

# Dual-core switch router configuration

The diagram illustrates the physical layout and dimensions of a dual-core switch router chassis. Key features include:

- Dimensions:** Overall width is 30 mm. The main chassis section has a height of 18 x 0.5 mm and a length of 12 x 2.54 mm. A specific module area is labeled 4 x 02.50.
- Components:** Shows two core modules connected by a fiber optic link. A note specifies "Length from module to optic fiber end: >0.8m".
- Port Layout:** A detailed view at the bottom shows the arrangement of ports, including SFP (Small Form-factor Pluggable) ports and RJ45 ports.

## AI Overview

For a dual-core switch setup, the recommended approach is to use multi-chassis link aggregation (MLAG/VSX) or switch stacking with port-channel links and first-hop redundancy protocols to ensure high availability and redundancy.

**Core Principles Redundancy and High Availability** Connect each access switch to both core switches to eliminate single points of failure. This can be achieved using dual uplinks from the access switch to the cores, ensuring traffic can continue if one core fails.

**.Link Aggregation (Port-Channel / LAG)** If the core switches are configured as a single logical device (stacked, VSS, or VSX/MLAG), you can create a port-channel from the access switch to the cores. This allows both links to carry traffic simultaneously, increasing bandwidth and providing active-active redundancy. If the cores are independent, traditional LACP can be used, but one link may be blocked by Spanning Tree Protocol (STP), reducing available bandwidth.

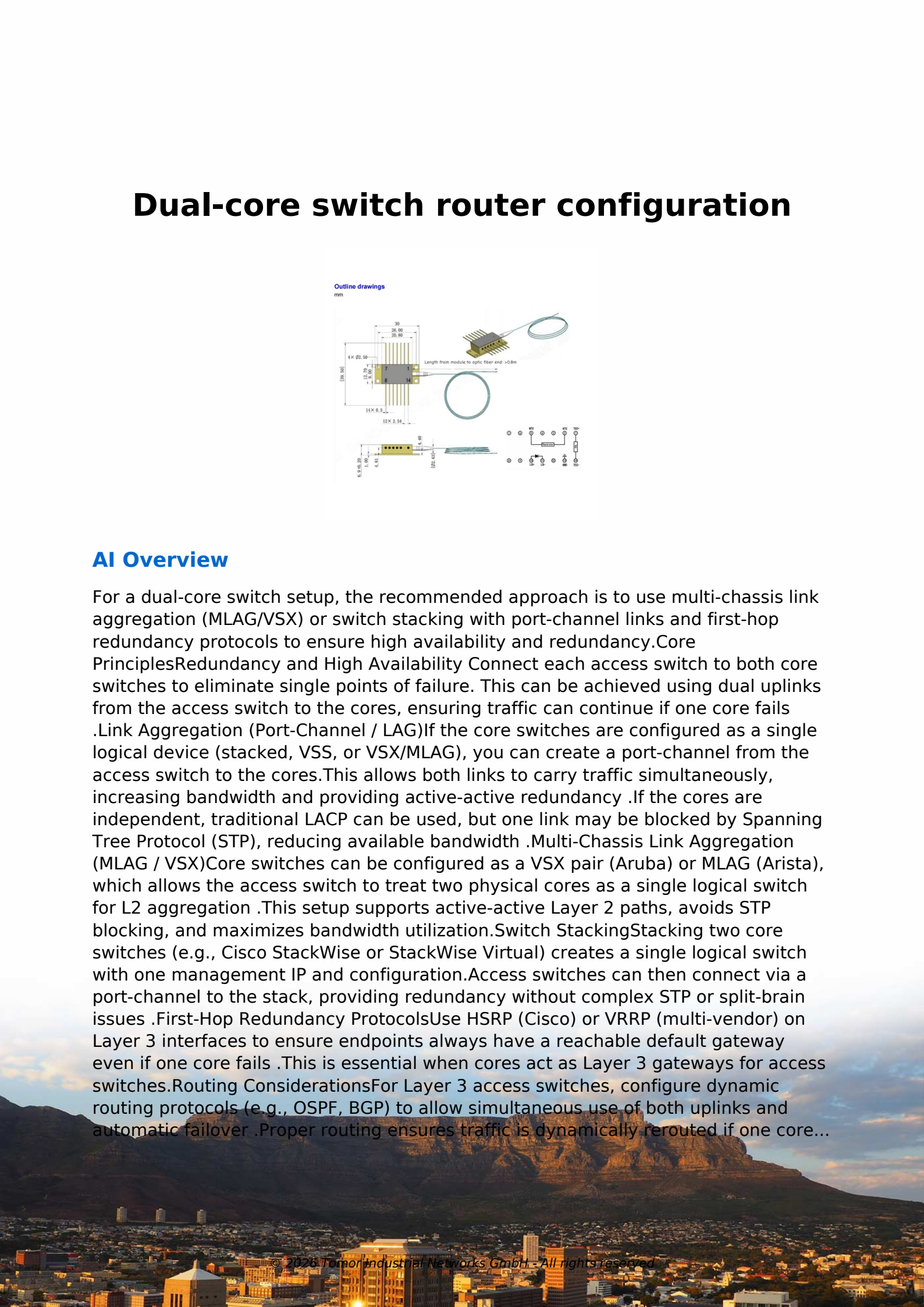
**.Multi-Chassis Link Aggregation (MLAG / VSX)** Core switches can be configured as a VSX pair (Aruba) or MLAG (Arista), which allows the access switch to treat two physical cores as a single logical switch for L2 aggregation. This setup supports active-active Layer 2 paths, avoids STP blocking, and maximizes bandwidth utilization.

