Sri Lanka Institute of Information Technology

Network Design and Management

IT3010

Practical 5

Report

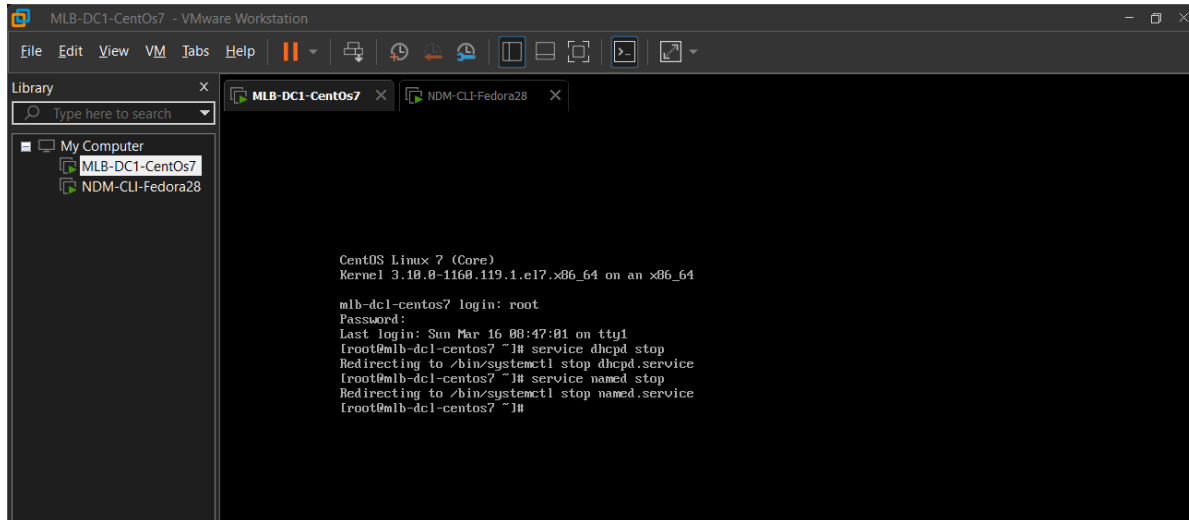

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Batch: Y3S1.WE.IT.03.01

STEP 01

01. Stop all the running services.
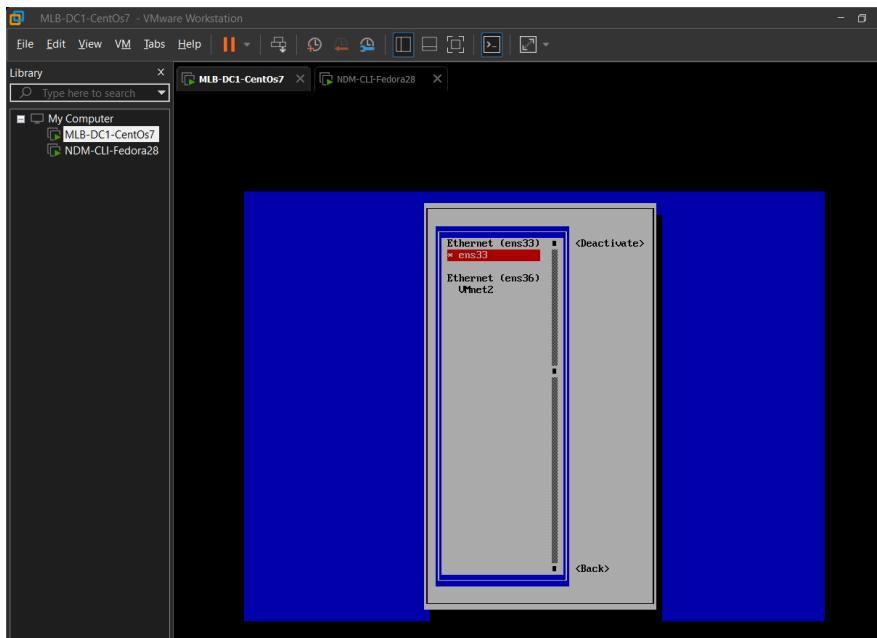   # service dhcpd stop
    # service named stop

