



Avaya Solution & Interoperability Test Lab

Application Notes for Beta80 iO and emma CAD CTI with Avaya Aura® Communication Manager R7.0 and Call Center Elite using Avaya Aura® Application Enablement Services 7.0 – Issue 1.0

Abstract

These Application Notes describe the configuration steps required to integrate Beta80 iO and emma CAD CTI Integration with Avaya Aura® Communication Manager R7.0 and Call Center Elite using Avaya Aura® Application Enablement Services 7.0. Beta 80 iO and emma CAD CTI platform Provides a Graphical User Interface with Avaya Aura providing Public Safety Answering Points for emergency service calls.

Readers should pay attention to Section 2, in particular the scope of testing as outlined in Section 2.1 as well as any observations noted in Section 2.2, to ensure that their own use cases are adequately covered by this scope and results.

Information in these Application Notes has been obtained through DevConnect compliance testing and additional technical discussions. Testing was conducted via the DevConnect Program at the Avaya Solution and Interoperability Test Lab.

1. Introduction

These Application Notes describe the configuration steps required to integrate Beta80 iO and emma CAD CTI with Avaya Aura® Communication Manager R7.0 and Call Center Elite using Avaya Aura® Application Enablement Services 7.0. These Application Notes are specific for the creation of an ACD environment and complements the relevant Application Notes specific for the queue monitoring scenario.

The Beta 80 iO and emma CAD CTI platform Provides a Graphical User Interface with Avaya Aura® Application Enablement Services providing Public Safety Answering Points (PSAP) for emergency service calls. Beta 80 CAD platform complements Avaya Aura in providing Public Safety Answering Points (PSAP) using a complete, full featured, Computer Aided Dispatch platform; CAD helps PSAP professionals to streamline emergency calls processing by automatically retrieving and displaying the caller's position, suggesting standard operating procedures Agents and dispatchers have to follow given the specific call for service (CFS), monitoring dispatched units and providing necessary information for dispatchers to assure a quick and effective engagement of first responders and resources upon the creation of new incidents.

2. General Test Approach and Test Results

The general test approach was to configure the iO and emma CAD CTI platform to communicate with Communication manager using the Application Enablement Services Device, Media and Call Control API. This allows CAD platform to take control of Avaya Aura® Communication Manager extensions and log in ACD Agents.

DevConnect Compliance Testing is conducted jointly by Avaya and DevConnect members. The jointly-defined test plan focuses on exercising APIs and/or standards-based interfaces pertinent to the interoperability of the tested products and their functionalities. DevConnect Compliance Testing is not intended to substitute full product performance or feature testing performed by DevConnect members, nor is it to be construed as an endorsement by Avaya of the suitability or completeness of a DevConnect member's solution.

Avaya recommends our customers implement Avaya solutions using appropriate security and encryption capabilities enabled by our products. The testing referenced in these DevConnect Application Notes included the enablement of supported encryption capabilities in the Avaya products. Readers should consult the appropriate Avaya product documentation for further information regarding security and encryption capabilities supported by those Avaya products.

Support for these security and encryption capabilities in any non-Avaya solution component is the responsibility of each individual vendor. Readers should consult the appropriate vendor-supplied product documentation for more information regarding those products.

For the testing associated with these Application Notes, the interface between Avaya systems and the Beta 80 CAD CTI did not include use of any specific encryption features as requested by Beta80.

2.1. Interoperability Compliance Testing

The interoperability compliance test included both feature functionality and serviceability testing. The feature functionality testing focused on interacting with the CAD CTI Platform in different call scenarios. The tests included:

- Agent login
- Agent's status selection
- Agent auto/manual answer mode selection
- Dispatcher/Call Taker presence and chat service
- Make Call
- Call pick up with CLI Import (into the CAD client)
- Call hang up
- Call park/resume
- Call hold/resume
- Call Transfer (blind or with consultation)
- Conference
- Phone book /w click-to call
- DTMF relay

2.2. Test Results

All test cases were passed.

2.3. Support

E-Mail: sales@beta80group.com

Internet: www.beta80group.com

3. Reference Configuration

The configuration shown in Figure 1 was used during the compliance test of Beta 80 CAD CTI, with Communication Manager using Application Enablement Services. Beta 80 CAD CTI uses DMCC to control Communication Manager extensions.

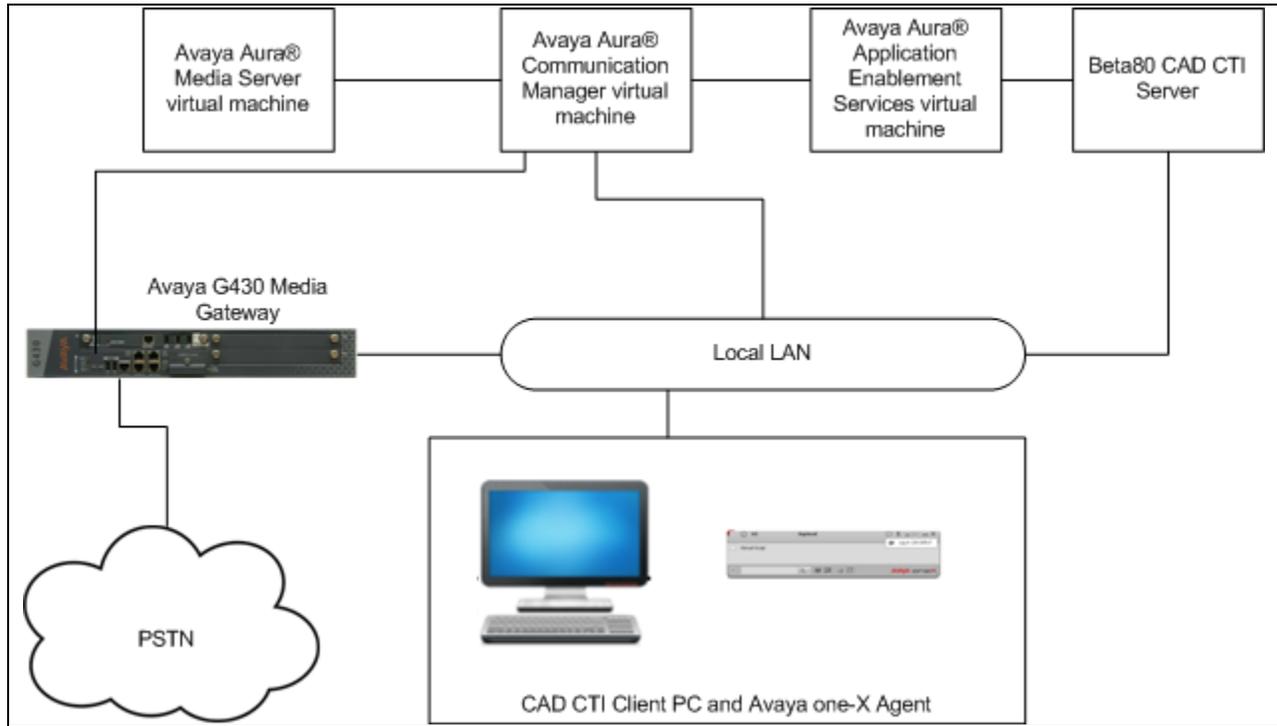


Figure 1: Beta80 CAD CTI with Application Enablement Services

4. Equipment and Software Validated

The following equipment and software were used for the sample configuration provided:

Equipment/Software	Release/Version
Avaya Aura® Communication Manager running on a VMware Virtual Machine	7.0.1.2.0-FP1SP2
Avaya Aura® Application Enablement Services on a VMware Virtual Machine	7.0.1.0.4.15-0
Avaya G430 Gateway	37.41.0 /1
Avaya Aura Media Server on a VMware Virtual Machine	v.7.8.0.309
Beta 80 emma/iO CAD	6.4.0.0
Beta 80 emma/iO CTI	4.5.0.0

5. Configure Avaya Aura® Communication Manager

The information provided in this section describes the configuration of Communication Manager relevant to this solution. For all other provisioning information such as initial installation and configuration, please refer to the product documentation in **Section 10**.

The configuration illustrated in this section was performed using Communication Manager System Administration Terminal (SAT).

5.1. Verify System Features

Use the **display system-parameters customer-options** command to verify that Communication Manager has permissions for features illustrated in these Application Notes. On **Page 3**, ensure that **Answer Supervision by Call Classifier?** is set to **y** and **Computer Telephony Adjunct Links?** is set to **y** as shown below.

```
display system-parameters customer-options                               Page 3 of 11
                                OPTIONAL FEATURES

Abbreviated Dialing Enhanced List? y          Audible Message Waiting? y
Access Security Gateway (ASG)? n              Authorization Codes? y
Analog Trunk Incoming Call ID? y              CAS Branch? n
A/D Grp/Sys List Dialing Start at 01? y       CAS Main? n
Answer Supervision by Call Classifier? y      Change COR by FAC? n
ARS? y Computer Telephony Adjunct Links? y
ARS/AAR Partitioning? y                      Cvg Of Calls Redirected Off-net? y
ARS/AAR Dialing without FAC? y                DCS (Basic)? y
ASAI Link Core Capabilities? n                 DCS Call Coverage? y
ASAI Link Plus Capabilities? n                 DCS with Rerouting? y
Async. Transfer Mode (ATM) PNC? n
Async. Transfer Mode (ATM) Trunking? n        Digital Loss Plan Modification? y
ATM WAN Spare Processor? n                     DS1 MSP? y
ATMS? y                                        DS1 Echo Cancellation? y
Attendant Vectoring? y
```

5.2. Display Node Names for Avaya Aura® Application Enablement Services Connectivity

Display the **procr** IP Address by using the command **display node-names ip** and noting the IP address for the **procr** and AES (**Aes71678**).

display node-names ip		Page 1 of 2
		IP NODE NAMES
Name	IP Address	
SM100	10.10.40.34	
Aes71678	10.10.16.78	
default	0.0.0.0	
g430	10.10.40.15	
procr	10.10.16.27	

5.3. Configure AE service for Avaya Aura® Application Enablement Services Connectivity

To administer the transport link to AES use the **change ip-services** command. On **Page 1** add an entry with the following values:

- **Service Type:** should be set to **AESVCS**.
- **Enabled:** set to **y**.
- **Local Node:** set to the node name assigned for the **procr** in **Section 5.2**
- **Local Port:** retain the default value of **8765**.

change ip-services						Page 1 of 4
						IP SERVICES
Service Type	Enabled	Local Node	Local Port	Remote Node	Remote Port	
AESVCS	y	procr	8765			

Go to **Page 4** of the **ip-services** form and enter the following values:

- **AE Services Server:** Name obtained from the AES server, in this case **aes63vmpg**.
- **Password:** Enter a password to be administered on the AES server.
- **Enabled:** Set to **y**.

Note: The password entered for **Password** field must match the password on the AES server in **Section 6.2**. The **AE Services Server** should match the administered name for the AES server, this is created as part of the AES installation, and can be obtained from the AES server by typing **uname -n** at the Linux command prompt.

change ip-services					Page 4 of 4
					AE Services Administration
Server ID	AE Services Server	Password	Enabled	Status	
1:	aes71678	*****	y	idle	
2:					
3:					

5.4. Configure CTI Link for TSAPI Service

Add a CTI link using the **add cti-link n** command. Enter an available extension number in the **Extension** field. Enter **ADJ-IP** in the **Type** field, and a descriptive name in the **Name** field. Default values may be used in the remaining fields.

```
add cti-link 1                                     Page 1 of 3
                                                    CTI LINK
CTI Link: 1
Extension: 2002
  Type: ADJ-IP
                                                    COR: 1
  Name: aes71678
```

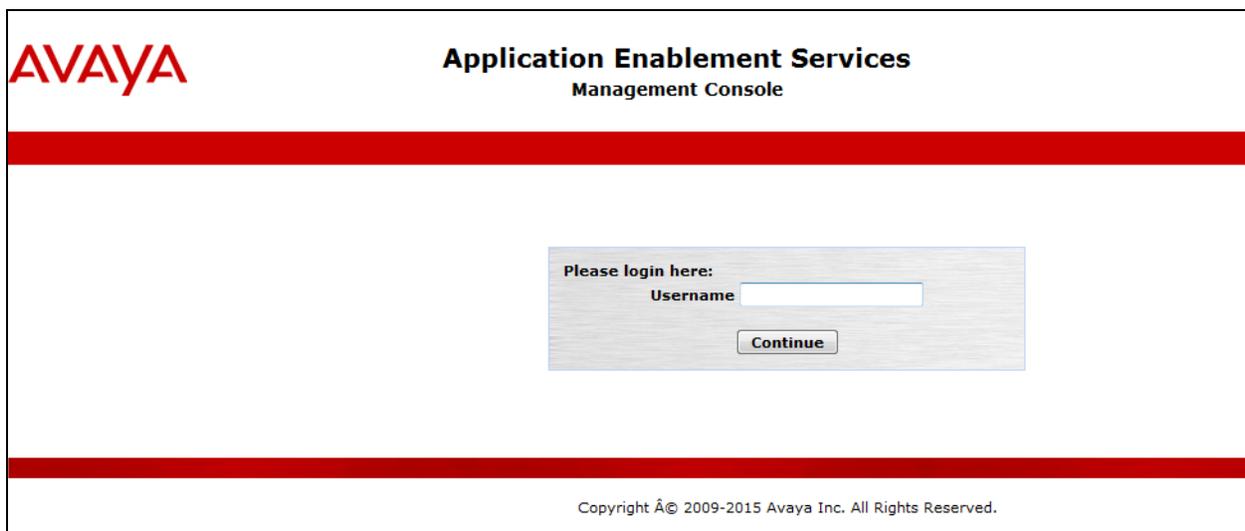
6. Configure Avaya Aura® Application Enablement Services

This section provides the procedures for configuring Application Enablement Services. The procedures fall into the following areas:

- Verify Licensing.
- Create Switch Connection.
- Administer TSAPI link.
- Create CTI User.
- Enable CTI Link User.
- Identify Tlinks.
- Enable DMCC ports.

