

Chapter 34

Configuring Accounting Options

To configure accounting options, include the following statements at the [edit accounting-options] hierarchy level of the configuration:

```
accounting-options {
  class-usage-profile profile-name {
    file filename;
    interval minutes;
    destination-classes {
      destination-class-name;
    }
    source-classes {
      source-class-name;
    }
  }
  file filename {
    archive-sites {
      site-name;
    }
    files filename;
    size bytes;
    transfer-interval minutes;
  }
  filter-profile profile-name {
    counters {
      counter-name;
    }
    file filename;
    interval minutes;
  }
  interface-profile profile-name {
    fields {
      field-name;
    }
    file filename;
    interval minutes;
  }
}
```

```
routing-engine-profile profile-name {  
  fields {  
    field-name;  
  }  
  file filename;  
  interval minutes;  
}
```

By default, accounting options are disabled.

This section describes the minimum required configuration and discusses the following tasks for configuring accounting options:

Minimum Accounting Options Configuration on page 363

Configuring Files on page 365

Configuring the Interface Profile on page 367

Configuring the Filter Profile on page 369

Configuring Source Class Usage Options on page 373

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Minimum Accounting Options Configuration

To enable accounting options on the router, you must perform at least the following tasks:

Configure accounting options by including a file statement and one or more source-class-usage, destination-class-profile, filter-profile, interface-profile, or routing-engine-profile statements at the [edit accounting-options] hierarchy level:

```
[edit]
accounting-options {
  class-usage-profile profile-name {
    file filename;
    interval minutes;
    source-classes {
      source-class-name;
    }
    destination-classes {
      destination-class-name;
    }
  }
  file filename {
    archive-sites {
      site-name;
    }
    files filenumber;
    size bytes;
    transfer-interval minutes;
  }
  filter-profile profile-name {
    counters {
      counter-name;
    }
    file filename;
    interval minutes;
  }
  interface-profile profile-name {
    fields {
      field-name;
    }
    file filename;
    interval minutes;
  }
  routing-engine-profile profile-name {
    fields {
      field-name;
    }
    file filename;
    interval minutes;
  }
}
```

Apply the profiles to the chosen interfaces or filters.

Apply an interface profile to a physical or logical interface by including the `accounting-profile` statement at either the `[edit interfaces interface-name]` or the `[edit interfaces interface-name unit number]` hierarchy level. For more information on interface profiles, see the *JUNOS Network Interfaces and Class of Service Configuration Guide*.

```
[edit interfaces]
interface-name {
    accounting-profile profile-name;
    unit number {
        accounting-profile profile-name;
    }
}
```



NOTE: You do not apply destination class profiles to interfaces. Although the interface needs to have the `destination-class-usage` statement configured, the destination class profile automatically finds all interfaces with the destination class configured.

Apply a filter profile to a firewall filter by including the `accounting-profile` statement at the `[edit firewall filter filter-name]` hierarchy level:

```
[edit firewall]
filter filter-name {
    accounting-profile profile-name;
}
```

You do not need to apply the Routing Engine profile to an interface because the statistics are collected on the Routing Engine itself.

Configuring Files

An accounting profile specifies what statistics should be collected and written to a log file. To configure an accounting-data log file, include the file statement at the [edit accounting-options] hierarchy level:

```
[edit accounting-options]
  file filename {
    archive-sites {
      site-name;
    }
    files filename;
    size bytes;
    transfer-interval minutes;
  }
}
```

filename is name of file in which to write accounting data.

If the filename contains spaces, enclose it in quotation marks (" "). The filename cannot contain a forward slash (/). The file is created in the /var/log directory and can contain data from multiple profiles.

All accounting-data log files include header and trailer sections that start with a # in the first column. The header contains the file creation time, the hostname, and the columns that appear in the file. The trailer contains the time that the file was closed.

Whenever any configured value changes that affects the columns in a file, the file creates a new profile layout record that contains a new list of columns.

You must configure the file size; all other properties are optional.

Configuring the Maximum Size of the File on page 366

Configuring the Maximum Number of Files on page 366

Configuring the Transfer Interval of the File on page 366

Configuring Archive Sites on page 366

Configuring the Maximum Size of the File

To configure the maximum size of the files, include the size statement at the [edit accounting-options file *filename*] hierarchy level:

```
[edit accounting-options file filename]
size bytes;
```

The size statement is the maximum size of the log file, in bytes, kilobytes (KB), megabytes (MB), or gigabytes (GB). The minimum value for *bytes* is 256 KB. You must configure *bytes*; the remaining attributes are optional.