**.Switch Stacking** Stacking two core switches (e.g., Cisco StackWise or StackWise Virtual) creates a single logical switch with one management IP and configuration. Access switches can then connect via a port-channel to the stack, providing redundancy without complex STP or split-brain issues.

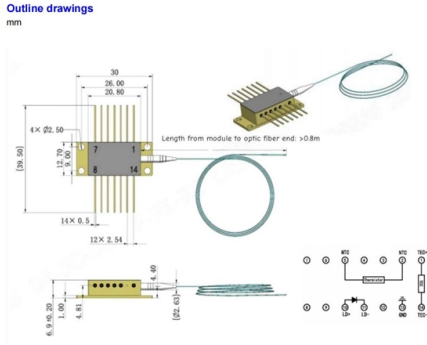
**.First-Hop Redundancy Protocols** Use HSRP (Cisco) or VRRP (multi-vendor) on Layer 3 interfaces to ensure endpoints always have a reachable default gateway even if one core fails. This is essential when cores act as Layer 3 gateways for access switches.

**.Routing Considerations** For Layer 3 access switches, configure dynamic routing protocols (e.g., OSPF, BGP) to allow simultaneous use of both uplinks and automatic failover. Proper routing ensures traffic is dynamically rerouted if one core...

© 2026 Tomorrow Industrial Networks GmbH - All rights reserved



# Dual-core switch router configuration



The technical drawing illustrates the physical layout of a dual-core switch router chassis. It includes various dimensions in millimeters (mm) such as 30, 26.00, 26.90, 4x 22.50, 12x 22.50, 18x 6.5, 12x 2.54, 4.60, 1.00, 4.81, and 22.40. The diagram shows two main processing modules connected by a central bus or fabric. A note specifies 'Length from module to optic fiber end: >0.8m'. There are also smaller detail drawings of components like connectors and internal wiring.

