



@ 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

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eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    ether 64:9d:99:ff:f5:12 txqueuelen 1000 (Ethernet)
    RX packets 9575 bytes 1879840 (1.8 MB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 8543 bytes 860235 (860.2 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 399342 bytes 113693347 (113.6 MB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 386818 bytes 247355379 (247.3 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 9097 bytes 1700395 (1.7 MB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 8477 bytes 822529 (822.5 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 10053 bytes 1214208 (1.2 MB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 10053 bytes 1214208 (1.2 MB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
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DHCP Status

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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 Fri 2022-11-25 11:05:26 IST; 1h 21min ago

Docs: man:dhcpcd(8)

Main PID: 5457 (dhcpcd)

Tasks: 1 (limit: 4915)

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

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

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

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

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

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

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

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

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

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

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

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Pinging

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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=0.138 ms

64 bytes from 192.168.170.37: icmp_seq=2 ttl=64 time=0.179 ms

64 bytes from 192.168.170.37: icmp_seq=3 ttl=64 time=0.164 ms

64 bytes from 192.168.170.37: icmp_seq=4 ttl=64 time=0.170 ms

64 bytes from 192.168.170.37: icmp_seq=5 ttl=64 time=0.186 ms

--- 192.168.170.37 ping statistics ---

5 packets transmitted, 5 received, 0% packet loss, time 4072ms

rtt min/avg/max/mdev = 0.138/0.167/0.186/0.020 ms

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

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'str' object has no attribute 'close_session'

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Error occured in line number 191

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##### SYSTEM LOGS #####
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Oct 30 00:24:32 mcb1 daemon.info netopeer2-server[980]: Trying to connect via IPv4 to 192.168.170.85:4334.
Oct 30 00:24:32 mcb1 daemon.info netopeer2-server[980]: getsockopt() error (Connection refused).
Oct 30 00:24:33 mcb1 daemon.info netopeer2-server[980]: Trying to connect via IPv4 to 192.168.170.85:4334.
Oct 30 00:24:33 mcb1 daemon.info netopeer2-server[980]: getsockopt() error (Connection refused).
Oct 30 00:24:34 mcb1 daemon.info netopeer2-server[980]: Trying to connect via IPv4 to 192.168.170.85:4334.
Oct 30 00:24:34 mcb1 daemon.info netopeer2-server[980]: getsockopt() error (Connection refused).
Oct 30 00:24:35 mcb1 daemon.info netopeer2-server[980]: Trying to connect via IPv4 to 192.168.170.85:4334.
Oct 30 00:24:35 mcb1 daemon.info netopeer2-server[980]: Successfully connected to 192.168.170.85:4334 over IPv4.
Oct 30 00:24:35 mcb1 daemon.info netopeer2-server[980]: Session 408 (user "root", CID 1) created.
Oct 30 00:24:37 mcb1 auth.info sshd[26094]: Accepted password for operator from 192.168.170.85 port 56752 ssh2
Oct 30 00:24:37 mcb1 authpriv.info sshd[26094]: pam_unix(sshd:session): session opened for user operator by (uid=0)
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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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***** **FAIL_REASON** *****

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'str' object has no attribute 'close_session'

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

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