

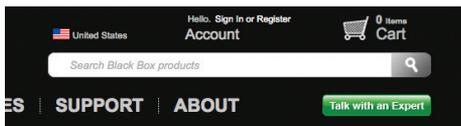
Secure Server with Cisco® Pinout

Securely manage data center and network equipment from anywhere in the world.



To download the user manual, this quick start guide, and software from the Web site:

1. Go to www.blackbox.com
2. Enter the product code (LES1516A, LES1532A, LES1548A) in the search box:



3. Click on the "Resources" tab on the product page, and select the document you wish to download.

Secure Server with Cisco Pinout Quick Start Guide

This Quick Start Guide walks you through the installation, configuration, and local operation of the Secure Server with Cisco® Pinout (LES1516A, LES1532A, or LES1548A).

The user manual/installation guide can be downloaded from the Black Box Web site.

To download a manual from the Web site:

1. Go to www.blackbox.com
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If you have any trouble accessing the Black Box site to download the manual, contact our Technical Support at 724-746-5500 or info@blackbox.com.

STEP 1: Check the kit contents.

Your package should include the following items. If anything is missing or damaged, contact Black Box Technical Support at 724-746-5500 or info@blackbox.com.

- Secure Serial Server with Cisco Pinout (16-, 32-, or 48-Port)
- (2) UTP cables
- (2) DB9F-to-RJ-45 adapters
- (1) power cables
- This printed quick start guide

STEP 2: Connect the hardware.

2A: Power on the console server. It has a universal AC power supply built in that plugs into an AC outlet.

2B: Connect the NET1 port on the console server to your network.

NOTE: NET2 can connect to a secondary network, e.g. a segregated management LAN, or to the WAN via an external access device for broadband out-of-band (OoB). Alternatively, it can connect to same primary network as NET1 for redundancy. If you plan to use NET2, you can also connect it now.

2C: Connect your serial devices to the serial ports numbered 1–16/32/48.

STEP 3: Set up the console server

The console server's default IP address is 192.168.0.1 (subnet mask 255.255.255.0). With a Web browser on any computer that is connected to the console server via LAN, follow the steps listed below.

3A: Enter `https://192.168.0.1` into the address bar

3B: Log in using the default system user name root and the default password. A Welcome screen listing the basic configuration steps is displayed

NOTE: The computer must have an IP address in the same network range (192.168.0.x) as the console server. Alternatively, you can use the `arping` command to set the IP address (refer to the User Manual for details). The console server also has DHCP client enabled by default. It will automatically accept any network IP address assigned by any DHCP server on your network, and will then respond at both 192.168.0.1 and its DHCP address.

3C: Select "Serial & Network: Users & Groups" and Edit the Root User, enter and confirm a new password, and click "Apply."

3D: Select System: IP then Network Interface and check DHCP or Static for Configuration Method.

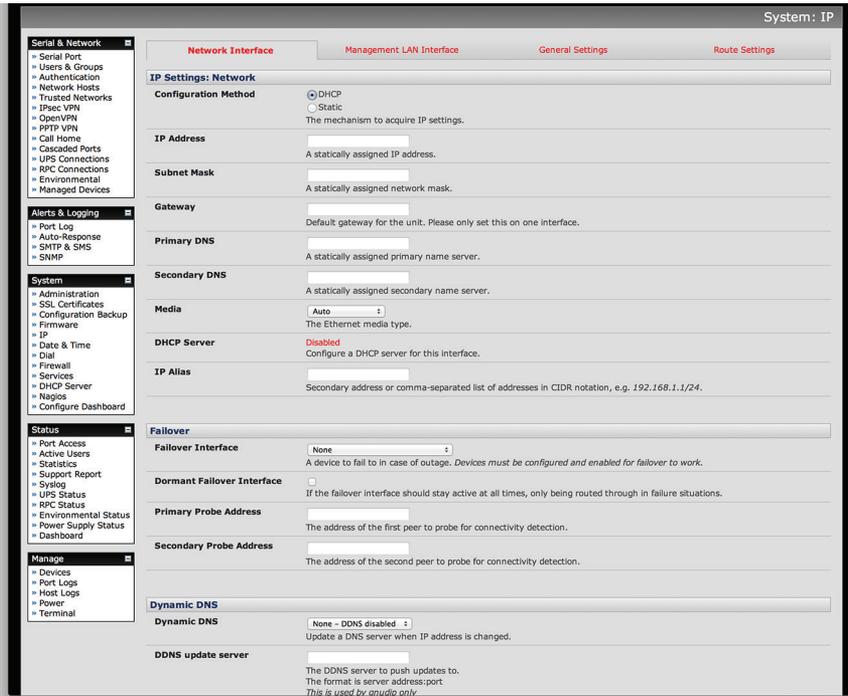


Figure 1. IP Settings: Network screen.

