Abstract

These Application Notes describe the configuration steps required for Scantalk TeamView Unified Operator to successfully interoperate with Avaya Communication Manager and Avaya Application Enablement Services (AES).

TeamView Unified Operator is the switchboard operator module of the TeamView Application Suite, and supports the attendant with call information from the Avaya AES.

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 for Scantalk TeamView Unified Operator to successfully interoperate with Avaya Communication Manager and Avaya Application Enablement Services (AES).

TeamView Unified Operator is part of the TeamView Application Suite which provides switchboard users with information about different sources, including:

- PBXs, via Computer Telephony Integration (CTI).
- Directory information, via Microsoft Active Directory and LDAP.
- Calendar Information, via Microsoft Exchange and Lotus Notes.

TeamView Unified Operator is a switchboard operator application which, using the Telephony Services Applications Programmers Interface (TSAPI) of Avaya AES, allows an attendant to monitor, and manipulate calls and devices.

TeamView Unified Operator can also be used to log in as an Avaya Communication Manager Elite Agent (using TSAPI functions).

Figure 1 shows the compliance tested configuration.

![Network Diagram](image-url)
2. Equipment and Software Validated

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

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Software</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avaya S8720 Servers</td>
<td>Avaya Communication Manager 5.0</td>
</tr>
<tr>
<td></td>
<td>Build 5.0.00.825.4</td>
</tr>
<tr>
<td>Avaya S8500C Server</td>
<td>Avaya AES 4.1 (Build 4.1.0.31.2)</td>
</tr>
<tr>
<td>Avaya G650 Media Gateway</td>
<td></td>
</tr>
<tr>
<td>C-LAN TN799DP</td>
<td>HW01 FW024</td>
</tr>
<tr>
<td>MEDPRO TN2602AP</td>
<td>HW08 FW031</td>
</tr>
<tr>
<td>Avaya 4600 Series IP Telephones (H.323)</td>
<td>2.8</td>
</tr>
<tr>
<td>Avaya 9600 Series IP Telephones (H.323)</td>
<td>1.5</td>
</tr>
<tr>
<td>Dell Precision 370 Workstations</td>
<td>Microsoft Windows XP Professional – SP2</td>
</tr>
<tr>
<td></td>
<td>Scantalk TeamView Unified Operator 1.1.5.199</td>
</tr>
</tbody>
</table>

3. Configure Avaya Communication Manager

This section provides the procedures for configuring Avaya Communication Manager using the System Access Terminal (SAT) interface.

Please note that it is expected that the installer is familiar with configuring stations, agents, vectors, VDNs, etc. on Avaya Communication Manager as the focus of these Application Notes is on the configuration of the TSAPI interface only. For all other provisioning information, such as software installation, installation of optional components, basic configuration of Avaya Communication Manager, etc., refer to the Avaya Communication Manager product documentation in reference [1].

This section assumes that the Internet Protocol (IP) service to the Avaya AES was previously administered. Information on how to do this is available in the Avaya AES product documentation in reference [2].

Use the “add cti-link x” command, where “x” is an available CTI link number, to add a new CTI link. Enter an available extension number in the Extension field. Note that the CTI link number and extension number may vary. Enter “ADJ-IP” in the Type field, and a descriptive name in the Name field. The remaining fields may be left at their default values. Submit these changes.

```
add cti-link 3
CTI Link: 3
Extension: 13300
Type: ADJ-IP
Name: TSAPI CTI Link 3
```
4. Configure Avaya AES

This section provides the procedures for configuring Avaya AES. The procedures fall into the following areas:

- Verify Avaya AES licensing.
- Administer TSAPI link.
- Configure CTI User.
- Configure SMS.

Basic configuration related to the switch connection between Avaya Communication Manager and Avaya Application Enablement Services is assumed to have been established.

4.1. Verify Avaya AES Licensing

Initialise the AES OAM web interface by browsing to “http://x.x.x.x/8443/MVAP/index.jsp”, where “x.x.x.x” is the IP address of the AES, and log in (not shown). From the OAM Home screen, select **CTI OAM Administration** (not shown) to bring up the CTI OAM Home menu. Verify the TSAPI and SMS services are licensed at the Welcome to CTI OAM Screens screen by ensuring that “TSAPI” and “SMS” are in the list of services in the License Information section.
4.2. Administer TSAPI link

From the CTI OAM Home menu, select Administration > CTI Link Admin > TSAPI Links. On the TSAPI Links screen, click Add Link.

On the Add/Edit 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 being used from the drop-down list.
- **Switch CTI Link Number**: Corresponding CTI link number configured in Section 3.

Once completed, click Apply Changes.

