

#### Avaya Solution & Interoperability Test Lab

# Application Note to administer voice mailboxes on Avaya CallPilot® R5.1 to provide shared messaging services for users in a CS1000 Collaboration Pack solution - Issue 1.0

#### **Abstract**

This Application Note describes how to configure voice mailboxes on Avaya CallPilot® R5.1 to provide shared messaging services specifically for users in a CS1000 Collaboration Pack solution.

The CS1000 Collaboration Pack solution at its core consists of an Avaya Communication Server 1000 Release 7.6 and an Avaya Aura® Midsize Enterprise solution Release 6.2. A Converged User is defined as a user having a Communication Server 1000 client and a Collaboration Pack client sharing a common Directory Number such that simultaneous ringing (SIMRING) and a single Avaya CallPilot voice mailbox are enabled for the user. A Native User is defined as a user having a Collaboration Pack client only with no corresponding Communication Server 1000 client but calls are still routed via Communication Server 1000. The steps documented in this Application Note detail how to configure voice mailboxes on Avaya CallPilot® R5.1 to provide a shared messaging service for the Converged and Native Users in this solution.

Information in these Application Notes has been obtained through Solution and Interoperability Lab full stack testing and additional technical discussions.

#### Introduction

This Application Note describes the procedures for configuring voice mailboxes on Avaya CallPilot® R5.1 to provide a shared messaging service for Converged and Native Users in the Avaya Communication Server 1000 (CS1000) Collaboration Pack solution.

The CS1000 Collaboration Pack solution offer is based on Avaya Aura® Midsize Enterprise R6.2 and is used to accelerate the introduction of new collaboration clients to the CS1000 installed base. The collaboration clients tested with this solution include Flare® Experience for Apple iPad, Flare® Experience for Windows, Avaya One-X® Mobile (SIP) for iOS and 96x1 SIP One-X® Deskphone.

Avaya Aura® Midsize Enterprise R6.2 currently supports up to 21,000 users on a single server platform that includes virtualized instances of Avaya Aura® Session Manager, Avaya Aura® System Manager, Avaya Aura® Communication Manager and Avaya Aura® Presence Services. A G430 or G450 gateway is also included as standard with the Avaya Aura® Midsize Enterprise. The Avaya CS1000 R7.6 provides advanced telephony capability via M3900 series digital desk phones and 1100 / 1200 series IP desk phones with UNIStim software. Connectivity with the Avaya Aura® Midsize Enterprise R6.2 system is via SIP trunks and PSTN connectivity is provided through ISDN trunks on the Avaya CS1000. Avaya CallPilot® R5.1 is offered on an integrated 202i server platform and provides a centralized voice mail capability for all users in the solution offering a centralized voice mailbox and associated Message Waiting Indication (MWI) functionality. Network Message Service (NMS) capability must be enabled on CallPilot to allow the transmission of MWI to collaboration clients on the Avaya Aura® Midsize Enterprise system.

The notion of a Converged User is introduced with the CS1000 Collaboration Pack solution. A Converged User is defined as a user having both a traditional CS1000 client twinned with a collaboration client using the Personal Call Assistant (PCA) CS1000 feature. These two endpoints are seen by other users to be associated with a single user in that they share a common Directory Number (DN) for incoming and outgoing calls, they have a single voice mailbox on CallPilot and aggregated presence is also enabled for the user.

New users can also be added to the CS1000 Collaboration Pack configuration by deploying a native client such as a 96x1 SIP One-X® Deskphone to the Avaya Aura® Midsize Enterprise and adding a new PCA configuration on CS1000 to extend the call. The term Native User is typically used to describe such a new user which will have no corresponding CS1000 desk phone but calls will still be routed to the client from the CS1000 using PCA and a CallPilot voice mailbox will be required.

In contrast to the Converged and Native users, some existing users on the CS1000 may continue to operate without being twinned with a collaboration client. These are referred to as Nonconverged Users. There is no CallPilot configuration change required for these users.

This Application Note will document the steps necessary to make a change to an existing CallPilot voice mailbox for a CS1000 user as part of the process to enable that user to be

converged (twinned) with a collaborated client. The Application Note will also describe the process of setting up a new CallPilot voice mailbox for a new Native user in a CS1000 Collaboration Pack solution.

