



**@ FILE NAME: M\_CTC\_ID\_020.txt**

**@ TEST SCOPE: M PLANE O-RAN CONFORMANCE**

**@ Software Release for MCB1: v1.0.7**

**Test Description : This scenario is MANDATORY for an O-RU supporting the Hybrid M-plane architecture model.**

**This test validates that the O-RU correctly implements NETCONF Access Control user privileges.**

**The scenario corresponds to the following chapters in [3]:**

**3.4 NETCONF Access Control**

```
=====
***** Initial Get *****
=====
```

```
> connect --ssh --host 192.168.3.38 --port 830 --login operator
```

```
Interactive SSH Authentication
```

```
Type your password:
```

```
Password:
```

```
=====
> get --filter-xpath /o-ran-usermgmt:users/user
=====
```

```
<?xml version="1.0" ?>
<data xmlns="urn:ietf:params:xml:ns:netconf:base:1.0" xmlns:nc="urn:ietf:params:xml:ns:netconf:base:1.0">
  <users xmlns="urn:o-ran:user-mgmt:1.0">
    <user>
      <name>oranuser</name>
      <account-type>PASSWORD</account-type>
      <enabled>true</enabled>
    </user>
    <user>
      <name>operator</name>
      <account-type>PASSWORD</account-type>
      <enabled>true</enabled>
    </user>
    <user>
      <name>observer</name>
      <account-type>PASSWORD</account-type>
      <enabled>true</enabled>
    </user>
    <user>
      <name>installer</name>
      <account-type>PASSWORD</account-type>
      <enabled>true</enabled>
    </user>
    <user>
      <name>user1</name>
      <account-type>PASSWORD</account-type>
      <enabled>true</enabled>
    </user>
    <user>
      <name>User2</name>
      <account-type>PASSWORD</account-type>
      <enabled>true</enabled>
    </user>
    <user>
      <name>User3</name>
      <account-type>PASSWORD</account-type>
      <enabled>true</enabled>
    </user>
  </users>
</data>
</xml>
```

```
</user>
<user>
  <name>user2</name>
  <account-type>PASSWORD</account-type>
  <enabled>true</enabled>
</user>
<user>
  <name>user3</name>
  <account-type>PASSWORD</account-type>
  <enabled>true</enabled>
</user>
<user>
  <name>user4</name>
  <account-type>PASSWORD</account-type>
  <enabled>true</enabled>
</user>
<user>
  <name>operator9272416</name>
  <account-type>PASSWORD</account-type>
  <enabled>true</enabled>
</user>
<user>
  <name>operator08457170344525021180394</name>
  <account-type>PASSWORD</account-type>
  <enabled>true</enabled>
</user>
<user>
  <name>operator1767096287497333</name>
  <account-type>PASSWORD</account-type>
  <enabled>true</enabled>
</user>
</users>
</data>
```

=====

**\*\*\*\*\* Connect to the NETCONF Server \*\*\*\*\***

=====

```
> connect --ssh --host 192.168.3.38 --port 830 --login installer
ssh-rsa key fingerprint is c0:7c:63:5d:4b:85:e7:27:e0:7e:f0:44:38:4e:ab:83
Interactive SSH Authentication done.

> status
Current NETCONF session:
ID      : 27
Host    : 192.168.3.38
Port    : 830
Transport : SSH
Capabilities:
urn:ietf:params:netconf:base:1.0 urn:ietf:params:netconf:base:1.1 urn:ietf:params:netconf:capability:writable-running:1.0
urn:ietf:params:netconf:capability:candidate:1.0 urn:ietf:params:netconf:capability:rollback-on-error:1.0
urn:ietf:params:netconf:capability:validate:1.1 urn:ietf:params:netconf:capability:startup:1.0 urn:ietf:params:netconf:capability:xpath:1.0
urn:ietf:params:netconf:capability:with-defaults:1.0?basic-mode=explicit&also-supported=report-all,report-all-tagged,trim,explicit
urn:ietf:params:netconf:capability:notification:1.0 urn:ietf:params:netconf:capability:interleave:1.0
urn:ietf:params:xml:ns:yang:ietf-yang-metadata?module=ietf-yang-metadata&revision=2016-08-05
urn:ietf:params:xml:ns:yang:1?module=yang&revision=2017-02-20
urn:ietf:params:xml:ns:yang:ietf-inet-types?module=ietf-inet-types&revision=2013-07-15
urn:ietf:params:xml:ns:yang:ietf-yang-types?module=ietf-yang-types&revision=2013-07-15
urn:ietf:params:netconf:capability:yang-library:1.1?revision=2019-01-04&content-id=63
urn:sysrepo:plugind?module=sysrepo-plugind&revision=2020-12-10
urn:ietf:params:xml:ns:yang:ietf-netconf-acm?module=ietf-netconf-acm&revision=2018-02-14
urn:ietf:params:xml:ns:netconf:base:1.0?module=ietf-netconf&revision=2013-09-29&features=writable-running,candidate,rollback-on-error,valid
ate,startup,url,xpath urn:ietf:params:xml:ns:yang:ietf-netconf-with-defaults?module=ietf-netconf-with-defaults&revision=2011-06-01
urn:ietf:params:xml:ns:yang:ietf-netconf-notifications?module=ietf-netconf-notifications&revision=2012-02-06
urn:ietf:params:xml:ns:yang:ietf-netconf-monitoring?module=ietf-netconf-monitoring&revision=2010-10-04
urn:ietf:params:xml:ns:netconf:notification:1.0?module=notifications&revision=2008-07-14
urn:ietf:params:xml:ns:netmod:notification?module=nc-notifications&revision=2008-07-14
urn:ietf:params:xml:ns:yang:ietf-x509-cert-to-name?module=ietf-x509-cert-to-name&revision=2014-12-10
urn:ietf:params:xml:ns:yang:iana-crypt-hash?module=iana-crypt-hash&revision=2014-08-06 urn:notification_history?module=notification_history
urn:ietf:params:xml:ns:yang:iana-if-type?module=iana-if-type&revision=2017-01-19
```

