



@ FILE NAME: M\_CTC\_ID\_011.txt

@ TEST SCOPE: M PLANE O-RAN CONFORMANCE

@ Software Release for MCB1: v1.0.5

Test Description: This scenario validates that the O-RU NETCONF Server properly executes a get command with a filter applied.



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

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> listen --ssh --login operator

Waiting 60s for an SSH Call Home connection on port 4334...

The authenticity of the host '::ffff:192.168.4.39' 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 : 2

Host : 192.168.4.39

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

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

 $urn: ietf: params: netconf: capability: validate: 1.1 \ urn: ietf: params: netconf: capability: startup: 1.0 \ urn: ietf: params: netconf: capability: xpath: 1.0 \ urn: ietf: params: netconf: xpath: xpath$ 

urn: ietf: params: netconf: capability: with-defaults: 1.0? basic-mode = explicit & also-supported = report-all, report-all-tagged, trim, explicit & also-supported = report-all-tagged, trim

 $urn: ietf: params: netconf: capability: notification: 1.0\ urn: ietf: params: netconf: capability: interleave: 1.0\ urn: ietf: params: netconf: params: netcon$ 

 $urn: ietf: params: xml: ns: yang: ietf-yang-metadata? module= ietf-yang-metadata \& revision = 2016-08-05 \\ ietf-yang-metadata = ietf-$ 

urn:ietf:params:xml:ns:yang:1?module=yang&revision=2017-02-20

urn:ietf:params:xml:ns:yang:ietf-inet-types?module=ietf-inet-types&revision=2013-07-15

urn: ietf: params: xml: ns: yang: ietf-yang-types? module = ietf-yang-types & revision = 2013-07-15

urn:ietf:params:netconf:capability:yang-library:1.1?revision=2019-01-04&content-id=63

urn:sysrepo:plugind?module=sysrepo-plugind&revision=2020-12-10

urn:ietf:params:xml:ns:yang:ietf-netconf-acm?module=ietf-netconf-acm&revision=2018-02-14

urn: ietf: params: xml: ns: netconf: base: 1.0? module = ietf-netconf & revision = 2013-09-29 & features = writable-running, candidate, rollback-on-error, valid = ietf-netconf & revision = 2013-09-29 & features = writable-running, candidate, rollback-on-error, valid = ietf-netconf & revision = 2013-09-29 & features = writable-running, candidate, rollback-on-error, valid = ietf-netconf & revision = 2013-09-29 & features = writable-running, candidate, rollback-on-error, valid = ietf-netconf & revision = 2013-09-29 & features = writable-running, candidate, rollback-on-error, valid = ietf-netconf & revision = 2013-09-29 & features = writable-running, candidate, rollback-on-error, valid = ietf-netconf & revision = 2013-09-29 & features = writable-running, candidate, rollback-on-error, valid = ietf-netconf & revision = 2013-09-29 & features = writable-running, candidate, rollback-on-error, valid = ietf-netconf & revision = 2013-09-29 & features = writable-running, rollback-on-error, valid = ietf-netconf & revision = 2013-09-29 & features = writable-running, rollback-on-error, valid = ietf-netconf & revision = 2013-09-29 & features = writable-running, rollback-on-error, with the properties of the properties = ietf-netconf & revision = 2013-09-29 & features = writable-running, rollback-on-error, rollback-on-e

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-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=2014-08-06 urn:notification\_history?module=notification\_history

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

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## > subscribe

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Ok



\*\*\*\*\*\*\*step 1 and 2 Retrival of ru information with filter \*\*\*\*\*\*\* 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>
</users>
</data>



