

Avaya Solution & Interoperability Test Lab

Application Notes for DATEL Software Solution Call SWEET! Live with Avaya Aura Communication Manager and Avaya Aura Application Enablement Services

– Issue 1.0

Abstract

These Application Notes describe the configuration steps required for Call SWEET! Live to interoperate with Avaya Aura TM Communication Manager and Avaya Aura Application Enablement Services. Call SWEET! Live is a web-based contact center management solution. Call SWEET! Live uses real-time data from Communication Manager to monitor and produce reports on phone activity for agents and ACD/split groups.

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 in Westminster, Colorado.

1. Introduction

DATEL Software Solution's Call SWEET! Live is a web-based contact center management solution. Call SWEET! Live uses real-time data from Avaya Aura TM Communication Manager to monitor and produce reports on phone activity for agents and ACD/split groups. It enables users to design personalized homepages from a collection of widgets and alarms, to capture and report on real-time call center dynamics and provide historical reports on specific activities over time.

The interoperability of Call SWEET! Live Version 2.0 with Avaya AuraTM Communication Manager is accomplished through Avaya AuraTM Application Enablement Services. These Application Notes describe the compliance test configuration used to test Call SWEET! Live Version 2.0, with Avaya S8300 Server and an Avaya G350 Media Gateway.

1.1. Interoperability Compliance Testing

The Compliance testing focused on the following areas:

- Installation & Configuration
- Call SWEET! Live/Avaya Feature Functionality Verification
- Failover and Serviceability Tests

The installation and configuration testing focused on the setup of all components and the ability to interoperate. It also covered the ability to remove the application from the Call SWEET! Live server.

The functionality testing focused on verifying Call SWEET! Live's ability to receive and parse real-time data from Communication Manager, and the use of the data in various widget and alarm reports as well as the production of historical reports.

The serviceability testing focused on verifying the ability of Call SWEET! Live to recover from and report on adverse conditions.

1.2. Support

Technical support on Call SWEET! Live can be obtained through the following:

• **Phone:** (724) 744-1380

• Email: support@datel-group.com

2. Reference Configuration

The interoperability of Call SWEET! Live Version 2.0 with Communication Manager is accomplished through Application Enablement Services. The compliance test configuration used to test Call SWEET! Live Version 2.0 includes the Avaya S8300 Server, the Avaya G350 Media Gateway, Application Enablement Services, Windows 2003 Server, and telephones. **Figure 1** provides a high level topology.

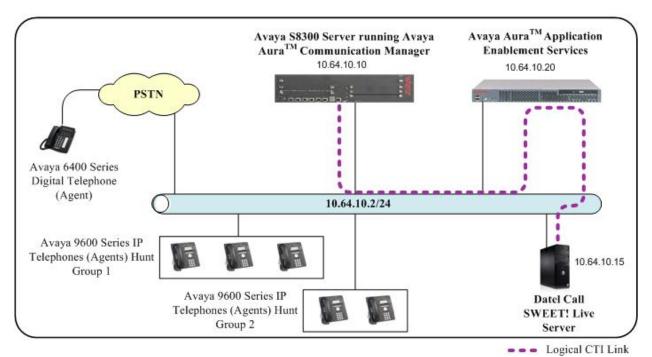


Figure 1: Call SWEET! Live Compliance Test Sample Configuration

3. Equipment and Software Validated

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

Hardware/Software Component	Version/Description
Avaya S8300 Server and G350 Media Gateway	Avaya Aura TM Communication Manager 5.2 (R015x.02.0.947.3) with Service Pack 17534
Avaya Aura [™] Application Enablement Services	Release 4.2.3
Avaya 9600 Series IP Telephones	9620, 9630, 9640 H.323 Avaya One-X Terminals R2.0
DATEL Software Solution's Call SWEET! Live running on Windows 2003 Server	Version 2.0 with Windows IIS Services 5.1, .NET Framework 3.5, and Internet Explorer 6.0

4. Configure Avaya Aura[™] Communication Manager

All the configuration changes in this section for Communication Manager are performed through the System Access Terminal (SAT) interface. For more information on configuring Communication Manager, refer to the Avaya product documentation, Reference [1].

This section provides the procedures for configuring Communication Manager. The procedures fall into the following areas:

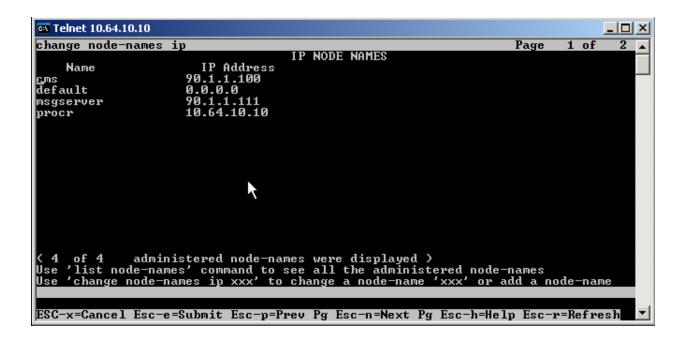
- Administer Processor Ethernet Interface for Application Enablement Services connectivity
- Administer CTI link with TSAPI service

The detailed administration of contact center entities, such as VDN, Skill, Split, Logical Agents and Station Extensions are assumed to be in place and are not covered in these Application Notes.

4.1. Administer Processor Ethernet Interface for Application Enablement Services Connectivity

Verify the entry for the Processor Ethernet Interface in the node-names form.

