

Alarm and event log management

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The system log management commands are described in this section. In a system operating with central switch redundancy, commands from this section can only be entered and executed on the master module.

clear alarm

This command is used to delete entries from the system alarm log.

Syntax

```
clear alarm <TYPE>
```

Parameters

<TYPE> – log entry type for deletion:

- active – active alarms deletion;
- before – deleting all log entries (alarm events) before the specified date. The date is specified in format of YYYY.MM.DD-hh:mm;
- events – delete all event log entries.

Command mode

ROOT

Example

```
ma4000# clear alarm active
```

The log entries about active accidents have been deleted.

show alarm

This command will show the alarm list.

Time – alarm registration time, DD:MM:YYYY hh:mm:ss;

Priority – alarm priority;

Text – alarm description.

Syntax

```
show alarm <PARAM> [ALARM]
```

Parameters

<PARAM> – alarm type:

- active – show active alarm list;
- events – show all event log;
- configuration – show configuration of selected alarm.

Command mode

ROOT

Example

```
ma4000(alarms)#show alarm active
Active alarms
~~~~~
Time                Priority  Text
-----
06-09-2011 14:02:36    2      MA4000_ALARM_LINK_DOWN front-port 1/1
06-09-2011 14:02:36    2      MA4000_ALARM_LINK_DOWN front-port 1/2
```

journal filter

This command sets the rules of making entries for some events in the log.

The use of a negative form (no) of the command sets the default value.

Syntax

```
[no] journal filter<FILTER>
```

Parameters

<FILTER> – filter events by type:

dying-gasp – set local database to disable the sending of ONT dying gasp alarm messages;

ont-state – set local database to cancel sending alarm messages to the log when the ONT status changes: blocked, ok, free.

Command mode

CONFIG

Example

```
ma4000(config)# journal filter ont-state
```

journal keep-time

This command sets the maximum time for storing entries in the event log.

The use of a negative form (no) of the command sets the default value.

Syntax

```
journal keep-time <TIME>
```

Parameters

<TIME> – time period, may take values in the range [10..10000], in hours.

Command mode

CONFIG

Example

```
ma4000(config)#journal keep-time 20
```

journal max-size

This command is used to set the size of the system log.

The use of a negative form (no) of the command sets the default value.

Syntax

```
journal max-size <SIZE>
```

Parameters

<SIZE> – maximum log size, may take values in the range [1000..50000] Kbyte.

Command mode

CONFIG

Example

```
ma4000(config)# journal max-size 10000
```

show alarm events

This command is used to view the event log entries.

Syntax

```
show alarm events
```

Parameters

The command contains no arguments.

Command mode

ROOT

Example

```
ma4000# show alarm events

  Alarms
  ~~~~~

Time                Priori      Text
-----          ty          -----
27-11-2014 16:42:05    2      PLC, slot 6: ELTX5F0002A0 2 20 FREE 'NTU-2V'
                                     '3.50.2.1193'

27-11-2014 16:44:41    2      PLC, slot 6: ELTX5F0002A0 2 20 OK 'NTU-2V'
'3.50.2.1193'
```

show alarm active

This command is used to view the active event entries.

Syntax

```
show alarm active
```

Parameters

The command contains no arguments.

Command mode

ROOT

Example

```
MA4000# show alarm active

  Active alarms
  ~~~~~

Time                Priori      Text
-----          ty          -----
28-12-2016 15:46:37    1      MA4000_ALARM_LINK_DOWN front-port 1/1
28-12-2016 15:46:37    1      MA4000_ALARM_LINK_DOWN front-port 1/2

2 active alarms
```

alarm fan

This command allows to configure the event generation parameters for logging the fan operation status.

The use of a negative form (no) of the command sets the default configuration.

Syntax

```
alarm fan <PARAM> <VALUE>
no alarm fan <PARAM>
```

Parameters

<PARAM> – event parameter:

- max-rpm – set the upper limit of fan speed rpm;
- min-rpm – set the lower limit of fan speed rpm;
- in – formation of the event when the parameter value goes abroad;
- out – formation of event normalization when the parameter value is returned to the boundaries;
- severity – describes the degree of importance of the event: info, minor, major, critical;

- ttl – time an event exists in the active alarms log. (from 1 to 2,147,483,647). Specified in seconds. It has several special values.
- 0 – event is in the log until the normalizing event comes;
- 1 – SNMP trap is sent if specified, but the event is not logged in the alarm log.

<VALUE> – parameter value, optional parameter.

Command mode

CONFIG

Example

```
ma4000(config)# alarm fan max-rpm 2000
```

alarm free-space

This command allows to configure the event generation parameters for recording to the alarm log if there is not enough free disk space.

The use of a negative form (no) of the command sets the default configuration.

Syntax

```
alarm free-space <PARAM> <VALUE>
no alarm free-space <PARAM>
```

Parameters

<PARAM> – event parameter, may take values:

- level – set the lower limit of free disk space, in %;
- in – formation of the event when the parameter value goes abroad;
- out – formation of event normalization when the parameter value is returned to the boundaries;
- severity – describes the degree of importance of the event (info, minor, major, critical);
- ttl – time an event exists in the active alarms log. (from 1 to 2,147,483,647). Specified in seconds. It has following special values:
 - 0 – event is in the log until the normalizing event comes;
 - 1 – SNMP trap is sent if specified, but the event is not logged in the alarm log.

<VALUE> – parameter value.

Command mode

CONFIG

Example

```
ma4000(config)# alarm free-space level 20
```

alarm load-average

This command allows to configure the event generation parameters for logging the alarms at high CPU load.

The use of a negative form (no) of the command sets the default configuration.

Syntax

```
alarm load-average <PARAM> <VALUE>
no alarm load-average <PARAM>
```

Parameters

<PARAM> – event parameter, may take values:

- level – set upper CPU load level;
- in – formation of the event when the parameter value goes abroad;
- out – formation of event normalization when the parameter value is returned to the boundaries;
- severity – describes the degree of importance of the event (info, minor, major, critical);
- ttl – time an event exists in the active alarms log. (from 1 to 2,147,483,647). Specified in seconds. It has several special values:
 - 0 – event is in the log until the normalizing event comes;
 - 1 – SNMP trap is sent if specified, but the event is not logged in the alarm log.

<VALUE> – parameter value.

Command mode

CONFIG

Example

```
ma4000(config)# alarm load-average level 255
```

alarm ont-high-rx-power

This command allows to configure the event generation parameters for logging alarms when the received signal level on the ONT side is above a threshold value.

The use of a negative form (no) of the command sets the default configuration.

Syntax

