



@ FILE NAME: M_CTC_ID_013.txt

@ TEST SCOPE: M PLANE O-RAN CONFORMANCE

@ Software Release for MC1: v1.0.5

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 *****

```
> listen --ssh --login operator
```

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

```
The authenticity of the host '192.168.4.43' 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      : 25
```

```
Host    : 192.168.4.43
```

```
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=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
```

```
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_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
```

=====

=====

SYSTEM LOGS

=====

Oct 29 22:47:00 mcb1 daemon.info netopeer2-server[986]: Trying to connect via IPv4 to 192.168.4.15:4334.

Oct 29 22:47:00 mcb1 daemon.info netopeer2-server[986]: getsockopt() error (Connection refused).

Oct 29 22:47:01 mcb1 daemon.info netopeer2-server[986]: Trying to connect via IPv4 to 192.168.4.15:4334.

Oct 29 22:47:01 mcb1 daemon.info netopeer2-server[986]: getsockopt() error (Connection refused).

Oct 29 22:47:02 mcb1 daemon.info netopeer2-server[986]: Trying to connect via IPv4 to 192.168.4.15:4334.

Oct 29 22:47:02 mcb1 daemon.info netopeer2-server[986]: Successfully connected to 192.168.4.15:4334 over IPv4.

Oct 29 22:47:02 mcb1 daemon.info netopeer2-server[986]: Session 400 (user "root", CID 1) created.

Oct 29 22:47:02 mcb1 daemon.info netopeer2-server[986]: Received an SSH message "request-service" of subtype "ssh-userauth".

Oct 29 22:47:02 mcb1 daemon.info netopeer2-server[986]: Received an SSH message "request-auth" of subtype "password".

Oct 29 22:47:02 mcb1 daemon.info netopeer2-server[986]: User "operator" authenticated.

Oct 29 22:47:02 mcb1 daemon.info netopeer2-server[986]: Received an SSH message "request-channel-open" of subtype "session".

Oct 29 22:47:02 mcb1 daemon.info netopeer2-server[986]: Received an SSH message "request-channel" of subtype "subsystem".

Oct 29 22:47:02 mcb1 daemon.info netopeer2-server[986]: Call Home client "default-client" session 25 established.

Oct 29 22:47:02 mcb1 daemon.info netopeer2-server[986]: Session 401 (user "root", CID 1) created.

Oct 29 22:47:02 mcb1 daemon.info netopeer2-server[986]: There are no subscribers for "ietf-netconf-notifications" notifications.

Oct 29 22:47:02 mcb1 daemon.info netopeer2-server[986]: Generated new event (netconf-session-start).

Oct 29 22:47:02 mcb1 daemon.info netopeer2-server[986]: Resolving unresolved data nodes and their constraints...

Oct 29 22:47:02 mcb1 daemon.info netopeer2-server[986]: All data nodes and constraints resolved.

Oct 29 22:47:02 mcb1 daemon.info netopeer2-server[986]: Resolving unresolved data nodes and their constraints...

Oct 29 22:47:02 mcb1 daemon.info netopeer2-server[986]: All data nodes and constraints resolved.

Oct 29 22:47:02 mcb1 daemon.info netopeer2-server[986]: Published event "rpc" "/ietf-netconf:get" with ID 60 priority 0 for 1 subscribers.

Oct 29 22:47:02 mcb1 daemon.info netopeer2-server[986]: Processing "/ietf-netconf:get" "rpc" event with ID 60 priority 0 (remaining 1 subscribers).

Oct 29 22:47:02 mcb1 daemon.info netopeer2-server[986]: Successful processing of "rpc" event with ID 60 priority 0 (remaining 0 subscribers).

Oct 29 22:47:02 mcb1 daemon.info netopeer2-server[986]: Event "rpc" with ID 60 priority 0 succeeded.

Oct 29 22:47:02 mcb1 daemon.info netopeer2-server[986]: Resolving unresolved data nodes and their constraints...

Oct 29 22:47:02 mcb1 daemon.info netopeer2-server[986]: All data nodes and constraints resolved.

Oct 29 22:47:02 mcb1 daemon.info netopeer2-server[986]: Session 25: thread 4 event new RPC.

Oct 29 22:47:02 mcb1 daemon.info netopeer2-server[986]: Resolving unresolved data nodes and their constraints...

Oct 29 22:47:02 mcb1 daemon.info netopeer2-server[986]: All data nodes and constraints resolved.

Oct 29 22:47:02 mcb1 daemon.info netopeer2-server[986]: Resolving unresolved data nodes and their constraints...

Oct 29 22:47:02 mcb1 daemon.info netopeer2-server[986]: All data nodes and constraints resolved.

Oct 29 22:47:02 mcb1 daemon.info netopeer2-server[986]: Published event "rpc" "/ietf-netconf:get" with ID 61 priority 0 for 1 subscribers.

