

Network Changes in Xerus 4.0.x firmware release

This document provides a quick summary of important network implementation changes, beginning with Xerus 4.0.x firmware.

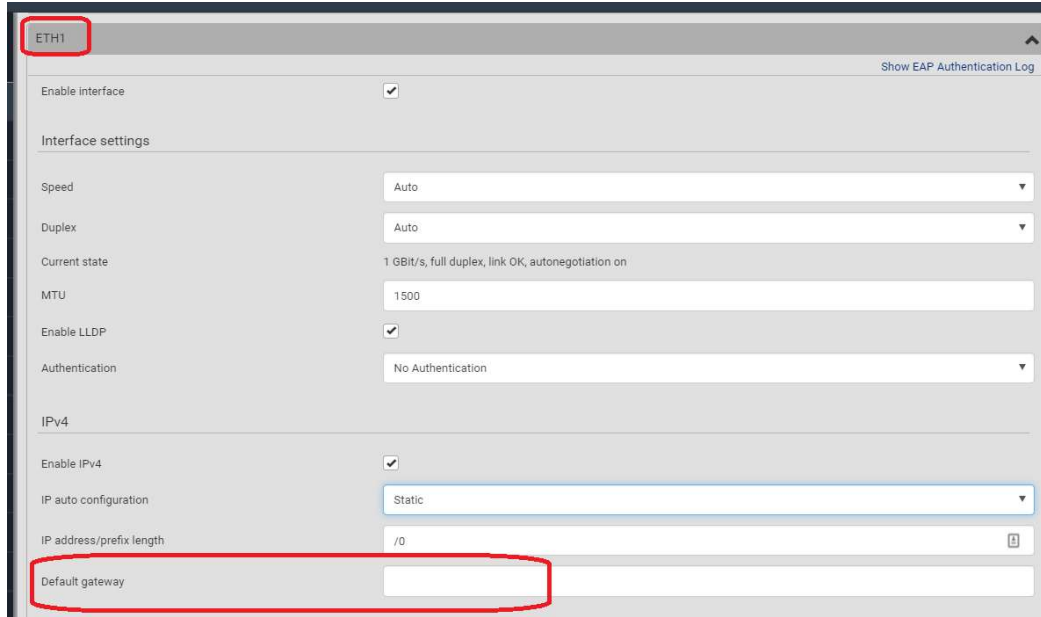
This release introduces the feature that allows configuring an interface-specific gateway compared to earlier releases where it was one system-wide default gateway set up under a common network setting.

This presents new configuration options on the following interfaces that will require changes in the initial deployment procedures in the field. Please review them carefully and adjust the new deployment files/procedures for the new PDUs with the 4.0.x release from the factory.

- Web UI
- CLI
- USB Config Keys
- JSON-RPC API

Web UI Network Setup:

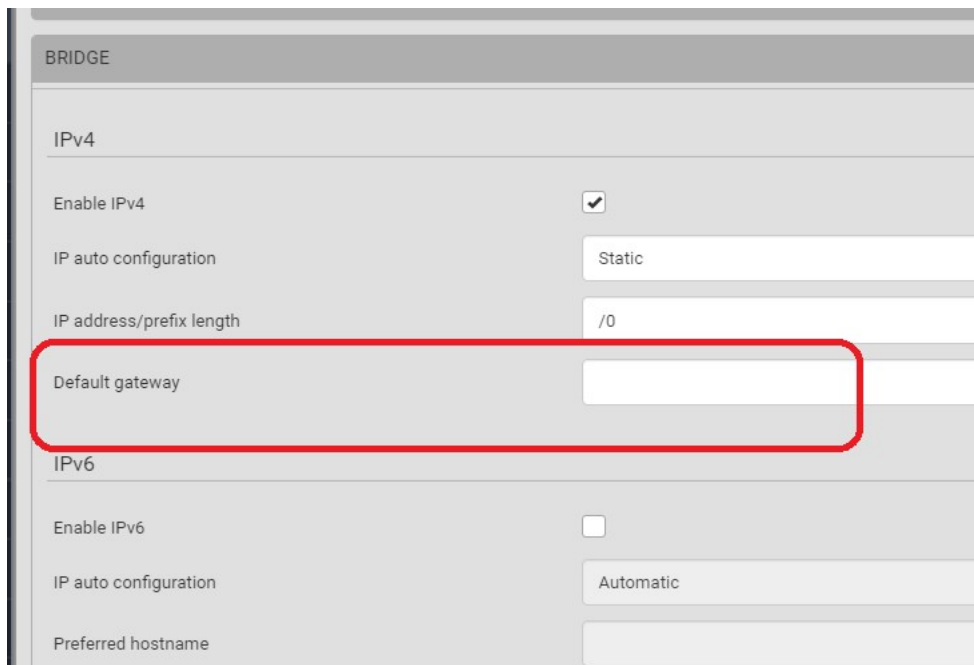
The following screenshots show the new default gateway configuration option on the network setup screen for ETH1. A similar option is available for the ETH2, Bridge, and Wireless interfaces.



