



Avaya Solution & Interoperability Test Lab

Application Notes for DATEL UCCS Business Edition with Avaya IP Office 9.0 – Issue 1.0

Abstract

These Application Notes describe the configuration steps required for DATEL UCCS Business Edition to interoperate with Avaya IP Office 9.0.

DATEL UCCS Business Edition is a contact center management solution. In the compliance testing, DATEL UCCS Business Edition used the TFTP service and DevLink interface from Avaya IP Office to obtain configuration and real-time data to produce measurements and reports on agents and hunt 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.

1. Introduction

These Application Notes describe the configuration steps required for DATEL UCCS Business Edition to interoperate with Avaya IP Office 9.0.

DATEL UCCS Business Edition is a contact center management solution. In the compliance testing, DATEL UCCS Business Edition used the TFTP service and DevLink interface from Avaya IP Office to obtain configuration and real-time data to produce measurements and reports on agents and hunt groups.

The TFTP service was used to obtain hunt groups and agent user data from Avaya IP Office, and the DevLink interface was used to obtain real-time call events for the hunt groups and agent users. The produced real-time measurements and reports were accessed using the DATEL UCCS Business Edition Widgets client application.

2. General Test Approach and Test Results

The feature test cases were performed both automatically and manually. Upon start of the UCCS Business Edition application, the application automatically sends TFTP requests to obtain configured agent users, hunt groups, and hunt group memberships from IP Office.

For the manual part of the testing, calls were made from the PSTN and from local users to the hunt groups and agents. Necessary user actions such as answer/transfer were performed from the agent user telephones to generate events for the different call scenarios.

The serviceability test cases were performed manually by disconnecting and reconnecting the Ethernet connection to the UCCS Business Edition server.

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 interoperability compliance test included feature and serviceability testing.

The feature testing focused on verifying the following on UCCS Business Edition:

- Handling of TFTP responses for configured users, hunt groups, and hunt group membership information during application startup.
- Handling of TFTP responses for users and calls on regular intervals to determine agent state changes such as logged in/out, busy on personal/hunt group calls, and busy on wrap-up.
- Handling of DevLink real-time events for various call scenarios including internal, external, inbound, outbound, drop, blind/attended transfer, blind/attended conference, voicemail coverage, hunt group queue, and hunt group overflow.
- Reporting of data in various Agent States, Queue Status, and Speed of Answer reports.

The serviceability testing focused on verifying the ability of UCCS Business Edition to recover from adverse conditions, such as disconnecting and reconnecting the Ethernet connection to the UCCS Business Edition server.

2.2. Test Results

All test cases were executed and passed.

2.3. Support

Technical support on UCCS Business Edition can be obtained through the following:

- **Phone:** (724) 940-0400
- **Email:** support@datel-group.com

3. Reference Configuration

The configuration used for the compliance testing is shown below. The UCCS Business Edition server contained the UCCS Business Edition Widgets application, which can run on the server and/or any supervisor/agent PC. In the compliance testing, UCCS Business Edition Widgets was running on the supervisor PC, and used to access the produced measurements and reports.

The detailed administration of general contact center devices such as hunt groups and agents are assumed to be in place, and are not covered in these Application Notes.

In the compliance testing, UCCS Business Edition monitored and reported on the hunt groups and agent user extensions shown in the table below.

