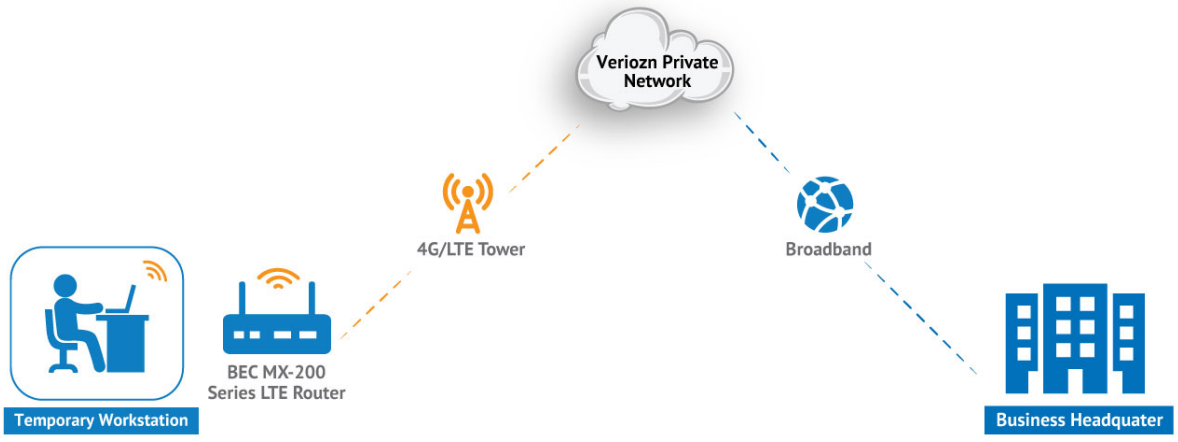
How to configure Verizon Private Network (NEMO/DMNR)

Summary

Verizon private network gives you a segregated private network to connect your mobile devices to and separates your data from public traffic and provides a direct connection back to your internal network. It enables integration between cellular wireless and wireline enterprise services by making use of the Mobile IPv4 network mobility (NEMO) protocol and without the need for end to end overlay tunneling.

This configuration guide shows an example setup of BEC 200A/Ae NEMO with Verizon Wireless Dynamic Mobile Network Routing (DMNR) service for the purposes of providing communications over Verizon 4G/LTE wireless access and mobile private network between branch and customer's H.Q. network.

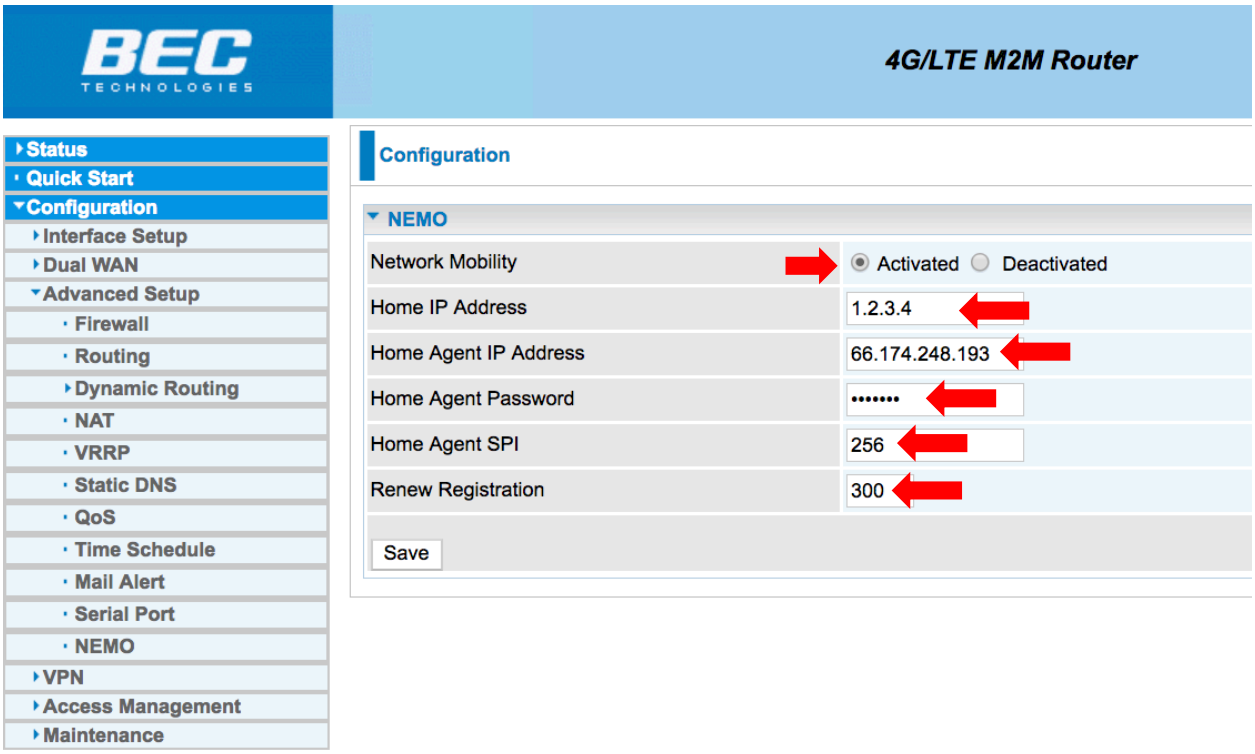
Network Topology



NEMO Configuration

NEMO requires a service provider, e.g. Verizon Wireless Private Network with DMNR (Dynamic Mobile Network Routing). Your NEMO service provider will define many of the settings for your NEMO configuration.

