@ FILE NAME: M_CTC_ID_018.txt

@ TEST SCOPE: M PLANE O-RAN CONFORMANCE

@ Software Release for LPRU: v1.0.0

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

This test validates that user management model can be used to add users to the O-RU

This scenario corresponds to the following chapters in [3]:

3.3 SSH Connection Establishment

3.4 NETCONF Access Control

==
ethtool enp3s0
==

Settings for enp3s0:
 Supported ports: [FIBRE]
 Supported link modes: 10000baseT/Full
 Supported pause frame use: Symmetric
 Supports auto-negotiation: No
 Supported FEC modes: Not reported
 Advertised link modes: 10000baseT/Full
 Advertised pause frame use: Symmetric
 Advertised auto-negotiation: No
 Advertised FEC modes: Not reported
 Speed: 10000Mb/s
 Duplex: Full
 Port: FIBRE
 PHYAD: 0
 Transceiver: internal
 Auto-negotiation: off
 Supports Wake-on: d
 Wake-on: d
 Current message level: 0x00000007 (7)
       drv probe link
 Link detected: yes

==
ping -c 5 192.168.33.37
==

PING 192.168.33.37 (192.168.33.37) 56(84) bytes of data.
64 bytes from 192.168.33.37: icmp_seq=1 ttl=64 time=0.059 ms
64 bytes from 192.168.33.37: icmp_seq=2 ttl=64 time=0.140 ms
64 bytes from 192.168.33.37: icmp_seq=3 ttl=64 time=0.134 ms
64 bytes from 192.168.33.37: icmp_seq=4 ttl=64 time=0.162 ms
64 bytes from 192.168.33.37: icmp_seq=5 ttl=64 time=0.151 ms

--- 192.168.33.37 ping statistics ---
5 packets transmitted, 5 received, 0% packet loss, time 4094ms
rtt min/avg/max/mdev = 0.059/0.129/0.162/0.037 ms
==

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

==
> listen --ssh --login operator
          Waiting 60s for an SSH Call Home connection on port 4334...

The authenticity of the host '::ffff:192.168.33.37' cannot be established.

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   : 16

Host   : 192.168.33.37

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=61 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,validate,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

==

STEP 1. The TER NETCONF Client establishes a connection with the O-RU NETCONF Server.

==

==

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

==

Ok

==

> 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>operator493952704640708777</name>
   <account-type>PASSWORD</account-type>
   <enabled>true</enabled>
  </user>
  <user>
   <name>operator8907274980244270</name>
   <account-type>PASSWORD</account-type>
   <enabled>true</enabled>
  </user>
  <user>
   <name>operator0993781512333</name>
   <account-type>PASSWORD</account-type>
   <enabled>true</enabled>
  </user>
  <user>
   <name>operator0882020832992</name>
   <account-type>PASSWORD</account-type>
   <enabled>true</enabled>
  </user>
```

```
<user>
 <name>operator7438</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator7935</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator155806791627</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator238552637881</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator0421592974747</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator948</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator83365290439205403</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator53305388253138092356</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator383692122494464</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator15821980285</name>
```

```xml
<account-type>PASSWORD</account-type>
<enabled>true</enabled>
</user>
<user>
<name>operator177958064678</name>
<account-type>PASSWORD</account-type>
<enabled>true</enabled>
</user>
<user>
<name>operator5906038214476923</name>
<account-type>PASSWORD</account-type>
<enabled>true</enabled>
</user>
<user>
<name>operator69874</name>
<account-type>PASSWORD</account-type>
<enabled>true</enabled>
</user>
<user>
<name>operator94907200560449444638</name>
<account-type>PASSWORD</account-type>
<enabled>true</enabled>
</user>
<user>
<name>operator3506672875</name>
<account-type>PASSWORD</account-type>
<enabled>true</enabled>
</user>
<user>
<name>operator241388</name>
<account-type>PASSWORD</account-type>
<enabled>true</enabled>
</user>
<user>
<name>operator634770780215973</name>
<account-type>PASSWORD</account-type>
<enabled>true</enabled>
</user>
<user>
<name>operator5313054346826470768</name>
<account-type>PASSWORD</account-type>
<enabled>true</enabled>
</user>
<user>
<name>operator9684397098855437558072</name>
<account-type>PASSWORD</account-type>
<enabled>true</enabled>
```

```
</user>
<user>
 <name>operator1282037674106208429388</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator29414451</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator0559728</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator1855807069576</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator997</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator38973931</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator2637007557428701030406</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator6572</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator259936758600342867673</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
```

```xml
    <name>operator21509658</name>
    <account-type>PASSWORD</account-type>
    <enabled>true</enabled>
</user>
<user>
    <name>operator48826993229317</name>
    <account-type>PASSWORD</account-type>
    <enabled>true</enabled>
</user>
<user>
    <name>operator65641200</name>
    <account-type>PASSWORD</account-type>
    <enabled>true</enabled>
</user>
<user>
    <name>operator6515887793894030</name>
    <account-type>PASSWORD</account-type>
    <enabled>true</enabled>
</user>
<user>
    <name>operator0658756773</name>
    <account-type>PASSWORD</account-type>
    <enabled>true</enabled>
</user>
<user>
    <name>operator7644920148984808071</name>
    <account-type>PASSWORD</account-type>
    <enabled>true</enabled>
</user>
<user>
    <name>operator783231</name>
    <account-type>PASSWORD</account-type>
    <enabled>true</enabled>
</user>
<user>
    <name>operator5468322609530</name>
    <account-type>PASSWORD</account-type>
    <enabled>true</enabled>
</user>
<user>
    <name>operator7498975339731129873</name>
    <account-type>PASSWORD</account-type>
    <enabled>true</enabled>
</user>
<user>
    <name>operator48816077816988329</name>
    <account-type>PASSWORD</account-type>
```

