#### **Microsoft Windows Operating Systems**

Go to Start > Programs > Command Prompt.

At the Command Prompt enter: ping *IP address* where IP address is the IP address for the EtherLite module.

#### **UNIX/Linux Operating Systems**

From the command prompt enter: ping *IP address* where *IP address* is the IP address for the EtherLite module.

## Identifying the Firmware Version

#### Microsoft Windows Operating Systems

Use the Verlog utility to determine what firmware version is installed on an EtherLite module with any Microsoft Windows operating system.

- 1. Download the verlog utility from the Digi website at http://support.digi.com. The utility will be found with the EtherLite utilities under Support Tools. Locate the *sts\_els* folder.
- 2. Open the verlog.exe file. A screen for the IP address appears.
- **3.** Enter the EtherLite module's IP address and choose OK. Information identifying the specific model of EtherLite module will be displayed with the firmware information listed below. An example of the firmware version will be: FW Ver: V7.2.

#### **UNIX/Linux Operating Systems**

**1.** From the command prompt, enter the command:

rlogin *IP address* where IP address is the IP address of the EtherLite module.

2. Enter ver and the firmware version information is displayed.

 $\textbf{Copyright} @ 1999-2002 \ Digi \ International \ Inc. \ All \ Rights \ Reserved. \ http://www.digi.com$ 

Disclaimer. This manual may contain inaccurate or erroneous information. This manual is subject to change at any time. This manual, including all information contained herein, is provided "as is" without warranty of any kind, either express or implied, including, but not limited to, any implied warrantees of merchantability or fitness for particular purpose. Digi International Inc. makes no representations, warranties, or commitments with regard to any data or information contained in this manual. If you rely on data or information



## Introduction to Boot Console

Boot Console is a mini-operating system that enables a user to do several things in setting up their EtherLite module for use on a network. Basically, Boot Console gives you the ability to:

- resolve problems with BootP and DHCP servers. Large network installations may have several BootP and/or DHCP Servers. Because of the dynamic operation of DHCP, it is possible for an unintended server to assign an IP address to an Etherlite. You will not know what server assigned the address and you will not know what the address is.
- get an Etherlite up and running even when a network server is down.
- configure an Etherlite for use on the network either because you do not have or do not want to use a BootP or DCHP server.
- use several additional diagnostic tools for defining network or Ether-Lite configuration problems.
- update the module's firmware without using a DHCP or BootP server.

# Setting Up Boot Console

Use this procedure to temporarily or permanently store an IP address in an EtherLite module.

**Note:** For additional configuration information of the EtherLite module, see "Boot Console Commands".

- 1. Attach a terminal or terminal emulator to Port 1 of the EtherLite.
- Attach a 3-wire connection: TxD, RxD, and GND.
  Note: EtherLite will not assert DTR or RTS. If your system is expecting these signals, loop them at the terminal side. Boot Console operates at 19200 baud, 8 bits, 1 stop, and no parity.
- **3.** Activate the console by unplugging the power cable. Wait ten seconds and plug the power cable back into the EtherLite module.
- 4. Repeatedly depress the # key at the terminal until you get a console

## EtherLite Administration Card

prompt. It should only take three keystrokes. A prompt will appear with the module model and the firmware version. An example would be: --EL-32 V6.8--2

- 5. Enter the IP address by entering the command: ip x.x.x.xWhere x.x.x is the actual numerical address.
- **6.** Next, enter one of the following commands, depending on whether you want the new IP address to be temporary or permanent.

Temporary	Permanent
boot	store

7. If you entered boot in the previous step, skip this step (the EtherLite module will do a soft reboot).

If you entered store in the previous step, reboot the EtherLite module by unplugging, and then plugging in the power cable again.

**Note:** The EtherLite module should remain off for at least 10 seconds before powering the unit back on.

8. Verify the network connection of the EtherLite module by using the Ping program. See Using Ping.

## **Boot Console Commands**

Use this command table to configure an EtherLite module with Boot Console. A thorough reference on Boot Console is available on the Digi web site at http://support.digi.com.

#### Notes:

- The commands are case-sensitive. The Ethernet cable must be reattached after the commands are entered to allow the changes to be stored and activated.
- To store commands permanently in flash memory, such as gw, ip, sm, ahip, ahm, and tftp, be sure to follow that command with the store command.

Command	Command Description
help	Displays the command list with a brief description
show	Shows module settings including firmware version, IP settings, boot host, and more.