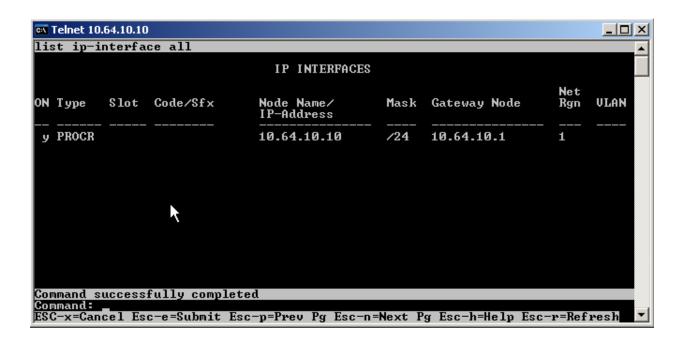
• Enter the **change node-names ip** command. In this case, **procr** and **10.64.10.10** are already populated as **Name** and **IP Address** for the Processor Ethernet Interface that will be used for connectivity to the Application Enablement Services server. The actual IP address may vary. Submit these changes.



On an S8300 server, the Processor Ethernet Interface should already be in the ip-interface list.

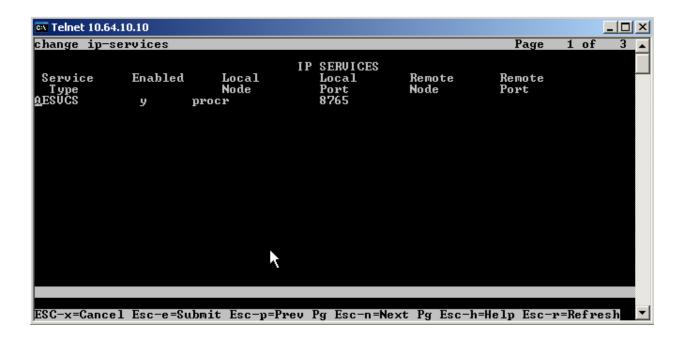
• Either the **display ip-interface procr** command or the **list ip-interface all** command will display the parameters of the Processor Ethernet Interface on the S8300.





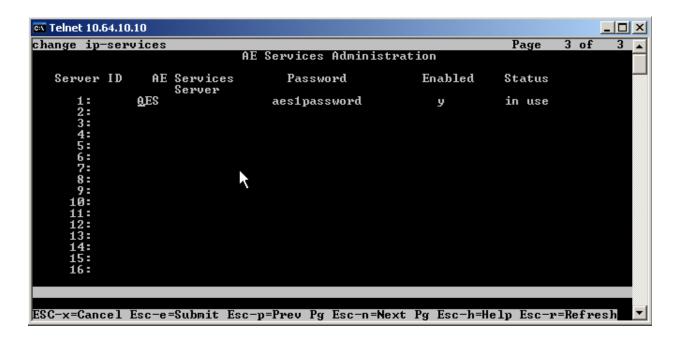
Add an entry for IP Services with the following values for fields on Page 1, as displayed below:

- Enter the **change ip-services** command.
- In the Service Type field, type AESVCS.
- In the **Enabled** field, type y.
- In the **Local Node** field, type the Node name **procr** for the Processor Ethernet Interface.
- In the Local Port field, retain the default of 8765.



Go to Page 3 of the IP Services form, and enter the following values:

- In the **AE Services Server** field, type the name obtained from the Application Enablement Services server, in this case **AES**.
- In the **Password** field, type the same password to be administered on the Application Enablement Services server, in this case **aes1password**.
- In the **Enabled** field, type y.



Note that the name and password entered for the **AE Services Server** and **Password** fields must match the name and password on the Application Enablement Services server. The administered name for the Application Enablement Services server is created as part of the Application Enablement Services installation, and can be obtained from the Application Enablement Services server by typing **uname –n** at the Linux command prompt. The same password entered above will need to be set on the Application Enablement Services server using **Administration** > **Switch Connections > Edit Connection > Set Password**.

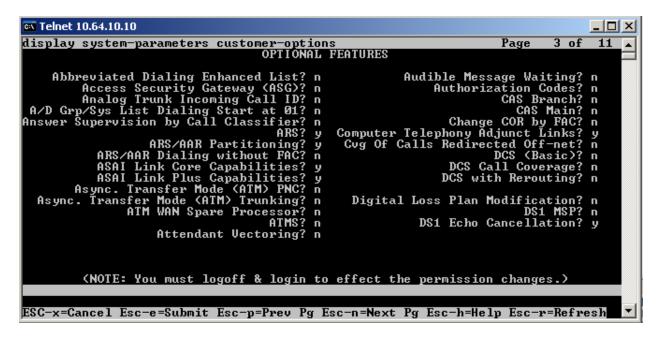
4.2. Administer Computer Telephony Integration (CTI) Link

It is assumed that Communication Manager is enabled with feature licenses for Vectoring, ASAI Link Core Capabilities, and Computer Telephony Adjunct Links.

This section provides the steps required for configuring a CTI Link.

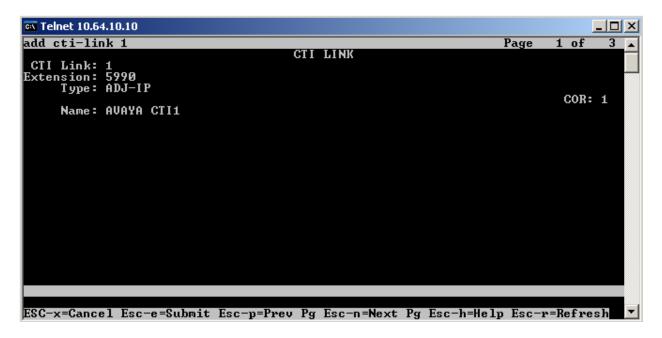
Enter the **display system-parameters customer-options** command.