This Application Note describes a sample configuration of Avaya CallPilot® R5.1 voice mailboxes for those Converged and Native users. Detailed administration of other aspects of the CS1000 Collaboration Pack or additional equipment to support the installation (e.g. CS1000, Avaya Aura® Midsize Enterprise, Active Directory / Domain Name Servers, Voice / Data Network equipment, etc.) will not be described as it is outside the scope of this Application Note.

#### Steps described in this document include:

- 1. Using CallPilot Manager as the preferred voice mail administration tool.
- 2. Administer an existing non-converged CS1000E user's voice mailbox to extend its functionality to work with a collaborated endpoint as part of provisioning a Converged User.
- 3. Adding a new Native user's voice mailbox in CallPilot.
- 4. Testing voicemail functionality for the Converged and Native users.

# 1. Interoperability Testing

CallPilot 5.1 on the integrated 202i platform in the CS1000E is the centralized messaging service for all users (converged, non-converged, native and remote) in a CS1000 Collaborated Pack solution.

It is presumed that the Avaya Communication Server 1000E Release 7.6 system and software and the CallPilot Release 5.1 integrated 202i server and software have already been provisioned. This combination represents an existing CS1000 Customer configuration. In addition, the extra components of the CS1000 Collaboration Pack solution such as Avaya Aura® Midsize Enterprise R6.2 system, Avaya Aura® Conferencing server, various endpoints (converged, native and remote) and network infrastructure (LAN, WLAN and Session Border Controller, etc.) are also presumed to have been provisioned. It is also presumed that for test purposes, mailboxes have already been setup on CallPilot for all existing non-converged users on CS1000.

This application note just describes the procedures necessary to configure the CallPilot voice mailbox of an existing CS1000 user to work with the PCA twinning feature required to function with a collaborated endpoint. It also describes the procedures necessary to configure a new CallPilot voice mailbox for a new Native user.

#### 1.1. Test Description and Coverage

To verify the interoperability and operation of CallPilot 5.1 as a centralised voice messaging server for CS1000 Collaboration Pack solution, the following features and functionality were covered for all users (converged, non-converged, native and remote) during the testing:

- Initial login by each new user to setup the mailbox (configure password, greetings, etc.)
- Execute various test calls between users and PSTN callers across the sample solution to record / read voice mail messages on all available mailboxes.
- Calls directed to converged users where neither the CS1000 set nor the collaborated endpoint answers will get Call Forward No-Answer treatment and be sent to the appropriate CallPilot mailbox for that user.
- Calls directed to converged users where the CS1000 set (the prime set in the converged pair) is busy will get Forward-Busy treatment and be sent to the appropriate CallPilot mailbox for that user. This treatment does not occur if the collaborated endpoint is busy while the prime CS1000 set is idle this is a known limitation of the PCA functionality on CS1000.
- Test proper MWI operation for each user's mailbox / endpoint. The MWI lamp should come on for the relevant endpoint(s) when a new voice mail has been left in a mailbox and the MWI lamp should extinguish when the voicemail is read.
- MWI operation should function correctly in the case of a Converged user where there are two endpoints associated with the user, the prime DN (set on CS1000) and the collaborated endpoint (set on Avaya Aura® Midsize Enterprise). A new voicemail in a Converged user's mailbox should light the MWI on both endpoints. Reading the voicemail message from either endpoint should trigger the MWI lamp to go off on both endpoints.

- Call Forwarding & Multi-Call Forwarding operation. For example, if user A calls user B who has their set call forwarded to user C and user C does not answer, then the call must be connected to mail box of user B on CallPilot. Various call flow permutations and combinations were tested for this.
- CallPilot Call Sender feature. Any user from any endpoint (prime / collaborated) while listening to a voice mail message should be able to initiate a call back (call sender) to the originator using a specific mailbox key. Also tested is the case where Call Sender is initiated back to the caller who is also busy and the return call goes to the initial caller's CallPilot mailbox.
- Simultaneous calls to the same user should be handled on a first come first served basis.

#### 1.2. Test Results and Observations

Interoperability testing of CallPilot as a centralized messaging server for CS1000 Collaboration Pack solution was completed successfully with the following issues / limitations noted.