```
alarm ont-high-rx-power <PARAM> <VALUE>  
no alarm ont-high-rx-power <PARAM>
```

Parameters

<PARAM> – event parameter, may take values:

- level – sets the maximum power level of the signal received by ONT (-127..0) dBm, special value 0xFF (disables sending no alarm ont-high-rx-power level);
- in – formation of the event when the parameter value goes abroad;
- out – formation of event normalization when the parameter value is returned to the boundaries;
- severity – describes the degree of importance of the event (info, minor, major, critical);
- ttl – time an event exists in the active alarms log. (from 1 to 2,147,483,647). Specified in seconds. It has several special values:
 - 0 – event is in the log until the normalizing event comes;
 - 1 – SNMP trap is sent if specified, but the event is not logged in the alarm log.

<VALUE> – parameter value.

Command mode

CONFIG

Example

```
ma4000(config)# alarm ont-high-rx-power level -12
```

alarm ont-low-rx-power

This command allows to configure the event generation parameters for logging alarms when the received signal level on the ONT side is below a threshold value.

The use of a negative form (no) of the command sets the default configuration.

Syntax

```
alarm ont-low-rx-power <PARAM> <VALUE>  
alarm low-rx-power <PARAM> <VALUE>  
no alarm ont-low-rx-power <PARAM>  
no alarm low-rx-power <PARAM>
```

Parameters

<PARAM> – event parameter, may take values:

- level – sets the minimum power level of the signal received by ONT (-127..0) dBm, special value 0xFF (disables sending no alarm ont-low-rx-power level);
- in – formation of the event when the parameter value goes abroad;
- out – formation of event normalization when the parameter value is returned to the boundaries;
- severity – describes the degree of importance of the event (info, minor, major, critical);
- ttl – time an event exists in the active alarms log. (from 1 to 2,147,483,647). Specified in seconds. It has following special values:

- 0 – event is in the log until the normalizing event comes;
- 1 – SNMP trap is sent if specified, but the event is not logged in the alarm log.

<VALUE> – parameter value.

Command mode

CONFIG

Example

```
ma4000(config)# alarm ont-low-rx-power level -28
```

ram

This command allows to configure the event generation parameters for logging alarms when the free RAM amount of the device is below the threshold value.

The use of a negative form (no) of the command sets the default configuration.

Syntax

```
alarm ram <PARAM> <VALUE>
no alarm ram <PARAM>
```

Parameters

<PARAM> – event parameter, may take values:

- free-ram – set the threshold value of the minimum free memory capacity in %;
- in – formation of the event when the parameter value goes abroad;
- out – formation of event normalization when the parameter value is returned to the boundaries;
- severity – describes the degree of importance of the event (info, minor, major, critical);
- ttl – time an event exists in the active alarms log. (from 1 to 2,147,483,647). Specified in seconds. It has following special values:
 - 0 – event is in the log until the normalizing event comes;
 - 1 – SNMP trap is sent if specified, but the event is not logged in the alarm log.

<VALUE> – parameter value.

Command mode

CONFIG

Example

```
ma4000(config)# alarm ram free-ram 35
```

alarm temperature

This command allows to configure the event generation parameters for recording to the alarm log when the temperature at one of the sensors exceeds the threshold value.

The use of a negative form (no) of the command sets the default configuration.

Syntax

```
alarm temperature <PARAM> <VALUE>
no alarm temperature <PARAM>
```

Parameters

<PARAM> – event parameter, may take values:

- sensor1 – set the threshold value of maximum temperature at sensor 1 of PLC board, in °C;
- sensor2 – set the threshold value of maximum temperature at sensor 2 of PLC board, in °C;
- in – formation of the event when the parameter value goes abroad;
- out – formation of event normalization when the parameter value is returned to the boundaries;
- severity – describes the degree of importance of the event (info, minor, major, critical);
- ttl – time an event exists in the active alarms log. (from 1 to 2,147,483,647). Specified in seconds. It has following special values:
 - 0 – event is in the log until the normalizing event comes;

- 1 – SNMP trap is sent if specified, but the event is not logged in the alarm log.

<VALUE> – parameter value.

Command mode

CONFIG

Example

```
ma4000(config)# alarm temperature sensor1 66
```

alarm login

This command allows to configure the event generation parameters for logging alarms when a user attempts to connect to the system (ssh/telnet/console).

The use of a negative form (no) of the command sets the default configuration.

Syntax

```
alarm login [<PARAM> <VALUE>]  
no alarm login <PARAM>
```

Parameters

<PARAM> – event parameter, may take values:

- in – formation of the event when an accident occurs;
- out – formation of event normalization at normalization of the accident;
- severity – describes the degree of importance of the event (info, minor, major, critical);
- ttl – time an event exists in the active alarms log. (from 1 to 2,147,483,647). Specified in seconds. It has following special values:
 - 0 – event is in the log until the normalizing event comes;
 - 1 – SNMP trap is sent if specified, but the event is not logged in the alarm log.

<VALUE> – parameter value.

Command mode

CONFIG

Example

```
ma4000(config)# alarm login severity info
```

alarm config-save

This command allows to configure the event generation parameters for logging alarms while saving the device configuration.

The use of a negative form (no) of the command sets the default configuration.

Syntax

```
alarm config-save <PARAM> <VALUE>  
no alarm config-save <PARAM>
```

Parameters

<PARAM> – event parameter, may take values:

- in – formation of the event when an accident occurs;
- out – formation of event normalization at normalization of the accident;
- severity – describes the degree of importance of the event (info, minor, major, critical);
- ttl – time an event exists in the active alarms log. (from 1 to 2,147,483,647). Specified in seconds. It has following special values:
 - 0 – event is in the log until the normalizing event comes;
 - 1 – SNMP trap is sent if specified, but the event is not logged in the alarm log.

<VALUE> – parameter value.

Command mode

CONFIG

Example

```
ma4000(config)# alarm config-save severity info
```

alarm firmware-update

This command allows to configure the event generation parameters for logging alarms while updating the device firmware.

The use of a negative form (no) of the command sets the default configuration.

Syntax

```
alarm firmware-update <PARAM> <VALUE>  
no alarm firmware-update <PARAM>
```

Parameters

<PARAM> – event parameter, may take values:

- in – formation of the event when an accident occurs;
- out – formation of event normalization at normalization of the accident;
- severity – describes the degree of importance of the event (info, minor, major, critical);
- ttl – time an event exists in the active alarms log. (from 1 to 2,147,483,647). Specified in seconds. It has following special values:
 - 0 – event is in the log until the normalizing event comes;
 - 1 – SNMP trap is sent if specified, but the event is not logged in the alarm log.

<VALUE> – parameter value.

Command mode

CONFIG

Example

