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About Crossport Systems

Crossport Systems, Inc., is dedicated to resolving the next generation of Internet security risks for small businesses with high-speed Internet access. Crossport is the creator of Pivio™, a network security system that integrates software, hardware and monitored services to protect businesses from hackers, viruses and service disruptions.

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Thank you for purchasing the Pivio Network Security System. Based on a powerful network computer, the Pivio Firewall incorporates firewall, virtual private networking (VPN), and management services. The Pivio System is secure, cost effective, and an easy-to-use solution for your Internet security needs.

The Pivio Network Security System is the complete Internet security solution.
An alarming number of hacker attacks occur everyday, and anyone with an unprotected broadband Internet connection is susceptible to these attacks. The Pivio System prevents many of the most common types of attacks. With the Pivio System, you control what information passes to and from your computer. IT managers can safely and easily extend corporate systems, applications, and information over high-speed Internet connections to employees, contractors, and partners in remote office locations.
Pivio System features and benefits

Features

- **Hacker Protection**
  Powerful firewall protection halts hackers at the door with a highly sensitive intrusion system.

- **Virus Protection**
  The best protection against viruses is up-to-date virus definitions. The Pivio System automatically updates the definitions on every PC with no action required by employees.

- **24/7 Security Response**
  The Pivio System provides around-the-clock surveillance designed to quickly identify and terminate unauthorized attempts to access your network. When the Pivio System senses a possible high-risk situation developing, you’ll receive an Instant Alert.

- **Virtual Private Networking**
  Because the Pivio Firewall can create encrypted two-way private data transmissions, you can send sensitive information to remote locations, without compromising security.

- **Management Reporting**
  The Pivio System includes detailed and monthly summary reports. Reports are presented in a simple, intelligible format that keeps business owners informed of all Internet-related activities.

Benefits

- **Make the Internet work effectively for you.**
  The Internet can transform your business by reducing costs, enhancing productivity, and extending your market reach. With the Pivio System, you can also connect your office networks without undue risk, block undesirable Internet sites, and monitor your Internet connections and web site availability.

- **Enjoy ease of use.**
  Do you have limited technical knowledge or resources? No problem. The Pivio System is surprisingly easy to install and activate.

- **Enjoy significant savings.**
  You’ll pay only a fraction of the cost of an in-house security expert. And you won’t have to invest in expensive technology.
Technical Support

Phone: 425-576-8382
Fax: 425-576-9953
URL: http://www.crossport.com
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The Pivio Firewall is available in two models: Pivio Firewall and Pivio Plus Firewall, which includes a built-in four-port Ethernet hub. Both the Pivio Firewall and the Pivio Plus Firewall are configured in the same way. The only difference occurs when you connect the devices. This chapter provides separate instructions for the Pivio Firewall and the Pivio Plus Firewall.

The remaining chapters in this User’s Guide apply to both the Pivio Firewall and the Pivio Plus Firewall.

**Model identification**

The easiest way to identify your model is to look at the back of the unit.

A model number is shown on the back. Model 2000 is the Pivio Firewall and Model 2500 is the Pivio Plus Firewall. In addition, the Pivio Plus Firewall is also an Ethernet “hub.” There will be four slots on the back for plugging in various network devices and computers.
Installing the Pivio Firewall

Packing list for the Pivio Firewall

Before you begin installing the Pivio Firewall, please check the contents of the box. You should have:

- Pivio Firewall
- AC adapter
- One red Ethernet crossover cable
- QuickStart CD-ROM
- “Getting Started” Illustrated Guides
- Registration reminder card
Pivio Firewall parts identification

**Front**

- **Power**: System: **Flashing** when working correctly
- **LAN**: Right: **On** when connected to local network, Left: **Flashes** (with traffic)
- **Internet**: Left: **On** when connected to Internet, Right: **Flashes** (with traffic)
- **Online**: **On** when Internet sites can be reached
- **VPN**: **On** when VPN connection is active
- **Support**: **On** when SNMP is enabled
- **Update**: **Flashes** when Update available

**Back**

- **LAN**: Cable from Computer/hub goes here
- **Internet**: Cable from DSL/Cable modem goes here
- **Reset**: Pushing this clears Pivio memory
- **AC-IN**: Plug AC adapter in here
- **light**: green when correct cable is connected
- **Mode**: press this once if LAN light is not on
Connecting the Pivio Firewall

Use the following procedure to connect the Pivio Firewall.