• On Page 3, verify that the **Computer Telephony Adjunct Links** field is set to **y** for yes. If not, contact an authorized Avaya account representative to obtain the license.

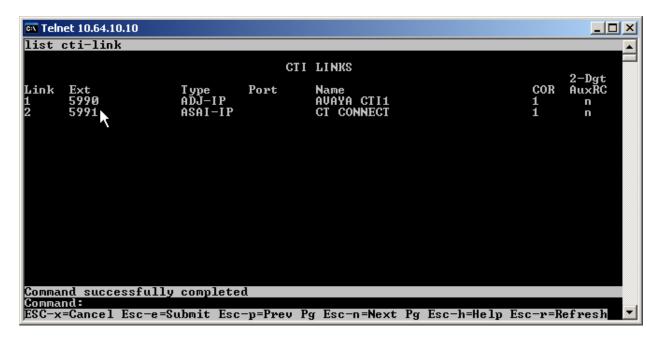


Enter the **add cti-link <link number>** command, where **<link number>** is an available CTI link number.

- In the Extension field, type **<station extension>**, where **<station extension>** is a valid station extension.
- In the **Type** field, type **ADJ-IP**.
- In the **Name** field, type a descriptive name.

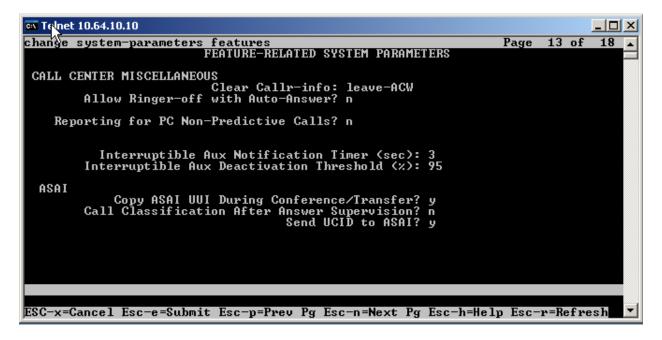


Enter the **list cti-link** command to verify that the CTI Link is correctly configured. All configured links will show in this screen. In the snapshot below, Link 1 is the link of interest added above.



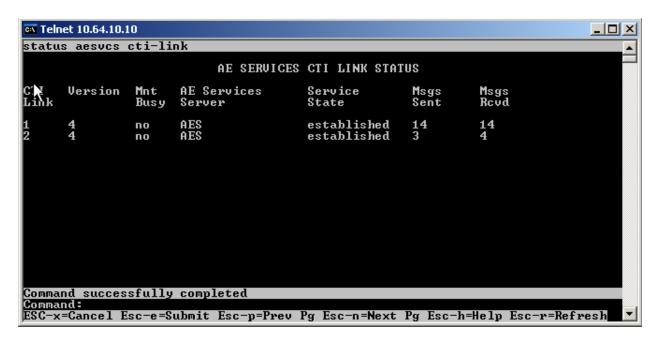
Enter the **change system-parameters features** command.

- In the Copy ASAI UUI During Conference/Transfer field, type y for yes.
- In the **Send UCID to ASAI** field, type **y** for yes.



The fields above are required by Call SWEET! Live for reports. UCID is necessary to tie the records of a call together and in historical reporting to tie the legs of a call together.

Check the service state of your links by entering the **status aesvcs cti-link** command. The link status should show **no** for maintenance busy (**Mnt Busy**) and the **Service State** should indicate **established**.

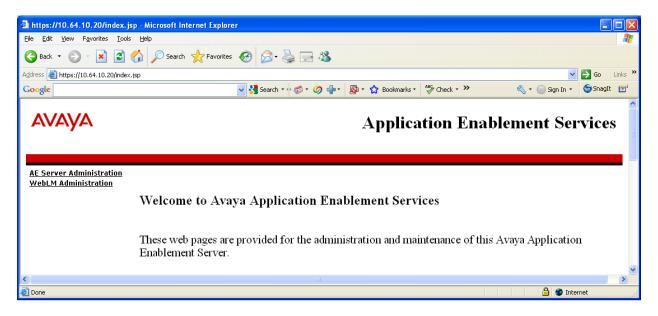


5. Configure Avaya Aura[™] Application Enablement Services

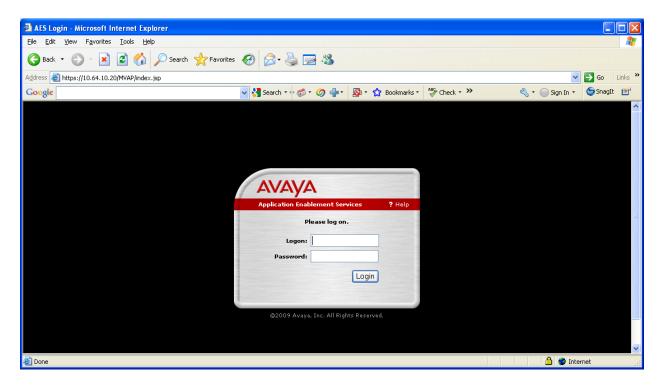
Application Enablement Services enables Computer Telephony Interface (CTI) applications to monitor and control telephony resources on Communication Manager. The Application Enablement Services server receives requests from CTI applications and forwards them to Communication Manager. Conversely, the Application Enablement Services server receives responses and events from Communication Manager and forwards them to the appropriate CTI applications.

