trapd command (SNMP Traps support)

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Description

SNMP Traps support module. SNMP protocol allows a network agent to send asynchronous traps when some specific event occurs on the controlled unit (object). Built-in SNMP Traps support module (agent) performs a centralized information delivery from internal device subsystems to the configured SNMP-server. SNMP Traps agent is managed using the "*trapd*" command.

Syntax:

```
trapd dst[addr] x.x.x.x[:PORT][/v1|/v2] [[GROUPNAME] ...] [[[-]TYPENAME] ...]
trapd -dst[addr] x.x.x.x[:PORT]
trapd map
trapd agent x.x.x.x
trapd -agent
trapd gateway {xxxxxxxxxxxx|auto}
trapd -gateway
trapd type TYPENAME enable|disable
trapd start|stop
  where PORT default value is 162 if omitted
  possible GROUPNAMEs are:
    topoGroup
    radioGroup
    mintGroup
    ospfGroup
  and possible TYPENAMEs are:
    topoEvent
    newNeighborEvent
    lostNeighborEvent
    radioFreqChanged
    radioBandChanged
    mintRetries
    mintBitrate
    mintSignalLevel
    ospfNBRState
    ospfVirtNBRState
    ospfIFState
    ospfVirtIFState
    ospfConfigError
    linkEvent
    trapdColdStartEvent
    snmpdAuthenticationFailureEvent
    syslog
```

Parameters

Parameter	Description
start|stop	Starts/stops SNMP Trap agent on the device.

dst[addr] x.x.x.x[:PORT][/v1|/v2] [[GROUPNAME] …] [[[-]TYPENAME] …]	Sets an SNMP server address to the SNMP configuration. Multiple SNMP servers can be set in the configuration. • *"[addr] x.x.x.x"* – the server's IP-address. • *":PORT"* – the server's UDP port (port 162 is used by default). • *"/v1|/v2"* – SNMP Trap version (1 or 2), can be specified for each SNMP Trap receiver. Several receivers with different protocol version is possible to create. Version 1 is used by default. • *"GROUPNAME"* – groups of Traps to be sent to the server. • *"[-]TYPENAME"* – exact Traps to be sent to the server (or exclude from sending if "-" sign is added).
-dst[addr] x.x.x.x[:PORT]	Deletes an SNMP server"s IP-address from the configuration.
map	Displays the allocated SNMP servers (their IP-addresses) and the defined Traps/groups for each server.
agent x.x.x.x	Sets agent's own IP-address, which is set in SNMP Trap packet. Default agent's own IP-address is 127.0.0.1.
-agent	Deletes the agent's IP-address from the configuration.
gateway {xxxxxxxxxxxx|auto}	Allows to send SNMP Traps to the SNMP server via SNMP network agent running on some other device (gateway). • "xxxxxxxxxxxx" – the gateways MAC-address. • "auto" – SNMP Traps are automatically sent to the MINT SNMP relay, defined by the "*mint -snmprelay*" command, if it exists in the MINT network.
-gateway	Deletes the gateway from the configuration.
type TYPENAME enable|disable	Allows/rejects sending of different Traps types. All Traps are disabled by default. • "*TYPENAME*" – Trap type.

SNMP traps and trap groups supported by the system	
trapdColdStartEvent	Trap is sent when the unit is powered up.
snmpdAuthenticationFailureEvent	Trap is sent in case of failure in SNMP authentification.
syslog	All new messages in the system log are sent as a Trap.
Group topoGroup	
topoEvent	Full neighbor list is sent in case of any changes in number of neighbors or their status.
lostNeighborEvent	Trap is sent when a new neighbor appears.
newNeighborEvent	Trap is sent when the neighbor is lost.
Group radioGroup	
radioFreqChanged	Trap is sent when frequency is changed.
radioBandChanged	Trap is sent when channel width is changed
Group mintGroup	
mintBitrate	Trap is sent when the bitrate is changed.
mintRetries	Trap is sent if more than 10% retries appear.
mintSignalLevel	Trap is sent if the signal level is changed by more than 10%.
Group ospfGroup	
ospfNBRState	Trap is sent when the state of a non-virtual OSPF neighbor is changed.
ospfVirtNBRState	Trap is sent when the state of a virtual OSPF neighbor is changed.
ospfIFState	Trap is sent when the state of a non-virtual OSPF interface is changed.
ospfVirtIFState	Trap is sent when the state of a virtual OSPF interface is changed.

ospfConfigError	Trap is sent when a packet has been received from a router whose configuration conflicts with this routers configuration.
linkEvent	Trap is sent when Ethernet state is changing. This trap enables/disables sending two generic SNMP traps: "*linkUp*" and "*linkDown*".

Examples

Set an SNMP-server address, Traps are sent in case of any change in the network topology.

```
trapd dst 192.168.103.35
trapd type topoGroup enable
```

or

```
trapd dst 192.168.103.35 topoGroup
```

Using the *"trapd map"* command display the list of Traps enabled.

```
trapd map
trap name                    destination address[es]
------------------------------------------------------------
topoEvent                    192.168.103.35
newNeighborEvent             192.168.103.35
lostNeighborEvent            192.168.103.35
any unaddressed trap from MINT    all addresses above
any addressed trap from MINT      its own destination address
------------------------------------------------------------
```