- CS1k-CallPilot Call-sender CLID incorrect over SIP trunk to ME (wi01064609). If a
  converged user dials into their CallPilot mailbox using their collaborated endpoint and
  initiates a call-sender to another user, an incorrect CLID appears on the display of the
  called party.
- Calls directed to converged users where the CS1000 set (the prime set in the converged pair) is busy will get Forward-Busy treatment and be sent to the appropriate CallPilot mailbox for that user. This treatment does not occur if the collaborated endpoint is busy while the prime CS1000 set is idle this is a known limitation of the PCA functionality on CS1000.

# 2. Reference Configuration

The following diagram (**Figure 1**) shows the reference configuration used in the testing of a CS1000 Collaboration Pack sample solution. It depicts a typical CS1000 Collaboration Pack solution configuration.

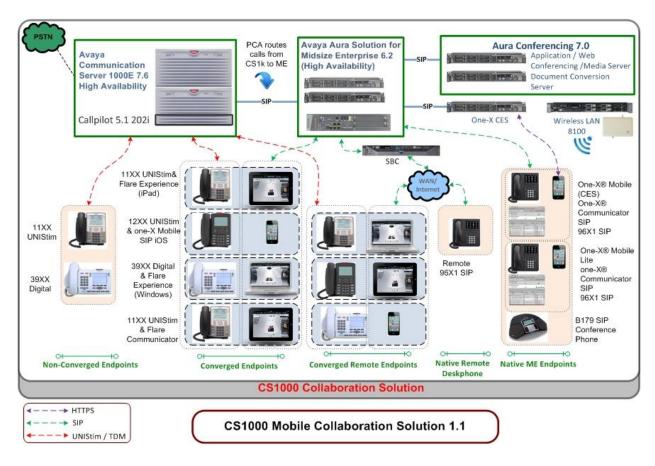


Figure 1: Typical CS1000 Collaboration Pack Solution Configuration

Three groups of users are defined as follows for CS1000 Collaboration Pack:

**Group 1 - Non Converged User:** An existing CS1000 user that continues to use their CS1000 desk phone with no association to any client on the ME / Collaboration Pack. A CallPilot voice mailbox is assumed to be already in place for a non-converged user. Supported endpoints are:

- 11xx IP (UNISTIM) deskphone
- 12xx IP (UNISTIM) deskphone
- 39xx Digital deskphone

**Group 2 - Converged User:** An existing CS1000 user that continues to use their CS1000 desk phone and is also associated, via PCA on the CS1000 side, with a client on the ME Collaboration Pack. The endpoints in this arrangement are referred to as "Converged Endpoints". Some of these ME clients may be remote users who are connected into the Enterprise network over the

WAN via Avaya Session Border Controller Advanced for Enterprise (ASBC-AE). In that case, the endpoints can be referred to as "Converged Remote Endpoints". This Application Note details the provisioning steps required to enable an existing CallPilot voice mailbox for a non-converged CS1000 user as part of the process to enable that user to be converged (twinned) with a collaborated client. Supported endpoints in this group are:

- 11xx IP (UNIStim) deskphone (on CS1000)
- 12xx IP (UNIStim) deskphone (on CS1000)
- 39xx Digital deskphone (on CS1000)
- one-X Mobile (SIP) for iOS (on ME)
- Flare® Experience for iPad (on ME)
- Flare® Experience for Windows XP / 7 (on ME)
- Remote Flare® Experience for iPad registered to ME via ASBC-AE
- Remote Flare® Experience for Windows registered to ME via ASBC-AE
- Remote one-X® Mobile SIP for iOS registered to ME via ASBC-AE

**Group 3 - Native User:** A user on the ME Collaboration Pack that has no corresponding CS1K desk phone. Services are provided via clients on the Collaboration Pack only. Incoming PSTN calls or calls from non-converged users are routed to the ME from CS1K via PCA. The endpoints in this arrangement are referred to as "Native Endpoints". Some of these ME clients may also be remote users connected into the Enterprise network over the WAN via ASBC-AE. In that case, the endpoints can be referred to as "Native Remote Endpoints". This Application Note will also describe the process of setting up a new CallPilot voice mailbox for a new Native user in a CS1000 Collaboration Pack solution. Native clients supported are:

- B179 conference phone
- One-X Communicator (SIP) with Audio provided by a 96x1 SIP phone
- One-X Communicator (SIP) with Audio provided by a 96x1 SIP phone and extended with EC500 to an Avaya one-X® Mobile Lite.
- Avaya one-X® Mobile with Client Enablement Services (CES)
- Avaya one-X® Deskphone SIP on 96X1
- Remote Avaya one-X® Deskphone SIP on 96X1 registered to ME via ASBC-AE

A more simplified diagram of the CS1000 Collaboration Pack configuration is shown below in **Figure 2**. This diagram serves as the basis for the CallPilot voice mailboxes which will be described later in this application note.

