



@ FILE NAME: M_CTC_ID_002.txt

@ TEST SCOPE: M PLANE O-RAN CONFORMANCE

@ Software Release for MCB1: v1.0.1

This scenario validates that the O-RU properly executes the session establishment procedure with VLANs and a DHCPv4 server. This test is applicable to IPv4 environments. Two negative flows are included in this test:

The TER NETCONF Client does not trigger a SSH session establishment in reaction to Call Home initiated by THE O-RU NETCONF Server.

Interfaces Present in DU Side

eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500

ether 64:9d:99:ff:f5:12 txqueuelen 1000 (Ethernet)
RX packets 10882 bytes 2800970 (2.8 MB)
RX errors 0 dropped 0 overruns 0 frame 0
TX packets 9445 bytes 960427 (960.4 KB)
TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

eth1: flags=4099<UP,BROADCAST,MULTICAST> mtu 1500

ether 64:9d:99:ff:f5:13 txqueuelen 1000 (Ethernet)
RX packets 0 bytes 0 (0.0 B)
RX errors 0 dropped 0 overruns 0 frame 0
TX packets 0 bytes 0 (0.0 B)
TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

eth2: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500

inet 172.25.96.163 netmask 255.255.254.0 broadcast 172.25.97.255
inet6 fe80::a7de:bea9:9091:a5f0 prefixlen 64 scopeid 0x20<link>
ether b4:2e:99:60:73:8c txqueuelen 1000 (Ethernet)
RX packets 428636 bytes 118458595 (118.4 MB)
RX errors 0 dropped 0 overruns 0 frame 0
TX packets 416473 bytes 265210789 (265.2 MB)
TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
device interrupt 16 memory 0xb1400000-b1420000

eth0.453: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500

inet 192.168.170.85 netmask 255.255.255.0 broadcast 192.168.170.255
inet6 fe80::669d:99ff:feff:f512 prefixlen 64 scopeid 0x20<link>
ether 64:9d:99:ff:f5:12 txqueuelen 1000 (Ethernet)
RX packets 10253 bytes 2595375 (2.5 MB)
RX errors 0 dropped 0 overruns 0 frame 0
TX packets 9379 bytes 922715 (922.7 KB)
TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536

inet 127.0.0.1 netmask 255.0.0.0
inet6 ::1 prefixlen 128 scopeid 0x10<host>
loop txqueuelen 1000 (Local Loopback)
RX packets 10285 bytes 1239344 (1.2 MB)
RX errors 0 dropped 0 overruns 0 frame 0
TX packets 10285 bytes 1239344 (1.2 MB)
TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

=====

DHCP Status

=====

DHCP Status

=====

isc-dhcp-server.service - ISC DHCP IPv4 server

Loaded: loaded (/lib/systemd/system/isc-dhcp-server.service; enabled; vendor preset: enabled)

Active: active (running) since Fri 2022-11-25 11:05:26 IST; 1h 27min ago

Docs: man:dhcpd(8)

Main PID: 5457 (dhcpd)

Tasks: 1 (limit: 4915)

CGroup: /system.slice/isc-dhcp-server.service

dhcpd -user dhcpd -group dhcpd -f -4 -pf /run/dhcp-server/dhcpd.pid -cf /etc/dhcp/dhcpd.conf eth0.453

Nov 25 11:05:26 vvdn dhcpd[5457]: Sending on Socket/fallback/fallback-net

Nov 25 11:05:26 vvdn dhcpd[5457]: Server starting service.

Nov 25 11:05:42 vvdn dhcpd[5457]: DHCPDISCOVER from 98:ae:71:00:8a:c2 via eth0.453

Nov 25 11:05:43 vvdn dhcpd[5457]: DHCPOFFER on 192.168.170.37 to 98:ae:71:00:8a:c2 (mcb1) via eth0.453

Nov 25 11:05:43 vvdn dhcpd[5457]: DHCPREQUEST for 192.168.170.37 (192.168.170.85) from 98:ae:71:00:8a:c2 (mcb1) via eth0.453

Nov 25 11:05:43 vvdn dhcpd[5457]: DHCPACK on 192.168.170.37 to 98:ae:71:00:8a:c2 (mcb1) via eth0.453

Nov 25 12:02:02 vvdn dhcpd[5457]: DHCPREQUEST for 192.168.170.37 from 98:ae:71:00:8a:c2 (mcb1) via eth0.453

Nov 25 12:02:02 vvdn dhcpd[5457]: DHCPACK on 192.168.170.37 to 98:ae:71:00:8a:c2 (mcb1) via eth0.453

Nov 25 12:02:03 vvdn dhcpd[5457]: Abandoning IP address 192.168.170.37: declined.

Nov 25 12:02:03 vvdn dhcpd[5457]: DHCPDECLINE of 192.168.170.37 from 98:ae:71:00:8a:c2 (mcb1) via eth0.453: abandoned

=====

Pinging

=====

PING 192.168.170.37 (192.168.170.37) 56(84) bytes of data.

64 bytes from 192.168.170.37: icmp_seq=1 ttl=64 time=0.158 ms

64 bytes from 192.168.170.37: icmp_seq=2 ttl=64 time=0.170 ms

64 bytes from 192.168.170.37: icmp_seq=3 ttl=64 time=0.191 ms

64 bytes from 192.168.170.37: icmp_seq=4 ttl=64 time=0.199 ms

64 bytes from 192.168.170.37: icmp_seq=5 ttl=64 time=0.181 ms

--- 192.168.170.37 ping statistics ---

5 packets transmitted, 5 received, 0% packet loss, time 4096ms

rtt min/avg/max/mdev = 0.158/0.179/0.199/0.022 ms

=====

The O-RU NETCONF Serve establishes TCP connection and performs a Call Home procedure towards the NETCONF Client and not establishes a SSH.

=====

=====

'str' object has no attribute 'close_session'

=====

Error occured in line number 191

```
=====
##### SYSTEM LOGS #####
=====
```

```
Oct 30 00:30:23 mcb1 user.notice wd_manager[1442]: Value is 1 for Xpath /vvdn_mcel-wdm:system-apps/fw_manager
Oct 30 00:30:23 mcb1 user.notice wd_manager[1442]: Value is 1 for Xpath /vvdn_mcel-wdm:system-apps/nw_manager
Oct 30 00:30:23 mcb1 user.notice wd_manager[1442]: Value is 1 for Xpath /vvdn_mcel-wdm:system-apps/operations_manager
Oct 30 00:30:23 mcb1 user.notice wd_manager[1442]: Value is 1 for Xpath /vvdn_mcel-wdm:system-apps/pm_manager
Oct 30 00:30:23 mcb1 user.notice wd_manager[1442]: Value is 1 for Xpath /vvdn_mcel-wdm:system-apps/um_manager
Oct 30 00:30:23 mcb1 user.notice wd_manager[1442]: Value is 1 for Xpath /vvdn_mcel-wdm:system-apps/sys_monitor
Oct 30 00:30:23 mcb1 user.notice wd_manager[1442]: Value is 1 for Xpath /vvdn_mcel-wdm:system-apps/fault_manager
Oct 30 00:30:23 mcb1 user.notice wd_manager[1442]: Value is 1 for Xpath /vvdn_mcel-wdm:system-apps/file_manager
Oct 30 00:30:23 mcb1 user.notice wd_manager[1442]: Value is 1 for Xpath /vvdn_mcel-wdm:system-apps/supervision
Oct 30 00:30:23 mcb1 user.notice wd_manager[1442]: Value is 1 for Xpath /vvdn_mcel-wdm:system-apps/sync_manager
Oct 30 00:30:23 mcb1 user.notice wd_manager[1442]: Value is 1 for Xpath /vvdn_mcel-wdm:system-apps/ald_controller
Oct 30 00:30:23 mcb1 user.notice wd_manager[1442]: Value is 1 for Xpath /vvdn_mcel-wdm:system-apps/log_manager
Oct 30 00:30:23 mcb1 user.notice wd_manager[1442]: Value is 1 for Xpath /vvdn_mcel-wdm:system-apps/radio_manager
Oct 30 00:30:23 mcb1 user.notice wd_manager[1442]: Value is 1 for Xpath /vvdn_mcel-wdm:system-apps/cli_manager
Oct 30 00:30:29 mcb1 user.notice SYNCMNDR[1310]: Received message from S-Plane
Oct 30 00:30:34 mcb1 auth.info sshd[30351]: Accepted password for operator from 192.168.170.85 port 56842 ssh2
Oct 30 00:30:34 mcb1 authpriv.info sshd[30351]: pam_unix(sshd:session): session opened for user operator by (uid=0)
```

Expected Result : The TER NETCONF Client and O-RU NETCONF Server exchange capabilities through NETCONF <hello> messages.

=====

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

=====

=====

***** FAIL_REASON *****

=====

'str' object has no attribute 'close_session'

=====

Transport and Handshake in IPv4 Environment (negative case: refuse SSH Connection) =
FAIL

=====