Avaya Solution & Interoperability Test Lab

Application Notes for a Telecommuter Mode on Amcom PhoneServer with Avaya Aura™ Communication Manager and Avaya Aura™ Application Enablement Services - Issue 1.0

Abstract

These Application Notes describe a compliance-tested configuration comprised of Avaya Aura™ Communication Manager, Avaya Aura™ Application Enablement Services, Avaya IP and Digital Telephones, and Amcom PhoneServer desktop application.

This is a re-test for a telecommuter Mode on Amcom PhoneServer with Avaya Aura™ Communication Manager and Avaya Aura™ Application Enablement Services.

Amcom PhoneServer allows a user to operate a physical telephone and view call and telephone display information through a graphical user interface (GUI). Amcom PhoneServer integrates with Amcom CTI Layer, which is a middleware between Amcom PhoneServer and Avaya Aura™ Application Enablement Services, to control and monitor phone states. During compliance testing, calls were successfully placed to and from Avaya IP and Digital Telephones that were controlled and monitored by Amcom PhoneServer.

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.

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1. Introduction

These Application Notes describe a compliance-tested configuration, which is the telecommuter mode using Amcom PhoneServer, with Avaya Aura™ Communication Manager, Avaya Aura™ Application Enablement Services, Avaya IP and Digital Telephones.

Amcom PhoneServer allows a user to operate a physical telephone and view call and telephone display information through a graphical user interface (GUI). Amcom PhoneServer integrates with Amcom CTI Layer, which is a middleware between Amcom PhoneServer and Application Enablement Services, to control and monitor phone states.

It is the Amcom CTI Layer service that actually uses the Application Enablement Services Device and Media Control Application Programming Interface (API) to share control of and monitor a physical telephone and receive the same terminal and first party call information received by the physical telephone. Amcom PhoneServer in turn uses the Amcom CTI Layer service to control and monitor a physical telephone. The PhoneServer applications regularly provide the Database server with call and lamp state information concerning the controlled telephones.

1.1. Interoperability Compliance Testing

In these Application Notes, only the telecommuter mode will be discussed. Refer [3] for normal CTI configuration.

1.2. Support

Technical support for the Amcom PhoneServer solution can be obtained by contacting Amcom:

- URL – http://www.amcomsoftware.com
- Phone – (888) 797-7487

2. Reference Configuration

Figure 1 illustrates the configuration used in these Application Notes. The sample configuration shows an enterprise with an Application Enablement Services server and Avaya S8300D Media Server with G450 Media Gateway. The PhoneServer was located in a different VLAN. Endpoints include Avaya 9600 Series H.323 IP Telephones. Avaya S8720 Servers with an Avaya G650 Media Gateway was included in the test to provide an inter-switch scenario.

Note: Basic administration of Application Enablement Services server is assumed. For details, see [2].