```xml
    <enabled>true</enabled>
   </user>
   <user>
    <name>operator3238860747053957585763</name>
    <account-type>PASSWORD</account-type>
    <enabled>true</enabled>
   </user>
   <user>
    <name>operator25319191</name>
    <account-type>PASSWORD</account-type>
    <enabled>true</enabled>
   </user>
   <user>
    <name>operator4356590</name>
    <account-type>PASSWORD</account-type>
    <enabled>true</enabled>
   </user>
   <user>
    <name>operator75736568346040242543</name>
    <account-type>PASSWORD</account-type>
    <enabled>true</enabled>
   </user>
   <user>
    <name>operator89159552046915308312737</name>
    <account-type>PASSWORD</account-type>
    <enabled>true</enabled>
   </user>
   <user>
    <name>operator518467266670472</name>
    <account-type>PASSWORD</account-type>
    <enabled>true</enabled>
   </user>
   <user>
    <name>operator6053799926</name>
    <account-type>PASSWORD</account-type>
    <enabled>true</enabled>
   </user>
   <user>
    <name>operator5325532472482687</name>
    <account-type>PASSWORD</account-type>
    <enabled>true</enabled>
   </user>
   <user>
    <name>operator2997303774330866581</name>
    <account-type>PASSWORD</account-type>
    <enabled>true</enabled>
   </user>
```

```xml
<user>
 <name>operator99968188185338</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator307764314664</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator820015</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator40180039</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator49591625148772</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator708964</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator2008</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator2470716171603562</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator301478253</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator347508626927</name>
```

```
<account-type>PASSWORD</account-type>
<enabled>true</enabled>
</user>
<user>
 <name>operator5913</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator962</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator684</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator071161458356117628216</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator577821</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator1947625</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator937536475</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator799306818796487</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator05910</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
```

```
</user>
<user>
 <name>operator690547</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator80540358118563464589778</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
</users>
</data>
```

===
STEP 2. The TER NETCONF Client configures three new user accounts in addition to the default sudo account already present and passwords these three accounts using o-ran-user.mgmt.yang
===

===
> 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>operator398646273835444859</name>
    <account-type>PASSWORD</account-type>

<password>J[pW_YIlOGDeZkO{ZQjd36glp6vwl%}6i5[FBiCslv9MQfWJ_^.b~f94mt-]yPgj)vCenL_.nHCaJX[ZTZ1su^z29c_oL~J2DJill{]LM}Pt
b6%6y_E</password>
      <enabled>true</enabled>
    </user>
    <user>
      <name>operator08081</name>
      <account-type>PASSWORD</account-type>

<password>%DK.Lv^PKUjM^[iDGyetDj!mO~uUETz)cwf(uj)oSz3H.V9-!wJFarQz]Q]Y+g1{^qCv3S{uXx~Ciz)7gm+[kLEI7hvvKQ[3Qu</password>
      <enabled>true</enabled>
    </user>
    <user>
      <name>operator7105</name>
```

```
                <account-type>PASSWORD</account-type>
                <password>pprRNfy4lubcl(_sdW]Lt_ZlMMs32-B]%xKv}iVnfDG.3w5</password>
                <enabled>true</enabled>
            </user>
        </users>
    </config>
```
===
######### RPC Reply #########
===

```
<nc:rpc-reply xmlns:nc="urn:ietf:params:xml:ns:netconf:base:1.0"
message-id="urn:uuid:096c1d03-631e-484a-bf24-405e48d695be"><nc:ok/></nc:rpc-reply>
```

===
############# NOTIFICATIONS #############
===
```
<?xml version="1.0" ?>
<notification xmlns="urn:ietf:params:xml:ns:netconf:notification:1.0">
 <eventTime>2000-11-06T21:36:59Z</eventTime>
 <netconf-config-change xmlns="urn:ietf:params:xml:ns:yang:ietf-netconf-notifications">
 <changed-by>
  <username>root</username>
  <session-id>16</session-id>
 </changed-by>
 <datastore>running</datastore>
 <edit>
  <target
xmlns:o-ran-usermgmt="urn:o-ran:user-mgmt:1.0">o-ran-usermgmt:users/o-ran-usermgmt:user[o-ran-usermgmt:name='operator398646273835444859']</target>
  <operation>create</operation>
 </edit>
 <edit>
  <target
xmlns:o-ran-usermgmt="urn:o-ran:user-mgmt:1.0">o-ran-usermgmt:users/o-ran-usermgmt:user[o-ran-usermgmt:name='operator398646273835444859']/o-ran-usermgmt:name</target>
  <operation>create</operation>
 </edit>
 <edit>
  <target
xmlns:o-ran-usermgmt="urn:o-ran:user-mgmt:1.0">o-ran-usermgmt:users/o-ran-usermgmt:user[o-ran-usermgmt:name='operator398646273835444859']/o-ran-usermgmt:account-type</target>
  <operation>create</operation>
 </edit>
 <edit>
  <target
xmlns:o-ran-usermgmt="urn:o-ran:user-mgmt:1.0">o-ran-usermgmt:users/o-ran-usermgmt:user[o-ran-usermgmt:name='operator398646273835444859']/o-ran-usermgmt:password</target>
```