```
ma4000(config)# alarm firmware-update severity critical
```

alarm duplicate-mac

This command allows to configure the event generation parameters for logging alarms when the same MAC address is detected within the same VLAN on two different ports of the device.

The use of a negative form (no) of the command sets the default configuration.

Syntax

```
alarm duplicate-mac <PARAM> <VALUE>  
no alarm duplicate-mac <PARAM>
```

Parameters

<PARAM> – event parameter:

- in – formation of the event when an accident occurs;
- out – formation of event normalization at normalization of the accident;
- severity – describes the degree of importance of the event (info, minor, major, critical);
- ttl – time an event exists in the active alarms log. (from 1 to 2,147,483,647). Specified in seconds. It has following special values:
 - 0 – event is in the log until the normalizing event comes;
 - 1 – SNMP trap is sent if specified, but the event is not logged in the alarm log.

<VALUE> – parameter value.

Command mode

CONFIG

Example

```
ma4000(config)# alarm duplicate-mac severity critical
```

alarm physical-layer-flapping

This command allows to configure the event generation parameters for logging alarms when the physical state (up/down) of the Ethernet port is changed frequently – flapping.

The use of a negative form (no) of the command sets the default configuration.

Syntax

```
alarm physical-layer-flapping [<PARAM> <VALUE>]  
no alarm physical-layer-flapping <PARAM>
```

Parameters

<PARAM> – event parameter, may take values:

- in – formation of the event when an accident occurs;
- out – formation of event normalization at normalization of the accident;
- severity – describes the degree of importance of the event (info, minor, major, critical);
- ttl – time an event exists in the active alarms log. (from 1 to 2,147,483,647). Specified in seconds. It has following special values:
 - 0 – event is in the log until the normalizing event comes;
 - 1 – SNMP trap is sent if specified, but the event is not logged in the alarm log.

<VALUE> – parameter value.

Command mode

CONFIG

Example

```
ma4000(config)# alarm physical-layer-flapping severity critical
```

alarm pon-channel-no-ont

This command allows to configure the event generation parameters for logging alarms when the last (first) ONT registered on the PON port is disabled.

The use of a negative form (no) of the command sets the default configuration.

Syntax

```
alarm pon-channel-no-ont <PARAM> <VALUE>  
no alarm pon-channel-no-ont <PARAM>
```

Parameters

<PARAM> – event parameter, may take values:

- in – formation of the event when an accident occurs;
- out – formation of event normalization at normalization of the accident;
- severity – describes the degree of importance of the event (info, minor, major, critical);
- ttl – time an event exists in the active alarms log. (from 1 to 2,147,483,647). Specified in seconds. It has following special values:
 - 0 – event is in the log until the normalizing event comes;
 - 1 – SNMP trap is sent if specified, but the event is not logged in the alarm log.

<VALUE> – parameter value.

Command mode

CONFIG

Example

```
ma4000(config)# alarm pon-channel-no-ont severity info
```

alarm ont-physical-layer

This command allows to configure the event generation parameters for logging alarms when connecting/disconnecting ONT to OLT.

The use of a negative form (no) of the command sets the default configuration.

Syntax

```
alarm ont-physical-layer <PARAM> <VALUE>  
no alarm ont-physical-layer <PARAM>
```

Parameters

<PARAM> – event parameter, may take values:

- in – formation of the event when an accident occurs;
- out – formation of event normalization at normalization of the accident;
- severity – describes the degree of importance of the event (info, minor, major, critical);
- ttl – time an event exists in the active alarms log. (from 1 to 2,147,483,647). Specified in seconds. It has following special values:
 - 0 – event is in the log until the normalizing event comes;
 - 1 – SNMP trap is sent if specified, but the event is not logged in the alarm log.

<VALUE> – parameter value.

Command mode

CONFIG

Example

```
ma4000(config)# alarm ont-physical-layer severity info
```

alarm olt-update

This command allows to configure the event generation parameters for logging alarms when the OLT firmware update is successful/in error.

The use of a negative form (no) of the command sets the default configuration.

Syntax

```
alarm olt-update <PARAM> <VALUE>  
no alarm olt-update <PARAM>
```

Parameters

<PARAM> – event parameter, may take values:

- in – formation of the event when an accident occurs;
- out – formation of event normalization at normalization of the accident;
- severity – describes the degree of importance of the event (info, minor, major, critical);
- ttl – time an event exists in the active alarms log. (from 1 to 2,147,483,647). Specified in seconds. It has following special values:
 - 0 – event is in the log until the normalizing event comes;
 - 1 – SNMP trap is sent if specified, but the event is not logged in the alarm log.

<VALUE> – parameter value.

Command mode

CONFIG

Example

```
ma4000(config)# alarm olt-update severity info
```

alarm ont-update

This command allows to configure the event generation parameters for logging alarms in the event of a successful/in error ONT firmware update by OMCI.

The use of a negative form (no) of the command sets the default configuration.

Syntax

```
alarm ont-update [<PARAM> <VALUE>]
no alarm olt-update <PARAM>
```

Parameters

<PARAM> – event parameter, may take values:

- in – formation of the event when an accident occurs;
- out – formation of event normalization at normalization of the accident;
- severity – describes the degree of importance of the event (info, minor, major, critical);
- ttl – time an event exists in the active alarms log. (from 1 to 2,147,483,647). Specified in seconds. It has following special values:
 - 0 – event is in the log until the normalizing event comes;
 - 1 – SNMP trap is sent if specified, but the event is not logged in the alarm log.

<VALUE> – parameter value.

Command mode

CONFIG

Example

```
ma4000(config)# alarm ont-update severity info
```

alarm channel-flapping

This command allows to configure the event generation parameters for logging alarms when the physical state of the GPON port is changed frequently.

The use of a negative form (no) of the command sets the default configuration.

Syntax

```
alarm channel-flapping <PARAM> <VALUE>
no alarm channel-flapping <PARAM>
```

Parameters

<PARAM> – event parameter, may take values:

- in – formation of the event when an accident occurs;
- out – formation of event normalization at normalization of the accident;
- severity – describes the degree of importance of the event (info, minor, major, critical);
- ttl – time an event exists in the active alarms log. (from 1 to 2,147,483,647). Specified in seconds. It has following special values:
 - 0 – event is in the log until the normalizing event comes;
 - 1 – SNMP trap is sent if specified, but the event is not logged in the alarm log.

<VALUE> – parameter value.

Command mode

CONFIG

Example

