



VoIP Intercom with 3CX Server Software Version 9.0

Quick Setup Guide

CYBERDATA CORPORATION

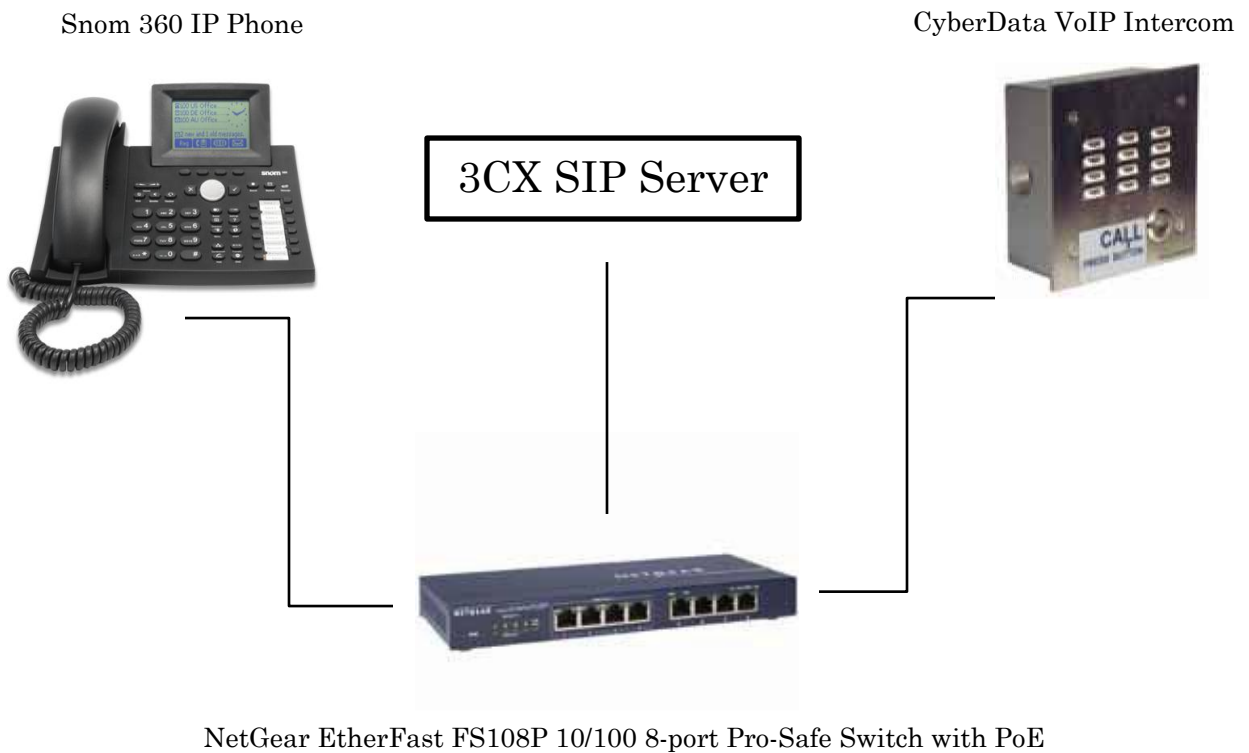
June 15, 2011

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1.0 Setup

Figure 1-1 is a setup diagram for a single VoIP intercom configuration. In this configuration, the VoIP intercom acts as a SIP endpoint.

Figure 1-1. Setup Diagram



2.0 Host PC Environment

Table 2-1. Host PC Environment Details

Hardware Type:	Windows Server
Hardware Version:	Windows Server 2008
Software Type:	3CX System for Windows
Software Version:	<u>9.0.15781.949</u>