M Plane Conformance

```
<operation>create</operation>
</edit>
<edit>
<target
xmlns:o-ran-usermgmt="urn:o-ran:user-mgmt:1.0">/o-ran-usermgmt:users/o-ran-usermgmt:user[o-ran-usermgmt:name='operator39864627383544
4859']/o-ran-usermgmt:enabled</target>
<operation>create</operation>
</edit>
<edit>
<target
xmlns:o-ran-usermgmt="urn:o-ran:user-mgmt:1.0">/o-ran-usermgmt:users/o-ran-usermgmt:user[o-ran-usermgmt:name='operator08081']</target>
<operation>create</operation>
</edit>
<edit>
<target
xmlns:o-ran-usermgmt="urn:o-ran:user-mgmt:1.0">/o-ran-usermgmt:users/o-ran-usermgmt:user[o-ran-usermgmt:name='operator08081']/o-ran-use
rmgmt:name</target>
<operation>create</operation>
</edit>
<edit>
<target
xmlns:o-ran-usermgmt="urn:o-ran:user-mgmt:1.0">/o-ran-usermgmt:users/o-ran-usermgmt:user[o-ran-usermgmt:name='operator08081']/o-ran-use
rmgmt:account-type</target>
<operation>create</operation>
</edit>
<edit>
<target
xmlns:o-ran-usermgmt="urn:o-ran:user-mgmt:1.0">/o-ran-usermgmt:users/o-ran-usermgmt:user[o-ran-usermgmt:name='operator08081']/o-ran-use
rmgmt:password</target>
<operation>create</operation>
</edit>
<edit>
<target
xmlns:o-ran-usermgmt="urn:o-ran:user-mgmt:1.0">/o-ran-usermgmt:users/o-ran-usermgmt:user[o-ran-usermgmt:name='operator08081']/o-ran-use
rmgmt:enabled</target>
<operation>create</operation>
</edit>
<edit>
<target
xmlns:o-ran-usermgmt="urn:o-ran:user-mgmt:1.0">/o-ran-usermgmt:users/o-ran-usermgmt:user[o-ran-usermgmt:name='operator7105']</target>
<operation>create</operation>
</edit>
<edit>
<target
xmlns:o-ran-usermgmt="urn:o-ran:user-mgmt:1.0">/o-ran-usermgmt:users/o-ran-usermgmt:user[o-ran-usermgmt:name='operator7105']/o-ran-user
mgmt:name</target>
<operation>create</operation>
```

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```
  </edit>
  <edit>
   <target
xmlns:o-ran-usermgmt="urn:o-ran:user-mgmt:1.0">/o-ran-usermgmt:users/o-ran-usermgmt:user[o-ran-usermgmt:name='operator7105']/o-ran-user
mgmt:account-type</target>
   <operation>create</operation>
  </edit>
  <edit>
   <target
xmlns:o-ran-usermgmt="urn:o-ran:user-mgmt:1.0">/o-ran-usermgmt:users/o-ran-usermgmt:user[o-ran-usermgmt:name='operator7105']/o-ran-user
mgmt:password</target>
   <operation>create</operation>
  </edit>
  <edit>
   <target
xmlns:o-ran-usermgmt="urn:o-ran:user-mgmt:1.0">/o-ran-usermgmt:users/o-ran-usermgmt:user[o-ran-usermgmt:name='operator7105']/o-ran-user
mgmt:enabled</target>
   <operation>create</operation>
  </edit>
 </netconf-config-change>
</notification>
```

===

######### STEP 3. The TER NETCONF Client configures user account to group mappings for the three

   new accounts using ietf-netconf-acm.yang respectively one with "nms", one with "fm-pm" and one

   with "swm" privilege. #########

===

===

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

===

===

******* Replace with below xml ********

===

```xml
<config xmlns="urn:ietf:params:xml:ns:netconf:base:1.0">
  <nacm xmlns="urn:ietf:params:xml:ns:yang:ietf-netconf-acm">
   <groups>
    <group>
     <name>fm-pm</name>
     <user-name>operator398646273835444859</user-name>
    </group>
    <group>
     <name>nms</name>
     <user-name>operator08081</user-name>
    </group>
    <group>
     <name>swm</name>
     <user-name>operator7105</user-name>
    </group>
   </groups>
  </nacm>
</config>
```

===

######### RPC Reply #########

===

```xml
<nc:rpc-reply xmlns:nc="urn:ietf:params:xml:ns:netconf:base:1.0"
message-id="urn:uuid:5e46d03c-9bd7-44c2-97b2-caa1fa9d82e6"><nc:ok/></nc:rpc-reply>
```

===

STEP 4. The O-RU NETCONF Server confirms the operations for the above transactions.

===

===

 ############## NOTIFICATIONS ##############

===

```
<?xml version="1.0" ?>
<notification xmlns="urn:ietf:params:xml:ns:netconf:notification:1.0">
 <eventTime>2000-11-06T21:36:59Z</eventTime>
 <netconf-config-change xmlns="urn:ietf:params:xml:ns:yang:ietf-netconf-notifications">
 <changed-by>
  <username>root</username>
  <session-id>16</session-id>
 </changed-by>
 <datastore>running</datastore>
 <edit>
  <target xmlns:nacm="urn:ietf:params:xml:ns:yang:ietf-netconf-acm">/nacm:nacm/nacm:groups/nacm:group[nacm:name='fm-pm']/nacm:user-name[.='operator398646273835444859']</target>
  <operation>create</operation>
 </edit>
 <edit>
  <target xmlns:nacm="urn:ietf:params:xml:ns:yang:ietf-netconf-acm">/nacm:nacm/nacm:groups/nacm:group[nacm:name='nms']/nacm:user-name[.='operator08081']</target>
  <operation>create</operation>
 </edit>
 <edit>
  <target xmlns:nacm="urn:ietf:params:xml:ns:yang:ietf-netconf-acm">/nacm:nacm/nacm:groups/nacm:group[nacm:name='swm']/nacm:user-name[.='operator7105']</target>
  <operation>create</operation>
 </edit>
 </netconf-config-change>
</notification>
```

===
> get --filter-xpath /ietf-netconf-acm:nacm/groups
===

```
<?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">
 <nacm xmlns="urn:ietf:params:xml:ns:yang:ietf-netconf-acm">
 <groups>
  <group>
   <name>sudo</name>
   <user-name>operator</user-name>
  </group>
  <group>
   <name>fm-pm</name>
   <user-name>observer</user-name>
   <user-name>operator684</user-name>
   <user-name>operator1947625</user-name>
```