```
ma4000(config)# alarm channel-flapping severity info
```

alarm ont-flapping

This command allows to configure the event generation parameters for logging alarms when the physical state is changed frequently (flapping).

The use of a negative form (no) of the command sets the default configuration.

Syntax

```
alarm ont-flapping [<PARAM> <VALUE>]
no alarm ont-flapping <PARAM>
```

Parameters

<PARAM> – event parameter, may take values:

- in – formation of the event when an accident occurs;
- out – formation of event normalization at normalization of the accident;
- severity – describes the degree of importance of the event (info, minor, major, critical);
- ttl – time an event exists in the active alarms log. (from 1 to 2,147,483,647). Specified in seconds. It has following special values:
 - 0 – event is in the log until the normalizing event comes;
 - 1 – SNMP trap is sent if specified, but the event is not logged in the alarm log.

<VALUE> – parameter value.

Command mode

CONFIG

Example

```
ma4000(config)# alarm ont-flapping severity info
```

alarm download

This command allows to configure the event generation parameters for logging alarms while uploading file to the device.

The use of a negative form (no) of the command sets the default configuration.

Syntax

```
alarm download <PARAM> <VALUE>  
no alarm download <PARAM>
```

Parameters

<PARAM> – event parameter, may take values:

- in – formation of the event when an accident occurs;
- out – formation of event normalization at normalization of the accident;
- severity – describes the degree of importance of the event (info, minor, major, critical);
- ttl – time an event exists in the active alarms log. (from 1 to 2,147,483,647). Specified in seconds. It has following special values:
 - 0 – event is in the log until the normalizing event comes;
 - 1 – SNMP trap is sent if specified, but the event is not logged in the alarm log.

<VALUE> – parameter value.

Command mode

CONFIG

Example

```
ma4000(config)# alarm download severity info
```

alarm ont-battery-power

This command allows to configure the event generation parameters for logging alarms when ONT is switched to power from a backup battery source (there must be hardware support for this mode of operation on ONT).

The use of a negative form (no) of the command sets the default configuration.

Syntax

```
alarm ont-battery-power <PARAM> <VALUE>  
no alarm ont-battery-power <PARAM>
```

Parameters

<PARAM> – event parameter, may take values:

- in – formation of the event when an accident occurs;

- out – formation of event normalization at normalization of the accident;
- severity – describes the degree of importance of the event (info, minor, major, critical);
- ttl – time an event exists in the active alarms log. (from 1 to 2,147,483,647). Specified in seconds. It has following special values:
 - 0 – event is in the log until the normalizing event comes;
 - 1 – SNMP trap is sent if specified, but the event is not logged in the alarm log.

<VALUE> – parameter value.

Command mode

CONFIG

Example

```
ma4000(config)# alarm ont-battery-power severity info
```

alarm ont-battery-low

This command allows to configure event generation parameters for logging at low ONT battery backup source (there should be hardware support for this mode of operation on ONT).

The use of a negative form (no) of the command sets the default configuration.

Syntax

```
alarm ont-battery-low [<PARAM> <VALUE>]
no alarm ont-battery-low <PARAM>
```

Parameters

<PARAM> – event parameter, may take values:

- in – formation of the event when an accident occurs;
- out – formation of event normalization at normalization of the accident;
- severity – describes the degree of importance of the event (info, minor, major, critical);
- ttl – time an event exists in the active alarms log. (from 1 to 2,147,483,647). Specified in seconds. It has following special values:
 - 0 – event is in the log until the normalizing event comes;
 - 1 – SNMP trap is sent if specified, but the event is not logged in the alarm log.

<VALUE> – parameter value.

Command mode

CONFIG

Example

```
ma4000(config)# alarm ont-battery-low severity info
```

alarm lan-los

This command allows to configure the event generation parameters for logging alarms when changing the physical state of LAN ports to ONT.

The use of a negative form (no) of the command sets the default configuration.

Syntax

```
alarm lan-los <PARAM> <VALUE>
no alarm lan-los <PARAM>
```

Parameters

<PARAM> – event parameter, may take values:

- in – formation of the event when an accident occurs;
- out – formation of event normalization at normalization of the accident;
- severity – describes the degree of importance of the event (info, minor, major, critical);
- ttl – time an event exists in the active alarms log. (from 1 to 2,147,483,647). Specified in seconds. It has following special values:
 - 0 – event is in the log until the normalizing event comes;
 - 1 – SNMP trap is sent if specified, but the event is not logged in the alarm log.

<VALUE> – parameter value.

Command mode

CONFIG

Example

```
ma4000(config)# alarm lan-los severity info
```

alarm ont-config

This command allows to configure the event generation parameters for logging alarms when configuring ONT by OMCI.

The use of a negative form (no) of the command sets the default configuration.

Syntax

```
alarm ont-config <PARAM> <VALUE>  
no alarm ont-config <PARAM>
```

Parameters

<PARAM> – event parameter, may take values:

- in – formation of the event when an accident occurs;
- out – formation of event normalization at normalization of the accident;
- severity – describes the degree of importance of the event (info, minor, major, critical);
- ttl – time an event exists in the active alarms log. (from 1 to 2,147,483,647). Specified in seconds. It has following special values:
 - 0 – event is in the log until the normalizing event comes;
 - 1 – SNMP trap is sent if specified, but the event is not logged in the alarm log.

<VALUE> – parameter value.

Command mode

CONFIG

Example

```
ma4000(config)# alarm ont-config severity info
```

alarm file-delete

This command allows to configure the event generation parameters for recording to the alarm log when deleting files from the system.

The use of a negative form (no) of the command sets the default configuration.

Syntax

```
alarm file-delete <PARAM> <VALUE>  
no alarm file-delete <PARAM>
```

Parameters

<PARAM> – event parameter, may take values:

- in – formation of the event when an accident occurs;
- out – formation of event normalization at normalization of the accident;
- severity – describes the degree of importance of the event (info, minor, major, critical);
- ttl – time an event exists in the active alarms log. (from 1 to 2,147,483,647). Specified in seconds. It has following special values:
 - 0 – event is in the log until the normalizing event comes;
 - 1 – SNMP trap is sent if specified, but the event is not logged in the alarm log.

<VALUE> – parameter value.

Command mode

CONFIG

Example

