

ESR series service routers

**ESR-10, ESR-12V, ESR-12VF, ESR-15, ESR-15R, ESR-15VF, ESR-20,
ESR-21, ESR-30, ESR-31, ESR-100, ESR-200, ESR-1000, ESR-1200,
ESR-1500, ESR-1700, ESR-3100, ESR-3200, ESR-3200L, ESR-3300**

ESR routers monitoring via SNMP

Firmware version 1.24


Table of contents


| | | |
|----|--|-----|
| 1 | Introduction | 3 |
| 2 | Configuring SNMP server and sending SNMP TRAPs | 6 |
| 3 | System parameters monitoring | 9 |
| 4 | Interfaces monitoring | 54 |
| 5 | LLDP monitoring | 168 |
| 6 | IP monitoring | 187 |
| 7 | Tunnels monitoring..... | 191 |
| 8 | QoS monitoring | 197 |
| 9 | Dynamic routing monitoring | 213 |
| 10 | IP SLA monitoring | 224 |
| 11 | VRRP monitoring | 267 |
| 12 | BRAS monitoring | 281 |
| 13 | VoIP monitoring | 284 |
| 14 | List of monitoring parameters, only possible via SNMP..... | 325 |

1 Introduction

- [Notes and warnings](#)
- [Abbreviations used](#)
- [Types of interfaces and their indexes](#)
- [Commands for retrieving device parameters in SNMP](#)

Notes and warnings

 Notes contain important information, tips or recommendations on device operation and setup.

 Warnings are used to inform the user about harmful situations for the device and the user alike, which could cause malfunction or data loss.

Abbreviations used

- **OID (Object Identifier)** - a unique identifier for a device object
- **MIB (Management Information Base)** - a virtual database used to manage and monitor device objects
- **<OID>** - a unique table identifier
- **<COMMUNITY>** - community string (password) for accessing the SNMP server [1..128]
- **<IPV4_ADDRESS>** - IPv4 address
- **<IPV6_ADDRESS>** - IPv6-address
- **<VERSION>** - SNMP version [v1, v2c, v3]
- **<USER>** - username for SNMP authentication [1..128]
- **<ACCESS>** - level of access to the device via SNMP: ro - read-only; rw - read-write
- **<MANAGEMENT_STATION>** - IPv4/v6 address of the station that is allowed to access the SNMP server
- **<CLIENT_LIST>** - profile of IP addresses that are allowed to access the SNMP server [1..31]
- **<VIEW>** - profile of OIDs that are accessible on the SNMP server [1..31]
- **<VRF>** - routing table for which the SNMP server is accessed [1..31]
- **<TRAPS_TYPE>** - SNMP traps type
- **<TRAP>** - SNMP trap
- **<INDEX>** - index of an object which value is the same in CLI and SNMP
- **<FAN_NUMBER>** - device fan number [1..5]
- **<SENSOR_NUMBER>** - physical object sensor number (corresponds to the physical object order number in the “show system” CLI command output) [1..5]

Types of interfaces and their indexes


 The tables below contain indexes for the first interfaces only, as the number of physical interfaces and tunnel limits vary across different devices.

Table 1. Correspondence between interface types and their indexes in SNMP

| Interface type | Interface index |
|---------------------------|-----------------|
| gigabitethernet | 1 |
| tengigabitethernet | 49 |
| twentyfivegigabitethernet | 100 |
| fortygigabitethernet | 149 |
| hundredgigabitethernet | 198 |
| oob | 790 |
| port-channel | 1001 |
| loopback | 13001 |
| bridge | 20001 |
| service-port | 20551 |
| voice-port | 20601 |
| e1 | 21000 |
| multilink | 22001 |
| serial | 23001 |
| modem | 24001 |

Table 2. Correspondence between tunnel types and their indexes in SNMP

| Tunnel type | Tunnel index |
|-------------|--------------|
| vti | 10001 |
| l2tpv3 | 14001 |
| l2tp | 14901 |
| ip4ip4 | 18001 |
| lt | 19001 |
| pptp | 25001 |
| pppoe | 26001 |
| openvpn | 27001 |
| gre | 28001 |
| wireguard | 40001 |

Commands for retrieving device parameters in SNMP

`snmpwalk -<VERSION> { -c <COMMUNITY> | -u <USER> } { <IPV4_ADDRESS> | <IPV6_ADDRESS> } <OID> --` recursive retrieval of OID branch values (e.g., retrieval of a table of processor core load values).

`snmpget -<VERSION> { -c <COMMUNITY> | -u <USER> } { <IPV4_ADDRESS> | <IPV6_ADDRESS> } <OID>.<INDEX>` - retrieving a specific value from an OID branch (for example, retrieving the load value for a specific processor core).

Example:

Command for retrieving a table of values:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.9.9.109.1.1.1.1.3
iso.3.6.1.4.1.9.9.109.1.1.1.1.3.0 = Gauge32: 3
iso.3.6.1.4.1.9.9.109.1.1.1.1.3.1 = Gauge32: 0
iso.3.6.1.4.1.9.9.109.1.1.1.1.3.2 = Gauge32: 0
iso.3.6.1.4.1.9.9.109.1.1.1.1.3.3 = Gauge32: 0
```

Command for retrieving a specific value:

```
snmpget -v2c -c public 192.168.0.1 1.3.6.1.4.1.9.9.109.1.1.1.1.3.0
iso.3.6.1.4.1.9.9.109.1.1.1.1.3.0 = Gauge32: 3
```

2 Configuring SNMP server and sending SNMP TRAPs

- [Enabling SNMP server](#)
- [Configuring access to the SNMP server](#)
 - [Configuring access to the SNMP v1/v2c server](#)
 - [Configuring access to the SNMP v3 server](#)
- [Configuring sending SNMP TRAPs](#)

The following steps must be completed beforehand:

- specify the zone for the interface on which the SNMP server will be located;
- configure the IP address for the interface on which the SNMP server will be located.

Enabling SNMP server

Command mode:

CONFIG

Syntax:

[no] snmp-server

Example:

```
esr-100(config)# snmp-server
```

Configuring access to SNMP server

The SNMP server can be configured to receive parameters for three versions of SNMP. The configuration for v1 and v2c versions is identical, but for v3 version it differs.

Configuring access to the SNMP v1/v2c server

Command mode:

CONFIG

Syntax:

```
[no] snmp-server community <COMMUNITY> [ <VERSION> ] [ <ACCESS> ] [ <MANAGEMENT_STATION> |  
<CLIENT_LIST> ] [ <VIEW> ] [ <VRF> ]
```

Example:

```
esr-100(config)# snmp-server community public v2c ro  
esr-100(config)# snmp-server community private v2c rw
```

Configuring access to the SNMP v3 server

Command mode:

CONFIG

Syntax:

[no] snmp-server <USER>

Example:

```
esr-100(config)# snmp-server user TEST_SNMP
esr-100(config-snmp-user)#
```

Command mode:

CONFIG-SNMP-USER

Syntax:

[no] enable

Example:

```
esr-100(config-snmp-user)# enable
esr-100(config-snmp-user)#
```

Configuring sending SNMP TRAPS

Command mode:

CONFIG

Syntax:

[no] snmp-server host { <IPV4_ADDRESS> | <IPV6_ADDRESS> }

Example:

```
esr-100(config)# snmp-server host 192.168.0.2
esr-100(config-snmp-host)#
```

Command mode:

CONFIG

Syntax:

[no] snmp-server enable traps [<TRAPS_TYPE>] [<TRAP>]

Example:

```
esr-100(config)# snmp-server enable traps snmp
esr-100(config)#
```

3 System parameters monitoring

- CPU monitoring
 - Displaying the CPU core index
 - Displaying CPU core load (%) for the last 5 seconds
 - Displaying CPU load (%) for the last minute
 - Displaying CPU load (%) for the last 5 minutes
 - Displaying the number of CPU cores
 - Displaying CPU temperature
 - Displaying the CPU temperature status
- RAM Monitoring
 - Displaying RAM name
 - Displaying the alternative RAM availability indicator
 - Displaying the indicator of the RAM conceptual record correctness
 - View the amount of RAM bytes in use
 - Displaying the amount of free bytes or kilobytes of RAM
 - Displaying the number of unused contiguous bytes of RAM
 - Displaying the total amount of RAM in kilobytes
- System time monitoring
 - Displaying system time
 - Displaying the device's continuous operating time
 - Displaying the NTP configuration status
 - Displaying the NTP peer address
 - Displaying the NTP source address
 - Displaying the NTP peer type
 - Displaying the stratum NTP peer value
 - Displaying the poll NTP peers value
 - Displaying the poll NTP value
 - Displaying the refid NTP peer value
 - Displaying the reach NTP peer value
 - Displaying the offset NTP peer timer value
 - Displaying the delay NTP peer timer value
 - Displaying the prefer NTP peer status
 - Displaying the NTP peer address type
- Monitoring physical objects of the device
 - Displaying the device description containing information about the number of physical ports
 - Displaying the list of names of the device's physical objects
 - Displaying the Hardware version of the device
 - Displaying the Boot version of the device
 - Displaying the Software version of the device
 - Displaying the serial number of the device
 - Displaying the model of the device
 - Displaying the active image with firmware on the device
 - Displaying the image with firmware that will be on the device after rebooting
 - Displaying the name of the first image
 - Displaying the name of the second image
 - Displaying the name of the first image's firmware
 - Displaying the name of the second image's firmware
 - Displaying the release date of the first image's firmware
 - Displaying the release date of the second image's firmware
 - Displaying the release date of the first image firmware
 - Displaying the release date of the second image firmware
 - Displaying the status of the main power supply unit
 - Displaying fan status
 - Displaying the temperature of physical objects in the device (excluding the CPU)
 - Displaying the temperature status of physical objects in the device (excluding the CPU)

- [Displaying the device system description](#)
- [Displaying a device contact](#)
- [Displaying the device system name](#)
- [Displaying the device location](#)
- [Configuration monitoring](#)
 - [Displaying the last configuration change via SNMP](#)
 - [Displaying the status of the last attempt to change the configuration via SNMP](#)
 - [Displaying the error status of the last attempt to change the configuration via SNMP](#)
 - [Displaying configuration change description via SNMP](#)
 - [Displaying the size of the command line history](#)

CPU monitoring

Displaying the CPU core index

MIB:

CISCO-PROCESS-MIB

OIDs used:

cpmCPUTotalPhysicalIndex - 1.3.6.1.4.1.9.9.109.1.1.1.1.2

Data type in SNMP:

INTEGER

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.9.9.109.1.1.1.1.2
iso.3.6.1.4.1.9.9.109.1.1.1.1.2.0 = INTEGER: 0
iso.3.6.1.4.1.9.9.109.1.1.1.1.2.1 = INTEGER: 1
iso.3.6.1.4.1.9.9.109.1.1.1.1.2.2 = INTEGER: 2
iso.3.6.1.4.1.9.9.109.1.1.1.1.2.3 = INTEGER: 3
```

CLI command:

```
esr-100# show cpu utilization
CPU      Last      Last      Last
         5 sec    1 min    5 min
-----  -
0        3.99%    3.49%    6.12%
1        0.00%    0.00%    0.00%
2        0.00%    0.02%    0.01%
3        0.00%    0.00%    0.00%
esr-100#
```

View CPU core load (%) for the last 5 seconds**MIB:**

CISCO-PROCESS-MIB

OIDs used:

cpmCPUTotal5sec - 1.3.6.1.4.1.9.9.109.1.1.1.1.3 or cpmCPUTotal5secRev - 1.3.6.1.4.1.9.9.109.1.1.1.1.6

Data type in SNMP:

Gauge32

SNMP commands output:

```

Command for retrieving a table of values:
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.9.9.109.1.1.1.1.3
iso.3.6.1.4.1.9.9.109.1.1.1.1.3.0 = Gauge32: 3
iso.3.6.1.4.1.9.9.109.1.1.1.1.3.1 = Gauge32: 0
iso.3.6.1.4.1.9.9.109.1.1.1.1.3.2 = Gauge32: 0
iso.3.6.1.4.1.9.9.109.1.1.1.1.3.3 = Gauge32: 0

Command for retrieving a specific value:
snmpget -v2c -c public 192.168.0.1 1.3.6.1.4.1.9.9.109.1.1.1.1.3.0
iso.3.6.1.4.1.9.9.109.1.1.1.1.3.0 = Gauge32: 3

Command for retrieving a table of values:
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.9.9.109.1.1.1.1.6
iso.3.6.1.4.1.9.9.109.1.1.1.1.6.0 = Gauge32: 3
iso.3.6.1.4.1.9.9.109.1.1.1.1.6.1 = Gauge32: 0
iso.3.6.1.4.1.9.9.109.1.1.1.1.6.2 = Gauge32: 0
iso.3.6.1.4.1.9.9.109.1.1.1.1.6.3 = Gauge32: 0

Command for retrieving a specific value:
snmpget -v2c -c public 192.168.0.1 1.3.6.1.4.1.9.9.109.1.1.1.1.6.0
iso.3.6.1.4.1.9.9.109.1.1.1.1.6.0 = Gauge32: 3

```

CLI command:

```

esr-100# show cpu utilization
CPU      Last      Last      Last
         5 sec    1 min    5 min
-----  -
0        3.19%    3.66%    3.47%
1        0.00%    0.02%    0.00%
2        0.00%    0.00%    0.01%
3        0.00%    0.02%    0.00%
esr-100#

```

Displaying CPU load (%) for the last minute

MIB:

CISCO-PROCESS-MIB

OIDs used:

cpmCPUTotal1min - 1.3.6.1.4.1.9.9.109.1.1.1.1.4 or cpmCPUTotal1minRev - 1.3.6.1.4.1.9.9.109.1.1.1.1.7

Data type in SNMP:

Gauge32

SNMP commands output:

```

Command for retrieving a table of values:
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.9.9.109.1.1.1.1.4
iso.3.6.1.4.1.9.9.109.1.1.1.1.4.0 = Gauge32: 4
iso.3.6.1.4.1.9.9.109.1.1.1.1.4.1 = Gauge32: 0
iso.3.6.1.4.1.9.9.109.1.1.1.1.4.2 = Gauge32: 0
iso.3.6.1.4.1.9.9.109.1.1.1.1.4.3 = Gauge32: 0

Command for retrieving a specific value:
snmpget -v2c -c public 192.168.0.1 1.3.6.1.4.1.9.9.109.1.1.1.1.4.0
iso.3.6.1.4.1.9.9.109.1.1.1.1.4.0 = Gauge32: 4

snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.9.9.109.1.1.1.1.7
iso.3.6.1.4.1.9.9.109.1.1.1.1.7.0 = Gauge32: 4
iso.3.6.1.4.1.9.9.109.1.1.1.1.7.1 = Gauge32: 0
iso.3.6.1.4.1.9.9.109.1.1.1.1.7.2 = Gauge32: 0
iso.3.6.1.4.1.9.9.109.1.1.1.1.7.3 = Gauge32: 0

Command for retrieving a specific value:
snmpget -v2c -c public 192.168.0.1 1.3.6.1.4.1.9.9.109.1.1.1.1.7.0
iso.3.6.1.4.1.9.9.109.1.1.1.1.7.0 = Gauge32: 4

```

CLI command:

```

esr-100# show cpu utilization
CPU      Last      Last      Last
         5 sec     1 min     5 min
-----  -
0        3.19%    3.66%    3.47%
1        0.00%    0.02%    0.00%
2        0.00%    0.00%    0.01%
3        0.00%    0.02%    0.00%
esr-100#

```

Displaying CPU load (%) for the last 5 minutes

MIB:

CISCO-PROCESS-MIB

OIDs used:

cpmCPUTotal5min - 1.3.6.1.4.1.9.9.109.1.1.1.1.5 or cpmCPUTotal5minRev - 1.3.6.1.4.1.9.9.109.1.1.1.1.8

Data type in SNMP:

Gauge32

SNMP commands output:

```

Command for retrieving a table of values:
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.9.9.109.1.1.1.1.5
iso.3.6.1.4.1.9.9.109.1.1.1.1.5.0 = Gauge32: 3
iso.3.6.1.4.1.9.9.109.1.1.1.1.5.1 = Gauge32: 0
iso.3.6.1.4.1.9.9.109.1.1.1.1.5.2 = Gauge32: 0
iso.3.6.1.4.1.9.9.109.1.1.1.1.5.3 = Gauge32: 0

Command for retrieving a specific value:
snmpget -v2c -c public 192.168.0.1 1.3.6.1.4.1.9.9.109.1.1.1.1.5.0
iso.3.6.1.4.1.9.9.109.1.1.1.1.5.0 = Gauge32: 3

Command for retrieving a table of values:
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.9.9.109.1.1.1.1.8
iso.3.6.1.4.1.9.9.109.1.1.1.1.8.0 = Gauge32: 3
iso.3.6.1.4.1.9.9.109.1.1.1.1.8.1 = Gauge32: 0
iso.3.6.1.4.1.9.9.109.1.1.1.1.8.2 = Gauge32: 0
iso.3.6.1.4.1.9.9.109.1.1.1.1.8.3 = Gauge32: 0

Command for retrieving a specific value:
snmpget -v2c -c public 192.168.0.1 1.3.6.1.4.1.9.9.109.1.1.1.1.8.0
iso.3.6.1.4.1.9.9.109.1.1.1.1.8.0 = Gauge32: 3

```

CLI command:

```

esr-100# show cpu utilization
CPU      Last      Last      Last
         5 sec     1 min     5 min
-----  -
0        3.19%    3.66%    3.47%
1        0.00%    0.02%    0.00%
2        0.00%    0.00%    0.01%
3        0.00%    0.02%    0.00%
esr-100#

```

Displaying the number of CPU cores

MIB:

UCD-SNMP-MIB

OIDs used:

ssCpuNumCpus - 1.3.6.1.4.1.2021.11.67

Data type in SNMP:

INTEGER

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.2021.11.67
iso.3.6.1.4.1.2021.11.67.0 = INTEGER: 4
```

CLI command:

```
esr-100# show cpu utilization
CPU      Last      Last      Last
         5 sec     1 min     5 min
-----  -
0        3.00%    3.21%    3.67%
1        0.00%    0.00%    0.00%
2        0.00%    0.02%    0.02%
3        0.00%    0.02%    0.01%
esr-100#
```

Displaying CPU temperature

MIB:

RADLAN-Physicaldescription-MIB

OIDs used:

rlPhdUnitEnvParamTempSensorValue - 1.3.6.1.4.1.89.53.15.1.9 (for all devices except ESR-1700);

rlPhdUnitEnvParamTempSensor4Value and rlPhdUnitEnvParamTempSensor5Value - 1.3.6.1.4.1.89.53.15.1.16
and

1.3.6.1.4.1.89.53.15.1.18 (there are 2 tables for ESR-1700, as the device has 2 processors)

Data type in SNMP:

INTEGER

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.89.53.15.1.9
iso.3.6.1.4.1.89.53.15.1.9.0 = INTEGER: 42
```

CLI command:

```
esr-100# show system | begin CPU | until Temperature
----- CPU ----- Board -----
Temperature, C    42                43
esr-100#
```

Displaying the CPU temperature status**MIB:**

RADLAN-Physicaldescription-MIB

OIDs used:

rPhdUnitEnvParamTempSensorStatus - 1.3.6.1.4.1.89.53.15.1.10 (for all devices except ESR-1700);

rPhdUnitEnvParamTempSensor4Status and rPhdUnitEnvParamTempSensor5Status - 1.3.6.1.4.1.89.53.15.1.17 and 1.3.6.1.4.1.89.53.15.1.19 (there are 2 tables for ESR-1700, as the device has 2 processors)

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:**1 - ok****2 - unavailable****3 - nonoperational****SNMP command output:**

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.89.53.15.1.10
1.3.6.1.4.1.89.53.15.1.10.0 = INTEGER: 1
```

CLI command:

```
esr-100# show system | begin CPU | until Temperature
----- CPU ----- Board -----
Temperature, C    42                43
esr-100#
```

RAM monitoring

Displaying RAM name

MIB:

CISCO-MEMORY-POOL-MIB

OIDs used:

ciscoMemoryPoolName - 1.3.6.1.4.1.9.9.48.1.1.1.2

Data type in SNMP:

STRING

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.9.9.48.1.1.1.2
iso.3.6.1.4.1.9.9.48.1.1.1.2.1 = STRING: RAM 0
```

CLI command:

```
esr-100# show system | begin Total | until RAM
      Total, MB      Used, MB      Free, MB
-----
RAM    3763.06      1907.06 (51%)  1856.00 (49%)
esr-100#
```

Displaying the alternative RAM availability indicator

MIB:

CISCO-MEMORY-POOL-MIB

OIDs used:

ciscoMemoryPoolAlternate - 1.3.6.1.4.1.9.9.48.1.1.1.3

Data type in SNMP:

INTEGER32

Interpretation of values returned in SNMP:

0 - None

1..65535 - Bytes of alternate memory pool

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.9.9.48.1.1.1.3
iso.3.6.1.4.1.9.9.48.1.1.1.3.1 = INTEGER: 0
```

CLI command:

```
esr-100# show system | begin Total | until RAM
      Total, MB      Used, MB      Free, MB
-----  -
RAM      3763.06      1907.06 (51%)    1856.00 (49%)
esr-100#
```

Displaying the indicator of the RAM conceptual record correctness**MIB:**

CISCO-MEMORY-POOL-MIB

OIDs used:

ciscoMemoryPoolValid - 1.3.6.1.4.1.9.9.48.1.1.1.4

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:**1 - true****2 - false****SNMP command output:**

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.9.9.48.1.1.1.4
iso.3.6.1.4.1.9.9.48.1.1.1.4.1 = INTEGER: 1
```

CLI command:

```
esr-100# show system | begin Total | until RAM
      Total, MB      Used, MB      Free, MB
-----  -
RAM      3763.06      1907.06 (51%)    1856.00 (49%)
esr-100#
```

View the amount of RAM bytes in use**MIB:**

CISCO-MEMORY-POOL-MIB

OIDs used:

ciscoMemoryPoolUsed - 1.3.6.1.4.1.9.9.48.1.1.1.5

Data type in SNMP:

Gauge32

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.9.9.48.1.1.1.5
iso.3.6.1.4.1.9.9.48.1.1.1.5.1 = Gauge32: 1999634432
```

CLI command:

```
esr-100# show system | begin Total | until RAM
      Total, MB      Used, MB      Free, MB
-----
RAM    3763.06      1907.06 (51%)    1856.00 (49%)
esr-100#
```

Displaying the amount of free bytes or kilobytes of RAM**MIB:**

CISCO-MEMORY-POOL-MIB or UCD-SNMP-MIB

OIDs used:

ciscoMemoryPoolFree - 1.3.6.1.4.1.9.9.48.1.1.1.6 (in bytes) or memTotalFree - 1.3.6.1.4.1.2021.4.11 (in kilobytes)

Data type in SNMP:

Gauge32 or INTEGER32

SNMP commands output:

```
In bytes:
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.9.9.48.1.1.1.6
iso.3.6.1.4.1.9.9.48.1.1.1.6.1 = Gauge32: 1943863296

In kilobytes:
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.2021.4.11
iso.3.6.1.4.1.2021.4.11.0 = INTEGER: 1900608
```

CLI command:

```
esr-100# show system | begin Total | until RAM
      Total, MB      Used, MB      Free, MB
-----  -
RAM    3763.06      1907.06 (51%)  1856.00 (49%)
esr-100#
```

Displaying the number of unused contiguous bytes of RAM**MIB:**

CISCO-MEMORY-POOL-MIB

OIDs used:

ciscoMemoryPoolLargestFree - 1.3.6.1.4.1.9.9.48.1.1.1.7

Data type in SNMP:

Gauge32

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.9.9.48.1.1.1.7
iso.3.6.1.4.1.9.9.48.1.1.1.7.1 = Gauge32: 0
```

CLI command:

```
esr-100# show system | begin Total | until RAM
      Total, MB      Used, MB      Free, MB
-----  -
RAM    3763.06      1907.06 (51%)  1856.00 (49%)
esr-100#
```

Displaying the total amount of RAM in kilobytes

MIB:

UCD-SNMP-MIB

OIDs used:

memTotalReal - 1.3.6.1.4.1.2021.4.5

Data type in SNMP:

INTEGER32

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.2021.4.5
iso.3.6.1.4.1.2021.4.5.0 = INTEGER: 3853888
```

CLI command:

```
esr-100# show system | begin Total | until RAM
      Total, MB      Used, MB      Free, MB
-----
RAM      3763.06      1907.06 (51%)      1856.00 (49%)
esr-100#
```

System time monitoring

Displaying system time

MIB:

HOST-RESOURCES-MIB

OIDs used:

hrSystemDate - 1.3.6.1.2.1.25.1.2

Data type in SNMP:

STRING

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.2.1.25.1.2
iso.3.6.1.2.1.25.1.2.0 = STRING: 2024-4-3,8:58:36.0,+0:0
```

CLI command:

```
esr-100# show date
"Wednesday 08:58:35 UTC April 03 2024"
esr-100#
```

Displaying the device's continuous operating time**MIB:**

ELTEX-GENERIC-MIB or SNMPv2-MIB or RADLAN-Physicaldescription-MIB

OIDs used:

eltexSystemUptime - 1.3.6.1.4.1.35265.38.100 (in seconds) or sysUpTime - 1.3.6.1.2.1.1.3 or
rlPhdUnitEnvParamUpTime - 1.3.6.1.4.1.89.53.15.1.11

Data type in SNMP:

Counter64 or Timeticks

SNMP commands output:

```
In seconds:
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.38.100
iso.3.6.1.4.1.35265.38.100.0 = Counter64: 257574

In milliseconds converted to a readable format
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.2.1.1.3
iso.3.6.1.2.1.1.3.0 = Timeticks: (25758466) 2 days, 23:33:04.66

snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.89.53.15.1.11
iso.3.6.1.4.1.89.53.15.1.11.0 = Timeticks: (25758466) 2 days, 23:33:04.66
```

CLI command:

```
esr-100# show system | include uptime
System uptime:          2 days, 23 hours, 33 minutes and 4 seconds
esr-100#
```

Displaying the NTP configuration status**MIB:**

CISCO-NTP-MIB

OIDs used:

cntpPeersConfigured - 1.3.6.1.4.1.9.9.168.1.2.1.1.2

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:**1 - true****2 - false****SNMP command output:**

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.9.9.168.1.2.1.1.2
iso.3.6.1.4.1.9.9.168.1.2.1.1.2.20852 = INTEGER: 1
```

CLI command:

```
esr-100# show ntp configuration
NTP status:          Enabled
NTP mode:            client/server
NTP DSCP:            46

Address              VRF instance      Type
Version  Min poll  Max poll  Prefer  burst  iburst
-----
192.168.0.2          --                server  4
6                   10               No      No      No
esr-100#
```

Displaying the NTP peer address**MIB:**

CISCO-NTP-MIB

OIDs used:

cntpPeersPeerAddress - 1.3.6.1.4.1.9.9.168.1.2.1.1.3 (for an IPv4 address);

cntpPeersPeerName - 1.3.6.1.4.1.9.9.168.1.2.1.1.31 (for IPv4 and IPv6 addresses)

Data type in SNMP:

IpAddress or Hex-STRING

SNMP commands output:

```

As IPAddress:
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.9.9.168.1.2.1.1.3
iso.3.6.1.4.1.9.9.168.1.2.1.1.3.20852 = IPAddress: 192.168.0.2

As Hex-STRING:
snmpwalk -v2c -c public 2001:db8::1 1.3.6.1.4.1.9.9.168.1.2.1.1.31
iso.3.6.1.4.1.9.9.168.1.2.1.1.31.20852 = Hex-STRING: 20 01 0D B8 00 00 00 00 00 00 00 00 00 00
00,02

```

CLI command:

```

On IPv4:

esr-100# show ntp peers
Clock is synchronized, stratum 3, reference is 192.168.0.2
      remote                               vrf      refid      st  t
when  poll  reach  delay  offset  jitter  -----  -----  -----
-----  -----  -----  -----  -----  -----
* 192.168.0.2                               192.36.143.130  2  u  37
64    63    0.734    9.071    5.971
esr-100#

On IPv6:

esr-100# show ntp peers
Clock is synchronized, stratum 3, reference is 2001:db8::52
      remote                               vrf      refid      st  t
when  poll  reach  delay  offset  jitter  -----  -----  -----
-----  -----  -----  -----  -----  -----
* 2001:db8::2                               192.36.143.130  2  u  37
64    63    0.734    9.071    5.971
esr-100#

```

Displaying the NTP source address**MIB:**

CISCO-NTP-MIB

OIDs used:

cntpPeersHostAddress - 1.3.6.1.4.1.9.9.168.1.2.1.1.5 (only for IPv4 addresses)

Data type in SNMP:

IpAddress

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.9.9.168.1.2.1.1.5
iso.3.6.1.4.1.9.9.168.1.2.1.1.5.20852 = IPAddress: 192.168.0.1
```

CLI command:

```
esr-100# show running-config | include "ntp source"
ntp source address 192.168.0.1
esr-100#
```

Displaying the NTP peer type**MIB:**

CISCO-NTP-MIB

OIDs used:

cntpPeersMode - 1.3.6.1.4.1.9.9.168.1.2.1.1.8

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:*0 - unspecified**1 - symmetricActive**2 - symmetricPassive**3 - client**4 - server**5 - broadcast**6 - reservedControl**7 - reservedPrivate***SNMP command output:**

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.9.9.168.1.2.1.1.8
iso.3.6.1.4.1.9.9.168.1.2.1.1.8.20852 = INTEGER: 4
```

CLI command:

```

esr-100# show ntp configuration
NTP status:          Enabled
NTP mode:            client/server
NTP DSCP:           46

Address              VRF instance      Type
Version  Min poll  Max poll  Prefer  burst  iburst
-----
192.168.0.2          --                server  4
6                   10               No      No      No
esr-100#

```

Displaying the NTP peer stratum value**MIB:**

CISCO-NTP-MIB

OIDs used:

cntpPeersStratum - 1.3.6.1.4.1.9.9.168.1.2.1.1.9

Data type in SNMP:

INTEGER32 (0..255)

SNMP command output:

```

snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.9.9.168.1.2.1.1.9
iso.3.6.1.4.1.9.9.168.1.2.1.1.9.20852 = INTEGER: 2

```

CLI command:

```

esr-100# show ntp peers
Clock is synchronized, stratum 3, reference is 192.168.0.2
  remote                               vrf      refid      st  t
when  poll  reach  delay  offset  jitter
-----
* 192.168.0.2          192.36.143.130  2  u  37
64   63    0.734  9.071  5.971
esr-100#

```

Displaying the NTP peers poll value**MIB:**

CISCO-NTP-MIB

OIDs used:

cntpPeersPeerPoll - 1.3.6.1.4.1.9.9.168.1.2.1.1.10

Data type in SNMP:

INTEGER32 (-20..20)

Interpretation of values returned in SNMP:

A degree of two is given, equal to the poll value.

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.9.9.168.1.2.1.1.10
iso.3.6.1.4.1.9.9.168.1.2.1.1.10.20852 = INTEGER: 6
```

CLI command:

```
esr-100# show ntp peers
Clock is synchronized, stratum 3, reference is 192.168.0.2
  remote                                vrf      refid      st  t
when  poll  reach  delay  offset  jitter
-----  -----  -----  -----  -----  -----
* 192.168.0.2                                192.36.143.130  2  u  37
64    63    0.734    9.071    5.971
esr-100#
```

Displaying the NTP poll value**MIB:**

CISCO-NTP-MIB

OIDs used:

cntpPeersHostPoll - 1.3.6.1.4.1.9.9.168.1.2.1.1.11

Data type in SNMP:

INTEGER32 (-20..20)

Interpretation of values returned in SNMP:

A degree of two is given, equal to the poll value.

For example, if the value in CLI is 32, then the value in SNMP should be 5.

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.9.9.168.1.2.1.1.11
iso.3.6.1.4.1.9.9.168.1.2.1.1.11.20852 = INTEGER: 6
```

CLI command:

```
esr-100# show ntp peers
Clock is synchronized, stratum 3, reference is 192.168.0.2
      remote                                vrf      refid      st  t
when  poll  reach  delay  offset  jitter  -----  -----  -
-----  -----  -----  -----  -----  -----
* 192.168.0.2                                192.36.143.130  2  u  37
64    63    0.734    9.071    5.971
esr-100#
```

Displaying the NTP peer refid value**MIB:**

CISCO-NTP-MIB

OIDs used:

cntpPeersRefId - 1.3.6.1.4.1.9.9.168.1.2.1.1.15

Data type in SNMP:

Hex-STRING

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.9.9.168.1.2.1.1.15
iso.3.6.1.4.1.9.9.168.1.2.1.1.15.20852 = Hex-STRING: C0 24 8F 82
```

CLI command:

```
esr-100# show ntp peers
Clock is synchronized, stratum 3, reference is 192.168.0.2
      remote                                vrf      refid      st  t
when  poll  reach  delay  offset  jitter  -----  -----  -
-----  -----  -----  -----  -----  -----
* 192.168.0.2                                192.36.143.130  2  u  37
64    63    0.734    9.071    5.971
esr-100#
```

Displaying the NTP peer reach value

MIB:

CISCO-NTP-MIB

OIDs used:

cntpPeersReach - 1.3.6.1.4.1.9.9.168.1.2.1.1.21

Data type in SNMP:

INTEGER32 (0..255)

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.9.9.168.1.2.1.1.21
iso.3.6.1.4.1.9.9.168.1.2.1.1.21.20852 = INTEGER: 63
```

CLI command:

```
esr-100# show ntp peers
Clock is synchronized, stratum 3, reference is 192.168.0.2
      remote                               vrf      refid          st    t
when  poll  reach  delay    offset    jitter
-----  -
*    192.168.0.2                               192.36.143.130  2    u    37
64     63     0.734     9.071     5.971
esr-100#
```

Displaying the NTP peer offset timer value

MIB:

CISCO-NTP-MIB

OIDs used:

cntpPeersOffset - 1.3.6.1.4.1.9.9.168.1.2.1.1.23

Data type in SNMP:

Hex-STRING (SIZE=4)

Interpretation of values returned in SNMP:

To convert it to a format similar to that in the CLI, the resulting value must be converted to the int32 data type and then divided by 65535.

For example, the value FF F0 5C AC in SNMP will be converted by the above algorithm to --16.

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.9.9.168.1.2.1.1.23
iso.3.6.1.4.1.9.9.168.1.2.1.1.23.20852 = Hex-STRING: FF F0 5C AC
```

CLI command:

```
esr-100# show ntp peers
Clock is synchronized, stratum 3, reference is 192.168.0.2
  remote                vrf          refid                st    t
when  poll  reach  delay    offset    jitter
-----  -
*    192.168.0.2                192.36.143.130    2    u    37
64    63    0.395    -15.638    5.971
esr-100#
```

Displaying the NTP peer delay timer value**MIB:**

CISCO-NTP-MIB

OIDs used:

cntpPeersDelay - 1.3.6.1.4.1.9.9.168.1.2.1.1.24

Data type in SNMP:

Hex-STRING (SIZE=4)

Interpretation of values returned in SNMP:

To convert it to a format similar to that in the CLI, the resulting value must be converted to the int32 data type and then divided by 65535.

For example, the value FF F0 5C AC in SNMP will be converted by the above algorithm to --16.

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.9.9.168.1.2.1.1.24
iso.3.6.1.4.1.9.9.168.1.2.1.1.24.20852 = Hex-STRING: 00 00 65 1E
```

CLI command:

```

esr-100# show ntp peers
Clock is synchronized, stratum 3, reference is 192.168.0.2
      remote                               vrf      refid      st    t
when  poll  reach  delay  offset  jitter
-----
*    192.168.0.2                               192.36.143.130  2    u    37
64    63    0.395   -15.638  5.971
esr-100#

```

Displaying the NTP peer prefer status**MIB:**

CISCO-NTP-MIB

OIDs used:

cntpPeersPrefPeer - 1.3.6.1.4.1.9.9.168.1.2.1.1.29

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:**1 - true****2 - false****SNMP command output:**

```

snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.9.9.168.1.2.1.1.29
iso.3.6.1.4.1.9.9.168.1.2.1.1.29.20852 = INTEGER: 2

```

CLI command:

```

esr-100# show ntp configuration
NTP status:      Enabled
NTP mode:        client/server
NTP DSCP:        46

Address          VRF instance      Type
Version  Min poll  Max poll  Prefer  burst  iburst
-----
192.168.0.2      --              server  4
6                10             No      No      No
esr-100#

```

Displaying the NTP peer address type

MIB:

CISCO-NTP-MIB

OIDs used:

cntpPeersPrefPeer - 1.3.6.1.4.1.9.9.168.1.2.1.1.30

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:

0 - unknown

1 - ipv4

2 - ipv6

3 - ipv4z

4 - ipv6z

16 - dns

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.9.9.168.1.2.1.1.30
iso.3.6.1.4.1.9.9.168.1.2.1.1.30.20852 = INTEGER: 1
```

CLI command:

```
esr-100# show ntp peers
Clock is synchronized, stratum 3, reference is 192.168.0.2
      remote                               vrf      refid      st  t
when  poll  reach  delay  offset  jitter
-----  -
*    192.168.0.2                               192.36.143.130  2  u  37
64     63     0.395    -15.638   5.971
esr-100#
```

Monitoring physical objects of the device

Displaying the device description containing information about the number of physical ports

MIB:

ENTITY-MIB

OIDs used:

entPhysicalDescr - 1.3.6.1.2.1.47.1.1.1.1.2

Data type in SNMP:

STRING

SNMP commands output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.2.1.47.1.1.1.1.2.680000
iso.3.6.1.2.1.47.1.1.1.1.2.680000 = STRING: Router 4 ports

snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.2.1.47.1.1.1.1.2.685000
iso.3.6.1.2.1.47.1.1.1.1.2.685000 = STRING: Module with 4 ports
```

CLI command:

```
esr-100# show interfaces status
Interface           Admin  Link   MTU   MAC address       Last change
Mode                State  State
-----
-----
gi1/0/1             Up     Up     1500  a8:f9:4b:ab:9e:76 5 hours, 43 minutes and
routerport                                     27 seconds

gi1/0/2             Up     Up     1500  a8:f9:4b:ab:9e:77 5 hours, 45 minutes and
routerport                                     46 seconds

gi1/0/3             Up     Up     1500  a8:f9:4b:ab:9e:78 4 hours, 1 minute and 17
routerport                                     seconds

gi1/0/4             Up     Up     1500  a8:f9:4b:ab:9e:79 4 hours, 1 minute and 17
routerport                                     seconds

esr-100#
```

Displaying the list of names of the device's physical objects**MIB:**

ENTITY-MIB

OIDs used:

entPhysicalName - 1.3.6.1.2.1.47.1.1.1.1.7

Data type in SNMP:

STRING

SNMP command output:

```
Command to retrieve a table of values:  
iso.3.6.1.2.1.47.1.1.1.1.7.68 = STRING: Stack  
iso.3.6.1.2.1.47.1.1.1.1.7.680000 = STRING: Router  
iso.3.6.1.2.1.47.1.1.1.1.7.681000 = STRING: Main Power Supply  
iso.3.6.1.2.1.47.1.1.1.1.7.682000 = STRING: Fan 1  
iso.3.6.1.2.1.47.1.1.1.1.7.682001 = STRING: Fan 2  
iso.3.6.1.2.1.47.1.1.1.1.7.683000 = STRING: CPU  
iso.3.6.1.2.1.47.1.1.1.1.7.683001 = STRING: Board  
iso.3.6.1.2.1.47.1.1.1.1.7.684000 = STRING: Slot  
iso.3.6.1.2.1.47.1.1.1.1.7.685000 = STRING: Module  
iso.3.6.1.2.1.47.1.1.1.1.7.686000 = STRING:  
iso.3.6.1.2.1.47.1.1.1.1.7.686001 = STRING:  
iso.3.6.1.2.1.47.1.1.1.1.7.686002 = STRING:  
iso.3.6.1.2.1.47.1.1.1.1.7.686003 = STRING:  
  
Command for retrieving a specific value:  
snmpget -v2c -c public 192.168.0.1 1.3.6.1.2.1.47.1.1.1.1.7.680000  
iso.3.6.1.2.1.47.1.1.1.1.7.680000 = STRING: Router
```

CLI command:

```

esr-100# show system
System type:           Eltex ESR-100 Service Router
System name:          esr-100
Software version:     1.23.3 build 3[d243222fb] (date 27/03/2024 time 21:13:26)
Hardware version:     1v6
System uptime:        3 days, 47 minutes and 44 seconds
System MAC address:   A8:F9:4B:AB:9E:75
System serial number: NP03004980

Fan Level:                55%

  Fan Table
  ~~~~~
      Fan 1  Fan 2
-----
Status  Ok    Ok

  Temperature Table
  ~~~~~
              CPU          Board
-----
Temperature, C  41          42

  Memory Table
  ~~~~~
      Total, MB      Used, MB      Free, MB
-----
RAM      3763.56      1929.88 (52%)  1833.69 (48%)
FLASH   20.00          1.12 (6%)     18.88 (94%)
DATA    500.00         10.81 (3%)    489.19 (97%)
esr-
100#

```

Displaying the Hardware version of the device**MIB:**

ENTITY-MIB

OIDs used:

entPhysicalHardwareRev - 1.3.6.1.2.1.47.1.1.1.1.8

Data type in SNMP:

STRING

SNMP command output:

```

snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.2.1.47.1.1.1.1.8.680000
.1.3.6.1.2.1.47.1.1.1.1.8.680000 = STRING: 1v6

```

CLI command:

```
esr-100# show version
Boot version:
  1.23.3.3 (date 27/03/2024 time 21:15:56)
SW version:
  1.23.3 build 3[d243222fb] (date 27/03/2024 time 21:13:26)
HW version:
  1v6
esr-100#
```

Displaying the Boot version of the device**MIB:**

ENTITY-MIB

OIDs used:

entPhysicalFirmwareRev - 1.3.6.1.2.1.47.1.1.1.1.9

Data type in SNMP:

STRING

SNMP command output:

```
snmpget -v2c -c public 192.168.0.1 1.3.6.1.2.1.47.1.1.1.1.9.680000
iso.3.6.1.2.1.47.1.1.1.1.9.680000 = STRING: 1.23.3 build 3[d243222fb] (date 27/03/2024 time
21:13:26)
```

CLI command:

```
esr-100# show version
Boot version:
  1.23.3.3 (date 27/03/2024 time 21:15:56)
SW version:
  1.23.3 build 3[d243222fb] (date 27/03/2024 time 21:13:26)
HW version:
  1v6
esr-100#
```

Displaying the Software version of the device**MIB:**

ENTITY-MIB

OIDs used:

entPhysicalSoftwareRev - 1.3.6.1.2.1.47.1.1.1.1.10

Data type in SNMP:

STRING

SNMP command output:

```
snmpget -v2c -c public 192.168.0.1 1.3.6.1.2.1.47.1.1.1.1.10.680000
iso.3.6.1.2.1.47.1.1.1.1.10.680000 = STRING: 1.23.3 build 3[d243222fb] (date 27/03/2024 time
21:13:26)
```

CLI command:

```
esr-100# show version
Boot version:
 1.23.3.3 (date 27/03/2024 time 21:15:56)
SW version:
 1.23.3 build 3[d243222fb] (date 27/03/2024 time 21:13:26)
HW version:
 1v6
esr-100#
```

Displaying the serial number of the device**MIB:**

ENTITY-MIB

OIDs used:

entPhysicalSerialNum - 1.3.6.1.2.1.47.1.1.1.1.11

Data type in SNMP:

STRING

SNMP command output:

```
snmpget -v2c -c public 192.168.0.1 1.3.6.1.2.1.47.1.1.1.1.11.680000
iso.3.6.1.2.1.47.1.1.1.1.11.680000 = STRING: NP03004980
```

CLI command:

```
esr-100# show system id
Serial number:
  NP03004980
esr-100#
```

Displaying the device model**MIB:**

ENTITY-MIB

OIDs used:

entPhysicalModelName - 1.3.6.1.2.1.47.1.1.1.1.13

Data type in SNMP:

STRING

SNMP command output:

```
snmpget -v2c -c public 192.168.0.1 1.3.6.1.2.1.47.1.1.1.1.13.680000
.1.3.6.1.2.1.47.1.1.1.1.13.680000 = STRING: ESR-100
```

CLI command:

```
esr-100# show system | include type
System type:          Eltex ESR-100 Service Router
esr-100#
```

Displaying the active image with firmware on the device**MIB:**

RADLAN-MIB

OIDs used:

rndActiveSoftwareFile - 1.3.6.1.4.1.89.2.13.1.1.2

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:**1 - image1****2 - image2****SNMP command output:**

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.89.2.13.1.1.2
iso.3.6.1.4.1.89.2.13.1.1.2.1 = INTEGER: 2
```

CLI command:

```
esr-100# show bootvar
Imag  Version                               Date                               Status                               After reboot
e-----
1      1.23.3 build 3[d243222fb]             date 27/03/2024 time             Not Active                       *
21:13:26
2      1.24.x build                             date 25/03/2024 time             Active
53[cd05a4ab2]                          19:58:29

esr-
100#
```

Displaying the image with firmware that will be on the device after rebooting**MIB:**

RADLAN-MIB

OIDs used:

rndActiveSoftwareFileAfterReset - 1.3.6.1.4.1.89.2.13.1.1.3

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:**1 - image1****2 - image2****SNMP command output:**

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.89.2.13.1.1.3
iso.3.6.1.4.1.89.2.13.1.1.3.1 = INTEGER: 1
```

CLI command:

```

esr-100# show bootvar
Image      Version
-----
1          1.23.3 build 3[d243222fb]
Date      27/03/2024 time 21:13:26
Status    Not Active
After reboot *

2          1.24.x build
          53[cd05a4ab2]
Date      25/03/2024 time 19:58:29
Status    Active

esr-
100#

```

Displaying the name of the first image**MIB:**

RADLAN-MIB

OIDs used:

rndImage1Name - 1.3.6.1.4.1.89.2.16.1.1.2

Data type in SNMP:

STRING

SNMP command output:

```

snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.89.2.16.1.1.2
iso.3.6.1.4.1.89.2.16.1.1.2.1 = STRING: "image-1"

```

CLI command:

```

esr-100# show bootvar
Image      Version
-----
1          1.23.3 build 3[d243222fb]
Date      27/03/2024 time 21:13:26
Status    Not Active
After reboot *

2          1.24.x build
          53[cd05a4ab2]
Date      25/03/2024 time 19:58:29
Status    Active

esr-
100#

```

Displaying the name of the second image**MIB:**

RADLAN-MIB

OIDs used:

rndImage2Name - 1.3.6.1.4.1.89.2.16.1.1.3

Data type in SNMP:

STRING

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.89.2.16.1.1.3
iso.3.6.1.4.1.89.2.16.1.1.2.1 = STRING: "image-2"
```

CLI command:

```
esr-100# show bootvar
Image      Version                               Date                               Status                               After reboot
-----
1          1.23.3 build 3[d243222fb]            date 27/03/2024 time              Not Active                       *
21:13:26
2          1.24.x build                          date 25/03/2024 time              Active
53[cd05a4ab2]                          19:58:29

esr-
100#
```

Displaying the name of the first image's firmware**MIB:**

RADLAN-MIB

OIDs used:

rndImage1Version - 1.3.6.1.4.1.89.2.16.1.1.4

Data type in SNMP:

STRING

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.89.2.16.1.1.4
iso.3.6.1.4.1.89.2.16.1.1.4.1 = STRING: "1.23.3 build 3[d243222fb]"
```

CLI command:

```

esr-100# show bootvar
Image      Version                               Date                               Status                               After reboot
-----
1          1.23.3 build 3[d243222fb]           date 27/03/2024 time             Not Active                         *
21:13:26
2          1.24.x build                          date 25/03/2024 time             Active
53[cd05a4ab2]                       19:58:29

esr-
100#

```

Displaying the name of the second image's firmware**MIB:**

RADLAN-MIB

OIDs used:

rndImage2Version - 1.3.6.1.4.1.89.2.16.1.1.5

Data type in SNMP:

STRING

SNMP command output:

```

snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.89.2.16.1.1.5
iso.3.6.1.4.1.89.2.16.1.1.5.1 = STRING: "1.24.x build 53[cd05a4ab2]"

```

CLI command:

```

esr-100# show bootvar
Image      Version                               Date                               Status                               After reboot
-----
1          1.23.3 build 3[d243222fb]           date 27/03/2024 time             Not Active                         *
21:13:26
2          1.24.x build                          date 25/03/2024 time             Active
53[cd05a4ab2]                       19:58:29

esr-
100#

```

Displaying the release date of the first image's firmware**MIB:**

RADLAN-MIB

OIDs used:

rndImage1Date - 1.3.6.1.4.1.89.2.16.1.1.6

Data type in SNMP:

STRING

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.89.2.16.1.1.6
iso.3.6.1.4.1.89.2.16.1.1.6.1 = STRING: "27-Mar-124"
```

CLI command:

```
esr-100# show bootvar
Image      Version                               Date                               Status                               After reboot
-----
1          1.23.3 build 3[d243222fb]            date 27/03/2024 time              Not Active                       *
21:13:26
2          1.24.x build                          date 25/03/2024 time              Active
53[cd05a4ab2]                       19:58:29

esr-
100#
```

Displaying the release date of the second image's firmware**MIB:**

RADLAN-MIB

OIDs used:

rndImage2Date - 1.3.6.1.4.1.89.2.16.1.1.7

Data type in SNMP:

STRING

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.89.2.16.1.1.7
iso.3.6.1.4.1.89.2.16.1.1.7.1 = STRING: "25-Mar-124"
```

CLI command:

```

esr-100# show bootvar
Image      Version                               Date                               Status                               After reboot
-----
1          1.23.3 build 3[d243222fb]           date 27/03/2024 time             Not Active                       *
21:13:26
2          1.24.x build                          date 25/03/2024 time             Active
53[cd05a4ab2]                       19:58:29

esr-
100#

```

Displaying the release date of the first image firmware**MIB:**

RADLAN-MIB

OIDs used:

rndImage1Time - 1.3.6.1.4.1.89.2.16.1.1.8

Data type in SNMP:

STRING

SNMP command output:

```

snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.89.2.16.1.1.8
iso.3.6.1.4.1.89.2.16.1.1.8.1 = STRING: "21:13:26"

```

CLI command:

```

esr-100# show bootvar
Image      Version                               Date                               Status                               After reboot
-----
1          1.23.3 build 3[d243222fb]           date 27/03/2024 time             Not Active                       *
21:13:26
2          1.24.x build                          date 25/03/2024 time             Active
53[cd05a4ab2]                       19:58:29

esr-
100#

```

Displaying the release date of the second image firmware**MIB:**

RADLAN-MIB

OIDs used:

rndImage2Time - 1.3.6.1.4.1.89.2.16.1.1.9

Data type in SNMP:

STRING

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.89.2.16.1.1.9
iso.3.6.1.4.1.89.2.16.1.1.9.1 = STRING: "19:58:29"
```

CLI command:

```
esr-100# show bootvar
Image      Version                               Date                               Status                               After reboot
-----
1          1.23.3 build 3[d243222fb]           date 27/03/2024 time             Not Active                       *
21:13:26
2          1.24.x build                          date 25/03/2024 time             Active
53[cd05a4ab2]                          19:58:29

esr-
100#
```

Displaying the status of the main power supply unit**MIB:**

RADLAN-Physicaldescription-MIB

OIDs used:

rlPhdUnitEnvParamMainPSSstatus - 1.3.6.1.4.1.89.53.15.1.2

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:

1 - normal

2 - warning

3 - critical

4 - shutdown

5 - notPresent

6 - notFunctioning

Displaying fan status

MIB:

RADLAN-Physicaldescription-MIB

OIDs used:

rlPhdUnitEnvParamFan<FAN_NUMBER>Status - 1.3.6.1.4.1.89.53.15.1.<FAN_NUMBER>+3

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:

1 - normal

2 - warning

3 - critical

4 - shutdown

5 - notPresent

6 - notFunctioning

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.89.53.15.1.4
iso.3.6.1.4.1.89.53.15.1.4.0 = INTEGER: 1
```

CLI command:

```

esr-100# show system
System type:           Eltex ESR-100 Service Router
System name:          esr-100
Software version:     1.24.x build 53[cd05a4ab2] (date 25/03/2024 time 19:58:29)
Hardware version:     1v6
System uptime:        58 minutes and 17 seconds
System MAC address:   A8:F9:4B:AB:9E:75
System serial number: NP03004980

Fan Level:            55%

  Fan Table
  ~~~~~
      Fan 1   Fan 2
-----
Status  Ok     Ok

  Temperature Table
  ~~~~~
              CPU           Board
-----
Temperature, C  42           43

  Memory Table
  ~~~~~
      Total, MB      Used, MB      Free, MB
-----
RAM      3763.06      1903.62 (51%)  1859.44 (49%)
FLASH   20.00          1.19 (6%)     18.81 (94%)
DATA    500.00         10.81 (3%)    489.19 (97%)
esr-
100#

```

Displaying the temperature of physical objects in the device (excluding the CPU)**MIB:**

RADLAN-Physicaldescription-MIB

OIDs used:

r|PhdUnitEnvParamTempSensor<SENSOR_NUMBER>Value - 1.3.6.1.4.1.89.53.15.1.
(<SENSOR_NUMBER>-1)*2+10;

r|PhdUnitEnvParamTempSensorValue - 1.3.6.1.4.1.89.53.15.1.9 (monitoring the temperature of the first physical object in the output of the CLI *show system* command for ESR-1700)

Data type in SNMP:

INTEGER32

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.89.53.15.1.12
iso.3.6.1.4.1.89.53.15.1.12.0 = INTEGER: 43
```

CLI command:

```
esr-100# show system | begin CPU | until Temperature
          CPU          Board
-----
Temperature, C    42          43
esr-100#
```

Displaying the temperature status of physical objects in the device (excluding the CPU)**MIB:**

RADLAN-Physicaldescription-MIB

OIDs used:

rlPhdUnitEnvParamTempSensor<SENSOR_NUMBER>Status - 1.3.6.1.4.1.89.53.15.1.
(<SENSOR_NUMBER>-1)*2+11;

rlPhdUnitEnvParamTempSensorStatus - 1.3.6.1.4.1.89.53.15.10 (monitoring the temperature state of the first physical object in the output of the CLI *show system* command for ESR-1700)

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:**1 - ok****2 - unavaliable****3 - nonoperational****SNMP command output:**

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.89.53.15.1.13
iso.3.6.1.4.1.89.53.15.1.13.0 = INTEGER: 1
```

CLI command:

```
esr-100# show system | begin CPU | until Temperature
          CPU          Board
-----
Temperature, C    42          43
esr-100#
```

Displaying the device system description

MIB:

SNMPv2-MIB

OIDs used:

sysDescr - 1.3.6.1.2.1.1.1

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.2.1.1.1
iso.3.6.1.2.1.1.1.0 = STRING: Eltex ESR-100 Service Router 1.24.x build 53 (date 25/03/2024
time 19:58:29)
```

CLI command:

```
esr-100# show system | until Software
System type:          Eltex ESR-100 Service Router
System name:          esr-100
Software version:     1.24.x build 53[cd05a4ab2] (date 25/03/2024 time 19:58:29)
esr-100#
```

Displaying a device contact

MIB:

SNMPv2-MIB

OIDs used:

sysDescr - 1.3.6.1.2.1.1.4

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.2.1.1.4
iso.3.6.1.2.1.1.4.0 = STRING: syscontact
```

CLI command:

```
esr-100# show running-config snmp
snmp-server
snmp-server contact "syscontact"
snmp-server location "syslocation"
snmp-server community public ro

esr-100#
```

Displaying the device system name

MIB:

SNMPv2-MIB

OIDs used:

sysName - 1.3.6.1.2.1.1.5

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.2.1.1.5
iso.3.6.1.2.1.1.5.0 = STRING: esr-100
```

CLI command:

```
esr-100# show system | include "System name"
System name:          esr-100
esr-100#
```

Displaying the device location

MIB:

SNMPv2-MIB

OIDs used:

sysLocation - 1.3.6.1.2.1.1.6

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.2.1.1.6
iso.3.6.1.2.1.1.6.0 = STRING: syslocation
```

CLI command:

```
esr-100# show running-config snmp
snmp-server
snmp-server contact "syscontact"
snmp-server location "syslocation"
snmp-server community public ro

esr-100#
```

Configuration monitoring

Displaying the last configuration change via SNMP

MIB:

ELTEX-GENERIC-MIB

OIDs used:

eltexConfigAction - 1.3.6.1.4.1.35265.38.30.1.1.2

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:*1 - commit**2 - commitUpdate**3 - confirm**4 - default**5 - restore**6 - rollback**7 - save**8 - objCreate**9 - objActivate**10 objDestroy**11 - attrSet**12 - other**13 - commitAndConfirm**14 - commitConfirmAndReload***SNMP command output:**

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.38.30.1.1.2  
iso.3.6.1.4.1.35265.38.30.1.1.2.1 = INTEGER: 3
```

CLI command:

```
esr-100# 2024-04-01T05:10:05+00:00 %SNMP-I-INFO: Configuration has been confirmed. Commit timer  
canceled.
```

Displaying the status of the last attempt to change the configuration via SNMP**MIB:**

ELTEX-GENERIC-MIB

OIDs used:

eltexConfigStatus - 1.3.6.1.4.1.35265.38.30.1.1.4

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:*1 - success**2 - failed**3 - nothing**4 - inProgress***SNMP command output:**

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.38.30.1.1.4
iso.3.6.1.4.1.35265.38.30.1.1.4.1 = INTEGER: 1
```

CLI command:

```
esr-100# 2024-04-01T05:10:05+00:00 %SNMP-I-INFO: Configuration has been confirmed. Commit timer
canceled.
```

Displaying the error status of the last attempt to change the configuration via SNMP**MIB:**

ELTEX-GENERIC-MIB

OIDs used:

eltexConfigErrorStatus - 1.3.6.1.4.1.35265.38.30.1.1.5

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:

- 0 - noError**
- 1 - tooBig**
- 2 - noSuchName**
- 3 - badValue**
- 4 - readOnly**
- 5 - genErr**
- 6 - noAccess**
- 7 - wrongType**
- 8 - wrongLength**
- 9 - wrongEncoding**
- 10 - wrongValue**
- 11 - noCreation**
- 12 - inconsistentValue**
- 13 - resourceUnavailable**
- 14 - commitFailed**
- 15 - undoFailed**
- 16 - authorizationError**
- 17 - notWritable**
- 18 - inconsistentName**

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.38.30.1.1.5  
iso.3.6.1.4.1.35265.38.30.1.1.5.1 = INTEGER: 0
```

CLI command:

```
esr-100# 2024-04-01T05:10:05+00:00 %SNMP-I-INFO: Configuration has been confirmed. Commit timer  
canceled.
```

Displaying configuration change description via SNMP**MIB:**

ELTEX-GENERIC-MIB

OIDs used:

eltexConfigErrorStatus - 1.3.6.1.4.1.35265.38.30.1.1.6

Data type in SNMP:

STRING

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.38.30.1.1.6
iso.3.6.1.4.1.35265.38.30.1.1.6.1 = STRING: set ELTEX-GENERIC-MIB::eltexConfigAction.1 (.
1.3.6.1.4.1.35265.38.30.1.1.2.1) to confirm(3) successful - Configuration has been confirmed.
Commit timer canceled.
```

CLI command:

```
esr-100# 2024-04-01T05:10:05+00:00 %SNMP-I-INFO: Configuration has been confirmed. Commit timer
canceled.
```

Displaying the size of the command line history**MIB:**

ELTEX-GENERIC-MIB

OIDs used:

eltexFileHistoryTableMaxSize - 1.3.6.1.4.1.35265.5.3

Data type in SNMP:

INTEGER32

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.5.4
iso.3.6.1.4.1.35265.5.4.0 = INTEGER: 50
```

CLI command:

```
esr-100# show history size
History size: 50
esr-100#
```

4 Interfaces monitoring

- Physical interfaces monitoring
 - Displaying names of interfaces
 - Displaying descriptions of interfaces
 - Displaying types of interfaces
 - Displaying MTU interfaces
 - Displaying speed on an interface
 - Displaying the interfaces physical address (MAC Address)
 - Displaying the administrative status of interfaces
 - Displaying the operational status of interfaces
 - Displaying the latest changes in Admin/Link status of interfaces
 - Displaying incoming octet counters on interfaces
 - Displaying counters for the total number of incoming discarded packets on interfaces
 - Displaying counters for incoming packets with errors on interfaces
 - Displaying counters for octets sent from interfaces
 - Displaying counters for the total number of discarded packets sent on interfaces
 - Displaying counters for sent packets with errors on interfaces
 - Displaying incoming unicast packets on interfaces
 - Displaying sent unicast packets on interfaces
 - Displaying counters for incoming multicast packets on interfaces
 - Displaying counters for sent multicast packets on interfaces
 - Displaying the incoming broadcast packet counter on the interface
 - Displaying the sent broadcast packet counter on the interface
 - Displaying the number of interfaces
 - Displaying the number of operational interfaces
 - View the period of interface load removal in seconds
 - Displaying the average data transmission speed of interfaces during the load period
 - Displaying the average data reception speed of interfaces in Kbps during the load period
 - Displaying the average data transmission speed of interfaces in packets per second during the load period
 - Displaying the average data reception speed of interfaces in packets per second during the load period
 - Displaying VRF on sub-interfaces
 - Displaying the status of the subinterface conceptual record
- SFP monitoring on physical interfaces
 - Displaying the name of an SFP vendor on interfaces
 - Displaying PN of an SFP vendor on interfaces
 - Displaying an SFP vendor SN on interfaces
 - Displaying the version of an SFP vendor on interfaces
 - Displaying the SFP connector type on interfaces
 - Displaying the SFP type on interfaces
 - Displaying the SFP compliance code on interfaces
 - Displaying the wavelength of the SFP laser on interfaces (in nm)
 - Displaying the maximum operating distance of SFP on interfaces (in meters)
 - Displaying support for DDM in SFP on interfaces
 - Displaying RX power of SFP on interfaces in dBm
 - Displaying TX power of SFP on interfaces in dBm
 - Displaying the temperature of SFP on interfaces in °C
 - Displaying the SFP current on interfaces in mA
 - Displaying the SFP voltage on interfaces in volts
 - Displaying the maximum RX power value of the SFP without an alarm in mW
 - Displaying the minimum RX power value of the SFP without an alarm in mW
 - Displaying the maximum RX power value of the SFP without a warning in mW
 - Displaying the minimum RX power value of the SFP without a warning in mW
 - Displaying the maximum TX power value of the SFP without an alarm in mW
 - Displaying the minimum TX power value of the SFP without an alarm in mW

- Displaying the maximum TX power value of the SFP without a warning in mW
- Displaying the minimum TX power value of the SFP without a warning in mW
- Displaying the maximum SFP temperature without an alarm in °C
- Displaying the minimum SFP temperature without an alarm in °C
- Displaying the maximum SFP temperature without a warning in °C
- Displaying the minimum SFP temperature without a warning in °C
- Displaying the maximum SFP current without an alarm in mA
- Displaying the minimum SFP current without an alarm in mA
- Displaying the maximum SFP current without a warning in mA
- Displaying the minimum SFP current without a warning in mA
- Displaying the maximum SFP voltage without an alarm in volts
- Displaying the minimum SFP voltage without an alarm in volts
- Displaying the maximum SFP voltage without a warning in volts
- Displaying the minimum SFP voltage without a warning in volts
- Aggregated interfaces monitoring
 - Displaying the aggregated interface mode
 - Displaying interface indexes in an aggregated interface
 - Displaying the status of a conceptual record of an aggregated interface
 - Displaying the availability of a load balancing mechanism for an aggregated interface
- Bridge monitoring
 - Displaying the MAC address of the core bridge
 - Displaying the status of the bridge conceptual record
- VRF monitoring
 - Displaying VRF on sub-interfaces
 - Displaying VRF on a bridge
 - Displaying a VRF description
 - Displaying the status of the VRF conceptual record

Physical interfaces monitoring

The values of the interface indexes are shown in [Table 1](#).

Displaying names of interfaces

MIB:

IF-MIB

OIDs used:

ifName - 1.3.6.1.2.1.31.1.1.1.1

Data type in SNMP:

STRING

SNMP commands output:

```

Command for retrieving a table of values:
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.2.1.31.1.1.1.1
iso.3.6.1.2.1.31.1.1.1.1.1 = STRING: "gigabitethernet 1/0/1"
iso.3.6.1.2.1.31.1.1.1.1.2 = STRING: "gigabitethernet 1/0/2"
iso.3.6.1.2.1.31.1.1.1.1.3 = STRING: "gigabitethernet 1/0/3"
iso.3.6.1.2.1.31.1.1.1.1.4 = STRING: "gigabitethernet 1/0/4"

Command for retrieving a specific value:
snmpget -v2c -c public 192.168.0.1 1.3.6.1.2.1.31.1.1.1.1.1
iso.3.6.1.2.1.31.1.1.1.1.1 = STRING: "gigabitethernet 1/0/1"

```

CLI command:

```

esr-100# show interfaces description
Interface          Admin   Link   Description
                   State   State
-----
gi1/0/1            Up      Up     gigabitethernet 1/0/1
gi1/0/2            Up      Up     gigabitethernet 1/0/1
gi1/0/3            Up      Up     gigabitethernet 1/0/1
gi1/0/4            Down    Down   gigabitethernet 1/0/1
esr-100#

```

Displaying descriptions of interfaces**MIB:**

IF-MIB

OIDs used:

ifDescr - 1.3.6.1.2.1.2.2.1.2

Data type in SNMP:

STRING

SNMP commands output:

```

Command for retrieving a table of values:
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.2.1.2.2.1.2
iso.3.6.1.2.1.2.2.1.2 = STRING: "gigabitethernet 1/0/1"
iso.3.6.1.2.1.2.2.1.2 = STRING: "gigabitethernet 1/0/2"
iso.3.6.1.2.1.2.2.1.2 = STRING: "gigabitethernet 1/0/3"
iso.3.6.1.2.1.2.2.1.2 = STRING: "gigabitethernet 1/0/4"

Command for retrieving a specific value:
snmpget -v2c -c public 192.168.0.1 1.3.6.1.2.1.2.2.1.2.1
iso.3.6.1.2.1.2.2.1.2.1 = STRING: "gigabitethernet 1/0/1"

```

CLI command:

```

esr-100# show interfaces description
Interface          Admin   Link   Description
                   State   State
-----
gil/0/1            Up      Up     gigabitethernet 1/0/1
gil/0/2            Up      Up     gigabitethernet 1/0/1
gil/0/3            Up      Up     gigabitethernet 1/0/1
gil/0/4            Down    Down   gigabitethernet 1/0/1
esr-100#

```

Displaying types of interfaces**MIB:**

IF-MIB

OIDs used:

ifType - 1.3.6.1.2.1.2.2.1.3

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:**6 - ethernetCsmacd****53 - propVirtual****131 - tunnel**

SNMP commands output:

```

Command for retrieving a table of values of each interface:
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.2.1.2.2.1.3
iso.3.6.1.2.1.2.2.1.3.1 = INTEGER: 6
iso.3.6.1.2.1.2.2.1.3.2 = INTEGER: 6
iso.3.6.1.2.1.2.2.1.3.3 = INTEGER: 6
iso.3.6.1.2.1.2.2.1.3.4 = INTEGER: 6

```

```

Command for retrieving a specific value of each interface:
snmpget -v2c -c public 192.168.0.1 1.3.6.1.2.1.2.2.1.3
iso.3.6.1.2.1.2.2.1.3.1 = INTEGER: 6

```

CLI command:

```

esr-100# show interfaces description
Interface          Admin  Link   Description
-----          -
gig1/0/1           Up     Up     gigabitethernet 1/0/1
gig1/0/2           Up     Up     gigabitethernet 1/0/1
gig1/0/3           Up     Up     gigabitethernet 1/0/1
gig1/0/4           Down   Down   gigabitethernet 1/0/1
esr-100#

```

Displaying MTU interfaces**MIB:**

IF-MIB

OIDs used:

ifMtu - 1.3.6.1.2.1.2.2.1.4

Data type in SNMP:

INTEGER32

SNMP commands output:

```

Command for retrieving a table of values:
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.2.1.31.1.1.1.15
iso.3.6.1.2.1.31.1.1.1.15.1 = Gauge32: 1000
iso.3.6.1.2.1.31.1.1.1.15.2 = Gauge32: 1000
iso.3.6.1.2.1.31.1.1.1.15.3 = Gauge32: 1000
iso.3.6.1.2.1.31.1.1.1.15.4 = Gauge32: 1000

Command for retrieving a specific value:
snmpget -v2c -c public 192.168.0.1 1.3.6.1.2.1.31.1.1.1.15.1
iso.3.6.1.2.1.31.1.1.1.15.1 = Gauge32: 1000

```

CLI command:

```

esr-100# show interfaces switch-port status
Port          Media    Duplex  Speed   Neg      Flow     Link    Back    MDI
Port
Mode
-----  -----  -----  -----  -----  -----  -----  -----  -----
gi1/0/1    copper   full    1000M   Enabled  Enabled  Up      Disabled MDI
access
gi1/0/2    copper   full    1000M   Enabled  Enabled  Up      Disabled MDI
access
gi1/0/3    copper   full    1000M   Enabled  Enabled  Up      Disabled MDIX
access
gi1/0/4    copper   full    1000M   Enabled  Enabled  Up      Disabled MDI
access
esr-100#

```

Displaying the interfaces physical address (MAC Address)**MIB:**

IF-MIB

OIDs used:

ifPhysAddress - 1.3.6.1.2.1.2.2.1.6

Data type in SNMP:

Hex-STRING

5 - dormant

6 - notPresent

7 - lowerLayerDown

SNMP commands output:

```
Command for retrieving a table of values:
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.2.1.2.2.1.8
iso.3.6.1.2.1.2.2.1.8.1 = INTEGER: 1
iso.3.6.1.2.1.2.2.1.8.2 = INTEGER: 1
iso.3.6.1.2.1.2.2.1.8.3 = INTEGER: 1
iso.3.6.1.2.1.2.2.1.8.4 = INTEGER: 1

Command for retrieving a specific value:
snmpget -v2c -c public 192.168.0.1 1.3.6.1.2.1.2.2.1.8.1
iso.3.6.1.2.1.2.2.1.8.1 = INTEGER: 1
```

CLI command:

```
esr-100# show interfaces status
Interface          Admin  Link  MTU   MAC address      Last change
Mode
-----
State  State
-----
-----
gi1/0/1           Up    Up    1500  a8:f9:4b:ab:9e:76  29 minutes and 43 seconds
routerport
gi1/0/2           Up    Up    1500  a8:f9:4b:ab:9e:77  29 minutes and 43 seconds
routerport
gi1/0/3           Up    Up    1500  a8:f9:4b:ab:9e:78  29 minutes and 43 seconds
routerport
gi1/0/4           Up    Up    1500  a8:f9:4b:ab:9e:79  29 minutes and 43 seconds
routerport
esr-100#
```

Displaying the latest changes in Admin/Link status of interfaces

MIB:

IF-MIB

OIDs used:

ifLastChange - 1.3.6.1.2.1.2.2.1.9

Data type in SNMP:

Timeticks

SNMP commands output:

```

Command for retrieving a table of values:
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.2.1.2.2.1.10
iso.3.6.1.2.1.2.2.1.10.1 = Counter32: 1953657
iso.3.6.1.2.1.2.2.1.10.2 = Counter32: 87993
iso.3.6.1.2.1.2.2.1.10.3 = Counter32: 0
iso.3.6.1.2.1.2.2.1.10.4 = Counter32: 0

Command for retrieving a specific value:
snmpget -v2c -c public 192.168.0.1 1.3.6.1.2.1.2.2.1.10.1
iso.3.6.1.2.1.2.2.1.10.1 = Counter32: 1953657

```

CLI command:

```

esr-100# show interfaces counters

```

| Interface | Packets recv | Bytes recv | Errors recv | MC recv |
|------------------|--------------|------------|-------------|---------|
| gi1/0/1 | 18992 | 1953657 | 0 | 8698 |
| gi1/0/2 | 1330 | 87993 | 0 | 1264 |
| gi1/0/3 | 0 | 0 | 0 | 0 |
| gi1/0/4 | 0 | 0 | 0 | 0 |

| Interface | Packets sent | Bytes sent | Errors sent |
|------------------|--------------|------------|-------------|
| gi1/0/1 | 0 | 0 | 0 |
| gi1/0/2 | 51 | 4509 | 0 |
| gi1/0/3 | 0 | 0 | 0 |
| gi1/0/4 | 0 | 0 | 0 |

Displaying counters for the total number of incoming discarded packets on interfaces**MIB:**

IF-MIB

OIDs used:

ifInDiscards - 1.3.6.1.2.1.2.2.1.13

Data type in SNMP:

Counter32

SNMP commands output:

```

Command for retrieving a table of values:
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.2.1.2.2.1.13
iso.3.6.1.2.1.2.2.1.13.1 = Counter32: 0
iso.3.6.1.2.1.2.2.1.13.2 = Counter32: 0
iso.3.6.1.2.1.2.2.1.13.3 = Counter32: 1
iso.3.6.1.2.1.2.2.1.13.4 = Counter32: 0

Command for retrieving a specific value:
snmpget -v2c -c public 192.168.0.1 1.3.6.1.2.1.2.2.1.13.1
iso.3.6.1.2.1.2.2.1.13.1 = Counter32: 1

```

CLI command:

```

Interface 'gil/0/3' counters:
Packets received:                1
Bytes received:                  155
Dropped on receive:              1
Receive errors:                  0
Multicasts received:             1
Receive length errors:           0
Receive buffer overflow errors:  0
Receive CRC errors:              0
Receive frame errors:            0
Receive FIFO errors:             0
Receive missed errors:           0
Receive compressed:              0
Packets transmitted:             0
Bytes transmitted:               0
Dropped on transmit:             0
Transmit errors:                 0
Transmit aborted errors:         0
Transmit carrier errors:         0
Transmit FIFO errors:            0
Transmit heartbeat errors:       0
Transmit window errors:         0
Transmit compressed:             0
Collisions:                      0
esr-100#

```

Displaying counters for incoming packets with errors on interfaces**MIB:**

IF-MIB

OIDs used:

ifInErrors - 1.3.6.1.2.1.2.2.1.14

Data type in SNMP:

Counter32

SNMP commands output:

```

Command for retrieving a table of values:
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.2.1.2.2.1.14
iso.3.6.1.2.1.2.2.1.14.1 = Counter32: 0
iso.3.6.1.2.1.2.2.1.14.2 = Counter32: 0
iso.3.6.1.2.1.2.2.1.14.3 = Counter32: 0
iso.3.6.1.2.1.2.2.1.14.4 = Counter32: 0

Command for retrieving a specific value:
snmpget -v2c -c public 192.168.0.1 1.3.6.1.2.1.2.2.1.14.1
iso.3.6.1.2.1.2.2.1.14.1 = Counter32: 0

```

CLI command:

```

esr-100# show interfaces counters

```

| Interface | Packets recv | Bytes recv | Errors recv | MC recv |
|------------------|--------------|------------|-------------|---------|
| gi1/0/1 | 18992 | 1953657 | 0 | 8698 |
| gi1/0/2 | 1330 | 87993 | 0 | 1264 |
| gi1/0/3 | 0 | 0 | 0 | 0 |
| gi1/0/4 | 0 | 0 | 0 | 0 |

| Interface | Packets sent | Bytes sent | Errors sent |
|------------------|--------------|------------|-------------|
| gi1/0/1 | 0 | 0 | 0 |
| gi1/0/2 | 51 | 4509 | 0 |
| gi1/0/3 | 0 | 0 | 0 |
| gi1/0/4 | 0 | 0 | 0 |

Displaying counters for octets sent from interfaces**MIB:**

IF-MIB

OIDs used:

ifOutOctets - 1.3.6.1.2.1.2.2.1.16

Data type in SNMP:

Counter32

SNMP commands output:

```

Command for retrieving a table of values:
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.2.1.2.2.1.16
iso.3.6.1.2.1.2.2.1.16.1 = Counter32: 0
iso.3.6.1.2.1.2.2.1.16.2 = Counter32: 4509
iso.3.6.1.2.1.2.2.1.16.3 = Counter32: 0
iso.3.6.1.2.1.2.2.1.16.4 = Counter32: 0

```

```

Command for retrieving a specific value:
snmpget -v2c -c public 192.168.0.1 1.3.6.1.2.1.2.2.1.16.2
iso.3.6.1.2.1.2.2.1.16.2 = Counter32: 4509

```

CLI command:

```

esr-100# show interfaces counters

```

| Interface | Packets recv | Bytes recv | Errors recv | MC recv |
|------------------|--------------|------------|-------------|---------|
| gi1/0/1 | 18992 | 1953657 | 0 | 8698 |
| gi1/0/2 | 1330 | 87993 | 0 | 1264 |
| gi1/0/3 | 0 | 0 | 0 | 0 |
| gi1/0/4 | 0 | 0 | 0 | 0 |

| Interface | Packets sent | Bytes sent | Errors sent |
|------------------|--------------|------------|-------------|
| gi1/0/1 | 0 | 0 | 0 |
| gi1/0/2 | 51 | 4509 | 0 |
| gi1/0/3 | 0 | 0 | 0 |
| gi1/0/4 | 0 | 0 | 0 |

Displaying counters for the total number of discarded packets sent on interfaces**MIB:**

IF-MIB

OIDs used:

ifOutDiscards - 1.3.6.1.2.1.2.2.1.19

Data type in SNMP:

Counter32

SNMP commands output:

```

Command for retrieving a table of values:
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.2.1.2.2.1.19
iso.3.6.1.2.1.2.2.1.19.1 = Counter32: 0
iso.3.6.1.2.1.2.2.1.19.2 = Counter32: 0
iso.3.6.1.2.1.2.2.1.19.3 = Counter32: 0
iso.3.6.1.2.1.2.2.1.19.4 = Counter32: 0

Command for retrieving a specific value:
snmpget -v2c -c public 192.168.0.1 1.3.6.1.2.1.2.2.1.19.1
iso.3.6.1.2.1.2.2.1.19.1 = Counter32: 0

```

CLI command:

```

esr-100# show interfaces counters gigabitethernet 1/0/1
Interface 'gil/0/1' counters:
  Packets received:                28610
  Bytes received:                  2934432
  Dropped on receive:              0
  Receive errors:                  0
  Multicasts received:             13185
  Receive length errors:           0
  Receive buffer overflow errors:  0
  Receive CRC errors:              0
  Receive frame errors:            0
  Receive FIFO errors:             0
  Receive missed errors:           0
  Receive compressed:              0
  Packets transmitted:             0
  Bytes transmitted:               0
  Dropped on transmit:             0
  Transmit errors:                 0
  Transmit aborted errors:         0
  Transmit carrier errors:         0
  Transmit FIFO errors:            0
  Transmit heartbeat errors:       0
  Transmit window errors:          0
  Transmit compressed:             0
  Collisions:                      0
esr-100#

```

Displaying counters for sent packets with errors on interfaces**MIB:**

IF-MIB

OIDs used:

ifOutErrors - 1.3.6.1.2.1.2.2.1.20

Data type in SNMP:

Counter32

SNMP commands output:

```

Command for retrieving a table of values:
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.2.1.2.2.1.20
iso.3.6.1.2.1.2.2.1.20.1 = Counter32: 0
iso.3.6.1.2.1.2.2.1.20.2 = Counter32: 0
iso.3.6.1.2.1.2.2.1.20.3 = Counter32: 0
iso.3.6.1.2.1.2.2.1.20.4 = Counter32: 0

Command for retrieving a specific value:
snmpget -v2c -c public 192.168.0.1 1.3.6.1.2.1.2.2.1.20.1
iso.3.6.1.2.1.2.2.1.20.1 = Counter32: 0

```

CLI command:

```

esr-100# show interfaces counters

```

| Interface | Packets recv | Bytes recv | Errors recv | MC recv |
|------------------|--------------|------------|-------------|---------|
| gi1/0/1 | 18992 | 1953657 | 0 | 8698 |
| gi1/0/2 | 1330 | 87993 | 0 | 1264 |
| gi1/0/3 | 0 | 0 | 0 | 0 |
| gi1/0/4 | 0 | 0 | 0 | 0 |

| Interface | Packets sent | Bytes sent | Errors sent |
|------------------|--------------|------------|-------------|
| gi1/0/1 | 0 | 0 | 0 |
| gi1/0/2 | 51 | 4509 | 0 |
| gi1/0/3 | 0 | 0 | 0 |
| gi1/0/4 | 0 | 0 | 0 |

Displaying counters for incoming unicast packets on interfaces**MIB:**

IF-MIB

OIDs used:

ifInUcastPkts - 1.3.6.1.2.1.2.2.1.11

Data type in SNMP:

Counter32

SNMP commands output:

```

Command for retrieving a table of values:
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.2.1.2.2.1.11
iso.3.6.1.2.1.2.2.1.11.1 = Counter32: 18992
iso.3.6.1.2.1.2.2.1.11.2 = Counter32: 1330
iso.3.6.1.2.1.2.2.1.11.3 = Counter32: 0
iso.3.6.1.2.1.2.2.1.11.4 = Counter32: 0

Command for retrieving a specific value:
snmpget -v2c -c public 192.168.0.1 1.3.6.1.2.1.2.2.1.11.1
iso.3.6.1.2.1.2.2.1.11.1 = Counter32: 18992

```

CLI command:

```

esr-100# show interfaces counters

```

| Interface | Packets recv | Bytes recv | Errors recv | MC recv |
|------------------|--------------|------------|-------------|---------|
| gi1/0/1 | 18992 | 1953657 | 0 | 8698 |
| gi1/0/2 | 1330 | 87993 | 0 | 1264 |
| gi1/0/3 | 0 | 0 | 0 | 0 |
| gi1/0/4 | 0 | 0 | 0 | 0 |

| Interface | Packets sent | Bytes sent | Errors sent |
|------------------|--------------|------------|-------------|
| gi1/0/1 | 0 | 0 | 0 |
| gi1/0/2 | 51 | 4509 | 0 |
| gi1/0/3 | 0 | 0 | 0 |
| gi1/0/4 | 0 | 0 | 0 |

Displaying counters for sent unicast packets on interfaces

! On all models except ESR-1xxx, the sent unicast packet counter also includes broadcast and multicast packets. Therefore, on ESR-1xxx models, it is possible to monitor all types of packets separately, but it is not possible to monitor the total number of packets via SNMP. On other models, it is the opposite: it is possible to monitor the total number of packets via SNMP, but it is not possible to monitor the types of packets sent separately.

MIB:

IF-MIB

OIDs used:

ifOutUcastPkts - 1.3.6.1.2.1.2.2.1.17

Data type in SNMP:

Counter32

SNMP commands output:

```
Command for retrieving a table of values:  
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.2.1.2.2.1.11  
iso.3.6.1.2.1.2.2.1.17.1 = Counter32: 0  
iso.3.6.1.2.1.2.2.1.17.2 = Counter32: 51  
iso.3.6.1.2.1.2.2.1.17.3 = Counter32: 0  
iso.3.6.1.2.1.2.2.1.17.4 = Counter32: 0  
  
Command for retrieving a specific value:  
snmpget -v2c -c public 192.168.0.1 1.3.6.1.2.1.2.2.1.17.1  
iso.3.6.1.2.1.2.2.1.17.2 = Counter32: 51
```

CLI command:

Command on all models except ESR-1XXX

```
esr-100# show interfaces counters
```

| Interface | Packets recv | Bytes recv | Errors recv | MC recv |
|-----------|--------------|------------|-------------|---------|
| gil/0/1 | 18992 | 1953657 | 0 | 8698 |
| gil/0/2 | 1330 | 87993 | 0 | 1264 |
| gil/0/3 | 0 | 0 | 0 | 0 |
| gil/0/4 | 0 | 0 | 0 | 0 |

| Interface | Packets sent | Bytes sent | Errors sent |
|-----------|--------------|------------|-------------|
| gil/0/1 | 0 | 0 | 0 |
| gil/0/2 | 51 | 4509 | 0 |
| gil/0/3 | 0 | 0 | 0 |
| gil/0/4 | 0 | 0 | 0 |

Command on ESR-1XXX models

```
esr-1500# show interfaces counters gigabitethernet 1/0/1
```

```
Interface 'gil/0/1' counters:
```

```

Unicasts sent:                3
Multicasts sent:              0
Broadcasts sent:             32209
Octets sent:                  2061644
Unicasts received:           159504
Multicasts received:         1737114
Broadcasts received:         3329092
Octets received:              527286208
Bad octets received:          0
MAC transmit error:           0
Bad frames received:          0
Frames 64 octets pass:        3448356
Frames 65-127 octets pass:    1102462
Frames 128-255 octets pass:   546206
Frames 256-511 octets pass:   82368
Frames 512-1023 octets pass:  50470
Frames 1024-max octets pass:  28060
Unrecognized MACs received:   0
Flow control packets sent:    0
Good flow control packets received: 0
Bad flow control packets received: 0
Drop events:                  0
Undersized packets:           0
Fragments packets:            0
Oversized packets:            0
Jabber packets:                0
MAC receive errors:           0
Bad CRC:                       0
Collisions:                    0
esr-1500#
```

Displaying counters for incoming multicast packets on interfaces

⚠ On all models except ESR-1xxx, the received multicast packet counter also includes broadcast packets. Therefore, separate monitoring of received multicast and broadcast packets is only possible on ESR-1xxx models.

MIB:

IF-MIB

OIDs used:

ifInMulticastPkts - 1.3.6.1.2.1.31.1.1.1.2

Data type in SNMP:

Counter32

SNMP commands output:

```
Command for retrieving a table of values:  
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.2.1.31.1.1.1.2  
iso.3.6.1.2.1.31.1.1.1.2.1 = Counter32: 8698  
iso.3.6.1.2.1.31.1.1.1.2.2 = Counter32: 1264  
iso.3.6.1.2.1.31.1.1.1.2.3 = Counter32: 0  
iso.3.6.1.2.1.31.1.1.1.2.4 = Counter32: 0  
  
Command for retrieving a specific value:  
snmpget -v2c -c public 192.168.0.1 1.3.6.1.2.1.31.1.1.1.2.1  
iso.3.6.1.2.1.31.1.1.1.2.1 = Counter32: 8698
```

CLI command:

Command on all models except ESR-1XXX

```
esr-100# show interfaces counters
```

| Interface | Packets recv | Bytes recv | Errors recv | MC recv |
|------------------|--------------|------------|-------------|---------|
| gil/0/1 | 18992 | 1953657 | 0 | 8698 |
| gil/0/2 | 1330 | 87993 | 0 | 1264 |
| gil/0/3 | 0 | 0 | 0 | 0 |
| gil/0/4 | 0 | 0 | 0 | 0 |

| Interface | Packets sent | Bytes sent | Errors sent |
|------------------|--------------|------------|-------------|
| gil/0/1 | 0 | 0 | 0 |
| gil/0/2 | 51 | 4509 | 0 |
| gil/0/3 | 0 | 0 | 0 |
| gil/0/4 | 0 | 0 | 0 |

Command on ESR-1XXX models

```
esr-1500# show interfaces counters gigabitethernet 1/0/1
```

```
Interface 'gil/0/1' counters:
```

```

Unicasts sent:                3
Multicasts sent:              0
Broadcasts sent:              32209
Octets sent:                  2061644
Unicasts received:           159504
Multicasts received:         1737114
Broadcasts received:         3329092
Octets received:             527286208
Bad octets received:          0
MAC transmit error:           0
Bad frames received:          0
Frames 64 octets pass:        3448356
Frames 65-127 octets pass:    1102462
Frames 128-255 octets pass:   546206
Frames 256-511 octets pass:   82368
Frames 512-1023 octets pass:  50470
Frames 1024-max octets pass:  28060
Unrecognized MACs received:   0
Flow control packets sent:    0
Good flow control packets received: 0
Bad flow control packets received: 0
Drop events:                  0
Undersized packets:           0
Fragments packets:            0
Oversized packets:            0
Jabber packets:               0
MAC receive errors:           0
Bad CRC:                       0
Collisions:                    0
esr-1500#

```

Displaying counters for sent multicast packets on interfaces

⚠ Applicable only to ESR-1xxx models for the reason described in the [Displaying of sent unicast packet counters on interfaces](#).

MIB:

IF-MIB

OIDs used:

ifOutMulticastPkts - 1.3.6.1.2.1.31.1.1.1.4

Data type in SNMP:

Counter32

SNMP commands output:

```
Command for retrieving a table of values:  
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.2.1.31.1.1.1.4  
iso.3.6.1.2.1.31.1.1.1.4.1 = Counter32: 0  
iso.3.6.1.2.1.31.1.1.1.4.2 = Counter32: 0  
iso.3.6.1.2.1.31.1.1.1.4.3 = Counter32: 176489  
iso.3.6.1.2.1.31.1.1.1.4.4 = Counter32: 0  
iso.3.6.1.2.1.31.1.1.1.4.5 = Counter32: 0  
iso.3.6.1.2.1.31.1.1.1.4.6 = Counter32: 0  
iso.3.6.1.2.1.31.1.1.1.4.7 = Counter32: 0  
iso.3.6.1.2.1.31.1.1.1.4.8 = Counter32: 0  
iso.3.6.1.2.1.31.1.1.1.4.49 = Counter32: 0  
iso.3.6.1.2.1.31.1.1.1.4.50 = Counter32: 0  
iso.3.6.1.2.1.31.1.1.1.4.51 = Counter32: 0  
iso.3.6.1.2.1.31.1.1.1.4.52 = Counter32: 0
```

```
Command for retrieving a specific value:  
snmpget -v2c -c public 192.168.0.1 1.3.6.1.2.1.31.1.1.1.4.3  
iso.3.6.1.2.1.31.1.1.1.4.3 = Counter32: 176489
```


CLI command:

```

esr-1500# show interfaces counters gigabitethernet 1/0/3
Interface 'gig1/0/3' counters:
Unicasts sent:                37090
Multicasts sent:              176489
Broadcasts sent:              855006
Octets sent:                   90732061
Unicasts received:            0
Multicasts received:          0
Broadcasts received:          0
Octets received:              0
Bad octets received:          0
MAC transmit error:           0
Bad frames received:          0
Frames 64 octets pass:         872571
Frames 65-127 octets pass:     105484
Frames 128-255 octets pass:    69021
Frames 256-511 octets pass:    13406
Frames 512-1023 octets pass:   5588
Frames 1024-max octets pass:   2515
Unrecognized MACs received:    0
Flow control packets sent:     0
Good flow control packets received: 0
Bad flow control packets received: 0
Drop events:                   0
Undersized packets:           0
Fragments packets:            0
Oversized packets:            0
Jabber packets:                0
MAC receive errors:           0
Bad CRC:                       0
Collisions:                    0
esr-1500#

```

Displaying the incoming broadcast packet counter on the interface

 Applicable only to ESR-1xxx models for the reason described in the [Displaying of received multicast packet counters on interfaces](#).

MIB:

IF-MIB

OIDs used:

ifInBroadcastPkts - 1.3.6.1.2.1.31.1.1.1.3

Data type in SNMP:

Counter32

SNMP commands output:

```

Command for retrieving a table of values:
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.2.1.31.1.1.1.3
iso.3.6.1.2.1.31.1.1.1.3.1 = Counter32: 3335075
iso.3.6.1.2.1.31.1.1.1.3.2 = Counter32: 0
iso.3.6.1.2.1.31.1.1.1.3.3 = Counter32: 0
iso.3.6.1.2.1.31.1.1.1.3.4 = Counter32: 0
iso.3.6.1.2.1.31.1.1.1.3.5 = Counter32: 0
iso.3.6.1.2.1.31.1.1.1.3.6 = Counter32: 0
iso.3.6.1.2.1.31.1.1.1.3.7 = Counter32: 0
iso.3.6.1.2.1.31.1.1.1.3.8 = Counter32: 0
iso.3.6.1.2.1.31.1.1.1.3.49 = Counter32: 0
iso.3.6.1.2.1.31.1.1.1.3.50 = Counter32: 0
iso.3.6.1.2.1.31.1.1.1.3.51 = Counter32: 0
iso.3.6.1.2.1.31.1.1.1.3.52 = Counter32: 0

```

```

Command for retrieving a specific value:
snmpget -v2c -c public 192.168.0.1 1.3.6.1.2.1.31.1.1.1.3.1
iso.3.6.1.2.1.31.1.1.1.4.3 = Counter32: 3335075

```

CLI command:

```

esr-1500# show interfaces counters gigabitethernet 1/0/1
Interface 'gi1/0/1' counters:
Unicasts sent:                33
Multicasts sent:              0
Broadcasts sent:              32209
Octets sent:                   2064323
Unicasts received:            159547
Multicasts received:          1741481
Broadcasts received:          3335075
Octets received:               528412424
Bad octets received:          0
MAC transmit error:           0
Bad frames received:          0
Frames 64 octets pass:         3454504
Frames 65-127 octets pass:     1105319
Frames 128-255 octets pass:    547626
Frames 256-511 octets pass:    82554
Frames 512-1023 octets pass:   50607
Frames 1024-max octets pass:   28080
Unrecognized MACs received:    0
Flow control packets sent:     0
Good flow control packets received: 0
Bad flow control packets received: 0
Drop events:                   0
Undersized packets:           0
Fragments packets:            0
Oversized packets:            0
Jabber packets:                0
MAC receive errors:           0
Bad CRC:                       0
Collisions:                    0
esr-1500#

```

Displaying the sent broadcast packet counter on the interface

⚠ Applicable only to ESR-1xxx models for the reason described in the [Displaying of sent unicast packet counters on interfaces](#).

