@ FILE NAME: M_CTC_ID_013.txt

@ TEST SCOPE: M PLANE O-RAN CONFORMANCE

@ Software Release for LPRU: v1.1.0

Test Description : The minimum functions of the TER described in section 2.1 that support

validation of the M-Plane are operational, configured and connected to the O-RU

==

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

==

> connect --ssh --host 192.168.4.46 --port 830 --login operator

Interactive SSH Authentication

Type your password:

Password:

> status

Current NETCONF session:

ID   : 7

Host   : 192.168.4.46

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

==

> subscribe

==

Ok

==

  Step 1 The TER NETCONF Client sends the O-RU NETCONF Server a command to get the active-alarm-list.

==

===

> get --filter-xpath /o-ran-fm:active-alarm-list/active-alarms

===

```
<?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">
 <active-alarm-list xmlns="urn:o-ran:fm:1.0">
  <active-alarms>
   <fault-id>17</fault-id>
   <fault-source>Module</fault-source>
   <affected-objects>
    <name>Sync Module</name>
   </affected-objects>
   <fault-severity>MAJOR</fault-severity>
   <is-cleared>false</is-cleared>
   <fault-text>No external sync source</fault-text>
   <event-time>2022-11-19T19:36:38Z</event-time>
  </active-alarms>
 </active-alarm-list>
</data>
```

==
SYSTEM LOGS
==

Nov 19 19:36:47 vvdn_lpru daemon.info netopeer2-server[859]: Trying to connect via IPv4 to 0.0.0.0:4334.

Nov 19 19:36:47 vvdn_lpru daemon.info netopeer2-server[859]: getsockopt() error (Connection refused).

Nov 19 19:36:47 vvdn_lpru daemon.info netopeer2-server[859]: Trying to connect via IPv4 to 192.168.4.15:4334.

Nov 19 19:36:47 vvdn_lpru daemon.info netopeer2-server[859]: getsockopt() error (Connection refused).

Nov 19 19:36:48 vvdn_lpru daemon.info netopeer2-server[859]: Trying to connect via IPv4 to 192.168.4.15:4334.

Nov 19 19:36:48 vvdn_lpru daemon.info netopeer2-server[859]: getsockopt() error (Connection refused).

Nov 19 19:36:48 vvdn_lpru daemon.info netopeer2-server[859]: Trying to connect via IPv4 to 192.168.4.15:4334.

Nov 19 19:36:48 vvdn_lpru daemon.info netopeer2-server[859]: getsockopt() error (Connection refused).

Nov 19 19:36:49 vvdn_lpru daemon.info netopeer2-server[859]: Trying to connect via IPv4 to 192.168.4.15:4334.

Nov 19 19:36:49 vvdn_lpru daemon.info netopeer2-server[859]: Successfully connected to 192.168.4.15:4334 over IPv4.

Nov 19 19:36:49 vvdn_lpru daemon.info netopeer2-server[859]: Session 433 (user "root", CID 1) created.

Nov 19 19:36:49 vvdn_lpru daemon.info netopeer2-server[859]: Received an SSH message "request-service" of subtype "ssh-userauth".

Nov 19 19:36:49 vvdn_lpru daemon.info netopeer2-server[859]: Received an SSH message "request-auth" of subtype "password".

Nov 19 19:36:49 vvdn_lpru daemon.info netopeer2-server[859]: User "operator" authenticated.

Nov 19 19:36:49 vvdn_lpru daemon.info netopeer2-server[859]: Received an SSH message "request-channel-open" of subtype "session".

Nov 19 19:36:49 vvdn_lpru daemon.info netopeer2-server[859]: Received an SSH message "request-channel" of subtype "subsystem".

Nov 19 19:36:49 vvdn_lpru daemon.info netopeer2-server[859]: Call Home client "default-client" session 7 established.

Nov 19 19:36:49 vvdn_lpru daemon.info netopeer2-server[859]: Session 434 (user "root", CID 1) created.

Nov 19 19:36:49 vvdn_lpru daemon.info netopeer2-server[859]: There are no subscribers for "ietf-netconf-notifications" notifications.

Nov 19 19:36:49 vvdn_lpru daemon.info netopeer2-server[859]: Generated new event (netconf-session-start).

Nov 19 19:36:49 vvdn_lpru daemon.info netopeer2-server[859]: Trying to connect via IPv4 to 192.168.4.15:4334.

Nov 19 19:36:49 vvdn_lpru daemon.info netopeer2-server[859]: getsockopt() error (Connection refused).

Nov 19 19:36:49 vvdn_lpru daemon.info netopeer2-server[859]: Resolving unresolved data nodes and their constraints...