Step 1: Plug the AC adapter cord included with the Pivio Firewall into the “AC In” outlet located on the back of the firewall.

Step 2: Plug the AC adapter into a surge-protected outlet.

Step 3: Turn off your computer.

Step 4: Find the cable connecting your DSL/Cable modem to your computer or network hub. Unplug it from the modem, and plug it into the port labeled LAN located on the Pivio Firewall.

Step 5: Plug one end of the red cable into the port labeled Internet on the Pivio Firewall and the other end into your DSL/Cable modem.

Step 6: Verify that the green LED light next to each port on the back of the Pivio Firewall is lit.

If the LED is not lit, press the Mode switch next to the port. This should cause the LED to light up.
Installing the Pivio Plus Firewall

Packing list for the Pivio Plus Firewall

Before you begin installing the Pivio Plus Firewall, please check the contents of the box. You should have:

- Pivio Plus Firewall
- AC adapter
- One red Ethernet crossover cable
- QuickStart CD-ROM
- “Getting Started” Illustrated Guides
- Registration reminder card
Pivio Plus Firewall parts identification

**Front**

- **Power**
  - System: Flashing when working correctly
  - Online: On when Internet sites can be reached
  - LAN: Right: On when connected to local network
    - Left: Flashes (with traffic)
  - Internet: Left: On when connected to Internet
    - Right: Flashes (with traffic)
  - VPN: On when VPN connection is active
  - Support: On when SNMP is enabled
  - Update: Flashes when Update available

- **Internet**: Cable from DSL/Cable modem goes here
- **Reset**: Pushing this clears Pivio Plus memory
- **Uplink**: Cable from Computer/hub goes here

**Back**

- **AC-In**: Plug AC adapter in here
- **Mode**: press this once if light is not on
  - light: green when correct cable is connected
  - lights: green when correct cable is connected
- **Mode**: press this once if light is not on
Connecting the Pivio Plus Firewall

Use the following procedure to connect the Pivio Plus Firewall.

Step 1: Plug the AC adapter cord included with the Pivio Plus Firewall into the “AC In” outlet located on the back of the firewall.

Step 2: Plug the AC adapter into a surge-protected outlet.

Step 3: Turn off your computer.

Step 4: Find the cable connecting your DSL/Cable modem to your computer or network hub. Unplug it from the modem, and plug it into the port labeled Uplink located on the Pivio Plus Firewall.

Step 5: Plug one end of the red cable into the port labeled Internet on the Pivio Plus Firewall and the other end into your modem.

Step 6: Verify that the green LED light next to each port with a cable in it on the back of the Pivio Plus Firewall is lit.

If the LED is not lit, press the Mode switch next to the port. This should cause the LED to light up.
Getting Started

BEFORE

PC or HUB

ORIGINAL EXISTING LINES

WALL JACK

DSL/CABLE MODEM

AFTER

PC or HUB

ORIGINAL EXISTING LINE

NEW CABLE (PROVIDED)

ORIGINAL EXISTING LINE

PIVIO™ & PIVIO™ Plus

WALL JACK

DSL/CABLE MODEM
Chapter 3
Dynamic IP configuration

Now that you have physically connected the Pivio Firewall as described in the previous chapter, you are ready to configure it to connect your computer or network to the Internet. Once the Pivio Firewall is configured, you are protected from intrusion and hacking from outside sources.

This chapter covers how to configure the Pivio Firewall if you use a dynamic IP address. If you know you have a static IP address, please go to the next chapter and use that procedure.

If you do not know your address type, follow the instructions in this chapter. If they do not work for your system, proceed to the next chapter.
What is a “dynamic” IP address?

An IP address is your computer’s address for the Internet. When you visit a web page, you are asking the page to send information (the text and illustrations on the web page) to your computer. The web page sends this information to your IP address.