Oct 29 22:47:02 mcb1 daemon.info netopeer2-server[986]: Processing "/ietf-netconf:get" "rpc" event with ID 61 priority 0 (remaining 1 subscribers).

Oct 29 22:47:02 mcb1 daemon.info netopeer2-server[986]: Published event "operational" "/o-ran-software-management:software-inventory" with ID 11.

Oct 29 22:47:02 mcb1 user.notice fw_manager[1067]: RPC #11 recieved. xpath -> /o-ran-software-management:software-inventory

Oct 29 22:47:03 mcb1 daemon.info netopeer2-server[986]: Event "operational" with ID 11 succeeded.

Oct 29 22:47:03 mcb1 daemon.info netopeer2-server[986]: Resolving unresolved data nodes and their constraints...

Oct 29 22:47:03 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 22:47:03 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 22:47:03 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 22:47:03 mcb1 daemon.info netopeer2-server[986]: All data nodes and constraints resolved.

Oct 29 22:47:03 mcb1 daemon.info netopeer2-server[986]: Successful processing of "rpc" event with ID 61 priority 0 (remaining 0 subscribers).

Oct 29 22:47:03 mcb1 daemon.info netopeer2-server[986]: Event "rpc" with ID 61 priority 0 succeeded.

Oct 29 22:47:03 mcb1 daemon.info netopeer2-server[986]: Resolving unresolved data nodes and their constraints...

Oct 29 22:47:03 mcb1 daemon.info netopeer2-server[986]: All data nodes and constraints resolved.

Oct 29 22:47:03 mcb1 daemon.info netopeer2-server[986]: Resolving unresolved data nodes and their constraints...

Oct 29 22:47:03 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 22:47:03 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 22:47:03 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 22:47:03 mcb1 daemon.info netopeer2-server[986]: All data nodes and constraints resolved.

Oct 29 22:47:03 mcb1 daemon.info netopeer2-server[986]: Session 25: thread 4 event new RPC.

Oct 29 22:47:03 mcb1 daemon.info netopeer2-server[986]: Resolving unresolved data nodes and their constraints...

Oct 29 22:47:03 mcb1 daemon.info netopeer2-server[986]: All data nodes and constraints resolved.

Oct 29 22:47:03 mcb1 daemon.info netopeer2-server[986]: Resolving unresolved data nodes and their constraints...

Oct 29 22:47:03 mcb1 daemon.info netopeer2-server[986]: All data nodes and constraints resolved.

Oct 29 22:47:03 mcb1 daemon.info netopeer2-server[986]: Published event "rpc" "/ietf-netconf:get-config" with ID 12 priority 0 for 1 subscribers.

Oct 29 22:47:03 mcb1 daemon.info netopeer2-server[986]: Processing "/ietf-netconf:get-config" "rpc" event with ID 12 priority 0 (remaining 1 subscribers).

Oct 29 22:47:03 mcb1 daemon.info netopeer2-server[986]: Successful processing of "rpc" event with ID 12 priority 0 (remaining 0 subscribers).

Oct 29 22:47:03 mcb1 daemon.info netopeer2-server[986]: Event "rpc" with ID 12 priority 0 succeeded.

Oct 29 22:47:03 mcb1 daemon.info netopeer2-server[986]: Resolving unresolved data nodes and their constraints...

Oct 29 22:47:03 mcb1 daemon.info netopeer2-server[986]: All data nodes and constraints resolved.

Oct 29 22:47:03 mcb1 daemon.info netopeer2-server[986]: Resolving unresolved data nodes and their constraints...

Oct 29 22:47:03 mcb1 daemon.info netopeer2-server[986]: There is no leafref

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

Oct 29 22:47:03 mcb1 daemon.info netopeer2-server[986]: There is no leafref

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

Oct 29 22:47:03 mcb1 daemon.info netopeer2-server[986]: All data nodes and constraints resolved.

Oct 29 22:47:03 mcb1 daemon.info netopeer2-server[986]: Session 25: thread 0 event new RPC.

Oct 29 22:47:05 mcb1 daemon.info netopeer2-server[986]: Resolving unresolved data nodes and their constraints...

Oct 29 22:47:05 mcb1 daemon.info netopeer2-server[986]: All data nodes and constraints resolved.

Oct 29 22:47:05 mcb1 daemon.info netopeer2-server[986]: Resolving unresolved data nodes and their constraints...

Oct 29 22:47:05 mcb1 daemon.info netopeer2-server[986]: All data nodes and constraints resolved.

Oct 29 22:47:05 mcb1 daemon.info netopeer2-server[986]: Published event "rpc" "/notifications:create-subscription" with ID 7 priority 0 for 1 subscribers.

