# ADTRAN®

NetVanta Unified Communications Technical Note

Configuring CyberData VoIP Ceiling Speakers

Introduction

The CyberData Voice over IP (VoIP) ceiling speaker connects to existing local area networks (LANs) to broadcast digital audio over a public address system. The small footprint and low height make this an ideal speaker to discreetly mount almost anywhere. This technical note describes how to configure the CyberData VoIP ceiling speaker with the UC server.

Network Topology

SIP Phone

VoIP Ceiling Speaker

Switch

UC Server
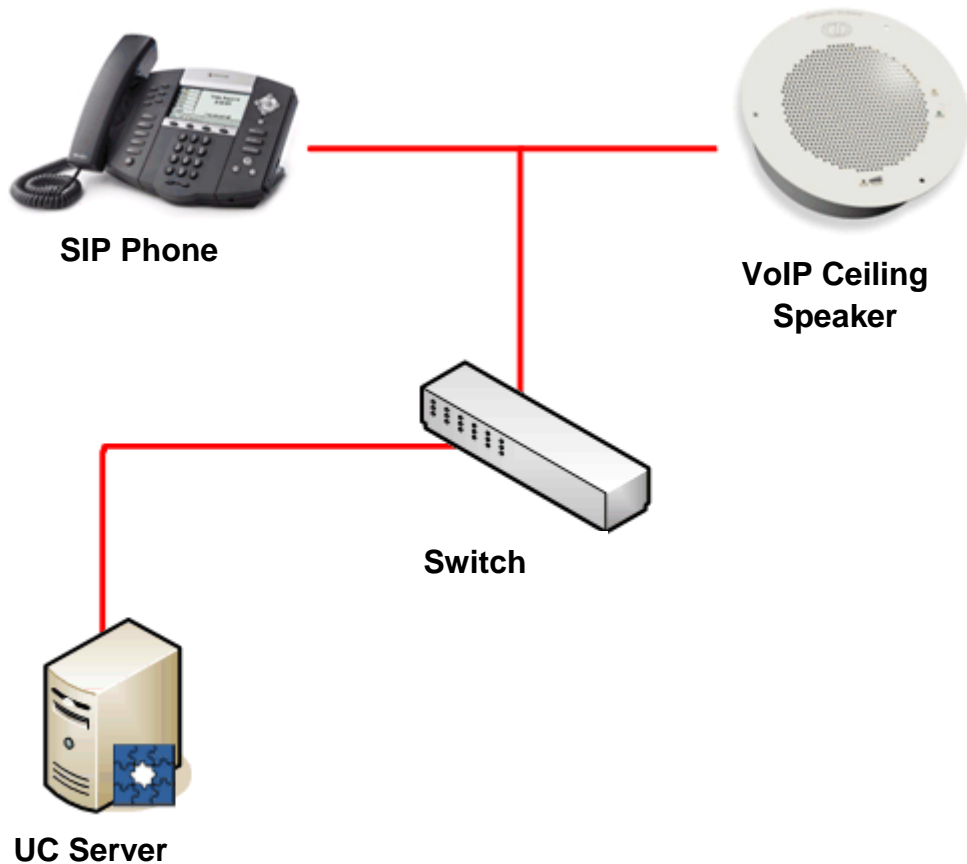
This is the network topology for a single VoIP speaker configuration. In this configuration, the ceiling speaker acts as a standalone Session Initiation Protocol (SIP) telephony device. This particular configuration does not support multiple paging zones.

Known Integration Issues

Known integration issues include:

- Supervised transfers cannot be completed. Transferring a caller to the speaker will result in the phone infinitely indicating a transfer without completing the transfer.

- Multiple paging zones in a standalone configuration are not supported. If you require this functionality, you need the CyberData VoIP Paging Server.

Preparation

This section provides instructions on how to apply firmware updates, if necessary, and how to set up the device for manual configuration.

PC Network Settings

The factory default on CyberData products is a static IP address. To access the device, you must change your PC to the same subnet.

NOTE: *Make a note of the original network settings before making any changes. You must restore these settings after changing the network configuration on the speaker.*

To change the IP address of your computer, do the following:

For Windows® Server 2003/Windows XP:

1. Select **Start > Control Panel**.

2. If you have the Classic View, select **Network Connections**. If you have the Category View, select **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	192.168.3.1
Subnet Mask	255.255.255.0
Default Gateway	192.168.3.10

7. Select **OK**.

For Windows Server 2008/Windows Vista:

1. Select **Start > Control Panel**.

2. If you have the Classic View, select **Network and Sharing Center** and then select **Manage Network Connections**. If you have the Category View, select **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	192.168.3.1
Subnet Mask	255.255.255.0
Default Gateway	192.168.3.10

7. Select **OK**.

CyberData VoIP Speaker Network Settings

The CyberData VoIP ceiling speaker is configured with a static IP address by factory default. This must be changed so that the device is connected to your network.