An IP address is a series of four numbers separated by periods, with each number having a value from “0” to “255.” So, for example, “10.100.1.253” could be an IP address.

There are two general types of IP addresses: static and dynamic. A static IP address is always the same. A dynamic IP address can change every time you connect to the Internet.

How to determine if you have a dynamic IP address

When you signed up with your ISP, they provided information about your connection to them. If this information included a statement such as “IP addresses are assigned dynamically,” you have a dynamic IP address. They may also have used the phrase “DHCP,” which also indicates you have a dynamic IP address.

If, however, they provided a specific IP address, then you have a static IP address (and you should skip the rest of this chapter and go to the next chapter).
Configuring the Pivio Firewall

You must configure the Pivio Firewall before you can connect to the Internet. The configuration is done using your Internet browser—no additional software needs to be installed.

Step 1: From your web browser type config.pivio.com in the address line.

This connects your browser to the Pivio Firewall and displays information about configuration. If your browser uses a home page that is on the Internet, you will automatically connect to the Pivio Firewall.

The Pivio firewall’s Welcome page opens in your Web browser

Step 2: Click OK. If your ISP has automatic DHCP configuration, you will see the “Configuration Complete” screen shown in the next section.

Otherwise, a screen appears asking you to choose the type of connection you want to use. Make sure DHCP is selected and click Next.

Make sure “DHCP” is selected
Step 3: It may take a few moments for the Pivio Firewall to configure. The next screen you see depends on how your Internet Service Provider (ISP) assigns IP addresses.

If you see the “Configuration Complete” screen, you can proceed to the next section.

If you see a screen shown below, it usually means your ISP assigned you a static IP, and you need to go to the next chapter to continue the setup.

If you see this screen, it usually means you do not have a dynamic IP address and you need to use the procedure in the next chapter.

Important
If you are sure you have a dynamic IP address, then there may be a problem with your connections. Follow the troubleshooting tips on the screen. Note that your ISP may also require you to enter a “System Name” to connect correctly.
The Configuration Complete page indicates that the Pivio Firewall found your ISP and obtained an IP address.

The configuration of Pivio is complete!

Pivio will now act as a firewall and block any unauthorized incoming data from the "Internet" port of your device, including illegal computer hacking attacks.

Reconfiguring Pivio:

Pivio can be reconfigured by running a browser on a computer "behind" Pivio (that is, sitting on the LAN port of your device) and typing http://config.pivio.com into the address line of your browser.

Before you can enter Pivio's main configuration pages, however, you need to:

- create and login to your user account on Pivio
- register Pivio to enable Pivio's advanced security services

Click Next to create your user account on Pivio.

The Pivio Firewall is correctly configured
Set up your password

The next step is to create a user account and password for the Pivio Firewall. Once created, this account and password will be used whenever you want to change the Pivio Firewall’s configuration.

Step 1: After the Configuration Complete screen appears as shown on the previous page, click Next.

The Creating the Administrative Account screen appears.

![Creating the Administrative Account](image)

Use this screen to define an account and password

Step 2: Type in a one to eight character name for the account.

There is only one account per Pivio Firewall. When you choose a different user name, you are renaming the one account in the firewall.

Step 3: Choose a four to eight character password, and enter it in the Password field.

Your password may include numbers, letters and punctuation marks. It is also case-sensitive, so “password” is different from “PassWord.”

Step 4: Confirm your password by typing it again in the Confirm field.

Note
You must enter a password. You cannot create an account without a password.
Dynamic IP Configuration

Step 5: Click Next.

Your password for the Pivio Firewall is now set. You’ll need your password each time you configure the Pivio Firewall. Please make a note of it and keep it in a safe place.

You now have a working user name and password

Caution
The password can be reset by resetting the Pivio Firewall. If someone has access to the firewall, they can simply reset the device to change the password. If you need a high level of physical security, you should lock up the Pivio Firewall.

Step 6: Click the Log In button to continue configuration.

Step 7: When prompted to log in, type your user name and enter your password.

