



**Application Notes for Configuring G-Tek/AEi
Communications SSP-9210-SMG SIP Phone/DECT Base
Station with SGR-8206-SPBU DECT Handset with IP Office
- Issue 1.0**

Abstract

These Application Notes describe the configuration steps required for configuring G-Tek/AEi Communications SSP-9210-SMG SIP Phone/DECT Base Station with SGR-8206-SPBU DECT Handset to interoperate with IP Office.

Readers should pay attention to **Section 2**, in particular the scope of testing as outlined in **Section 2.1** as well as any observations noted in **Section 2.2**, to ensure that their own use cases are adequately covered by this scope and results.

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 steps required to configure G-Tek/AEi Communications SSP-9210-SMG SIP Phone/DECT Base Station with SGR-8206-SPBU DECT Handset to interoperate with Avaya IP Office. G-Tek/AEi's SSP-9210-SMG SIP Phone/DECT Base Station with SGR-8206-SPBU DECT Handset is a phone used in the hospitality industry.

2. General Test Approach and Test Results

To verify interoperability of G-Tek/AEi's device with IP Office, calls were made between G-Tek/AEi telephones and Avaya SIP, H.323, analog and digital telephones using various codec settings and exercising common PBX features. Various telephony features were also activated and deactivated using speed-dial buttons.

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

Interoperability compliance testing covered the following features and functionality:

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Note: *All tests were executed using base cordless and remote cordless handsets.*

- Calls between G-Tek/AEi telephones and PSTN, Avaya SIP, H.323, analog, and digital telephones.
- Basic features including the following:
 - Answer
 - Hang up
 - DTMF transmission
 - Message Waiting Indicator (MWI).
 - Abort
 - Music on hold
 - Short Codes
 - Long duration
 - Invalid Number
 - Busy
 - Forward
 - DND
 - Conference
 - Alarm Scheduling and Alarm Call

- IP Office was rebooted and the GTek/AEi Communications telephones were disconnected and re-connected to test serviceability.

2.2. Test Results

All test cases were executed and passed successfully.

2.3. Support

Technical support from G-Tek/AEi Communications can be obtained through the following:

- Phone: +1-650-552-9416
- E-mail: techsupport@aeicomunications.com

3. Reference Configuration

The diagram illustrates an enterprise site with an Avaya SIP-based network, including IP Office, Avaya SIP, H.323, analog, and digital endpoints. Two G-Tek/AEi SSP-9210-SMG SIP Phone/DECT Base Stations with SGR-8206-SPBU DECT Handsets, registered with IP Office, were also used during the compliance test.

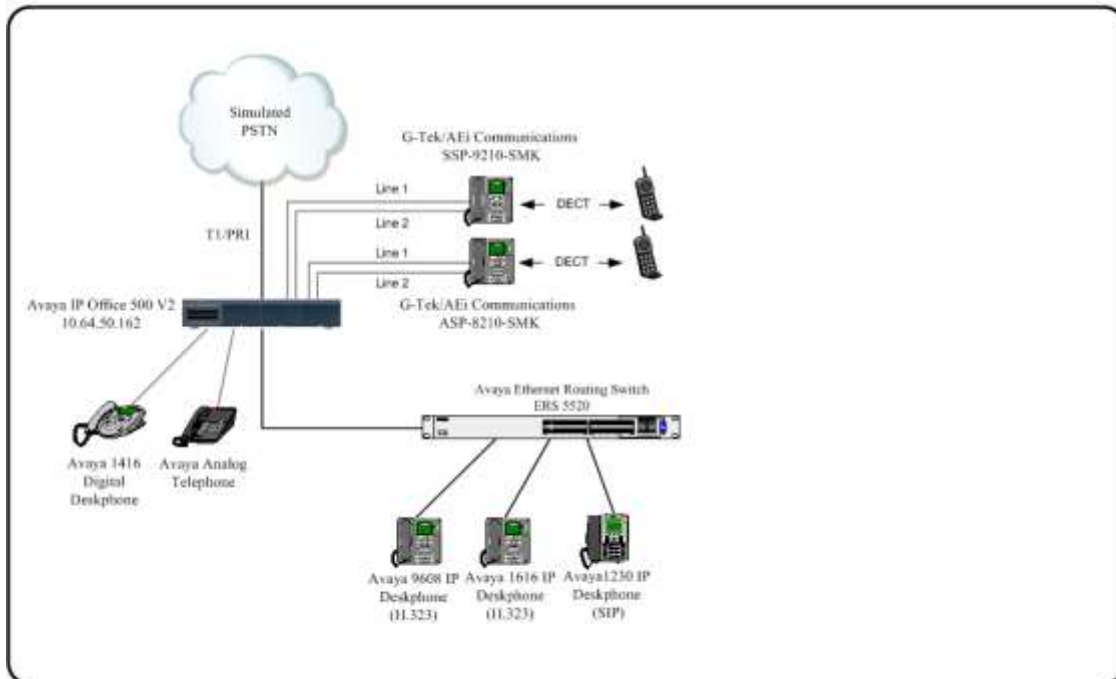


Figure 1: G-Tek/AEi SSP-9210-SMG SIP Phone/DECT Base Station with SGR-8206-SPBU DECT Handset Reference Configuration

4. Equipment and Software Validated

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

Equipment/Software	Release/Version
<i>Avaya PBX Products</i>	
Avaya IP Office 500 V2	9.1.0.0 build 437
<i>Avaya Messaging (Voice Mail) Products</i>	
Avaya Voicemail Pro	9.1.0.0 build 166
<i>Avaya Endpoints</i>	
Avaya 1616 IP Deskphone	(H.323 3.2)
Avaya 9608 IP Deskphone	(H.323 6.4)
Avaya 1230 IP Deskphone	(SIP 04.04.18.00)
Avaya Digital Telephone	R39
Avaya Analog Telephone	NA
<i>G-Tek/AEi Communications Products</i>	
ASP-9210-SMK analog telephone	2.01F3
AGR-8206-SPBU DECT Handset	2.57