Device Type	Extension
Hunt Groups	29000, 29002
Agent Users	20031, 20032, 20033

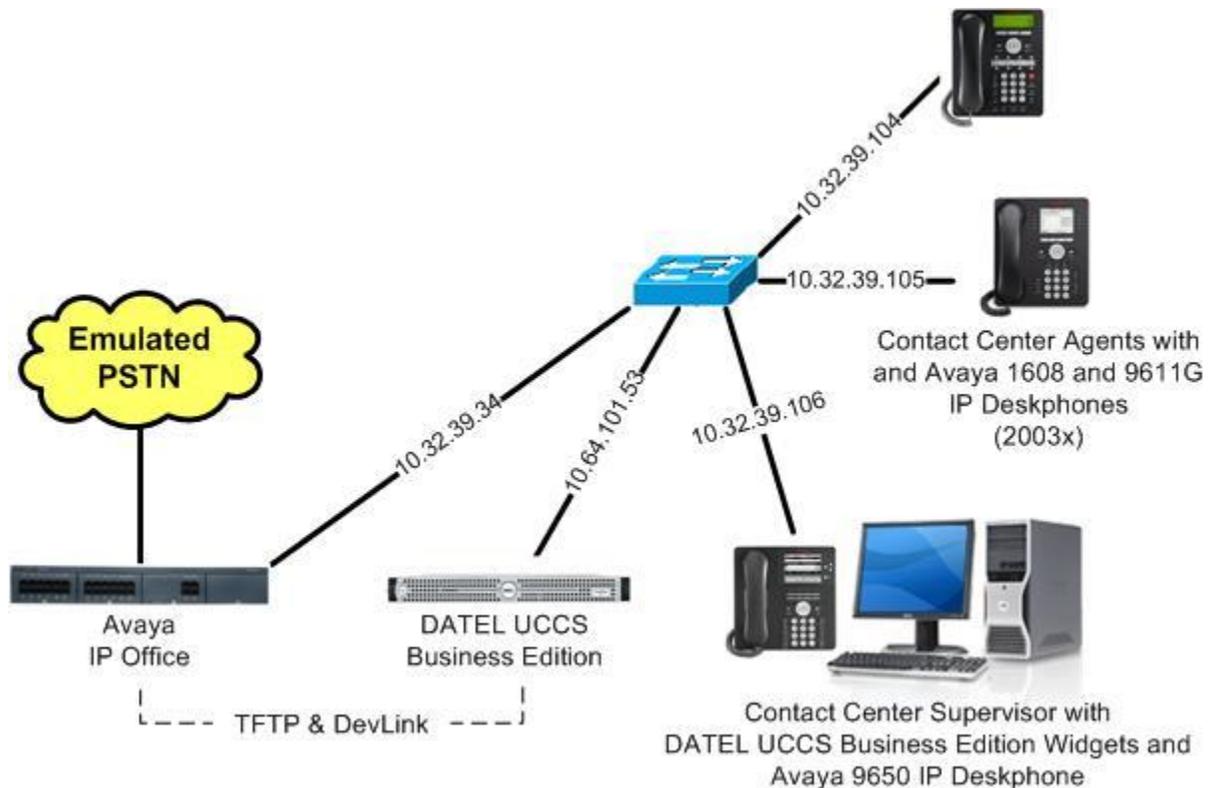


Figure 1: Compliance Testing Configuration

4. Equipment and Software Validated

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

Equipment/Software	Release/Version
Avaya IP Office on IP500V2	9.0 (829)
Avaya 1608 IP Deskphone (H.323)	1.330D
Avaya 9611G IP Deskphone (H.323)	6.3037
Avaya 9650 IP Deskphone (H.323)	3.200
DATEL UCCS Business Edition on Windows 2008 Server with Service Pack 2	7.10.62.219
• Avaya DevLink (devlink.dll)	1.0.0.5
DATEL UCCS Business Edition Widgets	7.10.62.219

Testing was performed with IP Office 500 V2 R9.0, but it also applies to IP Office Server Edition R9.0. Note that IP Office Server Edition requires an Expansion IP Office 500 V2 R9.0 to support analog or digital endpoints or trunks. IP Office Server Edition does not support TAPI Wave or Group Voicemail.

5. Configure Avaya IP Office

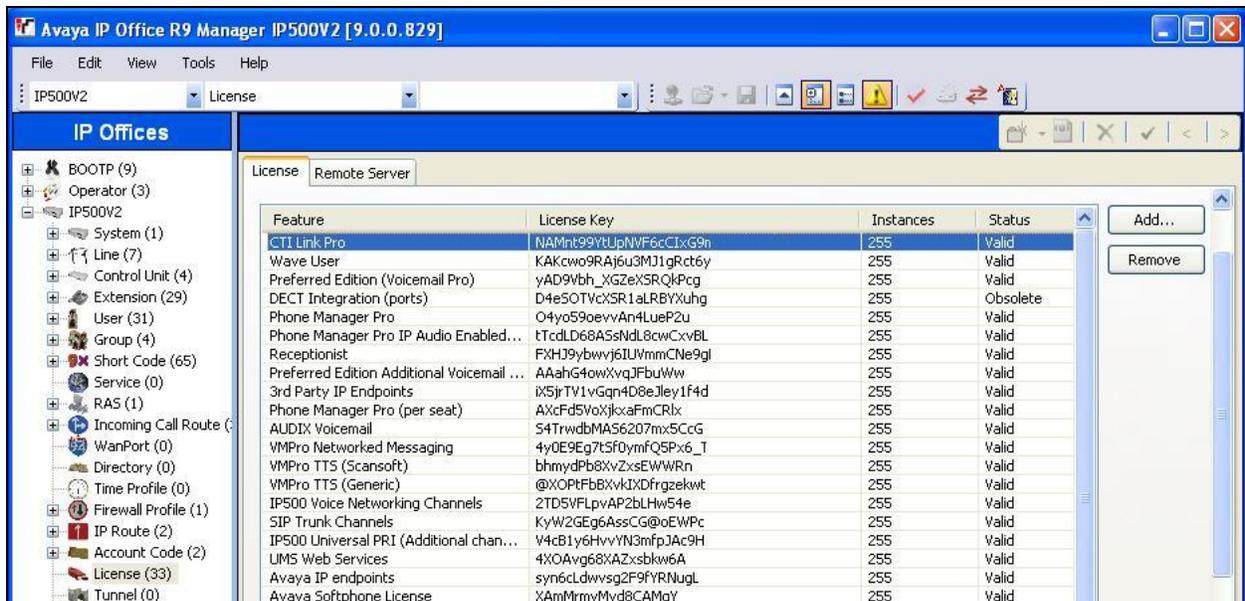
This section provides the procedures for configuring IP Office. The procedures include the following areas:

- Verify license
- Obtain hunt group ring mode
- Administer agent users

5.1. Verify License

From a PC running the IP Office Manager application, select **Start** → **All Programs** → **IP Office** → **Manager** to launch the application. Select the proper IP Office system, and log in using the appropriate credentials.

The **Avaya IP Office R9 Manager** screen is displayed. From the configuration tree in the left pane, select **License** to display a list of licenses in the right pane. Verify that there is a license for **CTI Link Pro** and that the **Status** is “Valid”, as shown below.

