

Configuring a Linux server as a core switch



AI Overview

A Linux server can function as a core switch using software bridges, VLANs, and link aggregation, effectively performing Layer 2 switching while optionally providing Layer 3 services.

Hardware Considerations

To use a Linux server as a core switch, ensure it has multiple high-performance NICs (e.g., Intel i350 or better) and sufficient CPU and memory to handle switching traffic . Standard commercial switches with proprietary OSes cannot run Linux directly, but programmable switches (Cumulus Linux, SONiC, OpenSwitch) can use Linux as the underlying OS .

Software Bridge Setup

Linux bridges act as Layer 2 switches. You can create a bridge interface and add physical NICs to it:

```
sudo apt install bridge-utilssudo brctl addbr br0sudo brctl addif br0 eth0 eth1sudo ip link set br0 up
```

- The bridge forwards packets between NICs based on MAC addresses, similar to a hardware switch .
- You can assign an IP address to the bridge interface for management purposes without affecting switching functionality

Article Content

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Differences Between the Core Switch and Normal Switch | FiberMall

A core switch is not a type of switch, but a switch placed at the core layer (the backbone of the network). Generally,

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How to Use SSH to Connect to a Remote Server (Step-by-Step Guide)

Introduction SSH (Secure Shell) is the standard way to log into remote Linux servers over an encrypted connection.

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Connect a Linux server using LACP to a switch

This document creates a network configuration to connect a Ubuntu server with a LACP trunk to a switch. The server should be

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Mastering Linux Switches: A Comprehensive Guide

In the realm of networking, Linux switches play a crucial role. They provide a cost-effective and highly customizable

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Building Linux L3 switch/router on x86

In a last tutorial we switched our Linux layer 3 switch to wireless Master mode in order to provide wireless services to

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How to Create an SSH Key in Linux: Easy Step-by-Step Guide

Step 1 — Creating SSH Keys The first step to configure SSH key authentication to your server is to generate an SSH

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Linux server acting as router for network switch (LAN party)

The server will be running Linux (Probably Debian) and does not need to be connected to the internet. I'm not very

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Configuring basic system settings | Red Hat Enterprise Linux | 8 | Red ...

As a system administrator, you can use the logging system role to configure a Red Hat Enterprise Linux host as a

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Making a Linux-managed network switch

Network switches are simple devices, packets go in, packets go out. Luckily people have figured out how to make it

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Introduction to Core Switch Configuration

A switch that functions as part of a router and operates at the third layer of the OSI network standard model, the network layer. The

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8 Steps to configure your network switch

Learn how to setup a network switch with ease. Switches allow you to send and receive information efficiently and securely. Get

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Install and configure a Linux server from the ground up, and build a secure and reliable environment for your server

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Mastering Linux Switches: A Comprehensive Guide

This blog post aims to provide an in-depth understanding of Linux switches, including their fundamental concepts,

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How to Install and Configure KVM and Open vSwitch on Ubuntu or

In today's multi-tenant data centers, virtualization technology is being extended from traditional hypervisor-based

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How to configure a port on our core switch for a server

If you issue no switch on the interface, the interface will be configured as Layer3 interface and one IP address is

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DSA switch configuration from userspace — The Linux Kernel

DSA switch configuration from userspace ¶ The DSA switch configuration is not integrated into the main userspace network

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serenalindquist99/server-core-switch-lab

This lab simulates a real-world enterprise network upgrade involving the replacement and configuration of core switches, port

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How to Configure a Cisco Switch in 10 Steps

Learn how to Configure a Cisco Switch. Follow along this Step-by-Step guide that will get you using Commands via

May 26, 2026

5 Steps to Deploying a PXE Server on a Campus Access Switch

These are all the steps to deploy a PXE server on an Asterfusion CX-M switch. Please contact us if you have any

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Linux on Switch: A Comprehensive Guide

Linux on switch brings the flexibility, open-source nature, and a vast ecosystem of tools and applications to network

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7.6. Overview of Bonding Modes and the Required Settings on the

Overview of Bonding Modes and the Required Settings on the Switch The following table describes the required configuration that

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Linux Core as Router and L3 Switch Appliance

The tutorial introduces a virtual router and layer3 switch appliance based on Linux Core. The appliance is basically

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how to configure cisco core switch HSRP active active

In this video we will learn how to configure cisco core switch active active using HSRP

Jan 03, 2026

Setting up a Linux Server as a Router | Baeldung on Linux

Configuring Linux as a router offers us flexibility, control, and customization options for managing network traffic

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Easily build an Ethernet switch from a Linux machine

Today I found something awesome, something that allows me concentrate on my idea rather than a database

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Linux server as an unmanaged switch

First of all, why all howtos and articles configure bridges to achieve switching? With unmanaged switch all ports are

Aug 02, 2025

Configuring Ubuntu and Debian as a router | Matt Ridpath's Blog

My main intention with this post was to demonstrate replacing an off-the-shelf router with a Linux computer, not

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