

Session Event Module Configuration Mode Commands

Command Modes

The Session Event Module Configuration Mode is used to configure how subscriber-specific event data is handled on the S-GW. As users attach, detach, and move through the network, they trigger signaling events that need to be recorded. To provide a per-subscriber level of reporting, the S-GW sends a stream of user event data to an event reporting server over SFTP.

Exec > Global Configuration > Context Configuration > Session Event Module Configuration

configure > context *context_name* **> session-event-module**

Entering the above command sequence results in the following prompt:

```
[context_name]host_name(config-event)#
```

Important The commands or keywords/variables that are available are dependent on platform type, product version, and installed license(s).

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do show

Executes all **show** commands while in Configuration mode.

Product

All

Privilege

Security Administrator, Administrator

Syntax Description

```
do show
```

Usage Guidelines

Use this command to run all Exec mode **show** commands while in Configuration mode. It is not necessary to exit the Config mode to run a **show** command.

The pipe character | is only available if the command is valid in the Exec mode.



Caution There are some Exec mode **show** commands which are too resource intensive to run from Config mode. These include: **do show support collection**, **do show support details**, **do show support record** and **do show support summary**. If there is a restriction on a specific **show** command, the following error message is displayed:

```
Failure: Cannot execute 'do show support' command from Config mode.
```

end

Exits the current configuration mode and returns to the Exec mode.

Product All

Privilege Security Administrator, Administrator

Syntax Description **end**

Usage Guidelines Use this command to return to the Exec mode.

event

Sets the method and destination for transferring event files.

Product P-GW

SAEGW

S-GW

Privilege Administrator

Command Modes Exec > Global Configuration > Context Configuration > Session Event Module Configuration

configure > context *context_name* **> session-event-module**

Entering the above command sequence results in the following prompt:

```
[context_name]host_name(config-event)#
```

Syntax Description

```
event { purge { storage-limit bytes | time-limit seconds } | push-interval
value | push-trigger space-usage-percent trigger_percentage |
remove-file-after-transfer | transfer-mode { pull [ module-only ] | push
 primary { encrypted-url encrypted_url | url url } [ max-files files ] [
module-only ] [ secondary { encrypted-secondary-url url | secondary-url
url } ] [ via local-context ] } | use-harddisk }
default event [ purge | push-interval | push-trigger space-usage-percent
 | remove-file-after-transfer | transfer-mode | file name | rotation
```

```
volume | rotation time | compression | extension  | use-harddisk ]
no event [ purge | remove-file-after-transfer | use-harddisk ]
```

default

Configures the default setting for the specified keyword(s):

- **purge**: Not enabled.
- **push-interval**: 300 seconds
- **push-trigger**: 80 percent
- **remove-file-after-transfer**: Disabled
- **transfer mode**: Pull
- **file name**: Specifies the RTT file name where the records are stored.
- **rotation volume**: The volume based on which the RTT file is generated.
- **rotation time**: The time based on which the RTT file is generated.

Note The RTT files are pushed to the external server based on the rotation volume or rotation time, whichever occurs first.

- **compression**: Specifies the file compression type. If enabled, the RTT file is generated as a Gzip file, else it is generated as a normal file.
- **extension**: Specifies the RTT file extension (.csv).
- **use-harddisk**: Disabled

no

Disables the configured event file storage and processing in this mode:

- **purge**: Disables the deleting of record files on the hard disk based on a storage limit or a time limit.
- **remove-file-after-transfer**: Retains a copy of the file even after it has been pushed or pulled to another server.
- **use-harddisk**: Disables data storage on the system's hard disk.

purge { storage-limit *bytes* | time-limit *seconds* }

Configures parameters for deleting event records from the hard drive. This command is not enabled by default.

storage-limit *bytes*: Specifies that event records are to be deleted from the hard drive upon reaching a storage limit defined in bytes.

bytes must be an integer value from 10485760 to 146800640.

time-limit *seconds*: Specifies that event records are to be deleted from the hard drive upon reaching a time limit defined in seconds.

seconds must be an integer value from 600 to 2592000.

push-interval *value*

Default: 300

Specifies the transfer interval (in seconds) when event files will be pushed to an external file server.

value must be an integer from 30 through 3600.

push-trigger space-usage-percent *trigger_percentage*

Default: 80

Specifies the disk space utilization percentage threshold at which an automatic push is triggered and files are transferred to the external server.

trigger_percentage must be an integer from 10 through 80.

remove-file-after-transfer

Default: Disabled

Specifies that the system must delete event files after they have been transferred to the external file server.

transfer-mode { pull [module-only] | push primary { encrypted-url *encrypted_url* | url *url* } [max-files *files*] [module-only] [secondary { encrypted-secondary-url *url* | secondary-url *url* }] [via local-context] }

Specifies the transfer mode to be used when transferring event files to an external file server.