STEP 02

01. Install SNMP
    # yum install –y net-snmp net-snmp-utils
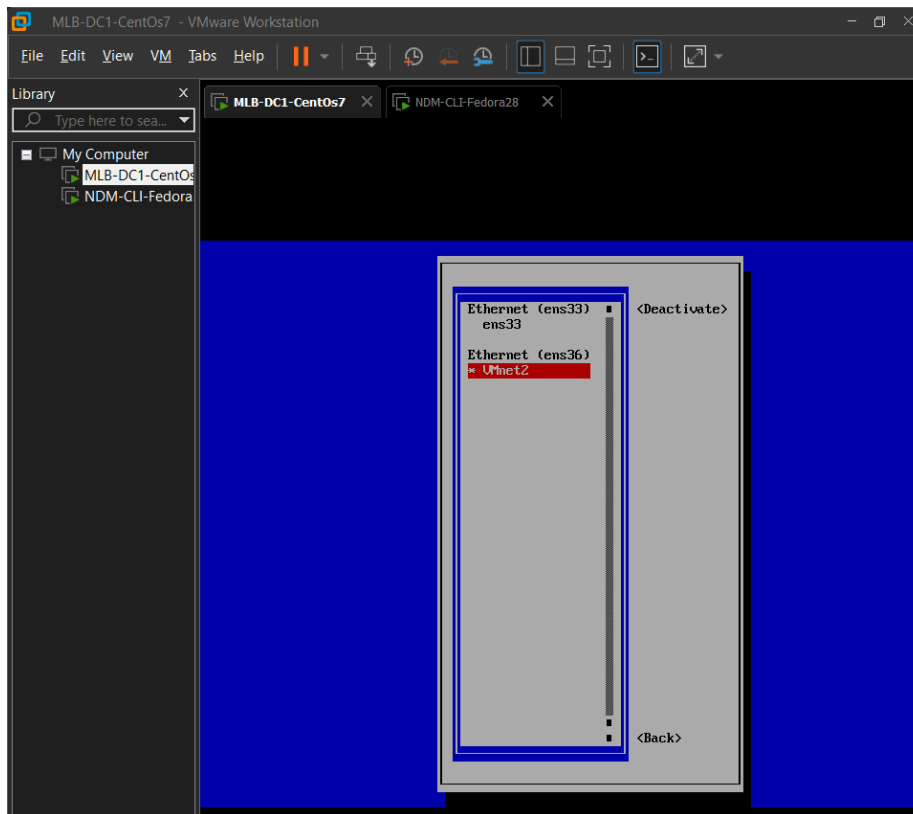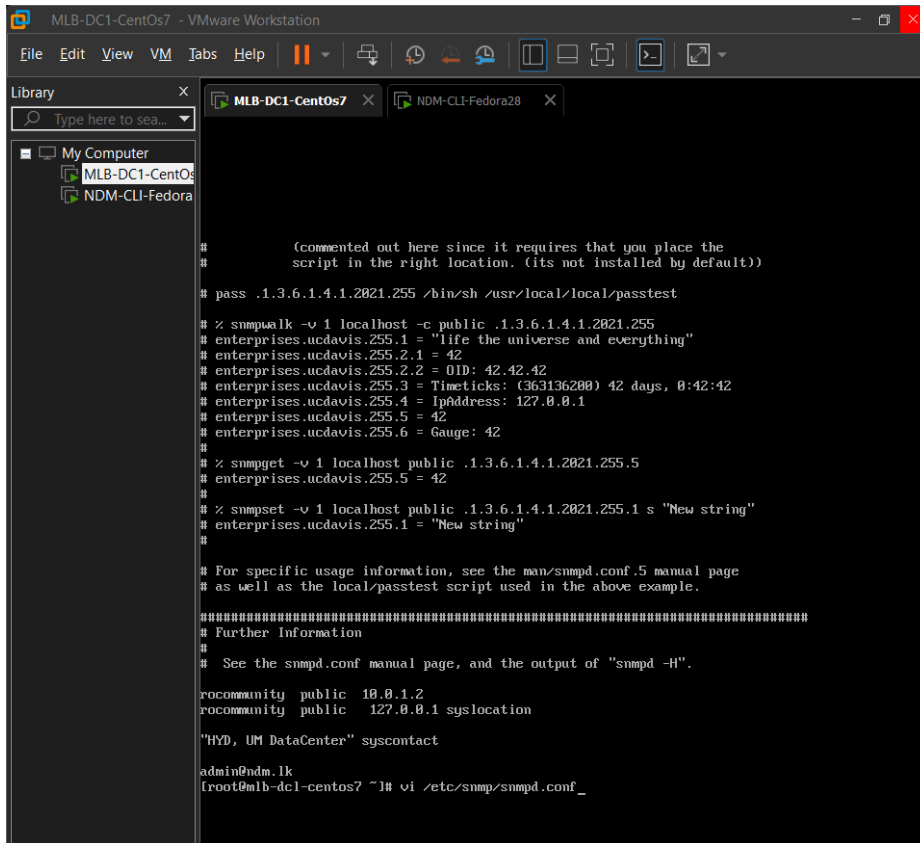
```
[root@mlb-dcl-centos7 ~]# yum install -y net-snmp net-snmp-utils
Loaded plugins: fastestmirror
Loading mirror speeds from cached hostfile
base                                                          | 3.6 kB  00:00:00
extras                                                        | 2.9 kB  00:00:00
updates                                                       | 2.9 kB  00:00:00
Package 1:net-snmp-5.7.2-49.el7_9.4.x86_64 already installed and latest version
Package 1:net-snmp-utils-5.7.2-49.el7_9.4.x86_64 already installed and latest version
Nothing to do
[root@mlb-dcl-centos7 ~]# _
```

