

EZPlatform™ Network Computer EZP-1000 Software Guide

The EZPlatform Network Computer comes preloaded only with a boot loader (Redboot), allowing you to select and load the kernel and operating system of your choice. This document explains how to load your software to the EZPlatform and how to configure the hardware of the EZPlatform for your applications.

1. Selecting an Operating System

First you will need to decide which operating system to use. Of the many options available, an example is SnapGear, an open source embedded Linux distribution. SnapGear has been successfully tested on the EZPlatform. Please refer to <http://www.snapgear.org> for more information, downloads and compiling instructions.

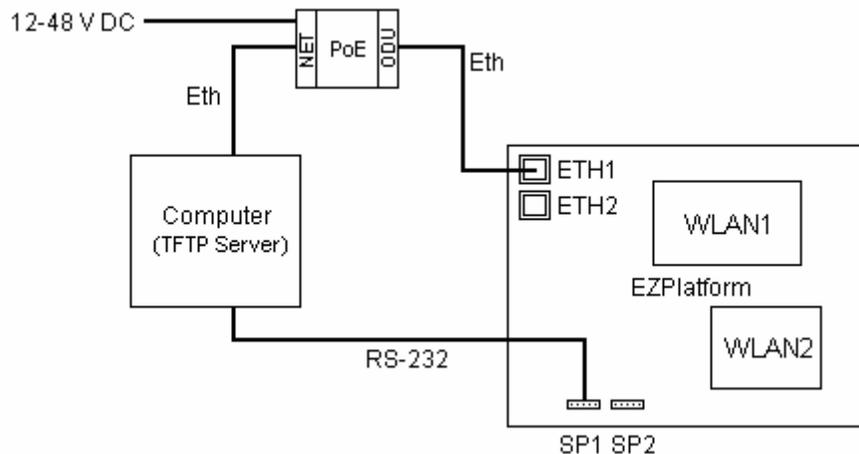
2. Compiling the Operating System

After selecting your operating system, you will need to compile it into a single binary file, which will be loaded to the EZPlatform Network Computer.

3. Loading the Operating System to the EZPlatform

To load the binary file to the flash memory of the EZPlatform, follow these steps:

1. Place your binary file available in a TFTP server so that it is available for download. The TFTP server can be located in your local computer or in your local area network. An example of a simple TFTP server program you can install on your computer is Tftpd32, which can be downloaded from <http://tftpd32.jounin.net>.
2. Make the following connections:
 - Using a straight-through Ethernet cable, connect the ODU side of the PoE DC injector to the ETH1 Ethernet port of the EZPlatform
 - Using a straight-through Ethernet cable, connect the NET side of the PoE DC Injector to the Ethernet port of the computer
 - using a RS-232 serial cable, connect the SP1 serial port of the EZPlatform to the serial port of the computer
 - Connect 12 to 48 V DC to the PWR port of the PoE DC Injector.



- Open HyperTerminal or other similar program to access the console of the EZPlatform via the serial connection. The Redboot command prompt should appear after the EZPlatform finishes booting up. Type the following commands, substituting <binary_file_name> for the name of the binary file you want to load to the EZPlatform and substituting <IP_of_TFTP_server> for the IP address of the TFTP server where the binary file is hosted:

```
RedBoot> f i s i n i t
```

```
RedBoot> load -r -v <binary_file_name> -b 0x03000000 -h <IP_of_TFTP_server>
```

```
RedBoot> f i s create acpe -f 0x50080000 -b 0x03000000 -l 0x00d40000
```

```
RedBoot> reset
```

- The EZPlatform will reboot and should automatically boot your operating system each time the EZPlatform is turned on.

4. EZPlatform Interface Definition

You will need the following hardware information if you wish to use the Mini PCI interfaces and the GPIO.

GPIO Interface	
GPIO0	PCI_RST
GPIO1	PCI_INTA
GPIO2	LED1
GPIO3	LED2 (backup)
GPIO4	LED3
GPIO5	LED4 (backup)
GPIO6	LED5 (backup)
GPIO10	Manufacturer default reset

J4 Mini PCI Interface	
PCI_REQ2	PCI Request
PCI_GNT2	PCI Grant
PCI AD31	PCI_IDSEL

J14 Mini PCI Interface	
PCI_REQ3	PCI Request
PCI_GNT3	PCI Grant
PCI AD31	PCI_IDSEL