



PowerLink, ShieldLink, ClariLink

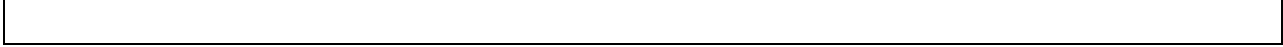
Quick Start Guide

Version 6.3



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PowerLink Series - Quick Start Guide – Rev. A

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Record of Revisions

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FCC Compliance Statement

This equipment has been tested and found to comply with the limits for class B digital device, suitable for home or office use, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in an industrial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult a dealer or an experienced radio / TV technician for help.

CAUTION: The user that makes changes or modifications to this product without the approval of Ecessa Corporation that cause this product to not meet part 15 of the FCC rules could void the user's authority to operate this product.

Repair service or warranty information may be obtained by contacting Ecessa Corporation at:

2800 Campus Drive
Suite 140
Plymouth, MN 55441
(763) 694-9949 or (800) 669-6242
www.ecessa.com

No user serviceable parts are contained in the PowerLink. Please contact Ecessa for repair or warranty information.

Standard Warranty

Ecessa warrants that the Products shall be free from defects in material and workmanship for a period of thirty-six (36) months from the date of shipment from Ecessa's premises. If a confirmed hardware failure occurs, Ecessa will replace the Products with refurbished Products in similar condition at no charge. Ecessa shall not be liable for damage to the product due to acts of Nature, including but not limited to lightning or water damage. Ecessa shall not pay anyone any amount for warranty work or other repair work performed by any third party, unless such warranty or other repair work was approved in advance in writing by Ecessa.

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Ecessa provides technical support 24 hours a day, seven days a week. If you have a question, call us at (763) 694-9949 or 1-800-669-6242 or send e-mail to: help@ecessa.com or visit our website at: <http://www.ecessa.com>.

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Introduction

Note: For ease of reference, the term PowerLink, when used in this manual, refers to the PowerLink, ShieldLink and ClariLink products. All features discussed in this manual are available, and function the same, on all products in these families of appliances.

This quick start manual is intended as a guide to configuring a PowerLink™, ShieldLink™ or ClariLink™ series of products to enable serial port and web page access and to implement a minimum configuration scheme. Following the steps in this manual will allow you to configure your appliance to allow outbound Internet access over the configured WAN line or lines and to enable remote Internet access to your PowerLink.

For more detailed information, see the complete User Manual and the various white papers and case studies available on the Ecessa web site or from your sales representative. The PowerLink web interface contains context relevant help screens that further elaborate on specific features.

Ecessa's technical support team members are all graduate network engineers who are available to aid you in the setup process. Every Ecessa product is sold with a 90 day 24 X 7 support agreement included. We encourage you to make extensive use of their expertise to help you to make the installation of your PowerLink an efficient and pleasant experience.

Following is a listing of the sections of this manual and a brief description of their contents:

- **Chapter 1** contains an overview of the setup options.
- **Chapter 2** addresses pre-installation planning and system requirements to interface to the PowerLink. We recommend that you read this information and follow the steps outlined here.
- **Chapter 3** describes the hardware and factory default settings of the PowerLink.
- **Chapter 4** takes you through the various ways to connect your PC to the PowerLink's serial port or Ethernet interface.
- **Chapter 5** covers the configuration of the PowerLink via the text interface.
- **Chapter 6** covers the configuration of the PowerLink via the web interface.
- **Appendix A** covers warranty, service agreements and repair procedures.

Product Description

Product Description

PowerLink enables redundant WAN and ISP access, and provides both outbound and inbound WAN and/or ISP load balancing and failover to ensure 100% uptime and trouble free Internet access.

ShieldLink is Ecessa's family of advanced, highly affordable secure WAN Link Controllers incorporating all of the capabilities of PowerLink, with the addition of a built-in firewall and VPN Gateway.

ClariLink is Ecessa's family of SIP proxy enabled products incorporating all the features of the PowerLink and ShieldLink appliances with the additional capability of Voice Over IP (VOIP) call load balancing and seamless call failover.

Product Registration

To register your Ecessa product online, go to the [Ecessa web site](http://www.ecessa.com/pages/products/products_register.php) product registration page at http://www.ecessa.com/pages/products/products_register.php.

Related Documentation and Online Helps

This printed Quick Start Guide manual is shipped with each appliance. Extensive Help screens are built into the web interface. A substantial set of technical documents, white papers, case studies, etc. are available on the Ecessa web site at www.ecessa.com. Additionally, Ecessa's technical support team is available 24 X 7 to assist you in all your needs.

Chapter 1 – Getting Started

We strongly recommend contacting Ecessa’s Technical Services group for assistance in developing a plan for installing the PowerLink. See “Chapter 2 – Pre-Installation Planning” Pg. 1210. The goal of the pre-configuration process is to help you effectively configure your device, help to identify and avoid any potential problems, and allow the optimum utilization of the PowerLink. If you did not receive information regarding the pre-configuration process, you may obtain it by contacting Technical Services via email or telephone. See “Contact Support” Pg. 27.

