

Call Setup Thresholds

- Call Setup Thresholds, on page 1
- Saving Your Configuration, on page 2
- Call Setup Thresholds, on page 2
- Call Setup Failure Thresholds, on page 3
- eGTP-C S2b Setup Fail Rate Thresholds, on page 3
- eGTP-C S5 Setup Fail Rate Thresholds, on page 4
- RP Setup Failure Rate Thresholds, on page 4
- PPP Setup Failure Rate Thresholds, on page 5
- No Resource Call Reject Thresholds, on page 5

Call Setup Thresholds

Threshold monitoring can be enabled for the call setup values described in the following table.

Value	Description
Number of calls setup	Enables the generation of alerts or alarms based on the number of calls setup by the system during the polling interval.
Number of call setup failures	Enables the generation of alerts or alarms based on the number of call setup failures experienced by the system during the polling interval.
eGTP-C S2b setup failure rate	Enables the generation of alerts or alarms based on the rate at which eGTP-C S2b setup failures are experienced by the system during the polling interval.
eGTP-C S5 setup failure rate	Enables the generation of alerts or alarms based on the rate at which eGTP-C S5 setup failures are experienced by the system during the polling interval.
RP setup failure rate	Enables the generation of alerts or alarms based on the rate at which RP failures are experienced by the system during the polling interval.

Value	Description
PPP setup failure rate	Enables the generation of alerts or alarms based on the rate at which PPP failures are experienced by the system during the polling interval.
Number of calls rejected due to no processing resources being available	Enables the generation of alerts or alarms based on the number of calls rejected by the system due to insufficient resources (memory and/or session licenses) during the polling interval.

Saving Your Configuration

When you configure thresholds they are not permanent unless you save the changes. When you have completed configuring thresholds, save your configuration to flash memory, an external memory device, and/or a network location using the Exec mode command **save configuration**. For additional information on how to verify and save configuration files, refer to the *System Administration Guide* and the *Command Line Interface Reference*.

Call Setup Thresholds

Threshold monitoring can be enabled for the call setup values described in the following table.

Value	Description
Number of calls setup	Enables the generation of alerts or alarms based on the number of calls setup by the system during the polling interval.
Number of call setup failures	Enables the generation of alerts or alarms based on the number of call setup failures experienced by the system during the polling interval.
eGTP-C S2b setup failure rate	Enables the generation of alerts or alarms based on the rate at which eGTP-C S2b setup failures are experienced by the system during the polling interval.
eGTP-C S5 setup failure rate	Enables the generation of alerts or alarms based on the rate at which eGTP-C S5 setup failures are experienced by the system during the polling interval.
RP setup failure rate	Enables the generation of alerts or alarms based on the rate at which RP failures are experienced by the system during the polling interval.
PPP setup failure rate	Enables the generation of alerts or alarms based on the rate at which PPP failures are experienced by the system during the polling interval.
Number of calls rejected due to no processing resources being available	Enables the generation of alerts or alarms based on the number of calls rejected by the system due to insufficient resources (memory and/or session licenses) during the polling interval.

Configuring Call Setup Thresholds

Use the following example to configure call setup thresholds:

```
configure
 threshold call-setup <high_thresh> [ clear <low_thresh> ]
 threshold poll call-setup interval <time>
 threshold monitoring call-setup
 end
```

Call Setup Failure Thresholds

Call setup failure thresholds generate alerts or alarms based on the total number of call setup failures experienced by the system during the specified polling interval.

Alerts or alarms are triggered for call setup failures based on the following rules:

- **Enter condition:** Actual number of call setup failures > or = High Threshold
- **Clear condition:** Actual number of call setup failures < Low Threshold

If a trigger condition occurs within the polling interval, the alert or alarm will not be generated until the end of the polling interval.

Configuring Call Setup Failure Thresholds

Use the following example for configuring call setup failure thresholding:

```
configure
 threshold call-setup-failure <high_thresh> [ clear <low_thresh> ]
 threshold poll call-setup-failure interval <time>
 threshold monitoring call-setup
 end
```

eGTP-C S2b Setup Fail Rate Thresholds

eGTP-C S2b setup fail rate thresholds generate alerts or alarms based on the rate of eGTP-C S2b setup failures experienced by the system during the specified polling interval. The failure rate is the percentage of failures as determined by this formula: 1 - (Create Session Response Accept / Create Session Request).