Nov 19 19:36:49 vvdn_lpru daemon.info netopeer2-server[859]: All data nodes and constraints resolved.

Nov 19 19:36:49 vvdn_lpru daemon.info netopeer2-server[859]: Resolving unresolved data nodes and their constraints...

Nov 19 19:36:49 vvdn_lpru daemon.info netopeer2-server[859]: All data nodes and constraints resolved.

Nov 19 19:36:49 vvdn_lpru daemon.info netopeer2-server[859]: Published event "rpc" "/ietf-netconf:get" with ID 113 priority 0 for 1 subscribers.

Nov 19 19:36:49 vvdn_lpru daemon.info netopeer2-server[859]: Processing "/ietf-netconf:get" "rpc" event with ID 113 priority 0 (remaining 1 subscribers).

Nov 19 19:36:49 vvdn_lpru daemon.info netopeer2-server[859]: Successful processing of "rpc" event with ID 113 priority 0 (remaining 0 subscribers).

Nov 19 19:36:49 vvdn_lpru daemon.info netopeer2-server[859]: Event "rpc" with ID 113 priority 0 succeeded.

Nov 19 19:36:49 vvdn_lpru daemon.info netopeer2-server[859]: Resolving unresolved data nodes and their constraints...

Nov 19 19:36:49 vvdn_lpru daemon.info netopeer2-server[859]: All data nodes and constraints resolved.

Nov 19 19:36:49 vvdn_lpru daemon.info netopeer2-server[859]: Session 7: thread 3 event new RPC.

Nov 19 19:36:49 vvdn_lpru daemon.info netopeer2-server[859]: Resolving unresolved data nodes and their constraints...

Nov 19 19:36:49 vvdn_lpru daemon.info netopeer2-server[859]: All data nodes and constraints resolved.

Nov 19 19:36:49 vvdn_lpru daemon.info netopeer2-server[859]: Resolving unresolved data nodes and their constraints...

Nov 19 19:36:49 vvdn_lpru daemon.info netopeer2-server[859]: All data nodes and constraints resolved.

Nov 19 19:36:49 vvdn_lpru daemon.info netopeer2-server[859]: Published event "rpc" "/ietf-netconf:get" with ID 114 priority 0 for 1 subscribers.

Nov 19 19:36:49 vvdn_lpru daemon.info netopeer2-server[859]: Processing "/ietf-netconf:get" "rpc" event with ID 114 priority 0 (remaining 1 subscribers).

Nov 19 19:36:49 vvdn_lpru daemon.info netopeer2-server[859]: Published event "operational" "/o-ran-software-management:software-inventory" with ID 5.

Nov 19 19:36:49 vvdn_lpru user.notice fw_manager[936]: RPC #5 recieved. xpath -> /o-ran-software-management:software-inventory

Nov 19 19:36:50 vvdn_lpru daemon.info netopeer2-server[859]: Event "operational" with ID 5 succeeded.

Nov 19 19:36:50 vvdn_lpru daemon.info netopeer2-server[859]: Resolving unresolved data nodes and their constraints...

Nov 19 19:36:50 vvdn_lpru daemon.info netopeer2-server[859]: 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 19 19:36:50 vvdn_lpru daemon.info netopeer2-server[859]: 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 19 19:36:50 vvdn_lpru daemon.info netopeer2-server[859]: 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 19 19:36:50 vvdn_lpru daemon.info netopeer2-server[859]: All data nodes and constraints resolved.

Nov 19 19:36:50 vvdn_lpru daemon.info netopeer2-server[859]: Successful processing of "rpc" event with ID 114 priority 0 (remaining 0 subscribers).

Nov 19 19:36:50 vvdn_lpru daemon.info netopeer2-server[859]: Event "rpc" with ID 114 priority 0 succeeded.

Nov 19 19:36:50 vvdn_lpru daemon.info netopeer2-server[859]: Resolving unresolved data nodes and their constraints...

Nov 19 19:36:50 vvdn_lpru daemon.info netopeer2-server[859]: All data nodes and constraints resolved.

Nov 19 19:36:50 vvdn_lpru daemon.info netopeer2-server[859]: Resolving unresolved data nodes and their constraints...

Nov 19 19:36:50 vvdn_lpru daemon.info netopeer2-server[859]: 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 19 19:36:50 vvdn_lpru daemon.info netopeer2-server[859]: 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 19 19:36:50 vvdn_lpru daemon.info netopeer2-server[859]: 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 19 19:36:50 vvdn_lpru daemon.info netopeer2-server[859]: All data nodes and constraints resolved.