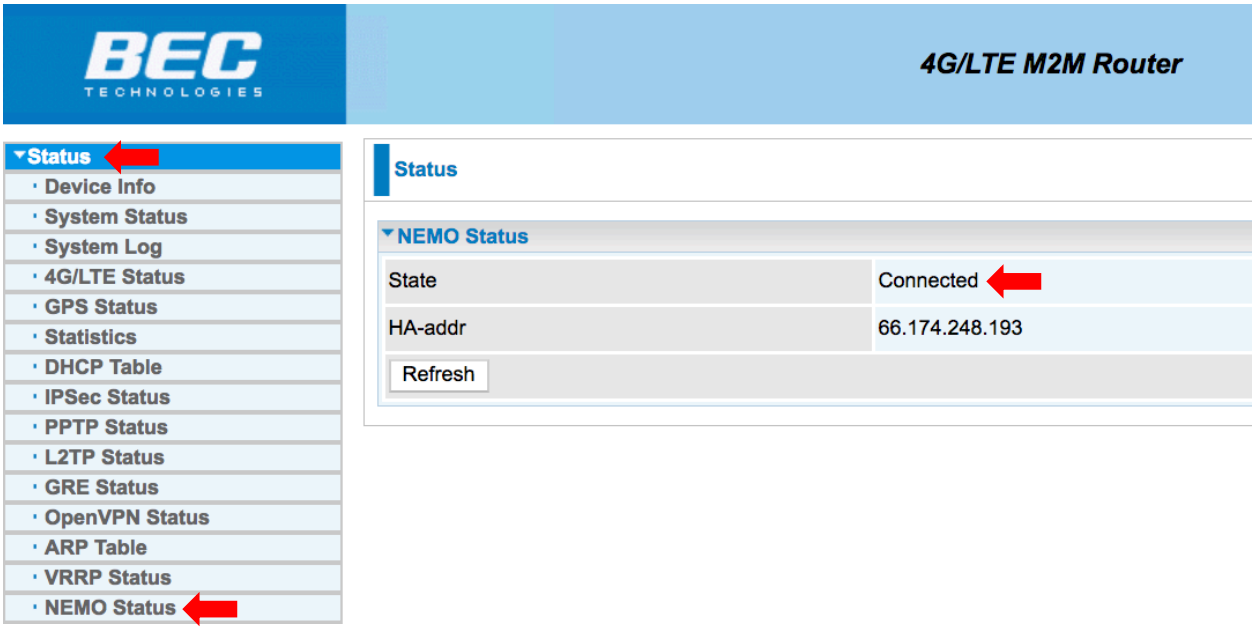
Step 1: Log into router's Web GUI page.
Step 2: click on the **Configuration / Advanced Setup / NEMO**.



Step 3: Select "Activated" to enable the Network Mobility.
Step 4: Home IP address – It provided by Verizon. The address is a placeholder, any IP address can be used (1.2.3.4 is common).
Step 5: Home agent IP address, Password, and SPI will be defined by service provider (Verizon).
Step 6: Renew Registration – The NEMO network regularly re-registers with the home agent.
Step 7: Click "Save" to save the setting.

Status

The router should create tunnel automatically as soon as the NEMO configuration settings are saved. You can see status at **Status / NEMO Status** on the Web GUI page.



Ping Test

Ping from BEC MX-200A to show the LAN interface has traversed the NEMO tunnel.

```
[iMac [redacted] ping 192.168.0.1
PING 192.168.0.1 (192.168.0.1): 56 data bytes
64 bytes from 192.168.0.1: icmp_seq=0 ttl=63 time=941.128 ms
64 bytes from 192.168.0.1: icmp_seq=1 ttl=63 time=77.245 ms
64 bytes from 192.168.0.1: icmp_seq=2 ttl=63 time=87.170 ms
64 bytes from 192.168.0.1: icmp_seq=3 ttl=63 time=71.185 ms
64 bytes from 192.168.0.1: icmp_seq=4 ttl=63 time=81.171 ms
64 bytes from 192.168.0.1: icmp_seq=5 ttl=63 time=60.691 ms
64 bytes from 192.168.0.1: icmp_seq=6 ttl=63 time=59.171 ms
64 bytes from 192.168.0.1: icmp_seq=7 ttl=63 time=85.151 ms
64 bytes from 192.168.0.1: icmp_seq=8 ttl=63 time=71.925 ms
64 bytes from 192.168.0.1: icmp_seq=9 ttl=63 time=74.724 ms
64 bytes from 192.168.0.1: icmp_seq=10 ttl=63 time=63.424 ms
64 bytes from 192.168.0.1: icmp_seq=11 ttl=63 time=66.735 ms
64 bytes from 192.168.0.1: icmp_seq=12 ttl=63 time=85.889 ms
64 bytes from 192.168.0.1: icmp_seq=13 ttl=63 time=80.238 ms
64 bytes from 192.168.0.1: icmp_seq=14 ttl=63 time=77.411 ms
64 bytes from 192.168.0.1: icmp_seq=15 ttl=63 time=71.551 ms
64 bytes from 192.168.0.1: icmp_seq=16 ttl=63 time=73.626 ms
64 bytes from 192.168.0.1: icmp_seq=17 ttl=63 time=66.037 ms
64 bytes from 192.168.0.1: icmp_seq=18 ttl=63 time=76.058 ms
64 bytes from 192.168.0.1: icmp_seq=19 ttl=63 time=82.143 ms
```

Ping from the other direction.