

# Tech Bulletin 2012-001

## IPitomy – Polycom Kirk Wireless Server 300

### Description

Use this guide to configure the Polycom Kirk DECT Wireless Server and Handsets onto the IPitomy IP PBX. The Polycom WKS300 server will support up to 12 handsets/extensions. It is necessary to have Open Extension Licenses for each extension to be used.



At the time of this writing the links for the associated devices are:

KW\$300:

http://supportdocs.polycom.com/PolycomService/support/global/documents/support/setup\_mainte\_ nance/products/voice/KWS300\_insta\_config\_guide.pdf

KIRK Butterfly handset:

http://supportdocs.polycom.com/PolycomService/support/global/documents/support/setup\_mainte\_nance/products/voice/KIRK%20Butterfly\_Quick\_Guide\_for\_SIP\_enabled\_servers.pdf

## **Procedure – Create Open Extensions in the IPitomy PBX**

Using the standard methods of creating extensions (see on-line training videos for help at: <u>http://www.youtube.com/watch?v=rKbfJ81qJwM</u>) create the quantity of extensions that will be used with the Polycom Kirk handsets.

The first extension created will become the "Default User" and "Default Password" in the WKS300 SIP Configuration.



#### Procedure – Connect the KWS300 Server

- 1. The KWS300 is POE powered only. It must be connected to a POE port of a (preferably managed) switch.
  - a. The status light will illuminate green if it is powered and has a connection to the LAN.

#### **Procedure – Program the KWS300 Server for connection to IPitomy**

- 1. Open a web browser and navigate to the KWS300 Server.
  - a. You can use the Network Scan utility in the IPitomy PBX to determine the IP Address of the KWS300.

|                                   |                   |                         |                | ipitomy-main<br>Version: 4.8.1          |
|-----------------------------------|-------------------|-------------------------|----------------|---|
| Diagnostics / Network Diagnostics |                   |                         |                | 1200-11111111<br>Logout   Apply Changes |
| Network Diagnostics               |                   |                         |                |   |
| ▶ System                          | Di                | agnostics               |                |   |
| ▶ Providers                       |                   |                         |                |   |
| Destinations                      |                   | Ping                    |                |   |
| Call Routing                      | T                 |                         |                |   |
| PBX Setup Reporting               | Traceroute        |                         |                |   |
| Diagnostics                       | DNS Lookup        |                         |                |   |
| Network                           |                   |                         |                |   |
| Packet Captures                   | Ne                | tworkBcan               |                |   |
| Network 0                         |                   |                         | 0 🔺            |   |
| Network Sca                       | n                 |                         |                |   |
| Scan Net 192.1                    | 68.2.0/24 Scar    | n                       | -              |   |
| Hosts                             |                   |                         | E              |   |
| IP                                | MAC               | Vendor                  |                |   |
| 192.168.2.1                       | C0:C1:C0:07:0F:47 |                         |                |   |
| 192.168.2.3                       | 00:14:D1:C5:B9:98 | Trendnet                |                |   |
| 192.168.2.4                       | 00:1C:C0:01:D0:30 | Intel Corporate         |                |   |
| 192.168.2.7                       | 00:08:00:72:29:7C | Multitech Systems       |                |   |
| 192.168.2.8                       | 00:08:00:71:00:BF | Multitech Systems       |                |   |
| 192.168.2.9                       | 00:24:A5:59:C0:1E | Buffalo                 |                |   |
| 192.168.2.13                      | E0:69:95:88:69:99 |                         |                |   |
| 192.168.2.14                      | 00:19:D1:3F:82:E7 | Intel                   |                |   |
| 192.168.2.15                      | 00:19:D1:44:03:12 | Intel                   |                |   |
| 192.168.2.17                      | 00:19:D1:ED:5F:FA | Intel                   |                |   |
| 192.168.2.18                      |                   |                         |                |   |
| 192.168.2.20                      | 00:14:D1:16:16:9A | Trendnet                |                |   |
| 192.168.2.22                      | 00:27:0E:0D:6E:61 | Intel Corporate         |                |   |
| 192.168.2.25                      | 08:00:27:AD:6D:B8 | Cadmus Computer Systems | ; <del>-</del> |   |

- b. In the PBX GUI, click on Diagnostics
- c. Then Network
- d. Then Network Scan
- In the Scan Net box input the IP Address of the subnet to be scanned. (Use "/x" CIDR notation to limit the subnet search to the relevant range.)
  CIDR info: http://en.wikipedia.org/wiki/Classless Inter-Domain Routing



f. I found mine at 192.168.2.174. The result appeared as:

192.168.2.174 00:13:D1:80:9F:C4 Kirk Telecom A/S

...notice that you can click on the IP Address in the scan result to browse to the device.

- 2. Input the username and password:
  - a. User name: admin
  - b. Password: kws300
- 3. The KWS300 GUI Status page appears:

| KIRK Wireless Server                  |                     |                           |          |            |
|---------------------------------------|---------------------|---------------------------|----------|------------|
| ← → C ☆ ③ 192.168.2.174/status_genera | al.html             |                           |          | <u>ک</u> ک |
| ROLYCOM   KIRK Wireless Ser           |                     |                           |          | Salos C    |
| Status Configuration                  | Users               | Administration            | Firmware | Statistics |
| General Logs Wireless Server Packet C | apture Network Dia  | inose                     |          |            |
|                                       | Gen                 | eral Status               |          |            |
|                                       | General             |                           |          |            |
|                                       | IP-addr             | 192.168.2.174             |          |            |
|                                       | NTP-Server          | 192.168.2.18              |          |            |
|                                       | Time                | 02-07-2012 18:00:09       |          |            |
|                                       | Serial              | 8429508                   |          |            |
|                                       | MAC address         | 00:13:d1:80:9f:c4         |          |            |
|                                       | Product ID          | 0008 D91F F802 5A0D       |          |            |
|                                       | Production Dat      | e 12-04-2012              |          |            |
|                                       | Hardware            |                           |          |            |
|                                       | PartNo              | 14135721                  |          |            |
|                                       | PCS                 | PCS10Ab                   |          |            |
|                                       | Firmware            |                           |          |            |
|                                       | PartNo              | 14188000                  |          |            |
|                                       | PCS                 | PCS12                     |          |            |
|                                       | Build               | 34805                     |          |            |
|                                       | Quick status        |                           |          |            |
|                                       | SIP                 | 0                         |          |            |
|                                       | Provisioning<br>NTP | 8<br>0                    |          |            |
|                                       | INTE                | <b>v</b>                  |          |            |
|                                       |                     |                           |          |            |
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- 4. Basically use the Polycom guide starting at section 4 (Configuring KIRK Wireless Server 300)...
- 5. Navigate to the Configuration tab... the General Category is opened and the guide suggests changing the IP Address scheme from DHCP to Static we don't suggest this as it is too easy to make mistakes and/or have changes on the network at future dates that will cause a conflict. If you wish to reserve the IP Address of the KWS300 Server, use the DHCP server's *binding* function to allocate the DHCP assignment of the IP Address to the MAC Address of the WKS300 server. This is the best option to assure that the WKS300 always has the same IP Address while not introducing the inherent problems associated with trying to administer Static IP's.



6. Navigate to the SIP category (under the Configuration tab). The SIP Configuration page is shown...

| KIRK Wireless Server ×            |  |  |  |  |  |  |
|-----------------------------------|--|--|--|--|--|--|
| ← → C ⋒ ③ 192.16                  | 8.2.174/configuration_sip.html                     | 公 🔧  |  |  |  |  |
| 😽 POLYCOM   KI                    | RK Wireless Server 300                             | Contraction of   |  |  |  |  |
| Status<br>General Wireless Server | Configuration Users<br>Security Certificates SIP P | Administration Firmware Statistics   |  |  |  |  |
| General Wireless Server           |  | Provisioning Import/Export   |  |  |  |  |
|                                   | SIP Configuration                                  |  |  |  |  |  |
|                                   | General  |  |  |  |  |  |
|                                   | Local port * **                                    | 5060   |  |  |  |  |
|                                   | Transport * **                                     | UDP 💌  |  |  |  |  |
|                                   | DNS method * **                                    | A records 💌  |  |  |  |  |
|                                   | Default domain * **                                | 192.168.2.18   |  |  |  |  |
|                                   | Register each endpoint on separate port **         |  |  |  |  |  |
|                                   | Send all messages to current registrar **          | The domain part of the SIP URI for registered users i.e.<br>displayname <sip:user@domain>.</sip:user@domain> |  |  |  |  |
|                                   | Registration expire(sec) *                         | 3600   |  |  |  |  |
|                                   | Max forwards *                                     | 70   |  |  |  |  |
|                                   | Client transaction timeout(msec) *                 | 4000   |  |  |  |  |
|                                   | SIP type of service (TOS/Diffserv) * **            | 96   |  |  |  |  |
|                                   | GRUU   |  |  |  |  |  |
|                                   | Use SIPS URI                                       | V  |  |  |  |  |
|                                   | TLS allow insecure **                              |  |  |  |  |  |
|                                   | Proxies  |  |  |  |  |  |
|                                   |  | Priority Weight URI  |  |  |  |  |
|                                   | Proxy 1 **   | 1 100  |  |  |  |  |
|                                   | Proxy 2 **   | 2 100  |  |  |  |  |
|                                   | Proxy 3 **   | 3 100  |  |  |  |  |
|                                   | Proxy 4 **   | 4 100  |  |  |  |  |
|                                   | Authentication                                     |  |  |  |  |  |
| Default user                      |  | 2234   |  |  |  |  |
|                                   | Default password                                   |  |  |  |  |  |
|                                   | Realm  |  |  |  |  |  |
|                                   |  |  |  |  |  |  |

