

## 1102 Secure Device Server

## Quick Start Guide



## About This Guide

This Quick Start Guide walks you through installation, configuration, and local operation. For more details, refer to the user manual on the CD-ROM.

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# 1102 Secure Device Server Quick Start Guide

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## Step 1: Check kit contents.

- 1102 Secure Device Server
- This printed quick start guide
- CD-ROM containing a user's manual in PDF format
- (2) UTP cables
- (1) DB9F-RJ-45 adapter straight-pinned
- (1) DB9F-RJ-45 adapter crossover-pinned
- Universal input 12-VDC power pack

## Step 2: Connect the hardware.

- Attach the four rubber feet to the base (unless the LES1102A will be DIN rail mounted).
- Plug the power pack into the AC power receptacle and connect the DC power cable to the 9-12 VDC power socket on the LES1102A. Or the LES1102A can be powered from any +9 to +48 VDC power source. Connect these power lines to the IN-GND and IN-VIN+ screw jacks.
- Connect your serial devices to the two serial ports.
  - Port 1 is a dedicated RS-232 port, and the pinout is standard DB9 male.
  - Port 2 can be software configured to be either an RS-232 port (using the Port 2 DB9 connector) or an RS-422/RS-485 port (using the TX+/TX- and RX+/RX- pairs on the terminal block).

Terminal block pinouts:    1        2        3        4        5        6        7        8  
                             +VDC in GND RX+ RX- TX+ TX- +3.3 VDC out GND

Step 3: Set up the console server.

The default console server IP address is 192.168.0.1 (subnet mask 255.255.255.0).

With a Web browser on any computer that is connected through the LAN to the serial device server:

- Enter `https://192.168.0.1` into the address bar.

NOTE: The LAN-connected computer must have an IP address in the same network range (192.168.0.xxx) as the serial device server. If this is not convenient, you can use the ARP Ping command to set the IP address (refer to the user manual for details). The serial device server also has its DHCP client enabled by default, so 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.

- Log in using the default system user name `root` and the default password. A Welcome screen listing the basic configuration steps is displayed.
- Select “System: Administration,” enter and confirm a new system password, and click “Apply.”

The screenshot displays the 'System: Administration' web interface for a Black Box Network Services device. At the top, a status bar shows 'System Name: les1102a', 'Model: LES1102A', 'Firmware: 2.8.2u1', 'Uptime: 0 days, 0 hours, 57 mins, 8 secs', and 'Current User: root'. There are also 'Backup' and 'Log Out' icons. The main content area is titled 'System: Administration' and features a sidebar on the left with two sections: 'Serial & Network' (containing links like Serial Port, Users & Groups, Authentication, Network Hosts, Trusted Networks, Cascaded Ports, UPS Connections, RPC Connections, Environmental, and Managed Devices) and 'Alerts & Logging' (containing Port Log and Alerts). The main form area contains the following fields:

- System Name:**  (Description: An ID for this device.)
- System Description:**  (Description: The physical location of this device.)
- System Password:**  (Description: The secret used to gain administration access to this device.)
- Confirm System Password:**  (Description: Re-enter the above password for confirmation.)

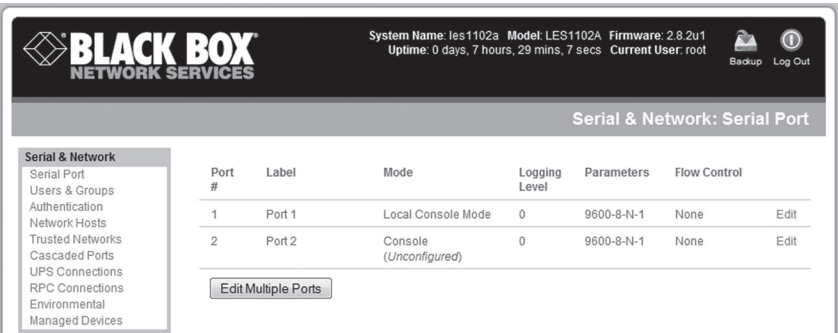
An 'Apply' button is located at the bottom of the form.

System: Administration screen.

- To assign your serial device server a static IP address or to permanently enable DHCP, select “System: IP” then “Network Interface” and check “DHCP” or “Static” for configuration method.

Step 4: Configure serial and network devices.

- Select “Serial & Network: Serial Port,” which will display the label, mode, and protocol options currently set for the serial port. By default, the two serial ports are set to console server mode (see the user’s manual for other modes).



Serial & Network: Serial Port screen.

- 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 serial device being controlled.
- Select the console server protocols (Telnet, SSH, TCP, and RFC2217) that will be used for the data connection to the serial port.

NOTE: On Port 1, you have the option to configure the port for modem access. If you plan to use out-of-band (OoB) dial-in access, connect this serial port to an external modem.