5. Configure Avaya IP Office

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

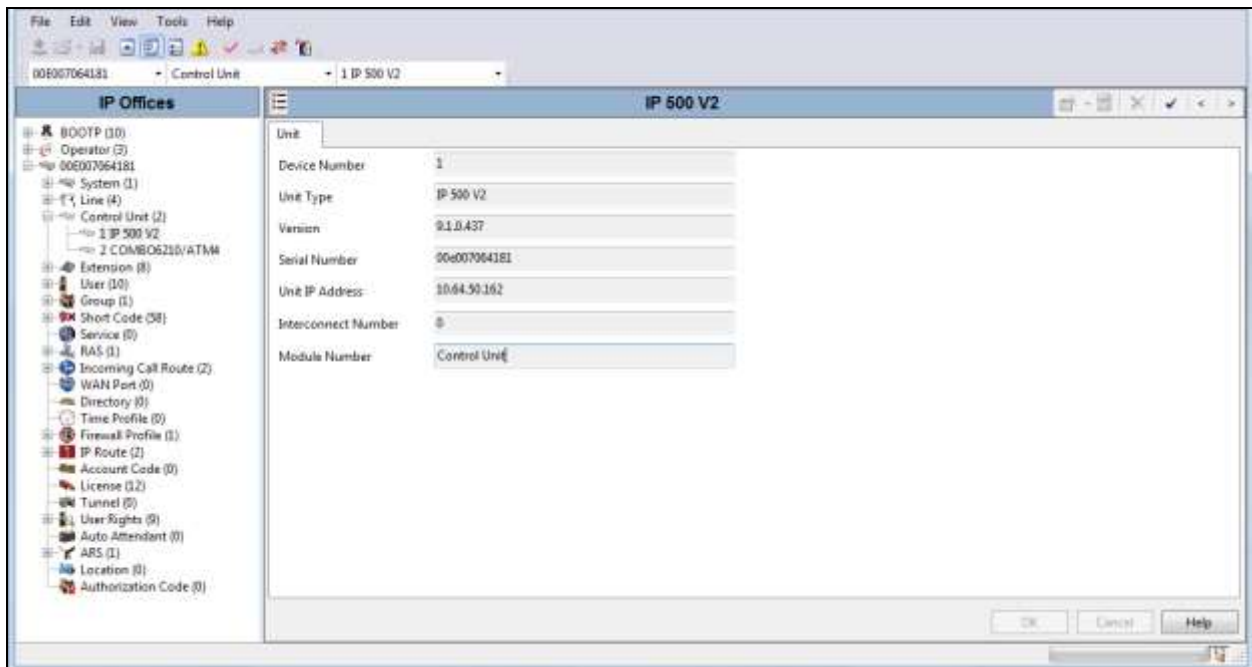
Note: For these Application Notes it is assumed that IP Office has already been installed and licensed for operation. Information included within is specifically for configuring the ASP-9210-SMK for operation with IP Office.

5.1. Connect to IP Office using Manager

From a PC running the IP Office Manager application, select **Start → All Programs → IP Office → Manager** to launch the Manager application. Select the desired IP Office system and login with the appropriate credentials.

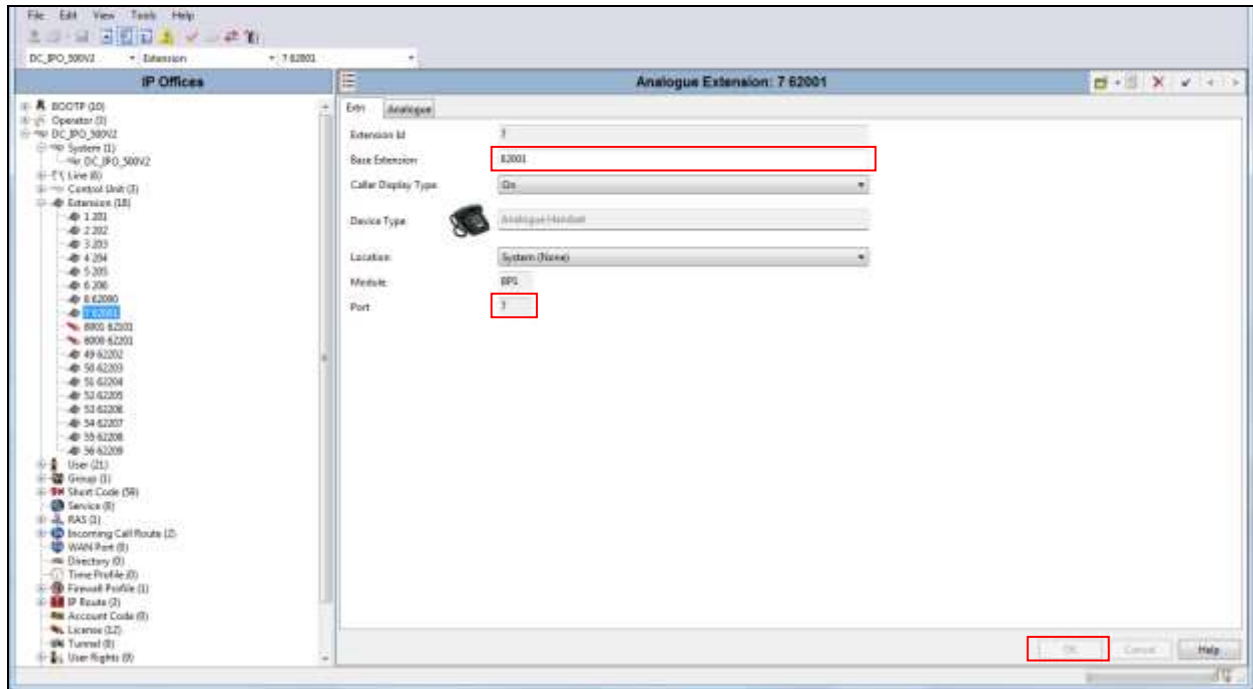
5.2. Verify IP Office Control Unit

From the configuration tree in the navigation pane, expand **Control Unit** and select **IP 500 V2**. Verify **Unit Type** and **Version**. This compliance test verified functionality using IP Office 500 V2 hardware with version 9.1.0.437 software.



