**ADTRAN**®

## NetVanta Unified Communications Technical Note

# Installing and Configuring the Polycom Kirk Wireless Server 300

## Introduction

The KIRK Wireless Server 300 (KWS300) is a single cell solution for small businesses with a need to supply up to 12 mobile employees with a wireless handset. The infrastructure of the KWS300 consists only of the server itself and the KIRK Handsets, making it very simple to get wireless telephony in a small business environment.

Small businesses with large geographical areas and multiple floors can extend radio coverage by adding one or more KIRK repeaters to the KWS300 - and also small businesses with multiple locations can easily offer mobility benefits to their employees by installing KWS300 at each location.

The purpose of this tech note is to provide instructions on installation and configuration for the Polycom KWS300.
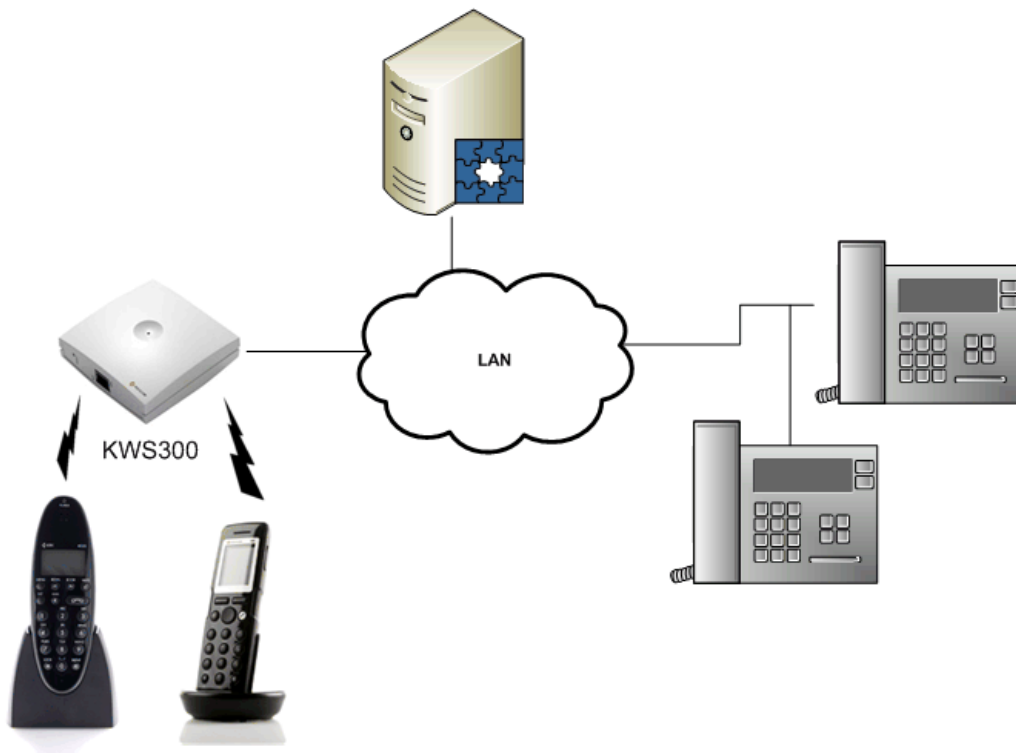
# Known Integration Issues

- Ringing call pickup fails to pick up the call
    - Attempting to initiate the ringing call pickup from the KWS300 will result in the call disconnecting and the initiator of the original call will be diverted to voice mail. There is no workaround at this time.

# DHCP Server Configuration

When a Polycom KWS300 is plugged into the network, it retrieves an IP address from the Dynamic Host Control Protocol (DHCP) server. It also checks one of the options for the IP address of the TFTP provisioning server. If this option is not present, the KWS300 does not automatically upgrade their firmware, nor are they automatically provisioned.