MIB:

IF-MIB

OIDs used:

ifOutBroadcastPkts - 1.3.6.1.2.1.31.1.1.1.5

Data type in SNMP:

Counter32

SNMP commands output:

```
Command for retrieving a table of values:  
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.2.1.31.1.1.1.5  
iso.3.6.1.2.1.31.1.1.1.5.1 = Counter32: 32209  
iso.3.6.1.2.1.31.1.1.1.5.2 = Counter32: 32208  
iso.3.6.1.2.1.31.1.1.1.5.3 = Counter32: 855006  
iso.3.6.1.2.1.31.1.1.1.5.4 = Counter32: 32208  
iso.3.6.1.2.1.31.1.1.1.5.5 = Counter32: 0  
iso.3.6.1.2.1.31.1.1.1.5.6 = Counter32: 0  
iso.3.6.1.2.1.31.1.1.1.5.7 = Counter32: 0  
iso.3.6.1.2.1.31.1.1.1.5.8 = Counter32: 0  
iso.3.6.1.2.1.31.1.1.1.5.49 = Counter32: 0  
iso.3.6.1.2.1.31.1.1.1.5.50 = Counter32: 0  
iso.3.6.1.2.1.31.1.1.1.5.51 = Counter32: 0  
iso.3.6.1.2.1.31.1.1.1.5.52 = Counter32: 0
```

```
Command for retrieving a specific value:  
snmpget -v2c -c public 192.168.0.1 1.3.6.1.2.1.31.1.1.1.5.1  
iso.3.6.1.2.1.31.1.1.1.5.1 = Counter32: 32209
```

CLI command:

```

esr-1500# show interfaces counters gigabitethernet 1/0/1
Interface 'gil/0/1' counters:
Unicasts sent:                33
Multicasts sent:              0
Broadcasts sent:              32209
Octets sent:                   2064323
Unicasts received:            159547
Multicasts received:          1741481
Broadcasts received:          3335075
Octets received:               528412424
Bad octets received:          0
MAC transmit error:           0
Bad frames received:          0
Frames 64 octets pass:         3454504
Frames 65-127 octets pass:     1105319
Frames 128-255 octets pass:    547626
Frames 256-511 octets pass:    82554
Frames 512-1023 octets pass:   50607
Frames 1024-max octets pass:   28080
Unrecognized MACs received:    0
Flow control packets sent:     0
Good flow control packets received: 0
Bad flow control packets received: 0
Drop events:                   0
Undersized packets:           0
Fragments packets:            0
Oversized packets:            0
Jabber packets:                0
MAC receive errors:           0
Bad CRC:                       0
Collisions:                    0
esr-1500#

```

Displaying the number of interfaces**MIB:**

ELTEX-GENERIC-MIB

OIDs used:

eltexIfNumber - 1.3.6.1.4.1.35265.38.80.1.1.4

Data type in SNMP:

Gauge32

SNMP commands output:

```

snmpwalk -v2c -c 192.168.0.1 1.3.6.1.4.1.35265.38.80.1.1.4
iso.3.6.1.4.1.35265.38.80.1.1.4.1 = Gauge32: 4

```


CLI command:

```

esr-100# show interfaces utilization
Interface      Period, s      Sent, kbit/s   Recv, kbit/s   Sent,
                packets/s      Recv,
                packets/s
-----
gil/0/1        5              13             13             10
gil/0/2        5              0              0              0
gil/0/3        5              0              0              0
gil/0/4        5              0              0              0
esr-100#

```

Displaying the average data transmission speed of interfaces during the load period**MIB:**

ELTEX-GENERIC-MIB

OIDs used:

eltexUtilizationIfSentKbps - 1.3.6.1.4.1.35265.38.80.6.1.3

Data type in SNMP:

Counter64

SNMP commands output:

```

Command for retrieving a table of values:
snmpwalk -v2c -c 192.168.0.1 1.3.6.1.4.1.35265.38.80.6.1.3
iso.3.6.1.4.1.35265.38.80.6.1.3.1 = Counter64: 13
iso.3.6.1.4.1.35265.38.80.6.1.3.2 = Counter64: 0
iso.3.6.1.4.1.35265.38.80.6.1.3.3 = Counter64: 0
iso.3.6.1.4.1.35265.38.80.6.1.3.4 = Counter64: 0

```

```

Command for retrieving a specific value:
snmpget -v2c -c 192.168.0.1 1.3.6.1.4.1.35265.38.80.6.1.3.1
iso.3.6.1.4.1.35265.38.80.6.1.3.1 = Counter64: 13

```

CLI command:

```

esr-100# show interfaces utilization
Interface      Period, s      Sent, kbit/s   Recv, kbit/s   Sent,
                packets/s      Recv,
                packets/s
-----
gil/0/1        5              13             13             10
gil/0/2        5              0              0              0
gil/0/3        5              0              0              0
gil/0/4        5              0              0              0
esr-100#

```

Displaying the average data reception speed of interfaces in Kbps during the load period

MIB:

ELTEX-GENERIC-MIB

OIDs used:

eltexUtilizationIfRecvKbps - 1.3.6.1.4.1.35265.38.80.6.1.4

Data type in SNMP:

Counter64

SNMP commands output:

```
Command for retrieving a table of values:
snmpwalk -v2c -c 192.168.0.1 1.3.6.1.4.1.35265.38.80.6.1.4
iso.3.6.1.4.1.35265.38.80.6.1.4.1 = Counter64: 13
iso.3.6.1.4.1.35265.38.80.6.1.4.2 = Counter64: 0
iso.3.6.1.4.1.35265.38.80.6.1.4.3 = Counter64: 0
iso.3.6.1.4.1.35265.38.80.6.1.4.4 = Counter64: 0
```

```
Command for retrieving a specific value:
snmpget -v2c -c 192.168.0.1 1.3.6.1.4.1.35265.38.80.6.1.4.1
iso.3.6.1.4.1.35265.38.80.6.1.4.1 = Counter64: 13
```

CLI command:

```
esr-100# show interfaces utilization
Interface      Period, s      Sent, kbit/s   Recv, kbit/s   Sent,
-----      -
packets/s      Recv,
packets/s
-----      -
gi1/0/1        5              13             13             10             10
gi1/0/2        5              0              0              0              0
gi1/0/3        5              0              0              0              0
gi1/0/4        5              0              0              0              0
esr-100#
```

Displaying the average data transmission speed of interfaces in packets per second during the load period

MIB:

ELTEX-GENERIC-MIB

OIDs used:

eltexUtilizationIfSentPps - 1.3.6.1.4.1.35265.38.80.6.1.5

Data type in SNMP:

Counter64

SNMP command output:

```

Command for retrieving a table of values:
snmpwalk -v2c -c 192.168.0.1 1.3.6.1.4.1.35265.38.80.6.1.5
iso.3.6.1.4.1.35265.38.80.6.1.5.1 = Counter64: 10
iso.3.6.1.4.1.35265.38.80.6.1.5.2 = Counter64: 0
iso.3.6.1.4.1.35265.38.80.6.1.5.3 = Counter64: 0
iso.3.6.1.4.1.35265.38.80.6.1.5.4 = Counter64: 0

Command for retrieving a specific value:
snmpget -v2c -c 192.168.0.1 1.3.6.1.4.1.35265.38.80.6.1.5.1
iso.3.6.1.4.1.35265.38.80.6.1.5.1 = Counter64: 10

```

CLI command:

```

esr-100# show interfaces utilization
Interface      Period, s      Sent, kbit/s   Recv, kbit/s   Sent,
                packets/s      Recv,
                packets/s
-----
gi1/0/1        5              13             13             10             10
gi1/0/2        5              0              0              0              0
gi1/0/3        5              0              0              0              0
gi1/0/4        5              0              0              0              0
esr-100#

```

Displaying the average data reception speed of interfaces in packets per second during the load period**MIB:**

ELTEX-GENERIC-MIB

OIDs used:

eltexUtilizationIfRecvPps - 1.3.6.1.4.1.35265.38.80.6.1.6

Data type in SNMP:

Counter64

SNMP command output:

```

Command for retrieving a table of values:
snmpwalk -v2c -c 192.168.0.1 1.3.6.1.4.1.35265.38.80.6.1.6
iso.3.6.1.4.1.35265.38.80.6.1.6.1 = Counter64: 10
iso.3.6.1.4.1.35265.38.80.6.1.6.2 = Counter64: 0
iso.3.6.1.4.1.35265.38.80.6.1.6.3 = Counter64: 0
iso.3.6.1.4.1.35265.38.80.6.1.6.4 = Counter64: 0

Command for retrieving a specific value:
snmpget -v2c -c 192.168.0.1 1.3.6.1.4.1.35265.38.80.6.1.6.1
iso.3.6.1.4.1.35265.38.80.6.1.6.1 = Counter64: 10

```

CLI command:

```

esr-100# show interfaces utilization
Interface          Period, s      Sent, kbit/s   Recv, kbit/s   Sent,
packets/s         Recv,
packets/s
-----
gi1/0/1            5              13             13             10             10
gi1/0/2            5              0              0              0              0
gi1/0/3            5              0              0              0              0
gi1/0/4            5              0              0              0              0
esr-100#

```

Displaying VRF on sub-interfaces**MIB:**

ELTEX-GENERIC-MIB

OIDs used:

eltexSubRunConfigVrfName - 1.3.6.1.4.1.35265.38.80.2.1.2

Data type in SNMP:

STRING

SNMP command output:

```

snmpwalk -v2c -c 192.168.0.1 1.3.6.1.4.1.35265.38.80.2.1.2
iso.3.6.1.4.1.35265.38.80.2.1.2.9.103.105.49.47.48.47.49.46.50 = STRING: "test_vrf"

```

CLI command:

```

esr-100# show ip vrf
Name                               Interfaces
-----
test_vrf                            gi1/0/1.2
esr-100#

```

Displaying the status of the sub-interface conceptual record**MIB:**

ELTEX-GENERIC-MIB

OIDs used:

eltexSubCandConfigRowStatus - 1.3.6.1.4.1.35265.38.80.3.1.2

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:

- 1 - *active*
- 2 - *notInService*
- 3 - *notReady*
- 4 - *createAndGo*
- 5 - *createAndWait*
- 6 - *destroy*

SNMP command output:

```

snmpwalk -v2c -c 192.168.0.1 1.3.6.1.4.1.35265.38.80.3.1.2
iso.3.6.1.4.1.35265.38.80.3.1.2.9.103.105.49.47.48.47.49.46.50 = INTEGER: 1

```


CLI command:

```

esr-100# show interfaces sfp
Interface 'gil/0/1':
SFP present:      Yes
Connector Type:   LC
Type:             SFP/SFP+/SFP28
Compliance code: 10G BASE-SR
Speed:           10G
Laser wavelength: 850 nm
Transfer distance: 80.00 m
Vendor OUI:       00:0B:40
Vendor name:      FANG HANG
Vendor PN:        FH-SP851TCDL03
Vendor SN:        A85371140423
Vendor date:      25.11.17
Vendor revision:  V02
DDM supported:    Yes
Temperature:      25.805 C
Voltage:          3.3204 V
Current:          6.854 mA
RX Power:         0.4519 mW / -3.4496 dBm
TX Power:         0.5046 mW / -2.9705 dBm
RX LOS:           No
TX Fault:         No
TX Disable:       No
Soft TX Disable:  No

Threshold parameters:
Temperature [C]
Alarm High:       100
Warning High:     95
Warning Low:      -35
Alarm Low:        -40
Voltage [V]
Alarm High:       3.6000
Warning High:     3.5000
Warning Low:      2.9000
Alarm Low:        2.8000
Current [mA]
Alarm High:       15.0000
Warning High:     13.0000
Warning Low:      2.0000
Alarm Low:        1.0000
RX Power [mW / dBm]
Alarm High:       1.9953 mW / 3.0001 dBm
Warning High:     1.0000 mW / 0.0000 dBm
Warning Low:      0.0501 mW / -13.0016 dBm
Alarm Low:        0.0251 mW / -16.0033 dBm
TX Power [mW / dBm]
Alarm High:       1.2589 mW / 0.9999 dBm
Warning High:     1.0000 mW / 0.0000 dBm
Warning Low:      0.1995 mW / -7.0006 dBm
Alarm Low:        0.1585 mW / -7.9997 dBm

Interface 'gil/0/2':
SFP present:      No

Interface 'gil/0/3':
SFP present:      No

```

```
Interface 'gi1/0/4':  
SFP present:      No  
  
esr-100#
```

Displaying PN of an SFP vendor on interfaces

MIB:

ELTEX-GENERIC-MIB

OIDs used:

eltexSfpVendorPN - 1.3.6.1.4.1.35265.38.90.1.1.3

Data type in SNMP:

STRING

SNMP commands output:

```
snmpwalk -v2c -c 192.168.0.1 1.3.6.1.4.1.35265.38.90.1.1.3  
iso.3.6.1.4.1.35265.38.90.1.1.3.1 = STRING: FH-SP851TCDL03
```

CLI command:

```

esr-100# show interfaces sfp
Interface 'gil/0/1':
SFP present:      Yes
Connector Type:   LC
Type:             SFP/SFP+/SFP28
Compliance code:  10G BASE-SR
Speed:           10G
Laser wavelength: 850 nm
Transfer distance: 80.00 m
Vendor OUI:       00:0B:40
Vendor name:      FANG HANG
Vendor PN:        FH-SP851TCDL03
Vendor SN:        A85371140423
Vendor date:      25.11.17
Vendor revision:  V02
DDM supported:    Yes
Temperature:      25.805 C
Voltage:          3.3204 V
Current:          6.854 mA
RX Power:         0.4519 mW / -3.4496 dBm
TX Power:         0.5046 mW / -2.9705 dBm
RX LOS:           No
TX Fault:         No
TX Disable:       No
Soft TX Disable:  No

Threshold parameters:
Temperature [C]
  Alarm High:     100
  Warning High:   95
  Warning Low:    -35
  Alarm Low:      -40
Voltage [V]
  Alarm High:     3.6000
  Warning High:   3.5000
  Warning Low:    2.9000
  Alarm Low:      2.8000
Current [mA]
  Alarm High:     15.0000
  Warning High:   13.0000
  Warning Low:    2.0000
  Alarm Low:      1.0000
RX Power [mW / dBm]
  Alarm High:     1.9953 mW / 3.0001 dBm
  Warning High:   1.0000 mW / 0.0000 dBm
  Warning Low:    0.0501 mW / -13.0016 dBm
  Alarm Low:      0.0251 mW / -16.0033 dBm
TX Power [mW / dBm]
  Alarm High:     1.2589 mW / 0.9999 dBm
  Warning High:   1.0000 mW / 0.0000 dBm
  Warning Low:    0.1995 mW / -7.0006 dBm
  Alarm Low:      0.1585 mW / -7.9997 dBm

Interface 'gil/0/2':
SFP present:      No

Interface 'gil/0/3':
SFP present:      No

```

```
Interface 'gi1/0/4':  
SFP present:      No  
  
esr-100#
```

Displaying an SFP vendor SN on interfaces

MIB:

ELTEX-GENERIC-MIB

OIDs used:

eltexSfpVendorSN - 1.3.6.1.4.1.35265.38.90.1.1.4

Data type in SNMP:

STRING

SNMP command output:

```
snmpwalk -v2c -c 192.168.0.1 1.3.6.1.4.1.35265.38.90.1.1.4  
iso.3.6.1.4.1.35265.38.90.1.1.4.1 = STRING: A85371140423
```

CLI command:

```

esr-100# show interfaces sfp
Interface 'gig1/0/1':
SFP present:      Yes
Connector Type:   LC
Type:             SFP/SFP+/SFP28
Compliance code: 10G BASE-SR
Speed:           10G
Laser wavelength: 850 nm
Transfer distance: 80.00 m
Vendor OUI:       00:0B:40
Vendor name:      FANG HANG
Vendor PN:        FH-SP851TCDL03
Vendor SN:        A85371140423
Vendor date:      25.11.17
Vendor revision:  V02
DDM supported:    Yes
Temperature:      25.805 C
Voltage:          3.3204 V
Current:          6.854 mA
RX Power:         0.4519 mW / -3.4496 dBm
TX Power:         0.5046 mW / -2.9705 dBm
RX LOS:           No
TX Fault:         No
TX Disable:       No
Soft TX Disable:  No

Threshold parameters:
Temperature [C]
Alarm High:       100
Warning High:     95
Warning Low:      -35
Alarm Low:        -40
Voltage [V]
Alarm High:       3.6000
Warning High:     3.5000
Warning Low:      2.9000
Alarm Low:        2.8000
Current [mA]
Alarm High:       15.0000
Warning High:     13.0000
Warning Low:      2.0000
Alarm Low:        1.0000
RX Power [mW / dBm]
Alarm High:       1.9953 mW / 3.0001 dBm
Warning High:     1.0000 mW / 0.0000 dBm
Warning Low:      0.0501 mW / -13.0016 dBm
Alarm Low:        0.0251 mW / -16.0033 dBm
TX Power [mW / dBm]
Alarm High:       1.2589 mW / 0.9999 dBm
Warning High:     1.0000 mW / 0.0000 dBm
Warning Low:      0.1995 mW / -7.0006 dBm
Alarm Low:        0.1585 mW / -7.9997 dBm

Interface 'gig1/0/2':
SFP present:      No

Interface 'gig1/0/3':
SFP present:      No

```

```
Interface 'gi1/0/4':  
  SFP present:      No  
  
esr-100#
```

Displaying the version of an SFP vendor on interfaces

MIB:

ELTEX-GENERIC-MIB

OIDs used:

eltexSfpVendorRev - 1.3.6.1.4.1.35265.38.90.1.1.5

Data type in SNMP:

STRING

SNMP command output:

```
snmpwalk -v2c -c 192.168.0.1 1.3.6.1.4.1.35265.38.90.1.1.5  
iso.3.6.1.4.1.35265.38.90.1.1.5.1 = STRING: V02
```

CLI command:

```

esr-100# show interfaces sfp
Interface 'gig1/0/1':
SFP present:      Yes
Connector Type:   LC
Type:             SFP/SFP+/SFP28
Compliance code: 10G BASE-SR
Speed:           10G
Laser wavelength: 850 nm
Transfer distance: 80.00 m
Vendor OUI:       00:0B:40
Vendor name:      FANG HANG
Vendor PN:        FH-SP851TCDL03
Vendor SN:        A85371140423
Vendor date:      25.11.17
Vendor revision:  V02
DDM supported:    Yes
Temperature:      25.805 C
Voltage:          3.3204 V
Current:          6.854 mA
RX Power:         0.4519 mW / -3.4496 dBm
TX Power:         0.5046 mW / -2.9705 dBm
RX LOS:           No
TX Fault:         No
TX Disable:       No
Soft TX Disable:  No

Threshold parameters:
Temperature [C]
Alarm High:       100
Warning High:     95
Warning Low:      -35
Alarm Low:        -40
Voltage [V]
Alarm High:       3.6000
Warning High:     3.5000
Warning Low:      2.9000
Alarm Low:        2.8000
Current [mA]
Alarm High:       15.0000
Warning High:     13.0000
Warning Low:      2.0000
Alarm Low:        1.0000
RX Power [mW / dBm]
Alarm High:       1.9953 mW / 3.0001 dBm
Warning High:     1.0000 mW / 0.0000 dBm
Warning Low:      0.0501 mW / -13.0016 dBm
Alarm Low:        0.0251 mW / -16.0033 dBm
TX Power [mW / dBm]
Alarm High:       1.2589 mW / 0.9999 dBm
Warning High:     1.0000 mW / 0.0000 dBm
Warning Low:      0.1995 mW / -7.0006 dBm
Alarm Low:        0.1585 mW / -7.9997 dBm

Interface 'gig1/0/2':
SFP present:      No

Interface 'gig1/0/3':
SFP present:      No

```

```
Interface 'gi1/0/4':  
  SFP present:      No  
  
esr-100#
```

Displaying the SFP connector type on interfaces

MIB:

ELTEX-GENERIC-MIB

OIDs used:

eltexSfpConnectorType - 1.3.6.1.4.1.35265.38.90.1.1.6

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:

0 - unknown

1 - sc

4 - bnc-tnc

6 - fiberjack

7 - lc

8 - mt-rj

9 - mu

10 - sg

11 - opticalPigtail

12 - mpo1x12

13 - mpo2x16

32 - hssdcii

33 - copperPigtail

34 - rj45

35 - noSeparableConnector

36 - mxc2x16

SNMP command output:

```
snmpwalk -v2c -c 192.168.0.1 1.3.6.1.4.1.35265.38.90.1.1.6  
iso.3.6.1.4.1.35265.38.90.1.1.6.1 = INTEGER: 7
```

CLI command:

```

esr-100# show interfaces sfp
Interface 'gi1/0/1':
SFP present:      Yes
Connector Type:   LC
Type:             SFP/SFP+/SFP28
Compliance code:  10G BASE-SR
Speed:           10G
Laser wavelength: 850 nm
Transfer distance: 80.00 m
Vendor OUI:       00:0B:40
Vendor name:      FANG HANG
Vendor PN:        FH-SP851TCDL03
Vendor SN:        A85371140423
Vendor date:      25.11.17
Vendor revision:  V02
DDM supported:    Yes
Temperature:      25.805 C
Voltage:          3.3204 V
Current:          6.854 mA
RX Power:         0.4519 mW / -3.4496 dBm
TX Power:         0.5046 mW / -2.9705 dBm
RX LOS:           No
TX Fault:         No
TX Disable:       No
Soft TX Disable:  No

Threshold parameters:
Temperature [C]
  Alarm High:     100
  Warning High:   95
  Warning Low:    -35
  Alarm Low:      -40
Voltage [V]
  Alarm High:     3.6000
  Warning High:   3.5000
  Warning Low:    2.9000
  Alarm Low:      2.8000
Current [mA]
  Alarm High:     15.0000
  Warning High:   13.0000
  Warning Low:    2.0000
  Alarm Low:      1.0000
RX Power [mW / dBm]
  Alarm High:     1.9953 mW / 3.0001 dBm
  Warning High:   1.0000 mW / 0.0000 dBm
  Warning Low:    0.0501 mW / -13.0016 dBm
  Alarm Low:      0.0251 mW / -16.0033 dBm
TX Power [mW / dBm]
  Alarm High:     1.2589 mW / 0.9999 dBm
  Warning High:   1.0000 mW / 0.0000 dBm
  Warning Low:    0.1995 mW / -7.0006 dBm
  Alarm Low:      0.1585 mW / -7.9997 dBm

Interface 'gi1/0/2':
SFP present:      No

Interface 'gi1/0/3':
SFP present:      No

```

```
Interface 'gi1/0/4':  
SFP present:      No  
  
esr-100#
```

Displaying the SFP type on interfaces

MIB:

ELTEX-GENERIC-MIB

OIDs used:

eltexSfpTransceiverType - 1.3.6.1.4.1.35265.38.90.1.1.7

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:

0 - unknown

1 - gbic

3 - sfpSfpPlus,

6 - xfp

12 - qsfpPlus

SNMP command output:

```
snmpwalk -v2c -c 192.168.0.1 1.3.6.1.4.1.35265.38.90.1.1.7  
iso.3.6.1.4.1.35265.38.90.1.1.7.1 = INTEGER: 3
```

CLI command:

```

esr-100# show interfaces sfp
Interface 'gi1/0/1':
SFP present:      Yes
Connector Type:   LC
Type:             SFP/SFP+/SFP28
Compliance code: 10G BASE-SR
Speed:           10G
Laser wavelength: 850 nm
Transfer distance: 80.00 m
Vendor OUI:       00:0B:40
Vendor name:      FANG HANG
Vendor PN:        FH-SP851TCDL03
Vendor SN:        A85371140423
Vendor date:      25.11.17
Vendor revision:  V02
DDM supported:    Yes
Temperature:      25.805 C
Voltage:          3.3204 V
Current:          6.854 mA
RX Power:         0.4519 mW / -3.4496 dBm
TX Power:         0.5046 mW / -2.9705 dBm
RX LOS:           No
TX Fault:         No
TX Disable:       No
Soft TX Disable:  No

Threshold parameters:
Temperature [C]
  Alarm High:     100
  Warning High:   95
  Warning Low:    -35
  Alarm Low:      -40
Voltage [V]
  Alarm High:     3.6000
  Warning High:   3.5000
  Warning Low:    2.9000
  Alarm Low:      2.8000
Current [mA]
  Alarm High:     15.0000
  Warning High:   13.0000
  Warning Low:    2.0000
  Alarm Low:      1.0000
RX Power [mW / dBm]
  Alarm High:     1.9953 mW / 3.0001 dBm
  Warning High:   1.0000 mW / 0.0000 dBm
  Warning Low:    0.0501 mW / -13.0016 dBm
  Alarm Low:      0.0251 mW / -16.0033 dBm
TX Power [mW / dBm]
  Alarm High:     1.2589 mW / 0.9999 dBm
  Warning High:   1.0000 mW / 0.0000 dBm
  Warning Low:    0.1995 mW / -7.0006 dBm
  Alarm Low:      0.1585 mW / -7.9997 dBm

Interface 'gi1/0/2':
SFP present:      No

Interface 'gi1/0/3':
SFP present:      No

```

```
Interface 'gi1/0/4':  
  SFP present:      No  
  
esr-100#
```

Displaying the SFP compliance code on interfaces

MIB:

ELTEX-GENERIC-MIB

OIDs used:

eltexSfpComplianceCode - 1.3.6.1.4.1.35265.38.90.1.1.8

Data type in SNMP:

STRING

SNMP command output:

```
snmpwalk -v2c -c 192.168.0.1 1.3.6.1.4.1.35265.38.90.1.1.8  
iso.3.6.1.4.1.35265.38.90.1.1.8.1 = STRING: 10G BASE-SR
```

CLI command:

```

esr-100# show interfaces sfp
Interface 'gil/0/1':
SFP present:      Yes
Connector Type:   LC
Type:             SFP/SFP+/SFP28
Compliance code: 10G BASE-SR
Speed:           10G
Laser wavelength: 850 nm
Transfer distance: 80.00 m
Vendor OUI:       00:0B:40
Vendor name:      FANG HANG
Vendor PN:        FH-SP851TCDL03
Vendor SN:        A85371140423
Vendor date:      25.11.17
Vendor revision:  V02
DDM supported:    Yes
Temperature:      25.805 C
Voltage:          3.3204 V
Current:          6.854 mA
RX Power:         0.4519 mW / -3.4496 dBm
TX Power:         0.5046 mW / -2.9705 dBm
RX LOS:           No
TX Fault:         No
TX Disable:       No
Soft TX Disable:  No

Threshold parameters:
Temperature [C]
  Alarm High:      100
  Warning High:    95
  Warning Low:     -35
  Alarm Low:       -40
Voltage [V]
  Alarm High:      3.6000
  Warning High:    3.5000
  Warning Low:     2.9000
  Alarm Low:       2.8000
Current [mA]
  Alarm High:      15.0000
  Warning High:    13.0000
  Warning Low:     2.0000
  Alarm Low:       1.0000
RX Power [mW / dBm]
  Alarm High:      1.9953 mW / 3.0001 dBm
  Warning High:    1.0000 mW / 0.0000 dBm
  Warning Low:     0.0501 mW / -13.0016 dBm
  Alarm Low:       0.0251 mW / -16.0033 dBm
TX Power [mW / dBm]
  Alarm High:      1.2589 mW / 0.9999 dBm
  Warning High:    1.0000 mW / 0.0000 dBm
  Warning Low:     0.1995 mW / -7.0006 dBm
  Alarm Low:       0.1585 mW / -7.9997 dBm

Interface 'gil/0/2':
SFP present:      No

Interface 'gil/0/3':
SFP present:      No

```

```
Interface 'gi1/0/4':  
  SFP present:      No  
  
esr-100#
```

Displaying the wavelength of the SFP laser on interfaces (in nm)

MIB:

ELTEX-GENERIC-MIB

OIDs used:

eltexSfpComplianceCode - 1.3.6.1.4.1.35265.38.90.1.1.9

Data type in SNMP:

INTEGER

SNMP command output:

```
snmpwalk -v2c -c 192.168.0.1 1.3.6.1.4.1.35265.38.90.1.1.9  
iso.3.6.1.4.1.35265.38.90.1.1.9.1 = INTEGER: 850
```

CLI command:

```

esr-100# show interfaces sfp
Interface 'gig1/0/1':
SFP present:          Yes
Connector Type:      LC
Type:                 SFP/SFP+/SFP28
Compliance code:    10G BASE-SR
Speed:               10G
Laser wavelength:   850 nm
Transfer distance:   80.00 m
Vendor OUI:          00:0B:40
Vendor name:         FANG HANG
Vendor PN:           FH-SP851TCDL03
Vendor SN:           A85371140423
Vendor date:         25.11.17
Vendor revision:    V02
DDM supported:       Yes
Temperature:         25.805 C
Voltage:              3.3204 V
Current:              6.854 mA
RX Power:             0.4519 mW / -3.4496 dBm
TX Power:             0.5046 mW / -2.9705 dBm
RX LOS:              No
TX Fault:            No
TX Disable:          No
Soft TX Disable:     No

Threshold parameters:
Temperature [C]
Alarm High:          100
Warning High:        95
Warning Low:         -35
Alarm Low:           -40
Voltage [V]
Alarm High:          3.6000
Warning High:        3.5000
Warning Low:         2.9000
Alarm Low:           2.8000
Current [mA]
Alarm High:          15.0000
Warning High:        13.0000
Warning Low:         2.0000
Alarm Low:           1.0000
RX Power [mW / dBm]
Alarm High:          1.9953 mW / 3.0001 dBm
Warning High:        1.0000 mW / 0.0000 dBm
Warning Low:         0.0501 mW / -13.0016 dBm
Alarm Low:           0.0251 mW / -16.0033 dBm
TX Power [mW / dBm]
Alarm High:          1.2589 mW / 0.9999 dBm
Warning High:        1.0000 mW / 0.0000 dBm
Warning Low:         0.1995 mW / -7.0006 dBm
Alarm Low:           0.1585 mW / -7.9997 dBm

Interface 'gig1/0/2':
SFP present:          No

Interface 'gig1/0/3':
SFP present:          No

```

```
Interface 'gi1/0/4':  
SFP present:      No  
  
esr-100#
```

Displaying the maximum operating distance of SFP on interfaces (in meters)

MIB:

ELTEX-GENERIC-MIB

OIDs used:

eltexSfpComplianceCode - 1.3.6.1.4.1.35265.38.90.1.1.10

Data type in SNMP:

INTEGER

SNMP command output:

```
snmpwalk -v2c -c 192.168.0.1 1.3.6.1.4.1.35265.38.90.1.1.10  
iso.3.6.1.4.1.35265.38.90.1.1.10.1 = INTEGER: 80
```

CLI command:

```

esr-100# show interfaces sfp
Interface 'gil/0/1':
SFP present:      Yes
Connector Type:   LC
Type:             SFP/SFP+/SFP28
Compliance code:  10G BASE-SR
Speed:           10G
Laser wavelength: 850 nm
Transfer distance: 80.00 m
Vendor OUI:       00:0B:40
Vendor name:      FANG HANG
Vendor PN:        FH-SP851TCDL03
Vendor SN:        A85371140423
Vendor date:      25.11.17
Vendor revision:  V02
DDM supported:    Yes
Temperature:      25.805 C
Voltage:          3.3204 V
Current:          6.854 mA
RX Power:         0.4519 mW / -3.4496 dBm
TX Power:         0.5046 mW / -2.9705 dBm
RX LOS:           No
TX Fault:         No
TX Disable:       No
Soft TX Disable:  No

Threshold parameters:
Temperature [C]
  Alarm High:      100
  Warning High:    95
  Warning Low:     -35
  Alarm Low:       -40
Voltage [V]
  Alarm High:      3.6000
  Warning High:    3.5000
  Warning Low:     2.9000
  Alarm Low:       2.8000
Current [mA]
  Alarm High:      15.0000
  Warning High:    13.0000
  Warning Low:     2.0000
  Alarm Low:       1.0000
RX Power [mW / dBm]
  Alarm High:      1.9953 mW / 3.0001 dBm
  Warning High:    1.0000 mW / 0.0000 dBm
  Warning Low:     0.0501 mW / -13.0016 dBm
  Alarm Low:       0.0251 mW / -16.0033 dBm
TX Power [mW / dBm]
  Alarm High:      1.2589 mW / 0.9999 dBm
  Warning High:    1.0000 mW / 0.0000 dBm
  Warning Low:     0.1995 mW / -7.0006 dBm
  Alarm Low:       0.1585 mW / -7.9997 dBm

Interface 'gil/0/2':
SFP present:      No

Interface 'gil/0/3':
SFP present:      No

```

```
Interface 'gi1/0/4':  
SFP present:      No  
  
esr-100#
```

Displaying support for DDM in SFP on interfaces

MIB:

ELTEX-GENERIC-MIB

OIDs used:

eltexSfpVendor - 1.3.6.1.4.1.35265.38.90.1.1.11

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:

0 - none

1 - ddm

SNMP command output:

```
snmpwalk -v2c -c 192.168.0.1 1.3.6.1.4.1.35265.38.90.1.1.11  
iso.3.6.1.4.1.35265.38.90.1.1.11.1 = INTEGER: 1
```

CLI command:

```

esr-100# show interfaces sfp
Interface 'gig1/0/1':
SFP present:      Yes
Connector Type:   LC
Type:             SFP/SFP+/SFP28
Compliance code:  10G BASE-SR
Speed:           10G
Laser wavelength: 850 nm
Transfer distance: 80.00 m
Vendor OUI:       00:0B:40
Vendor name:      FANG HANG
Vendor PN:        FH-SP851TCDL03
Vendor SN:        A85371140423
Vendor date:      25.11.17
Vendor revision:  V02
DDM supported:    Yes
Temperature:      25.805 C
Voltage:          3.3204 V
Current:          6.854 mA
RX Power:         0.4519 mW / -3.4496 dBm
TX Power:         0.5046 mW / -2.9705 dBm
RX LOS:           No
TX Fault:         No
TX Disable:       No
Soft TX Disable:  No

Threshold parameters:
Temperature [C]
Alarm High:       100
Warning High:     95
Warning Low:      -35
Alarm Low:        -40
Voltage [V]
Alarm High:       3.6000
Warning High:     3.5000
Warning Low:      2.9000
Alarm Low:        2.8000
Current [mA]
Alarm High:       15.0000
Warning High:     13.0000
Warning Low:      2.0000
Alarm Low:        1.0000
RX Power [mW / dBm]
Alarm High:       1.9953 mW / 3.0001 dBm
Warning High:     1.0000 mW / 0.0000 dBm
Warning Low:      0.0501 mW / -13.0016 dBm
Alarm Low:        0.0251 mW / -16.0033 dBm
TX Power [mW / dBm]
Alarm High:       1.2589 mW / 0.9999 dBm
Warning High:     1.0000 mW / 0.0000 dBm
Warning Low:      0.1995 mW / -7.0006 dBm
Alarm Low:        0.1585 mW / -7.9997 dBm

Interface 'gig1/0/2':
SFP present:      No

Interface 'gig1/0/3':
SFP present:      No

```

```
Interface 'gi1/0/4':  
SFP present:      No  
  
esr-100#
```

Displaying RX power of SFP on interfaces in dBm

MIB:

ELTEX-GENERIC-MIB

OIDs used:

eltexSfpRXPower - 1.3.6.1.4.1.35265.38.90.2.1.4

Data type in SNMP:

INTEGER (Hint: d-4)

SNMP command output:

```
snmpwalk -v2c -c 192.168.0.1 1.3.6.1.4.1.35265.38.90.2.1.4  
iso.3.6.1.4.1.35265.38.90.2.1.4.1 = INTEGER: -3.4496
```

CLI command:

```
esr-100# show interfaces sfp
Interface 'gig1/0/1':
SFP present:      Yes
Connector Type:   LC
Type:             SFP/SFP+/SFP28
Compliance code: 10G BASE-SR
Speed:           10G
Laser wavelength: 850 nm
Transfer distance: 80.00 m
Vendor OUI:       00:0B:40
Vendor name:      FANG HANG
Vendor PN:        FH-SP851TCDL03
Vendor SN:        A85371140423
Vendor date:      25.11.17
Vendor revision:  V02
DDM supported:    Yes
Temperature:      25.805 C
Voltage:          3.3204 V
Current:          6.854 mA
RX Power:         0.4519 mW / -3.4496 dBm
TX Power:         0.5046 mW / -2.9705 dBm
RX LOS:           No
TX Fault:         No
TX Disable:       No
Soft TX Disable:  No

Threshold parameters:
Temperature [C]
Alarm High:       100
Warning High:     95
Warning Low:      -35
Alarm Low:        -40
Voltage [V]
Alarm High:       3.6000
Warning High:     3.5000
Warning Low:      2.9000
Alarm Low:        2.8000
Current [mA]
Alarm High:       15.0000
Warning High:     13.0000
Warning Low:      2.0000
Alarm Low:        1.0000
RX Power [mW / dBm]
Alarm High:       1.9953 mW / 3.0001 dBm
Warning High:     1.0000 mW / 0.0000 dBm
Warning Low:      0.0501 mW / -13.0016 dBm
Alarm Low:        0.0251 mW / -16.0033 dBm
TX Power [mW / dBm]
Alarm High:       1.2589 mW / 0.9999 dBm
Warning High:     1.0000 mW / 0.0000 dBm
Warning Low:      0.1995 mW / -7.0006 dBm
Alarm Low:        0.1585 mW / -7.9997 dBm

Interface 'gig1/0/2':
SFP present:      No

Interface 'gig1/0/3':
SFP present:      No
```

```
Interface 'gi1/0/4':  
SFP present:      No  
  
esr-100#
```

Displaying TX power of SFP on interfaces in dBm

MIB:

ELTEX-GENERIC-MIB

OIDs used:

eltexSfpTXPower - 1.3.6.1.4.1.35265.38.90.2.1.5

Data type in SNMP:

INTEGER (Hint: d-4)

SNMP command output:

```
snmpwalk -v2c -c 192.168.0.1 1.3.6.1.4.1.35265.38.90.2.1.5  
iso.3.6.1.4.1.35265.38.90.2.1.5.1 = INTEGER: -2.9705
```

CLI command:

```

esr-100# show interfaces sfp
Interface 'gil/0/1':
SFP present:      Yes
Connector Type:   LC
Type:             SFP/SFP+/SFP28
Compliance code:  10G BASE-SR
Speed:           10G
Laser wavelength: 850 nm
Transfer distance: 80.00 m
Vendor OUI:       00:0B:40
Vendor name:      FANG HANG
Vendor PN:        FH-SP851TCDL03
Vendor SN:        A85371140423
Vendor date:      25.11.17
Vendor revision:  V02
DDM supported:    Yes
Temperature:      25.805 C
Voltage:          3.3204 V
Current:          6.854 mA
RX Power:         0.4519 mW / -3.4496 dBm
TX Power:         0.5046 mW / -2.9705 dBm
RX LOS:           No
TX Fault:         No
TX Disable:       No
Soft TX Disable:  No

Threshold parameters:
Temperature [C]
  Alarm High:     100
  Warning High:   95
  Warning Low:    -35
  Alarm Low:      -40
Voltage [V]
  Alarm High:     3.6000
  Warning High:   3.5000
  Warning Low:    2.9000
  Alarm Low:      2.8000
Current [mA]
  Alarm High:     15.0000
  Warning High:   13.0000
  Warning Low:    2.0000
  Alarm Low:      1.0000
RX Power [mW / dBm]
  Alarm High:     1.9953 mW / 3.0001 dBm
  Warning High:   1.0000 mW / 0.0000 dBm
  Warning Low:    0.0501 mW / -13.0016 dBm
  Alarm Low:      0.0251 mW / -16.0033 dBm
TX Power [mW / dBm]
  Alarm High:     1.2589 mW / 0.9999 dBm
  Warning High:   1.0000 mW / 0.0000 dBm
  Warning Low:    0.1995 mW / -7.0006 dBm
  Alarm Low:      0.1585 mW / -7.9997 dBm

Interface 'gil/0/2':
SFP present:      No

Interface 'gil/0/3':
SFP present:      No

```

```
Interface 'gi1/0/4':  
SFP present:      No  
  
esr-100#
```

Displaying the SFP temperature on interfaces in °C

MIB:

ELTEX-GENERIC-MIB

OIDs used:

eltexSfpTemperature - 1.3.6.1.4.1.35265.38.90.2.1.6

Data type in SNMP:

INTEGER (Hint: d-4)

SNMP command output:

```
snmpwalk -v2c -c 192.168.0.1 1.3.6.1.4.1.35265.38.90.2.1.6  
iso.3.6.1.4.1.35265.38.90.2.1.6.1 = INTEGER: 25.8045
```

CLI command:

```

esr-100# show interfaces sfp
Interface 'gig1/0/1':
SFP present:      Yes
Connector Type:   LC
Type:             SFP/SFP+/SFP28
Compliance code: 10G BASE-SR
Speed:           10G
Laser wavelength: 850 nm
Transfer distance: 80.00 m
Vendor OUI:       00:0B:40
Vendor name:      FANG HANG
Vendor PN:        FH-SP851TCDL03
Vendor SN:        A85371140423
Vendor date:      25.11.17
Vendor revision:  V02
DDM supported:    Yes
Temperature:      25.805 C
Voltage:          3.3204 V
Current:          6.854 mA
RX Power:         0.4519 mW / -3.4496 dBm
TX Power:         0.5046 mW / -2.9705 dBm
RX LOS:           No
TX Fault:         No
TX Disable:       No
Soft TX Disable:  No

Threshold parameters:
Temperature [C]
Alarm High:       100
Warning High:     95
Warning Low:      -35
Alarm Low:        -40
Voltage [V]
Alarm High:       3.6000
Warning High:     3.5000
Warning Low:      2.9000
Alarm Low:        2.8000
Current [mA]
Alarm High:       15.0000
Warning High:     13.0000
Warning Low:      2.0000
Alarm Low:        1.0000
RX Power [mW / dBm]
Alarm High:       1.9953 mW / 3.0001 dBm
Warning High:     1.0000 mW / 0.0000 dBm
Warning Low:      0.0501 mW / -13.0016 dBm
Alarm Low:        0.0251 mW / -16.0033 dBm
TX Power [mW / dBm]
Alarm High:       1.2589 mW / 0.9999 dBm
Warning High:     1.0000 mW / 0.0000 dBm
Warning Low:      0.1995 mW / -7.0006 dBm
Alarm Low:        0.1585 mW / -7.9997 dBm

Interface 'gig1/0/2':
SFP present:      No

Interface 'gig1/0/3':
SFP present:      No

```

```
Interface 'gi1/0/4':  
SFP present:      No  
  
esr-100#
```

Displaying the SFP current on interfaces in mA

MIB:

ELTEX-GENERIC-MIB

OIDs used:

eltexSfpCurrent - 1.3.6.1.4.1.35265.38.90.2.1.7

Data type in SNMP:

INTEGER (Hint: d-4)

SNMP command output:

```
snmpwalk -v2c -c 192.168.0.1 1.3.6.1.4.1.35265.38.90.2.1.7  
iso.3.6.1.4.1.35265.38.90.2.1.7.1 = INTEGER: 6.8540
```

CLI command:

```

esr-100# show interfaces sfp
Interface 'gil/0/1':
SFP present:      Yes
Connector Type:   LC
Type:             SFP/SFP+/SFP28
Compliance code: 10G BASE-SR
Speed:           10G
Laser wavelength: 850 nm
Transfer distance: 80.00 m
Vendor OUI:       00:0B:40
Vendor name:      FANG HANG
Vendor PN:        FH-SP851TCDL03
Vendor SN:        A85371140423
Vendor date:      25.11.17
Vendor revision:  V02
DDM supported:    Yes
Temperature:      25.805 C
Voltage:          3.3204 V
Current:          6.854 mA
RX Power:         0.4519 mW / -3.4496 dBm
TX Power:         0.5046 mW / -2.9705 dBm
RX LOS:           No
TX Fault:         No
TX Disable:       No
Soft TX Disable:  No

Threshold parameters:
Temperature [C]
  Alarm High:      100
  Warning High:    95
  Warning Low:     -35
  Alarm Low:       -40
Voltage [V]
  Alarm High:      3.6000
  Warning High:    3.5000
  Warning Low:     2.9000
  Alarm Low:       2.8000
Current [mA]
  Alarm High:      15.0000
  Warning High:    13.0000
  Warning Low:     2.0000
  Alarm Low:       1.0000
RX Power [mW / dBm]
  Alarm High:      1.9953 mW / 3.0001 dBm
  Warning High:    1.0000 mW / 0.0000 dBm
  Warning Low:     0.0501 mW / -13.0016 dBm
  Alarm Low:       0.0251 mW / -16.0033 dBm
TX Power [mW / dBm]
  Alarm High:      1.2589 mW / 0.9999 dBm
  Warning High:    1.0000 mW / 0.0000 dBm
  Warning Low:     0.1995 mW / -7.0006 dBm
  Alarm Low:       0.1585 mW / -7.9997 dBm

Interface 'gil/0/2':
SFP present:      No

Interface 'gil/0/3':
SFP present:      No

```

```
Interface 'gi1/0/4':  
  SFP present:      No  
  
esr-100#
```

Displaying the SFP voltage on interfaces in volts

MIB:

ELTEX-GENERIC-MIB

OIDs used:

eltexSfpVoltage - 1.3.6.1.4.1.35265.38.90.2.1.8

Data type in SNMP:

INTEGER (Hint: d-4)

SNMP command output:

```
snmpwalk -v2c -c 192.168.0.1 1.3.6.1.4.1.35265.38.90.2.1.8  
iso.3.6.1.4.1.35265.38.90.2.1.8.1 = INTEGER: 3.3204
```

CLI command:

```

esr-100# show interfaces sfp
Interface 'gil/0/1':
SFP present:      Yes
Connector Type:   LC
Type:             SFP/SFP+/SFP28
Compliance code: 10G BASE-SR
Speed:           10G
Laser wavelength: 850 nm
Transfer distance: 80.00 m
Vendor OUI:       00:0B:40
Vendor name:      FANG HANG
Vendor PN:        FH-SP851TCDL03
Vendor SN:        A85371140423
Vendor date:      25.11.17
Vendor revision:  V02
DDM supported:    Yes
Temperature:      25.805 C
Voltage:          3.3204 V
Current:          6.854 mA
RX Power:         0.4519 mW / -3.4496 dBm
TX Power:         0.5046 mW / -2.9705 dBm
RX LOS:           No
TX Fault:         No
TX Disable:       No
Soft TX Disable:  No

Threshold parameters:
Temperature [C]
  Alarm High:      100
  Warning High:    95
  Warning Low:     -35
  Alarm Low:       -40
Voltage [V]
  Alarm High:      3.6000
  Warning High:    3.5000
  Warning Low:     2.9000
  Alarm Low:       2.8000
Current [mA]
  Alarm High:      15.0000
  Warning High:    13.0000
  Warning Low:     2.0000
  Alarm Low:       1.0000
RX Power [mW / dBm]
  Alarm High:      1.9953 mW / 3.0001 dBm
  Warning High:    1.0000 mW / 0.0000 dBm
  Warning Low:     0.0501 mW / -13.0016 dBm
  Alarm Low:       0.0251 mW / -16.0033 dBm
TX Power [mW / dBm]
  Alarm High:      1.2589 mW / 0.9999 dBm
  Warning High:    1.0000 mW / 0.0000 dBm
  Warning Low:     0.1995 mW / -7.0006 dBm
  Alarm Low:       0.1585 mW / -7.9997 dBm

Interface 'gil/0/2':
SFP present:      No

Interface 'gil/0/3':
SFP present:      No

```

```
Interface 'gi1/0/4':  
SFP present:      No  
  
esr-100#
```

Displaying the maximum RX power value of the SFP without an alarm in mW

MIB:

ELTEX-GENERIC-MIB

OIDs used:

eltexSfpRXPowerHiAlarm - 1.3.6.1.4.1.35265.38.90.2.1.9

Data type in SNMP:

INTEGER (Hint: d-4)

SNMP command output:

```
snmpwalk -v2c -c 192.168.0.1 1.3.6.1.4.1.35265.38.90.2.1.9  
iso.3.6.1.4.1.35265.38.90.2.1.9.1 = INTEGER: 3.0001
```

CLI command:

```

esr-100# show interfaces sfp
Interface 'gil/0/1':
SFP present:      Yes
Connector Type:   LC
Type:             SFP/SFP+/SFP28
Compliance code:  10G BASE-SR
Speed:           10G
Laser wavelength: 850 nm
Transfer distance: 80.00 m
Vendor OUI:       00:0B:40
Vendor name:      FANG HANG
Vendor PN:        FH-SP851TCDL03
Vendor SN:        A85371140423
Vendor date:      25.11.17
Vendor revision:  V02
DDM supported:    Yes
Temperature:      25.805 C
Voltage:          3.3204 V
Current:          6.854 mA
RX Power:         0.4519 mW / -3.4496 dBm
TX Power:         0.5046 mW / -2.9705 dBm
RX LOS:           No
TX Fault:         No
TX Disable:       No
Soft TX Disable:  No

Threshold parameters:
Temperature [C]
  Alarm High:      100
  Warning High:    95
  Warning Low:     -35
  Alarm Low:       -40
Voltage [V]
  Alarm High:      3.6000
  Warning High:    3.5000
  Warning Low:     2.9000
  Alarm Low:       2.8000
Current [mA]
  Alarm High:      15.0000
  Warning High:    13.0000
  Warning Low:     2.0000
  Alarm Low:       1.0000
RX Power [mW / dBm]
  Alarm High:      1.9953 mW / 3.0001 dBm
  Warning High:    1.0000 mW / 0.0000 dBm
  Warning Low:     0.0501 mW / -13.0016 dBm
  Alarm Low:       0.0251 mW / -16.0033 dBm
TX Power [mW / dBm]
  Alarm High:      1.2589 mW / 0.9999 dBm
  Warning High:    1.0000 mW / 0.0000 dBm
  Warning Low:     0.1995 mW / -7.0006 dBm
  Alarm Low:       0.1585 mW / -7.9997 dBm

Interface 'gil/0/2':
SFP present:      No

Interface 'gil/0/3':
SFP present:      No

```

```
Interface 'gi1/0/4':  
SFP present:      No  
  
esr-100#
```

Displaying the minimum RX power value of the SFP without an alarm in mW

MIB:

ELTEX-GENERIC-MIB

OIDs used:

eltexSfpRXPowerLoAlarm - 1.3.6.1.4.1.35265.38.90.2.1.10

Data type in SNMP:

INTEGER (Hint: d-4)

SNMP command output:

```
snmpwalk -v2c -c 192.168.0.1 1.3.6.1.4.1.35265.38.90.2.1.10  
iso.3.6.1.4.1.35265.38.90.2.1.10.1 = INTEGER: -16.0033
```

CLI command:

```

esr-100# show interfaces sfp
Interface 'gil/0/1':
SFP present:      Yes
Connector Type:   LC
Type:             SFP/SFP+/SFP28
Compliance code:  10G BASE-SR
Speed:           10G
Laser wavelength: 850 nm
Transfer distance: 80.00 m
Vendor OUI:       00:0B:40
Vendor name:      FANG HANG
Vendor PN:        FH-SP851TCDL03
Vendor SN:        A85371140423
Vendor date:      25.11.17
Vendor revision:  V02
DDM supported:    Yes
Temperature:      25.805 C
Voltage:          3.3204 V
Current:          6.854 mA
RX Power:         0.4519 mW / -3.4496 dBm
TX Power:         0.5046 mW / -2.9705 dBm
RX LOS:           No
TX Fault:         No
TX Disable:       No
Soft TX Disable:  No

Threshold parameters:
Temperature [C]
  Alarm High:      100
  Warning High:    95
  Warning Low:     -35
  Alarm Low:       -40
Voltage [V]
  Alarm High:      3.6000
  Warning High:    3.5000
  Warning Low:     2.9000
  Alarm Low:       2.8000
Current [mA]
  Alarm High:      15.0000
  Warning High:    13.0000
  Warning Low:     2.0000
  Alarm Low:       1.0000
RX Power [mW / dBm]
  Alarm High:      1.9953 mW / 3.0001 dBm
  Warning High:    1.0000 mW / 0.0000 dBm
  Warning Low:     0.0501 mW / -13.0016 dBm
  Alarm Low:       0.0251 mW / -16.0033 dBm
TX Power [mW / dBm]
  Alarm High:      1.2589 mW / 0.9999 dBm
  Warning High:    1.0000 mW / 0.0000 dBm
  Warning Low:     0.1995 mW / -7.0006 dBm
  Alarm Low:       0.1585 mW / -7.9997 dBm

Interface 'gil/0/2':
SFP present:      No

Interface 'gil/0/3':
SFP present:      No

