



@ FILE NAME: M_CTC_ID_023.txt

@ TEST SCOPE: M PLANE O-RAN CONFORMANCE

@ Software Release for LPRU: v1.0.16

Test Description: This scenario is MANDATORY for an O-RU supporting the

Hierarchical M-plane architecture model.

This test validates that the O-RU can successfully start up with activated

software.

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

- 3.3 SSH Connection Establishment
- 3.4 NETCONF Access Control
- 3.7 closing a NETCONF Session



****** Connect to the NETCONF Server ******** Step 1 and 2: The TER NETCONF Client establishes connection and creates an account for new user using o-ran-user9 mgmt.yang > listen --ssh --login operator Waiting 60s for an SSH Call Home connection on port 4334... The authenticity of the host '::ffff:192.168.98.37' 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 : 192.168.98.37 : 830 Port 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,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 $urn: ietf: params: xml: ns: yang: iana-crypt-hash? module = iana-crypt-hash \& revision = 2014-08-06 \ urn: notification_history? module = notification_hi$ urn:ietf:params:xml:ns:yang:iana-if-type?module=iana-if-type&revision=2017-01-19 > subscribe --filter-xpath /ietf-netconf-notifications:*

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Ok



```
> 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>operator498149557</name>
                               <account-type>PASSWORD</account-type>
< password> Z8dJdGkyUl(Oma\{mz26sTW57reO)Ytg\{Gt6ZZ4D)4XI[Ikh]L+3a7! \\ \sim tz1TfaDKvcLcWRcj\}3ERI9LIpUcOm4\{S\}5\}r + HK5g[plx\$!LqLPRCMRC]+ HK5g[plx\$!LqLPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRCMRCPRC
V_V74uaDR$DfPniRz0MK69</password>
                               <enabled>true</enabled>
                         </user>
                     </users>
                     </config>
Ok
***** NOTIFICATIONS ******
______
<?xml version="1.0" ?>
<notification xmlns="urn:ietf:params:xml:ns:netconf:notification:1.0">
 <eventTime>2000-11-04T00:32:15Z</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='operator498149557']</tar
    <operation>create</operation>
   </edit>
   <edit>
xmlns:o-ran-usermgmt="urn:o-ran:user-mgmt:1.0">/o-ran-usermgmt:users/o-ran-usermgmt:user[o-ran-usermgmt:name='operator498149557']/o-ra
n-usermgmt:name</target>
    <operation>create</operation>
   </edit>
```



| <edit></edit> |
|--|
| <target< td=""></target<> |
| xmlns: o-ran-usermgmt = "urn: o-ran: user-mgmt: 1.0" > /o-ran-usermgmt: users /o-ran-usermgmt: user [o-ran-usermgmt: name = 'operator 498149557'] /o-ran-usermgmt: users /o-ran-usermgmt: user [o-ran-usermgmt: name = 'operator 498149557'] /o-ran-usermgmt: users /o-ran-usermg |
| n-usermgmt:account-type |
| <pre><operation>create</operation></pre> |
| |
| <edit></edit> |
| <target< td=""></target<> |
| xmlns: o-ran-usermgmt = "urn: o-ran: user-mgmt: 1.0" > /o-ran-usermgmt: users /o-ran-usermgmt: user [o-ran-usermgmt: name = 'operator 498149557'] /o-ran-usermgmt: users /o-ran-userm |
| n-usermgmt:password |
| <pre><operation>create</operation></pre> |
| |
| <edit></edit> |
| <target< td=""></target<> |
| xmlns: o-ran-usermgmt = "urn: o-ran: user-mgmt: 1.0" > /o-ran-usermgmt: users /o-ran-usermgmt: user [o-ran-usermgmt: name = 'operator 498149557'] /o-ran-usermgmt: users /o-ran-userm |
| n-usermgmt:enabled |
| <pre><operation>create</operation></pre> |
| |
| |
| |



Step 3 and 4: The TER NETCONF Client retrieves a list of users

```
> 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>operator11879338448155316</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator35813916948</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
</user>
<user>
 <name>operator6221</name>
 <account-type>PASSWORD</account-type>
 <enabled>true</enabled>
```