CallPilot 5.1 runs on a 202i integrated server which is a dual slot card that fits into the chassis of a CS1000E system. In the sample configuration, the CallPilot is configured with a Customer LAN (CLAN) IP address of 135.A.B.C and has a Fully Qualified Domain Name (FQDN) of callpilot1.silstack.com.

The numbering plan adopted for a converged user in the sample configuration has been designed such that a DN for any endpoint on the Collaboration Pack side is the same as the DN of its "twin" on the CS1000E side plus a prefix of 44. So in this example, a 12XX series IP telephone set (called **Z3** in **Figure 2**) has been provisioned on the CS1000E system with a DN = 70408 and a Flare Experience on iPad endpoint on the Avaya Aura® Midsize Enterprise system (called **Y3** 

in **Figure 2**) has been provisioned with a DN = 4470408. The number routing and dial plan manipulations to allow this are handled by the CS1000E and Avaya Aura® Midsize Enterprise systems and are beyond the scope of this application note. The overall result is that any call made to converged user 70408 will automatically get routed to both of these endpoints.

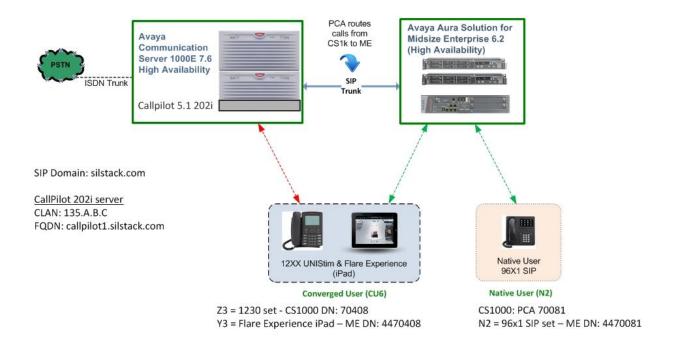


Figure 2: Simplified CS1000 Collaboration Configuration

Similarly, for a native user who has a set on the Avaya Aura® Midsize Enterprise system e.g. a 96x1 SIP set called N2 with DN 4470081, there is a PCA configuration on CS1000E which has a DN of 70081. As all calls are routed through the CS1000E, then any call to 70081 will automatically get routed via the PCA to the 96X1 SIP set.

With this type of configuration, it is important that CallPilot is able to cater for collaborated endpoints on the Avaya Aura® Midsize Enterprise (i.e. those with a prefix of 44 in their DN) as well as the prime endpoint on CS1000. Users must be able to dial into CallPilot from either endpoint in a converged user arrangement and also MWI functionality must work for both endpoints.

# 3. Equipment and Software Validated

The following equipment and software were used for the sample CS1000 Collaboration Pack solution test configuration.