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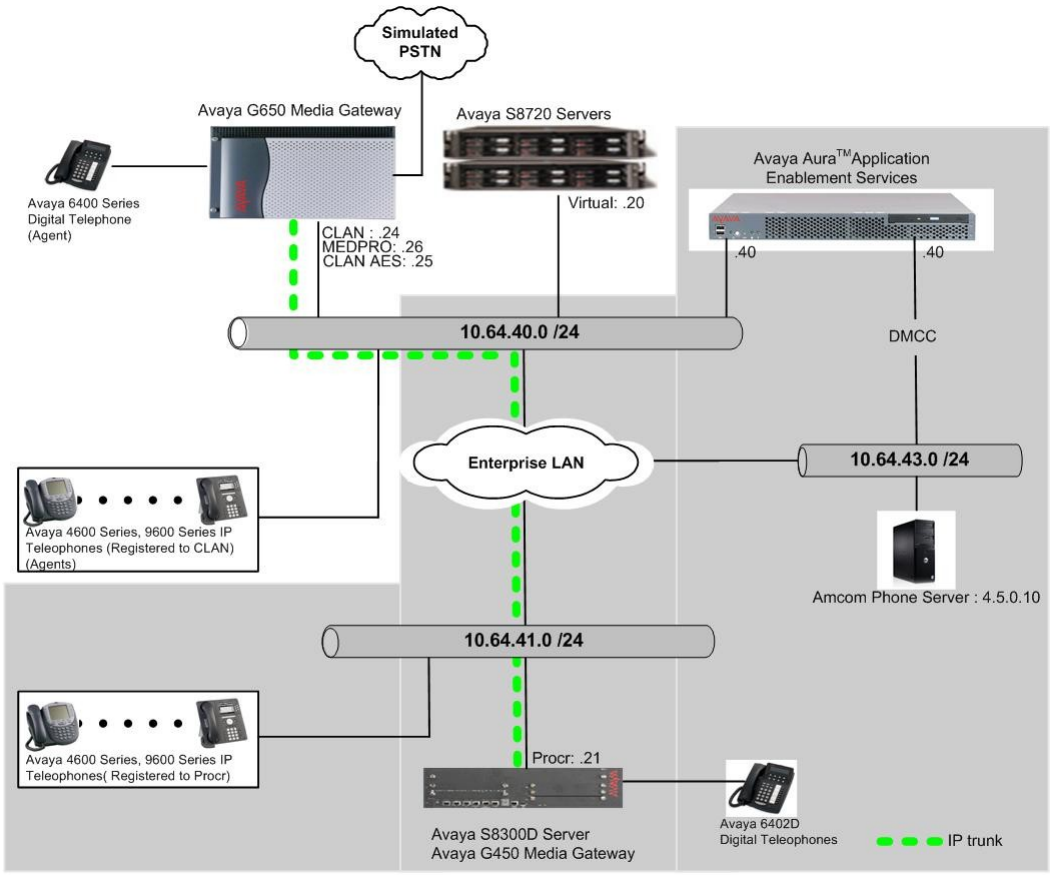

Figure 1: Amcom PhoneServer Test Configuration.

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3. Equipment and Software Validated

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

Equipment	Software/Firmware
Avaya S8300 Media Server with Avaya G450 Media Gateway	Avaya Aura™ Communication Manager 6.0 (R016x.00.0.345.0) with Patch 00.0345.0-18246
Avaya Aura™ Application Enablement Services Server	5.2.2 (r5-2-2-105-0)
Avaya S8720 Media Servers / Avaya G650 Media Gateway	Avaya Aura™ Communication Manager 5.2.1 (R015x.02.1.016.4)
Avaya 4625SW IP Telephone	2.5
Avaya 9600 Series IP Telephones	
9620 (H.323) 9630 (H.323) 9650 (H.323)	3.1 3.1 3.1
Avaya 6424D+ Digital Telephone	-
Avaya 2420 Digital Telephone	-
Amcom PhoneServer	4.5.0.10

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4. Configure Avaya Communication Manager

This section only describes procedures for setting up a telecommuter mode for Amcom PhoneServer. Refer [3] for configuring Communication Manager for the normal CTI configuration.

4.1. Configure Switch Hook Query Response Timeout

Enter the **change system-parameters feature**s command, and change the setting on the Switch Hook Query Response Timeout field under the Redirection on IP Connectivity Failure section, to **NULL**. The default value was set to 500.

```
change system-parameters features                              Page  14 of  19
                        FEATURE-RELATED SYSTEM PARAMETERS
 REASON CODES
                           Aux Work Reason Code Type: none
                             Logout Reason Code Type: none
                     Two-Digit Aux Work Reason Codes? n

 REDIRECTION ON IP CONNECTIVITY FAILURE
                  Switch Hook Query Response Timeout:
                     IP Failure Aux Work Reason Code: 0

 MAXIMUM AGENT OCCUPANCY PARAMETERS
                  Maximum Agent Occupancy Percentage: 100
      Maximum Agent Occupancy Aux Work Reason Code: 9
```