- 7. Locate the data field "Default Domain" and input the IP Address of the IP PBX. (Ours is 192.168.2.18)
- 8. Locate the data field "Default User" and input the extension that shall be used on the wireless handset. (This would be the first extension to which the server is registered.
- 9. Locate the data field "Default Password" and input the extension SIP Password from the PBX for the same extension input in Step 8.
- 10. Leave all other data fields at the default settings.

#### Procedure – Registering Kirk Handsets in the WKS300 Server

- 1. Still in the KWS300 Server, navigate to the Users tab.
- 2. Click the New button.

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- 3. Locate the data field "IPEI" and Input the Handset IPEI number. This can be found at the handset by:
  - a. At the Kirk Handset, Press Menu.
  - b. Navigate to Status
  - c. Press Select
  - d. Navigate to General Information
  - e. Press Select, The IPEI number is listed on this screen of the handset.
- 4. Locate the data field "Username / Extension" and input the extension number of the first user.
- 5. Locate the data field "Displayname" and input the name of the user of this extension (this field is not required but helps to keep the programming organized.)
- 6. Locate the data field "Authentication user" and "Authentication password". These fields are not necessary on the first extension since it was programmed in the Configuration tab SIP Configuration. However if more than one extension will be used, it is required that that extension's credentials be input into the appropriate data field.

Reference the screen captures below for how the two extensions that we programmed are configured.

| User 2234                             |               | User 2235                  |               |  |
|---------------------------------------|---------------|----------------------------|---------------|--|
| DECT                                  |               | DECT                       |               |  |
| IPEI                                  | 05003 0091742 | IPEI                       | 05003 0105104 |  |
| Access code                           |               | Access code                |               |  |
| Standby text                          |               | Standby text               |               |  |
| SIP                                   |               | SIP                        |               |  |
| Username / Extension *                | 2234          | Username / Extension *     | 2235          |  |
| Domain                                |               | Domain                     |               |  |
| Displayname                           | Poly2234      | Displayname                | Poly2235      |  |
| Authentication user                   |               | Authentication user        | 2235          |  |
| Authentication password               |               | Authentication password    | •••••         |  |
| Disabled                              |               | Disabled                   |               |  |
| Features                              |               | Features                   |               |  |
| Call forward unconditional            |               | Call forward unconditional |               |  |
| Save Delete Cancel Save Delete Cancel |               |                            |               |  |
| *) Required field                     |               | *) Required field          |               |  |





## **Procedure – Registering Kirk Handsets at the Handset**

Each handset must be linked to the WKS300 server. Doing so is accomplished by searching for the server and identifying the handset extension.

- 1. At the handset, press Menu
- 2. Navigate to Settings
- 3. Press Select
- 4. Navigate to Advanced
- 5. Press Select
- 6. Navigate to Login
- 7. Press Select
- 8. Navigate to Create Login
- 9. Press Select, this will cause the handset to search for the server.
- 10. When the server is found, press Select
- 11. Navigate to User ID
- 12. Input the extension number
- 13. Press OK. The handset should then register to the server. The Connecting OK screen will appear if the connection is successful.
- 14. This handset will now operate as an extension of the IPitomy PBX.