- Click “Apply.”
- To enable access through the console server to a locally networked computer (referred to as a host), select “Serial & Network: Network Hosts” and click “Add Host.”

**BLACK BOX**  
NETWORK SERVICES

System Name: ACSdoc Model: LES1216A Firmware: 2.8.0u2  
Uptime: 0 days, 2 hours, 13 mins, 1 secs Current User: root

Backup Log Out

### Serial & Network: Network Hosts

**Serial & Network**

- Serial Port
- Users & Groups
- Authentication
- Network Hosts
- Trusted Networks
- Cascaded Ports
- UPS Connections
- RPC Connections
- Environmental
- Managed Devices

**Alerts & Logging**

- Port Log
- Alerts
- SMTP & SMS
- SNMP

**System**

- Administration
- SSL Certificates
- Configuration Backup
- Firmware
- IP
- Date & Time
- Dial
- Services
- DHCP Server
- Nagios
- Configure Dashboard

**Status**

- Port Access

**IP Address/DNS Name**   
The host's IP Address or DNS name.

**Host Name**   
A descriptive name to identify the host.

**Description/Notes**   
A brief description of the host.

**Permitted Services**

22/tcp (ssh) - 0  
23/tcp (telnet) - 0  
80/tcp (http) - 0  
443/tcp (https) - 0  
1494/tcp (ica) - 0  
3389/tcp (rdp) - 0  
5900/tcp (vnc) - 0

☒ TCP

☐ UDP Port

level 0 - Disabled

The TCP services available from this host.

**Device Settings**

Device Type  device type.

Serial &amp; Network: Network Hosts screen.


- Enter the IP address/DNS name of the host.
- Edit the permitted services used for accessing this host, for example, HTTPS (TCP port 443), VNC (TCP port 5900), or add custom TCP or UDP port numbers—only the services specified here are tunneled through to the host. All other services are blocked.
- Specify the level of information to be logged and monitored for each host access.
- Click “Apply.”

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Step 5: Add new users.

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

- For each new user, select “Serial & Network: Users & Groups” and click “Add User.”
- Enter a username and enter and confirm a password, and nominate the accessible hosts and accessible ports the user is allowed to access.



System Name: ACSdoc   Model: LES1216A   Firmware: 2.8.0u2  
Uptime: 0 days, 1 hours, 2 mins, 8 secs   Current User: root   Backup   Log Out

Serial & Network: Users & Groups

Serial & Network

Serial Port  
Users & Groups  
Authentication  
Network Hosts  
Trusted Networks  
Cascaded Ports  
UPS Connections  
RPC Connections  
Environmental  
Managed Devices

Alerts & Logging

Port Log  
Alerts  
SMTP & SMS  
SNMP

System

Administration  
SSL Certificates  
Configuration Backup  
Firmware  
IP  
Date & Time  
Dial  
Services  
DHCP Server

Add a New user

Username

A unique name for the user.

Description

A brief description of the users role.

Groups

☐ admin (Provides users with unlimited configuration and management privileges)  
☐ users (Provides users with basic management privileges)

A group with predefined privileges the user will belong to.

Password

The users authentication secret. Note: A password may not be required if remote authentication is being used.

Confirm

Re-enter the users password for confirmation.

Accessible Host(s)

No hosts currently configured.

Accessible Port(s)

Serial & Network: Users & Groups screen.

- To grant limited access to the management console, check the “User” group. To grant full access to the management console, check the “Admin” group. By default, the user is granted no management console access.
- Click “Apply.”

### Step 6: Advanced configurations.

The console server offers many more advanced functions including:

- **The Alerts & Logging:** Alerts facility monitors serial ports, hosts, user logins, UPSs (uninterruptible power supplies), and RPCs (remote power controllers such as PDUs and IPMI devices). A broad selection of trigger events (such as data patterns, temperature, or battery levels) can be specified. When triggered, a warning e-mail, SMS, Nagios®, or SNMP alert is sent to a nominated destination.
- **Extensive management of UPSs and RPCs** using Open Source NUT and Powerman tools. The Manage: Power facility enables both administrators and regular users to monitor and control attached PDU power strips, and servers with embedded IPMI BMCs.
- **Historical logs of all communications** with serial and network-attached devices, system activity, UPS and PDU power status, environmental status, etc. The level of logging is set as ports and devices are configured. 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 serial port cascading, remote authentication, trusted networks, secure tunneling, Nagios distributed monitoring, and the command line interface are covered in detail in the user manual on the CD-ROM.

**NOTE:** On the CD-ROM you will also find the SDT Connector software tool. Once you have configured the console server, this tool provides you with secure, point-and-click access to the console server and all the attached devices. Refer to the provided SDT Connector Quick Start for details on setting up remote management of the console server and connected devices.

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