Configuring the Maximum Number of Files

To configure the maximum number of the files, include the files statement at the [edit accounting-options file *filename*] hierarchy level:

```
[edit accounting-options file filename]
files filename;
```

The files statement specifies the maximum number of files. When a log file (for example, profilelog) reaches its maximum size, it is renamed profilelog.0, then profilelog.1, and so on, until the maximum number of log files is reached. Then the oldest log file is overwritten. The minimum value for *filename* is 3 and the default value is 10.

Configuring the Transfer Interval of the File

To configure the transfer interval of the files, include the transfer-interval statement at the [edit accounting-options file *filename*] hierarchy level:

```
[edit accounting-options file filename]
transfer-interval minutes;
```

The range for interval is 1 through 2880 minutes. The default is 30 minutes.

Configuring Archive Sites

After a file reaches its maximum size or the transfer-interval time is exceeded, the file is closed, renamed, and, if you configured an archive site, transferred to a remote host. To configure archive sites, include the archive-sites statement at the [edit accounting-options file *filename*] hierarchy level:

```
[edit accounting-options file filename]
archive-sites {
  site-name;
}
```

site-name is any valid FTP URL. For more information on how to specify valid FTP URLs, see the *JUNOS System Basics Configuration Guide*. You can specify more than one URL, in any order. When a file is archived, the router attempts to transfer the file to the first URL in the list, trying the next site in the list only if the transfer does not succeed. The log file is stored at the archive site with a filename of the format *router-name_log-filename_timestamp*.

Configuring the Interface Profile

An interface profile specifies the information collected and written to a log file. You can configure a profile to collect error and statistic information for input and output packets on a particular physical or logical interface.

To configure an interface profile, include the `interface-profile` statement at the `[edit accounting-options]` hierarchy level:

```
[edit accounting-options]
interface-profile profile-name {
  fields {
    field-name;
  }
  file filename;
  interval minutes;
}
```

Each accounting profile must have a unique *profile-name*. To apply a profile to a physical or logical interface, include the `accounting-profile` statement at either the `[edit interfaces interface-name]` or the `[edit interfaces interface-name unit number]` hierarchy level. You can also apply a accounting profile at the `[edit firewall family family-type filter filter-name]` hierarchy level. For more information, see the *JUNOS Policy Framework Configuration Guide*.

To configure an interface profile, you perform the tasks described in the following sections:

Configuring Fields on page 367

Configuring the File Information on page 368

Configuring the Interval on page 368

Example: Configuring the Interface Profile on page 368

Configuring Fields

An interface profile must specify what statistics are collected. To configure which statistics should be collected for an interface, include the `fields` statement at the `[edit accounting options interface-profile profile-name]` hierarchy level:

```
[edit accounting-options interface-profile profile-name]
fields {
  field-name;
}
```

Configuring the File Information

Each accounting profile logs its statistics to a file in the `/var/log` directory.

To configure which file to use, include the `file` statement at the `[edit accounting options interface-profile profile-name]` hierarchy level:

```
[edit accounting-options interface-profile profile-name]
file filename;
```

You must specify a `filename` statement for the interface profile that has already been configured at the `[edit accounting-options]` hierarchy level.

Configuring the Interval

Each interface with an accounting profile enabled has statistics collected once per interval time specified for the accounting profile. Statistics collection time is scheduled evenly over the configured interval. To configure the interval, include the `interval` statement at the `[edit accounting-options interface-profile profile-name]` hierarchy level:

```
[edit accounting-options interface-profile profile-name]
interval minutes;
```



NOTE: The minimum interval allowed is 1 minute. Configuring a low interval in an accounting profile for a large number of interfaces might cause serious performance degradation.

The range for interval is 1 through 2880 minutes. The default is 30 minutes.