4.2. Configure Controlled Telephones

Enter the **change station r** command, where **r** is the extension of a registered, physical Avaya IP or Digital telephone. On **Page 1** of the **station** form, enter a phone Type, descriptive name, Security Code and set IP SoftPhone field to **y** to allow the physical station to be controlled by a softphone such as the PhoneServer application. The following screen shows a sample configuration of Avaya IP 9630 type station.

```
add station 72001                                              Page   1 of   5
                                    STATION

Extension: 72001                        Lock Messages? n               BCC: 0
     Type: 9630                         Security Code: 72001            TN: 1
     Port: S00021                     Coverage Path 1:                 COR: 1
     Name: Agent1 Phone               Coverage Path 2:                 COS: 1
                                      Hunt-to Station:
STATION OPTIONS
                                           Time of Day Lock Table:
             Loss Group: 2           Personalized Ringing Pattern: 1
           Data Option: none                     Message Lamp Ext: 72001
         Speakerphone: 2-way                Mute Button Enabled? y
       Display Language: english               Expansion Module? n

         Survivable COR: internal              Media Complex Ext:
   Survivable Trunk Dest? y                          IP SoftPhone? y
                                               Remote Office Phone? n
                                                IP Video Softphone? n
                                 Short/Prefixed Registration Allowed: default

                                               Customizable Labels? y
```


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On **Page 4 and 5** of the station form, enter the following BUTTON ASSIGNMENTS in addition to the call-appr (call appearance) buttons:

- auto-in
- aux-work
- abrv-dial – configure two of these buttons, one for Log In and one for Log Out, along with the Dial Codes from Abbreviated Dialing **List1** for ACD Login and Logout, respectively.
- after-call
- release (On Page 5)

```
add station 72001                                          Page   4 of   5
                                    STATION
 SITE DATA
      Room:                                            Headset? n
      Jack:                                            Speaker? n
     Cable:                                           Mounting: d
     Floor:                                       Cord Length: 0
   Building:                                        Set Color:

ABBREVIATED DIALING
     List1: personal 1         List2: group     1        List3: system




BUTTON ASSIGNMENTS
 1: call-appr                          5: auto-in              Grp:
 2: call-appr                          6: aux-work     RC:     Grp:
 3: call-appr                          7: abrv-dial  List: 2 DC: 01
 4: call-appr                          8: abrv-dial  List: 2 DC: 02

    voice-mail
```

```
add station 72001                                          Page   5 of   5
                                    STATION

FEATURE BUTTON ASSIGNMENTS

 9: release
```

Repeat the instructions provided in this section for each physical station that is to be controlled / monitored by an Amcom PhoneServer.

5. Configure Avaya Application Enablement Services

The Avaya Application Enablement Services server enables Computer Telephony Interface (CTI) applications to control and monitor telephony resources on Communication Manager.

This section assumes that installation and basic administration of the Application Enablement Services server has been performed. Refer [3] for configuring the normal CTI configuration.