Nov 19 19:36:50 vvdn_lpru daemon.info netopeer2-server[859]: Session 7: thread 3 event new RPC.

Nov 19 19:36:50 vvdn_lpru daemon.info netopeer2-server[859]: Resolving unresolved data nodes and their constraints...

Nov 19 19:36:50 vvdn_lpru daemon.info netopeer2-server[859]: All data nodes and constraints resolved.

Nov 19 19:36:50 vvdn_lpru daemon.info netopeer2-server[859]: Resolving unresolved data nodes and their constraints...

Nov 19 19:36:50 vvdn_lpru daemon.info netopeer2-server[859]: All data nodes and constraints resolved.

Nov 19 19:36:50 vvdn_lpru daemon.info netopeer2-server[859]: Published event "rpc" "/ietf-netconf:get-config" with ID 5 priority 0 for 1 subscribers.

Nov 19 19:36:50 vvdn_lpru daemon.info netopeer2-server[859]: Processing "/ietf-netconf:get-config" "rpc" event with ID 5 priority 0 (remaining 1 subscribers).

Nov 19 19:36:50 vvdn_lpru daemon.info netopeer2-server[859]: Successful processing of "rpc" event with ID 5 priority 0 (remaining 0 subscribers).

Nov 19 19:36:50 vvdn_lpru daemon.info netopeer2-server[859]: Event "rpc" with ID 5 priority 0 succeeded.

Nov 19 19:36:50 vvdn_lpru daemon.info netopeer2-server[859]: Resolving unresolved data nodes and their constraints...

Nov 19 19:36:50 vvdn_lpru daemon.info netopeer2-server[859]: All data nodes and constraints resolved.

Nov 19 19:36:50 vvdn_lpru daemon.info netopeer2-server[859]: Resolving unresolved data nodes and their constraints...

Nov 19 19:36:50 vvdn_lpru daemon.info netopeer2-server[859]: There is no leafref

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

Nov 19 19:36:50 vvdn_lpru daemon.info netopeer2-server[859]: There is no leafref

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

Nov 19 19:36:50 vvdn_lpru daemon.info netopeer2-server[859]: All data nodes and constraints resolved.

Nov 19 19:36:50 vvdn_lpru daemon.info netopeer2-server[859]: Session 7: thread 4 event new RPC.

Nov 19 19:36:50 vvdn_lpru daemon.info netopeer2-server[859]: Resolving unresolved data nodes and their constraints...

Nov 19 19:36:50 vvdn_lpru daemon.info netopeer2-server[859]: All data nodes and constraints resolved.

Nov 19 19:36:50 vvdn_lpru daemon.info netopeer2-server[859]: Resolving unresolved data nodes and their constraints...

Nov 19 19:36:50 vvdn_lpru daemon.info netopeer2-server[859]: All data nodes and constraints resolved.

Nov 19 19:36:50 vvdn_lpru daemon.info netopeer2-server[859]: Published event "rpc" "/notifications:create-subscription" with ID 5 priority 0 for 1 subscribers.

Nov 19 19:36:50 vvdn_lpru daemon.info netopeer2-server[859]: Processing "/notifications:create-subscription" "rpc" event with ID 5 priority 0 (remaining 1 subscribers).

Nov 19 19:36:50 vvdn_lpru daemon.info netopeer2-server[859]: Successful processing of "rpc" event with ID 5 priority 0 (remaining 0 subscribers).

Nov 19 19:36:50 vvdn_lpru daemon.info netopeer2-server[859]: Event "rpc" with ID 5 priority 0 succeeded.

Nov 19 19:36:50 vvdn_lpru daemon.info netopeer2-server[859]: Session 7: thread 3 event new RPC.

Nov 19 19:36:50 vvdn_lpru daemon.info netopeer2-server[859]: Trying to connect via IPv4 to 0.0.0.0:4334.

Nov 19 19:36:50 vvdn_lpru daemon.info netopeer2-server[859]: getsockopt() error (Connection refused).

Nov 19 19:36:50 vvdn_lpru daemon.info netopeer2-server[859]: Resolving unresolved data nodes and their constraints...

Nov 19 19:36:50 vvdn_lpru daemon.info netopeer2-server[859]: All data nodes and constraints resolved.

Nov 19 19:36:50 vvdn_lpru daemon.info netopeer2-server[859]: Resolving unresolved data nodes and their constraints...

Nov 19 19:36:50 vvdn_lpru daemon.info netopeer2-server[859]: All data nodes and constraints resolved.

Nov 19 19:36:50 vvdn_lpru daemon.info netopeer2-server[859]: Published event "rpc" "/ietf-netconf:get" with ID 115 priority 0 for 1 subscribers.