=====

```
> subscribe --filter-xpath /ietf-netconf-notifications:*
```

=====

Ok

```
=====
Step 2 TER NETCONF client attempts to configure a new user/password.
=====
```

```
=====
> edit-config --target running --config --defop merge
=====
```

```
=====
***** Replace with below xml *****
=====
```

```
<config xmlns="urn:ietf:params:xml:ns:netconf:base:1.0">
  <users xmlns="urn:o-ran:user-mgmt:1.0">
    <user>
      <name>operator935195018292002299818</name>
      <account-type>PASSWORD</account-type>

<password>UHQmWe%]]W.w)+JWg$^KqVshdVH)AF9UKrF8v]A26TBMr[FsbUfoW$0E[qy8L8he+j%Z-c%W^iTU(2N!</password>
      <enabled>true</enabled>
    </user>
  </users>
</config>
```

```
=====
Step 3 NETCONF server replies rejecting the protocol operation with an 'access-denied' error
=====
```

ERROR

```
type      : protocol
tag       : access-denied
severity  : error
path      : /o-ran-usermgmt:users/user
message   : Access to the data model "o-ran-usermgmt" is denied because "installer" NACM authorization failed.
```

## =====

**##### SYSTEM LOGS #####**

=====

Nov 4 02:48:41 mcb1 daemon.info netopeer2-server[984]: Trying to connect via IPv4 to 192.168.4.15:4336.

Nov 4 02:48:41 mcb1 daemon.err netopeer2-server[984]: connect() failed (Network is unreachable).

Nov 4 02:48:41 mcb1 daemon.info netopeer2-server[984]: Resolving unresolved data nodes and their constraints...

Nov 4 02:48:41 mcb1 daemon.info netopeer2-server[984]: There is no instance of "/vvdn\_mcel-wdm:system-apps/um\_manager", but it is not required.

Nov 4 02:48:41 mcb1 daemon.info netopeer2-server[984]: All data nodes and constraints resolved.

Nov 4 02:48:41 mcb1 daemon.info netopeer2-server[984]: Processing "notif" "ietf-netconf-notifications" event with ID 25.

Nov 4 02:48:41 mcb1 daemon.info netopeer2-server[984]: Successful processing of "notif" event with ID 25 priority 0 (remaining 0 subscribers).

Nov 4 02:48:42 mcb1 daemon.info netopeer2-server[984]: Resolving unresolved data nodes and their constraints...

Nov 4 02:48:42 mcb1 daemon.info netopeer2-server[984]: There is no instance of "/vvdn\_mcel-wdm:system-apps/radio\_manager", but it is not required.

Nov 4 02:48:42 mcb1 daemon.info netopeer2-server[984]: All data nodes and constraints resolved.

Nov 4 02:48:42 mcb1 daemon.info netopeer2-server[984]: Processing "notif" "ietf-netconf-notifications" event with ID 26.

Nov 4 02:48:42 mcb1 daemon.info netopeer2-server[984]: Successful processing of "notif" event with ID 26 priority 0 (remaining 0 subscribers).

Nov 4 02:48:42 mcb1 user.warn pm\_manager[1372]: Failed to open /media/sd-mmcb1k0p4/O-RAN/log/timezone. Using default value...

Nov 4 02:48:42 mcb1 user.warn pm\_manager[1372]: Failed to open /media/sd-mmcb1k0p4/O-RAN/log/timezone. Using default value...

Nov 4 02:48:42 mcb1 daemon.info netopeer2-server[984]: Trying to connect via IPv4 to 192.168.4.15:4336.

Nov 4 02:48:42 mcb1 daemon.err netopeer2-server[984]: connect() failed (Network is unreachable).

Nov 4 02:48:42 mcb1 user.warn pm\_manager[1372]: Failed to open /media/sd-mmcb1k0p4/O-RAN/log/timezone. Using default value...

Nov 4 02:48:42 mcb1 user.warn pm\_manager[1372]: Failed to open /media/sd-mmcb1k0p4/O-RAN/log/timezone. Using default value...

Nov 4 02:48:42 mcb1 user.warn pm\_manager[1372]: Failed to open /media/sd-mmcb1k0p4/O-RAN/log/timezone. Using default value...

Nov 4 02:48:42 mcb1 user.warn pm\_manager[1372]: Failed to open /media/sd-mmcb1k0p4/O-RAN/log/timezone. Using default value...

Nov 4 02:48:42 mcb1 user.warn pm\_manager[1372]: Failed to open /media/sd-mmcb1k0p4/O-RAN/log/timezone. Using default value...

Nov 4 02:48:42 mcb1 user.warn pm\_manager[1372]: Failed to open /media/sd-mmcb1k0p4/O-RAN/log/timezone. Using default value...

Nov 4 02:48:42 mcb1 user.warn pm\_manager[1372]: Failed to open /media/sd-mmcb1k0p4/O-RAN/log/timezone. Using default value...

Nov 4 02:48:42 mcb1 daemon.info netopeer2-server[984]: Resolving unresolved data nodes and their constraints...

Nov 4 02:48:42 mcb1 daemon.info netopeer2-server[984]: There is no instance of "/vvdn\_mcel-wdm:system-apps/cli\_manager", but it is not required.

