How to troubleshoot a Lantronix device

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Procedure Steps

1) Make sure the device can be pinged by IP address by running the following command:

ping <device IP address>

If the device can be pinged, continue to the next step. If the device cannot be pinged, make sure the IP address is correct. If the device has never been assigned an IP address, or if you cannot ping it, complete the instructions in the section: Adding the IP Address to a Lantronix Device.

2) Open a command prompt window and type the following command to Telnet into the device and access the setup configuration menu:

telnet <device IP address> 9999

3) Press the Enter key to go into Setup Mode.

4) Type 0 to verify the Server settings. Press the Enter key to accept the current value. If you modify a setting, press the Enter key.
- IP address
- Gateway address
- Netmask = Dependent on Network
- Change telnet password = N

Important: If you want to create a telnet password be sure NOT to misplace it. You cannot reset the unit without getting a RMA for the unit!

5) Type 1 to verify the Channel 1 settings. Press the Enter key to accept the current value. If you modify a setting, press the Enter key.
- Baudrate = 38400
- I/F Mode = 4C (RS-232 Mode) or 4F (RS-485)

Note: Be sure that the ISC communications are set to the proper communication settings.
- Flow = 02 (Make sure to turn on dip switch 5 for CTS/RTS on the access panel)

Note: This is the most commonly skipped setting. By default, Flow Control is set to 0. A setting of 0 equates to no data being passed at all.
- Port = 3001
- Connect Mode = C0
- Send '+++' in Modem Mode = N
- Auto increment source port = N
- Remote IP Address = 000.000.000.000
- Remote Port = 0
- DisConnMode = 0

- Flush Mode = 0
- DisConnTime = 00:00
- SendChar1 = 00
- SendChar2 = 00

6) Type 6 to verify the Security settings. Press the Enter key to accept the current value. If you modify a setting, press the Enter key.
- Disable SNMP = N
- Disable Telnet Setup = N
- Disable TFTP Firmware Update = N
- Disable Port 77FEh = Y
- Disable Web Server = Y
- Disable Web Setup = Y
- Disable Echo Ports = Y
- Enable Enhanced Password = N

Notes: Security Enhancements›

Past installations may have contained vulnerabilities which could lead to unauthorized access to the Cobox Micro/Micro 100 units. The following changes in security settings are not necessary for the unit to work correctly, however, they are highly recommended to bridge any security gaps left open from previous installations.

By default, the Cobox Micro/Micro 100 units have no password assigned when they are first configured. In Server Options, you have the ability to assign a 4-digit password. While a 4-digit password is a step toward securing the unit it is highly recommended to enable Enhanced Passwords (16 digits as opposed to 4).

Port 77FE should be disabled. Port 77FE is a IP port that allows DeviceInstaller, Web-Manager, and custom programs to configure the unit remotely. Disable this port to prevent any unauthorized unit access. With this port enabled, it is possible to find this open port using a port scan tool. In addition, any networked user who installs DeviceInstaller on their machine may be able to change settings to the unit. (Note: Port 77FE must be enabled for DeviceInstaller Software to detect the unit.)

After configuring the unit, it is recommended that Web Server be disabled. While it is helpful to configure the unit via the Web Server, Web Server does not support enhanced password protection so it is a good idea to turn this feature off.

Beyond securing the internal settings of the Lantronix Cobox device(s), networking firewalls should be used to mask services that should not be publicly exposed. Many security problems can be avoided if servers and networks are appropriately configured.

7) Type 5 to verify the Advanced settings. Press the Enter key to accept the current value. If you modify a setting, press the Enter key.
- TCP Keepalive Settings = 0
- ARP Cache timeout = 600
- Disable Monitor mode @ bootup = N

- HTTP Port Number = 80
- MTU size = 1400
- Enable Alternate MAC = N
- Ethernet Connection type = 0

8) Type 9 to Save and exit.

9) Restart the LS Communication Server as an application, to test if the panel comes online.

10) If the panel does not come online, verify that the correct jumper has been removed from the access panel. The Jumper is J13 for an LNL-500 panel and J26 for an LNL-2000 panel.

11) Verify that dip switch 5 is set on for RS-232 communication or off for RS-485. Check the jumper settings for the methods of communication.

12) Power cycle the panel to test if it comes online. If not, verify that you are still able to ping the Micro unit. If not, complete the following steps:

Add the IP Address to a Lantronix Device

1) Set up the Lantronix device on the same subnet as the computer being used for setup. The best method is to use a crossover cable between the device and the computer.
Important: You CANNOT assign an IP address to the unit through a router.

2) Open a command prompt window and type the following command, and then press the Enter key.

arp -s <IP Address> <MAC Address>

3) Type the following command, and then press the Enter key to temporarily assign this IP address into the unit.

telnet <IP Address> 1

Note: You should receive an error message within two (2) seconds reporting that the system "Could not open connection to the host, on port 1: Connection Failed." If you do not receive this message within 2 seconds, check the network properties of the computer from which you are trying to configure the unit to make sure the IP address is within the same subnet. Also check to make sure the Micro is powered up.

4) Type the following command to enter the Setup Mode. Press the Enter key after the command, and then press Enter again to go into Setup Mode.

telnet <IP Address> 9999

5) Compete steps 4 - 8 in the previous procedure to set up the panel.

6) After the panel is set up, restart the LS Communication Server to verify that the panel comes online.

If the panel is still offline, check the hardware setup by completing steps 9- 12 in the previous procedure.

After all this has been done, if the panel still cannot come online, try bringing the panel to the computer to see if it is possible to set up via a direct connection. If the panel works, the Lantronix Micro may need to be returned. Examine the Micro, and the packaging the unit came in, to make sure that none of the capacitors have been broken off. These are somewhat fragile units and there have been a lot of units damaged during installation. Note that the capacitors are located near the edges of the board so be careful when adding and removing the unit from the board. The unit will not work properly or at all when a capacitor is damaged.

Applies To

OnGuard (All versions)

Additional Information

None