



Avaya Solution & Interoperability Test Lab

Application Notes for Spectralink Kirk Wireless Server 6500/400 with Avaya IP Office 8.1 - Issue 1.0

Abstract

These Application Notes describe the configuration steps required for the Spectralink Kirk Wireless Server 6500/400 to successfully interoperate with Avaya IP Office. Functionality was validated and compliance testing was conducted in order to verify proper operation.

Information in these Application Notes has been obtained through interoperability compliance testing and additional technical discussions. Testing was conducted via the DevConnect Program at Avaya Solution and Interoperability Test Lab.

1. Introduction

The Kirk Wireless Server is a wireless Digital Enhanced Cordless Telecommunications (DECT) solution capable of communicating via Session Initiation Protocol (SIP) with Avaya IP Office. The Kirk Wireless Server combines wireless DECT with SIP IP telephony. Each Kirk Wireless Server can register up to 4,096 wireless DECT phones and handle up to 1,024 simultaneous calls.

2. General Test Approach and Test Results

The compliance testing focused on the ability of the Kirk Wireless Server and Kirk DECT handsets to interoperate with Avaya IP Office and various Avaya telephones, including SIP, H.323, digital and analog. The interoperability compliance test included feature and serviceability testing. The Kirk Butterfly and 6020 handsets functioned correctly with good audio quality in both directions. All test cases were executed manually.

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 functionality, failover and serviceability testing. The main objective was to verify Kirk Wireless Server interoperability with Avaya IP Office.

Functionality was tested across a range of basic telephony operations including:

- Basic calls to/from Avaya and Kirk DECT handsets
- Call Hold
- Call Transfer (Blind and Supervised)
- Call Diversion/Forwarding
- Conference Calls
- Message Waiting
- Caller ID
- Call Park
- Base Station Roaming
- Base Station Failure

Failover testing was performed by disconnecting one of the active base stations. Serviceability tests were performed by resetting and reconnecting the Kirk DECT handsets, restarting Avaya IP Office and resetting the Kirk Wireless Server.

2.2. Test Results

Spectralink successfully achieved the above objectives. All test cases passed.

Note: During compliance testing, after a blind transfer, the Kirk Butterfly handset was unable to place or receive calls for approximately 30 seconds. It was determined by Spectralink to be a firmware problem with the Butterfly handset. Spectralink delivered a firmware fix that was re-tested and resolved the problem.

Additionally, the Spectralink Kirk Wireless Server 400 was not used in compliance testing, however, Spectralink has provided the following statement:

“We, Spectralink Corporation, hereby confirms that the following IP-DECT servers, KIRK Wireless Server 400 KIRK Wireless Server 6500, are based on the same platform and therefore:

- Use identical SIP stack
- Use identical XML-RPC API for messaging
- Use the same firmware for support of both platforms”

2.3. Support

For technical support on Spectralink products, contact Spectralink at technicalsupport@spectralink.com , or refer to <http://support.spectralink.com>.

3. Reference Configuration

Figure 1 illustrates the setup used for compliance testing. The configuration enabled Avaya IP Office, to interoperate with the Kirk Wireless Server using SIP. Spectralink DECT handsets register with the Kirk Wireless Server via the Spectralink Base Stations and the Kirk Wireless Server functions as a SIP Proxy for the Spectralink DECT handsets.

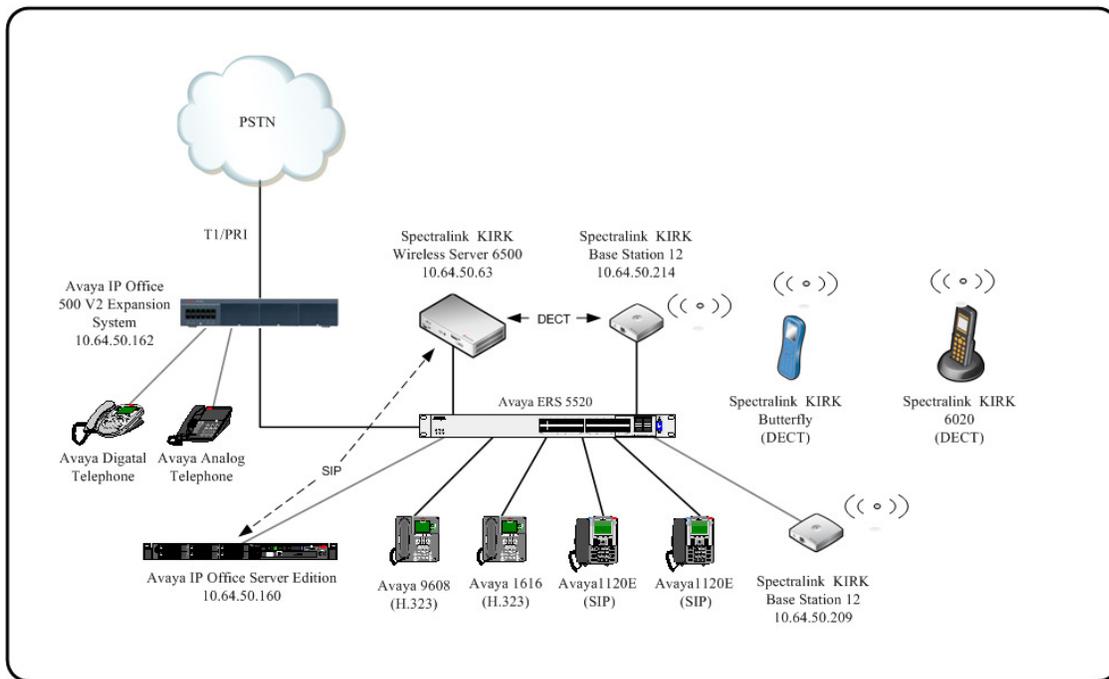


Figure 1: Spectralink Kirk Wireless Server Solution

4. Equipment and Software Validated

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

Equipment	Software/Firmware
<i>Avaya PBX Products</i>	
Avaya IP Office Server Edition	v8.1.96-14
Avaya IP Office 500 V2	v8.1-65
<i>Avaya Messaging (Voice Mail) Products</i>	
Avaya IP Office Voicemail Pro	v8.1.9016.0
<i>Avaya Endpoints</i>	
Avaya 96xx Series IP Telephones	H.323 S3.105S
Avaya 96x1 Series IP Telephones	H.323 S6.2209
Avaya 1616 IP Telephone	1.3SP2
Avaya 11xxE Series IP Telephones	Load Version 04.03.12.00 Firmware Version SIP1120
Avaya Digital Telephone	NA
Avaya Analog Telephone	NA
<i>Spectralink® Kirk® Products</i>	
Spectralink Kirk Wireless Server 6500	PCS13B_
Spectralink Kirk Base Station 12	PCS13B_
Spectralink Kirk 60-Handset Series	13A
Spectralink Kirk Butterfly Handset Series	13A (13FB includes fix for observation noted in 2.2)