5.3. Configure Extension

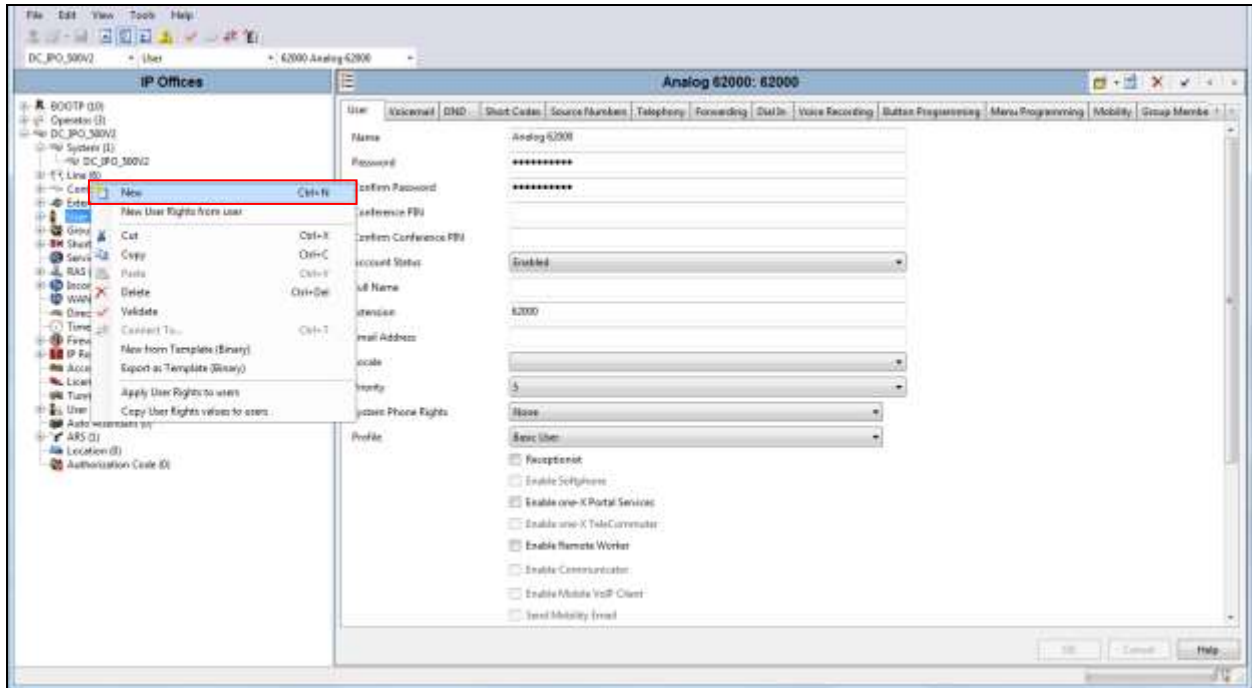
From the left pane select DC_IPO_500V2 → **Extension** and the relevant analog port. In this example the **Base Extension** has been configured as **62001** and the analog port that the SSP-9210-SG will be connected to on the IP Office 500V2 device is **Port 7**. When finished click **OK** to save the configuration.



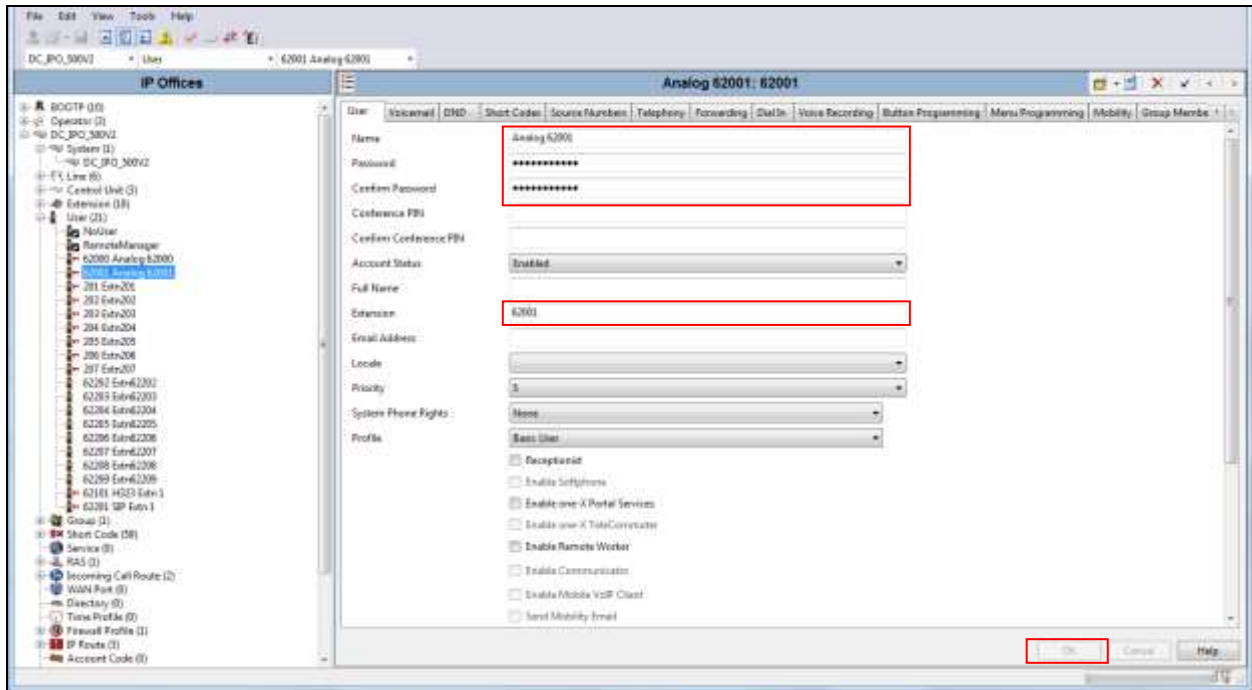
Note: Port 8 extension 62000 was used as the second line for dual line testing.

5.4. Configure User

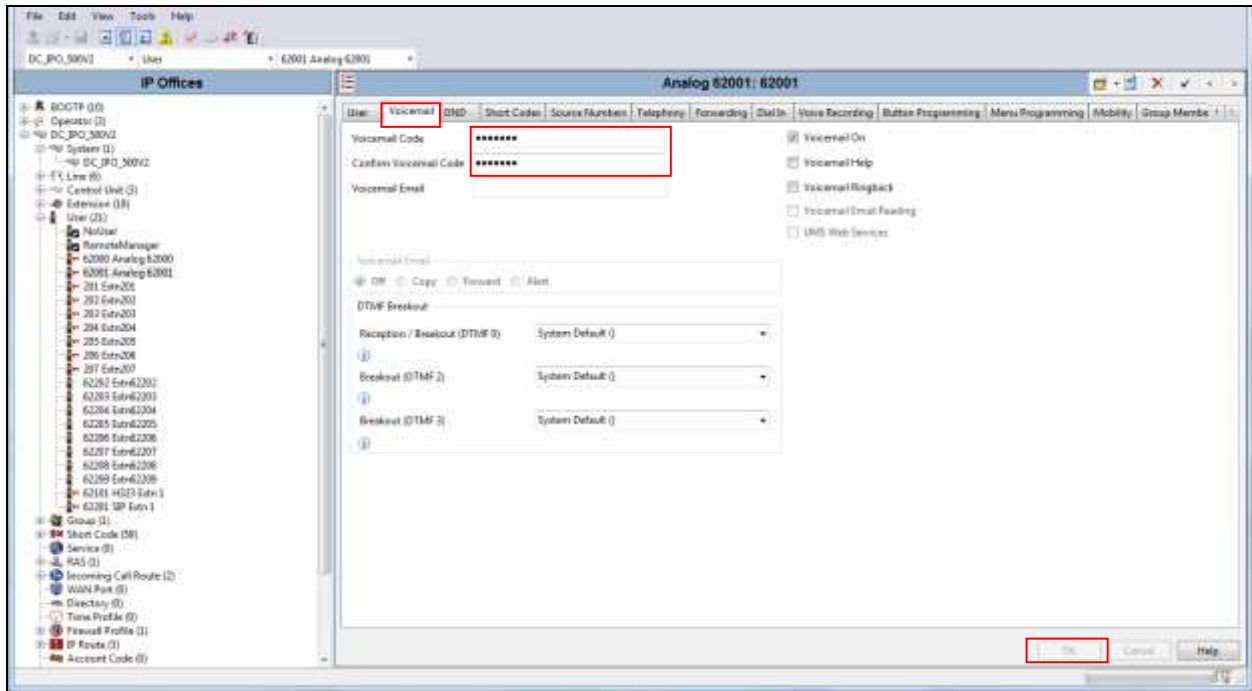
From the left pane right-click **User** and select **New**. This will display a new user configuration section in the right pane.