This section assumes that the installation and basic administration of the Application Enablement Services server has already been performed. For more information on administering Application Enablement Services, refer to the Avaya product documentation, Reference [2].

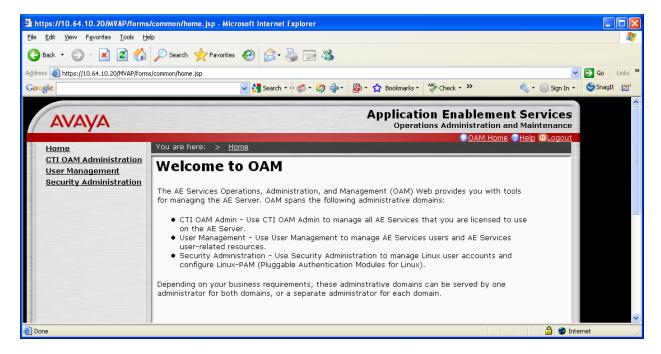
Access the Application Enablement Services OAM web-based interface by using the URL **https://ip-address** in an Internet browser window, where **ip-address** is the IP address of the Application Enablement Services server.



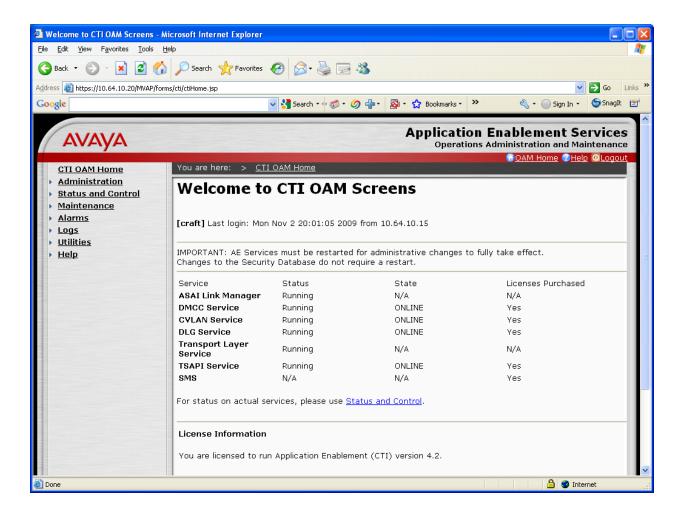
The **Login** screen is displayed as shown below. Log in with the appropriate credentials.



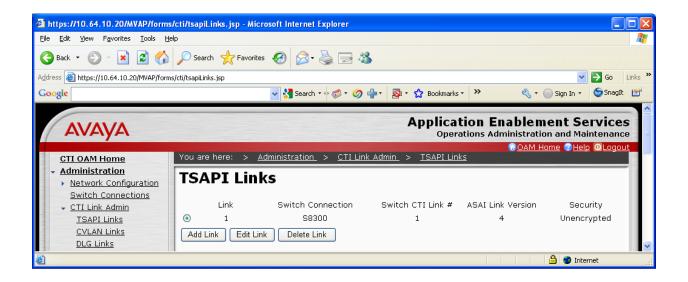
The **Welcome to OAM** screen is displayed next. Select **CTI OAM Administration** from the left pane.



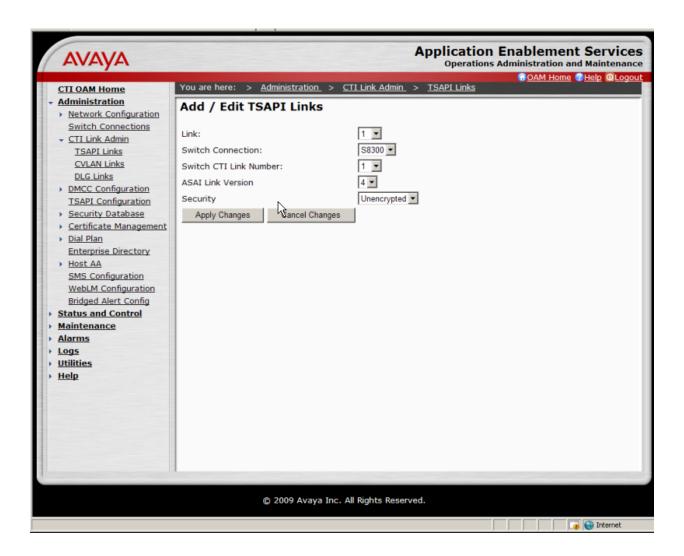
The **Welcome to CTI OAM Screens** screen is displayed. Verify that Application Enablement Services is licensed for the TSAPI service, as shown in the bottom of the screen below. If the TSAPI service is not licensed, contact the Avaya sales team or business partner for a proper license file.



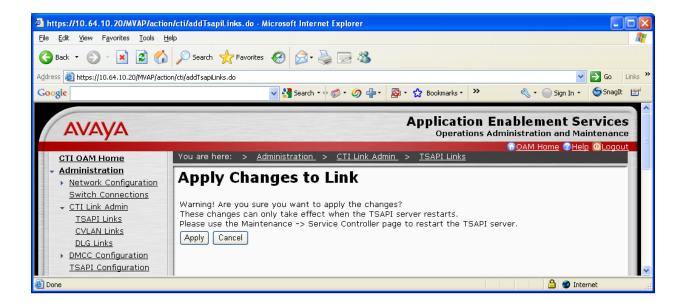
To administer a TSAPI link, select **Administration > CTI Link Admin > TSAPI Links** from the left pane. The **TSAPI Links** screen is displayed, as shown below. Click **Add Link**.