Nov 19 19:36:50 vvdn_lpru daemon.info netopeer2-server[859]: Processing "/ietf-netconf:get" "rpc" event with ID 115 priority 0 (remaining 1 subscribers).

Nov 19 19:36:50 vvdn_lpru daemon.info netopeer2-server[859]: Published event "operational" "/o-ran-fm:active-alarm-list/active-alarms" with ID 2.

Nov 19 19:36:50 vvdn_lpru user.info FAULT MANAGEMENT[915]:   ========== DATA FOR "o-ran-fm" "/o-ran-fm:active-alarm-list/active-alarms" REQUESTED======================

Nov 19 19:36:50 vvdn_lpru daemon.info netopeer2-server[859]: Event "operational" with ID 2 succeeded.

Nov 19 19:36:50 vvdn_lpru daemon.info netopeer2-server[859]: Successful processing of "rpc" event with ID 115 priority 0 (remaining 0 subscribers).

Nov 19 19:36:50 vvdn_lpru daemon.info netopeer2-server[859]: Event "rpc" with ID 115 priority 0 succeeded.

Nov 19 19:36:50 vvdn_lpru daemon.info netopeer2-server[859]: Resolving unresolved data nodes and their constraints...

Nov 19 19:36:50 vvdn_lpru daemon.info netopeer2-server[859]: All data nodes and constraints resolved.

Nov 19 19:36:50 vvdn_lpru daemon.info netopeer2-server[859]: Session 7: thread 3 event new RPC.

Nov 19 19:36:51 vvdn_lpru daemon.info netopeer2-server[859]: Trying to connect via IPv4 to 0.0.0.0:4334.

Nov 19 19:36:51 vvdn_lpru daemon.info netopeer2-server[859]: getsockopt() error (Connection refused).

Nov 19 19:36:52 vvdn_lpru user.notice SYNCMNGR[1182]: Received message from S-Plane

Nov 19 19:36:52 vvdn_lpru daemon.info netopeer2-server[859]: Trying to connect via IPv4 to 0.0.0.0:4334.

Nov 19 19:36:52 vvdn_lpru daemon.info netopeer2-server[859]: getsockopt() error (Connection refused).

Nov 19 19:36:53 vvdn_lpru daemon.info netopeer2-server[859]: Trying to connect via IPv4 to 192.168.4.15:4334.

Nov 19 19:36:53 vvdn_lpru daemon.info netopeer2-server[859]: getsockopt() error (Connection refused).

Nov 19 19:36:54 vvdn_lpru daemon.info netopeer2-server[859]: Trying to connect via IPv4 to 192.168.4.15:4334.

Nov 19 19:36:54 vvdn_lpru daemon.info netopeer2-server[859]: getsockopt() error (Connection refused).

Nov 19 19:36:55 vvdn_lpru daemon.info netopeer2-server[859]: Trying to connect via IPv4 to 192.168.4.15:4334.

Nov 19 19:36:55 vvdn_lpru daemon.info netopeer2-server[859]: getsockopt() error (Connection refused).

Nov 19 19:36:55 vvdn_lpru daemon.info netopeer2-server[859]: Session 7: thread 3 event new RPC.

Nov 19 19:36:55 vvdn_lpru daemon.info netopeer2-server[859]: Session 7: thread 3 event session terminated.

Nov 19 19:36:55 vvdn_lpru daemon.info netopeer2-server[859]: There are no subscribers for "ietf-netconf-notifications" notifications.

Nov 19 19:36:55 vvdn_lpru daemon.info netopeer2-server[859]: Generated new event (netconf-session-end).

Nov 19 19:36:55 vvdn_lpru daemon.info netopeer2-server[859]: Call Home client "default-client" session terminated.

Nov 19 19:36:55 vvdn_lpru daemon.info netopeer2-server[859]: Trying to connect via IPv4 to 0.0.0.0:4334.

Nov 19 19:36:55 vvdn_lpru daemon.info netopeer2-server[859]: getsockopt() error (Connection refused).

Nov 19 19:36:55 vvdn_lpru authpriv.debug sshd[12103]: pam_unix(sshd:account): account operator has password changed in future

Nov 19 19:36:55 vvdn_lpru auth.info sshd[12103]: Accepted password for operator from 192.168.4.15 port 33264 ssh2

Nov 19 19:36:55 vvdn_lpru authpriv.info sshd[12103]: 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 at least the same alarm as reported in measurement atleast alarm 17: No external sync source

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


===========================================================================
```
Retrieval of Active Alarm List	=	SUCCESS

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