

BPX Installation Quick Reference Guide

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Introduction

This document is a quick reference guide for the installation of Cisco StrataCom BPX products. Use the standard BPX Service Node Installation manual as the primary reference for when you install this product.

Prerequisites

Requirements

There are no specific requirements for this document.

Components Used

The installer needs to be trained in basic electricity and have some understanding of basic telecommunications. A standard set of technician tools and a laptop DOS PC to run the StrataView (SV) Lite application may be required. With the assumption that the installation is controlled and supervised by the Cisco Onsite Services (OSS) team, the installer needs to also be familiar with the basic operation of the BPX equipment. This includes:

- Power requirements for the various models (220VAC or –48VDC)
- Proper power termination procedures (mainly for DC systems)
- Proper circuit card removal and replacement procedures

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, make sure that you understand the potential impact of any command.

Conventions

Refer to the Cisco Technical Tips Conventions for more information on document conventions.

Overview

The BPX can be ordered and shipped as a rack-mount or factory installed in an enclosure (STRATM cabinet). A single installer can unpack the node. However, Cisco recommends that another person assist when you move and position the equipment off of the pallet. The STRATM cabinet has casters. However, it is 82 inches tall and can tip over easily. Additional time on site is required in order to complete rack-mount installations.

You must perform the initial configuration with the use of the BPX node async control port. A modem needs to be installed for remote access (a special Y-cable is required). You must connect either cables between the trunk cards in the node and the telephone company (Telco) demarcation or patch panels. Once this is complete, a command is issued using the control port to add the new node into the network. At this time, the new node can be reached from any other node in the network and by the network management system (NMS) application, StrataView Plus (SV+).

Site Preparation

The BPX has these site preparation requirements.

- **Space:**

Each BPX shelf requires floor space of 22 inches (55.9 cm) wide and 80 inches (203.2 cm) deep in order to ensure sufficient clearance around the cabinet to allow access to the front and back of the unit.

- **Power:**

An AC or DC power source must be available within 6 feet (2 m) of the rear of the BPX shelf. A fully-loaded AC-powered node can require up to 2100 VA. A DC version requires up to 1680 VA at -48 VDC.

- **Cooling:**

The site must be able to maintain an ambient temperature of 40 C maximum while the systems operates (recommended range is 20 C to 30 C). A fully loaded BPX can dissipate up to 7200 BTUs. It is extremely important that the BPX is positioned to assure an unrestricted air flow through the enclosure.

- **Dimensions:**

- ◆ Stratum Cabinet: 23.09" wide x 80.11" high x 36" deep
- ◆ Loaded weight for BPX is 213 pounds.

Installation Procedure

Complete these steps for proper installation.

Pre-Installation Phase Checklist

- The site survey document from the NIS Project Manager or customer has been received and reviewed (if NIS service is purchased, the Project Manager supplies documents).
- Call the site contact a week in advance in order to confirm the appointment and finalize any site logistics. Complete the check list in order to confirm that:
 - ◆ Power is installed.

- ◆ Customer-supplied cables and equipment are installed.
- ◆ Trunk circuit(s) is installed.
- ◆ Cisco equipment is on-site.
- ◆ The dial-up phone line is installed.
- Prepare the installation procedure (install script) for the installer. The install script needs to include location, contacts, description, special tools required, hardware configuration information, software/firmware information and any connectivity diagrams, and so on.

Physical Installation Phase Checklist

- Call the customer network control center or designated contact within 10 minutes of arrival to confirm presence.
- Position the Stratum cabinet that contains the BPX in the designated position. Refer to the BPX Installation Manual for the proper procedure if you are rack-mounting.
- With a volunteer, verify the proper power source is provided for the designated AC/DC BPX model.
- Ensure BPX card placement is as specified in the installation script diagram.
- Run cables between trunk cards and the demarcation point (CSU, patch panel, and so on). Ensure the Y-cable is installed between the redundant pair if any trunk card is redundant.
- Label each trunk cable with the node name and slot number at both ends of the cable.
- Properly secure and route all cables.
- Attach the dial-in modem and cable to the BPX control port.
- Apply power to the BPX. Secure the power cord clamp for AC systems.
- Notify Cisco OSS that the node is ready for configuration and provide the phone number of the modem.

