

CXR1000 CompletePBX: Getting Started Guide

Package Contents

- CXR1000 (1U 19" width unit)
- Power cord
- Desktop power supply
- Support hardware for 19" cabinet
- Cable for second telephony module (allows upgrade to second telephony module – see [Appendix](#) for details)
- CompletePBX software preinstalled on the hardware

Prerequisites

You will need a computer equipped with an Internet browser. Firefox is recommended. By default, the CXR1000 will get its IP address from your DHCP server. To check the IP address or to set the CXR1000 **static IP** address you will need to connect a keyboard and a display to the CXR1000.

Step 1: Powering Up the Unit

1. For safety reasons, if the line wiring exits the building, it is essential to ground the unit.

Note: Not properly grounding this device will void your warranty!

- a. Connect a grounding tab to the grounding screw on the rear panel.
- b. Using 12-16 gauge wire, connect the grounding tab to a reliable ground.



Figure 1: Grounding Screw on CXR1000 Rear Panel

2. Connect a keyboard and a VGA/SVGA screen.
3. Connect the unit to the LAN.
4. Connect the power cord to the device; turn on the power. The startup process takes about 2 minutes.

Step 2: Submit Warranty Activation Request

At this point activate the product warranty (a pre-requisite for submitting any request for technical support). Go to <https://xorcom.com/xorcom-product-warranty/>, complete and submit the form found there.

Step 3: Configure or Get the IP Settings for CXR1000

If you have a DHCP server: The CXR1000 will get the IP address from the DHCP server. To get the IP address:

1. Login to the CXR1000:
 - a. User name: `root`
 - b. Password: `!x0rc0m!voip5472#`
Note: Note the use of the number zero in the password

The default CompletePBX keyboard configuration is US English. When entering the

password, the # (hash) key is shift/3 (i.e. uppercase three).

On UK keyboards, the hash character is located below the backspace, above the right-hand enter key.



2. To get the IP address use the command: `ip addr show dev nic0`

As a result you will get a block of data like this:

```
3: nic0: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc pfifo_fast
link/ether 00:22:4d:ab:18:8c brd ff:ff:ff:ff:ff:ff
inet 192.168.0.64/20 brd 192.168.15.255 scope global dynamic nic0
    valid_lft 125725sec preferred_lft 125725sec
inet6 fe80::222:4dff:feab:188c/64 scope link
    valid_lft forever preferred_lft forever
```

In this example the CXR1000 IP address is 192.168.0.64.

Method 1: Set up a static IP address via command line.

1. Login into your system as root, as described above
2. Replace 1.2.3.4/24 and 1.2.3.1 with the required IP address (in CIDR format) and default gateway and then run the following command:

```
nmcli con mod nic0 ipv4.method manual \
ipv4.address 1.2.3.4/24 ipv4.gateway 1.2.3.1
```

3. Define the DNS server in the `/etc/resolv.conf` file. For example:
`nameserver 5.6.7.8`
4. Run `systemctl restart network` in order to apply the changes

Method 2: Set up a static IP address by using `nmtui` utility.

1. Login into your system as root, as it described above
2. Run the `nmtui` command and define a static IP address and the default gateway
3. Define the DNS server in the `/etc/resolv.conf` file:
`nameserver 5.6.7.8`
4. Run `systemctl restart network` in order to apply the changes

Note: Correct network parameters settings are extremely important for normal CompletePBX functionality.

Always make sure that the 'localhost' is defined in the `/etc/hosts` file:

```
127.0.0.1      localhost.localdomain localhost
```

Step 4: Configure the CXR1000

If the unit is equipped with FXS ports they are configured as CompletePBX extensions starting from number 3001.

In order to configure your device follow these steps:

- a) From a computer's Internet browser enter the CXR1000 IP address (for example <http://192.168.0.64>).
- b) You will be prompted to define a password for "administrator". Once you define a password you will be able to connect to the web interface as user **admin** with password that you defined.

Now you can modify your CXR1000 CompletePBX configuration.

The [CompletePBX Reference Guide](#) can be found on the Xorcom Web site.

Step 5: Protect CompletePBX Against Unauthorized Access

Once you have **fully configured** CompletePBX we highly recommend that you use the following procedures and applications supported in CompletePBX to protect it against unauthorized access:

Change the Linux Password

The password for the Linux root user can be changed by using the Linux `passwd` command.

IP Protection

CompletePBX must be installed on a protected LAN and must not be directly connected to the public Internet. The LAN must be protected by a Firewall/NAT router.

Intrusion Detection (*fail2ban*) and Firewall

In order to maximize protection from external threats, the **fail2ban** process is activated, in addition to the internal firewall. Use the Admin|Security|Firewall and Admin|Security|Intrusion Detection dialogs to modify the internal firewall and intrusion detection settings.

Unit Status LED (Light Emitting Diode) Indicators

The CXR1000 is equipped with varying LED indicators on the front panel, depending on the model.

Digital (BRI ISDN) CXR1000 Models

Digital CXR1000 models (models that have at least one digital ISDN BRI PSTN port) have a vertical array of four status indicators on the left side of the front panel (**Fig 2**).



Fig. 2 – BRI Panel (allows additional 8 FXS or 8 FXO ports)

LED Label	Indication
PHONE	This yellow LED indicates that the CXR1000 is supplying the necessary voltage for analog or ISDN telephone sets.
SYNC	This green LED shows the synchronization. It blinks once the CXR1000 is synchronized with the telephony modules.

ACTIVE	This red LED lights up when at least one PSTN / Analog phone is active.
ON	This green LED lights up when the CXR1000 is powered.

Analog (FXS and/or FXO) CXR1000 Models

The LED sets on the front panel of an analog CXR1000 (**Fig. 3**) include:

- 4 LED indicators that indicate device status
- A green LED for each analog line that indicates port status



Figure 3: CXR1000 with 16 analog ports and I/O ports

Note: Analog ports also have a red LED but this LED is never used to show line activity.

Once the unit is active, the status LEDs will indicate the following:

LED	Indication
ON	On – unit is functioning
ACTIVE	On – at least one of the analog ports is currently active
SYNC	Blinking– once ports have been synchronized with the Asterisk server
H/W	Off

For more information about the unit status and port status LED indicators refer to the **Astribank** manual on the Xorcom Web site: www.xorcom.com

Scan the QR code on the front panel of the CXR1000 for easy access to all relevant product info for this specific product, including detailed technical documentation, “how to” videos, and more.

Appendix

For pre-assembled CXR1000 models that contain only one telephony module, the unit is supplied with only the first telephony module cable connected to the main board. For units in which a second telephony module is to be installed, use the second cable supplied in the original packaging and connect it to the right-most slot on the main board, as indicated by the arrow:

