Diameter Thresholds

Diameter Thresholds

Threshold monitoring can be enabled for the Diameter-related values described in the following table.

Threshold	Description
DCCA Bad Answers	Enables generation of alerts or alarms based on the number of times DIAMETER-BAD-ANSWER code is sent to the Diameter server during a polling interval.
DCCA Protocol Errors	Enables generation of alerts or alarms based on the number protocol error messages received from the Diameter server during a polling interval.
DCCA Rating Failure	Enables generation of alerts or alarms based on the number of times the Diameter server rejected requests for a block of credits, due to the Rating Group (content-id) being invalid during a polling interval.
DCCA Unknown Rating Group	Enables generation of alerts or alarms based on the number of times the block of credits returned by the Diameter server is rejected due to the Rating Group being unknown during a polling interval.
Diameter Retry Rate	Enables generation of alerts or alarms based on the percentage of Diameter requests that were re-tried during a polling interval.

Configuring Diameter Thresholds

This section describes how to enable and configure Diameter thresholds.

DCCA Bad Answers Threshold

DCCA Bad Answers threshold generates alerts or alarms based on the number of times DIAMETER-BAD-ANSWER code is sent to the Diameter server during the polling interval.

Alerts or alarms are triggered based on the following rules:

- **Enter condition** : Actual number of times DIAMETER-BAD-ANSWER code sent > or = High Threshold
- **Clear condition** : Actual number of times DIAMETER-BAD-ANSWER code sent < 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 DCCA Bad Answers Threshold

To configure the DCCA Bad Answers threshold use the following configuration:

```
configure
 threshold dcca-bad-answers <high_thresh> [ clear  <low_thresh> ]
 threshold poll dcca-bad-answers interval <seconds>
 threshold monitoring ecs
 end
```

DCCA Protocol Errors Threshold

DCCA Protocol Errors threshold generates alerts or alarms based on the number protocol error messages received from the Diameter server during the polling interval.

Alerts or alarms are triggered based on the following rules:

- **Enter condition** : Actual number of protocol error messages received > or = High Threshold
- **Clear condition** : Actual number of protocol error messages received < 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 DCCA Protocol Errors Threshold

To configure the DCCA Protocol Errors threshold use the following configuration:

```
configure
 threshold dcca-protocol-error  <high_thresh> [ clear  <low_thresh> ]
 threshold poll dcca-protocol-error interval <seconds>
 threshold monitoring ecs
 end
```

DCCA Rating Failure Threshold

DCCA Rating Failure threshold generates alerts or alarms based on the number of times the Diameter server rejected requests for a block of credits, due to the Rating Group (content-id) being invalid during the polling interval.

Alerts or alarms are triggered based on the following rules:

- **Enter condition** : Actual number of rating failures > or = High Threshold
- **Clear condition** : Actual number of rating 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 DCCA Rating Failure Threshold

To configure the DCCA Rating Failure threshold use the following configuration:

```
configure
 threshold dcca-rating-failed  <high_thresh> [ clear  <low_thresh> ]
 threshold poll dcca-rating-failed interval <seconds>
 threshold monitoring ecs
 end
```

DCCA Unknown Rating Group Threshold

DCCA Unknown Rating Group threshold generates alerts or alarms based on the number of times the block of credits returned by the Diameter server is rejected due to the Rating Group being unknown during the polling interval.

Alerts or alarms are triggered based on the following rules:

- **Enter condition** : Actual number of "unknown rating group" failures > or = High Threshold
- **Clear condition** : Actual number of "unknown rating group" < 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 DCCA Unknown Rating Group Threshold

To configure the DCCA Unknown Rating Group threshold use the following configuration:

```
configure
 threshold dcca-unknown-rating-group <high_thresh> [ clear  <low_thresh> ]
 threshold poll dcca-unknown-rating-group interval <seconds>
 threshold monitoring ecs
 end
```

Diameter Retry Rate Threshold

Diameter Retry Rate threshold generates alerts or alarms based on the percentage of Diameter requests that were re-tried during the polling interval.

Alerts or alarms are triggered based on the following rules:

- **Enter condition**: Percentage of Diameter requests retried > or = High Threshold
- **Clear condition**: Percentage of Diameter requests retried < 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 Diameter Retry Rate Threshold

To configure the Diameter Retry Rate threshold use the following configuration:

```
configure
 threshold diameter diameter-retry-rate <high_thresh> [ clear  <low_thresh> ]
 threshold poll diameter-retry-rate interval  <seconds>
 threshold monitoring diameter
 end
```

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*.