To configure the DHCP server for Windows Server 2003/2008 and SBS, follow these steps:

1. Select **Start > Control Panel > Administrative Tools > DHCP**.

2. Right-click the domain where you want the Polycom KWS300 to be provisioned and select **Set Predefined Options**.

3. Look for **Option 66**.

    a. If Option 66 *is not* already defined, select **Add**.

    | | |
    |---|---|
    | Name: | **UC Server Provisioning Server** |
    | Data Type: | **String** |
    | Code: | **66** |
    | Description: | **UC Server Provisioning Server IP Address** |

    b. If Option 66 *is* already defined

        i. If it is defined as an 'IP Address' type and the value is the IP address for UC Server, no action is required.
        ii. If it is not defined as an 'IP Address' type and/or the value is not the IP address for the UC server, automatic detection of the KWS300 is not possible unless this option can be changed as per the instructions in 3.a.

4. Select **OK.**

5. Right-click the **Scope Options** for the domain and select **Configure Options**.

6. Select the check box next to Option 66.

7. In the **IP address** field, enter the IP address of UC Server.

8. Select **OK.**

*\*For DHCP servers other than Windows Server 2003 and SBS, consult the appropriate documentation and complete the option configuration as indicated in step 3.a.*

# Preparation

The following sections provide instructions regarding how to change the KWS3000's factory IP address setting and how to apply firmware updates.

## PC Network Settings

The KWS300's are configured by default with a static IP address of **192.168.0.1**. In the event that this IP address conflicts with other IP addresses in your local network, or that this IP address is not in the same subnet as your network, then you must change the Wireless Server's IP address. However, to access the KWS300 and change its IP address, you must change your PC's IP address to be on the same subnet.

> **NOTE:** Make a note of your original network settings before making any changes because you must change these settings back after changing the network configuration on the Wireless Server.

To change the IP address of your computer for Windows Server 2008/Windows Vista, follow these steps:

1. Select Windows **Start** > **Control Panel**.
2. If you have the classic view, double-click **Network and Sharing Center** and then select **Manage Network Connections**.
   If you have the category view, double-click **Network and Internet > View network status and tasks** and then **Manage Network Connections**.
3. Double-click the active **LAN or Internet connection**.
4. Select **Properties**.
5. In the **Networking** tab, highlight the **Internet Protocol (TCP/IP)** item, and select **Properties**.
6. In the **General** tab, select **Use the following IP address**, and enter:
   **IP address:** 192.168.0.2
   **Subnet mask:** 255.255.255.0
7. Select **OK**.

To change the IP address of your computer for Windows Server 2003/Windows XP, follow these steps:

1. Select Windows **Start** > **Control Panel**.
2. If you have the classic view, double-click **Network Connections**.
   If you have the category view, double-click **Network and Internet Connections**, and then select **Network Connections**.
3. Double-click your active **LAN or Internet connection**.
4. Select **Properties**.
5. In the **General** tab, highlight the **Internet Protocol (TCP/IP)** item, and select **Properties**.
6. In the **General** tab, select **Use the following IP address**, and enter:
   **IP address:** 192.168.0.2
   **Subnet mask:** 255.255.255.0
7. Select **OK**.

## Changing the IP Address of the KWS300

New (or factory reset) KWS300 are configured with a static IP address. This must be changed so that the device can communicate on your network.

To change the Wireless Server IP address, follow these steps:

1. Open your browser and type the IP Address of the KWS300. The factory default is **192.168.0.1**.
2. When prompted, use the following default Web Access username and password:
   - Web Access Username: ___admin___
   - Web Access Password: ___kws300___
3. Select **Configuration**.
4. Under **IP** select **DHCP assigned** or **Use static IP address**.
   a. If **DHCP assigned** is selected:
      i. Select **Save** and select **Ok**.
      ii. When you return to the **General Configuration** screen, select **reboot**.
   b. If **Use static IP address** is selected:
      i. Enter the appropriate values on the page.
      ii. Select **Save** and select **Ok**.
      iii. When you return to the **General Configuration** screen, select **reboot**.
5. Change your PC's IP address parameters back to their original values.