STEP 04

01. View the SNMP configuration file
    # vi /etc/snmp/snmpd.conf

02. Add some configuration

03. Start SNMP service and check status
    # service snmpd start
    # service snmpd status

STEP 05

I. **Snmptranslate :-**
    - snmptranslate .1.3.6.1.2.1.1.3.0

    - snmptranslate -On SNMPv2-MIB::system.sysUpTime.0

    - snmptranslate .iso.3.6.1.private.enterprises.2021.2.1.prNames.0

- snmptranslate -On .iso.3.6.1.private.enterprises.2021.2.1.prNames.0

```
[root@mlb-dcl-centos7 ~]#
[root@mlb-dcl-centos7 ~]# snmptranslate -On .iso.3.6.1.private.enterprises.2021.2.1.prNames.0
.1.3.6.1.4.1.2021.2.1.2.0
[root@mlb-dcl-centos7 ~]#
```

- snmptranslate -Of .iso.3.6.1.private.enterprises.2021.2.1.prNames.0

```
[root@mlb-dcl-centos7 ~]#
[root@mlb-dcl-centos7 ~]# snmptranslate -Of .iso.3.6.1.private.enterprises.2021.2.1.prNames.0
.iso.org.dod.internet.private.enterprises.ucdavis.prTable.prEntry.prNames.0
[root@mlb-dcl-centos7 ~]#
```

- snmptranslate sysUpTime.0

```
[root@mlb-dcl-centos7 ~]#
[root@mlb-dcl-centos7 ~]# snmptranslate sysUpTime.0
sysUpTime.0: Unknown Object Identifier (Sub-id not found: (top) -> sysUpTime)
[root@mlb-dcl-centos7 ~]#
```

- snmptranslate -IR sysUpTime.0

```
[root@mlb-dcl-centos7 ~]#
[root@mlb-dcl-centos7 ~]# snmptranslate -IR sysUpTime.0
DISMAN-EVENT-MIB::sysUpTimeInstance
[root@mlb-dcl-centos7 ~]#
```