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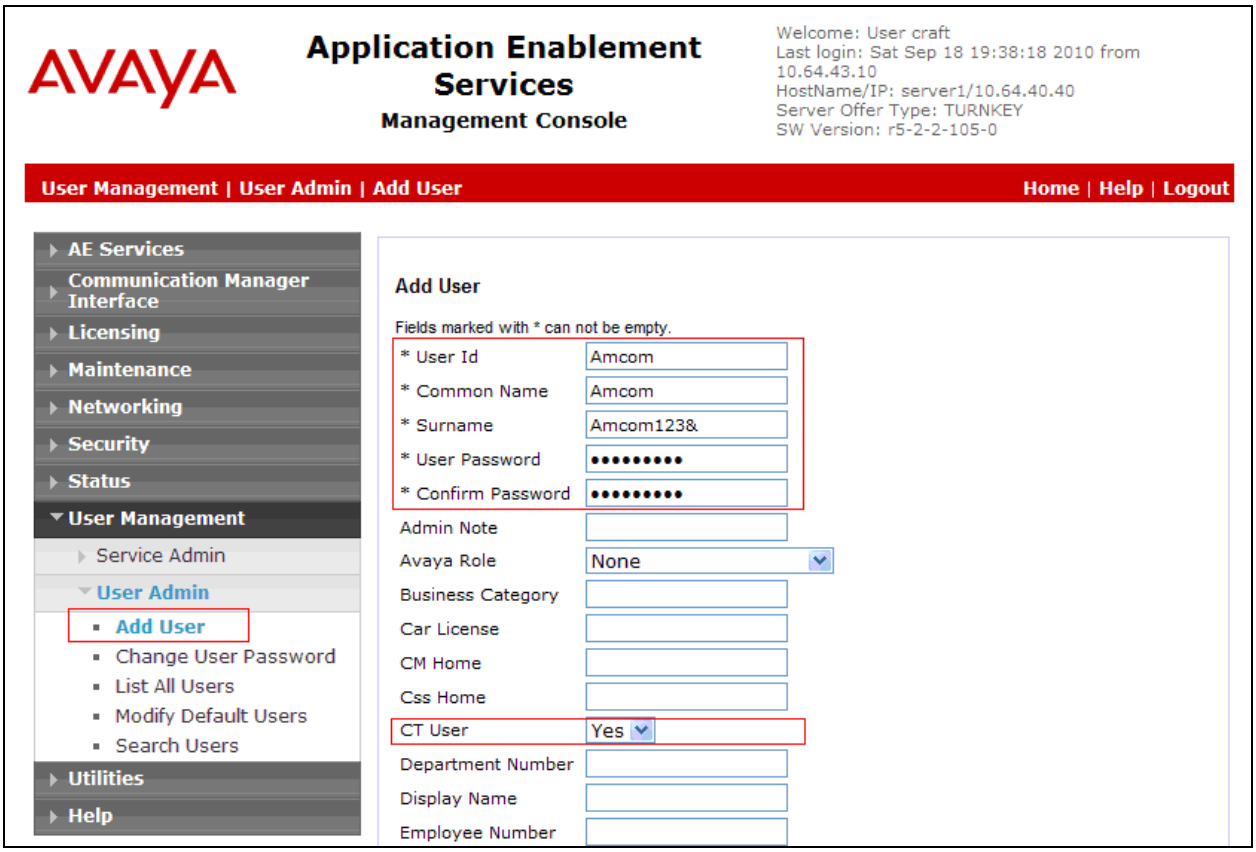
The steps in this section describe the configuration of a CTI user. Navigate to **User Management → User Admin → Add User** link from the left pane of the window. On the Add User page, provide the following information:

- User Id
- Common Name
- Surname
- User Password
- Confirm Password

The above information (User ID and User Password) must match with the information configured in the CTI Layer Configuration page in **Section 6**.

Select **Yes** using the drop down menu on the CT User field. This enables the user as a CTI user. Default values may be used in the remaining fields. Click the **Apply** button (not shown) at the bottom of the screen to complete the process.