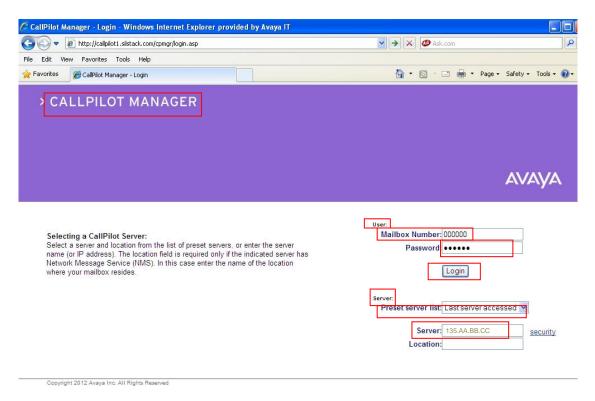
Equipment/Software	Release/Version
Avaya Communications Server 1000E	R7.6 + latest patches.
PBX	
CallPilot running on a 202i integrated	R5.01.01 + PEPs CP0501SU001S,
server	CP501S01G08S, CP501S01G09C
1100 Series IP Telephones for Avaya Communications Server 1000E	Firmware version 5.5 (UNIStim)
1200 Series IP Telephones for Avaya Communications Server 1000E	Firmware version 5.5 (UNIStim)
3900 Series TDM Telephones for Avaya Communications Server 1000E	Firmware version AA94 delivered with CS1000E R7.6
Avaya Aura® Solution for Midsize Enterprise (ME) running on an Avaya S8800 ME server platform	Avaya Aura® Communication Manager R6.2 SP4 Avaya Aura® System Manager R6.2 SP4 Avaya Aura® Session Manager R6.2 SP4 Avaya Aura® Presence Services R6.1 SP5
Avaya SBC for Enterprise running on a Dell R200 server	R6.2.0.Q29
Avaya one-X® Communicator	R6.1 SP5
Flare® Experience for iPad running on Apple iPad (iOS 6.0)	R1.1
Flare® Experience for Windows XP running on an HP PC	R1.1
Avaya One-X® Mobile SIP for iOS running on an Apple iPhone4/4s	R6.2
Avaya one-X® Mobile with Client Enablement Services (CES)	R6.1
Avaya one-X® Mobile Lite	Rel. 1.5.5
96x1 SIP with	96x1 Rel. 6.2
One-X® Communicator	One-X Communicator Rel. 6.1.5
96x1 SIP	R6.2
B179	R2.3.1

# 4. Using CallPilot® Manager to administer voice mailboxes

CallPilot Manager is the web-based application used to connect to a CallPilot server. It is used to create and maintain the information the server requires to provide CallPilot messaging services to authorized mailbox owners. The following section describes how to access CallPilot Manager to allow voice mailbox administration required for users in the CS1000 Collaboration Pack solution.

#### 4.1. Accessing CallPilot Manager

Using a supported browser (e.g. Internet Explorer), enter the URL of the fully qualified domain name (FQDN) of the CallPilot 202i server or to the CallPilot 202i server's Customer LAN (CLAN) IP address e.g. <a href="http://callpilot1.silstack.com/cpmgr">http://callpilot1.silstack.com/cpmgr</a>. The CALLPILOT MANAGER page appears as follows. In the User section, the Administrator Mailbox Number of 000000 is displayed by default. Enter the appropriate numerical password in the Password field for this Administrator mailbox (e.g. 123456). In the Server section, the Preset server list drop-down box will display Last server accessed and in the Server box, the IP address of the last CallPilot server accessed will be shown. Click on Login to proceed.



# The CALLPILOT MANAGER home page now appears as follows.

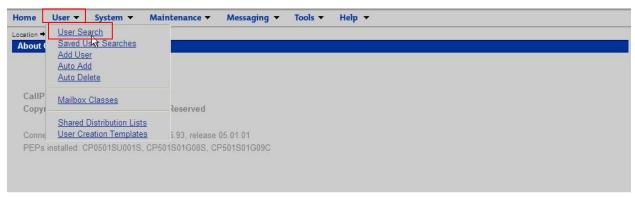


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## 4.2. Editing an existing user mailbox for a Converged user

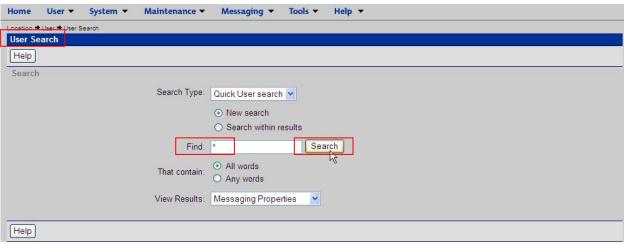
In this section, voice mailbox configuration settings are changed for an existing CS1000 non-converged user to extend the voice services features of the mailbox to the collaborated endpoint. This will ensure that the converged user has full mailbox access and MWI functionality from the collaborated endpoint.

From the **CALLPILOT MANAGER** home page, click on the **User** drop-down menu and select **User Search** as follows:



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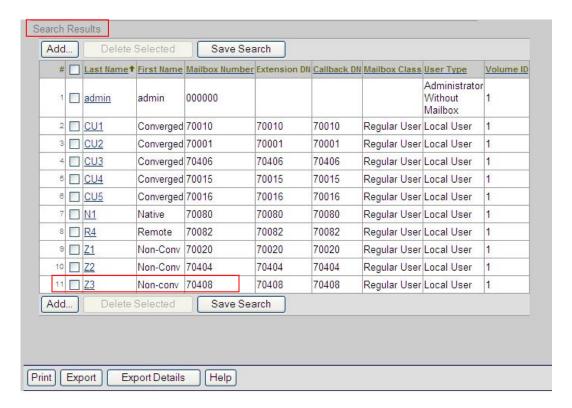
The following **User Search** window appears. The **Find** box appears with a \* (wildcard) by default. Click on the **Search** button.