```

```
Interface 'gi1/0/4':  
SFP present:      No  
  
esr-100#
```

Displaying the maximum RX power value of the SFP without a warning in mW

MIB:

ELTEX-GENERIC-MIB

OIDs used:

eltexSfpRXPowerHiWarn - 1.3.6.1.4.1.35265.38.90.2.1.11

Data type in SNMP:

INTEGER (Hint: d-4)

SNMP command output:

```
snmpwalk -v2c -c 192.168.0.1 1.3.6.1.4.1.35265.38.90.2.1.11  
iso.3.6.1.4.1.35265.38.90.2.1.11.1 = INTEGER: .0000
```

CLI command:

```

esr-100# show interfaces sfp
Interface 'gil/0/1':
SFP present:      Yes
Connector Type:   LC
Type:             SFP/SFP+/SFP28
Compliance code: 10G BASE-SR
Speed:           10G
Laser wavelength: 850 nm
Transfer distance: 80.00 m
Vendor OUI:       00:0B:40
Vendor name:      FANG HANG
Vendor PN:        FH-SP851TCDL03
Vendor SN:        A85371140423
Vendor date:      25.11.17
Vendor revision:  V02
DDM supported:    Yes
Temperature:      25.805 C
Voltage:          3.3204 V
Current:          6.854 mA
RX Power:         0.4519 mW / -3.4496 dBm
TX Power:         0.5046 mW / -2.9705 dBm
RX LOS:           No
TX Fault:         No
TX Disable:       No
Soft TX Disable:  No

Threshold parameters:
Temperature [C]
  Alarm High:     100
  Warning High:   95
  Warning Low:    -35
  Alarm Low:      -40
Voltage [V]
  Alarm High:     3.6000
  Warning High:   3.5000
  Warning Low:    2.9000
  Alarm Low:      2.8000
Current [mA]
  Alarm High:     15.0000
  Warning High:   13.0000
  Warning Low:    2.0000
  Alarm Low:      1.0000
RX Power [mW / dBm]
  Alarm High:     1.9953 mW / 3.0001 dBm
  Warning High:   1.0000 mW / 0.0000 dBm
  Warning Low:    0.0501 mW / -13.0016 dBm
  Alarm Low:      0.0251 mW / -16.0033 dBm
TX Power [mW / dBm]
  Alarm High:     1.2589 mW / 0.9999 dBm
  Warning High:   1.0000 mW / 0.0000 dBm
  Warning Low:    0.1995 mW / -7.0006 dBm
  Alarm Low:      0.1585 mW / -7.9997 dBm

Interface 'gil/0/2':
SFP present:      No

Interface 'gil/0/3':
SFP present:      No

```

```
Interface 'gi1/0/4':  
SFP present:      No  
  
esr-100#
```

Displaying the minimum RX power value of the SFP without a warning in mW

MIB:

ELTEX-GENERIC-MIB

OIDs used:

eltexSfpRXPowerLoWarn - 1.3.6.1.4.1.35265.38.90.2.1.12

Data type in SNMP:

INTEGER (Hint: d-4)

SNMP command output:

```
snmpwalk -v2c -c 192.168.0.1 1.3.6.1.4.1.35265.38.90.2.1.12  
iso.3.6.1.4.1.35265.38.90.2.1.12.1 = INTEGER: -13.0016
```

CLI command:

```

esr-100# show interfaces sfp
Interface 'gil/0/1':
SFP present:      Yes
Connector Type:   LC
Type:             SFP/SFP+/SFP28
Compliance code:  10G BASE-SR
Speed:           10G
Laser wavelength: 850 nm
Transfer distance: 80.00 m
Vendor OUI:       00:0B:40
Vendor name:      FANG HANG
Vendor PN:        FH-SP851TCDL03
Vendor SN:        A85371140423
Vendor date:      25.11.17
Vendor revision:  V02
DDM supported:    Yes
Temperature:      25.805 C
Voltage:          3.3204 V
Current:          6.854 mA
RX Power:         0.4519 mW / -3.4496 dBm
TX Power:         0.5046 mW / -2.9705 dBm
RX LOS:           No
TX Fault:         No
TX Disable:       No
Soft TX Disable:  No

Threshold parameters:
Temperature [C]
  Alarm High:     100
  Warning High:   95
  Warning Low:    -35
  Alarm Low:      -40
Voltage [V]
  Alarm High:     3.6000
  Warning High:   3.5000
  Warning Low:    2.9000
  Alarm Low:      2.8000
Current [mA]
  Alarm High:     15.0000
  Warning High:   13.0000
  Warning Low:    2.0000
  Alarm Low:      1.0000
RX Power [mW / dBm]
  Alarm High:     1.9953 mW / 3.0001 dBm
  Warning High:   1.0000 mW / 0.0000 dBm
  Warning Low:    0.0501 mW / -13.0016 dBm
  Alarm Low:      0.0251 mW / -16.0033 dBm
TX Power [mW / dBm]
  Alarm High:     1.2589 mW / 0.9999 dBm
  Warning High:   1.0000 mW / 0.0000 dBm
  Warning Low:    0.1995 mW / -7.0006 dBm
  Alarm Low:      0.1585 mW / -7.9997 dBm

Interface 'gil/0/2':
SFP present:      No

Interface 'gil/0/3':
SFP present:      No

```

```
Interface 'gi1/0/4':  
SFP present:      No  
  
esr-100#
```

Displaying the maximum TX power value of the SFP without an alarm in mW

MIB:

ELTEX-GENERIC-MIB

OIDs used:

eltexSfpTXPowerHiAlarm - 1.3.6.1.4.1.35265.38.90.2.1.13

Data type in SNMP:

INTEGER (Hint: d-4)

SNMP command output:

```
snmpwalk -v2c -c 192.168.0.1 1.3.6.1.4.1.35265.38.90.2.1.13  
iso.3.6.1.4.1.35265.38.90.2.1.13.1 = INTEGER: .9999
```

CLI command:

```

esr-100# show interfaces sfp
Interface 'gil/0/1':
SFP present:      Yes
Connector Type:   LC
Type:             SFP/SFP+/SFP28
Compliance code:  10G BASE-SR
Speed:           10G
Laser wavelength: 850 nm
Transfer distance: 80.00 m
Vendor OUI:       00:0B:40
Vendor name:      FANG HANG
Vendor PN:        FH-SP851TCDL03
Vendor SN:        A85371140423
Vendor date:      25.11.17
Vendor revision:  V02
DDM supported:    Yes
Temperature:      25.805 C
Voltage:          3.3204 V
Current:          6.854 mA
RX Power:         0.4519 mW / -3.4496 dBm
TX Power:         0.5046 mW / -2.9705 dBm
RX LOS:           No
TX Fault:         No
TX Disable:       No
Soft TX Disable:  No

Threshold parameters:
Temperature [C]
  Alarm High:      100
  Warning High:    95
  Warning Low:     -35
  Alarm Low:       -40
Voltage [V]
  Alarm High:      3.6000
  Warning High:    3.5000
  Warning Low:     2.9000
  Alarm Low:       2.8000
Current [mA]
  Alarm High:      15.0000
  Warning High:    13.0000
  Warning Low:     2.0000
  Alarm Low:       1.0000
RX Power [mW / dBm]
  Alarm High:      1.9953 mW / 3.0001 dBm
  Warning High:    1.0000 mW / 0.0000 dBm
  Warning Low:     0.0501 mW / -13.0016 dBm
  Alarm Low:       0.0251 mW / -16.0033 dBm
TX Power [mW / dBm]
  Alarm High:      1.2589 mW / 0.9999 dBm
  Warning High:    1.0000 mW / 0.0000 dBm
  Warning Low:     0.1995 mW / -7.0006 dBm
  Alarm Low:       0.1585 mW / -7.9997 dBm

Interface 'gil/0/2':
SFP present:      No

Interface 'gil/0/3':
SFP present:      No

```

```
Interface 'gi1/0/4':  
SFP present:      No  
  
esr-100#
```

Displaying the minimum TX power value of the SFP without an alarm in mW

MIB:

ELTEX-GENERIC-MIB

OIDs used:

eltexSfpTXPowerLoAlarm - 1.3.6.1.4.1.35265.38.90.2.1.14

Data type in SNMP:

INTEGER (Hint: d-4)

SNMP command output:

```
snmpwalk -v2c -c 192.168.0.1 1.3.6.1.4.1.35265.38.90.2.1.14  
iso.3.6.1.4.1.35265.38.90.2.1.14.1 = INTEGER: -7.9997
```

CLI command:

```

esr-100# show interfaces sfp
Interface 'gil/0/1':
SFP present:      Yes
Connector Type:   LC
Type:             SFP/SFP+/SFP28
Compliance code:  10G BASE-SR
Speed:           10G
Laser wavelength: 850 nm
Transfer distance: 80.00 m
Vendor OUI:       00:0B:40
Vendor name:      FANG HANG
Vendor PN:        FH-SP851TCDL03
Vendor SN:        A85371140423
Vendor date:      25.11.17
Vendor revision:  V02
DDM supported:    Yes
Temperature:      25.805 C
Voltage:          3.3204 V
Current:          6.854 mA
RX Power:         0.4519 mW / -3.4496 dBm
TX Power:         0.5046 mW / -2.9705 dBm
RX LOS:          No
TX Fault:         No
TX Disable:       No
Soft TX Disable:  No

Threshold parameters:
Temperature [C]
  Alarm High:     100
  Warning High:   95
  Warning Low:    -35
  Alarm Low:      -40
Voltage [V]
  Alarm High:     3.6000
  Warning High:   3.5000
  Warning Low:    2.9000
  Alarm Low:      2.8000
Current [mA]
  Alarm High:     15.0000
  Warning High:   13.0000
  Warning Low:    2.0000
  Alarm Low:      1.0000
RX Power [mW / dBm]
  Alarm High:     1.9953 mW / 3.0001 dBm
  Warning High:   1.0000 mW / 0.0000 dBm
  Warning Low:    0.0501 mW / -13.0016 dBm
  Alarm Low:      0.0251 mW / -16.0033 dBm
TX Power [mW / dBm]
  Alarm High:     1.2589 mW / 0.9999 dBm
  Warning High:   1.0000 mW / 0.0000 dBm
  Warning Low:    0.1995 mW / -7.0006 dBm
  Alarm Low:      0.1585 mW / -7.9997 dBm

Interface 'gil/0/2':
SFP present:      No

Interface 'gil/0/3':
SFP present:      No

```

```
Interface 'gi1/0/4':  
SFP present:      No  
  
esr-100#
```

Displaying the maximum TX power value of the SFP without a warning in mW

MIB:

ELTEX-GENERIC-MIB

OIDs used:

eltexSfpTXPowerHiWarn - 1.3.6.1.4.1.35265.38.90.2.1.15

Data type in SNMP:

INTEGER (Hint: d-4)

SNMP command output:

```
snmpwalk -v2c -c 192.168.0.1 1.3.6.1.4.1.35265.38.90.2.1.15  
iso.3.6.1.4.1.35265.38.90.2.1.15.1 = INTEGER: .0000
```

CLI command:

```

esr-100# show interfaces sfp
Interface 'gil/0/1':
SFP present:      Yes
Connector Type:   LC
Type:             SFP/SFP+/SFP28
Compliance code:  10G BASE-SR
Speed:           10G
Laser wavelength: 850 nm
Transfer distance: 80.00 m
Vendor OUI:       00:0B:40
Vendor name:      FANG HANG
Vendor PN:        FH-SP851TCDL03
Vendor SN:        A85371140423
Vendor date:      25.11.17
Vendor revision:  V02
DDM supported:    Yes
Temperature:      25.805 C
Voltage:          3.3204 V
Current:          6.854 mA
RX Power:         0.4519 mW / -3.4496 dBm
TX Power:         0.5046 mW / -2.9705 dBm
RX LOS:           No
TX Fault:         No
TX Disable:       No
Soft TX Disable:  No

Threshold parameters:
Temperature [C]
  Alarm High:      100
  Warning High:    95
  Warning Low:     -35
  Alarm Low:       -40
Voltage [V]
  Alarm High:      3.6000
  Warning High:    3.5000
  Warning Low:     2.9000
  Alarm Low:       2.8000
Current [mA]
  Alarm High:      15.0000
  Warning High:    13.0000
  Warning Low:     2.0000
  Alarm Low:       1.0000
RX Power [mW / dBm]
  Alarm High:      1.9953 mW / 3.0001 dBm
  Warning High:    1.0000 mW / 0.0000 dBm
  Warning Low:     0.0501 mW / -13.0016 dBm
  Alarm Low:       0.0251 mW / -16.0033 dBm
TX Power [mW / dBm]
  Alarm High:      1.2589 mW / 0.9999 dBm
  Warning High:    1.0000 mW / 0.0000 dBm
  Warning Low:     0.1995 mW / -7.0006 dBm
  Alarm Low:       0.1585 mW / -7.9997 dBm

Interface 'gil/0/2':
SFP present:      No

Interface 'gil/0/3':
SFP present:      No

```

```
Interface 'gi1/0/4':  
SFP present:      No  
  
esr-100#
```

Displaying the minimum TX power value of the SFP without a warning in mW

MIB:

ELTEX-GENERIC-MIB

OIDs used:

eltexSfpTXPowerLoWarn - 1.3.6.1.4.1.35265.38.90.2.1.16

Data type in SNMP:

INTEGER (Hint: d-4)

SNMP command output:

```
snmpwalk -v2c -c 192.168.0.1 1.3.6.1.4.1.35265.38.90.2.1.16  
iso.3.6.1.4.1.35265.38.90.2.1.16.1 = INTEGER: -7.0006
```

CLI command:

```

esr-100# show interfaces sfp
Interface 'gig1/0/1':
SFP present:      Yes
Connector Type:   LC
Type:             SFP/SFP+/SFP28
Compliance code: 10G BASE-SR
Speed:           10G
Laser wavelength: 850 nm
Transfer distance: 80.00 m
Vendor OUI:       00:0B:40
Vendor name:      FANG HANG
Vendor PN:        FH-SP851TCDL03
Vendor SN:        A85371140423
Vendor date:      25.11.17
Vendor revision:  V02
DDM supported:    Yes
Temperature:      25.805 C
Voltage:          3.3204 V
Current:          6.854 mA
RX Power:         0.4519 mW / -3.4496 dBm
TX Power:         0.5046 mW / -2.9705 dBm
RX LOS:           No
TX Fault:         No
TX Disable:       No
Soft TX Disable:  No

Threshold parameters:
Temperature [C]
Alarm High:       100
Warning High:     95
Warning Low:      -35
Alarm Low:        -40
Voltage [V]
Alarm High:       3.6000
Warning High:     3.5000
Warning Low:      2.9000
Alarm Low:        2.8000
Current [mA]
Alarm High:       15.0000
Warning High:     13.0000
Warning Low:      2.0000
Alarm Low:        1.0000
RX Power [mW / dBm]
Alarm High:       1.9953 mW / 3.0001 dBm
Warning High:     1.0000 mW / 0.0000 dBm
Warning Low:      0.0501 mW / -13.0016 dBm
Alarm Low:        0.0251 mW / -16.0033 dBm
TX Power [mW / dBm]
Alarm High:       1.2589 mW / 0.9999 dBm
Warning High:     1.0000 mW / 0.0000 dBm
Warning Low:      0.1995 mW / -7.0006 dBm
Alarm Low:        0.1585 mW / -7.9997 dBm

Interface 'gig1/0/2':
SFP present:      No

Interface 'gig1/0/3':
SFP present:      No

```

```
Interface 'gi1/0/4':  
  SFP present:      No  
  
esr-100#
```

Displaying the maximum SFP temperature without an alarm in °C

MIB:

ELTEX-GENERIC-MIB

OIDs used:

eltexSfpTemperatureHiAlarm - 1.3.6.1.4.1.35265.38.90.2.1.17

Data type in SNMP:

INTEGER (Hint: d-4)

SNMP command output:

```
snmpwalk -v2c -c 192.168.0.1 1.3.6.1.4.1.35265.38.90.2.1.17  
iso.3.6.1.4.1.35265.38.90.2.1.17.1 = INTEGER: 100
```

CLI command:

```

esr-100# show interfaces sfp
Interface 'gil/0/1':
SFP present:      Yes
Connector Type:   LC
Type:             SFP/SFP+/SFP28
Compliance code:  10G BASE-SR
Speed:           10G
Laser wavelength: 850 nm
Transfer distance: 80.00 m
Vendor OUI:       00:0B:40
Vendor name:      FANG HANG
Vendor PN:        FH-SP851TCDL03
Vendor SN:        A85371140423
Vendor date:      25.11.17
Vendor revision:  V02
DDM supported:    Yes
Temperature:      25.805 C
Voltage:          3.3204 V
Current:          6.854 mA
RX Power:         0.4519 mW / -3.4496 dBm
TX Power:         0.5046 mW / -2.9705 dBm
RX LOS:           No
TX Fault:         No
TX Disable:       No
Soft TX Disable:  No

Threshold parameters:
Temperature [C]
  Alarm High:     100
  Warning High:   95
  Warning Low:    -35
  Alarm Low:      -40
Voltage [V]
  Alarm High:     3.6000
  Warning High:   3.5000
  Warning Low:    2.9000
  Alarm Low:      2.8000
Current [mA]
  Alarm High:     15.0000
  Warning High:   13.0000
  Warning Low:    2.0000
  Alarm Low:      1.0000
RX Power [mW / dBm]
  Alarm High:     1.9953 mW / 3.0001 dBm
  Warning High:   1.0000 mW / 0.0000 dBm
  Warning Low:    0.0501 mW / -13.0016 dBm
  Alarm Low:      0.0251 mW / -16.0033 dBm
TX Power [mW / dBm]
  Alarm High:     1.2589 mW / 0.9999 dBm
  Warning High:   1.0000 mW / 0.0000 dBm
  Warning Low:    0.1995 mW / -7.0006 dBm
  Alarm Low:      0.1585 mW / -7.9997 dBm

Interface 'gil/0/2':
SFP present:      No

Interface 'gil/0/3':
SFP present:      No

```

```
Interface 'gi1/0/4':  
SFP present:      No  
  
esr-100#
```

Displaying the minimum SFP temperature without an alarm in °C

MIB:

ELTEX-GENERIC-MIB

OIDs used:

eltexSfpTemperatureLoAlarm - 1.3.6.1.4.1.35265.38.90.2.1.18

Data type in SNMP:

INTEGER (Hint: d-4)

SNMP command output:

```
snmpwalk -v2c -c 192.168.0.1 1.3.6.1.4.1.35265.38.90.2.1.18  
iso.3.6.1.4.1.35265.38.90.2.1.18.1 = INTEGER: -40
```

CLI command:

```

esr-100# show interfaces sfp
Interface 'gil/0/1':
SFP present:          Yes
Connector Type:      LC
Type:                SFP/SFP+/SFP28
Compliance code:    10G BASE-SR
Speed:              10G
Laser wavelength:   850 nm
Transfer distance:  80.00 m
Vendor OUI:         00:0B:40
Vendor name:        FANG HANG
Vendor PN:          FH-SP851TCDL03
Vendor SN:          A85371140423
Vendor date:        25.11.17
Vendor revision:    V02
DDM supported:      Yes
Temperature:        25.805 C
Voltage:            3.3204 V
Current:            6.854 mA
RX Power:           0.4519 mW / -3.4496 dBm
TX Power:           0.5046 mW / -2.9705 dBm
RX LOS:             No
TX Fault:           No
TX Disable:         No
Soft TX Disable:    No

Threshold parameters:
Temperature [C]
Alarm High:         100
Warning High:       95
Warning Low:        -35
Alarm Low:          -40
Voltage [V]
Alarm High:         3.6000
Warning High:       3.5000
Warning Low:        2.9000
Alarm Low:          2.8000
Current [mA]
Alarm High:         15.0000
Warning High:       13.0000
Warning Low:        2.0000
Alarm Low:          1.0000
RX Power [mW / dBm]
Alarm High:         1.9953 mW / 3.0001 dBm
Warning High:       1.0000 mW / 0.0000 dBm
Warning Low:        0.0501 mW / -13.0016 dBm
Alarm Low:          0.0251 mW / -16.0033 dBm
TX Power [mW / dBm]
Alarm High:         1.2589 mW / 0.9999 dBm
Warning High:       1.0000 mW / 0.0000 dBm
Warning Low:        0.1995 mW / -7.0006 dBm
Alarm Low:          0.1585 mW / -7.9997 dBm

Interface 'gil/0/2':
SFP present:        No

Interface 'gil/0/3':
SFP present:        No

```

```
Interface 'gi1/0/4':  
SFP present:      No  
  
esr-100#
```

Displaying the maximum SFP temperature without a warning in °C

MIB:

ELTEX-GENERIC-MIB

OIDs used:

eltexSfpTemperatureHiWarn - 1.3.6.1.4.1.35265.38.90.2.1.19

Data type in SNMP:

INTEGER (Hint: d-4)

SNMP command output:

```
snmpwalk -v2c -c 192.168.0.1 1.3.6.1.4.1.35265.38.90.2.1.19  
iso.3.6.1.4.1.35265.38.90.2.1.19.1 = INTEGER: 95
```

CLI command:

```

esr-100# show interfaces sfp
Interface 'gil/0/1':
SFP present:      Yes
Connector Type:   LC
Type:             SFP/SFP+/SFP28
Compliance code: 10G BASE-SR
Speed:           10G
Laser wavelength: 850 nm
Transfer distance: 80.00 m
Vendor OUI:       00:0B:40
Vendor name:      FANG HANG
Vendor PN:        FH-SP851TCDL03
Vendor SN:        A85371140423
Vendor date:      25.11.17
Vendor revision:  V02
DDM supported:    Yes
Temperature:      25.805 C
Voltage:          3.3204 V
Current:          6.854 mA
RX Power:         0.4519 mW / -3.4496 dBm
TX Power:         0.5046 mW / -2.9705 dBm
RX LOS:           No
TX Fault:         No
TX Disable:       No
Soft TX Disable:  No

Threshold parameters:
Temperature [C]
  Alarm High:     100
  Warning High:   95
  Warning Low:    -35
  Alarm Low:      -40
Voltage [V]
  Alarm High:     3.6000
  Warning High:   3.5000
  Warning Low:    2.9000
  Alarm Low:      2.8000
Current [mA]
  Alarm High:     15.0000
  Warning High:   13.0000
  Warning Low:    2.0000
  Alarm Low:      1.0000
RX Power [mW / dBm]
  Alarm High:     1.9953 mW / 3.0001 dBm
  Warning High:   1.0000 mW / 0.0000 dBm
  Warning Low:    0.0501 mW / -13.0016 dBm
  Alarm Low:      0.0251 mW / -16.0033 dBm
TX Power [mW / dBm]
  Alarm High:     1.2589 mW / 0.9999 dBm
  Warning High:   1.0000 mW / 0.0000 dBm
  Warning Low:    0.1995 mW / -7.0006 dBm
  Alarm Low:      0.1585 mW / -7.9997 dBm

Interface 'gil/0/2':
SFP present:      No

Interface 'gil/0/3':
SFP present:      No

```

```
Interface 'gi1/0/4':  
SFP present:      No  
  
esr-100#
```

Displaying the minimum SFP temperature without a warning in °C

MIB:

ELTEX-GENERIC-MIB

OIDs used:

eltexSfpTemperatureLoWarn - 1.3.6.1.4.1.35265.38.90.2.1.20

Data type in SNMP:

INTEGER (Hint: d-4)

SNMP command output:

```
snmpwalk -v2c -c 192.168.0.1 1.3.6.1.4.1.35265.38.90.2.1.20  
iso.3.6.1.4.1.35265.38.90.2.1.20.1 = INTEGER: -35
```

CLI command:

```

esr-100# show interfaces sfp
Interface 'gig1/0/1':
SFP present:      Yes
Connector Type:   LC
Type:             SFP/SFP+/SFP28
Compliance code:  10G BASE-SR
Speed:           10G
Laser wavelength: 850 nm
Transfer distance: 80.00 m
Vendor OUI:       00:0B:40
Vendor name:      FANG HANG
Vendor PN:        FH-SP851TCDL03
Vendor SN:        A85371140423
Vendor date:      25.11.17
Vendor revision:  V02
DDM supported:    Yes
Temperature:      25.805 C
Voltage:          3.3204 V
Current:          6.854 mA
RX Power:         0.4519 mW / -3.4496 dBm
TX Power:         0.5046 mW / -2.9705 dBm
RX LOS:           No
TX Fault:         No
TX Disable:       No
Soft TX Disable:  No

Threshold parameters:
Temperature [C]
Alarm High:       100
Warning High:     95
Warning Low:      -35
Alarm Low:        -40
Voltage [V]
Alarm High:       3.6000
Warning High:     3.5000
Warning Low:      2.9000
Alarm Low:        2.8000
Current [mA]
Alarm High:       15.0000
Warning High:     13.0000
Warning Low:      2.0000
Alarm Low:        1.0000
RX Power [mW / dBm]
Alarm High:       1.9953 mW / 3.0001 dBm
Warning High:     1.0000 mW / 0.0000 dBm
Warning Low:      0.0501 mW / -13.0016 dBm
Alarm Low:        0.0251 mW / -16.0033 dBm
TX Power [mW / dBm]
Alarm High:       1.2589 mW / 0.9999 dBm
Warning High:     1.0000 mW / 0.0000 dBm
Warning Low:      0.1995 mW / -7.0006 dBm
Alarm Low:        0.1585 mW / -7.9997 dBm

Interface 'gig1/0/2':
SFP present:      No

Interface 'gig1/0/3':
SFP present:      No

```

```
Interface 'gi1/0/4':  
SFP present:      No  
  
esr-100#
```

Displaying the maximum SFP current without an alarm in mA

MIB:

ELTEX-GENERIC-MIB

OIDs used:

eltexSfpCurrentHiAlarm - 1.3.6.1.4.1.35265.38.90.2.1.21

Data type in SNMP:

INTEGER (Hint: d-4)

SNMP command output:

```
snmpwalk -v2c -c 192.168.0.1 1.3.6.1.4.1.35265.38.90.2.1.21  
iso.3.6.1.4.1.35265.38.90.2.1.21.1 = INTEGER: 15.0000
```

CLI command:

```

esr-100# show interfaces sfp
Interface 'gil/0/1':
SFP present:      Yes
Connector Type:   LC
Type:             SFP/SFP+/SFP28
Compliance code: 10G BASE-SR
Speed:           10G
Laser wavelength: 850 nm
Transfer distance: 80.00 m
Vendor OUI:       00:0B:40
Vendor name:      FANG HANG
Vendor PN:        FH-SP851TCDL03
Vendor SN:        A85371140423
Vendor date:      25.11.17
Vendor revision:  V02
DDM supported:    Yes
Temperature:      25.805 C
Voltage:          3.3204 V
Current:          6.854 mA
RX Power:         0.4519 mW / -3.4496 dBm
TX Power:         0.5046 mW / -2.9705 dBm
RX LOS:           No
TX Fault:         No
TX Disable:       No
Soft TX Disable:  No

Threshold parameters:
Temperature [C]
  Alarm High:      100
  Warning High:    95
  Warning Low:     -35
  Alarm Low:       -40
Voltage [V]
  Alarm High:      3.6000
  Warning High:    3.5000
  Warning Low:     2.9000
  Alarm Low:       2.8000
Current [mA]
  Alarm High:      15.0000
  Warning High:    13.0000
  Warning Low:     2.0000
  Alarm Low:       1.0000
RX Power [mW / dBm]
  Alarm High:      1.9953 mW / 3.0001 dBm
  Warning High:    1.0000 mW / 0.0000 dBm
  Warning Low:     0.0501 mW / -13.0016 dBm
  Alarm Low:       0.0251 mW / -16.0033 dBm
TX Power [mW / dBm]
  Alarm High:      1.2589 mW / 0.9999 dBm
  Warning High:    1.0000 mW / 0.0000 dBm
  Warning Low:     0.1995 mW / -7.0006 dBm
  Alarm Low:       0.1585 mW / -7.9997 dBm

Interface 'gil/0/2':
SFP present:      No

Interface 'gil/0/3':
SFP present:      No

```

```
Interface 'gi1/0/4':  
SFP present:      No  
  
esr-100#
```

Displaying the minimum SFP current without an alarm in mA

MIB:

ELTEX-GENERIC-MIB

OIDs used:

eltexSfpCurrentLoAlarm - 1.3.6.1.4.1.35265.38.90.2.1.22

Data type in SNMP:

INTEGER (Hint: d-4)

SNMP command output:

```
snmpwalk -v2c -c 192.168.0.1 1.3.6.1.4.1.35265.38.90.2.1.22  
iso.3.6.1.4.1.35265.38.90.2.1.22.1 = INTEGER: 1.0000
```

CLI command:

```

esr-100# show interfaces sfp
Interface 'gig1/0/1':
SFP present:          Yes
Connector Type:      LC
Type:                SFP/SFP+/SFP28
Compliance code:    10G BASE-SR
Speed:              10G
Laser wavelength:   850 nm
Transfer distance:  80.00 m
Vendor OUI:         00:0B:40
Vendor name:        FANG HANG
Vendor PN:          FH-SP851TCDL03
Vendor SN:          A85371140423
Vendor date:        25.11.17
Vendor revision:    V02
DDM supported:      Yes
Temperature:        25.805 C
Voltage:            3.3204 V
Current:            6.854 mA
RX Power:           0.4519 mW / -3.4496 dBm
TX Power:           0.5046 mW / -2.9705 dBm
RX LOS:             No
TX Fault:           No
TX Disable:         No
Soft TX Disable:    No

Threshold parameters:
Temperature [C]
Alarm High:         100
Warning High:       95
Warning Low:        -35
Alarm Low:          -40
Voltage [V]
Alarm High:         3.6000
Warning High:       3.5000
Warning Low:        2.9000
Alarm Low:          2.8000
Current [mA]
Alarm High:         15.0000
Warning High:       13.0000
Warning Low:        2.0000
Alarm Low:          1.0000
RX Power [mW / dBm]
Alarm High:         1.9953 mW / 3.0001 dBm
Warning High:       1.0000 mW / 0.0000 dBm
Warning Low:        0.0501 mW / -13.0016 dBm
Alarm Low:          0.0251 mW / -16.0033 dBm
TX Power [mW / dBm]
Alarm High:         1.2589 mW / 0.9999 dBm
Warning High:       1.0000 mW / 0.0000 dBm
Warning Low:        0.1995 mW / -7.0006 dBm
Alarm Low:          0.1585 mW / -7.9997 dBm

Interface 'gig1/0/2':
SFP present:          No

Interface 'gig1/0/3':
SFP present:          No

```

```
Interface 'gi1/0/4':  
SFP present:      No  
  
esr-100#
```

Displaying the maximum SFP current without a warning in mA

MIB:

ELTEX-GENERIC-MIB

OIDs used:

eltexSfpCurrentHiWarn - 1.3.6.1.4.1.35265.38.90.2.1.23

Data type in SNMP:

INTEGER (Hint: d-4)

SNMP command output:

```
snmpwalk -v2c -c 192.168.0.1 1.3.6.1.4.1.35265.38.90.2.1.23  
iso.3.6.1.4.1.35265.38.90.2.1.23.1 = INTEGER: 13.0000
```

CLI command:

```

esr-100# show interfaces sfp
Interface 'gil/0/1':
SFP present:      Yes
Connector Type:   LC
Type:             SFP/SFP+/SFP28
Compliance code: 10G BASE-SR
Speed:           10G
Laser wavelength: 850 nm
Transfer distance: 80.00 m
Vendor OUI:       00:0B:40
Vendor name:      FANG HANG
Vendor PN:        FH-SP851TCDL03
Vendor SN:        A85371140423
Vendor date:      25.11.17
Vendor revision:  V02
DDM supported:    Yes
Temperature:      25.805 C
Voltage:          3.3204 V
Current:          6.854 mA
RX Power:         0.4519 mW / -3.4496 dBm
TX Power:         0.5046 mW / -2.9705 dBm
RX LOS:           No
TX Fault:         No
TX Disable:       No
Soft TX Disable:  No

Threshold parameters:
Temperature [C]
Alarm High:       100
Warning High:     95
Warning Low:      -35
Alarm Low:        -40
Voltage [V]
Alarm High:       3.6000
Warning High:     3.5000
Warning Low:      2.9000
Alarm Low:        2.8000
Current [mA]
Alarm High:       15.0000
Warning High:     13.0000
Warning Low:      2.0000
Alarm Low:        1.0000
RX Power [mW / dBm]
Alarm High:       1.9953 mW / 3.0001 dBm
Warning High:     1.0000 mW / 0.0000 dBm
Warning Low:      0.0501 mW / -13.0016 dBm
Alarm Low:        0.0251 mW / -16.0033 dBm
TX Power [mW / dBm]
Alarm High:       1.2589 mW / 0.9999 dBm
Warning High:     1.0000 mW / 0.0000 dBm
Warning Low:      0.1995 mW / -7.0006 dBm
Alarm Low:        0.1585 mW / -7.9997 dBm

Interface 'gil/0/2':
SFP present:      No

Interface 'gil/0/3':
SFP present:      No

```

```
Interface 'gi1/0/4':  
SFP present:      No  
  
esr-100#
```

Displaying the minimum SFP current without a warning in mA

MIB:

ELTEX-GENERIC-MIB

OIDs used:

eltexSfpCurrentLoWarn - 1.3.6.1.4.1.35265.38.90.2.1.24

Data type in SNMP:

INTEGER (Hint: d-4)

SNMP command output:

```
snmpwalk -v2c -c 192.168.0.1 1.3.6.1.4.1.35265.38.90.2.1.24  
iso.3.6.1.4.1.35265.38.90.2.1.24.1 = INTEGER: 2.0000
```

CLI command:

```

esr-100# show interfaces sfp
Interface 'gil/0/1':
SFP present:      Yes
Connector Type:   LC
Type:             SFP/SFP+/SFP28
Compliance code:  10G BASE-SR
Speed:           10G
Laser wavelength: 850 nm
Transfer distance: 80.00 m
Vendor OUI:       00:0B:40
Vendor name:      FANG HANG
Vendor PN:        FH-SP851TCDL03
Vendor SN:        A85371140423
Vendor date:      25.11.17
Vendor revision:  V02
DDM supported:    Yes
Temperature:      25.805 C
Voltage:          3.3204 V
Current:          6.854 mA
RX Power:         0.4519 mW / -3.4496 dBm
TX Power:         0.5046 mW / -2.9705 dBm
RX LOS:           No
TX Fault:         No
TX Disable:       No
Soft TX Disable:  No

Threshold parameters:
Temperature [C]
  Alarm High:     100
  Warning High:   95
  Warning Low:    -35
  Alarm Low:      -40
Voltage [V]
  Alarm High:     3.6000
  Warning High:   3.5000
  Warning Low:    2.9000
  Alarm Low:      2.8000
Current [mA]
  Alarm High:     15.0000
  Warning High:   13.0000
  Warning Low:    2.0000
  Alarm Low:      1.0000
RX Power [mW / dBm]
  Alarm High:     1.9953 mW / 3.0001 dBm
  Warning High:   1.0000 mW / 0.0000 dBm
  Warning Low:    0.0501 mW / -13.0016 dBm
  Alarm Low:      0.0251 mW / -16.0033 dBm
TX Power [mW / dBm]
  Alarm High:     1.2589 mW / 0.9999 dBm
  Warning High:   1.0000 mW / 0.0000 dBm
  Warning Low:    0.1995 mW / -7.0006 dBm
  Alarm Low:      0.1585 mW / -7.9997 dBm

Interface 'gil/0/2':
SFP present:      No

Interface 'gil/0/3':
SFP present:      No

```

```
Interface 'gi1/0/4':  
SFP present:      No  
  
esr-100#
```

Displaying the maximum SFP voltage without an alarm in volts

MIB:

ELTEX-GENERIC-MIB

OIDs used:

eltexSfpVoltageHiAlarm - 1.3.6.1.4.1.35265.38.90.2.1.25

Data type in SNMP:

INTEGER (Hint: d-4)

SNMP command output:

```
snmpwalk -v2c -c 192.168.0.1 1.3.6.1.4.1.35265.38.90.2.1.25  
iso.3.6.1.4.1.35265.38.90.2.1.25.1 = INTEGER: 3.6000
```

CLI command:

```

esr-100# show interfaces sfp
Interface 'gig1/0/1':
SFP present:          Yes
Connector Type:      LC
Type:                 SFP/SFP+/SFP28
Compliance code:     10G BASE-SR
Speed:               10G
Laser wavelength:    850 nm
Transfer distance:   80.00 m
Vendor OUI:          00:0B:40
Vendor name:         FANG HANG
Vendor PN:           FH-SP851TCDL03
Vendor SN:           A85371140423
Vendor date:         25.11.17
Vendor revision:     V02
DDM supported:       Yes
Temperature:         25.805 C
Voltage:              3.3204 V
Current:              6.854 mA
RX Power:             0.4519 mW / -3.4496 dBm
TX Power:             0.5046 mW / -2.9705 dBm
RX LOS:              No
TX Fault:            No
TX Disable:          No
Soft TX Disable:     No

Threshold parameters:
Temperature [C]
Alarm High:          100
Warning High:        95
Warning Low:         -35
Alarm Low:           -40
Voltage [V]
Alarm High:          3.6000
Warning High:        3.5000
Warning Low:         2.9000
Alarm Low:           2.8000
Current [mA]
Alarm High:          15.0000
Warning High:        13.0000
Warning Low:         2.0000
Alarm Low:           1.0000
RX Power [mW / dBm]
Alarm High:          1.9953 mW / 3.0001 dBm
Warning High:        1.0000 mW / 0.0000 dBm
Warning Low:         0.0501 mW / -13.0016 dBm
Alarm Low:           0.0251 mW / -16.0033 dBm
TX Power [mW / dBm]
Alarm High:          1.2589 mW / 0.9999 dBm
Warning High:        1.0000 mW / 0.0000 dBm
Warning Low:         0.1995 mW / -7.0006 dBm
Alarm Low:           0.1585 mW / -7.9997 dBm

Interface 'gig1/0/2':
SFP present:          No

Interface 'gig1/0/3':
SFP present:          No

```

```
Interface 'gi1/0/4':  
SFP present:      No  
  
esr-100#
```

Displaying the minimum SFP voltage without an alarm in volts

MIB:

ELTEX-GENERIC-MIB

OIDs used:

eltexSfpVoltageLoAlarm - 1.3.6.1.4.1.35265.38.90.2.1.26

Data type in SNMP:

INTEGER (Hint: d-4)

SNMP command output:

```
snmpwalk -v2c -c 192.168.0.1 1.3.6.1.4.1.35265.38.90.2.1.26  
iso.3.6.1.4.1.35265.38.90.2.1.26.1 = INTEGER: 2.8000
```

CLI command:

```

esr-100# show interfaces sfp
Interface 'gig1/0/1':
SFP present:      Yes
Connector Type:   LC
Type:             SFP/SFP+/SFP28
Compliance code: 10G BASE-SR
Speed:           10G
Laser wavelength: 850 nm
Transfer distance: 80.00 m
Vendor OUI:       00:0B:40
Vendor name:      FANG HANG
Vendor PN:        FH-SP851TCDL03
Vendor SN:        A85371140423
Vendor date:      25.11.17
Vendor revision:  V02
DDM supported:    Yes
Temperature:      25.805 C
Voltage:          3.3204 V
Current:          6.854 mA
RX Power:         0.4519 mW / -3.4496 dBm
TX Power:         0.5046 mW / -2.9705 dBm
RX LOS:           No
TX Fault:         No
TX Disable:       No
Soft TX Disable:  No

Threshold parameters:
Temperature [C]
Alarm High:       100
Warning High:     95
Warning Low:      -35
Alarm Low:        -40
Voltage [V]
Alarm High:       3.6000
Warning High:     3.5000
Warning Low:      2.9000
Alarm Low:        2.8000
Current [mA]
Alarm High:       15.0000
Warning High:     13.0000
Warning Low:      2.0000
Alarm Low:        1.0000
RX Power [mW / dBm]
Alarm High:       1.9953 mW / 3.0001 dBm
Warning High:     1.0000 mW / 0.0000 dBm
Warning Low:      0.0501 mW / -13.0016 dBm
Alarm Low:        0.0251 mW / -16.0033 dBm
TX Power [mW / dBm]
Alarm High:       1.2589 mW / 0.9999 dBm
Warning High:     1.0000 mW / 0.0000 dBm
Warning Low:      0.1995 mW / -7.0006 dBm
Alarm Low:        0.1585 mW / -7.9997 dBm

Interface 'gig1/0/2':
SFP present:      No

Interface 'gig1/0/3':
SFP present:      No

```

```
Interface 'gi1/0/4':  
  SFP present:      No  
  
esr-100#
```

Displaying the maximum SFP voltage without a warning in volts

MIB:

ELTEX-GENERIC-MIB

OIDs used:

eltexSfpVoltageHiWarn - 1.3.6.1.4.1.35265.38.90.2.1.27

Data type in SNMP:

INTEGER (Hint: d-4)

SNMP command output:

```
snmpwalk -v2c -c 192.168.0.1 1.3.6.1.4.1.35265.38.90.2.1.27  
iso.3.6.1.4.1.35265.38.90.2.1.27.1 = INTEGER: 3.5000
```

CLI command:

```

esr-100# show interfaces sfp
Interface 'gil/0/1':
SFP present:      Yes
Connector Type:   LC
Type:             SFP/SFP+/SFP28
Compliance code: 10G BASE-SR
Speed:           10G
Laser wavelength: 850 nm
Transfer distance: 80.00 m
Vendor OUI:       00:0B:40
Vendor name:      FANG HANG
Vendor PN:        FH-SP851TCDL03
Vendor SN:        A85371140423
Vendor date:      25.11.17
Vendor revision:  V02
DDM supported:    Yes
Temperature:      25.805 C
Voltage:          3.3204 V
Current:          6.854 mA
RX Power:         0.4519 mW / -3.4496 dBm
TX Power:         0.5046 mW / -2.9705 dBm
RX LOS:          No
TX Fault:         No
TX Disable:       No
Soft TX Disable:  No

Threshold parameters:
Temperature [C]
  Alarm High:     100
  Warning High:   95
  Warning Low:    -35
  Alarm Low:      -40
Voltage [V]
  Alarm High:     3.6000
  Warning High:   3.5000
  Warning Low:    2.9000
  Alarm Low:      2.8000
Current [mA]
  Alarm High:     15.0000
  Warning High:   13.0000
  Warning Low:    2.0000
  Alarm Low:      1.0000
RX Power [mW / dBm]
  Alarm High:     1.9953 mW / 3.0001 dBm
  Warning High:   1.0000 mW / 0.0000 dBm
  Warning Low:    0.0501 mW / -13.0016 dBm
  Alarm Low:      0.0251 mW / -16.0033 dBm
TX Power [mW / dBm]
  Alarm High:     1.2589 mW / 0.9999 dBm
  Warning High:   1.0000 mW / 0.0000 dBm
  Warning Low:    0.1995 mW / -7.0006 dBm
  Alarm Low:      0.1585 mW / -7.9997 dBm

Interface 'gil/0/2':
SFP present:      No

Interface 'gil/0/3':
SFP present:      No

```

```
Interface 'gi1/0/4':  
SFP present:      No  
  
esr-100#
```

Displaying the minimum SFP voltage without a warning in volts

MIB:

ELTEX-GENERIC-MIB

OIDs used:

eltexSfpVoltageLoWarn - 1.3.6.1.4.1.35265.38.90.2.1.28

Data type in SNMP:

INTEGER (Hint: d-4)

SNMP command output:

```
snmpwalk -v2c -c 192.168.0.1 1.3.6.1.4.1.35265.38.90.2.1.28  
iso.3.6.1.4.1.35265.38.90.2.1.28.1 = INTEGER: 2.9000
```

CLI command:

```

esr-100# show interfaces sfp
Interface 'gil/0/1':
SFP present:      Yes
Connector Type:   LC
Type:             SFP/SFP+/SFP28
Compliance code:  10G BASE-SR
Speed:           10G
Laser wavelength: 850 nm
Transfer distance: 80.00 m
Vendor OUI:       00:0B:40
Vendor name:      FANG HANG
Vendor PN:        FH-SP851TCDL03
Vendor SN:        A85371140423
Vendor date:      25.11.17
Vendor revision:  V02
DDM supported:    Yes
Temperature:      25.805 C
Voltage:          3.3204 V
Current:          6.854 mA
RX Power:         0.4519 mW / -3.4496 dBm
TX Power:         0.5046 mW / -2.9705 dBm
RX LOS:           No
TX Fault:         No
TX Disable:       No
Soft TX Disable:  No

Threshold parameters:
Temperature [C]
  Alarm High:     100
  Warning High:   95
  Warning Low:    -35
  Alarm Low:      -40
Voltage [V]
  Alarm High:     3.6000
  Warning High:   3.5000
  Warning Low:    2.9000
  Alarm Low:      2.8000
Current [mA]
  Alarm High:     15.0000
  Warning High:   13.0000
  Warning Low:    2.0000
  Alarm Low:      1.0000
RX Power [mW / dBm]
  Alarm High:     1.9953 mW / 3.0001 dBm
  Warning High:   1.0000 mW / 0.0000 dBm
  Warning Low:    0.0501 mW / -13.0016 dBm
  Alarm Low:      0.0251 mW / -16.0033 dBm
TX Power [mW / dBm]
  Alarm High:     1.2589 mW / 0.9999 dBm
  Warning High:   1.0000 mW / 0.0000 dBm
  Warning Low:    0.1995 mW / -7.0006 dBm
  Alarm Low:      0.1585 mW / -7.9997 dBm

Interface 'gil/0/2':
SFP present:      No

Interface 'gil/0/3':
SFP present:      No

```

```

Interface 'gi1/0/4':
 SFP present:      No
esr-100#

```

Aggregated interfaces monitoring

Displaying the aggregated interface mode

MIB:

CISCO-PORT-CHANNEL-MIB

OIDs used:

portChannelAdminChannelMode - 1.3.6.1.4.1.9.9.285.1.1.1.1.3 or portChanneOperChannelMode - 1.3.6.1.4.1.9.9.285.1.1.1.1.4

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:

1 - auto

2 - on

3 - off

4 - desirable

SNMP commands output:

```

Command for retrieving a table of values:
snmpwalk -v2c -c 192.168.0.1 1.3.6.1.4.1.9.9.285.1.1.1.1.3
iso.3.6.1.4.1.9.9.285.1.1.1.1.3.1 = INTEGER: 2
iso.3.6.1.4.1.9.9.285.1.1.1.1.3.2 = INTEGER: 1

Command for retrieving a specific value:
snmpget -v2c -c 192.168.0.1 1.3.6.1.4.1.9.9.285.1.1.1.1.3.1
iso.3.6.1.4.1.9.9.285.1.1.1.1.3.1 = INTEGER: 2

Command for retrieving a table of values:
snmpwalk -v2c -c 192.168.0.1 1.3.6.1.4.1.9.9.285.1.1.1.1.4
iso.3.6.1.4.1.9.9.285.1.1.1.1.4.1 = INTEGER: 2
iso.3.6.1.4.1.9.9.285.1.1.1.1.4.2 = INTEGER: 1

Command for retrieving a specific value:
snmpget -v2c -c 192.168.0.1 1.3.6.1.4.1.9.9.285.1.1.1.1.4.1
iso.3.6.1.4.1.9.9.285.1.1.1.1.4.1 = INTEGER: 2

```

CLI command:

```

esr-100# show running-config interfaces
interface port-channel 1
  ip firewall disable
  ip address 198.18.0.1/30
exit
interface port-channel 2
  ip firewall disable
  ip address 198.18.1.1/30
exit
interface gigabitethernet 1/0/1
  mode switchport
  channel-group 2 mode auto
exit
interface gigabitethernet 1/0/2
  ip firewall disable
  ip address 198.18.3.2/24
exit
interface gigabitethernet 1/0/3
  mode switchport
  channel-group 1 mode on
exit
interface gigabitethernet 1/0/4
  mode switchport
  channel-group 1 mode on
exit
esr-100#

```

Displaying interface indexes in an aggregated interface**MIB:**

CISCO-PORT-CHANNEL-MIB

OIDs used:

portChannelMemberList - 1.3.6.1.4.1.9.9.285.1.1.1.9

Data type in SNMP:

Hex-STRING

SNMP commands output:

```

Command for retrieving a table of values:
snmpwalk -v2c -c 192.168.0.1 1.3.6.1.4.1.9.9.285.1.1.1.9
iso.3.6.1.4.1.9.9.285.1.1.1.9.1 = Hex-STRING: 00 00 00 03 00 00 00 04
iso.3.6.1.4.1.9.9.285.1.1.1.9.2 = Hex-STRING: 00 00 00 01

Command for retrieving a specific value:
snmpget -v2c -c 192.168.0.1 1.3.6.1.4.1.9.9.285.1.1.1.9.1
iso.3.6.1.4.1.9.9.285.1.1.1.9.1 = Hex-STRING: 00 00 00 03 00 00 00 04

```

CLI command:

```

esr-100# show interfaces port-channel
Channels          Ports
-----
port-channel 1   gil/0/3-4
port-channel 2   gil/0/1
esr-100#

```

Displaying the status of a conceptual record of an aggregated interface**MIB:**

CISCO-PORT-CHANNEL-MIB

OIDs used:

portChannelRowStatus - 1.3.6.1.4.1.9.9.285.1.1.1.11

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:**1 - active****2 - notInService****3 - notReady****4 - createAndGo****5 - createAndWait****6 - destroy****SNMP commands output:**

```

Command for retrieving a table of values:
snmpwalk -v2c -c 192.168.0.1 1.3.6.1.4.1.9.9.285.1.1.1.11
iso.3.6.1.4.1.9.9.285.1.1.1.11.1 = INTEGER: 1
iso.3.6.1.4.1.9.9.285.1.1.1.11.2 = INTEGER: 1

Command for retrieving a specific value:
snmpget -v2c -c 192.168.0.1 1.3.6.1.4.1.9.9.285.1.1.1.11.1
iso.3.6.1.4.1.9.9.285.1.1.1.11.1 = INTEGER: 1

```

CLI command:

```

esr-100# show interfaces port-channel
Channels          Ports
-----
port-channel 1   gi1/0/3-4
port-channel 2   gi1/0/1
esr-100#

```

Displaying the availability of a load balancing mechanism for an aggregated interface**MIB:**

CISCO-PORT-CHANNEL-MIB

OIDs used:

portChannelMemberOperStatus - 1.3.6.1.4.1.9.9.285.1.1.1.1.12

Data type in SNMP:

Hex-STRING

Interpretation of values returned in SNMP:***00 00 00 01 - balancing enabled,******00 00 00 02 - balancing disabled*****SNMP command output:**

```

snmpwalk -v2c -c 192.168.0.1 1.3.6.1.4.1.9.9.285.1.1.1.1.12
iso.3.6.1.4.1.9.9.285.1.1.1.1.12.1 = Hex-STRING: 00 00 00 01 00 00 00 01

```

CLI command:

```

esr-100# show interfaces port-channel
load-balance: src-dst-mac
Channels          Ports
-----
port-channel 1   gi1/0/3-4
esr-100#

```


OIDs used:

eltexBridgeCandConfigRowStatus - 1.3.6.1.4.1.35265.38.80.5.1.2

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:

1 - active

2 - notInService

3 - notReady

4 - createAndGo

5 - createAndWait

6 - destroy

SNMP command output:

```
Command for retrieving a table of values:  
snmpwalk -v2c -c 192.168.0.1 1.3.6.1.4.1.35265.38.80.5.1.2  
iso.3.6.1.4.1.35265.38.80.5.1.2.1 = INTEGER: 1  
iso.3.6.1.4.1.35265.38.80.5.1.2.2 = INTEGER: 1  
  
Command for retrieving a specific value:  
snmpget -v2c -c 192.168.0.1 1.3.6.1.4.1.35265.38.80.5.1.2.1  
iso.3.6.1.4.1.35265.38.80.5.1.2.1 = INTEGER: 1
```

CLI command:

```

esr-100# show interfaces status
Interface          Admin  Link  MTU  MAC address  Last change
Mode
-----
state  state
-----
-----
gil/0/1            Up    Up    1500  cc:9d:a2:71:72:19  3 days, 22 hours, 56
routerport                                               minutes and 46 seconds
gil/0/2            Up    Up    1500  cc:9d:a2:71:72:1a  3 days, 22 hours, 56
routerport                                               minutes and 46 seconds
gil/0/3            Up    Up    1500  cc:9d:a2:71:72:1b  3 days, 22 hours, 56
routerport                                               minutes and 46 seconds
gil/0/4            Up    Up    1500  cc:9d:a2:71:72:1c  3 days, 22 hours, 56
routerport                                               minutes and 46 seconds
br1                Up    Down  1500  cc:9d:a2:71:72:18  5 minutes and 13 seconds
routerport
br2                Up    Down  1500  cc:9d:a2:71:72:18  5 minutes and 13 seconds
routerport
esr-100#

```

VRF monitoring**Displaying VRF on sub-interfaces****MIB:**

ELTEX-GENERIC-MIB

OIDs used:

eltexSubRunConfigVrfName - 1.3.6.1.4.1.35265.38.80.2.1.2

Data type in SNMP:

STRING

SNMP command output:

```

snmpwalk -v2c -c 192.168.0.1 1.3.6.1.4.1.35265.38.80.2.1.2
iso.3.6.1.4.1.35265.38.80.2.1.2.9.103.105.49.47.48.47.49.46.50 = STRING: "test_vrf"

```

CLI command:

```

esr-100# show ip vrf
Name                               Interfaces
-----
test_vrf                            gi1/0/1.2
esr-100#

```

Displaying VRF on a bridge**MIB:**

ELTEX-GENERIC-MIB

OIDs used:

eltexBridgeRunConfigVrfName - 1.3.6.1.4.1.35265.38.80.4.1.2

Data type in SNMP:

STRING

SNMP commands output:

```

Command for retrieving a table of values:
snmpwalk -v2c -c 192.168.0.1 1.3.6.1.4.1.35265.38.80.4.1.2
iso.3.6.1.4.1.35265.38.80.4.1.2.1 = STRING: "test_vrf"
iso.3.6.1.4.1.35265.38.80.4.1.2.2 = STRING: "test_vrf1"

Command for retrieving a specific value:
snmpget -v2c -c 192.168.0.1 1.3.6.1.4.1.35265.38.80.4.1.2.1
iso.3.6.1.4.1.35265.38.80.4.1.2.1 = STRING: "test_vrf"

```

CLI command:

```

esr-100# show ip vrf
Name                               Interfaces
-----
test_vrf                            br1
test_vrf1                            br2
esr-100#

```

Displaying a VRF description**MIB:**

ELTEX-GENERIC-MIB

OIDs used:

eltexVrfRunConfigDescr - 1.3.6.1.4.1.35265.38.85.1.1.2

Data type in SNMP:

STRING

SNMP command output:

```
snmpwalk -v2c -c 192.168.0.1 1.3.6.1.4.1.35265.38.85.1.1.2
iso.3.6.1.4.1.35265.38.85.1.1.2.8.116.101.115.116.95.118.114.102 = STRING: "testing_Vrf"
iso.3.6.1.4.1.35265.38.85.1.1.2.9.95.95.100.101.102.97.117.108.116 = ""
```

CLI command:

```
esr-100# show running-config vrf
ip vrf test_vrf
  description "testing_Vrf"
exit

esr-100#
```

Displaying the status of the VRF conceptual record**MIB:**

ELTEX-GENERIC-MIB

OIDs used:

eltexVrfCandConfigRowStatus - 1.3.6.1.4.1.35265.38.85.2.1.3

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:

1 - active

2 - notInService

3 - notReady

4 - createAndGo

5 - createAndWait

6 - destroy

SNMP command output:

```
snmpwalk -v2c -c 192.168.0.1 1.3.6.1.4.1.35265.38.85.2.1.3
iso.3.6.1.4.1.35265.38.85.2.1.3.8.116.101.115.116.95.118.114.102 = INTEGER: 1
iso.3.6.1.4.1.35265.38.85.2.1.3.9.95.95.100.101.102.97.117.108.116 = INTEGER: 1
```

CLI command:

```
esr-100# show ip vrf
Name                               Interfaces
-----
test_vrf                           br1
esr-100#
```

5 LLDP monitoring

- Displaying counters for transmitted LLDP frames on interfaces
- Displaying counters for discarded LLDP frames on interfaces
- Displaying counters for LLDP frames received with errors on interfaces
- Displaying counters for LLDP frames received on interfaces
- Displaying the counter of unrecognized LLDP TVL frames on interfaces
- Displaying the expired LLDP frame counter on interfaces
- Displaying the ID type of neighboring devices
- Displaying the ID of neighboring devices
- Displaying the ports ID type of neighboring devices
- Displaying the ports ID of neighboring devices
- Displaying the ports description of neighboring devices
- Displaying the system name of neighboring devices
- Displaying the system description of neighboring devices
- Displaying supported system features of neighboring devices
- Displaying available system features of neighboring devices
- Displaying device ID via LLDP
- Displaying device system name via LLDP
- Displaying device system description via LLDP
- Displaying supported system features of a device via LLDP
- Displaying available system features of a device via LLDP
- Displaying the device port ID type with LLDP configured
- Displaying the device port ID with LLDP configured
- Displaying the description of device ports with LLDP configured

Displaying counters for transmitted LLDP frames on interfaces

MIB:

LLDP-MIB

OIDs used:

lldpStatsTxPortFramesTotal - 1.0.8802.1.1.2.1.2.6.1.2

Data type in SNMP:

Counter32

SNMP commands output:

```
Command for retrieving a table of values:
snmpwalk -v2c -c 192.168.0.1 1.0.8802.1.1.2.1.2.6.1.2
iso.0.8802.1.1.2.1.2.6.1.2.1 = Counter32: 5
iso.0.8802.1.1.2.1.2.6.1.2.3 = Counter32: 6

Command for retrieving a specific value:
snmpget -v2c -c 192.168.0.1 1.0.8802.1.1.2.1.2.6.1.2.1
iso.0.8802.1.1.2.1.2.6.1.2.1 = Counter32: 5
```

CLI command:

```

esr-100# show lldp statistics
Interface    Transmitted    Received    Discarded    Unrecognized    Ageout    Inserted    Deleted
-----
gil/0/1      5              6           0            0              0         2          1
gil/0/3      6              7           0            0              0         0          0
esr-100#

```

Displaying counters for discarded LLDP frames on interfaces**MIB:**

LLDP-MIB

OIDs used:

lldpStatsRxPortFramesDiscardedTotal - 1.0.8802.1.1.2.1.2.7.1.2

Data type in SNMP:

Counter32

SNMP commands output:

```

Command for retrieving a table of values:
snmpwalk -v2c -c 192.168.0.1 1.0.8802.1.1.2.1.2.7.1.2
iso.0.8802.1.1.2.1.2.7.1.2.1 = Counter32: 0
iso.0.8802.1.1.2.1.2.7.1.2.3 = Counter32: 0

Command for retrieving a specific value:
snmpget -v2c -c 192.168.0.1 1.0.8802.1.1.2.1.2.7.1.2.1
iso.0.8802.1.1.2.1.2.7.1.2.1 = Counter32: 0

```

CLI command:

```

esr-100# show lldp statistics
Interface    Transmitted    Received    Discarded    Unrecognized    Ageout    Inserted    Deleted
-----
gil/0/1      5              6           0            0              0         2          1
gil/0/3      6              7           0            0              0         0          0
esr-100#

```

Displaying counters for LLDP frames received with errors on interfaces**MIB:**

LLDP-MIB

OIDs used:

lldpStatsRxPortFramesErrors - 1.0.8802.1.1.2.1.2.7.1.3

Data type in SNMP:

Counter32

SNMP commands output:

```

Command for retrieving a table of values:
snmpwalk -v2c -c 192.168.0.1 1.0.8802.1.1.2.1.2.7.1.3
iso.0.8802.1.1.2.1.2.7.1.3.1 = Counter32: 0
iso.0.8802.1.1.2.1.2.7.1.3.3 = Counter32: 0

Command for retrieving a specific value:
snmpget -v2c -c 192.168.0.1 1.0.8802.1.1.2.1.2.7.1.3.1
iso.0.8802.1.1.2.1.2.7.1.3.1 = Counter32: 0

```

CLI command:

```

esr-100# show lldp statistics
Interface      Transmitted   Received     Discarded    Unrecognized  Ageout    Inserted    Deleted
-----
gi1/0/1        5             6            0            0             0         2           1
gi1/0/3        6             7            0            0             0         0           0
esr-100#

```

Displaying counters for LLDP frames received on interfaces**MIB:**

LLDP-MIB

OIDs used:

lldpStatsRxPortFramesTotal - 1.0.8802.1.1.2.1.2.7.1.4

SNMP commands output:

```

Command for retrieving a table of values:
snmpwalk -v2c -c 192.168.0.1 1.0.8802.1.1.2.1.2.7.1.4
iso.0.8802.1.1.2.1.2.7.1.4.1 = Counter32: 0
iso.0.8802.1.1.2.1.2.7.1.4.3 = Counter32: 0

Command for retrieving a specific value:
snmpget -v2c -c 192.168.0.1 1.0.8802.1.1.2.1.2.7.1.4.1
iso.0.8802.1.1.2.1.2.7.1.4.1 = Counter32: 0

```

CLI command:

```

esr-100# show lldp statistics
Interface      Transmitted   Received   Discarded   Unrecognized   Ageout   Inserted   Deleted
-----
gil/0/1       5             6          0           0              0        2          1
gil/0/3       6             7          0           0              0        0          0
esr-100#

```

Displaying the counter of unrecognized LLDP TVL frames on interfaces**MIB:**

LLDP-MIB

OIDs used:

lldpStatsRxPortTLVsUnrecognizedTotal - 1.0.8802.1.1.2.1.2.7.1.6

SNMP commands output:

```

Command for retrieving a table of values:
snmpwalk -v2c -c 192.168.0.1 1.0.8802.1.1.2.1.2.7.1.6
iso.0.8802.1.1.2.1.2.7.1.6.1 = Counter32: 0
iso.0.8802.1.1.2.1.2.7.1.6.3 = Counter32: 0

Command for retrieving a specific value:
snmpget -v2c -c 192.168.0.1 1.0.8802.1.1.2.1.2.7.1.6.1
iso.0.8802.1.1.2.1.2.7.1.6.1 = Counter32: 0

```

CLI command:

```

esr-100# show lldp statistics
Interface      Transmitted   Received   Discarded   Unrecognized   Ageout   Inserted   Deleted
-----
gil/0/1       5             6          0           0              0        2          1
gil/0/3       6             7          0           0              0        0          0
esr-100#

```

Displaying the expired LLDP frame counter on interfaces**MIB:**

LLDP-MIB

OIDs used:

lldpStatsRxPortAgeoutsTotal - 1.0.8802.1.1.2.1.2.7.1.7

SNMP commands output:

```

Command for retrieving a table of values:
snmpwalk -v2c -c 192.168.0.1 1.0.8802.1.1.2.1.2.7.1.7
iso.0.8802.1.1.2.1.2.7.1.7.1 = Counter32: 0
iso.0.8802.1.1.2.1.2.7.1.7.3 = Counter32: 0

Command for retrieving a specific value:
snmpget -v2c -c 192.168.0.1 1.0.8802.1.1.2.1.2.7.1.7.1
iso.0.8802.1.1.2.1.2.7.1.7.1 = Counter32: 0

```

CLI command:

```

esr-100# show lldp statistics
Interface      Transmitted   Received     Discarded    Unrecognized  Ageout      Inserted     Deleted
-----
gi1/0/1       5             6            0            0             0           2            1
gi1/0/3       6             7            0            0             0           0            0
esr-100#

```

Displaying the ID type of neighboring devices**MIB:**

LLDP-MIB

OIDs used:

lldpRemChassisIdSubtype - 1.0.8802.1.1.2.1.4.1.1.4

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:**1 - chassisComponent****2 - interfaceAlias****3 - portComponent****4 - macAddress****5 - networkAddress****6 - interfaceName****7 - local****SNMP command output:**

```

snmpwalk -v2c -c public 192.168.0.1 1.0.8802.1.1.2.1.4.1.1.4
iso.0.8802.1.1.2.1.4.1.1.4.1390331.3.1 = INTEGER: 4

```

CLI command:

```

esr-100# show lldp neighbors
Local Interface      Chassis Id          Port info           System Name
-----
gi1/0/3             a8:f9:4b:ac:83:43  gi1/0/3            esr-100
esr-100#

```

Displaying the ID of neighboring devices**MIB:**

LLDP-MIB

OIDs used:

lldpRemChassisId - 1.0.8802.1.1.2.1.4.1.1.5

Data type in SNMP:

STRING

SNMP command output:

```

snmpwalk -v2c -c public 192.168.0.1 1.0.8802.1.1.2.1.4.1.1.5
iso.0.8802.1.1.2.1.4.1.1.5.1440434.3.1 = STRING: "a8:f9:4b:ac:83:43"

```

CLI command:

```

esr-100# show lldp neighbors
Local Interface      Chassis Id          Port info           System Name
-----
gi1/0/3             a8:f9:4b:ac:83:43  gi1/0/3            esr-100
esr-100#

```

Displaying the ports ID type of neighboring devices**MIB:**

LLDP-MIB

OIDs used:

lldpRemPortIdSubtype - 1.0.8802.1.1.2.1.4.1.1.6

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:

- 1 - chassisComponent
- 2 - interfaceAlias
- 3 - portComponent
- 4 - macAddress
- 5 - networkAddress
- 6 - interfaceName
- 7 - local

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.0.8802.1.1.2.1.4.1.1.6
iso.0.8802.1.1.2.1.4.1.1.6.1390331.3.1 = INTEGER: 7
```

CLI command:

```
esr-100# show lldp neighbors gigabitethernet 1/0/3
LLDP Neighbor Information:

Local Information:
  Index:          0
  Local Interface:  gil1/0/3

Neighbour Information:
  Chassis type:   mac
  Chassis ID:     a8:f9:4b:ac:83:43
  Port type:      local
  Port ID:        gil1/0/3
  Port description:
  Time to live:   120
  System name:    esr-100
  System description: Eltex Router ESR-100 1.23. build 3 (date 27/03/2024 time 21:13:26)
  System capabilities: bridge, router

esr-100#
```

Displaying the ports ID of neighboring devices**MIB:**

LLDP-MIB

OIDs used:

lldpRemPortId - 1.0.8802.1.1.2.1.4.1.1.7

Data type in SNMP:

STRING

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.0.8802.1.1.2.1.4.1.1.7
iso.0.8802.1.1.2.1.4.1.1.7.1440434.3.1 = STRING: "gi1/0/3"
```

CLI command:

```
esr-100# show lldp neighbors gigabitethernet 1/0/3
LLDP Neighbor Information:

Local Information:
  Index:          0
  Local Interface: gi1/0/3

Neighbour Information:
  Chassis type:   mac
  Chassis ID:     a8:f9:4b:ac:83:43
  Port type:      local
  Port ID:        gi1/0/3
  Port description:
  Time to live:   120
  System name:    esr-100
  System description: Eltex Router ESR-100 1.23. build 3 (date 27/03/2024 time 21:13:26)
  System capabilities: bridge, router

esr-100#
```

Displaying the ports description of neighboring devices**MIB:**

LLDP-MIB

OIDs used:

lldpRemPortDesc - 1.0.8802.1.1.2.1.4.1.1.8

Data type in SNMP:

STRING

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.0.8802.1.1.2.1.4.1.1.8
iso.0.8802.1.1.2.1.4.1.1.8.1440434.3.1 = STRING:
```

CLI command:

```
esr-100# show lldp neighbors gigabitethernet 1/0/3
LLDP Neighbor Information:

Local Information:
  Index:          0
  Local Interface:  gil1/0/3

Neighbour Information:
  Chassis type:   mac
  Chassis ID:    a8:f9:4b:ac:83:43
  Port type:     local
  Port ID:       gil1/0/3
  Port description:
  Time to live:  120
  System name:   esr-100
  System description:  Eltex Router ESR-100 1.23. build 3 (date 27/03/2024 time 21:13:26)
  System capabilities: bridge, router

esr-100#
```

Displaying the system name of neighboring devices**MIB:**

LLDP-MIB

OIDs used:

lldpRemSysName - 1.0.8802.1.1.2.1.4.1.1.9

Data type in SNMP:

STRING

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.0.8802.1.1.2.1.4.1.1.9
iso.0.8802.1.1.2.1.4.1.1.9.1440434.3.1 = STRING: esr-100
```

CLI command:

```
esr-100# show lldp neighbors gigabitethernet 1/0/3
LLDP Neighbor Information:

Local Information:
  Index:          0
  Local Interface:  gil1/0/3

Neighbour Information:
  Chassis type:   mac
  Chassis ID:     a8:f9:4b:ac:83:43
  Port type:      local
  Port ID:        gil1/0/3
  Port description:
  Time to live:   120
  System name:    esr-100
  System description:  Eltex Router ESR-100 1.23. build 3 (date 27/03/2024 time 21:13:26)
  System capabilities: bridge, router

esr-100#
```

Displaying the system description of neighboring devices**MIB:**

LLDP-MIB

OIDs used:

lldpRemSysDesc - 1.0.8802.1.1.2.1.4.1.1.10

Data type in SNMP:

STRING

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.0.8802.1.1.2.1.4.1.1.10
iso.0.8802.1.1.2.1.4.1.1.10.1440434.3.1 = STRING: Eltex Router ESR-100 1.23. build 3 (date
27/03/2024 time 21:13:26)
```

CLI command:

```

esr-100# show lldp neighbors gigabitethernet 1/0/3
LLDP Neighbor Information:

Local Information:
  Index:          0
  Local Interface:  gil1/0/3

Neighbour Information:
  Chassis type:   mac
  Chassis ID:    a8:f9:4b:ac:83:43
  Port type:     local
  Port ID:       gil1/0/3
  Port description:
  Time to live:  120
  System name:   esr-100
  System description: Eltex Router ESR-100 1.23. build 3 (date 27/03/2024 time 21:13:26)
  System capabilities: bridge, router

esr-100#

```

Displaying supported system features of neighboring devices**MIB:**

LLDP-MIB

OIDs used:

lldpRemSysCapSupported - 1.0.8802.1.1.2.1.4.1.1.12

Data type in SNMP:

Hex-STRING

Interpretation of values returned in SNMP:*0x80 - other**0x40 - repeater**0x20 - bridge**0x10 - wlanAccessPoint**0x8 - router**0x4 - telephone**0x2 - docsisCableDeivce**0x1 - stationOnly****The value in SNMP corresponds to two bytes in Hex-STRING, the sum of the device feature codes.******For example, for a device with router and bridge features, the value will be 28 00.***

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.0.8802.1.1.2.1.4.1.1.11
iso.0.8802.1.1.2.1.4.1.1.11.9651076.3.1 = Hex-STRING: 28 00
```

CLI command:

```
esr-100# show lldp neighbors gigabitethernet 1/0/3
LLDP Neighbor Information:

Local Information:
  Index:                0
  Local Interface:      gi1/0/3

Neighbour Information:
  Chassis type:         mac
  Chassis ID:           a8:f9:4b:ac:83:43
  Port type:            local
  Port ID:              gi1/0/3
  Port description:
  Time to live:         120
  System name:          esr-100
  System description:   Eltex Router ESR-100 1.23. build 3 (date 27/03/2024 time 21:13:26)
  System capabilities:  bridge, router

esr-100#
```

Displaying available system features of neighboring devices**MIB:**

LLDP-MIB

OIDs used:

lldpRemSysCapEnabled - 1.0.8802.1.1.2.1.4.1.1.12

Data type in SNMP:

Hex-STRING

Interpretation of values returned in SNMP:*0x80 - other**0x40 - repeater**0x20 - bridge**0x10 - wlanAccessPoint**0x8 - router**0x4 - telephone**0x2 - docsisCableDeivce*

0x1 - stationOnly

The value in SNMP corresponds to two bytes in Hex-STRING, the sum of the device feature codes.

For example, for a device with router and bridge features, the value will be 28 00.

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.0.8802.1.1.2.1.4.1.1.12
iso.0.8802.1.1.2.1.4.1.1.12.9651076.3.1 = Hex-STRING: 28 00
```

CLI command:

```
esr-100# show lldp neighbors gigabitethernet 1/0/3
LLDP Neighbor Information:

Local Information:
  Index:                0
  Local Interface:      gi1/0/3

Neighbour Information:
  Chassis type:         mac
  Chassis ID:           a8:f9:4b:ac:83:43
  Port type:            local
  Port ID:              gi1/0/3
  Port description:
  Time to live:         120
  System name:          esr-100
  System description:  Eltex Router ESR-100 1.23. build 3 (date 27/03/2024 time 21:13:26)
  System capabilities: bridge, router

esr-100#
```

Displaying device ID via LLDP**MIB:**

LLDP-MIB

OIDs used:

lldpLocChassisId - 1.0.8802.1.1.2.1.3.2

Data type in SNMP:

STRING

SNMP command output:

```
snmpget -v2c -c public 192.168.0.1 1.0.8802.1.1.2.1.3.2.0
iso.0.8802.1.1.2.1.3.2.0 = STRING: "a8:f9:4b:ab:9e:75"
```

CLI command:

```
esr-100# show system | include MAC
System MAC address:      A8:F9:4B:AB:9E:75
esr-100#
```

Displaying device system name via LLDP**MIB:**

LLDP-MIB

OIDs used:

lldpLocSysName - 1.0.8802.1.1.2.1.3.3

Data type in SNMP:

STRING

SNMP command output:

```
snmpget -v2c -c public 192.168.0.1 1.0.8802.1.1.2.1.3.3.0
iso.0.8802.1.1.2.1.3.3.0 = STRING: esr-100
```

CLI command:

```
esr-100# show system | include name
System name:             esr-100
esr-100#
```

Displaying device system description via LLDP**MIB:**

LLDP-MIB

OIDs used:

lldpLocSysDesc - 1.0.8802.1.1.2.1.3.4

Data type in SNMP:

STRING

SNMP command output:

```
snmpget -v2c -c public 192.168.0.1 1.0.8802.1.1.2.1.3.4.0
iso.0.8802.1.1.2.1.3.4.0 = STRING: Eltex Router ESR-100 1.23.3 build 3 (date 27/03/2024 time 21:13:26)
```

CLI command:

```
esr-100# show system | begin type | until version
System type:          Eltex ESR-100 Service Router
System name:          esr-100
Software version:     1.23.3 build 3[fbf03e1b9] (date 27/03/2024 time 21:13:26)
esr-100#
```

Displaying supported system features of a device via LLDP**MIB:**

LLDP-MIB

OIDs used:

lldpLocSysCapSupported - 1.0.8802.1.1.2.1.3.5

Data type in SNMP:

Hex-STRING

Interpretation of values returned in SNMP:*0x80 - other**0x40 - repeater**0x20 - bridge**0x10 - wlanAccessPoint**0x8 - router**0x4 - telephone**0x2 - docsisCableDeivce**0x1 - stationOnly****The value in SNMP corresponds to two bytes in Hex-STRING, the sum of the device feature codes.******For example, for a device with router and bridge features, the value will be 28 00.*****SNMP command output:**

```
snmpget -v2c -c public 192.168.0.1 1.0.8802.1.1.2.1.3.5.0
iso.0.8802.1.1.2.1.3.5.0 = Hex-STRING: 28 00
```

CLI command:

```
esr-100# show system | include type
System type:           Eltex ESR-100 Service Router
esr-100#
```

Displaying available system features of a device via LLDP**MIB:**

LLDP-MIB

OIDs used:

lldpLocSysCapEnabled - 1.0.8802.1.1.2.1.3.6

Data type in SNMP:

Hex-STRING

Interpretation of values returned in SNMP:*0x80 - other**0x40 - repeater**0x20 - bridge**0x10 - wlanAccessPoint**0x8 - router**0x4 - telephone**0x2 - docsisCableDeivce**0x1 - stationOnly****The value in SNMP corresponds to two bytes in Hex-STRING, the sum of the device feature codes.******For example, for a device with router and bridge features, the value will be 28 00.*****SNMP command output:**

```
snmpget -v2c -c public 192.168.0.1 1.0.8802.1.1.2.1.3.6.0
iso.0.8802.1.1.2.1.3.6.0 = Hex-STRING: 28 00
```

CLI command:

```
esr-100# show system | include type
System type:           Eltex ESR-100 Service Router
esr-100#
```

Displaying the device port ID type with LLDP configured

MIB:

LLDP-MIB

OIDs used:

lldpLocPortIdSubtype - 1.0.8802.1.1.2.1.3.7.1.2

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:

1 - chassisComponent

2 - interfaceAlias

3 - portComponent

4 - macAddress

5 - networkAddress

6 - interfaceName

7 - local

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.0.8802.1.1.2.1.3.7.1.2
iso.0.8802.1.1.2.1.3.7.1.2.3 = INTEGER: 5
```

CLI command:

```
esr-100# show lldp neighbors gigabitethernet 1/0/3
LLDP Neighbor Information:

Local Information:
  Index:          0
  Local Interface:  gi1/0/3

Neighbour Information:
  Chassis type:   mac
  Chassis ID:    a8:f9:4b:ac:83:43
  Port type:     local
  Port ID:       gi1/0/3
  Port description:
  Time to live:  120
  System name:   esr-100
  System description: Eltex Router ESR-100 1.23. build 3 (date 27/03/2024 time 21:13:26)
  System capabilities: bridge, router

esr-100#
```

Displaying the device port ID with LLDP configured

MIB:

LLDP-MIB

OIDs used:

lldpLocPortId - 1.0.8802.1.1.2.1.3.7.1.3

Data type in SNMP:

STRING

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.0.8802.1.1.2.1.3.7.1.3
iso.0.8802.1.1.2.1.3.7.1.3.3 = STRING: "gi1/0/3"
```

CLI command:

```
esr-100# show lldp neighbors gigabitethernet 1/0/3
LLDP Neighbor Information:

Local Information:
  Index:          0
  Local Interface: gi1/0/3

Neighbour Information:
  Chassis type:   mac
  Chassis ID:     a8:f9:4b:ac:83:43
  Port type:      local
  Port ID:        gi1/0/3
  Port description:
  Time to live:   120
  System name:    esr-100
  System description: Eltex Router ESR-100 1.23. build 3 (date 27/03/2024 time 21:13:26)
  System capabilities: bridge, router

esr-100#
```

Displaying the description of device ports with LLDP configured

MIB:

LLDP-MIB

OIDs used:

lldpLocPortDesc - 1.0.8802.1.1.2.1.3.7.1.4

Data type in SNMP:

STRING

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.0.8802.1.1.2.1.3.7.1.4
iso.0.8802.1.1.2.1.3.7.1.4.3 = STRING: "gigabitethernet 1/0/3"
```

CLI command:

```
esr-100# show lldp neighbors gigabitethernet 1/0/3
LLDP Neighbor Information:

Local Information:
  Index:                0
  Local Interface:      gi1/0/3

Neighbour Information:
  Chassis type:         mac
  Chassis ID:           a8:f9:4b:ac:83:43
  Port type:            local
  Port ID:              gi1/0/3
  Port description:
  Time to live:         120
  System name:          esr-100
  System description:   Eltex Router ESR-100 1.23. build 3 (date 27/03/2024 time 21:13:26)
  System capabilities:  bridge, router

esr-100#
```

6 IP monitoring

- [Displaying IP address source](#)
- [Displaying IP address status](#)
- [Displaying the status of the IP address conceptual record](#)
- [Displaying IP address type](#)

Displaying IP address source

MIB:

IP-MIB or ELTEX-IP-MIB

OIDs used:

ipAddressOrigin - 1.3.6.1.2.1.4.34.1.6 or eltexIpAddressOrigin - 1.3.6.1.4.1.35265.42.34.1.7

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:

1 - other

2 - manual

4 - dhcp

5 - linklayer

6 - random

SNMP commands output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.2.1.4.34.1.6
iso.3.6.1.2.1.4.34.1.6.1.4.192.168.0.1 = INTEGER: 2

snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.42.34.1.7
iso.3.6.1.4.1.35265.42.34.1.7.1.4.192.168.0.1.20.1 = INTEGER: 2
```

CLI command:

```
esr-100# show ip interfaces
IP address                               Interface           Admin  Link
Type
-----
192.168.0.1/24                            gi1/0/1            Up     Up
static
esr-100#
```

Displaying IP address status

MIB:

IP-MIB or ELTEX-IP-MIB

OIDs used:

ipAddressStatus - 1.3.6.1.2.1.4.34.1.7 or eltexIpAddressStatus - 1.3.6.1.4.1.35265.42.34.1.8

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:

1 - preferred

2 - deprecated

3 - invalid

4 - inaccessible

5 - unknown

6 - tentative

7 - duplicate

8 - optimistic

SNMP commands output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.2.1.4.34.1.7
iso.3.6.1.2.1.4.34.1.7.1.4.192.168.0.1 = INTEGER: 1

snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.42.34.1.8
iso.3.6.1.4.1.35265.42.34.1.8.1.4.192.168.0.1.20.1 = INTEGER: 1
```

CLI command:

```
esr-100# show ip interfaces
IP address          Interface          Admin  Link
Type
-----
-----
192.168.0.1/24     gi1/0/1           Up     Up
static
esr-100#
```

Displaying the status of the IP address conceptual record

MIB:

IP-MIB or ELTEX-IP-MIB

OIDs used:

ipAddressRowStatus - 1.3.6.1.2.1.4.34.1.10 or eltexIpAddressRowStatus - 1.3.6.1.4.1.35265.42.34.1.11

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:

1 - active

2 - notInService

3 - notReady

4 - createAndGo

5 - createAndWait

6 - destroy

SNMP commands output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.2.1.4.34.1.10
iso.3.6.1.2.1.4.34.1.10.1.4.192.168.0.1 = INTEGER: 1

snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.42.34.1.11
iso.3.6.1.4.1.35265.42.34.1.11.1.4.192.168.0.1.20.1 = INTEGER: 1
```

CLI command:

```
esr-100# show ip interfaces
IP address                               Interface           Admin   Link
Type                                     -----
-----
192.168.0.1/24                            gil/0/1             Up      Up
static
esr-100#
```

Displaying IP address type

MIB:

IP-MIB or ELTEX-IP-MIB

OIDs used:

ipAddressType - 1.3.6.1.2.1.4.34.1.4 or eltexIpAddressType - 1.3.6.1.4.1.35265.42.34.1.5

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:**1 - unicast****2 - anycast****3 - broadcast****4 - multicast****5 - unnumbered****SNMP commands output:**

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.2.1.4.34.1.4
iso.3.6.1.2.1.4.34.1.4.1.4.192.168.0.1 = INTEGER: 1


snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.42.34.1.5
iso.3.6.1.4.1.35265.42.34.1.5.1.4.192.168.0.1.20.1 = INTEGER: 1
```

CLI command:

```
esr-100# show ip interfaces
IP address                               Interface           Admin   Link
Type                                     -----
-----
192.168.0.1/24                            gi1/0/1              Up      Up
static
esr-100#
```

7 Tunnels monitoring

- [Displaying local gateway](#)
- [Displaying remote gateway](#)
- [Displaying tunnel type](#)
- [Displaying the IPv4 TTL/IPv6 Hop Limit value](#)
- [Displaying address type](#)
- [Displaying the DSCP value of tunnels](#)

 The values of the interface indexes are shown in [Table 2](#).

Displaying local gateway

MIB:

TUNNEL-MIB

Data type in SNMP:

IpAddress

OIDs used:

tunnelIfLocalAddress - 1.3.6.1.2.1.10.131.1.1.1.1.1

SNMP commands output:

```
Command for retrieving a table of values:
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.2.1.10.131.1.1.1.1
iso.3.6.1.2.1.10.131.1.1.1.1.1.18001 = IpAddress: 192.168.0.1
iso.3.6.1.2.1.10.131.1.1.1.1.1.28001 = IpAddress: 192.168.0.1

Command for retrieving a specific value:
snmpget -v2c -c public 192.168.0.1 1.3.6.1.2.1.10.131.1.1.1.1.18001
iso.3.6.1.2.1.10.131.1.1.1.1.1.18001 = IpAddress: 192.168.0.1
```

CLI command:

```
esr-100# show tunnels status
Tunnel          Admin  Link  MTU    Local IP      Remote IP      Last change
                state  state
-----
-----
gre 1           Up     Up     1500    192.168.0.1   192.168.0.2   6 minutes and 29
seconds
ip4ip4 1       Up     Up     1500    192.168.0.1   192.168.0.3   2 minutes and 27
seconds
esr-100#
```

Displaying remote gateway

MIB:

TUNNEL-MIB

OIDs used:

tunnelIfRemoteAddress - 1.3.6.1.2.1.10.131.1.1.1.1.2

Data type in SNMP:

IpAddress

SNMP commands output:

```
Command for retrieving a table of values:
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.2.1.10.131.1.1.1.1.2
iso.3.6.1.2.1.10.131.1.1.1.1.2.18001 = IpAddress: 192.168.0.3
iso.3.6.1.2.1.10.131.1.1.1.1.2.28001 = IpAddress: 192.168.0.2

Command for retrieving a specific value:
snmpget -v2c -c public 192.168.0.1 1.3.6.1.2.1.10.131.1.1.1.1.2.18001
iso.3.6.1.2.1.10.131.1.1.1.1.2.18001 = IpAddress: 192.168.0.3
```

CLI command:

```
esr-100# show tunnels status
Tunnel          Admin  Link   MTU    Local IP          Remote IP          Last change
                state  state
-----
gre 1           Up     Up     1500   192.168.0.1      192.168.0.2      6 minutes and 29
seconds
ip4ip4 1       Up     Up     1500   192.168.0.1      192.168.0.3      2 minutes and 27
seconds
esr-100#
```

Displaying tunnel type

MIB:

TUNNEL-MIB or ELTEX-GENERIC-MIB

OIDs used:

tunnelIfEncapsMethod - 1.3.6.1.2.1.10.131.1.1.1.1.3 or tunnelType - 1.3.6.1.4.1.35265.38.80.1.1.3

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:

- 1 - other
- 2 - direct
- 3 - gre
- 4 - minimal
- 5 - l2tp
- 6 - pptp
- 7 - l2f
- 8 - udp
- 9 - atmp
- 10 - msdp
- 11 - sixToFour
- 12 - sixOverFour
- 13 - isatap
- 14 - teredo
- 15 - ipHttps

SNMP commands output:

```

Command for retrieving a table of values:
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.2.1.10.131.1.1.1.3
iso.3.6.1.2.1.10.131.1.1.1.3.18001 = INTEGER: 2
iso.3.6.1.2.1.10.131.1.1.1.3.28001 = INTEGER: 3

Command for retrieving a specific value:
snmpget -v2c -c public 192.168.0.1 1.3.6.1.2.1.10.131.1.1.1.3.18001
iso.3.6.1.2.1.10.131.1.1.1.3.18001 = INTEGER: 2

Command for retrieving a table of values:
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.38.80.1.1.3
iso.3.6.1.4.1.35265.38.80.1.1.3.1 = INTEGER: 1
iso.3.6.1.4.1.35265.38.80.1.1.3.18 = INTEGER: 3
iso.3.6.1.4.1.35265.38.80.1.1.3.20 = INTEGER: 2

```

CLI command:

```

esr-100# show tunnels status
Tunnel           Admin  Link  MTU   Local IP           Remote IP           Last change
-----
state           state
-----
-----
gre 1            Up     Up    1500  192.168.0.1        192.168.0.2        6 minutes and 29
seconds
ip4ip4 1        Up     Up    1500  192.168.0.1        192.168.0.3        2 minutes and 27
seconds
esr-100#

```

Displaying the IPv4 TTL/IPv6 Hop Limit value

MIB:

TUNNEL-MIB

OIDs used:

tunnellfHopLimit - 1.3.6.1.2.1.10.131.1.1.1.1.4

Data type in SNMP:

INTEGER32 (0 | 1..255)

Interpretation of values returned in SNMP:

0 - Value is copied from the payload's header

1-255 - TTL

SNMP commands output:

Command for retrieving a table of values:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.2.1.10.131.1.1.1.1.4
iso.3.6.1.2.1.10.131.1.1.1.1.4.18001 = INTEGER: 0
iso.3.6.1.2.1.10.131.1.1.1.1.4.28001 = INTEGER: 0
```

Command for retrieving a specific value:

```
snmpget -v2c -c public 192.168.0.1 1.3.6.1.2.1.10.131.1.1.1.1.4.18001
iso.3.6.1.2.1.10.131.1.1.1.1.4.18001 = INTEGER: 0
```

CLI command:

```
esr-100# show tunnels configuration ip4ip4 1
State:                Enabled
Description:          --
Local address:        192.168.0.1
Remote address:       192.168.0.3
TTL:                  Inherit
DSCP:                 Inherit
MTU:                  1500
Security zone:        --
esr-100f#
```

Displaying address type

MIB:

TUNNEL-MIB

OIDs used:

tunnellfAddressType - 1.3.6.1.2.1.10.131.1.1.1.1.8

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:

0 - unknown

1 - ipv4

2 - ipv6

3 - ipv4z

4 - ipv6z

16 - dns

SNMP command output:

```
Command for retrieving a table of values:
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.2.1.10.131.1.1.1.1.8
iso.3.6.1.2.1.10.131.1.1.1.1.8.18001 = INTEGER: 1
iso.3.6.1.2.1.10.131.1.1.1.1.8.28001 = INTEGER: 1

Command for retrieving a specific value:
snmpget -v2c -c public 192.168.0.1 1.3.6.1.2.1.10.131.1.1.1.1.8.18001
iso.3.6.1.2.1.10.131.1.1.1.1.8.18001 = INTEGER: 1
```

CLI command:

```
esr-100# show tunnels status
Tunnel          Admin  Link  MTU   Local IP      Remote IP      Last change
-----          -
state          state
-----          -
-----          -
gre 1           Up     Up    1500  192.168.0.1   192.168.0.2   6 minutes and 29
seconds
ip4ip4 1       Up     Up    1500  192.168.0.1   192.168.0.3   2 minutes and 27
seconds
esr-100#
```

Displaying the value of DSCP tunnels**MIB:**

TUNNEL-MIB

OIDs used:

tunnellfTOS - 1.3.6.1.2.1.10.131.1.1.1.1.6

Data type in SNMP:

INTEGER32 (-2..63)

Interpretation of values returned in SNMP:*-2 - Traffic conditioner is invoked, more information may be available in conditioner MIB module**-1 - Value is copied from the payload's header**0..63 - DSCP***SNMP commands output:**

```
Command for retrieving a table of values:
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.2.1.10.131.1.1.1.1.6
iso.3.6.1.2.1.10.131.1.1.1.1.6.18001 = INTEGER: -1
iso.3.6.1.2.1.10.131.1.1.1.1.6.28001 = INTEGER: -1

Command for retrieving a specific value:
snmpget -v2c -c public 192.168.0.1 1.3.6.1.2.1.10.131.1.1.1.1.6.18001
iso.3.6.1.2.1.10.131.1.1.1.1.6.18001 = INTEGER: -1
```

CLI command:

```
esr-100# show tunnels configuration ip4ip4 1
State:                Enabled
Description:          --
Local address:        192.168.0.1
Remote address:       192.168.0.3
TTL:                  Inherit
DSCP:                 Inherit
MTU:                  1500
Security zone:        --
esr-100f#
```

8 QoS monitoring

- Displaying description of interfaces with QoS Policy
- Displaying QoS Policy name
- Displaying the counter of QoS Policy octets missing on interfaces
- Displaying the counter of QoS Policy packets missing on interfaces
- Displaying the description of an interface with a specific QoS Class on interfaces
- Displaying the QoS Class name on interfaces
- Displaying the QoS Policy QoS Class name on interfaces
- Displaying the counter of QoS Class octets missing on interfaces
- Displaying the counter of missing QoS Class packets
- Displaying the counter of dropped QoS Class octets

Displaying description of interfaces with QoS Policy

MIB:

ELTEX-QOS-MIB

OIDs used:

eltQosPolicyStatsifDescr - 1.3.6.1.4.1.35265.20.1.1.1.2

Data type in SNMP:

STRING

SNMP commands output:

```
Command for retrieving a table of values:  
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.20.1.1.1.2  
iso.3.6.1.4.1.35265.20.1.1.1.2.0 = STRING: "gigabitethernet 1/0/3"  
iso.3.6.1.4.1.35265.20.1.1.1.2.1 = STRING: "gigabitethernet 1/0/4"
```

```
Command for retrieving a specific value:  
snmpget -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.20.1.1.1.2.0  
iso.3.6.1.4.1.35265.20.1.1.1.2.0 = STRING: "gigabitethernet 1/0/3"
```

CLI command:

```

esr-100# show qos policy statistics
gigabitethernet 1/0/3

Policy-map: OUT
Parent policy: root
Parent class: root
157604 packets, 177777312 bytes, 142020 drops
8 second shaped rate: 3076720 bps, 341 pps

Class-map: OUT
110672 packets, 124838016 bytes, 90215 drops
8 second shaped rate: 0 bps, 0 pps
Match: access-group OUT
0 packets, 0 bytes
8 second rate: 0 bps, 0 pps
Match: dscp 10
76977 packets, 86830056 bytes
8 second rate: 0 bps, 0 pps

Class-map: class-default
46934 packets, 52941552 bytes, 51805 drops
8 second shaped rate: 0 bps, 0 pps

gigabitethernet 1/0/4

Policy-map: IN
Parent policy: root
Parent class: root
158401 packets, 178676328 bytes, 142922 drops
8 second shaped rate: 3238552 bps, 359 pps

Class-map: IN
110672 packets, 124838016 bytes, 90215 drops
8 second shaped rate: 0 bps, 0 pps
Match: access-group IN
0 packets, 0 bytes
8 second rate: 0 bps, 0 pps
Match: dscp 10
76977 packets, 86830056 bytes
8 second rate: 0 bps, 0 pps

Class-map: class-default
47730 packets, 53839440 bytes, 52708 drops
8 second shaped rate: 0 bps, 0 pps

```

Displaying QoS Policy name**MIB:**

ELTEX-QOS-MIB

OIDs used:

eltQosPolicyStatsPolicy - 1.3.6.1.4.1.35265.20.1.1.1.3

Data type in SNMP:

STRING

SNMP commands output:

```

Command for retrieving a table of values:
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.20.1.1.1.3
iso.3.6.1.4.1.35265.20.1.1.1.3.0 = STRING: "IN"
iso.3.6.1.4.1.35265.20.1.1.1.3.1 = STRING: "OUT"

Command for retrieving a specific value:
snmpget -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.20.1.1.1.3.0
iso.3.6.1.4.1.35265.20.1.1.1.3.0 = STRING: "IN"

```

CLI command:

```

esr-100# show qos policy statistics | include Policy-map
Policy-map: OUT
Policy-map: IN
esr-100#

```

Displaying the counter of QoS Policy octets missing on interfaces**MIB:**

ELTEX-QOS-MIB

OIDs used:

eltQosPolicyStatsBytes - 1.3.6.1.4.1.35265.20.1.1.1.4

Data type in SNMP:

Counter64

SNMP commands output:

```

Command for retrieving a table of values:
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.20.1.1.1.4
iso.3.6.1.4.1.35265.20.1.1.1.4.0 = Counter64: 177777312
iso.3.6.1.4.1.35265.20.1.1.1.4.1 = Counter64: 178676328

Command for retrieving a specific value:
snmpget -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.20.1.1.1.4.0
iso.3.6.1.4.1.35265.20.1.1.1.4.0 = Counter64: 177777312

```

CLI command:

```

esr-100# show qos policy statistics
gigabitethernet 1/0/3

Policy-map: OUT
Parent policy: root
Parent class: root
157604 packets, 177777312 bytes, 142020 drops
8 second shaped rate: 3076720 bps, 341 pps

Class-map: OUT
110672 packets, 124838016 bytes, 90215 drops
8 second shaped rate: 0 bps, 0 pps
Match: access-group OUT
0 packets, 0 bytes
8 second rate: 0 bps, 0 pps
Match: dscp 10
76977 packets, 86830056 bytes
8 second rate: 0 bps, 0 pps

Class-map: class-default
46934 packets, 52941552 bytes, 51805 drops
8 second shaped rate: 0 bps, 0 pps

gigabitethernet 1/0/4

Policy-map: IN
Parent policy: root
Parent class: root
158401 packets, 178676328 bytes, 142922 drops
8 second shaped rate: 3238552 bps, 359 pps

Class-map: IN
110672 packets, 124838016 bytes, 90215 drops
8 second shaped rate: 0 bps, 0 pps
Match: access-group IN
0 packets, 0 bytes
8 second rate: 0 bps, 0 pps
Match: dscp 10
76977 packets, 86830056 bytes
8 second rate: 0 bps, 0 pps