The screenshot shows the configuration page for the ETH1 interface. The 'Default gateway' field is highlighted with a red box. The configuration includes options for enabling the interface, setting speed and duplex to 'Auto', enabling LLDP, and setting IP auto configuration to 'Static'. The IP address is set to '/0'.

<https://help.raritan.com/pdu-g2/4.0.10/#102426.htm>

When the PDU is configured in bridge mode, the gateway configuration is now available at the bridge interface.



CLI commands for Network Setup:

The CLI command for configuring the gateway now requires specifying the respective interface (ETH1/ETH2/BRIDGE/ETHERNET).

Here is the difference between default gateway CLI commands before and after the 4.0.x release.

Before 4.0.x: `network ipv4 gateway 192.168.56.126`

4.0.x and later: `network ipv4 interface ETH1 gateway 192.168.56.126`

Example commands for setting up the ETH1 interface with the default gateway on the iX7 Xerus controller with a dual Ethernet interface.

```
config:# network ipv4 interface ETH1 gateway 192.168.56.126
```

Similarly, the example commands for setting up the BRIDGE interface with a default gateway

```
config:# network ipv4 interface BRIDGE gateway 192.168.56.126/24
```

And the example commands for setting up ETHERNET interface with default gateway on old PX2 and V6 controllers with single Ethernet interface.

```
config:# network ipv4 interface ETHERNET gateway 192.168.56.126
```

USB Config Key for Network Setup:

For the USB config key for setting the default gateway for each interface, use the appropriate interfaces, i.e., eth0, eth1, br0, and wlan0 in the config key.

Here is the difference between default gateway config keys before and after the 4.0.x release.

Before 4.0.x: `net.routing.ipv4.default_gateway_addr=192.168.56.126`

4.0.x and later: `net.interfaces[eth0].ipv4.static.default_gateway_addr=192.168.56.126`

Please note that the new config key no longer uses the word `routing`, so please examine the config keys carefully and update them correctly.

Below are the example config keys for each interface type.

ETH1 Interface - `net.interfaces[eth0].ipv4.static.default_gateway_addr`

ETH2 Interface - `net.interfaces[eth1].ipv4.static.default_gateway_addr`

BRIDGE Interface - `net.interfaces[br0].ipv4.static.default_gateway_addr`

Wireless LAN - `net.interfaces[wlan0].ipv4.static.default_gateway_addr`

Using the old config key for the gateway setting will result in the following error on the PDU display and will be logged in the `log.txt` file on the USB Stick.

```
get_config: ERROR: net.routing.ipv4.default_gateway_addr: Config key does not exist.
```

Although the log may indicate the Config file was successfully validated, the configuration may not apply to the PDU due to the incorrect default gateway key.

JSON-RPC API Changes:

New field in structure `InterfaceIpSettings` ***staticDefaultGatewayAddr*** added for configuring interface-specific default gateway settings.