6.1. Verify Licensing

To access the maintenance console, enter **https://<ip-addr>** as the URL in an Internet browser, where <ip-addr> is the active IP address of AES. The login screen is displayed, enter the appropriate credentials and then select the **Login** button.



The screenshot shows the Avaya Application Enablement Services Management Console login screen. At the top left is the Avaya logo. The title "Application Enablement Services Management Console" is centered at the top. A red horizontal bar is below the title. In the center, there is a login box with the text "Please login here:" and "Username" followed by a text input field. Below the input field is a "Continue" button. At the bottom of the page, there is a red horizontal bar and the copyright notice "Copyright © 2009-2015 Avaya Inc. All Rights Reserved."

The Application Enablement Services Management Console appears displaying the **Welcome to OAM** screen (not shown). Select **AE Services** and verify that the TSAPI Service is licensed by ensuring that **TSAPI Service** is in the list of services and that the **License Mode** is showing **NORMAL MODE**. If not, contact an Avaya support representative to acquire the proper license for your solution.

AE Services Home | Help | Logout

▼ AE Services

- ▶ CVLAN
- ▶ DLG
- ▶ DMCC
- ▶ SMS
- ▶ TSAPI
- ▶ TWS
- ▶ Communication Manager Interface
- ▶ High Availability
- ▶ Licensing
- ▶ Maintenance
- ▶ Networking
- ▶ Security
- ▶ Status
- ▶ User Management
- ▶ Utilities

AE Services

This AE Services server is using a default installed server certificate. Default installed certificates should not be used in a production environment. It is highly recommended to replace all default installed certificates.

IMPORTANT: AE Services must be restarted for administrative changes to fully take effect. Changes to the Security Database do not require a restart.

Service	Status	State	License Mode	Cause*
ASAI Link Manager	N/A	Running	N/A	N/A
CVLAN Service	OFFLINE	Running	N/A	N/A
DLG Service	OFFLINE	Running	N/A	N/A
DMCC Service	ONLINE	Running	NORMAL MODE	N/A
TSAPI Service	ONLINE	Running	NORMAL MODE	N/A
Transport Layer Service	N/A	Running	N/A	N/A
AE Services HA	Not Configured	N/A	N/A	N/A

For status on actual services, please use [Status and Control](#)

* -- For more detail, please mouse over the Cause, you'll see the tooltip, or go to help page.

6.2. Create Switch Connection

From the AES Management Console navigate to **Communication Manager Interface** → **Switch Connections** to set up a switch connection. Enter in a name for the Switch Connection to be added and click the **Add Connection** button.

▶ AE Services

▶ Communication Manager Interface

Switch Connections

▶ Dial Plan

Switch Connections

CM1627 Add Connection

Connection Name	Processor Ethernet
-----------------	--------------------

In the resulting screen enter the **Switch Password**, the Switch Password must be the same as that entered into Communication Manager AE Services Administration screen via the **change ip-services** command, described in **Section 5.3** Default values may be accepted for the remaining fields. Click **Apply** to save changes.

AE Services
Communication Manager Interface
Switch Connections
Dial Plan
High Availability
Licensing
Maintenance
Networking
Security

Connection Details - CM1627

Switch Password: [Masked]
Confirm Switch Password: [Masked]
Msg Period: 30 Minutes (1 - 72)
Provide AE Services certificate to switch:
Secure H323 Connection:
Processor Ethernet:
[Apply] [Cancel]

From the **Switch Connections** screen, select the radio button for the recently added switch connection and select the **Edit CLAN IPs** button (not shown). In the resulting screen, enter the IP address of the **procr** as shown in **Section 5.2** that will be used for the AES connection and select the **Add/Edit Name or IP** button.

AE Services
Communication Manager Interface
Switch Connections
Dial Plan
High Availability
Licensing
Maintenance

Edit Processor Ethernet IP - CM1627

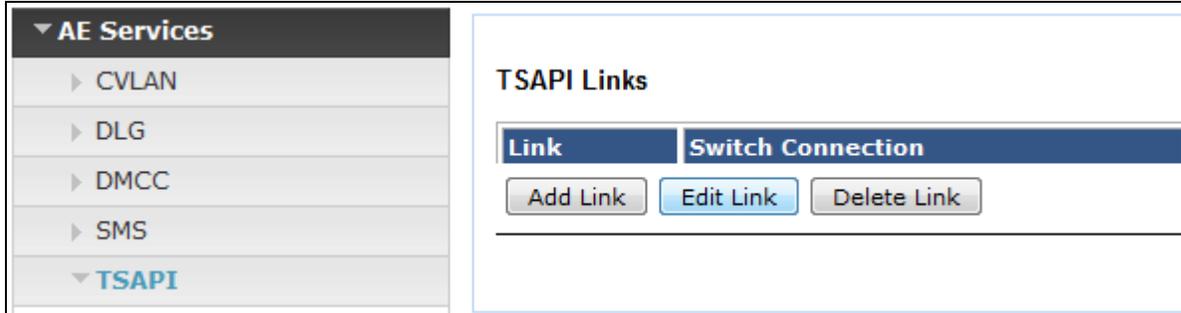
10.10.16.27 [Add/Edit Name or IP]

Name or IP Address

[Back]