3.0 Test Equipment

Table 3-1. Setup Equipment

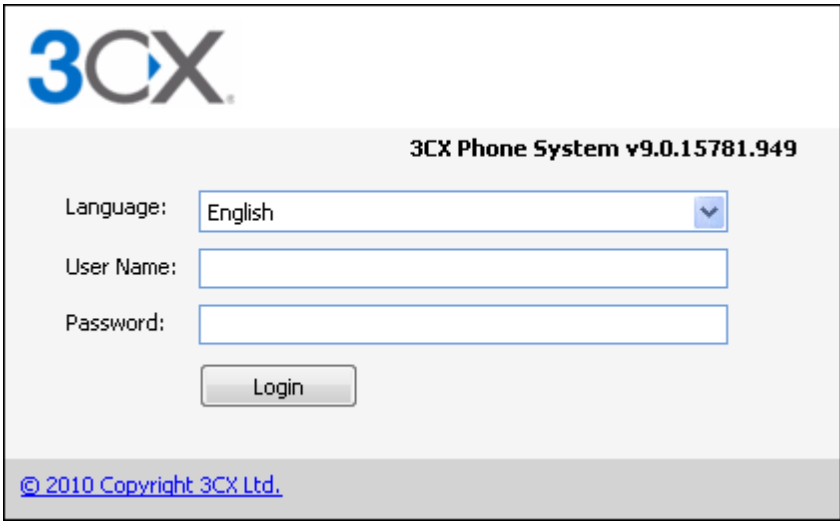
Equipment	Model	Version
Snom IP Phone	360	N/A
CyberData VoIP Intercom	010935F	6.1.0
NetGear FS108P 10/100 8-port Pro-Safe PoE Switch	N/A	N/A

4.0 3CX Extension Configuration

Login

1. Go to the web address of the **Login** page. The web address is determined by the customer.
2. On the **Login** page, type the user name and password into the **User Name** and **Password** fields.
3. Click on the **Login** button to go to the **Main Form** page.

Figure 4-1. 3CX Login



The screenshot shows the 3CX login interface. At the top left is the 3CX logo. To the right, it says "3CX Phone System v9.0.15781.949". Below this, there is a "Language:" label followed by a dropdown menu set to "English". Underneath are two text input fields labeled "User Name:" and "Password:". A "Login" button is positioned below the password field. At the bottom left, there is a copyright notice: "© 2010 Copyright 3CX Ltd."

Add Extension

On the **Main Form** page, there are two ways to add an extension:

Figure 4-2. Add Extension From Add Menu

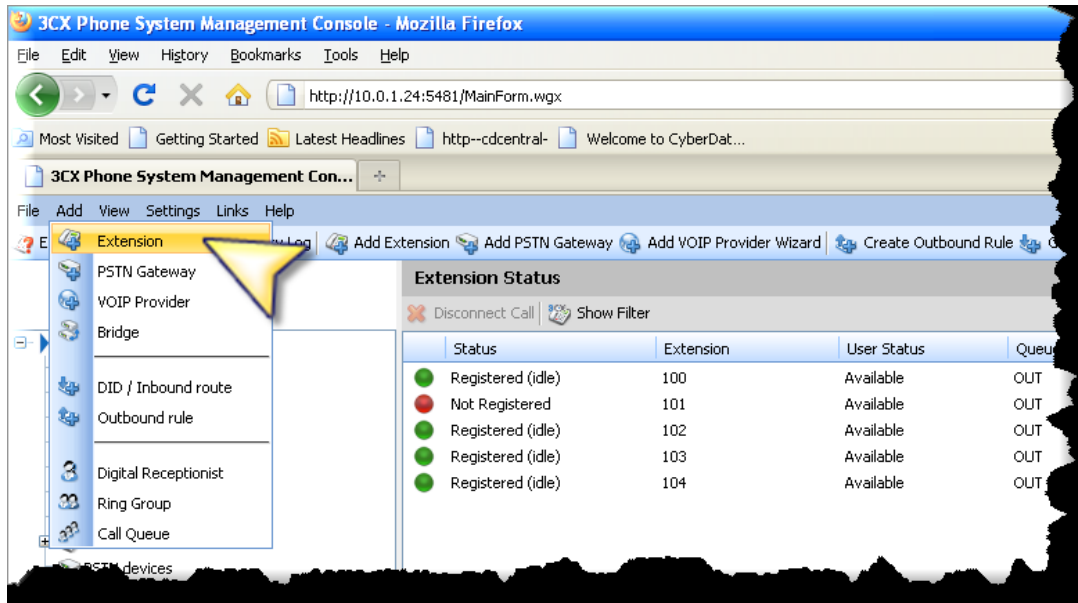
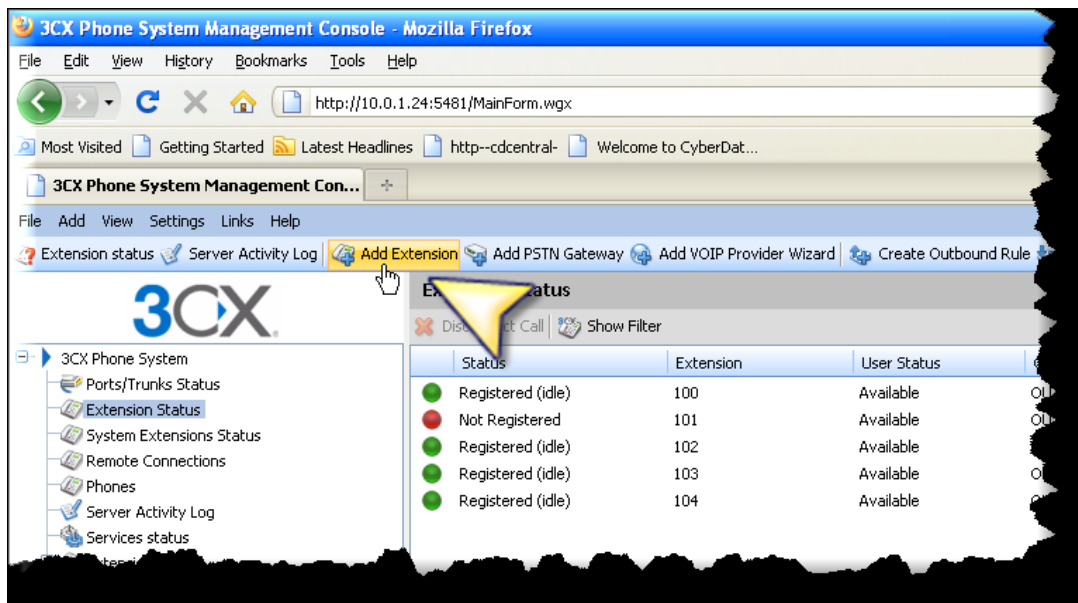


Figure 4-3. Add Extension Macro Button



Extension Configuration

1. On the **Extension** page, enter the following information:

- Extension Number
- First Name
- Last Name
- Authentication ID
- Authentication Password

