



# *VoIP Ceiling Speaker Configuration Guide*

**CyberData Corporation**  
2555 Garden Road  
Monterey, CA 93940  
(831) 373-2601

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Phone: (831) 373-2601  
Technical Support Ext. 333  
support@cyberdata.net  
Fax: (831) 373-4193  
Company and product information at [www.cyberdata.net](http://www.cyberdata.net)

## CyberData VoIP Ceiling Speaker Configuration Guide

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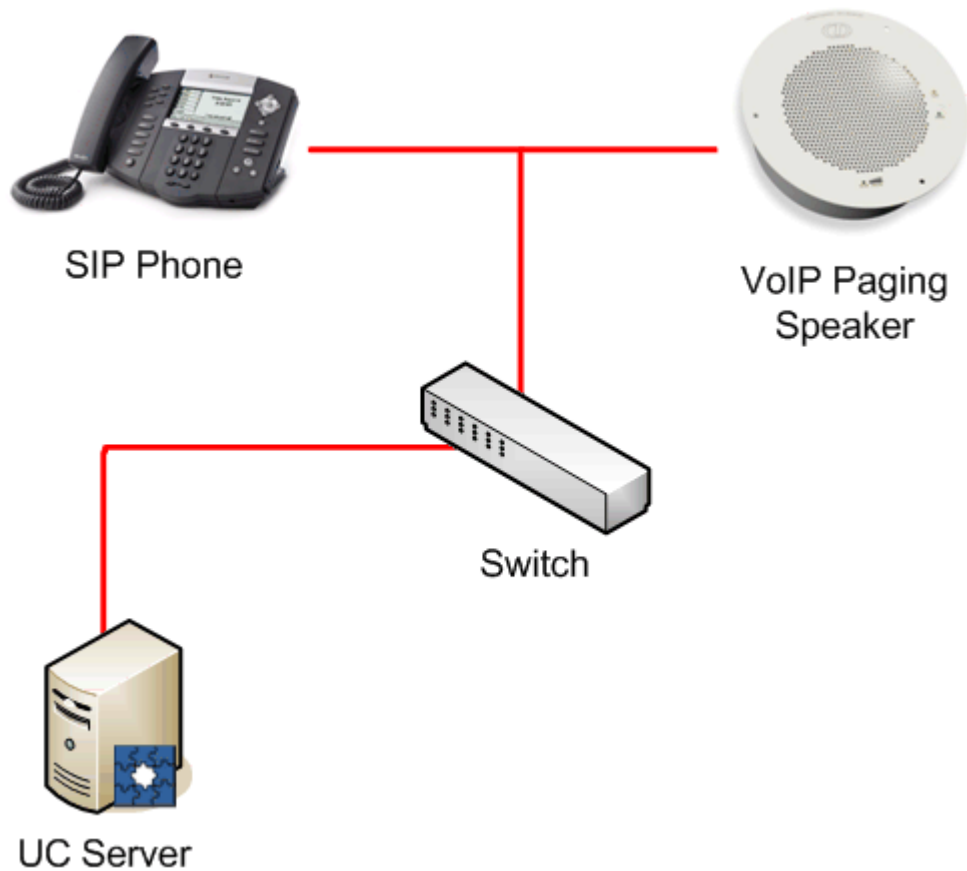
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## 1 Introduction



The Voice-over-IP (VoIP) Ceiling Speaker connects to existing LANs to broadcast digital audio over your public address system. The small footprint and low height make this an ideal speaker to discreetly mount almost anywhere. This guide describes how to configure the VoIP Paging Speaker with UC Server.

### 1.1 Network Topology



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

## 2 Known Integration Issues

Known integration issues include:

- Cannot perform supervised transfers – Transferring a caller to the paging speaker does not work and results in the phone infinitely indicating a transfer without completing.
- Does not support multiple paging zones in a standalone configuration – If you require this functionality, you need the CyberData VoIP Paging Server.

## 3 Preparation

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

### 3.1 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.

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

**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 speaker.

#### For Windows Server 2003/Windows XP

1. Click Windows **Start**.
2. Click **Control Panel**.
3. If you have the classic view, click **Network Connections**.  
If you have the category view, click **Network and Internet Connections**, and then click **Network Connections**.
4. Double-click your active **LAN or Internet connection**.
5. Click **Properties**.
6. In the **General** tab, highlight the **Internet Protocol (TCP/IP)** item, and click **Properties**.
7. In the **General** tab, click **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
8. Click **OK**.