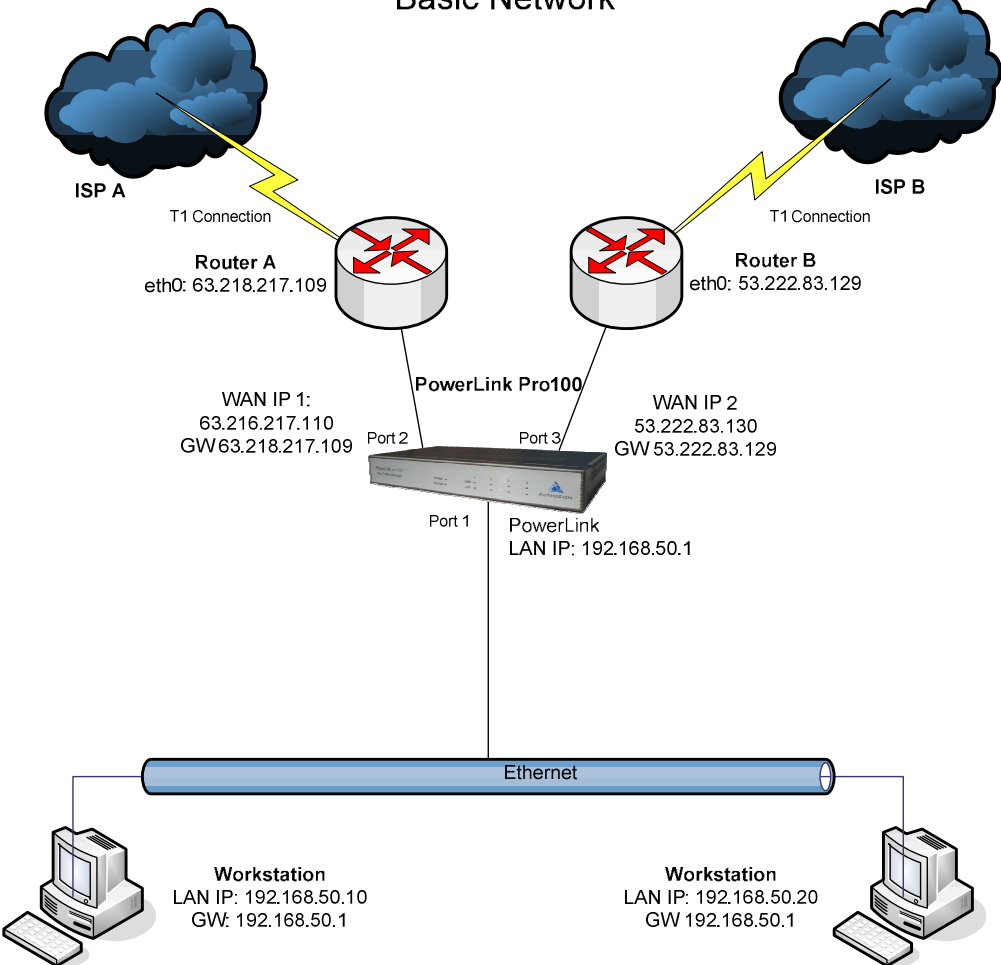
Once you have completed the worksheet for your network and established communications with the device, you are ready to configure the PowerLink.

Listed below are the recommended steps to do a basic installation of the PowerLink. After completing these steps the PowerLink will have access to the Internet over the WAN lines. This process assumes that all recommended pre-configuration planning has been completed and the contents of this manual have been reviewed.

- After unpacking the PowerLink (see “Chapter 3 – Unpacking and Hardware Description” Pg. 14), make all hardware connections based on the pre-configuration network diagram.
- Establish communications with the PowerLink via the serial or Ethernet port (see “Chapter 4 – Connecting to the PowerLink” Pg. 16). Note that if you are using an Ethernet port to access the PowerLink, connectivity will be lost if that port’s configuration is modified during this process. It would then be necessary to reconfigure the PC to re-establish communications.
- To configure using the text interface, go through the Setup Wizard (see “5.3 Setup Wizard Using the Console Port, SSH, or Telnet” Pg. 19). The Setup Wizard will configure the LAN interface and up to 4 WAN interfaces. It will also allow you to enable or disable session load balancing, select the load balancing algorithm (intelligent or round robin) and enable or disable the recovery/failover function. Following this basic setup, the PowerLink will be able to access the Internet with all outbound sessions load balanced and will automatically fail over upon failure of a WAN link.
- To configure using the web interface, perform the following steps in the Basic Setup category:
Configure LAN
Configure WAN
Configure Services
Following this basic setup, the PowerLink will be able to access the Internet with all outbound sessions load balanced and will automatically fail over upon failure of a WAN link.
- If there is a firewall on the LAN side of the PowerLink, it will be necessary to change its WAN port address to be in the PowerLink’s LAN network and change its gateway to be the LAN address of the PowerLink.