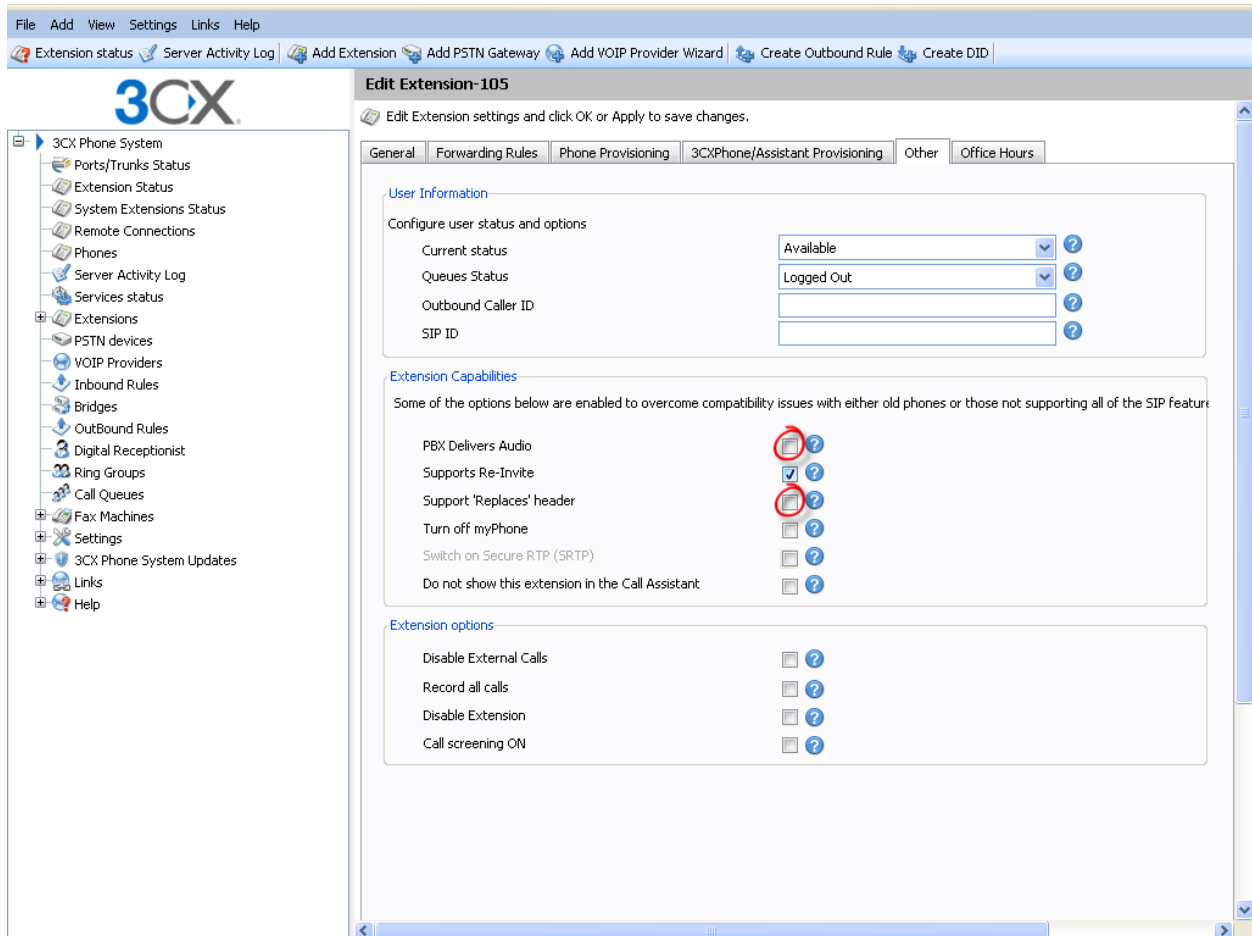
Figure 4-4. Extension Page – User Information and Authentication

The screenshot displays the 'Edit Extension-105' configuration page in the 3CX Phone System web interface. The page is organized into three main sections:

- User Information:** This section is used to specify extension number, name, and email address for voicemail notifications and fax delivery. It contains the following fields:
 - Extension Number: 105
 - First Name: CyberData
 - Last Name: Intercom
 - Email address: support@cyberdata.net
 - Mobile Number: (empty)
- Authentication:** This section is used to specify the authentication ID and Password for the phone. It contains the following fields:
 - ID: VoIP Technical Support
 - Password: ext105
- Voice Mail Configuration:** This section is used to specify voice mail settings. It contains the following fields:
 - Enable Voice mail:
 - Play Caller ID: Do not read
 - PIN Number (used by 3CX Assistant): ****
 - Email Options: No email notification

