



**@ FILE NAME: M\_CTC\_ID\_021.txt**

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

**@ Software Release for MCB1: v1.0.1**

**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 192.168.170.37 --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>garuda</name>
      <account-type>PASSWORD</account-type>
      <enabled>true</enabled>
    </user>
    <user>
      <name>operator11302326379</name>
      <account-type>PASSWORD</account-type>
      <enabled>true</enabled>
    </user>
    <user>
      <name>operator44567591</name>
      <account-type>PASSWORD</account-type>
      <enabled>true</enabled>
    </user>
  </users>
</data>
```

```
</user>
<user>
  <name>operator8075861281902</name>
  <account-type>PASSWORD</account-type>
  <enabled>true</enabled>
</user>
<user>
  <name>operator17619020756748090</name>
  <account-type>PASSWORD</account-type>
  <enabled>true</enabled>
</user>
</users>
</data>
```

=====

**'eth1.448'**

=====

Error occurred in line number 265

## =====

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

=====

Oct 29 23:17:04 mcb1 daemon.info netopeer2-server[980]: Trying to connect via IPv4 to 192.168.170.85:4334.

Oct 29 23:17:04 mcb1 daemon.info netopeer2-server[980]: getsockopt() error (Connection refused).

Oct 29 23:17:05 mcb1 daemon.info netopeer2-server[980]: Trying to connect via IPv4 to 192.168.170.85:4334.

Oct 29 23:17:05 mcb1 daemon.info netopeer2-server[980]: getsockopt() error (Connection refused).

Oct 29 23:17:06 mcb1 daemon.info netopeer2-server[980]: Trying to connect via IPv4 to 192.168.170.85:4334.

Oct 29 23:17:06 mcb1 daemon.info netopeer2-server[980]: Successfully connected to 192.168.170.85:4334 over IPv4.

Oct 29 23:17:06 mcb1 daemon.info netopeer2-server[980]: Session 108 (user "root", CID 1) created.

Oct 29 23:17:06 mcb1 daemon.info netopeer2-server[980]: Received an SSH message "request-service" of subtype "ssh-userauth".

Oct 29 23:17:06 mcb1 daemon.info netopeer2-server[980]: Received an SSH message "request-auth" of subtype "password".

Oct 29 23:17:06 mcb1 daemon.info netopeer2-server[980]: User "observer" authenticated.

Oct 29 23:17:06 mcb1 daemon.info netopeer2-server[980]: Received an SSH message "request-channel-open" of subtype "session".

Oct 29 23:17:06 mcb1 daemon.info netopeer2-server[980]: Received an SSH message "request-channel" of subtype "subsystem".

Oct 29 23:17:06 mcb1 daemon.info netopeer2-server[980]: Call Home client "default-client" session 5 established.

Oct 29 23:17:06 mcb1 daemon.info netopeer2-server[980]: Session 109 (user "root", CID 1) created.

Oct 29 23:17:06 mcb1 daemon.info netopeer2-server[980]: There are no subscribers for "ietf-netconf-notifications" notifications.

Oct 29 23:17:06 mcb1 daemon.info netopeer2-server[980]: Generated new event (netconf-session-start).

Oct 29 23:17:06 mcb1 daemon.info netopeer2-server[980]: Resolving unresolved data nodes and their constraints...

Oct 29 23:17:06 mcb1 daemon.info netopeer2-server[980]: All data nodes and constraints resolved.

Oct 29 23:17:06 mcb1 daemon.info netopeer2-server[980]: Resolving unresolved data nodes and their constraints...

Oct 29 23:17:06 mcb1 daemon.info netopeer2-server[980]: All data nodes and constraints resolved.

Oct 29 23:17:06 mcb1 daemon.info netopeer2-server[980]: Published event "rpc" "/ietf-netconf:get" with ID 8 priority 0 for 1 subscribers.

Oct 29 23:17:06 mcb1 daemon.info netopeer2-server[980]: Processing "/ietf-netconf:get" "rpc" event with ID 8 priority 0 (remaining 1 subscribers).

Oct 29 23:17:06 mcb1 daemon.info netopeer2-server[980]: Successful processing of "rpc" event with ID 8 priority 0 (remaining 0 subscribers).

Oct 29 23:17:06 mcb1 daemon.info netopeer2-server[980]: Event "rpc" with ID 8 priority 0 succeeded.

Oct 29 23:17:06 mcb1 daemon.info netopeer2-server[980]: Resolving unresolved data nodes and their constraints...

Oct 29 23:17:06 mcb1 daemon.info netopeer2-server[980]: All data nodes and constraints resolved.

Oct 29 23:17:06 mcb1 daemon.info netopeer2-server[980]: Session 5: thread 3 event new RPC.

Oct 29 23:17:06 mcb1 daemon.info netopeer2-server[980]: Resolving unresolved data nodes and their constraints...

Oct 29 23:17:06 mcb1 daemon.info netopeer2-server[980]: All data nodes and constraints resolved.

Oct 29 23:17:06 mcb1 daemon.info netopeer2-server[980]: Resolving unresolved data nodes and their constraints...

Oct 29 23:17:06 mcb1 daemon.info netopeer2-server[980]: All data nodes and constraints resolved.

Oct 29 23:17:06 mcb1 daemon.info netopeer2-server[980]: Published event "rpc" "/ietf-netconf:get" with ID 9 priority 0 for 1 subscribers.

Oct 29 23:17:06 mcb1 daemon.info netopeer2-server[980]: Processing "/ietf-netconf:get" "rpc" event with ID 9 priority 0 (remaining 1 subscribers).