## AI Overview

For a dual-core switch setup, the recommended approach is to use multi-chassis link aggregation (MLAG/VSX) or switch stacking with port-channel links and first-hop redundancy protocols to ensure high availability and redundancy. Core Principles Redundancy and High Availability Connect each access switch to both core switches to eliminate single points of failure. This can be achieved using dual uplinks from the access switch to the cores, ensuring traffic can continue if one core fails .Link Aggregation (Port-Channel / LAG) If the core switches are configured as a single logical device (stacked, VSS, or VSX/MLAG), you can create a port-channel from the access switch to the cores. This allows both links to carry traffic simultaneously, increasing bandwidth and providing active-active redundancy .If the cores are independent, traditional LACP can be used, but one link may be blocked by Spanning Tree Protocol (STP), reducing available bandwidth .Multi-Chassis Link Aggregation (MLAG / VSX) Core switches can be configured as a VSX pair (Aruba) or MLAG (Arista), which allows the access switch to treat two physical cores as a single logical switch for L2 aggregation .This setup supports active-active Layer 2 paths, avoids STP blocking, and maximizes bandwidth utilization. Switch Stacking Stacking two core switches (e.g., Cisco StackWise or StackWise Virtual) creates a single logical switch with one management IP and configuration. Access switches can then connect via a port-channel to the stack, providing redundancy without complex STP or split-brain issues .First-Hop Redundancy Protocols Use HSRP (Cisco) or VRRP (multi-vendor) on Layer 3 interfaces to ensure endpoints always have a reachable default gateway even if one core fails .This is essential when cores act as Layer 3 gateways for access switches. Routing Considerations For Layer 3 access switches, configure dynamic routing protocols (e.g., OSPF, BGP) to allow simultaneous use of both uplinks and automatic failover .Proper routing ensures traffic is dynamically rerouted if one core...

© 2026 Tomorrow Industrial Networks GmbH - All rights reserved

# Dual-core switch router configuration

The diagram illustrates the physical layout and dimensions of a dual-core switch router chassis. Key features include:

- Dimensions:** Overall width is 30 mm. The main chassis body has a height of 18 mm and a depth of 12 mm. A specific section is labeled 18 x 6.5 mm.
- Ports and Connectors:** There are four RJ45 ports (labeled 4x RJ45) and two SFP ports (labeled 2x SFP).
- Fiber Optic Connection:** A fiber optic cable is shown connected to one of the SFP ports. A note specifies "Length from module to optic fiber end: >0.8m".
- Internal Components:** Two circuit boards (cores) are shown mounted side-by-side within the chassis.

## AI Overview

For a dual-core switch setup, the recommended approach is to use multi-chassis link aggregation (MLAG/VSX) or switch stacking with port-channel links and first-hop redundancy protocols to ensure high availability and redundancy.

**Core Principles Redundancy and High Availability** Connect each access switch to both core switches to eliminate single points of failure. This can be achieved using dual uplinks from the access switch to the cores, ensuring traffic can continue if one core fails.

**.Link Aggregation (Port-Channel / LAG)** If the core switches are configured as a single logical device (stacked, VSS, or VSX/MLAG), you can create a port-channel from the access switch to the cores. This allows both links to carry traffic simultaneously, increasing bandwidth and providing active-active redundancy. If the cores are independent, traditional LACP can be used, but one link may be blocked by Spanning Tree Protocol (STP), reducing available bandwidth.

**.Multi-Chassis Link Aggregation (MLAG / VSX)** Core switches can be configured as a VSX pair (Aruba) or MLAG (Arista), which allows the access switch to treat two physical cores as a single logical switch for L2 aggregation. This setup supports active-active Layer 2 paths, avoids STP blocking, and maximizes bandwidth utilization.

**Switch Stacking** Stacking two core switches (e.g., Cisco StackWise or StackWise Virtual) creates a single logical switch with one management IP and configuration. Access switches can then connect via a port-channel to the stack, providing redundancy without complex STP or split-brain issues.

**.First-Hop Redundancy Protocols** Use HSRP (Cisco) or VRRP (multi-vendor) on Layer 3 interfaces to ensure endpoints always have a reachable default gateway even if one core fails. This is essential when cores act as Layer 3 gateways for access switches.

**.Routing Considerations** For Layer 3 access switches, configure dynamic routing protocols (e.g., OSPF, BGP) to allow simultaneous use of both uplinks and automatic failover. Proper routing ensures traffic is dynamically rerouted if one core...

© 2026 Tomorrow Industrial Networks GmbH - All rights reserved

## Article Content

### Dual Core Design

Need clarification on dual core switch design. Should be a pretty easy question, but the dual core design is just 2 core routers instead of one. Is this what they mean by dual core design?

