

# TrueNAS® X-Series HA Networking

---

Version 1.0



# Contents

<b>1 NIC Configured and Connected to Same Switch</b> .....	<b>1</b>
1.1 Example .....	1
<b>2 Single Switch Active LACP Link Aggregation</b> .....	<b>2</b>
2.1 Example .....	2
<b>3 Two Switch Active LACP Link Aggregation</b> .....	<b>3</b>
3.1 Example .....	3
<b>4 Multipath</b> .....	<b>4</b>
4.1 Example .....	4
<b>5 Additional Resources</b> .....	<b>5</b>
<b>6 Contact iXsystems</b> .....	<b>5</b>

**NOTICE:** The example diagrams in this document are independent from one another. The NAS, logical, and switch setups differ between each configuration.

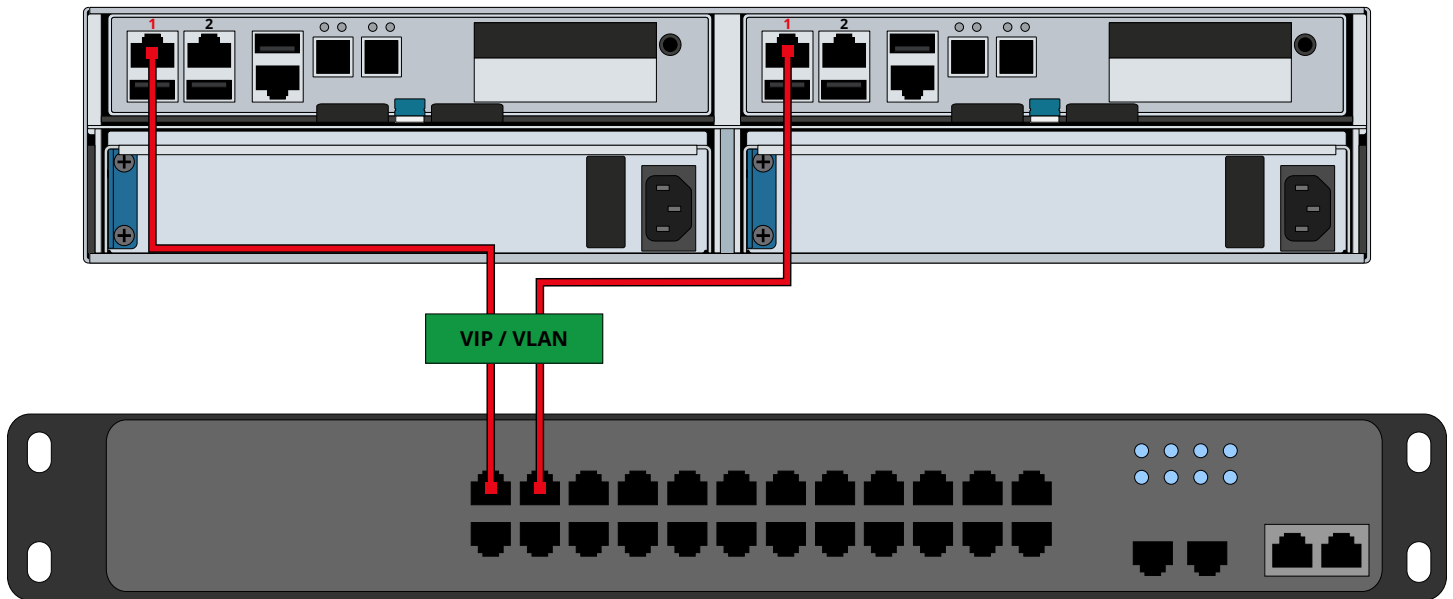
## 1 NIC Configured and Connected to Same Switch

Set up both switch ports in the same VLAN, or otherwise make them reachable from TrueNAS Web UI via the default gateway. Ports must be able to pass traffic between each other.

Configure **1** interface on each controller and connect them to separate ports on the same switch.

### 1.1 Example

Configure the **1** interface on each controller with its own IP address, then set up a **Virtual IP (VIP)** address that they can pass traffic to each other with. TrueNAS dynamically allocates the VIP to the active controller.



## 2 Single Switch Active LACP Link Aggregation

Configure primary controller **1** and **2** into a LAGG group.

Configure standby controller **1** and **2** into another LAGG group.

You must configure each LAGG with ports of the same speed.

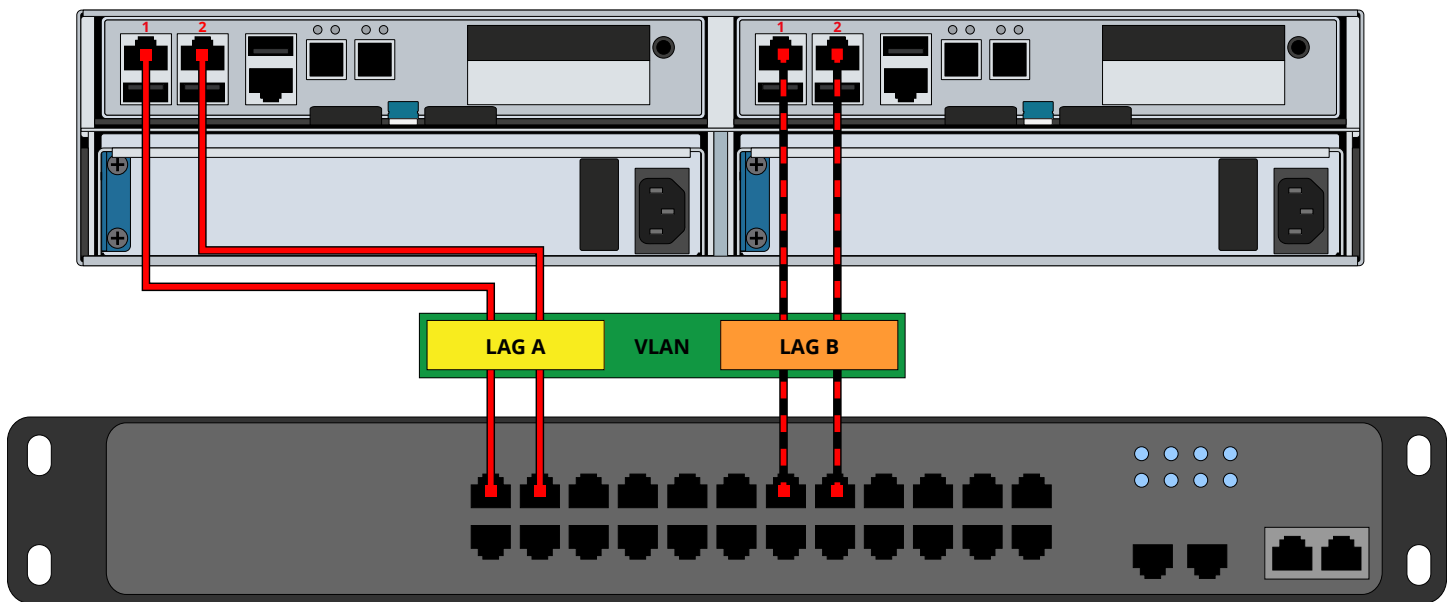
For LACP, you must configure the physical ports (1 and 2) on each controller into the same LAGG group on a switch that uses Active LACP.

**Note:** When you configure LACP via the TrueNAS web UI, add 1 and 2 into the LAGG group, then apply IPs.

### 2.1 Example

Configure LACP for active and standby LAGG groups **1** and **2**:

1. Set **1** and **2** on the active controller in the same LACP LAGG group (port channel on the active controller and the switch port.)
2. Set **1** and **2** on the standby controller in the same LACP LAGG group (port channel on the standby controller and the switch port.)
3. Ensure both LACP LAGG groups can send multicast traffic between each other on the same VLAN.

