

HA Thresholds

- HA Service Thresholds, on page 1
- Saving Your Configuration, on page 2
- Context-Level HA Service Thresholds, on page 2
- HA Service-Level HA Service Thresholds, on page 2

HA Service Thresholds

HA Service thresholds generate alerts or alarms for the average number of calls setup. A threshold can be configured to report this information for an entire context or for an individual HA service. Thresholds can also be configured for registration reply, re-registration reply and de-registration reply errors for individual HA services.

Alerts or alarms are triggered for these HA thresholds based on the following rules:

- **Enter condition:** Actual average of call setups or actual number of errors > or = High Threshold
- **Clear condition:** Actual average of call setups or actual number of errors < Low Threshold

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

The following table describes the possible methods for configuring HA Service thresholds:

Method	Description
Context-Level	This threshold keeps track of the average number of call setups for all HA services in a context. When the actual average of call setups per polling period meets or exceeds the set high threshold an alert or alarm is set.
HA Service-Level	HA services send and receive registration messages. The thresholds in the HA Service-Level can be configured to monitor thresholds for registration reply, re-registration reply, and de-registration reply errors.

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*.

Context-Level HA Service Thresholds

There is only one HA service threshold that can be configured, the average number of call setups for all HA services in a context.

Configuring Context-Level HA Service Thresholds

Use the following example to configure the threshold, set the polling interval for the threshold and enable monitoring of the threshold:

```
configuration
 context <context_name>
 threshold ha-service-init-rrq-rcvd-rate <high_thresh> [ clear <low_thresh> ]
 exit
 threshold poll <threshold_name> interval <time>
 threshold monitoring ha-service
 threshold monitoring ip-sec
      end
```

HA Service-Level HA Service Thresholds

There are 10 thresholds that can be configured for the HA service-level:

- Total De-registration Reply Errors
- Average Calls Setup Per Second
- Total IPSec Call Requests Rejected
- Percentage of IPSec IKE Failures
- Total IPSec IKE Failures
- Total IPSec IKE Requests
- Total IPSec Tunnels Established
- Total IPSec tunnels Setup
- Total Registration Reply Errors
- Total Re-registration Reply Errors

Configuring HA Service-Level HA Service Thresholds

Use the following example to configure the HA service-level thresholds:

```
configure
 context <context_name>
 ha-service <name>
 threshold { dereg-reply-error | init-rrq-rcvd-rate | ipsec-call-req-rej |
 ipsec-ike-failrate | ipsec-ike-failures | ipsec-ike-requests |
ipsec-tunnels-established | ipsec-tunnels-setup | reg-reply-error |
rereg-reply-error }
 exit
 exit
 threshold poll ha-init-rrq-rcvd-rate interval <time>
 threshold poll reg-reply-error interval <time>
 threshold poll rereg-reply-error interval <time>
 threshold poll dereg-reply-error interval <time>
 threshold monitoring ha-service
      end
```