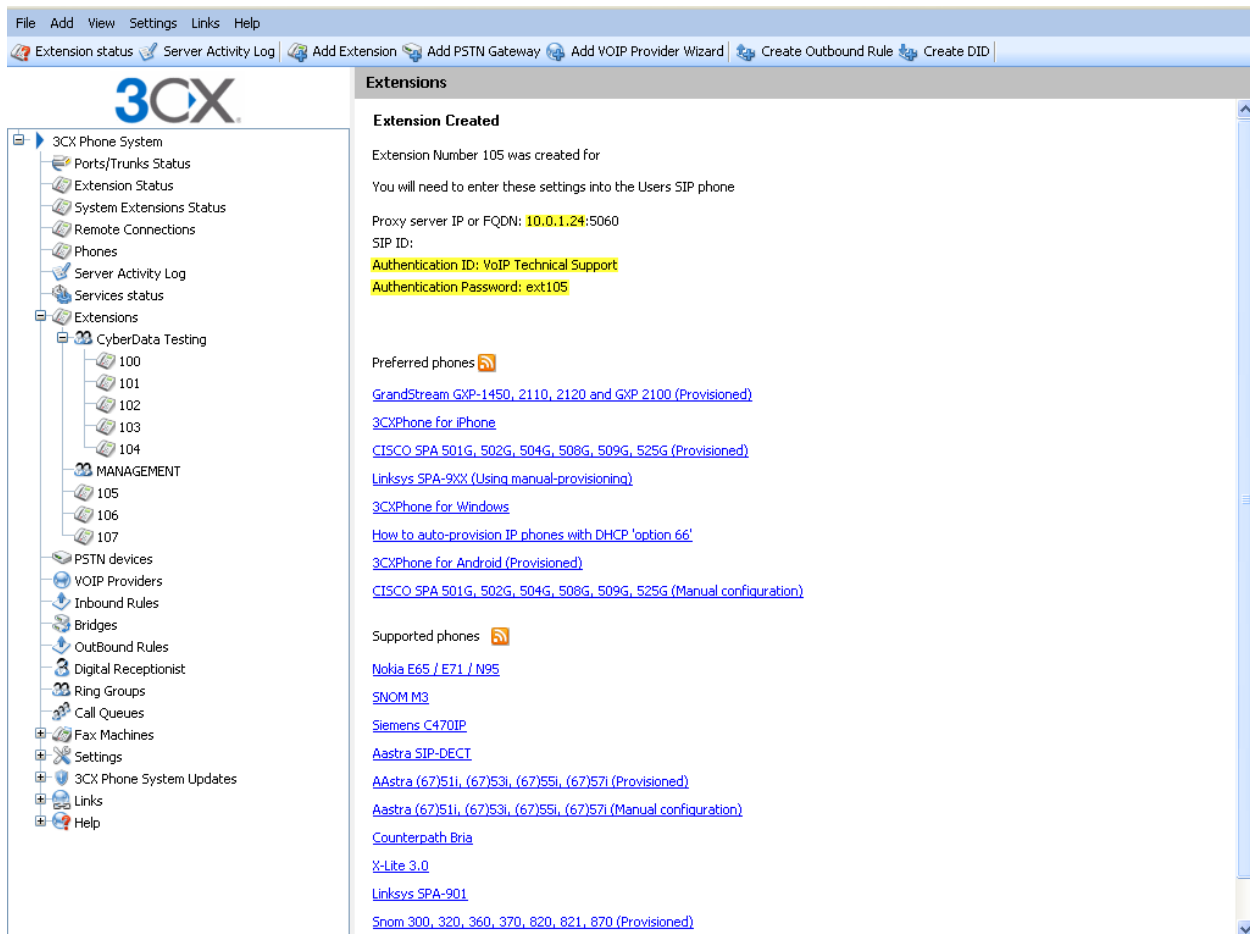
2. Uncheck “Enable Voice mail” if you prefer (see Figure 4-4).
3. Click on the **Other** tab.
4. Uncheck “PBX Delivers Audio.”
5. Uncheck “Support ‘Replaces’ Header”.

Figure 4-5. Extension Page – Other Tab Configuration



6. Scroll down and click the OK button to proceed to the **Extension Created** page.
7. Note the Extension Number, Authentication ID, Authentication Password, and the 3CX SIP Server's IP address for the intercom's SIP configuration.