6.3. Administer TSAPI link

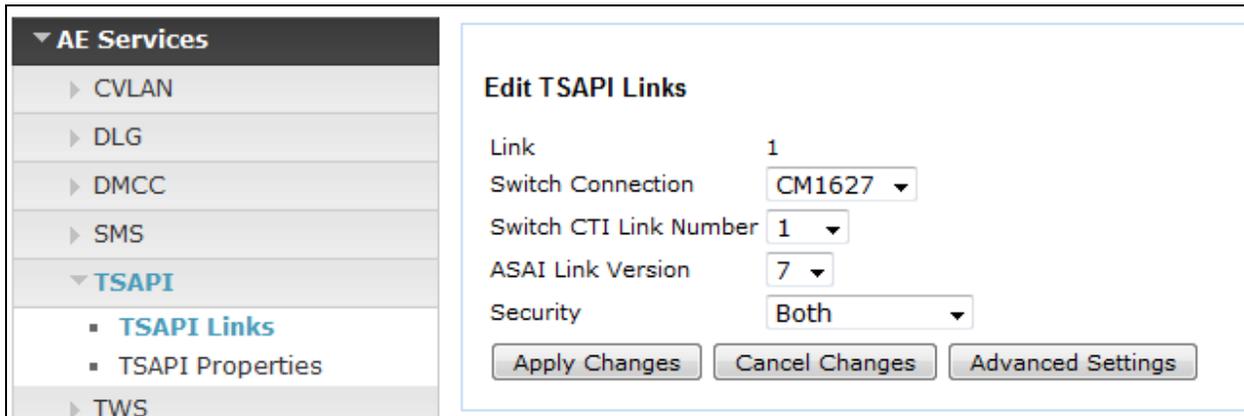
From the Application Enablement Services Management Console, select **AE Services** → **TSAPI** → **TSAPI Links**. Select **Add Link** button as shown in the screen below.



On the **Add TSAPI Links** screen, enter the following values:

- **Link:** Use the drop-down list to select an unused link number.
- **Switch Connection:** Choose the switch connection **CM1627**, which has already been configured in **Section 6.2**, from the drop-down list.
- **Switch CTI Link Number:** Corresponding CTI link number configured in **Section 5.4** which is **1**.
- **ASAI Link Version:** This can be left at the default value of **7**.
- **Security:** select **Both** from the drop down.

Once completed, select **Apply Changes**.



Another screen appears for confirmation of the changes. Choose **Apply** (not shown).

The TSAPI Service must be restarted to effect the changes made in this section. From the Management Console menu, navigate to **Maintenance → Service Controller**. On the Service Controller screen, tick the **TSAPI Service** and select **Restart Service**.

The screenshot shows a management console interface. On the left is a navigation menu with the following items: AE Services, Communication Manager Interface, High Availability, Licensing, Maintenance (expanded), Date Time/NTP Server, Security Database, Service Controller (highlighted in blue), Server Data, Networking, and Security. The main content area is titled "Service Controller" and contains a table with two columns: "Service" and "Controller Status".

Service	Controller Status
<input type="checkbox"/> ASAI Link Manager	Running
<input type="checkbox"/> DMCC Service	Running
<input type="checkbox"/> CVLAN Service	Running
<input type="checkbox"/> DLG Service	Running
<input type="checkbox"/> Transport Layer Service	Running
<input checked="" type="checkbox"/> TSAPI Service	Running

Below the table, there is a text instruction: "For status on actual services, please use [Status and Control](#)". At the bottom of the panel, there are four buttons: "Start", "Stop", "Restart Service", and "Restart AE Server".

6.4. Create Avaya CTI User

A User ID and password needs to be configured for the Beta80 CAD CTI to communicate as a TSAPI client with the Application Enablement Services server. Navigate to the **User Management** → **User Admin** screen then choose the **Add User** option.

The screenshot displays the Avaya Application Enablement Services Management Console. The top left features the AVAYA logo. The main header reads "Application Enablement Services Management Console". A red navigation bar contains "User Management | User Admin". On the left, a sidebar menu lists various categories: AE Services, Communication Manager Interface, Licensing, Maintenance, Networking, Security, Status, User Management (expanded), Service Admin, User Admin (expanded), Utilities, and Help. The "User Admin" option is highlighted with a red box. The main content area, titled "User Admin", contains the text "User Admin provides you with the following options for managing AE Services users:" followed by a bulleted list: Add User, Change User Password, List All Users, Modify Default User, and Search Users. The "Add User" option is also highlighted with a red box.

In the **Add User** screen shown below, enter the following values:

- **User Id** - This will be used by the CAD CTI Server to connect.
- **Common Name** and **Surname** - Descriptive names need to be entered.
- **User Password** and **Confirm Password** - This will be used with the **User Id** to connect.
- **CT User** - Select **Yes** from the drop-down menu.

User Management | User Admin | Add User Home | Help | Logout

Add User

Fields marked with * can not be empty.

* User Id

* Common Name

* Surname

* User Password

* Confirm Password

Admin Note

Avaya Role

Business Category

Car License

CM Home

Ccs Home

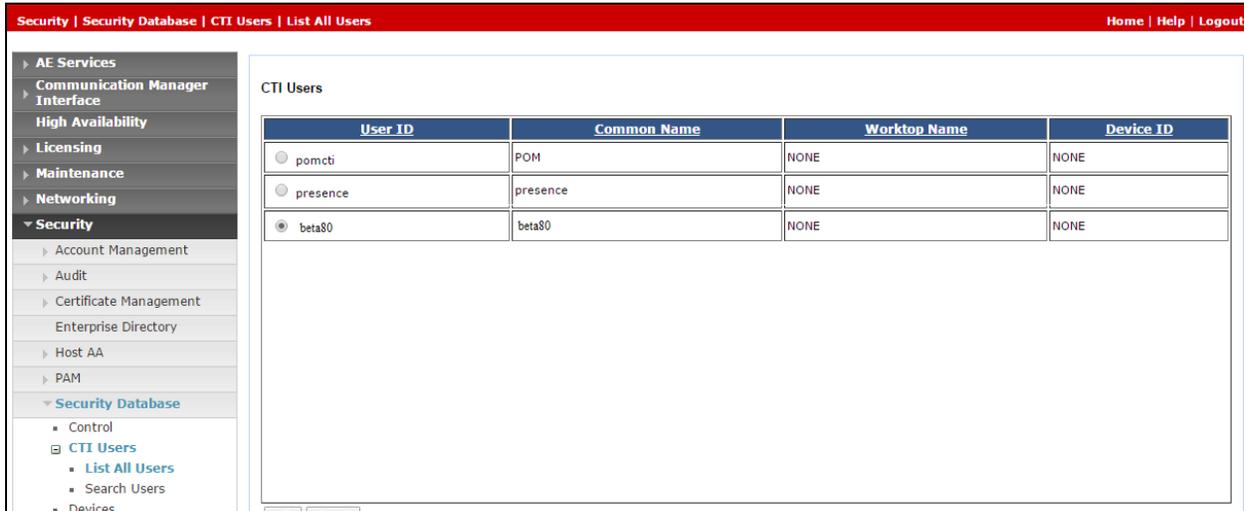
CT User

Complete the process by choosing **Apply** at the bottom of the screen (not shown).