Example: Configuring the Interface Profile

Configure the interface profile:

```
[edit]
accounting-options {
  file if_stats {
    size 40 files 5;
  }
  interface-profile if_profile1 {
    file if_stats;
    interval 30;
    fields {
      input-bytes;
      output-bytes;
      input-packets;
      output-packets;
      input-multicast;
      output-multicast;
    }
  }
  interface-profile if_profile2 {
    file if_stats;
    interval 30;
    fields {
```

```

        input-bytes;
        output-bytes;
        input-packets;
        output-packets;
        input-multicast;
        output-multicast;
    }
}
interfaces {
  ge-1/0/0 {
    accounting-profile if_profile1;
    unit 0 {
      accounting-profile if_profile2;
      ...
    }
  }
}
}

```

The two interface profiles, if-profile1 and if-profile2, write data to the same file, if-stats. The if-stats file might look like the following:

```

#FILE CREATED 976823478 2000-12-14-19:51:18
#hostname host
#profile-layout if_profile2,epoch-timestamp,interface-name,snmp-index,input-bytes,output-bytes,
input-packets,output-packets,input-multicast,output-multicast
#profile-layout if_profile1,epoch-timestamp,interface-name,snmp-index,input-bytes,output-bytes,
input-packets
if_profile2,976823538,ge-1/0/0,8,134696815,3681534,501088,40723,0,0
if_profile1,976823538,ge-1/0/0,7,134696815,3681534,501088
...
#FILE CLOSED 976824378 2000-12-14-20:06:18

```

Configuring the Filter Profile

A filter profile specifies error and statistics information collected and written to a file. A filter profile must specify counter names for which statistics are collected. To configure a filter profile, include the filter-profile statement at the [edit accounting-options] hierarchy level:

```

[edit accounting-options]
filter-profile profile-name {
  counters {
    counter-name;
  }
  file filename;
  interval minutes;
}

```

To apply the filter profile, include the accounting-profile statement at the [edit firewall filter *filter-name*] hierarchy level. For more information on firewall filters, see the *JUNOS Network Interfaces and Class of Service Configuration Guide*.

To configure a filter profile, perform the tasks described in the following sections:

Configuring the Counters on page 370

Configuring the File Information on page 370

Configuring the Interval on page 370

Example: Configuring a Filter Profile on page 371

Example: Configuring Interface-Specific Firewall Counters and Filter Profiles on page 372

Configuring the Counters

Statistics are collected for all counters specified in the filter profile. To configure the counters, include the counters statement at the [edit accounting-options filter-profile *profile-name*] hierarchy level:

```
[edit accounting-options filter-profile profile-name]
counters {
    counter-name;
}
```

Configuring the File Information

Each accounting profile logs its statistics to a file in the /var/log directory.

To configure which file to use, include the file statement at the [edit accounting-options filter-profile *profile-name*] hierarchy level:

```
[edit accounting-options filter-profile profile-name]
file filename;
```

You must specify a filename for the filter profile that has already been configured at the [edit accounting options] hierarchy level.



NOTE: If the configured file size or transfer interval is exceeded, the JUNOS software closes the file and starts a new one. By default, the transfer interval value is 30 minutes. If the transfer interval is not configured, the JUNOS software closes the file and starts a new one when the file size exceeds its configured value or the default transfer interval value exceeds 30 minutes. To avoid transferring files every 30 minutes, specify a different value for the transfer interval.

Configuring the Interval

Each filter with an accounting profile enabled has statistics collected once per interval time specified for the accounting profile. Statistics collection time is scheduled evenly over the configured interval. To configure the interval, include the interval statement at the [edit accounting-options filter-profile *profile-name*] hierarchy level:

```
[edit accounting-options filter-profile profile-name]
interval minutes;
```



NOTE: The minimum interval allowed is 1 minute. Configuring a low interval in an accounting profile for a large number of filters might cause serious performance degradation.

The range for interval is 1 through 2880 minutes. The default is 30 minutes.

Example: Configuring a Filter Profile

Configure a filter profile:

```
[edit]
accounting-options {
  file fw_accounting {
    size 500k files 4;
  }
  filter-profile fw_profile1 {
    file fw_accounting;
    interval 60;
    counters {
      counter1;
      counter2;
      counter3;
    }
  }
}
firewall {
  filter myfilter {
    accounting-profile fw_profile1;
    ...
    term accept-all {
      then {
        count counter1;
        accept;
      }
    }
  }
}
```

The filter profile, fw-profile1, writes data to the file fw_accounting. The file might look like the following:

```
#FILE CREATED 976825278 2000-12-14-20:21:18
#hostname host
#profile-layout fw_profile1,epoch-timestamp,filter-name,counter-name,packet-count,byte-count
fw_profile1,976826058,myfilter,counter1,163,10764
...
#FILE CLOSED 976826178 2000-12-14-20:36:18
```

Example: Configuring Interface-Specific Firewall Counters and Filter Profiles

To collect and log count statistics collected by firewall filters on a per-interface basis, you must configure a filter profile and include the interface-specific statement at the [edit firewall filter *filter-name*] hierarchy level.