## Enabling Support for the KWS300

To enable support for the KWS300, follow these steps:

1. Select **Start > All Programs > NetVanta UC Server > Server Configuration Wizard**.

2. Select the **Phone Types** step.

3. Select **Next** to bypass the Welcome screen.

4. Select the check box next to **Polycom KWS300** (see the figure below).
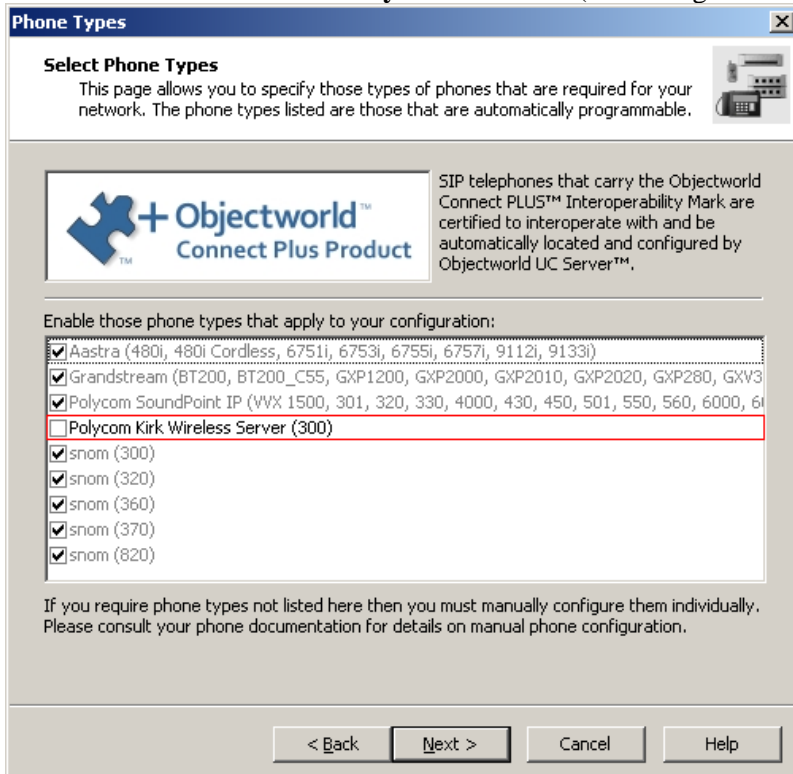
5. Continue through the wizard by selecting **Next** at each page until the wizard is finished.

# Configuration

This section provides instructions on how to configure the UC server and the KWS300 and its associated DECT handsets so that the UC server user identities are associated with the handsets.

The configuration process consists of several steps:

1. Create a UC server user identity for each user that will be assigned a DECT handset. For information on how to create user identities, refer to the *NetVanta UC Server Administrator Manual*, available online at http://kb.adtran.com.
2. Assign the identities to the KWS300.
3. Associate the handsets with the identities.
4. Power On and Register Handsets to the KWS300.
5. Test your configuration.

## Adding an Identity

You must either have an unused identity that you can add to the phone, or you must create a new identity/user to associate with the phone. For more information about creating users and identities in the UC server, refer to the *NetVanta UC Server Administrator Manual*.

## Associating an Identity with the KWS300

After you install the device and create the users/identities, you must associate those identities with the device.

