

OSPF between two aggregation layer switches



Overview

Virtual Switching Extension (VSX) and multichassis link aggregation groups (MC-LAGs) are used to allow dual connections between the access and aggregation layers without the need for STP on individual links. As shown in Figure 1, the user network uses a three-layer architecture: core-aggregation-access. Two devices on each layer form an M-LAG system. · Device A and Device B form M-LAG. OSPF: Open Shortest Path First (OSPF) is a link-state routing protocol that is used in Internet Protocol (IP) networks and suitable to be deployed on single autonomous system (AS), such as an enterprise network. One method of increasing availability between network infrastructure is to establish layer 2 redundancy using. The two-tier wired architecture includes access switches or switch stacks connected to a redundant collapsed core using a shared data plane providing a multi-chassis LAG capability for redundant connections to devices. The access switches provide Layer 2 services to connected endpoints and connect. This document provides design guidance for implementing a routed (Layer 3 switched) access layer using EIGRP or OSPF as the campus routing protocol. This blueprint is used over and over again as it's proven to be scalable to fit all use cases.

Article Content

Inter-VLAN Routing: Router-on-a-Stick & Layer 3 Switch Configs

Key Takeaways ☐☐ Devices in different VLANs require a Layer 3 device to communicate. ☐☐ Router-on-a-Stick is ideal for small to medium-sized networks. ☐☐ Layer 3 Switches provide faster ...

connect layer-3 switch stack's, lacp or ospf

Between the main and the satellite site's, there are 2 physical links. all site's have 2 layer-3 switches that are capable of dt-LACP (an LACP trunk,

Link Aggregation and Load Balancing

Link Aggregation and Load Balancing Last updated Jun 16, 2026 Save as PDF Table of contents Link bonding Load balancing Load sharing Implementation by Cisco Meraki MS Series MX

Routing Configuration Guide for Cisco ASR 9000 Series

For more information about OSPF on Cisco IOS XR software and complete descriptions of the OSPF commands listed in this module, see the

Cisco Catalyst 3750 Series Switches Data Sheet

For mid-sized organizations and enterprise branch offices, the Cisco Catalyst 3750 Series Switches ease deployment of converged applications and

EOS 4.36.1F

Deploying MLAG removes over-subscription by configuring an MLAG link between two aggregation switches to create a single logical switching instance that utilizes all connections to the switches.

Routing Protocols and Switching

Routing protocols explained. Learn RIP and OSPF basics as well as Spanning Tree Protocol and VLANs. Distance vector vs link-state routing and more.

MS OSPF Overview

OSPF may be desirable in more complex network topologies with a layered switch distribution, where static routes are not ideal. This article outlines the OSPF implementation and configuration options

What is the best practice for configuring OSPF on the

Examine the network exhibit. A network administrator is implementing OSPF on a VSX pair of aggregation switches: Agg1 and Agg2. VLANs 10 and 20 are

Large Campus Switching Best Practices

This guide provides information and guidance to help the network administrator deploy the Meraki Switch (MS) line in a Campus environment.

Help with OSPF and VLANs on multi-layer switches

Hi all I've got a simple example of 2 routers and 2 Multi-layer switches in the set-up as shown in the attached image. I can set up OSPF fine between the 4 devices. My issue is with the two

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Virtual Switching Extension (VSX) and multichassis link aggregation groups (MC-LAGs) are used to allow dual connections between the access and aggregation layers without the need for

OSPF & Layer 2 Switches

However as the distance between the two sites in total is more than 100m (it is around 200m from comms room to comms room) the wired link has

Layer 3 Switch Solution for Modern Networks-Becke Telcom

A Layer 3 switch is often described as a device that can both switch and route. At the access and aggregation layers, it helps local devices communicate efficiently. At the core or distribution layer, it

Cisco Leaf and Spine Network Topology

Cisco Leaf and Spine is a two-layer network topology composed of leaf switches and spine switches as compared to the traditional 3-layer network

Layer 2 vs Layer 3 Switches in 2026: Optimizing

Introduction Planning a new network or upgrading an existing one inevitably raises a critical question: Should you deploy Layer 2 switches, Layer 3 switches, or a

Design Zone

High Availability Campus Network Design— Routed Access Layer using EIGRP or OSPF
Introduction This document provides design guidance for

Assistance with routing between layer 3 switches with ospf

If all your interfaces are passive in OSPF, OSPF will never create neighbors. Also, you really don't want the same network on two device separated

Routing & Switching Design | Validated Solution Guide

Interfaces on aggregation switches providing layer 3 services to downstream hosts are configured as members of the OSPF domain. Configure

LAN Topologies

In campus designs using Layer 3 access, routing moves to the edge switches and the aggregation devices fulfill a simpler, transit-only function. Consider running OSPF to provide

Two-Tier Core

Configure Two-Tier core switches as a VSX pair for Layer 2 aggregation of the data center access switches, IP data center services, and

OSPF & Layer 2 Switches

Our wireless link vendor has asked to ensure that the switches used can pass OSPF multicast packets, which to my knowledge is a Layer 3 protocol.

OSPF Configuration Guide

Layer 3 routing capabilities are deployed on the access layer switches. As a result, Layer 3 switches are configured with IP addresses on their Switched Virtual Interfaces (SVIs) or routed

PLANET Technology 2025–2026 Switch Lineup: Six Models for Every

The PLANET XGS-6350-16X8Y4C is positioned as a versatile aggregation or core switch for organizations that need simultaneous support across three speed tiers. It is a high-performance

Design Zone

The function of the distribution switch in this design is to provide boundary functions between the bridged Layer 2 portion of the campus and the routed Layer 3 portion, including support

Contact Us

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