The second network port (NET2) is inactive by default. It can be set up for failover/OoB access (refer to the User Manual) or as a management LAN gateway. To activate:

3E: Select the Management LAN Interface and uncheck “Disable.”

3F: Enter the IP Address and Subnet Mask for this segment of the Management LAN (leaving Gateway and DNS fields blank)—refer to the User Manual if you wish to enable the DHCP server or change default firewall/router settings.

NOTE: The console server’s firewall determines which protocols and services can be used to access which ports and devices. By default only HTTPS and SSH access is enabled to the console server itself. Use the Service Access menu on System: Services to change settings for the console server itself (and for connected serial ports). Similarly, using the Forwarding & Network menu on System: Firewall, you can permit IP access between devices on a Network or Management LAN.

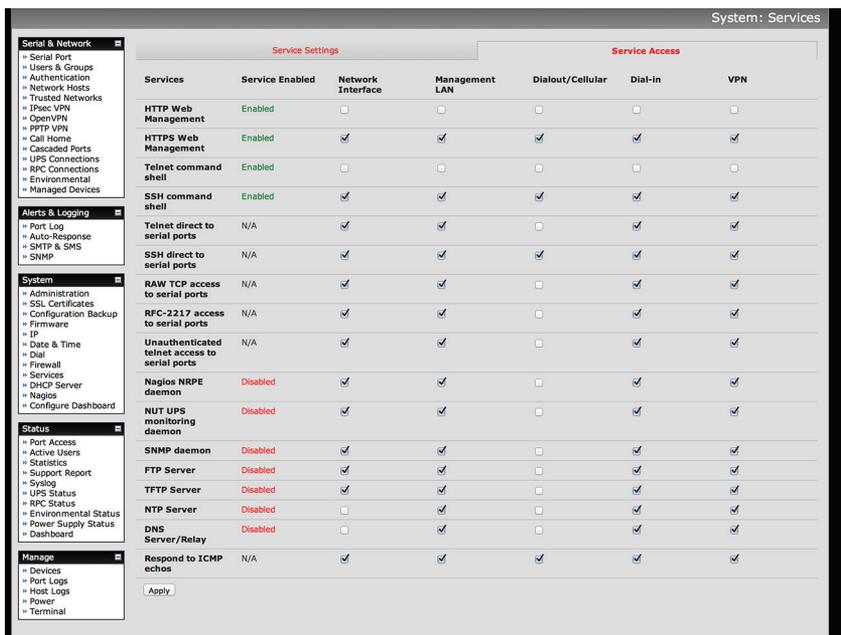


Figure 2. Service Settings.

Alternatively, to use NET2 as a redundant connection sharing the same network settings as NET1:

3E: Select System: IP, choose an Interface Aggregation method and click Apply

STEP 4: Configure serial and USB devices.

NOTE: Most RJ-45 serial devices connect to the console server using a straight UTP patch cable. DTE DB9M and DCE DB9M serial devices connect to the console server using the included adapters. For a list of cabling instructions for common devices, contact Black Box Technical Support at 724-746-5500 or info@blackbox.com.

4A: Select "Serial & Network: Serial Port" to display the labels, modes, and protocol options currently set for each serial port. By default, all serial ports are set in Console Server mode (refer to the User Manual if other modes are required). To configure a serial port, click Edit:

- Configure the Common Settings (Baud Rate, Parity, Data Bits, Stop Bits, and Flow Control) to match those of the device being controlled.

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- Select the Console Server protocols (SSH, Telnet, Web Terminal, and RFC2217) that are to be used for the network connection to that port.
- A Logging Level may also be set to specify the direction and level of information to be logged for that port.
- Click “Apply.”

4B: Your console server has two USB 3.0 ports on the front, which can be used for connecting to USB consoles (on UPS supplies or Cisco® devices) or for attaching external USB flash for loading updated firmware or configuration files.

STEP 5: Add local users and groups.

NOTE: Alternatively, if you wish to use a remote AAA server to authenticate user access, refer to the User Manual.

5A: For each new user, select “Serial & Network: Users & Groups” and click “Add User.”

5B: Enter a Username and enter and confirm a Password, and select the Accessible Ports the user is allowed to access.