Configure the firewall filter accounting profile:

```
[edit accounting-options]
  file cust1_accounting {
    size 500k;
  }
  filter-profile cust1_profile {
    file cust1_accounting;
    interval 1;
    counters {
      r1;
    }
  }
}
```

Configure the interface-specific firewall counter:

```
[edit firewall]
  filter f3 {
    accounting-profile cust1_profile;
    interface-specific;
    term f3-term {
      then {
        count r1;
        accept;
      }
    }
  }
}
```

Apply the firewall filter to an interface:

```
[edit interfaces]
  ge-1/0/0 {
    unit 0 {
      family inet {
        filter {
          input f3;
          output f3;
        }
        address 20.20.20.30/24;
      }
    }
  }
}
```

The following example shows the contents of the `cust1_accounting` file in the `/var/log` folder that might result from the preceding configuration:

```
#FILE CREATED 995495212 2001-07-18-22:26:52
#hostname host
#profile-layout cust1_profile,epoch-timestamp,interfaces,filter-name,
counter-name,packet-count,byte-count
cust1_profile,995495572,ge-1/0/0.0,f3-ge-1/0/0.0-i,r1-ge-1/0/0.0-i,5953,1008257
cust1_profile,995495602,ge-1/0/0.0,f3-ge-1/0/0.0-o,r1-ge-1/0/0.0-o,5929,1006481
...
```

If the interface-specific statement is not included in the configuration, the following output might result:

```
#FILE CREATED 995495212 2001-07-18-22:26:52
#hostname host
#profile-layout cust1_profile,epoch-timestamp,interfaces,filter-name,
counter-name,packet-count,byte-count
cust1_profile,995495572,ge-1/0/0.0,f3,r1,5953,1008257
cust1_profile,995495632,ge-1/0/0.0,f3,r1,5929,1006481
```

Configuring Source Class Usage Options

You can maintain packet counts based on the entry and exit points for traffic passing through your network. Entry and exit points are identified by source and destination prefixes grouped into disjoint sets defined as *source classes* and *destination classes*. You can define classes based on a variety of parameters, such as routing neighbors, autonomous systems, and route filters.

Source class usage (SCU) counts packets sent to customers by performing lookup on the IP source address and the IP destination address. SCU makes it possible to track traffic originating from specific prefixes on the provider core and destined for specific prefixes on the customer edge. You must enable SCU accounting on both the inbound and outbound physical interfaces.

Destination class usage (DCU) counts packets from customers by performing lookup of the IP destination address. DCU makes it possible to track traffic originating from the customer edge and destined for specific prefixes on the provider core router.

On T-series and M320 routing platforms, the source class and destination classes are not carried across the platform fabric. The implications of this are as follows:

- On T-series and M320 platforms, SCU and DCU accounting is performed before the packet enters the fabric.

- On T-series and M320 routing platforms, DCU is performed before output filters are evaluated. On M-series platforms, DCU is performed after output filters are evaluated.

If an output filter drops traffic on M-series platforms, the dropped packets are excluded from DCU statistics. If an output filter drops traffic on T-series and M320 routing platforms, the dropped packets are included in DCU statistics.

For more information about source class usage, see the *JUNOS Policy Framework Configuration Guide*, the *JUNOS Network Interfaces and Class of Service Configuration Guide*, and the *JUNOS Feature Guide*.

To configure source class usage options, perform the tasks described in this section:

Configuring SCU and/or DCU

Configuring SCU on a Virtual Loopback Interface on page 376

Configuring Class Usage Profiles on page 377

Configuring SCU and/or DCU

To configure SCU and/or DCU, perform the following tasks described in this section:

Creating Prefix Route Filters in a Policy Statement on page 374

Applying the Policy to the Forwarding Table on page 374

Enabling Accounting on Inbound and Outbound Interfaces on page 375

Creating Prefix Route Filters in a Policy Statement

Define prefix router filters:

```
[edit policy-options]
policy-statement scu-1 {
  term term1;
  from {
    route-filter 192.168.1.0/24 orlonger;
  }
  then source-class gold;
}
}
```

Applying the Policy to the Forwarding Table

Apply the policy to the forwarding table:

```
[edit]
routing-options {
  forwarding-table {
    export scu-1;
  }
}
}
```

