

*EdgeXOS Platform Notes*

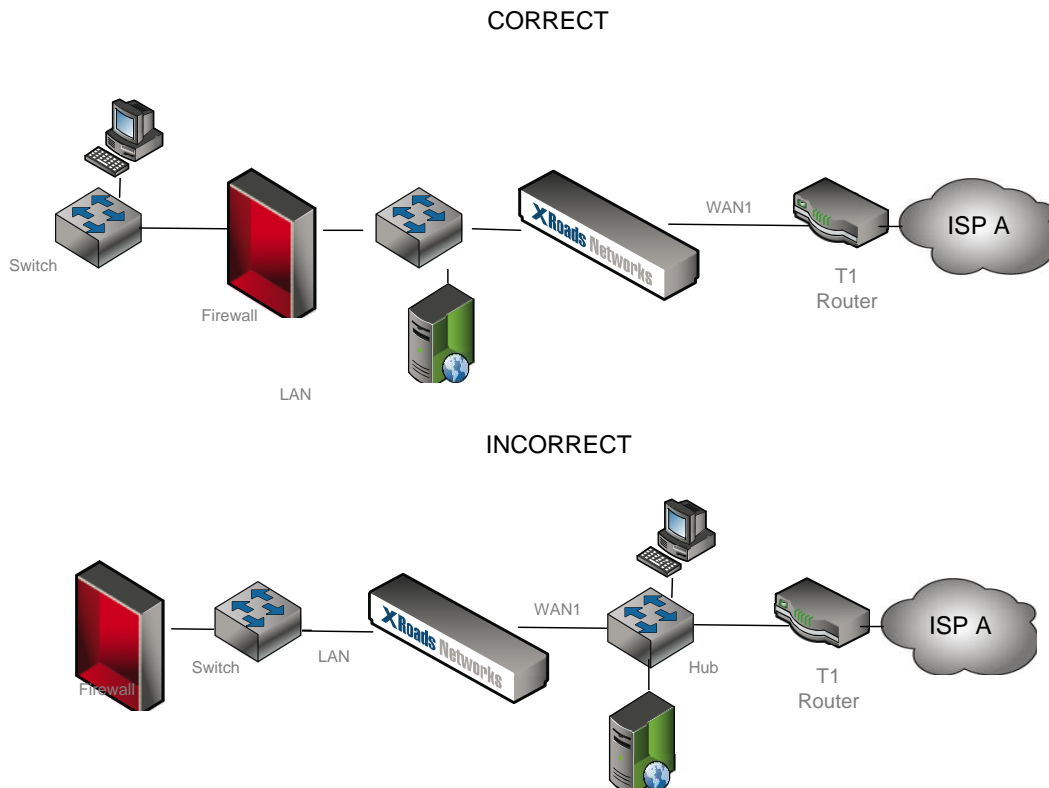
# **XRoads** Networks

Edge Network Appliance Platform Notes  
Transparent Drop-In (Bridge) Mode

## Transparent Drop-In Mode

This document provides a step-by-step guide to setting up an EdgeXOS appliance in "transparent drop-in mode" or bridge mode. Bridge mode allows the EdgeXOS appliance to sit between an existing gateway router and LAN network without changing the existing IP addressing within that network.

This means that the installation of the appliance is truly "transparent". The process for inserting the device is outlined below. The key to this type of installation is making sure that the device is placed directly between the gateway router and the rest of the LAN facing network. Only the gateway address of the router can be seen on the WAN1 interface, no other addresses will be permitted to exist on the WAN1 interface and still be seen by the LAN side of the EdgeXOS device (see the diagram below for an example).



**Transparent Drop-In Mode Setup Procedure:** To setup bridge mode use the following steps:

- Step 1) Insert the appliance between the WAN1 router and the rest of the network.
- Step 2) Make sure you have a good connection between the EdgeXOS appliance and the WAN1 router, check speed/duplex settings.
- Step 3) Configured the WAN1 interface under the Interfaces tab.
- Step 4) Only '1' IP address is required, this address is shared by both the WAN1 and LAN interfaces and is used as the management address for the device.
- Step 5) Set to Level 3 outage testing, you can change later, but Level 3 should be the default used for all new installations.

Step 6) Do not force sessions to reset, i.e. do not check the checkbox.

Step 7) Enter the gateway IP address (WAN1 router address)

Step 8) Optionally enter a probe address or leave blank.

Step 9) Click the Apply button

Note: The Apply button sets the new configuration but does not make it active unless the Commit button is pressed.

Step 10) Click the Commit and then Commit To Interfaces.

WAN Interface One  Testing123

(MAC Address: 00-90-FB-11-E1-01)

Active  Inactive *Select 'Active' to load balance or 'Inactive' to shutdown.*

Bridge Mode  Route/NAT Mode  Proxy Mode *Read help '?' for details on each mode of operation.*

NAT Disabled  NAT Enabled  DMZ Enabled

Static  Dynamic *Dynamic addresses require a DHCP server on the WAN network.*

Level 3  (Automatic Bridge/Proxy Outage Checking: Level3 = Fastest)

(Bridge Mode - Check to forced sessions to reset upon outage, recommended.)

.  .  .  (Interface IP Address)

(Subnet Mask)

.  .  .  (Interface Gateway IP Address)

.  .  .  (Probe Address - will automatically populate if left blank)

The IP address will now change on both the LAN and WAN1 interfaces. It may take a minute for the changes to be complete and the WAN1 link to come up. During this time, change the IP address of the system you were using to configure the appliance and make sure that the LAN is properly plugged in to the rest of the network.

The EdgeXOS device should now be accessible using the address used for the WAN1 connection via the LAN interface. Always make sure to use http:// and port 8088 when accessing the web GUI.

Traffic should now pass transparently between the LAN and WAN1 interfaces.

## **Troubleshooting Bridge Mode**

Typically when a customer has a problem with bridge mode it is either the WAN1 link is not connected to the WAN1 router correctly, or the WAN1 router is not pingable via the WAN1 interface or traffic is not routing through the WAN1 router and thus preventing other testing, which is preventing the WAN1 link from becoming active.

### **Issue #1**

When configured for bridge mode it is very important that the WAN1 interface of the EdgeXOS appliance is directly connected to the WAN1 router. The WAN1 router can be connected through a switch/hub, however it is NOT recommended. The typical installation would be performed using a direct crossover cable. To verify that the WAN1 port is active use the AutoSense utility under the Tools menu.

- Check Link Light
- Verify Speed/Duplex
- Confirm IP Address/Subnet and Gateway

### **Issue #2**

The WAN1 router is not pingable and/or multiple devices exist between the WAN1 interface of the EdgeXOS appliance and the WAN1 router. In either case the WAN1 link may not come up because the link testing function of the EdgeXOS appliance is unable to properly test the WAN1 connection.

It is important to confirm prior to the EdgeXOS installation that the WAN1 router is pingable. If it is not pingable it is possible for the WAN1 link to still become active, however it does require that at least some address via the WAN1 router is pingable.

Optionally, you can hard set the WAN1 link to active, however this will prevent an outage from being detected, so for customers with multiple WAN links, this is not recommended.

- Make sure WAN1 Router is Pingable
- Confirm WAN1 Router Address
- Ensure ALL Subnet Addresses on LAN Besides WAN1 Gateway Address