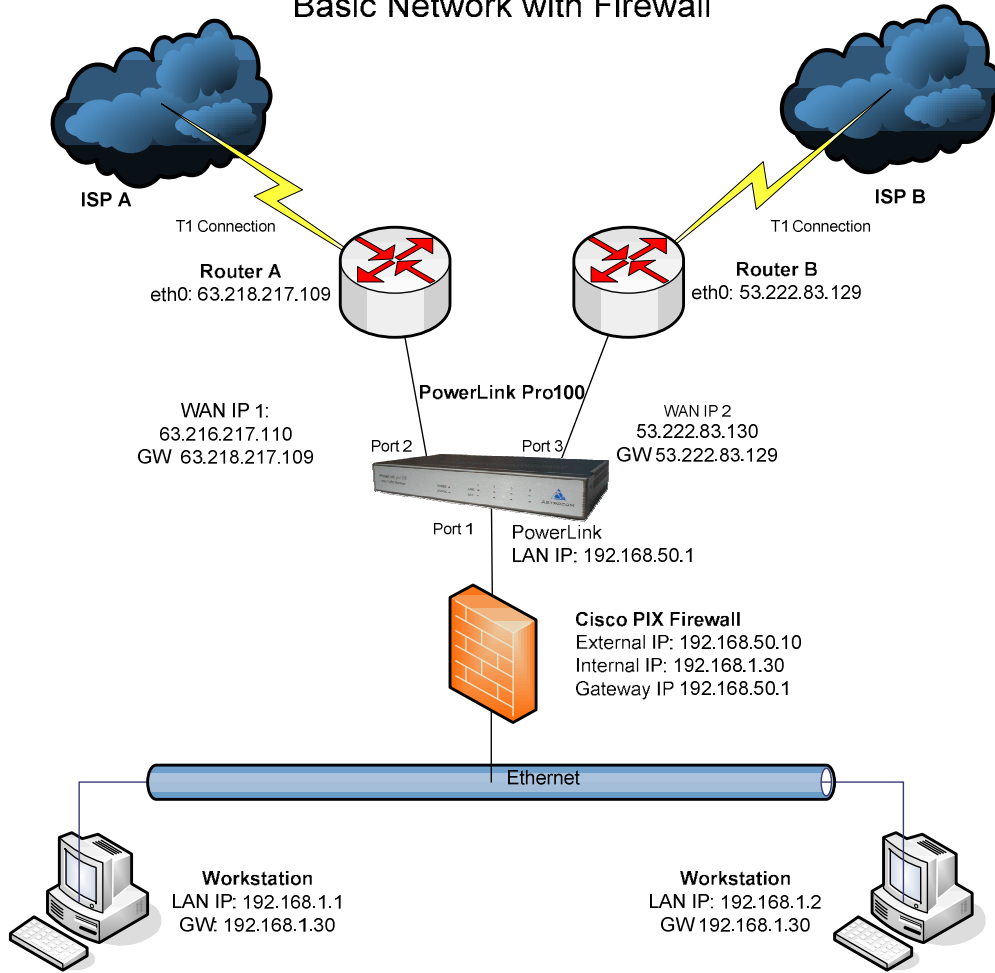
- If the PowerLink is connected directly to the LAN, you must ensure that all devices on the LAN have the PowerLink's LAN address as their gateway.
- This is the extent of configuration covered by this Quick Start Guide. For additional configuration help, contact Ecessa's technical support staff or refer to the additional information provided in the product manual, context sensitive help screens on the GUI interface and support documents available on Ecessa's WEB site.

Basic Network



Network diagram – no firewall or ShieldLink, ClariLink F/W

Basic Network with Firewall



Network diagram – with firewall

Chapter 2 – Pre-Installation Planning

2.1 System Requirements

The PC operating system requirements for interfacing to the PowerLink are met by any OS that can connect either through a web browser or through a terminal emulation program via a serial port using a DB 9 connector.

Your web browser must have JavaScript enabled, and be able to support standard images (.png).

2.2 Pre-Installation Checklist

The following items are required to begin installation:

- A completed Pre-Configuration Worksheet (see the “2.3 Pre-Configuration Process” Pg. 13 below).
- At least one Internet/WAN access line.
- For each network connection, one 10/100BaseT UTP cable with RJ45 connector, or one 1000BaseT Cat5E UTP cable for Gigabit support.
- For web, Telnet or SSH interface configuration, a computer with TCP/IP network protocol with an Ethernet port configured to work with the PowerLink’s factory default setting or enabled to accept a DHCP generated address from the PowerLink, a supported web browser installed and a cross-over Ethernet cable (supplied with unit).
- For serial port interface configuration, a computer with a serial port with a DB 9 connector or a USB to DB9 adapter cable and software, Terminal emulation software (i.e., HyperTerminal) configured to PowerLink’s factory default setting and a female to female DB 9 null modem cable (supplied with unit).
- An Ethernet hub/switch/concentrator may be required depending on the specific topology of your network.

