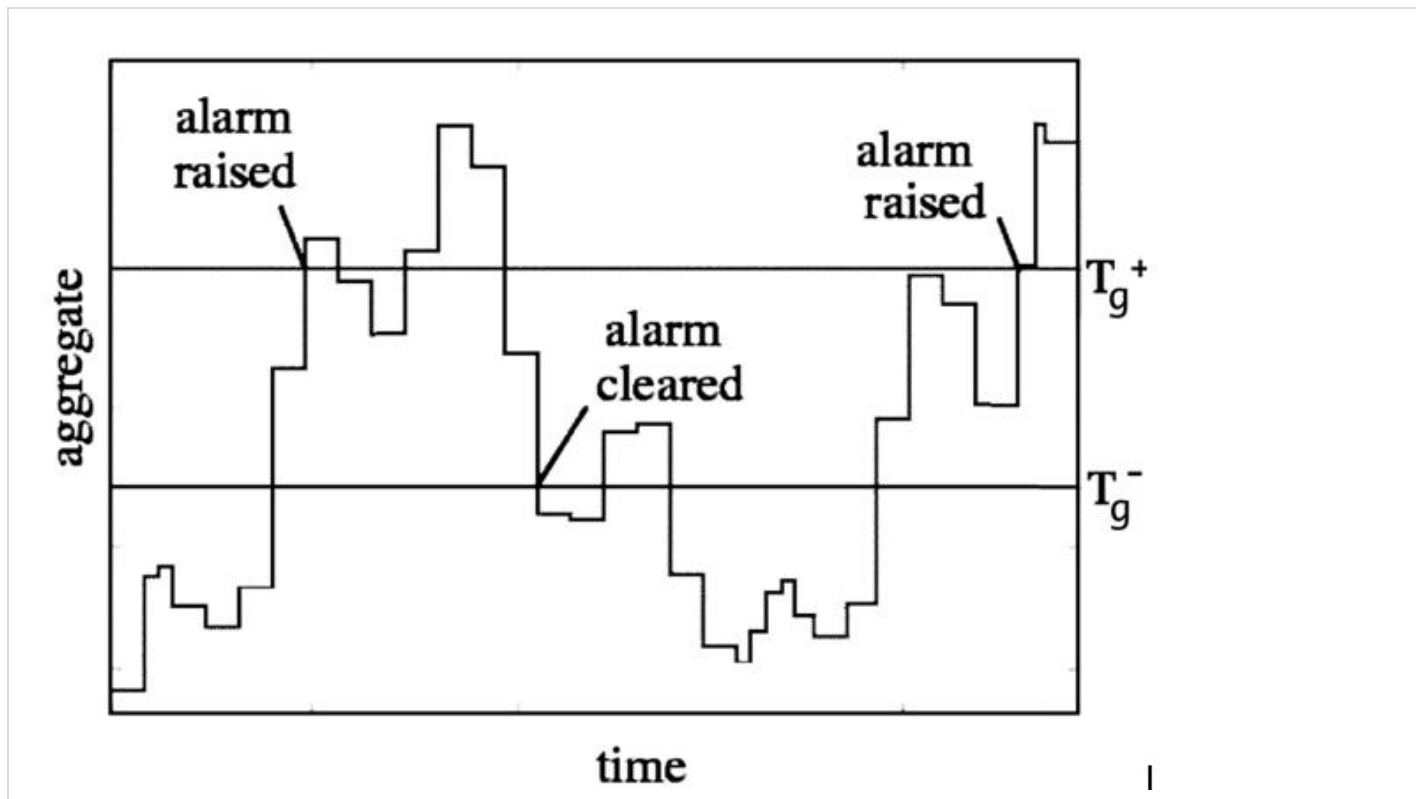


# Working with Historical Data and TCA Thresholds

## Overview

The collection of historical data and Threshold Crossing Alerts (TCA) provides a facility for understanding the long-term utilization and call traffic characteristics of the SBC 1000/2000. The collection and analysis of this data over an extended period of time produces a clearer picture of how the node is being utilized and provides information necessary to properly modify its capacity. The TCA Thresholds feature allows the administrator to configure thresholds for monitoring real-time statistics. An alarm is raised when a user defined threshold for a particular attribute is crossed.



