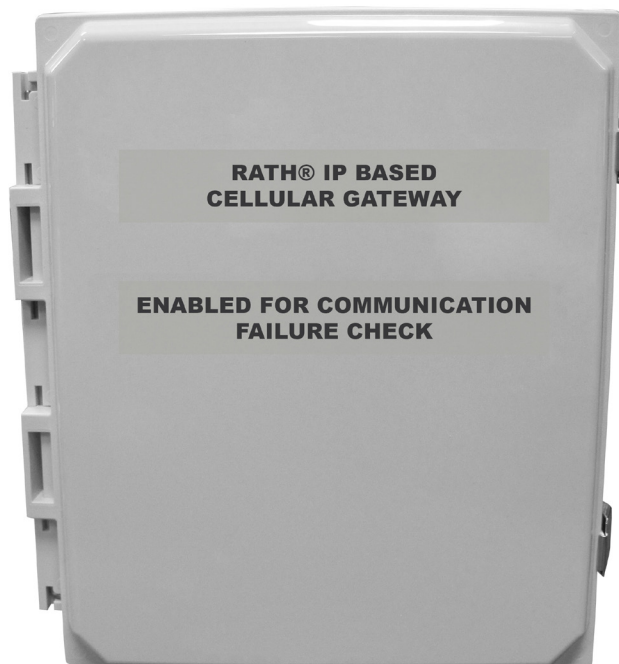




Installation & Operations Manual



IP Based Cellular Gateway *2100-VOIPLCC*



Thank you for purchasing RATH's 2100-VOIPLCC. We are the largest Emergency Communication Manufacturer in North America and have been in business for over 35 years.

We take great pride in our products, service, and support. Our Emergency Products are of the highest quality. Our experienced customer support teams are available to remotely assist with site preparation, installation, and maintenance. It is our sincere hope that your experience with us has and will continue to surpass your expectations.

Thank you for your business,

The RATH® Team

Table of Contents

Items Needed	Page 3
Installation	Page 3
IP Interface Set-Up	Page 3-4
Troubleshooting	Page 5
Wiring Diagram	Page 6

Items Needed

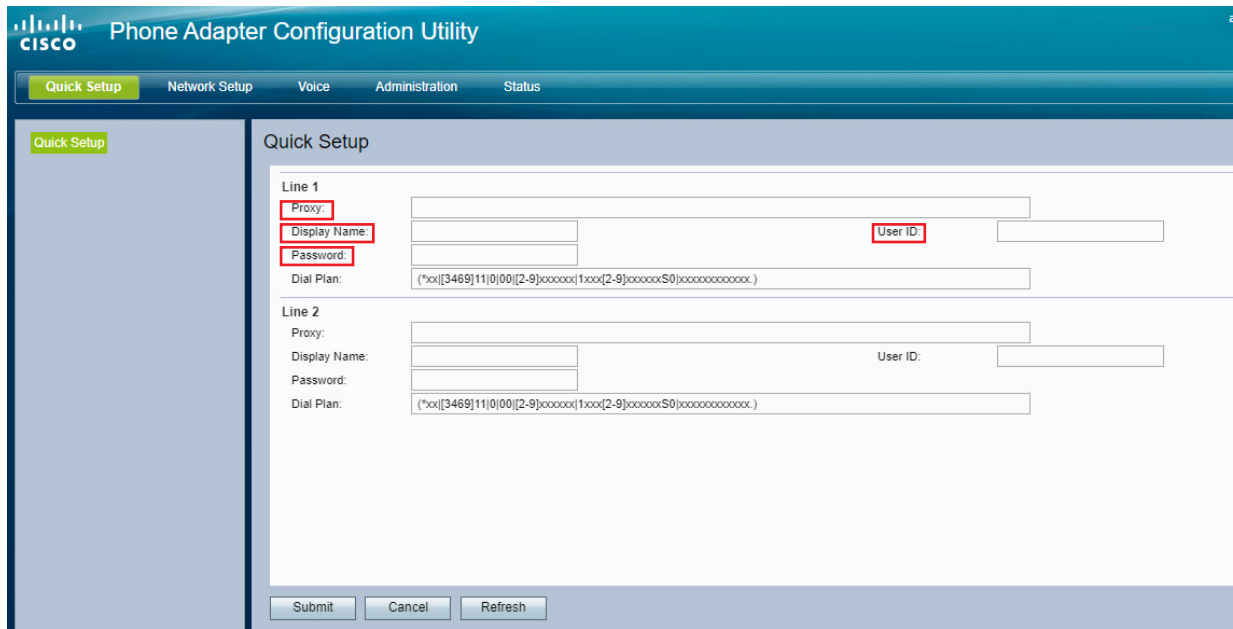
- RATH® 2100 series phone
- PC with network interface card
- Battery backed up 120v power source or RATH® RP7700104
- Standard size (25mm x 15mm) data only SIM card
- Active account with an Internet Telephony Service Provider (ITSP) or IP based phone system
- Name, Authentication Password, and Authentication ID for SIP Extension (from ITSP)
- Standard analog telephone
- Ethernet cable