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- Oct 29 14:27:20 mcb1 daemon.info netopeer2-server[986]: Trying to connect via IPv4 to 192.168.4.15:4334.
- Oct 29 14:27:20 mcb1 daemon.info netopeer2-server[986]: getsockopt() error (Connection refused).
- Oct 29 14:27:21 mcb1 daemon.info netopeer2-server[986]: Trying to connect via IPv4 to 192.168.4.15:4334.
- Oct 29 14:27:21 mcb1 daemon.info netopeer2-server[986]: getsockopt() error (Connection refused).
- Oct 29 14:27:22 mcb1 daemon.info netopeer2-server[986]: Trying to connect via IPv4 to 192.168.4.15:4334.
- Oct 29 14:27:22 mcb1 daemon.info netopeer2-server[986]: Successfully connected to 192.168.4.15:4334 over IPv4.
- Oct 29 14:27:22 mcb1 daemon.info netopeer2-server[986]: Session 116 (user "root", CID 1) created.
- Oct 29 14:27:22 mcb1 daemon.info netopeer2-server[986]: Received an SSH message "request-service" of subtype "ssh-userauth".
- Oct 29 14:27:22 mcb1 daemon.info netopeer2-server[986]: Received an SSH message "request-auth" of subtype "password".
- Oct 29 14:27:22 mcb1 daemon.info netopeer2-server[986]: User "operator" authenticated.
- Oct 29 14:27:22 mcb1 daemon.info netopeer2-server[986]: Received an SSH message "request-channel-open" of subtype "session".
- Oct 29 14:27:22 mcb1 daemon.info netopeer2-server[986]: Received an SSH message "request-channel" of subtype "subsystem".
- Oct 29 14:27:22 mcb1 daemon.info netopeer2-server[986]: Call Home client "default-client" session 2 established.
- Oct 29 14:27:22 mcb1 daemon.info netopeer2-server[986]: Session 117 (user "root", CID 1) created.
- Oct 29 14:27:22 mcb1 daemon.info netopeer2-server[986]: There are no subscribers for "ietf-netconf-notifications" notifications.
- Oct 29 14:27:22 mcb1 daemon.info netopeer2-server[986]: Generated new event (netconf-session-start).
- Oct 29 14:27:22 mcb1 daemon.info netopeer2-server[986]: Resolving unresolved data nodes and their constraints...
- Oct 29 14:27:22 mcb1 daemon.info netopeer2-server[986]: All data nodes and constraints resolved.
- Oct 29 14:27:22 mcb1 daemon.info netopeer2-server[986]: Resolving unresolved data nodes and their constraints...
- Oct 29 14:27:22 mcb1 daemon.info netopeer2-server[986]: All data nodes and constraints resolved.
- Oct 29 14:27:22 mcb1 daemon.info netopeer2-server[986]: Published event "rpc" "/ietf-netconf:get" with ID 4 priority 0 for 1 subscribers.
- Oct 29 14:27:22 mcb1 daemon.info netopeer2-server[986]: Processing "/ietf-netconf:get" "rpc" event with ID 4 priority 0 (remaining 1 subscribers).
- Oct 29 14:27:22 mcb1 daemon.info netopeer2-server[986]: Successful processing of "rpc" event with ID 4 priority 0 (remaining 0 subscribers).
- Oct 29 14:27:22 mcb1 daemon.info netopeer2-server[986]: Event "rpc" with ID 4 priority 0 succeeded.
- Oct 29 14:27:22 mcb1 daemon.info netopeer2-server[986]: Resolving unresolved data nodes and their constraints...
- Oct 29 14:27:22 mcb1 daemon.info netopeer2-server[986]: All data nodes and constraints resolved.
- Oct 29 14:27:22 mcb1 daemon.info netopeer2-server[986]: Session 2: thread 4 event new RPC.
- Oct 29 14:27:22 mcb1 daemon.info netopeer2-server[986]: Resolving unresolved data nodes and their constraints...
- Oct 29 14:27:22 mcb1 daemon.info netopeer2-server[986]: All data nodes and constraints resolved.
- Oct 29 14:27:22 mcb1 daemon.info netopeer2-server[986]: Resolving unresolved data nodes and their constraints...
- Oct 29 14:27:22 mcb1 daemon.info netopeer2-server[986]: All data nodes and constraints resolved.
- Oct 29 14:27:22 mcb1 daemon.info netopeer2-server[986]: Published event "rpc" "/ietf-netconf:get" with ID 5 priority 0 for 1 subscribers.
- Oct 29 14:27:22 mcb1 daemon.info netopeer2-server[986]: Processing "/ietf-netconf:get" "rpc" event with ID 5 priority 0 (remaining 1 subscribers).
- Oct 29 14:27:22 mcb1 daemon.info netopeer2-server[986]: Published event "operational" "/o-ran-software-management:software-inventory" with ID 3.
- Oct 29 14:27:22 mcb1 user.notice fw\_manager[1060]: RPC #3 recieved. xpath -> /o-ran-software-management:software-inventory
- Oct 29 14:27:22 mcb1 daemon.info netopeer2-server[986]: Event "operational" with ID 3 succeeded.
- Oct 29 14:27:22 mcb1 daemon.info netopeer2-server[986]: Resolving unresolved data nodes and their constraints...
- Oct 29 14:27:22 mcb1 daemon.info netopeer2-server[986]: 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.
- Oct 29 14:27:22 mcb1 daemon.info netopeer2-server[986]: 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.
- Oct 29 14:27:22 mcb1 daemon.info netopeer2-server[986]: There is no leafref