Edge switch redundancy to two core switches

I want to provide best redundancy for an access switch (Cisco 3650) when connecting to two core switches (Cisco 9500 series), as show in attached topology. My plan is to configure 2

### Catalyst 2948G-L3 Sample Configurations

Introduction This document provides three sample configurations for the Catalyst 2948G-L3. The configurations are a single-VLAN network, a multi-VLAN network, and a multi-VLAN distribution layer

### SME Network Solution Typical Configuration Examples

Support Documentation Enterprise Network Solution Horizontal Solutions  
CloudCampus SME Configuration & Commissioning Configuration Examples

### 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 most important purpose of the layer 3 switch is to speed up the data

### [Wireless Router] Dual WAN introduction and setup

[Wireless Router] Dual WAN introduction and setup - Failover and Load Balance What is Dual WAN? While enabling Dual WAN, you can select two

### Redundant switch configuration for small network rack

Installing two new firewalls that work together in a master/slave configuration, so we have redundancy at our firewall level. Our service provider

### How To Use A Network Switch With 2 Routers

Learn how to effectively use a network switch with 2 routers to expand your network and optimize connectivity. Discover the best practices for

### Guide to Basic Switch Configuration | Auvik

Switch configuration on your own can seem like a daunting task. Use this handy guide to get your network switch up and running with ease.

### IT Network Solutions Guide

SMB core switches would normally consist of a pair of HA (High Availability) redundant layer 3 switches with an uplink to the internet router or an internet connection with the use of a routing protocol (i.e

Tom's Hardware: For The Hardcore PC Enthusiast

Tom's Hardware helps you buy the best hardware and build the best PC to play, create and work..

[Wireless Router] Dual WAN introduction and setup

What is Dual WAN? While enabling Dual WAN, you can select two ISP connections to your router, a primary WAN and a secondary WAN. There are two modes you can choose to enable

An Overview of High Availability in UniFi - Ubiquiti Help Center

The Enterprise Campus Aggregation is a high-capacity 100G switch that extends redundancy to the core of your network. It features Multi-Chassis Link Aggregation (MC-LAG), which allows combining two

Zyxel - Leader in Secure, AI-Powered Cloud

Zyxel Networks is a leading provider of secure, AI-powered cloud networking solutions for SMBs and the enterprise edge, ensuring seamless connectivity and

EdgeRouter X Datasheet

Configuration Methods Powered by a proprietary and intuitive graphical interface, EdgeOS®, every EdgeRouter X can easily be configured for the routing, security, and management features required

An example configuration of a Dual stack enabled router

In this article we will give the configuration used on the ASR 1004 and the switches used to provide the wireless and wired access to internet during the

Routing & Switching Design | Validated Solution Guide

The core is a high-speed dual-switch interconnection that provides path redundancy and sub-second failover for nonstop forwarding of packets. Combining the core and services aggregation

Redundant Core switches and Single Router Design

Hello Everyone, I am working on one design and need support for connectivity between two core switches and router. As shown in the attached

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 setup today!

## 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 routing to the main campus.

Connecting multiple switches correctly

Connecting all 4 switches, main server and main router to a "new main switch". In addition to this, is there a way to do some sort of traceroute to see what path packet is taking including

Recommendations: Dual Core Switch for redundancy.

I have the following: 1 5520 ASA connected to the internet, 2 core switches, and several access switches. Aside from implementing RSTP, VRRP, hard code access and trunk ports, is there

Ahmed-abdelbasset/enterprise-network-design

Hub-and-spoke design with redundant WAN links between core routers and each remote site. HSRP configured on each site's ISR4331 pair (active/standby) for gateway failover.

MikroTik · CRS328-24P-4S+RM

CRS328-24P-4S+RM 24 port Gigabit Ethernet router/switch with four 10Gbps SFP+ ports in 1U rackmount case, Dual Boot and PoE output, 500W

## Contact Us

For more information, pricing, or custom solutions, please contact us:

Website: <https://www.tomor.eu>

Email: [info@tomor.eu](mailto:info@tomor.eu)

Phone: +49 69 2381 5497

Address: Am Hauptbahnhof 10, 60329 Frankfurt am Main, Germany

This document is for informational purposes only. Specifications subject to change without notice.

