

## Chapter 19

# Display and Locate Files and Directories

This chapter describes how to display and locate files and directories on a router.  
(See Table 42.)

**Table 42: Checklist for Displaying and Locating Files and Directories on a Router**

Display and Locate Files and Directories Tasks	Command or Action
<b>Copy a File on a Routing Engine on page 232</b>	
1. Copy a File from One Routing Engine to Another on page 232	<code>file copy source destination</code>
2. Copy Files between the Local Router and a Remote System on page 232	<code>file copy filename ftp://hostname/path/filename</code> <code>file copy filename ftp://user:password@hostname/filename</code> <code>file copy filename ftp://user@hostname/filename</code> <code>file copy filename scp://user@hostname/path/filename</code>
<b>Maintain a Single Configuration File for Both Routing Engines on page 234</b>	
1. Configure the New Group on page 234	<code>[edit groups]</code> <code>set group-name</code>  <code>[edit groups re0]</code> <code>set interfaces interface name unit unit family inet address address</code>  <code>[edit groups re0 system]</code> <code>set host-name hostname</code> <code>show</code> <code>commit</code>
2. Apply the New Group on page 236	<code>[edit]</code> <code>set apply-groups group-name</code> <code>show</code> <code>commit</code>
<b>List Files and Directories on a Router on page 237</b>	<code>file list filename or directory</code>
<b>Display File Contents on page 237</b>	<code>file show filename</code>
<b>Rename a File on a Router on page 238</b>	<code>file rename source destination</code>
<b>Delete a File on a Router on page 238</b>	<code>file delete filename</code>

## Copy a File on a Routing Engine

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**Purpose** When you configure one Routing Engine and another Routing Engine needs to have a similar configuration, or when you upgrade the JUNOS software version on one Routing Engine, you can simplify the process by copying files from one Routing Engine to another.

**Steps To Take** To copy a file, follow these steps:

1. Copy a File from One Routing Engine to Another on page 232
2. Copy Files between the Local Router and a Remote System on page 232

### Step 1: Copy a File from One Routing Engine to Another

**Purpose** When you have a dual Routing Engine configuration, you can copy a configuration file from Routing Engine 0 to Routing Engine 1 or vice versa.

**Action** To copy a configuration file from Routing Engine 0 to Routing Engine 1, use the following JUNOS command-line interface (CLI) operational mode command:

```
user@host> file copy source destination
```

**Sample Output** user@host> file copy /config/juniper.conf re1:/var/tmp/copied-juniper.conf

**What It Means** In this case, *source* is the name of the configuration file on Routing Engine 0. Configuration files are stored in the directory /config. The active configuration is /config/juniper.conf, and older configurations are in /config/juniper.conf {1...9}. *destination* is a file on Routing Engine 1.



**NOTE:** Refer to “Maintain a Single Configuration File for Both Routing Engines” on page 234 for details about naming the Routing Engines correctly.

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### Step 2: Copy Files between the Local Router and a Remote System

**Action** You can copy a configuration file from a Routing Engine to a remote system in the network using the File Transfer Protocol (FTP) or secure copy protocol (scp) in any one of the following ways:

- To use anonymous FTP to copy a local file to a remote system, enter the following command:

```
root@host> file copy filename ftp://hostname/filename
```

In the following example, /config/juniper.conf is the local file and hostname is the FTP server:

```
root@host> file copy /config/juniper.conf ftp://hostname/juniper.conf
Receiving ftp: //hostname/juniper.conf (2198 bytes): 100%
2198 bytes transferred in 0.0 seconds (2.69 MBps)
```

- To use FTP where a valid username and password are required, enter the following command:

```
root@host> file copy filename ftp://user:password@hostname/filename
```

In the following example, /config/juniper.conf is the local file, user is the username, testing123 is the password, and hostname is the FTP server:

```
root@host> file copy /config/juniper.conf
ftp://user:testing123@hostname/juniper.conf
Receiving ftp: //user:testing123@hostname/juniper.conf (2198 bytes): 100%
2198 bytes transferred in 0.0 seconds (2.69 MBps)
```

- To use FTP where you require more privacy and are prompted for a password, enter the following command:

```
root@host> file copy filename ftp://user@hostname/filename
```

In the following example, /config/juniper.conf is the local file, user is the username, and hostname is the FTP server:

```
root@host> file copy /config/juniper.conf
ftp://user@hostname/juniper.conf
Password for user@hostname: *****
Receiving ftp: //user@hostname/juniper.conf (2198 bytes): 100%
2198 bytes transferred in 0.0 seconds (2.69 MBps)
```

- To use scp to copy a local file to a remote system, enter the following command:

```
root@host> file copy filename scp://user@hostname/path/filename
```

In the following example, /config/juniper.conf is the local file, user is the username, and ssh-host is the scp server:

```
root@host> file copy /config/juniper.conf
scp://user@ssh-host/tmp/juniper.conf
user@ssh-host's password: *****
juniper.conf      100%
|*****|
*****| 2198      00:00
```



**NOTE:** You cannot use scp or ssh to copy a file in the worldwide version of the JUNOS software.

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## Maintain a Single Configuration File for Both Routing Engines

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**Purpose** For routers that support multiple Routing Engines, you can specify **re0** and **re1** as group names to ensure that the correct IP addresses are used for each Routing Engine and to maintain a single configuration file for both Routing Engines. It is important that the names of the Routing Engines correspond to a slot position because the names **re0** and **re1** are special group names that you must use for the Routing Engines to recognize which configuration statement to use. Routing Engine 0 must be in slot position 0 and must be named **re0**, and Routing Engine 1 must be in slot position 1 and must be named **re1**.