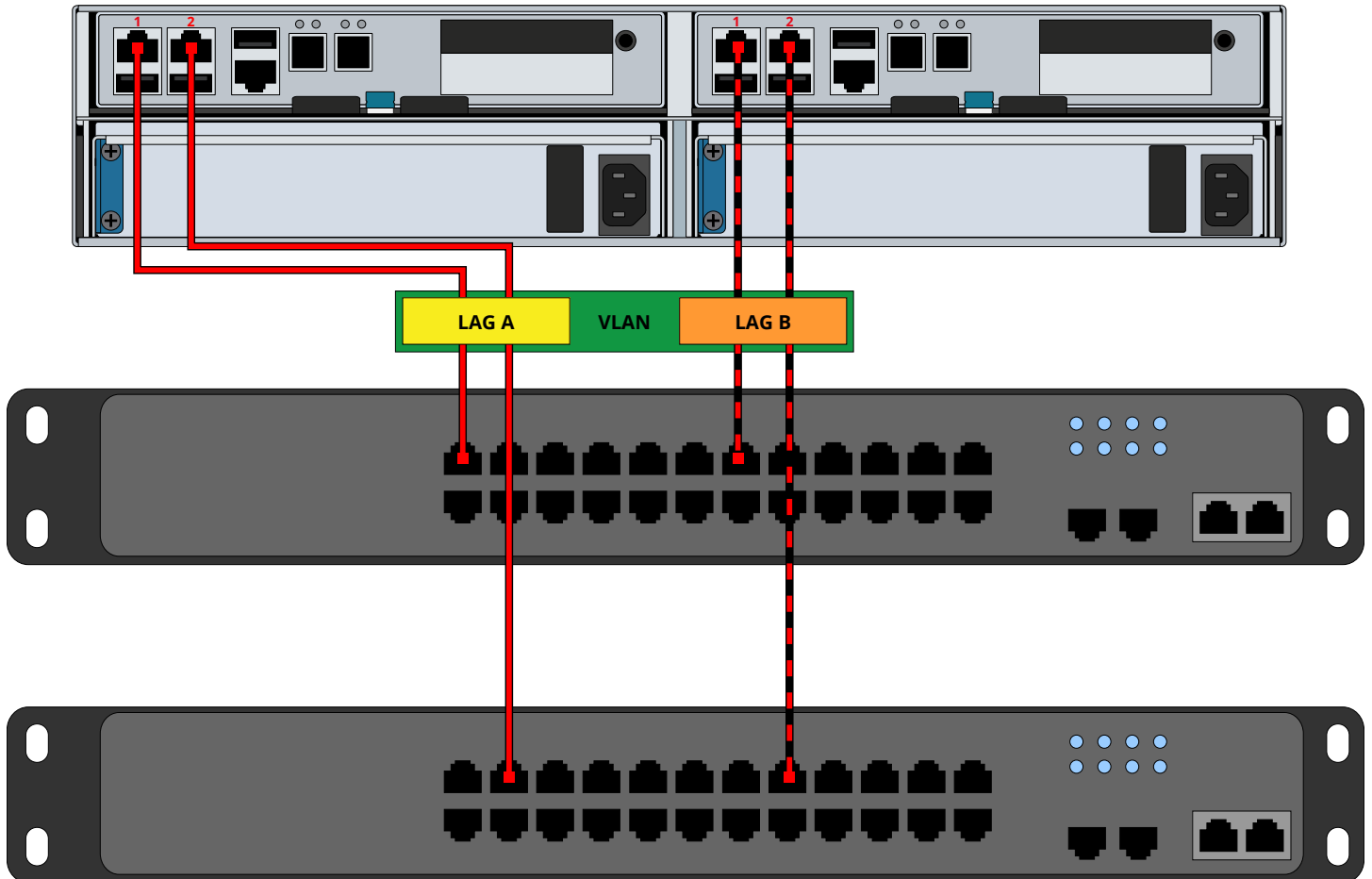


### 3 Two Switch Active LACP Link Aggregation

All of the setup methods from the 1 switch active LACP LAGG apply to the 2 switch setup with a few differences.

Both switches must support multi-chassis LAG (LAGG groups across different physical switches), since **1** and **2** connect to different switches for both controllers.

#### 3.1 Example



## 4 Multipath

Multipath networking is ideal for iSCSI and VMWare backend.

