# Switch as a gateway access



## Overview

Setting up switch as default gateway My proposed solution is to take the “main” switch, and turn it into the default gateway for the LAN, and let the route.

## Key Takeaways

A Layer 3 switch can function as a default gateway for devices in a LAN, enabling inter-VLAN routing and communication with external networks when properly configured. Layer 2 vs Layer 3 SwitchesLayer 2 Switches operate at the data link layer, forwarding traffic based on MAC addresses. They primarily handle communication within a VLAN and cannot route traffic between different subnets without a router.

### A VLA

N interface can be assigned an IP address for management purposes, but it cannot serve as a true gateway for other networks. Layer 3 Switches operate at the network layer and can perform routing functions. They can forward traffic based on IP addresses, support inter-VLAN routing, and communicate directly with external networks.

This allows a Layer 3 switch to act as a default gateway for multiple subnets. Configuring a Switch as a Default GatewayAssign IP Addresses to VLAN Interfaces: Each VLAN on the switch should have an IP address that will serve as the default gateway for devices in that VLAN.

© 2026 DOLPHIN FIBER SYSTEMS - All rights reserved

### Enable I

P Routing: On a Layer 3 switch, the ip routing command must be enabled to allow the switch to route traffic between VLANs. Set a Default Route: Configure a default route pointing to the upstream router for internet access, e.g., ip route 0. 0.

0. 0 0. 0.

0. 0.

### Policy-

Based Routing (Optional): For complex networks with multiple routers, Policy-Based Routing can direct traffic from VLANs to specific routers while still allowing inter-VLAN communication.

### Considerations and Limitations

Devices using the switch as a gateway can communicate with other VLANs but require a default route to reach external networks. If the upstream routers are unaware of the LAN subnets, additional static routes or a dynamic routing protocol may be needed to ensure proper traffic flow. Layer 2 switches cannot act as gateways for inter-subnet traffic; they can only forward traffic within the same VLAN.

### Best Practices

Use a Layer 3 switch for networks requiring inter-VLAN routing and centralized gateway access. Ensure all VLANs have correctly assigned IP addresses and that IP routing is enabled. Configure the default route to the router that handles outbound traffic to the internet.

Consider static routes or dynamic routing if multiple routers are involved to maintain connectivity across all subnets. By following these steps, a switch can effectively serve as a gateway for LAN devices, providing both inter-VLAN communication and access to external networks.

## Article Content

Setting up switch as default gateway

My proposed solution is to take the “main” switch, and turn it into the default gateway for the LAN, and let the router/cradlepoint deal with outbound traffic in their own network.

How to configure a gateway on a switch

*© 2026 DOLPHIN FIBER SYSTEMS - All rights reserved*

The gateway is the access point to other networks, and its proper configuration is crucial for network security and data traffic performance. In this guide, we''ll show you how to configure the

Difference between Switch and Gateway

In a single network, the switch will be responsible for communication management, ensuring that data transmitted between connected devices is done so efficiently and without errors

Assigning the Switch IP Address and Default Gateway

Review the sections in this module before performing your initial switch configuration tasks that include IP address assignments and DHCP autoconfiguration.

Purpose of using a Switch as a default gateway as opposed to the

The hosts in each Lan subnet are connected to switch ports which are configured as access ports in the appropriate vlan. The issue is that if those hosts are configured with a default

How To Use a Router as a Gateway?

In conclusion, using a router as a gateway is a simple and effective way to connect multiple devices to the internet and enable them to communicate with each other. By following the

Assigning switch as gateway address

There is a switch that I am trying to connect to 10 other switches and devices connected to those switches. Is it possible to set the address of the main switch as the gateway address of the

How to set a default gateway on a Cisco Switch?

This article will detail the process of setting a default gateway on a Cisco switch, highlighting the differences between layer 2 and layer 3 switches and providing best practices for

Difference Between Gateway and Switch

Today, we will learn the key differences between a Gateway and a Switch in simple terms. A Gateway connects different networks, like your home

Default gateway on an access switch : r/ccna

I came accros an exercise where they asked me to configure a default gateway on a L2 switch. But I really don''t see why it should be done because that same default gateway (VLAN 99 management) is

*© 2026 DOLPHIN FIBER SYSTEMS - All rights reserved*

What Is a Network Gateway? Types, Functions

A clear guide to network gateways: how they work, the 8 main types, gateway vs router and where they fit in cloud and security architecture.

A Complete Guide to Network Gateways: How They

Learn what a network gateway is, how it works, and why it''s essential for connecting different networks. Understand gateway functions, types, and real

How To Use a Router as a Gateway?

Use a Router as a Gateway: A gateway is a hardware or software device that serves as an entry point for access to a computer network. For example, a gateway can be a router that connects

How to configure a gateway on a switch

Guide to viewing a switch''s gateway How to configure a gateway on a switch It''s an important task to ensure an efficient network connection. The gateway is the entry and exit point for

Difference Between Gateway and Switch

Switches are designed so that they begin working without requiring any configuration on the switch or any other part of the computers connected to

Network Devices

Largely replaced by Switches (which are essentially multi-port bridges). 6. Access Point (AP) It is a networking hardware device that allows Wi-Fi-enabled devices, such as laptops and

Gateway Setup: How to Connect Your Smart Switch to

Can I use multiple gateways in one smart home? Yes, if you have a large home or many smart devices, you may benefit from using multiple

What Is a Switch, Router, Gateway, Subnet, Firewall & DMZ?

This blog post provides a brief and introductory overview of a switch, router, gateway, subnet, firewall, and demilitarized zone (DMZ). These common components and concepts exist in

Related Video Reference

This video was associated with the source search result. Verify technical details against current product documentation and project requirements.

*© 2026 DOLPHIN FIBER SYSTEMS - All rights reserved*

## Contact Us

Continue your research online:

Website: https://dolphinspreschool.co.za
Technical inquiry: https://dolphinspreschool.co.za/project-desk.html
African project coordination: Waterfall City, Midrand, Gauteng, South Africa

This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

© 2026 DOLPHIN FIBER SYSTEMS - All rights reserved