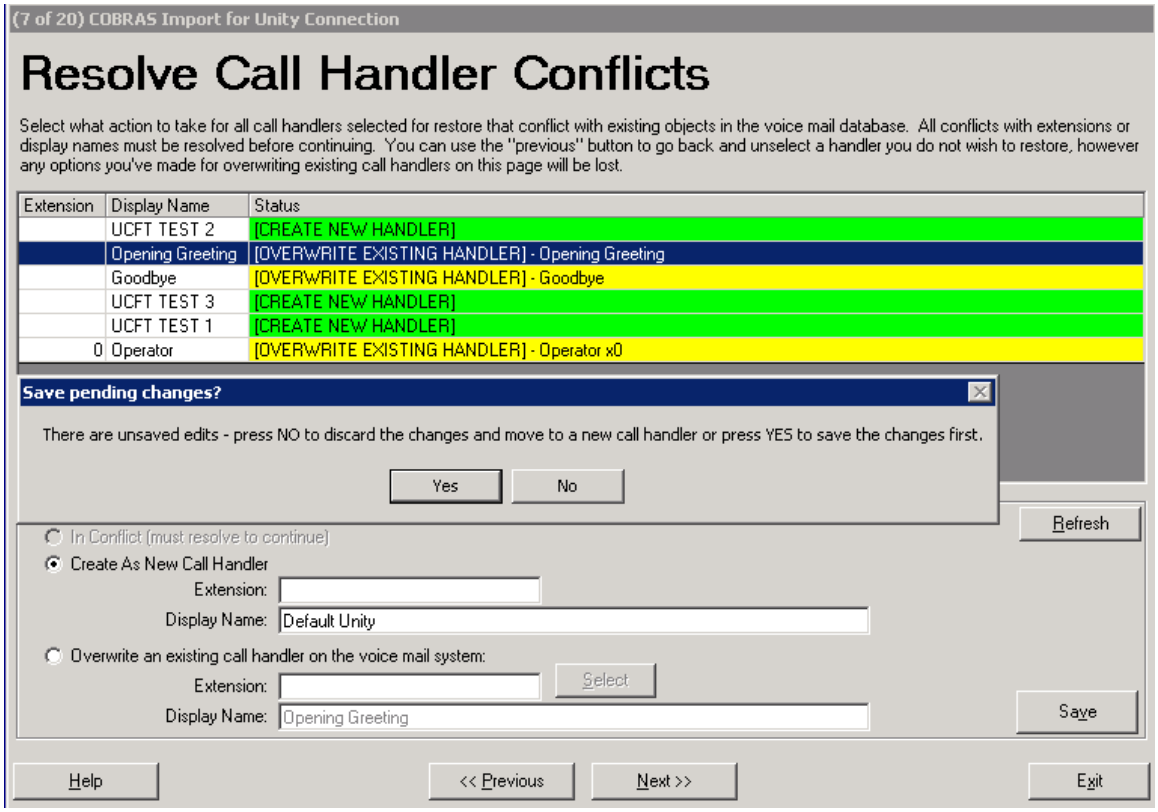
Step 10: The next step is to resolve Call Handler Conflicts. There are 3 UCFT Call Handlers that were created that are not duplicates and 3 Default Handlers that are duplicates. There are three options to use when trying to resolve a conflict for a duplicate call handler. Select each of the handlers and resolve the conflict by either overwriting the existing handler or creating a new call handler. Below are the different methods the system will use for importing Call Handlers:

CREATE NEW HANDLER. These rows are green and indicate that the display name and extension of the call handler on this row are all unique and that COBRAS will create a new call handler on the target voice mail server. If you want this handler to replace an exiting one on the voice mail server you can select the ”Overwrite an existing call handler on the voice mail system” radio button at the bottom and then press the ”Select” button to get a search dialog to find a call handler you wish to overwrite. ALL DATA for the selected call handler will be replaced with the backed up call handler data including the name, extension, greetings and voice name. Choose carefully. Once you do this and press the ”Save” button, the row will change to OVERWRITE EXISTING HANDLER and turn yellow.

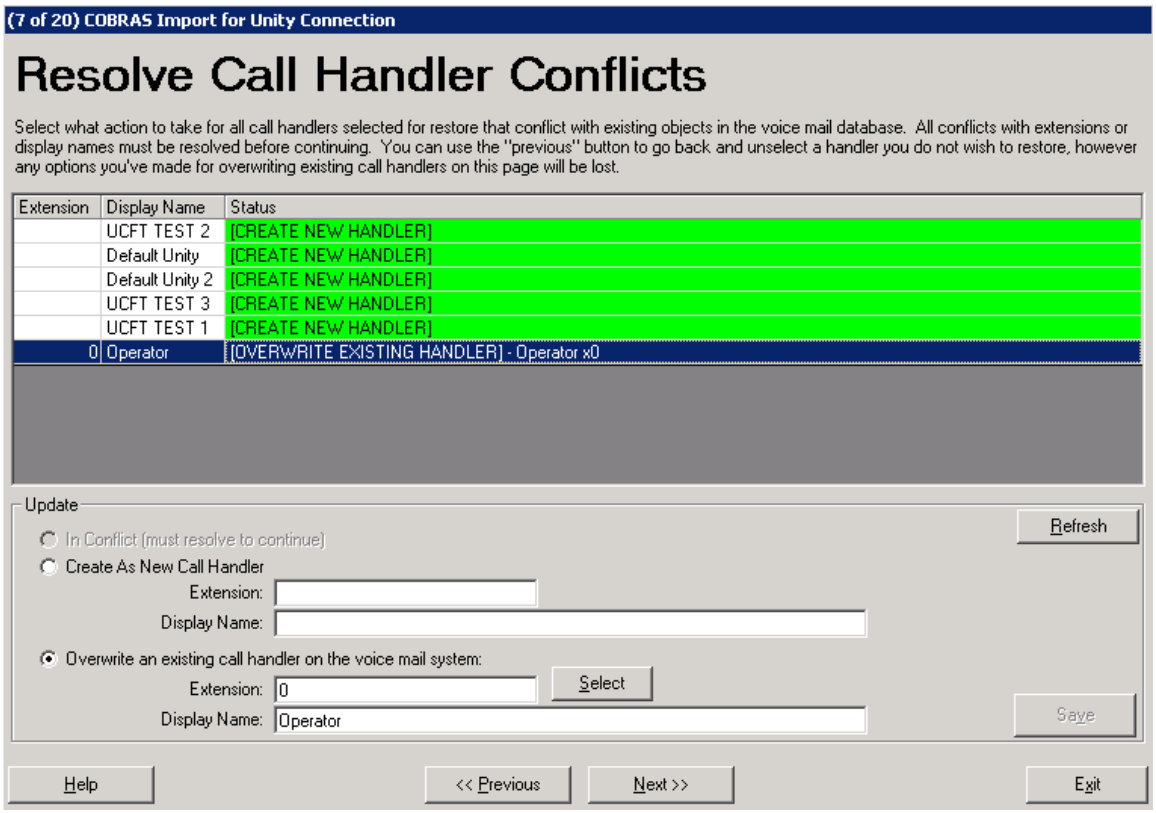
OVERWRITE EXISTING HANDLER. These rows are yellow and indicate that the alias/display name and extension all matched an existing call handler on the system. COBRAS will default to assuming you want to over write the corresponding call handler on the target voice mail system. You can change this selecting the ”Create as new call handler” radio button and then editing the extension and/or display name values in the ”Update” box at the bottom and pressing the ”Save” button. If the display name and extension are unique the row will change to CREATE NEW HANDLER and turn green. If they are not unique you will get a dialog box telling you which object it’s conflicting with.

CONFLICT. This means the call handler has a conflicting display name or extension but both do not match an existing call handler so COBRAS can’t assume which one you want to overwrite if any. The name of the call handler or other object it’s in conflict with is noted in the row. You must choose a radio button at the bottom of the page to determine if you want to create this as a new call handler by changing the display name or extension or choosing a call handler on the voice mail server to overwrite and then pressing ”save”. You cannot move to the next dialog until there are no handlers marked as CONFLICT.