Nov 4 02:48:42 mcb1 daemon.info netopeer2-server[984]: All data nodes and constraints resolved.

Nov 4 02:48:42 mcb1 daemon.info netopeer2-server[984]: Processing "notif" "ietf-netconf-notifications" event with ID 27.

Nov 4 02:48:42 mcb1 daemon.info netopeer2-server[984]: Successful processing of "notif" event with ID 27 priority 0 (remaining 0 subscribers).

Nov 4 02:48:42 mcb1 daemon.info netopeer2-server[984]: Resolving unresolved data nodes and their constraints...

Nov 4 02:48:42 mcb1 daemon.info netopeer2-server[984]: There is no instance of "/vvdn\_mcel-wdm:system-apps/pm\_manager", but it is not required.

Nov 4 02:48:42 mcb1 daemon.info netopeer2-server[984]: All data nodes and constraints resolved.

Nov 4 02:48:42 mcb1 daemon.info netopeer2-server[984]: Processing "notif" "ietf-netconf-notifications" event with ID 28.

Nov 4 02:48:42 mcb1 daemon.info netopeer2-server[984]: Successful processing of "notif" event with ID 28 priority 0 (remaining 0 subscribers).

Nov 4 02:48:43 mcb1 daemon.info netopeer2-server[984]: Trying to connect via IPv4 to 192.168.4.15:4336.

Nov 4 02:48:43 mcb1 daemon.err netopeer2-server[984]: connect() failed (Network is unreachable).

Nov 4 02:48:44 mcb1 daemon.info netopeer2-server[984]: Trying to connect via IPv4 to 192.168.4.15:4336.

Nov 4 02:48:44 mcb1 daemon.err netopeer2-server[984]: connect() failed (Network is unreachable).

Nov 4 02:48:45 mcb1 daemon.info netopeer2-server[984]: Trying to connect via IPv4 to 192.168.4.15:4336.

Nov 4 02:48:45 mcb1 daemon.err netopeer2-server[984]: connect() failed (Network is unreachable).

Nov 4 02:48:46 mcb1 user.notice SYNCMNGR[1305]: Received message from S-Plane

Nov 4 02:48:46 mcb1 daemon.info netopeer2-server[984]: Trying to connect via IPv4 to 192.168.4.15:4336.

Nov 4 02:48:46 mcb1 daemon.err netopeer2-server[984]: connect() failed (Network is unreachable).

Nov 4 02:48:47 mcb1 daemon.info netopeer2-server[984]: Trying to connect via IPv4 to 192.168.4.15:4336.

Nov 4 02:48:47 mcb1 daemon.err netopeer2-server[984]: connect() failed (Network is unreachable).

Nov 4 02:48:48 mcb1 daemon.info netopeer2-server[984]: Trying to connect via IPv4 to 192.168.4.15:4336.

Nov 4 02:48:48 mcb1 daemon.err netopeer2-server[984]: connect() failed (Network is unreachable).

Nov 4 02:48:49 mcb1 daemon.info netopeer2-server[984]: Trying to connect via IPv4 to 192.168.4.15:4336.

Nov 4 02:48:49 mcb1 daemon.err netopeer2-server[984]: connect() failed (Network is unreachable).

Nov 4 02:48:50 mcb1 daemon.info netopeer2-server[984]: Trying to connect via IPv4 to 192.168.4.15:4336.

Nov 4 02:48:50 mcb1 daemon.err netopeer2-server[984]: connect() failed (Network is unreachable).

Nov 4 02:48:51 mcb1 daemon.info netopeer2-server[984]: Trying to connect via IPv4 to 192.168.4.15:4336.

Nov 4 02:48:51 mcb1 daemon.err netopeer2-server[984]: connect() failed (Network is unreachable).

Nov 4 02:48:52 mcb1 user.warn pm\_manager[1372]: Failed to open /media/sd-mmcb1k0p4/O-RAN/log/timezone. Using default value...

Nov 4 02:48:52 mcb1 user.warn pm\_manager[1372]: Failed to open /media/sd-mmcb1k0p4/O-RAN/log/timezone. Using default value...

Nov 4 02:48:52 mcb1 daemon.info netopeer2-server[984]: Trying to connect via IPv4 to 192.168.4.15:4336.

Nov 4 02:48:52 mcb1 daemon.err netopeer2-server[984]: connect() failed (Network is unreachable).

Nov 4 02:48:52 mcb1 user.warn pm\_manager[1372]: Failed to open /media/sd-mmcb1k0p4/O-RAN/log/timezone. Using default value...

Nov 4 02:48:52 mcb1 user.warn pm\_manager[1372]: Failed to open /media/sd-mmcb1k0p4/O-RAN/log/timezone. Using default value...

Nov 4 02:48:52 mcb1 user.warn pm\_manager[1372]: Failed to open /media/sd-mmcb1k0p4/O-RAN/log/timezone. Using default value...

Nov 4 02:48:52 mcb1 user.warn pm\_manager[1372]: Failed to open /media/sd-mmcb1k0p4/O-RAN/log/timezone. Using default value...

Nov 4 02:48:52 mcb1 user.warn pm\_manager[1372]: Failed to open /media/sd-mmcb1k0p4/O-RAN/log/timezone. Using default value...

Nov 4 02:48:52 mcb1 user.warn pm\_manager[1372]: Failed to open /media/sd-mmcb1k0p4/O-RAN/log/timezone. Using default value...

Nov 4 02:48:53 mcb1 daemon.info netopeer2-server[984]: Trying to connect via IPv4 to 192.168.4.15:4336.