To enter network settings for the CyberData VoIP Ceiling Speaker:

1. Open your browser and enter the IP address of the speaker. The factory default is 192.168.3.10.

2. When prompted, use the following default Web access user name and password:

   - Web Access User Name: **admin**

   - Web Access Password: **admin**

3. Select **Network Setup**.

4. Under **IP Addressing**, select **DHCP**.

5. Select **Save Settings**.

Determining the IP Address of the Speaker

The speaker has a reset test function management (RTFM) switch that allows you to test or reset the device. This function also has the capability to announce the IP address. This is useful, for example, when you are using the speaker in a Dynamic Host Configuration Protocol (DHCP) network configuration and need to know the IP address.

To determine the IP address of the speaker:

1. Press and hold the RTFM switch until it beeps (after one second).

2. Release the switch to hear the IP address announcement.

   CAUTION: *If you press and hold the RTFM switch for longer than 20 seconds, you will restore the speaker to the factory default settings.*

Firmware Upgrades

Upgrade Compatibility

Refer to *UC Server Interoperable SIP Device Features and Comparisons* technical note, available online at *http://kb.adtran.com*, to determine the most recently supported version of firmware for the device.

Refer to CyberData's website at *http://www.cyberdata.net/products/voip/digitalanalog/ceilingspkr/downloads.html* for information concerning valid upgrade paths. The factory firmware version can be found on the check-off list shipped with your CyberData VoIP ceiling speaker.

Return Merchandise Authorization (RMA) Upgrade Procedure

If you determine that you cannot upgrade the speaker yourself, you must send the unit to CyberData to complete the firmware upgrade. For more information on the RMA upgrade procedure, refer to CyberData's website at *http://www.cyberdata.net/products/voip/digitalanalog/ceilingspkr/downloads.html*.

Performing Firmware Upgrades

If you are running version 3.00, an RMA is not required and newer firmware versions can be downloaded from the CyberData website.

To perform the upgrade:

1. Retrieve the latest firmware from the CyberData website at
    http://www.cyberdata.net/products/voip/digitalanalog/ceilingspkr/downloads.html.

2. Unzip the file to the NetVanta TFTP folder, located in *X*:\Program
    Files\ADTRAN\NetVanta UC Server\Data\TFTP, where *X* is the drive where the UC
    server program files are installed.

3. Open your browser and enter the IP address of the speaker.

4. When prompted, use the following default Web access user name and password:

    -   Web Access User Name: **admin**

    -   Web Access Password: **admin**

5. Select the **Upgrade Firmware** button.

6. Enter the IP address of your UC server in the TFTP **Server IP** field.

7. Under **New Filename**, enter the file name of the read only memory file that you unzipped
    from the firmware zip file. For example: **400-romdisk-spk-sip.img**.

8. Select **Upload File**.

9. After the read only memory file finishes uploading, repeat Step 6 to upload the image file
    by entering the file name of the image. For example: **400-image-spk-sip.bin**.

10. Select **Upload File**.

11. Select the **reboot** button.

SIP Configuration

NOTE: *This section does not apply to the speaker in conjunction with the CyberData VoIP
Paging Server. Refer to **CyberData VoIP Paging Server Configuration Guide** technical note,
available online at http://kb.adtran.com, for information about configuring the speaker with the
CyberData VoIP Paging Server.*

Gathering Information

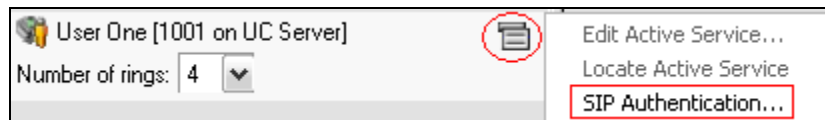To configure the device, you need the following information.

SIP User ID	This is equivalent to the identity address that you want to associate with the device.
Authenticate ID	This is the SIP authentication identifier associated with the above identity. This is required by any SIP endpoint to register with the SIP private branch exchange (PBX).
Authenticate Password	This is the SIP authentication password associated with the above identity.