2.3 Pre-Configuration Process

The PowerLink is easy to configure and install, particularly if the pre-configuration process (described below) is followed.

Step 1: Contact Ecessa's technical support during normal business hours (8:00 A.M. – 5:30 P.M. North American Central time Monday-Friday) or via help@eccessa.com to receive a PowerLink™ Pre-configuration Worksheet and begin the pre-configuration process.

Step 2: Once the completed pre-configuration worksheet is received by technical support, Ecessa Technical Support will develop a configuration worksheet and network diagram. This process takes from a few hours (for a very simple installation) to a few days, based on the complexity of the installation.

Step 3: Ecessa technical support will return a proposed configuration and diagram for your approval. As with any step in the process, feel free to ask questions, and make additions, corrections or suggestions.

Step 4: Once your configuration is complete, Ecessa can either configure your PowerLink at our site prior to shipment, or assist you via telephone and Internet support to configure your network. Alternatively, we can provide a completed configuration file for you to download directly into your device after minimal configuration of your network (establishing connectivity on at least one WAN line as described in this manual).

Step 5: You let us know when you plan to install the PowerLink, so we can schedule a network engineer to be available during the installation process.

2.3.i Pre-Configuration Worksheets

Completing this document is the first step in our Pre-Configuration process. Contact Ecessa Technical Support at help@eccessa.com or your sales representative to obtain a worksheet. Once you have completed the worksheet, send it and a copy of your current network diagram to your sales representative or to help@eccessa.com.

Chapter 3 – Unpacking and Hardware Description

3.1 Ship Kit Contents

The PowerLink is shipped with the following contents:

- ❑ One PowerLink unit with packing material.
- ❑ One 9-pin Null-modem cable (6' DB9 Female to Female Standard Serial RS232 Null Modem Cable).
- ❑ One Crossover cable for optional direct connection to a PC's Ethernet port (5' 350 MHz CAT5E Crossover Red Patch Cord).
- ❑ One 5' 350 MHz Shielded CAT5E Gray Patch Cord.
- ❑ One printed Quick Start Guide manual.
- ❑ One "Attention Installer" Sheet.
- ❑ One Power Supply (when required) with Power Cord.

In addition, options such as Mounting Side Brackets for rack mounting are included if the option is ordered (standard on 250 and 500 models).

3.2 Unpacking

1. Carefully unpack the PowerLink contents.
2. Save the shipping carton and packing materials for possible future use.
3. Obtain the completed pre-configuration worksheet for your network. See "Pre-Configuration Process Pg. 13" above. Contact Ecessa Technical Services if the worksheet is not available.

Note: No user serviceable parts are contained in the PowerLink. Please contact Ecessa for repair or warranty information.

3.3 Front Panel

The typical front panel design includes LEDs for status observation; some models also provide LCD displays for enhanced status monitoring. Front panel descriptions for each model are provided in the full Reference manual.

3.4 Rear Panel

The PowerLink PL100 & 200 series appliance has seven back panel connections, as shown below.



3.5 Factory Default Settings

The factory default configuration settings are:

<i>Supervisor Login name</i>	root (Note: this is permanent and may not be changed)
<i>Supervisor Password</i>	PWRLNK (case sensitive)
<i>User Login name</i>	user (disabled in default configuration)
<i>User Password</i>	astro (case sensitive)
<i>Port 1 IP Address</i>	192.168.50.1 DHCP server enabled
<i>Subnet Mask</i>	255.255.255.0
<i>Serial port</i>	57,600 bps, 8 Data bits, one Stop bit, no Parity, no Flow control
<i>Recovery</i>	Enabled
<i>Load Balancing</i>	Enabled
<i>Ports used</i>	Web (port 80, 443), SSH (port 22), and Telnet (port 23) services enabled with access from LAN and WAN

Chapter 4 – Connecting to the PowerLink

4.1 Establishing Communications

You can establish communication with the PowerLink through the Console port or an Ethernet port as discussed below. The Console port, using a terminal emulator and the Ethernet ports using Telnet or SSH provide a text interface for configuring the PowerLink. The Ethernet port connection using a Web browser provides a graphics user interface.

See “3.5 Factory Default Settings” above for the default settings of the serial port and Ethernet port 1.

4.1.i Console Port Connection to a PC

Communications via the Console port is accomplished using a terminal emulator such as HyperTerminal. The Console port is an RS-232 male DB9 connector configured as a DCE (data communications equipment) device.

1. Connect the PC serial port to the PowerLink DB-9 Console port connector using the supplied DB-9 cable.
2. Open a PC terminal emulation (e.g., HyperTerminal) session set to a VT100 terminal emulator running at 57,600 bps, 8 Data bits, 1 Stop bit, no Parity (None), and no Flow control (None).
3. Connect the AC Power Cord of the power supply to a live AC outlet with the DC connector plugged into the PowerLink. After a short period, you should get a login prompt on your terminal session.
4. Go to " Chapter 5 – Configuring with Text Interface" Pg.18 to configure the PowerLink.