#### For Windows Server 2008/Windows Vista

1. Click Windows **Start**.
2. Click **Control Panel**.
3. If you have the classic view, click **Network and Sharing Center** and then click **Manage Network Connections**.  
If you have the category view, click **Network and Internet, View network status and tasks** and then **Manage Network Connections**.
4. Double-click the active **LAN or Internet connection**.
5. Click **Properties**.
6. In the **Networking** tab, highlight the **Internet Protocol (TCP/IP)** item, and click **Properties**.
7. In the **General** tab, click **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
8. Click **OK**.

## 3.2 CyberData VoIP Speaker Network Settings

The VoIP Ceiling Speaker is configured with a static IP address on factory default. This must be changed so that the device is connected to your network.

To enter network settings for CyberData VoIP Paging Amplifier

1. Open your browser and type the IP Address of the speaker. The factory default is 192.168.3.10.
2. When prompted, use the following default Web Access username and password:
  - Web Access Username: **admin**
  - Web Access Password: **admin**
3. Click **Network Setup**.
4. Under **IP Addressing**, select **DHCP**.
5. Click **Save Settings**.

## 3.3 Determining the IP Address of the speaker

The speaker has an RTFM (Reset Test Function Management) 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 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.**

## 3.4 Firmware Upgrades

### 3.4.1 Upgrade Compatibility

Refer to the Technical Note "TN051 – SIP Device Features and Comparisons" (a versioned document located on the Objectworld web site at [www.objectworld.com/support/documentation](http://www.objectworld.com/support/documentation)) to determine the most recently supported version of firmware for the device.

Refer to Cyberdata's web site ([http://www.cyberdata.net/support/voip/ceiling\\_speaker\\_upgrade\\_compatibility.html](http://www.cyberdata.net/support/voip/ceiling_speaker_upgrade_compatibility.html)) for information concerning valid upgrade paths. The factory firmware version can be found on the check-off list shipped with your VoIP Ceiling Speaker.

### 3.4.2 RMA Upgrade Procedure

If you determine that you cannot upgrade the speaker yourself, you must send the unit to CyberData to do the firmware upgrade. For more information on the RMA upgrade procedure, visit the CyberData RMA support page (<http://www.cyberdata.net/support/rma.html>).

### 3.4.3 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 web site.

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## To perform the upgrade

1. Retrieve the latest firmware from the CyberData web site.  
(<http://www.cyberdata.net/support/voip/ceilingspeaker.html>)
2. Unzip the file to the Objectworld TFTP folder (located in: **X:\Program Files\Objectworld\UC Server\Data\TFTP** where **X** is the drive where the UC Server program files are installed)
3. Open your browser and type the IP Address of the speaker.
4. When prompted, use the following default Web Access username and password:  
Web Access Username: **admin**  
Web Access Password: **admin**
5. Click 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 filename of the rom file that you unzipped from the firmware zip file.  
For example: **400-romdisk-spk-sip.img**
8. Click **Upload File**.
9. After the rom image file finishes uploading, repeat step 6 but upload the image file by entering the filename of the image.  
For example: **400-image-spk-sip.bin**
10. Click **Upload File**.
11. Click the **reboot** button.

## 4 SIP Configuration

**NOTE:** This section does not apply to the VoIP speaker in conjunction with the VoIP Paging Server. Refer to *TNo84 – CyberData VoIP Paging Server Configuration Guide* for information about configuring the VoIP speaker with the VoIP Paging Server.

### 4.1 Gathering Information

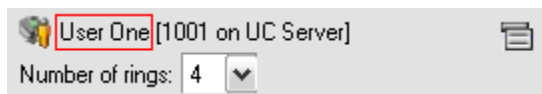
To configure the device, you need the following information.

- 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 end-point to register with the SIP PBX.
- Authenticate Password:** This is the SIP authentication password associated with the above identity.

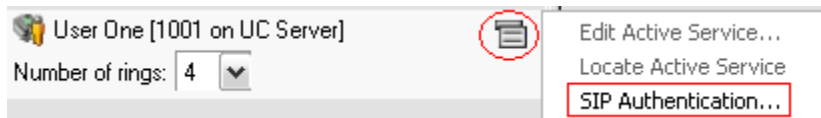
To determine the Authentication ID and Password, do the following.