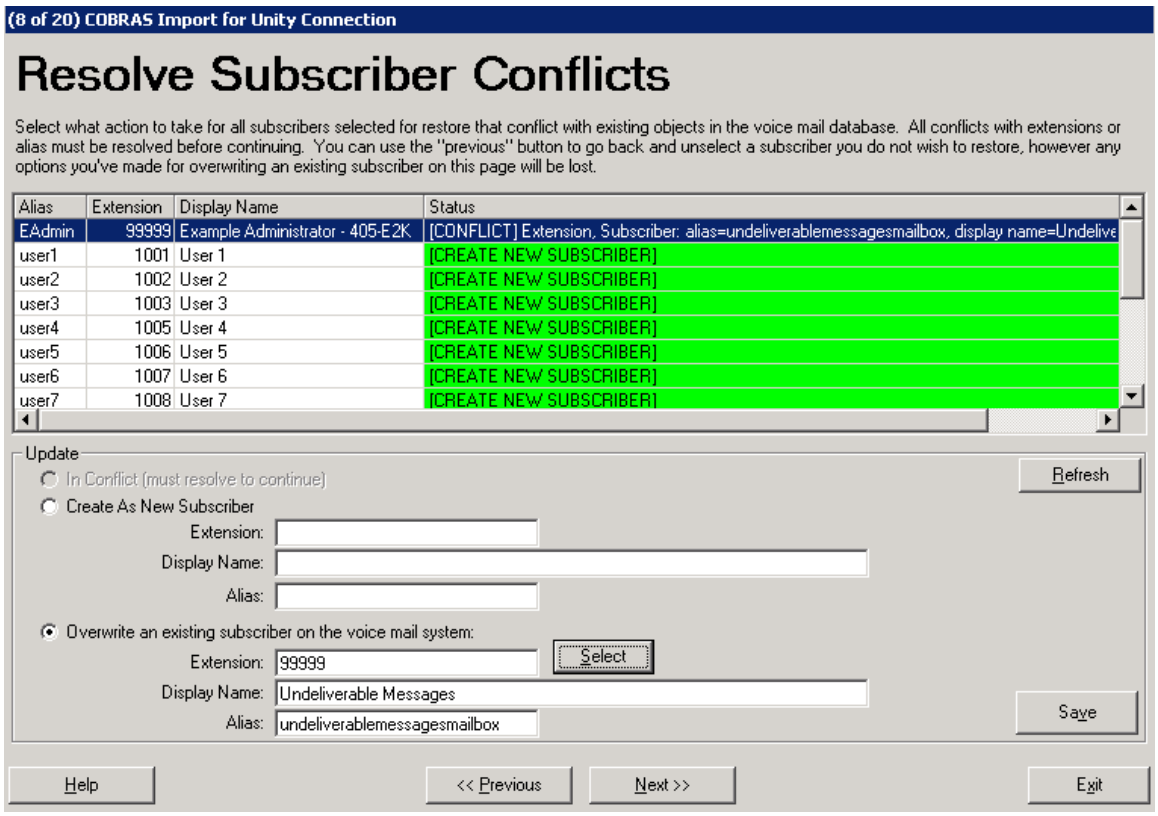
You can use the previous button to go back and remove a call handler from the list to be restored or add others. The selection of other objects such as subscribers and schedules will not be affected by this so you won’t lose any information at this point.



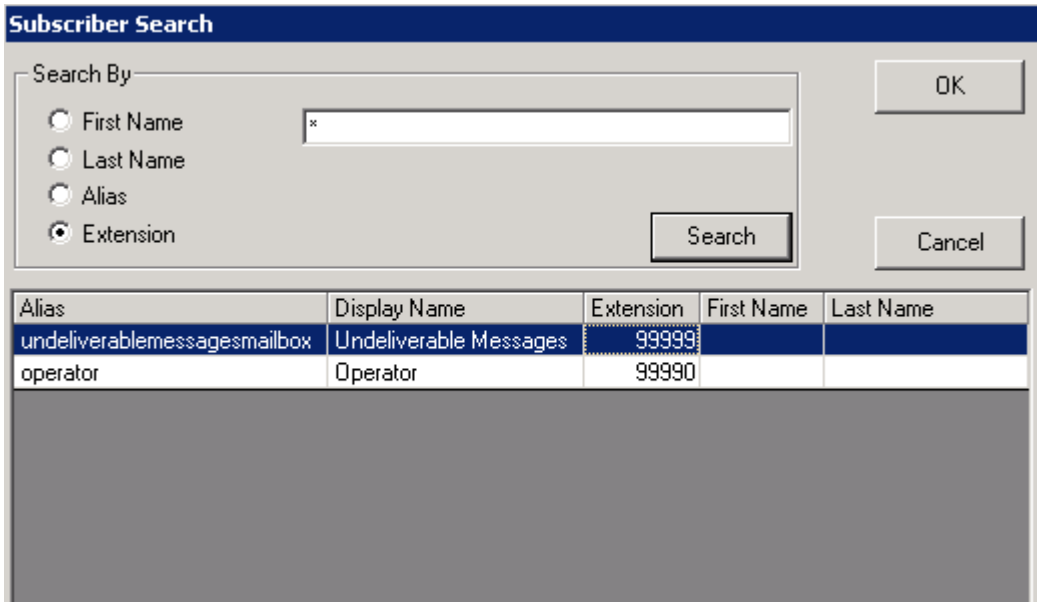
Step 11: Save the changes and click next to move to the next screen. Failure to save changes will result in the error shown in the screen shot above.



Step 12: The next screen is for importing Subscribers. There is one conflict that needs to be resolved; the EAdmin subscriber. Click on the EAdmin subscriber.

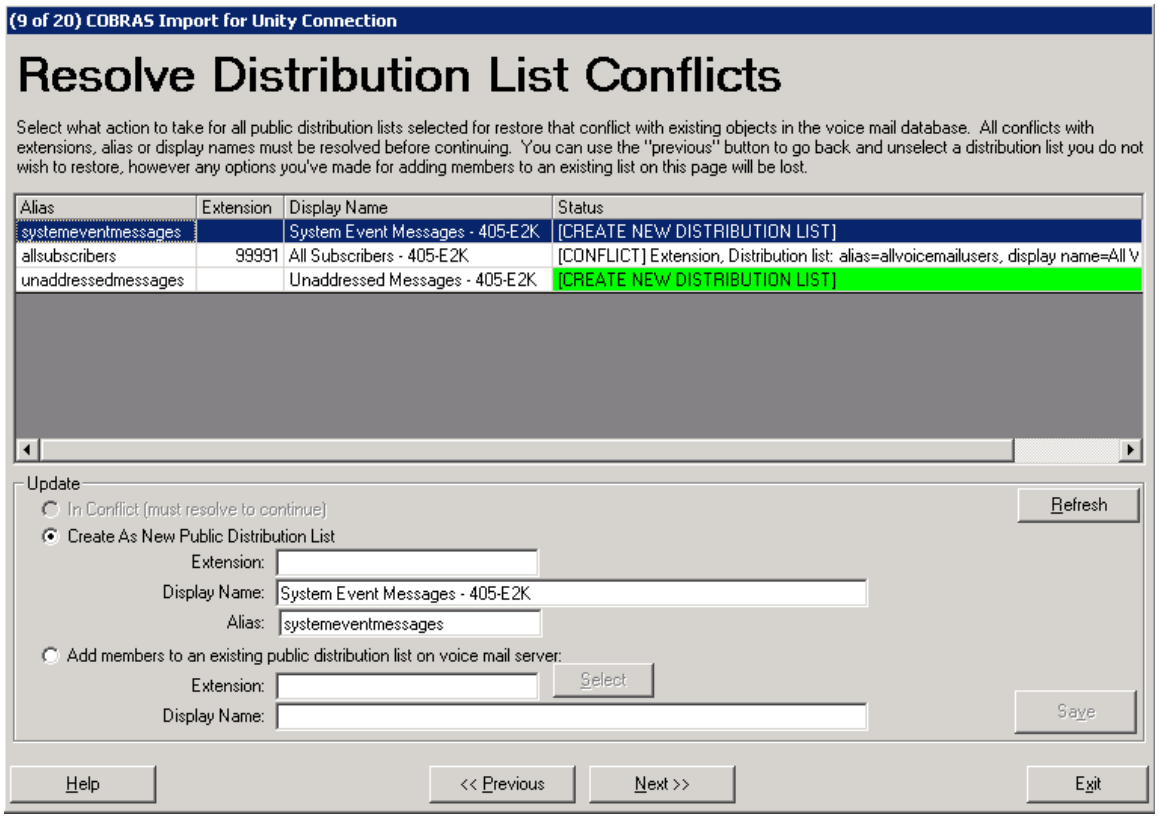


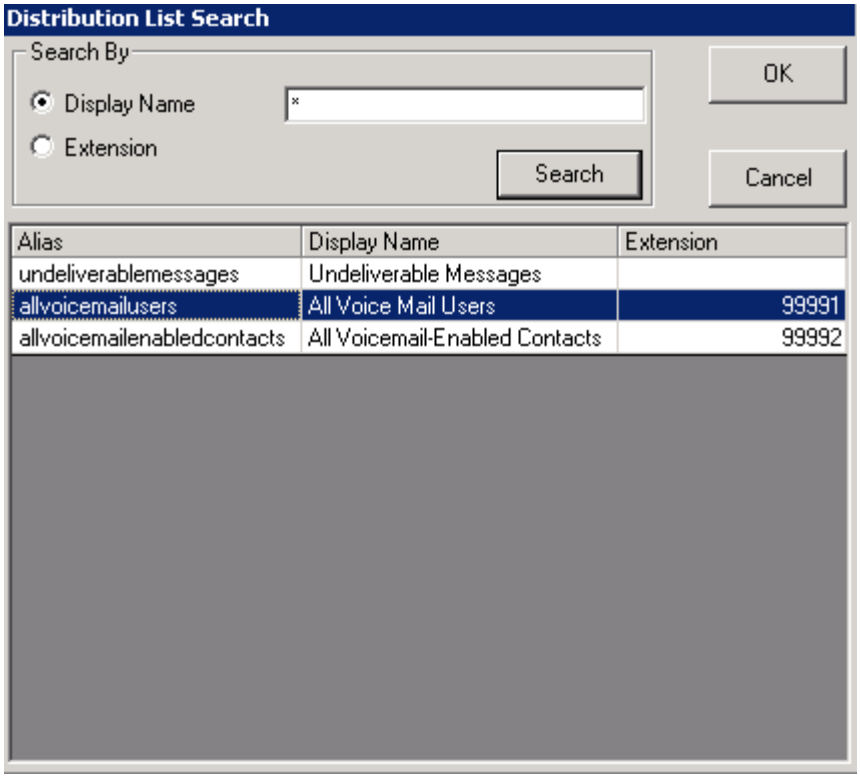
Step 13: Select Overwrite existing subscriber and choose Select to find an existing user. Click on Search and two users will come up. Choose the user with extension 99999. Click OK, Save and then click Next to move to the next screen.



