



# *Configuring CyberData Devices for the iPECS-LIK*

This procedure was written by:



This document covers the integration of CyberData IP endpoints with the iPECS-LIK versions 5.5He and 6.0Bo.

All support and supporting documentation for CyberData should be obtained from CyberData itself. This document assumes the reader is at least an iPECS Certified Technician, and is familiar with creating station user's for phontage, SIP phones, and UCS Users in general.

This document also assumes the reader is familiar with setting up CyberData Paging equipment and/or has access to the Manuals for the CyberData equipment, as several sections are left out of this manual such as setting up the network configuration of the CyberData Equipment and pin outs for relay, and audio out usage. For more information on the integration process see integration section.

#### COPYRIGHT NOTICE:

© 2014, CyberData Corporation, ALL RIGHTS RESERVED.

This manual and related materials are the copyrighted property of CyberData Corporation. No part of this manual or related materials may be reproduced or transmitted, in any form or by any means (except for internal use by licensed customers), without prior express written permission of CyberData Corporation. This manual, and the products, software, firmware, and/or hardware described in this manual are the property of CyberData Corporation, provided under the terms of an agreement between CyberData Corporation and recipient of this manual, and their use is subject to that agreement and its terms.

**DISCLAIMER:** Except as expressly and specifically stated in a written agreement executed by CyberData Corporation, CyberData Corporation makes no representation or warranty, express or implied, including any warranty or merchantability or fitness for any purpose, with respect to this manual or the products, software, firmware, and/or hardware described herein, and CyberData Corporation assumes no liability for damages or claims resulting from any use of this manual or such products, software, firmware, and/or hardware. CyberData Corporation reserves the right to make changes, without notice, to this manual and to any such product, software, firmware, and/or hardware.

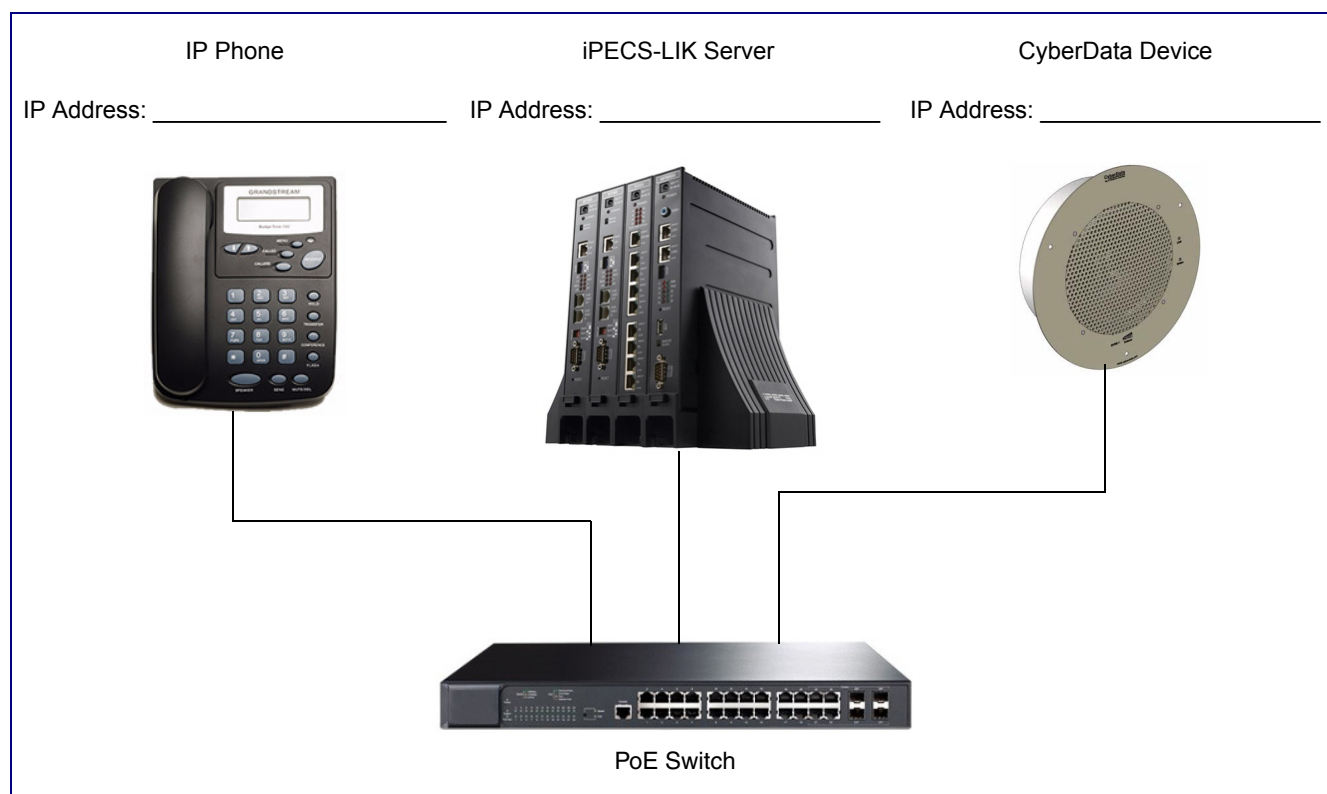
**OPEN SOURCE STATEMENT:** Certain software components included in CyberData products are subject to the GNU General Public License (GPL) and Lesser GNU General Public License (LGPL) "open source" or "free software" licenses. Some of this Open Source Software may be owned by third parties. Open Source Software is not subject to the terms and conditions of the CyberData COPYRIGHT NOTICE or software licenses. Your right to copy, modify, and distribute any Open Source Software is determined by the terms of the GPL, LGPL, or third party, according to who licenses that software. Software or firmware developed by CyberData that is unrelated to Open Source Software is copyrighted by CyberData, subject to the terms of CyberData licenses, and may not be copied, modified, reverse-engineered, or otherwise altered without explicit written permission from CyberData Corporation.