4.1.ii Ethernet Port Connection to a PC

Communications with the PowerLink via an Ethernet port is accomplished using Telnet, SSH, or a web browser (HTTP or HTTPS). PowerLink is shipped from the factory with Ethernet Port 1 as the only port configured, so initial Ethernet port communications must be established on port 1 as described below.

NOTE: To connect directly to the PC without a switch or hub, you must use the red Crossover Cable provided with your PowerLink. If using a switch or hub, you may be able to use the gray patch cable provided.

1. The PowerLink is shipped from the factory with Port 1 configured as the LAN port with an IP address of 192.168.50.1 and a subnet mask of 255.255.255.0 and PowerLink's DHCP server active.
2. Make sure that the PC being used and the PowerLink are in the same IP network (i.e., their IP address and subnet mask must be set to be in the same network) or that the PC is DHCP enabled so that it will be assigned an address by the PowerLink.

3. Connect the Power Cord to a live AC outlet. The PowerLink front panel POWER LED lights.
4. You can ensure that your PC is properly connected to the PowerLink by pinging the interface at address 192.168.50.1.
5. Go to the appropriate "Configure via an Ethernet Port Connection" section below to configure the PowerLink (either via Telnet, SSH or a web browser).

4.1.iii Connect via an Ethernet Port using Telnet

1. From the command prompt on your PC enter "telnet 192.168.50.1".
2. You should get a login prompt.
3. Proceed to " Chapter 5 – Configuring with Text Interface" Pg.18 to configure the PowerLink.

4.1.iv Connect via an Ethernet Port using SSH

1. Open an SSH client session.
2. Enter IP address 192.168.50.1.
3. You should get a login prompt.
4. Proceed to " Chapter 5 – Configuring with Text Interface" Pg.18 to configure the PowerLink.

4.1.v Connect via an Ethernet Port using a Web Browser

1. Open a web browser on your PC (http or https).
2. Enter the IP address of the PowerLink in the browser's address window (<http://192.168.50.1>).
3. You should get the login window for the PowerLink.
4. Proceed to "Chapter 6 – Configuring with web Interface" Pg. 24 to configure the PowerLink.

Chapter 5 – Configuring with Text Interface

5.1 Login

After communications is established (see “Chapter 4 – Connecting to the PowerLink” Pg. 16), you must login using the correct ID and password. There are two levels of login: “user” and “supervisor”. You must be logged in as supervisor in order to make any configuration changes. The PowerLink is shipped with a default supervisor login name of “root” and a password of “PWRLNK”.

To login, enter “root” at the login prompt and enter “PWRLNK” at the password prompt. Note: name and password are case sensitive.



Serial interface log in screen

5.2 Required Inputs

The PowerLink must be configured with a number of parameters. Minimally, these are:

1. Ethernet LAN port IP address with subnet mask (this will be the gateway address for all devices on the LAN or for a firewall behind the PowerLink).
2. WAN interface configuration information:
 - a) IP address and subnet mask to be assigned to each PowerLink WAN interface. The IP address must fall within the same logical subnet as the address of the WAN gateway/router.
 - b) IP address of the WAN gateway/router.
 - c) The alias and Ethernet port to be used by each WAN interface. Note that you may assign multiple WAN lines to an individual Ethernet port (multi-home).
 - d) Throughput (uplink and downlink) of each WAN interface.
3. IP addresses (3) to test each WAN interface for connectivity. IP addresses should be tested to ensure that they will respond to an ICMP echo (ping) or TCP connection (any port). Using the gateway/router as a test IP is NOT recommended.
4. Inbound Port forwarding information for any publicly-accessible servers/services on the LAN (or behind the firewall).

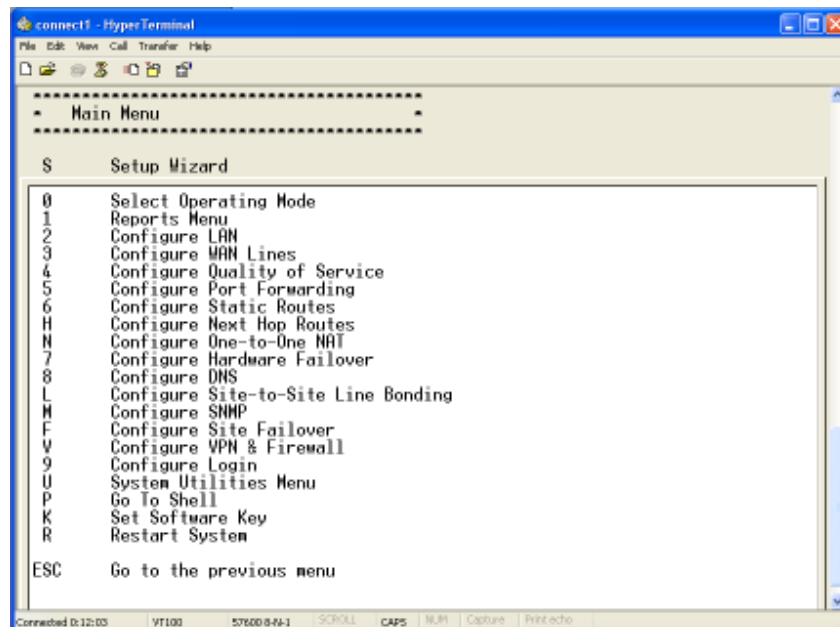
5.3 Setup Wizard Using the Console Port, SSH, or Telnet