Installation

1. On the cellular modem, slide the SIM drawer open and insert the SIM card from designated cellular provider into the cellular interface
2. Attach mounting brackets to the back of the unit using provided hardware
3. Drill a 7/8" hole in appropriate location for data and telephone wiring
4. Make a slit in the provided grommet and insert into the 7/8" hole
5. Screw one antenna to the MAIN port and the other to the AUX port on the cellular modem
6. Connect the power cable coming out of the enclosure to a standard 110vac wall outlet or RATH® RP7700104

IP Interface Set-Up

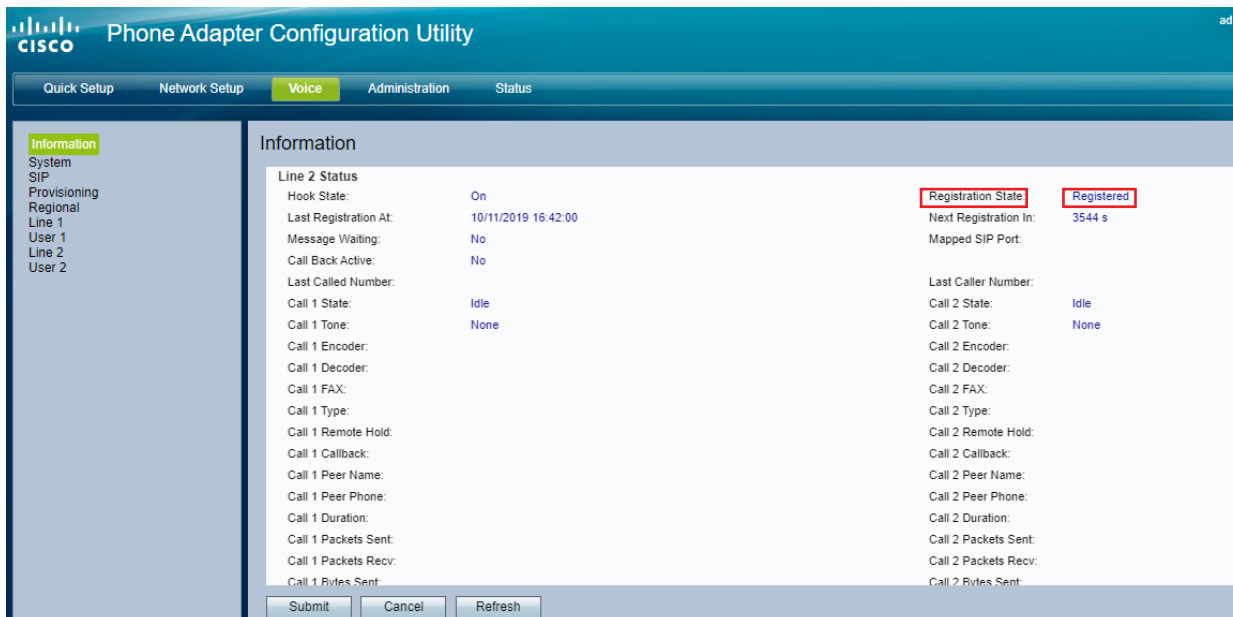
1. Set PC to DHCP (Obtain an IP Address Automatically) and connect PC to any open Ethernet port on the switch inside of the 2100-VOIPLCC using a standard Ethernet Cable.
2. Turn off wireless card on computer (if applicable)
3. Connect analog phone to Phone 1 port on the IP Interface
 - a. Lift handset of analog phone
 - b. Dial *, *, *, * to enter menu
 - c. Dial 1, 1, 0, # to have IP Interface playback current IP address (please write down for reference)
 - d. Hang up analog phone
4. Log into IP Interface
 - a. Enter IP address played back from IP Interface into a web browser (Google Chrome or Mozilla Firefox is preferred)
 - b. Log into Interface
LOGIN: admin
PASSWORD: admin
5. Enter SIP Server information into IP Interface
 - a. In the **Quick Setup** tab all information will be entered into the **Line 1** section
 - b. Enter SIP Server IP Address or web address in **Proxy** box
 - c. Enter desired name of device in **Display Name** box
 - d. Enter Authentication ID into **User ID** box
Note: For some ITSPs (Flowroute), User ID is DID number for account.
 - e. Enter Authentication Password into **Password** box
 - f. Click **Submit** at the bottom of the page (until will automatically reboot)