- **pull**: Specifies that the destination server will pull the event files. This is the default mode.
- **push**: Specifies that the system will push event files to the destination server.
- **primary encrypted-url** *encrypted_url*: Specifies the primary URL location to which the system pushes the files in encrypted format.

  encrypted_url must be an alphanumeric string of 1 through 8192 characters.
- **primary url** *url*: Specifies the primary URL location to which the system pushes the event files. *url* must be an alphanumeric string of 1 through 1024 characters in the format: *//user:password@host:[port]/direct*.
- **max-files** *number*: Specifies the maximum number of files that can be transferred per push.

  number must be an integer from 4 to 4000.
- **module-only**: Specifies that the transfer of event records is to be applied only to the module type for which the configuration was originally created. If this option is not enabled, the transfer will occur for all record types.
- **secondary encrypted-secondary-url** *url*: Specifies the secondary URL location to which the system pushes the files in encrypted format.

  url must be an alphanumeric string of 1 through 8192 characters.
- **secondary-url** *url*: Specifies the secondary URL location to which the system pushes the event files.

  url must be an alphanumeric string of 1 through 1024 characters in the format: *//user:password@host:[port]/direct*

- **via local-context**: Specifies that the local context, and, subsequently, the SPIO management ports, will be used to pull or push event files from/to the event server.

use-harddisk

Default: Disabled

Specifies that the hard disk drive on the SMC is to be used to store P-GW or S-GW event records.

Usage Guidelines

Use this command to configure how the P-GW or S-GW event records are moved and stored. By default, records are stored in the PSC RAM where the CDRMOD instance is running.

The **event use-harddisk** command can be run only in a context where CDRMOD is running. Configuring in any other context will result in failure with the message "Failure: Please Check if CDRMOD is running in this context or not."

If push transfer mode is configured, the server URL to which the event files will be transferred must be specified.

When changing the transfer-mode from pull to push, disable the pull setting before changing the transfer mode to push. The push to server URL must be accessible from the local context. Also, make sure that its base directory contains an **event** subdirectory.

After changing the transfer mode from push to pull, enable pull on the destination server. Any ongoing push activity will continue until all the file transfers are completed. If there is no ongoing push activity at the time of this configuration change, the push-related configuration is nullified immediately.

Example

The following command sets the space usage trigger for pushing files to the event server to 60%:

```
event push-trigger space-usage-percent 60
```

The following command specifies that the event files are to be transferred to a server with the URL of user:password@event-server.com:

```
event transfer-mode pull primary url //user:password@event-server.com
```

exit

Exits the current mode and returns to the parent configuration mode.

Product

All

Privilege

Security Administrator, Administrator

Syntax Description

exit

Usage Guidelines

Use this command to return to the parent configuration mode.

file

Sets the format and handling characteristics of event files.

Product

P-GW

SAEGW

S-GW

Privilege

Administrator

Command Modes

Exec > Global Configuration > Context Configuration > Session Event Module Configuration

configure > context *context_name* **> session-event-module**

Entering the above command sequence results in the following prompt:

```
[context_name]host_name(config-event)#
```

Syntax Description

file [compression { gzip | none }] [current-prefix *string* **] [delete-timeout** *seconds* **] [directory** *directory_name* **] [exclude-checksum-record] [field-separator { hyphen | omit | underscore }] [file-sequence-number rulebase-seq-num] [headers] [name** *file_name* **] [reset-indicator] [rotation [num-records** *number* **| time** *seconds* **| volume** *bytes* **]] [sequence-number { length** *length* **| omit | padded | padded-six-length | unpadded }] [storage-limit** *limit* **] [time-stamp { expanded-format | rotated-format | unix-format }] [trailing-text** *string* **] [trap-on-file-delete] [xor-final-record] +**
default file [compression] [current-prefix] [delete-timeout] [directory] [field-separator] [file-sequence-number] [headers] [name] [reset-indicator] [rotation { num-records | time | volume }] [sequence-number] [storage-limit] [time-stamp] [trailing-text] +

default

Configures the default setting for the specified keyword(s).

compression { gzip | none }

Specifies compression of P-GW or S-GW event files.