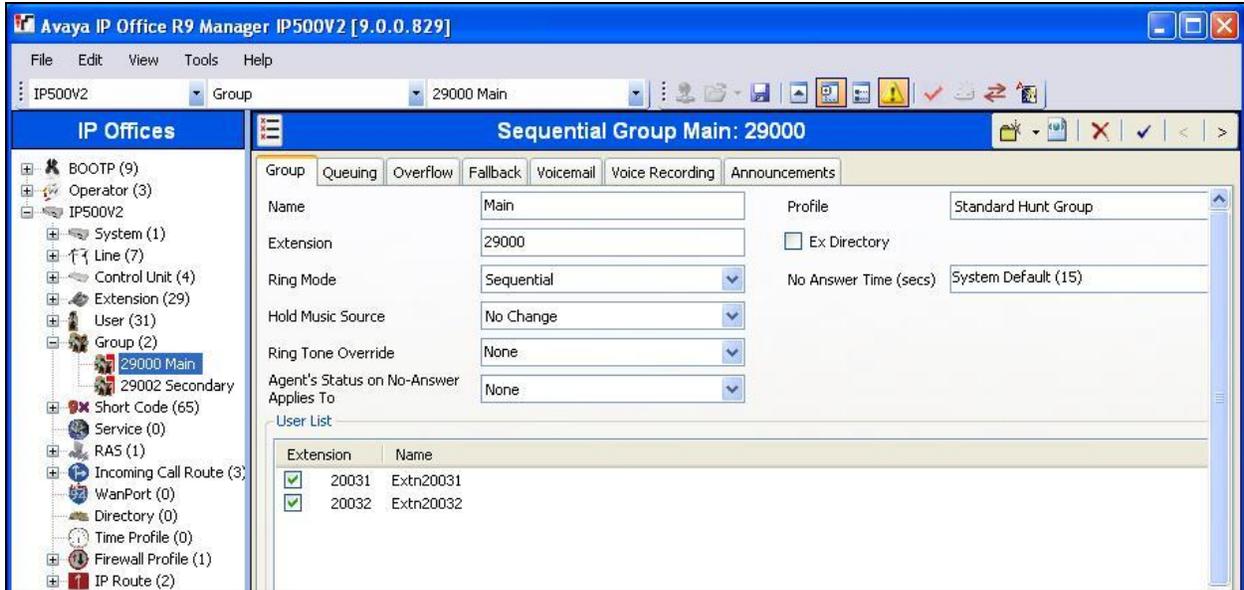


Feature	License Key	Instances	Status
CTI Link Pro	NAMnt99ytUpNWF6cCIxG9n	255	Valid
Wave User	KAKcwo9RAj6u3MJ1gRct6y	255	Valid
Preferred Edition (Voicemail Pro)	yAD9Vbh_XGZeXSRQKpcg	255	Valid
DECT Integration (ports)	D4eS0TVcXSR1aLRBYXuhg	255	Obsolete
Phone Manager Pro	O4yo59oeyvAn4LueP2u	255	Valid
Phone Manager Pro IP Audio Enabled...	tTcdLD68A5sNdl8cwCxvBL	255	Valid
Receptionist	FXHJ9ybwvj6LUWmmCNe9gl	255	Valid
Preferred Edition Additional Voicemail ...	AAAhG4owXvqJFbuWw	255	Valid
3rd Party IP Endpoints	iX5jrTV1vGqn4D8eJley1F4d	255	Valid
Phone Manager Pro (per seat)	AXcFd5VoXjksaFmCRlx	255	Valid
AUDIX Voicemail	S4TrwdbMAS6207mx5CcG	255	Valid
VMPro Networked Messaging	4y0E9Eg7t5f0ymfQ5P×6_T	255	Valid
VMPro TTS (ScanSoft)	bhmydPb8XvZxsEWWRN	255	Valid
VMPro TTS (Generic)	@XOPfBxBxvIXDfRgzekwt	255	Valid
IP500 Voice Networking Channels	2TD5VFLpvAP2bLhw54e	255	Valid
SIP Trunk Channels	KyW2GEg6AssCG@oEWPC	255	Valid
IP500 Universal PRI (Additional chan...	V4cB1y6HvYn3mfPJAc9H	255	Valid
UMS Web Services	4X0Avy68XAZxsbkw6A	255	Valid
Avaya IP endpoints	syn6clDwvsq2F9fYRNugL	255	Valid
Avaya Softphone License	XAmMrmYmvd8CAMqY	255	Valid

5.2. Obtain Hunt Group Ring Mode

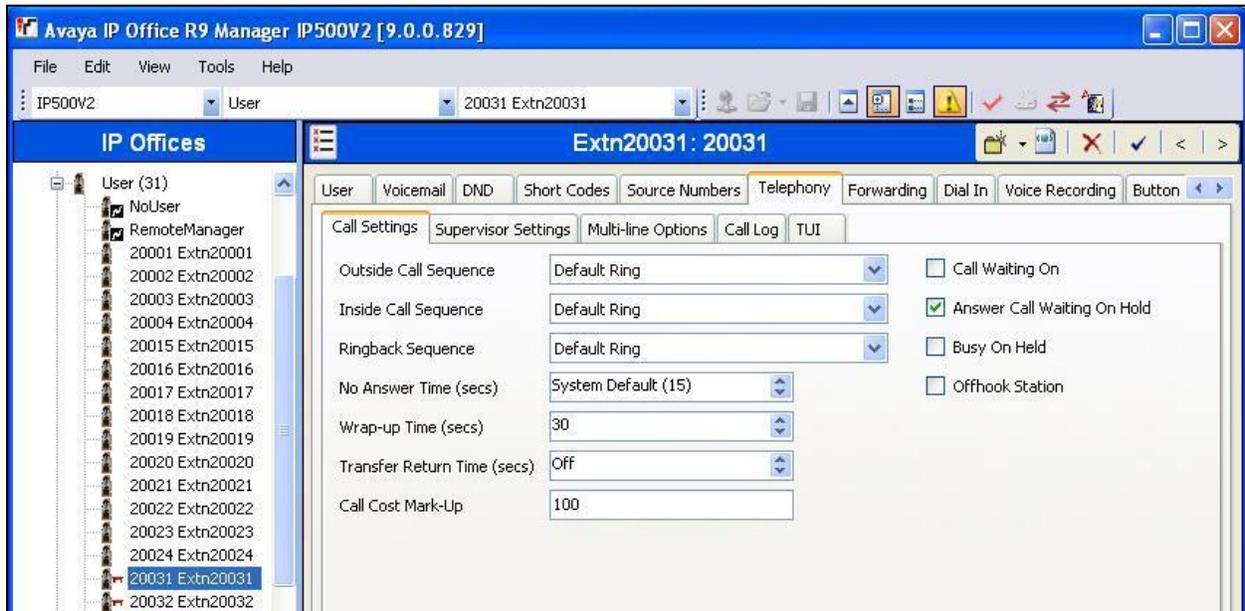
From the configuration tree in the left pane, select the first hunt group from **Section 3**, in this case “29000”. Make a note of the **Ring Mode**, which will be used later to configure UCCS Business Edition.