The next screen will show a message indicating that the user was created successfully (not shown).

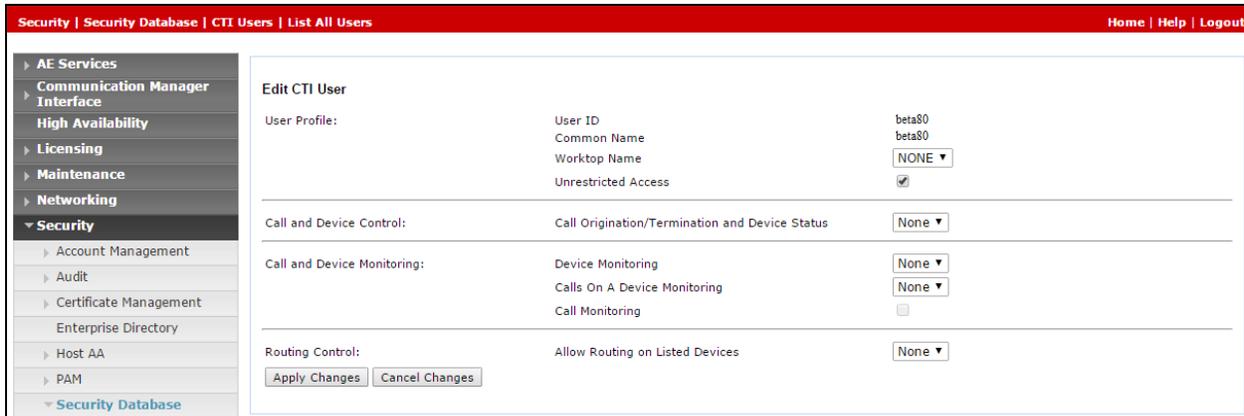
6.5. Enable Unrestricted Access for CTI User

Navigate to the **CTI Users** screen by selecting **Security** → **Security Database** → **CTI Users** → **List All Users**. Select the user that was created in **Section 6.4** and select the **Edit** option (not shown).



User ID	Common Name	Worktop Name	Device ID
<input type="radio"/> pomcti	POM	NONE	NONE
<input type="radio"/> presence	presence	NONE	NONE
<input checked="" type="radio"/> beta80	beta80	NONE	NONE

The **Edit CTI User** screen appears. Check the **Unrestricted Access** box and **Apply Changes** at the bottom of the screen.



Edit CTI User

User Profile: User ID: beta80
Common Name: beta80
Worktop Name: NONE ▼
Unrestricted Access:

Call and Device Control: Call Origination/Termination and Device Status: None ▼

Call and Device Monitoring: Device Monitoring: None ▼
Calls On A Device Monitoring: None ▼
Call Monitoring:

Routing Control: Allow Routing on Listed Devices: None ▼

A screen (not shown) appears to confirm applied changes to CTI User, choose **Apply**. This CTI user should now be enabled.

6.6. Enable DMCC ports

In order to enable DMCC for call recording navigate to **Networking** → **Ports** → **DMCC Server Ports**.

- Enable DMCC **Unencrypted Port**
- Enable DMCC **Encrypted Port**
- Enable DMCC **TR/87 Port**

Click on **Apply Changes** at the bottom of the screen (not shown).

The screenshot displays the 'Networking | Ports' configuration interface. The left sidebar contains a navigation menu with 'Networking' expanded and 'Ports' selected. The main content area is titled 'Ports' and is divided into several sections:

- CVLAN Ports:** Includes 'Unencrypted TCP Port' (9999) and 'Encrypted TCP Port' (9998). Both have 'Enabled' status indicators.
- DLG Port:** Includes 'TCP Port' (5678).
- TSAPI Ports:** Includes 'TSAPI Service Port' (450), 'Local TLINK Ports' (TCP Port Min: 1024, TCP Port Max: 1039), and 'Unencrypted TLINK Ports' (TCP Port Min: 1050, TCP Port Max: 1065).
- Encrypted TLINK Ports:** Includes 'TCP Port Min' (1066) and 'TCP Port Max' (1081).
- DMCC Server Ports (highlighted with a red box):** Includes 'Unencrypted Port' (4721), 'Encrypted Port' (4722), and 'TR/87 Port' (4723). All three have 'Enabled' status indicators.

Once this change is made a restart of the AE Server is required. Navigate to **Maintenance** → **Service Controller**. In the main screen select **Restart AE Server** highlighted.

The screenshot shows the Avaya Application Enablement Services Management Console. The left sidebar contains a navigation menu with the following items: AE Services, Communication Manager Interface, Licensing, Maintenance (highlighted with a red box), Date Time/NTP Server, Security Database, Service Controller (highlighted with a red box), Server Data, Networking, Security, Status, User Management, Utilities, and Help. The main content area is titled "Service Controller" and contains a table of services and their statuses:

Service	Controller Status
<input type="checkbox"/> ASAI Link Manager	Running
<input type="checkbox"/> DMCC Service	Running
<input type="checkbox"/> CVLAN Service	Running
<input type="checkbox"/> DLG Service	Running
<input type="checkbox"/> Transport Layer Service	Running
<input type="checkbox"/> TSAPI Service	Running

Below the table, there is a link for "Status and Control" and a row of buttons: Start, Stop, Restart Service, Restart AE Server (highlighted with a red box), Restart Linux, and Restart Web Server.

7. Configure Beta 80 CAD CTI

This section describes the steps required for Beta80 CAD CTI to interoperate with Application Enablement Services in an ACD environment. In order to correctly establish the CTI link between emma / iO CAD and Aura “PABXConverter.exe.config” file has to be accessed and the following configuration steps have to be carried out:

- AES IP address and port configuration
- DMCC login parameters configuration
- CM IP address configuration
- ACD agents login and status exchange from the CTI server and Aura

These steps are displayed below:

```
<appSettings>
  <add key="PBXIP" value="192.168.15.101"/>
  <add key="PBXPort" value="4721"/>

  <add key="PBXLoginName" value="CTI01"/>
  <add key="PBXLoginPassword" value="CTI01"/>

  <add key="CMSwitchName" value="CM"/>
  <add key="CMSwitchAddressIp" value="192.168.15.22"/>

  <add key="LocalIP" value="192.168.15.18"/>
  <add key="LocalReceivePort" value="1041"/>

  <add key="AutoAgentLoginLogout" value="True"/>
  <add key="ACDModeEnabled" value="True"/>
```

The “PABXConverter.exe.config” file is normally stored in the “PABXConverter” folder. emma/iO CTI client can be configured to work in either Auto Answer Mode or Manual Answer Mode or Mixed Mode. The third option represents the default setting and allows each agent to dynamically set their own answer mode into auto or manual.