The Add / Edit TSAPI Links screen is displayed next. The Link field is only local to the Application Enablement Services server, and may be set to any available number. For Switch Connection, select the relevant switch connection from the drop-down list. In this case, the existing switch connection S8300 is selected. For Switch CTI Link Number, select the CTI link number previously administered. Click Apply Changes.



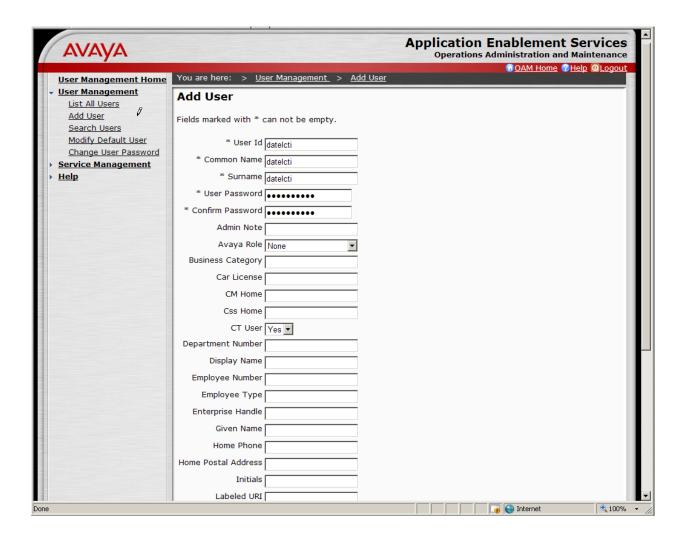
The Apply Changes to Link screen is displayed. Click Apply.



Next, add a CTI User, as Call SWEET! Live requires a CTI user to access Application Enablement Services. Select **OAM Home > User Management > Add User** from the left pane.

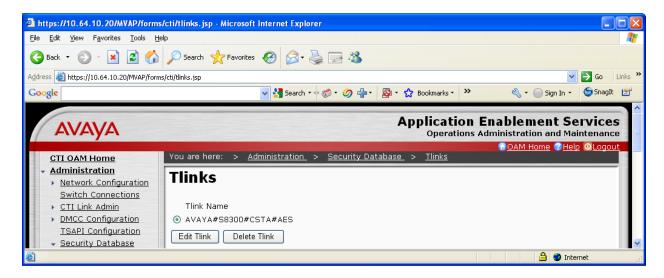
In the **Add User** screen, enter the following values:

- In the **User Id** field, type a meaningful user id.
- In the **Common Name** field, type a descriptive name.
- In the **Surname** field, type a descriptive surname.
- In the User Password field, type a password for the user.
- In the **Confirm Password** field, re-enter the same password for the user.
- In the Avaya Role field, retain the default of None.
- In the CT User field, select Yes from the dropdown menu.
- Click **Apply** at the bottom of the screen (not shown here).



Select **Administration > Security Database > Tlinks** from the left pane. The **Tlinks** screen shows a listing of the Tlink names. A new Tlink name is automatically generated by the Application Enablement Services server, upon creation of a new switch connection. Locate the Tlink name associated with the relevant switch connection, which would use the name of the switch connection as part of the Tlink name. Make a note of the associated Tlink name, to be used later for configuring the Call SWEET! Live server.

In this case, the associated Tlink name is "AVAYA#S8300#CSTA#AES". Note the use of the switch connection "S8300" as part of the Tlink name.



6. Configure Call SWEET! Live

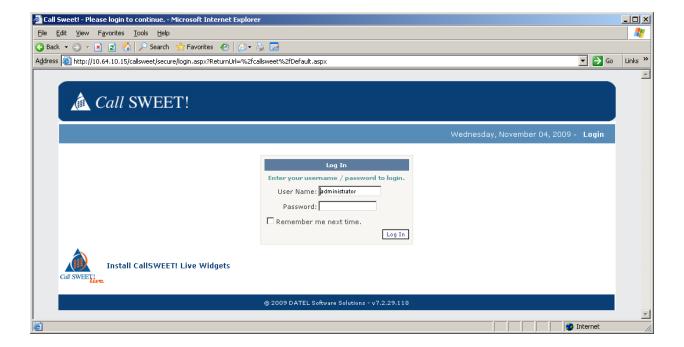
This section provides the procedures for configuring Call SWEET! Live. The procedures include the following areas:

- Launch Call SWEET! Live Web Service
- Add hunt groups
- Add agents

The configuration of Call SWEET! Live is typically performed by DATEL support technicians. The procedural steps are presented in these Application Notes for informational purposes.

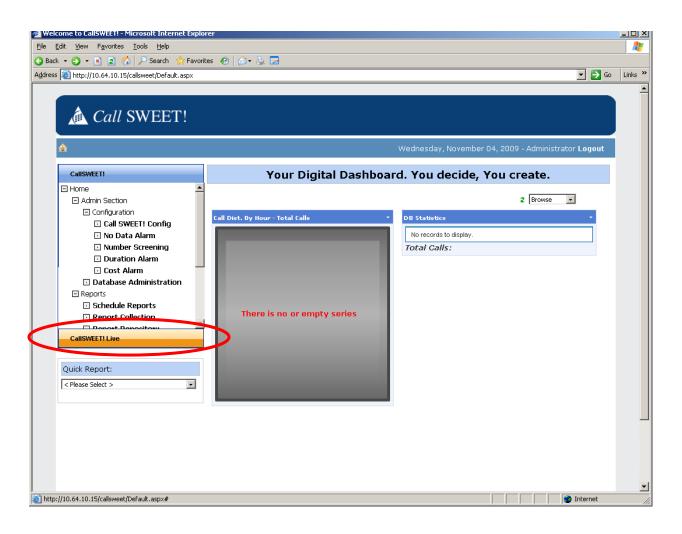
6.1. Launch Call SWEET! Live

Access the Call SWEET! Live web-based interface using the URL http://ip-address/callsweet in an Internet browser window, where ip-address is the IP address of the Call SWEET! Live server. The Log In screen is displayed as shown below. Log in using the appropriate credentials.