5. Configure Avaya IP Office

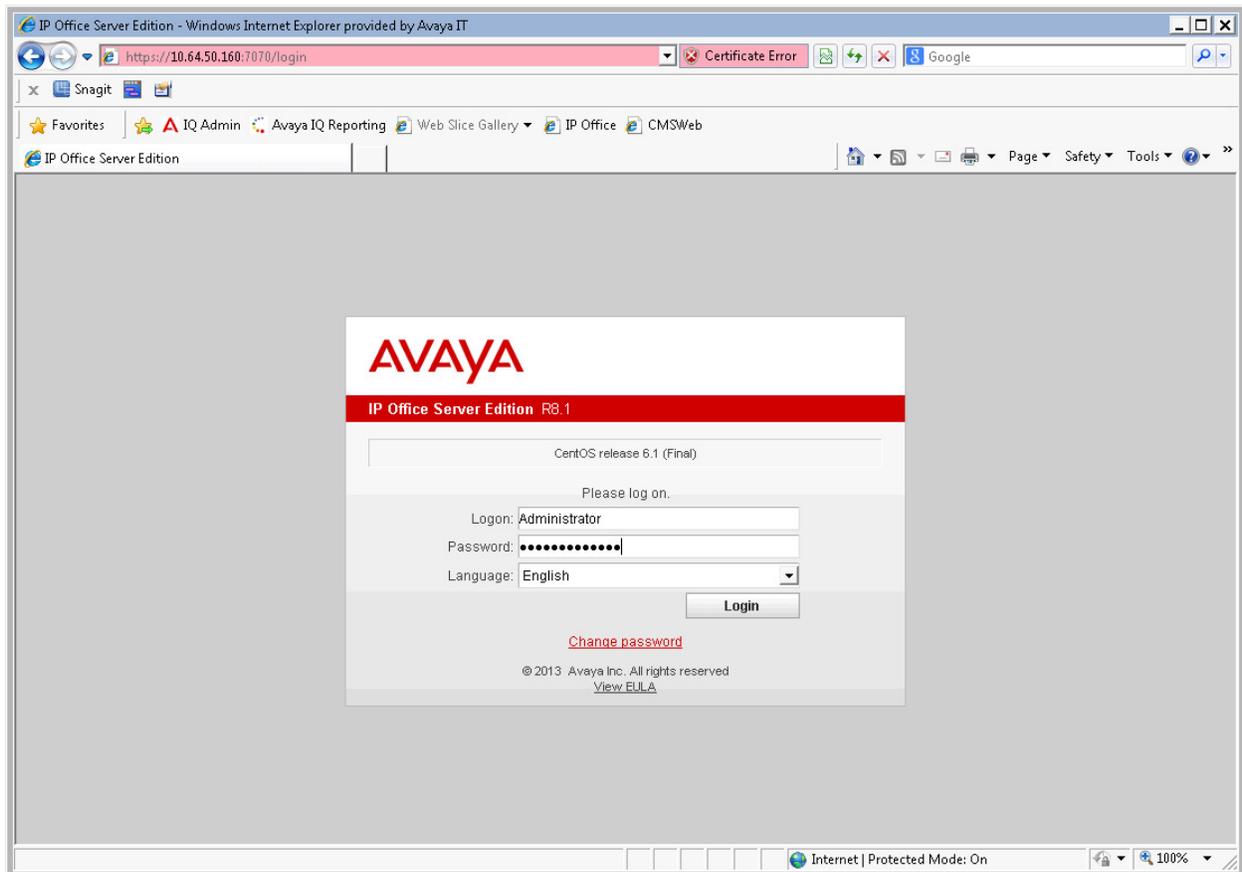
This section describes the Avaya IP Office configuration to support the network shown in **Figure 1**. The basic configuration for Avaya IP Office Server Edition including an Expansion System is beyond the scope of these Application Notes, and therefore not included. Please refer to [1] for detailed configuration instructions. The configuration of Avaya IP Office was performed using the Avaya IP Office Manager application. Once completed the Avaya IP Office Manager Configuration must be saved and uploaded to the Avaya IP Office System.

The Avaya IP Office configuration includes following sections:

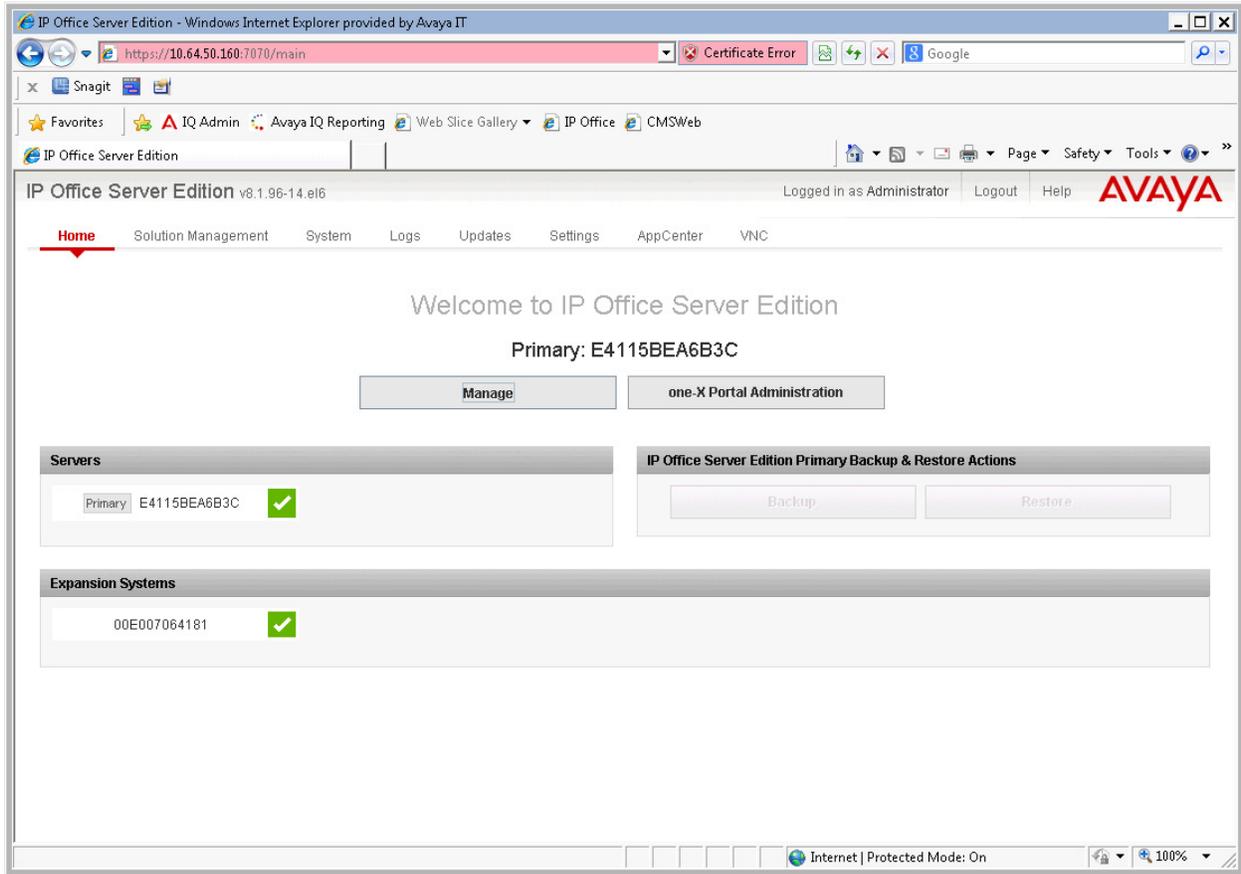
- Connect to Avaya IP Office Server Edition using Manager
- Verify Avaya IP Office Licenses
- Verify Voice Compression Module (VCM) Resources
- Configure Avaya IP Office Users and Extensions
- Saving Avaya IP Office Configuration

5.1. Connect to Avaya IP Office Server Edition

From a PC running the Avaya IP Office Manager application, start a Web Browser and enter the URL for IP Office Server Edition, <https://<Avaya IP Office IP Address>:7070>, and login with valid credentials.



From the main screen, select **Manage** to launch the Avaya IP Office Manager Application.



5.2. Verify Avaya IP Office Licenses

From the Open... Menu, in the right configuration pane, select **Configuration** to view the Configuration Tree.

The screenshot displays the Avaya IP Office R8.1 Manager interface. The window title is "Avaya IP Office R8.1 Manager for Server Edition E4115BEA6B3C [8.1(65)] [Administrator/Administrator]". The main area is titled "Server Edition" and contains a "Summary" section with a server image and the text "Server Edition Primary".

Hardware Installed

- Control Unit: IPO-Linux-PC
- Secondary Server: NONE
- Expansion Systems: 10.64.50.162
- System Identification: 107fc62dd529ca9622b598b1f188028c3f4dc870
- Serial Number: e4115bea6b3c

System Settings

- IP Address: 10.64.50.160
- Sub-Net Mask: 255.255.255.0
- System Locale: United States (US English)
- Device ID: NONE
- Number of Extensions on System: 5

Open...

- Configuration
- System Status
- Voicemail Administration
- Resilience Administration
- On-boarding
- Web Control
- Help

Add...

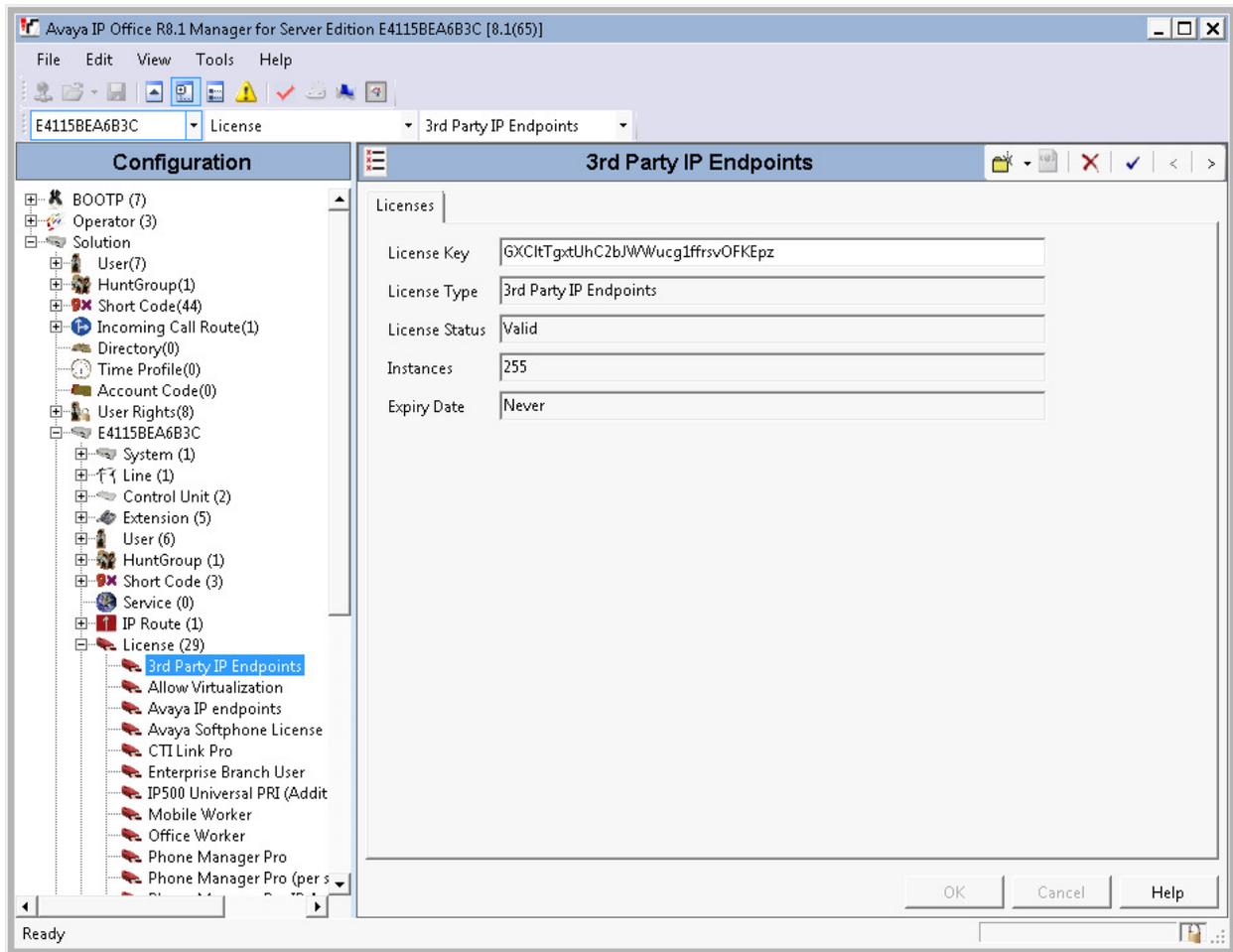
- Secondary Server
- Expansion System

Table:

Description	Name	Address	Primary Link	Users Configured	Extensions Configured
Solution				7	7
Primary Server	E4115BEA6B3C	10.64.50.160		5	5
Expansion System	00E007064181	10.64.50.162	Bothway	2	2

Ready

Expand the first system in the tree, E4115BEA6B3C, then expand **License**. Highlight **3rd Party IP Endpoints** and verify there are enough instances for the desired number of endpoints.



5.3. Verify Avaya IP Office Voice Compression Resources

From the Configuration pane, select **Solution**. From the right pane select **System Status**.

The screenshot shows the Avaya IP Office R8.1 Manager interface. The left pane is titled 'Configuration' and shows a tree view with 'Solution' selected. The right pane is titled 'Server Edition' and shows a 'Summary' section with hardware and system settings. Below the summary is a table with the following data:

Description	Name	Address	Primary Link	Users Configured	Extensions Configured
Solution				8	8
Primary Server	E4115BEA6B3C	10.64.50.160		6	6
Expansion System	00E007064181	10.64.50.162	Bothway	2	2

Once System Status has launched select **Resources** and verify sufficient **VCM Channels**.

IP Office R8.1 System Status - E4115BEA6B3C (10.64.50.160) - IP Office Linux PC 8.1 (65)

AVAYA IP Office System Status

Help Snapshot LogOff Exit About

- System
- Alarms (0)
- Extensions (2)
- Trunks (1)
- Active Calls
- Resources**
- Voicemail
- IP Networking

System Resources

Primary Music on Hold Source (1): Internal File Status: Loaded
Alternate Music on Hold Source (2): holdmusic2.wav File Status: Loaded
Configuration Size: 2048KB  1%
Configuration Used: 20KB
Memory Free: 8726628KB

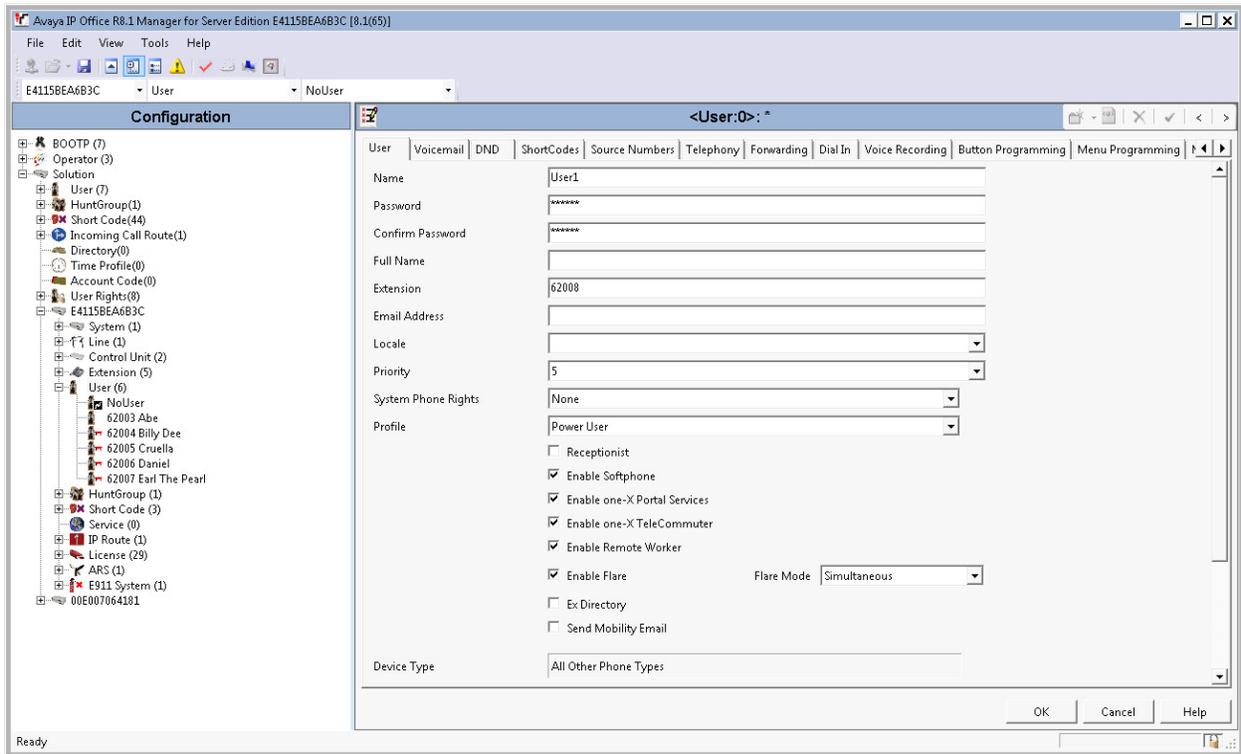
Channels	Number of Channels	Number in Use	Usage	Congestion Count	Last Date of Congestion
VCM	1240	0	 0%	0	
VM	110	0	 0%	0	
Conference	128	0	 0%	0	