Enter your account information to continue configuring the Pivio Firewall
Registering your Pivio Firewall

Now that your Pivio Firewall is configured and your user account set up, the next step is to enter registration information. This information is securely transmitted to Crossport Systems. You can also set up a billing account and sign up for Pivio Services.

Step 1: After you log into the Pivio Firewall, a screen appears asking you for registration information. Fill out the fields on this screen.

Note that fields marked with a red asterisk (*) must be filled out before the Pivio Firewall will accept the registration information.

Step 2: Click Save to save the information.
Step 3: You are now prompted to enter your billing information for Pivio services.

Note that fields marked with a red asterisk (*) must be filled out before the Pivio Firewall will accept the billing information.

Fill out the fields on the Services Billing screen

Step 4: Click Save to save this information.
Step 5: You will now see a screen that lets you edit your registration and billing information. If the information is correct, click Next.

<table>
<thead>
<tr>
<th>Registration Confirmation</th>
<th>Billing Confirmation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name: Program Manager</td>
<td>Name: Joe Smith</td>
</tr>
<tr>
<td>Company: Crossport Systems</td>
<td>Company: Crossport Systems</td>
</tr>
<tr>
<td>Address: 10940 NE 33rd Place, Suite 101 Bellevue WA, 98004 USA</td>
<td>Address: 10940 NE 33rd Place, Suite 101 Bellevue, WA, 98004 USA</td>
</tr>
<tr>
<td>Phone: 425-576-8382</td>
<td>Phone: 425-576-8382</td>
</tr>
<tr>
<td>Fax: 425-576-9953</td>
<td>Fax: 425-576-9953</td>
</tr>
<tr>
<td>Email: <a href="mailto:kmv@crossport.com">kmv@crossport.com</a></td>
<td>Email: <a href="mailto:kmv@crossport.com">kmv@crossport.com</a></td>
</tr>
</tbody>
</table>

You can edit your registration and billing information on this screen.
Step 6: The main Services screen now appears. This screen lets you subscribe to Pivio Services, and receive information about each service. You can also view and change your registration and billing information.

Use the Services page to subscribe to Pivio Services

Step 7: To complete installation, restart your browser. You do not need to reboot your computer.

Important!
Make sure you exit your browser and start it again.

You are now ready to test the Pivio Firewall to verify it is working, as described on the next page.
Testing your configuration

Use the following procedure to verify that the Pivio Firewall is configured correctly and is working. If you do not get the expected results, please refer to The Pivio Firewall Troubleshooting Guide, for information on how to locate the problem.

Step 1: Launch your Internet browser.

Step 2: Type www.crossport.com in your browser’s address window to navigate to the Crossport Systems site.

Step 3: Make sure that you can view various pages at the site.
Chapter 4
Static IP configuration

This chapter covers configuring the Pivio Firewall for a Static IP address. If you know you have a static IP address, you should use this chapter. If you are not sure, try the procedure in Chapter 3 first.

**What is a “static IP address”?**

Every computer that connects to the Internet must have an IP address. This is the “address” of your computer. When you request information, the web page uses your IP address when it sends the information.

A *static* IP address means that you always have the same address. Most DSL and cable modems are always connected, and therefore use static IP addresses.

A *dynamic* IP address changes every time you connect to the Internet. When you connect to the Internet through a dial-up connection, you usually get a dynamic IP address.

**How to determine if you have a static IP address**

To determine if you have a static IP address, examine the information your Internet Service Provider (ISP) provided. If the information includes a specific IP address, then you have a static IP address.

If, however, the information indicates you have “DHCP” or “dynamic IP,” then you have a dynamic IP address.

If you have a static IP address, the Pivio Firewall will use that address for itself. It will then give every computer on your network a dynamic IP address.

Before you can configure the Pivio Firewall to use a static IP address, you have to set each computer to use a dynamic IP address. Because the Pivio Firewall “owns” the IP address, it will issue dynamic addresses to each computer on your network.
**Record your current settings**

When you configure your computer to work with the Pivio Firewall, you will erase the static IP settings from your computer and enter them into the firewall. If you ever reset the Pivio Firewall, you will need to re-enter these values.