</user> <user>

<name>operator9152751046350691512312</name> <account-type>PASSWORD</account-type>



<enabled>true</enabled> </user> <user> <name>operator1930927930649</name> <account-type>PASSWORD</account-type> <enabled>true</enabled> </user> <user> <name>operator213245180307904</name> <account-type>PASSWORD</account-type> <enabled>true</enabled> </user> <user> <name>operator429298006246159886060</name> <account-type>PASSWORD</account-type> <enabled>true</enabled> </user> <user> <name>operator92526982514</name> <account-type>PASSWORD</account-type> <enabled>true</enabled> </user> <user> <name>operator23128973556</name> <account-type>PASSWORD</account-type> <enabled>true</enabled> </user> <user> <name>operator0710008545411089</name> <account-type>PASSWORD</account-type> <enabled>true</enabled> </user> <user> <name>operator603</name> <account-type>PASSWORD</account-type> <enabled>true</enabled> </user> <user> <name>operator858213709</name> <account-type>PASSWORD</account-type> <enabled>true</enabled> </user> <user> <name>operator498149557</name> <account-type>PASSWORD</account-type> <enabled>true</enabled> </user> </users> </data>

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| > edit-configtarget runningconfigdefop merge | |
|---|------|
| | |
| ******* Replace with below xml ******* | |
| <pre><config xmlns="urn:ietf:params:xml:ns:netconf:base:1.0"></config></pre> | |
| <nacm xmlns="urn:ietf:params:xml:ns:yang:ietf-netconf-acm"></nacm> | |
| <groups></groups> | |
| <group></group> | |
| <name>sudo</name> | |
| <user-name>operator498149557</user-name> | |
| | |
| | |
| | |
| | |
| ******* NOTIFICATIONS ******* | |
| <pre></pre> <pre></pre> <pre></pre> | |
| <notification xmlns="urn:ietf:params:xml:ns:netconf:notification:1.0"></notification> | |
| <eventtime>2000-11-04T00:32:15Z</eventtime> | |
| <netconf-config-change xmlns="urn:ietf:params:xml:ns:yang:ietf-netconf-notifications"></netconf-config-change> | |
| <changed-by></changed-by> | |
| <username>root</username> | |
| <session-id>16</session-id> | |
| | |
| <datastore>running</datastore> | |
| <edit></edit> | |
| <target< td=""><td></td></target<> | |
| xmlns: nacm = "urn: ietf: params: xml: ns: yang: ietf-netconf-acm" > /nacm: nacm/nacm: groups/nacm: groups/nacm: groups/nacm: groups/nacm: name = 'sudo'] / nacm: user-name [.='ornacm: nacm - acm'] / nacm: nacm - acm' | pera |
| tor498149557'] | |
| <pre><operation>create</operation></pre> | |
| | |
| | |
| | |



Step 5 and 6: NETCONF Server establishes a TCP connection and performs the Call Home procedure to the TER NETCONF Client using the same IP and VLAN.

> listen --ssh --login operator498149557

Waiting 60s for an SSH Call Home connection on port 4334...The authenticity of the host '::ffff:192.168.98.37' cannot be established. ssh-rsa key fingerprint is c0:7c:63:5d:4b:85:e7:27:e0:7e:f0:44:38:4e:ab:83.

operator498149557@::ffff:192.168.98.37 password:

Step 7: TER NETCONF Client and O-RU NETCONF Server exchange capabilities through the NETCONF <hello> messages

> status

Current NETCONF session:

ID : 17

Host :::ffff:192.168.98.37

Port : 50830 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: base: 1.0 urn: i

urn:ietf:params:netconf:capability:candidate:1.0urn:ietf:params:netconf:capability:rollback-on-error:1.0

urn:ietf:params:netconf:capability:validate:1.1urn:ietf:params:netconf:capability:startup:1.0urn: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-ragged,trim,explicit

urn:ietf:params:netconf:capability:notification:1.0urn: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, rollback-on-error, rollback

te,startup,url,xpathurn: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-net conf-notifications? module = ietf-net conf-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=2014-08-06urn:notification_history?module=notification_history

urn: ietf: params: xml: ns: yang: iana-if-type? module= iana-if-type & revision = 2017-01-19



Nov 4 00:32:09 vvdn_lpru daemon.info netopeer2-server[858]: Trying to connect via IPv4 to 192.168.98.88:4334.