Nov 4 02:48:53 mcb1 daemon.err netopeer2-server[984]: connect() failed (Network is unreachable).

Nov 4 02:48:54 mcb1 daemon.info netopeer2-server[984]: Trying to connect via IPv4 to 192.168.4.15:4336.

Nov 4 02:48:54 mcb1 daemon.err netopeer2-server[984]: connect() failed (Network is unreachable).

Nov 4 02:48:55 mcb1 daemon.info netopeer2-server[984]: Trying to connect via IPv4 to 192.168.4.15:4336.

Nov 4 02:48:55 mcb1 daemon.err netopeer2-server[984]: connect() failed (Network is unreachable).

Nov 4 02:48:56 mcb1 user.notice SYNCMNGR[1305]: Received message from S-Plane

Nov 4 02:48:56 mcb1 daemon.info netopeer2-server[984]: Trying to connect via IPv4 to 192.168.4.15:4336.

Nov 4 02:48:56 mcb1 daemon.err netopeer2-server[984]: connect() failed (Network is unreachable).

Nov 4 02:48:57 mcb1 daemon.info netopeer2-server[984]: Trying to connect via IPv4 to 192.168.4.15:4336.

Nov 4 02:48:57 mcb1 daemon.err netopeer2-server[984]: connect() failed (Network is unreachable).

Nov 4 02:48:58 mcb1 daemon.info netopeer2-server[984]: Trying to connect via IPv4 to 192.168.4.15:4336.

Nov 4 02:48:58 mcb1 daemon.err netopeer2-server[984]: connect() failed (Network is unreachable).

Nov 4 02:48:59 mcb1 daemon.info netopeer2-server[984]: Trying to connect via IPv4 to 192.168.4.15:4336.

Nov 4 02:48:59 mcb1 daemon.err netopeer2-server[984]: connect() failed (Network is unreachable).

Nov 4 02:49:00 mcb1 daemon.info netopeer2-server[984]: Trying to connect via IPv4 to 192.168.4.15:4336.

Nov 4 02:49:00 mcb1 daemon.err netopeer2-server[984]: connect() failed (Network is unreachable).

Nov 4 02:49:00 mcb1 daemon.info netopeer2-server[984]: Accepted a connection on :::830.

Nov 4 02:49:00 mcb1 daemon.info netopeer2-server[984]: Session 595 (user "root", CID 1) created.

Nov 4 02:49:00 mcb1 daemon.info netopeer2-server[984]: Received an SSH message "request-service" of subtype "ssh-userauth".

Nov 4 02:49:00 mcb1 daemon.info netopeer2-server[984]: Received an SSH message "request-auth" of subtype "password".

Nov 4 02:49:00 mcb1 daemon.info netopeer2-server[984]: User "installer" authenticated.

Nov 4 02:49:00 mcb1 daemon.info netopeer2-server[984]: Received an SSH message "request-channel-open" of subtype "session".

Nov 4 02:49:00 mcb1 daemon.info netopeer2-server[984]: Received an SSH message "request-channel" of subtype "subsystem".

Nov 4 02:49:00 mcb1 daemon.info netopeer2-server[984]: Session 596 (user "root", CID 1) created.

Nov 4 02:49:00 mcb1 daemon.info netopeer2-server[984]: Published event "notif" "ietf-netconf-notifications" with ID 29 priority 0 for 1 subscribers.



Nov 4 02:49:00 mcb1 daemon.info netopeer2-server[984]: Processing "notif" "ietf-netconf-notifications" event with ID 29.

Nov 4 02:49:00 mcb1 daemon.info netopeer2-server[984]: Successful processing of "notif" event with ID 29 priority 0 (remaining 0 subscribers).

Nov 4 02:49:00 mcb1 daemon.info netopeer2-server[984]: Generated new event (netconf-session-start).

Nov 4 02:49:00 mcb1 daemon.info netopeer2-server[984]: Resolving unresolved data nodes and their constraints...

Nov 4 02:49:00 mcb1 daemon.info netopeer2-server[984]: All data nodes and constraints resolved.

Nov 4 02:49:00 mcb1 daemon.info netopeer2-server[984]: Resolving unresolved data nodes and their constraints...

Nov 4 02:49:00 mcb1 daemon.info netopeer2-server[984]: All data nodes and constraints resolved.

Nov 4 02:49:00 mcb1 daemon.info netopeer2-server[984]: Published event "rpc" "/ietf-netconf:get" with ID 57 priority 0 for 1 subscribers.

Nov 4 02:49:00 mcb1 daemon.info netopeer2-server[984]: Processing "/ietf-netconf:get" "rpc" event with ID 57 priority 0 (remaining 1 subscribers).

Nov 4 02:49:00 mcb1 daemon.info netopeer2-server[984]: Successful processing of "rpc" event with ID 57 priority 0 (remaining 0 subscribers).

Nov 4 02:49:00 mcb1 daemon.info netopeer2-server[984]: Event "rpc" with ID 57 priority 0 succeeded.

Nov 4 02:49:00 mcb1 daemon.info netopeer2-server[984]: Resolving unresolved data nodes and their constraints...

Nov 4 02:49:00 mcb1 daemon.info netopeer2-server[984]: All data nodes and constraints resolved.

Nov 4 02:49:00 mcb1 daemon.info netopeer2-server[984]: Session 27: thread 4 event new RPC.

Nov 4 02:49:01 mcb1 daemon.info netopeer2-server[984]: Resolving unresolved data nodes and their constraints...

Nov 4 02:49:01 mcb1 daemon.info netopeer2-server[984]: All data nodes and constraints resolved.