- snmptranslate -Ib 'sys.*ime'

```
[root@mlb-dcl-centos7 ~]#
[root@mlb-dcl-centos7 ~]# snmptranslate -Ib 'sys.*ime'
SNMPv2-MIB::sysORUpTime
[root@mlb-dcl-centos7 ~]#
```
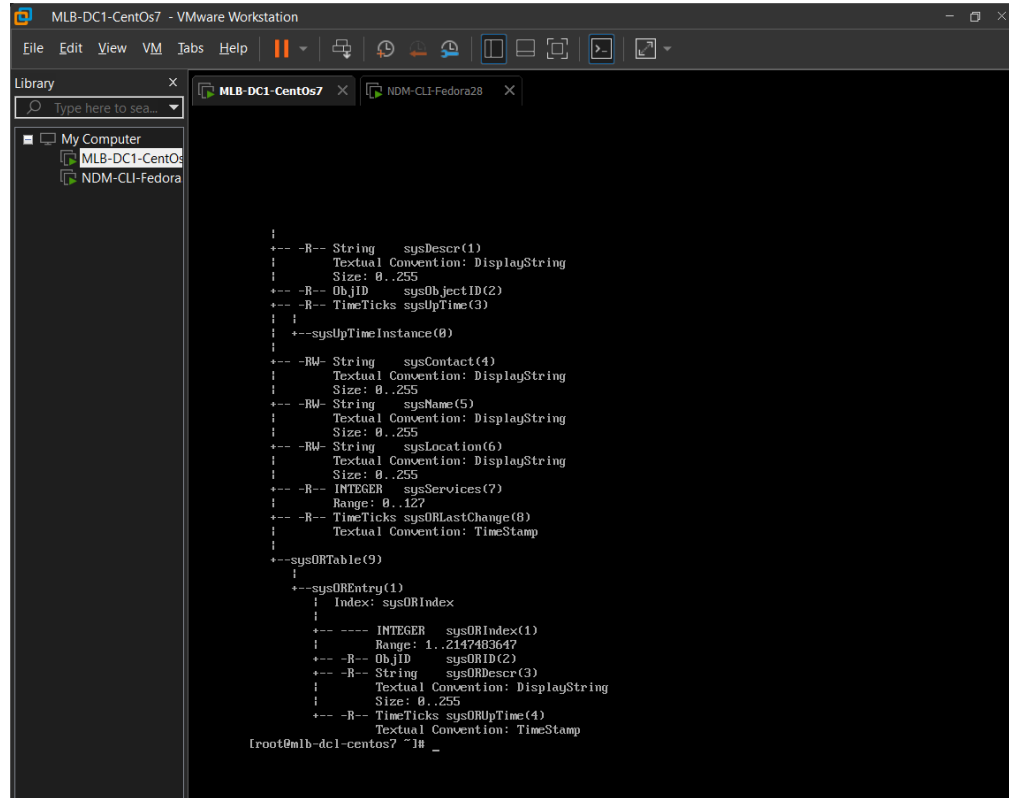
- snmptranslate -TB 'vacm.*table'

```
[root@mlb-dcl-centos7 ~]#
[root@mlb-dcl-centos7 ~]# snmptranslate -TB 'vacm.*table'
SNMP-VIEW-BASED-ACM-MIB::vacmViewTreeFamilyTable
SNMP-VIEW-BASED-ACM-MIB::vacmAccessTable
SNMP-VIEW-BASED-ACM-MIB::vacmSecurityToGroupTable
SNMP-VIEW-BASED-ACM-MIB::vacmContextTable
NET-SNMP-VACM-MIB::nsVacmAccessTable
[root@mlb-dcl-centos7 ~]#
```

- snmptranslate -On -Td -Ib 'sys.*ime'

```
[root@mlb-dcl-centos7 ~]#
[root@mlb-dcl-centos7 ~]# snmptranslate -On -Td -Ib 'sys.*ime'
.1.3.6.1.2.1.1.9.1.4
sysORUpTime OBJECT-TYPE
  -- FROM       SNMPv2-MIB
  -- TEXTUAL CONVENTION TimeStamp
  SYNTAX        TimeTicks
  MAX-ACCESS    read-only
  STATUS        current
  DESCRIPTION   "The value of sysUpTime at the time this conceptual
                row was last instantiated."
::= { iso(1) org(3) dod(6) internet(1) mgmt(2) mib-2(1) system(1) sysORTable(9) sysOREntry(1) 4 }
[root@mlb-dcl-centos7 ~]#
```
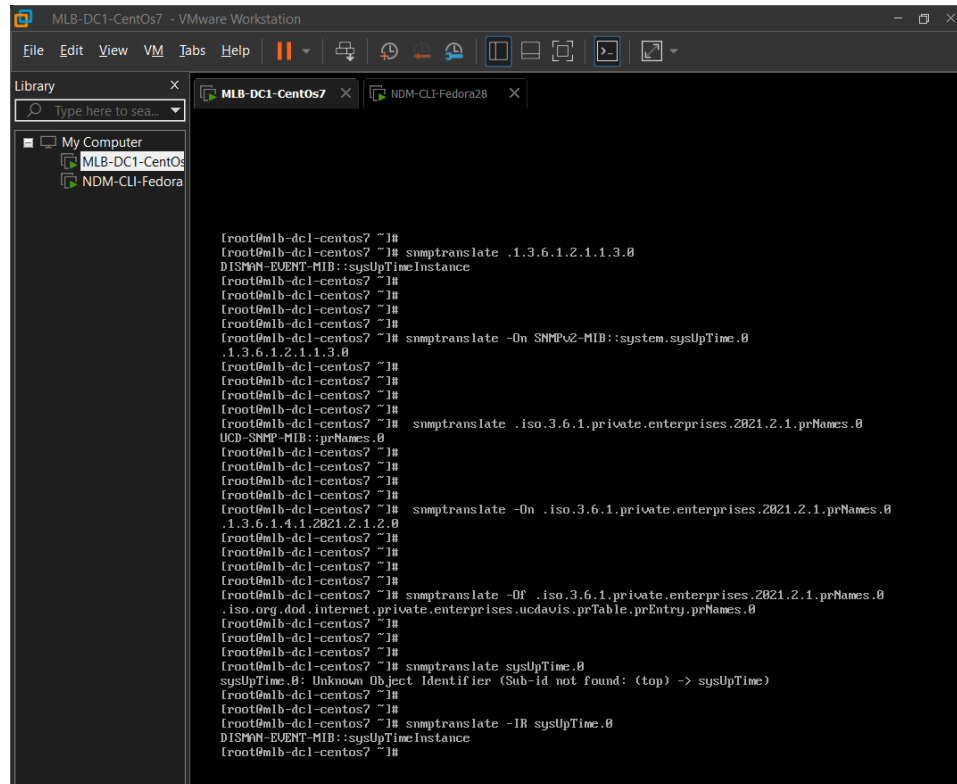
- snmptranslate -Tp -IR system