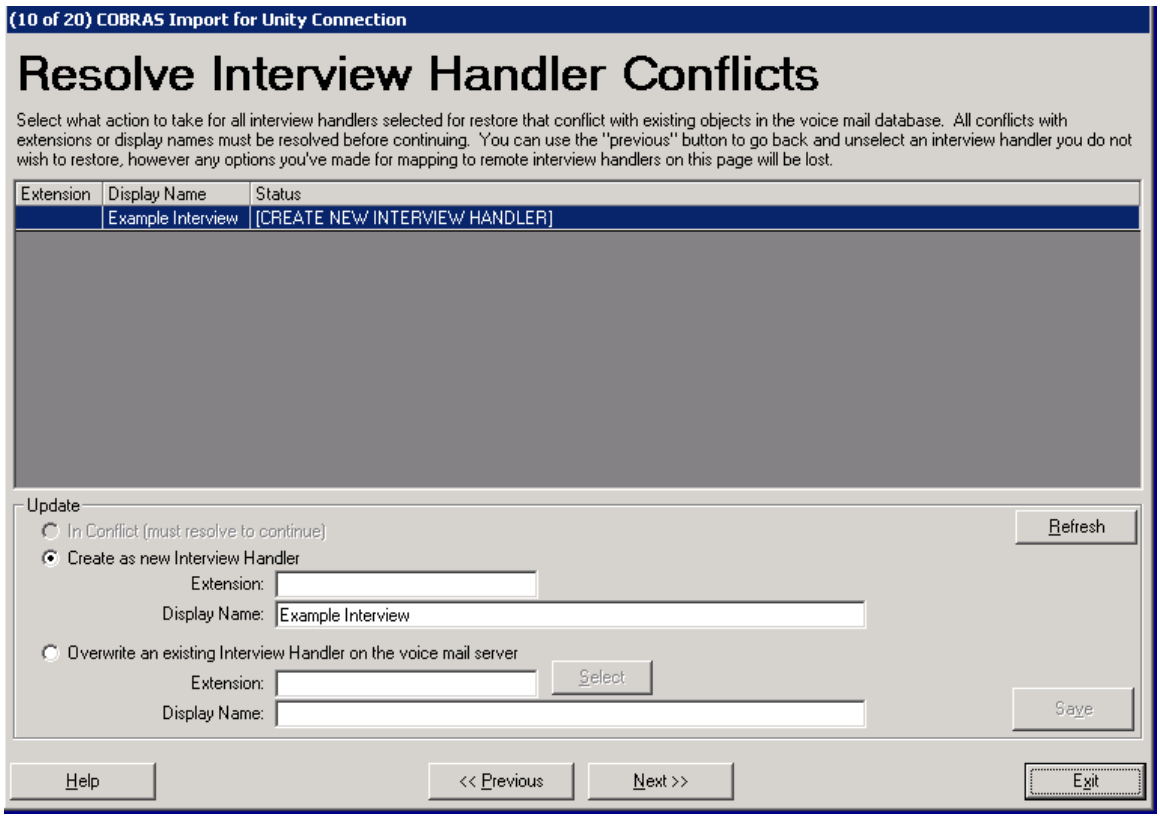
NOTE: There are choices and options in the COBRAS when it comes to conflicts. The tool will general attempt to resolve issues but sometimes user input is required, especially when the system needs to determine whether to overwrite an existing configuration or create a new configuration?

Step 14: Now it is necessary to resolve Distribution List Conflicts. Click on the allsubscribers Distribution List and make the changes as necessary, either creating a new list or adding users to an existing list. The screen sheet below shows both methods for solving this conflict.