In this section enter a **Name**, **Password**, and the **Extension** that was configured **Section Error!**
Reference source not found..
When finished click **OK**.



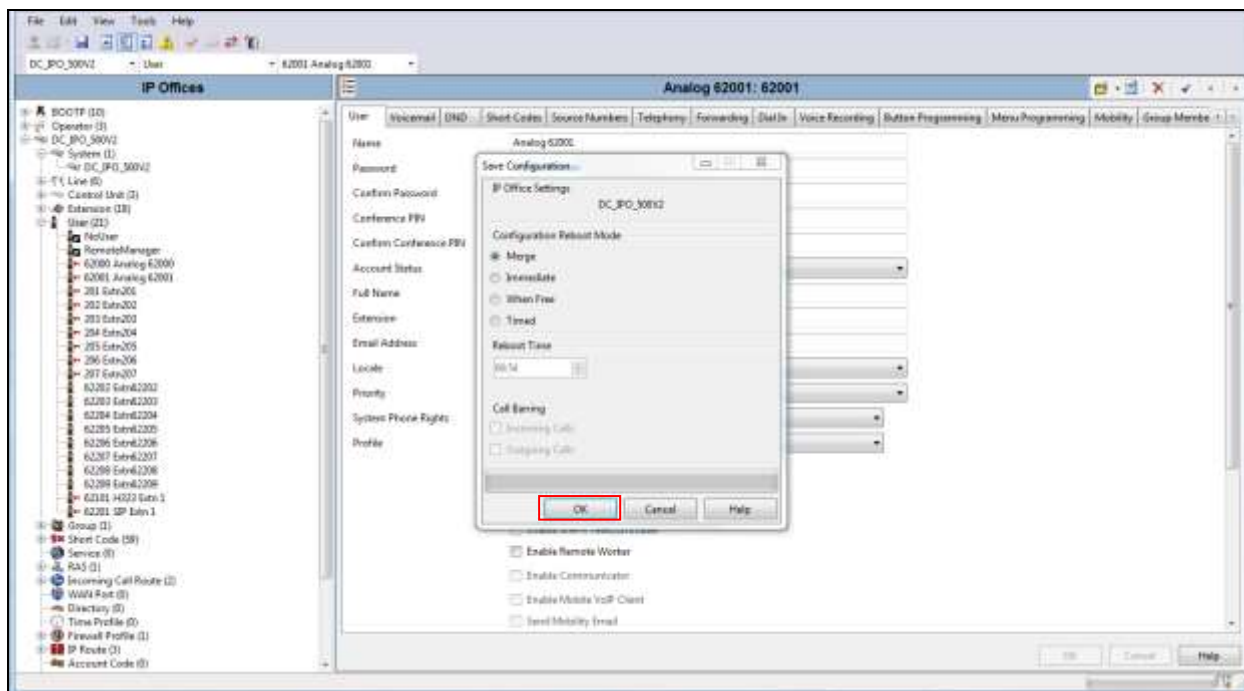
Now select the **Voicemail** tab and enter a **Voicemail Code**. When finished click **OK** to save the configuration.



Note: *Sections 5.3 and 5.4 should be repeated for every line of every GTek/AEi Communications analog telephone.*

5.5. Save IP Office Configuration

From the top toolbar select → **File** → **Save Configuration**. Click **OK** to save the configuration.



6. Configure G-Tek/AEi SSP-9210-SMG SIP Phone/DECT Base Station with SGR-8206-SPBU DECT Handset

This section provides the procedures for configuring G-Tek/AEi's SSP-9210-SMG SIP Phone with DECT Base Station with an SGR-8206-SPBU DECT Handset. The procedures include the following areas:

- Access Web Interface
- Configure SIP Account and DTMF Settings
- Configure Audio Codecs
- Configure Tone Settings
- Reboot after configuration
- Pairing SGR-8206-SPBU with SSP-9210-SMG

6.1. Access Web Interface

Enter <http://<ip-addr>:8000/>, where <ip-addr> is the IP address of the G-Tek/AEi phone, into the address bar of web browser and log in using a valid account. The **System Information** screen is displayed.



The screenshot shows the 'Web Configuration' interface for an Avaya system. At the top, there is a header with a telephone icon on the left, the text 'Web Configuration' in the center, and a red double-arrow icon on the right. Below the header is a navigation sidebar on the left with a white arrow pointing right. The sidebar contains the following menu items: 'Phone Settings', 'System Settings', 'Global SIP Settings', 'SIP Accounts', and 'Network'. The 'System Settings' item is highlighted with a white arrow. The main content area is titled 'System Information' and contains the text 'This page illustrate the system related information.' Below this text is a table with three rows of system information.

System Information	
Model Name:	VDP
Firmware Version:	SSP92105G_V27
Codec Version:	Fri Mar 26 10:47:24 2004

6.2. Configure SIP Account

Select **SIP** → **SIP Accounts** from the left menu, and click **Add**.



The screenshot displays the 'Web Configuration' interface. At the top, there is a header with a telephone icon and the text 'Web Configuration' followed by a red double arrow icon. On the left side, there is a vertical navigation menu with the following items: 'Phone Settings', 'System Settings', 'Global SIP Settings', 'SIP Accounts', and 'Network'. The 'SIP Accounts' item is highlighted. The main content area is titled 'SIP Accounts' and contains the text: 'You could set information of service domians in this page.' Below this text is a horizontal bar. Underneath the bar is a table with the following structure:

SIP Accounts				
Display Name	Registration Server	Status	Registration	Select
				<input type="checkbox"/>
				<input type="checkbox"/>
				<input type="checkbox"/>

Below the table are two buttons: 'Add' and 'Delete'.

Set **Active:** to **Enable**. Enter username configured on IP Office for **Registration ID:**, **Display Name:**, and **Authentication Name:**. Provide user password for **Password:**. In the **Registration Server** and **Proxy Server** fields enter the IP Address of IP Office's signaling interface. Enter **Voice Mail:** Number, select **RFC2833** for **DTMF Type:** and select **Enable** for **MWI:**

Click **Submit**, and **Status:** should display **Registered**.

