



## Per-Service Session Thresholds

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## Per-service Session Thresholds

Threshold monitoring can be enabled for the per-service session counts described in the following table.

Value	Description
PDSN Services	Enables the generation of alerts or alarms based on the number of sessions (active and dormant) facilitated by any PDSN service counted during the polling interval.
HA Services	Enables the generation of alerts or alarms based on the number of sessions (active and dormant) facilitated by any HA service counted during the polling interval.
GGSN Services	Enables the generation of alerts or alarms based on the number of PDP contexts (active and dormant) facilitated by any GGSN service counted during the polling interval.
LNS Services	Enables the generation of alerts or alarms based on the number of sessions facilitated by any LNS service counted during the polling interval.

Value	Description
GPRS Services	Enables the generation of alerts or alarms based on the number of GPRS sessions or the number of r GPRS PDP contexts (active and dormant) facilitated by any GPRS service counted during the polling interval.
SGSN Services	Enables the generation of alerts or alarms based on the number of SGSN sessions or the number of SGSN PDP contexts (active and dormant) facilitated by any SGSN service counted 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*.

## Per-PDSN Service Thresholds

Per-PDSN service thresholds generate alerts or alarms based on the total number of sessions facilitated by any PDSN service configured on the system during the specified polling interval.

Alerts or alarms are triggered for sessions per-PDSN service based on the following rules:

- **Enter condition:** Actual total number of sessions  $\geq$  High Threshold
- **Clear condition:** Actual total number of sessions  $<$  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.

This section provides instructions for configuring per-PDSN service thresholding. These instructions assume that you are at the prompt for the Global Configuration mode:

## Configuring Per-PDSN Service Thresholds

Use the following example to configure the per-PDSN service thresholds:

```
configure
threshold per-service-pdsn-sessions <high_thresh> [ clear <low_thresh> ]
threshold poll per-service-pdsn-sessions interval <time>
threshold monitoring subscriber
end
```

## Per-HA Service Thresholds

Per-HA service thresholds generate alerts or alarms based on the total number of sessions facilitated by any HA service configured on the system during the specified polling interval.

Alerts or alarms are triggered for sessions per-HA service based on the following rules:

- **Enter condition:** Actual total number of sessions  $\geq$  High Threshold
- **Clear condition:** Actual total number of sessions  $<$  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 Per-HA Service Thresholds

Configure the per-HA service thresholds by entering the following command:

```
configure
threshold per-service-ha-sessions <high_thresh> [ clear <low_thresh> ]
threshold poll per-service-ha-sessions interval <time>
threshold monitoring subscriber
end
```

## Per-GGSN Service Thresholds

Per-GGSN service thresholds generate alerts or alarms based on the total number of PDP contexts facilitated by any GGSN service configured on the system during the specified polling interval.

Alerts or alarms are triggered for sessions per-GGSN service based on the following rules:

- **Enter condition:** Actual total number of PDP contexts  $\geq$  High Threshold
- **Clear condition:** Actual total number of PDP contexts  $<$  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 Per-GGSN Service Thresholds

Use the following example to configure the per-GGSN service thresholds:

```
configure
threshold per-service-ggsn-sessions <high_thresh> [ clear <low_thresh> ]
threshold poll per-service-ggsn-sessions interval <time>
threshold monitoring subscriber
end
```

## Per-LNS Service Thresholds

Per-LNS service thresholds generate alerts or alarms based on the total number of sessions facilitated by any LNS service configured on the system during the specified polling interval.

Alerts or alarms are triggered for sessions per-LNS service based on the following rules:

- **Enter condition:** Actual total number of sessions  $\geq$  High Threshold
- **Clear condition:** Actual total number of sessions  $<$  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 Per-LNS Service Thresholds

Use the following example to configure the per-LNS service thresholds:

```
configure
threshold per-service-lns-sessions <high_thresh> [ clear <low_thresh> ]
threshold poll per-service-lns-sessions interval <time>
threshold monitoring subscriber
end
```

## Per-GPRS Service Thresholds

Per-GPRS service thresholds generate alerts or alarms based on the total number of attached subscribers facilitated by any GPRS service configured on the system during the specified polling interval.

Alerts or alarms are triggered for sessions per-GPRS service based on the following rules:

- **Enter condition:** Actual total number of attached subscribers  $\geq$  High Threshold
- **Clear condition:** Actual total number of attached subscribers  $<$  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 Per-GPRS Service Thresholds

Use the following example to configure the per-GGSN service thresholds:

```
configure
threshold per-service-gprs-sessions <high_thresh> [ clear <low_thresh> ]
threshold poll per-service-gprs-sessions interval <time>
threshold monitoring subscriber
end
```

## Per-GPRS Service PDP Contexts Thresholds

Per-GPRS service PDP context thresholds generate alerts or alarms based on the total number of PDP contexts facilitated by any GPRS service session configured on the system during the specified polling interval.

Alerts or alarms are triggered for sessions per-GPRS service based on the following rules:

- **Enter condition:** Actual total number of PDP contexts > or = High Threshold
- **Clear condition:** Actual total number of PDP contexts < 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 Per-GPRS Service PDP Contexts Thresholds

Use the following example to configure the per-GPRS service PDP contexts thresholds:

```
configure
threshold per-service-gprs-pdp-sessions <high_thresh> [ clear <low_thresh> ]
threshold poll per-service-gprs-pdp sessions interval <time>
threshold monitoring subscriber
end
```

## Per-SGSN Service Thresholds

Per-SGSN service thresholds generate alerts or alarms based on the total number of attached subscribers facilitated by any SGSN service configured on the system during the specified polling interval.

Alerts or alarms are triggered for sessions per-SGSN service based on the following rules:

- **Enter condition:** Actual total number of attached subscribers > or = High Threshold
- **Clear condition:** Actual total number of attached subscribers < 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 Per-SGSN Service Thresholds

Use the following example to configure the per-SGSN service thresholds:

```
configure
threshold per-service-sgsn-sessions <high_thresh> [ clear <low_thresh> ]
threshold poll per-service-sgsn-sessions interval <time>
threshold monitoring subscriber
end
```

## Per-SGSN Service PDP Contexts Thresholds

Per-SGSN service PDP context thresholds generate alerts or alarms based on the total number of PDP contexts facilitated by any SGSN service session configured on the system during the specified polling interval.

Alerts or alarms are triggered for sessions per-SGSN service based on the following rules:

- **Enter condition:** Actual total number of PDP contexts  $\geq$  High Threshold
- **Clear condition:** Actual total number of PDP contexts  $<$  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 Per-SGSN Service PDP Contexts Thresholds

Use the following example to configure the per-SGSN service PDP contexts thresholds:

```
configure
threshold per-service-sgsn-pdp-sessions <high_thresh> [ clear<low_thresh> ]
threshold poll per-service-sgsn-pdp sessions interval <time>
threshold monitoring subscriber
end
```