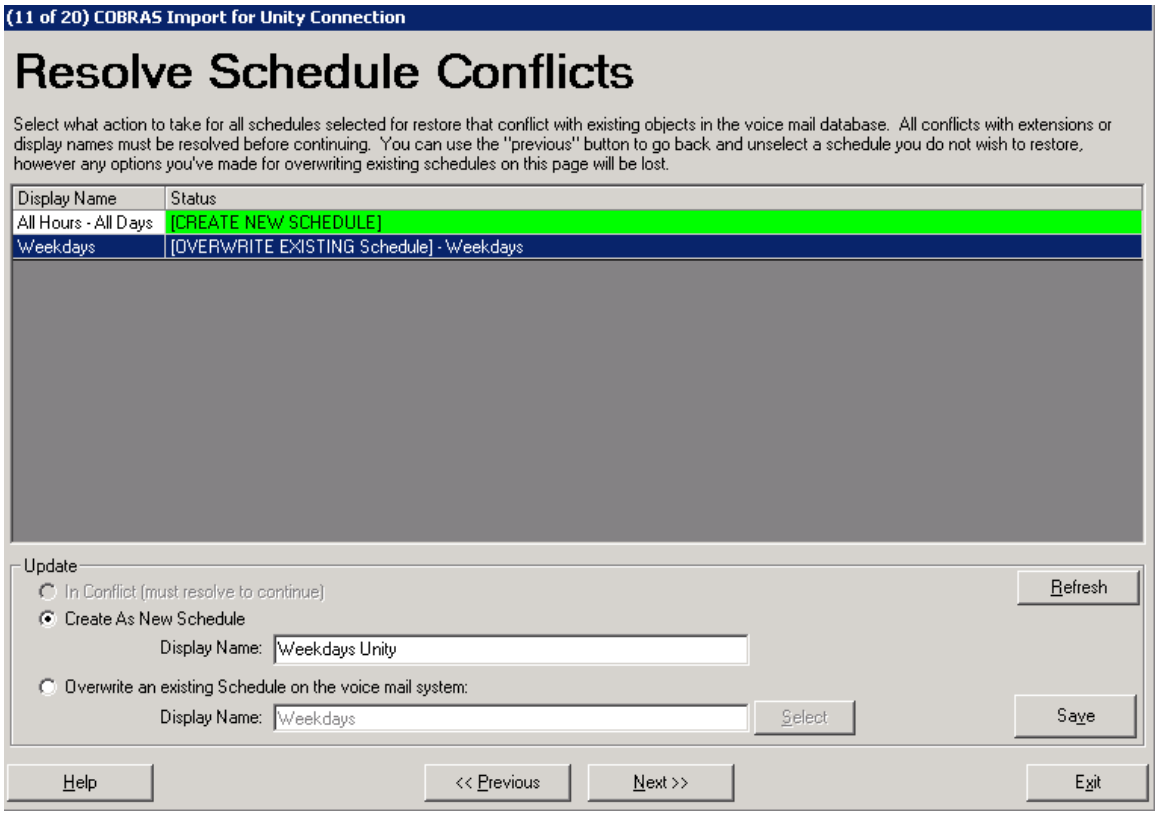




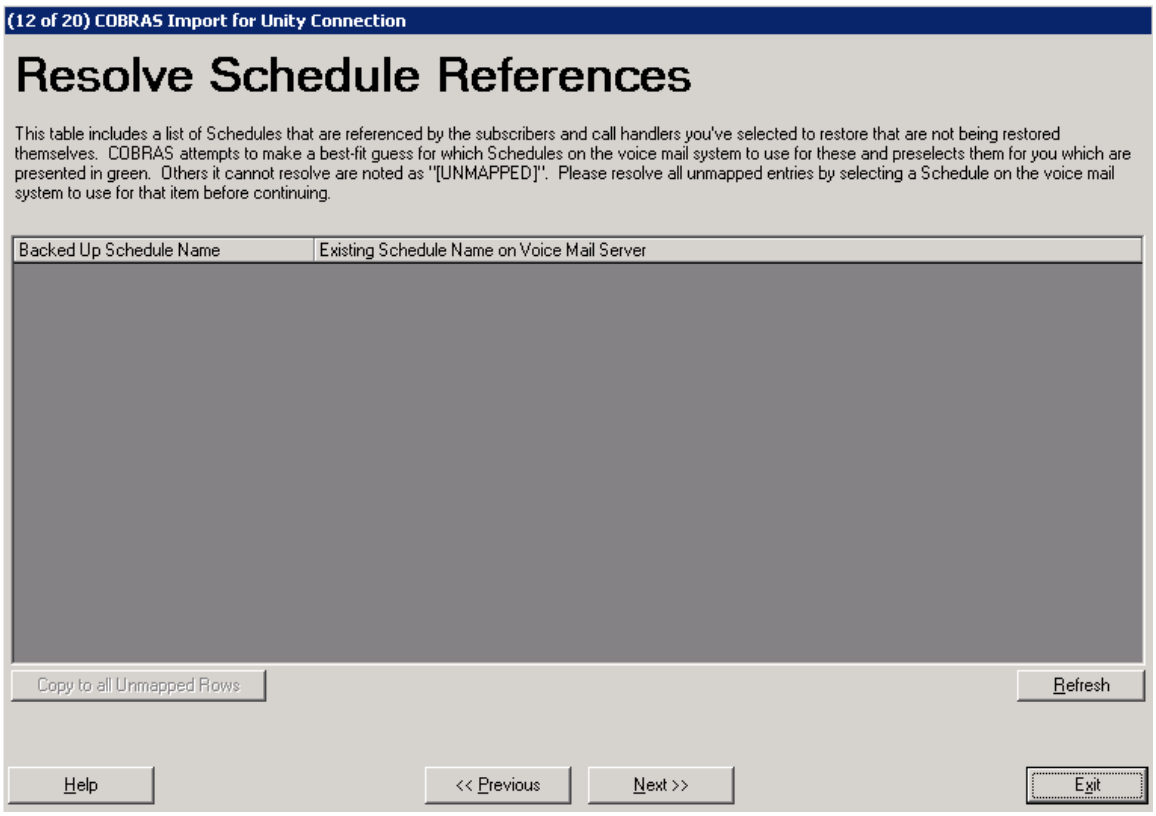
Step 15: Accept the defaults for Interview Handlers. Click Next.



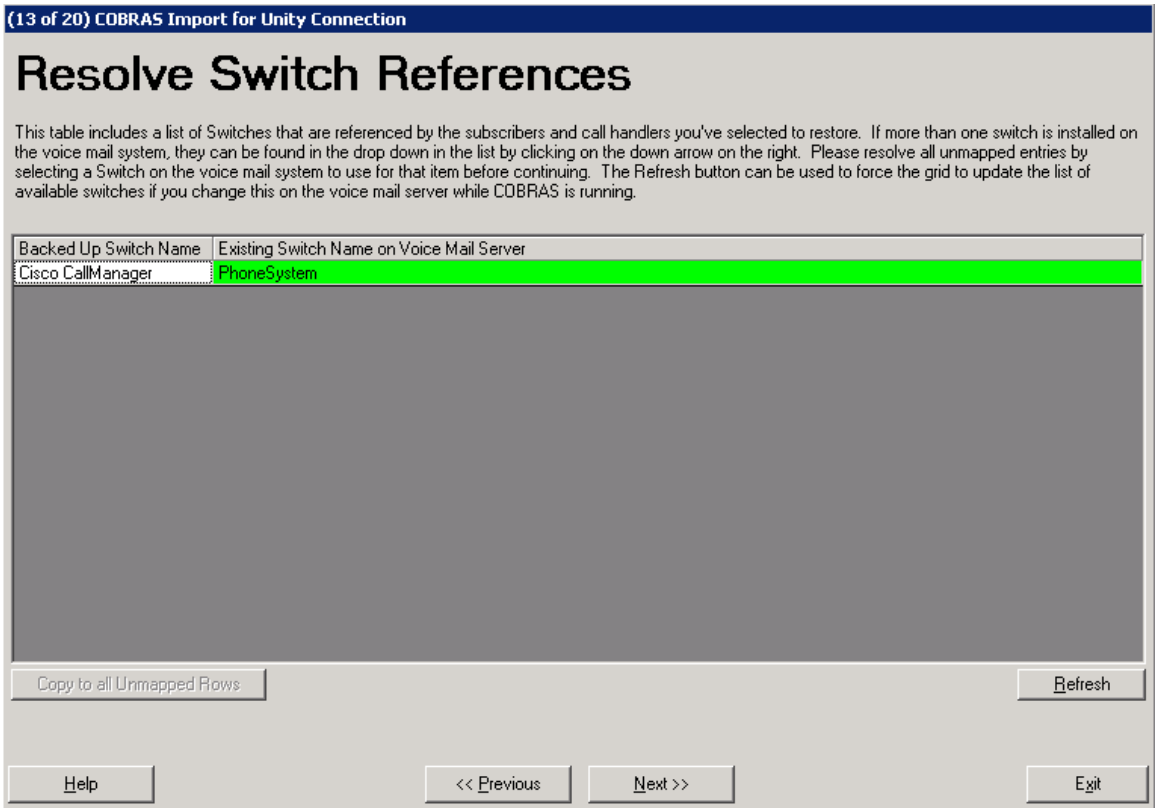
Step 16: Accept the defaults for Schedule Conflicts, Click Next.



Step 17: The screen below may appear in a typical deployment. It will not be significant for this lab.

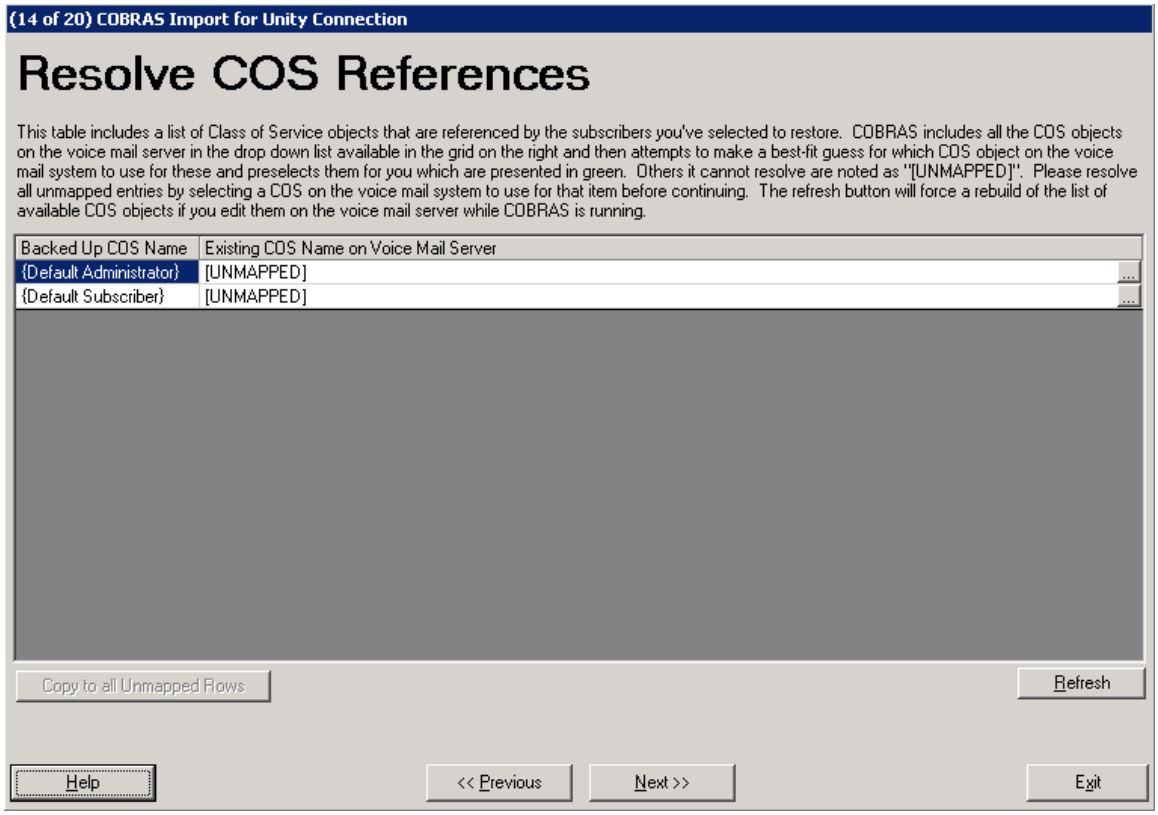


Step 18: Review Call Manager/Phone System information and then click next.