The screenshot shows the 'Web Configuration' interface for SIP Account Settings. The main area is titled 'SIP Account Settings' and contains a form for 'SIP Account 1'. The form includes the following fields and options:

- Active:** Enable Disable
- Registration ID:** 61021
- Display Name:** 61021
- Authentication Name:** 61021
- Password:** *****
- Registration Server:** 10.64.50.31
- Proxy Server:** 10.64.50.31
- Proxy Address:** (empty)
- Voice Mail:** 69997
- Expire Time:** 60
- DTMF Type:** RFC2833
- Send KeepAlive:** Disable
- MWI:** Enable
- Mode:** Single
- Status:** registered

At the bottom of the form are 'Submit' and 'cancel' buttons. The left navigation menu includes: Phone Settings, System Settings, Global SIP Settings, SIP Accounts, and Network.

6.3. Pair DECT Handset with Base Station

Please follow steps below for pairing DECT handset with Base Station

1. On the SSP-9210-SMG keypad, please press "Mute" *112*811# to clear all paired handsets and open for new pairing.
2. On the wireless handset, press **6862* and then press 2 to enter subscriber mode.
3. The LCD display will show the RFPI number, if it located one (It should match the RFPI number printed on the back of the SSP-9210-SMG).
4. Press the green L1 button to connect the handset to the base.

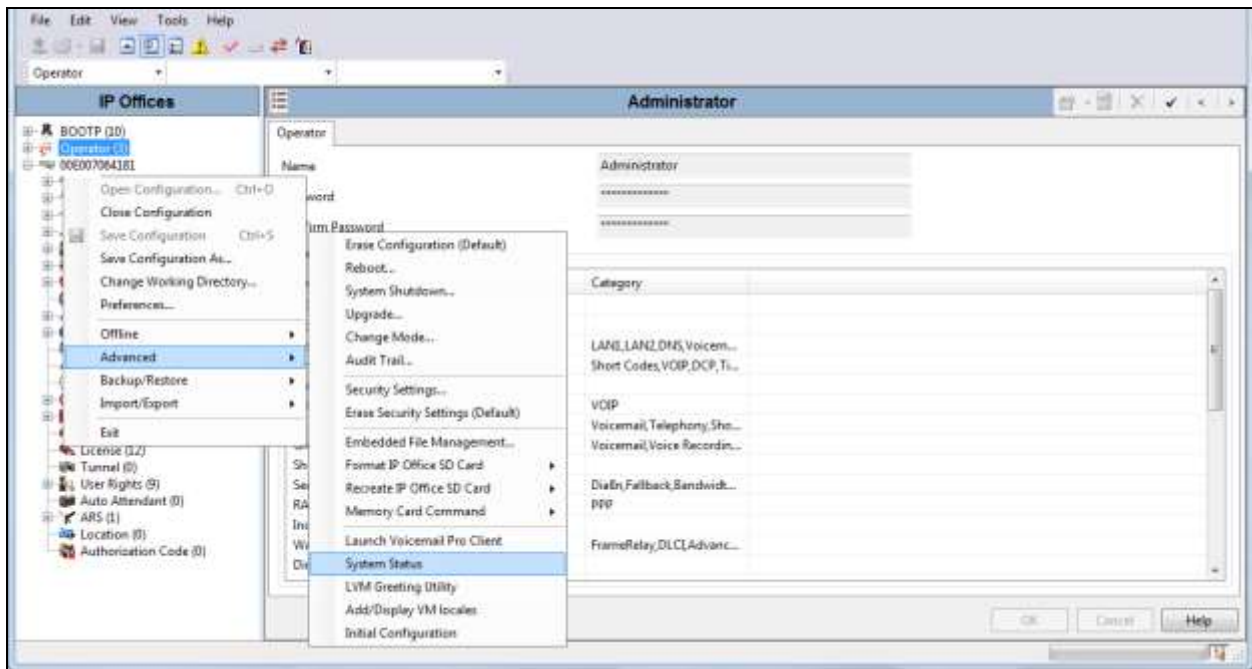
5. If the handset doesn't find the base station, press # to search for the next one.
6. Once connected, the extension number provisioned on the base should be displayed on the DECT handset.

7. Verification Steps

This section provides the tests that can be performed to verify proper configuration of IP Office and G-Tek/AEi SSP-9210-SG SIP Phones.

7.1. IP Office System Status

From the IP Office Manager click **File** → **Advanced** → **System Status**. This launches the System Status tool for IP Office.



Enter the appropriate credentials to login. Once System Status has launched, from the left pane expand **Extensions** and select an extension number of the SSP-9210-SG in order to verify its status. Additionally other **Extensions**, **Alarms**, and **Resources** including licenses status can be verified in System Status.

AVAYA IP Office System Status

Help Snapshot LogOff Exit About

- System
- Alarms (0)
- Extensions (1)**
 - 201
 - 202
 - 203
 - 204
 - 205
 - 206
 - 208
 - 62001**
- Trunks (4)
- Active Calls
- Resources
- Voicemail
- IP Networking
- Locations

Extension Status

Extension Number: 62001
 Slot: 1
 Port: 7
 Active Location: None
 Telephone Type: PDI (CLI On)
 Current User Extension Number: 62001
 Current User Name: Analog 62001
 Forwarding: Off
 Twinning: Off
 Do Not Disturb: Off
 Message Waiting: Off
 Number of New Messages: 0
 Phone Manager Type: None
 Packet Loss Fraction:
 Jitter:
 Round Trip Delay:
 Connection Type: Codec
 Remote Media Address:

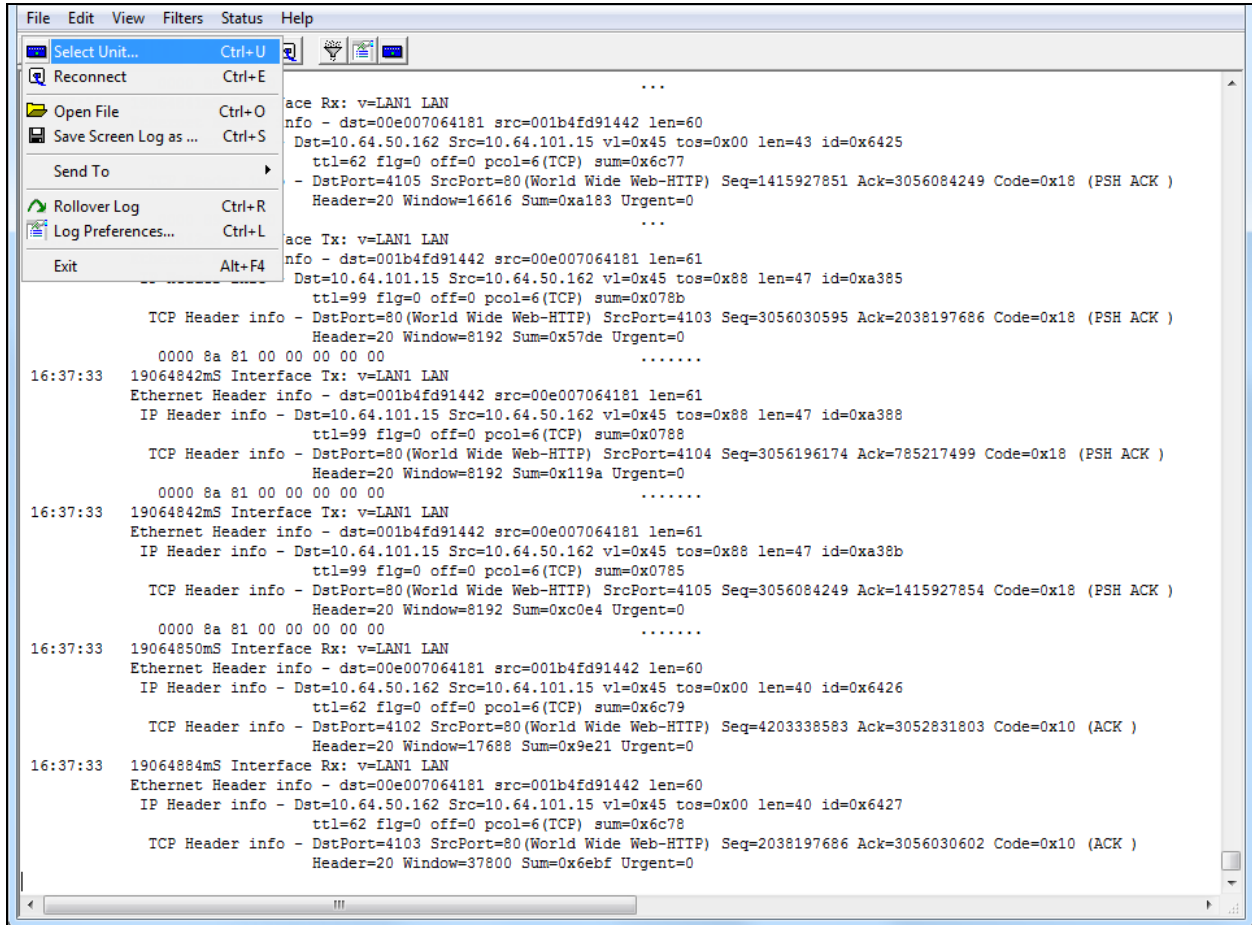
Call Ref	Current State	Time in State	Calling Number or Called Number	Direction	Other Party in Call
	Idle	00:47:13			

Trace Trace All Pause Call Details Print Save As...

139.171M Close

7.2. IP Office Monitor

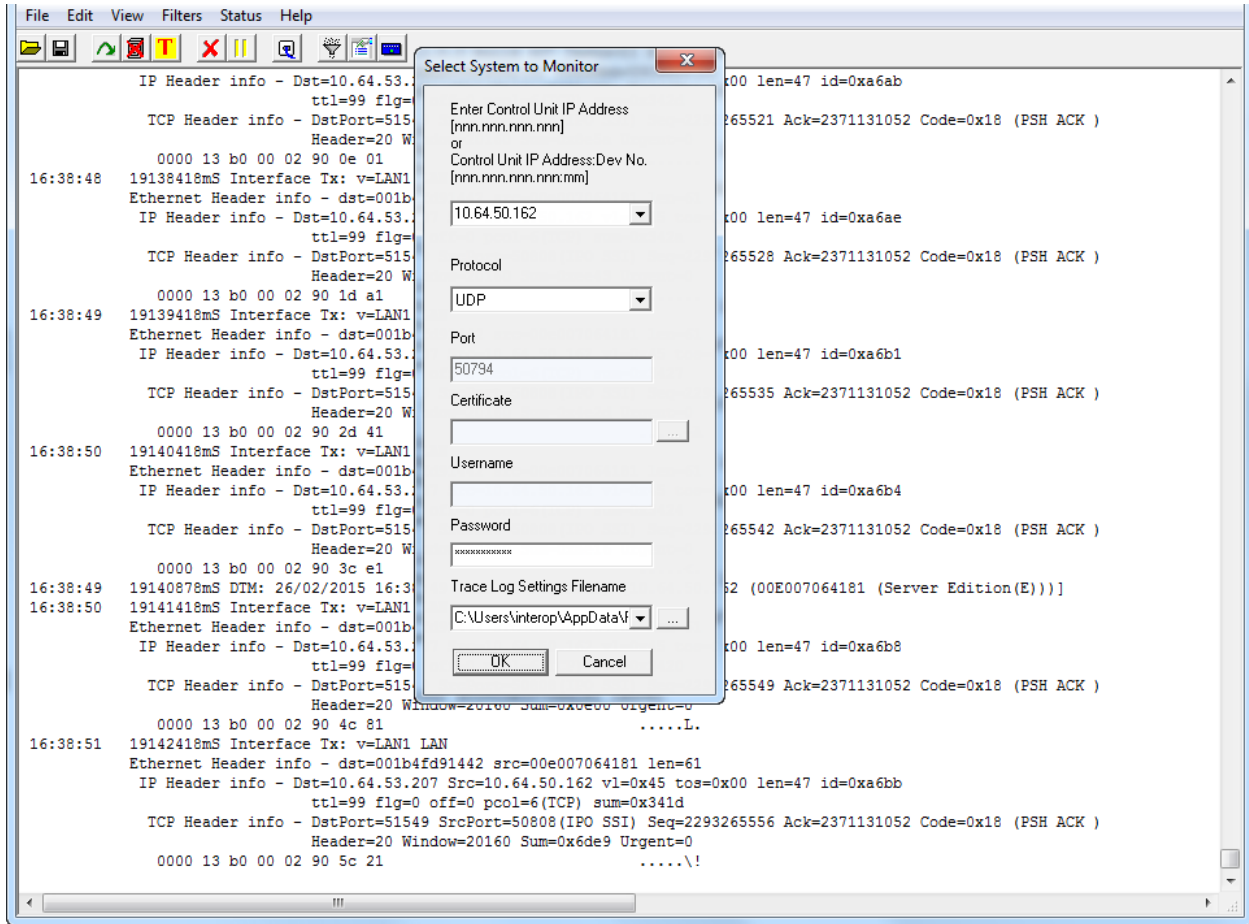
From the Windows Start Menu select **All Programs** → **IP Office** → **Monitor** to launch the Monitor program. Once Monitor is launched from the top menu bar select **File** → **Select Unit**.