## Statistics

The node collects the statistics listed in the table below. Each statistic has user configurable **Raise** and **Clear** alarm thresholds. An alarm is raised when the Raise threshold is exceeded, and conversely the alarm is cleared when the statistical value drops below the Clear threshold

Statistic	Minimum Threshold Range	Maximum Threshold Range	Polling Interval	Collection Interval	History Range	Maximum Number of Collections
Signaling Group Channel Usage (peak)	0 (Number of channel per Signaling Group minus 1)	1 - Number of channels per Signaling Group	1 min	1 hr	1 day	25
SIP Call license Usage	0 (Number of licenses minus 1)	600	1 min	1 hr	1 day	25
SIP Registration	0 (Configured registrations minus 1)	500	10 mins	1 hr	1 day	25
DSP Usage (peak)	0%	100%	1 min	1 hr	1 day	25
CPU Usage	0%	100%	10 secs	1 min	4 hrs	241

Memory Usage	0%	100%	10 secs	1 min	4 hrs	241
File Descriptor Usage	0	4000	10 secs	1 min	4 hrs	241
1 Minute Load Average	1 (increments of 100% CPU usage)	5	10 secs	1 min	4 hrs	241
5 Minute Load Average	1	5	10 secs	1 min	4 hrs	241
15 Minute Load Average	1	5	10 secs	1 min	4 hrs	241
Temporary Partition Usage	0%	100%	10 secs	1 min	4 hrs	241
Logging Partition Usage (SBC2000 Only)	0%	100%	10 secs	1 min	4 hrs	241



### Logging Partition Usage Applicability

The Logging Partition Usage statistics and its related alarms and events are only applicable to the SBC2000.

- **Statistic.** The type of statistic collected.
- **Maximum/Minimum Threshold Range.** The minimum and maximum threshold ranges used before an alarm is raised or cleared respectively.
- **Polling Interval.** The interval at which the system polls the statistic to see if it has crossed a threshold, and subsequently raises or clears an alarm if needed.
- **Collection Interval.** The interval at which the system collects data for the statistic.
- **History Range.** The amount of time the collected statistic is retained.
- **Maximum number of Collections.** The maximum number of collections that can be stored at any period of time. The collection with ID1 is the current collection interval, and the collections with IDs 2 -<max> are the historical collections.

## Alarms and Events

TCA Type	Alarm (ID)	Event (ID)
Signaling Group Channel Usage	TCA Threshold Exceeded	TCA Threshold Cleared
SIP Call license Usage	TCA Threshold Exceeded	TCA Threshold Cleared
SIP Registration	TCA Threshold Exceeded	TCA Threshold Cleared
DSP Usage	TCA Threshold Exceeded	TCA Threshold Cleared
CPU Usage	TCA Threshold Exceeded	TCA Threshold Cleared
Memory Usage	TCA Threshold Exceeded	TCA Threshold Cleared
File Descriptor Usage	TCA Threshold Exceeded	TCA Threshold Cleared
1 Minute Load Average	TCA Threshold Exceeded	TCA Threshold Cleared
5 Minute Load Average	TCA Threshold Exceeded	TCA Threshold Cleared
15 Minute Load Average	TCA Threshold Exceeded	TCA Threshold Cleared

Temporary Partition Usage	TCA Threshold Exceeded	TCA Threshold Cleared
Logging Partition Usage	TCA Threshold Exceeded	TCA Threshold Cleared

## Managing TCA Thresholds

- [Configuring TCA Thresholds](#)

## Retrieving Data

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Statistics data are available through the REST interface. For more information about using the REST interface see the SBC 1000/2000 REST Documentation.