

# Com.X20 IP PBX & SIP gateway

## Quick Start Guide



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[www.farsouthnet.com](http://www.farsouthnet.com)

Welcome to the world of Com.X, changing the communications landscape for good!

This leaflet will help you to get started with your new Com.X20 platform. This getting started guide addresses the basics of networking and installation of the Com.X20 unit and **SHOULD** be read in conjunction with the:

- Com.X Administrator's Guide: <http://www.farsouthnet.com/wp-content/uploads/2011/06/Com.X-administrator-guide-1.3-ver3.0.4.pdf>
- Other Com.X user manuals and user guides are available at:  
<http://www.farsouthnet.com/support/manuals/>

This getting started guide addresses networking and installation of the Com.X20 host server with one or more Comma iTA devices and should be read in conjunction with the:

- Comma iTA Getting Started guide: <http://www.farsouthnet.com/wp-content/uploads/2013/08/comma-getting-started.1.05.pdf>

Comma iTA developer mediawiki access refer to:

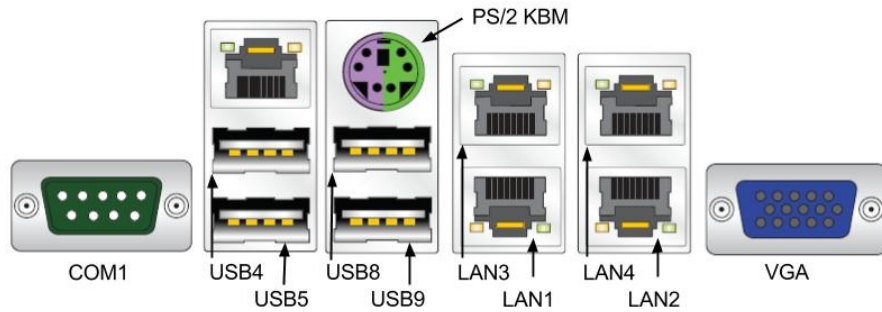
- User Guide: [http://farsouthnet.com/mediawiki/index.php?title=Comma\\_User\\_Guide](http://farsouthnet.com/mediawiki/index.php?title=Comma_User_Guide)
- Developer Resources: [http://farsouthnet.com/mediawiki/index.php?title=Comma\\_Developer\\_Resources](http://farsouthnet.com/mediawiki/index.php?title=Comma_Developer_Resources)

## Description

The Com.X20 host server includes 4 Ethernet ports, pre-configured to support LAN access, and other IO ports described below.



The figure above shows the rear view of the Com.X20 host server.



Com.X20 rear view IO port definition:

- 10/100/1000Base-Tx Ethernet: LAN1 (Eth0), LAN2 (Eth1), LAN3 (Eth2) & LAN4 (Eth3)
- Power: 220Vac/50Hz
- Serial port: COM1
- USB2.0: USB4, USB5, USB8 & USB9
- PS/2 Keyboard mouse
- VGA

## Hardware Installation

1. The Com.X20 host server is powered using the AC power cable included with your server. Connect the power cable to 220V/50Hz mains power supply and turn the server on.
2. Connect any Comma iTA units to available LAN ports (Eth1, Eth2, Eth3) using Cat5e Ethernet cables.
3. Connect the Com.X20 host server to the LAN switch using the first Ethernet port (Eth0) and a standard Cat5e cable.

## Accessing the Com.X20 Host Server

- Default access details for the Com.X20 is:
 

```
user: comma
password: farsouth
```
- The Com.X20 server GUI can be accessed using the url `http://<ip>`, where `<ip>` is the IP address assigned to the unit via DHCP, or one of the statically configured IP's. All administrative tasks elaborated on below can be performed from the GUI. Please refer to the Administrator's guide for more detail.
- The Com.X20 server can also be accessed via its serial port using a null-modem cable with the following settings:
 

```
baud rate: 115200
data bits: 8
```

```
stop bits: 1
parity: none
```

- The Com.X20 server requests its IP address from the LAN / WAN via physical Ethernet port LAN1, (labelled the eth0 interface in the Operating System). This interface can be re-configured with a static IP in `/etc/network/interfaces` as follows:

```
auto eth0
iface eth0 inet static
address xxx.xxx.xxx.xxx
netmask 255.255.255.0
```

- Note that the Operating System networking will need to be restarted after this configuration change:  
`sudo /etc/init.d/networking restart`

## Networking

1. The Com.X20 server comes pre-installed with Ethernet interfaces configured as follows:

Interface	DHCP client	IP	Netmask
LAN1 (eth0)	Yes	-	-
LAN2 (eth1)	No	192.168.101.1	255.255.255.0
LAN3 (eth2)	No	192.168.102.1	255.255.255.0
LAN4 (eth3)	No	192.168.103.1	255.255.255.0

2. The Com.X20 server comes pre-installed with the Comma Manager supporting the following:
  - a. DAHDI (no patches required) for PRI and Analogue
  - b. mISDN with Comma patches for BRI
  - c. Asterisk
  - d. Comma-GUI
3. The Com.X20 server is pre-configured with fixed IP addresses on the Ethernets port that iTAs are connected to.

Ubuntu 10.0.4 compatible packages are available at <http://fsnpub.dnsalias.com/apt>

For User Guide and Developer information please see: <http://www.farsouthnet.com/support/manuals/>

## Logging and Diagnostics

1. From the Comma-GUI, select the Monitoring menu for an extensive monitoring suite
2. A log is maintained while the Comma Manager is running, typically found at `/var/log/comma.log`.  
`less /var/log/comma.log`
3. The Com.X20 server system log keeps a record of system warnings and errors and can be viewed as follows:  
`less /var/log/syslog`
4. The Asterisk PBX server command line can be accessed from the server as follows:  
`sudo asterisk -vvvr`
5. If the Com.X20 is supporting an external iTA device, the command line interface of the Comma iTA may be accessed from the Comma Manager directory by typing:  
`comma-console <IP ADDRESS>`

## Identifying connected iTAs

1. From the GUI, select the Hardware panel. A Scan of the network will list additional devices.
2. From the host server, type the following:  
`comma-ls -v`
3. Connected iTA devices will be identified by their MAC addresses and IP addresses if connected correctly, and the hardware configuration and software versions will be listed.
4. If IP addresses are not listed, the unit may be connected in the wrong order. Connect the units to different host server Ethernet ports. The units' MAC addresses can be viewed with their interface configuration in `/etc/comma.conf` in order to determine the correct connection order.

## Firmware Upgrade

The embedded firmware is downloaded to the Comma iTA unit from the server at every power-up or reset. In order to upgrade:

1. Copy the new image file to `/var/comma/`
2. Update the `appimage=XXX` configuration record in the configuration file to the new file name
3. Restart Comma iTA:  
`comma-ls -r`
4. In an Ubuntu based system, updating the package `commaimg` will result in updated firmware:  
`sudo aptitude update`  
`sudo aptitude install comma.img`