Nov 4 02:49:01 mcb1 daemon.info netopeer2-server[984]: Resolving unresolved data nodes and their constraints...

Nov 4 02:49:01 mcb1 daemon.info netopeer2-server[984]: All data nodes and constraints resolved.

Nov 4 02:49:01 mcb1 daemon.info netopeer2-server[984]: Published event "rpc" "/ietf-netconf:get" with ID 58 priority 0 for 1 subscribers.

Nov 4 02:49:01 mcb1 daemon.info netopeer2-server[984]: Processing "/ietf-netconf:get" "rpc" event with ID 58 priority 0 (remaining 1 subscribers).

Nov 4 02:49:01 mcb1 daemon.info netopeer2-server[984]: Published event "operational" "/o-ran-software-management:software-inventory" with ID 20.

Nov 4 02:49:01 mcb1 user.notice fw\_manager[1059]: RPC #20 recieved. xpath -> /o-ran-software-management:software-inventory

Nov 4 02:49:01 mcb1 daemon.info netopeer2-server[984]: Event "operational" with ID 20 succeeded.

Nov 4 02:49:01 mcb1 daemon.info netopeer2-server[984]: Resolving unresolved data nodes and their constraints...

Nov 4 02:49:01 mcb1 daemon.info netopeer2-server[984]: There is no leafref  
"/ietf-hardware:hardware/ietf-hardware:component/o-ran-hardware:product-code" with the value "VVDN=O-RU", but it is not required.

Nov 4 02:49:01 mcb1 daemon.info netopeer2-server[984]: There is no leafref  
"/ietf-hardware:hardware/ietf-hardware:component/o-ran-hardware:product-code" with the value "VVDN O-RU", but it is not required.

Nov 4 02:49:01 mcb1 daemon.info netopeer2-server[984]: There is no leafref  
"/ietf-hardware:hardware/ietf-hardware:component/o-ran-hardware:product-code" with the value "STL=O-RU", but it is not required.

Nov 4 02:49:01 mcb1 daemon.info netopeer2-server[984]: All data nodes and constraints resolved.

Nov 4 02:49:01 mcb1 daemon.info netopeer2-server[984]: Successful processing of "rpc" event with ID 58 priority 0 (remaining 0 subscribers).

Nov 4 02:49:01 mcb1 daemon.info netopeer2-server[984]: Event "rpc" with ID 58 priority 0 succeeded.

Nov 4 02:49:01 mcb1 daemon.info netopeer2-server[984]: Resolving unresolved data nodes and their constraints...

Nov 4 02:49:01 mcb1 daemon.info netopeer2-server[984]: All data nodes and constraints resolved.

Nov 4 02:49:01 mcb1 daemon.info netopeer2-server[984]: Resolving unresolved data nodes and their constraints...

Nov 4 02:49:01 mcb1 daemon.info netopeer2-server[984]: There is no leafref  
"/ietf-hardware:hardware/ietf-hardware:component/o-ran-hardware:product-code" with the value "VVDN=O-RU", but it is not required.

Nov 4 02:49:01 mcb1 daemon.info netopeer2-server[984]: There is no leafref  
"/ietf-hardware:hardware/ietf-hardware:component/o-ran-hardware:product-code" with the value "VVDN O-RU", but it is not required.

Nov 4 02:49:01 mcb1 daemon.info netopeer2-server[984]: There is no leafref  
"/ietf-hardware:hardware/ietf-hardware:component/o-ran-hardware:product-code" with the value "STL=O-RU", but it is not required.

Nov 4 02:49:01 mcb1 daemon.info netopeer2-server[984]: All data nodes and constraints resolved.

Nov 4 02:49:01 mcb1 daemon.info netopeer2-server[984]: Session 27: thread 4 event new RPC.

Nov 4 02:49:01 mcb1 daemon.info netopeer2-server[984]: Resolving unresolved data nodes and their constraints...

Nov 4 02:49:01 mcb1 daemon.info netopeer2-server[984]: All data nodes and constraints resolved.



Nov 4 02:49:01 mcb1 daemon.info netopeer2-server[984]: Resolving unresolved data nodes and their constraints...

Nov 4 02:49:01 mcb1 daemon.info netopeer2-server[984]: All data nodes and constraints resolved.

Nov 4 02:49:01 mcb1 daemon.info netopeer2-server[984]: Published event "rpc" "/ietf-netconf:get-config" with ID 11 priority 0 for 1 subscribers.

Nov 4 02:49:01 mcb1 daemon.info netopeer2-server[984]: Processing "/ietf-netconf:get-config" "rpc" event with ID 11 priority 0 (remaining 1 subscribers).

Nov 4 02:49:01 mcb1 daemon.info netopeer2-server[984]: Successful processing of "rpc" event with ID 11 priority 0 (remaining 0 subscribers).

Nov 4 02:49:01 mcb1 daemon.info netopeer2-server[984]: Event "rpc" with ID 11 priority 0 succeeded.

Nov 4 02:49:01 mcb1 daemon.info netopeer2-server[984]: Resolving unresolved data nodes and their constraints...

Nov 4 02:49:01 mcb1 daemon.info netopeer2-server[984]: All data nodes and constraints resolved.

Nov 4 02:49:01 mcb1 daemon.info netopeer2-server[984]: Resolving unresolved data nodes and their constraints...

Nov 4 02:49:01 mcb1 daemon.info netopeer2-server[984]: There is no leafref  
"/ietf-hardware:hardware/ietf-hardware:component/ietf-hardware:name" with the value "ru-port1", but it is not required.

Nov 4 02:49:01 mcb1 daemon.info netopeer2-server[984]: There is no leafref  
"/ietf-hardware:hardware/ietf-hardware:component/ietf-hardware:name" with the value "ru-port1", but it is not required.