When you have established communications with the PowerLink via the Serial Port, SSH, or telnet (see “4.1 Establishing Communications” Pg. 16), you can use the Setup Wizard for basic setup. The Setup Wizard will take you through the configuration of the LAN interface and up to 4 WAN interfaces. It will also allow you to enable or disable session load balancing, select the load balancing algorithm (intelligent or round robin) and enable or disable the recovery/failover function. Following this basic setup, you will be able to access the Internet with all outbound sessions load balanced and automatically failing over upon failure of a WAN link. The PowerLink will block all externally initiated traffic. To configure the PowerLink to allow inbound sessions, see “Port Forwarding” on the PowerLink web interface or the PowerLink user manual.

Prior to exiting the wizard, you will be given the option of saving the configuration. If you do not save the changes, the configuration changes will be lost when power is cycled.

To use the Setup Wizard, perform the following steps starting at the login screen as shown above:

1. At Login: type **root** and hit Enter.
2. At Password: type **PWRLNK** and hit Enter. The Main Menu displays.



Serial interface – Main Menu

3. Type “S” to select the Setup Wizard. The message “Setup will overwrite current configuration Continue with setup? y/n:” displays.

4. Enter “y” to continue. A brief overview displays:

```
This Setup Wizard will help you to configure the basic settings of your PowerLink. It will drive you
through the following menus:
- Configure LAN: Add New LAN.
- Configure WAN Lines: Add New WAN Line (up to 4 times).
- Select Operating Mode: Enable/Disable Session Load Balancing, Set Load Balancing Algorithm,
and Configure Recovery.
- System Utilities Menu: Save Current Configuration.

Press any key to continue _
```

5. Press any key to continue. An overview of the LAN port setup displays.

```
Configure LAN:

You will need to:
- enter an alias for this LAN
- setup IP address and network mask
- select a physical ethernet port
Please enter an alias for this LAN: _
```

***** **(LAN configuration)*******

6. Enter an alias for this LAN port (e.g., LAN1) and hit Enter. The message “Enter IP address:” displays.
7. Enter an IP address for the LAN in the format [192.168.50.1](#) and hit Enter (this will be the gateway address for your firewall or LAN devices). The message “Enter network mask:” displays.
8. Enter a network Subnet mask for the Ethernet card in the format 255.255.255.0 and hit Enter. This message displays: “By default the LAN is configured on port1. Do you want to select the ethernet port for this LAN? y/n:”.
9. If you choose to select an Ethernet port other than Port 1 for the LAN enter the port number and hit Enter. The message “do you want to assign an 802.1q<VLAN> ID to this LAN?” displays.
10. If you selected yes to assign a VLAN ID, enter an ID from 1 to 4095.

***** **(WAN configuration)*******

11. The message “How many lines do you want to configure <1..4>:” displays. Enter the number of WAN lines you want to configure. Note that the Setup Wizard limits you to a maximum of 4 lines. Enter 1 – 4 and hit Enter. If you require more than 4, you must configure them using the Configure WAN menu.

An overview of the setup displays:

Configure WAN Ethernet Interface:

You will need to:

- enter an alias for this WAN (maximum 15 characters)
- Enable PPPoE. choose "yes" to setup PPPoE Username, Password, and Netmask. Choose "no" to not use a PPPoE connection.
- Enable DHCP. choose "yes" to obtain IP Address, Netmask, gateway address Dynamically from the ISP. choose "No" to setup IP, Netmask, and gateway address manually.
- select a physical Ethernet port
- setup bandwidth
- setup: test IP addresses, choose a protocol and setup ports (for line checking).
- Direct Connect can only be set in the web interface.

You may want to turn on either Routing mode and specify the port if you want to use public IP addresses in your LAN

Please enter an alias for this WAN:

12. Enter an Alias for the first WAN line (e.g. WAN1, ATT, etc.) and hit Enter. Alias length should be from 2 - 15 characters. Valid Characters are letters, numbers, and hyphens (-). The first character must be a letter. The last character must not be a hyphen.

The message *"Enable and set up a PPPoE connection? y/n:"* displays.

- i. If you select yes, enter a PPPOE user name
- ii. Enter PPPOE password – 3 to 20 characters
- iii. Enter a network mask.
- iv. Proceed to step 16 below.

13. If you select no, the message *"Obtain IP Address dynamically using DHCP? y/n:"* displays. If you select "y", proceed to step 16 below.

14. If you select no, enter an IP address for the WAN interface. This must be in the same network as the gateway/router for this WAN line.