Oct 29 22:47:05 mcb1 daemon.info netopeer2-server[986]: Processing "/notifications:create-subscription" "rpc" event with ID 7 priority 0 (remaining 1 subscribers).

Oct 29 22:47:05 mcb1 daemon.info netopeer2-server[986]: Successful processing of "rpc" event with ID 7 priority 0 (remaining 0 subscribers).

Oct 29 22:47:05 mcb1 daemon.info netopeer2-server[986]: Event "rpc" with ID 7 priority 0 succeeded.

Oct 29 22:47:05 mcb1 daemon.info netopeer2-server[986]: Session 25: thread 2 event new RPC.

Oct 29 22:47:05 mcb1 daemon.info netopeer2-server[986]: Resolving unresolved data nodes and their constraints...

Oct 29 22:47:05 mcb1 daemon.info netopeer2-server[986]: All data nodes and constraints resolved.

Oct 29 22:47:05 mcb1 daemon.info netopeer2-server[986]: Resolving unresolved data nodes and their constraints...

Oct 29 22:47:05 mcb1 daemon.info netopeer2-server[986]: All data nodes and constraints resolved.

Oct 29 22:47:05 mcb1 daemon.info netopeer2-server[986]: Published event "rpc" "/ietf-netconf:get" with ID 62 priority 0 for 1 subscribers.

Oct 29 22:47:05 mcb1 daemon.info netopeer2-server[986]: Processing "/ietf-netconf:get" "rpc" event with ID 62 priority 0 (remaining 1 subscribers).

Oct 29 22:47:05 mcb1 daemon.info netopeer2-server[986]: Published event "operational" "/o-ran-fm:active-alarm-list/active-alarms" with ID 6.

Oct 29 22:47:05 mcb1 user.info FAULT MANAGEMENT[1046]: ===== DATA FOR "o-ran-fm"

"/o-ran-fm:active-alarm-list/active-alarms" REQUESTED=====

Oct 29 22:47:05 mcb1 daemon.info netopeer2-server[986]: Event "operational" with ID 6 succeeded.

Oct 29 22:47:05 mcb1 daemon.info netopeer2-server[986]: Successful processing of "rpc" event with ID 62 priority 0 (remaining 0 subscribers).

Oct 29 22:47:05 mcb1 daemon.info netopeer2-server[986]: Event "rpc" with ID 62 priority 0 succeeded.

Oct 29 22:47:05 mcb1 daemon.info netopeer2-server[986]: Resolving unresolved data nodes and their constraints...

Oct 29 22:47:05 mcb1 daemon.info netopeer2-server[986]: All data nodes and constraints resolved.

Oct 29 22:47:05 mcb1 daemon.info netopeer2-server[986]: Session 25: thread 0 event new RPC.

Oct 29 22:47:10 mcb1 daemon.info netopeer2-server[986]: Session 25: thread 2 event new RPC.

Oct 29 22:47:10 mcb1 daemon.info netopeer2-server[986]: Session 25: thread 2 event session terminated.

Oct 29 22:47:10 mcb1 daemon.info netopeer2-server[986]: There are no subscribers for "ietf-netconf-notifications" notifications.

Oct 29 22:47:10 mcb1 daemon.info netopeer2-server[986]: Generated new event (netconf-session-end).

Oct 29 22:47:10 mcb1 daemon.info netopeer2-server[986]: Call Home client "default-client" session terminated.

Oct 29 22:47:10 mcb1 daemon.info netopeer2-server[986]: Trying to connect via IPv4 to 192.168.4.15:4334.

Oct 29 22:47:10 mcb1 daemon.info netopeer2-server[986]: getsockopt() error (Connection refused).

Oct 29 22:47:10 mcb1 auth.info sshd[25848]: Accepted password for operator from 192.168.4.15 port 60188 ssh2

Oct 29 22:47:10 mcb1 authpriv.info sshd[25848]: 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

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***** **Actual Result** *****

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***** **FAIL_REASON** *****

=====

```
<?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>18</fault-id>
      <fault-source>Module or antenna line</fault-source>
      <affected-objects>
        <name>Sync Module</name>
      </affected-objects>
      <fault-severity>CRITICAL</fault-severity>
      <is-cleared>>false</is-cleared>
      <fault-text>Synchronization Error</fault-text>
      <event-time>2103-10-29T22:14:31Z</event-time>
    </active-alarms>
    <active-alarms>
      <fault-id>23</fault-id>
      <fault-source>Module</fault-source>
      <affected-objects>
        <name>Module</name>
      </affected-objects>
      <fault-severity>MAJOR</fault-severity>
      <is-cleared>>false</is-cleared>
      <fault-text>FPGA SW update failed</fault-text>
      <event-time>2103-10-29T22:39:11Z</event-time>
    </active-alarms>
  </active-alarm-list>
</data>
```

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Retrieval of Active Alarm List	=	FAIL
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