```
ma4000(config)# alarm file-delete severity info
```

alarm physical-layer-errors

This command allows to configure the event generation parameters for logging alarms when errors occur on the Ethernet ports of the device.

The use of a negative form (no) of the command sets the default configuration.

Syntax

```
alarm physical-layer-errors <PARAM> <VALUE>  
no alarm physical-layer-errors <PARAM>
```

Parameters

<PARAM> – event parameter, may take values:

- in – formation of the event when an accident occurs;
- out – formation of event normalization at normalization of the accident;
- severity – describes the degree of importance of the event (info, minor, major, critical);
- ttl – time an event exists in the active alarms log. (from 1 to 2,147,483,647). Specified in seconds. It has following special values:
 - 0 – event is in the log until the normalizing event comes;
 - 1 – SNMP trap is sent if specified, but the event is not logged in the alarm log.

<VALUE> – parameter value.

Command mode

CONFIG

Example

```
ma4000(config)# alarm physical-layer-errors severity info
```

alarm physical-layer-block

This command allows to configure the event generation parameters for logging alarms when the device Ethernet port is locked.

The use of a negative form (no) of the command sets the default configuration.

Syntax

```
alarm physical-layer-block <PARAM> <VALUE>  
no alarm physical-layer-block <PARAM>
```

Parameters

<PARAM> – event parameter, may take values:

- in – formation of the event when an accident occurs;
- out – formation of event normalization at normalization of the accident;
- severity – describes the degree of importance of the event (info, minor, major, critical);
- ttl – time an event exists in the active alarms log. (from 1 to 2,147,483,647). Specified in seconds. It has following special values:
 - 0 – event is in the log until the normalizing event comes;
 - 1 – SNMP trap is sent if specified, but the event is not logged in the alarm log.

<VALUE> – parameter value.

Command mode

CONFIG

Example

```
ma4000(config)# alarm physical-layer-block severity info
```

alarm link

This command allows to configure the event generation parameters for logging alarms when the Ethernet port state of the linkup/down device is changed.

The use of a negative form (no) of the command sets the default configuration.

Syntax

```
alarm link <PARAM> <VALUE>
no alarm link <PARAM>
```

Parameters

<PARAM> – event parameter, may take values:

- in – formation of the event when an accident occurs;
- out – formation of event normalization at normalization of the accident;
- severity – describes the degree of importance of the event (info, minor, major, critical);
- ttl – time an event exists in the active alarms log. (from 1 to 2,147,483,647). Specified in seconds. It has following special values:
 - 0 – event is in the log until the normalizing event comes;
 - 1 – SNMP trap is sent if specified, but the event is not logged in the alarm log.

<VALUE> – parameter value.

Command mode

CONFIG

Example

```
ma4000(config)# alarm link severity info
```

alarm logout

This command allows to configure the event generation parameters for logging alarms when a user is disconnected from the CLI command interface.

The use of a negative form (no) of the command sets the default configuration.

Syntax

```
alarm logout <PARAM> <VALUE>
no alarm logout <PARAM>
```

Parameters

<PARAM> – event parameter, may take values:

- in – formation of the event when an accident occurs;
- out – formation of event normalization at normalization of the accident;
- severity – describes the degree of importance of the event (info, minor, major, critical);
- ttl – time an event exists in the active alarms log. (from 1 to 2,147,483,647). Specified in seconds. It has following special values:
 - 0 – event is in the log until the normalizing event comes;
 - 1 – SNMP trap is sent if specified, but the event is not logged in the alarm log.

<VALUE> – parameter value.

Command mode

CONFIG

Example

```
ma4000(config)# alarm logout severity info
```

alarm ont-dying-gasp

This command allows to configure the event generation parameters for logging alarms in the event of power failure on the ONT. Support on ONT for sending PLOAM messages in case of power failure is required.

The use of a negative form (no) of the command sets the default configuration.

Syntax

```
alarm ont-dying-gasp <PARAM> <VALUE>  
no alarm ont-dying-gasp <PARAM>
```

Parameters

<PARAM> – event parameter, may take values:

- in – formation of the event when an accident occurs;
- out – formation of event normalization at normalization of the accident;
- severity – describes the degree of importance of the event (info, minor, major, critical);
- ttl – time an event exists in the active alarms log. (from 1 to 2,147,483,647). Specified in seconds. It has following special values:
 - 0 – event is in the log until the normalizing event comes;
 - 1 – SNMP trap is sent if specified, but the event is not logged in the alarm log.

<VALUE> – parameter value.

Command mode

CONFIG

Example

```
ma4000(config)# alarm ont-dying-gasp severity info
```

alarm ont-rei

This command allows to set the event generation parameters for logging alarms when receiving REI (Remote Error Indication) ERRi (BIP error of ONUi) data from ONT, see T-REC-G.984.3 11.2 Performance monitoring. Requires support on ONT.

The use of a negative form (no) of the command sets the default configuration.

Syntax

```
alarm ont-rei <PARAM> <VALUE>  
no alarm ont-rei <PARAM>
```

Parameters

<PARAM> – event parameter, may take values:

- in – formation of the event when an accident occurs;
- out – formation of event normalization at normalization of the accident;
- severity – describes the degree of importance of the event (info, minor, major, critical);
- ttl – time an event exists in the active alarms log. (from 1 to 2,147,483,647). Specified in seconds. It has following special values:
 - 0 – event is in the log until the normalizing event comes;
 - 1 – SNMP trap is sent if specified, but the event is not logged in the alarm log.

<VALUE> – parameter value.

Command mode

CONFIG

Example

```
ma4000(config)# alarm ont-rei severity info
```

alarm ont-power-off

This command allows to configure the event generation parameters for logging alarms when the ONT PLOAM message about manual power failure is received. Requires support on ONT.

The use of a negative form (no) of the command sets the default configuration.

Syntax

```
alarm ont-power-off [<PARAM> <VALUE>]
no alarm ont-power-off <PARAM>
```

Parameters

<PARAM> – event parameter, may take values:

- in – formation of the event when an accident occurs;
- out – formation of event normalization at normalization of the accident;
- severity – describes the degree of importance of the event (info, minor, major, critical);
- ttl – time an event exists in the active alarms log. (from 1 to 2,147,483,647). Specified in seconds. It has following special values:
 - 0 – event is in the log until the normalizing event comes;
 - 1 – SNMP trap is sent if specified, but the event is not logged in the alarm log.

<VALUE> – parameter value.

Command mode

CONFIG

Example

```
ma4000(config)# alarm ont-power-off severity info
```

alarm config-change

This command allows to configure the event generation parameters for logging alarms while changing the system configuration.

The use of a negative form (no) of the command sets the default configuration.

Syntax