Pause

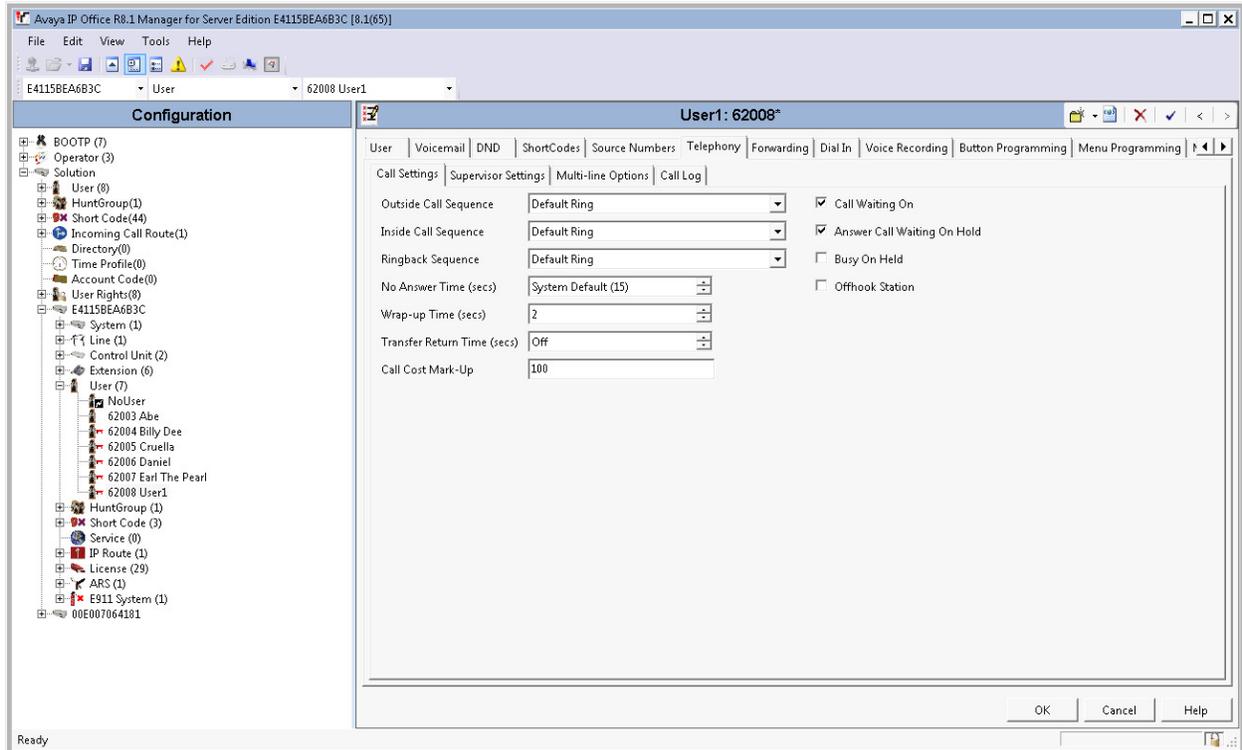
12:10:04 PM Online

5.4. Configure Users and Extensions for Kirk Handsets

From the configuration tree in the navigation pane, use the right mouse button to select **User**, then select **New** from the pop-up list to add a new user (Not Shown). By default extensions can automatically be created during the user configuration. This was the method used with compliance testing. Enter the desired **Name**, **Password**, **Extension**, and select **Power User** from the **Profile** drop-down menu.

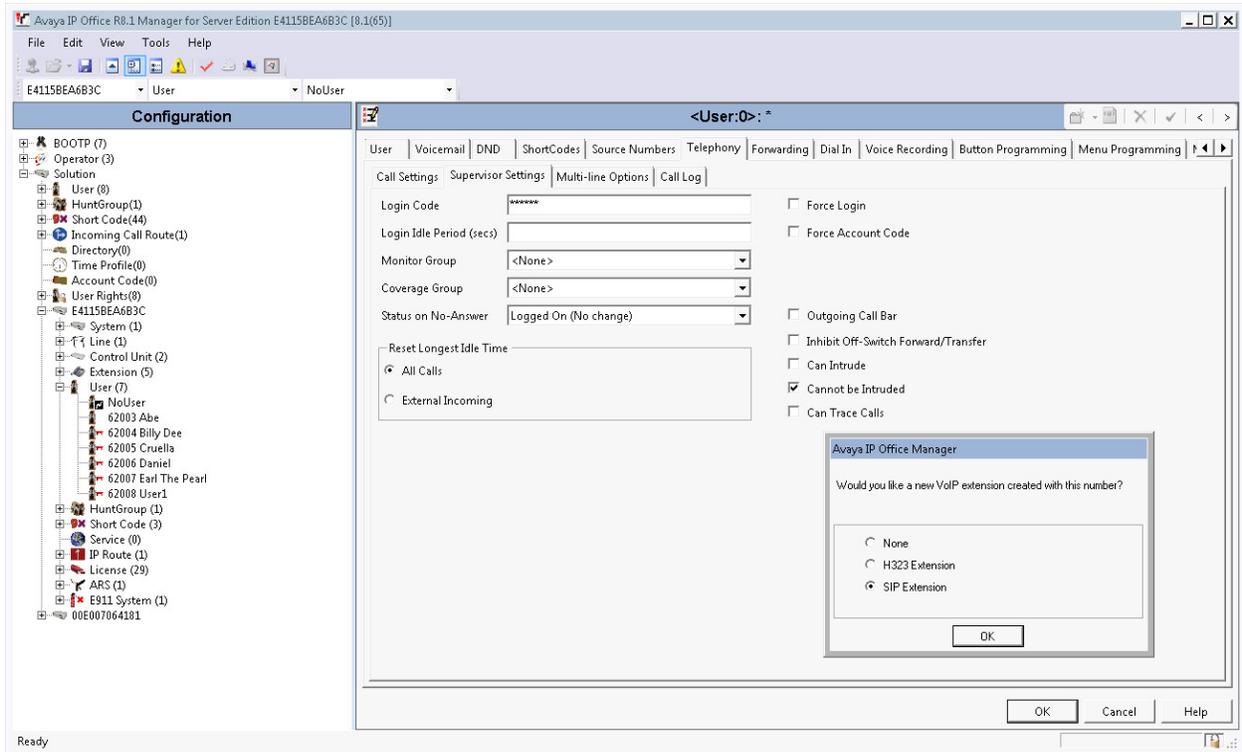


Next, select **Telephony** → **Call Settings** and check **Call Waiting On**.



Select **Supervisor Settings** and enter a **Login Code**.

Select the **OK** button and an **Avaya IP Office Manager** Pop-up will be displayed to auto-create the extension. Select **SIP Extension** and click **OK**.



5.5. Saving Avaya IP Office Configuration

Once the configuration changes have been completed, select the floppy disk icon (not shown) to push the changes to the Avaya IP Office system.