Class-map: class-default
47730 packets, 53839440 bytes, 52708 drops
8 second shaped rate: 0 bps, 0 pps

```

Displaying the counter of QoS Policy packets missing on interfaces**MIB:**

ELTEX-QOS-MIB

OIDs used:

eltQosPolicyStatsPkts - 1.3.6.1.4.1.35265.20.1.1.1.5

Data type in SNMP:

Counter64

SNMP commands output:

Command for retrieving a table of values:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.20.1.1.1.5
```

```
iso.3.6.1.4.1.35265.20.1.1.1.5.0 = Counter64: 157604
```

```
iso.3.6.1.4.1.35265.20.1.1.1.5.1 = Counter64: 158401
```

Command for retrieving a specific value:

```
snmpget -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.20.1.1.1.5.0
```

```
iso.3.6.1.4.1.35265.20.1.1.1.5.0 = Counter64: 157604
```

CLI command:

```

esr-100# show qos policy statistics
gigabitethernet 1/0/3

Policy-map: OUT
Parent policy: root
Parent class: root
157604 packets, 177777312 bytes, 142020 drops
8 second shaped rate: 3076720 bps, 341 pps

Class-map: OUT
110672 packets, 124838016 bytes, 90215 drops
8 second shaped rate: 0 bps, 0 pps
Match: access-group OUT
0 packets, 0 bytes
8 second rate: 0 bps, 0 pps
Match: dscp 10
76977 packets, 86830056 bytes
8 second rate: 0 bps, 0 pps

Class-map: class-default
46934 packets, 52941552 bytes, 51805 drops
8 second shaped rate: 0 bps, 0 pps

gigabitethernet 1/0/4

Policy-map: IN
Parent policy: root
Parent class: root
158401 packets, 178676328 bytes, 142922 drops
8 second shaped rate: 3238552 bps, 359 pps

Class-map: IN
110672 packets, 124838016 bytes, 90215 drops
8 second shaped rate: 0 bps, 0 pps
Match: access-group IN
0 packets, 0 bytes
8 second rate: 0 bps, 0 pps
Match: dscp 10
76977 packets, 86830056 bytes
8 second rate: 0 bps, 0 pps

Class-map: class-default
47730 packets, 53839440 bytes, 52708 drops
8 second shaped rate: 0 bps, 0 pps

```

Displaying the description of an interface with a specific QoS Class on interfaces**MIB:**

ELTEX-QOS-MIB

OIDs used:

eltQosClassStatsifDescr - 1.3.6.1.4.1.35265.20.2.1.1.2

Data type in SNMP:

STRING

SNMP commands output:

Command for retrieving a table of values:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.20.2.1.1.2  
iso.3.6.1.4.1.35265.20.2.1.1.2.0 = STRING: "gigabitethernet 1/0/3"  
iso.3.6.1.4.1.35265.20.2.1.1.2.1 = STRING: "gigabitethernet 1/0/3"  
iso.3.6.1.4.1.35265.20.2.1.1.2.2 = STRING: "gigabitethernet 1/0/4"  
iso.3.6.1.4.1.35265.20.2.1.1.2.3 = STRING: "gigabitethernet 1/0/4"
```

Command for retrieving a specific value:

```
snmpget -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.20.2.1.1.2.0  
iso.3.6.1.4.1.35265.20.2.1.1.2.0 = STRING: "gigabitethernet 1/0/3"
```

CLI command:

```

esr-100# show qos policy statistics
gigabitethernet 1/0/3

Policy-map: OUT
Parent policy: root
Parent class: root
157604 packets, 177777312 bytes, 142020 drops
8 second shaped rate: 3076720 bps, 341 pps

Class-map: OUT
110672 packets, 124838016 bytes, 90215 drops
8 second shaped rate: 0 bps, 0 pps
Match: access-group OUT
0 packets, 0 bytes
8 second rate: 0 bps, 0 pps
Match: dscp 10
76977 packets, 86830056 bytes
8 second rate: 0 bps, 0 pps

Class-map: class-default
46934 packets, 52941552 bytes, 51805 drops
8 second shaped rate: 0 bps, 0 pps

gigabitethernet 1/0/4

Policy-map: IN
Parent policy: root
Parent class: root
158401 packets, 178676328 bytes, 142922 drops
8 second shaped rate: 3238552 bps, 359 pps

Class-map: IN
110672 packets, 124838016 bytes, 90215 drops
8 second shaped rate: 0 bps, 0 pps
Match: access-group IN
0 packets, 0 bytes
8 second rate: 0 bps, 0 pps
Match: dscp 10
76977 packets, 86830056 bytes
8 second rate: 0 bps, 0 pps

Class-map: class-default
47730 packets, 53839440 bytes, 52708 drops
8 second shaped rate: 0 bps, 0 pps

```

Displaying the QoS Class name on interfaces**MIB:**

ELTEX-QOS-MIB

OIDs used:

eltQosClassStatsClass - 1.3.6.1.4.1.35265.20.2.1.1.3

Data type in SNMP:

STRING

SNMP commands output:

```

Command for retrieving a table of values:
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.20.2.1.1.3
iso.3.6.1.4.1.35265.20.2.1.1.3.0 = STRING: "class-default"
iso.3.6.1.4.1.35265.20.2.1.1.3.1 = STRING: "OUT"
iso.3.6.1.4.1.35265.20.2.1.1.3.2 = STRING: "class-default"
iso.3.6.1.4.1.35265.20.2.1.1.3.3 = STRING: "IN"

Command for retrieving a specific value:
snmpget -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.20.2.1.1.3.0
iso.3.6.1.4.1.35265.20.2.1.1.3.0 = STRING: "class-default"

```

CLI command:

```

esr-100# show qos policy statistics | include Class-map
Class-map: OUT
Class-map: class-default
Class-map: IN
Class-map: class-default
esr-100

```

Displaying the QoS Policy QoS Class name on interfaces**MIB:**

ELTEX-QOS-MIB

OIDs used:

eltQosClassStatsPolicy - 1.3.6.1.4.1.35265.20.2.1.1.4

Data type in SNMP:

STRING

SNMP command output:

```

Command for retrieving a table of values:
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.20.2.1.1.4
iso.3.6.1.4.1.35265.20.2.1.1.4.0 = STRING: "OUT"
iso.3.6.1.4.1.35265.20.2.1.1.4.1 = STRING: "OUT"
iso.3.6.1.4.1.35265.20.2.1.1.4.2 = STRING: "IN"
iso.3.6.1.4.1.35265.20.2.1.1.4.3 = STRING: "IN"

Command for retrieving a specific value:
snmpget -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.20.2.1.1.4.0
iso.3.6.1.4.1.35265.20.2.1.1.4.0 = STRING: "OUT"

```

CLI command:

```

esr-100# show qos policy statistics
gigabitethernet 1/0/3

Policy-map: OUT
Parent policy: root
Parent class: root
157604 packets, 177777312 bytes, 142020 drops
8 second shaped rate: 3076720 bps, 341 pps

Class-map: OUT
110672 packets, 124838016 bytes, 90215 drops
8 second shaped rate: 0 bps, 0 pps
Match: access-group OUT
0 packets, 0 bytes
8 second rate: 0 bps, 0 pps
Match: dscp 10
76977 packets, 86830056 bytes
8 second rate: 0 bps, 0 pps

Class-map: class-default
46934 packets, 52941552 bytes, 51805 drops
8 second shaped rate: 0 bps, 0 pps

gigabitethernet 1/0/4

Policy-map: IN
Parent policy: root
Parent class: root
158401 packets, 178676328 bytes, 142922 drops
8 second shaped rate: 3238552 bps, 359 pps

Class-map: IN
110672 packets, 124838016 bytes, 90215 drops
8 second shaped rate: 0 bps, 0 pps
Match: access-group IN
0 packets, 0 bytes
8 second rate: 0 bps, 0 pps
Match: dscp 10
76977 packets, 86830056 bytes
8 second rate: 0 bps, 0 pps

Class-map: class-default
47730 packets, 53839440 bytes, 52708 drops
8 second shaped rate: 0 bps, 0 pps

```

Displaying the counter of QoS Class octets missing on interfaces**MIB:**

ELTEX-QOS-MIB

OIDs used:

eltQosClassStatsBytes - 1.3.6.1.4.1.35265.20.2.1.1.5

Data type in SNMP:

Counter64

SNMP command output:

```
Command for retrieving a table of values:  
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.20.2.1.1.5  
iso.3.6.1.4.1.35265.20.2.1.1.5.0 = Counter64: 52941552  
iso.3.6.1.4.1.35265.20.2.1.1.5.1 = Counter64: 124838016  
iso.3.6.1.4.1.35265.20.2.1.1.5.2 = Counter64: 124838016  
iso.3.6.1.4.1.35265.20.2.1.1.5.3 = Counter64: 76977  
  
Command for retrieving a specific value:  
snmpget -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.20.2.1.1.5.0  
iso.3.6.1.4.1.35265.20.2.1.1.5.0 = Counter64: 52941552
```

CLI command:

```

esr-100# show qos policy statistics
gigabitethernet 1/0/3

Policy-map: OUT
Parent policy: root
Parent class: root
157604 packets, 177777312 bytes, 142020 drops
8 second shaped rate: 3076720 bps, 341 pps

Class-map: OUT
110672 packets, 124838016 bytes, 90215 drops
8 second shaped rate: 0 bps, 0 pps
Match: access-group test
0 packets, 0 bytes
8 second rate: 0 bps, 0 pps
Match: dscp 10
76977 packets, 86830056 bytes
8 second rate: 0 bps, 0 pps

Class-map: class-default
46934 packets, 52941552 bytes, 51805 drops
8 second shaped rate: 0 bps, 0 pps

gigabitethernet 1/0/4

Policy-map: IN
Parent policy: root
Parent class: root
158401 packets, 178676328 bytes, 142922 drops
8 second shaped rate: 3238552 bps, 359 pps

Class-map: IN
110672 packets, 124838016 bytes, 90215 drops
8 second shaped rate: 0 bps, 0 pps
Match: access-group test
0 packets, 0 bytes
8 second rate: 0 bps, 0 pps
Match: dscp 10
76977 packets, 86830056 bytes
8 second rate: 0 bps, 0 pps

Class-map: class-default
47730 packets, 53839440 bytes, 52708 drops
8 second shaped rate: 0 bps, 0 pps

```

Displaying the counter of missing QoS Class packets**MIB:**

ELTEX-QOS-MIB

OIDs used:

eltQosClassStatsPkts - 1.3.6.1.4.1.35265.20.2.1.1.6

Data type in SNMP:

Counter64

SNMP command output:

```
Command for retrieving a table of values:  
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.20.2.1.1.6  
iso.3.6.1.4.1.35265.20.2.1.1.6.0 = Counter64: 46934  
iso.3.6.1.4.1.35265.20.2.1.1.6.1 = Counter64: 110672  
iso.3.6.1.4.1.35265.20.2.1.1.6.2 = Counter64: 47730  
iso.3.6.1.4.1.35265.20.2.1.1.6.3 = Counter64: 110672  
  
Command for retrieving a specific value:  
snmpget -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.20.2.1.1.6.0  
iso.3.6.1.4.1.35265.20.2.1.1.6.0 = Counter64: 46934
```

CLI command:

```

esr-100# show qos policy statistics
gigabitethernet 1/0/3

Policy-map: OUT
Parent policy: root
Parent class: root
157604 packets, 177777312 bytes, 142020 drops
8 second shaped rate: 3076720 bps, 341 pps

Class-map: OUT
110672 packets, 124838016 bytes, 90215 drops
8 second shaped rate: 0 bps, 0 pps
Match: access-group test
0 packets, 0 bytes
8 second rate: 0 bps, 0 pps
Match: dscp 10
76977 packets, 86830056 bytes
8 second rate: 0 bps, 0 pps

Class-map: class-default
46934 packets, 52941552 bytes, 51805 drops
8 second shaped rate: 0 bps, 0 pps

gigabitethernet 1/0/4

Policy-map: IN
Parent policy: root
Parent class: root
158401 packets, 178676328 bytes, 142922 drops
8 second shaped rate: 3238552 bps, 359 pps

Class-map: IN
110672 packets, 124838016 bytes, 90215 drops
8 second shaped rate: 0 bps, 0 pps
Match: access-group test
0 packets, 0 bytes
8 second rate: 0 bps, 0 pps
Match: dscp 10
76977 packets, 86830056 bytes
8 second rate: 0 bps, 0 pps

Class-map: class-default
47730 packets, 53839440 bytes, 52708 drops
8 second shaped rate: 0 bps, 0 pps

```

Displaying the counter of dropped QoS Class octets**MIB:**

ELTEX-QOS-MIB

OIDs used:

eltQosClassStatsDropsBytes - 1.3.6.1.4.1.35265.20.2.1.1.8

Data type in SNMP:

Counter64

SNMP commands output:

```
Command for retrieving a table of values:  
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.20.2.1.1.8  
iso.3.6.1.4.1.35265.20.2.1.1.8.0 = Counter64: 51805  
iso.3.6.1.4.1.35265.20.2.1.1.8.1 = Counter64: 90215  
iso.3.6.1.4.1.35265.20.2.1.1.8.2 = Counter64: 52708  
iso.3.6.1.4.1.35265.20.2.1.1.8.3 = Counter64: 90215  
  
Command for retrieving a specific value:  
snmpget -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.20.2.1.1.8.0  
iso.3.6.1.4.1.35265.20.2.1.1.8.0 = Counter64: 46934
```

CLI command:

```
esr-100# show qos policy statistics
gigabitethernet 1/0/3

Policy-map: OUT
Parent policy: root
Parent class: root
157604 packets, 177777312 bytes, 142020 drops
8 second shaped rate: 3076720 bps, 341 pps

Class-map: OUT
110672 packets, 124838016 bytes, 90215 drops
8 second shaped rate: 0 bps, 0 pps
Match: access-group test
0 packets, 0 bytes
8 second rate: 0 bps, 0 pps
Match: dscp 10
76977 packets, 86830056 bytes
8 second rate: 0 bps, 0 pps

Class-map: class-default
46934 packets, 52941552 bytes, 51805 drops
8 second shaped rate: 0 bps, 0 pps

gigabitethernet 1/0/4

Policy-map: IN
Parent policy: root
Parent class: root
158401 packets, 178676328 bytes, 142922 drops
8 second shaped rate: 3238552 bps, 359 pps

Class-map: IN
110672 packets, 124838016 bytes, 90215 drops
8 second shaped rate: 0 bps, 0 pps
Match: access-group test
0 packets, 0 bytes
8 second rate: 0 bps, 0 pps
Match: dscp 10
76977 packets, 86830056 bytes
8 second rate: 0 bps, 0 pps

Class-map: class-default
47730 packets, 53839440 bytes, 52708 drops
8 second shaped rate: 0 bps, 0 pps
```

9 Dynamic routing monitoring

- OSPF monitoring
 - Displaying Router ID of the neighboring routers
 - Displaying priority of the neighboring routers
 - Displaying relationships with the neighboring routers
- BGP monitoring
 - Displaying the type of router IP addresses on which BGP is enabled
 - Displaying the router IP addresses on which BGP is enabled
 - Displaying Local AS on a router
 - Displaying the Router ID for BGP on a router
 - Displaying IP addresses of BGP neighbors
 - Displaying the connected AS of neighboring routers
 - Displaying Neighbor ID
 - Displaying the status of a BGP connection
 - Displaying Description of BGP neighbors
 - View time since last change in the status of a BGP session
 - Displaying the number of routes received from a BGP neighbor

OSPF monitoring

Displaying Router ID of the neighboring routers

MIB:

ELTEX-ESR-OSPF-MIB

OIDs used:

eltEsrOspfNbrRtrId - 1.3.6.1.4.1.35265.1.147.2.3.1.3.1.1.3

Data type in SNMP:

IpAddress

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.3.1.3.1.1.3
iso.3.6.1.4.1.35265.1.147.2.3.1.3.1.1.3.1.49.192.168.0.2 = IpAddress: 192.168.0.2
```

CLI command:

```
esr-100# show ip ospf neighbors
Router ID      Pri  State          DTime  Interface          Router IP
-----
192.168.0.2   128  Full/BDR       00:31  gi1/0/3            192.168.0.2
esr-100#
```

Displaying priority of the neighboring routers

MIB:

ELTEX-ESR-OSPF-MIB

OIDs used:

eltEsrOspfNbrPriority - 1.3.6.1.4.1.35265.1.147.2.3.1.3.1.1.5

Data type in SNMP:

INTEGER32 (1..255)

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.3.1.3.1.1.5
iso.3.6.1.4.1.35265.1.147.2.3.1.3.1.1.5.1.49.192.168.0.2 = INTEGER: 128
```

CLI command:

```
esr-100# show ip ospf neighbors
Router ID      Pri  State          DTime Interface          Router IP
-----
192.168.0.2    128  Full/BDR       00:31 gi1/0/3            192.168.0.2
esr-100#
```

Displaying relationships with the neighboring routers

MIB:

ELTEX-ESR-OSPF-MIB

OIDs used:

eltEsrOspfNbrState - 1.3.6.1.4.1.35265.1.147.2.3.1.3.1.1.6

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:

- 1 - down
- 2 - attempt
- 3 - init
- 4 - twoWay
- 5 - exchangeStart

6 - exchange

7 - loading

8 - full

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.3.1.3.1.1.6
iso.3.6.1.4.1.35265.1.147.2.3.1.3.1.1.6.1.49.192.168.0.2 = INTEGER: 8
```

CLI command:

```
esr-100# show ip ospf neighbors
Router ID      Pri State          DTime Interface          Router IP
-----
192.168.0.2    128 Full/BDR        00:31 gi1/0/3             192.168.0.2
esr-100#
```

BGP monitoring

Displaying the type of router IP addresses on which BGP is enabled

MIB:

ELTEX-ESR-BGP4V2-MIB

OIDs used:

eltEsrBgp4V2PeerLocalAddrType - 1.3.6.1.4.1.35265.1.147.2.4.1.3.1.1.4

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:

0 - unknown

1 - ipv4

2 - ipv6

3 - ipv4z

4 - ipv6z

16 - dns

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.4.1.3.1.1.4
iso.3.6.1.4.1.35265.1.147.2.4.1.3.1.1.4.1.49.1.4.192.168.0.2 = INTEGER: 1
```

CLI command:

```
esr-100# show bgp neighbors
BGP neighbor is 198.18.0.1
  BGP state:                Established
  Type:                      Static neighbor
  Neighbor address:         192.168.0.2
  Neighbor AS:              1
  Neighbor ID:              192.168.0.2
  Neighbor caps:            refresh enhanced-refresh restart-aware AS4
  Session:                  internal multihop AS4
  Source address:           192.168.0.1
  Weight:                   0
  Hold timer:               132/180
  Keepalive timer:         40/60
  Uptime:                   6 s
esr-100#
```

Displaying the router IP addresses on which BGP is enabled**MIB:**

ELTEX-ESR-BGP4V2-MIB

OIDs used:

eltEsrBgp4V2PeerLocalAddrStr - 1.3.6.1.4.1.35265.1.147.2.4.1.3.1.1.16

Data type in SNMP:

STRING

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.4.1.3.1.1.16
iso.3.6.1.4.1.35265.1.147.2.4.1.3.1.1.16.1.49.1.4.192.168.0.2 = STRING: "192.168.0.1"
```

CLI command:

```

esr-100# show bgp neighbors
BGP neighbor is 198.18.0.1
  BGP state:                Established
  Type:                      Static neighbor
  Neighbor address:          192.168.0.2
  Neighbor AS:                1
  Neighbor ID:                192.168.0.2
  Neighbor caps:              refresh enhanced-refresh restart-aware AS4
  Session:                    internal multihop AS4
  Source address:             192.168.0.1
  Weight:                     0
  Hold timer:                 132/180
  Keepalive timer:            40/60
  Uptime:                     6 s
esr-100#

```

Displaying Local AS on a router**MIB:**

ELTEX-ESR-BGP4V2-MIB

OIDs used:

eltEsrBgp4V2PeerLocalAs - 1.3.6.1.4.1.35265.1.147.2.4.1.3.1.1.7

Data type in SNMP:

Gauge32

SNMP command output:

```

snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.4.1.3.1.1.7
iso.3.6.1.4.1.35265.1.147.2.4.1.3.1.1.7.1.49.1.4.192.168.0.2 = Gauge32: 1

```

CLI command:

```

esr-100# show bgp summary
Mon Apr 08 07:52:25 2024
  BGP router identifier 192.168.0.1, local AS number 1
  BGP activity 0/0 prefixes
  Neighbor          AS              MsgRcvd      MsgSent      Up/Down      St/PfxRcd
  -----
  192.168.0.2      1                2            2            00:00:36    0
esr-100#

```

Displaying the Router ID for BGP on a router

MIB:

ELTEX-ESR-BGP4V2-MIB

OIDs used:

eltEsrBgp4V2PeerLocalIdentifier - 1.3.6.1.4.1.35265.1.147.2.4.1.3.1.1.8

Data type in SNMP:

IpAddress

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.4.1.3.1.1.8
iso.3.6.1.4.1.35265.1.147.2.4.1.3.1.1.8.1.49.1.4.192.168.0.2 = IpAddress: 192.168.0.1
```

CLI command:

```
esr-100# show bgp summary
Mon Apr 08 07:52:25 2024
  BGP router identifier 192.168.0.1, local AS number 1
  BGP activity 0/0 prefixes
Neighbor          AS              MsgRcvd      MsgSent      Up/Down      St/PfxRcd
-----
192.168.0.2      1                2            2            00:00:36    0
esr-100#
```

Displaying IP addresses of BGP neighbors

MIB:

ELTEX-ESR-BGP4V2-MIB

OIDs used:

eltEsrBgp4V2PeerRemoteAddrStr - 1.3.6.1.4.1.35265.1.147.2.4.1.3.1.1.15

Data type in SNMP:

STRING

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.4.1.3.1.1.15
iso.3.6.1.4.1.35265.1.147.2.4.1.3.1.1.15.1.49.1.4.192.168.0.2 = STRING: "192.168.0.2"
```

CLI command:

```

esr-100# show bgp summary
Mon Apr 08 07:52:25 2024
  BGP router identifier 192.168.0.1, local AS number 1
  BGP activity 0/0 prefixes
Neighbor                AS                MsgRcvd           MsgSent           Up/Down           St/PfxRcd
-----
192.168.0.2             1                  2                 2                 00:00:36          0
esr-100#

```

Displaying the connected AS of neighboring routers**MIB:**

ELTEX-ESR-BGP4V2-MIB

OIDs used:

eltEsrBgp4V2PeerRemoteAs - 1.3.6.1.4.1.35265.1.147.2.4.1.3.1.1.10

Data type in SNMP:

Gauge32

SNMP command output:

```

snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.4.1.3.1.1.10
iso.3.6.1.4.1.35265.1.147.2.4.1.3.1.1.10.1.49.1.4.192.168.0.2 = Gauge32: 1

```

CLI command:

```

esr-100# show bgp summary
Mon Apr 08 07:52:25 2024
  BGP router identifier 192.168.0.1, local AS number 1
  BGP activity 0/0 prefixes
Neighbor                AS                MsgRcvd           MsgSent           Up/Down           St/PfxRcd
-----
192.168.0.2             1                  2                 2                 00:00:36          0
esr-100#

```

Displaying Neighbor ID**MIB:**

ELTEX-ESR-BGP4V2-MIB

OIDs used:

eltEsrBgp4V2PeerRemoteIdentifier - 1.3.6.1.4.1.35265.1.147.2.4.1.3.1.1.11

Data type in SNMP:

IpAddress

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.4.1.3.1.1.11
iso.3.6.1.4.1.35265.1.147.2.4.1.3.1.1.11.1.49.1.4.192.168.0.2 = IpAddress: 192.168.0.2
```

CLI command:

```
esr-100# show bgp neighbors
BGP neighbor is 198.18.0.1
  BGP state:                Established
  Type:                     Static neighbor
  Neighbor address:         192.168.0.2
  Neighbor AS:              1
  Neighbor ID:              192.168.0.2
  Neighbor caps:            refresh enhanced-refresh restart-aware AS4
  Session:                  internal multihop AS4
  Source address:           192.168.0.1
  Weight:                   0
  Hold timer:               132/180
  Keepalive timer:         40/60
  Uptime:                   6 s
esr-100#
```

Displaying the status of a BGP connection**MIB:**

ELTEX-ESR-BGP4V2-MIB

OIDs used:

eltEsrBgp4V2PeerState - 1.3.6.1.4.1.35265.1.147.2.4.1.3.1.1.12

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:**1 - idle****2 - connect****3 - active****4 - opensent****5 - openconfir****6 - established**

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.4.1.3.1.1.12
iso.3.6.1.4.1.35265.1.147.2.4.1.3.1.1.12.1.49.1.4.192.168.0.2 = INTEGER: 6
```

CLI command:

```
esr-100# show bgp neighbors
BGP neighbor is 198.18.0.1
  BGP state:                Established
  Type:                     Static neighbor
  Neighbor address:         192.168.0.2
  Neighbor AS:              1
  Neighbor ID:              192.168.0.2
  Neighbor caps:            refresh enhanced-refresh restart-aware AS4
  Session:                  internal multihop AS4
  Source address:          192.168.0.1
  Weight:                   0
  Hold timer:               132/180
  Keepalive timer:         40/60
  Uptime:                   6 s
esr-100#
```

Displaying Description of BGP neighbors**MIB:**

ELTEX-ESR-BGP4V2-MIB

OIDs used:

eltEsrBgp4V2PeerDescription - 1.3.6.1.4.1.35265.1.147.2.4.1.3.1.1.13

Data type in SNMP:

STRING

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.4.1.3.1.1.12
iso.3.6.1.4.1.35265.1.147.2.4.1.3.1.1.12.1.49.1.4.192.168.0.2 = STRING: "BGP NEIGHBOR
DESCRIPTION"
```

CLI command:

```

esr-100# show bgp neighbors
BGP neighbor is 198.18.0.1
  Description:                BGP NEIGHBOR DESCRIPTION
  BGP state:                  Established
  Type:                       Static neighbor
  Neighbor address:          192.168.0.2
  Neighbor AS:               1
  Neighbor ID:               192.168.0.2
  Neighbor caps:             refresh enhanced-refresh restart-aware AS4
  Session:                   internal multihop AS4
  Source address:            192.168.0.1
  Weight:                    0
  Hold timer:                132/180
  Keepalive timer:          40/60
  Uptime:                    6 s
esr-100#

```

Displaying the time since last change in the status of a BGP session**MIB:**

ELTEX-ESR-BGP4V2-MIB

OIDs used:

eltEsrBgp4V2PeerLastStateChange - 1.3.6.1.4.1.35265.1.147.2.4.1.3.1.1.17

Data type in SNMP:

Gauge32

SNMP command output:

```

snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.4.1.3.1.1.17
iso.3.6.1.4.1.35265.1.147.2.4.1.3.1.1.17.1.49.1.4.192.168.0.2 = Gauge32: 68

```

CLI command:

```

esr-100# show bgp summary
Mon Apr 08 07:52:25 2024
  BGP router identifier 192.168.0.1, local AS number 1
  BGP activity 0/0 prefixes
  Neighbor          AS              MsgRcvd      MsgSent      Up/Down      St/PfxRcd
  -----
  192.168.0.2      1              2            2            00:01:08     98

```

Displaying the number of routes received from a BGP neighbor**MIB:**

ELTEX-ESR-BGP4V2-MIB

OIDs used:

eltEsrBgp4V2PeerImpRouteCount - 1.3.6.1.4.1.35265.1.147.2.4.1.3.1.1.18

Data type in SNMP:

Gauge32

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.4.1.3.1.1.17
iso.3.6.1.4.1.35265.1.147.2.4.1.3.1.1.18.1.49.1.4.192.168.0.2 = Gauge32: 98
```

CLI command:

```
esr-100# show bgp summary
Mon Apr 08 07:52:25 2024
  BGP router identifier 192.168.0.1, local AS number 1
  BGP activity 0/0 prefixes
Neighbor          AS              MsgRcvd      MsgSent      Up/Down      St/PfxRcd
-----
192.168.0.2      1                2            2            00:01:08     98
```

10 IP SLA monitoring

- Displaying the type of IP SLA tests
- Displaying the operational status of IP SLA tests
- Displaying the name of VRF IP SLA tests
- Displaying the type of Destination IP address for IP SLA tests
- Displaying Destination IP address of IP SLA tests
- Displaying the Destination port of IP SLA tests
- Displaying the type of Source IP address for IP SLA tests
- Displaying Source IP address of IP SLA tests
- Displaying the Source port of IP SLA tests
- Displaying the Source interface of IP SLA tests
- Displaying the Destination authentication port of IP SLA tests
- Displaying the Source authentication port of IP SLA tests
- Displaying authentication key input timeout (ms) for IP SLA tests
- Displaying TTL IP of SLA tests
- Displaying the authentication algorithm of IP SLA tests
- Displaying the set of authentication keys of IP SLA tests
- Displaying encrypted authentication keys of IP SLA tests
- Displaying an interval between IP SLA tests
- Displaying an interval between sending IP SLA test packets (ms)
- Displaying timeout for IP SLA tests (ms)
- Displaying the number of IP SLA test packets
- Displaying the size of IP SLA test packets
- Displaying DSCP IP SLA tests
- Displaying the History Records counter for IP SLA tests
- Displaying the counter of transmitted IP SLA test packets
- Displaying the counter of lost IP SLA test packets
- Displaying the counter of lost forward packets of IP SLA tests
- Displaying the counter of lost reverse packets of IP SLA tests
- Displaying the minimum delay of forward packets of IP SLA tests (in tens of nanoseconds in SNMP, milliseconds in CLI)
- Displaying the maximum delay of forward packets of IP SLA tests (in tens of nanoseconds in SNMP, milliseconds in CLI)
- Displaying the average delay of forward packets of IP SLA tests (in tens of nanoseconds in SNMP, milliseconds in CLI)
- Displaying the minimum delay of reverse packets of IP SLA tests (in tens of nanoseconds in SNMP, milliseconds in CLI)
- Displaying the maximum delay of reverse packets of IP SLA tests (in tens of nanoseconds in SNMP, milliseconds in CLI)
- Displaying the average delay of reverse packets of IP SLA tests (in tens of nanoseconds in SNMP, milliseconds in CLI)
- Displaying forward jitter of IP SLA tests (in tens of nanoseconds in SNMP, milliseconds in CLI)
- Displaying reverse jitter of IP SLA tests (in tens of nanoseconds in SNMP, milliseconds in CLI)
- Displaying the minimum round-trip delay of IP SLA tests (tens of nanoseconds in SNMP, milliseconds in CLI)
- Displaying the maximum round-trip delay of IP SLA tests (tens of nanoseconds in SNMP, milliseconds in CLI)
- Displaying the average round-trip delay of IP SLA tests (tens of nanoseconds in SNMP, milliseconds in CLI)
- Displaying the minimum round-trip jitter of IP SLA tests (tens of nanoseconds in SNMP, milliseconds in CLI)
- Displaying the maximum round-trip jitter of IP SLA tests (tens of nanoseconds in SNMP, milliseconds in CLI)
- Displaying the average round-trip jitter of IP SLA tests (tens of nanoseconds in SNMP, milliseconds in CLI)
- Displaying the duplicate packet counter for IP SLA tests
- Displaying forward packets outside of the queue of IP SLA tests
- Displaying reverse packets outside of the queue of IP SLA tests
- Displaying status of IP SLA tests

Displaying the type of IP SLA tests

MIB:

ELTEX-ESR-IPSLA-MIB

OIDs used:

eltEsrlpSlaRunConfTestType - 1.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.2

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:

1 - *udpJitter*

2 - *icmpEcho*

SNMP commands output:

```
Command for retrieving a table of values:
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.2
iso.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.2.1 = INTEGER: 1
iso.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.2.2 = INTEGER: 2

Command for retrieving a specific value:
snmpget -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.2.1
iso.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.2.1 = INTEGER: 1
```

CLI command:

```
esr-100# show ip sla test status
Test      Type           Source          Destination     Status          Last Run
-----  -
1         udp-jitter     192.168.0.1    192.168.0.2    Successful      1 second(s) ago
2         icmp-echo     192.168.0.1    192.168.0.3    Successful      3 second(s) ago
esr-100#
```

Displaying the operational status of IP SLA tests

MIB:

ELTEX-ESR-IPSLA-MIB

OIDs used:

eltEsrlpSlaRunConfTestEnable - 1.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.3

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:*1 - true**2 - false***SNMP commands output:**

Command for retrieving a table of values:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.3
iso.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.3.1 = INTEGER: 1
iso.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.3.2 = INTEGER: 1
```

Command for retrieving a specific value:

```
snmpget -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.3.1
iso.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.3.1 = INTEGER: 1
```

CLI command:

```
esr-100# show ip sla test configuration
Test      State      Source      Destination      Freq      Interval      Packets
Packet Size  Timeout
-----  -
1         Enabled    192.168.0.1  192.168.0.2     90        10           3
1500      500
2         Enabled    192.168.0.1  192.168.0.3     10        5            6
74
          3000
          esr-100#
```

Displaying the name of VRF IP SLA tests**MIB:**

ELTEX-ESR-IPSLA-MIB

OIDs used:

eltEsrlpSlaRunConfTestVrfName - 1.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.5

Data type in SNMP:

STRING

SNMP commands output:

```

Command for retrieving a table of values:
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.5
iso.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.5.1 = STRING: " default"
iso.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.5.2 = STRING: "test_vrf"

Command for retrieving a specific value:
snmpget -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.5.2
iso.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.5.1 = STRING: "test_vrf"

```

CLI command:

```

esr-100# show running-config sla
ip sla
ip sla test 1
  control-phase source-port 7777
  control-phase authentication algorithm sha-256
  control-phase authentication key-string ascii-text encrypted 8CB5107EA7005AFF
  udp-jitter 192.168.35.194 20001 source-ip 192.168.35.196 source-port 20001 num-packets 3
interval 10
  frequency 90
  packet-size 1500
  dscp 63
  timeout 500
  enable
exit
ip sla test 2
  vrf test_vrf
  icmp-echo 192.168.35.195 source-ip 192.168.35.196 num-packets 6 interval 5
  enable
exit
ip sla schedule 1 life forever start-time now
ip sla schedule 2 life forever start-time now

```

Displaying the type of Destination IP address for IP SLA tests**MIB:**

ELTEX-ESR-IPSLA-MIB

OIDs used:

eltEsrlpSlaRunConfTestDstAddressType - 1.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.6

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:*0 - unknown**1 - ipv4*

2 - ipv6**3 - ipv4z****4 - ipv6z****16 - dns****SNMP commands output:**

```
Command for retrieving a table of values:
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.6
iso.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.6.1 = INTEGER: 1
iso.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.6.2 = INTEGER: 1
```

```
Command for retrieving a specific value:
snmpget -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.6.1
iso.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.6.2 = INTEGER: 1
```

CLI command:

```
esr-100# show ip sla test status
Test      Type           Source           Destination      Status           Last Run
-----
-----
1         udp-jitter     192.168.0.1     192.168.0.2     Successful      1 second(s) ago
2         icmp-echo     192.168.0.1     192.168.0.3     Successful      3 second(s) ago
esr-100#
```

Displaying Destination IP address of IP SLA tests**MIB:**

ELTEX-ESR-IPSLA-MIB

OIDs used:

eltEsrlpSlaRunConfTestDstAddress - 1.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.7

Data type in SNMP:

Hex-STRING

SNMP commands output:

```
Command for retrieving a table of values:
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.7
iso.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.7.1 = Hex-STRING: C0 A8 00 02
iso.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.7.2 = Hex-STRING: C0 A8 00 03
```

```
Command for retrieving a specific value:
snmpget -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.7.1
iso.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.7.1 = Hex-STRING: C0 A8 00 02
```

CLI command:

```

esr-100# show ip sla test status
Test      Type           Source           Destination      Status           Last Run
-----
-----
1         udp-jitter     192.168.0.1     192.168.0.2     Successful      1 second(s) ago
2         icmp-echo     192.168.0.1     192.168.0.3     Successful      3 second(s) ago
esr-100#

```

Displaying the Destination port of IP SLA tests**MIB:**

ELTEX-ESR-IPSLA-MIB

OIDs used:

eltEsrlpSlaRunConfTestDstPort - 1.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.8

Data type in SNMP:

INTEGER

SNMP commands output:

```

Command for retrieving a table of values:
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.8
iso.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.8.1 = INTEGER: 20001
iso.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.8.2 = INTEGER: 0

Command for retrieving a specific value:
snmpget -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.8.1
iso.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.8.1 = INTEGER: 20001

```

CLI command:

```

esr-100# show ip sla test configuration 1

Test number:                1
Test type:                  udp-jitter
State:                      Enabled
Authentication:            Enabled
Destination address:        192.168.35.194
Destination port:          20001
Frequency:                  90
Interval:                   10
Number of packets:          3
Packet size:                1500
Source address:             192.168.35.196
Source interface:           --
Source port:                20001
DSCP:                       63
Control phase destination port: 1800
Control phase source port:  7777
Timeout:                    500
Number of history records:  10
esr-100#

```

Displaying the type of Source IP address for IP SLA tests**MIB:**

ELTEX-ESR-IPSLA-MIB

OIDs used:

eltEsrlpSlaRunConfTestSrcAddressType - 1.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.9

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:**0 - unknown****1 - ipv4****2 - ipv6****3 - ipv4z****4 - ipv6z****16 - dns**

SNMP commands output:

```

Command for retrieving a table of values:
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.9
iso.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.9.1 = INTEGER: 1
iso.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.9.2 = INTEGER: 1

Command for retrieving a specific value:
snmpget -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.9.1
iso.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.9.2 = INTEGER: 1

```

CLI command:

```

esr-100# show ip sla test status
Test      Type           Source          Destination     Status          Last Run
-----
-----
1         udp-jitter     192.168.0.1    192.168.0.2    Successful      1 second(s) ago
2         icmp-echo     192.168.0.1    192.168.0.3    Successful      3 second(s) ago
esr-100#

```

Displaying Source IP address of IP SLA tests**MIB:**

ELTEX-ESR-IPSLA-MIB

OIDs used:

eltEsrlpSlaRunConfTestSrcAddress - 1.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.10

Data type in SNMP:

Hex-STRING

SNMP commands output:

```

Command for retrieving a table of values:
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.10
iso.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.10.1 = Hex-STRING: C0 A8 00 01
iso.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.10.2 = Hex-STRING: C0 A8 00 01

Command for retrieving a specific value:
snmpget -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.10.1
iso.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.10.1 = Hex-STRING: C0 A8 00 01

```

CLI command:

```

esr-100# show ip sla test status
Test      Type           Source           Destination      Status           Last Run
-----
-----
1         udp-jitter     192.168.0.1     192.168.0.2     Successful      1 second(s) ago
2         icmp-echo     192.168.0.1     192.168.0.3     Successful      3 second(s) ago
esr-100#

```

Displaying the Source port of IP SLA tests**MIB:**

ELTEX-ESR-IPSLA-MIB

OIDs used:

eltEsrlpSlaRunConfTestSrcPort - 1.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.11

Data type in SNMP:

INTEGER

SNMP commands output:

```

Command for retrieving a table of values:
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.11
iso.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.11.1 = INTEGER: 20001
iso.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.11.2 = INTEGER: 0

Command for retrieving a specific value:
snmpget -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.11.1
iso.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.11.1 = INTEGER: 20001

```

CLI command:

```

esr-100# show ip sla test configuration 1

Test number:                1
Test type:                   udp-jitter
State:                       Enabled
Authentication:             Enabled
Destination address:         192.168.35.194
Destination port:            20001
Frequency:                   90
Interval:                    10
Number of packets:           3
Packet size:                 1500
Source address:              192.168.35.196
Source interface:            --
Source port:                 20001
DSCP:                        63
Control phase destination port: 1800
Control phase source port:   7777
Timeout:                     500
Number of history records:   10
esr-100#

```

Displaying the Source interface of IP SLA tests**MIB:**

ELTEX-ESR-IPSLA-MIB

OIDs used:

eltEsrlpSlaRunConfTestSrcIfaceIndex - 1.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.12

Data type in SNMP:

INTEGER32

SNMP commands output:

```

Command for retrieving a table of values:
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.12
iso.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.12.1 = INTEGER: 0
iso.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.12.2 = INTEGER: 0

Command for retrieving a specific value:
snmpget -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.12.1
iso.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.12.1 = INTEGER: 0

```

CLI command:

```

esr-100# show ip sla test configuration 1

Test number:                1
Test type:                  udp-jitter
State:                      Enabled
Authentication:            Enabled
Destination address:        192.168.35.194
Destination port:          20001
Frequency:                  90
Interval:                   10
Number of packets:         3
Packet size:                1500
Source address:             192.168.35.196
Source interface:          --
Source port:                20001
DSCP:                       63
Control phase destination port: 1800
Control phase source port:  7777
Timeout:                    500
Number of history records:  10
esr-100#

```

Displaying the Destination authentication port of IP SLA tests**MIB:**

ELTEX-ESR-IPSLA-MIB

OIDs used:

eltEsrlpSlaRunConfTestCtrlPhaseDstPort - 1.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.13

Data type in SNMP:

INTEGER

SNMP commands output:

```

Command for retrieving a table of values:
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.13
iso.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.13.1 = INTEGER: 1800
iso.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.13.2 = INTEGER: 1800

Command for retrieving a specific value:
snmpget -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.13.1
iso.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.13.1 = INTEGER: 1800

```

CLI command:

```

esr-100# show ip sla test configuration 1

Test number:                1
Test type:                  udp-jitter
State:                      Enabled
Authentication:            Enabled
Destination address:        192.168.35.194
Destination port:          20001
Frequency:                  90
Interval:                   10
Number of packets:         3
Packet size:                1500
Source address:             192.168.35.196
Source interface:          --
Source port:                20001
DSCP:                       63
Control phase destination port: 1800
Control phase source port:  7777
Timeout:                    500
Number of history records:  10
esr-100#

```

Displaying the Source authentication port of IP SLA tests**MIB:**

ELTEX-ESR-IPSLA-MIB

OIDs used:

eltEsrlpSlaRunConfTestCtrlPhaseSrcPort - 1.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.14

Data type in SNMP:

INTEGER

SNMP commands output:

```

Command for retrieving a table of values:
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.14
iso.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.14.1 = INTEGER: 7777
iso.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.14.2 = INTEGER: 0

Command for retrieving a specific value:
snmpget -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.14.1
iso.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.14.1 = INTEGER: 7777

```

CLI command:

```

esr-100# show ip sla test configuration 1

Test number:                1
Test type:                  udp-jitter
State:                      Enabled
Authentication:            Enabled
Destination address:        192.168.35.194
Destination port:          20001
Frequency:                  90
Interval:                   10
Number of packets:         3
Packet size:                1500
Source address:             192.168.35.196
Source interface:          --
Source port:                20001
DSCP:                       63
Control phase destination port: 1800
Control phase source port:  7777
Timeout:                    500
Number of history records:  10
esr-100#

```

Displaying authentication key input timeout (ms) for IP SLA tests**MIB:**

ELTEX-ESR-IPSLA-MIB

OIDs used:

eltEsrlpSlaRunConfTestCtrlPhaseTimeout - 1.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.15

Data type in SNMP:

Gauge32

SNMP commands output:

```

Command for retrieving a table of values:
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.15
iso.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.15.1 = Gauge32: 3000
iso.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.15.2 = Gauge32: 3000

Command for retrieving a specific value:
snmpget -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.15.1
iso.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.15.1 = Gauge32: 3000

```

CLI command:

```
esr-100# show running-config full sla | include "control-phase timeout"
    control-phase timeout 3000
    control-phase timeout 3000
esr-100#
```

Displaying TTL IP of SLA tests**MIB:**

ELTEX-ESR-IPSLA-MIB

OIDs used:

eltEsrlpSlaRunConfTestTTL - 1.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.26

Data type in SNMP:

INTEGER (0..255)

SNMP commands output:

```
Command for retrieving a table of values:
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.26
iso.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.26.1 = INTEGER: 64
iso.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.26.2 = INTEGER: 64

Command for retrieving a specific value:
snmpget -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.26.1
iso.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.26.1 = INTEGER: 64
```

CLI command:

```
esr-100# show running-config full sla | include ttl
    ttl 64
    ttl 64
esr-100#
```

Displaying the authentication algorithm of IP SLA tests**MIB:**

ELTEX-ESR-IPSLA-MIB

OIDs used:

eltEsrlpSlaRunConfTestCtrlPhaseAuthType - 1.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.16

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:*0 - none**1 - sha256**2 - hmacSha256***SNMP commands output:**

Command for retrieving a table of values:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.16
iso.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.16.1 = INTEGER: 1
iso.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.16.2 = INTEGER: 0
```

Command for retrieving a specific value:

```
snmpget -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.16.1
iso.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.16.1 = INTEGER: 1
```

CLI command:

```
esr-100# show running-config full sla | include "control-phase authentication algorithm"
  control-phase authentication algorithm sha-256
  no control-phase authentication algorithm
esr-100#
```

Displaying the set of authentication keys of IP SLA tests**MIB:**

ELTEX-ESR-IPSLA-MIB

OIDs used:

eltEsrlpSlaRunConfTestCtrlPhaseAuthKeyId - 1.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.17

Data type in SNMP:

INTEGER (-1..255)

Interpretation of values returned in SNMP:*-1, 0 - none**1..255 - key-id*

SNMP commands

Command for retrieving a table of values:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.17
iso.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.17.1 = INTEGER: 1
iso.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.17.2 = INTEGER: -1
```

Command for retrieving a specific value:

```
snmpget -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.17.1
iso.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.17.1 = INTEGER: 1
```

CLI command:

```
esr-100# show running-config sla
ip sla
ip sla test 1
  control-phase source-port 7777
  control-phase authentication algorithm sha-256
  control-phase authentication key-id 1
  udp-jitter 192.168.0.2 20001 source-ip 192.168.0.1 source-port 20001 num-packets 3 interval
10
  frequency 90
  packet-size 1500
  dscp 63
  timeout 500
  enable
exit
ip sla test 2
  icmp-echo 192.168.0.3 source-ip 192.168.0.1 num-packets 6 interval 5
  enable
exit
ip sla schedule 1 life forever start-time now
ip sla schedule 2 life forever start-time now
esr-100#
```

Displaying encrypted authentication keys of IP SLA tests

MIB:

ELTEX-ESR-IPSLA-MIB

OIDs used:

eltEsrlpSlaRunConfTestCtrlPhaseAuthKeyStrEncrypt - 1.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.18

Data type in SNMP:

STRING

SNMP commands

Command for retrieving a table of values:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.18
iso.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.18.1 = STRING: "8CB5107EA7005AFF"
iso.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.18.2 = STRING: ""
```

Command for retrieving a specific value:

```
snmpget -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.18.1
iso.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.18.1 = STRING: "8CB5107EA7005AFF"
```

CLI command:

```
esr-100# show running-config sla
ip sla
ip sla test 1
  control-phase source-port 7777
  control-phase authentication algorithm sha-256
  control-phase authentication key-string ascii-text encrypted 8CB5107EA7005AFF
  udp-jitter 192.168.0.2 20001 source-ip 192.168.0.1 source-port 20001 num-packets 3 interval
10
  frequency 90
  packet-size 1500
  dscp 63
  timeout 500
  enable
exit
ip sla test 2
  icmp-echo 192.168.0.3 source-ip 192.168.0.1 num-packets 6 interval 5
  enable
exit
ip sla schedule 1 life forever start-time now
ip sla schedule 2 life forever start-time now
esr-100#
```

Displaying an interval between IP SLA tests

MIB:

ELTEX-ESR-IPSLA-MIB

OIDs used:

eltEsrlpSlaRunConfTestFrequency - 1.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.19

Data type in SNMP:

INTEGER

CLI command:

```

esr-100# show ip sla test configuration
Test      State      Source      Destination  Freq  Interval  Packets
Packet Size  Timeout
-----
-----
-----
1         Enabled    192.168.0.1  192.168.0.2  90    10        3
1500      500
2         Enabled    192.168.0.1  192.168.0.3  10    5         6
74        3000
esr-100#

```

Displaying timeout for IP SLA tests (ms)**MIB:**

ELTEX-ESR-IPSLA-MIB

OIDs used:

eltEsrlpSlaRunConfTestTimeout - 1.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.21

Data type in SNMP:

Gauge32

SNMP commands output:

```

Command for retrieving a table of values:
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.21
iso.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.21.1 = Gauge32: 500
iso.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.21.2 = Gauge32: 3000

Command for retrieving a specific value:
snmpget -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.21.1
iso.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.21.1 = Gauge32: 500