15. Enter the network mask for this WAN interface.

16. The message *"Do you want to assign an 802.1q (VLAN) ID to this WAN? y/n:"* displays. If you select yes, enter the ID number from 1 to 4095.

17. The default Port number for this WAN will be displayed. The message *"Do you want to select the Ethernet port for this WAN? y/n:"* displays. If you select yes, enter the Port number, from 1 to 4, that you want.

18. The message *"Enter the IP address of the gateway<router> is displayed. Enter the gateway device's LAN side address.*

19. The message *"Enter uplink speed (bandwidth in Kbits/sec):"* displays. Enter the uplink speed in kbps (kilobits per second) and hit Enter. i.e. a 1,500,000 bps line would be 1500.
20. The message *"Enter downlink speed (bandwidth in Kbits/sec):"* displays. Enter the downlink speed in kbps.
21. The message *"Enter test IP address #1 (for testing line status):"* displays. Enter an IP address for testing the line. This should be a known reliable address on the Internet.
22. The message *"By default ping <ICMP protocol> is used to test the line. Do you want to change this to a tcp connection <TCP protocol>?"* is displayed. If TCP testing is desired enter "y" and enter a connection port other than the default of 80, if desired.
23. Repeat steps 21 and 22 until you have entered 3 test addresses.
24. The message *"Enter the number of successful responses from a testpoint:"* displays. Enter the number of successful test responses desired and hit Enter.
25. The message *"Enter the number of tests to a testpoint."* displays. Enter the number of tests and hit Enter.
26. The message *"This WAN is in NAT mode. Do you want to change it to Route mode?"* displays. Enter "y" or "n" to enable routing for this line. Please note that this is an advanced configuration option.
27. The message *"This WAN is NOT a Spare Line Do you want to change it to a Spare Line? y/n:"* displays. Select "y" to set this WAN interface as a spare line.
28. Repeat steps 12 through 27 for additional WAN interfaces.

*******Configuring Services*******

29. The message *"Session Load Balancing is ENABLED. Continue to change its status? y/n:"* displays. Select "n" to leave session load-balancing enabled or "y" to disable it.
30. The message *"The current LB algorithm is Intelligent LB. Continue to change it to Simple Round Robin? y/n:"* displays. Select "n" to leave the load-balancing algorithm set to intelligent or "y" to change to Round Robin. The message confirming your selection displays. *"Press any key to continue"* displays.
31. The message *"Enable Recovery [y]?"* displays. Enter "y" or "n" and hit Enter. Note: selecting no for recovery results in all lines being considered up regardless as to their functionality.

NOTE: If you are accessing the PowerLink via an Ethernet interface, using Telnet or SSH, and you made changes to that interfaces IP address, you will lose connectivity following the next step. You will then have to reconfigure your PC to an address that is in the range of the address you have entered and re-establish your session.

32. The message “*Enter Recovery test interval [1]:*” displays. Enter the desired interval in seconds and hit Enter.

The following series of messages displays:

*Activating changes...
Activation complete*

The current configuration will be saved and used at boot time .Continue to save this configuration? y/n:

33. Select “y” or “n”.

- If you select “y”, the new configuration will be saved to flash memory.
- If you select “n”, the new configuration will be active but the PowerLink will revert back to the previous settings when power is cycled or the PowerLink is reset. You may permanently save the configuration later using the “Save Current Configuration” in the Utilities Menu.

34. The message “*Press any key to continue*” displays. Press a key.

The Main Menu displays.

You have configured a LAN interface and up to 4 WAN interfaces. You have also selected session load balancing and the load balancing algorithm (intelligent or round robin) and enabled or disabled the recovery/failover function.

You should now be able to access the Internet with all outbound sessions load balanced and automatically failing over upon failure of a WAN link. The PowerLink will block all externally initiated traffic. To configure the PowerLink to allow inbound sessions, see “Port Forwarding” help screen on the PowerLink GUI interface or the PowerLink user manual.

Chapter 6 – Configuring with web Interface

Note that the web pages have context relevant help screens available by simply clicking on the “Help” link associated with the feature.

After you have established communications with the PowerLink over an Ethernet port (see “4.1 Establishing Communications” Pg. 16), you can configure the PowerLink using your web browser as follows.

On the login page, enter the Username and Password (defaults are “root” and “PWRLNK”). The Main Page, as shown below, should be displayed on your browser.

Note that if you change the IP address of the port you are using for Web access, you will have to re-establish your connection to the PowerLink after you activate changes.

