

# Configuring the CyberData VoIP Paging Amplifier and Loudspeaker Amplifier

## Introduction



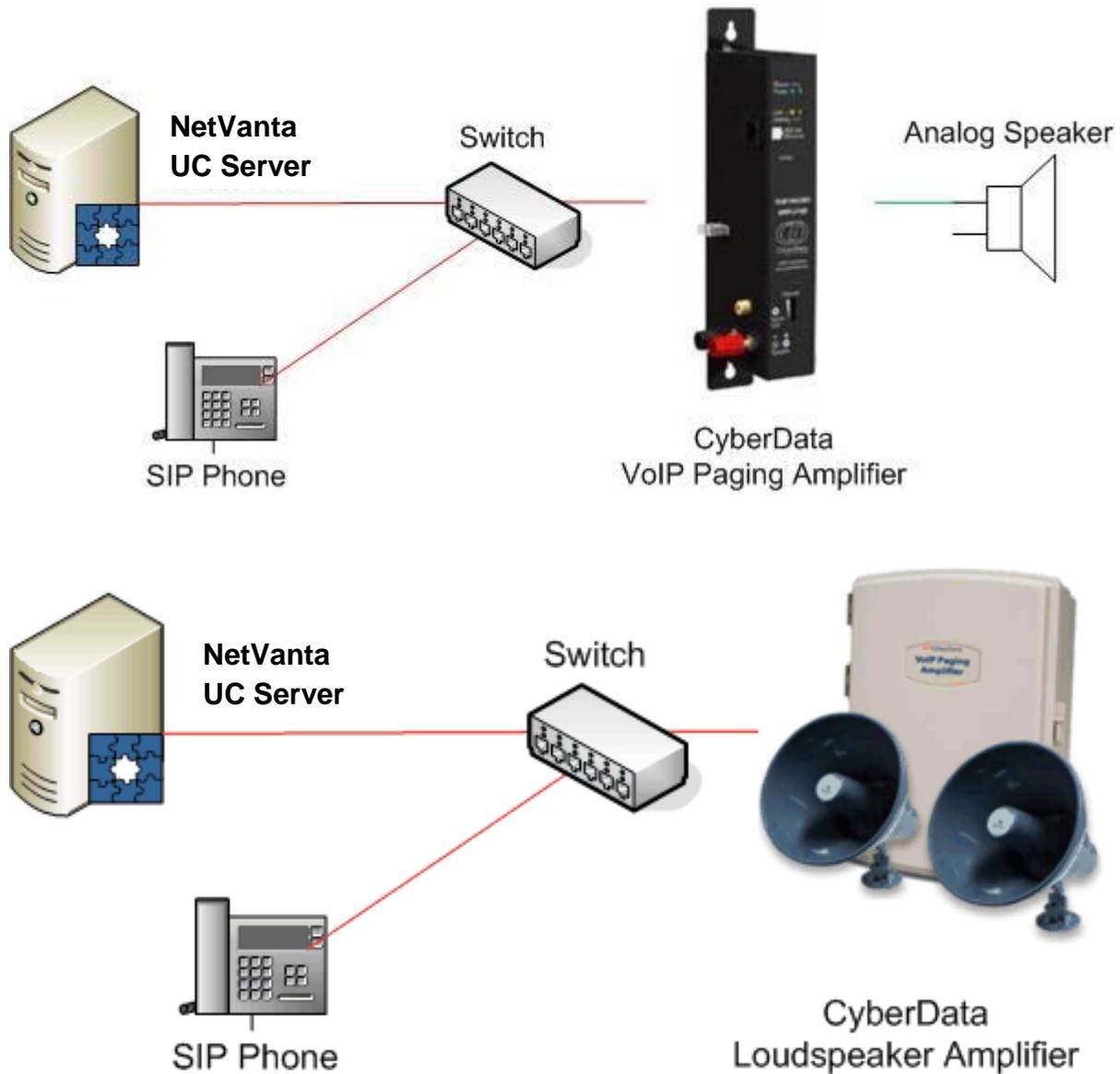
The CyberData Session Initial Protocol (SIP)-enabled VoIP paging amplifier provides an easy solution for implementing an IP-based overhead paging system for both new and legacy installations. The amplifier provides direct drive of a standard horn speaker and supports a line-out connector for an external amplifier.

The CyberData SIP-enabled VoIP loudspeaker amplifier provides an easy solution for implementing an IP-based overhead paging system. The loudspeaker amplifier is designed for noisy environments such as warehouses and shop floors. It comes with a moisture-proof National Electrical Manufacturers Association (NEMA) enclosure.

This technical note describes how to configure the CyberData VoIP paging amplifier and loudspeaker amplifier with the UC server.

## Network Topology

Below is an example of how the CyberData VoIP paging amplifier and loudspeaker amplifier might be configured in your network.