Figure 4-6. Extension Created Page



5.0 VoIP Intercom SIP Configuration

Login

1. First, be sure to download the CyberData Discovery Utility and the proper Operation and Quick Start guides from our website. You may access each CyberData product's support pages from the CyberData VoIP Support webpage:

<http://www.cyberdata.net/support/voip/index.html>

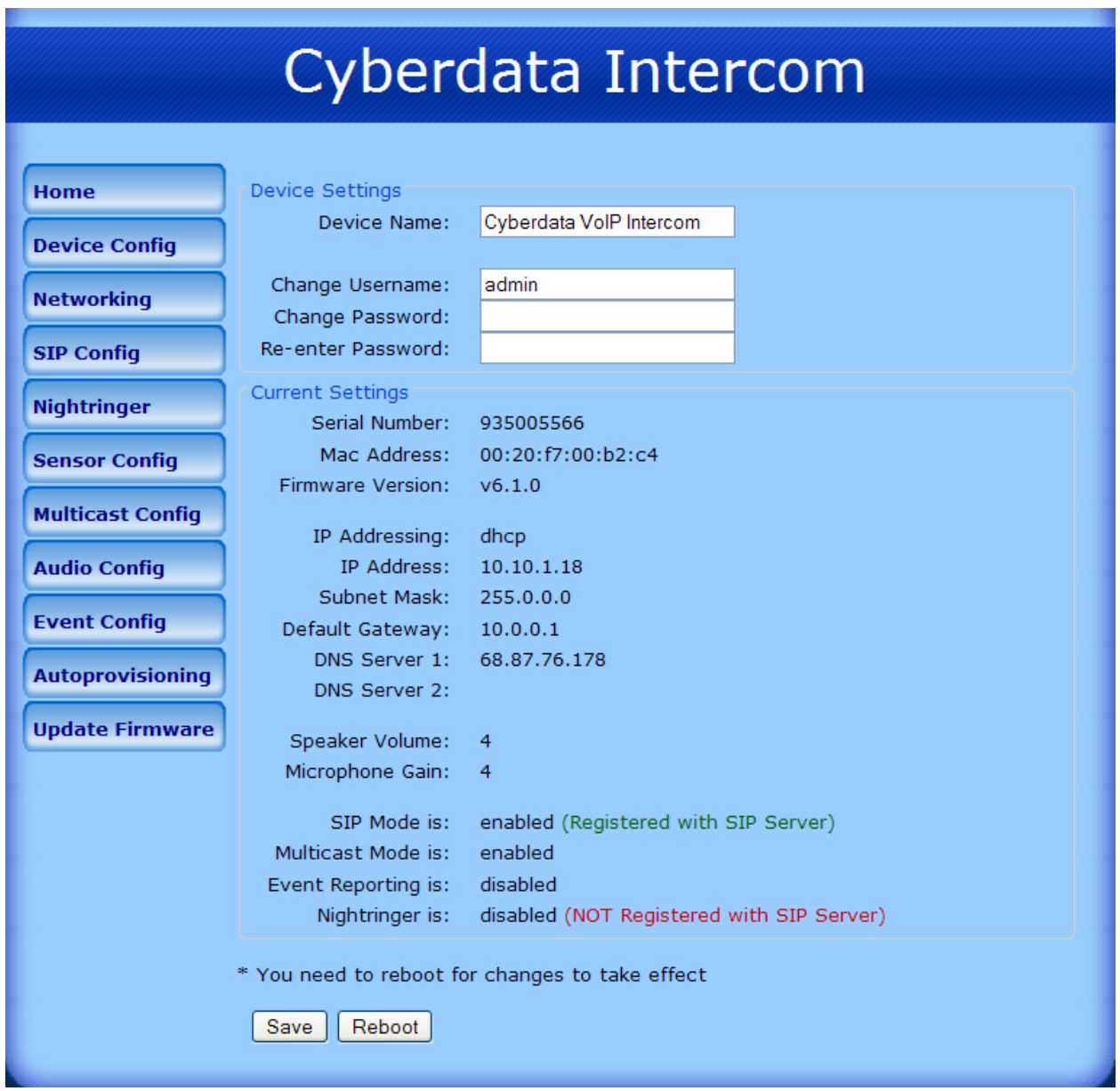
2. Click **Launch Browser** from the CyberData Discovery Utility or point your browser to the CyberData VoIP Intercom's IP address to access the CyberData Interface Home Page.
3. Enter the default credentials when prompted and click the OK button.