```

CLI command:

```

esr-100# show ip sla test configuration
Test      State      Source      Destination  Freq  Interval  Packets
Packet Size  Timeout
-----
-----
-----
1         Enabled    192.168.0.1  192.168.0.2  90    10        3
1500      500
2         Enabled    192.168.0.1  192.168.0.3  10    5         6
74        3000
esr-100#

```

Displaying the number of IP SLA test packets

MIB:

ELTEX-ESR-IPSLA-MIB

OIDs used:

eltEsrlpSlaRunConfTestNumPackets - 1.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.22

Data type in SNMP:

INTEGER

SNMP commands output:

Command for retrieving a table of values:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.22
iso.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.22.1 = INTEGER: 3
iso.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.22.2 = INTEGER: 6
```

Command for retrieving a specific value:

```
snmpget -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.22.1
iso.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.22.1 = INTEGER: 3
```

CLI command:

```
esr-100# show ip sla test configuration
Test      State      Source      Destination      Freq      Interval      Packets
Packet Size  Timeout
-----  -
1         Enabled    192.168.0.1  192.168.0.2     90        10           3
1500      500
2         Enabled    192.168.0.1  192.168.0.3     10        5           6
74        3000
esr-100#
```

Displaying the size of IP SLA test packets

MIB:

ELTEX-ESR-IPSLA-MIB

OIDs used:

eltEsrlpSlaRunConfTestReqPacketSize - 1.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.23

Data type in SNMP:

INTEGER

SNMP commands output:

```
Command for retrieving a table of values:
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.23
iso.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.23.1 = INTEGER: 1500
iso.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.23.2 = INTEGER: 74
```

```
Command for retrieving a specific value:
snmpget -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.23.1
iso.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.23.1 = INTEGER: 1500
```

CLI command:

```
esr-100# show ip sla test configuration
Test      State      Source      Destination  Freq  Interval  Packets
Packet Size  Timeout
-----
-----
-----
1         Enabled    192.168.0.1  192.168.0.2   90    10        3
1500      500
2         Enabled    192.168.0.1  192.168.0.3   10    5         6
74        3000
esr-100#
```

Displaying DSCP IP SLA tests**MIB:**

ELTEX-ESR-IPSLA-MIB

OIDs used:

eltEsrlpSlaRunConfTestDSCP - 1.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.25

Data type in SNMP:

INTEGER

SNMP commands output:

```
Command for retrieving a table of values:
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.25
iso.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.25.1 = INTEGER: 63
iso.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.25.2 = INTEGER: 0
```

```
Command for retrieving a specific value:
snmpget -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.25.1
iso.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.25.1 = INTEGER: 63
```

CLI command:

```

esr-100# show ip sla test configuration 1

Test number:                1
Test type:                  udp-jitter
State:                      Enabled
Authentication:            Enabled
Destination address:        192.168.35.194
Destination port:          20001
Frequency:                  90
Interval:                   10
Number of packets:          3
Packet size:                1500
Source address:             192.168.35.196
Source interface:           --
Source port:                20001
DSCP:                       63
Control phase destination port: 1800
Control phase source port:  7777
Timeout:                    500
Number of history records:  10 esr-100#

```

Displaying the History Records counter for IP SLA tests**MIB:**

ELTEX-ESR-IPSLA-MIB

OIDs used:

eltEsrlpSlaRunConfTestRepHistoryCount - 1.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.27

Data type in SNMP:

INTEGER

SNMP commands output:

```

Command for retrieving a table of values:
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.27
iso.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.27.1 = INTEGER: 10
iso.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.27.2 = INTEGER: 10

Command for retrieving a specific value:
snmpget -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.27.1
iso.3.6.1.4.1.35265.1.147.2.2.1.2.4.1.27.1 = INTEGER: 10

```

CLI command:

```

esr-100# show ip sla test configuration 1

Test number:                1
Test type:                  udp-jitter
State:                      Enabled
Authentication:            Enabled
Destination address:        192.168.35.194
Destination port:          20001
Frequency:                  90
Interval:                   10
Number of packets:         3
Packet size:                1500
Source address:             192.168.35.196
Source interface:          --
Source port:                20001
DSCP:                       63
Control phase destination port: 1800
Control phase source port:  7777
Timeout:                    500
Number of history records:  10 esr-100#

```

Displaying the counter of transmitted IP SLA test packets**MIB:**

ELTEX-ESR-IPSLA-MIB

OIDs used:

eltEsrlpSlaStatTestTransmittedPackets - 1.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.2

Data type in SNMP:

Gauge32

SNMP commands output:

```

Command for retrieving a table of values:
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.2
iso.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.2.1 = Gauge32: 3
iso.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.2.2 = Gauge32: 6

Command for retrieving a specific value:
snmpget -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.2.1
iso.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.2.1 = Gauge32: 3

```


CLI command:

```

esr-100# show ip sla test statistics 1
Test number:                               1
Test status:                               Successful
Transmitted packets:                       3
Lost packets:                              0 (0.00%)
Lost packets in forward direction:         0 (0.00%)
Lost packets in reverse direction:         0 (0.00%)
One-way delay forward min/avg/max:        0.12/0.13/0.14 milliseconds
One-way delay reverse min/avg/max:        0.12/0.13/0.14 milliseconds
One-way jitter forward:                   0.01 milliseconds
One-way jitter reverse:                   0.01 milliseconds
Two-way delay min/avg/max:                0.24/0.26/0.28 milliseconds
Two-way jitter min/avg/max:               0.02/0.02/0.04 milliseconds
Duplicate packets:                         0
Out of sequence packets in forward direction: 0
Out of sequence packets in reverse direction: 0
esr-100#

```

Displaying the maximum delay of forward packets of IP SLA tests (in tens of nanoseconds in SNMP, milliseconds in CLI)**MIB:**

ELTEX-ESR-IPSLA-MIB

OIDs used:

eltEsrlpSlaStatTestOneWayDelayForwardMax - 1.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.7

Data type in SNMP:

Gauge32

SNMP commands output:

```

Command for retrieving a table of values:
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.7
iso.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.7.1 = Gauge32: 14148
iso.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.7.2 = Gauge32: 18013

Command for retrieving a specific value:
snmpget -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.7.1
iso.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.7.1 = Gauge32: 14148

```

CLI command:

```

esr-100# show ip sla test statistics 1
Test number:                               1
Test status:                               Successful
Transmitted packets:                       3
Lost packets:                              0 (0.00%)
Lost packets in forward direction:         0 (0.00%)
Lost packets in reverse direction:         0 (0.00%)
One-way delay forward min/avg/max:        0.12/0.13/0.14 milliseconds
One-way delay reverse min/avg/max:        0.12/0.13/0.14 milliseconds
One-way jitter forward:                   0.01 milliseconds
One-way jitter reverse:                   0.01 milliseconds
Two-way delay min/avg/max:                0.24/0.26/0.28 milliseconds
Two-way jitter min/avg/max:              0.02/0.02/0.04 milliseconds
Duplicate packets:                        0
Out of sequence packets in forward direction: 0
Out of sequence packets in reverse direction: 0
esr-100#

```

Displaying the average delay of forward packets of IP SLA tests (in tens of nanoseconds in SNMP, milliseconds in CLI)**MIB:**

ELTEX-ESR-IPSLA-MIB

OIDs used:

eltEsrlpSlaStatTestOneWayDelayForwardAvg - 1.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.8

Data type in SNMP:

Gauge32

SNMP commands output:

```

Command for retrieving a table of values:
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.8
iso.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.8.1 = Gauge32: 13141
iso.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.8.2 = Gauge32: 16481

Command for retrieving a specific value:
snmpget -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.8.1
iso.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.8.1 = Gauge32: 13141

```

CLI command:

```

esr-100# show ip sla test statistics 1
Test number:                               1
Test status:                               Successful
Transmitted packets:                       3
Lost packets:                              0 (0.00%)
Lost packets in forward direction:         0 (0.00%)
Lost packets in reverse direction:         0 (0.00%)
One-way delay forward min/avg/max:        0.12/0.13/0.14 milliseconds
One-way delay reverse min/avg/max:        0.12/0.13/0.14 milliseconds
One-way jitter forward:                   0.01 milliseconds
One-way jitter reverse:                   0.01 milliseconds
Two-way delay min/avg/max:                 0.24/0.26/0.28 milliseconds
Two-way jitter min/avg/max:               0.02/0.02/0.04 milliseconds
Duplicate packets:                         0
Out of sequence packets in forward direction: 0
Out of sequence packets in reverse direction: 0
esr-100#

```

Displaying the minimum delay of reverse packets of IP SLA tests (in tens of nanoseconds in SNMP, milliseconds in CLI)**MIB:**

ELTEX-ESR-IPSLA-MIB

OIDs used:

eltEsrlpSlaStatTestOneWayDelayReverseMin - 1.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.9

Data type in SNMP:

Gauge32

SNMP commands output:

```

Command for retrieving a table of values:
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.9
iso.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.9.1 = Gauge32: 11781
iso.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.9.2 = Gauge32: 13339

Command for retrieving a specific value:
snmpget -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.9.1
iso.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.9.1 = Gauge32: 11781

```

CLI command:

```

esr-100# show ip sla test statistics 1
Test number:                               1
Test status:                               Successful
Transmitted packets:                       3
Lost packets:                              0 (0.00%)
Lost packets in forward direction:         0 (0.00%)
Lost packets in reverse direction:         0 (0.00%)
One-way delay forward min/avg/max:         0.12/0.13/0.14 milliseconds
One-way delay reverse min/avg/max:         0.12/0.13/0.14 milliseconds
One-way jitter forward:                    0.01 milliseconds
One-way jitter reverse:                    0.01 milliseconds
Two-way delay min/avg/max:                  0.24/0.26/0.28 milliseconds
Two-way jitter min/avg/max:                 0.02/0.02/0.04 milliseconds
Duplicate packets:                          0
Out of sequence packets in forward direction: 0
Out of sequence packets in reverse direction: 0
esr-100#

```

Displaying the maximum delay of reverse packets of IP SLA tests (in tens of nanoseconds in SNMP, milliseconds in CLI)**MIB:**

ELTEX-ESR-IPSLA-MIB

OIDs used:

eltEsrlpSlaStatTestOneWayDelayReverseMax - 1.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.10

Data type in SNMP:

Gauge32

SNMP commands output:

```

Command for retrieving a table of values:
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.10
iso.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.10.1 = Gauge32: 14392
iso.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.10.2 = Gauge32: 16871

Command for retrieving a specific value:
snmpget -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.10.1
iso.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.10.1 = Gauge32: 14392

```

CLI command:

```

esr-100# show ip sla test statistics 1
Test number:                               1
Test status:                               Successful
Transmitted packets:                       3
Lost packets:                              0 (0.00%)
Lost packets in forward direction:         0 (0.00%)
Lost packets in reverse direction:         0 (0.00%)
One-way delay forward min/avg/max:         0.12/0.13/0.14 milliseconds
One-way delay reverse min/avg/max:         0.12/0.13/0.14 milliseconds
One-way jitter forward:                    0.01 milliseconds
One-way jitter reverse:                    0.01 milliseconds
Two-way delay min/avg/max:                  0.24/0.26/0.28 milliseconds
Two-way jitter min/avg/max:                 0.02/0.02/0.04 milliseconds
Duplicate packets:                          0
Out of sequence packets in forward direction: 0
Out of sequence packets in reverse direction: 0
esr-100#

```

Displaying the average delay of reverse packets of IP SLA tests (in tens of nanoseconds in SNMP, milliseconds in CLI)**MIB:**

ELTEX-ESR-IPSLA-MIB

OIDs used:

eltEsrlpSlaStatTestOneWayDelayReverseAvg - 1.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.11

Data type in SNMP:

Gauge32

SNMP commands output:

```

Command for retrieving a table of values:
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.11
iso.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.11.1 = Gauge32: 13011
iso.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.11.2 = Gauge32: 14503

Command for retrieving a specific value:
snmpget -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.11.1
iso.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.11.1 = Gauge32: 0

```

CLI command:

```

esr-100# show ip sla test statistics 1
Test number:                               1
Test status:                               Successful
Transmitted packets:                       3
Lost packets:                              0 (0.00%)
Lost packets in forward direction:         0 (0.00%)
Lost packets in reverse direction:         0 (0.00%)
One-way delay forward min/avg/max:         0.12/0.13/0.14 milliseconds
One-way delay reverse min/avg/max:         0.12/0.13/0.14 milliseconds
One-way jitter forward:                   0.01 milliseconds
One-way jitter reverse:                   0.01 milliseconds
Two-way delay min/avg/max:                 0.24/0.26/0.28 milliseconds
Two-way jitter min/avg/max:               0.02/0.02/0.04 milliseconds
Duplicate packets:                         0
Out of sequence packets in forward direction: 0
Out of sequence packets in reverse direction: 0
esr-100#

```

Displaying forward jitter of IP SLA tests (in tens of nanoseconds in SNMP, milliseconds in CLI)**MIB:**

ELTEX-ESR-IPSLA-MIB

OIDs used:

eltEsrlpSlaStatTestOneWayJitterForwardAvg - 1.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.14

Data type in SNMP:

Gauge32

SNMP commands output:

```

Command for retrieving a table of values:
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.14
iso.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.14.1 = Gauge32: 1449
iso.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.14.2 = Gauge32: 1603

Command for retrieving a specific value:
snmpget -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.14.1
iso.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.14.1 = Gauge32: 1449

```

CLI command:

```

esr-100# show ip sla test statistics 1
Test number:                               1
Test status:                               Successful
Transmitted packets:                       3
Lost packets:                              0 (0.00%)
Lost packets in forward direction:         0 (0.00%)
Lost packets in reverse direction:         0 (0.00%)
One-way delay forward min/avg/max:        0.12/0.13/0.14 milliseconds
One-way delay reverse min/avg/max:        0.12/0.13/0.14 milliseconds
One-way jitter forward:                   0.01 milliseconds
One-way jitter reverse:                   0.01 milliseconds
Two-way delay min/avg/max:                0.24/0.26/0.28 milliseconds
Two-way jitter min/avg/max:               0.02/0.02/0.04 milliseconds
Duplicate packets:                        0
Out of sequence packets in forward direction: 0
Out of sequence packets in reverse direction: 0
esr-100#

```

Displaying reverse jitter of IP SLA tests (in tens of nanoseconds in SNMP, milliseconds in CLI)**MIB:**

ELTEX-ESR-IPSLA-MIB

OIDs used:

eltEsrlpSlaStatTestOneWayJitterReverseAvg - 1.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.17

Data type in SNMP:

Gauge32

SNMP commands output:

```

Command for retrieving a table of values:
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.17
iso.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.17.1 = Gauge32: 1449
iso.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.17.2 = Gauge32: 1603

Command for retrieving a specific value:
snmpget -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.17.1
iso.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.17.1 = Gauge32: 1449

```

CLI command:

```

esr-100# show ip sla test statistics 1
Test number:                               1
Test status:                               Successful
Transmitted packets:                       3
Lost packets:                              0 (0.00%)
Lost packets in forward direction:         0 (0.00%)
Lost packets in reverse direction:         0 (0.00%)
One-way delay forward min/avg/max:         0.12/0.13/0.14 milliseconds
One-way delay reverse min/avg/max:         0.12/0.13/0.14 milliseconds
One-way jitter forward:                    0.01 milliseconds
One-way jitter reverse:                    0.01 milliseconds
Two-way delay min/avg/max:                 0.24/0.26/0.28 milliseconds
Two-way jitter min/avg/max:                0.02/0.02/0.04 milliseconds
Duplicate packets:                         0
Out of sequence packets in forward direction: 0
Out of sequence packets in reverse direction: 0
esr-100#

```

Displaying the minimum round-trip delay of IP SLA tests (tens of nanoseconds in SNMP, milliseconds in CLI)**MIB:**

ELTEX-ESR-IPSLA-MIB

OIDs used:

eltEsrlpSlaStatTestTwoWayDelayMin - 1.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.18

Data type in SNMP:

Gauge32

SNMP commands output:

```

Command for retrieving a table of values:
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.18
iso.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.18.1 = Gauge32: 23580
iso.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.18.2 = Gauge32: 25012

Command for retrieving a specific value:
snmpget -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.18.1
iso.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.18.1 = Gauge32: 23580

```

CLI command:

```

esr-100# show ip sla test statistics 1
Test number:                               1
Test status:                               Successful
Transmitted packets:                       3
Lost packets:                              0 (0.00%)
Lost packets in forward direction:         0 (0.00%)
Lost packets in reverse direction:         0 (0.00%)
One-way delay forward min/avg/max:        0.12/0.13/0.14 milliseconds
One-way delay reverse min/avg/max:        0.12/0.13/0.14 milliseconds
One-way jitter forward:                   0.01 milliseconds
One-way jitter reverse:                   0.01 milliseconds
Two-way delay min/avg/max:                0.24/0.26/0.28 milliseconds
Two-way jitter min/avg/max:               0.02/0.02/0.04 milliseconds
Duplicate packets:                         0
Out of sequence packets in forward direction: 0
Out of sequence packets in reverse direction: 0
esr-100#

```

Displaying the maximum round-trip delay of IP SLA tests (tens of nanoseconds in SNMP, milliseconds in CLI)**MIB:**

ELTEX-ESR-IPSLA-MIB

OIDs used:

eltEsrlpSlaStatTestTwoWayDelayMax - 1.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.19

Data type in SNMP:

Gauge32

SNMP commands output:

```

Command for retrieving a table of values:
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.19
iso.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.19.1 = Gauge32: 28148
iso.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.19.2 = Gauge32: 29492

Command for retrieving a specific value:
snmpget -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.19.1
iso.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.19.1 = Gauge32: 28148

```

CLI command:

```

esr-100# show ip sla test statistics 1
Test number:                               1
Test status:                               Successful
Transmitted packets:                       3
Lost packets:                              0 (0.00%)
Lost packets in forward direction:         0 (0.00%)
Lost packets in reverse direction:         0 (0.00%)
One-way delay forward min/avg/max:         0.12/0.13/0.14 milliseconds
One-way delay reverse min/avg/max:         0.12/0.13/0.14 milliseconds
One-way jitter forward:                    0.01 milliseconds
One-way jitter reverse:                    0.01 milliseconds
Two-way delay min/avg/max:                  0.24/0.26/0.28 milliseconds
Two-way jitter min/avg/max:                 0.02/0.02/0.04 milliseconds
Duplicate packets:                          0
Out of sequence packets in forward direction: 0
Out of sequence packets in reverse direction: 0
esr-100#

```

Displaying the average round-trip delay of IP SLA tests (tens of nanoseconds in SNMP, milliseconds in CLI)**MIB:**

ELTEX-ESR-IPSLA-MIB

OIDs used:

eltEsrlpSlaStatTestTwoWayDelayAvg - 1.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.20

Data type in SNMP:

Gauge32

SNMP commands output:

```

Command for retrieving a table of values:
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.20
iso.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.20.1 = Gauge32: 26201
iso.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.20.2 = Gauge32: 27771

Command for retrieving a specific value:
snmpget -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.20.1
iso.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.20.1 = Gauge32: 26201

```

CLI command:

```

esr-100# show ip sla test statistics 1
Test number:                               1
Test status:                               Successful
Transmitted packets:                       3
Lost packets:                              0 (0.00%)
Lost packets in forward direction:         0 (0.00%)
Lost packets in reverse direction:         0 (0.00%)
One-way delay forward min/avg/max:        0.12/0.13/0.14 milliseconds
One-way delay reverse min/avg/max:        0.12/0.13/0.14 milliseconds
One-way jitter forward:                   0.01 milliseconds
One-way jitter reverse:                   0.01 milliseconds
Two-way delay min/avg/max:                0.24/0.26/0.28 milliseconds
Two-way jitter min/avg/max:               0.02/0.02/0.04 milliseconds
Duplicate packets:                         0
Out of sequence packets in forward direction: 0
Out of sequence packets in reverse direction: 0
esr-100#

```

Displaying the minimum round-trip jitter of IP SLA tests (tens of nanoseconds in SNMP, milliseconds in CLI)**MIB:**

ELTEX-ESR-IPSLA-MIB

OIDs used:

eltEsrlpSlaStatTestTwoWayJitterMin - 1.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.21

Data type in SNMP:

Gauge32

SNMP commands output:

```

Command for retrieving a table of values:
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.21
iso.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.21.1 = Gauge32: 1692
iso.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.21.2 = Gauge32: 2331

Command for retrieving a specific value:
snmpget -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.21.1
iso.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.21.1 = Gauge32: 1692

```

CLI command:

```

esr-100# show ip sla test statistics 1
Test number:                               1
Test status:                               Successful
Transmitted packets:                       3
Lost packets:                              0 (0.00%)
Lost packets in forward direction:         0 (0.00%)
Lost packets in reverse direction:         0 (0.00%)
One-way delay forward min/avg/max:        0.12/0.13/0.14 milliseconds
One-way delay reverse min/avg/max:        0.12/0.13/0.14 milliseconds
One-way jitter forward:                   0.01 milliseconds
One-way jitter reverse:                   0.01 milliseconds
Two-way delay min/avg/max:                0.24/0.26/0.28 milliseconds
Two-way jitter min/avg/max:               0.02/0.02/0.04 milliseconds
Duplicate packets:                        0
Out of sequence packets in forward direction: 0
Out of sequence packets in reverse direction: 0
esr-100#

```

Displaying the maximum round-trip jitter of IP SLA tests (tens of nanoseconds in SNMP, milliseconds in CLI)**MIB:**

ELTEX-ESR-IPSLA-MIB

OIDs used:

eltEsrlpSlaStatTestTwoWayJitterMax - 1.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.22

Data type in SNMP:

Gauge32

SNMP commands output:

```

Command for retrieving a table of values:
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.22
iso.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.22.1 = Gauge32: 4429
iso.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.22.2 = Gauge32: 5629

Command for retrieving a specific value:
snmpget -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.22.1
iso.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.22.1 = Gauge32: 4429

```

CLI command:

```

esr-100# show ip sla test statistics 1
Test number:                               1
Test status:                               Successful
Transmitted packets:                       3
Lost packets:                              0 (0.00%)
Lost packets in forward direction:         0 (0.00%)
Lost packets in reverse direction:         0 (0.00%)
One-way delay forward min/avg/max:        0.12/0.13/0.14 milliseconds
One-way delay reverse min/avg/max:        0.12/0.13/0.14 milliseconds
One-way jitter forward:                   0.01 milliseconds
One-way jitter reverse:                   0.01 milliseconds
Two-way delay min/avg/max:                0.24/0.26/0.28 milliseconds
Two-way jitter min/avg/max:              0.02/0.02/0.04 milliseconds
Duplicate packets:                        0
Out of sequence packets in forward direction: 0
Out of sequence packets in reverse direction: 0
esr-100#

```

Displaying the average round-trip jitter of IP SLA tests (tens of nanoseconds in SNMP, milliseconds in CLI)**MIB:**

ELTEX-ESR-IPSLA-MIB

OIDs used:

eltEsrlpSlaStatTestTwoWayJitterAvg - 1.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.23

Data type in SNMP:

Gauge32

SNMP commands output:

```

Command for retrieving a table of values:
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.23
iso.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.23.1 = Gauge32: 2492
iso.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.23.2 = Gauge32: 3631

Command for retrieving a specific value:
snmpget -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.23.1
iso.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.23.1 = Gauge32: 2492

```

CLI command:

```

esr-100# show ip sla test statistics 1
Test number:                               1
Test status:                               Successful
Transmitted packets:                       3
Lost packets:                              0 (0.00%)
Lost packets in forward direction:         0 (0.00%)
Lost packets in reverse direction:         0 (0.00%)
One-way delay forward min/avg/max:         0.12/0.13/0.14 milliseconds
One-way delay reverse min/avg/max:         0.12/0.13/0.14 milliseconds
One-way jitter forward:                    0.01 milliseconds
One-way jitter reverse:                    0.01 milliseconds
Two-way delay min/avg/max:                  0.24/0.26/0.28 milliseconds
Two-way jitter min/avg/max:                 0.02/0.02/0.04 milliseconds
Duplicate packets:                          0
Out of sequence packets in forward direction: 0
Out of sequence packets in reverse direction: 0
esr-100#

```

Displaying the duplicate packet counter for IP SLA tests**MIB:**

ELTEX-ESR-IPSLA-MIB

OIDs used:

eltEsrlpSlaStatTestDuplicatePackets - 1.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.24

Data type in SNMP:

Gauge32

SNMP commands output:

```

Command for retrieving a table of values:
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.24
iso.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.24.1 = Gauge32: 0
iso.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.24.2 = Gauge32: 0

Command for retrieving a specific value:
snmpget -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.3.24
iso.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.24.1 = Gauge32: 0

```


Interpretation of values returned in SNMP:**0 - unknown****1 - fail****2 - succesful****SNMP commands output:**

Command for retrieving a table of values:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.27
iso.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.27.1 = INTEGER: 1
iso.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.27.2 = INTEGER: 1
```

Command for retrieving a specific value:

```
snmpget -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.27.1
iso.3.6.1.4.1.35265.1.147.2.2.1.3.1.1.27.1 = INTEGER: 0
```

CLI command:

```
esr-100# show ip sla test status
Test      Type           Source          Destination     Status          Last Run
-----  -
-----  -
-----  -
1         udp-jitter     192.168.0.1    192.168.0.2    Successful     1 second(s) ago
2         icmp-echo     192.168.0.1    192.168.0.3    Successful     3 second(s) ago
esr-100#
```

11 VRRP monitoring

- Displaying the VRRP configuration status
- Displaying the VRRP version
- Displaying VRRP ID
- Displaying VRRP Priority
- Displaying VRRP Timers advertise in seconds
- Displaying the VRRP Preempt shutdown status
- Displaying VRRP Preempt Delay in seconds
- Displaying VRRP Timers Arp Delay in seconds
- Displaying VRRP Timers Arp Repeat
- Displaying VRRP Timers Arp Refresh in seconds
- Displaying VRRP Timers Arp Refresh-Repeat
- Displaying VRRP authentication algorithm
- Displaying the encrypted VRRP authentication key
- Displaying Source-IP VRRP
- Displaying MAC addresses of virtual routers
- Displaying VRRP status

Displaying the VRRP configuration status

MIB:

ELTEX-VRRP-MIB

OIDs used:

eltexVrrpRunConfigEnabled - 1.3.6.1.4.1.35265.44.6.1.1.5

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:

1 - *true*

2 - *false*

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.44.6.1.1.5
iso.3.6.1.4.1.35265.44.6.1.1.5.1.9.95.95.100.101.102.97.117.108.116.1.3 = INTEGER: 1
```

CLI command:

```
esr-100# show vrrp
Virtual router      Virtual IP          Priority    Preemption    State
-----
1                  192.168.0.3/32    100        Enabled        Backup
esr-100#
```

Displaying the VRRP version

MIB:

ELTEX-VRRP-MIB

OIDs used:

eltexVrrpRunConfigVersion - 1.3.6.1.4.1.35265.44.6.1.1.6

Data type in SNMP:

INTEGER32 (2..3)

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.44.6.1.1.6
iso.3.6.1.4.1.35265.44.6.1.1.6.1.9.95.95.100.101.102.97.117.108.116.1.3 = INTEGER: 2
```

CLI command:

```
esr-100# show vrrp 1
VRRP ID: 1
VRRP Version: 2
Interface: gil/0/3
Priority: 100
State: Backup
Track ID: --
Source IP address: 192.168.0.1
Virtual IP address: 192.168.0.3/32
Virtual MAC address: 00:00:5e:00:01:01
Synchronization group ID: 1
Preemption: Enabled, preemption delay is 0 seconds
Advertisement interval: 1 seconds
Gratuitous ARP delay: 5 seconds
Gratuitous ARP repeat: 5 times
Gratuitous ARP refresh: 0 seconds
Gratuitous ARP refresh repeat: 1 times
esr-100#
```

Displaying VRRP ID

MIB:

ELTEX-VRRP-MIB

OIDs used:

eltexVrrpRunConfigSyncGroupId - 1.3.6.1.4.1.35265.44.6.1.1.7

Data type in SNMP:

INTEGER32 (0..32)

Interpretation of values returned in SNMP:*0 - none**1..32 - VRRP ID***SNMP command output:**

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.44.6.1.1.7
iso.3.6.1.4.1.35265.44.6.1.1.7.1.9.95.95.100.101.102.97.117.108.116.1.3 = INTEGER: 1
```

CLI command:

```
esr-100# show vrrp
Virtual router      Virtual IP          Priority    Preemption    State
-----
1                  192.168.0.3/32    100        Enabled        Backup
esr-100#
```

Displaying VRRP Priority**MIB:**

ELTEX-VRRP-MIB

OIDs used:

eltexVrrpRunConfigPriority - 1.3.6.1.4.1.35265.44.6.1.1.8

Data type in SNMP:

INTEGER32 (1..254)

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.44.6.1.1.8
iso.3.6.1.4.1.35265.44.6.1.1.8.1.9.95.95.100.101.102.97.117.108.116.1.3 = INTEGER: 100
```

CLI command:

```
esr-100# show vrrp
Virtual router      Virtual IP          Priority    Preemption    State
-----
1                  192.168.0.3/32    100        Enabled        Backup
esr-100#
```

Displaying VRRP Timers advertise in seconds

MIB:

ELTEX-VRRP-MIB

OIDs used:

eltexVrrpRunConfigAdvertisementInt - 1.3.6.1.4.1.35265.44.6.1.1.9

Data type in SNMP:

INTEGER32 (1..40)

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.44.6.1.1.9
iso.3.6.1.4.1.35265.44.6.1.1.9.1.9.95.95.100.101.102.97.117.108.116.1.3 = INTEGER: 1
```

CLI command:

```
esr-100# show vrrp 1
VRRP ID: 1
VRRP Version: 2
Interface: gil/0/3
Priority: 100
State: Backup
Track ID: --
Source IP address: 192.168.0.1
Virtual IP address: 192.168.0.3/32
Virtual MAC address: 00:00:5e:00:01:01
Synchronization group ID: 1
Preemption: Enabled, preemption delay is 0 seconds
Advertisement interval: 1 seconds
Gratuitous ARP delay: 5 seconds
Gratuitous ARP repeat: 5 times
Gratuitous ARP refresh: 0 seconds
Gratuitous ARP refresh repeat: 1 times
esr-100#
```

Displaying the VRRP Preempt shutdown status

MIB:

ELTEX-VRRP-MIB

OIDs used:

eltexVrrpRunConfigNoPreempt - 1.3.6.1.4.1.35265.44.6.1.1.10

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:*1 - true**2 - false***SNMP command output:**

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.44.6.1.1.10
iso.3.6.1.4.1.35265.44.6.1.1.10.1.9.95.95.100.101.102.97.117.108.116.1.3 = INTEGER: 2
```

CLI command:

```
esr-100# show vrrp
Virtual router      Virtual IP          Priority    Preemption    State
-----
1                  192.168.0.3/32     100        Enabled        Backup        esr-100#
```

Displaying VRRP Preempt Delay in seconds**MIB:**

ELTEX-VRRP-MIB

OIDs used:

eltexVrrpRunConfigPreemptDelay - 1.3.6.1.4.1.35265.44.6.1.1.11

Data type in SNMP:

INTEGER32 (0..1000)

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.44.6.1.1.11
iso.3.6.1.4.1.35265.44.6.1.1.11.1.9.95.95.100.101.102.97.117.108.116.1.3 = INTEGER: 0
```

CLI command:

```

esr-100# show vrrp 1
VRRP ID:                1
VRRP Version:           2
Interface:              gil/0/3
Priority:                100
State:                  Backup
Track ID:                --
Source IP address:      192.168.0.1
Virtual IP address:     192.168.0.3/32
Virtual MAC address:    00:00:5e:00:01:01
Synchronization group ID: 1
Preemption:             Enabled, preemption delay is 0 seconds
Advertisement interval: 1 seconds
Gratuitous ARP delay:   5 seconds
Gratuitous ARP repeat: 5 times
Gratuitous ARP refresh: 0 seconds
Gratuitous ARP refresh repeat: 1 times
esr-100#

```

Displaying VRRP Timers Arp Delay in seconds**MIB:**

ELTEX-VRRP-MIB

OIDs used:

eltexVrrpRunConfigAdvertVirtMacDelay - 1.3.6.1.4.1.35265.44.6.1.1.12

Data type in SNMP:

INTEGER32 (1..60)

SNMP command output:

```

snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.44.6.1.1.12
iso.3.6.1.4.1.35265.44.6.1.1.1.12.1.9.95.95.100.101.102.97.117.108.116.1.3 = INTEGER: 5

```

CLI command:

```

esr-100# show vrrp 1
VRRP ID: 1
VRRP Version: 2
Interface: gil/0/3
Priority: 100
State: Backup
Track ID: --
Source IP address: 192.168.0.1
Virtual IP address: 192.168.0.3/32
Virtual MAC address: 00:00:5e:00:01:01
Synchronization group ID: 1
Preemption: Enabled, preemption delay is 0 seconds
Advertisement interval: 1 seconds
Gratuitous ARP delay: 5 seconds
Gratuitous ARP repeat: 5 times
Gratuitous ARP refresh: 0 seconds
Gratuitous ARP refresh repeat: 1 times
esr-100#

```

Displaying VRRP Timers Arp Repeat**MIB:**

ELTEX-VRRP-MIB

OIDs used:

eltexVrrpRunConfigAdvertVirtMacRepeat - 1.3.6.1.4.1.35265.44.6.1.1.13

Data type in SNMP:

INTEGER32 (1..60)

SNMP command output:

```

snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.44.6.1.1.13
iso.3.6.1.4.1.35265.44.6.1.1.1.13.1.9.95.95.100.101.102.97.117.108.116.1.3 = INTEGER: 5

```

CLI command:

```

esr-100# show vrrp 1
VRRP ID:                1
VRRP Version:           2
Interface:           gil/0/3
Priority:                100
State:                  Backup
Track ID:               --
Source IP address:      192.168.0.1
Virtual IP address:     192.168.0.3/32
Virtual MAC address:    00:00:5e:00:01:01
Synchronization group ID: 1
Preemption:             Enabled, preemption delay is 0 seconds
Advertisement interval: 1 seconds
Gratuitous ARP delay:  5 seconds
Gratuitous ARP repeat: 5 times
Gratuitous ARP refresh: 0 seconds
Gratuitous ARP refresh repeat: 1 times
esr-100#

```

Displaying VRRP Timers Arp Refresh in seconds**MIB:**

ELTEX-VRRP-MIB

OIDs used:

eltexVrrpRunConfigAdvertVirtMacRefresh - 1.3.6.1.4.1.35265.44.6.1.1.14

Data type in SNMP:

INTEGER32 (0..65535)

SNMP command output:

```

snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.44.6.1.1.14
iso.3.6.1.4.1.35265.44.6.1.1.14.1.9.95.95.100.101.102.97.117.108.116.1.3 = INTEGER: 0

```

CLI command:

```

esr-100# show vrrp 1
VRRP ID:                1
VRRP Version:           2
Interface:              gil/0/3
Priority:                100
State:                  Backup
Track ID:                --
Source IP address:      192.168.0.1
Virtual IP address:     192.168.0.3/32
Virtual MAC address:    00:00:5e:00:01:01
Synchronization group ID: 1
Preemption:             Enabled, preemption delay is 0 seconds
Advertisement interval: 1 seconds
Gratuitous ARP delay:   5 seconds
Gratuitous ARP repeat: 5 times
Gratuitous ARP refresh: 0 seconds
Gratuitous ARP refresh repeat: 1 times
esr-100#

```

Displaying VRRP Timers Arp Refresh-Repeat**MIB:**

ELTEX-VRRP-MIB

OIDs used:

eltexVrrpRunConfigAdvertVirtMacRefreshRepeat - 1.3.6.1.4.1.35265.44.6.1.1.15

Data type in SNMP:

INTEGER32 (1..60)

SNMP command output:

```

snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.44.6.1.1.15
iso.3.6.1.4.1.35265.44.6.1.1.15.1.9.95.95.100.101.102.97.117.108.116.1.3 = INTEGER: 0

```

CLI command:

```

esr-100# show vrrp 1
VRRP ID:                1
VRRP Version:           2
Interface:           gil/0/3
Priority:                100
State:                  Backup
Track ID:               --
Source IP address:      192.168.0.1
Virtual IP address:     192.168.0.3/32
Virtual MAC address:    00:00:5e:00:01:01
Synchronization group ID: 1
Preemption:             Enabled, preemption delay is 0 seconds
Advertisement interval: 1 seconds
Gratuitous ARP delay:   5 seconds
Gratuitous ARP repeat: 5 times
Gratuitous ARP refresh: 0 seconds
Gratuitous ARP refresh repeat: 1 times
esr-100#

```

Displaying VRRP authentication algorithm**MIB:**

ELTEX-VRRP-MIB

OIDs used:

eltexVrrpRunConfigAuthType - 1.3.6.1.4.1.35265.44.6.1.1.16

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:**0 - none****1 - cleartext****2 - md5****SNMP command output:**

```

snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.44.6.1.1.16
iso.3.6.1.4.1.35265.44.6.1.1.16.1.9.95.95.100.101.102.97.117.108.116.1.3 = INTEGER: 2

```

CLI command:

```
esr-100# show running-config vrrp
interface gigabitethernet 1/0/3
  vrrp id 2
  vrrp ip 198.18.0.3/32
  vrrp group 1
  vrrp authentication key ascii-text encrypted 8CB5107EA7005AFF
  vrrp authentication algorithm md5
  vrrp
exit
esr-100#
```

Displaying the encrypted VRRP authentication key**MIB:**

ELTEX-VRRP-MIB

OIDs used:

eltexVrrpRunConfigAuthKeyEncrypt - 1.3.6.1.4.1.35265.44.6.1.1.17

Data type in SNMP:

STRING

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.44.6.1.1.17
iso.3.6.1.4.1.35265.44.6.1.1.17.1.9.95.95.100.101.102.97.117.108.116.1.3 = STRING:
"8CB5107EA7005AFF"
```

CLI command:

```
esr-100# show running-config vrrp
interface gigabitethernet 1/0/3
  vrrp id 2
  vrrp ip 198.18.0.3/32
  vrrp group 1
  vrrp authentication key ascii-text encrypted 8CB5107EA7005AFF
  vrrp authentication algorithm md5
  vrrp
exit
esr-100#
```

Displaying Source-IP VRRP

MIB:

ELTEX-VRRP-MIB

OIDs used:

eltexVrrpRunConfigPrimaryIp - 1.3.6.1.4.1.35265.44.6.1.1.18

Data type in SNMP:

Hex-STRING

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.44.6.1.1.18
iso.3.6.1.4.1.35265.44.6.1.1.18.1.9.95.95.100.101.102.97.117.108.116.1.3 = Hex-STRING: C6 A8 00
01
```

CLI command:

```
esr-100# show vrrp 1
VRRP ID: 1
VRRP Version: 2
Interface: gil/0/3
Priority: 100
State: Backup
Track ID: --
Source IP address: 192.168.0.1
Virtual IP address: 192.168.0.3/32
Virtual MAC address: 00:00:5e:00:01:01
Synchronization group ID: 1
Preemption: Enabled, preemption delay is 0 seconds
Advertisement interval: 1 seconds
Gratuitous ARP delay: 5 seconds
Gratuitous ARP repeat: 5 times
Gratuitous ARP refresh: 0 seconds
Gratuitous ARP refresh repeat: 1 times
esr-100#
```

Displaying MAC addresses of virtual routers

MIB:

ELTEX-VRRP-MIB

OIDs used:

eltexVrrpRunConfigVirtMac - 1.3.6.1.4.1.35265.44.6.1.1.19

Data type in SNMP:

Hex-STRING

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.44.6.1.1.19
iso.3.6.1.4.1.35265.44.6.1.1.19.1.9.95.95.100.101.102.97.117.108.116.1.3 = Hex-STRING: 00 00 5E
00,01,01
```

CLI command:

```
esr-100# show vrrp 1
VRRP ID: 1
VRRP Version: 2
Interface: gi1/0/3
Priority: 100
State: Backup
Track ID: --
Source IP address: 192.168.0.1
Virtual IP address: 192.168.0.3/32
Virtual MAC address: 00:00:5e:00:01:01
Synchronization group ID: 1
Preemption: Enabled, preemption delay is 0 seconds
Advertisement interval: 1 seconds
Gratuitous ARP delay: 5 seconds
Gratuitous ARP repeat: 5 times
Gratuitous ARP refresh: 0 seconds
Gratuitous ARP refresh repeat: 1 times
esr-100#
```

Displaying VRRP status**MIB:**

ELTEX-VRRP-MIB

OIDs used:

eltexVrrpRunConfigState - 1.3.6.1.4.1.35265.44.6.1.1.20

Data type in SNMP:

INTEGER32

Interpretation of values returned in SNMP:

- 0 - unknown
- 1 - fault
- 2 - initialize
- 3 - backup
- 4 - master

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.44.6.1.1.20  
iso.3.6.1.4.1.35265.44.6.1.1.20.1.9.95.95.100.101.102.97.117.108.116.1.3 = INTEGER: 3
```

CLI command:

```
esr-100# show vrrp  
Virtual router      Virtual IP          Priority    Preemption    State  
-----  
1                  192.168.0.3/32    100        Enabled       Backup  
esr-100#
```

12 BRAS monitoring

Displaying the BRAS session counter

MIB:

ELTEX-BRAS-MIB

OIDs used:

eltexBrasAllSessionNumber - 1.3.6.1.4.1.35265.43.1.1.2

Data type in SNMP:

Counter64

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.44.6.1.1.2
iso.3.6.1.4.1.35265.43.1.1.2.5.95.95.97.108.108 = Counter64: 1
```

CLI command:

```
esr-100# show subscriber-control sessions count
All:                1
Authenticated:     1
Not authenticated:  0
esr-100#
```

Displaying the counter for BRAS sessions with authentication

MIB:

ELTEX-BRAS-MIB

OIDs used:

eltexBrasSessionAuthNumber - 1.3.6.1.4.1.35265.43.1.1.3

Data type in SNMP:

Counter64

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.44.6.1.1.3
iso.3.6.1.4.1.35265.43.1.1.3.5.95.95.97.108.108 = Counter64: 1
```

CLI command:

```
esr-100# show subscriber-control sessions count
All:                1
Authenticated:     1
Not authenticated:  0
esr-100#
```

Displaying the counter for BRAS sessions without authentication**MIB:**

ELTEX-BRAS-MIB

OIDs used:

eltexBrasSessionNotAuthNumber - 1.3.6.1.4.1.35265.43.1.1.4

Data type in SNMP:

Counter64

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.44.6.1.1.4
iso.3.6.1.4.1.35265.43.1.1.4.5.95.95.97.108.108 = Counter64: 0
```

CLI command:

```
esr-15# show subscriber-control sessions count
All:                1
Authenticated:     1
Not authenticated:  0
esr-100#
```

Displaying the BRAS active services counter**MIB:**

ELTEX-BRAS-MIB

OIDs used:

eltexBrasServiceActiveNumber - 1.3.6.1.4.1.35265.43.4.1.3

Data type in SNMP:

Counter64

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.43.4.1.3
iso.3.6.1.4.1.35265.43.4.1.3.5.95.95.97.108.108.8.73.78.84.69.82.78.69.84 = Counter64: 1
```

CLI command:

```
esr-15# show subscriber-control services count
Service           Active      Not active
-----
INTERNET          1          0
esr-100#
```

Displaying the BRAS inactive services counter**MIB:**

ELTEX-BRAS-MIB

OIDs used:

eltexBrasServiceNotActiveNumber - 1.3.6.1.4.1.35265.43.1.1.4

Data type in SNMP:

Counter64

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.43.4.1.4
iso.3.6.1.4.1.35265.43.4.1.3.5.95.95.97.108.108.8.73.78.84.69.82.78.69.84 = Counter64: 0
```


CLI command:

```
esr-100# show subscriber-control services count
Service           Active      Not active
-----
INTERNET          1          0
esr-100#
```

13 VoIP monitoring

- Displaying busy prefixes
- Displaying the Call-Waiting prefix
- Displaying the Dnd prefix
- Displaying the Hotline prefix
- Displaying the No-answer prefix
- Displaying the Pickup prefix
- Displaying the Unconditional prefix
- Displaying Description of numbering plans
- Displaying Enable of numbering plans
- Displaying patterns of numbering plans
- Displaying authentication type
- Displaying user name for authentication
- Displaying encrypted user password for authentication
- Displaying the SIP profile description
- Displaying the configuration status of a SIP profile
- Displaying the primary SIP proxy type
- Displaying the interval between sending server availability check messages in seconds
- Displaying the SIP server address type
- Displaying the DNS address of the SIP server (ASCII code)
- Displaying the status of SIP server registration
- Displaying user registration activation time
- Displaying the public IPv4 address of the SIP server
- Displaying minimum connection check interval
- Displaying session timeout when inactive
- Displaying the status of session timeout activation during inactivity
- Displaying the Conference type
- Displaying the subscriber name in the SIP address
- Displaying the Conference address type
- Displaying the IPv4 address in the SIP address
- Displaying the port in the SIP address
- Displaying VAS control type
- Displaying the Trilateral conference service name for XML objects
- Displaying the Call holding service name for XML objects
- Displaying the Call transfer service name for XML objects
- Displaying the Call waiting service name for XML objects
- Displaying the Hotline service name for XML objects
- Displaying the packetization time for the G.711 codec
- Displaying the packetization time for the G.723 codec
- Displaying the packetization time for the G.729 codec
- Displaying Enable Fax Protocol T.38
- Displaying the redundant size of T.38 packets
- Displaying the naming pattern of the numbering plan on the SIP profile
- Displaying the echo cancellation status
- Displaying Enable Silence Detect
- Displaying the type of DTMF signal transmission
- Viewing the pulse signal transmission method
- Displaying Payload RFC2833
- Displaying Enable RTCP
- Displaying RTCP KeepAlive in seconds
- Displaying the RTCP transcieving period in seconds
- Displaying the operational status of RTCP Extended Report Packets
- Displaying the operational status of SIP-proxy
- Displaying the address type of SIP-proxy
- Displaying the address type of SIP Registration Server
- Displaying the SIP-proxy address

- [Displaying the SIP Registration Server address](#)
- [Displaying the SIP-proxy port](#)
- [Displaying the SIP Registration Server port](#)
- [Displaying Enable Registration](#)
- [Displaying the voice port number](#)

 Applicable only to ESR-12V, ESR-12VF, ESR-15VF models.