Nov 4 00:32:09 vvdn_lpru daemon.info netopeer2-server[858]: Successfully connected to 192.168.98.88:4334 over IPv4.

Nov 4 00:32:09 vvdn lpru daemon.info netopeer2-server[858]: Session 297 (user "root", CID 1) created.

Nov 4 00:32:09 vvdn_lpru daemon.info netopeer2-server[858]: Received an SSH message "request-service" of subtype "ssh-userauth".

Nov 4 00:32:09 vvdn_lpru daemon.info netopeer2-server[858]: Received an SSH message "request-auth" of subtype "password".

Nov 4 00:32:09 vvdn_lpru daemon.info netopeer2-server[858]: User "operator" authenticated.

Nov 4 00:32:09 vvdn_lpru daemon.info netopeer2-server[858]: Received an SSH message "request-channel-open" of subtype "session".

Nov 4 00:32:09 vvdn_lpru daemon.info netopeer2-server[858]: Received an SSH message "request-channel" of subtype "subsystem".

Nov 4 00:32:09 vvdn_lpru daemon.info netopeer2-server[858]: Call Home client "default-client" session 16 established.

Nov 4 00:32:09 vvdn_lpru daemon.info netopeer2-server[858]: Session 298 (user "root", CID 1) created.

Nov 4 00:32:09 vvdn_lpru daemon.info netopeer2-server[858]: There are no subscribers for "ietf-netconf-notifications" notifications.

Nov 4 00:32:09 vvdn_lpru daemon.info netopeer2-server[858]: Generated new event (netconf-session-start).

Nov 4 00:32:09 vvdn_lpru daemon.info netopeer2-server[858]: Resolving unresolved data nodes and their constraints...

Nov 4 00:32:09 vvdn_lpru daemon.info netopeer2-server[858]: All data nodes and constraints resolved.

Nov 4 00:32:09 vvdn_lpru daemon.info netopeer2-server[858]: Resolving unresolved data nodes and their constraints...

Nov 4 00:32:09 vvdn_lpru daemon.info netopeer2-server[858]: All data nodes and constraints resolved.

Nov 4 00:32:09 vvdn_lpru daemon.info netopeer2-server[858]: Published event "rpc" "/ietf-netconf:get" with ID 31 priority 0 for 1 subscribers.

Nov 4 00:32:09 vvdn_lpru daemon.info netopeer2-server[858]: Processing "/ietf-netconf:get" "rpc" event with ID 31 priority 0 (remaining 1 subscribers).

Nov 4 00:32:09 vvdn_lpru daemon.info netopeer2-server[858]: Successful processing of "rpc" event with ID 31 priority 0 (remaining 0 subscribers).

Nov 4 00:32:09 vvdn_lpru daemon.info netopeer2-server[858]: Event "rpc" with ID 31 priority 0 succeeded.

Nov 4 00:32:09 vvdn_lpru daemon.info netopeer2-server[858]: Resolving unresolved data nodes and their constraints...

 $Nov\ \ 4\ 00:32:09\ vvdn_lpru\ daemon. info\ net opeer 2-server [858]:\ All\ data\ nodes\ and\ constraints\ resolved.$

Nov 4 00:32:09 vvdn_lpru daemon.info netopeer2-server[858]: Session 16: thread 4 event new RPC.

Nov 4 00:32:09 vvdn_lpru daemon.info netopeer2-server[858]: Resolving unresolved data nodes and their constraints...

Nov 4 00:32:09 vvdn_lpru daemon.info netopeer2-server[858]: All data nodes and constraints resolved.

Nov 4 00:32:09 vvdn_lpru daemon.info netopeer2-server[858]: Resolving unresolved data nodes and their constraints...

Nov 4 00:32:09 vvdn_lpru daemon.info netopeer2-server[858]: All data nodes and constraints resolved.