On the Apply Changes to Link screen, click Apply.
4.3. Configure the CTI User

Initialise the AES OAM web interface (see Section 4.1) and select User Management (not shown). From the User Management Home menu, select User Management > Add User and configure the following fields.

- **User Id:** Enter a login name to be used by TeamView Unified Operator to access the AES.
- **Common Name:** A descriptive name.
- **Surname:** A descriptive name.
- **User Password:** Enter a password to be used by TeamView Unified Operator to access the AES.
- **Confirm Password:** Re-enter the password.
- **Avaya Role:** Use the default value of “None”.
- **CT User:** Select “Yes” from the drop down list.

The remaining fields may be left at their default values. Once completed, click on Apply (not shown) at the bottom of the screen.
5. Configure Scantalk TeamView Unified Operator

This section provides the procedures for configuring Scantalk TeamView Unified Operator.

Please note that it is expected that the installer is familiar with installation and basic configuration of Scantalk TeamView Unified Operator as the focus of these Application Notes is on the configuration of the TSAPI interface only. For all other provisioning information, such as software installation, installation of optional components, basic configuration of Scantalk TeamView Unified Operator, etc., refer to the Scantalk TeamView Unified Operator product documentation in reference [3].

Select Start > Programs > TeamView > Unified Operator > Unified Operator (M). Ignore any warning messages at this stage. On the TeamView Unified Operator screen select the icon on the taskbar.
On the Configuration screen, select the **Settings** tab, configure the fields as follows.

- **LINK:** Enter the Avaya AES Tlink. This can be found from the AES CTI OAM web interface by selecting **Administration > Security Database > Tlinks**.
- **User:** Enter the Avaya AES CTI user administered in **Section 4.3**.
- **Pass:** Enter the password of the AES CTI user.
- **Extension:** Enter the Avaya Communication Manager station extension number of the phone to be controlled by this instance of TeamView Unified Operator.
- **Prefix:** Enter the Avaya Communication Manager ARS feature access code.

![Configuration screen](image)

Select the **Agent** tab, and configure the fields as follows:

- **Agent:** Enter the Avaya Communication Manager agent login id.
- **Password:** Enter the password (if any) of the Avaya Communication Manager agent login id.

The rest of the fields may be left at their default values. Once completed, select **OK**.

![Agent configuration](image)
6. Interoperability Compliance Testing
The interoperability compliance test included feature and serviceability testing.

The feature testing focused on verifying that Scantalk TeamView Unified Operator can use the TSAPI protocol to request and respond to Avaya Communication Manager features.

The serviceability testing focused on verifying the ability of the Scantalk TeamView Unified Operator to recover from an outage condition, such as busying out the CTI link and disconnecting the Ethernet cable for the CTI link.

6.1. General Test Approach
All feature and serviceability test cases were performed manually. The verification included checking proper states at the telephone sets, and viewing the states shown on the Scantalk TeamView Unified Operator application.

6.2. Test Results
All test cases were executed and passed.

7. Verification Steps
This section provides the tests that can be performed to verify proper configuration of Avaya Communication Manager, AES, and Scantalk TeamView Unified Operator.

7.1. Verify Avaya Communication Manager
Verify the status of the administered CTI link by using the “status aesvcs cti-link” command. The Service State should show as “established”.

```
status aesvcs cti-link

AE SERVICES CTI LINK STATUS

CTI Link  Version  Mnt  AE Services  Service  Msgs  Msgs
         Busy  Server     State  Sent  Rcvd
3        4      no    AEServer  established  216   210
```
7.2. Verify Avaya Application Enablement Services
From the CTI OAM Home menu, verify the status of the administered CTI link by selecting Status and Control > Switch Conn Summary. The Conn State should show “Talking”.

![Application Enablement Services](image)

7.3. Verify Scantalk TeamView Unified Operator
This section assumes that the TeamView Unified Operator application has had directory entries manually added to it (see TeamView documentation in reference [3] for information on how to do this).

Open the Unified Operator application. Call the extension number associated with the application. Use the “+” key on the keyboard to answer the call. Verify that the application shows the correct information. In the example below extension 10009 called extension 10001 which was being controlled by the application and was logged into agent ID 15001.
8. Conclusion
These Application Notes describe the configuration steps required for Scantalk TeamView Unified Operator to successfully interoperate with Avaya Communication Manager and Avaya AES.

9. Additional References
This section references the product documentation that is relevant to these Application Notes.

[1] *Administrator Guide for Avaya Communication Manager*,
Doc ID: 03-300509, Issue 4, January 2008, available at:
http://support.avaya.com

Doc ID: 02-300357, Issue 9, February 2008, available at:
http://support.avaya.com

[3] TeamView Unified Operator product documentation is available on request from Scantalk.
http://www.scantalk.com
sales@scantalk.com