6. After waiting 30 seconds for unit to reboot, click **Voice** tab
 - a. Scroll down to **Subscriber Information**
 - b. Next to **Use Auth ID** change the drop down to **Yes**
 - c. Enter Authentication ID from ITSP in **Auth ID**
 - d. Click **Submit** at the bottom of the page (until will automatically reboot)



7. After waiting 30 seconds for unit to reboot, click **Voice** tab
8. Click **Line 1** from left-side menu
9. If all information is entered correctly, unit should show “**Registered**” next to Registration State
10. Place a test call using the analog telephone. If test call is successful, disconnect analog telephone and connect RATH® 2100 Series to LINE 1 port.



Troubleshooting

Problem	Possible Cause & Solutions
IP Interface never shows "Registered":	<ul style="list-style-type: none">• Verify the information entered in the IP Interface matches the information from ITSP.• Verify the network cable from the Ethernet port on the IP Interface is connected to a network switch inside of the enclosure. Also verify the network cable from the Ethernet ports on the cellular modem to the switch.• Connect the Ethernet port on the computer directly to the Ethernet port on the cellular modem using an Ethernet cable. From "Network and Sharing Center" on PC, select the cellular modem as internet connection (will show as IBR-200). Open a web browser and go to www.rathcommunications.com. If you cannot reach the website, the SIM card in the unit may not be activated or is set up incorrectly. SIM card must be 4G, data-only, and have data available.
IP Interface shows "Registered" but a call can never be placed out:	<ul style="list-style-type: none">• Power down the 2100-VOIPLCC by unplugging it from the 120v power source. Leave unit powered down for 2 minutes, then power it back on. After powering on, unit may take up to 10 minutes to fully reboot. After the reboot, verify that the IP Interface still shows "Registered" and attempt to place a call out.• Verify nothing is blocked or set-up incorrectly with ITSP.
Unit will not allow for inbound calls:	<ul style="list-style-type: none">• Verify both antennas are connected to the unit, one in the "MAIN" port and one in the "AUX" port.• Power down the 2100-VOIPLCC by unplugging it from the 120v power source. Leave unit powered down for 2 minutes then power it back on. After powering on, unit may take up to 10 minutes to fully reboot.• Verify nothing is blocked or set-up incorrectly with ITSP.

Wiring Diagram