Repeat this section for all hunt groups. In the compliance testing, hunt groups “29000” and “29002” were both configured with “Sequential” for **Ring Mode**.

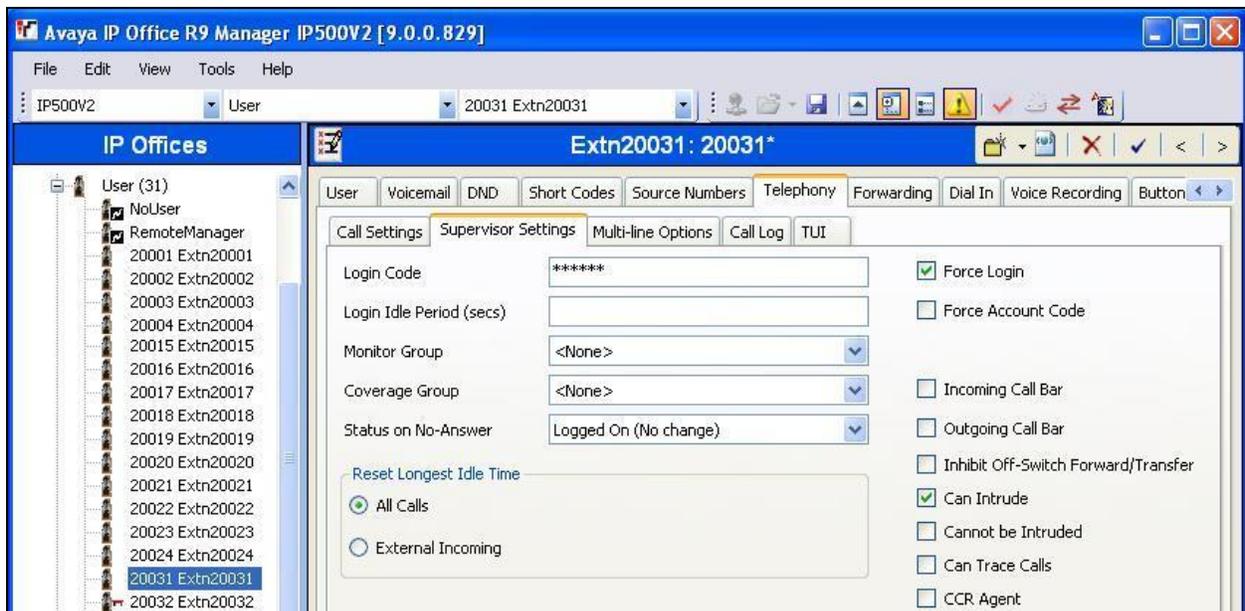


5.3. Administer Agent Users

From the configuration tree in the left pane, select the first agent user from **Section 3**, in this case “20031”. Select the **Telephony** tab, followed by the **Call Settings** sub-tab. Make a note of the **Wrap-up Time (secs)** value, which will be used later to configure UCCS Business Edition.



Select the **Supervisor Settings** sub-tab. For agents that will be using the Hot Desking feature, check **Force Login** and enter a desired **Login Code**, and UCCS Business Edition will report on the agent user login and logout. Repeat this section for all agent users. In the compliance testing, three agent users “20031-20033” were configured.



6. Configure DATEL UCCS Business Edition

This section provides the procedures for configuring UCCS Business Edition. The procedures include the following areas:

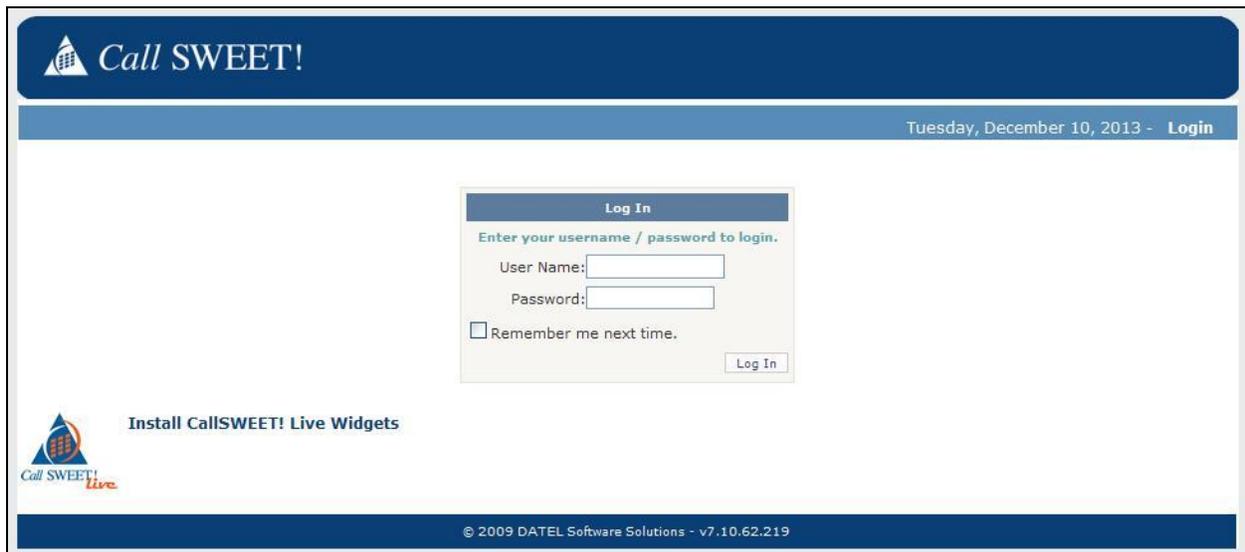
- Launch web interface
- Administer hunt groups
- Administer agents

The configuration of UCCS Business Edition is typically performed by DATEL support technicians. The procedural steps are presented in these Application Notes for informational purposes.

Note that the IP address of the IP Office server, and the password for the IP Office Monitor and Call Status application were entered as part of the UCCS Business Edition installation procedure, used for subsequent TFTP and DevLink connectivity to IP Office.

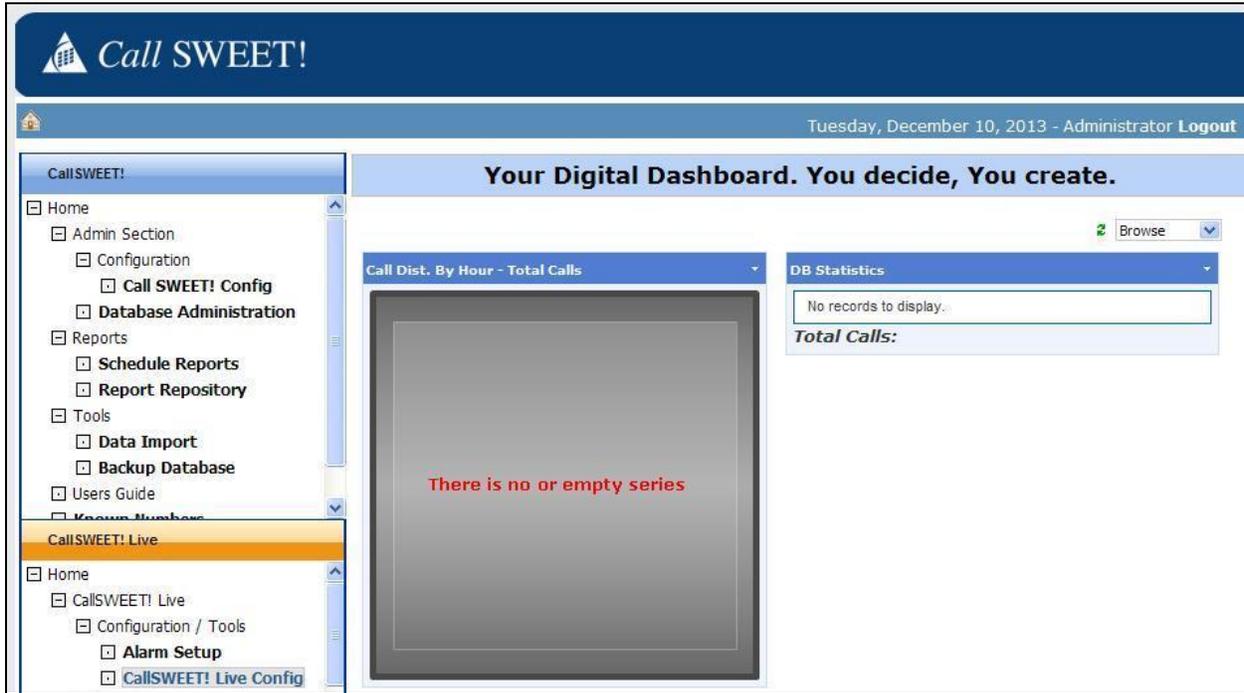
6.1. Launch Web Interface

Access the web-based interface by using the URL “http://ip-address/callsweet” in an Internet browser window, where “ip-address” is the IP address of the UCCS Business Edition server. The **Log In** screen is displayed as shown below. Log in using the appropriate credentials.