The screenshot shows the IP Office Monitor application window. The menu bar includes File, Edit, View, Filters, Status, and Help. The File menu is open, showing options like Select Unit... (Ctrl+U), Reconnect (Ctrl+E), Open File (Ctrl+O), Save Screen Log as... (Ctrl+S), Send To, Rollover Log (Ctrl+R), Log Preferences... (Ctrl+L), and Exit (Alt+F4). The main window displays a log of network traffic. The log entries are as follows:

```
...
ace Rx: v=LAN1 LAN
nfo - dst=00e007064181 src=001b4fd91442 len=60
Dst=10.64.50.162 Src=10.64.101.15 vl=0x45 tos=0x00 len=43 id=0x6425
ttl=62 flg=0 off=0 pcol=6(TCP) sum=0x6c77
- DstPort=4105 SrcPort=80(World Wide Web-HTTP) Seq=1415927851 Ack=3056084249 Code=0x18 (PSH ACK )
Header=20 Window=16616 Sum=0xa183 Urgent=0
...
ace Tx: v=LAN1 LAN
nfo - dst=001b4fd91442 src=00e007064181 len=61
Dst=10.64.101.15 Src=10.64.50.162 vl=0x45 tos=0x88 len=47 id=0xa385
ttl=99 flg=0 off=0 pcol=6(TCP) sum=0x078b
TCP Header info - DstPort=80(World Wide Web-HTTP) SrcPort=4103 Seq=3056030595 Ack=2038197686 Code=0x18 (PSH ACK )
Header=20 Window=8192 Sum=0x57de Urgent=0
0000 8a 81 00 00 00 00 00 .....
16:37:33 19064842mS Interface Tx: v=LAN1 LAN
Ethernet Header info - dst=001b4fd91442 src=00e007064181 len=61
IP Header info - Dst=10.64.101.15 Src=10.64.50.162 vl=0x45 tos=0x88 len=47 id=0xa388
ttl=99 flg=0 off=0 pcol=6(TCP) sum=0x0788
TCP Header info - DstPort=80(World Wide Web-HTTP) SrcPort=4104 Seq=3056196174 Ack=785217499 Code=0x18 (PSH ACK )
Header=20 Window=8192 Sum=0x119a Urgent=0
0000 8a 81 00 00 00 00 00 .....
16:37:33 19064842mS Interface Tx: v=LAN1 LAN
Ethernet Header info - dst=001b4fd91442 src=00e007064181 len=61
IP Header info - Dst=10.64.101.15 Src=10.64.50.162 vl=0x45 tos=0x88 len=47 id=0xa38b
ttl=99 flg=0 off=0 pcol=6(TCP) sum=0x0785
TCP Header info - DstPort=80(World Wide Web-HTTP) SrcPort=4105 Seq=3056084249 Ack=1415927854 Code=0x18 (PSH ACK )
Header=20 Window=8192 Sum=0xc0e4 Urgent=0
0000 8a 81 00 00 00 00 00 .....
16:37:33 19064850mS Interface Rx: v=LAN1 LAN
Ethernet Header info - dst=00e007064181 src=001b4fd91442 len=60
IP Header info - Dst=10.64.50.162 Src=10.64.101.15 vl=0x45 tos=0x00 len=40 id=0x6426
ttl=62 flg=0 off=0 pcol=6(TCP) sum=0x6c79
TCP Header info - DstPort=4102 SrcPort=80(World Wide Web-HTTP) Seq=4203338583 Ack=3052831803 Code=0x10 (ACK )
Header=20 Window=17688 Sum=0x9e21 Urgent=0
16:37:33 19064884mS Interface Rx: v=LAN1 LAN
Ethernet Header info - dst=00e007064181 src=001b4fd91442 len=60
IP Header info - Dst=10.64.50.162 Src=10.64.101.15 vl=0x45 tos=0x00 len=40 id=0x6427
ttl=62 flg=0 off=0 pcol=6(TCP) sum=0x6c78
TCP Header info - DstPort=4103 SrcPort=80(World Wide Web-HTTP) Seq=2038197686 Ack=3056030602 Code=0x10 (ACK )
Header=20 Window=37800 Sum=0x6ebf Urgent=0
```