Command	<b>Command Description</b>
boot	Resumes the boot process with status messages logged to the terminal
ip	Sets the IP address (The default address is 0.0.0.0)
gw	Sets the gateway address (The default address is 0.0.0.0)
sm	Sets the subnet mask address (The default is 0.0.0.0)
ahip	Sets the authorized hosts IP address specifying which DHCP server can assign an IP address to the EtherLite module (The default address is 0.0.0.0)
ahm	Sets the authorized hosts mask address (The default address is 0.0.0.0)
tftpip*	Sets the server host for bootfile tftp address (The default address is 0.0.0.0)
bf*	Sets the bootfile name (The default name is elxx.prm)
store	Stores the settings in flash RAM
erase	Erases the settings in flash RAM and resets all defaults
reset	Resets all defaults
ping	Pings an IP address
*Note: These values are not supported by the store command, consequently when the EtherLite module loses power this information	

will be lost.

## Assigning A Permanent IP Address: DgIPServ

Use this procedure to permanently store an IP address in an EtherLite module.

#### Microsoft Windows Operating Systems

- 1. Download the DgIPServ utility from the Digi website at http://support.digi.com. The utility will be found with the EtherLite utilities under Support Tools. Locate the *sts\_els* folder.
- 2. Connect the EtherLite module to the network. Note: Do not plug the power cable into the module at this time.
- 3. Execute the DgIPServ.exe program. Choose Store IP settings.
- **4.** Enter the MAC address. The MAC address is found on the back panel next to the power outlet.

**Note:** The first six digits or letters (00AOE7) are already entered. Enter only the last six letters and digits.

- **5.** Enter the IP address assigned by the network administrator and the other IP settings if necessary. Each EtherLite module needs a separate IP address.
- **6.** Plug in the power cable and a confirmation message should appear displaying the IP address.
- 7. Verify the network connection of the EtherLite module by using the Ping program. See Using Ping.

## UNIX/Linux Operating Systems

On UNIX/Linux systems, the driver must already be installed.

- 1. Enter the following commands to locate the dgipserv utility on your system. It was installed with the EtherLite driver. cd / find ./ -name dgipserv -print
- 2. Change to the directory where dgipserv is located and execute the utility by entering the following command: dgipserv
- 3. Follow the prompts and use the associated man pages. To view the UNIX/Linus man pages, enter the command: man dgipserv.

# Assigning A Temporary IP Address: Digi's BootP Server

## Microsoft Windows Operating Systems

Use this procedure to store an IP address temporarily in an EtherLite module. Download the bootps utility file from the Digi website at http://support.digi.com. The utility will be found with the EtherLite utilities under Support Tools. Locate the *sts\_els* folder.

- Connect the EtherLite module to the network.
  Note: Do not plug the power cable in to the EtherLite module.
- 2. Open the bootps.exe program. The message "Watching for Bootp Requests" appears.
- 3. Choose File then Edit Bootp Response.
- **4.** Enter the MAC address. The MAC address is found on the back panel next to the power outlet.

**Note:** The first six digits or letters (00AOE7) are already entered. Enter only the last six letters and digits.

- **5.** Enter the Target IP Address for the EtherLite module and the Host IP Address of the network server.
- **6.** Plug in the power cable and a confirmation message should appear displaying the MAC Address and the new IP address.
- 7. Verify the network connection of the EtherLite module by using the Ping program. See Using Ping.

# **Updating Firmware**

Use this procedure to upgrade the firmware on an Etherlite unit. You should have downloaded the latest firmware from the Digi web site at http://support.digi.com.

### Microsoft Windows Operating Systems

- **1.** Create a folder and extract the compressed firmware to the folder.
- 2. Start the DgIPServ utility. It is located in the driver installation directory.
- **3.** Follow the prompts to install the updated firmware.

## UNIX/Linux Operating Systems

On UNIX/Linux systems, the driver must already be installed.

- 1. Enter the following commands to locate the dgipserv utility on your system. It was installed with the EtherLite driver. cd / find ./ -name dgipserv -print
- 2. Change to the directory where dgipserv is located and execute the utility by entering the following command: dgipserv
- 3. Follow the prompts and use the associated man pages. To view the UNIX/Linus man pages, enter the command: man dgipserv

# **Using Ping**

Use the Ping program to determine whether the EtherLite module is connected to the network. Pinging the EtherLite module from a system on the same subnet eliminates several possible problems that might hinder troubleshooting procedures. If the EtherLite module is not found, a "Request timed out" reply will be given. Further troubleshooting will be necessary.

(Using Ping is continued on other side of this document)