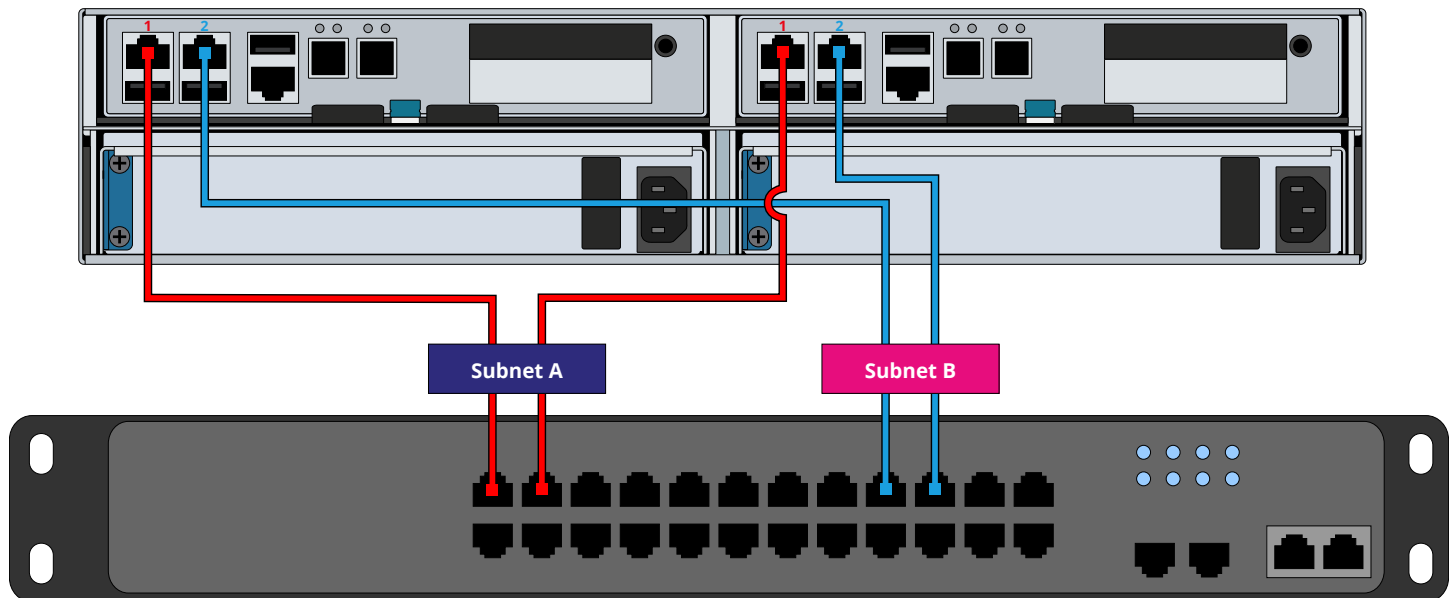
Create an interface with **1** on the active controller and set IPs. Connect it to a port on the switch.

Create an interface with **2** on the active controller, and **1** and **2** on the standby controller. Connect it to a different port on the switch.

Make sure all IPs are on different subnets.

**Note:** TrueNAS does not allow you to configure multiple IPs on the same subnet.

### 4.1 Example



## 5 Additional Resources

The TrueNAS Documentation Hub has complete software configuration and usage instructions. Click **Guide** in the TrueNAS web interface or go directly to:

<https://www.truenas.com/docs/>

Additional hardware guides and articles are in the Documentation Hub's Hardware section:

<https://www.truenas.com/docs/hardware/>

The TrueNAS Community forums provide opportunities to interact with other TrueNAS users and discuss their configurations:

<https://www.truenas.com/community/>

## 6 Contact iXsystems

For assistance, please contact iX Support:

Contact Method	Contact Options
Web	<a href="https://support.ixsystems.com">https://support.ixsystems.com</a>
Email	<a href="mailto:support@ixsystems.com">support@ixsystems.com</a>
Telephone	Monday-Friday, 6:00AM to 6:00PM Pacific Standard Time: <ul style="list-style-type: none"><li>• US-only toll-free: <b>1-855-473-7449</b> option 2</li><li>• Local and international: <b>1-408-943-4100</b> option 2</li></ul>
Telephone	Telephone After Hours (24x7 Gold Level Support only): <ul style="list-style-type: none"><li>• US-only toll-free: <b>1-855-499-5131</b></li><li>• International: <b>1-408-878-3140</b> (International calling rates will apply)</li></ul>