



## Alarm History

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

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/E3 port or 1-Port OC-192 or 8-Port Low Rate CEM Interface Module is not supported.
- Two new files are created after each reboot.
- The primary and secondary log files 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 a standby RSP switches over, the alarm history files are not copied to the new active RSP. Two new files are created in the new active RSP.

## 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#
```

## Verifying Alarm History Configuration

Use the **show process | include persistent** command to verify the validity of the process.

```
Router#show process | include persistent
 292 Msi 13F0D4AC          0          49          010328/12000  0 mcprp_spa_persistent
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
<b>service alarm persistency interval</b>	<a href="http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/interface/command/ir-cr-book/ir-s1.html#wp3501057143">http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/interface/command/ir-cr-book/ir-s1.html#wp3501057143</a>
<b>show process   include persis</b>	<a href="http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/interface/command/ir-cr-book/ir-s5.html#wp9298909580">http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/interface/command/ir-cr-book/ir-s5.html#wp9298909580</a>

## Additional References for Alarm History

### Related Documents

Related Topic	Document Title
Cisco IOS commands	<a href="#">Cisco IOS Master Commands List, All Releases</a>

### Standards

Standards	Title
—	There are no standards for this feature.

**MIBs**

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

**RFCs**

<b>RFCs</b>	<b>Title</b>
—	There are no RFCs for this feature.

**Technical Assistance**

<b>Description</b>	<b>Link</b>
<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>	<a href="http://www.cisco.com/cisco/web/support/index.html">http://www.cisco.com/cisco/web/support/index.html</a>