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The **Search Results** window appears listing all configured mailboxes as in the following example. In the sample configuration, the mailboxes shown have been defined in conjunction with the CS1000 Collaboration Pack users already configured on the CS1000 and Avaya Aura® Midsize Enterprise systems. In this example, the mailbox for user called "**Non-conv Z3**" with mailbox number **70408** requires twinning with a collaborated endpoint on Avaya Aura® Midsize

Enterprise which has a station number of **4470408**. Click on the hyperlink associated with **Z3** on row 11.



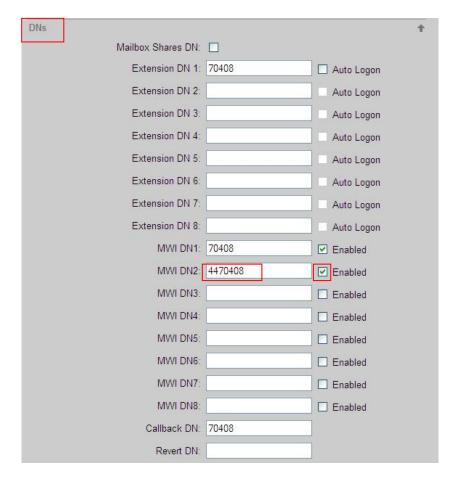
The User Details page appears as follows.



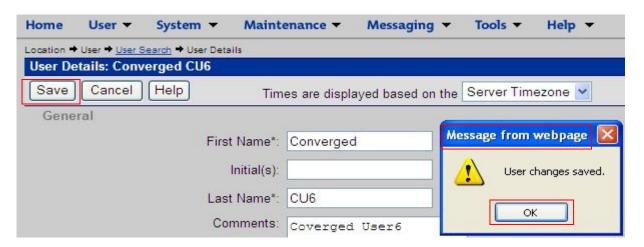
To keep with the naming convention used in the sample lab configuration, in the **General** section change the **First Name** to **Converged** and change the **Last Name** to **CU6** (which in this case is short for Converged User 6). In a Customer environment, the First Name and Last Name fields would normally reflect the actual user's real name for clearer identification purposes (e.g. John Doe). Optionally, the text in the **Comments** box can also be changed as shown below.



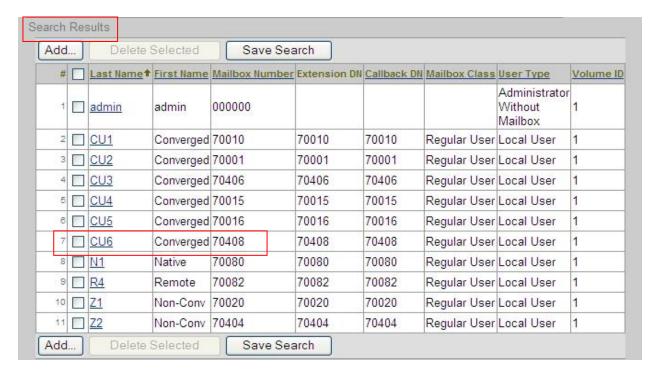
On the same page, scroll down to the **DNs** section. Tick the **Enabled** check box beside the **MWI DN2** box which allows a value to be entered into this box. Enter the station number of the collaborated endpoint on the Avaya Aura® Midsize Enterprise system into the **MWI DN2** box. In this example enter **4470408**. This allows the MWI message corresponding to a new voice mail to be extended to the collaborated endpoint station number to alert the user that a new voice mail message has arrived.



After making the changes, scroll back up to the top of the **User Details** page and click on **Save**. A confirmation pop-up message should appear titled **Message from webpage**. Click on **OK** to accept the message.



The **Search Results** window re-appears and the user which was listed as "**Non-conv Z3**" now appears as "**Converged CU6**". This now looks as follows:



At this point, the CallPilot mailbox for user with DN 70408 has been successfully changed to allow voice mail services to be extended to a collaborated endpoint (i.e. a non-converged user mailbox has been changed to work as a converged user mailbox).