Nov 4 00:32:09 vvdn_lpru daemon.info netopeer2-server[858]: Published event "rpc" "/ietf-netconf:get" with ID 32 priority 0 for 1 subscribers.

Nov 4 00:32:09 vvdn_lpru daemon.info netopeer2-server[858]: Processing "/ietf-netconf:get" "rpc" event with ID 32 priority 0 (remaining 1 subscribers).

Nov 4 00:32:09 vvdn_lpru daemon.info netopeer2-server[858]: Published event "operational" "/o-ran-software-management:software-inventory" with ID 26.

Nov 4 00:32:09 vvdn_lpru user.notice fw_manager[928]: RPC #26 recieved. xpath -> /o-ran-software-management:software-inventory

Nov 4 00:32:09 vvdn_lpru daemon.info netopeer2-server[858]: Event "operational" with ID 26 succeeded.

Nov 4 00:32:09 vvdn_lpru daemon.info netopeer2-server[858]: Resolving unresolved data nodes and their constraints...

Nov 4 00:32:09 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 4 00:32:09 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 4 00:32:09 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 4 00:32:09 vvdn_lpru daemon.info netopeer2-server[858]: All data nodes and constraints resolved.

Nov 4 00:32:09 vvdn_lpru daemon.info netopeer2-server[858]: Successful processing of "rpc" event with ID 32 priority 0 (remaining 0



subscribers).

Nov 4 00:32:09 vvdn_lpru daemon.info netopeer2-server[858]: Event "rpc" with ID 32 priority 0 succeeded.

Nov 4 00:32:09 vvdn_lpru daemon.info netopeer2-server[858]: Resolving unresolved data nodes and their constraints...

Nov 4 00:32:09 vvdn_lpru daemon.info netopeer2-server[858]: All data nodes and constraints resolved.

Nov 4 00:32:09 vvdn_lpru daemon.info netopeer2-server[858]: Resolving unresolved data nodes and their constraints...

Nov 4 00:32:09 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 4 00:32:09 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 4 00:32:09 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 4 00:32:09 vvdn_lpru daemon.info netopeer2-server[858]: All data nodes and constraints resolved.

Nov 4 00:32:09 vvdn_lpru daemon.info netopeer2-server[858]: Session 16: thread 4 event new RPC.

Nov 4 00:32:09 vvdn_lpru daemon.info netopeer2-server[858]: Resolving unresolved data nodes and their constraints...

Nov 4 00:32:09 vvdn_lpru daemon.info netopeer2-server[858]: All data nodes and constraints resolved.

Nov 4 00:32:09 vvdn_lpru daemon.info netopeer2-server[858]: Resolving unresolved data nodes and their constraints...

Nov 4 00:32:09 vvdn_lpru daemon.info netopeer2-server[858]: All data nodes and constraints resolved.

Nov 4 00:32:09 vvdn_lpru daemon.info netopeer2-server[858]: Published event "rpc" "/ietf-netconf:get-config" with ID 18 priority 0 for 1 subscribers.

Nov 4 00:32:09 vvdn_lpru daemon.info netopeer2-server[858]: Processing "/ietf-netconf:get-config" "rpc" event with ID 18 priority 0 (remaining 1 subscribers).

Nov 4 00:32:09 vvdn_lpru daemon.info netopeer2-server[858]: Successful processing of "rpc" event with ID 18 priority 0 (remaining 0 subscribers).

Nov 4 00:32:09 vvdn_lpru daemon.info netopeer2-server[858]: Event "rpc" with ID 18 priority 0 succeeded.

 $Nov\ \ 4\ 00:32:09\ vvdn_lpru\ daemon. info\ net opeer 2-server [858]:\ Resolving\ unresolved\ data\ nodes\ and\ their\ constraints...$

Nov 4 00:32:09 vvdn_lpru daemon.info netopeer2-server[858]: All data nodes and constraints resolved.

Nov 4 00:32:09 vvdn_lpru daemon.info netopeer2-server[858]: Resolving unresolved data nodes and their constraints...

Nov $4\,00:32:09\,vvdn_lpru$ daemon.info netopeer2-server[858]: There is no leafref

"/ietf-hardware:hardware/ietf-hardware:component/ietf-hardware:name" with the value "ru-port0", but it is not required.