Write the values in the following table before you erase them.

Each of these entries will be a set of four numbers separated by periods (for example, 192.168.5.37).

<table>
<thead>
<tr>
<th>IP Address:</th>
<th>_ _ _ · _ _ _ · _ _ _ · _ _ _</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subnet mask:</td>
<td>_ _ _ · _ _ _ · _ _ _ · _ _ _</td>
</tr>
<tr>
<td>Gateway:</td>
<td>_ _ _ · _ _ _ · _ _ _ · _ _ _</td>
</tr>
<tr>
<td>(Router Address)</td>
<td></td>
</tr>
<tr>
<td>DNS Servers:</td>
<td>_ _ _ · _ _ _ · _ _ _ · _ _ _</td>
</tr>
<tr>
<td>(Name Server addr)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>_ _ _ · _ _ _ · _ _ _ · _ _ _</td>
</tr>
<tr>
<td></td>
<td>_ _ _ · _ _ _ · _ _ _ · _ _ _</td>
</tr>
</tbody>
</table>
Configuring your computer

Configuring your computer to work with the Pivio Firewall involves changing your computer from using a static IP Address to using a dynamic IP Address. The details will vary depending on the type of computer and operating system you have.

You will need to make the changes to each computer on your network.

**Note**
Without the Pivio Firewall, each computer you connect to the Internet requires a separate IP address. With the firewall, you use only one IP address for all your computers. The Pivio Firewall will support over 1,000 computers using a single IP address.

**Windows 95/98/ME configuration**

Use this procedure if you are running Windows 95/98 or Windows Millennium.

Step 1: Right-click the Network Neighborhood icon on your desktop and select “Properties” from the pop-up menu that appears.

Choose *Properties* from this menu
Step 2: Find the **TCP/IP Protocol** in the list of available network components that your network is using, and click **Properties**.

Find the TCP/IP setting your network is using

There will usually be several different items in this list. Your network protocol will always start with “TCP/IP” and will usually include the name of the manufacturer.
Step 3: If the IP Address tab is not at the front, click on it to bring it to the front.

You will do two things on this page:

• Write down the IP Address and Subnet Mask that is already there. Write these down on the chart on page 34.
• Change the setting to **Obtain an IP Address Automatically**.

![TCP/IP Properties](image)

**Write down the address on your screen**

- **Obtain an IP address automatically**
- **Specify an IP address**: 192.168.5.37
- Subnet Mask: 255.255.255.0

*Make sure **Obtain an IP address automatically** is selected*
Step 4: Click on the **Gateway** tab to bring it to the front.

Write down the Gateway number in the chart on page 34. Then remove the numbers by selecting each one and clicking **Remove**.

![TCP/IP Properties](image)

Write down the Gateway number (under “Installed gateways”) and then remove it.

**Multiple Gateway numbers**

Windows will allow more than one Gateway number, although only one of those numbers is actually used. If you have more than one Gateway number, you need to find the one that is used.

To do this, compare the Gateway numbers to your IP address. Find the one that is most similar to your IP address. Usually the first two or three numbers of the IP address and the Gateway will be the same. For example, an IP address of 192.168.5.37 might have a Gateway of 192.168.5.1.
Step 5: Click on the **DNS Configuration** tab to bring it to the front.
Write down the numbers under “DNS Server Search Order.” There can be up to three numbers here.

![TCP/IP Properties](image)

*Write down the **DNS Server Search Order** numbers*

Step 6: Select **Disable DNS**.

![Disabled DNS](image)

*Click on **Disable DNS***

Step 7: Click on **OK** to go back to the Network page.
Click on **OK** on the Network page to close the Network page.

Step 8: A dialog appears asking if you want to restart your computer. Click on **Yes**.

![System Settings Change](image)

*Click **Yes** to restart your computer*

Once your computer has restarted, you are ready to configure the Pivio Firewall.
Windows NT Configuration

Use the following procedure for computers that are running Windows NT 4.

Step 1: Right-click the Network Neighborhood icon on your desktop and select Properties from the pop-up menu.