**TRADEMARK NOTICE:** CyberData Corporation and the CyberData Corporation logos are trademarks of CyberData Corporation. Other product names, trademarks, and service marks may be the trademarks or registered trademarks of their respective owners

# 1.0 Setup Diagram

Figure 1 is a setup diagram for a single CyberData Device configuration. In this configuration, the CyberData Device acts as a standalone SIP telephony device.

**Figure 1. Setup Diagram**



## 2.0 Configuring a CyberData unit as a SIP extension

### 4.1 Configuring SIP Settings on the iPECS-LIK

1. The first step in setting up the CyberData Paging units is to login to the iPECS-LIK web administration using your maintenance User ID (if required) and password.
2. Once logged in, click on **System ID & Numbering Plan** on the left hand side of the **Administration** tab. Select **Flexible Station Number (105) [N]** from the drop down menu. See [Figure 2](#).
3. On the right hand side, you will see all of the extension numbers programmed on your system with the associated order number, MAC address, and IP address. Scroll down or select the next order range from the links at the top of the page until you see an extension that does not have any associated MAC address or IP address and record that extension number.

Figure 2. iPECS-LIK Web Administration

**iPECS**

MFIM/VD96M-F.0Cs OCT/13  
Boot Version-2.1Aa NOV/12  
Kernel Version-6.0Ap  
H/W Issue-0

Find PGM

Hide Menu

**System ID & Numbering Plans**

- System ID(100) [N]
- Device Port Num Change(101) [N]
- System&Device IP(102~103) [N]
- CO GW Sequence Number(104) [N]
- Flexible Station Number(105) [N]**
- Flexible Numbering Plan(106) [N]
- 8 Digit Table(238) [N]
- Station Data
- Board Based Data
- CO Line Data
- System Data

**Administration** S/W Upgrade System Ma

[ Flexible Station Number ] Full Overview

☒ Not Use Range Input  
☐ Enter Ordering Range :  -   
☐ Start Station Number :   
☐ Enter Station Range :  -   
☐ Start Station Number :   
☐ Station Number :  Search