Nov 4 00:32:09 vvdn_lpru daemon.info netopeer2-server[858]: There is no leafref

"/ietf-hardware:hardware/ietf-hardware:component/ietf-hardware:name" with the value "ru-port0", but it is not required.

Nov 4 00:32:09 vvdn_lpru daemon.info netopeer2-server[858]: All data nodes and constraints resolved.

Nov 4 00:32:09 vvdn_lpru daemon.info netopeer2-server[858]: Session 16: thread 3 event new RPC.

Nov 4 00:32:14 vvdn_lpru user.notice SYNCMNGR[1174]: Received message from S-Plane

Nov 4 00:32:15 vvdn_lpru daemon.info netopeer2-server[858]: Resolving unresolved data nodes and their constraints...

Nov 4 00:32:15 vvdn_lpru daemon.info netopeer2-server[858]: All data nodes and constraints resolved.

Nov 4 00:32:15 vvdn_lpru daemon.info netopeer2-server[858]: Resolving unresolved data nodes and their constraints...

 $Nov\ \ 4\ 00:32:15\ vvdn_lpru\ daemon. info\ net opeer 2-server [858]:\ All\ data\ nodes\ and\ constraints\ resolved.$

Nov 4 00:32:15 vvdn_lpru daemon.info netopeer2-server[858]: Published event "rpc" "/notifications:create-subscription" with ID 11 priority 0 for 1 subscribers.

Nov 4 00:32:15 vvdn_lpru daemon.info netopeer2-server[858]: Processing "/notifications:create-subscription" "rpc" event with ID 11 priority 0 (remaining 1 subscribers).

Nov 4 00:32:15 vvdn_lpru daemon.info netopeer2-server[858]: Successful processing of "rpc" event with ID 11 priority 0 (remaining 0 subscribers).

Nov 4 00:32:15 vvdn_lpru daemon.info netopeer2-server[858]: Event "rpc" with ID 11 priority 0 succeeded.

Nov 4 00:32:15 vvdn_lpru daemon.info netopeer2-server[858]: Session 16: thread 4 event new RPC.

Nov 4 00:32:15 vvdn lpru daemon.info netopeer2-server[858]: Resolving unresolved data nodes and their constraints...

Nov 4 00:32:15 vvdn_lpru daemon.info netopeer2-server[858]: All data nodes and constraints resolved.

Nov 4 00:32:15 vvdn_lpru daemon.info netopeer2-server[858]: Resolving unresolved data nodes and their constraints...



Nov 4 00:32:15 vvdn_lpru daemon.info netopeer2-server[858]: All data nodes and constraints resolved.

Nov 4 00:32:15 vvdn_lpru daemon.info netopeer2-server[858]: Published event "rpc" "/ietf-netconf:edit-config" with ID 8 priority 0 for 1 subscribers.

Nov 4 00:32:15 vvdn_lpru daemon.info netopeer2-server[858]: Processing "/ietf-netconf:edit-config" "rpc" event with ID 8 priority 0 (remaining 1 subscribers).

Nov 4 00:32:15 vvdn_lpru daemon.info netopeer2-server[858]: edit-config error-option "stop-on-error" not supported, rollback-on-error will be performed.

Nov 4 00:32:15 vvdn_lpru daemon.info netopeer2-server[858]: Resolving unresolved data nodes and their constraints...

Nov 4 00:32:15 vvdn_lpru daemon.info netopeer2-server[858]: All data nodes and constraints resolved.

Nov 4 00:32:15 vvdn_lpru daemon.info netopeer2-server[858]: Published event "change" "o-ran-usermgmt" with ID 3 priority 0 for 1 subscribers.

Nov 4 00:32:15 vvdn_lpru user.notice USERMGMT[917]: operator498149557 added successfully !!

Nov 4 00:32:15 vvdn_lpru user.notice USERMGMT[917]: operator498149557 enabled !!

Nov 4 00:32:15 vvdn_lpru user.notice USERMGMT[917]: END OF CHANGES

Nov 4 00:32:15 vvdn_lpru daemon.info netopeer2-server[858]: Event "change" with ID 3 priority 0 succeeded.