```
alarm config-change <PARAM> <VALUE>
no alarm config-change <PARAM>
```

Parameters

<PARAM> – event parameter, may take values:

- in – formation of the event when an accident occurs;
- out – formation of event normalization at normalization of the accident;
- severity – describes the degree of importance of the event (info, minor, major, critical);
- ttl – time an event exists in the active alarms log. (from 1 to 2,147,483,647). Specified in seconds. It has following special values:
 - 0 – event is in the log until the normalizing event comes;
 - 1 – SNMP trap is sent if specified, but the event is not logged in the alarm log.

<VALUE> – parameter value.

Command mode

CONFIG

Example

```
ma4000(config)# alarm config-change severity info
```

alarm shutdown

This command allows to configure the event generation parameters for logging alarms when snmpagent is restarted in the system.

The use of a negative form (no) of the command sets the default configuration.

Syntax

```
alarm shutdown <PARAM> <VALUE>
no alarm shutdown <PARAM>
```

Parameters

<PARAM> – event parameter, may take values:

- in – formation of the event when an accident occurs;
- out – formation of event normalization at normalization of the accident;
- severity – describes the degree of importance of the event (info, minor, major, critical);
- ttl – time an event exists in the active alarms log. (from 1 to 2,147,483,647). Specified in seconds. It has following special values:
 - 0 – event is in the log until the normalizing event comes;
 - 1 – SNMP trap is sent if specified, but the event is not logged in the alarm log.

<VALUE> – parameter value.

Command mode

CONFIG

Example

```
ma4000(config)# alarm shutdown severity info
```

alarm oms

This command allows to configure the event generation parameters for logging alarms when performing the OMS-MIB operation.

This alarms signals a success or an error when performing file operations when operating over SNMP, these operations are loading and unloading the configuration backup over SNMP and firmware updates over SNMP.

The use of a negative form (no) of the command sets the default configuration.

Syntax

```
alarm oms <PARAM> <VALUE>  
no alarm oms <PARAM>
```

Parameters

<PARAM> – event parameter, may take values:

- in – formation of the event when an accident occurs;
- out – formation of event normalization at normalization of the accident;
- severity – describes the degree of importance of the event: info, minor, major, critical;
- ttl – time an event exists in the active alarms log. (from 1 to 2,147,483,647). Specified in seconds. It has following special values:
 - 0 – event is in the log until the normalizing event comes;
 - 1 – SNMP trap is sent if specified, but the event is not logged in the alarm log.

<VALUE> – parameter value.

Command mode

CONFIG

Example

```
ma4000(config)# alarm oms severity info
```

alarm ont-state-changed

This command allows to configure the event generation parameters for logging alarms at each state change (OMCI configuration) of the ONT. It is used for prompt display of ONT lists in the EMS management system.

The use of a negative form (no) of the command sets the default configuration.

Syntax

```
alarm ont-state-changed <PARAM> <VALUE>  
no alarm ont-state-changed <PARAM>
```

Parameters

<PARAM> – event parameter, may take values:

- in – formation of the event when an accident occurs;
- out – formation of event normalization at normalization of the accident;
- severity – describes the degree of importance of the event: info, minor, major, critical;
- ttl – time an event exists in the active alarms log. (from 1 to 2,147,483,647). Specified in seconds. It has following special values:
 - 0 – event is in the log until the normalizing event comes;
 - 1 – SNMP trap is sent if specified, but the event is not logged in the alarm log.

<VALUE> – parameter value.

Command mode

CONFIG

Example

```
ma4000(config)# alarm ont-state-changed severity info
```

alarm ont-config-changed

This command allows to configure the event generation parameters for logging alarms at each configuration change (OMCI configuration) of the ONT. It is used for prompt display of ONT lists in the EMS management system.

The use of a negative form (no) of the command sets the default configuration.

Syntax

```
alarm ont-config-changed <PARAM> <VALUE>
no alarm ont-config-changed <PARAM>
```

Parameters

<PARAM> – event parameter, may take values:

- in – formation of the event when an accident occurs;
- out – formation of event normalization at normalization of the accident;
- severity – describes the degree of importance of the event: info, minor, major, critical;
- ttl – time an event exists in the active alarms log. (from 1 to 2,147,483,647). Specified in seconds. It has following special values:
 - 0 – event is in the log until the normalizing event comes;
 - 1 – SNMP trap is sent if specified, but the event is not logged in the alarm log.

<VALUE> – parameter value.

Command mode

CONFIG

Example

```
ma4000(config)# alarm ont-config-changed severity info
```

alarm channel-state-changed

This command allows to configure the event generation parameters for logging alarms at each configuration change of the GPON channel.

The use of a negative form (no) of the command sets the default configuration.

Syntax

```
alarm channel-state-changed <PARAM> <VALUE>
no alarm channel-state-changed <PARAM>
```

Parameters

<PARAM> – event parameter, may take values:

- in – formation of the event when an accident occurs;
- out – formation of event normalization at normalization of the accident;
- severity – describes the degree of importance of the event: info, minor, major, critical;
- ttl – time an event exists in the active alarms log. (from 1 to 2,147,483,647). Specified in seconds. It has following special values:
 - 0 – event is in the log until the normalizing event comes;

- 1 – SNMP trap is sent if specified, but the event is not logged in the alarm log.

<VALUE> – parameter value.

Command mode

CONFIG

Example

```
ma4000(config)# alarm channel-state-changed severity info
```

alarm pon-alarm-channel

This command allows to configure the event generation parameters for logging alarms when no ONT is connected to the channel. An alarm occurs after the last ONT is disconnected and is removed after the first one is connected. It does not matter if there is ONT in the configuration or not.

The use of a negative form (no) of the command sets the default configuration.

Syntax

```
alarm pon-alarm-channel <PARAM> <VALUE>  
no alarm pon-alarm-channel <PARAM>
```

Parameters

<PARAM> – event parameter, may take values:

- in – formation of the event when an accident occurs;
- out – formation of event normalization at normalization of the accident;
- severity – describes the degree of importance of the event: info, minor, major, critical;
- ttl – time an event exists in the active alarms log. (from 1 to 2,147,483,647). Specified in seconds. It has following special values:
 - 0 – event is in the log until the normalizing event comes;
 - 1 – SNMP trap is sent if specified, but the event is not logged in the alarm log.

<VALUE> – parameter value.

Command mode

CONFIG

Example