The configuration string follows which allows the client-level answer mode configuration:

```
<add key="ACDMode_ACDEnabled" value="1"/>
<add key="ACDMode_AnswerMode" value="SetByOperator"/>
```

The “value” field can be filled as follows:

SetByOperator: (default) allows each agent to dynamically set his own answer mode

AutoAnswerOnly: Auto answer only

ManualOnly: Manual answer only

emma/iO CTI administration interface gives the opportunity to define the whole set of elements which constitute the CTI environment from the agent point of view; these elements are:

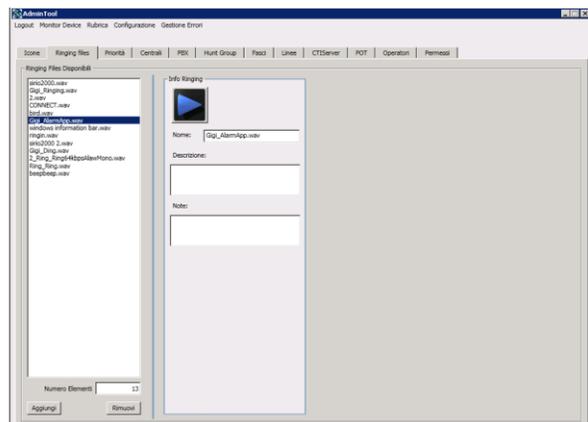
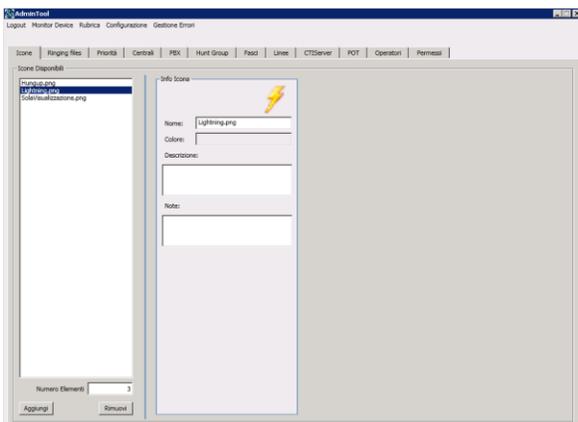
- icons
- ringing tones
- personal queues
- positions
- agents

To access the CTI admin tool a valid user/password must be used; once logged in, the “Configuration” menu provides administrators with all relevant functionalities to complete the CTI setup.



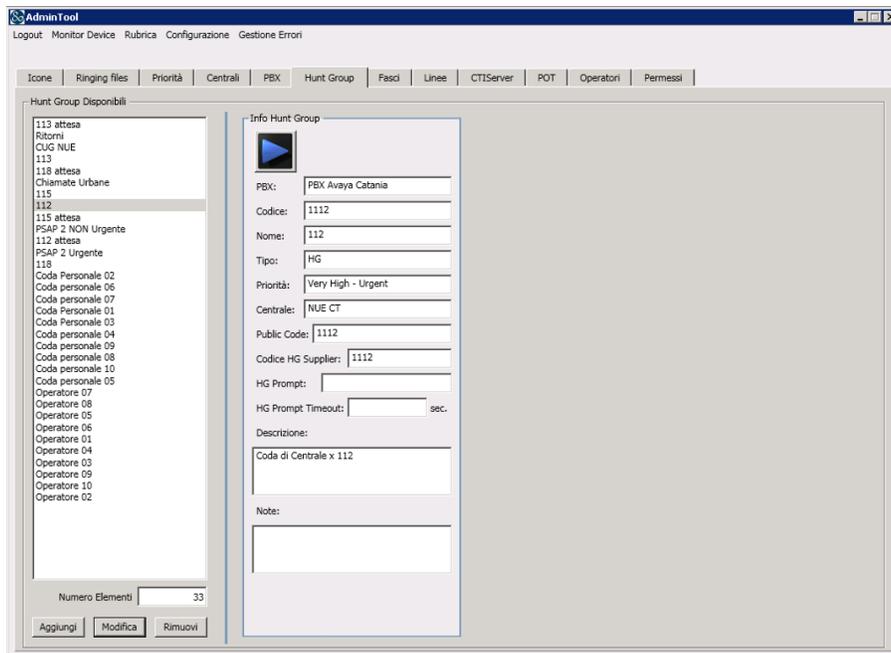
7.1. Configuration of icons and ringing tones

PSAP admins can define incoming calls icons and ringing tones; the configuration is performed via the relevant tab of emma / iO CTI admin interface



7.2. Personal queues configuration

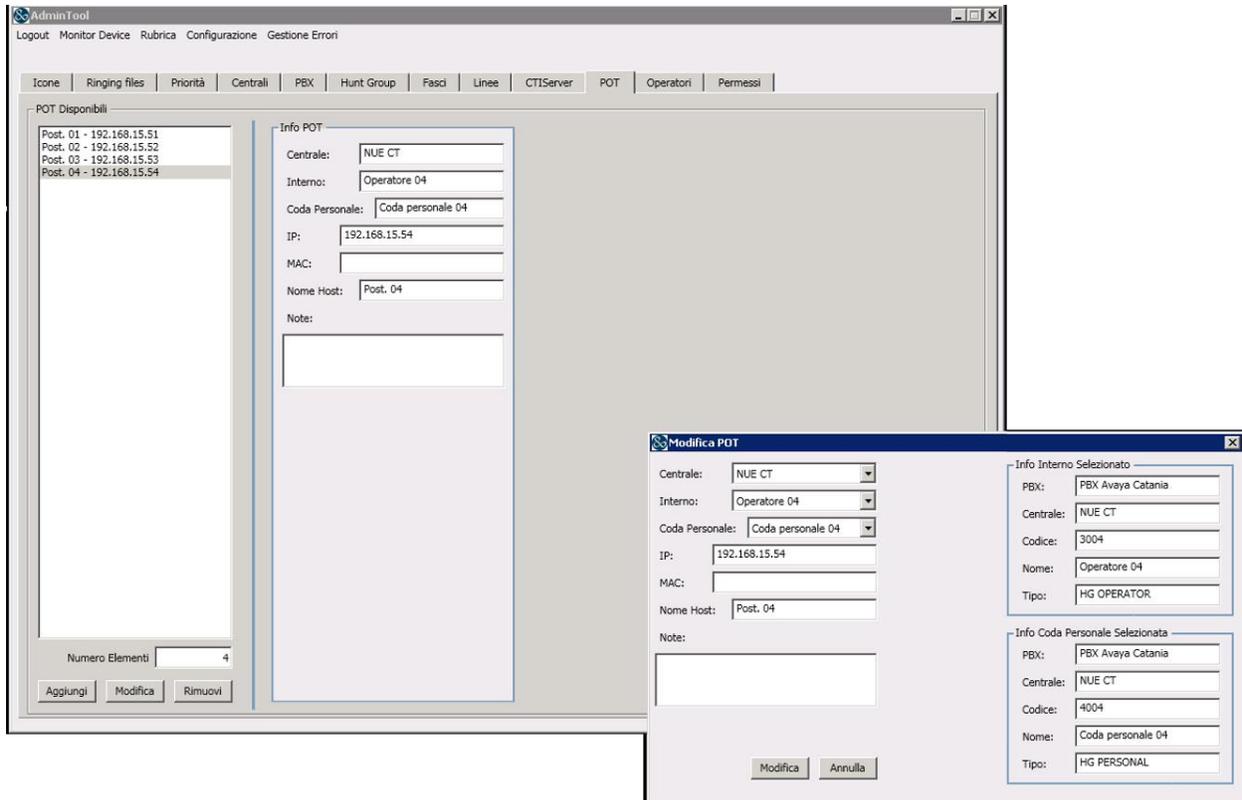
Agents' personal queues are configured as follows:



Each queue is associated with the monitored VDN configured on Communication Manager.

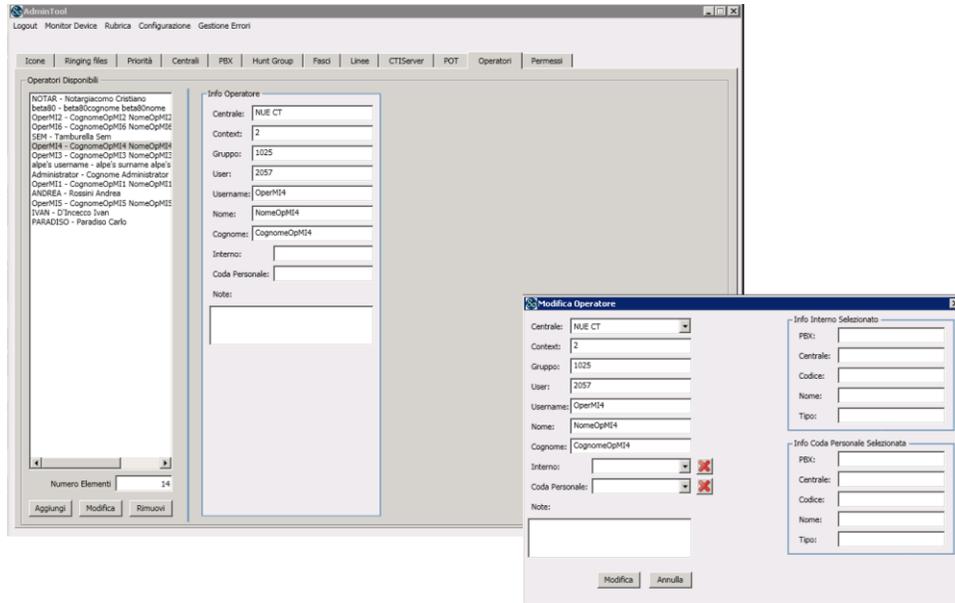
7.3. Positions configuration

The following picture presents how to configure PSAP positions within the CTI admin tool; this configuration also includes the definition of the agent's personal queue.



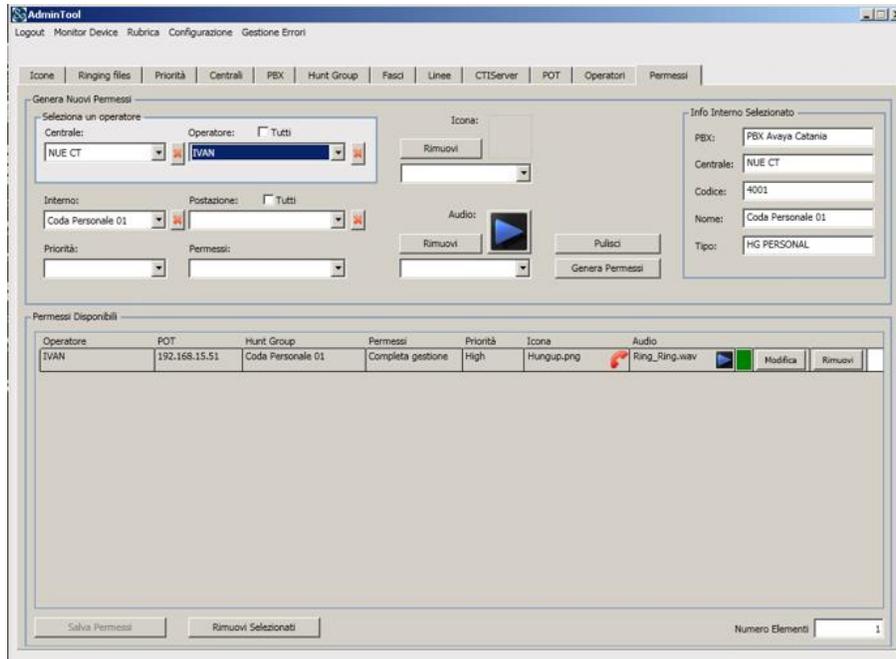
7.4. Phone bar users definition

Each agent is registered in the system as a named user.



7.5. Agents profiling

Each agent or position is assigned a personal queue, a ringing tone and an incoming call icon



8. Verification Steps

This section provides the tests that can be performed to verify correct configuration of the Avaya and the Beta80 CAD CTI solution.

8.1. Verify Avaya Aura® Communication Manager CTI Service State

The following steps can validate that the communication between Communication Manager and AES is functioning correctly. Check the AESVCS link status with AES by using the command **status aesvcs cti-link**. Verify the **Service State** of the CTI link is **established**.

```
status aesvcs cti-link
```

AE SERVICES CTI LINK STATUS						
CTI Link	Version	Mnt Busy	AE Services Server	Service State	Msgs Sent	Msgs Rcvd
1	4	no	aes71678	established	18	18

8.2. Verify TSAPI Link and DMCC

This section will verify both the TAPI and DMCC links between the AES and Communication Manager.

8.2.1. Verify TSAPI Link

On the AES Management Console verify the status of the TSAPI link by selecting **Status** → **Status and Control** → **TSAPI Service Summary** to display the **TSAPI Link Details** screen. Verify the status of the TSAPI link by checking that the **Status** is **Talking** and the **State** is **Online**.

