



**@ FILE NAME: M\_CTC\_ID\_002.txt**

**@ TEST SCOPE: M PLANE O-RAN CONFORMANCE**

**@ Software Release for MCB1: v1.0.7**

**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.**

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## Interfaces Present in DU Side

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eth0: flags=4099<UP,BROADCAST,MULTICAST> mtu 1500
    ether 64:9d:99:ff:f5:12 txqueuelen 1000 (Ethernet)
    RX packets 21 bytes 3427 (3.4 KB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 49 bytes 6102 (6.1 KB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

eth1: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.4.15 netmask 255.255.255.0 broadcast 192.168.4.255
    inet6 fe80::af68:bb13:894f:e285 prefixlen 64 scopeid 0x20<link>
    ether 64:9d:99:ff:f5:13 txqueuelen 1000 (Ethernet)
    RX packets 60497 bytes 25671088 (25.6 MB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 46467 bytes 3710797 (3.7 MB)
    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 812940 bytes 119073310 (119.0 MB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 1292306 bytes 1500619925 (1.5 GB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
    device interrupt 16 memory 0xb1400000-b1420000

eth1.36: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.3.15 netmask 255.255.255.0 broadcast 192.168.3.255
    inet6 fe80::669d:99ff:feff:f513 prefixlen 64 scopeid 0x20<link>
    ether 64:9d:99:ff:f5:13 txqueuelen 1000 (Ethernet)
    RX packets 27746 bytes 18495791 (18.4 MB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 19691 bytes 1879643 (1.8 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 377380 bytes 8279061516 (8.2 GB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 377380 bytes 8279061516 (8.2 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 Tue 2023-01-24 10:48:33 IST; 6h ago

Docs: man:dhcpd(8)

Main PID: 10024 (dhcpd)

Tasks: 1 (limit: 4915)

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

cpd -user dhcpd -group dhcpd -f -4 -pf /run/dhcp-server/dhcpd.pid -cf /etc/dhcp/dhcpd.conf eth1.36

Jan 24 14:56:46 vvdn dhcpd[10024]: DHCPACK on 192.168.3.38 to 98:ae:71:00:8a:c2 (mcb1) via eth1.36

Jan 24 15:06:25 vvdn dhcpd[10024]: reuse\_lease: lease age 1111 (secs) under 25% threshold, reply with unaltered, existing lease for 192.168.3.38

Jan 24 15:06:25 vvdn dhcpd[10024]: DHCPREQUEST for 192.168.3.38 from 98:ae:71:00:8a:c2 (mcb1) via eth1.36

Jan 24 15:06:25 vvdn dhcpd[10024]: DHCPACK on 192.168.3.38 to 98:ae:71:00:8a:c2 (mcb1) via eth1.36

Jan 24 15:48:25 vvdn dhcpd[10024]: Wrote 0 class decls to leases file.

Jan 24 15:48:25 vvdn dhcpd[10024]: Wrote 39 leases to leases file.

Jan 24 15:48:25 vvdn dhcpd[10024]: DHCPREQUEST for 192.168.3.38 from 98:ae:71:00:8a:c2 (mcb1) via eth1.36

Jan 24 15:48:25 vvdn dhcpd[10024]: DHCPACK on 192.168.3.38 to 98:ae:71:00:8a:c2 (mcb1) via eth1.36

Jan 24 16:41:36 vvdn dhcpd[10024]: DHCPREQUEST for 192.168.3.38 from 98:ae:71:00:8a:c2 (mcb1) via eth1.36

Jan 24 16:41:36 vvdn dhcpd[10024]: DHCPACK on 192.168.3.38 to 98:ae:71:00:8a:c2 (mcb1) via eth1.36

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## ##### Pinging #####

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PING 192.168.3.38 (192.168.3.38) 56(84) bytes of data.