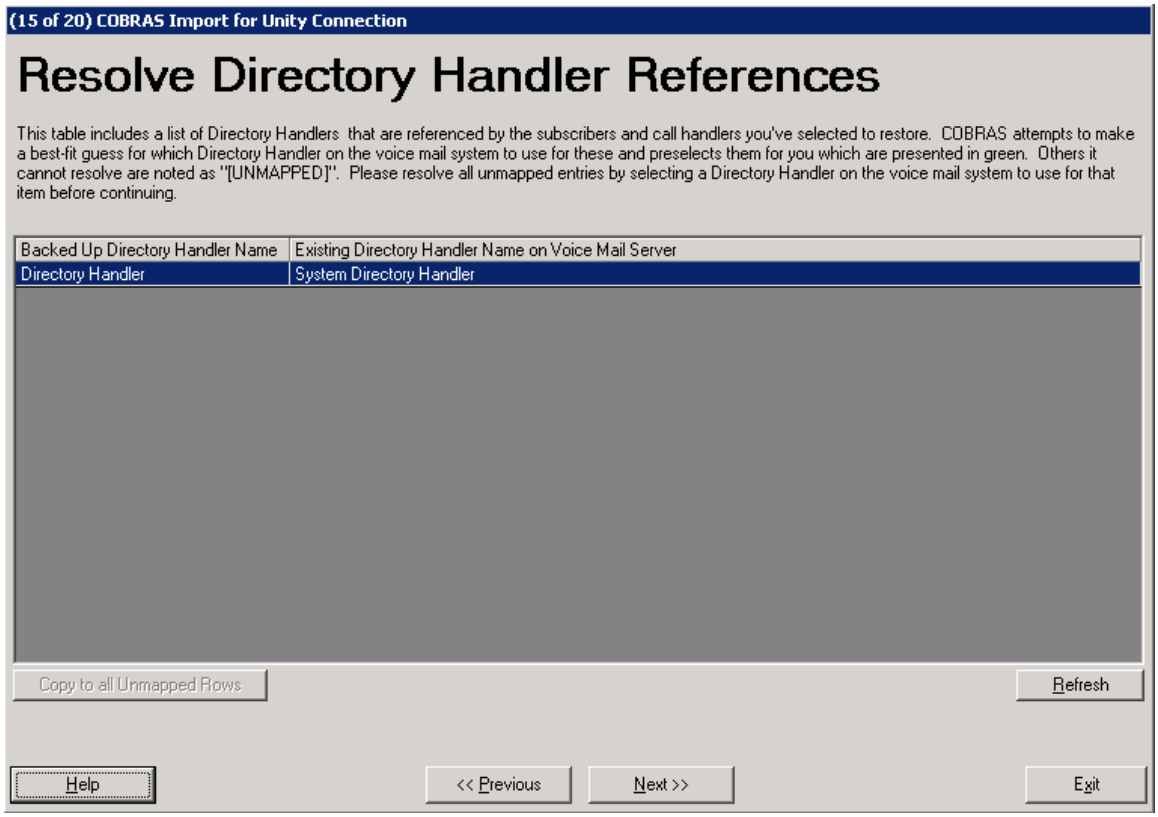


Step 19: The default Administrator and Subscriber need to be mapped to the correct COS reference. Double click the [unmapped] next to Default Administrator and do a Search. Map

the Admin user to the system COS. Then select the [unmapped] for the default subscriber Search and map it to the Voice Mail User COS.

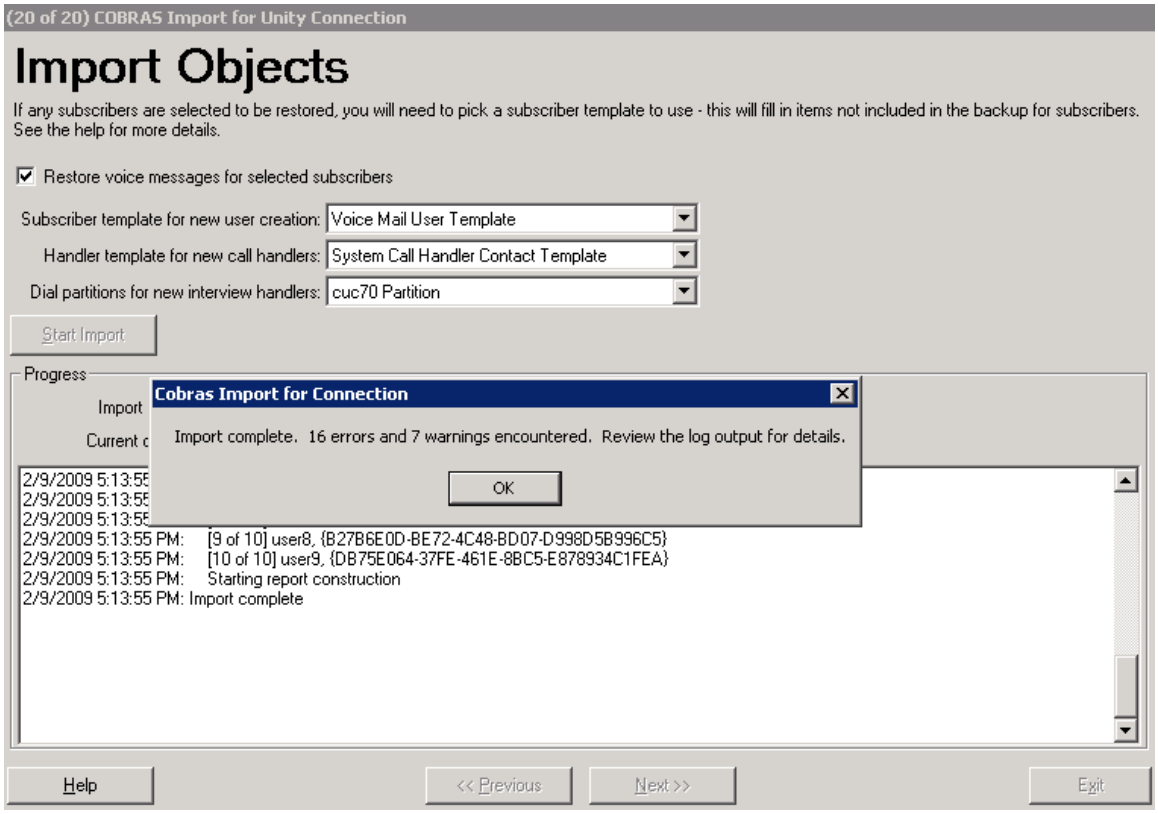


Step 20: Accept the defaults for Directory Handlers.



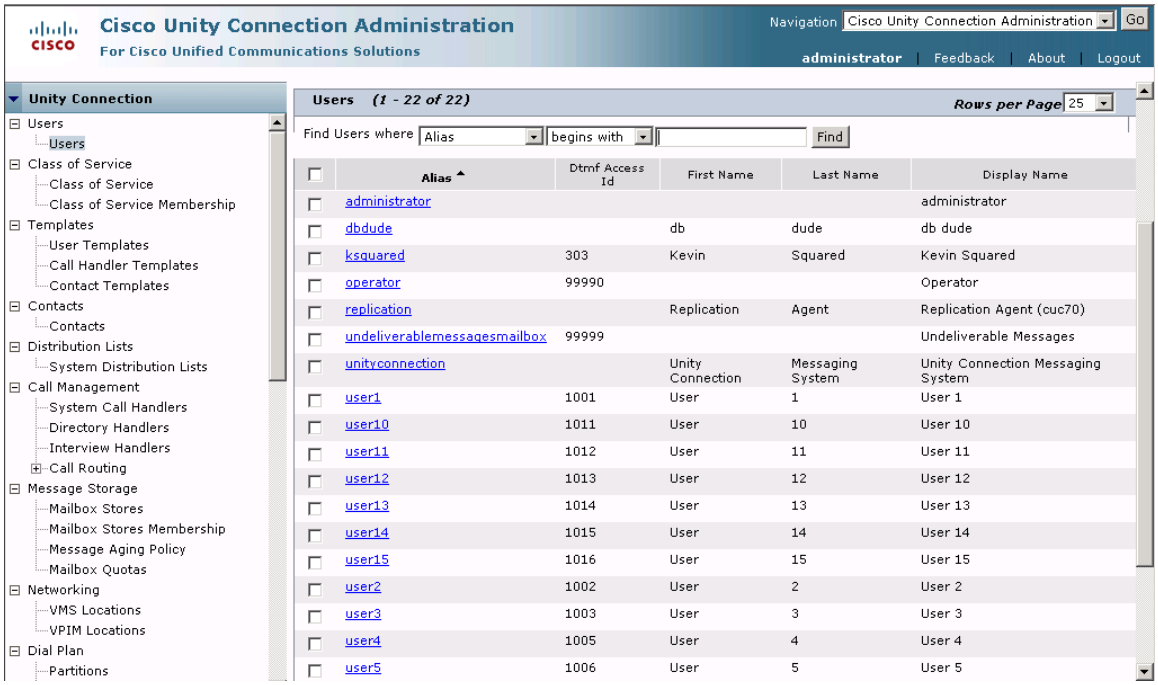
Step 21: Now Import the Unity messages into Unity Connection. Check the Restore

Voice Messages and start the import. When the import is complete click OK and review the results.



Step 22: View the log file and note any errors. Exit the COBRAS tool.

Step 23: Login to Cisco Unity Connection Administration via the web (http://172.16.130.84) and check the subscribers and their messages. Next check that the call handlers were imported and go through the Unity Connection system to see what changes were made.



