



Alarm History

Alarm history or alarm persistence feature enables the maintenance of the history of the port and the path alarms of the following interface modules:

- 48-Port T1/E1 CEM Interface Module
- 48-Port T3/E3 CEM Interface Module
- OC-192 Interface Module or 8-port Low Rate CEM Interface Module (10G HO / 10G LO)

History of the port-level and path-level alarms are saved into a file and is retained for monitoring network events.

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Alarm History Restrictions

The following restrictions apply for the alarm history feature:

- Only port and path level alarm history or alarm persistency is supported.
- Persistence of T1 alarms on a Channelized T3 port or OC-192 Interface Module or 8-port Low Rate CEM Interface Module (10G HO / 10G LO) is not supported.
- Two new files are created after each reboot.
- The primary and secondary log file are created during feature initialization. The primary log file saves 10000 alarms. When the threshold of 10000 alarms in the primary log file is crossed, the subsequent 10000 alarms are saved in the secondary log file. After crossing the threshold of 10000 alarms in the secondary log file, the content of primary log file is cleared and is replaced with the subsequent alarms.
- When a primary file switches to a secondary file and vice versa, the following happens:
 - An information level syslog message is displayed.

- An informatory message is written in the file where subsequent alarms are stored.
- When RSP switchover happens, the alarm history files are not copied to the new active RSP. Two new files are created in the new active RSP.
- When you re-configure alarm history or alarm persistence feature, two new files are created.

Configuring Alarm History

The configuration of alarm history helps in defining the periodicity or the interval at which the alarm entries are saved in the designated file. To configure alarm history:

```
enable
configure terminal
service alarm persistency interval <20-600>
end
```

When alarm history is configured, two log files are created in bootflash:tracelogs in the following format:

```
<persistent_alarm[1/2] [TIME_STAMP(DD MMMM YYYY HH MM SSS)].log>
```

The syslog message is displayed as the following after configuration:

```
*Jun 15 10:16:51.270: %ALARM_PERSISTENCY-6-ALARM_INFO_PROCESS_CREATE: created
mcprp_spa_persistence_logger process:292
*Jun 15 10:16:51.270: %ALARM_PERSISTENCY-6-ALARM_CHUNK_INFO_CREATED: chunk pool creation
for alarm info is successful
*Jun 15 10:16:51.270: %ALARM_PERSISTENCY-6-ALARM_CHUNK_QUEUE_CREATED: chunk pool for
alarm queue is successful
*Jun 15 10:16:51.283: %ALARM_PERSISTENCY-6-ALARM_INFO_FILE_CREATED: Successfully created
/bootflash/tracelogs/persistent_alarm_1.15_June_2016_10_16__270.log file
Router#
*Jun 15 10:16:51.295: %ALARM_PERSISTENCY-6-ALARM_INFO_FILE_CREATED: Successfully created
/bootflash/tracelogs/persistent_alarm_2.15_June_2016_10_16__270.log file
*Jun 15 10:16:52.541: %SYS-5-CONFIG_I: Configured from console by console
Router#
```

Verification of Alarm History Configuration

Use the `show process | include persis` command to verify the validity of the process.

```
Router#show process | include persis
 292 Msi 13F0D4AC          0          49          010328/12000  0 mcprp_spa_persis
Router#
```