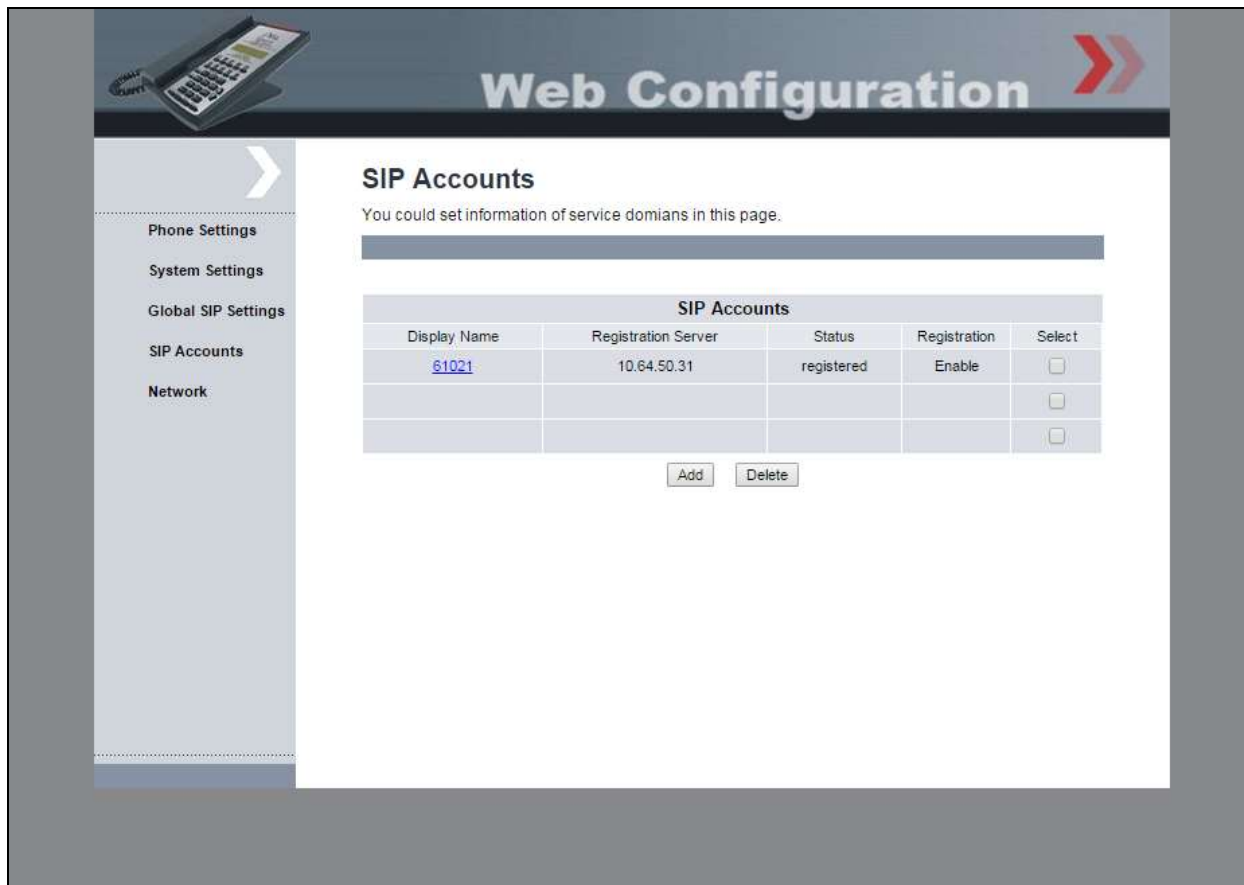

Enter the IP address and password for the unit.



Try searching for one of the extensions in to find information about the call. The extensions were configured in **Section 5.3**.

```
File Edit View Filter Status Help
TCP Header info - SrcPort=80(World Wide Web-HTTP) SrcPort=8104 Seq=9156211694 Acc=765221914 Code=0x10 (ACK)
Header=20 Window=6152 Sum=0x6c00 Urgent=0
16:57:04 202345248S Interface Fa: v-LAN1 LAN
Ethernet Header info - Dest=00144f381443 src=00e07044181 len=64
IP Header info - Dest=10.44.101.15 Src=10.64.50.162 v1=0x45 tos=0x00 len=60 id=0x0290
ttl=88 frag=0 offset=0 pcol=6(TCP) sum=0x0d04
TCP Header info - DestPort=80(World Wide Web-HTTP) SrcPort=4125 Seq=9156014793 Acc=1413920015 Code=0x10 (ACK)
Header=20 Window=6152 Sum=0x456c Urgent=0
16:57:04 202345216S CHCallEvt: 000010001000000 0.1039.0 -1 BaseEP: NEW CHEndpoint f16be55 TOTAL ROW=1 CALL_LIST=0
16:57:04 202345216S CHCallEvt: 000010001000000 0.1039.0 -1 Analog42001 -1: NEW CHExtEndpoint f16be55, Name=Analog42001, Extn=42001, Phys Extn=42001
16:57:04 202345216S CHCallEvt: CREATE CALL_LIST (f16be544)
16:57:04 202345216S CHCallEvt: 000010001000000 0.1040.0 -1 BaseEP: NEW CHEndpoint f16be77b TOTAL ROW=2 CALL_LIST=0
16:57:04 202345248S CHExtEvt: Analog42001: CHExtEndpoint: SrcCurrent: 16: 0-0309 1
16:57:04 202345248S CHExtEvt: v=42001, pl=0
CHSetup:
Line: type=AnalogExtn 18 Call: lcn=0 id=1 in=0
Called[] Type=Default (103) Reason=CHExtDirect Calling[42001] Type=Internal Plan=Default
EC: CHC+Speech CHM+Circuit CHDP=44 CHST=Default CHD=0Lse
16:57:04 202345248S CHCallEvt: 844032a20100040f 0.1039.0 18 Analog42001.0: StateChange: END->CHCSDialInitiated
16:57:04 202345248S CHExtEvt: v=1 State, new=0dialing. gid=Idic.0.0,Analog42001
16:57:04 202345248S CHTARGET: 844032a20100040f 0.1039.0 18 Analog42001.0: LOOKUP CALL ROUTE: SID=0 type=100 called_party= sum= calling=42001 dir=out complete=0 str=0
16:57:04 202345248S CHTARGET: 844032a20100040f 0.1039.0 18 Analog42001.0: AED TARGET (H): number= type=100 str=1 notex=1 actorig=1 str=0
16:57:04 202345248S CHCallEvt: 844032a20100040f 0.1039.0 18 Analog42001.0: StateChange: END->CHCSDialInitiated->CHCSDialing
16:57:04 202345248S CHExtEvt: v=42001, pl=0
CHSetupAck
Line: type=AnalogExtn 18 Call: lcn=0 id=1 in=0
EChan: slot=0 chan=7
URI type=Local [.....] [0x01 0x02 0x10 0x02 0x01 0x02 0x32 0x50 0x64 0x05 0x05 0x00 ]
Times: 26/02/18 16:57
16:57:04 202345216S CD: CALL: 0.1039.0 80State=Idle Out=1 Music=0.0 Amd="Analog42001(42001)" (0.?) Snd="" [ (0.0) CalledName= () CallingNum=42001 (Analog42001) Internal=3 Time=0 AState
16:57:04 2023452748S CHMsg: s=1.5 b=0.0 H
16:57:04 202345748S Interface Fa: v-LAN1 LAN
Ethernet Header info - Dest=00144f381443 src=00e07044181 len=64
IP Header info - Dest=10.44.101.15 Src=10.64.50.162 v1=0x45 tos=0x00 len=60 id=0x021a
ttl=88 frag=0 offset=0 pcol=6(TCP) sum=0x0d01
TCP Header info - DestPort=8144 SrcPort=30814 Seq=305732251 Acc=1393211474 Code=0x10 (PSH ACK)
Header=20 Window=20360 Sum=0x6148 Urgent=0
0000 07 00 2e 07 00 00 36 00 00 00 00 00 00 00 00 .....
2010 20 2e 40 53 9d 00 20 00 00 28 08 00 90 09 00 ..&.....
16:57:04 202345748S Interface Fa: v-LAN1 LAN
Ethernet Header info - Dest=00e07044181 src=00184f391442 len=60
IP Header info - Dest=10.44.50.162 Src=10.64.101.15 v1=0x45 tos=0x00 len=60 id=0x8181
```

From the web interface of the G-Tek/AEi SSP-9210-SMG phone, select **SIP Accounts** from the left menu. Verify that the **Status** field shows **registered**.



8. Conclusion

These Application Notes describe the configuration steps required for G-Tek/AEi Communications SSP-9210-SMG SIP Phone with DECT Base Station and SGR-8206-SPBU DECT Handset to successfully interoperate with IP Office. All feature and serviceability test cases were completed successfully.

9. Additional References

This section references documentation relevant to these Application Notes. Avaya product documentation is available at <http://support.avaya.com>. GTek/AEi Communications product documentation can be found at <http://www.aeicomunications.com>.

[1] *Administering Avaya IP Office™ Platform with Manager* Release 9.1.0 Issue 10.04 February 2015.

[2] *SSP-9210-SG Configuration Guide V 1.02*.

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