Username: admin

Password: admin

4. On the Home Page, click **SIP Config** to access the SIP Configuration page (see Figure 5-1).

Figure 5-1. CyberData Interface Home Page



Configure SIP Parameters

Use the information from the Extension Created page (see Figure 4-6) to enter the information required on the SIP Config page (see Figure 5-2):

Table 5-1. SIP Configuration Parameters

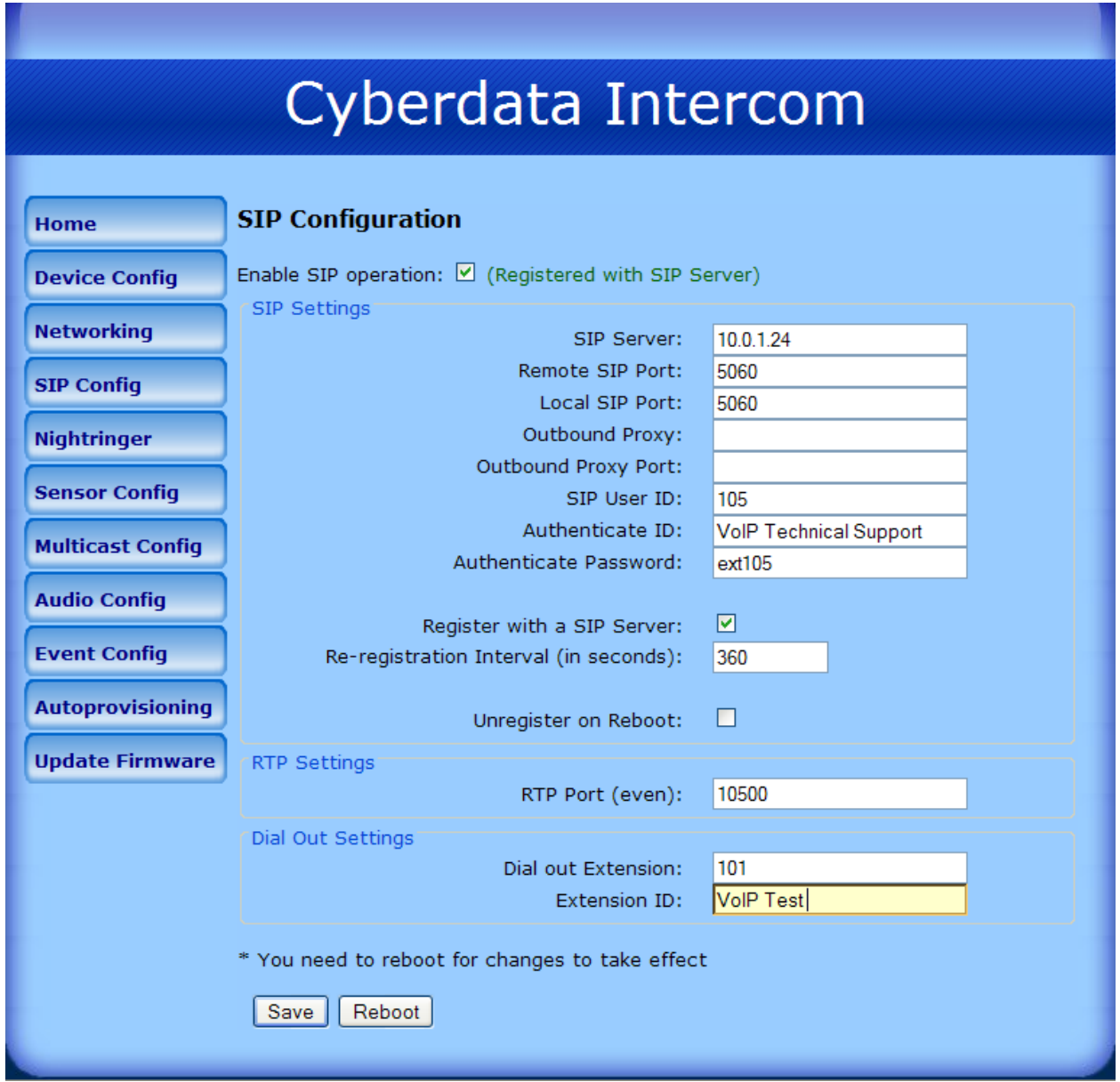
CyberData	3CX
SIP Server	3CX Server's IP address
Remote SIP Port	Default port is 5060
Local SIP Port	Default port is 5060
SIP User ID	Intercom's 3CX extension number
Authenticate ID	Authentication ID from the 3CX extension
Authenticate Password	Authentication Password from the 3CX extension
Dial-Out Extension	Extension number you wish the intercom to dial