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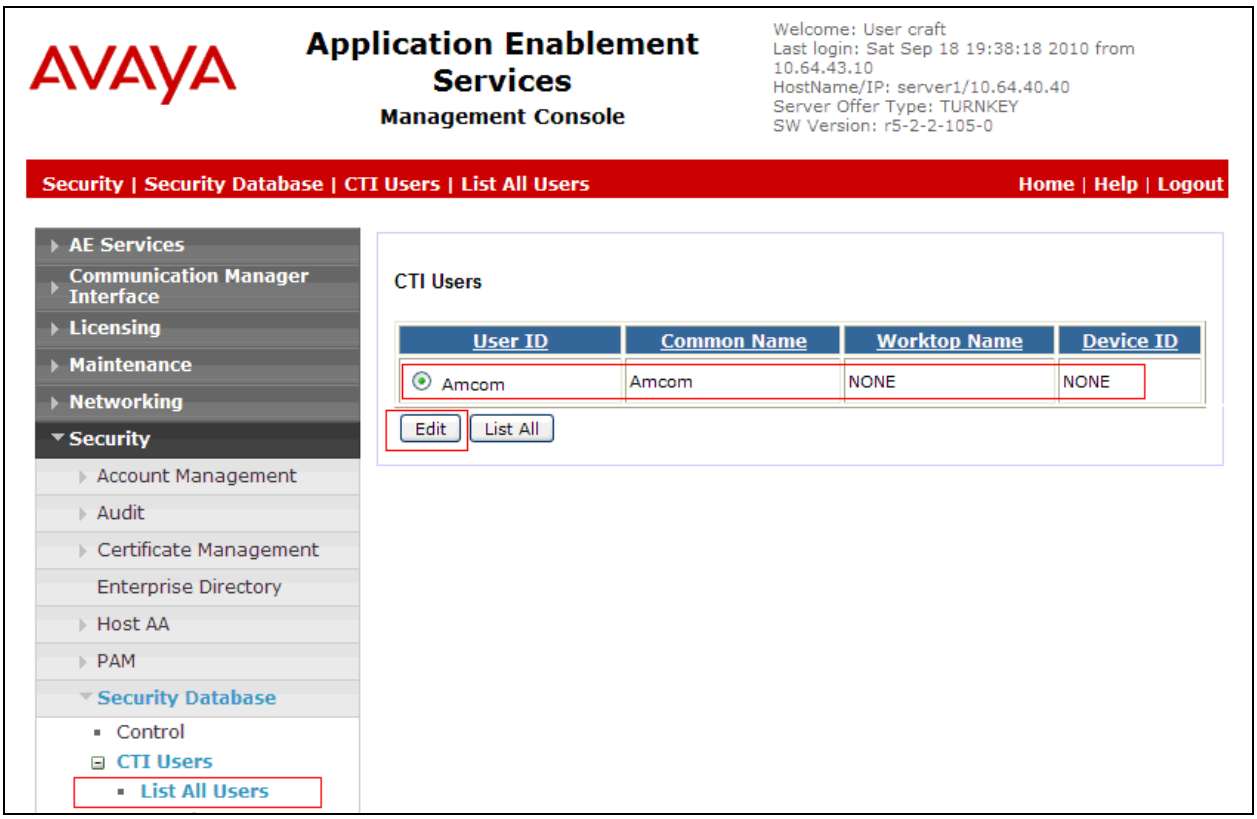
Once the user is created, navigate to the **Security → Security Database → CTI Users → List All Users** link from the left pane of the window. Select the User ID created previously, and click the **Edit** button to set the permission of the user.