Step 2: Click on the Protocols tab and select the TCP/IP Protocol item.

Step 3: Click Properties to bring up the Microsoft TCP/IP Properties dialog.

Make sure the adapter used to connect to the network is selected.
Step 4: Write down the values for “IP Address,” “Subnet Mask” and “Default Gateway” in the chart on page 34.

Step 5: Select “Obtain an IP address from a DHCP Server” on this dialog.

Step 6: A dialog appears warning you that values on these pages will override DHCP values. Click Yes.

Click Yes to use DHCP
Step 7: Click on the DNS tab to bring it to the front.

Write down the numbers under DNS Service Search Order. There can be up to three numbers here.

Step 8: Use Remove to remove all the DNS values from the list.

The Pivio Firewall will provide the DNS values to the computer as needed.

Step 9: Click on OK to go back to the Network page.

Click on Close on the Network page.

Step 10: A dialog appears asking if you want to restart your computer. Click Yes.

Click Yes to restart your computer

Once your computer has restarted, you will be ready to configure the Pivio Firewall.
Windows 2000 configuration

Use the following procedure for computers that are running Windows 2000.

Step 1: Right-click the My Network Places icon on your desktop and select Properties from the pop-up menu.

Step 2: A folder will open that displays all your network connections. Select the connection you use for the Internet.

In the following screen shot, this computer connects to the Internet through a Local Area Network (LAN)
Step 3: Right click on the connection and select **Properties** from the menu.

Step 4: The **Local Area Connection Properties** dialog appears. Select “Internet Protocol (TCP/IP)” and click **Properties**.
Static IP Configuration

Step 5: Write down the values for “IP Address,” “Subnet Mask,” “Default Gateway” and the “DNS servers” in the chart on page 34.

Step 6: Select “Obtain an IP address automatically” on this dialog. Also select “Obtain DNS server address automatically” on this dialog.

Step 7: Click OK to close the TCP/IP Properties dialog. Click OK to close the Local Area Connection Properties dialog.

You will need to restart your computer before proceeding to configure the Pivio Firewall.
Macintosh configuration

Use this procedure for computers running the Macintosh OS Version 8 or newer.

Step 1: Open the Control Panel on the Apple menu and choose the TCP/IP item.
Step 2: Write down the values shown in the TCP/IP dialog window in the chart on page 34.

The **Router address** is another name for **Gateway**. The **Name server addr** goes in the **DNS Servers** listing.

![TCP/IP Configuration Dialog](image)

**Write down the values shown in your dialog**

Step 3: Click on the arrows on the right of the **Configure** list box and choose “Using DHCP Server.”

![Configure Options](image)

**Choose “Using DHCP Server”**
Step 4: The dialog shown in the following figure will appear. You do not need to enter anything for “DHCP Client ID.”

You do not need to enter anything on this dialog.

Step 5: Choose Close from the File menu to close this dialog. When prompted to save your changes, click on Save.

Choose “Close” to end this process.

You need to restart your Macintosh before proceeding to configure the Pivio Firewall.
Linux configuration

Use the following procedure if you are running Linux.

Step 1  Record your current settings

Use “netstat -ni”, “netstat -nr” and “ifconfig” to determine the interfaces, routing and addresses.

First, you should find the available interfaces:

```
# netstat -ni
Kernel Interface table
Iface   MTU Met   RX-OVER RX-ERR RX-DRP RX-OVR    TX-OVER TX-ERR TX-DRP TX-OVR Flg
eth0   1500   0   521478      0      0      0   626019      0      0 0 BRU
lo    16192   0    92498      0      0      0    92498      0      0 0 LRU
```

In this example, there are two interfaces, the loopback (lo) and the ethernet (eth0). The ethernet (eth0) is the one to use.