```
  <user-name>operator05910</user-name>
  <user-name>operator398646273835444859</user-name>
 </group>
 <group>
  <name>nms</name>
  <user-name>installer</user-name>
  <user-name>operator07116145835611762 8216</user-name>
  <user-name>operator937536475</user-name>
  <user-name>operator690547</user-name>
  <user-name>operator08081</user-name>
 </group>
 <group>
  <name>swm</name>
  <user-name>operator577821</user-name>
  <user-name>operator799306818796487</user-name>
  <user-name>operator80540358118563464589778</user-name>
  <user-name>operator7105</user-name>
 </group>
 </groups>
</nacm>
</data>
```

```
=================================================================
```

STEP 5. The TER NETCONF Client retrieves a list of users from O-RU NETCONF Server. The newly created user accounts and mappings are validated.

```
=================================================================
```

```
=================================================================
```

> get --filter-xpath /ietf-netconf-acm:nacm/groups

```
=================================================================
```

```
<?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>operator493952704640708777</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator8907274980244270</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator0993781512333</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator0882020832992</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator7438</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator7935</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator155806791627</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator238552637881</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
```

```xml
 <name>operator0421592974747</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator948</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator83365290439205403</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator53305388253138092356</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator383692122494464</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator15821980285</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator177958064678</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator5906038214476923</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator69874</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator94907200560449444638</name>
 <account-type>PASSWORD</account-type>
```

```
<enabled>true</enabled>
</user>
<user>
 <name>operator3506672875</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator241388</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator634770780215973</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator5313054346826470768</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator9684397098855437558072</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator1282037674106208429388</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator29414451</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator0559728</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator1855807069576</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
```

```
<user>
 <name>operator997</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator38973931</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator26370075574287010306406</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator6572</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator2599367586003462867673</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator21509658</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator48826993229317</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator65641200</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator6515887793894030</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator0658756773</name>
```

```xml
<account-type>PASSWORD</account-type>
<enabled>true</enabled>
</user>
<user>
<name>operator7644920148984808071</name>
<account-type>PASSWORD</account-type>
<enabled>true</enabled>
</user>
<user>
<name>operator783231</name>
<account-type>PASSWORD</account-type>
<enabled>true</enabled>
</user>
<user>
<name>operator5468322609530</name>
<account-type>PASSWORD</account-type>
<enabled>true</enabled>
</user>
<user>
<name>operator7498975339731129873</name>
<account-type>PASSWORD</account-type>
<enabled>true</enabled>
</user>
<user>
<name>operator48816077816988329</name>
<account-type>PASSWORD</account-type>
<enabled>true</enabled>
</user>
<user>
<name>operator3238860747053957585763</name>
<account-type>PASSWORD</account-type>
<enabled>true</enabled>
</user>
<user>
<name>operator25319191</name>
<account-type>PASSWORD</account-type>
<enabled>true</enabled>
</user>
<user>
<name>operator4356590</name>
<account-type>PASSWORD</account-type>
<enabled>true</enabled>
</user>
<user>
<name>operator7573656834604042242543</name>
<account-type>PASSWORD</account-type>
<enabled>true</enabled>
```

```xml
</user>
<user>
 <name>operator89159552046915308312737</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator518467266670472</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator6053799926</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator5325532472482687</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator2997303774330866581</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator99968188185338</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator307764314664</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator820015</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator40180039</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
```

```
 <name>operator49591625148772</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator708964</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator2008</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator2470716171603562</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator301478253</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator347508626927</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator5913</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator962</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator684</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator071161458356117628216</name>
 <account-type>PASSWORD</account-type>
```

```
 <enabled>true</enabled>
</user>
<user>
 <name>operator577821</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator1947625</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator937536475</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator799306818796487</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator05910</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator690547</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator80540358118563464589778</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator398646273835444859</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator08081</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
```

```
 <user>
  <name>operator7105</name>
  <account-type>PASSWORD</account-type>
  <enabled>true</enabled>
 </user>
 </users>
</data>
```