## Known Integration Issues

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

# Preparation

This section provides instructions about 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 CyberData devices, you must change your PC to the same subnet.

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

**To change the IP address for your computer, do the following:**

For Windows Server 2003/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:

<b>IP Address</b>	192.168.3.1
<b>Subnet Mask</b>	255.255.255.0
<b>Default Gateway</b>	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:

<b>IP Address</b>	192.168.3.1
<b>Subnet Mask</b>	255.255.255.0
<b>Default Gateway</b>	192.168.3.10

7. Select **OK**.

## Network Settings

The VoIP paging amplifier and loudspeaker amplifier are configured with a static IP address on factory default. This must be changed so that the devices are connected to your network.

### To enter network settings for CyberData VoIP paging amplifier or loudspeaker amplifier:

1. Open your browser and enter the IP address of the paging amplifier or loudspeaker amplifier. The factory default is 192.168.3.10.
2. When prompted, use the following default Web Access user name and password:
  - Web Access Username: **admin**
  - Web Access Password: **admin**
3. Select **Network Setup**.
4. Under **IP Addressing**, select **DHCP**.
5. Select **Save Settings**.

## Upgrading the Firmware

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 amplifier. If the firmware version on your device is earlier than the version noted, upgrade the firmware. The factory firmware version can be found on the check-off list shipped with your amplifier.

### TFTP Firmware Upgrade

1. Retrieve the latest firmware from the CyberData website.  
For the paging amplifier, go to  
<http://www.cyberdata.net/products/voip/digitalanalog/pagingamp/downloads.html>.  
For the loudspeaker amplifier, go to  
<http://www.cyberdata.net/products/voip/digitalanalog/loudspkramp/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 paging amplifier or the loudspeaker amplifier.

4. When prompted, use the following default Web Access user name and password:
  - Web Access Username: **admin**
  - Web Access Password: **admin**
5. Select the **Upgrade** button.
6. Enter the IP address of the 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

### Gathering Information

To configure the device, you need the following information.

<b>SIP User ID</b>	This is equivalent to the identity address that you want to associate with the device.
<b>Authenticate ID</b>	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).
<b>Authenticate Password</b>	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. Log in as the user you want to associate to the device. In the bottom left pane, take note of the identity name.



2. Select the icon on the right and select **SIP Authentication**.

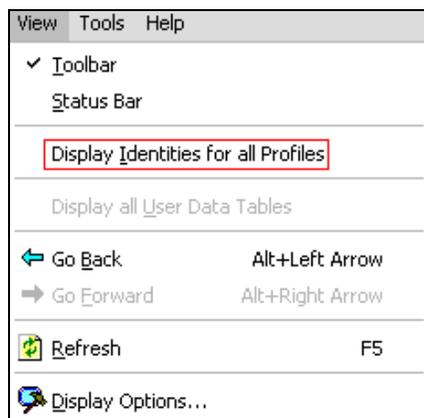


3. Record the User/login name and password from the following dialog box. You will need them later when you configure the device.



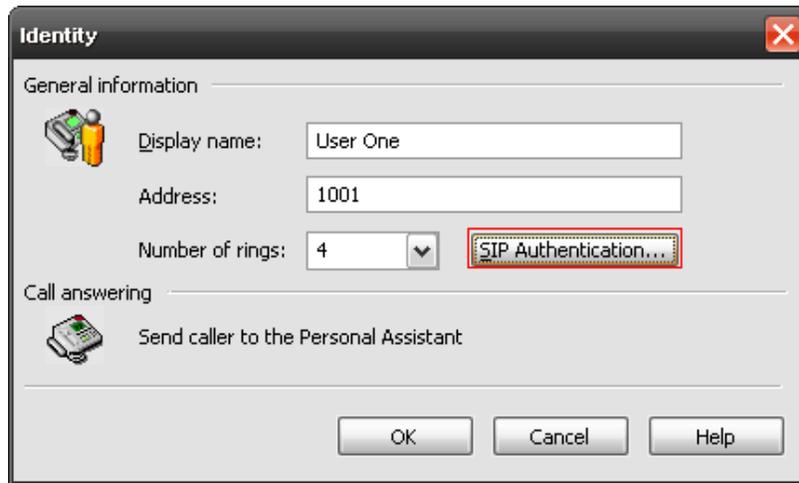
## Determining the Authentication ID and Password as the Administrator

1. Start the UC client.
2. Log in as the admin user.
3. Select the **Identities** tab in the left pane. Go to **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 paging amplifier or loudspeaker amplifier.
2. When prompted, use the following default Web Access user name and password:
  - Web Access Username: **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:** <Authenticate 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 7.
- SIP Registration is enabled on the device
  - Refer to *Device Configuration* on page 7.

## 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 *PC 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.