Station Order : [1- 50][51- 100][101- 150][151- 200][201- 250][251- 300]

Order	STA Num	IP Address	MAC Address	New Station Number
1	2100	10.10.10.58	001a7eaf44f8	2100
2	2501	10.10.10.101	001a7ea67fc6	2501
3	1393			1393
4	1392			1392
5	1391			1391
6	1397			1397

Now that we have our extension (1393 in this example), complete the following steps:

1. Scroll down the menu on the left hand side and select the “**Device Login**” Administration Tab. See [Figure 3](#).
2. Select “**Station User Login (443)**” from the drop down menu. See [Figure 3](#).
3. On the right hand side of the screen, enter the following values into the table:
  - **ID** = SIP Extension User ID
  - **Password** = SIP Extension Password
  - **Desired Number** = Next available unassigned Extension Number  
This is the extension you recorded in the previous step (1393 in this example)
  - **Remark** = Description of device or other remark.

**Note** In the example below I have entered in the ID of **1393**, selected a password of **1393S1P!**, and entered the desired extension number of **1393**.

**Figure 3. Device Login Administration Tab**

Index : [1- 50][51- 100][101- 150][151- 200][201- 250][251- 300]										
Index	Registered Number	Linked	Version	ID	Password	Zone	Desired Number	Nation	Language	Remark
1				1393	1393S1P!	1	1393	U.S.A	English	
2						1		U.S.A	English	
3						1		U.S.A	English	
4						1		U.S.A	English	
5						1		U.S.A	English	
6						1		U.S.A	English	
7						1		U.S.A	English	
8						1		U.S.A	English	
9						1		U.S.A	English	

4. Now that the user has been created on the iPECS-LIK, power up the CyberData unit and browse to the web interface. Each CyberData unit has a Quick Start guide that you can use to gain access to the web-based administration. All documentation is located on the **Documentation** tab of the product webpage at [www.cyberdata.net](http://www.cyberdata.net). If you are unable to access the web interface, contact CyberData VoIP Technical Support by submitting a ticket form here:

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

- Once you are logged into the unit with the default username of **admin** and password of **admin**, select **SIP Config** from the menu on the left hand side. Enter the values shown in Table 1 as it relates to your IP scheme and “Station User Login” settings.

**Table 1. SIP Configuration Page Settings**

SIP Setting	Value
SIP Server	MFIM IP Address
SIP User ID	ID value from the “Station User Logon” Table
Authentication ID	ID value from the “Station User Logon” Table
Authentication Password	Password value from the “Station User Logon” Table.
Re-registration Interval	3600

**Note** In the example below, the MFIM IP address is **10.10.10.2**, the **SIP User ID** is **1393**, the **Authentication ID** is **1393**, and the **Authentication Password** is **1393S1P!**.

**Figure 4. SIP Configuration Page**

**SIP Configuration**

Enable SIP operation: ☒

**SIP Settings**

SIP Server: 10.10.10.2

Backup SIP Server 1:

Backup SIP Server 2:

Remote SIP Port: 5060

Local SIP Port: 5060

Outbound Proxy:

Outbound Proxy Port: 0

SIP User ID: 1393

Authenticate ID: 1393

Authenticate Password: 1393S1P!

Register with a SIP Server: ☒

Re-registration Interval (in seconds): 3600

Unregister on Reboot: ☐

Buffer SIP Calls: ☐

Beep on page: ☐

**Call disconnection**

Terminate call after delay (in seconds): 0

Note: A value of 0 will disable this function

**RTP Settings**

RTP Port (even): 10500

\* You need to reboot for changes to take effect

Save Reboot

- Once the settings have been entered, click on the **Save** button from the bottom of the window and then click on the **Reboot** button. You must save and reboot the device to store changes.
- Log back into the iPECS-LIK and click on “**System ID & Numbering Plan**” on the left hand side of the **Administration** tab.