Nov 4 02:49:01 mcb1 daemon.info netopeer2-server[984]: All data nodes and constraints resolved.

Nov 4 02:49:01 mcb1 daemon.info netopeer2-server[984]: Session 27: thread 3 event new RPC.

Nov 4 02:49:01 mcb1 daemon.info netopeer2-server[984]: Trying to connect via IPv4 to 192.168.4.15:4336.

Nov 4 02:49:01 mcb1 daemon.err netopeer2-server[984]: connect() failed (Network is unreachable).

Nov 4 02:49:01 mcb1 daemon.info netopeer2-server[984]: Accepted a connection on :::830.

Nov 4 02:49:01 mcb1 daemon.info netopeer2-server[984]: Session 602 (user "root", CID 1) created.

Nov 4 02:49:01 mcb1 daemon.info netopeer2-server[984]: Received an SSH message "request-service" of subtype "ssh-userauth".

Nov 4 02:49:01 mcb1 daemon.info netopeer2-server[984]: Received an SSH message "request-auth" of subtype "password".

Nov 4 02:49:01 mcb1 daemon.info netopeer2-server[984]: User "operator" authenticated.

Nov 4 02:49:01 mcb1 daemon.info netopeer2-server[984]: Received an SSH message "request-channel-open" of subtype "session".

Nov 4 02:49:01 mcb1 daemon.info netopeer2-server[984]: Received an SSH message "request-channel" of subtype "subsystem".

Nov 4 02:49:01 mcb1 daemon.info netopeer2-server[984]: Session 603 (user "root", CID 1) created.

Nov 4 02:49:01 mcb1 daemon.info netopeer2-server[984]: Published event "notif" "ietf-netconf-notifications" with ID 30 priority 0 for 1 subscribers.

Nov 4 02:49:01 mcb1 daemon.info netopeer2-server[984]: Processing "notif" "ietf-netconf-notifications" event with ID 30.

Nov 4 02:49:01 mcb1 daemon.info netopeer2-server[984]: Successful processing of "notif" event with ID 30 priority 0 (remaining 0 subscribers).

Nov 4 02:49:01 mcb1 daemon.info netopeer2-server[984]: Generated new event (netconf-session-start).

Nov 4 02:49:01 mcb1 daemon.info netopeer2-server[984]: Resolving unresolved data nodes and their constraints...

Nov 4 02:49:01 mcb1 daemon.info netopeer2-server[984]: All data nodes and constraints resolved.

Nov 4 02:49:01 mcb1 daemon.info netopeer2-server[984]: Resolving unresolved data nodes and their constraints...

Nov 4 02:49:01 mcb1 daemon.info netopeer2-server[984]: All data nodes and constraints resolved.

Nov 4 02:49:01 mcb1 daemon.info netopeer2-server[984]: Published event "rpc" "/ietf-netconf:get" with ID 59 priority 0 for 1 subscribers.

Nov 4 02:49:01 mcb1 daemon.info netopeer2-server[984]: Processing "/ietf-netconf:get" "rpc" event with ID 59 priority 0 (remaining 1 subscribers).

Nov 4 02:49:01 mcb1 daemon.info netopeer2-server[984]: Successful processing of "rpc" event with ID 59 priority 0 (remaining 0 subscribers).

Nov 4 02:49:01 mcb1 daemon.info netopeer2-server[984]: Event "rpc" with ID 59 priority 0 succeeded.

Nov 4 02:49:01 mcb1 daemon.info netopeer2-server[984]: Resolving unresolved data nodes and their constraints...

Nov 4 02:49:01 mcb1 daemon.info netopeer2-server[984]: All data nodes and constraints resolved.

Nov 4 02:49:01 mcb1 daemon.info netopeer2-server[984]: Session 28: thread 4 event new RPC.

Nov 4 02:49:02 mcb1 daemon.info netopeer2-server[984]: Session 28: thread 4 event new RPC.

Nov 4 02:49:02 mcb1 daemon.info netopeer2-server[984]: Session 28: thread 4 event session terminated.

Nov 4 02:49:02 mcb1 daemon.info netopeer2-server[984]: Published event "notif" "ietf-netconf-notifications" with ID 31 priority 0 for 1 subscribers.

Nov 4 02:49:02 mcb1 daemon.info netopeer2-server[984]: Processing "notif" "ietf-netconf-notifications" event with ID 31.

Nov 4 02:49:02 mcb1 daemon.info netopeer2-server[984]: Successful processing of "notif" event with ID 31 priority 0 (remaining 0 subscribers).

Nov 4 02:49:02 mcb1 daemon.info netopeer2-server[984]: Generated new event (netconf-session-end).

Nov 4 02:49:02 mcb1 user.warn pm\_manager[1372]: Failed to open /media/sd-mmcb1k0p4/O-RAN/log/timezone. Using default value...

Nov 4 02:49:02 mcb1 user.warn pm\_manager[1372]: Failed to open /media/sd-mmcb1k0p4/O-RAN/log/timezone. Using default value...

Nov 4 02:49:02 mcb1 daemon.info netopeer2-server[984]: Trying to connect via IPv4 to 192.168.4.15:4336.

Nov 4 02:49:02 mcb1 daemon.err netopeer2-server[984]: connect() failed (Network is unreachable).

Nov 4 02:49:02 mcb1 user.warn pm\_manager[1372]: Failed to open /media/sd-mmcb1k0p4/O-RAN/log/timezone. Using default value...

Nov 4 02:49:02 mcb1 user.warn pm\_manager[1372]: Failed to open /media/sd-mmcb1k0p4/O-RAN/log/timezone. Using default value...

