

Dual-machine hot standby configuration for core switches



Article Overview

Dual-machine hot standby ensures continuous network availability by designating one switch as active and another as standby, with automatic failover using protocols like HSRP or VRRP.

Overview

A dual-machine hot standby setup involves two core switches configured to provide redundancy. One switch acts as the active device, handling all traffic, while the other is the standby device, ready to take over immediately if the active switch fails. This setup prevents downtime caused by hardware failure, software crashes, or maintenance activities.

Key Protocols

- HSRP (Hot Standby Router Protocol): Commonly used on Cisco switches, HSRP allows multiple switches to share a virtual IP and MAC address. The active switch routes traffic, and the standby switch monitors the active device. If the active switch fails, the standby assumes the virtual IP and MAC, ensuring uninterrupted traffic flow .
- VRRP (Virtual Router Redundancy Protocol): Similar to HSRP, VRRP is widely used in multi-vendor environments. Tools like keepalived implement VRRP on Linux-based systems, providing a virtual IP that the backup switch takes over if the master fails

Article Content

Cold, Warm, and Hot Standby: A Comparative Analysis of ...

Warm standby offers a compromise between cold and hot standby configurations. In this setup, the backup component

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The invention discloses a hot standby method for implementing a dual-machine hot standby system. The method comprises the

Layer 3 Active/Standby Hot Standby on the NGFW Modules Installed

The two NGFW Modules are required to implement hot standby and perform security detection on traffic passing through the

(Optional) Configuring the Active/Standby Link Switchover Mode ...

In dual-link cold backup or hot standby scenarios, an AP simultaneously sets up active and standby links with active and standby

Hot Standby Configuration

For two devices that form a hot standby group, install them in the same or adjacent racks, and directly connect the heartbeat

Cisco Hot Standby Router Protocol (HSRP) Explained

This article discusses Cisco Hot Standby Router Protocol (HSRP), which is one of the commonly used First Hop Redundancy

Dual-Link HSB Configuration

In dual-link cold backup or hot standby scenarios, an AP simultaneously sets up active and standby links with active and standby

An Overview of High Availability in UniFi - Ubiquiti Help Center

UniFi enables High Availability across your deployment by building redundancy into every part of the network—from Gateways to

Configuring HSRP

When HSRP is configured on an interface, Internet Control Message Protocol (ICMP) redirect messages are automatically enabled

Standby versus takeover configurations

Standby This is the traditional redundant hardware configuration. One or more standby nodes are set aside idling, waiting for a

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The application discloses a method, a system, equipment and a medium for switching dual-computer hot standby, and belongs to the

Catalyst SD-WAN Dual Router High Availability with NGFW

For more details regarding the firewall High Availability (HA) feature, [click here](#).

Conclusion In summary, this article highlights the

Theory + practice: firewall dual-system hot backup

One: The working principle of dual machine hot standby 1.1 Overview of dual-system hot backup Problems with a single link The

A design of decentralized dual mode redundant hot standby arbitration ...

A design of decentralized dual mode redundant hot standby arbitration switch-over logic and architecture Abstract: Dual mode

Schneider 140CPU67060 dual-machine hot standby system: building

Schneider Electric's 140CPU67060 dual hot-standby control system delivers robust fault-tolerant protection for critical

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This solution can realize dual-machine hot standby in SDWAN, IPRAN or RTN under the premise of reducing the implementation

Configuring HSRP

You can configure multiple Hot Standby groups among switches and switch stacks that are operating in Layer 3 to make more use of

The implementation of a dual-redundant control system

Abstract This paper describes a redundant control system, which consists of dual computer operation station,

Fuji Electric | UPS Configurations

Hot standby configuration Utilizing two UPS systems (Figure 2), the hot standby configuration is the simplest form in providing a

Catalyst SD-WAN Dual Router High Availability with NGFW

Although both active/standby and active/active modes are supported, this document concentrates on active/standby configurations,

Cisco Hot Standby Router Protocol (HSRP) Configuration

This article shows how to configure Hot Standby Router Protocol (HSRP) on Cisco routers and the commands to verify our HSRP

Modicon M580 Hot Standby Frequently Used Architectures System

This document discusses the following: An M580 Hot Standby system is based on two identically configured

WO/2025/092543 DUAL-MACHINE HOT STANDBY MANAGEMENT

Embodiments of the present application relate to the technical field of servers, and provide a dual-machine hot standby

HSRP Overview And Basic Configuration

Introduction HSRP Configuration Overview: Basic configuration Example: Topology Diagram: Verification: Related

01-02 HOT STANDBY CONFIGURATION

In hot standby networking, two devices exchange messages through heartbeat links to learn the peer status and back up various

Contact Us

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

Website: <https://www.watermanfinance.co.za>

Email: sales@watermanfinance.co.za

Phone: +49-176-8294713

Address: Neue Mainzer Str. 66-68, 60311 Frankfurt am Main, Germany

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