8. Select “**System and Device IP (102-103)**” from the drop down menu. All of the devices registered on the iPECS-LIK will appear on the left hand side. The CyberData “**SIP User ID**” that you programmed in should show in the table under the “**STA**” heading as shown below. Once it is this table the unit has registered successfully.

**Note** A 3<sup>rd</sup> party SIP license is required to connect any SIP extension to the iPECS-LIK. SIP extensions do not have any system features or functions associated to them and are essentially SLT phones.

It is an inherent issue with SIP paging speakers, paging units, or door boxes that they are dependent on an answer acknowledgment from all devices before audio is passed to the device. Once a page is initiated to the SIP device, the person making the page must wait until all speakers that are to receive the page have acknowledged before making the page. Audio can be clipped off if the user starts talking immediately.

---

## 3.0 Configuring a CyberData unit as a multicast unit

---

### 5.1 Configuring Multicast Settings on the CyberData unit

To setup the CyberData units in Multicast configuration a 3<sup>rd</sup> party SIP license is not required. All configuration is done on the CyberData unit itself.

The iPECS-LIK uses the IP of 239.20.19.1 for broadcasting multicast pages across the network. For a listing of Multicast ports based on paging types please refer to section “**System Data-> Multicast RTP/RTCP (165)**” of the iPECS-LIK web administration.

To configure Multicast paging on the CyberData unit (if available):

1. Select “**Multicast Config**” from the menu on the left hand side of the CyberData web administration page.
2. Check the box to “**Enable Multicast Operations**” and set the IP address under the **Address** column to **239.20.19.1** for all priorities 0-9.
3. Next select the multicast ports from the “**Multicast RTP/RTCP (165)**” of the iPECS-LIK web administration that refer to the paging type you would like to hear broadcast across the CyberData unit.
4. Assign a name to the Multicast group, and if desired check the box to buffer the audio before playing through the CyberData unit.
5. Click on the **Save** button at the bottom of the page to save your configuration and then click on the **Reboot** button to reboot the unit. You must save and reboot the device to store changes. Please refer to [Figure 5](#) on the next page for a sample configuration.



Figure 5. Multicast Configuration Page

## CyberData Ceiling Speaker

Home  
Device Config  
Networking  
SIP Config  
Nightringer  
**Multicast Config**  
Audio Config  
Clock Config  
Event Config  
Autoprovisioning  
Update Firmware

### Multicast Configuration

Enable Multicast operation: ☒

Device Settings

priority	Address	port	Multicast Group Name	Buffered
9	239.20.19.1	8176	Emergency Page 589/543	
8	239.20.19.1	8184	All Call Page 549	<input type="checkbox"/>
7	239.20.19.1	8182	External All Call 548	<input type="checkbox"/>
6	239.20.19.1	8178	External Page 1	<input type="checkbox"/>
5	239.20.19.1	8180	External Page 2	<input type="checkbox"/>

SIP calls are considered priority 4.5

4	239.20.19.1	8106	Internal Page 1	<input type="checkbox"/>
3	239.20.19.1	8108	Internal Page 2	<input type="checkbox"/>
2	239.20.19.1	8186	PTT 1	<input type="checkbox"/>
1	239.20.19.1	8100	BGM	<input type="checkbox"/>
0	239.20.19.1	8102	BGM External 1	<input type="checkbox"/>

*Port range can be from 2000-65535*  
*Ports must be odd numbers*  
*Priority 9 is the highest and 0 is the lowest*  
*A higher priority audio stream will always supercede a lower one*  
*Priority 9 streams will play at maximum volume*

\* You need to reboot for changes to take effect

Save Reboot

**Note** The iPECS-LIK and all CyberData equipment must be located in the same broadcast domain for the multicast configuration to work correctly.



---

iPECS is an Ericsson-LG Brand



For assistance contact technical support at  
[support@presencemanagement.com](mailto:support@presencemanagement.com)  
[614] 652.6500 option 3