



@ FILE NAME: M_CTC_ID_003.txt

@ TEST SCOPE: M PLANE O-RAN CONFORMANCE

@ Software Release for MCB1: v1.0.1

Test Description : 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 uses improper credentials when trying to establish a SSH session with the 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 14656 bytes 4878965 (4.8 MB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 12314 bytes 1260265 (1.2 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 555565 bytes 139856505 (139.8 MB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 555733 bytes 365516863 (365.5 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 13704 bytes 4603738 (4.6 MB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 12246 bytes 1219363 (1.2 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 13107 bytes 1794968 (1.7 MB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 13107 bytes 1794968 (1.7 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 12:42:29 IST; 18min ago

Docs: man:dhcpcd(8)

Main PID: 10811 (dhcpcd)

Tasks: 1 (limit: 4915)

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

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

Nov 25 12:42:29 vvdn sh[10811]: Sending on Socket/fallback/fallback-net

Nov 25 12:42:29 vvdn dhcpcd[10811]: Sending on LPF/eth0.453/64:9d:99:ff:f5:12/192.168.170.0/24

Nov 25 12:42:29 vvdn dhcpcd[10811]: Sending on Socket/fallback/fallback-net

Nov 25 12:42:29 vvdn dhcpcd[10811]: Server starting service.

Nov 25 12:46:09 vvdn dhcpcd[10811]: reuse_lease: lease age 571 (secs) under 25% threshold, reply with unaltered, existing lease for 192.168.170.38

Nov 25 12:46:09 vvdn dhcpcd[10811]: DHCPDISCOVER from 98:ae:71:00:8a:c2 (mcb1) via eth0.453

Nov 25 12:46:10 vvdn dhcpcd[10811]: DHCPOFFER on 192.168.170.38 to 98:ae:71:00:8a:c2 (mcb1) via eth0.453

Nov 25 12:46:10 vvdn dhcpcd[10811]: reuse_lease: lease age 572 (secs) under 25% threshold, reply with unaltered, existing lease for 192.168.170.38

Nov 25 12:46:10 vvdn dhcpcd[10811]: DHCPREQUEST for 192.168.170.38 (192.168.170.85) from 98:ae:71:00:8a:c2 (mcb1) via eth0.453

Nov 25 12:46:10 vvdn dhcpcd[10811]: DHCPACK on 192.168.170.38 to 98:ae:71:00:8a:c2 (mcb1) via eth0.453

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Pinging

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PING 192.168.170.38 (192.168.170.38) 56(84) bytes of data.

64 bytes from 192.168.170.38: icmp_seq=1 ttl=64 time=0.207 ms

64 bytes from 192.168.170.38: icmp_seq=2 ttl=64 time=0.201 ms

64 bytes from 192.168.170.38: icmp_seq=3 ttl=64 time=0.209 ms

64 bytes from 192.168.170.38: icmp_seq=4 ttl=64 time=0.205 ms

64 bytes from 192.168.170.38: icmp_seq=5 ttl=64 time=0.194 ms

--- 192.168.170.38 ping statistics ---

5 packets transmitted, 5 received, 0% packet loss, time 4095ms

rtt min/avg/max/mdev = 0.194/0.203/0.209/0.010 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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> listen --ssh --login observer

Waiting 60s for an SSH Call Home connection on port 4334...The authenticity of the host '::ffff:192.168.170.38' 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)? yes

observer@::ffff:192.168.170.38 password:

Error occured in line number 116timed out-----

> listen --ssh --login operator

Waiting 60s for an SSH Call Home connection on port 4334...The authenticity of the host '::ffff:192.168.170.38' 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)? yes

operator@::ffff:192.168.170.38 password:

Error occured in line number 116[Errno 98] Address already in use

> listen --ssh --login installerr

Waiting 60s for an SSH Call Home connection on port 4334...The authenticity of the host '::ffff:192.168.170.38' 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)? yes

installerr@::ffff:192.168.170.38 password:

Error occured in line number 116[Errno 98] Address already in use

> listen --ssh --login installer

Waiting 60s for an SSH Call Home connection on port 4334...The authenticity of the host '::ffff:192.168.170.38' 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)? yes

installer@::ffff:192.168.170.38 password:

Error occured in line number 116[Errno 98] Address already in use

> listen --ssh --login operator1

Waiting 60s for an SSH Call Home connection on port 4334...The authenticity of the host '::ffff:192.168.170.38' 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)? yes

operator1@::ffff:192.168.170.38 password:

Error occured in line number 116[Errno 98] Address already in use

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SYSTEM LOGS

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Oct 29 23:17:55 mcb1 user.notice SYNCMNDR[1309]: Received message from S-Plane

Oct 29 23:18:00 mcb1 user.notice wd_manager[1441]: Value is 1 for Xpath /vvdn_mcel-wdm:system-apps/fw_manager

Oct 29 23:18:00 mcb1 user.notice wd_manager[1441]: Value is 1 for Xpath /vvdn_mcel-wdm:system-apps/nw_manager

Oct 29 23:18:00 mcb1 user.notice wd_manager[1441]: Value is 1 for Xpath /vvdn_mcel-wdm:system-apps/operations_manager

Oct 29 23:18:00 mcb1 user.notice wd_manager[1441]: Value is 1 for Xpath /vvdn_mcel-wdm:system-apps/pm_manager

Oct 29 23:18:00 mcb1 user.notice wd_manager[1441]: Value is 1 for Xpath /vvdn_mcel-wdm:system-apps/um_manager

Oct 29 23:18:00 mcb1 user.notice wd_manager[1441]: Value is 1 for Xpath /vvdn_mcel-wdm:system-apps/sys_monitor

Oct 29 23:18:00 mcb1 user.notice wd_manager[1441]: Value is 1 for Xpath /vvdn_mcel-wdm:system-apps/fault_manager

Oct 29 23:18:00 mcb1 user.notice wd_manager[1441]: Value is 1 for Xpath /vvdn_mcel-wdm:system-apps/file_manager

Oct 29 23:18:00 mcb1 user.notice wd_manager[1441]: Value is 1 for Xpath /vvdn_mcel-wdm:system-apps/supervision

Oct 29 23:18:00 mcb1 user.notice wd_manager[1441]: Value is 1 for Xpath /vvdn_mcel-wdm:system-apps/sync_manager

Oct 29 23:18:00 mcb1 user.notice wd_manager[1441]: Value is 1 for Xpath /vvdn_mcel-wdm:system-apps/ald_controller

Oct 29 23:18:00 mcb1 user.notice wd_manager[1441]: Value is 1 for Xpath /vvdn_mcel-wdm:system-apps/log_manager

Oct 29 23:18:00 mcb1 user.notice wd_manager[1441]: Value is 1 for Xpath /vvdn_mcel-wdm:system-apps/radio_manager

Oct 29 23:18:00 mcb1 user.notice wd_manager[1441]: Value is 1 for Xpath /vvdn_mcel-wdm:system-apps/cli_manager

Oct 29 23:18:09 mcb1 user.notice SYNCMNDR[1309]: Received message from S-Plane

Oct 29 23:18:23 mcb1 user.notice SYNCMNDR[1309]: Received message from S-Plane

Oct 29 23:18:37 mcb1 user.notice SYNCMNDR[1309]: Received message from S-Plane

Oct 29 23:18:43 mcb1 user.notice wd_manager[1441]: Value is 1 for Xpath /vvdn_mcel-wdm:system-apps/fw_manager

Oct 29 23:18:43 mcb1 user.notice wd_manager[1441]: Value is 1 for Xpath /vvdn_mcel-wdm:system-apps/nw_manager

Oct 29 23:18:43 mcb1 user.notice wd_manager[1441]: Value is 1 for Xpath /vvdn_mcel-wdm:system-apps/operations_manager