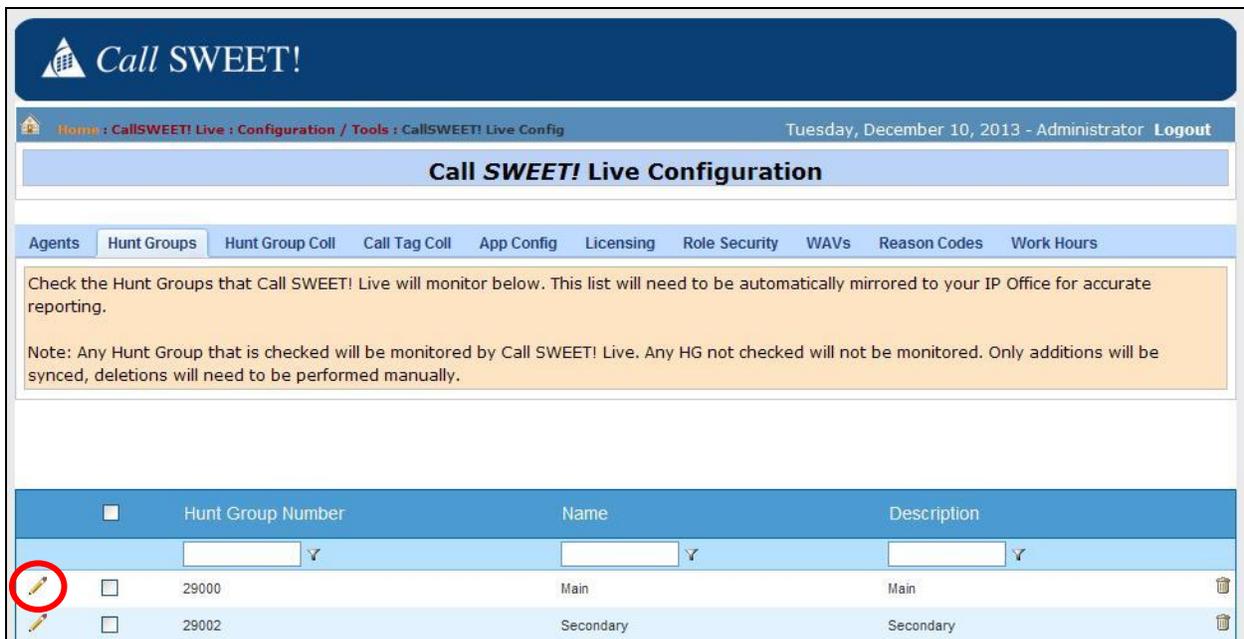
The screenshot shows the Call SWEET! web interface. At the top, there is a dark blue header with the Call SWEET! logo and the text "Call SWEET!". Below the header, a light blue bar displays the date "Tuesday, December 10, 2013" and a "Login" link. The main content area is white and features a central "Log In" form. The form has a title "Log In" and a prompt "Enter your username / password to login." It includes two input fields: "User Name:" and "Password:". Below these fields is a checkbox labeled "Remember me next time." and a "Log In" button. In the bottom left corner of the main area, there is a logo for "Call SWEET! Live" and the text "Install CallSWEET! Live Widgets". At the very bottom, a dark blue footer contains the copyright information: "© 2009 DATEL Software Solutions - v7.10.62.219".

The screen below is displayed. Expand **CallSWEET! Live** in the left pane, and select **Home** → **CallSWEET! Live** → **Configuration / Tools** → **CallSWEET! Live Config** as shown below.



6.2. Administer Hunt Groups

The **Call SWEET! Live Configuration** screen is displayed. Select the **Hunt Groups** tab to display a list of hunt groups that were automatically picked up from IP Office via TFTP service. Click the pencil icon associated with the first hunt group from **Section 3**, in this case “29000”.



The **Call SWEET! Live Configuration** screen is updated with the **Modify Hunt Groups** sub-section.

For **HG Type**, select “Other” if the corresponding hunt group ring mode from **Section 5.2** is any value other than “Collective”.

Repeat this step for all hunt groups. In the compliance testing, two hunt groups “29000” and “29002” were configured.

The screenshot displays the 'Call SWEET! Live Configuration' web application. At the top, there is a navigation bar with the application logo and name. Below this, a breadcrumb trail shows the current location: Home > CallSWEET! Live > Configuration / Tools > CallSWEET! Live Config. The date and user information (Tuesday, December 10, 2013 - Administrator Logout) are also present.

The main content area is titled 'Call SWEET! Live Configuration' and features a horizontal menu with various configuration options: Agents, Hunt Groups, Hunt Group Coll, Call Tag Coll, App Config, Licensing, Role Security, WAVs, Reason Codes, and Work Hours. The 'Hunt Groups' option is currently selected.

A message box informs the user: 'Check the Hunt Groups that Call SWEET! Live will monitor below. This list will need to be automatically mirrored to your IP Office for accurate reporting. Note: Any Hunt Group that is checked will be monitored by Call SWEET! Live. Any HG not checked will not be monitored. Only additions will be synced, deletions will need to be performed manually.'

Below the message is a table of Hunt Groups:

<input type="checkbox"/>	Hunt Group Number	Name	Description
<input type="checkbox"/>	29000	Main	Main
<input type="checkbox"/>	29002	Secondary	Secondary

The '29000' group is selected, and a 'Modify Hunt Groups' form is displayed for it. The form includes the following fields:

- Current Mode: [Hunt Group Edit]
- HG Number: 29000
- HG Name: Main
- HG Description: Main
- HG Type: Other (dropdown menu)

At the bottom of the form are 'Save' and 'Cancel' buttons.

Check the entries associated with the hunt groups to monitor from **Section 3**, and click **Start / Stop Monitoring Hunt Group** to start the monitoring and reporting, as shown below.