```
==============================================================================
  ############ SYSTEM LOGS #############
==============================================================================
Nov  6 21:36:52 vvdn_lpru user.err BMC_COMM[872]: Failed to write data to driver
Nov  6 21:36:52 vvdn_lpru user.err BMC_COMM[872]: Failed to send data to BMC
Nov  6 21:36:52 vvdn_lpru user.err FAULT MANAGER[872]: Error in getTempStatus
Nov  6 21:36:52 vvdn_lpru user.err BMC_COMM[872]: Failed to write data to driver
Nov  6 21:36:52 vvdn_lpru user.err BMC_COMM[872]: Failed to send data to BMC
Nov  6 21:36:52 vvdn_lpru user.err FAULT MANAGER[872]: temp value : 76
Nov  6 21:36:52 vvdn_lpru user.err FAULT MANAGER[872]: Error in get Temperature value
Nov  6 21:36:52 vvdn_lpru user.err BMC_COMM[872]: Failed to write data to driver
Nov  6 21:36:52 vvdn_lpru user.err BMC_COMM[872]: Failed to send data to BMC
Nov  6 21:36:52 vvdn_lpru user.err FAULT MANAGER[872]: Error in SETLEDMODE
Nov  6 21:36:52 vvdn_lpru user.err FAULT MANAGER[872]: sendData : Source ID: 4
Nov  6 21:36:52 vvdn_lpru user.err FAULT MANAGER[872]: sendData : Fault ID: 3
Nov  6 21:36:52 vvdn_lpru user.err FAULT MANAGER[872]: sendData : FAULT_IS_CLEARED: FALSE
Nov  6 21:36:52 vvdn_lpru user.err FAULT MANAGER[872]: sendData : FAULT_SEVERITY: 1
Nov  6 21:36:52 vvdn_lpru user.err FAULT MANAGER[872]: sendData : FAULT_TIME: 2000-11-06T21:36:52Z
Nov  6 21:36:52 vvdn_lpru user.err BMC_COMM[872]: Failed to write data to driver
Nov  6 21:36:52 vvdn_lpru user.err BMC_COMM[872]: Failed to send data to BMC
Nov  6 21:36:52 vvdn_lpru user.err FAULT MANAGER[872]: temp value : 79
Nov  6 21:36:52 vvdn_lpru user.err FAULT MANAGER[872]: Error in get Temperature value
Nov  6 21:36:52 vvdn_lpru user.err BMC_COMM[872]: Failed to write data to driver
Nov  6 21:36:52 vvdn_lpru user.err BMC_COMM[872]: Failed to send data to BMC
Nov  6 21:36:52 vvdn_lpru user.err FAULT MANAGER[872]: Error in SETLEDMODE
Nov  6 21:36:52 vvdn_lpru user.err FAULT MANAGER[872]: sendData : Source ID: 5
Nov  6 21:36:52 vvdn_lpru user.err FAULT MANAGER[872]: sendData : Fault ID: 3
Nov  6 21:36:52 vvdn_lpru user.err FAULT MANAGER[872]: sendData : FAULT_IS_CLEARED: FALSE
Nov  6 21:36:52 vvdn_lpru user.err FAULT MANAGER[872]: sendData : FAULT_SEVERITY: 1
Nov  6 21:36:52 vvdn_lpru user.err FAULT MANAGER[872]: sendData : FAULT_TIME: 2000-11-06T21:36:52Z
Nov  6 21:36:52 vvdn_lpru daemon.info netopeer2-server[858]: Trying to connect via IPv4 to 192.168.33.58:4334.
Nov  6 21:36:52 vvdn_lpru daemon.info netopeer2-server[858]: Successfully connected to 192.168.33.58:4334 over IPv4.
Nov  6 21:36:52 vvdn_lpru daemon.info netopeer2-server[858]: Session 776 (user "root", CID 1) created.
Nov  6 21:36:52 vvdn_lpru daemon.info netopeer2-server[858]: Received an SSH message "request-service" of subtype "ssh-userauth".
Nov  6 21:36:52 vvdn_lpru daemon.info netopeer2-server[858]: Received an SSH message "request-auth" of subtype "password".
Nov  6 21:36:53 vvdn_lpru daemon.info netopeer2-server[858]: User "operator" authenticated.
Nov  6 21:36:53 vvdn_lpru daemon.info netopeer2-server[858]: Received an SSH message "request-channel-open" of subtype "session".
Nov  6 21:36:53 vvdn_lpru daemon.info netopeer2-server[858]: Received an SSH message "request-channel" of subtype "subsystem".
Nov  6 21:36:53 vvdn_lpru daemon.info netopeer2-server[858]: Call Home client "default-client" session 16 established.
Nov  6 21:36:53 vvdn_lpru daemon.info netopeer2-server[858]: Session 777 (user "root", CID 1) created.
Nov  6 21:36:53 vvdn_lpru daemon.info netopeer2-server[858]: There are no subscribers for "ietf-netconf-notifications" notifications.
Nov  6 21:36:53 vvdn_lpru daemon.info netopeer2-server[858]: Generated new event (netconf-session-start).
Nov  6 21:36:53 vvdn_lpru daemon.info netopeer2-server[858]: Resolving unresolved data nodes and their constraints...
Nov  6 21:36:53 vvdn_lpru daemon.info netopeer2-server[858]: All data nodes and constraints resolved.
Nov  6 21:36:53 vvdn_lpru daemon.info netopeer2-server[858]: Resolving unresolved data nodes and their constraints...
Nov  6 21:36:53 vvdn_lpru daemon.info netopeer2-server[858]: All data nodes and constraints resolved.
```

Nov 6 21:36:53 vvdn_lpru daemon.info netopeer2-server[858]: Published event "rpc" "/ietf-netconf:get" with ID 42 priority 0 for 1 subscribers.

Nov 6 21:36:53 vvdn_lpru daemon.info netopeer2-server[858]: Processing "/ietf-netconf:get" "rpc" event with ID 42 priority 0 (remaining 1 subscribers).

Nov 6 21:36:53 vvdn_lpru daemon.info netopeer2-server[858]: Published event "operational" "/o-ran-software-management:software-inventory" with ID 16.

Nov 6 21:36:53 vvdn_lpru user.notice fw_manager[928]: RPC #16 recieved. xpath -> /o-ran-software-management:software-inventory

Nov 6 21:36:53 vvdn_lpru daemon.info netopeer2-server[858]: Event "operational" with ID 16 succeeded.

Nov 6 21:36:53 vvdn_lpru daemon.info netopeer2-server[858]: Resolving unresolved data nodes and their constraints...

Nov 6 21:36:53 vvdn_lpru daemon.info netopeer2-server[858]: 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 6 21:36:53 vvdn_lpru daemon.info netopeer2-server[858]: 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 6 21:36:53 vvdn_lpru daemon.info netopeer2-server[858]: 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 6 21:36:53 vvdn_lpru daemon.info netopeer2-server[858]: All data nodes and constraints resolved.

Nov 6 21:36:53 vvdn_lpru daemon.info netopeer2-server[858]: Successful processing of "rpc" event with ID 42 priority 0 (remaining 0 subscribers).

Nov 6 21:36:53 vvdn_lpru daemon.info netopeer2-server[858]: Event "rpc" with ID 42 priority 0 succeeded.

Nov 6 21:36:53 vvdn_lpru daemon.info netopeer2-server[858]: Resolving unresolved data nodes and their constraints...

Nov 6 21:36:53 vvdn_lpru daemon.info netopeer2-server[858]: All data nodes and constraints resolved.

Nov 6 21:36:53 vvdn_lpru daemon.info netopeer2-server[858]: Resolving unresolved data nodes and their constraints...

Nov 6 21:36:53 vvdn_lpru daemon.info netopeer2-server[858]: 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 6 21:36:53 vvdn_lpru daemon.info netopeer2-server[858]: 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 6 21:36:53 vvdn_lpru daemon.info netopeer2-server[858]: 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 6 21:36:53 vvdn_lpru daemon.info netopeer2-server[858]: All data nodes and constraints resolved.

Nov 6 21:36:53 vvdn_lpru daemon.info netopeer2-server[858]: Session 16: thread 1 event new RPC.

Nov 6 21:36:56 vvdn_lpru user.err BMC_COMM[872]: Failed to write data to driver

Nov 6 21:36:56 vvdn_lpru user.err BMC_COMM[872]: Failed to send data to BMC

Nov 6 21:36:56 vvdn_lpru user.err FAULT MANAGER[872]: Error in getTempStatus

Nov 6 21:36:56 vvdn_lpru user.err BMC_COMM[872]: Failed to write data to driver

Nov 6 21:36:56 vvdn_lpru user.err BMC_COMM[872]: Failed to send data to BMC