The screenshot shows the PowerLink Pro100 web interface. The browser window title is "PowerLink™ - Mozilla Firefox" and the address bar shows "http://192.168.1.40/cgi-bin/pl_web.cgi/login". The page header includes "POWERLINK Pro100" and "Version 0.1.5". Navigation links include "Main Page", "View Basic Setup", "View Inbound", "View Outbound", "View Advanced Setup", "View Statistics", and "View Log". A sidebar menu on the left contains sections for "Basic Setup", "Configure Inbound", "Configure Outbound", "Advanced Setup", and "Utilities". The main content area displays several configuration tables:

Date and Time Settings		
Date (mm/dd/yyyy)	Time (HH:MM:SS)	TimeZone
04/17/2009	15:43:14	UTC

System Uptime			
Days	Hours	Minutes	Seconds
0	0	2	36

Configured LAN Connections		
LAN Alias	LAN IP Address	Network Mask
LAN	192.168.1.40	255.255.255.0

Configured WAN Connections			
Status	WAN Alias	WAN IP Address	WAN Network Mask

At the bottom of the page, it says "PowerLink™ Pro100 Web Aggregator, ver: 0.1.5, 5/11 00529762".

Web Interface – Main Page

6.1 LAN configuration

Under “Basic Setup” select “Configure LAN”

On the LAN configuration page, enter:

- LAN Alias.
- LAN IP Address
- Network Mask.
- VLAN ID (if required).
- Select the desired Ethernet port.
- Leave “Routed Via” set to Private.
- If the PowerLink is the DHCP server on your network, select DHCP and configure the server.
 - (Reference the HELP screen or the PowerLink user manual for instructions on configuring the DHCP server)
- Select “Save Changes” if you want these changes to be saved when you activate the changes.
- Click on “Activate” to implement the configuration. As noted above, if you change the address of the port that you are accessing the PowerLink on you will lose connectivity and will have to re-configure your PC to access the PowerLink.

6.2 WAN configuration

Under “Basic Setup” select “Configure WAN”

On the WAN configuration page enter:

- WAN Alias.
- WAN IP Address.
- Network Mask.
- Router IP (gateway) address
- Select the desired Ethernet port.
- Enter 3 IP addresses that the PowerLink will use to test whether the link is up.
 - Note: These addresses should be on the Internet upstream from your ISP to assure that reaching them verifies that the link has Internet access.
- Select the use of ICMP (ping) or TCP (open a port) test.
- If you are using TCP, select the port number that you want to test to.
- If you desire a test timeout other than the default, enter it.
- Enter the Uplink and Downlink WAN speeds in Kbps. i.e. 1,500,000 bit per second line = 1500.
- Select DHCP if this link will obtain an address from an external DHCP server. This would preclude the need to enter a WAN address and Network Mask.
- Select PPPoE if this link is using PPPoE. This would preclude the need to enter a WAN address and Network Mask.
 - If PPPoE is selected, enter the User name and Password for the PPPoE access.
- Select “Save Changes” if you want these changes to be saved when you activate the changes.
- Click on “Activate” to implement the configuration. As noted above, if you change the address of the port that you are accessing the PowerLink on you will lose connectivity and will have to re-configure your PC to access the PowerLink.

6.3 Services configuration

The factory default configuration of the PowerLink enables Advanced Session Load Balancing versus Round Robin and enables Recovery and Redundancy testing with a test interval of 2 seconds. All services, such as Web, Telnet and SSH access are on the standard default ports.

To change these settings, select “Configure Services” under “Basic Setup on the Web interface and make the desired changes.

6.4 Summary

You have configured a LAN interface and up to 4 WAN interfaces. You have also selected session load balancing and the load balancing algorithm (intelligent or round robin) and enabled or disabled the recovery/failover function.

The PowerLink should now have access to the Internet with all outbound sessions load balanced and automatically failing over upon failure of a WAN link. No incoming WAN ports are forwarded. To configure the PowerLink to allow inbound sessions to devices on the LAN, see Port Forwarding help screens on the PowerLink GUI interface or the PowerLink user manual.

Appendix A - Warranty, Service Agreements, & Repair and Replacement

Introduction

This appendix covers PowerLink, ShieldLink and ClariLink support, service, and warranty topics.

Contact Support

Contact Ecessa Technical support at: help@ecessa.com

Phone: Direct support line 763-694-8875
 Toll free 1 800-669-6242 X-304

Free Expert Installation Support

Ecessa provides the best support and service in the industry. We've installed more than 6,000 Internet appliances in a wide variety of network environments. We deliver a customer experience others simply do not match. And because WAN/Internet connectivity is our core competency (not a peripheral business), Ecessa's customer support team is 100 percent dedicated to the high performance and availability of your Internet applications.

Our support services include:

- Free support for 90 days following delivery of your appliance, including network design, configuration and installation assistance.
- A 30-day money-back guarantee.
- A 3-year depot warranty.
- Customer support team of graduate network engineers who are full-time, U.S.-based employees (not outsourced contractors) for the best possible service and support.
- A guaranteed response time of 15 minutes for inbound customer service calls.

Standard Warranty

Every Ecessa product is backed by Ecessa's Standard Warranty: A three-year return-to-factory hardware replacement warranty; plus a 90-day warranty that covers:

- "Spare in the Air" overnight replacement services
- Toll-free support, including expert installation services
- All firmware upgrades

One and three year 8X5 and 24X7 contracts are available.



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