Nov 4 02:49:02 mcb1 user.warn pm\_manager[1372]: Failed to open /media/sd-mmcb1k0p4/O-RAN/log/timezone. Using default value...

Nov 4 02:49:02 mcb1 user.warn pm\_manager[1372]: Failed to open /media/sd-mmcb1k0p4/O-RAN/log/timezone. Using default value...

Nov 4 02:49:02 mcb1 user.warn pm\_manager[1372]: Failed to open /media/sd-mmcb1k0p4/O-RAN/log/timezone. Using default value...

Nov 4 02:49:02 mcb1 user.warn pm\_manager[1372]: Failed to open /media/sd-mmcb1k0p4/O-RAN/log/timezone. Using default value...

Nov 4 02:49:02 mcb1 user.warn pm\_manager[1372]: Failed to open /media/sd-mmcb1k0p4/O-RAN/log/timezone. Using default value...

Nov 4 02:49:03 mcb1 daemon.info netopeer2-server[984]: Trying to connect via IPv4 to 192.168.4.15:4336.

Nov 4 02:49:03 mcb1 daemon.err netopeer2-server[984]: connect() failed (Network is unreachable).

Nov 4 02:49:04 mcb1 daemon.info netopeer2-server[984]: Trying to connect via IPv4 to 192.168.4.15:4336.

Nov 4 02:49:04 mcb1 daemon.err netopeer2-server[984]: connect() failed (Network is unreachable).

Nov 4 02:49:05 mcb1 daemon.info netopeer2-server[984]: Trying to connect via IPv4 to 192.168.4.15:4336.

Nov 4 02:49:05 mcb1 daemon.err netopeer2-server[984]: connect() failed (Network is unreachable).

Nov 4 02:49:06 mcb1 user.notice SYNCMNGR[1305]: Received message from S-Plane

Nov 4 02:49:06 mcb1 daemon.info netopeer2-server[984]: Trying to connect via IPv4 to 192.168.4.15:4336.

Nov 4 02:49:06 mcb1 daemon.err netopeer2-server[984]: connect() failed (Network is unreachable).

Nov 4 02:49:07 mcb1 daemon.info netopeer2-server[984]: Resolving unresolved data nodes and their constraints...

Nov 4 02:49:07 mcb1 daemon.info netopeer2-server[984]: All data nodes and constraints resolved.

Nov 4 02:49:07 mcb1 daemon.info netopeer2-server[984]: Resolving unresolved data nodes and their constraints...

Nov 4 02:49:07 mcb1 daemon.info netopeer2-server[984]: All data nodes and constraints resolved.

Nov 4 02:49:07 mcb1 daemon.info netopeer2-server[984]: Published event "rpc" "/notifications:create-subscription" with ID 9 priority 1 for 1 subscribers.

Nov 4 02:49:07 mcb1 daemon.info netopeer2-server[984]: Processing "ietf-netconf-monitoring" "operational" event with ID 13.

Nov 4 02:49:07 mcb1 daemon.info netopeer2-server[984]: Successful processing of "operational" event with ID 13.

Nov 4 02:49:07 mcb1 daemon.info netopeer2-server[984]: Trying to connect via IPv4 to 192.168.4.15:4336.

Nov 4 02:49:07 mcb1 daemon.err netopeer2-server[984]: connect() failed (Network is unreachable).

Nov 4 02:49:08 mcb1 daemon.info netopeer2-server[984]: Event "rpc" with ID 9 priority 1 succeeded.

Nov 4 02:49:08 mcb1 daemon.info netopeer2-server[984]: Published event "rpc" "/notifications:create-subscription" with ID 9 priority 0 for 1 subscribers.

Nov 4 02:49:08 mcb1 daemon.info netopeer2-server[984]: Processing "/notifications:create-subscription" "rpc" event with ID 9 priority 0 (remaining 1 subscribers).

Nov 4 02:49:08 mcb1 daemon.info netopeer2-server[984]: Successful processing of "rpc" event with ID 9 priority 0 (remaining 0 subscribers).

Nov 4 02:49:08 mcb1 daemon.info netopeer2-server[984]: Event "rpc" with ID 9 priority 0 succeeded.

Nov 4 02:49:08 mcb1 daemon.info netopeer2-server[984]: Session 27: thread 0 event new RPC.

Nov 4 02:49:08 mcb1 daemon.info netopeer2-server[984]: Resolving unresolved data nodes and their constraints...

Nov 4 02:49:08 mcb1 daemon.info netopeer2-server[984]: All data nodes and constraints resolved.

Nov 4 02:49:08 mcb1 daemon.info netopeer2-server[984]: Resolving unresolved data nodes and their constraints...

Nov 4 02:49:08 mcb1 daemon.info netopeer2-server[984]: All data nodes and constraints resolved.

Nov 4 02:49:08 mcb1 daemon.info netopeer2-server[984]: Published event "rpc" "/ietf-netconf:edit-config" with ID 28 priority 0 for 1 subscribers.

Nov 4 02:49:08 mcb1 daemon.info netopeer2-server[984]: Processing "/ietf-netconf:edit-config" "rpc" event with ID 28 priority 0 (remaining 1 subscribers).

Nov 4 02:49:08 mcb1 daemon.info netopeer2-server[984]: edit-config error-option "stop-on-error" not supported, rollback-on-error will be performed.

Nov 4 02:49:08 mcb1 daemon.err netopeer2-server[984]: Access to the data model "o-ran-usermgmt" is denied because "installer" NACM

authorization failed.