II.   Snmpget :-

- snmpget -v 1 -c public 10.0.1.2 system.sysUpTime.0

```
[root@mlb-dcl-centos7 ~]#
[root@mlb-dcl-centos7 ~]#  snmpget -v 1 -c public 10.0.1.2 system.sysUpTime.0
DISMAN-EVENT-MIB::sysUpTimeInstance = Timeticks: (170818) 0:28:28.18
[root@mlb-dcl-centos7 ~]#
```

- snmpget -v 2c -c public 10.0.1.2 system.sysUpTime.0

```
[root@mlb-dcl-centos7 ~]#
[root@mlb-dcl-centos7 ~]# snmpget -v 2c -c public 10.0.1.2 system.sysUpTime.0
DISMAN-EVENT-MIB::sysUpTimeInstance = Timeticks: (185773) 0:30:57.73
[root@mlb-dcl-centos7 ~]#
```

- snmpget -v 2c -c public 10.0.1.2 sysUpTime.0

```
[root@mlb-dcl-centos7 ~]#
[root@mlb-dcl-centos7 ~]# snmpget -v 2c -c public 10.0.1.2  sysUpTime.0
DISMAN-EVENT-MIB::sysUpTimeInstance = Timeticks: (192659) 0:32:06.59
[root@mlb-dcl-centos7 ~]#
```

- snmpget -v 1 -c public 10.0.1.2 sysUpTime

```
[root@mlb-dcl-centos7 ~]#
[root@mlb-dcl-centos7 ~]# snmpget -v 1 -c public 10.0.1.2 sysUpTime
Error in packet
Reason: (noSuchName) There is no such variable name in this MIB.
Failed object: SNMPv2-MIB::sysUpTime

[root@mlb-dcl-centos7 ~]#
```

- snmpget -v 2c -c public 10.0.1.2 sysUpTime

```
[root@mlb-dcl-centos7 ~]#
[root@mlb-dcl-centos7 ~]# snmpget -v 2c -c public 10.0.1.2 sysUpTime
SNMPv2-MIB::sysUpTime = No Such Instance currently exists at this OID
[root@mlb-dcl-centos7 ~]#
```