Enabling Accounting on Inbound and Outbound Interfaces

You can enable accounting inbound and outbound interfaces:

```
[edit]
interfaces {
  so-6/1/0 {
    unit 0 {
      family inet;
      accounting {
        destination-class-usage;
        source-class-usage {
          output;
        }
      }
    }
  }
}
[edit]
interfaces {
  ge-0/1/0 {
    unit 0 {
      family inet6 {
        accounting {
          source-class-usage {
            input;
          }
        }
      }
    }
  }
}
```

Optionally, you can include the input and output statements on a single interface:

```
[edit]
interfaces {
  ge-0/1/2 {
    unit 0 {
      family inet6 {
        accounting {
          source-class-usage {
            input;
            output;
          }
        }
      }
    }
  }
}
```

For more information on configuring route filters and source classes in a routing policy, see the *JUNOS Policy Framework Configuration Guide* and the *JUNOS Interfaces and Class of Service Configuration Guide*.

Configuring SCU on a Virtual Loopback Interface

To configure source class usage on the virtual loopback interface, perform the tasks described in the following sections:

Example: Configuring a Virtual Loopback Interface on a Provider Edge Router Equipped with a Tunnel PIC on page 376

Example: Mapping the VRF Instance Type to the Virtual Loopback Interface on page 376

Example: Sending Traffic Received from the Virtual Loopback Interface Out the Source Class Output Interface on page 377

Example: Configuring a Virtual Loopback Interface on a Provider Edge Router Equipped with a Tunnel PIC

Define a virtual loop interface on a provider edge router with a Tunnel PIC:

```
[edit interfaces]
vt-0/3/0 {
  unit 0 {
    family inet {
      accounting {
        source-class-usage {
          input;
        }
      }
    }
  }
}
```

Example: Mapping the VRF Instance Type to the Virtual Loopback Interface

Map the VRF instance type to the virtual loopback interface:

```
[edit]
routing-instances {
  VPN-A {
    instance-type vrf;
    interface at-2/1/1.0;
    interface vt-0/3/0.0;
    route-distinguisher 10.255.14.225:100;
    vrf-import import-policy-name;
    vrf-export export-policy-name;
    protocols {
      bgp {
        group to-r4 {
          local-address 10.27.253.1;
          peer-as 400;
          neighbor 10.27.253.2;
        }
      }
    }
  }
}
```



NOTE: For SCU and DCU to work, do not include the `vrf-table-label` statement at the `[edit routing-instances instance-name]` hierarchy level.

Example: Sending Traffic Received from the Virtual Loopback Interface Out the Source Class Output Interface

Send traffic received from the virtual loopback interface out of the source class output interface:

```
[edit interfaces]
at-1/1/0 {
  unit 0 {
    family inet {
      accounting {
        source-class-usage {
          output;
        }
      }
    }
  }
}
```

For more information on configuring source class usage on the virtual loopback interface, see the *JUNOS Network Interfaces and Class of Service Configuration Guide*.

Configuring Class Usage Profiles

To collect class usage statistics, perform the tasks described in the following sections:

Configuring a Class Usage Profile on page 377

Configuring the File Information on page 378

Configuring the Interval on page 378

Creating a Class Usage Profile to Collect Source Class Usage Statistics on page 378

Creating a Class Usage Profile to Collect Destination Class Usage Statistics on page 379

Configuring a Class Usage Profile

You can configure the class usage profile to collect statistics for particular source and destination classes.

To configure the class usage profile to filter by source classes, include the `source-classes` statement at the `[edit accounting options class-usage-profile profile-name]` hierarchy level:

```
[edit accounting-options class-usage-profile profile-name]
source-classes {
    source-class-name;
}
```

To configure the class usage profile to filter by destination classes, include the `destination-classes` statement at the `[edit accounting options class-usage-profile profile-name]` hierarchy level:

```
[edit accounting-options class-usage-profile profile-name]
destination-classes {
    destination-class-name;
}
```

Configuring the File Information

Each accounting profile logs its statistics to a file in the `/var/log` directory.

To configure which file to use, include the `file` statement at the `[edit accounting-options class-usage-profile profile-name]` hierarchy level:

```
[edit accounting-options class-usage-profile profile-name]
file filename;
```

You must specify a filename for the source class usage profile that has already been configured at the `[edit accounting options]` hierarchy level. You can also specify a filename for the destination class usage profile configured at the `[edit accounting options]` hierarchy level.