64 bytes from 192.168.3.38: icmp\_seq=1 ttl=64 time=0.170 ms

64 bytes from 192.168.3.38: icmp\_seq=2 ttl=64 time=0.201 ms

64 bytes from 192.168.3.38: icmp\_seq=3 ttl=64 time=0.204 ms

64 bytes from 192.168.3.38: icmp\_seq=4 ttl=64 time=0.202 ms

64 bytes from 192.168.3.38: icmp\_seq=5 ttl=64 time=0.219 ms

--- 192.168.3.38 ping statistics ---

5 packets transmitted, 5 received, 0% packet loss, time 4077ms

rtt min/avg/max/mdev = 0.170/0.199/0.219/0.018 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 196

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Nov 4 02:21:55 mcb1 daemon.info netopeer2-server[984]: Trying to connect via IPv4 to 192.168.4.15:4336.  
Nov 4 02:21:55 mcb1 daemon.err netopeer2-server[984]: connect() failed (Network is unreachable).  
Nov 4 02:21:55 mcb1 user.notice SYNCMNGR[1305]: Received message from S-Plane  
Nov 4 02:21:56 mcb1 daemon.info netopeer2-server[984]: Trying to connect via IPv4 to 192.168.4.15:4336.  
Nov 4 02:21:56 mcb1 daemon.err netopeer2-server[984]: connect() failed (Network is unreachable).  
Nov 4 02:21:57 mcb1 daemon.info netopeer2-server[984]: Trying to connect via IPv4 to 192.168.4.15:4336.  
Nov 4 02:21:57 mcb1 daemon.err netopeer2-server[984]: connect() failed (Network is unreachable).  
Nov 4 02:21:58 mcb1 daemon.info netopeer2-server[984]: Trying to connect via IPv4 to 192.168.4.15:4336.  
Nov 4 02:21:58 mcb1 daemon.err netopeer2-server[984]: connect() failed (Network is unreachable).  
Nov 4 02:21:59 mcb1 daemon.info netopeer2-server[984]: Trying to connect via IPv4 to 192.168.4.15:4336.  
Nov 4 02:21:59 mcb1 daemon.err netopeer2-server[984]: connect() failed (Network is unreachable).  
Nov 4 02:22:00 mcb1 daemon.info netopeer2-server[984]: Trying to connect via IPv4 to 192.168.4.15:4336.  
Nov 4 02:22:00 mcb1 daemon.err netopeer2-server[984]: connect() failed (Network is unreachable).  
Nov 4 02:22:01 mcb1 daemon.info netopeer2-server[984]: Trying to connect via IPv4 to 192.168.4.15:4336.  
Nov 4 02:22:01 mcb1 daemon.err netopeer2-server[984]: connect() failed (Network is unreachable).  
Nov 4 02:22:02 mcb1 daemon.info netopeer2-server[984]: Trying to connect via IPv4 to 192.168.4.15:4336.  
Nov 4 02:22:02 mcb1 daemon.err netopeer2-server[984]: connect() failed (Network is unreachable).  
Nov 4 02:22:02 mcb1 user.warn pm_manager[1372]: Failed to open /media/sd-mmcbk0p4/O-RAN/log/timezone. Using default value...  
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Nov 4 02:22:02 mcb1 user.warn pm_manager[1372]: Failed to open /media/sd-mmcbk0p4/O-RAN/log/timezone. Using default value...  
Nov 4 02:22:02 mcb1 user.warn pm_manager[1372]: Failed to open /media/sd-mmcbk0p4/O-RAN/log/timezone. Using default value...  
Nov 4 02:22:03 mcb1 daemon.info netopeer2-server[984]: Trying to connect via IPv4 to 192.168.4.15:4336.  
Nov 4 02:22:03 mcb1 daemon.err netopeer2-server[984]: connect() failed (Network is unreachable).  
Nov 4 02:22:04 mcb1 daemon.info netopeer2-server[984]: Trying to connect via IPv4 to 192.168.4.15:4336.  
Nov 4 02:22:04 mcb1 daemon.err netopeer2-server[984]: connect() failed (Network is unreachable).  
Nov 4 02:22:05 mcb1 daemon.info netopeer2-server[984]: Trying to connect via IPv4 to 192.168.4.15:4336.  
Nov 4 02:22:05 mcb1 daemon.err netopeer2-server[984]: connect() failed (Network is unreachable).  