Oct 29 23:17:06 mcb1 daemon.info netopeer2-server[980]: Published event "operational" "/o-ran-software-management:software-inventory" with ID 4.

Oct 29 23:17:06 mcb1 user.notice fw\_manager[1064]: RPC #4 recieved. xpath -> /o-ran-software-management:software-inventory

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: Event "operational" with ID 4 succeeded.

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: Resolving unresolved data nodes and their constraints...

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: 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.

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: 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.

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: 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.

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: All data nodes and constraints resolved.

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: Successful processing of "rpc" event with ID 9 priority 0 (remaining 0 subscribers).

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: Event "rpc" with ID 9 priority 0 succeeded.

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: Resolving unresolved data nodes and their constraints...

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: All data nodes and constraints resolved.

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: Resolving unresolved data nodes and their constraints...

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: 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.

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: 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.

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: 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.

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: All data nodes and constraints resolved.

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: Session 5: thread 3 event new RPC.

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: Resolving unresolved data nodes and their constraints...

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: All data nodes and constraints resolved.

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: Resolving unresolved data nodes and their constraints...

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: All data nodes and constraints resolved.

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: Published event "rpc" "/ietf-netconf:get-config" with ID 5 priority 0 for 1 subscribers.

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: Processing "/ietf-netconf:get-config" "rpc" event with ID 5 priority 0 (remaining 1 subscribers).

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: Successful processing of "rpc" event with ID 5 priority 0 (remaining 0 subscribers).

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: Event "rpc" with ID 5 priority 0 succeeded.

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: Resolving unresolved data nodes and their constraints...

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: All data nodes and constraints resolved.

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: Resolving unresolved data nodes and their constraints...

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: There is no leafref

"/ietf-hardware:hardware/ietf-hardware:component/ietf-hardware:name" with the value "ru-port1", but it is not required.

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: There is no leafref

"/ietf-hardware:hardware/ietf-hardware:component/ietf-hardware:name" with the value "ru-port1", but it is not required.

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: All data nodes and constraints resolved.

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: Session 5: thread 0 event new RPC.

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: Accepted a connection on :::830.

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: Session 114 (user "root", CID 1) created.

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: Received an SSH message "request-service" of subtype "ssh-userauth".

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: Received an SSH message "request-auth" of subtype "password".

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: User "operator" authenticated.

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: Received an SSH message "request-channel-open" of subtype "session".

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: Received an SSH message "request-channel" of subtype "subsystem".

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: Session 115 (user "root", CID 1) created.

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: There are no subscribers for "ietf-netconf-notifications" notifications.