Determining the Authentication ID and Password as the User (that owns the identity)

1. Start the UC client.

2. Log in as the user you want to associate to the device. In the bottom left pane, take note of the identity name.
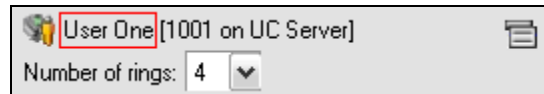
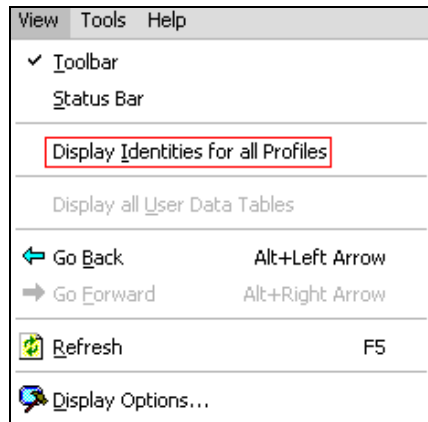3. Select the icon on the right and select **SIP Authentication**.

4. Record the User/login name and password from the following dialog box. You will need them later when you configure the device.
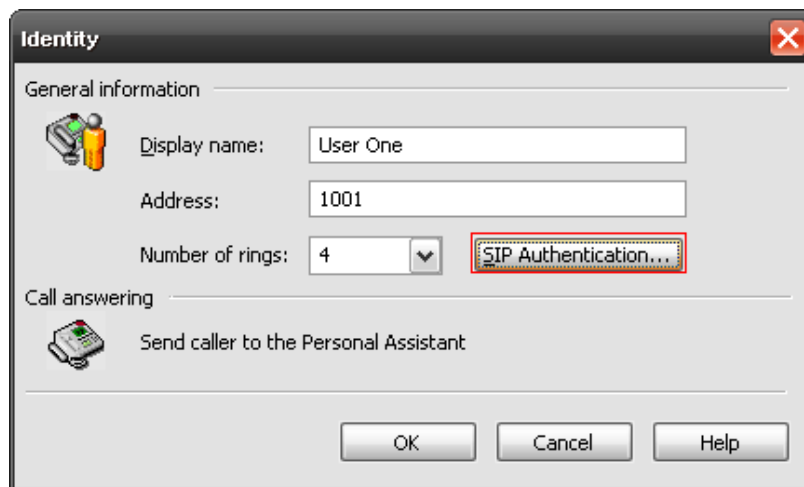

Determining the Authentication ID and Password as the Administrator

1. Start the UC client.

2. Log in as the admin user.

3. Select the **Identities** tab in the left pane. Select **View > Display Identities for all Profiles**.

4. Find the identity in the list that you want to use and double-click the entry.

5. Select **SIP Authentication**.

6. Record the User/login name and password from the following dialog box. You will need them later when you configure the device.

Device Configuration

1. Open your browser and enter the IP address of the speaker.

2. When prompted, use the following default Web access user name and password:

   - Web Access User Name: **admin**

   - Web Access Password: **admin**

3. Select the **SIP Setup** button.

4. Enter the following information:

   SIP Server: <IP address of the UC server>

   SIP User ID: <SIP User ID>

   SIP Authenticate ID: <SIP User ID>

   SIP Password: <Authentication Password>

   SIP Registration: Yes

5. Select **Save Settings**.

The figure below shows an example of how to complete the required fields.

SIP Setup

SIP Server:	192.168.8.251	*
Outbound Proxy:		*
Remote SIP Port:	5060	*
Local SIP Port:	5060	*
SIP User ID:	700	*
Authenticate ID:	700	*
Authenticate Password:	1234	*
SIP Registration:	◉ Yes ○ No	*
Unregister on Reboot:	○ Yes ◉ No	*
Register Expiration (minutes):	60	*

* changing this parameter causes system reboot when saved

Save Settings

Troubleshooting

1. **You receive a voicemail prompt when dialing the identity of the device.**

   Verify the following:
   - The identity was created in the UC server and the correct user ID and password are configured on the device.
     - Refer to *SIP Configuration* on page 5.
   - The SIP server address on the device is set to the correct IP address of the UC server.
     - Refer to *Device Configuration* on page 8.
   - SIP Registration is enabled on the device.
     - Refer to *Device Configuration* on page 8.

2. **You are unable to access the Web interface to configure the paging device.**

    Verify the following:

    - Your PC is set to the same address range as the device for first-time configuration.

        – Refer to *CyberData VoIP Speaker Network Settings* on page 3.

3. **No audio when calling into paging device.**

    Verify the following:

    - The volume level is set correctly on the speaker.