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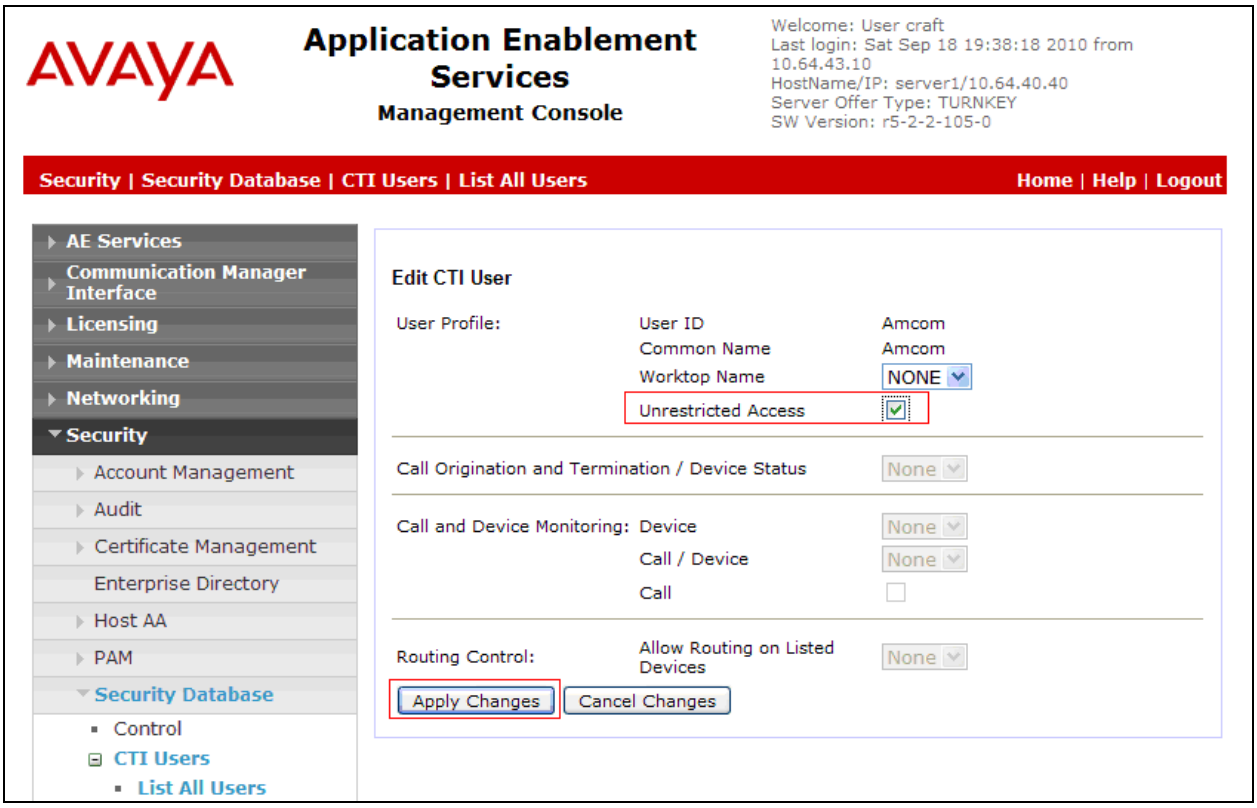
Provide the user with unrestricted access privileges by checking the **Unrestricted Access** button. Click on the **Apply Changes** button.



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6. Configure Amcom PhoneServer

Amcom installs, configures, and customizes the PhoneServer application for their end customers. The following screen shows the Amcom PhoneServer's initial setup page that is configured to interface with Application Enablement Services.
Provide the following information:

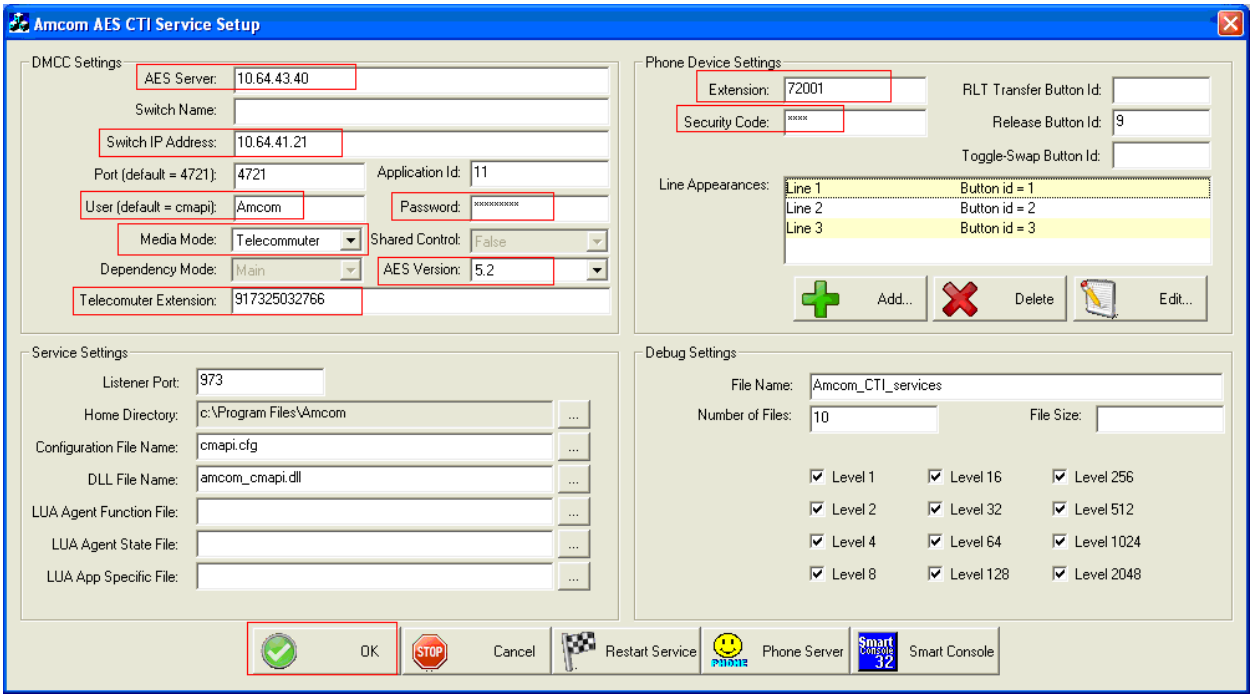
Under DMCC Settings section

- AES server – Enter the IP address of the AES server.
- Switch IP address – Enter the procr IP address.
- User (default =cmapi) – Enter the user created in **Section 5**.
- Password – Enter the password created in **Section 5**.
- AES Version – Select **5.2** using the drop-down menu.
- Media Mode – Select **Telecommuter** using the drop-down menu.
- Telecommuter Extension – Enter the telecommuter extension.

Under the Phone Device Settings section

- Extension – Enter the physical controlled station, created in **Section 4.2**.
- Security Code – Enter the security code, created in **Section 4.2**.

Click on the **OK** button.



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7. General Test Approach and Test Results

The general approach was to exercise the telecommuter mode on Amcom PhoneServer using Communication and Application Enablement Services. The main objectives were to verify that:

- Inbound calls to the telecommuter station.
- Outbound calls from the telecommuter station.
- Hold/unHold on the telecommuter station using Amcom PhoneServer.
- Transfer (blind) calls on the telecommuter station using Amcom PhoneServer.
- Transfer (consult) calls on the telecommuter station using Amcom PhoneServer.
- Conference (blind) calls on the telecommuter station using Amcom PhoneServer.
- Conference (consult) calls on the telecommuter station using Amcom PhoneServer.
- Phone state on Amcom PhoneServer: Idle, ringing and answered state.
- Agent state on the telecommuter station: log In, Log out, Aux Work, Auto-In.
- Agent state on Amcom PhoneServer: Idle, ringing and answered state.

The objectives of **Section 7** were verified.

8. Verification Steps

The following steps may be used to verify the configuration:

- From the Amcom client computers, ping IP interfaces, in particular the Application Enablement Services server, and verify connectivity.
- For the physical IP telephones, verify that the physical telephones are registered by using the **list registered-ip-stations** command on the SAT. For the physical Digital telephones, verify that the telephones are attached to the correct ports.
- Go off-hook and on-hook on the controlled telephones manually and using PhoneServer, and verify consistency.
- Place and answer calls from the controlled telephones manually and using PhoneServer, and verify consistency.

9. Conclusion

These Application Notes described a compliance-tested configuration comprised of Communication Manager, Application Enablement Services, Avaya IP and Digital Telephones, and the Amcom PhoneServer application. The telecomuter mode using Amcom PhoneServer was compliance tested and successfully verified.

10. Additional References

Product documentation for Avaya products may be found at http://support.avaya.com.

[1] *Administering Avaya Aura™ Communication Manager*, Issue 6.0, June 2010, Document Number 03-300509

[2] *Avaya Aura™ Application Enablement Services Administration and Maintenance Guide*, Release 5.2, Issue 11, November 2009, Document Number 02-300357

[3] Application Notes for the Amcom Smart Console with Avaya Aura™ Communication Manager and Avaya Aura™ Application Enablement Services

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