To associate the identity with the device, follow these steps:

1. Launch the UC client by selecting **Start > All Programs > UC Client.**

2. Login using the **admin** authentication or using an authentication with **admin** profile access.

3. In the **Administration** view, select **Phones**.

4. Double-click the KWS300 device to which you want to associate the identity.

| MAC Address | Description | IP Address | Phone Type | Number of Buttons | Associated Identities |
|---|---|---|---|---|---|
| 00-04-13-24-51-47 | snom320/7.3.14 | 192.168.8.161 | snom-320 | 12 | 1003 |
| 00-08-5D-19-72-A0 | Aastra 55i/2.4.1.37 | 192.168.8.82 | Aastra-6755i | 9 | <Not configured> |
| 00-0b-82-14-97-46 | Grandstream GXP2010 1.1.6.16 | 192.168.8.135 | Grandstream-GXP2010 | 4 | 1002 |
| 00-0b-82-18-68-c6 | Grandstream GXP280 1.1.6.27 | 192.168.8.96 | Grandstream-GXP280 | 1 | 1000 |
| 00-13-d1-80-0a-0e | KIRK Wireless Server 300 | 192.168.8.103 | Polycom Kirk Wireless Server-300 | 12 | <Not configured> |

| | |
|---|---|
| **MAC address:** | 00-13-d1-80-0a-0e |
| **Description:** | KIRK Wireless Server 300 |
| **IP Address:** | 192.168.8.103 |
| **Phone type:** | Polycom Kirk Wireless Server-300 |
| **Number of buttons:** | 12 |
| **Associated identities:** | <Not configured> |

5. Select **Add**.
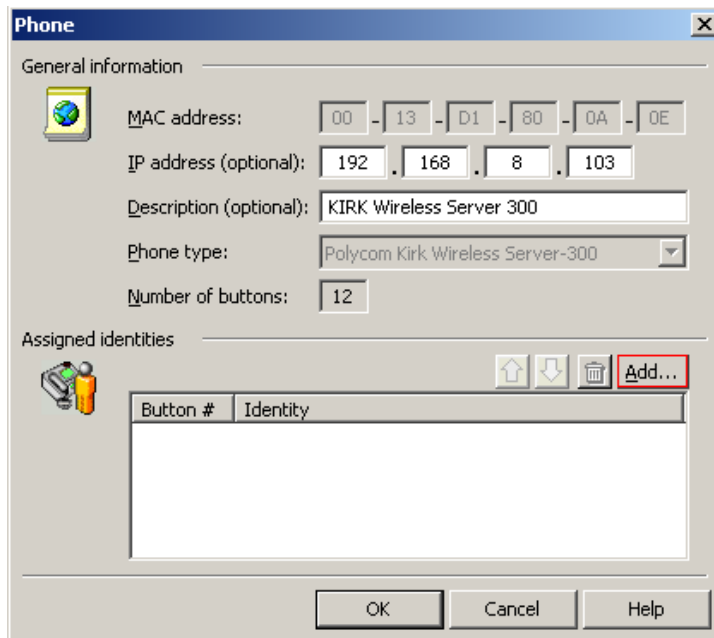


6. Select the identity you want to use and select **Select**.

7. To add additional identities to the list, select **Add** again and select another identity.

8. Select **OK**.

9. Wait for the device to automatically reboot. This should take under 5 seconds.

   - If the device does not reboot automatically, navigate back to the **Phones** pane in the UC client, right-click the specific device and click **Restart Phones**.

   - If the device does not restart at this point, disconnect and reconnect the power to the phone.

10. After the boot up process is complete, the new identities will be configured and can be assigned to the KWS handsets.

## Manually Registering the 4020/4040 Handsets

To manually register the 4020/4040 handsets to the KWS300, follow these steps:

1. Insert the battery, plug in the charger, and place the handset in the charger for four hours.
2. Press the handset key 📞 for a half a second to turn on the handset.
3. When the handset is powered on, press **MENU**.
4. Scroll to **LOGIN**.
5. Press ✓ on the handset.
6. Scroll to **SUBSCRIPTION CREATE**.
7. Press ✓ on the handset.
8. Wait for the handset to find the device ID and press ✓.
9. On the AC code screen, press ✓.

The handset should now be registered, and should display the assigned identity. If it is not registered, wait ten seconds and then repeat the above steps.