```
ma4000(config)# alarm pon-alarm-channel severity info
```

alarm pon-alarm-onui

This command allows to configure the event generation parameters for logging alarms when an ONT emergency condition is detected.

This alarm is designed to broadcast PLOAM alarms generated on the ONT side:

LOSI: Loss of signal for ONUi

DOWI: Drift of Window of ONUi

LOFI: Loss of frame of ONUi

RDII: Remote Defect Indication of ONUi

LOAMI: Loss of PLOAM for ONUi

LCDGI: Loss of GEM channel delineation

SDI: Signal Degraded of ONUi

SFI: Signal Fail of ONUi etc. See T-REC-G.984.3 11.1 Alarms

The use of a negative form (no) of the command sets the default configuration.

Syntax

```
alarm pon-alarm-onui <PARAM><VALUE>
no alarm pon-alarm-onui <PARAM>
```

Parameters

<PARAM> – event parameter, may take values:

- in – formation of the event when an accident occurs;
- out – formation of event normalization at normalization of the accident;
- severity – describes the degree of importance of the event: info, minor, major, critical;
- ttl – time an event exists in the active alarms log. (from 1 to 2,147,483,647). Specified in seconds. It has following special values:
 - 0 – event is in the log until the normalizing event comes;
 - 1 – SNMP trap is sent if specified, but the event is not logged in the alarm log.

<VALUE> – parameter value.

Command mode

CONFIG

Example

```
ma4000(config)# alarm pon-alarm-onui severity info
```

alarm ont-update-inprogress

This command allows to configure the event generation parameters for logging alarms during the ONT firmware update procedure via OMCI.

The use of a negative form (no) of the command sets the default configuration.

Syntax

```
alarm ont-update-inprogress <PARAM> <VALUE>
no alarm ont-update-inprogress <PARAM>
```

Parameters

<PARAM> – event parameter, may take values:

- in – formation of the event when an accident occurs;
- out – formation of event normalization at normalization of the accident;
- severity – describes the degree of importance of the event: info, minor, major, critical;
- ttl – time an event exists in the active alarms log. (from 1 to 2,147,483,647). Specified in seconds. It has following special values:
 - 0 – event is in the log until the normalizing event comes;
 - 1 – SNMP trap is sent if specified, but the event is not logged in the alarm log.

<VALUE> – parameter value.

Command mode

CONFIG

Example

```
ma4000(config)# alarm ont-update-inprogress severity info
```

alarm olt-device-reset

This command allows to configure the event generation parameters for logging alarms during the PON chip reboot.

The use of a negative form (no) of the command sets the default configuration.

Syntax

```
alarm olt-device-reset <PARAM> <VALUE>
no alarm olt-device-reset <PARAM>
```

Parameters

<PARAM> – event parameter, may take values:

- in – formation of the event when an accident occurs;
- out – formation of event normalization at normalization of the accident;
- severity – describes the degree of importance of the event: info, minor, major, critical;
- ttl – time an event exists in the active alarms log. (from 1 to 2,147,483,647). Specified in seconds. It has following special values:
 - 0 – event is in the log until the normalizing event comes;
 - 1 – SNMP trap is sent if specified, but the event is not logged in the alarm log.

<VALUE> – parameter value.

Command mode

CONFIG

Example

```
ma4000(config)# alarm olt-device-reset severity info
```

alarm ont-signal-degrade

This command allows to configure the event generation parameters for logging alarms when detecting a low level of optical signal on the ONT side. ONT should have support for RXpower measurements and sending alarms.

The use of a negative form (no) of the command sets the default configuration.

Syntax

```
alarm ont-signal-degrade <PARAM> <VALUE>  
no alarm ont-signal-degrade <PARAM>
```

Parameters

<PARAM> – event parameter, may take values:

- in – formation of the event when an accident occurs;
- out – formation of event normalization at normalization of the accident;
- severity – describes the degree of importance of the event: info, minor, major, critical;
- ttl – time an event exists in the active alarms log. (from 1 to 2,147,483,647). Specified in seconds. It has following special values:
 - 0 – event is in the log until the normalizing event comes;
 - 1 – SNMP trap is sent if specified, but the event is not logged in the alarm log.

<VALUE> – parameter value.

Default value:

-28 dBm

Command mode

CONFIG

Example

```
ma4000(config)# alarm ont-signal-degrade severity info
```

alarm high-rx-power

This command allows to configure the event generation parameters for logging alarms when detecting a high level of optical signal on the ONT side. ONT should have support for RXpower measurements and sending alarms.

The use of a negative form (no) of the command sets the default configuration.

Syntax

```
alarm high-rx-power <PARAM> <VALUE>  
no alarm high-rx-power <PARAM>
```

Parameters

<PARAM> – event parameter, may take values:

- in – formation of the event when an accident occurs;
- out – formation of event normalization at normalization of the accident;
- severity – describes the degree of importance of the event: info, minor, major, critical;
- ttl – time an event exists in the active alarms log. (from 1 to 2,147,483,647). Specified in seconds. It has following special values:
 - 0 – event is in the log until the normalizing event comes;
 - 1 – SNMP trap is sent if specified, but the event is not logged in the alarm log.

<VALUE> – parameter value.

Command mode

CONFIG

Default value:

-8 dBm

Example

```
ma4000(config)# alarm high-rx-power severity info
```

alarm channel-ont-count-overflow

This command allows to configure the event generation parameters for logging alarms when the number of connected ONTs on the channel exceeds the maximum allowed value – 64 ONTs.

The use of a negative form (no) of the command sets the default configuration.

Syntax

```
alarm channel-ont-count-overflow <PARAM> <VALUE>  
no alarm channel-ont-count-overflow <PARAM>
```

Parameters

<PARAM> – event parameter, may take values:

- in – formation of the event when an accident occurs;
- out – formation of event normalization at normalization of the accident;
- severity – describes the degree of importance of the event: info, minor, major, critical;
- ttl – time an event exists in the active alarms log. (from 1 to 2,147,483,647). Specified in seconds. It has following special values:
 - 0 – event is in the log until the normalizing event comes;
 - 1 – SNMP trap is sent if specified, but the event is not logged in the alarm log.

<VALUE> – parameter value.

Command mode

CONFIG

Example

```
ma4000(config)# alarm channel-ont-count-overflow severity info
```

alarm olt-device-not-working

This command allows to configure the event generation parameters for logging alarms in case of configuration error or GPON OLT boot.

The use of a negative form (no) of the command sets the default configuration.

Syntax