AE Services

- Communication Manager Interface
- High Availability
- Licensing
- Maintenance
- Networking
- Security
- Status**
 - Alarm Viewer
 - Log Manager
 - Logs
 - Status and Control**
 - CVLAN Service Summary
 - DLG Services Summary
 - DMCC Service Summary
 - Switch Conn Summary
 - TSAPI Service Summary**

TSAPI Link Details

Enable page refresh every 60 seconds

Link	Switch Name	Switch CTI Link ID	Status	Since	State	Switch Version	Associations	Msgs to Switch	Msgs from Switch	Msgs Period
1	CM1627	1	Talking	Tue Jul 26 10:03:32 2016	Online	17	9	15	15	30

Online Offline

For service-wide information, choose one of the following:

TSAPI Service Status TLink Status User Status

8.2.2. Verify Avaya Aura® Application Enablement Services DMCC Service

The following steps are carried out on AES to validate that the communication link between AES and the CCP server is functioning correctly. Verify the status of the DMCC service by selecting **Status** → **Status and Control** → **DMCC Service Summary**. The **DMCC Service Summary – Session Summary** screen is displayed as shown below. It shows a connection to the CCP server, IP address **10.10.16.95**. The **Application** is shown as **cmapiApplication**, and the **Far-end Identifier** is given as the IP address **10.10.16.95** as expected.

- AE Services
- Communication Manager Interface
- High Availability
- Licensing
- Maintenance
- Networking
- Security
- Status**
 - Alarm Viewer
 - Log Manager
 - Logs
 - Status and Control**
 - CVLAN Service Summary
 - DLG Services Summary
 - DMCC Service Summary**

DMCC Service Summary - Session Summary

Please do not use back button

Enable page refresh every seconds

Session Summary [Device Summary](#)
Generated on Thu Jul 28 08:13:30 IST 2016

Service Uptime: 1 days, 22 hours 9 minutes
 Number of Active Sessions: 1
 Number of Sessions Created Since Service Boot: 4
 Number of Existing Devices: 6
 Number of Devices Created Since Service Boot: 18

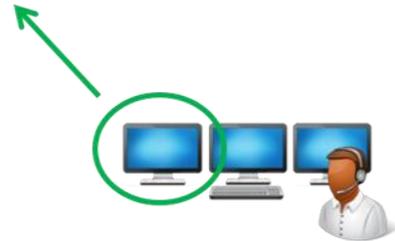
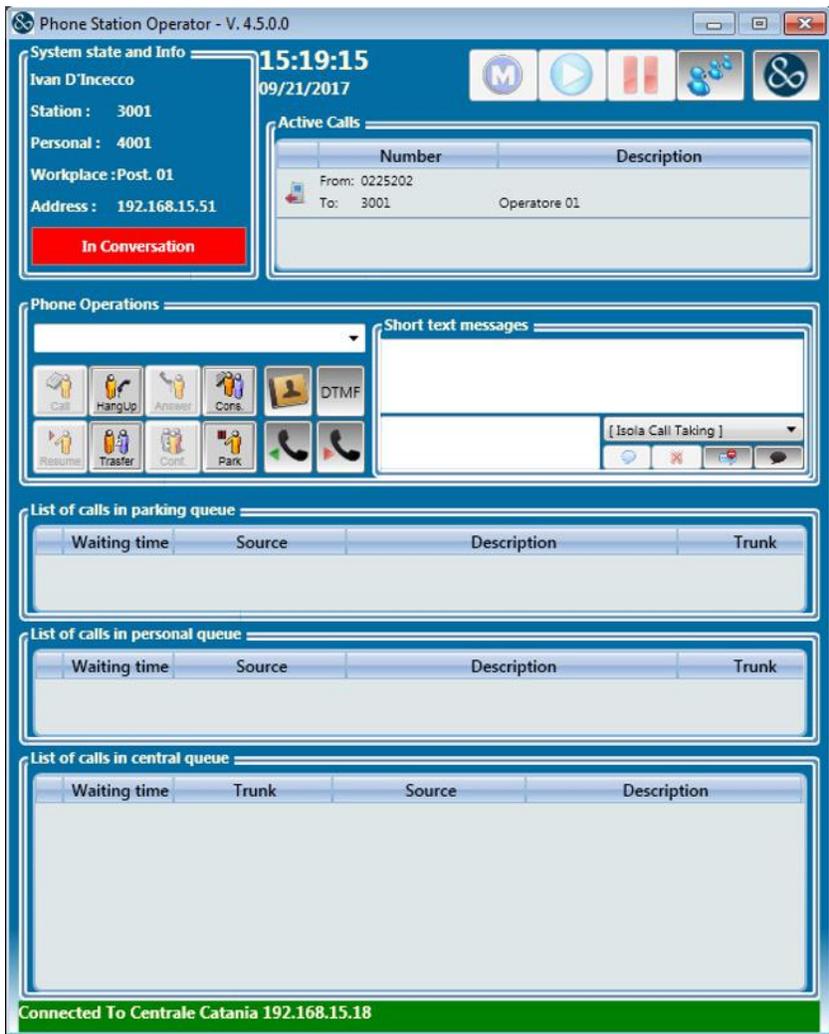
	Session ID	User	Application	Far-end Identifier	Connection Type	# of Associated Devices
<input type="checkbox"/>	55BB86290F3297363 1BAEC2FCC9517F9-3		cmapiApplication	10.10.16.95	XML Unencrypted	6

[Terminate Sessions](#) | [Show Terminated Sessions](#)

Item 1-1 of 1
 Go

8.3. Verify Beta 80 CAD CTI

The following shows that the CAD CTI Client (in mixed mode with the manual option set) is logged in and a call has been made and answered showing that the agent is **In Conversation**.



9. Conclusion

These Application Notes describe the configuration steps required for Beta80 CAD CTI to successfully interoperate with Avaya Aura® Communication Manager R7.0 using Avaya Aura® Application Enablement Services R7.0. All feature functionality and serviceability test cases were completed successfully as outlined in **Section 2.2**.

10. Additional References

This section references the Avaya and Beta80 product documentation that are relevant to these Application Notes.

Product documentation for Avaya products may be found at <https://support.avaya.com>.

[1] *Administering Avaya Aura® Communication Manager*, Document ID 03-300509

[2] *Avaya Aura® Communication Manager Feature Description and Implementation*, Document ID 555-245-205

Avaya Aura® Application Enablement Services Administration and Maintenance Guide Release 7.0

Product documentation for Beta80 can be obtained as follows:

- Email: sales@beta80group.com
- Website: www.beta80group.com

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