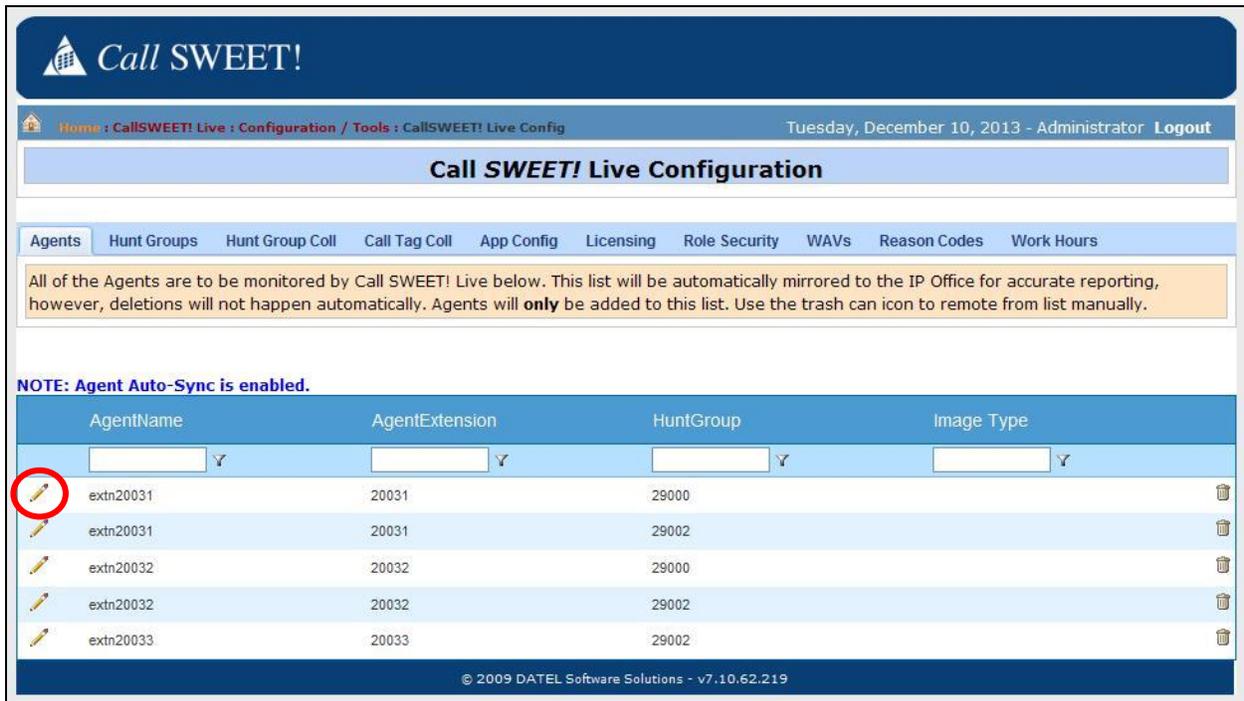
The screenshot displays the 'Call SWEET! Live Configuration' web interface. At the top, there is a navigation bar with the 'Call SWEET!' logo and a breadcrumb trail: 'Home : CallSWEET! Live : Configuration / Tools : CallSWEET! Live Config'. The date and user information 'Tuesday, December 10, 2013 - Administrator Logout' are shown on the right. Below the navigation bar, a menu contains several options: 'Agents', 'Hunt Groups', 'Hunt Group Coll', 'Call Tag Coll', 'App Config', 'Licensing', 'Role Security', 'WAVs', 'Reason Codes', and 'Work Hours'. A central instruction box states: 'Check the Hunt Groups that Call SWEET! Live will monitor below. This list will need to be automatically mirrored to your IP Office for accurate reporting. Note: Any Hunt Group that is checked will be monitored by Call SWEET! Live. Any HG not checked will not be monitored. Only additions will be synced, deletions will need to be performed manually.' Below this, a table lists Hunt Groups with columns for 'Hunt Group Number', 'Name', and 'Description'. Two entries are shown: '29000 Main Main' and '29002 Secondary Secondary', both with checked boxes in the first column. At the bottom left, a button labeled 'Start / Stop Monitoring Hunt Group' is circled in red. The footer contains the copyright notice '© 2009 DATEL Software Solutions - v7.10.62.219'.

<input type="checkbox"/>	Hunt Group Number	Name	Description
<input checked="" type="checkbox"/>	29000	Main	Main
<input checked="" type="checkbox"/>	29002	Secondary	Secondary

6.3. Administer Agents

From the **Call SWEET! Live Configuration** screen, select the **Agents** tab to display a list of agents associated with the monitored hunt groups from **Section 6.2**. Note that an entry is displayed for each agent and hunt group combination received from IP Office.

Click the pencil icon for the first agent and hunt group combination, as shown below.



The screenshot displays the 'Call SWEET! Live Configuration' interface. At the top, there is a navigation bar with the 'Agents' tab selected. Below the navigation bar, a message states: 'All of the Agents are to be monitored by Call SWEET! Live below. This list will be automatically mirrored to the IP Office for accurate reporting, however, deletions will not happen automatically. Agents will **only** be added to this list. Use the trash can icon to remote from list manually.' A note below the message reads: 'NOTE: Agent Auto-Sync is enabled.' The main content is a table with the following data:

AgentName	AgentExtension	HuntGroup	Image Type
<input type="text" value=""/>	<input type="text" value=""/>	<input type="text" value=""/>	<input type="text" value=""/>
extn20031	20031	29000	
extn20031	20031	29002	
extn20032	20032	29000	
extn20032	20032	29002	
extn20033	20033	29002	

At the bottom of the page, the copyright information reads: '© 2009 DATEL Software Solutions - v7.10.62.219'.

The **Call SWEET! Live Configuration** screen is updated with the **Modify Agent Information** sub-section.