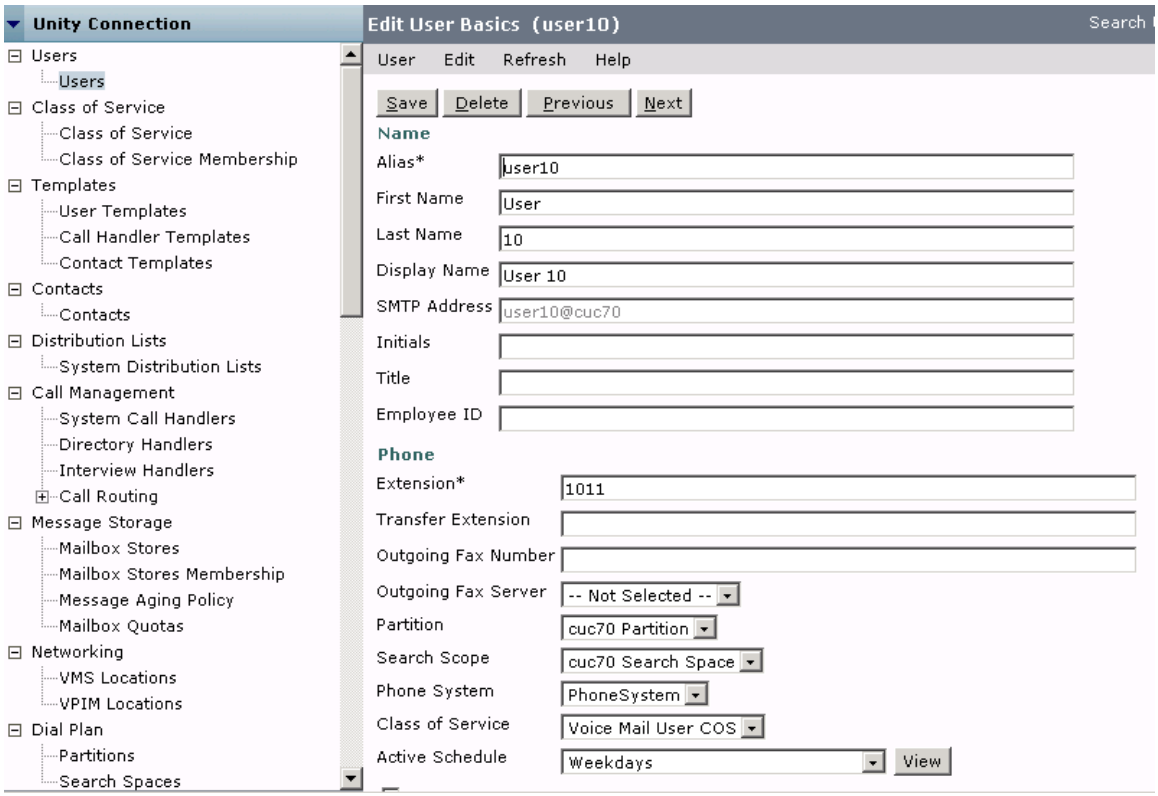
DONE!

ciscounitytools.com is a great place to find information on the latest tools for Cisco Unity and Unity Connection. Now we are done with the import process. This is a good time to review what we have done and maybe try a few things. This is a lab if you would like to test some things or maybe run thru the lab again now is the time.

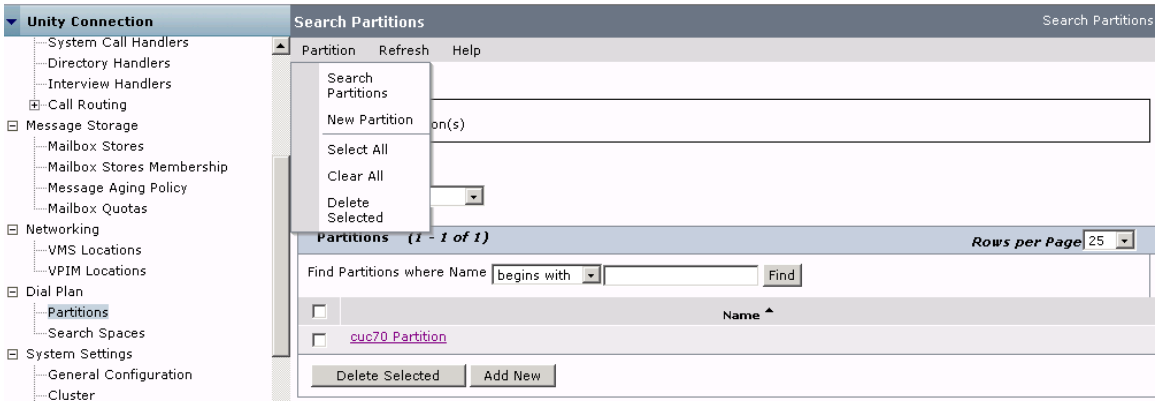
Appendix A: Features of Unity Connection

Reviewing the Multi-tenant services capabilities of Unity Connection 7.0

Step 1. Select one of the subscribers you imported select Users -> Users from the left hand menu. Choose the User menu and select user 10. Review the information located with the user page. Note the Partition, Search Scope and other information located in the user page.



Step 2. To review Partition or Search Space information select Dial Plan -> Partitions from the left hand menu. Choose the Partition from the drop down menu. Do the same for Search Spaces.



Backup Options

In the Configure menu you can access the "settings" dialog which lets you determine how many days to get log files around for and how many backups (both database and messages if selected) to keep.

By default COBRAS ships set to save 5 backups and 30 days worth of logs. You can set this to as few as 1 backup and 5 days worth of logs up to 30 backups and 90 days worth of logs. Keep in mind that backups can be quite large, particularly if messages are being saved so keep in mind the storage needs if you decide to keep larger numbers of backups around.

On the main form you can select options for backups. These options are saved to the registry and are used by default every time you run COBRAS backup until you change them again and do a successful backup run. Note that these same saved settings are used if you run a scheduled backup (see the next section).

- Voice names and greetings can be selected for subscribers, call handlers and public distribution lists. If you're only interested in the "skeleton" of an audio text application, for instance, you can save time and database size by unchecking these options.
- Private Lists are optional for subscribers. Membership resolution during restore uses the alias of the subscriber or public distribution list that are members of these private lists. If you are restoring select users into a new system where those aliases will not be found or you just don't want to include this information, you can uncheck this option.
- Public distribution list membership is optional. When exporting information from a Unity attached to Exchange this requires the account you are logged in as have rights to iterate over members of distribution lists in Active Directory. Often this will mean making sure you are logged in as the account assigned to the CsMGR service. This process is also quite slow in some cases and will add a significant amount of time to your backup for large installs with many lists. If you cannot use the account associated with the CsMgr service and you have rights issues with this option, then

please uncheck this option. TAC will simply direct you to use the account associated with CsMgr and will not troubleshoot your rights issues into AD any further.

- Subscriber Messages are optional. This option will produce a 2nd MDB file (and possibly more – see above) separate from the directory backup and includes ONLY voice messages. No receipts, emails, faxes or other message types will be included in the message backup. Only read and unread voice messages from the inbox will be included (no deleted messages, no messages in other folders, no sent item information). No broadcast messages are included either. If you require more detailed backup (for instance in a Unified Messaging configuration) then you should use Microsoft's ExMerge utility which ships with Exchange to backup full mailbox information and restore it on your own or another 3rd party backup package that gets the entire mailbox. Please refer to vendor's documentation for details on the use of these tools;

  This options requires you be logged in as an account that can attach to the CsMgr process – this usually means the account associated with that service. If you have rights issues attaching to the DOH trying to use another account and for some reason you cannot use the account associated with the CsMgr service, then please don't use this feature. TAC will direct you to use this account and will not troubleshoot further if you attempt to try another account for this purpose. That is not supported. In this case, again, refer to the ExMerge documentation from Microsoft for another option on mailbox content backup and restore.

Usage Scenarios

This is not a comprehensive list of uses but is intended to demonstrate the targeted uses of COBRAS in the field.

Straight backup and restore

COBRAS can be used for simply backing up all subscribers, call handlers, schedules, distribution lists, interviewers and routing rules and restoring them to a clean install of Unity or Connection after a failure. For just plain backup and restore scenarios where the version of Unity is not changing, however, DiRT is the better tool since it's faster and includes data COBRAS does not such as COS objects, name lookup handlers and holiday information. See the Data Not Backed Up section for more details on what's not included with COBRAS backups.

Restore only select objects

For scenarios where Administrators would like to restore just a single object such as a subscriber, COBRAS is the ideal tool. It can be used to restore a subscriber that has been accidentally deleted or update the user's settings (including greeting and voice name) if they've been changed or lost for some reason. COBRAS can also restore just that subscriber's messages or even a single message for a particular subscriber as well.This can be as many or as few objects of any type that COBRAS backs up. If an administrator accidentally deletes a schedule, you can restore just that schedule information.
If a call handler or several handlers are deleted or someone changes the user input keys or whatever, those handlers can be recreated/updated.
NOTE: All settings for any object you choose to restore are updated based on the backed up version. You can select which objects you wish to restore but you can NOT select which data on those objects is restored. For instance you cannot JUST restore the user input key rules for a call handler and not also update the transfer rules. Subscriber messages are optional items for restore, of course.