**Steps to Take** To maintain a single configuration file for both Routing Engines, follow these steps:

1. Configure the New Group on page 234
2. Apply the New Group on page 236

### Step 1: Configure the New Group

**Purpose** Each **re0** or **re1** group typically contains, at a minimum, the configuration for the hostname and the management interface (**fxp0**). If each Routing Engine uses a different management interface, the group must also contain the configuration for the backup router and static routes.

**Action** To configure the **re0** and **re1** groups, follow these steps:

1. In configuration mode, go to the following hierarchy level:

```
[edit]
user@host# edit groups
```

2. Configure the group:

```
[edit groups]
user@host# set group-name
```

For example:

```
[edit groups]
user@host# set re0
```

3. To configure the management interface, go to the following hierarchy level:

```
[edit groups]
user@host# edit groups re0
```

4. Include the following statement:

```
[edit groups re0]
user@host# set interfaces interface-name unit unit family inet address
address
```

For example:

```
[edit groups re0]
user@host# set interfaces fxp0 unit 0 family inet address 1.1.1.1/24
```

5. To configure the hostname, go to the following hierarchy level:

```
[edit groups re0]
user@host# edit groups re0 system
```

6. Include the following statement:

```
[edit groups re0 system]
user@host# set host-name hostname
```

For example:

```
[edit groups re0 system]
user@host# set host-name foo-re0
```

7. Verify the configuration:

```
[edit groups re0]
user@host# show
re0 {
  system {
    host-name foo-re0;
  }
  interfaces {
    fxp0 {
      unit 0 {
        family inet {
          address 1.1.1.1/24;
        }
      }
    }
  }
}
```

8. Commit the configuration:

```
user@host# commit
```

9. Repeat Step 1 through Step 8 for the **re1** group.

**What It Means** The sample output in Step 7 shows that the **re0** group contains the minimum configuration for a group, the hostname, and the management interface (**fxp0**). If each Routing Engine uses a different management interface, the group must also contain the configuration for the backup router and static routes.

## Step 2: Apply the New Group

**Action** To apply the re0 group to maintain a single configuration file for both Routing Engines, follow these steps:

1. In configuration mode, go to the top hierarchy level and include the following statement:

```
user@host# [edit]
user@host# set apply-groups group-name
```

For example:

```
user@host# [edit]
user@host# set apply-groups re0
```

2. Verify the configuration:

```
user@host# show
groups {
  re0 {
    system {
      host-name foo-re0;
    }
    interfaces {
      fxp0 {
        unit 0 {
          family inet {
            address 1.1.1.1/24;
          }
        }
      }
    }
  }
  re1 {
    system {
      host-name foo-re1;
    }
    interfaces {
      fxp0 {
        unit 0 {
          family inet {
            address 1.1.1.2/24;
          }
        }
      }
    }
  }
}
apply-groups [ re0 re1 ];
```

3. Commit the configuration:

```
user@host# commit
```

**What It Means** The sample output shows that each group, **re0** and **re1**, has its own IP address that is used for each Routing Engine to maintain a single configuration file.

## List Files and Directories on a Router

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**Purpose** If a system board crashes, you must check that certain files are in specific directories.

**Action** To display files in the `/var/tmp` and `var/crash` directories, use the following CLI operational mode command:

```
user@host> file list filename or directory
```

**Sample Output**

```
user@host> file list /var/tmp/
sampled.pkts
vi.recover/

user@host> file list /var/crash/
bounds
minfree
vmcore.0
```

**What It Means** The sample output shows the files in the `/var/tmp/` and `/var/crash/` directories. The Juniper Networks Technical Assistance Center (JTAC) can ask you to verify the existence of similar files.

## Display File Contents

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**Action** To display the contents of a file on the local router, use the following CLI operational mode command:

```
user@host> file show filename
```

**Sample Output**

```
user@host> file show /var/log/messages
Apr 13 21:00:08 romney /kernel: so-1/1/2: loopback suspected; going to standby.
Apr 13 21:00:40 romney /kernel: so-1/1/2: loopback suspected; going to standby.
Apr 13 21:02:48 romney last message repeated 4 times
Apr 13 21:07:04 romney last message repeated 8 times
Apr 13 21:07:13 romney /kernel: so-1/1/0: Clearing SONET alarm(s) RDI-P
Apr 13 21:07:29 romney /kernel: so-1/1/0: Asserting SONET alarm(s) RDI-P
Apr 13 21:07:36 romney /kernel: so-1/1/2: loopback suspected; going to standby.
Apr 13 21:08:08 romney /kernel: so-1/1/2: loopback suspected; going to standby.
...Output truncated...
```

**What It Means** The sample output shows the contents of the `/var/log/messages` file.

## Rename a File on a Router

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**Action** To rename a file on the local router, use the following CLI operational mode command:

```
user@host> file rename source destination
```

**Sample Output**

```
user@host> file list /var/tmp
dcd.core
rpd.core
snmpd.core
user@host> file rename /var/tmp/dcd.core /var/tmp/dcd.core.990413
user@host> file list /var/tmp
dcd.core.990413
rpd.core
snmpd.core
```

**What It Means** The sample output shows that the dcd.core file was renamed to dcd.core.990413. The original name of the file is the *source* and the new name for the file is the *destination*.

## Delete a File on a Router

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**Action** To delete a file on the local router, use the following CLI operational mode command:

```
user@host> file delete filename
```

**Sample Output**

```
user@host> file list /var/tmp
dcd.core
rpd.core
snmpd.core
user@host> file delete /var/tmp/snmpd.core
user@host> file list /var/tmp
dcd.core
rpd.core
```

**What It Means** The sample output shows that the snmpd.core file was deleted.