Nov 6 21:36:56 vvdn_lpru user.err FAULT MANAGER[872]: temp value : 83

Nov 6 21:36:56 vvdn_lpru user.err FAULT MANAGER[872]: Error in get Temperature value

Nov 6 21:36:56 vvdn_lpru user.err BMC_COMM[872]: Failed to write data to driver

Nov 6 21:36:56 vvdn_lpru user.err BMC_COMM[872]: Failed to send data to BMC

Nov 6 21:36:56 vvdn_lpru user.err FAULT MANAGER[872]: Error in SETLEDMODE

Nov 6 21:36:56 vvdn_lpru user.err FAULT MANAGER[872]: sendData : Source ID: 1

Nov 6 21:36:56 vvdn_lpru user.err FAULT MANAGER[872]: sendData : Fault ID: 3

Nov 6 21:36:56 vvdn_lpru user.err FAULT MANAGER[872]: sendData : FAULT_IS_CLEARED: FALSE

Nov 6 21:36:56 vvdn_lpru user.err FAULT MANAGER[872]: sendData : FAULT_SEVERITY: 1

Nov 6 21:36:56 vvdn_lpru user.err FAULT MANAGER[872]: sendData : FAULT_TIME: 2000-11-06T21:36:56Z

Nov 6 21:36:58 vvdn_lpru daemon.info netopeer2-server[858]: Resolving unresolved data nodes and their constraints...

Nov 6 21:36:58 vvdn_lpru daemon.info netopeer2-server[858]: All data nodes and constraints resolved.

Nov 6 21:36:58 vvdn_lpru daemon.info netopeer2-server[858]: Resolving unresolved data nodes and their constraints...

Nov 6 21:36:58 vvdn_lpru daemon.info netopeer2-server[858]: All data nodes and constraints resolved.

Nov 6 21:36:58 vvdn_lpru daemon.info netopeer2-server[858]: Published event "rpc" "/notifications:create-subscription" with ID 16 priority 0 for 1 subscribers.

Nov 6 21:36:58 vvdn_lpru daemon.info netopeer2-server[858]: Processing "/notifications:create-subscription" "rpc" event with ID 16 priority 0 (remaining 1 subscribers).

Nov 6 21:36:58 vvdn_lpru daemon.info netopeer2-server[858]: Successful processing of "rpc" event with ID 16 priority 0 (remaining 0 subscribers).

Nov 6 21:36:58 vvdn_lpru daemon.info netopeer2-server[858]: Event "rpc" with ID 16 priority 0 succeeded.

Nov 6 21:36:58 vvdn_lpru daemon.info netopeer2-server[858]: Session 16: thread 2 event new RPC.

Nov 6 21:36:58 vvdn_lpru daemon.info netopeer2-server[858]: Resolving unresolved data nodes and their constraints...

Nov 6 21:36:58 vvdn_lpru daemon.info netopeer2-server[858]: All data nodes and constraints resolved.

Nov 6 21:36:58 vvdn_lpru daemon.info netopeer2-server[858]: Resolving unresolved data nodes and their constraints...

Nov 6 21:36:58 vvdn_lpru daemon.info netopeer2-server[858]: All data nodes and constraints resolved.

Nov 6 21:36:58 vvdn_lpru daemon.info netopeer2-server[858]: Published event "rpc" "/ietf-netconf:get" with ID 43 priority 0 for 1 subscribers.

Nov 6 21:36:58 vvdn_lpru daemon.info netopeer2-server[858]: Processing "/ietf-netconf:get" "rpc" event with ID 43 priority 0 (remaining 1 subscribers).

Nov 6 21:36:58 vvdn_lpru daemon.info netopeer2-server[858]: Successful processing of "rpc" event with ID 43 priority 0 (remaining 0 subscribers).

Nov 6 21:36:58 vvdn_lpru daemon.info netopeer2-server[858]: Event "rpc" with ID 43 priority 0 succeeded.

Nov 6 21:36:58 vvdn_lpru daemon.info netopeer2-server[858]: Resolving unresolved data nodes and their constraints...

Nov 6 21:36:58 vvdn_lpru daemon.info netopeer2-server[858]: All data nodes and constraints resolved.

Nov 6 21:36:58 vvdn_lpru daemon.info netopeer2-server[858]: Session 16: thread 0 event new RPC.

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: Resolving unresolved data nodes and their constraints...

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: All data nodes and constraints resolved.

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: Resolving unresolved data nodes and their constraints...

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: All data nodes and constraints resolved.

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: Published event "rpc" "/ietf-netconf:edit-config" with ID 31 priority 0 for 1 subscribers.

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: Processing "/ietf-netconf:edit-config" "rpc" event with ID 31 priority 0 (remaining 1 subscribers).

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: edit-config error-option "stop-on-error" not supported, rollback-on-error will be performed.

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: Resolving unresolved data nodes and their constraints...

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: All data nodes and constraints resolved.

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: Published event "change" "o-ran-usermgmt" with ID 4 priority 0 for 1 subscribers.

Nov 6 21:36:59 vvdn_lpru user.notice USERMGMT[917]: operator398646273835444859 added successfully !!

Nov 6 21:36:59 vvdn_lpru user.notice USERMGMT[917]: operator398646273835444859 enabled !!

Nov 6 21:36:59 vvdn_lpru user.notice USERMGMT[917]: operator08081 added successfully !!

Nov 6 21:36:59 vvdn_lpru user.notice USERMGMT[917]: operator08081 enabled !!

Nov 6 21:36:59 vvdn_lpru user.notice USERMGMT[917]: operator7105 added successfully !!

Nov 6 21:36:59 vvdn_lpru user.notice USERMGMT[917]: operator7105 enabled !!

Nov 6 21:36:59 vvdn_lpru user.notice USERMGMT[917]: END OF CHANGES

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: Event "change" with ID 4 priority 0 succeeded.

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: Published event "done" "o-ran-usermgmt" with ID 4 priority 0 for 1 subscribers.

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: Resolving unresolved data nodes and their constraints...

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: There is no instance of "/o-ran-usermgmt:users/user[name='operator398646273835444859']", but it is not required.

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: There is no instance of
"/o-ran-usermgmt:users/user[name='operator398646273835444859']/name", but it is not required.
Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: There is no instance of
"/o-ran-usermgmt:users/user[name='operator398646273835444859']/account-type", but it is not required.
Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: There is no instance of
"/o-ran-usermgmt:users/user[name='operator398646273835444859']/password", but it is not required.
Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: There is no instance of
"/o-ran-usermgmt:users/user[name='operator398646273835444859']/enabled", but it is not required.
Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: There is no instance of "/o-ran-usermgmt:users/user[name='operator08081']", but it
is not required.
Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: There is no instance of
"/o-ran-usermgmt:users/user[name='operator08081']/name", but it is not required.
Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: There is no instance of
"/o-ran-usermgmt:users/user[name='operator08081']/account-type", but it is not required.
Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: There is no instance of
"/o-ran-usermgmt:users/user[name='operator08081']/password", but it is not required.
Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: There is no instance of
"/o-ran-usermgmt:users/user[name='operator08081']/enabled", but it is not required.
Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: There is no instance of "/o-ran-usermgmt:users/user[name='operator7105']", but it
is not required.
Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: There is no instance of "/o-ran-usermgmt:users/user[name='operator7105']/name",
but it is not required.
Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: There is no instance of
"/o-ran-usermgmt:users/user[name='operator7105']/account-type", but it is not required.
Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: There is no instance of
"/o-ran-usermgmt:users/user[name='operator7105']/password", but it is not required.
Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: There is no instance of
"/o-ran-usermgmt:users/user[name='operator7105']/enabled", but it is not required.
Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: All data nodes and constraints resolved.
Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: Processing "notif" "ietf-netconf-notifications" event with ID 1.
Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: Successful processing of "notif" event with ID 1 priority 0 (remaining 0
subscribers).
Nov 6 21:36:59 vvdn_lpru user.notice USERMGMT[917]: END OF CHANGES
Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: Published event "notif" "ietf-netconf-notifications" with ID 2 priority 0 for 1
subscribers.
Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: Resolving unresolved data nodes and their constraints...
Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: There is no instance of
"/o-ran-usermgmt:users/user[name='operator398646273835444859']", but it is not required.
Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: Successful processing of "rpc" event with ID 31 priority 0 (remaining 0
subscribers).
Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: There is no instance of
"/o-ran-usermgmt:users/user[name='operator398646273835444859']/name", but it is not required.
Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: There is no instance of
"/o-ran-usermgmt:users/user[name='operator398646273835444859']/account-type", but it is not required.
Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: There is no instance of
"/o-ran-usermgmt:users/user[name='operator398646273835444859']/password", but it is not required.
Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: There is no instance of

"/o-ran-usermgmt:users/user[name='operator398646273835444859']/enabled", but it is not required.

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: There is no instance of "/o-ran-usermgmt:users/user[name='operator08081']", but it is not required.

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: There is no instance of "/o-ran-usermgmt:users/user[name='operator08081']/name", but it is not required.

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: Event "rpc" with ID 31 priority 0 succeeded.

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: There is no instance of "/o-ran-usermgmt:users/user[name='operator08081']/account-type", but it is not required.

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: There is no instance of "/o-ran-usermgmt:users/user[name='operator08081']/password", but it is not required.

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: There is no instance of "/o-ran-usermgmt:users/user[name='operator08081']/enabled", but it is not required.

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: There is no instance of "/o-ran-usermgmt:users/user[name='operator7105']", but it is not required.

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: There is no instance of "/o-ran-usermgmt:users/user[name='operator7105']/name", but it is not required.

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: There is no instance of "/o-ran-usermgmt:users/user[name='operator7105']/account-type", but it is not required.

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: There is no instance of "/o-ran-usermgmt:users/user[name='operator7105']/password", but it is not required.

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: There is no instance of "/o-ran-usermgmt:users/user[name='operator7105']/enabled", but it is not required.

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: All data nodes and constraints resolved.

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: Processing "notif" "ietf-netconf-notifications" event with ID 2.

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: Successful processing of "notif" event with ID 2 priority 0 (remaining 0 subscribers).

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: Session 16: thread 3 event new RPC.

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: Resolving unresolved data nodes and their constraints...

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: All data nodes and constraints resolved.

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: Resolving unresolved data nodes and their constraints...

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: All data nodes and constraints resolved.

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: Published event "rpc" "/ietf-netconf:edit-config" with ID 32 priority 0 for 1 subscribers.

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: Processing "/ietf-netconf:edit-config" "rpc" event with ID 32 priority 0 (remaining 1 subscribers).

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: edit-config error-option "stop-on-error" not supported, rollback-on-error will be performed.

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: Published event "done" "ietf-netconf-acm" with ID 6 priority 0 for 4 subscribers.

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: Processing "ietf-netconf-acm" "done" event with ID 6 priority 0 (remaining 4 subscribers).

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: Successful processing of "done" event with ID 6 priority 0 (remaining 0 subscribers).

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: Published event "notif" "ietf-netconf-notifications" with ID 3 priority 0 for 1 subscribers.

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: Resolving unresolved data nodes and their constraints...

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: There is no instance of "/ietf-netconf-acm:nacm/groups/group[name='fm-pm']/user-name[.='operator398646273835444859']", but it is not required.

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: There is no instance of "/ietf-netconf-acm:nacm/groups/group[name='nms']/user-name[.='operator08081']", but it is not required.

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: There is no instance of "/ietf-netconf-acm:nacm/groups/group[name='swm']/user-name[.='operator7105']", but it is not required.