Nov 4 02:22:05 mcb1 user.notice SYNCMNGR[1305]: Received message from S-Plane  
Nov 4 02:22:06 mcb1 daemon.info netopeer2-server[984]: Trying to connect via IPv4 to 192.168.4.15:4336.  
Nov 4 02:22:06 mcb1 daemon.err netopeer2-server[984]: connect() failed (Network is unreachable).  
Nov 4 02:22:06 mcb1 user.notice wd_manager[1441]: Value is 1 for Xpath /vvdn_mcel-wdm:system-apps/fw_manager  
Nov 4 02:22:06 mcb1 user.notice wd_manager[1441]: Value is 1 for Xpath /vvdn_mcel-wdm:system-apps/nw_manager  
Nov 4 02:22:06 mcb1 user.notice wd_manager[1441]: Value is 1 for Xpath /vvdn_mcel-wdm:system-apps/operations_manager  
Nov 4 02:22:06 mcb1 user.notice wd_manager[1441]: Value is 1 for Xpath /vvdn_mcel-wdm:system-apps/pm_manager  
Nov 4 02:22:06 mcb1 user.notice wd_manager[1441]: Value is 1 for Xpath /vvdn_mcel-wdm:system-apps/um_manager  
Nov 4 02:22:06 mcb1 user.notice wd_manager[1441]: Value is 1 for Xpath /vvdn_mcel-wdm:system-apps/sys_monitor  
Nov 4 02:22:06 mcb1 user.notice wd_manager[1441]: Value is 1 for Xpath /vvdn_mcel-wdm:system-apps/fault_manager  
Nov 4 02:22:06 mcb1 user.notice wd_manager[1441]: Value is 1 for Xpath /vvdn_mcel-wdm:system-apps/file_manager  
Nov 4 02:22:06 mcb1 user.notice wd_manager[1441]: Value is 1 for Xpath /vvdn_mcel-wdm:system-apps/supervision  
Nov 4 02:22:06 mcb1 user.notice wd_manager[1441]: Value is 1 for Xpath /vvdn_mcel-wdm:system-apps/sync_manager
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Nov 4 02:22:06 mcb1 user.notice wd\_manager[1441]: Value is 1 for Xpath /vvdn\_mcel-wdm:system-apps/ald\_controller  
Nov 4 02:22:06 mcb1 user.notice wd\_manager[1441]: Value is 1 for Xpath /vvdn\_mcel-wdm:system-apps/log\_manager  
Nov 4 02:22:06 mcb1 user.notice wd\_manager[1441]: Value is 1 for Xpath /vvdn\_mcel-wdm:system-apps/radio\_manager  
Nov 4 02:22:06 mcb1 user.notice wd\_manager[1441]: Value is 1 for Xpath /vvdn\_mcel-wdm:system-apps/cli\_manager  
Nov 4 02:22:07 mcb1 daemon.info netopeer2-server[984]: Trying to connect via IPv4 to 192.168.4.15:4336.  
Nov 4 02:22:07 mcb1 daemon.err netopeer2-server[984]: connect() failed (Network is unreachable).  
Nov 4 02:22:08 mcb1 daemon.info netopeer2-server[984]: Trying to connect via IPv4 to 192.168.4.15:4336.  
Nov 4 02:22:08 mcb1 daemon.err netopeer2-server[984]: connect() failed (Network is unreachable).  
Nov 4 02:22:09 mcb1 daemon.info netopeer2-server[984]: Trying to connect via IPv4 to 192.168.4.15:4336.  
Nov 4 02:22:09 mcb1 daemon.err netopeer2-server[984]: connect() failed (Network is unreachable).  
Nov 4 02:22:10 mcb1 daemon.info netopeer2-server[984]: Trying to connect via IPv4 to 192.168.4.15:4336.  
Nov 4 02:22:10 mcb1 daemon.err netopeer2-server[984]: connect() failed (Network is unreachable).  
Nov 4 02:22:10 mcb1 authpriv.debug sshd[3900]: pam\_unix(sshd:account): account operator has password changed in future  
Nov 4 02:22:10 mcb1 auth.info sshd[3900]: Accepted password for operator from 192.168.3.15 port 35658 ssh2  
Nov 4 02:22:10 mcb1 authpriv.info sshd[3900]: 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.**

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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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