Second, look up the default route:

```
# netstat -nr
Kernel IP routing table
Destination     Gateway         Genmask         Flags   MSS Window  IRTT Iface
255.255.255.255 0.0.0.0         255.255.255.255 UH       40 0          0 eth0
192.168.1.0     0.0.0.0         255.255.255.0   U        40 0          0 eth0
0.0.0.0         192.168.1.1     0.0.0.0         UG       40 0          0 eth0
```

The default route (destination 0.0.0.0) towards the IP 192.168.1.1 is the “gateway.” The other entries are a forced broadcast out the device eth0 (destination 255.255.255.255) and a “connected” network (destination 192.168.1.0).

Finally, obtain the IP address for eth0:

```
# ifconfig eth0
eth0     Link encap:Ethernet   HWaddr 00:50:C2:08:50:01
inet addr:192.168.1.5  Bcast:192.168.1.255  Mask:255.255.255.0
UP BROADCAST RUNNING MULTICAST  MTU:1500 Metric:1
RX packets:523211 errors:0 dropped:0 overruns:0 frame:0
TX packets:627431 errors:0 dropped:0 overruns:0 carrier:0
collisions:3561 txqueuelen:100
Interrupt:10 Base address:0xe800
```

In this example, the address (inet addr) is 192.168.1.5 and the netmask is 255.255.255.0 (Mask).

Step 2  Set your IP address to 172.30.192.2 and your default gateway to 172.30.192.1

First make sure you have “root” access:

```
% su
Password: <root password>
```

Then run ifconfig to set the new IP address. Do not do this remotely, as you may lose network access to the machine:

```
# ifconfig eth0 172.30.192.2 netmask 255.255.255.0
```
Add the default route:

```
# route add -net default gw 172.30.192.1
```

**Step 3** You will want to also update your startup files to set the correct address on boot up. This is distribution dependent:

**redhat**

change the settings in `/etc/sysconfig/network-scripts/ifcfg-eth0`

```
DEVICE=eth0
BOOTPROTO=static
BROADCAST=172.30.192.255
IPADDR=172.30.192.2
NETMASK=255.255.255.0
NETWORK=172.30.192.0
ONBOOT=yes
```

change `/etc/sysconfig/network`:

```
NETWORKING=yes
HOSTNAME=mylinuxbox
GATEWAY=172.30.192.1
```

**debian**

change the file `/etc/init.d/network`

```
#! /bin/sh
ifconfig lo 127.0.0.1
route add -net 127.0.0.0
IPADDR=172.30.192.2
NETMASK=255.255.255.0
NETWORK=172.30.192.0
BROADCAST=172.30.192.255
GATEWAY=172.30.192.1
ifconfig eth0 ${IPADDR} netmask ${NETMASK} broadcast ${BROADCAST}
```

Other Linux implementations may vary. Also you may need to update `/etc/hosts` and `/etc/networks` depending on your distribution.

**Step 4** Set your DNS server to 172.30.192.1 (optional, but recommended).

edit `/etc/resolv.conf` and add a line that says:

```
nameserver 172.30.192.1
```

This is optional, but recommended. You should add it in, and then remove it once the Pivio Firewall is fully configured.

**Using Linux configured for DHCP**

Under some conditions, you may want to configure Linux for DHCP. If you do so with Red Hat Linux, you need to make sure that you manually provide a domain server name. If you do not, Red Hat Linux will hang when it boots.

To provide a domain server name, edit `/etc/resolv.conf` and add a domain name for your LAN.
**Static IP Configuration**

**Configuring the Pivio Firewall**

You configure the Pivio Firewall using your Internet browser.

**Step 1: Launch your Internet browser.**

If the configuration page doesn’t appear, type in `config.pivio.com`.

**Note**

If you receive an error message when you type in `config.pivio.com`, type in `172.30.192.1` (this is the IP address of the Pivio Firewall). This usually indicates a problem with your Domain Name Server (DNS) configuration, which you will need to solve before connecting to the Internet.

Use your browser to configure the Pivio Firewall

**Note**

Although this User’s Guide shows screen shots from Internet Explorer and Windows 98, you can use any browser and operating system to configure the Pivio Firewall. You only need to configure the firewall once from any computer on your network.
Step 2: A screen appears asking you to choose the type of connection you want to use. Make sure **Static IP** is selected and click **Next**.