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: All data nodes and constraints resolved.

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: Processing "notif" "ietf-netconf-notifications" event with ID 3.

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: Successful processing of "notif" event with ID 3 priority 0 (remaining 0 subscribers).

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: Successful processing of "rpc" event with ID 32 priority 0 (remaining 0 subscribers).

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: Event "rpc" with ID 32 priority 0 succeeded.

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: Session 16: thread 0 event new RPC.

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: Resolving unresolved data nodes and their constraints...

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: All data nodes and constraints resolved.

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: Resolving unresolved data nodes and their constraints...

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: All data nodes and constraints resolved.

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: Published event "rpc" "/ietf-netconf:get" with ID 44 priority 0 for 1 subscribers.

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: Processing "/ietf-netconf:get" "rpc" event with ID 44 priority 0 (remaining 1 subscribers).

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: Published event "operational" "/ietf-netconf-acm:nacm/denied-operations" with ID 4.

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: Processing "ietf-netconf-acm" "operational" event with ID 4.

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: Successful processing of "operational" event with ID 4.

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: Event "operational" with ID 4 succeeded.

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: Published event "operational" "/ietf-netconf-acm:nacm/denied-data-writes" with ID 4.

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: Processing "ietf-netconf-acm" "operational" event with ID 4.

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: Successful processing of "operational" event with ID 4.

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: Event "operational" with ID 4 succeeded.

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: Published event "operational" "/ietf-netconf-acm:nacm/denied-notifications" with ID 4.

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: Processing "ietf-netconf-acm" "operational" event with ID 4.

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: Successful processing of "operational" event with ID 4.

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: Event "operational" with ID 4 succeeded.

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: Successful processing of "rpc" event with ID 44 priority 0 (remaining 0 subscribers).

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: Event "rpc" with ID 44 priority 0 succeeded.

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: Resolving unresolved data nodes and their constraints...

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: All data nodes and constraints resolved.

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: Session 16: thread 3 event new RPC.

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: Resolving unresolved data nodes and their constraints...

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: All data nodes and constraints resolved.

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: Resolving unresolved data nodes and their constraints...

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: All data nodes and constraints resolved.

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: Published event "rpc" "/ietf-netconf:get" with ID 45 priority 0 for 1 subscribers.

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: Processing "/ietf-netconf:get" "rpc" event with ID 45 priority 0 (remaining 1 subscribers).

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: Successful processing of "rpc" event with ID 45 priority 0 (remaining 0 subscribers).

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: Event "rpc" with ID 45 priority 0 succeeded.

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: Resolving unresolved data nodes and their constraints...

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: All data nodes and constraints resolved.

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: Session 16: thread 0 event new RPC.

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: Session 16: thread 3 event new RPC.

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: Session 16: thread 3 event session terminated.

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: There are no subscribers for "ietf-netconf-notifications" notifications.

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: Generated new event (netconf-session-end).

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: Call Home client "default-client" session terminated.

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: Trying to connect via IPv4 to 192.168.33.58:4334.

Nov 6 21:36:59 vvdn_lpru daemon.info netopeer2-server[858]: getsockopt() error (Connection refused).

Nov 6 21:36:59 vvdn_lpru authpriv.debug sshd[16622]: pam_unix(sshd:account): account operator has password changed in future

Nov 6 21:36:59 vvdn_lpru auth.info sshd[16622]: Accepted password for operator from 192.168.33.58 port 33422 ssh2

Nov 6 21:36:59 vvdn_lpru authpriv.info sshd[16622]: pam_unix(sshd:session): session opened for user operator by (uid=0)

Expected Result : The O-RU NETCONF Server responds with

<rpc-reply><ok/></rpc-reply> to the TER NETCONF Client.

```
===============================================================================
  ***************** Actual Result ******************
===============================================================================
```

```
===============================================================================
```
Sudo on Hybrid M-plane Architecture (positive case) || SUCCESS

```
===============================================================================
```

```
===============================================================================
***************************** Summary *****************************
===============================================================================
```

DHCP IP 192.168.33.37	successful.
Netopeer Connection	Successful
Capability exchange	Successful
Create-subscription	Successful
User-mgmt get-filter	Successful
Configure 3 new user	Successful
Configuraion chenged notification captured	Successful
Configured users privilege for above 3 users	Successful
Configuraion chenged notification captured	Successful
All 3 user merged and got privileges	Successful
Sudo on Hybrid M-plane Architecture (positive case)	PASS