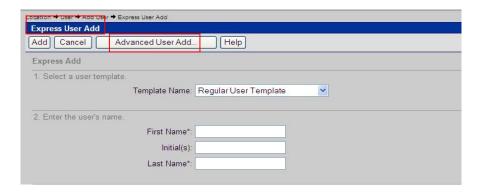
#### 4.3. Adding a new Native user mailbox for CS1000 Collaboration Pack

In this section, a new voice mailbox is configured to provide voice mail services for a new native user on CS1000 Collaboration Pack. Adding a native user also involves adding a new user profile via System Manager and also configuring a PCA profile on CS1000 to allow the call to be extended to Avaya Aura® Midsize Enterprise where it gets routed to the native endpoint. For CallPilot, in this example, a new voice mailbox will be configured for a new native user called "Native, N2" which has a prime CS1000 DN of 70081 and a station number on Avaya Aura® Midsize Enterprise of 4470081.

From the **CALLPILOT MANAGER** home page in the **Home** screen, click on the **Add User** link as follows:

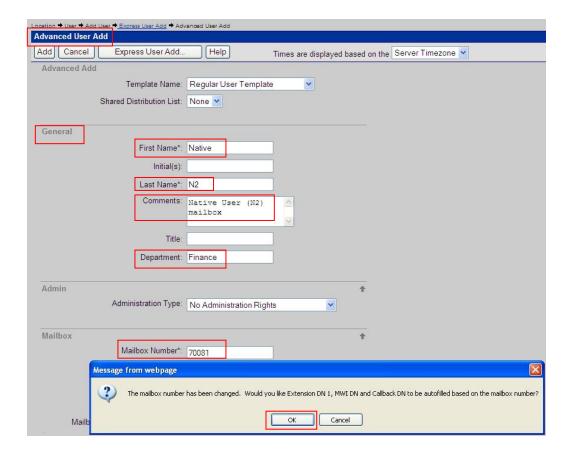


The **Express User Add** page appears as follows. Click on the **Advanced User Add** link to open up more configuration choices.

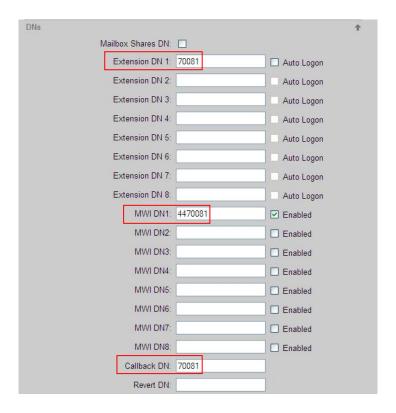


The Advanced User Add page appears as shown below. In the General section, enter a First Name (e.g. Native) and enter a Last Name (e.g. N2). Optionally enter some text into the Comments text box and Department field (e.g. Finance). In the Mailbox section, enter 70081

as the **Mailbox Number** which corresponds to the PCA DN on CS1000. Clicking outside this field will trigger a pop-up message requesting permission to automatically populate other fields based on this mailbox number. Click **OK** to allow this.



Scroll down to the **DNs** section where the values for **Extension DN 1**, **MWI DN1** and **Callback DN** have already been populated based on the previous step above. As this is a native user, there will be no physical telephone set provisioned on the CS1000 system so the MWI will need to be routed to the native endpoint on the Avaya Aura® Midsize Enterprise which has a station number of 4470081. Change the value in the **MWI DN 1** field from **70081** to **4470081** to allow this based on the CS1000 Collaboration Pack dial plans.



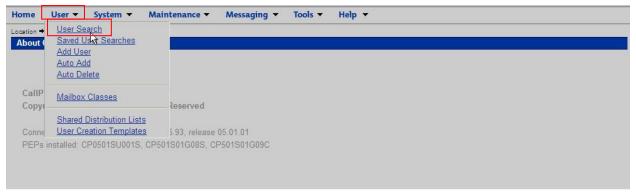
After making the changes, scroll back up to the top of the **Advanced User Add** page and click on **Add**. The Add button changes to a grayed out appearance and a pop-up warning message appears advising that the value specified for the MWI DNs (e.g. **4470081**) does not match any extension DN (e.g. **70081**). Click on **OK** to continue saving the new user.