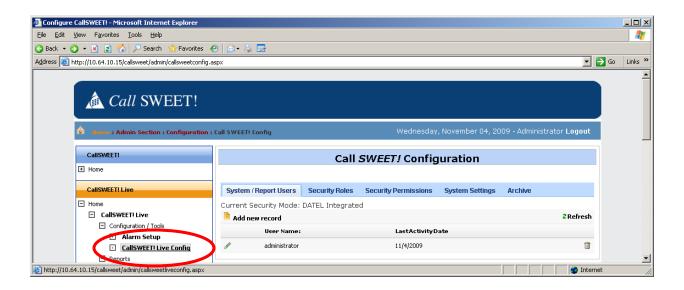


6.2. Administer Hunt Groups

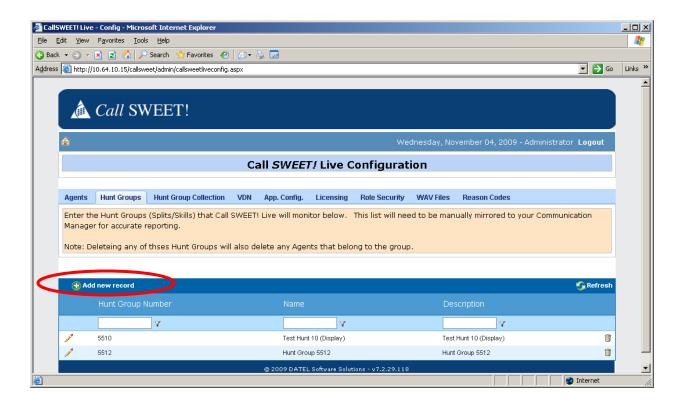
Upon logging in, select Call SWEET! Live from the left pane.



In the subsequent screen, select **Home > Call SWEET! Live > Configuration / Tools > Call SWEET! Live Config** from the left pane, as shown below.

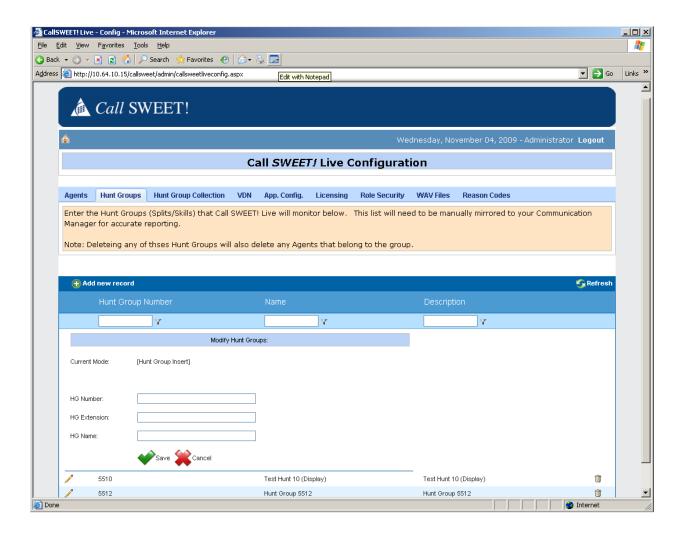


The Call SWEET! Live Configuration screen is displayed next. Select the Hunt Groups tab, and click Add new record to add a new hunt group.



The Modify Hunt Groups screen is displayed.

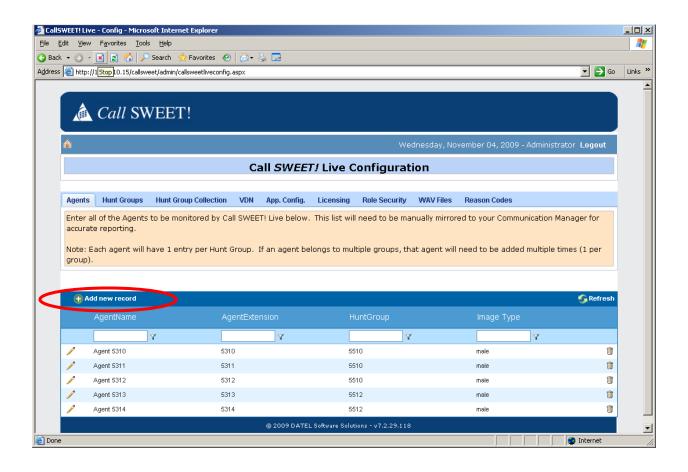
- For **HG Number** and **HG Name**, enter the hunt group extension and name from Communication Manager respectively.
- For **HG Description**, enter a desired description.



Repeat this section to add the remaining hunt groups. For the compliance testing, two hunt groups with extensions **5510** and **5512** were added, as shown above.

