

vxlan proxmox setup (ip-transit)

Proxmox VXLAN Tunnel Setup

Requirements

Before starting, make sure you have:

- A working Proxmox installation
- Root access to your node
- The remote endpoint IP
- Basic networking knowledge

Misconfiguration may result in **loss of network connectivity**.

VXLAN allows you to create a **Layer-2 overlay network over Layer-3 infrastructure**, commonly used for connecting multiple hosts or data centers.

Tunnel Configuration

The configuration is done inside:

```
/etc/network/interfaces
```

Insert the VXLAN configuration template below and adjust the variables.

Variables appear inside `< >` and must be replaced with your actual values.

Variables

Variable	Description
<VXLAN_ID>	VXLAN Network Identifier (VNI), must match on both endpoints

Variable	Description
<Local Endpoint>	Local server public IP
<Remote Endpoint>	Remote server public IP
<VXLAN Interface>	VXLAN device name (example: vxlan10)
<Bridge Name>	Proxmox bridge name (example: vmbr10)
<VXLAN Port>	UDP port used by VXLAN (default: 4789)
<Physical Interface>	Network interface used for transport (example: eno1)

VXLAN Configuration Template

```
auto vxlan10
iface vxlan10 inet manual
    mtu 1450
    pre-up ip link add vxlan10 type vxlan \
        id <VXLAN_ID> \
        dev <Physical Interface> \
        remote <Remote Endpoint> \
        local <Local Endpoint> \
        dstport <VXLAN Port>
    post-down ip link del vxlan10
```

Bridge Configuration

Create a bridge so VMs and containers can use the VXLAN network.

```
auto vmbr10
iface vmbr10 inet manual
    mtu 1450
    bridge_ports vxlan10
    bridge_stp off
    bridge_fd 0
```

Example Configuration

Example setup:

- Local node: 192.0.2.10
- Remote node: 192.0.2.20
- VXLAN ID: 100
- Interface: eno1

```
auto vxlan10
iface vxlan10 inet manual
    mtu 1450
    pre-up ip link add vxlan10 type vxlan id 100 dev eno1 \
        remote 192.0.2.20 local 192.0.2.10 dstport 4789
    post-down ip link del vxlan10

auto vmbr10
iface vmbr10 inet manual
    mtu 1450
    bridge_ports vxlan10
    bridge_stp off
    bridge_fd 0
```

Apply Configuration

Restart networking or bring interfaces up manually.

```
ifdown vmbr10 2>/dev/null
ifdown vxlan10 2>/dev/null
ifup vxlan10
ifup vmbr10
```

Using VXLAN in Proxmox VMs

1. Open VM settings
2. Select **Network Device**
3. Choose Bridge: vmbr10

Your VM will now be connected to the **VXLAN overlay network**.

Troubleshooting

Check VXLAN interface

```
ip link show vxlan10
```

Check bridge

```
bridge link
```

Verify connectivity

```
ping <remote-vxlan-ip>
```

Capture VXLAN packets

```
tcpdump -i <physical-interface> udp port 4789
```

Notes

- Default VXLAN port is **4789**
- VXLAN adds **~50 bytes overhead**, so MTU should typically be **1450**
- Firewalls must allow **UDP 4789**

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