- **gzip**: Enables GNU zip compression of the event file at approximately 10:1 ratio.
- **none**: Disables Gzip compression.

current-prefix *string*

Specifies a string to add to the beginning of the event file that is currently being used to store records.

string must be an alphanumeric string of 1 through 31 characters. Default: **curr**

delete-timeout *seconds*

Specifies a time period, in seconds, after which event files are deleted. By default, files are never deleted.

seconds must be an integer from 3600 through 31536000. Default: Disabled

directory *directory_name*

Specifies a subdirectory in the default directory in which to store event files.

directory_name must be an alphanumeric string of 1 through 191 characters. Default: **/records/event**

exclude-checksum-record

Excludes the final record containing #CHECKSUM followed by the 32-bit Cyclic Redundancy Check (CRC) of all preceding records from the event file.

Default: Disabled, a checksum record is included in the event file header.

field-separator [hyphen | omit | underscore]

Specifies the type of separators between two fields of an event file name:

- **hyphen**: Specifies the field separator as a "-" (hyphen) symbol between two fields.
- **omit**: Removes or omits the field separator between two fields.
- **underscore**: Specifies the field separator as an "_" (underscore) symbol between two fields.

file-sequence-number rulebase-seq-num

Specifies that the file name sequence numbers be unique per rulebase and event format name combination.

headers

Includes a file header summarizing the record layout.



Important This keyword is not supported for S-GW event reporting.

name *file_name*

Specifies a string to be used as the base file name for event files.

file_name must be an alphanumeric string of 1 through 31 characters. The file name format is as follows:

base_sequencenum_timestamp Default: **event**

- *base*: Specifies type of record in file or contains the operator-specified string. Default: **event**
- *sequencenum*: This is a 5-digit sequence number to detect the missing file sequence. It is unique among all event files on the system.
- *timestamp*: Adds a file creation timestamp (UTC time) in MMDDYYYYHHMMSS format.

reset-indicator

Specifies the inclusion of the reset indicator counter (value from 0 through 255) in the event file name. The counter is incremented whenever any of the following conditions occur:

- A peer chassis has taken over in compliance with Interchassis Session Recovery (ICSR).
- The sequence number (see **sequence-number** keyword) has rolled over to zero.

rotation { num-records *number* | time *seconds* | volume *bytes* }

Specifies when to close an event file and create a new one.

- **num-records** *number*: Specifies the maximum number of records that should be added to an event file. When the number of records in the file reaches this value, the file is complete.

  number must be an integer 100 through 10240. Default: 1024

- **time** *seconds*: Specifies the period of time to wait (in seconds) before closing the current event file and creating a new one.

  seconds must be an integer from 30 through 86400. Default: 3600

- **volume** *bytes*: Specifies the maximum size of the event file (in bytes) before closing it and creating a new one.

  bytes must be an integer from 51200 through 62914560. Note that a higher setting may improve the compression ratio when the compression keyword is set to gzip. Default: 102400

sequence-number { length *length* | omit | padded | padded-six-length | unpadded }

Includes with a specified format or excludes the sequence number in the file name.

- **length** *length*: Includes the sequence number with the specified length.

  length must be the file sequence number length with preceding zeroes in the file name, and must be an integer from 1 through 9.

- **omit**: Excludes the sequence number from the file name.
- **padded**: Includes the padded sequence number with preceding zeros in the file name. This is the default setting.
- **padded-six-length**: Includes the padded sequence number with six preceding zeros in the file name.
- **unpadded**: Includes the unpadded sequence number in the file name.

Default: **padded**

storage-limit *limit*

Files will be deleted when the specified amount of space (in bytes) is reached.

limit must be an integer from 10485760 through 536870912. Default: 33554432

time-stamp { expanded-format | rotated-format | unix-format }

Specifies the format of the file creation timestamp to be included in the file name.

- **expanded-format**: Specifies the UTC (Universal Time Coordinated) MMDDYYYYHHMMSS format.
- **rotated-format**: Specifies the time stamp format to YYYYMMDDHHMMSS format.
- **unix-format**: Specifies the UNIX format of *x.y*, where *x* is the number of seconds since 1/1/1970 and *y* is the fractional portion of the current second that has elapsed.

trailing-text *string*

Specifies the inclusion of an arbitrary text string in the file name as an alphanumeric string of 1 through 30 characters.

trap-on-file-delete

Instructs the system to send an SNMP notification (trap) when an event file is deleted due to lack of space.

Default: Disabled

xor-final-record

Specifies inserting an exclusive OR (XOR) checksum (instead of a CRC checksum) into the event file header if the **exclude-checksum-record** is left at its default setting. Default: Disabled

+

More than one of the previous keywords can be entered within a single command.

Usage Guidelines

Use this command to configure event file characteristics.

Example

The following command sets the prefix of the current active event file to *Current*:

```
file current-prefix Current
```

The following command sets the base file name to *Eventfile*:

```
file name Eventfile
```