Configuration Phase Checklist

- Use a VT100 emulator or the SVLITE PC application in order to establish a dial-up connection to the BPX node. The default configuration for the BPX control port is 9600 8 1 N.
- Log in using the proper system software password.
- Verify that the node runs the specified system software release. Download the software if required. Use the **dspcd x** command (where **x** is the slot position of each BCC card).
- Verify that each card runs the specified firmware release. Download the firmware if required. Use the **dspecds** command.
- Configure the node name using the **cnfname xxxxxx** command (where **x** is the node name).
- Configure the node number using the **rnwnd xxx** command (where **x** is the node number).
- Enable the software features purchased using **cnfswfunc** (second password needed to enable).
- Configure the LAN address of the node using **cnflan x.x.x.x y.y.y.y** (where **x** is the LAN IP address of the node and **y** is the subnet mask).
- Configure the Network IP address of the node (IP relay address). Use the **cnfnwip x.x.x.x y.y.y.y** command (where **x** is the IP relay address of the node and **y** is the subnet mask).
- Configure the system-wide parameters of the node using the **cnfsysparm** command (as specified by the customer or Project Manager).
- Modify additional BPX configurations as specified by the install script or the Project Manager.
- Up and configure trunk parameters as specified by the install script, customer, or Project Manager:
 - ◆ Issue the **uptrk x** command (where **x** is the BNI slot number).
 - ◆ Issue the **cnftrk x** command (where **x** is the BNI slot number).
- Contact the network control center of the customer and have them configure the packet lines on the adjacent nodes. Ask the network operator not to perform an **add packet line** command for these nodes.
- Ensure the trunk line is operational. Use the **dsptrk** command in order to view the status. The output states "Clear-OK" if operational. Troubleshoot and determine the cause of the problem using standard

troubleshooting techniques if the trunk line is not operational.

- Add the node into the network. Allow network updates to finish before you add the additional trunks:
 - ◆ Issue the **addtrk x** command (where **x** is the BNI slot number).
 - ◆ Issue the **dsprevs** command (wait until all nodes indicate their software revision).

Acceptance Phase Checklist

- Switch BCC cards to test functionality and redundancy using the **switchcc** command.
- Log in and ensure the off-line BCC returns to standby mode. This can take several minutes.
- Ensure no power supply or other faults exist using the **dspalms** command.
- The installer should request the customer representative to acknowledge the completion of the installation.
- Close out the job and report the status to the Cisco Project Manager and/or customer contact.

This table summarizes the minimum configuration information you need before you can add the node into the network:

Item	Command	Notes
Node Name	cnfname	Eight characters maximum.
Node Number	rnwnd	The range is 1–160 (>63 optional).
LAN IP Addr	cnflan	This may not be required.
IP Relay Addr	cnfnwip	This is used for Telnet and stats Trivial File Transfer Protocol (TFTP).
Software Options	cnfswfunc	The software features to enable. ¹
Software Version	dspcd x	The x – processor slot number. ²
Firmware Version	dspcds	This may require a certain release.
Slot/Trunk Number	cnftrk x	(x =slot number) Need to configure trunk parameters based on type of trunk (DS1, subrate, DS3, or OC3).
System Parm	cnfsysparm	Some parameters have network-wide significance. Need to match the existing nodes.

Notes:

1. Features are purchased items (reference the sales order). Some have network-wide significance, others have only local significance.
2. All StrataCom switches must run the same release of software. If the node to be installed does not have the required version, you must download it.

Related Information

- [Cisco WAN Switching Solutions – Cisco Documentation](#)
 - [Cisco WAN Solutions Product Information](#)
 - [Technical Support & Documentation – Cisco Systems](#)
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