Save and Reboot

The following steps are essential to successfully configuring the SIP parameters:

1. Click **Save**.
2. Click **Reboot** to reboot the intercom.
3. After clicking **Reboot**, a reboot timer countdown will begin.
4. When the intercom has finished rebooting, the green **Link** LED on the intercom should remain lit and the yellow **Activity** LED should blink to indicate normal operation.

Figure 5-2. CyberData SIP Configuration Page



Test Procedure

To test the intercom, complete the following steps:

1. Pick up any phone that is configured to the 3CX system and call the intercom's extension number.
2. When a connection is established, speak into the phone and verify that you can hear your voice through the intercom. *Be sure the intercom and the phone are far enough apart from each other to avoid possible audio clips and/or muted audio due to the calibration of the onboard echo canceller.*
3. Hang up the phone and press the Call Button on the intercom.
4. When the phone rings (the extension you configured as the "dial out extension"), pick up the phone. Speak into the phone and verify you can hear your voice through the intercom.

This completes the test procedure.

6.0 Contacting VoIP Technical Support

Initiate a Troubleshooting Ticket

For CyberData Technical Support, please fill out a CyberData VoIP Technical Support contact form. You may do so here:

<http://www.cyberdata.net/support/contactsupportvoip.html>

You will receive a confirmation email with your ticket number when you submit the form. Tickets are handled in the order received.

7.0 Frequently Asked Questions

Known DTMF Issues with Polycom SoundPoint IP450 Phones

Q: I am using Polycom SoundPoint IP450 phones. The DTMF Activation code doesn't trigger the relay during an outbound call. I have verified the IP450 is sending out of band RFC 2833 payload type events. How can I resolve this issue?

A: Although we use a plethora of IP phones in our testing environment, including the Polycom SoundPoint 301 model, there is a known issue regarding accepting DTMF events from the Polycom 450 model.

To resolve this issue, login to the 3CX server and add the feature "PBX Delivers Audio" on the **Other** tab of the extension configuration for each 450 model phone used to activate the relay using a DTMF activation code.

Figure 7-1. Other Tab Configuration – PBX Delivers Audio

The screenshot shows the 3CX web interface for editing extension 109. The left sidebar shows the navigation tree with 'Other' selected under 'Extensions'. The main content area is titled 'Edit Extension-109' and is divided into three sections:

- User Information:** Contains fields for 'Current status' (set to 'Available'), 'Queues Status' (set to 'Logged Out'), 'Outbound Caller ID', and 'SIP ID'.
- Extension Capabilities:** Contains a list of features with checkboxes. The 'PBX Delivers Audio' checkbox is checked and highlighted in yellow. Other features include 'Supports Re-Invite', 'Support 'Replaces' header', 'Turn off myPhone', 'Switch on Secure RTP (SRTP)', and 'Do not show this extension in the Call Assistant'.
- Extension options:** Contains checkboxes for 'Disable External Calls', 'Record all calls', 'Disable Extension', and 'Call screening ON'.