The **User Add Result** window appears to confirm that the new native user was successfully added as follows:



At this point, a new CallPilot mailbox has been successfully added for the new native user with DN 70081. From the **CALLPILOT MANAGER** home page, click on the **User** drop-down menu and select **User Search** as follows:

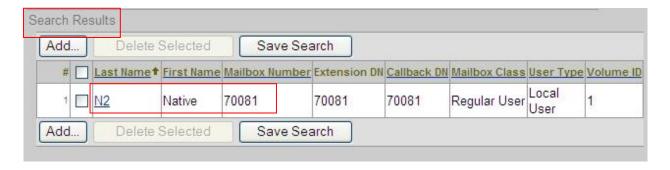


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The following **User Search** window appears. Enter the number of the mailbox just added (70081) into the **Find** box and click on the **Search** button.



The **Search Results** appear confirming that the new mailbox is now present for user **Native**, **N2** with mailbox number **70081**.



## 5. Testing mailboxes for Converged and Native users

Manual phone calls are the best way to verify the voice mail functionality of the mailboxes which have been provisioned above in **Section 4**. In the case of the converged user, make some test calls from any other user / endpoint or from a PSTN caller to the converged user and verify that if the call is not answered or if the prime CS1000 set is busy, the call gets redirected to the relevant CallPilot mailbox. The appropriate greeting should be heard and the caller should record a voicemail message and hang up. CallPilot should send an MWI to both endpoints and the MWI lamp on both endpoints should come on. The user should then dial into CallPilot from both endpoints and verify in each case that playing the voicemail will trigger the MWI lamp on both endpoints to go off.

In the case of a native user for whom a new mailbox has been configured, make a call from the native endpoint to CallPilot and logon for the first time using the default password of 12+DN for that user (e.g. in the case of N2 above, the initial password will be 1270081). The new user will then be prompted to change the password at the first logon. The user should also navigate the CallPilot menu to record internal and external greetings, etc. as required. Again to verify operation of the new native mailbox make some test calls from a variety of endpoints / users or from a PSTN caller to the native user and if the call is not answered the caller should get redirected to the native user's CallPilot mailbox. The appropriate greeting should be heard and the caller should record a voicemail message and hang up. CallPilot should send an MWI to the native endpoint and the MWI lamp should come on. The user should then dial into CallPilot from the native endpoint and verify that playing the voicemail will trigger the MWI lamp to go off.

#### 6. Conclusion

This Application Note described the procedures for configuring voice mailboxes on Avaya CallPilot® R5.1 to provide a shared messaging service for Converged and Native Users in the Avaya Communication Server 1000 Collaboration Pack solution.

Extensive testing between all supported endpoints / users was carried out to verify the functionality and interoperability of Avaya CallPilot® 5.1 with CS1000 and Avaya Aura® Midsize Enterprise. All testing was successful with the exception of those issues and limitations documented in **Section 1.2**.

#### 7. Additional References

#### **Application Notes:**

- Configuring Converged and Native Users in a Collaboration Pack 1.1 for Communication Server 1000 Release 7.6
- Configuring Secure SIP Connectivity using Transport Layer Security (TLS) between Avaya Aura® Communication Manager R6.2, Avaya Aura® Session Manager R6.2 and Avaya Communication Server 1000E R7.6.

Additional Avaya product documentation is available at <a href="http://support.avaya.com">http://support.avaya.com</a>.

Specific Avaya CallPilot documentation guides used in this sample configuration are:

- Avaya CallPilot® Fundamentals Guide (NN44200-100)
- Avaya CallPilot® Library Listing (NN44200-117)
- Avaya CallPilot® Planning and Engineering Guide (NN44200-200)
- Avaya Meridian 1 and Avaya CallPilot® Server Configuration Guide (NN44200-302)
- Avaya Communication Server 1000 System and Avaya CallPilot® Server Configuration Guide (NN44200-312)
- Avaya CallPilot® Administrator Guide (NN44200-601)
- Avaya CallPilot® Software Administration and Maintenance Guide (NN44200-600)
- Avaya CallPilot® 202i Server Maintenance and Diagnostics Guide (NN44200-708)

#### CS1000E documentation references:

- Software Input Output Reference Administration Avaya Communication Server 1000 (NN43001-611).
- Software Input Output Reference Maintenance Avaya Communication Server 1000 (NN43001-711).

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