Verify the contents of the persistent alarm log files using the following commands:

```
Router#dir bootflash:tracelogs/*persistent*
Directory of bootflash:tracelogs/*persistent*
394172 -rw-          1606 Jun 15 2016 07:50:39 +00:00
persistent_alarm_1.15_June_2016_07_46__158.log
394173 -rw-           6299 Jun 15 2016 07:50:38 +00:00
persistent_alarm_2.15_June_2016_07_46__158.log
6185086976 bytes total (4867022848 bytes free)
Router#

Router#more bootflash:tracelogs/persistent_alarm_1.15_June_2016_07_46__158.log
At:15_June_2016_07_50__916 contents of persistent_alarm_2.15_June_2016_07_46__158.log are
full, so switched to this file
*07:50:19.360 UTC Wed Jun 15 2016|SLOT_0 |BAY_3 |PORT_0 |2 |1 |6 |4
|SONET SDH_PATH_VT/TU_ALARM|MAJOR|VT_UNEQUIPPED|CLEARED
*07:50:19.360 UTC Wed Jun 15 2016|SLOT_0 |BAY_3 |PORT_0 |2 |1 |6 |4
|SONET SDH_PATH_VT/TU_ALARM|MAJOR|VT_PATH_LOP|RAISED
*07:50:19.360 UTC Wed Jun 15 2016|SLOT_0 |BAY_3 |PORT_0 |2 |1 |7 |1
|SONET_SDH_PATH_VT/TU_ALARM|MAJOR|VT_UNEQUIPPED|CLEARED
```

```
*07:50:19.360 UTC Wed Jun 15 2016|SLOT_0 |BAY_3 |PORT_0 |2 |1 |7 |1
|SONET_SDH_PATH_VT/TU_ALARM|MAJOR|VT_PATH_LOP|RAISED
*07:50:19.360 UTC Wed Jun 15 2016|SLOT_0 |BAY_3 |PORT_0 |2 |1 |7 |2
|SONET_SDH_PATH_VT/TU_ALARM|MAJOR|VT_UNEQUIPPED|CLEARED
*07:50:19.360 UTC Wed Jun 15 2016|SLOT_0 |BAY_3 |PORT_0 |2 |1 |7 |2
|SONET_SDH_PATH_VT/TU_ALARM|MAJOR|VT_PATH_LOP|RAISED
*07:50:19.360 UTC Wed Jun 15 2016|SLOT_0 |BAY_3 |PORT_0 |2 |1 |7 |3
|SONET_SDH_PATH_VT/TU_ALARM|MAJOR|VT_UNEQUIPPED|CLEARED
*07:50:19.361 UTC Wed Jun 15 2016|SLOT_0 |BAY_3 |PORT_0 |2 |1 |7 |3
|SONET_SDH_PATH_VT/TU_ALARM|MAJOR|VT_PATH_LOP|RAISED
*07:50:19.361 UTC Wed Jun 15 2016|SLOT_0 |BAY_3 |PORT_0 |2 |1 |7 |4
|SONET_SDH_PATH_VT/TU_ALARM|MAJOR|VT_UNEQUIPPED|CLEARED
*07:50:19.361 UTC Wed Jun 15 2016|SLOT_0 |BAY_3 |PORT_0 |2 |1 |7 |4
|SONET_SDH_PATH_VT/TU_ALARM|MAJOR|VT_PATH_LOP|RAISED
*07:50:23.333 UTC Wed Jun 15 2016|SLOT_0 |BAY_3 |PORT_0 |1 |1 |1 |1
|SONET_SDH_PATH_VT/TU_ALARM|MAJOR|VT_UNEQUIPPED|CLEARED
*07:50:27.335 UTC Wed Jun 15 2016|SLOT_0 |BAY_3 |PORT_0 |1 |1 |1 |1
|SONET_SDH_PATH_VT/TU_PDH_DS1_ALARM|NA|DS1_AIS|CLEARED
```

Router#

Associated Commands

The following commands are used to configure alarm history:

Commands	Links
<code>service alarm persistency interval</code>	service alarm persistency interval
<code>show process include persis</code>	show process include persis

Additional References for Alarm History

Related Documents

Related Topic	Document Title
Cisco IOS commands	Cisco IOS Master Commands List, All Releases

Standards

Standards	Title
—	There are no standards for this feature.

MIBs

MIB	MIBs Link
—	To locate and download MIBs for selected platforms, Cisco IOS releases, and feature sets, use Cisco MIB Locator found at the following URL: http://www.cisco.com/go/mibs

RFCs

RFCs	Title
—	There are no RFCs for this feature.

Technical Assistance

Description	Link
<p>The Cisco Support website provides extensive online resources, including documentation and tools for troubleshooting and resolving technical issues with Cisco products and technologies.</p> <p>To receive security and technical information about your products, you can subscribe to various services, such as the Product Alert Tool (accessed from Field Notices), the Cisco Technical Services Newsletter, and Really Simple Syndication (RSS) Feeds.</p> <p>Access to most tools on the Cisco Support website requires a Cisco.com user ID and password.</p>	http://www.cisco.com/cisco/web/support/index.html