## Manually Registering the 5020/5040 Handsets

To manually register the 5020/5040 handsets to the KWS300, follow these steps:

1. Insert the battery, plug in the charger, and place the handset in the charger for four hours.
2. Press the left soft key to turn on the handset.
3. Press **Menu** to enter the main menu.
4. Scroll to **Settings** and press **Select**.
5. Scroll to **Advanced** and press **Select**.
6. Scroll to **Login** and press **Select**.
7. Scroll to **Create login** and press **Select**. The handset will start searching for a system.
8. Scroll to the found system and press **Select**.
9. On the AC code screen, press **Ok** to connect to the system.
10. Press **Ok**.

The handset should now be registered, and should display the assigned identity. If it is not registered, wait ten seconds and then repeat the above steps.

# Testing the Configuration

To ensure that the KWS300 and handsets are correctly configured, you must run the following tests.

1. **Call to voice mail**
   Place a call to the voice mail access number and set the voice mail password for that user.

2. **Internal Call – hard phone/soft phone**
   Place a call to user with a hard phone or soft phone. Make sure there is two-way audio.

3. **Internal Call – Handset to Handset**
   Place a call to another user with a KWS handset. Make sure there is two-way audio.

4. **External Call to PSTN number**
   Place a call to a PSTN number through a gateway. Make sure there is two-way audio.

# Troubleshooting

1. **The phone freezes**
   Remove and replace the battery pack. Turn on the telephone.

2. **The phone does not ring**
   Check whether the ringer is SILENT or RINGER VOL is OFF.
   - The silent icon will appear on the screen if the ringer is on silent. To adjust the ringer:
     - Kirk Wireless 4020/4040 handset
       - Press the **Menu #** key.
     - Kirk Wireless 5020/5040
       - While in an idle state (no call in progress), press the **menu** key followed by **#**.
   - To verify the ringer volume:
     - Kirk Wireless 4020/4040 handset
       1) Press the **Menu** key.
       2) Scroll to **SET PROFILE RINGER VOL** by using the right arrow key.
       3) Turn the volume up and down using < and >. Confirm with ✓.
     - Kirk Wireless 5020/5040
       1) Press **Menu** to enter main menu.
       2) Scroll to **Settings** and press **Select**.
       3) Scroll to **Ringing volume** and press **Select**.
       4) Press left or right side of navigation key to adjust the volume of the ring tone.
       5) Press **Set**.

3. **Not possible to turn on the telephone**
   Check if battery is connected. If it is, charge battery or replace it.

4. **The telephone turns off when receiving a call and going off-hook**
   Charge the battery. If it's still a problem change the battery as it might be defective.

# Connect+ and Interoperable Phones

ADTRAN has established the Connect™ Interoperability Program to allow participants in the program (Partners) to certify that their products and/or services are interoperable with ADTRAN's products. The program also allows for interoperability certification between third-party products that hold an ADTRAN Interoperability Mark, when ADTRAN recommends combinations of third-party products, such as headsets for use with telephones, or telecommunications services for use with gateways. This means that there are also different program levels for telephones, most commonly Connect+ and Interoperable.

The highest program level for vendor products is Connect+. This level means that the partner product is fully supported by ADTRAN and the third-party vendor. The phone can be auto-detected and configured, as well as supporting automatic firmware deployment. This means ease of use for the Administrator, end-user of the UC server, and the vendor product that is certified by ADTRAN as Connect+. This partner level also means that ADTRAN has direct support with the vendor.

The lowest partner level for vendor products is Interoperable. This level means that the product is interoperable with the UC server and third-party products such as phones and gateways. This product is fully interoperable with the UC server but might not support auto-detection or automatic configuration. It is also important to note that ADTRAN might not have a formal support relationship with the vendor.

The Polycom KWS300 is certified as Connect+ and can be auto-detected and provisioned.