Nov 4 00:32:15 vvdn_lpru daemon.info netopeer2-server[858]: Published event "done" "o-ran-usermgmt" with ID 3 priority 0 for 1 subscribers.

Nov 4 00:32:15 vvdn_lpru user.notice USERMGMT[917]: END OF CHANGES

Nov 4 00:32:15 vvdn_lpru daemon.info netopeer2-server[858]: Resolving unresolved data nodes and their constraints...

Nov 4 00:32:15 vvdn_lpru daemon.info netopeer2-server[858]: There is no instance of "/o-ran-usermgmt:users/user[name='operator498149557']", but it is not required.

Nov 4 00:32:15 vvdn_lpru daemon.info netopeer2-server[858]: There is no instance of

"/o-ran-usermgmt:users/user[name='operator498149557']/name", but it is not required.

Nov 4 00:32:15 vvdn_lpru daemon.info netopeer2-server[858]: There is no instance of

"/o-ran-usermgmt:users/user[name='operator498149557']/account-type", but it is not required.

Nov 4 00:32:15 vvdn_lpru daemon.info netopeer2-server[858]: There is no instance of

"/o-ran-usermgmt:users/user[name='operator498149557']/password", but it is not required.

Nov $4\,00:32:15\,vvdn_lpru$ daemon.info netopeer2-server[858]: There is no instance of

"/o-ran-usermgmt:users/user[name='operator498149557']/enabled", but it is not required.

 $Nov\ \ 4\ 00:32:15\ vvdn_lpru\ daemon.info\ netopeer 2-server [858]:\ All\ data\ nodes\ and\ constraints\ resolved.$

 $Nov\ 4\ 00:32:15\ vvdn_lpru\ daemon. info\ net opeer 2-server [858]: Processing\ "notif"\ "ietf-net conf-notifications"\ event\ with\ ID\ 1.$

Nov 4 00:32:15 vvdn_lpru daemon.info netopeer2-server[858]: Successful processing of "notif" event with ID 1 priority 0 (remaining 0 subscribers).

Nov 4 00:32:15 vvdn_lpru daemon.info netopeer2-server[858]: Published event "notif" "ietf-netconf-notifications" with ID 2 priority 0 for 1 subscribers.

Nov 4 00:32:15 vvdn_lpru daemon.info netopeer2-server[858]: Successful processing of "rpc" event with ID 8 priority 0 (remaining 0 subscribers).

Nov 4 00:32:15 vvdn_lpru daemon.info netopeer2-server[858]: Event "rpc" with ID 8 priority 0 succeeded.

Nov 4 00:32:15 vvdn_lpru daemon.info netopeer2-server[858]: Session 16: thread 4 event new RPC.

Nov 4 00:32:15 vvdn_lpru daemon.info netopeer2-server[858]: Resolving unresolved data nodes and their constraints...

Nov 4 00:32:15 vvdn_lpru daemon.info netopeer2-server[858]: There is no instance of "/o-ran-usermgmt:users/user[name='operator498149557']", but it is not required.

Nov 4 00:32:15 vvdn_lpru daemon.info netopeer2-server[858]: There is no instance of

"/o-ran-usermgmt:users/user[name='operator498149557']/name", but it is not required.

Nov 4 00:32:15 vvdn_lpru daemon.info netopeer2-server[858]: There is no instance of

"/o-ran-usermgmt:users/user[name='operator498149557']/account-type", but it is not required.

Nov 4 00:32:15 vvdn_lpru daemon.info netopeer2-server[858]: There is no instance of

"/o-ran-usermgmt:users/user[name='operator498149557']/password", but it is not required.

Nov 4 00:32:15 vvdn_lpru daemon.info netopeer2-server[858]: There is no instance of

"/o-ran-usermgmt:users/user[name='operator498149557']/enabled", but it is not required.

Nov 4 00:32:15 vvdn_lpru daemon.info netopeer2-server[858]: All data nodes and constraints resolved.



Nov 4 00:32:15 vvdn_lpru daemon.info netopeer2-server[858]: Processing "notif" "ietf-netconf-notifications" event with ID 2.

