Abstract

These Application Notes describe the procedure for configuring Computer Instruments Screen Pop Premium to integrate with Avaya Aura® Application Enablement Services to monitor and control Avaya 9600 series telephones.

Computer Instruments Screen Pop Premium is a client/server system that allows users to manage and track information related to a particular caller (ANI). SPP can keep track of callers contact information, document history, emails, and appointments.

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 procedure for configuring Computer Instruments Screen Pop Premium to interoperate with Avaya Aura® Application Enablement Services. Screen Pop Premium is a client/server system that allows users to manage and track information related to a particular caller (ANI). When a call comes to a user via the SPP screen pop, a collection of data is made available for that caller. The data is sent to the client PC as part of the call notification. Information collected and stored includes document and call history. All documents that have been associated with the caller are made readily available to the user the moment the call is received. In addition, the Outlook integration organizes emails and appointments associated with the caller so that the user can easily find information. The client program communicates with the SPP server via a socket connection, and the server interacts with the TSAPI client to both receive events and initiate call functions.

These Application Notes assume that the pre-requisites in Section 5 have been met prior to configuring the Avaya Application Enablement Services. Only steps relevant to this compliance test are described in this document.

2. General Test Approach and Test Results

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.

2.1. Interoperability Compliance Testing

The general test approach included verification of a successful integration of the SPP server application with Application Enablement Services and Avaya 9600 Telephones. Modifications were made using the SPP client GUI and verified by placing calls to the configured extensions associated with the SPP application.

The following scenarios were used to verify SPP functionality:
- Inbound calls
- Hold / Resume
- Call termination (origination/destination)
- Buddy Transfer
- Contact Information
- Document History
- Emails
- Appointments
2.2. Test Results

Computer Instruments SPP successfully passed the compliance testing.

2.3. Support

Technical support for the SPP solution can be obtained by contacting Computer Instruments:
- URL – support@instruments.com
- Phone – (888) 451-0851 and option 2

3. Reference Configuration

Figure 1 illustrates the reference configuration used during testing. In the reference configuration, the SPP application was integrated with Avaya Aura® Application Enablement Services and Avaya 9600 IP Telephones. Configuration for the SPP application was performed using the SPP client GUI and verification was done by placing calls to the associated extensions. Calls were placed both internally and externally, along with email, contact, and document verification.

Figure 1: Test Configuration of SPP
4. Equipment and Software Validated

The following equipment and software were used for the test configuration.

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Software/Firmware</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Avaya PBX Products</strong></td>
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</tr>
<tr>
<td>Avaya S8300D Server running Avaya Aura®</td>
<td>Avaya Aura® Communication Manager 6.0.1 with SP5.0.1(Patch 19303)</td>
</tr>
<tr>
<td>Communication Manager</td>
<td></td>
</tr>
<tr>
<td>Avaya G450 Media Gateway</td>
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<td>MGP</td>
<td>HW 2 FW 31.20.0</td>
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<tr>
<td>MM710 T1 Module</td>
<td>HW 5 FW 22</td>
</tr>
<tr>
<td>MM711 Analog Module</td>
<td>HW 23 FW 73</td>
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<tr>
<td>MM712 DCP Media Module</td>
<td>HW 7 FW 14</td>
</tr>
<tr>
<td>MP80 VoIP-DSP</td>
<td>HW 6 FW 67</td>
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<td><strong>Avaya Aura® Session Manager</strong></td>
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<td>Avaya Aura® Session Manager HP Proliant</td>
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<td><strong>Avaya Aura® Application Enablement Services</strong></td>
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<td><strong>Avaya Telephony Sets</strong></td>
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</tr>
<tr>
<td>Avaya 96xx Series IP Telephones</td>
<td>(H.323 3.1SP2), (SIP 2.6.6.0)</td>
</tr>
<tr>
<td>Avaya 96x1 Series IP Telephones</td>
<td>(H.323 S6.010f), (SIP 6.0.3)</td>
</tr>
<tr>
<td><strong>CII Screen Pop Premium (SPP)</strong></td>
<td></td>
</tr>
<tr>
<td>Windows Server 2008 R2 Enterprise SP1 VM Ware Virtual Machine</td>
<td></td>
</tr>
</tbody>
</table>

5. Pre-requisite Configuration

The following components must be installed and running in order for the SPP application to function properly. This configuration should be done by the CII support team.

- eCI Server must be installed and enabled as a Windows service on the server machine.
  deployed
6. Configure Avaya Aura® Application Enablement Services

This section describes the Application Enablement Services configuration to support the network shown in Figure 1.