Restore onto a different version or product (migration)

COBRAS is unique in that it can take backed up data from a Unity 4.0(5) and restore it to a Unity 7.0 system or any combination of versions between 4.0(5) and 7.0. COBRAS can also move from Unity to Unity Connection 7.0. There are, of course, some items that cannot go between versions and products given the differences in features and data structures across them. Be sure to review the details in the Data Backed Up and Restored section below to understand what's potentially lost when going across versions or products.

NOTE: When restoring a Unity backup to another Unity installation, the version can be different but must be later than the version backed up. You can restore to the same version or later only, you cannot restore to an older installation of Unity. See the Version Support table below.

Merge multiple backups onto a single server

Again, COBRAS in unique in that it does not require a clean installation of Unity to do a restore of some or all objects in the backup database. You can, for instance, take all subscriber data, including messages, from one Unity server and restore them onto another without damaging the existing subscribers. If you are collapsing multiple Unity servers into one, this is an ideal use of COBRAS.

NOTE: You may have to change aliases and/or extensions of subscribers to avoid conflicts. COBRAS does not allow subscribers with the same alias or extension number to be created on a restore. It does, however, allow you to change them to make those values unique during the restore process if you wish.

Copy complete audio text applications onto many servers

If you wish to move a complete set of connected call handlers that make up an audio text application, COBRAS is an easy way to do this. For instance if you deploy Unity servers with a set of handlers in a "tree" for caller input handling, you do not have to manually create those handlers on each installation any longer. You can backup a system that has these handlers on them and restore them over and over again on as many Unity servers as you like.

TIP: COBRAS lets you select objects for restore based on several criteria including sub string matches on display names. If you have several audiotext applications or a lot of handlers that are included in a "set" it can make things easier to include a unique string such as "{Sale AT}" or the like in the display name of all those call handlers in that application so they can easily be selected as a set during restore.

Version Support

The following is a table of support version paths – for Unity restores of a Unity backup the rule is you must restore it to the same version of Unity or later. You cannot backup, say, Unity 5.0 and restore it onto a Unity 4.0(5) installation. Newer data objects and conversations etc… cannot be restored into the older database so this is not allowed.

Backed Up Version	Can be Restored To:
Unity 4.0(5)	Unity 4.0(5), 4.1, 4.2, 5.0, 7.0, Connection 7.x
Unity 4.1	Unity 4.1, 4.2, 5.0, 7.0, Connection 7.x
Unity 4.2	Unity 4.2, 5.0, 7.0, Connection 7.x
Unity 5.0	Unity 5.0, 7.0, Connection 7.x
Unity 7.0	Unity 7.0, Connection 7.x

Connection 1.2	Connection 7.x
Connection 7.0	Connection 7.x

NOTE: Restores to Connection 7.x are supported only for stand alone installations – you cannot import backups into a co-resident (Business Edition) installations.
Some important things to notice in this table:

- You cannot backup any version of Connection and restore it to any version of Unity.
- No Unity version older than 4.0(5) will ever be supported with COBRAS. The database interfaces used were not complete before the 4.0(5) release.
- There is no backup option for Connection 2.0 or 2.1. Off box access to resources necessary was not included in those releases.
- You cannot restore a newer Unity backup onto an older Unity install. Only the same or newer versions can be restored to.
- Please review the information about what data you may lose when going across versions/products in the following sections carefully.

Preparing for Unity Connection import

Important Preparation for Connection 7.0 Imports

If you are restoring a Unity or Connection 1.x backup onto Connection 7.0 there are a couple of important things to take note of.

1. Make sure you've "relaxed" all transfer and dial out restriction tables prior to import. It's easiest to just change them to allow all numbers and then put them back after import. This will not be necessary when Connection 7.1 is released since it will have a way for COBRAS to set transfer strings and dialout numbers without the restriction tables being enforced during restore. But for 7.0 this is not the case and you can get errors during import if you don't do this first. The easiest way to do this is to just uncheck all the "Blocked" checkboxes for each transfer and delivery restriction table (no need to worry about fax numbers, COBRAS does not restore those to Connection). When the import is complete you can then go back and check these again.
2. If you are restoring from a Unity 7.0 backup, understand that phone passwords will NOT be preserved from the backup. The password from the subscriber template selected for new user creation will be used when new users are created and existing phone passwords for users will remain in place as is when overwriting existing user data.
3. If you are restoring from a co-res installation (Call Manager and Connection on the same server), again phone passwords will not be preserved. The subscriber template's PIN will be used for new user creation.

Data Backed Up and Restored

At the top level, COBRAS gets all system call handlers, **full** subscribers (**NOT** internet subscribers, VPIM users, Bridge users or AMIS users), schedules, interview handlers and

public distribution lists and allows them to be restored, complete with relationships between them if they exist on any supported version of Unity or Connection. See the COBRAS Export section for details on what your options for backing up data are.

COBRAS gets as much data as it can and restores as much data as possible based on what version was backed up and what version is being restored to. For instance if you back up a Unity 4.0(5) server and restore to a Unity 5.0(1) system, there is clearly a number of features new to 5.0(1) that will not be represented in the backup. In this case COBRAS just uses whatever is in the subscriber template for the missing properties. If COBRAS has data in the backup it will use it – the template is only used to fill in what it doesn't have.

Data not backed up

- To preserve space in the backup, greeting rules that are disabled (not active) are not backed up. During restore missing greetings are forced to disabled to preserve the same functionality as the system that was backed up.
- If MWIs are not configured to operate on Unity then they are not included in the backup and the subscriber template settings for MWI are used when that subscriber is restored.
- Password history, hack count or lock status.
- Secure message settings. These are different across versions and sometimes apply only to private vs. all messages and it's impossible to move across versions cleanly. All secure message settings are pulled from the template during subscriber creation or left alone on an over write.
- Secure messages are not backed up. If a message contains a secure part (for instance a secure message forwarded with a nonsecure intro) the secure message itself will not be playable when restored.
- Alternative authentication settings (enhanced security). In particular use of enhanced security options such as RSA are not included. If a user is configured for such an option, it is not included in their backup data and a new creation on the target restore server will simply use whatever is in the template and an over write of an existing user will leave whatever settings are on that account alone.
- Email address. The full SMTP address is _not_ restored as is on a new user creation. The alias is used along with the domain settings of the target system to generate a new SMTP address for new user creates. Updates to existing users will leave their existing SMTP address alone of course.
- Mailbox limits. In Unity these are pulled from Exchange or Domino and cannot be set in the Unity database and "pushed" out. Connection has its own limits. COBRAS uses the limits defined in the subscriber templates on new user creation in Connection.
- Personal call transfer rules. These were introduced in Connection 1.2 and are not in any version of Unity at this time. No personal call transfer information is backed up or restored for any version.
- IMAP mailbox connection information. Any information about a user's connection to remote (foreign) mailstores via IMAP is not included in the backup.
- Alternate names (or "nicknames") for users from Unity backups. This is used for ASR name searches in Unity 5.x and later. Note that backups of Connection 7.0 and later do include alternate names for users and public distribution lists.
- SMS delivery device information. This is done via an external service configuration which COBRAS cannot preserve.

- Visual Message Locator (aka "Phone Apps") setting. The message locator conversation feature is included in the backup and restore but the visual message locator requires setup on the phone side and will need to be configured after user import, they are left alone on overwrites.
- Holiday information. System schedules are backed up as much as possible (Connection and Unity have different levels of detail for schedules), but no holiday data is included. Unity treats holidays as system wide and good for the entire day, Connection treats holidays as per schedule and can be defined down to the minute.
- No details about the PCA options for a subscriber such as the refresh options, number of items shown, preferred home page etc… This includes any connection to the subscriber's personal address book in Outlook.
- For Unity public distribution lists the "Show list in email server address book" is not included. Connection does not have this concept and Unity creation routines do not allow it to be set programmatically for imports.
- For Connection 7.0, call handlers cannot have distribution lists as owners. If a Unity system was backed up that had public distribution lists as owners, this is noted in the log as a warning.
- For Connection 7.0 if subscribers (users) are listed as an owner in a Unity backup being restored, they are added to the owner list. Connection supports multiple owners, Unity does not – the list is not cleared, only added to.
- Call handler owners for Connection 7.0 are cumulative (Unity supports only a single owner) – so if the call handler template for Connection 7.0 indicated an owner or owners, those restored from the backup for that handler are added to it.
- For Unity backups restored to Connection 7.0, the fax delivery number are not restored. In Connection the fax integration is an external service setup and the data is not stored as part of the subscriber record. For restores to another Unity system this information is preserved.
- For both Connection 7.0 and Unity 7.0 there is no Most Recently Used (aka "buddy list") data backed up. These items are used somewhat differently across the two products.
- For Unity 7.0 there is no backup of the alternate extension history or alternate extension block list data – this is used for asking to automatically add alternate extensions in the subscriber conversation.
- For Unity 7.0 the option to enabled "name suggest" on spelled names is not included in the backup.
- For Unity 7.0 the option to play the "follow me transfer notification" option is not included in the backup.
- For Unity 7.0 the option of playing message duration or using message duration time stamps is not included in the backup.
- For Unity 7.0 none of the voice (speech) interface settings are backed up or restored. Unity and Connection have very different ASR implementations and these values do not translate.
- **For Unity 7.0 backups restored into Connection 7.0, phone passwords will NOT be preserved.** This is related to an SHA1 "salt" difference between the products which will not be addressed until the Connection 7.1 release. Imports of earlier versions of Unity backups preserve phone passwords.