Nov 4 00:32:15 vvdn_lpru daemon.info netopeer2-server[858]: Successful processing of "notif" event with ID 2 priority 0 (remaining 0 subscribers).

Nov 4 00:32:15 vvdn_lpru daemon.info netopeer2-server[858]: Resolving unresolved data nodes and their constraints...

Nov 4 00:32:15 vvdn_lpru daemon.info netopeer2-server[858]: All data nodes and constraints resolved.

Nov 4 00:32:15 vvdn lpru daemon.info netopeer2-server[858]: Resolving unresolved data nodes and their constraints...

Nov 4 00:32:15 vvdn lpru daemon.info netopeer2-server[858]: All data nodes and constraints resolved.

Nov 4 00:32:15 vvdn_lpru daemon.info netopeer2-server[858]: Published event "rpc" "/ietf-netconf:get-config" with ID 19 priority 0 for 1 subscribers.

Nov 4 00:32:15 vvdn_lpru daemon.info netopeer2-server[858]: Processing "/ietf-netconf:get-config" "rpc" event with ID 19 priority 0 (remaining 1 subscribers).

Nov 4 00:32:15 vvdn_lpru daemon.info netopeer2-server[858]: Successful processing of "rpc" event with ID 19 priority 0 (remaining 0 subscribers).

Nov 4 00:32:15 vvdn_lpru daemon.info netopeer2-server[858]: Event "rpc" with ID 19 priority 0 succeeded.

Nov 4 00:32:15 vvdn_lpru daemon.info netopeer2-server[858]: Resolving unresolved data nodes and their constraints...

Nov 4 00:32:15 vvdn_lpru daemon.info netopeer2-server[858]: All data nodes and constraints resolved.

Nov 4 00:32:15 vvdn_lpru daemon.info netopeer2-server[858]: Session 16: thread 4 event new RPC.

Nov 4 00:32:15 vvdn_lpru daemon.info netopeer2-server[858]: Resolving unresolved data nodes and their constraints...

Nov 4 00:32:15 vvdn_lpru daemon.info netopeer2-server[858]: All data nodes and constraints resolved.

Nov 4 00:32:15 vvdn_lpru daemon.info netopeer2-server[858]: Resolving unresolved data nodes and their constraints...

Nov 4 00:32:15 vvdn_lpru daemon.info netopeer2-server[858]: All data nodes and constraints resolved.

Nov 4 00:32:15 vvdn_lpru daemon.info netopeer2-server[858]: Published event "rpc" "/ietf-netconf:edit-config" with ID 9 priority 0 for 1 subscribers.

Nov 4 00:32:15 vvdn_lpru daemon.info netopeer2-server[858]: Processing "/ietf-netconf:edit-config" "rpc" event with ID 9 priority 0 (remaining 1 subscribers).

Nov 4 00:32:15 vvdn_lpru daemon.info netopeer2-server[858]: edit-config error-option "stop-on-error" not supported, rollback-on-error will be performed.

Nov 4 00:32:15 vvdn_lpru daemon.info netopeer2-server[858]: Published event "done" "ietf-netconf-acm" with ID 5 priority 0 for 4 subscribers.

Nov 4 00:32:15 vvdn_lpru daemon.info netopeer2-server[858]: Processing "ietf-netconf-acm" "done" event with ID 5 priority 0 (remaining 4 subscribers).

Nov 4 00:32:15 vvdn_lpru daemon.info netopeer2-server[858]: Successful processing of "done" event with ID 5 priority 0 (remaining 0 subscribers).

Nov 4 00:32:15 vvdn_lpru daemon.info netopeer2-server[858]: Published event "notif" "ietf-netconf-notifications" with ID 3 priority 0 for 1 subscribers.

Nov 4 00:32:15 vvdn_lpru daemon.info netopeer2-server[858]: Resolving unresolved data nodes and their constraints...

Nov 4 00:32:15 vvdn_lpru daemon.info netopeer2-server[858]: There is no instance of

"/ietf-netconf-acm:nacm/groups/group[name='sudo']/user-name[.='operator498149557']", but it is not required.