For **Wrap-Up Time**, enter the corresponding agent wrap-up time from **Section 5.3**. Note that this configuration is only necessary when the agent wrap-up time on IP Office is being used and set to a value other than the default “2” seconds.

Repeat this section for all agents.

The screenshot displays the 'Call SWEET! Live Configuration' web application. At the top, there is a navigation bar with the logo and the text 'Call SWEET!'. Below this, a breadcrumb trail shows 'Home : CallSWEET! Live : Configuration / Tools : CallSWEET! Live Config' and the date 'Tuesday, December 10, 2013 - Administrator Logout'. The main heading is 'Call SWEET! Live Configuration'. A secondary navigation bar includes tabs for 'Agents', 'Hunt Groups', 'Hunt Group Coll', 'Call Tag Coll', 'App Config', 'Licensing', 'Role Security', 'WAVs', 'Reason Codes', and 'Work Hours'. A yellow warning box states: 'All of the Agents are to be monitored by Call SWEET! Live below. This list will be automatically mirrored to the IP Office for accurate reporting, however, deletions will not happen automatically. Agents will **only** be added to this list. Use the trash can icon to remote from list manually.' Below this, a blue note reads: 'NOTE: Agent Auto-Sync is enabled.' The main content area features a table with columns 'AgentName', 'AgentExtension', 'HuntGroup', and 'Image Type'. The first row is selected, and a 'Modify Agent Information' form is displayed below it. The form contains the following fields: Agent ID (extn20031), Hunt Group (29000 - Main), Agent Name (extn20031), Agent Extension (20031), Sex (Male), Site Code (1 - Demo Corporation - 1), and Wrap-Up Time (30). At the bottom of the form are 'Save' and 'Cancel' buttons. Below the form, a table lists three agents: extn20031 (20031, 29002), extn20032 (20032, 29000), and extn20031 (20031, 29000).

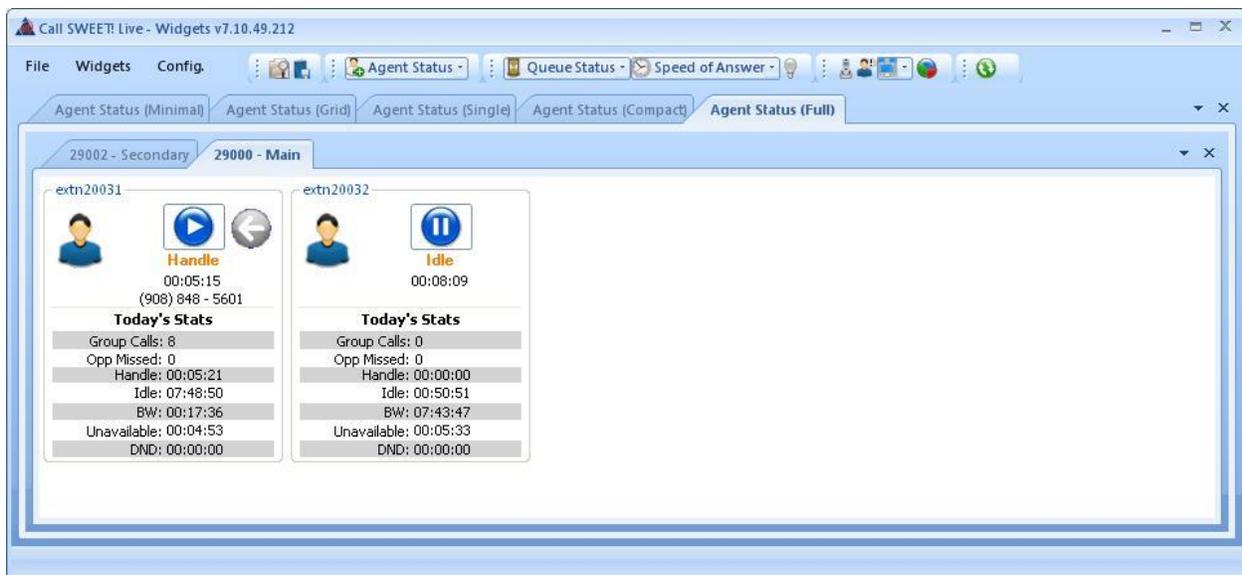
7. Verification Steps

This section provides the test that can be performed to verify proper configuration of IP Office and UCCS Business Edition.

From the supervisor PC running the UCCS Business Edition Widgets application, select **Start → All Programs → CallSWEET! Live – Widgets → Call SWEET! Live – Widgets** to launch the application and log in using the appropriate credentials.



The **Call SWEET! Live – Widgets** screen is displayed. Establish an incoming hunt group call from the PSTN with an available agent. On the **Call SWEET! Live – Widgets** screen, select **Agent Status → Full** from the top menu to create the **Agent Status (Full)** tab and sub-tabs. Click on the sub-tab corresponding to the appropriate hunt group, and verify that the grid associated with the answering agent shows the proper status, as shown below for “extn20031”.



8. Conclusion

These Application Notes describe the configuration steps required for DATEL UCCS Business Edition to successfully interoperate with Avaya IP Office 9.0. All feature and serviceability test cases were completed.

9. Additional References

This section references the product documentation relevant to these Application Notes.

1. *Avaya IP Office Manager*, Release 9.0, Issue 9.01, September 2013, Document Number 15-601011, available at <http://support.avaya.com>.
2. *UCCS Business Edition User's Guide*, available upon request to DATEL Support.

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