

Dual WAN Support

Dual WAN support provides multiple links to NFVIS connectivity. Starting from NFVIS 3.10.1 release, a second WAN bridge configured with DHCP by default is supported on ENCS 5000 series platform.

During NFVIS system initialization, NFVIS attempts to establish connectivity through DHCP on both WAN bridges. This allows connectivity to NFVIS during initial deployment even if the network is down on one of the WAN bridges. Once DHCP assigns an IP address through one WAN bridge, the other WAN bridge can be configured with static IP address for connectivity to NFVIS.

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Bridge IP Configurations

Both default bridges and user generated bridges contain IP/DHCP configuration to allow IP configurations on any port. NFVIS provides two ports by default for zero touch deployment, with dhclient actively requesting DHCP IP configurations.

Each bridge can be configured with:

- IPv4 DHCP
- Static IPv4
- IPv6 DHCP
- IPv6 SLAAC
- Static IPv6
- VLAN tag

Except for ENCS 5400 management port configuration which continues to remain under **system settings mgmt**, use the Bridge APIs and Commands to enable IP configurations and move away from the previous System Settings APIs and commands.

On ENCS5100 use **system settings mgmt** for management IP configuration and **bridges bridge lan-br** for LAN IP configuration.

Restrictions for Bridge IP Configurations

IPv4:

- IPv4 DHCP can only be configured on one bridge at a time
- Cannot configure IPv4 DHCP on any bridge if system wide default gateway is configured
- Cannot configure **system settings default-gw** if IPv4 DHCP is configured on any bridge.

IPv6:

- IPv6 DHCP can only be configured on one bridge at any time, and cannot be applied on any bridge if IPv6 SLAAC is applied on any bridge or if system wide IPv6 default gateway is configured.
- IPv6 SLAAC can only be configured on one bridge at any time, and cannot be applied on any bridge if IPv6 DHCP is applied on any bridge or if system wide IPv6 default gateway is configured.
- Cannot configure **system settings default-gw-ipv6** if IPv6 DHCP or IPv6 SLAAC is configured on any bridge.

Dual WAN Bridge and DHCP Toggle

Note This feature is supported only on ENCS 5000 series devices.

In zero touch deployment, NFVIS requests for IPv4 assignments through DHCP for two WAN interfaces. During system initialization a second WAN bridge is configured with GE0-1 port attached. NFVIS toggles between the two default WAN bridges sending DHCP requests on any one of the WAN bridges at a time, for 30 second intervals. The toggling stops as soon as one WAN bridge is assigned an IP address through DHCP. The bridge with the assigned IP address is configured with DHCP. The other WAN bridge has no default IP configuration and can be manually configured with a static IP address if required.

If neither of the bridges is assigned an IP address through DHCP, the WAN DHCP toggle can be terminated by logging in to NFVIS using the default credentials. In this case, wan-br is configured with DHCP and wan2-br has no default IP configuration.

After zero touch deployment, the toggle feature is terminated and it is not possible to toggle between WAN bridges. To add additional connectivity to the NFVIS host, static IP address can be configured on the other WAN bridge and system static routing can be applied. A default gateway is not supported as the system default gateway is set through DHCP. If DHCP configuration is not required, then both WAN bridges can be configured with static IP addresses, and a default gateway can then be applied under system settings.