5C: To grant limited access to the console server’s management UI and CLI, check the user Group, to grant full access to the console server’s management UI and CLI, check the admin Group (by default the user is granted no management access), click Apply

NOTE: We recommend that you set up a new administrator user (in the admin group with full access privileges) and login as this new user for all ongoing administration functions (rather than continuing as root).

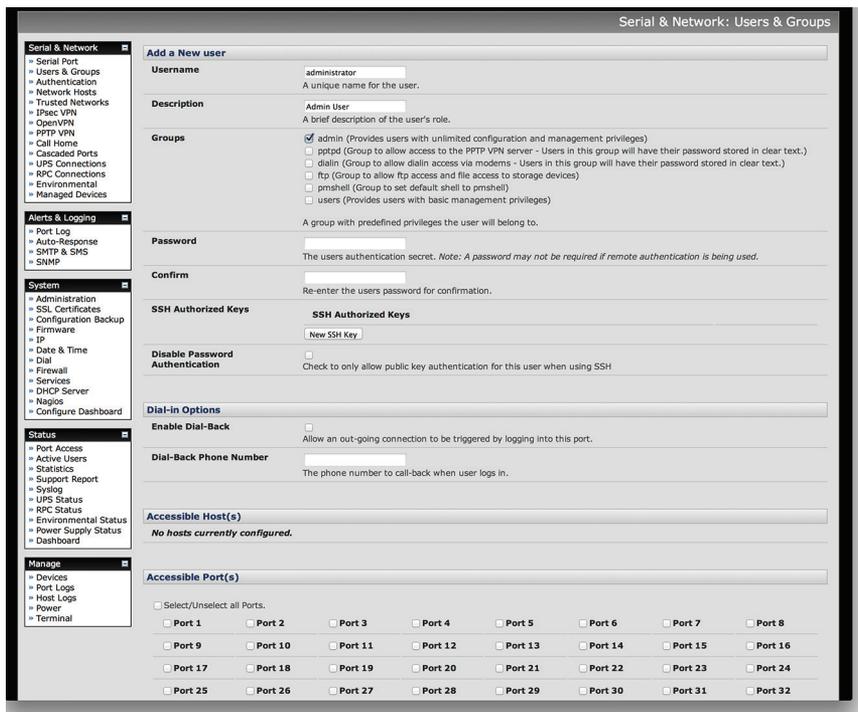


Figure 3. Add a New user.

STEP 6: Access device consoles.

Your console server is now ready to serve console access on your network. There are many ways to access device consoles, depending on the protocols chosen.

6A: SSH – for console access using your preferred SSH client (e.g. PuTTY, SecureCRT, OpenSSH):

- To connect to the pmshell chooser menu, SSH to the console server and login appending :serial to your username, e.g.: root:serial
- To connect directly to a given console, SSH to the console server and login adding the port number or port label to your username, e.g.: root:port02 or root:MyRouter
- To connect directly to a given serial port, SSH to the console server at TCP port 3000 + the port number, e.g.: 3002 for serial port 2

6B: Telnet – Telnet to the console server at TCP port 2000 + the port number, e.g.: 2002 for serial port 2.

6C: Web Terminal – for console access using just your browser, select Manage: Devices: Serial and click the port's Web Terminal link.

STEP 7: Advanced configurations.

The console server offers many more advanced functions including:

- The Alerts & Logging: Auto-Response facility monitors serial ports, hosts, user logins, UPSes (Uninterruptible Power Supplies), RPCs (Remote Power Controllers, such as PDUs and IPMI devices), and EMDs (Environmental Monitoring Devices). A broad selection of Check Conditions (such serial data patterns, temperature, or battery levels) can be specified. When triggered, one or more Trigger Actions are performed, e.g. a warning email, SMS, Nagios, and/or SNMP alert is sent to a nominated destination.
- Extensive management of UPSes and RPCs using open source NUT and Powerman tools. The Manage: Power and pmsheel Power Menu facility enables both administrators and regular users to monitor and control attached PDU power strips, and servers with embedded IPMI BMCs.
- Connect EMDs to any serial port (with an adapter) and remotely monitor the temperature, humidity, physical access, smoke alarms, etc. Details are provided in the Quick Start supplied with the EMD.
- Historical logs of all communications with serial and network attached devices, system activity, UPS and PDU power status, environmental status, etc. Alerts & Logging: Port Log allows this history to be saved locally or remotely. Logs can be viewed from the Status and Manage menus.

Other advanced features, such as remote Authentication, Firewall, VPN, Serial Port Cascading, and Command Line interface, are covered in detail in the User Manual.

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