Data Changed During Connection Imports

When importing data into Connection 7.0 or later from a Unity backup, some data has to be changed. The two products have different ranges supported for some values, different conversations that are supported etc… Connection has strict database rules that do not allow for any "fudge" room for these differences and so COBRAS must force the values into an acceptable range. Whenever this is done a warning is written to the COBRAS import log file

indicating which value was changed, what its old value was and what its new value on Connection 7.0 is. You need to review all warnings in the log for potential issues here. Some examples of data that can be changed:

1. Conversation names. For instance Unity supports the Hotel Guest conversation and Connection does not – references to the hotel guest conversation are changed to a standard subscriber conversation during import.

2. Range values such as number of rings to wait for answer. Unity allows up to 99 Connection limits this to 20. Values greater than 20 are forced to 20 and a warning is logged.

3. Speed and volume settings. Unity has more granularity for speed settings which can be stepped by 10% jumps. Connection has only 4 settings here – so COBRAS import "rounds up" to the nearest supported setting.

4. Time values. For instance greetings can be set to be active till a specific time to the minute in Unity but Connection requires 5 minute boundaries. COBRAS import "rounds up" to the nearest 5 minute slot during restore.

5. Interview handler questions "compressed". Unity allows you to create interview questions and "skip" slots and number them through 99. Connection has 20 slots and they must be filled in order with no gaps. COBRAS then ignores "empty" questions in Unity. Note that the behavior for callers remains the same.

6. Codecs. Connection does not support GSM 6.10 which is sometimes used with Unity. All WAV files including greetings, voice names and messages that are determined to be GSM 6.10 are converted into G711 before being uploaded to Connection 7.0 during import (see next section).

7. Domino Aliases. When exporting from a Domino system the subscriber aliases and all references to those aliases (for instance private distribution list membership information) are modified to replace all forward slashes ("/") with underscores ("_"). Active Directory and some other mail processing applications do not allow for forward slashes in alias/email strings.

Most of these changes are not critical but some may change the behavior of your system in ways you were not expecting. It is incumbent upon you to review all warnings in the log file after import and understand all the changes that had to be made. These warnings should all be human readable and reasonably clear about the change made.

Codec Changes for Connection Imports

As noted above Connection does not support as many codecs as Unity does in Windows. Notably it does not support playing or recording files in GSM 6.10. If you have backed up a Unity system that has any greetings, voice names and/or messages in GSM, when restored they will not play on Connection. During the import process COBRAS will convert these WAV files into G711. A note is made in the log for each WAV file that is converted into G711.

Alternate Extensions

Alternate extensions are always backed up, however during a restore they are considered secondary. In particular when determining which objects are in conflict based on what you decide to restore, the alternate extensions of subscribers you've selected to include are not evaluated. During the restore an attempt is always made to add the alternate extensions in when the subscriber is created, but if there is a conflict they are skipped and a warning is written to the log output. However this does _not_ fail the creation or modification routine for the subscriber – COBRAS import will continue to move ahead. Be sure to check the log output for "(warning)" strings to check for this type of issue when restoring users to an existing system.

Custom Keymap Conversations

COBRAS does backup the name of the conversation subscribers are associated with and will try and restore that on the import. However, COBRAS has no knowledge of the key map configuration itself – if you've modified a custom key map conversation on one server, do a backup and restore users onto another server where that same custom key map is not customized, users will have a different sounding key map conversation. It's up to the administrator to make sure the key mapping data is configured on the target system as they wish.

Language Support

COBRAS does not check for language installations on the target system. It will restore the language settings for subscribers, call handlers and routing rules as they were backed up. If the target system does not have those languages installed, Unity and Connection will both fall back to the default phone conversation language. This will not cause errors but may result in unexpected behavior. It's up to the administrator to make sure the target system has the appropriate languages installed.

Routing Rules

Backups from Unity 4.x/5.x/7.x that are restored onto Unity 4.x/5.x/7.x include the option to insert routing rules from the backup onto the new system.
Restores onto Connection 7.x and later do NOT offer the option to import routing rules – regardless of the version of Unity or Connection that was backed up.
As a rule you should only include routing rules in your Unity restore in special circumstances – it's normally best to not try and include those unless you have a good reason to do so.

For all information about Cisco Unity, Unity Connection migration and back-up and restore go to: ciscounitytools.com

Thank You,

Unified Communications Field Trainer Team

Straight backup and restore

COBRAS can be used for simply backing up all subscribers, call handlers, schedules, distribution lists, interviewers and routing rules and restoring them to a clean install of Unity or Connection after a failure. For just plain backup and restore scenarios where the version of Unity is not changing, however, DiRT is the better tool since it's faster and includes data COBRAS does not such as COS objects, name lookup handlers and holiday information.

Restore only select objects

For scenarios where Administrators would like to restore just a single object such as a subscriber, COBRAS is the ideal tool. It can be used to restore a subscriber that has been accidentally deleted or update the user's settings (including greeting and voice name) if they've been changed or lost for some reason. COBRAS can also restore just that subscriber's messages or even a single message for a particular subscriber as well.
This can be as many or as few objects of any type that COBRAS backs up. If an administrator accidentally deletes a schedule, you can restore just that schedule information. If a call handler or several handlers are deleted or someone changes the user input keys or whatever, those handlers can be recreated/updated.

NOTE: All settings for any object you choose to restore are updated based on the backed up version. You can select which objects you wish to restore but you can NOT select which data on those objects is restored. For instance you cannot JUST restore the user input key rules for a call handler and not also update the transfer rules. Subscriber messages are optional items for restore, of course.

Backup File locations Naming

Select a folder where backups will be stored. Each backup run will create a new folder _under_ this location that is named similar to this:
C:\<your backup folder location>\<year><month><day>_<hour>_<minute>_<second**>**
This folder will contain a file called "**UnityDbData_Backup_071108_18_36_14.MDB**" in all cases. If you've also selected to backup subscriber messages there will be another file named "**UnityMessage_Backup_071108_18_36_14.mdb**" in there.

NOTE: You may see more than one message backup file if you have a large mail database. Each message backup file contains a maximum of 3000 voice mail messages. If there are more than that to be backed up you will see additional message backup files for each set of 3000 messages. You can select how many of these backup folders COBRAS will save before deleting old ones using the options found under the configure menu (see next section). By default it's set to 5 but can be adjusted from 1 to 30. By default if you run COBRAS 6 times or more, only the most recent 5 backup folders will be left around. If you are including messages and/or you are backing up very large servers and drive space is a consideration,

you may want to set this to value to "1" or "2" such that only the most recent or last 2 backups are saved. Log files are stored under the COBRAS Backup installation directory under the "Logs" folder. This is not configurable. By default COBRAS will keep 30 days worth of logs around before deleting old logs. Again, you can configure this from 5 days up to 90 (see the next section). Log files are only cleaned up when a backup is run so if you have not run COBRAS in a while there may be log files in the folder older than the number of days you have specified.

Limiting Which Mailboxes are Backed Up

When exporting, COBRAS always gets all the directory information about all objects on the system. You can limit if it gets voice names, greetings or distribution list membership but that's about it. Messages can result in considerably larger amounts of backup time and database space. As such COBRAS export allows for you to either select to export no messages, all messages or only messages for selected subscribers. To access the option to select specific subscribers to backup mailboxes for, select the "Include Messages Only for Selected Subscribers" radio button under the message export checkbox and then press the "Choose" button. The following dialog is displayed:

You can add users to the grid by a variety of options including COS membership, display name sub string, extension range or CSV file membership. Once the list of subscribers you wish to include is as you like it, press the "Apply" button and a filter file is created that COBRAS export will use when exporting messages for subscribers. This same filter file will be used for scheduled backups as well so long as the radio button for limiting mailbox output to subscribers in the list is active.

You can view the subscribers in the currently active filter file by choosing the "Show subscribers in existing mailbox filter" in the drop down on the above dialog – you can review and remove users by unchecking them on the left and then press "Apply" to save the new filter file.

If you choose to add users to the filter file using a CSV file of your own, the file must have its first line that contains a column for either "ALIAS" or "EXTENSION" or both. All other columns are ignored and only those two items can be used for searching for subscribers by CSV.