Chapter 5

Reinstalling the JUNOS Software From Removable Media

When the router is shipped, a copy of the JUNOS software is provided on a removable media; a PC Card, which can be inserted in the router's drive or card slot.

If any of the software becomes damaged, you can reinstall it from the removable media.

This chapter discusses the following topics:

Preparing to Reinstall the JUNOS Software

Before you install the JUNOS software, you must do the following:

1. Have available the removable PC Card that shipped with the router. If you do not have a PC Card, contact customer support.

2. Use the file copy command to copy the existing configuration in the file /config/juniper.conf from the router to another system that is reachable through the router management interface (fpx0) or to removable media. Also, for extra safety, archive your backup configurations (the files named /config/juniper.conf.*n*, where *n* is a number from 0 through 9).

   The install process completely overwrites the entire contents of the fixed storage media.

3. Copy any other stored files.

Reinstalling the JUNOS Software

To reinstall the JUNOS software, follow these steps:

1. Insert the removable medium into the router.

NOTE: You can store a configuration on install media such as PC Card.

2. Reboot the router. Do not power off the router if it is already on. Issue the request system reboot command from the command-line interface (CLI).

3. When the software asks the following question, type **y**:

```
WARNING: The installation will erase the contents of your disk. Do you wish
to continue (y/n)?
```

4. The router then copies the software from the removable medium onto your system, occasionally displaying status messages. Copying the software can take up to 10 minutes.

5. Remove the removable medium when prompted. The router then reboots from the boot device on which the software was just installed. When the reboot is complete, the router displays the login prompt.

Restoring the Saved Configuration

After you have reinstalled the software, you must copy the router's configuration files back to the router. (You also can configure the router from scratch, as described in "Configuring a Router for the First Time" on page 10.) However, before you can copy the configuration files, you must establish network connectivity.

To reconfigure the software, follow these steps:

1. Log in as root. There is no password.

2. Start the CLI:

```
root# cli
root@>
```

3. Enter configuration mode:

```
cli> configure
[edit]
root@#
```

4. Configure the name of the machine. If the name includes spaces, enclose the entire name in quotation marks (" ").

```
[edit]
root@# set system host-name host-name
```

5. Configure the machine's domain name:

   ```
   [edit]
   root@# set system domain-name domain-name
   ```

6. Configure the IP address and prefix length for the router's management Ethernet interface:

   ```
   [edit]
   root@# set interfaces fxp0 unit 0 family inet address address/prefix-length
   ```

7. Configure the IP address of a default router. This system is called the backup router because it is used only while the routing protocol process is not running.

   ```
   [edit]
   root@# set system backup-router address
   ```

8. Configure the IP address of a Domain Name System (DNS) server:

   ```
   [edit]
   root@# set system name-server address
   ```

9. Set the root password, entering either a clear-text password that the system will encrypt, a password that is already encrypted, or an SSH public key string.

   To enter a clear-text password, use the following command to set the root password:

   ```
   [edit]
   root@# set system root-authentication plain-text-password
   New password: type password
   Retype new password: retype password
   ```

   To enter a password that is already encrypted, use the following command to set the root password:

   ```
   [edit]
   root@# set system root-authentication encrypted-password
   encrypted-password
   ```

   To enter an SSH public string, use the following command to set the root password:

   ```
   [edit]
   root@# set system root-authentication ssh-rsa key
   ```

10. Commit the changes:

    ```
    [edit]
    root@# commit
    ```

    After committing the configuration, you see the newly configured hostname after the username in the prompt—for example, user@host#.

11. Exit from configuration mode:

    ```
    [edit]
    root@host# exit
    root@host>
    ```

12. To check that the router has network connectivity and to make sure you can reach the machine on which you saved your configuration files, issue a ping command to a system on the network:

    root@> **ping** *address*

    Use the address of the machine on which you copied the existing configuration in the file /config/juniper.conf and that is reachable through the router management interface (fxp0).

13. Copy the existing configuration and any backup configurations back to the router. Place the files in the /config directory. To copy the files, use the file copy command.

14. Load and activate the desired configuration:

    root@> **configure**
    [edit]
    root@host# **load merge /config/***filename* or **load replace /config/***filename*
    [edit]
    root@# **commit**

15. Back up the JUNOS software. After you have installed the software on the router, committed the configuration, and are satisfied that the new configuration is successfully running, you should issue the request system snapshot command to back up the new software to the /altconfig file system. If you do not issue the request system snapshot command, the configuration on the alternate boot drive will be out of sync with the configuration on the primary boot drive.

    The request system snapshot command causes the root file system to be backed up to /altroot, and /config to be backed up to /altconfig. The root and /config file systems are on the router's flash disk and the /altroot and /altconfig file systems are on the router's hard disk.