Oct 29 23:18:43 mcb1 user.notice wd_manager[1441]: Value is 1 for Xpath /vvdn_mcel-wdm:system-apps/pm_manager

Oct 29 23:18:43 mcb1 user.notice wd_manager[1441]: Value is 1 for Xpath /vvdn_mcel-wdm:system-apps/um_manager

Oct 29 23:18:43 mcb1 user.notice wd_manager[1441]: Value is 1 for Xpath /vvdn_mcel-wdm:system-apps/sys_monitor

Oct 29 23:18:43 mcb1 user.notice wd_manager[1441]: Value is 1 for Xpath /vvdn_mcel-wdm:system-apps/fault_manager

Oct 29 23:18:43 mcb1 user.notice wd_manager[1441]: Value is 1 for Xpath /vvdn_mcel-wdm:system-apps/file_manager

Oct 29 23:18:43 mcb1 user.notice wd_manager[1441]: Value is 1 for Xpath /vvdn_mcel-wdm:system-apps/supervision

Oct 29 23:18:43 mcb1 user.notice wd_manager[1441]: Value is 1 for Xpath /vvdn_mcel-wdm:system-apps/sync_manager

Oct 29 23:18:43 mcb1 user.notice wd_manager[1441]: Value is 1 for Xpath /vvdn_mcel-wdm:system-apps/ald_controller

Oct 29 23:18:43 mcb1 user.notice wd_manager[1441]: Value is 1 for Xpath /vvdn_mcel-wdm:system-apps/log_manager

Oct 29 23:18:43 mcb1 user.notice wd_manager[1441]: Value is 1 for Xpath /vvdn_mcel-wdm:system-apps/radio_manager

Oct 29 23:18:43 mcb1 user.notice wd_manager[1441]: Value is 1 for Xpath /vvdn_mcel-wdm:system-apps/cli_manager

Oct 29 23:18:51 mcb1 user.notice SYNCMNDR[1309]: Received message from S-Plane

Oct 29 23:19:05 mcb1 user.notice SYNCMNDR[1309]: Received message from S-Plane

Oct 29 23:19:19 mcb1 user.notice SYNCMNDR[1309]: Received message from S-Plane

Oct 29 23:19:26 mcb1 user.notice wd_manager[1441]: Value is 1 for Xpath /vvdn_mcel-wdm:system-apps/fw_manager

Oct 29 23:19:26 mcb1 user.notice wd_manager[1441]: Value is 1 for Xpath /vvdn_mcel-wdm:system-apps/nw_manager

Oct 29 23:19:26 mcb1 user.notice wd_manager[1441]: Value is 1 for Xpath /vvdn_mcel-wdm:system-apps/operations_manager

Oct 29 23:19:26 mcb1 user.notice wd_manager[1441]: Value is 1 for Xpath /vvdn_mcel-wdm:system-apps/pm_manager

Oct 29 23:19:26 mcb1 user.notice wd_manager[1441]: Value is 1 for Xpath /vvdn_mcel-wdm:system-apps/um_manager

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Oct 29 23:19:26 mcb1 user.notice wd_manager[1441]: Value is 1 for Xpath /vvdn_mcel-wdm:system-apps/log_manager
Oct 29 23:19:26 mcb1 user.notice wd_manager[1441]: Value is 1 for Xpath /vvdn_mcel-wdm:system-apps/radio_manager
Oct 29 23:19:26 mcb1 user.notice wd_manager[1441]: Value is 1 for Xpath /vvdn_mcel-wdm:system-apps/cli_manager
Oct 29 23:19:33 mcb1 user.notice SYNCMNGR[1309]: Received message from S-Plane
Oct 29 23:19:38 mcb1 auth.info sshd[12950]: Accepted password for operator from 192.168.170.85 port 59626 ssh2
Oct 29 23:19:38 mcb1 authpriv.info sshd[12950]: 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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Call home initiated..

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Reject SSH Authentication due to Incorrect Credential = FAIL

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