Nov 4 02:49:08 mcb1 daemon.info netopeer2-server[984]: Failed processing of "rpc" event with ID 28 priority 0 (remaining 1 subscribers).

Nov 4 02:49:08 mcb1 daemon.err netopeer2-server[984]: Access to the data model "o-ran-usermgmt" is denied because "installer" NACM authorization failed.

Nov 4 02:49:08 mcb1 daemon.warn netopeer2-server[984]: Event "rpc" with ID 28 priority 0 failed (User callback failed).

Nov 4 02:49:08 mcb1 daemon.err netopeer2-server[984]: Failed to send an RPC (User callback failed).

Nov 4 02:49:08 mcb1 daemon.info netopeer2-server[984]: Session 27: thread 4 event new RPC.

Nov 4 02:49:08 mcb1 daemon.info netopeer2-server[984]: Session 27: thread 4 event reply error.

Nov 4 02:49:08 mcb1 daemon.info netopeer2-server[984]: Trying to connect via IPv4 to 192.168.4.15:4336.

Nov 4 02:49:08 mcb1 daemon.err netopeer2-server[984]: connect() failed (Network is unreachable).

Nov 4 02:49:09 mcb1 daemon.info netopeer2-server[984]: Trying to connect via IPv4 to 192.168.4.15:4336.

Nov 4 02:49:09 mcb1 daemon.err netopeer2-server[984]: connect() failed (Network is unreachable).

Nov 4 02:49:10 mcb1 daemon.info netopeer2-server[984]: Trying to connect via IPv4 to 192.168.4.15:4336.

Nov 4 02:49:10 mcb1 daemon.err netopeer2-server[984]: connect() failed (Network is unreachable).

Nov 4 02:49:11 mcb1 daemon.info netopeer2-server[984]: Trying to connect via IPv4 to 192.168.4.15:4336.

Nov 4 02:49:11 mcb1 daemon.err netopeer2-server[984]: connect() failed (Network is unreachable).

Nov 4 02:49:12 mcb1 user.warn pm\_manager[1372]: Failed to open /media/sd-mmcbk0p4/O-RAN/log/timezone. Using default value...

Nov 4 02:49:12 mcb1 user.warn pm\_manager[1372]: Failed to open /media/sd-mmcbk0p4/O-RAN/log/timezone. Using default value...

Nov 4 02:49:12 mcb1 daemon.info netopeer2-server[984]: Trying to connect via IPv4 to 192.168.4.15:4336.

Nov 4 02:49:12 mcb1 daemon.err netopeer2-server[984]: connect() failed (Network is unreachable).

Nov 4 02:49:12 mcb1 user.warn pm\_manager[1372]: Failed to open /media/sd-mmcbk0p4/O-RAN/log/timezone. Using default value...

Nov 4 02:49:12 mcb1 user.warn pm\_manager[1372]: Failed to open /media/sd-mmcbk0p4/O-RAN/log/timezone. Using default value...

Nov 4 02:49:12 mcb1 user.warn pm\_manager[1372]: Failed to open /media/sd-mmcbk0p4/O-RAN/log/timezone. Using default value...

Nov 4 02:49:12 mcb1 user.warn pm\_manager[1372]: Failed to open /media/sd-mmcbk0p4/O-RAN/log/timezone. Using default value...

Nov 4 02:49:12 mcb1 user.warn pm\_manager[1372]: Failed to open /media/sd-mmcbk0p4/O-RAN/log/timezone. Using default value...

Nov 4 02:49:12 mcb1 user.warn pm\_manager[1372]: Failed to open /media/sd-mmcbk0p4/O-RAN/log/timezone. Using default value...

Nov 4 02:49:12 mcb1 user.warn pm\_manager[1372]: Failed to open /media/sd-mmcbk0p4/O-RAN/log/timezone. Using default value...

Nov 4 02:49:13 mcb1 daemon.info netopeer2-server[984]: Session 27: thread 0 event new RPC.

Nov 4 02:49:13 mcb1 daemon.info netopeer2-server[984]: Session 27: thread 0 event session terminated.

Nov 4 02:49:13 mcb1 daemon.info netopeer2-server[984]: Trying to connect via IPv4 to 192.168.4.15:4336.

Nov 4 02:49:13 mcb1 daemon.err netopeer2-server[984]: connect() failed (Network is unreachable).

Nov 4 02:49:13 mcb1 daemon.info netopeer2-server[984]: Published event "notif" "ietf-netconf-notifications" with ID 32 priority 0 for 1 subscribers.

Nov 4 02:49:13 mcb1 daemon.info netopeer2-server[984]: Generated new event (netconf-session-end).

Nov 4 02:49:13 mcb1 daemon.info netopeer2-server[984]: Processing "notif" "ietf-netconf-notifications" event with ID 32.

Nov 4 02:49:13 mcb1 daemon.info netopeer2-server[984]: Successful processing of "notif" event with ID 32 priority 0 (remaining 0 subscribers).

Nov 4 02:49:13 mcb1 authpriv.debug sshd[7387]: pam\_unix(sshd:account): account installer has password changed in future

Nov 4 02:49:13 mcb1 auth.info sshd[7387]: Accepted password for installer from 192.168.3.15 port 37784 ssh2

Nov 4 02:49:13 mcb1 authpriv.info sshd[7387]: pam\_unix(sshd:session): session opened for user installer by (uid=0)

**Expected Result : The NETCONF server replies rejecting the protocol operation with an "access-denied" error.**

=====

\*\*\*\*\* Actual Result \*\*\*\*\*

=====

=====

<b>Access Control NMS (negative case)</b>	<b>=</b>	<b>SUCCESS</b>
---	----------	----------------

=====