



@ 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 28360 bytes 6340195 (6.3 MB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 23768 bytes 1897928 (1.8 MB)
    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 385825 bytes 232853131 (232.8 MB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 462872 bytes 379995621 (379.9 MB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
    device interrupt 16 memory 0xb1400000-b1420000

eth0.468: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.186.151 netmask 255.255.255.0 broadcast 192.168.186.255
    inet6 fe80::669d:99ff:feff:f512 prefixlen 64 scopeid 0x20<link>
    ether 64:9d:99:ff:f5:12 txqueuelen 1000 (Ethernet)
    RX packets 27540 bytes 5884733 (5.8 MB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 23675 bytes 1774631 (1.7 MB)
    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 92496 bytes 1323305824 (1.3 GB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 92496 bytes 1323305824 (1.3 GB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
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DHCP Status

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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 Mon 2022-11-28 12:42:50 IST; 6h ago

Docs: man:dhcpcd(8)

Main PID: 4908 (dhcpcd)

Tasks: 1 (limit: 4915)

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

user dhcpcd -group dhcpcd -f -4 -pf /run/dhcp-server/dhcpcd.pid -cf /etc/dhcp/dhcpcd.conf eth0.468

Nov 28 16:26:12 vvdn dhcpcd[4908]: DHCPREQUEST for 192.168.186.38 from 98:ae:71:00:8a:c2 (mcb1) via eth0.468

Nov 28 16:26:12 vvdn dhcpcd[4908]: DHCPACK on 192.168.186.38 to 98:ae:71:00:8a:c2 (mcb1) via eth0.468

Nov 28 16:26:13 vvdn dhcpcd[4908]: Abandoning IP address 192.168.186.38: declined.

Nov 28 16:26:13 vvdn dhcpcd[4908]: DHCPDECLINE of 192.168.186.38 from 98:ae:71:00:8a:c2 (mcb1) via eth0.468: abandoned

Nov 28 18:26:15 vvdn dhcpcd[4908]: DHCPDISCOVER from 98:ae:71:00:8a:c2 via eth0.468

Nov 28 18:26:16 vvdn dhcpcd[4908]: DHCPOFFER on 192.168.186.39 to 98:ae:71:00:8a:c2 (mcb1) via eth0.468

Nov 28 18:26:16 vvdn dhcpcd[4908]: Wrote 0 class decls to leases file.

Nov 28 18:26:16 vvdn dhcpcd[4908]: Wrote 27 leases to leases file.

Nov 28 18:26:16 vvdn dhcpcd[4908]: DHCPREQUEST for 192.168.186.39 (192.168.186.151) from 98:ae:71:00:8a:c2 (mcb1) via eth0.468

Nov 28 18:26:16 vvdn dhcpcd[4908]: DHCPACK on 192.168.186.39 to 98:ae:71:00:8a:c2 (mcb1) via eth0.468

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Pinging

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PING 192.168.186.39 (192.168.186.39) 56(84) bytes of data.

64 bytes from 192.168.186.39: icmp_seq=1 ttl=64 time=0.197 ms

64 bytes from 192.168.186.39: icmp_seq=2 ttl=64 time=0.197 ms

64 bytes from 192.168.186.39: icmp_seq=3 ttl=64 time=0.208 ms

64 bytes from 192.168.186.39: icmp_seq=4 ttl=64 time=0.199 ms

64 bytes from 192.168.186.39: icmp_seq=5 ttl=64 time=0.200 ms

--- 192.168.186.39 ping statistics ---

5 packets transmitted, 5 received, 0% packet loss, time 4070ms

rtt min/avg/max/mdev = 0.197/0.200/0.208/0.009 ms

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

> listen --ssh --login operator

Waiting 60s for an SSH Call Home connection on port 4334...The authenticity of the host '::ffff:192.168.186.39' cannot be established.

ssh-rsa key fingerprint is 59:9e:90:48:f1:d7:6e:35:e8:d1:f6:1e:90:aa:a3:83:a0:6b:98:5a.

Are you sure you want to continue connecting (yes/no)? no

nc ERROR: Checking the host key failed.

cmd_listen: Receiving SSH Call Home on port 4334 as user "operator" failed.

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SYSTEM LOGS

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

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

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

SUCCESS

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