Configuration of Application Enablement Services was performed using a web browser.

Application Enablement Services configuration includes the following:
- Communication Manager Interface
- AE Services
- User Management
- Security

6.1. Communication Manager Interface

From a PC open a web browser and enter the URL for Application Enablement Services and login with the proper credentials.
Upon successful login, the following page should be displayed. From the left pane select 
Communication Manager Interface → Switch Connections.
Add a name for the connection and click the **Add Connection** button.
Enter the password for connecting to the Communication Manager.

Note: This password is configured on the ip-services form in Communication Manager.

Click Apply.
You should now see your new entry in the list.

From the list select your new connection and click the **Edit PE/CLAN IPs** button.
Enter the IP Address or FQDN of the Communication Manager and click the **Add Name or IP** button.
6.2. AE Services TSAPI Links

From the left pane select AE Services → TSAPI → TSAPI Links.

Click the Add Link button.
Select a number from the **Link** pull-down box to identify this link.

Select the connection configured in **Section 6.1** from the **Switch Connection** pull-down box.

Select the **Switch CTI Link Number** that corresponds to the CTI link number on the Communication Manager.

Remaining fields can use the default settings.

Click **Apply Changes**.

**Note:** Addition of a TSAPI link requires a restart of the TSAPI server. Follow on-screen instructions after applying changes to restart. (Not Shown)
6.3. User Management

From the left pane select User Management → User Admin → Add User.

Enter data for the required fields marked with an asterisk and select Yes for CT User. The User Id field will be used by the SPP Application server when connecting to Application Enablement Services.
6.4. Security
During the compliance test Unrestricted Access was allowed for the CTI User. Actual deployments may have a more detailed security policy.

From the left pane select **Security Database → CTI Users → List All Users**.

Select the desired user and click the **Edit** button.
In the **User Profile** section check the **Unrestricted Access** box.

Click **Apply Changes**.

### 7. Configure Screen Pop Premium

This section describes the Screen Pop Premium configuration to support the network shown in **Figure 1**.

#### 7.1. Configure Server

Configuration of the Screen Pop Premium server was performed CII support personnel.

#### 7.2. Configure Client

SPP Client GUI configuration includes the following:

- Start Client
- Configure Server Information
  - Server IP Address
  - My Extension
  - User ID
  - Minimum digits needed for pop-up
Connect to Server

7.2.1. Start Client
On the Windows SPP Client PC double-click the NACT Client desktop shortcut (Not Shown) to start the client application. This action loads the SPP client into the Windows system tray (Not Shown).
7.2.2. Configure Server Information

From the Windows system tray, right-click the NACT Client icon and select Configuration (Not Shown) The following configuration window should be displayed:

Enter the Server IP Address of the SPP Server, a valid extension for the SPP Client to monitor in the My Extension field, and a User ID.

Default values for the remaining fields are acceptable.

Click Save.

Note: If Minimum digits needed for pop-up is left blank it will default to 5 after saving.

Note: After clicking the Save button click OK when you see the following warning.

Could not save configuration to server. Check connection status
7.2.3. Connect to Server
From the Windows system tray right-click the NACT Client icon and select Connect (Not Shown)

From the Windows system tray right-click the NACT Client icon and select Configuration (Not Shown) The following configuration window should be displayed:

Verify the information in the Configuration window and click Save. Now that the client is connected to the server the configuration will be saved without a warning.
8. Verification Steps
The following steps may be used to verify proper configuration between Avaya Application Enablement Services and SPP.

8.1. Verify Avaya Aura® Application Enablement Services
From the Application Enablement Services Management Console select Status → Status and Control → TSAPI Service Summary. Verify that the Status is Talking, State is Online, and the number of Associations corresponds to the devices being monitored.
8.2. Verify Screen Pop Premium

8.2.1. SPP Client Connection
From the Windows system tray right-click the NACT Client icon and select Status (Not Shown). The following Status window should be displayed:

8.2.2. SPP Functionality
Place calls to the monitored extension and verify the screen-pop.
9. Conclusion
Computer Instruments Screen Pop Premium passed compliance testing. These Application Notes describe the procedures required to configure Computer Instruments SPP to interoperate with Avaya Aura® Application Enablement Services to support the reference configuration shown in Figure 1.

10. Additional References
The following Avaya product documentation can be found at http://support.avaya.com


CII product documentation can be found at http://www.instruments.com/support/index.html
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