#### 4.1.1 Determining the Authentication ID and Password as the user (that owns the identity) in UC Client

1. Start UC Client.
2. Login as the user you want to associate to the device.
3. In the bottom left pane, take note of the identity name.



4. Click the icon on the right and select **SIP Authentication**.

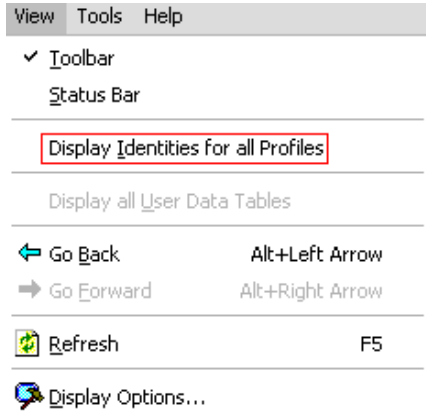


5. Record the User/login name and password from the following dialog because you will need it later to configure the device.

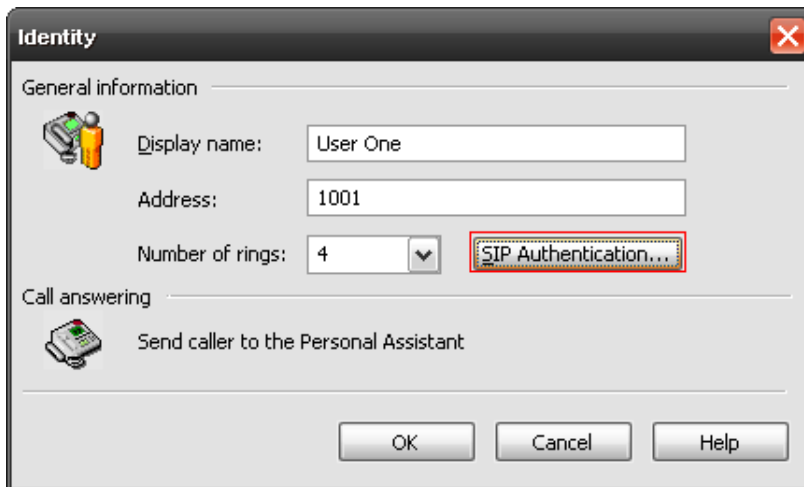


## 4.1.2 Determining the Authentication ID and Password as the administrator in UC Client

1. Start UC Client.
2. Login as the admin user.
3. Select the Identities tab in the left pane.
4. Go to View > Display Identities for all Profiles



5. Find the identity in the list that you want to use and double-click the entry.
6. Click **SIP Authentication**.



Record the User/login name and password from the following dialog because you will need it later to configure the device.



## 4.2 Device Configuration

1. Open your browser and type the IP Address of the speaker.
2. When prompted, use the following default Web Access username and password:  
Web Access Username: **admin**  
Web Access Password: **admin**
1. Click the **SIP Setup** button.
2. Enter the following information:  
**SIP Server:** <IP Address of UC Server>  
**SIP User ID:** <SIP User ID>  
**SIP Authenticate ID:** <SIP User ID>  
**SIP Password:** <Authenticate Password>  
**SIP Registration:** Yes
3. Click **Save Settings**.

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

### SIP Setup

SIP Server:	<input type="text" value="192.168.8.251"/>	*
Outbound Proxy:	<input type="text"/>	*
Remote SIP Port:	<input type="text" value="5060"/>	*
Local SIP Port:	<input type="text" value="5060"/>	*
SIP User ID:	<input type="text" value="700"/>	*
Authenticate ID:	<input type="text" value="700"/>	*
Authenticate Password:	<input type="text" value="1234"/>	*
SIP Registration:	<input checked="" type="radio"/> Yes <input type="radio"/> No	*
Unregister on Reboot:	<input type="radio"/> Yes <input checked="" type="radio"/> No	*
Register Expiration (minutes):	<input type="text" value="60"/>	*

*\* changing this parameter causes system reboot when saved*

**Save Settings**

## 5 Troubleshooting

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

Verify the following:

- The identity was created in UC Server and the correct User ID and password are configured on the device
  - See [section 4](#)
- The SIP Server address on the device is set to the correct IP Address of UC Server
  - See [section 4.2](#)
- SIP Registration is enabled on the device
  - See [section 4.2](#)

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.
  - See [section 3.2](#)

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

Verify the following:

- The volume level is set correctly on the speaker