Cisco IPSLA SNMP Objects Required for Read Write Access

opSLA uses SNMP Read Write to configure IPSLA probes (entries) on the Cisco device. This document provides a list of the SNMP variables to which SNMP read write access is required.

All the MIBS for Cisco IPSLA are contained in the MIB CISCO-RTTMON-MIB

Configuring IPSLA using SNMP

To create an IPSLA probe, the rttMonCtrl (1.3.6.1.4.1.9.9.42.1.2) branch of the SNMP MIB is used to configure and then control the probes.

In addition there are a few MIBS in the rttMonAppl (1.3.6.1.4.1.9.9.42.1.1) branch like the rttMonApplResponder object used to control the IPSLA responder feature.

Read only access is then required to other CISCO-RTTMON-MIB objects to collect the history and statistics data.

Specific SNMP Read Write Access Required

SNMP Objects for Configuring echo, tcpConnect, dhcp and dns Probes

- rttMonCtrlAdminStatus
- rttMonCtrlAdminRttType
- rttMonEchoAdminProtocol
- rttMonEchoAdminTargetAddress
- rttMonEchoAdminSourceAddress
- rttMonCtrlAdminFrequency
- rttMonCtrlAdminTimeout
- rttMonEchoAdminTOS
- rttMonEchoAdminVrfName
- rttMonCtrlAdminVerifyData
- rttMonStatisticsAdminNumHops
- rttMonEchoAdminTargetPort
- rttMonEchoAdminControlEnable
- rttMonEchoAdminControlEnable
- rttMonEchoAdminTargetAddressString
- rttMonEchoAdminNameServer
- rttMonHistoryAdminNumBuckets
- rttMonHistoryAdminNumLives
- rttMonHistoryAdminFilter

SNMP Objects for Configuring http Probes

- rttMonCtrlAdminStatus
- rttMonCtrlAdminRttType
- rttMonEchoAdminProtocol
- rttMonCtrlAdminFrequency
- rttMonEchoAdminHTTPVersion
- rttMonEchoAdminURL
- rttMonEchoAdminCache

SNMP Objects for Configuring jitter Probes

- rttMonCtrlAdminStatus

- rttMonCtrlAdminRttType
- rttMonEchoAdminProtocol
- rttMonCtrlAdminFrequency
- rttMonEchoAdminTargetAddress
- rttMonEchoAdminSourceAddress
- rttMonEchoAdminTOS
- rttMonEchoAdminVrfName
- rttMonEchoAdminTargetPort
- rttMonEchoAdminCodecType
- rttMonEchoAdminCodecInterval
- rttMonEchoAdminCodecPayload
- rttMonEchoAdminCodecNumPackets
- rttMonEchoAdminICPIFAdvFactor
- rttMonEchoAdminNumPackets
- rttMonEchoAdminInterval
- rttMonEchoAdminPktDataRequestSize

SNMP Objects to Enable the IPSLA Responder

- rttMonApplResponder

SNMP Objects for Starting the Configured Probes

- rttMonCtrlAdminOwner
- rttMonScheduleAdminRttStartTime
- rttMonScheduleAdminRttLife
- rttMonCtrlAdminStatus

SNMP Objects for Stopping the Configured Probes

- rttMonCtrlOperState
- rttMonCtrlAdminStatus

Testing SNMP set actions

One can use the snmpset function (already installed on Opmantek VM) to test the configuration. The example below uses the shell to first set some variables relevant to your environment and then uses a multi line command for snmpset.

```
## Your READWRITE community

community=Exampl3RWcomm

##  the router to configure via SNMP
host=192.168.100.1

## hex version of IP address the RTT service will use as a responder
node=c0b23ac8

## A random number for a table entry

entry=576


snmpset -m ALL -M /usr/local/nmis8/mibs/traps -v 2c -c $community $host \
rttMonCtrlAdminStatus.$entry i 4 \
rttMonCtrlAdminRttType.$entry i 1 \
rttMonEchoAdminProtocol.$entry i 2 \
rttMonEchoAdminTargetAddress.$entry x $node \
rttMonCtrlAdminFrequency.$entry i 30 \
rttMonCtrlAdminTimeout.$entry i 5000 \
rttMonEchoAdminTOS.$entry i 64 \
rttMonCtrlAdminVerifyData.$entry i 2 \
rttMonHistoryAdminNumBuckets.$entry i 30 \
rttMonHistoryAdminNumLives.$entry i 1 \
rttMonHistoryAdminFilter.$entry i 2 \
rttMonScheduleAdminRttStartTime.$entry t 1 \
rttMonScheduleAdminRttLife.$entry i 2147483647
```