```
alarm olt-device-not-working <PARAM> <VALUE>  
no alarm olt-device-not-working <PARAM>
```

Parameters

<PARAM> – event parameter, may take values:

- in – formation of the event when an accident occurs;
- out – formation of event normalization at normalization of the accident;
- severity – describes the degree of importance of the event: info, minor, major, critical;
- ttl – time an event exists in the active alarms log. (from 1 to 2,147,483,647). Specified in seconds. It has following special values:
 - 0 – event is in the log until the normalizing event comes;
 - 1 – SNMP trap is sent if specified, but the event is not logged in the alarm log.

<VALUE> – parameter value.

Command mode

CONFIG

Example

```
ma4000(config)# alarm olt-device-not-working severity info
```

alarm redundancy-switch

This command allows to configure the event generation parameters for logging alarms when switching to the GPON backup channel.

The use of a negative form (no) of the command sets the default configuration.

Syntax

```
alarm redundancy-switch <PARAM> <VALUE>  
no alarm redundancy-switch <PARAM>
```

Parameters

<PARAM> – event parameter, may take values:

- in – formation of the event when an accident occurs;
- out – formation of event normalization at normalization of the accident;
- severity – describes the degree of importance of the event: info, minor, major, critical;
- ttl – time an event exists in the active alarms log. (from 1 to 2,147,483,647). Specified in seconds. It has following special values:
 - 0 – event is in the log until the normalizing event comes;
 - 1 – SNMP trap is sent if specified, but the event is not logged in the alarm log.

<VALUE> – parameter value.

Command mode

CONFIG

Example

```
ma4000(config)# alarm redundancy-switch severity info
```

alarm redundancy-fail

This command allows to configure the event generation parameters for logging alarms during switching to the GPON backup channel by failure.

The use of a negative form (no) of the command sets the default configuration.

Syntax

```
alarm redundancy-fail <PARAM> <VALUE>  
no alarm redundancy-fail <PARAM>
```

Parameters

<PARAM> – event parameter, may take values:

- in – formation of the event when an accident occurs;
- out – formation of event normalization at normalization of the accident;
- severity – describes the degree of importance of the event: info, minor, major, critical;

- ttl – time an event exists in the active alarms log. (from 1 to 2,147,483,647). Specified in seconds. It has following special values:
 - 0 – event is in the log until the normalizing event comes;
 - 1 – SNMP trap is sent if specified, but the event is not logged in the alarm log.

<VALUE> – parameter value.

Command mode

CONFIG

Example

```
ma4000(config)# alarm redundancy-fail severity info
```

alarm system-reboot

This command allows to configure the event generation parameters for logging alarms while reboot the system.

The use of a negative form (no) of the command sets the default configuration.

Syntax

```
alarm system-reboot <PARAM> <VALUE>
no alarm system-reboot <PARAM>
```

Parameters

<PARAM> – event parameter, may take values:

- in – formation of the event when an accident occurs;
- out – formation of event normalization at normalization of the accident;
- severity – describes the degree of importance of the event: info, minor, major, critical;
- ttl – time an event exists in the active alarms log. (from 1 to 2,147,483,647). Specified in seconds. It has following special values:
 - 0 – event is in the log until the normalizing event comes;
 - 1 – SNMP trap is sent if specified, but the event is not logged in the alarm log.

<VALUE> – parameter value.

Command mode

CONFIG

Example

```
ma4000(config)# alarm system-reboot severity info
```

alarmdummy

This command allows you to enable additional output of debug messages.

The full description of the functionality can be clarified by contacting the technical support service. The use of a negative form (no) of the command sets the default configuration.

show alarm configuration

This command is used to view the event settings for generating the alarm log.

Syntax

```
show alarm configuration <TYPE>
```

Parameters

<TYPE> – event type:

Event	Description	Threshold
load-average	Average CPU load reached the threshold, estimated time is 1 minute.	

ram	Free RAM size decreased to the threshold.	30%
login	Connecting the user to the management system.	
config-save	The configuration was saved on user initiative.	
firmware-update	Device firmware update.	
duplicate-mac	Two devices with the same MAC addresses detected in one VLAN.	
physical-layer-flapping	Flapping on Ethernet ports.	
pon-channel-no-ont	The first ONT connected/the last ONT disconnected on channel.	
ont-physical-layer	ONT connected/disconnected.	
olt-update	OLT chip firmware update completed successfully/with errors.	
ont-update	ONT chip firmware update completed successfully/with errors.	
channel-flapping	GPON interface flapping.	
ont-flapping	ONT flapping.	
download	File download completed successfully/with errors.	
ont-battery-power	Switch ONT to battery power.	
ont-battery-low	ONT battery low.	Threshold is set on the ONT side.
lan-los	Link Down on ONT LAN port.	
ont-config	The configuration of the connected ONT is valid/not valid.	
file-delete	File deleted successfully/with errors.	
physical-layer-errors	Physical layer errors on Ethernet ports.	
physical-layer-block	Ethernet port blocked.	
link	Ethernet port status changed (up/down).	
logout	User logout from the management system.	
ont-dying-gasp	Dying Gasp signal received from ONT.	
ont-rei	Remote Error Indication (REI).	
ont-power-off	ONT power off.	
config-change	OLT configuration changed.	
shutdown	SNMP agent disabled.	
oms	OMS-MIB operation completed successfully/with errors.	
ont-state-changed	ONT state changed.	
ont-config-changed	ONT configuration changed.	
channel-state-changed	GPON interface configuration changed.	
pon-alarm-channel	Event related to GPON interface.	
pon-alarm-onui	Event related to ONT.	
ont-update-inprogress	Updating ONT firmware.	
olt-device-reset	Resetting OLT chip.	
ont-signal-degrade	The attenuation level in the line is lower than allowed for this ONT.	
high-rx-power	The level of signal received from this ONT is above the acceptable value.	-8 dBm
free-space	Free drive space decreased to the threshold.	30%
temperature	The temperature has exceeded the threshold value.	60 °
redundancy-switch	Switching to the redundant channel.	

dummy	Debug message.	
channel-ont-count-overflow	The number of ONTs connected per channel exceeds the maximum allowed value (64 ONT).	
ont-low-rx-power	Input voltage is low or there is no power on one of the power feeders.	
olt-device-not-working	GPON OLT configuration was loaded successfully/with errors.	
redundancy-fail	Failure switching to the redundant channel.	
fan	Fan rotation speed exceeded the safe operating limits.	
system-reboot	Reboot of the device.	

Command mode

ROOT

Example

```
ma4000# show alarm configuration ram
Alarm:
Severity:          major
Send on in:       true
Send on out:      true
Ttl:              0
Free space:       30%
```