Note: *Changes will not take effect until this step is completed. This may cause a reboot of Avaya IP Office causing service disruption*

6. Configure Kirk Wireless Server

This section focuses only on the configuration of the Kirk Wireless Server solution. The values configured in this section were used during the compliance tests. The procedures include the following areas:

- Administer Kirk Wireless Server IP address
- Administer DECT handset subscription
- Enable Call Forward feature code
- Administer SIP configuration
- Administer DECT users
- Administer Kirk Base Station IP address
- Administer Wireless Sever host

6.1. Administer Kirk Wireless Server IP address

The default IP address of a Kirk Wireless Server is 192.168.0.1. Connect a PC directly to the Kirk Wireless Server with an Ethernet crossover cable. Open up an Internet browser and type in the following URL, <http://192.168.0.1>. From the menu, click on **Configuration** → **General** and enter the following:

- Method Select “Use Static IP address”
- IP addr Enter IP address
- Netmask Enter subnet mask address
- Gateway Enter default gateway address
- DNS primary Server Enter DNS IP address (Optional)
- NTP Server Enter NTP Server IP Address (Optional)
- Time Zone Select Time Zone (Optional)

Click **Save** to save changes.

The screenshot displays the web interface for the KIRK Wireless Server 6500. The top navigation bar includes tabs for Status, Configuration, Users, Administration, Firmware, and Statistics. The Configuration tab is active, and the General Configuration page is shown. The page is divided into several sections:

- IPv4:** Method (Use static IP address), IP addr (10.64.50.63), Netmask (255.255.255.0), Gateway (10.64.50.1), MTU.
- Ethernet:** VLAN.
- DNS:** Hostname, Domain, Primary Server, Secondary Server.
- NTP:** Server (10.64.101.45), Time zone (Mountain Time), Posix timezone string (MST7MDT,M3.2.0/02:00:00,M11.1.0/0).
- UPnP:** Enabled (checked), Broadcast announcements (unchecked).
- Remote syslog:** Host, Port (514), Facility (16 Local 0), Level (info).

At the bottom, there are buttons for Save, Cancel, and Reboot now. A note indicates that fields marked with ** are required and require a restart. The footer contains the copyright information: © Spectralink Europe ApS All rights reserved.

6.2. Administer DECT handset subscription

From the menu, click on **Configuration** → **Wireless Server**. Under the **DECT** section, check the box next to **Subscription Allowed**.

Click **Save** to save changes.

The screenshot displays the configuration page for a KIRK Wireless Server 6500. The page is titled "Wireless Server Configuration" and is divided into several sections. The "DECT" section is currently active and contains the following settings:

DECT	
Subscription allowed	<input checked="" type="checkbox"/>
Authenticate calls	<input checked="" type="checkbox"/>
Encrypt voice/data	Disabled
Autocreate users	<input type="checkbox"/>
System access code	<input type="text"/>
Send date and time	<input checked="" type="checkbox"/>
Allow new media resources	<input checked="" type="checkbox"/>
Allow new base stations	<input checked="" type="checkbox"/>

The "Application interface" section contains the following settings:

Application interface	
Username *	GW-DECT/admin
New password	<input type="text"/>
New password again	<input type="text"/>
Enable MSF	<input checked="" type="checkbox"/>
Enable XML-RPC	<input type="checkbox"/>
Internal messaging	<input checked="" type="checkbox"/>

The "Feature codes" section contains the following settings:

Feature codes	
Enable	<input type="checkbox"/>
Call forward unconditional - enable	*21*\$#
Call forward unconditional - disable	#21#

At the bottom of the page, there are "Save" and "Cancel" buttons. Below the buttons, a note states: "*) Required field **) Require restart". At the very bottom, the copyright notice reads: "© Spectralink Europe ApS All rights reserved."

6.3. Enable Call Forward Feature Code

From the menu, click on **Configuration** → **Wireless Server**. Under the **Feature Codes** section, check the box next to **Enable**.

Click **Save** to save changes.

The screenshot shows the configuration interface for the KIRK Wireless Server 6500. The main menu includes Status, Configuration, Users, Administration, Firmware, and Statistics. The Configuration menu is expanded to show Wireless Server, Media Resource, Security, Certificates, SIP, Provisioning, and Import/Export. The Wireless Server Configuration page is displayed, with the Feature Codes section highlighted. The Feature Codes section includes the following options:

Feature codes	
Enable	<input checked="" type="checkbox"/>
Call forward unconditional - enable	<input type="text" value="*21*\$#"/>
Call forward unconditional - disable	<input type="text" value="#21#"/>

Below the Feature Codes section, there are "Save" and "Cancel" buttons. At the bottom of the page, there is a note: "*) Required field **) Require restart" and a copyright notice: "© Spectralink Europe ApS All rights reserved."

6.4. Administer SIP Configuration

This section details settings needed to create the SIP connection from the Kirk Wireless Server to Avaya IP Office. Preferred audio codecs and message waiting indications are also set. From the menu, go to **Configuration** → **SIP** and enter the following:

- General Section:
 - Local Port: **5060**
 - Transport: **UDP**
 - Default Domain: Enter domain name (e.g. **d4f27.com**)

SIP Configuration	
General	
Local port ***	5060
Transport **	UDP
DNS method ***	A records
Default domain ***	d4f27.com
Register each endpoint on separate port **	<input type="checkbox"/>
Send all messages to current registrar **	<input type="checkbox"/>
Registration expire(sec) *	3600
Max forwards *	70
Client transaction timeout(msec) *	4000
SIP type of service (TOS/Diffserv) ***	96
SIP 802.1p Class-of-Service *	3
GRUU	<input checked="" type="checkbox"/>
Use SIPS URI	<input checked="" type="checkbox"/>
TLS allow insecure **	<input type="checkbox"/>

- Proxies Section:
 - Proxy 1: **Enter sip:<IP Address of Avaya IP Office> for the sip URI.**
- Message waiting indication Section:
 - Enable indication: Check the checkbox
 - Enable subscription: Check the checkbox

Proxies			
	Priority	Weight	URI
Proxy 1 **	1	100	sip:10.64.50.160
Proxy 2 **	2	100	
Proxy 3 **	3	100	
Proxy 4 **	4	100	

Authentication	
Default user	<input type="text"/>
Default password	<input type="text"/>
Realm	<input type="text"/>

DTMF signalling	
Send as RTP (rfc2833)	<input checked="" type="checkbox"/>
Offered rfc2833 payload type	<input type="text" value="96"/>
Send as SIP INFO	<input type="checkbox"/>
Tone duration(msec) *	<input type="text" value="270"/>