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: Generated new event (netconf-session-start).

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: Resolving unresolved data nodes and their constraints...

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: All data nodes and constraints resolved.

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: Resolving unresolved data nodes and their constraints...

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: All data nodes and constraints resolved.

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: Published event "rpc" "/ietf-netconf:get" with ID 10 priority 0 for 1 subscribers.

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: Processing "/ietf-netconf:get" "rpc" event with ID 10 priority 0 (remaining 1 subscribers).

subscribers).

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: Successful processing of "rpc" event with ID 10 priority 0 (remaining 0 subscribers).

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: Event "rpc" with ID 10 priority 0 succeeded.

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: Resolving unresolved data nodes and their constraints...

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: All data nodes and constraints resolved.

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: Session 6: thread 0 event new RPC.

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: Resolving unresolved data nodes and their constraints...

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: All data nodes and constraints resolved.

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: Resolving unresolved data nodes and their constraints...

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: All data nodes and constraints resolved.

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: Published event "rpc" "/ietf-netconf:get-config" with ID 6 priority 0 for 1 subscribers.

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: Processing "/ietf-netconf:get-config" "rpc" event with ID 6 priority 0 (remaining 1 subscribers).

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: Successful processing of "rpc" event with ID 6 priority 0 (remaining 0 subscribers).

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: Event "rpc" with ID 6 priority 0 succeeded.

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: Resolving unresolved data nodes and their constraints...

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: All data nodes and constraints resolved.

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: Resolving unresolved data nodes and their constraints...

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: There is no leafref

"/ietf-hardware:hardware/ietf-hardware:component/ietf-hardware:name" with the value "ru-port1", but it is not required.

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: There is no leafref

"/ietf-hardware:hardware/ietf-hardware:component/ietf-hardware:name" with the value "ru-port1", but it is not required.

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: All data nodes and constraints resolved.

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: Session 6: thread 0 event new RPC.

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: Session 6: thread 0 event new RPC.

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: Session 6: thread 0 event session terminated.

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: There are no subscribers for "ietf-netconf-notifications" notifications.

Oct 29 23:17:07 mcb1 daemon.info netopeer2-server[980]: Generated new event (netconf-session-end).

Oct 29 23:17:08 mcb1 daemon.info netopeer2-server[980]: Session 5: thread 3 event new RPC.

Oct 29 23:17:08 mcb1 daemon.info netopeer2-server[980]: Session 5: thread 3 event session terminated.

Oct 29 23:17:08 mcb1 daemon.info netopeer2-server[980]: There are no subscribers for "ietf-netconf-notifications" notifications.

Oct 29 23:17:08 mcb1 daemon.info netopeer2-server[980]: Generated new event (netconf-session-end).

Oct 29 23:17:08 mcb1 daemon.info netopeer2-server[980]: Call Home client "default-client" session terminated.

Oct 29 23:17:08 mcb1 daemon.info netopeer2-server[980]: Trying to connect via IPv4 to 192.168.170.85:4334.

Oct 29 23:17:08 mcb1 daemon.info netopeer2-server[980]: getsockopt() error (Connection refused).

Oct 29 23:17:08 mcb1 auth.info sshd[11684]: Accepted password for observer from 192.168.170.85 port 33668 ssh2

Oct 29 23:17:08 mcb1 authpriv.info sshd[11684]: pam\_unix(sshd:session): session opened for user observer by (uid=0)

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

=====

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

=====

=====

\*\*\*\*\* FAIL\_REASON \*\*\*\*\*

=====

'eth1.448'

=====

**Access Control FM-PM (negative case) = FAIL**

=====