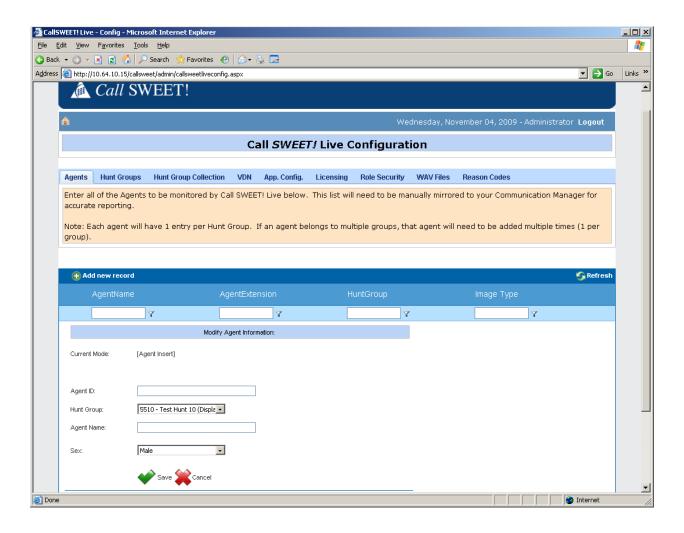
6.3. Administer Agents

Select the Agents tab, and click Add new record to add a new agent.



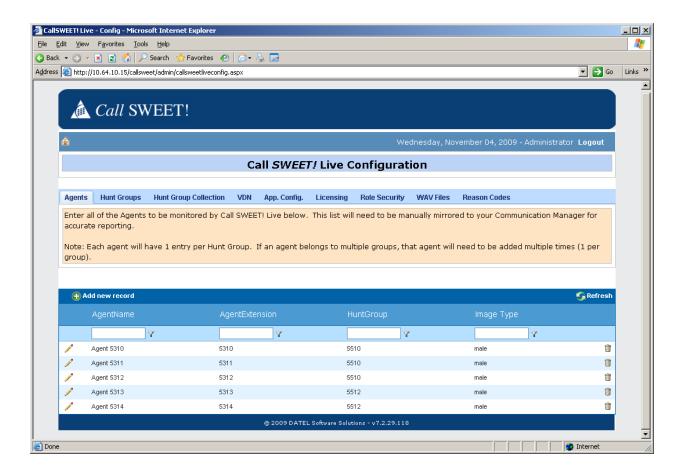
The **Modify Agent Information** screen is displayed.

- For **Agent ID**, enter the agent user name and extension from Communication Manager respectively.
- Enter a desired **Agent Name**.
- For the **Hunt Group** field, select the appropriate hunt group from the drop-down list to match the configuration on Communication Manager.



Repeat this section to add the remaining agents.

• In the compliance testing, agents 5310 and 5311 and 5312 are in hunt group 5510, and agents 5313 and 5314 are in hunt group 5512, as shown below.



7. General Test Approach and Test Results

All feature functionality test cases were performed manually to verify proper operation. The following scenarios were tested using the test configuration diagram shown in **Figure 1**.

The installation test cases were covered with the setup of Communication Manager, Application Enablement Services, and Call SWEET! Live. The clean removal of the application was also covered in this section.

The functionality test cases were performed manually. Various calls were placed including incoming PSTN calls to the hunt groups, and incoming and outgoing personal calls from the agents. Calls were made with monitored and non-monitored agents, per the test cases.

The serviceability test cases were performed manually by disconnecting and reconnecting the Ethernet cable to an IP telephone, the Call SWEET! Live server, and Communication Manager, and also by stopping the CTI service on Application Enablement Services.

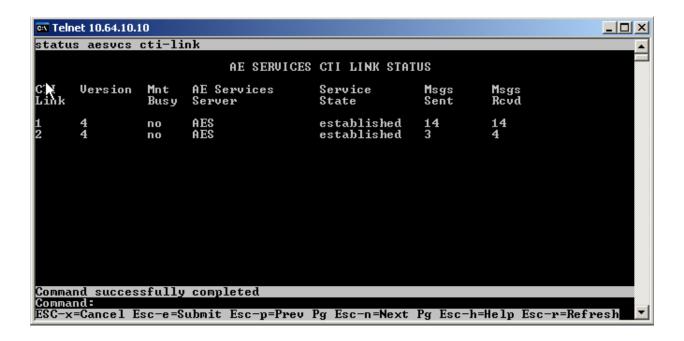
The verification of tests included manually checking of agent and hunt group status from the various widget and alarm reports using the Call SWEET! Live Widgets portal and checking the accuracy of the historical reports over multiple test days.

All test cases passed. No errors were detected.

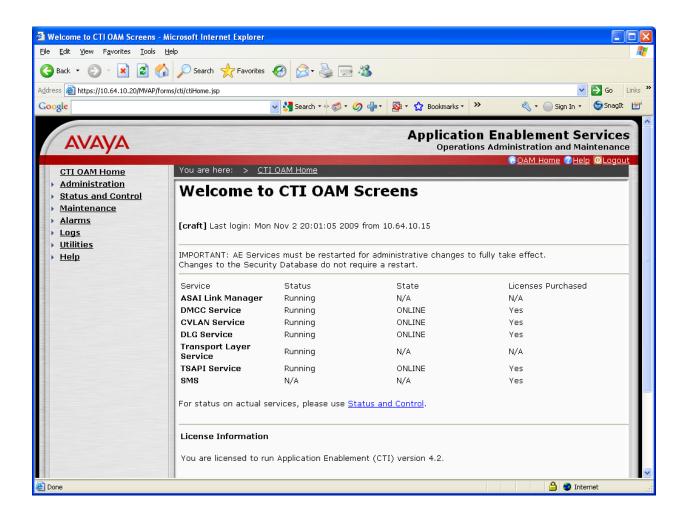
8. Verification Steps

This section provides the tests that can be performed to verify proper configuration of Communication Manager, Application Enablement Services, and Call SWEET! Live.