- "/ietf-hardware:hardware/ietf-hardware:component/o-ran-hardware:product-code" with the value "STL=O-RU", but it is not required.
- Oct 29 14:27:22 mcb1 daemon.info netopeer2-server[986]: All data nodes and constraints resolved.
- Oct 29 14:27:22 mcb1 daemon.info netopeer2-server[986]: Successful processing of "rpc" event with ID 5 priority 0 (remaining 0 subscribers).
- Oct 29 14:27:22 mcb1 daemon.info netopeer2-server[986]: Event "rpc" with ID 5 priority 0 succeeded.
- Oct 29 14:27:22 mcb1 daemon.info netopeer2-server[986]: Resolving unresolved data nodes and their constraints...
- Oct 29 14:27:22 mcb1 daemon.info netopeer2-server[986]: All data nodes and constraints resolved.
- Oct 29 14:27:22 mcb1 daemon.info netopeer2-server[986]: Resolving unresolved data nodes and their constraints...
- Oct 29 14:27:22 mcb1 daemon.info netopeer2-server[986]: 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.
- Oct 29 14:27:22 mcb1 daemon.info netopeer2-server[986]: 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.
- Oct 29 14:27:22 mcb1 daemon.info netopeer2-server[986]: There is no leafref
- "/ietf-hardware:hardware/ietf-hardware:component/o-ran-hardware:product-code" with the value "STL=O-RU", but it is not required.
- Oct 29 14:27:22 mcb1 daemon.info netopeer2-server[986]: All data nodes and constraints resolved.
- Oct 29 14:27:22 mcb1 daemon.info netopeer2-server[986]: Session 2: thread 2 event new RPC.
- Oct 29 14:27:22 mcb1 daemon.info netopeer2-server[986]: Resolving unresolved data nodes and their constraints...
- Oct 29 14:27:22 mcb1 daemon.info netopeer2-server[986]: All data nodes and constraints resolved.
- Oct 29 14:27:22 mcb1 daemon.info netopeer2-server[986]: Resolving unresolved data nodes and their constraints...
- Oct 29 14:27:22 mcb1 daemon.info netopeer2-server[986]: All data nodes and constraints resolved.
- Oct 29 14:27:22 mcb1 daemon.info netopeer2-server[986]: Published event "rpc" "/ietf-netconf:get-config" with ID 2 priority 0 for 1 subscribers.
- Oct 29 14:27:22 mcb1 daemon.info netopeer2-server[986]: Processing "/ietf-netconf:get-config" "rpc" event with ID 2 priority 0 (remaining 1 subscribers).
- Oct 29 14:27:22 mcb1 daemon.info netopeer2-server[986]: Successful processing of "rpc" event with ID 2 priority 0 (remaining 0 subscribers).
- Oct 29 14:27:22 mcb1 daemon.info netopeer2-server[986]: Event "rpc" with ID 2 priority 0 succeeded.
- Oct 29 14:27:22 mcb1 daemon.info netopeer2-server[986]: Resolving unresolved data nodes and their constraints...
- Oct 29 14:27:22 mcb1 daemon.info netopeer2-server[986]: All data nodes and constraints resolved.
- Oct 29 14:27:22 mcb1 daemon.info netopeer2-server[986]: Session 2: thread 3 event new RPC.
- Oct 29 14:27:26 mcb1 user.notice SYNCMNGR[1306]: Received message from S-Plane
- Oct 29 14:27:30 mcb1 daemon.info netopeer2-server[986]: Resolving unresolved data nodes and their constraints...
- Oct 29 14:27:30 mcb1 daemon.info netopeer2-server[986]: All data nodes and constraints resolved.
- Oct 29 14:27:30 mcb1 daemon.info netopeer2-server[986]: Resolving unresolved data nodes and their constraints...
- Oct 29 14:27:30 mcb1 daemon.info netopeer2-server[986]: All data nodes and constraints resolved.
- Oct 29 14:27:30 mcb1 daemon.info netopeer2-server[986]: Published event "rpc" "/notifications:create-subscription" with ID 2 priority 0 for 1 subscribers.
- Oct 29 14:27:30 mcb1 daemon.info netopeer2-server[986]: Processing "/notifications:create-subscription" "rpc" event with ID 2 priority 0 (remaining 1 subscribers).
- Oct 29 14:27:30 mcb1 daemon.info netopeer2-server[986]: Successful processing of "rpc" event with ID 2 priority 0 (remaining 0 subscribers).
- Oct 29 14:27:30 mcb1 daemon.info netopeer2-server[986]: Event "rpc" with ID 2 priority 0 succeeded.
- Oct 29 14:27:30 mcb1 daemon.info netopeer2-server[986]: Session 2: thread 3 event new RPC.
- Oct 29 14:27:30 mcb1 daemon.info netopeer2-server[986]: Resolving unresolved data nodes and their constraints...
- Oct 29 14:27:30 mcb1 daemon.info netopeer2-server[986]: All data nodes and constraints resolved.
- Oct 29 14:27:30 mcb1 daemon.info netopeer2-server[986]: Resolving unresolved data nodes and their constraints...
- Oct 29 14:27:30 mcb1 daemon.info netopeer2-server[986]: All data nodes and constraints resolved.
- Oct 29 14:27:30 mcb1 daemon.info netopeer2-server[986]: Published event "rpc" "/ietf-netconf:get-config" with ID 3 priority 0 for 1 subscribers.
- Oct 29 14:27:30 mcb1 daemon.info netopeer2-server[986]: Processing "/ietf-netconf:get-config" "rpc" event with ID 3 priority 0 (remaining 1 subscribers).
- Oct 29 14:27:30 mcb1 daemon.info netopeer2-server[986]: Successful processing of "rpc" event with ID 3 priority 0 (remaining 0 subscribers).
- Oct 29 14:27:30 mcb1 daemon.info netopeer2-server[986]: Event "rpc" with ID 3 priority 0 succeeded.
- Oct 29 14:27:30 mcb1 daemon.info netopeer2-server[986]: Resolving unresolved data nodes and their constraints...