Configuring the Interval

Each interface with a class usage profile enabled has statistics collected once per interval specified for the accounting profile. Statistics collection time is scheduled evenly over the configured interval. To configure the interval, include the interval statement at the [edit accounting-options class-usage-profile *profile-name*] hierarchy level:

```
[edit accounting-options class-usage-profile profile-name]
interval minutes;
```

Creating a Class Usage Profile to Collect Source Class Usage Statistics

To create a class usage profile to collect source class usage statistics:

```
[edit]
accounting-options {
  class-usage-profile scu-profile1;
  file usage-stats;
  interval 15;
  source-classes {
    gold;
    silver;
    bronze;
  }
}
```

The class usage profile, scu-profile1, writes data to the file usage_stats. The file might look like the following:

```
#FILE CREATED 976825278 2000-12-14-20:21:18
#profile-layout, scu_profile,epoch-timestamp,interface-name,source-class,
packet-count,byte-count
scu_profile,980313078,ge-1/0/0.0,gold,82,6888
scu_profile,980313078,ge-1/0/0.0,silver,164,13776
scu_profile,980313078,ge-1/0/0.0,bronze,0,0
scu_profile,980313678,ge-1/0/0.0,gold,82,6888
scu_profile,980313678,ge-1/0/0.0,silver,246,20664
scu_profile,980313678,ge-1/0/0.0,bronze,0,0
```

Creating a Class Usage Profile to Collect Destination Class Usage Statistics

To create a class usage profile to collect destination class usage statistics:

```
[edit]
accounting-options {
  class-usage-profile dcu-profile1;
  file usage-stats;
  interval 15;
  destination-classes {
    gold;
    silver;
    bronze;
  }
}
```

```
}

```

The class usage profile, `dcu-profile1`, writes data to the file `usage-stats`. The file might look like the following:

```
#FILE CREATED 976825278 2000-12-14-20:21:18
#profile-layout, dcu_profile,epoch-timestamp,interface-name,destination-class,
packet-count,byte-count
dcu_profile,980313078,ge-1/0/0.0,gold,82,6888
dcu_profile,980313078,ge-1/0/0.0,silver,164,13776
dcu_profile,980313078,ge-1/0/0.0,bronze,0,0
dcu_profile,980313678,ge-1/0/0.0,gold,82,6888
dcu_profile,980313678,ge-1/0/0.0,silver,246,20664
dcu_profile,980313678,ge-1/0/0.0,bronze,0,0
...
#FILE CLOSED 976826178 2000-12-14-20:36:18
```

Configuring the Routing Engine Profile

The Routing Engine profile collects Routing Engine statistics and logs them to a file. The Routing Engine profile specifies the fields for which statistics are collected.

To configure a Routing Engine profile, include the `routing-engine-profile` statement at the `[edit accounting-options]` hierarchy level:

```
[edit accounting-options]
routing-engine-profile profile-name {
  fields {
    field-name;
  }
  file filename;
  interval minutes;
}
```

To configure a Routing Engine profile, perform the tasks described in the following sections:

Configuring Fields on page 380

Configuring the File Information on page 380

Configuring the Interval on page 381

Example: Configuring a Routing Engine Profile on page 381

Configuring Fields

A Routing Engine profile must specify what statistics are collected. To configure which statistics should be collected for the Routing Engine, include the `fields` statement at the `[edit accounting options routing-engine-profile profile-name]` hierarchy level:

```
[edit accounting-options routing-engine-profile profile-name]
fields {
  field-name;
}
```

Configuring the File Information

Each accounting profile logs its statistics to a file in the `/var/log` directory.

To configure which file to use, include the `file` statement at the `[edit accounting options routing-engine-profile profile-name]` hierarchy level:

```
[edit accounting-options routing-engine-profile profile-name]
file filename;
```

You must specify a *filename* for the Routing Engine profile that has already been configured at the `[edit accounting-options]` hierarchy level.

Configuring the Interval

A Routing Engine profile has statistics collected once per interval time specified for the profile. Statistics collection time is scheduled evenly over the configured interval. To configure the interval, include the `interval` statement at the `[edit accounting-options routing-engine-profile profile-name]` hierarchy level:

```
[edit accounting-options routing-engine-profile profile-name]
interval minutes;
```

The range for interval is 1 through 2880 minutes. The default is 30 minutes.

Example: Configuring a Routing Engine Profile

Configure a Routing Engine profile:

```
[edit accounting-options]
file my-file {
    size 300k;
}
routing-engine-profile profile-1 {
    file my-file;
    fields {
        host-name;
        date;
        time-of-day;
        uptime;
        cpu-load-1;
        cpu-load-5;
        cpu-load-15;
    }
}
```

