

PDSN Thresholds

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PDSN Service Thresholds

PDSN 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 PDSN service. Thresholds can also be configured for A11 registration response failures, discarded A11 registration requests, discarded A11 registration acknowledgments, and discarded PPP send packets for individual PDSN services.

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

- **Enter condition:** When the actual average of call setups or actual number of failures or discards passes, or is equal to, the configured Threshold value an alert or alarm is set.
- **Clear condition:** When the actual average of call setups or actual number of failures or discards passes below the Threshold value the alert or alarm is cleared.

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 PDSN Service thresholds:

Method	Description
Context-Level	This threshold keeps track of the average number of call setups for all PDSN 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.

Method	Description
PDSN Service-Level	PDSN services send and receive A11 registration messages and PPP packets. The thresholds in the PDSN Service-Level can be configured to monitor thresholds for A11 registration response failures, discarded A11 registration requests, discarded A11 registration acknowledgments, and discarded PPP send packets for individual PDSN services.

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 PDSN Service Thresholds

This threshold keeps track of the average number of call setups for all PDSN 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.

Configuring Context-Level PDSN Service Thresholds

Use the following example to configure the threshold for monitoring the average number of calls setup per second for the context, set the polling interval for the threshold and enable monitoring of the threshold.

```
configure
 context <context_name>
 threshold pdsn-service init-rrq-rcvd-rate  <high_thresh> [ clear <low_thresh>]

 exit
 threshold poll pdsn-init-rrq-rcvd-rate interval <time>
 threshold monitoring pdsn-service
      end
```

PDSN Service-Level PDSN Service Thresholds

PDSN services send and receive A11 registration messages and PPP packets. The thresholds in the PDSN Service-Level can be configured to monitor thresholds for A11 registration response failures, discarded A11 registration requests, discarded A11 registration acknowledgments, and discarded PPP send packets for individual PDSN services.

There are five thresholds that can be configured for the PDSN service-level:

- Average Calls Setup Per Second

- Total A11 Registration Response Failures
- Total A11 Registration Request Messages Discarded
- Total A11 Registration Acknowledgement Messages Discarded
- Total Packets PPP Protocol Processing Layer Discarded on Transmit

Configuring PDSN Service-Level PDSN Service Thresholds

Use the following example to configure and enable these thresholds:

```
configuration
 context  <context_name>
 pdsn-service <name>
 threshold init-rrq-rcvd-rate <high_thresh> [ clear <low_thresh>]
 threshold a11-rrp-failure <high_thresh> [ clear <low_thresh>]
 threshold a11-rrq-msg-discard <high_thresh> [ clear  <low_thresh>]
 threshold a11-rac-msg-discard  <high_thresh> [ clear  <low_thresh>]
 threshold all-ppp-send-discard <high_thresh> [ clear <low_thresh>]
 exit
 exit
 threshold poll pdsn-init-rrq-rcvd-rate interval <time>
 threshold poll a11-rrp-failure interval <time>
 threshold poll a11-rrq-msg-discard interval <time>
 threshold poll a11-rac-msg-discard interval <time>
 threshold poll a11-ppp-send-discard interval <time>
     threshold monitoring pdsn-service
      end
```