For Communication Manager, check the CTI Link status with the **status aesvcs cti-link** command. The link status should show **no** for maintenance busy (**Mnt Busy**) and the **Service State** should indicate **established**.



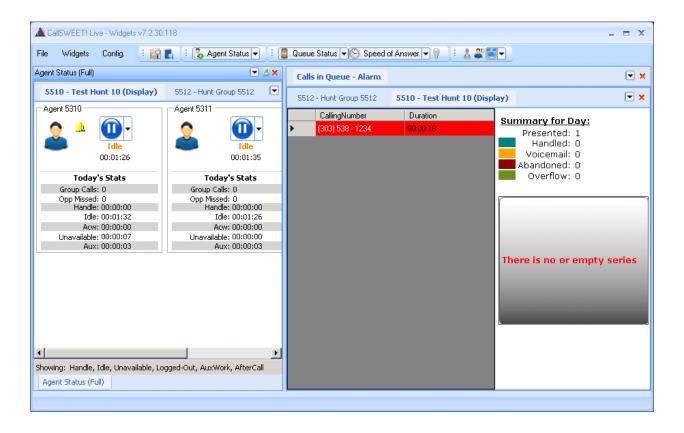
For Application Enablement Services, the **TSAPI Service** should show as **Running**, **ONLINE**, and **Yes** for **Licenses Purchased**.



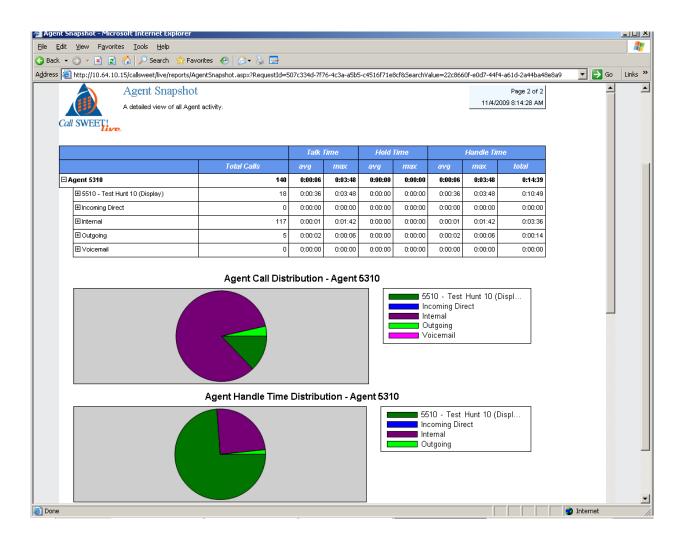
Call SWEET! Live does not have a reporting mechanism to check the CTI link, though the link is actively monitored.

To verify the setup is correct and the link is active, from the server running the Call SWEET! Live Widgets portal, select **Start > Programs > DATEL Software Solutions > Call SWEET! Live Widgets**. Log in with the appropriate credentials.

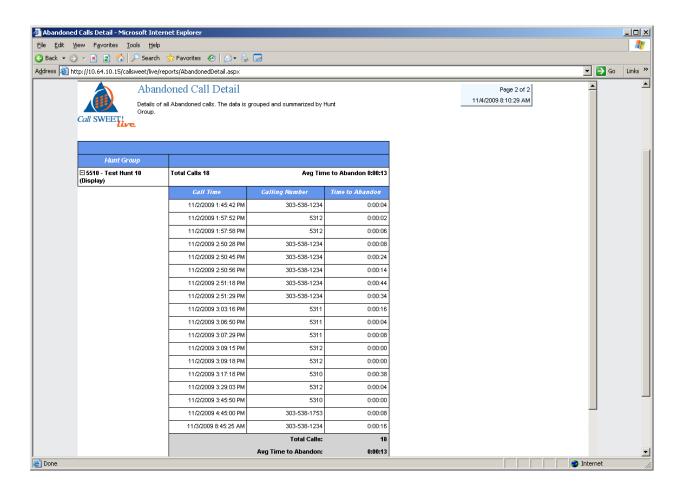
Make a call to hunt group **5510** to a monitored, available agent from the PSTN. Verify that the call is ringing at the agent's telephone. On the **Call SWEET! Live – Widgets** screen, verify that the **Agent Status** reflects that the call is ringing at the proper agent, turns from green to yellow to red based on the parameters set for speed of answer, and that the PSTN information is correctly displayed. Answer the call and verify talk path.



Once multiple calls have been completed, the reporting can be verified with daily reports, in this case by using the Agent Snapshot Report.



Once multiple calls have been completed and/or abandoned over several hours and for more than one day, the historical reporting can be verified with reports that cover a specified time frame, in this case using the Abandoned Call Detail Report.



9. Conclusion

Call SWEET! Live was compliance tested with Communication Manager and Application Enablement Services. Call SWEET! Live successfully monitored and produced reports on phone activity for agents and ACD/split groups. All test cases completed successfully.

10. Additional References

This section references the Avaya and Call SWEET! Live product documentation that are relevant to these Application Notes.

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

- [1] *Administering Avaya*TM *Communication Manager*, Doc ID: 03-300509, Issue 5.0, Release 5.2, May 2009
- [2] Avaya MultiVantage Application Enablement Services Administration and Maintenance Guide, Doc ID: 02-300357, Release 4.2, Issue 10, May 2008
- [3] *Call SWEET! Live User's Guide*, V2.0, available via request to support@datel-group.com

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