 $Nov\ \ 4\ 00:32:15\ vvdn_lpru\ daemon. info\ net opeer 2-server [858]:\ All\ data\ nodes\ and\ constraints\ resolved.$

Nov 4 00:32:15 vvdn_lpru daemon.info netopeer2-server[858]: Processing "notif" "ietf-netconf-notifications" event with ID 3.

Nov 4 00:32:15 vvdn_lpru daemon.info netopeer2-server[858]: Successful processing of "notif" event with ID 3 priority 0 (remaining 0 subscribers).

Nov 4 00:32:15 vvdn_lpru daemon.info netopeer2-server[858]: Successful processing of "rpc" event with ID 9 priority 0 (remaining 0 subscribers).

Nov 4 00:32:15 vvdn_lpru daemon.info netopeer2-server[858]: Event "rpc" with ID 9 priority 0 succeeded.

Nov 4 00:32:15 vvdn_lpru daemon.info netopeer2-server[858]: Session 16: thread 4 event new RPC.

Nov 4 00:32:16 vvdn_lpru daemon.info netopeer2-server[858]: Session 16: thread 3 event new RPC.

Nov 4 00:32:16 vvdn_lpru daemon.info netopeer2-server[858]: Session 16: thread 3 event session terminated.

Nov 4 00:32:16 vvdn_lpru daemon.info netopeer2-server[858]: There are no subscribers for "ietf-netconf-notifications" notifications.

Nov 4 00:32:16 vvdn_lpru daemon.info netopeer2-server[858]: Generated new event (netconf-session-end).



- Nov 4 00:32:16 vvdn_lpru daemon.info netopeer2-server[858]: Call Home client "default-client" session terminated.
- Nov 4 00:32:16 vvdn_lpru daemon.info netopeer2-server[858]: Trying to connect via IPv4 to 192.168.98.88:4334.
- Nov 4 00:32:16 vvdn_lpru daemon.info netopeer2-server[858]: Successfully connected to 192.168.98.88:4334 over IPv4.
- Nov 4 00:32:16 vvdn_lpru daemon.info netopeer2-server[858]: Session 317 (user "root", CID 1) created.
- Nov 4 00:32:16 vvdn_lpru daemon.info netopeer2-server[858]: Received an SSH message "request-service" of subtype "ssh-userauth".
- Nov 4 00:32:16 vvdn_lpru daemon.info netopeer2-server[858]: Received an SSH message "request-auth" of subtype "password".
- Nov 4 00:32:16 vvdn_lpru daemon.info netopeer2-server[858]: User "operator498149557" authenticated.
- Nov 4 00:32:16 vvdn_lpru daemon.info netopeer2-server[858]: Received an SSH message "request-channel-open" of subtype "session".
- Nov 4 00:32:16 vvdn_lpru daemon.info netopeer2-server[858]: Received an SSH message "request-channel" of subtype "subsystem".
- Nov 4 00:32:16 vvdn_lpru daemon.info netopeer2-server[858]: Call Home client "default-client" session 17 established.
- Nov 4 00:32:16 vvdn_lpru daemon.info netopeer2-server[858]: Session 318 (user "root", CID 1) created.
- Nov 4 00:32:16 vvdn_lpru daemon.info netopeer2-server[858]: There are no subscribers for "ietf-netconf-notifications" notifications.
- Nov 4 00:32:16 vvdn_lpru daemon.info netopeer2-server[858]: Generated new event (netconf-session-start).
- Nov 4 00:32:16 vvdn_lpru authpriv.debug sshd[28220]: pam_unix(sshd:account): account operator has password changed in future
- Nov 4 00:32:16 vvdn_lpru auth.info sshd[28220]: Accepted password for operator from 192.168.98.88 port 43782 ssh2
- Nov 4 00:32:16 vvdn_lpru authpriv.info sshd[28220]: pam_unix(sshd:session): session opened for user operator by (uid=0)



| Expected Result: The TER NETCONF Client establishes a Call Home & SSH session | | | | | |
|---|-------|---|------|--|--|
| towards the NETCONF Server with new user created a | bove. | | | | |
| ************************************** | | | | | |
| ====================================== | - | SUCCESS | ==== | | |
| positive cuse) | | 5 | | | |