![Choose Internet Connection Type]

Make sure "Static IP" is selected

Step 3: On the next page, enter your **IP address**, **Subnet Mask**, **Gateway**, and DNS addresses (from the chart on page 34).

![Static Configuration]

Enter your IP address, Subnet mask, Gateway, and DNS addresses

The Pivio Firewall will fill in the most common Subnet mask. If yours is different, delete the suggested one and type in your Subnet.
Configuration complete

The Configuration Complete page indicates that the Pivio Firewall found your ISP and obtained an IP address.

The configuration of Pivio is complete!

Pivio will now act as a firewall and block any untrusted incoming data from the "internet" port of your device, including illegal computer hacking activity.

Reconfiguring Pivio:

Pivio can be reconfigured by running a browser on a computer "behind" Pivio (that is, sitting on the LAN port of your device) and typing http://configlogin.com into the address line of your browser.

Before you can enter Pivio's main configuration pages, however, you need to:

- create and login to your user account on Pivio
- register Pivio to enable Pivio's advanced security services

Click Next to create your user account on Pivio.

The Pivio Firewall is correctly configured
Set up your password

The next step is to create a user account and password for the Pivio Firewall. Once created, this account and password will be used whenever you want to change the Pivio Firewall’s configuration.

Step 1: After the Configuration Complete screen appears as shown on the previous page, click Next.

The Creating the Administrative Account screen appears.

Use this screen to define an account and password

Step 2: Type in a one to eight character name for the account.

There is only one account per Pivio Firewall. When you choose a different user name, you are renaming the one account in the firewall.

Step 3: Choose a four to eight character password, and enter it in the Password field.

Your password may include numbers, letters and punctuation marks. It is also case-sensitive, so “password” is different from “PassWord.”

Step 4: Confirm your password by typing it again in the Confirm field.

Note

You must enter a password. You cannot create an account without a password.
Static IP Configuration

Step 5: Click Next.

Your password for the Pivio Firewall is now set. You’ll need your password each time you configure the Pivio Firewall. Please make a note of it and keep it in a safe place.

You now have a working user name and password

Caution
The password can be reset by resetting the Pivio Firewall. If someone has access to the firewall, they can simply reset the device to change the password. If you need a high level of physical security, you should lock up the Pivio Firewall.

Step 6: Click the Log In button to continue configuration.

Step 7: When prompted to log in, type your user name and enter your password.

Enter your account information to continue configuring the Pivio Firewall
Registering your Pivio Firewall

Now that your Pivio Firewall is configured and your user account set up, the next step is to enter registration information. This information is securely transmitted to Crossport Systems. You can also set up a billing account and sign up for Pivio Services.

Step 1: After you log into the Pivio Firewall, a screen appears asking you for registration information. Fill out the fields on this screen.

Note that fields marked with a red asterisk (*) must be filled out before the Pivio Firewall will accept the registration information.

Fill out the fields on this form

Step 2: Click Save to save the information.
Step 3: You are now prompted to enter your billing information for Pivio services.

Note that fields marked with a red asterisk (*) must be filled out before the Pivio Firewall will accept the billing information.

Fill out the fields on the Services Billing screen

Step 4: Click Save to save this information.
Step 5: You will now see a screen that lets you edit your registration and billing information.

If the information is correct, click **Next**.
Static IP Configuration

Step 6: The main Services screen now appears. This screen lets you subscribe to Pivio Services, and receive information about each service. You can also view and change your registration and billing information.

Use the Services page to subscribe to Pivio Services

Step 7: To complete installation, restart your browser. You do not need to reboot your computer.

Important!
Make sure you exit your browser and start it again.

You are now ready to test the Pivio Firewall to verify it is working, as described on the next page.
Testing your configuration

Use the following procedure to verify that the Pivio Firewall is configured correctly and is working. If you do not get the expected results, please refer to *The Pivio Firewall Troubleshooting Guide*, for information on how to locate the problem.

Step 1: Launch your Internet browser.

Step 2: Type **www.crossport.com** in your browser’s address window to navigate to the Crossport Systems site.

Step 3: Make sure that you can view various pages at the site.