Alerts or alarms are triggered for eGTP-C S2b setup fail rates based on the following rules:

- **Enter condition:** Actual number of eGTP-C S2b setup failures > or = High Threshold
- **Clear condition:** Actual number of eGTP-C S2b setup failures < Low Threshold

If a trigger condition occurs within the polling interval, the alert or alarm will not be generated until the end of the polling interval.

Configuring eGTP-C S2b Setup Fail Rate Thresholds

Use the following example for configuring eGTP-C S2b setup fail rate thresholds:

```
configure
   threshold egtpc-s2b-setup-fail-rate high_thresh [ clear low_thresh ]
   threshold poll egtpc-s2b-setup-fail-rate interval duration
   threshold monitoring call-setup
   end
```

eGTP-C S5 Setup Fail Rate Thresholds

eGTP-C S5 setup fail rate thresholds generate alerts or alarms based on the rate of eGTP-C S5 setup failures experienced by the system during the specified polling interval. The failure rate is the percentage of failures as determined by this formula: 1 - (Create Session Response Accept / Create Session Request).

Alerts or alarms are triggered for eGTP-C S5 setup fail rates based on the following rules:

- **Enter condition:** Actual number of eGTP-C S5 setup failures > or = High Threshold
- **Clear condition:** Actual number of eGTP-C S5 setup failures < Low Threshold

If a trigger condition occurs within the polling interval, the alert or alarm will not be generated until the end of the polling interval.

Configuring eGTP-C S5 Setup Fail Rate Thresholds

Use the following example for configuring eGTP-C S5 setup fail rate thresholds:

```
configure
   threshold egtpc-s5-setup-fail-rate high_thresh [ clear low_thresh ]
   threshold poll egtpc-s5-setup-fail-rate interval duration
   threshold monitoring call-setup
   end
```

RP Setup Failure Rate Thresholds

RP setup failure rate thresholds generate alerts or alarms based on the rate of call setup failures experienced by the system during the specified polling interval. The failure rate is the percentage of failures as determined by number of Registration Request Messages rejected divided by the total number of Registration Request Messages received.

Alerts or alarms are triggered for RP setup failure rates based on the following rules:

- **Enter condition:** Actual number of call setup failures > or = High Threshold
- **Clear condition:** Actual number of call setup failures < Low Threshold

If a trigger condition occurs within the polling interval, the alert or alarm will not be generated until the end of the polling interval.

Configuring RP Setup Failure Rate Thresholds

Use the following example for configuring RP setup failure rate thresholding:

```
configure
 threshold rp-setup-fail-rate <high_thresh> [ clear <low_thresh> ]
 threshold poll rp-setup-fail-rate interval <time>
 threshold monitoring call-setup
 end
```

PPP Setup Failure Rate Thresholds

PPP setup failure rate thresholds generate alerts or alarms based on the rate of call setup failures experienced by the system during the specified polling interval. The failure rate is the percentage of failures as determined by number of PPP setup failures divided by the total number of PPP sessions initiated.

Alerts or alarms are triggered for PPP setup failure rates based on the following rules:

- **Enter condition:** Actual number of call setup failures > or = High Threshold
- **Clear condition:** Actual number of call setup failures < Low Threshold

If a trigger condition occurs within the polling interval, the alert or alarm will not be generated until the end of the polling interval.

Configuring PPP Setup Failure Rate Thresholds

Use the following example for configuring PPP setup failure rate thresholding:

```
configure
 threshold ppp-setup-fail-rate <high_thresh> [ clear <low_thresh> ]
 threshold poll ppp-setup-fail-rate interval <time>
 threshold monitoring call-setup
 end
```

No Resource Call Reject Thresholds

No resource call reject thresholds generate alerts or alarms based on the total number of calls that were rejected by the system due to insufficient or no resources (CPU, memory, etc.) during the specified polling interval.

Alerts or alarms are triggered for no-resource-rejected calls based on the following rules:

- **Enter condition:** Actual number of calls rejected due to no resources > or = High Threshold
- **Clear condition:** Actual number of calls rejected due to no resources < Low Threshold

If a trigger condition occurs within the polling interval, the alert or alarm will not be generated until the end of the polling interval.

Configuring No Resource Call Reject Thresholds

Use the following example for configuring no resource call reject thresholding:

```
configure
 threshold call-reject-no-resource <high_thresh> [ clear <low_thresh> ]
 threshold poll call-reject-no-resource interval <time>
 threshold monitoring call-setup
 end
```