- Oct 29 14:27:30 mcb1 daemon.info netopeer2-server[986]: All data nodes and constraints resolved.
- Oct 29 14:27:30 mcb1 daemon.info netopeer2-server[986]: Session 2: thread 4 event new RPC.
- Oct 29 14:27:30 mcb1 daemon.info netopeer2-server[986]: Session 2: thread 4 event new RPC.
- Oct 29 14:27:30 mcb1 daemon.info netopeer2-server[986]: Session 2: thread 4 event session terminated.
- Oct 29 14:27:30 mcb1 daemon.info netopeer2-server[986]: There are no subscribers for "ietf-netconf-notifications" notifications.
- Oct 29 14:27:30 mcb1 daemon.info netopeer2-server[986]: Generated new event (netconf-session-end).
- Oct 29 14:27:30 mcb1 daemon.info netopeer2-server[986]: Call Home client "default-client" session terminated.
- Oct 29 14:27:30 mcb1 daemon.info netopeer2-server[986]: Trying to connect via IPv4 to 192.168.4.15:4334.
- Oct 29 14:27:30 mcb1 daemon.info netopeer2-server[986]: getsockopt() error (Connection refused).
- Oct 29 14:27:30 mcb1 auth.info sshd[21025]: Accepted password for operator from 192.168.4.15 port 38226 ssh2
- Oct 29 14:27:30 mcb1 authpriv.info sshd[21025]: pam\_unix(sshd:session): session opened for user operator by (uid=0)



| Expected Result: The O-RU NETCONF Server responds with <rpc-reply><data> where <data> contains details for objects as conforming to the <filter>.</filter></data></data></rpc-reply> |   |         |  |  |
|--|---|---------|--|--|
|  |   |         |  |  |
| ******* Actual Result ************************************   |   |         |  |  |
|  |   |         |  |  |
| Retrieval with filter applied  | = | SUCCESS |  |  |
|  |   |         |  |  |