- snmpget -v 2c -c public 10.0.1.2 sysUpTime.0 ucdDemoUserList.0

```
[root@mlb-dcl-centos7 ~]#
UCD-DEMO-MIB::ucdDemoUserList.0 = No Such Object available on this agent at this OID
DISMAN-EVENT-MIB::sysUpTimeInstance = Timeticks: (232003) 0:38:40.03
[root@mlb-dcl-centos7 ~]# snmpget -v 2c -c public 10.0.1.2  sysUpTime.0 ucdDemoUserList.0
[root@mlb-dcl-centos7 ~]#
```
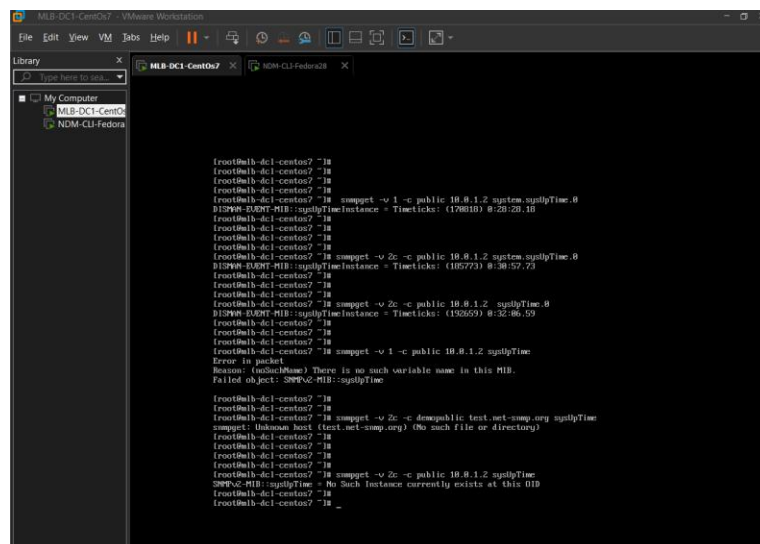
III.   Snmpgetnext : -

- snmpgetnext -v 2c -c public 10.0.1.2 system.sysUpTime.0

```
[root@mlb-dcl-centos7 ~]#
[root@mlb-dcl-centos7 ~]# snmpgetnext -v 2c -c public 10.0.1.2 system.sysUpTime.0
SNMPv2-MIB::sysContact.0 = STRING: Root <root@localhost> (configure /etc/snmp/snmp.local.conf)
[root@mlb-dcl-centos7 ~]#
```

- snmpgetnext -v 2c -c public 10.0.1.2 system.sysContact.0

```
[root@mlb-dcl-centos7 ~]#
[root@mlb-dcl-centos7 ~]# snmpgetnext -v 2c -c public 10.0.1.2 system.sysContact.0
SNMPv2-MIB::sysName.0 = STRING: mlb-dcl-centos7.csa.lk
[root@mlb-dcl-centos7 ~]#
```

- snmpgetnext -v 2c -c public 10.0.1.2 system.sysName.0

```
[root@mlb-dcl-centos7 ~]#
[root@mlb-dcl-centos7 ~]# snmpgetnext -v 2c -c public 10.0.1.2 system.sysName.0
SNMPv2-MIB::sysLocation.0 = STRING: Unknown (edit /etc/snmp/snmpd.conf)
[root@mlb-dcl-centos7 ~]#
```

- snmpgetnext -v 2c -c public 10.0.1.2 system.sysUpTime

```
[root@mlb-dcl-centos7 ~]#
[root@mlb-dcl-centos7 ~]# snmpgetnext -v 2c -c public 10.0.1.2 system.sysUpTime
DISMAN-EVENT-MIB::sysUpTimeInstance = Timeticks: (335897) 0:55:58.97
[root@mlb-dcl-centos7 ~]#
```

- snmpgetnext -v 2c -c public 10.0.1.2 system

```
[root@mlb-dcl-centos7 ~]#
[root@mlb-dcl-centos7 ~]# snmpgetnext -v 2c -c public 10.0.1.2 system
SNMPv2-MIB::sysDescr.0 = STRING: Linux mlb-dcl-centos7.csa.lk 3.10.0-1160.119.1.el7.x86_64 #1 SMP Tu
e Jun 4 14:43:51 UTC 2024 x86_64
[root@mlb-dcl-centos7 ~]#
```

- snmpgetnext -v 2c -c public 10.0.1.2 .1.3.6

```
[root@mlb-dcl-centos7 ~]#
[root@mlb-dcl-centos7 ~]# snmpgetnext -v 2c -c public 10.0.1.2 .1.3.6
SNMPv2-MIB::sysDescr.0 = STRING: Linux mlb-dcl-centos7.csa.lk 3.10.0-1160.119.1.el7.x86_64 #1 SMP Tu
e Jun 4 14:43:51 UTC 2024 x86_64
[root@mlb-dcl-centos7 ~]#
```