Displaying busy prefixes

MIB:

ELTEX-VOIP-MIB

OIDs used:

eltexVasPrefixRunConfigBusy - 1.3.6.1.4.1.35265.48.1.2.1.2

Data type in SNMP:

INTEGER (0..99)

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.48.1.2.1.2
iso.3.6.1.4.1.35265.48.1.2.1.2.1 = INTEGER: 99
```

CLI command:

```
esr-12vf# show running-config full voice
voice services
  prefix unconditional 0
  prefix busy 99
  prefix no-answer 0
  prefix pickup 0
  prefix hotline 0
  prefix call-waiting 0
  prefix dnd 0
exit

esr-12vf#
```

Displaying the Call-Waiting prefix

MIB:

ELTEX-VOIP-MIB

OIDs used:

eltexVasPrefixRunConfigCallWaiting - 1.3.6.1.4.1.35265.48.1.2.1.3

Data type in SNMP:

INTEGER (0..99)

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.48.1.2.1.3
iso.3.6.1.4.1.35265.48.1.2.1.3.1 = INTEGER: 0
```

CLI command:

```
esr-12vf# show running-config full voice
voice services
  prefix unconditional 0
  prefix busy 99
  prefix no-answer 0
  prefix pickup 0
  prefix hotline 0
  prefix call-waiting 0
  prefix dnd 0
exit

esr-12vf#
```

Displaying the Dnd prefix**MIB:**

ELTEX-VOIP-MIB

OIDs used:

eltexVasPrefixRunConfigDnd - 1.3.6.1.4.1.35265.48.1.2.1.4

Data type in SNMP:

INTEGER (0..99)

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.48.1.2.1.4
iso.3.6.1.4.1.35265.48.1.2.1.4.1 = INTEGER: 0
```

Displaying the Hotline prefix**MIB:**

ELTEX-VOIP-MIB

OIDs used:

eltexVasPrefixRunConfigHotline - 1.3.6.1.4.1.35265.48.1.2.1.5

Data type in SNMP:

INTEGER (0..99)

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.48.1.2.1.5  
iso.3.6.1.4.1.35265.48.1.2.1.5.1 = INTEGER: 0
```

CLI command:

```
esr-12vf# show running-config full voice  
voice services  
  prefix unconditional 0  
  prefix busy 99  
  prefix no-answer 0  
  prefix pickup 0  
  prefix hotline 0  
  prefix call-waiting 0  
  prefix dnd 0  
exit  
  
esr-12vf#
```

Displaying the No-answer prefix**MIB:**

ELTEX-VOIP-MIB

OIDs used:

eltexVasPrefixRunConfigNoAnswer - 1.3.6.1.4.1.35265.48.1.2.1.6

Data type in SNMP:

INTEGER (0..99)

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.48.1.2.1.6  
iso.3.6.1.4.1.35265.48.1.2.1.6.1 = INTEGER: 0
```

CLI command:

```
esr-12vf# show running-config full voice
voice services
  prefix unconditional 0
  prefix busy 99
  prefix no-answer 0
  prefix pickup 0
  prefix hotline 0
  prefix call-waiting 0
  prefix dnd 0
exit
esr-12vf#
```

Displaying the Pickup prefix**MIB:**

ELTEX-VOIP-MIB

OIDs used:

eltexVasPrefixRunConfigPickup - 1.3.6.1.4.1.35265.48.1.2.1.7

Data type in SNMP:

INTEGER (0..99)

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.48.1.2.1.7
iso.3.6.1.4.1.35265.48.1.2.1.7.1 = INTEGER: 0
```

CLI command:

```
esr-12vf# show running-config full voice
voice services
  prefix unconditional 0
  prefix busy 99
  prefix no-answer 0
  prefix pickup 0
  prefix hotline 0
  prefix call-waiting 0
  prefix dnd 0
exit
esr-12vf#
```

Displaying the Unconditional prefix

MIB:

ELTEX-VOIP-MIB

OIDs used:

eltexVasPrefixRunConfigUncoditional - 1.3.6.1.4.1.35265.48.1.2.1.8

Data type in SNMP:

INTEGER (0..99)

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.48.1.2.1.8
iso.3.6.1.4.1.35265.48.1.2.1.8.1 = INTEGER: 0
```

CLI command:

```
esr-12vf# show running-config full voice
voice services
  prefix unconditional 0
  prefix busy 99
  prefix no-answer 0
  prefix pickup 0
  prefix hotline 0
  prefix call-waiting 0
  prefix dnd 0
exit

esr-12vf#
```

Displaying Description of numbering plans

MIB:

ELTEX-VOIP-MIB

OIDs used:

eltexDialPlanRunConfigDescription - 1.3.6.1.4.1.35265.48.1.4.1.2

Data type in SNMP:

STRING

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.48.1.4.1.2
iso.3.6.1.4.1.35265.48.1.4.1.2.12.102.105.114.115.116.68.105.97.112.108.97.110 = STRING:
"description for diaplan"
```

CLI command:

```
esr-12vf# show running-config dialplan
dialplan pattern firstDiaplan
  description "description for diaplan"
  pattern "S5, I5 (410[1-3]@{local} | [xABCD*#].S)"
  enable
exit
esr-12vf#
```

Displaying Enable of numbering plans**MIB:**

ELTEX-VOIP-MIB

OIDs used:

eltexDialPlanRunConfigEnable - 1.3.6.1.4.1.35265.48.1.4.1.3

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:*1 - true**2 - false***SNMP command output:**

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.48.1.4.1.3
iso.3.6.1.4.1.35265.48.1.4.1.3.12.102.105.114.115.116.68.105.97.112.108.97.110 = INTEGER: 1
```

CLI command:

```

esr-12vf# show running-config dialplan
dialplan pattern firstDiaplan
  description "description for diaplan"
  pattern "S5, L5 (410[1-3]@{local} | [xABCD*#].S)"
  enable
exit
esr-12vf#

```

Displaying patterns of numbering plans**MIB:**

ELTEX-VOIP-MIB

OIDs used:

eltexDialPlanRunConfigPattern - 1.3.6.1.4.1.35265.48.1.4.1.4

SNMP command output:

```

snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.48.1.4.1.4
iso.3.6.1.4.1.35265.48.1.4.1.4.12.102.105.114.115.116.68.105.97.112.108.97.110 = STRING: "S5,
L5 (410[1-3]@{local} | [xABCD*#].S)"

```

CLI command:

```

esr-12vf# show running-config dialplan
dialplan pattern firstDiaplan
  description "description for diaplan"
  pattern "S5, L5 (410[1-3]@{local} | [xABCD*#].S)"
  enable
exit
esr-12vf#

```

Displaying authentication type**MIB:**

ELTEX-VOIP-MIB

OIDs used:

eltexSipCommonRunConfigAuthMode - 1.3.6.1.4.1.35265.48.2.2.1.2

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:*0 - global**1 - userDefined***SNMP command output:**

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.48.2.2.1.2
iso.3.6.1.4.1.35265.48.2.2.1.2.1 = INTEGER: 1
```

CLI command:

```
esr-12vf# show running-config full sip | include "authentication mode"
authentication mode user-defined
esr-12vf#
```

Displaying user name for authentication**MIB:**

ELTEX-VOIP-MIB

OIDs used:

eltexSipCommonRunConfigAuthName - 1.3.6.1.4.1.35265.48.2.2.1.3

Data type in SNMP:

STRING

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.48.2.2.1.3
iso.3.6.1.4.1.35265.48.2.2.1.3.1 = STRING: "esr12vf"
```

CLI command:

```
esr-12vf# show running-config full sip | include "authentication name"
authentication name esr12vf
esr-12vf#
```

Displaying encrypted user password for authentication

MIB:

ELTEX-VOIP-MIB

OIDs used:

eltexSipCommonRunConfigAuthPassword - 1.3.6.1.4.1.35265.48.2.2.1.4

Data type in SNMP:

STRING

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.48.2.2.1.4
iso.3.6.1.4.1.35265.48.2.2.1.4.1 = STRING: "8CB5107EA7005AFF"
```

CLI command:

```
esr-12vf# show running-config full sip | include "authentication password"
authentication password encrypted 8CB5107EA7005AFF
esr-12vf#
```

Displaying the SIP profile description

MIB:

ELTEX-VOIP-MIB

OIDs used:

eltexSipProfileRunConfigDescription - 1.3.6.1.4.1.35265.48.2.4.1.2

Data type in SNMP:

STRING

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.48.2.4.1.2
iso.3.6.1.4.1.35265.48.2.4.1.2.1 = STRING: "first sip profile"
```

CLI command:

```
esr-12vf# show running-config full sip | include description
  description "first sip profile"
esr-12vf#
```

Displaying the configuration status of a SIP profile**MIB:**

ELTEX-VOIP-MIB

OIDs used:

eltexSipProfileRunConfigProfileEnable - 1.3.6.1.4.1.35265.48.2.4.1.3

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:*1 - true**2 - false***SNMP command output:**

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.48.2.4.1.3
iso.3.6.1.4.1.35265.48.2.4.1.3.1 = INTEGER: 1
```

CLI command:

```

esr-12vf# show running-config sip
sip profile 1
  description "first sip profile"
  dialplan pattern "firstDiaplan"
  ims type implicit
  ims hotline hot
  enable
  sip-domain address sipdomain.com
  sip-domain registration enable
  proxy primary
    enable
    ip address proxy-server 192.0.2.5
    ip port proxy-server 5080
    registration
    ip address registration-server 192.0.2.5
    ip port registration-server 5080
  exit
  proxy secondary 1
  exit
exit

sip services
  authentication name esr12vf
  authentication password encrypted 8CB5107EA7005AFF
exit

esr-12vf#

```

Displaying the primary SIP proxy type**MIB:**

ELTEX-VOIP-MIB

OIDs used:

eltexSipProfileRunConfigProxyPrimaryMode - 1.3.6.1.4.1.35265.48.2.4.1.4

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:*0 - disable**1 - parking**2 - homing*

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.48.2.4.1.4
iso.3.6.1.4.1.35265.48.2.4.1.4.1 = INTEGER: 2
```

CLI command:

```
esr-12vf# show running-config full sip | include proxy
proxy primary
  ip address proxy-server 192.0.2.5
  ip port proxy-server 5080
proxy primary keepalive 30
proxy primary mode homing
proxy secondary 1
  ip port proxy-server 5060
esr-12vf#
```

Displaying the interval between sending server availability check messages in seconds**MIB:**

ELTEX-VOIP-MIB

OIDs used:

eltexSipProfileRunConfigProxyPrimaryKeepalivePeriod - 1.3.6.1.4.1.35265.48.2.4.1.5

Data type in SNMP:

INTEGER

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.48.2.4.1.5
iso.3.6.1.4.1.35265.48.2.4.1.5.1 = INTEGER: 30
```

CLI command:

```
esr-12vf# show running-config full sip | include proxy
proxy primary
  ip address proxy-server 192.0.2.5
  ip port proxy-server 5080
proxy primary keepalive 30
proxy primary mode homing
proxy secondary 1
  ip port proxy-server 5060
esr-12vf#
```

Displaying the SIP server address type

MIB:

ELTEX-VOIP-MIB

OIDs used:

eltexSipProfileRunConfigDomainAddressType - 1.3.6.1.4.1.35265.48.2.4.1.6

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:*0 - unknown**1 - ipv4**2 - ipv6**3 - ipv4z**4 - ipv6z**16 - dns***SNMP command output:**

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.48.2.4.1.6  
iso.3.6.1.4.1.35265.48.2.4.1.6.1 = INTEGER: 16
```

CLI command:

```
esr-12vf# show running-config sip | include "sip-domain address"  
sip-domain address sipdomain.com  
esr-12vf#
```

Displaying the DNS address of the SIP server (ASCII code)

MIB:

ELTEX-VOIP-MIB

OIDs used:

eltexSipProfileRunConfigDomainAddress - 1.3.6.1.4.1.35265.48.2.4.1.7

Data type in SNMP:

STRING

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.48.2.4.1.7  
iso.3.6.1.4.1.35265.48.2.4.1.7.1 = STRING: "sipdomain.com"
```

CLI command:

```
esr-12vf# show running-config sip | include "sip-domain address"  
sip-domain address sipdomain.com  
esr-12vf#
```

Displaying the status of SIP server registration**MIB:**

ELTEX-VOIP-MIB

OIDs used:

eltexSipProfileRunConfigDomainRegistrationEnable - 1.3.6.1.4.1.35265.48.2.4.1.8

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:*1 - true**2 - false***SNMP command output:**

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.48.2.4.1.8  
iso.3.6.1.4.1.35265.48.2.4.1.8.1 = INTEGER: 1
```

CLI command:

```
esr-12vf# show running-config full sip | include "sip-domain registration"  
sip-domain registration enable  
sip-domain registration retry 30  
sip-domain registration expiry 1800  
esr-12vf#
```

Displaying user registration activation time

MIB:

ELTEX-VOIP-MIB

OIDs used:

eltexSipProfileRunConfigRegistrationRetryPeriod - 1.3.6.1.4.1.35265.48.2.4.1.9

Data type in SNMP:

INTEGER

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.48.2.4.1.9  
iso.3.6.1.4.1.35265.48.2.4.1.9.1 = INTEGER: 30
```

CLI command:

```
esr-12vf# show running-config full sip | include "sip-domain address"  
sip-domain registration enable  
sip-domain registration retry 30  
sip-domain registration expiry 1800  
esr-12vf#
```

Displaying the public IPv4 address of the SIP server

MIB:

ELTEX-VOIP-MIB

OIDs used:

eltexSipProfileRunConfigSourceAddress - 1.3.6.1.4.1.35265.48.2.4.1.10

Data type in SNMP:

Hex-STRING

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.48.2.4.1.10  
iso.3.6.1.4.1.35265.48.2.4.1.10.1 = Hex-STRING: C0 A8 00 01
```

CLI command:

```
esr-12vf# show running-config full sip | include source-address
  source-address 192.168.0.1
esr-12vf#
```

Displaying minimum connection check interval**MIB:**

ELTEX-VOIP-MIB

OIDs used:

eltexSipProfileRunConfigSessionExpiriesTimer - 1.3.6.1.4.1.35265.48.2.4.1.11

Data type in SNMP:

INTEGER

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.48.2.4.1.11
iso.3.6.1.4.1.35265.48.2.4.1.11.1 = INTEGER: 120
```

CLI command:

```
esr-12vf# show running-config full sip | include session
  no session timer disable
  session keepalive 1800
  session expiries-timer 120
esr-12vf#
```

Displaying session timeout when inactive**MIB:**

ELTEX-VOIP-MIB

OIDs used:

eltexSipProfileRunConfigSessionKeepaliveTimer - 1.3.6.1.4.1.35265.48.2.4.1.12

Data type in SNMP:

INTEGER

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.48.2.4.1.12
iso.3.6.1.4.1.35265.48.2.4.1.12.1 = INTEGER: 120
```

CLI command:

```
esr-12vf# show running-config full sip | include session
no session timer disable
session keepalive 1800
session expiries-timer 120
esr-12vf#
```

Displaying the status of session timeout activation during inactivity**MIB:**

ELTEX-VOIP-MIB

OIDs used:

eltexSipProfileRunConfigSessionTimerDisable - 1.3.6.1.4.1.35265.48.2.4.1.13

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:*1 - true**2 - false***SNMP command output:**

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.48.2.4.1.13
iso.3.6.1.4.1.35265.48.2.4.1.13.1 = INTEGER: 2
```

CLI command:

```
esr-12vf# show running-config full sip | include session
no session timer disable
session keepalive 1800
session expiries-timer 120
esr-12vf#
```

Displaying the Conference type

MIB:

ELTEX-VOIP-MIB

OIDs used:

eltexSipProfileRunConfigConferenceType - 1.3.6.1.4.1.35265.48.2.4.1.14

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:*0 - local**1 - remote***SNMP command output:**

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.48.2.4.1.14
iso.3.6.1.4.1.35265.48.2.4.1.14.1 = INTEGER: 0
```

CLI command:

```
esr-12vf# show running-config full sip | include conference
conference type local
conference uri user conf
conference uri port 0
ims conference three-party-conference
esr-12vf#
```

Displaying the subscriber name in the SIP address

MIB:

ELTEX-VOIP-MIB

OIDs used:

eltexSipProfileRunConfigConferenceUriUserName - 1.3.6.1.4.1.35265.48.2.4.1.15

Data type in SNMP:

STRING

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.48.2.4.1.15
iso.3.6.1.4.1.35265.48.2.4.1.15.1 = STRING: "conf"
```

CLI command:

```
esr-12vf# show running-config full sip | include conference
conference type local
conference uri user conf
conference uri port 0
ims conference three-party-conference
esr-12vf#
```

Displaying the Conference address type**MIB:**

ELTEX-VOIP-MIB

OIDs used:

eltexSipProfileRunConfigConferenceUriAddressType - 1.3.6.1.4.1.35265.48.2.4.1.16

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:**0 - unknown****1 - ipv4****2 - ipv6****3 - ipv4z****4 - ipv6z****16 - dns****SNMP command output:**

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.48.2.4.1.16
iso.3.6.1.4.1.35265.48.2.4.1.16.1 = INTEGER: 0
```

CLI command:

```
esr-12vf# show running-config full sip | include conference
conference type local
conference uri user conf
conference uri port 0
ims conference three-party-conference
esr-12vf#
```

Displaying the IPv4 address in the SIP address**MIB:**

ELTEX-VOIP-MIB

OIDs used:

eltexSipProfileRunConfigConferenceUriAddress - 1.3.6.1.4.1.35265.48.2.4.1.17

Data type in SNMP:

Hex-STRING

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.48.2.4.1.17
iso.3.6.1.4.1.35265.48.2.4.1.17.1 = Hex-STRING:
```

CLI command:

```
esr-12vf# show running-config full sip | include conference
conference type local
conference uri user conf
conference uri port 0
ims conference three-party-conference
esr-12vf#
```

Displaying the port in the SIP address**MIB:**

ELTEX-VOIP-MIB

OIDs used:

eltexSipProfileRunConfigConferenceUriPort - 1.3.6.1.4.1.35265.48.2.4.1.18

Data type in SNMP:

INTEGER

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.48.2.4.1.18  
iso.3.6.1.4.1.35265.48.2.4.1.18.1 = INTEGER: 0
```

CLI command:

```
esr-12vf# show running-config full sip | include conference  
conference type local  
conference uri user conf  
conference uri port 0  
ims conference three-party-conference  
esr-12vf#
```

Displaying VAS control type**MIB:**

ELTEX-VOIP-MIB

OIDs used:

eltexSipProfileRunConfigImsType - 1.3.6.1.4.1.35265.48.2.4.1.19

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:*0 - disable**1 - implicit**2 - explicit***SNMP command output:**

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.48.2.4.1.19  
iso.3.6.1.4.1.35265.48.2.4.1.19.1 = INTEGER: 0
```

CLI command:

```
esr-12vf# show running-config full sip | include ims
ims type implicit
ims conference three-party-conference
ims hotline hot
ims call-waiting call-waiting
ims call-holding call-hold
ims call-transfer explicit-call-transfer
esr-12vf#
```

Displaying the Trilateral conference service name for XML objects**MIB:**

ELTEX-VOIP-MIB

OIDs used:

eltexSipProfileRunConfigImsConferenceName - 1.3.6.1.4.1.35265.48.2.4.1.20

Data type in SNMP:

STRING

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.48.2.4.1.20
iso.3.6.1.4.1.35265.48.2.4.1.20.1 = STRING: "three-party-conference"
```

CLI command:

```
esr-12vf# show running-config full sip | include ims
ims type implicit
ims conference three-party-conference
ims hotline hot
ims call-waiting call-waiting
ims call-holding call-hold
ims call-transfer explicit-call-transfer
esr-12vf#
```

Displaying the Call holding service name for XML objects**MIB:**

ELTEX-VOIP-MIB

OIDs used:

eltexSipProfileRunConfigImsCallHoldingName - 1.3.6.1.4.1.35265.48.2.4.1.21

Data type in SNMP:

STRING

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.48.2.4.1.21
iso.3.6.1.4.1.35265.48.2.4.1.21.1 = STRING: "call-hold"
```

CLI command:

```
esr-12vf# show running-config full sip | include ims
ims type implicit
ims conference three-party-conference
ims hotline hot
ims call-waiting call-waiting
ims call-holding call-hold
ims call-transfer explicit-call-transfer
esr-12vf#
```

Displaying the Call transfer service name for XML objects**MIB:**

ELTEX-VOIP-MIB

OIDs used:

eltexSipProfileRunConfigImsCallTransferName - 1.3.6.1.4.1.35265.48.2.4.1.22

Data type in SNMP:

STRING

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.48.2.4.1.22
iso.3.6.1.4.1.35265.48.2.4.1.22.1 = STRING: "explicit-call-transfer"
```

CLI command:

```
esr-12vf# show running-config full sip | include ims
ims type implicit
ims conference three-party-conference
ims hotline hot
ims call-waiting call-waiting
ims call-holding call-hold
ims call-transfer explicit-call-transfer
esr-12vf#
```

Displaying the Call waiting service name for XML objects

MIB:

ELTEX-VOIP-MIB

OIDs used:

eltexSipProfileRunConfigImsCallWaitingName - 1.3.6.1.4.1.35265.48.2.4.1.23

Data type in SNMP:

STRING

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.48.2.4.1.23  
iso.3.6.1.4.1.35265.48.2.4.1.23.1 = STRING: "call-waiting"
```

CLI command:

```
esr-12vf# show running-config full sip | include ims  
ims type implicit  
ims conference three-party-conference  
ims hotline hot  
ims call-waiting call-waiting  
ims call-holding call-hold  
ims call-transfer explicit-call-transfer  
esr-12vf#
```

Displaying the Hotline service name for XML objects

MIB:

ELTEX-VOIP-MIB

OIDs used:

eltexSipProfileRunConfigImsHotlineName - 1.3.6.1.4.1.35265.48.2.4.1.24

Data type in SNMP:

STRING

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.48.2.4.1.24  
iso.3.6.1.4.1.35265.48.2.4.1.24.1 = STRING: "hot"
```

CLI command:

```
esr-12vf# show running-config full sip | include ims
ims type implicit
ims conference three-party-conference
ims hotline hot
ims call-waiting call-waiting
ims call-holding call-hold
ims call-transfer explicit-call-transfer
esr-12vf#
```

Displaying the packetization time for the G.711 codec**MIB:**

ELTEX-VOIP-MIB

OIDs used:

eltexSipProfileRunConfigCodecPacketTimeG711 - 1.3.6.1.4.1.35265.48.2.4.1.25

Data type in SNMP:

INTEGER

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.48.2.4.1.25
iso.3.6.1.4.1.35265.48.2.4.1.25.1 = INTEGER: 20
```

CLI command:

```
esr-12vf# show running-config full sip | include codec
codec-packettime g711 20
codec-packettime g723 30
codec-packettime g729 20
esr-12vf#
```

Displaying the packetization time for the G.723 codec**MIB:**

ELTEX-VOIP-MIB

OIDs used:

eltexSipProfileRunConfigCodecPacketTimeG723 - 1.3.6.1.4.1.35265.48.2.4.1.26

Data type in SNMP:

INTEGER

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.48.2.4.1.26
iso.3.6.1.4.1.35265.48.2.4.1.26.1 = INTEGER: 30
```

CLI command:

```
esr-12vf# show running-config full sip | include codec
codec-packettime g711 20
codec-packettime g723 30
codec-packettime g729 20
esr-12vf#
```

Displaying the packetization time for the G.729 codec**MIB:**

ELTEX-VOIP-MIB

OIDs used:

eltexSipProfileRunConfigCodecPacketTimeG729 - 1.3.6.1.4.1.35265.48.2.4.1.27

Data type in SNMP:

INTEGER

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.48.2.4.1.27
iso.3.6.1.4.1.35265.48.2.4.1.27.1 = INTEGER: 20
```

CLI command:

```
esr-12vf# show running-config full sip | include codec
codec-packettime g711 20
codec-packettime g723 30
codec-packettime g729 20
esr-12vf#
```

Displaying Enable Fax Protocol T.38

MIB:

ELTEX-VOIP-MIB

OIDs used:

eltexSipProfileRunConfigFaxProtocolT38Enable - 1.3.6.1.4.1.35265.48.2.4.1.28

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:

1 - true

2 - false

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.48.2.4.1.28
iso.3.6.1.4.1.35265.48.2.4.1.28.1 = INTEGER: 1
```

CLI command:

```
esr-12vf# show running-config full sip | include fax
  fax protocol t38
  fax protocol t38 redundant 2
esr-12vf#
```

Displaying the redundant size of T.38 packets

MIB:

ELTEX-VOIP-MIB

OIDs used:

eltexSipProfileRunConfigFaxProtocolT38Redundant - 1.3.6.1.4.1.35265.48.2.4.1.29

Data type in SNMP:

INTEGER

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.48.2.4.1.29
iso.3.6.1.4.1.35265.48.2.4.1.29.1 = INTEGER: 2
```

CLI command:

```
esr-12vf# show running-config full sip | include fax
  fax protocol t38
  fax protocol t38 redundant 2
esr-12vf#
```

Displaying the naming pattern of the numbering plan on the SIP profile**MIB:**

ELTEX-VOIP-MIB

OIDs used:

eltexSipProfileRunConfigDialplanName - 1.3.6.1.4.1.35265.48.2.4.1.30

Data type in SNMP:

STRING

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.48.2.4.1.30
iso.3.6.1.4.1.35265.48.2.4.1.30.1 = STRING: "firstDiaplan"
```

CLI command:

```
esr-12vf# show running-config full sip | include dialplan
  dialplan pattern "firstDiaplan"
esr-12vf#
```

Displaying the echo cancellation status**MIB:**

ELTEX-VOIP-MIB

OIDs used:

eltexSipProfileRunConfigEchoCancellerEnable - 1.3.6.1.4.1.35265.48.2.4.1.31

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:**1 - true****2 - false****SNMP command output:**

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.48.2.4.1.31
iso.3.6.1.4.1.35265.48.2.4.1.31.1 = INTEGER: 1
```

CLI command:

```
esr-12vf# show running-config full sip | include echo
  echo-canceller
esr-12vf#
```

Displaying Enable Silence Detect**MIB:**

ELTEX-VOIP-MIB

OIDs used:

eltexSipProfileRunConfigSilenceDetectEnable - 1.3.6.1.4.1.35265.48.2.4.1.32

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:**1 - true****2 - false****SNMP command output:**

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.48.2.4.1.32
iso.3.6.1.4.1.35265.48.2.4.1.32.1 = INTEGER: 1
```

CLI command:

```
esr-12vf# show running-config full sip | include silence
  silence-detect
esr-12vf#
```

Displaying the type of DTMF signal transmission

MIB:

ELTEX-VOIP-MIB

OIDs used:

eltexSipProfileRunConfigTransferDtmf - 1.3.6.1.4.1.35265.48.2.4.1.33

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:

0 - info

1 - inband

2 - rfc2833

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.48.2.4.1.33  
iso.3.6.1.4.1.35265.48.2.4.1.33.1 = INTEGER: 2
```

CLI command:

```
esr-12vf# show running-config full sip | include dtmf  
  payload dtmf 96  
  transfer dtmf rfc  
esr-12vf#
```

Viewing the pulse signal transmission method

MIB:

ELTEX-VOIP-MIB

OIDs used:

eltexSipProfileRunConfigTransferFlash - 1.3.6.1.4.1.35265.48.2.4.1.34

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:

0 - ssc

1 - dtmf

2 - hookflash

3 - broadsoft

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.48.2.4.1.34
iso.3.6.1.4.1.35265.48.2.4.1.34.1 = INTEGER: 2
```

CLI command:

```
esr-12vf# show running-config full sip | include flash
  transfer flash hook-flash
esr-12vf#
```

Displaying Payload RFC2833**MIB:**

ELTEX-VOIP-MIB

OIDs used:

eltexSipProfileRunConfigPayloadRfc2833 - 1.3.6.1.4.1.35265.48.2.4.1.35

Data type in SNMP:

INTEGER

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.48.2.4.1.35
iso.3.6.1.4.1.35265.48.2.4.1.35.1 = INTEGER: 96
```

CLI command:

```
esr-12vf# show running-config full sip | include dtmf
  payload dtmf 96
  transfer dtmf rfc
esr-12vf#
```

Displaying Enable RTCP

MIB:

ELTEX-VOIP-MIB

OIDs used:

eltexSipProfileRunConfigRtcpEnable - 1.3.6.1.4.1.35265.48.2.4.1.36

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:*1 - true**2 - false***SNMP command output:**

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.48.2.4.1.36
iso.3.6.1.4.1.35265.48.2.4.1.36.1 = INTEGER: 2
```

CLI command:

```
esr-12vf# show running-config full sip | include rtcp
no rtcp
no rtcp extend-reports
rtcp tx-period 5
rtcp keepalive 5
esr-12vf#
```

Displaying RTCP KeepAlive in seconds

MIB:

ELTEX-VOIP-MIB

OIDs used:

eltexSipProfileRunConfigRtcpKeepalivePeriod - 1.3.6.1.4.1.35265.48.2.4.1.37

Data type in SNMP:

INTEGER

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.48.2.4.1.37
iso.3.6.1.4.1.35265.48.2.4.1.37.1 = INTEGER: 5
```

CLI command:

```
esr-12vf# show running-config full sip | include rtcp
no rtcp
no rtcp extend-reports
rtcp tx-period 5
rtcp keepalive 5
esr-12vf#
```

Displaying the RTCP transcieving period in seconds**MIB:**

ELTEX-VOIP-MIB

OIDs used:

eltexSipProfileRunConfigRtcpTxPeriod - 1.3.6.1.4.1.35265.48.2.4.1.38

Data type in SNMP:

INTEGER

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.48.2.4.1.38
iso.3.6.1.4.1.35265.48.2.4.1.38.1 = INTEGER: 5
```

CLI command:

```
esr-12vf# show running-config full sip | include rtcp
no rtcp
no rtcp extend-reports
rtcp tx-period 5
rtcp keepalive 5
esr-12vf#
```

Displaying the RTCP Extended Report Packets enable status**MIB:**

ELTEX-VOIP-MIB

OIDs used:

eltexSipProfileRunConfigRtcpExtendReportsEnable - 1.3.6.1.4.1.35265.48.2.4.1.39

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:*1 - true**2 - false***SNMP command output:**

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.48.2.4.1.39
iso.3.6.1.4.1.35265.48.2.4.1.39.1 = INTEGER: 2
```

CLI command:

```
esr-12vf# show running-config full sip | include rtcp
no rtcp
no rtcp extend-reports
rtcp tx-period 5
rtcp keepalive 5
esr-12vf#
```

Displaying the SIP-proxy enable status**MIB:**

ELTEX-VOIP-MIB

OIDs used:

eltexSipProxyRunConfigEnable - 1.3.6.1.4.1.35265.48.2.6.1.2

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:*1 - true**2 - false*

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.48.2.6.1.2
iso.3.6.1.4.1.35265.48.2.6.1.2.1 = INTEGER: 1
```

CLI command:

```
esr-12vf# show running-config full sip | include proxy
proxy primary
ip address proxy-server 192.0.2.5
ip port proxy-server 5080
proxy primary keepalive 30
proxy primary mode homing
esr-12vf#
```

Displaying the address type of SIP-proxy**MIB:**

ELTEX-VOIP-MIB

OIDs used:

eltexSipProxyRunConfigServerAddressType - 1.3.6.1.4.1.35265.48.2.6.1.3

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:**0 - unknown****1 - ipv4****2 - ipv6****3 - ipv4z****4 - ipv6z****16 - dns****SNMP command output:**

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.48.2.6.1.3
iso.3.6.1.4.1.35265.48.2.6.1.3.1 = INTEGER: 1
```

CLI command:

```

esr-12vf# show running-config full sip | include proxy
proxy primary
  ip address proxy-server 192.0.2.5
  ip port proxy-server 5080
proxy primary keepalive 30
proxy primary mode homing
esr-12vf#

```

Displaying the address type of SIP Registration Server**MIB:**

ELTEX-VOIP-MIB

OIDs used:

eltexSipProxyRunConfigRegServerAddressType - 1.3.6.1.4.1.35265.48.2.6.1.4

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:**0 - unknown****1 - ipv4****2 - ipv6****3 - ipv4z****4 - ipv6z****16 - dns****SNMP command output:**

```

snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.48.2.6.1.4
iso.3.6.1.4.1.35265.48.2.6.1.4.1 = INTEGER: 1

```

CLI command:

```

esr-12vf# show running-config full sip | include registration
sip-domain registration enable
sip-domain registration retry 30
sip-domain registration expiry 1800
registration
  ip address registration-server 192.0.2.5
  ip port registration-server 5080
esr-12vf#

```

Displaying the SIP-proxy address

MIB:

ELTEX-VOIP-MIB

OIDs used:

eltexSipProxyRunConfigServerAddress - 1.3.6.1.4.1.35265.48.2.6.1.5

Data type in SNMP:

Hex-STRING

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.48.2.6.1.5
iso.3.6.1.4.1.35265.48.2.6.1.5.1 = Hex-STRING: C0 00 02 05
```

CLI command:

```
esr-12vf# show running-config full sip | include proxy
proxy primary
  ip address proxy-server 192.0.2.5
  ip port proxy-server 5080
proxy primary keepalive 30
proxy primary mode homing
esr-12vf#
```

Displaying the SIP Registration Server address

MIB:

ELTEX-VOIP-MIB

OIDs used:

eltexSipProxyRunConfigRegServerAddress - 1.3.6.1.4.1.35265.48.2.6.1.6

Data type in SNMP:

Hex-STRING

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.48.2.6.1.6
iso.3.6.1.4.1.35265.48.2.6.1.6.1 = Hex-STRING: C0 00 02 05
```

CLI command:

```

esr-12vf# show running-config full sip | include registration
sip-domain registration enable
sip-domain registration retry 30
sip-domain registration expiry 1800
  registration
  ip address registration-server 192.0.2.5
  ip port registration-server 5080
esr-12vf#

```

Displaying the SIP-proxy port**MIB:**

ELTEX-VOIP-MIB

OIDs used:

eltexSipProxyRunConfigServerPort - 1.3.6.1.4.1.35265.48.2.6.1.7

Data type in SNMP:

INTEGER

SNMP command output:

```

snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.48.2.6.1.7
iso.3.6.1.4.1.35265.48.2.6.1.7.1 = INTEGER: 5080

```

CLI command:

```

esr-12vf# show running-config full sip | include proxy
proxy primary
  ip address proxy-server 192.0.2.5
  ip port proxy-server 5080
proxy primary keepalive 30
proxy primary mode homing
esr-12vf#

```

Displaying the SIP Registration Server port**MIB:**

ELTEX-VOIP-MIB

OIDs used:

eltexSipProxyRunConfigRegServerPort - 1.3.6.1.4.1.35265.48.2.6.1.8

Data type in SNMP:

INTEGER

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.48.2.6.1.8
iso.3.6.1.4.1.35265.48.2.6.1.8.1 = INTEGER: 5080
```

CLI command:

```
esr-12vf# show running-config full sip | include registration
sip-domain registration enable
sip-domain registration retry 30
sip-domain registration expiry 1800
registration
ip address registration-server 192.0.2.5
ip port registration-server 5080
esr-12vf#
```

Displaying Enable Registration**MIB:**

ELTEX-VOIP-MIB

OIDs used:

eltexSipProxyRunConfigRegistrationEnable - 1.3.6.1.4.1.35265.48.2.6.1.9

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:**1 - true****2 - false****SNMP command output:**

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.48.2.6.1.9
iso.3.6.1.4.1.35265.48.2.6.1.9.1 = INTEGER: 1
```

CLI command:

```
esr-12vf# show running-config full sip | include registration
sip-domain registration enable
sip-domain registration retry 30
sip-domain registration expiry 1800
  registration
  ip address registration-server 192.0.2.5
  ip port registration-server 5080
esr-12vf#
```

Displaying the voice port number**MIB:**

ELTEX-VOIP-MIB

OIDs used:

eltexVoicePortStatePortNumber - 1.3.6.1.4.1.35265.48.4.2.1.2

Data type in SNMP:

STRING

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.48.4.2.1.2
iso.3.6.1.4.1.35265.48.4.2.1.2.20601 = STRING: "4101"
```

CLI command:

```
esr-12vf# show running-config interfaces voice-port
interface voice-port 1
  sip user display-name user-one
  sip user phone 4101
  authentication name login-4101
  authentication password encrypted 8CB5107EA7005AFF
  profile sip 1
exit
esr-12vf#
```

14 List of monitoring parameters only possible via SNMP

- System parameters monitoring
 - System time monitoring
 - Displaying the NTP peer port
 - Displaying the NTP port
 - Displaying the NTP peers coordination status
 - Load monitoring
 - Displaying the name of the load period
 - Displaying the load
 - Displaying the load status
 - Displaying the load error description
 - Physical objects monitoring
 - Displaying the device OID
 - Displaying the number of services of the device
 - Displaying the status of the main power supply unit
 - Displaying the status of the redundant power supply unit
- IP monitoring
 - Displaying the storage type of an IP address conceptual record
 - Displaying TTL for IPv4
 - Displaying HopLimit for IPv6
 - Displaying the routing status of IPv4 packets
 - Displaying the routing status of IPv6 packets
- Tunnels monitoring
 - Displaying the tunnel encryption method
 - Displaying the encapsulation limit in the tunnel
- Dynamic routing monitoring
 - OSPF monitoring
 - Displaying options for neighboring routers (OSPF)
 - Displaying the neighbor relationship change counter (OSPF)
 - Displaying the length of the retransmission queue with neighboring routers (OSPF)
 - Displaying the type of IP address entries for neighboring routers
 - Displaying the helper status for neighboring routers during a graceful restart (OSPF)
 - Displaying helper status time for neighboring routers during a graceful restart (OSPF)
 - Viewing the result of the helper's latest attempt for neighboring routers during a graceful-restart (OSPF)
 - BGP monitoring
 - Displaying Local port BGP
 - Displaying Remote port BGP

System parameters monitoring

System time monitoring

Displaying the NTP peer port

MIB:

CISCO-NTP-MIB

OIDs used:

cntpPeersPeerPort - 1.3.6.1.4.1.9.9.168.1.2.1.1.4

Data type in SNMP:

INTEGER32

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.9.9.168.1.2.1.1.4
iso.3.6.1.4.1.9.9.168.1.2.1.1.4.20852 = INTEGER: 123
```

Displaying the NTP port

MIB:

CISCO-NTP-MIB

OIDs used:

cntpPeersHostPort - 1.3.6.1.4.1.9.9.168.1.2.1.1.6

Data type in SNMP:

INTEGER32

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.9.9.168.1.2.1.1.6
iso.3.6.1.4.1.9.9.168.1.2.1.1.6.20852 = INTEGER: 123
```

Displaying the NTP peers coordination status

MIB:

CISCO-NTP-MIB

OIDs used:

cntpPeersHostPort - 1.3.6.1.4.1.9.9.168.1.2.1.1.7

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:*0 - noWarning**1 - addSecond**2 - subtractSecond**3 - alarm***SNMP command output:**

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.9.9.168.1.2.1.1.7
iso.3.6.1.4.1.9.9.168.1.2.1.1.6.20852 = INTEGER: 0
```

Load monitoring**Displaying the name of the load period****MIB:**

UCD-SNMP-MIB

OIDs used:

laNames - 1.3.6.1.4.1.2021.10.1.2

Data type in SNMP:

STRING

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.2021.10.1.2
iso.3.6.1.4.1.2021.10.1.2.1 = STRING: "Load-1"
iso.3.6.1.4.1.2021.10.1.2.2 = STRING: "Load-5"
iso.3.6.1.4.1.2021.10.1.2.3 = STRING: "Load-15"
```

Displaying the load**MIB:**

UCD-SNMP-MIB

OIDs used:

laLoad - 1.3.6.1.4.1.2021.10.1.3

Data type in SNMP:

STRING

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.2021.10.1.3
iso.3.6.1.4.1.2021.10.1.3.1 = STRING: "0.56"
iso.3.6.1.4.1.2021.10.1.3.2 = STRING: "0.62"
iso.3.6.1.4.1.2021.10.1.3.3 = STRING: "0.63"
```

Displaying the load status**MIB:**

UCD-SNMP-MIB

OIDs used:

laErrorFlag - 1.3.6.1.4.1.2021.10.1.100

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:*0 - noError**1 - error***SNMP command output:**

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.2021.10.1.100
iso.3.6.1.4.1.2021.10.1.100.1 = INTEGER: 0
iso.3.6.1.4.1.2021.10.1.100.2 = INTEGER: 0
iso.3.6.1.4.1.2021.10.1.100.3 = INTEGER: 0
```

Displaying the load error description**MIB:**

UCD-SNMP-MIB

OIDs used:

laErrorMessage - 1.3.6.1.4.1.2021.10.1.101

Data type in SNMP:

STRING

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.2021.10.1.101
iso.3.6.1.4.1.2021.10.1.101.1 = STRING: ""
iso.3.6.1.4.1.2021.10.1.101.2 = STRING: ""
iso.3.6.1.4.1.2021.10.1.101.3 = STRING: ""
```

Physical objects monitoring**Displaying the device OID****MIB:**

SNMPv2-MIB

OIDs used:

sysObjectID - 1.3.6.1.2.1.1.2

Data type in SNMP:

OID

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.2.1.1.2
iso.3.6.1.2.1.1.2.0 = OID: iso.3.6.1.4.1.35265.1.118
```

Displaying the number of device services**MIB:**

SNMPv2-MIB

OIDs used:

sysServices - 1.3.6.1.2.1.1.7

Data type in SNMP:

INTEGER (0..127)

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.2.1.1.7
iso.3.6.1.2.1.1.7.0 = INTEGER: 72
```

Displaying the status of the main power supply unit

MIB:

RADLAN-Physicaldescription-MIB

OIDs used:

rlPhdUnitEnvParamMainPSSStatus - 1.3.6.1.4.1.89.53.15.1.2

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:

1 - normal

2 - warning

3 - critical

4 - shutdown

5 - notPresent

6 - notFunctioning

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.89.53.15.1.2  
iso.3.6.1.4.1.89.53.15.1.2.0 = INTEGER: 1
```

Displaying the status of the redundant power supply unit

MIB:

RADLAN-Physicaldescription-MIB

OIDs used:

rlPhdUnitEnvParamRedundantPSSStatus - 1.3.6.1.4.1.89.53.15.1.3

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:

1 - normal

2 - warning

3 - critical

4 - shutdown

5 - notPresent

6 - notFunctioning

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.89.53.15.1.3
iso.3.6.1.4.1.89.53.15.1.2.0 = INTEGER: 5
```

IP monitoring**Displaying the storage type of an IP address conceptual record****MIB:**

IP-MIB or ELTEX-IP-MIB

OIDs used:

ipAddressStorageType - 1.3.6.1.2.1.4.34.1.11 or eltexIpAddressStorageType - 1.3.6.1.4.1.35265.42.34.1.12

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:*1 - other**2 - volatile**3 - nonVolatile**4 - permanent**5 - readOnly***SNMP commands output:**

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.2.1.4.34.1.11
iso.3.6.1.2.1.4.34.1.11.1.4.192.168.0.1 = INTEGER: 3

snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.42.34.1.12
iso.3.6.1.4.1.35265.42.34.1.12.1.4.192.168.0.1.20.1 = INTEGER: 3
```

Displaying TTL for IPv4**MIB:**

IP-MIB

OIDs used:

ipDefaultTTL - 1.3.6.1.2.1.4.2

Data type in SNMP:

INTEGER32

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.2.1.4.2
iso.3.6.1.2.1.4.2.0 = INTEGER: 64
```

Displaying HopLimit for IPv6**MIB:**

IP-MIB

OIDs used:

ipv6IpDefaultHopLimit - 1.3.6.1.2.1.4.26

Data type in SNMP:

INTEGER32

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.2.1.4.26
iso.3.6.1.2.1.4.26.0 = INTEGER: 64
```

Displaying the routing status of IPv4 packets**MIB:**

IP-MIB

OIDs used:

ipForwarding - 1.3.6.1.2.1.4.1

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:*1 - forwarding**2 - notForwarding*

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.2.1.4.1
iso.3.6.1.2.1.4.1.0 = INTEGER: 1
```

Displaying the routing status of IPv6 packets**MIB:**

IP-MIB

OIDs used:

ipv6Forwarding - 1.3.6.1.2.1.4.25

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:*1 - forwarding**2 - notForwarding***SNMP command output:**

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.2.1.4.25
iso.3.6.1.2.1.4.25.0 = INTEGER: 1
```

Tunnels monitoring**Displaying the tunnel encryption method****MIB:**

TUNNEL-MIB

OIDs used:

tunnelIfSecurity - 1.3.6.1.2.1.10.131.1.1.1.5

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:

1 - none

2 - ipsec

3 - other

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.2.1.10.131.1.1.1.1.5
iso.3.6.1.2.1.10.131.1.1.1.1.5.18001 = INTEGER: 1
iso.3.6.1.2.1.10.131.1.1.1.1.5.28001 = INTEGER: 2
```

Displaying the encapsulation limit in the tunnel**MIB:**

TUNNEL-MIB

OIDs used:

tunnellfEncapsLimit - 1.3.6.1.2.1.10.131.1.1.1.1.11

Data type in SNMP:

INTEGER32 (-1..255)

Interpretation of values returned in SNMP:

-1 - No limit

0..255 - Encapsulation limit

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.2.1.10.131.1.1.1.1.11
iso.3.6.1.2.1.10.131.1.1.1.1.11.18001 = INTEGER: 0
iso.3.6.1.2.1.10.131.1.1.1.1.11.28001 = INTEGER: 0
```

Dynamic routing monitoring**OSPF monitoring****Displaying options for neighboring routers (OSPF)****MIB:**

ELTEX-ESR-OSPF-MIB

OIDs used:

eltEsrOspfNbrOptions - 1.3.6.1.4.1.35265.1.147.2.3.1.3.1.1.4

Data type in SNMP:

Gauge32

Interpretation of values returned in SNMP:

The value depends on bit mask:

If Bit 0 = 1, system operate on ToS metrics; If Bit 0 = 0 system ignore all metrics except the TOS 0 metric

Bit 1 = 0, it's a stub area

If Bit 2 = 1 it's indicate that the system is capable of routing IP

If Bit 3 = 1 it's indicate that the associated area is an NSSA

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.3.1.3.1.1.4
iso.3.6.1.4.1.35265.1.147.2.3.1.3.1.1.4.1.49.192.168.0.2 = Gauge32: 0
```

Displaying the neighbor relationship change counter (OSPF)**MIB:**

ELTEX-ESR-OSPF-MIB

OIDs used:

eltEsrOspfNbrEvents - 1.3.6.1.4.1.35265.1.147.2.3.1.3.1.1.7

Data type in SNMP:

Counter32

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.3.1.3.1.1.7
iso.3.6.1.4.1.35265.1.147.2.3.1.3.1.1.7.1.49.192.168.0.2 = Counter32: 6
```

Displaying the length of the retransmission queue with neighboring routers (OSPF)**MIB:**

ELTEX-ESR-OSPF-MIB

OIDs used:

eltEsrOspfNbrLsRetransQLen - 1.3.6.1.4.1.35265.1.147.2.3.1.3.1.1.8

Data type in SNMP:

Gauge32

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.3.1.3.1.1.8
iso.3.6.1.4.1.35265.1.147.2.3.1.3.1.1.8.1.49.192.168.0.2 = Gauge: 0
```

Displaying the type of IP address entries for neighboring routers**MIB:**

ELTEX-ESR-OSPF-MIB

OIDs used:

eltEsrOspfNbrPermanence - 1.3.6.1.4.1.35265.1.147.2.3.1.3.1.1.9

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:*1 - dynamic**2 - permanent***SNMP command output:**

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.3.1.3.1.1.9
iso.3.6.1.4.1.35265.1.147.2.3.1.3.1.1.9.1.49.192.168.0.2 = INTEGER: 1
```

Displaying the helper status for neighboring routers during a graceful restart (OSPF)**MIB:**

ELTEX-ESR-OSPF-MIB

OIDs used:

eltEsrOspfNbrRestartHelperStatus - 1.3.6.1.4.1.35265.1.147.2.3.1.3.1.1.10

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:*1 - notHelping**2 - helping*

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.3.1.3.1.1.10
iso.3.6.1.4.1.35265.1.147.2.3.1.3.1.1.10.1.49.192.168.0.2 = INTEGER: 1
```

Displaying helper status time for neighboring routers during a graceful restart (OSPF)**MIB:**

ELTEX-ESR-OSPF-MIB

OIDs used:

eltEsrOspfNbrRestartHelperAge - 1.3.6.1.4.1.35265.1.147.2.3.1.3.1.1.11

Data type in SNMP:

Gauge32

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.3.1.3.1.1.11
iso.3.6.1.4.1.35265.1.147.2.3.1.3.1.1.11.1.49.192.168.0.2 = Gauge32: 0
```

Viewing the result of the helper's latest attempt for neighboring routers during a graceful-restart (OSPF)**MIB:**

ELTEX-ESR-OSPF-MIB

OIDs used:

eltEsrOspfNbrRestartHelperExitReason - 1.3.6.1.4.1.35265.1.147.2.3.1.3.1.1.12

Data type in SNMP:

INTEGER

Interpretation of values returned in SNMP:*1 - none**2 - inProress**3 - completed**4 - timedOut**5 - topologyChanged*

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.3.1.3.1.1.11  
iso.3.6.1.4.1.35265.1.147.2.3.1.3.1.1.11.1.49.192.168.0.2 = INTEGER: 1
```

BGP monitoring**Displaying Local port BGP****MIB:**

ELTEX-ESR-BGP4V2-MIB

OIDs used:

eltEsrBgp4V2PeerLocalPort - 1.3.6.1.4.1.35265.1.147.2.4.1.3.1.1.6

Data type in SNMP:

Gauge32

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.4.1.3.1.1.6  
iso.3.6.1.4.1.35265.1.147.2.4.1.3.1.1.6.1.49.1.4.192.168.0.2 = Gauge32: 56154
```

Displaying Remote port BGP**MIB:**

ELTEX-ESR-BGP4V2-MIB

OIDs used:

eltEsrBgp4V2PeerRemotePort - 1.3.6.1.4.1.35265.1.147.2.4.1.3.1.1.9

Data type in SNMP:

Gauge32

SNMP command output:

```
snmpwalk -v2c -c public 192.168.0.1 1.3.6.1.4.1.35265.1.147.2.4.1.3.1.1.9  
iso.3.6.1.4.1.35265.1.147.2.4.1.3.1.1.9.1.49.1.4.192.168.0.2 = Gauge32: 179
```

TECHNICAL SUPPORT

For technical assistance in issues related to operation of Eltex Ltd.equipment, please contact the Service Centre:

Feedback form on the website: <https://eltex-co.com/support/>

Servicedesk: <https://servicedesk.eltex-co.ru>

Visit Eltex official website to get the relevant technical documentation and software, benefit from our knowledge base and send us online request:

Official site: <https://eltex-co.com/>

Knowledge base: <https://docs.eltex-co.ru/display/EKB/Eltex+Knowledge+Base>

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