Message waiting indication	
Enable indication	<input checked="" type="checkbox"/>
Enable subscription **	<input checked="" type="checkbox"/>
Subscription expire(sec) *	<input type="text" value="3600"/>

- Under Media Section, Select preferred codecs and priority

Media	
Packet duration(msec) *	<input type="text" value="20"/>
Media type of service (TOS/Diffserv) *	<input type="text" value="184"/>
Media 802.1p Class-of-Service *	<input type="text" value="5"/>
Port range start **	<input type="text" value="58000"/>
Codec priority *	1: <input type="text" value="G726-32/8000"/> 2: <input type="text" value="PCMU/8000"/> 3: <input type="text" value="PCMA/8000"/> 4: <input type="text" value="G729/8000"/> 5: <input type="text" value="None"/> 6: <input type="text" value="None"/>
SDP answer with preferred codec	<input type="checkbox"/>
SDP answer with a single codec	<input type="checkbox"/>
Ignore SDP version	<input type="checkbox"/>

- Click on **Save** to save changes.

6.5. Administer DECT users

From the menu, go to **Users** → **List Users** and click on the **New** button to add a new user.

The screenshot shows the 'User List' page in the KIRK Wireless Server 6500 web interface. The page has a navigation menu at the top with options: Status, Configuration, Users, Administration, Firmware, and Statistics. Below the menu, there are sub-menus: List Users (highlighted) and Import/Export. The main content area is titled 'User List' and contains a 'Users overview' table. Below this is a 'New' button, a search input field, and a search button. The main table has the following columns: Enabled, User, Displayname, IPEI, Handset - Firmware, Subscription, and Registration. Two users are listed in the table.

User List						
Users overview						
		Users	Subscribed	Registered		
Total		2	2	2		
Listed		2	2	2		

New Search << < 1 > >>

Enabled	User	Displayname	IPEI	Handset - Firmware	Subscription	Registration
✓	62005		05003 0180005	KIRK 6020 - 13A	✓	✓
✓	62006		05003 0105863	KIRK Butterfly - 13F	✓	✓

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Enter the following in the new **User** window:

- IPEI: Enter the handset IPEI
- Access Code Enter a desired access code (Optional)
- Standby Text Enter desired standby text (Optional)
- Username / Extension Enter the extension number defined in **Section 5.4**
- Domain Enter the domain name used in **Section 5.4**
- Displayname Enter a desired display name (Optional)
- Authentication User Enter the user defined in **Section 5.4**
- Authentication Password Enter the password defined in **Section 5.4**

Click on **Save** to save changes.



The screenshot shows the web interface for the KIRK Wireless Server 6500. The main navigation bar includes Status, Configuration, Users, Administration, Firmware, and Statistics. The 'Users' section is active, showing a 'User' configuration form. The form is divided into sections: DECT, SIP, and Features. The DECT section includes fields for IPEI (05003 0180009), Access code, and Standby text. The SIP section includes fields for Username / Extension * (62008), Domain (d4f27.com), Displayname, Authentication user (62008), and Authentication password (masked with dots). There is also a 'Disabled' checkbox which is unchecked. The Features section includes a 'Call forward unconditional' field. At the bottom of the form are 'Save', 'Delete', and 'Cancel' buttons. A note indicates that the asterisk (*) denotes a required field. The footer of the page reads '© Spectralink Europe ApS All rights reserved.'

6.6. Administer Kirk Base Station IP address

The default IP address of a Kirk Base Station is 192.168.0.1. Connect a PC directly to the Base Station with an Ethernet crossover cable. Open up an Internet browser and type in the following URL, <http://192.168.0.1>. From the menu, click on **Configuration** → **General** and enter the following:

- Use Static IP address Click the button to select
- IP addr Enter IP address
- Netmask Enter subnet mask
- Gateway Enter default gateway address
- NTP Server Enter NTP Server IP Address (Optional)

Click **Save** to save changes.

KIRK Base Station 6000

Status Configuration Firmware

General Base Station Security

General Configuration

IP

DHCP assigned

Use static IP address

IP addr* **

Netmask **

Gateway **

MTU **

VLAN **

DNS

Domain

Primary Server

Secondary Server

NTP

Server

UPnP

Enabled **

Broadcast announcements **

Remote syslog

Host

Port *

Facility *

Level *

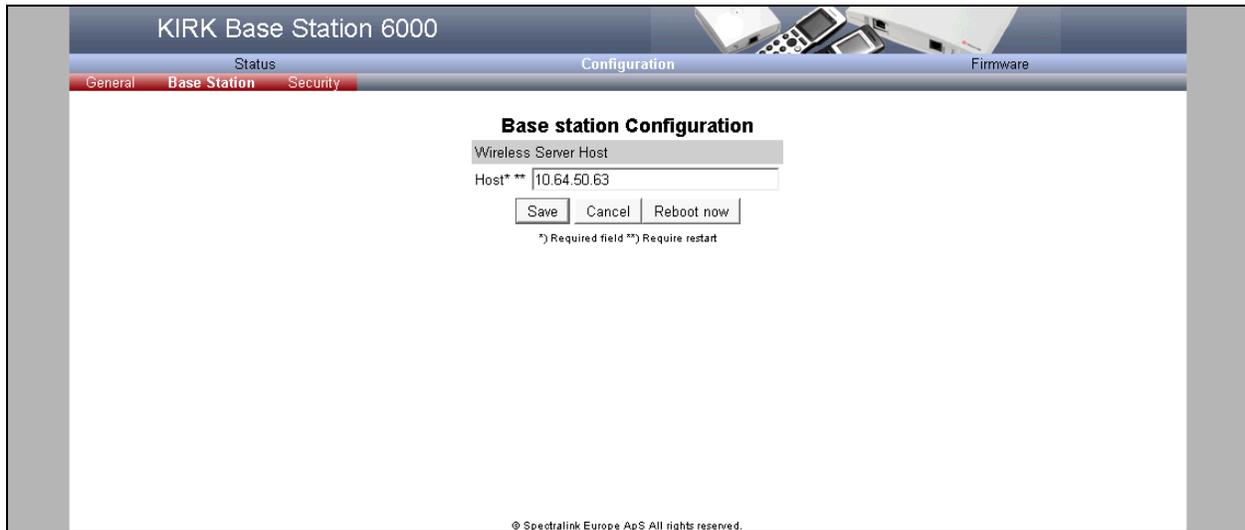
*) Required field **) Require restart

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6.7. Administer Wireless Sever host

From the menu, go to **Configuration** → **Base Station** and for **Host** enter the ip address of the Kirk Wireless Server 6000 configured in **Section 6.1**.

Click **Save** to save changes.



The screenshot displays the configuration interface for a KIRK Base Station 6000. The top navigation bar includes 'Status', 'Configuration', and 'Firmware'. Below this, a secondary bar shows 'General', 'Base Station', and 'Security'. The main content area is titled 'Base station Configuration' and features a 'Wireless Server Host' section. A text input field labeled 'Host**' contains the IP address '10.64.50.63'. Below the input field are three buttons: 'Save', 'Cancel', and 'Reboot now'. A note at the bottom of the section reads '*Required field ** Require restart'. The footer of the interface contains the copyright notice '© Spectralink Europe ApS All rights reserved.'

7. Verification Steps

The following steps may be used to verify the configuration:

7.1. Verify Active Call on Avaya IP Office

From the Configuration pane select **Solution**. From the right pane select **System Status**.

The screenshot displays the Avaya IP Office R8.1 Manager interface. The left pane shows the Configuration tree with 'Solution' selected. The right pane shows the Summary for 'Server Edition Primary', including hardware and system settings. Below the summary is a table of system components.

Description	Name	Address	Primary Link	Users Configured	Extensions Configured
Solution				8	8
Primary Server	E4115BEA6B3C	10.64.50.160		6	6
Expansion System	00E007064181	10.64.50.162	Bothway	2	2

Once System Status has launched select **Extensions** → **<Extension Number>** and verify Extension status and call details.

The screenshot shows the Avaya IP Office System Status application. The title bar reads "IP Office R8.1 System Status - E4115BEA6B3C (10.64.50.160) - IP Office Linux PC 8.1 (65)". The main window has a menu bar with "Help", "Snapshot", "LogOff", "Exit", and "About". A left-hand navigation pane contains a tree view with the following items: System, Alarms (0), Extensions (2) (selected), Trunks (1), Active Calls, Resources, Voicemail, and IP Networking. Under "Extensions (2)", extension 62005 is selected. The main content area is titled "Extension Status" and displays the following details:

- Extension Number: 62005
- IP address: 10.64.50.63
- User Agent: KIRK Wireless Server 6500 PCS13B_r42381
- Telephone Type: Unknown SIP Device
- Current User Extension Number: 62005
- Current User Name: Cruella
- Forwarding: Off
- Twining: Off
- Do Not Disturb: Off
- Message Waiting: Off
- Number of New Messages: 0
- Phone Manager Type: None
- SIP Device Features: REFER,UPDATE
- License Reserved: No
- Last Date and Time License Allocated: 6/3/2013 8:15:06 AM
- Packet Loss Fraction: 0%
- Jitter: 0ms
- Round Trip Delay: 0ms
- Connection Type: VCM
- Codec: G711 Mu
- Remote Media Address: 10.64.50.162

Below the details is a table showing call logs:

Call Ref	Current State	Time in State	Calling Number or Called Number	Direction	Other Party on Call
1	Connected	00:03:10	62001	Outgoing	Line: 1 H.323 10.64.50.162 Channel: 1

At the bottom of the window, there are buttons for "Trace", "Trace All", "Pause", "Ping", "Call Details", "Print...", and "Save As...". The status bar at the bottom right shows the time "6:46:36 AM" and the status "Online".

7.2. Verify Kirk Wireless Server Status

7.2.1. Quick Status

From the menu, go to **Status** → **General** and verify **Quick Status** green checks indicate proper functionality. Mouse over indicator for a status explanation.

The screenshot shows the web interface for the KIRK Wireless Server 6500. The main menu includes Status, Configuration, Users, Administration, Firmware, and Statistics. The 'Status' menu is expanded to show 'General', 'Logs', 'Wireless Server', 'Packet Capture', and 'Network Diagnose'. The 'General Status' page is displayed, showing the following information:

General Status	
General	
IP address	10.64.50.63
NTP Server	10.64.101.45
Time	04-06-2013 10:04:08
Serial	8447509
MAC address	00:13:D1:80:E6:15
Product ID	000A 9E5A 4BBA 50B7
Production Date	21-03-2013
Hardware	
PartNo	14212520
PCS	02_
Firmware	
PartNo	14218500
PCS	PCS13B_
Build	42361
Quick status	
SIP	✓
Base stations	✓
Media resources	✓
Provisioning	✗
NTP	✓

A tooltip is visible over the 'Media resources' checkmark, containing the text: "OK if all enabled SIP users are registered to the SIP server."

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7.2.2. List Users

From the menu, go to **Users** → **List Users** and verify that each user has subscribed and registered successfully.

KIRK Wireless Server 6500

Navigation: Status | Configuration | **Users** | Administration | Firmware | Statistics

Sub-navigation: **List Users** | Import/Export

User List

Users overview

	Users	Subscribed	Registered
Total	2	2	2
Listed	2	2	2

Controls: New [input type="text"] Search << < 1 > >>

Enabled	User	Displayname	JPEI	Handset - Firmware	Subscription	Registration
✓	62005		05003 0180005	KIRK 6020 - 13A	✓	✓
✓	62006		05003 0105863	KIRK Butterfly - 13F	✓	✓

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7.2.3. Active Call

From the menu, go to **Statistics** → **Active Calls** to display active call details.

KIRK Wireless Server 6500

Navigation: Status | Configuration | Users | Administration | Firmware | **Statistics**

Sub-navigation: Wireless Server | Media Resource | Base station | **Active Calls** | Abnormal releases | Traffic Distribution

Active Calls

Established	Duration	Direction	State	Codec	Secure	Local user	Remote user
04-06-2013 09:56:30	12:56	Outgoing	Active(5)	PCMU/8000	N	62005	62001

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8. Conclusion

These Application Notes describe the configuration steps required for the Kirk Wireless Server 6500/400 solution to successfully interoperate with Avaya IP Office. All feature functionality and serviceability test cases were completed successfully.

9. Additional References

The documents referenced below were used for additional support and configuration information.

Product documentation for Avaya products may be found at <http://support.avaya.com>

[1] *Avaya IP Office Manager 8.1 FPI Manager 10.1*, 15-601011 Issue 29u (Friday, April 05, 2013)

Product documentation for Spectralink Kirk Wireless Solution may be found at: <http://www.spectralink.com/product-information/dect>

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