

Core Switch HSRP



AI Overview

HSRP provides gateway redundancy on core switches by allowing multiple switches to share a virtual IP and MAC address, ensuring seamless failover if the active switch fails.

Overview of HSRP Hot Standby Router Protocol (HSRP) is a Cisco proprietary first-hop redundancy protocol that allows multiple routers or Layer 3 switches to present a single virtual default gateway to hosts on a network. In a core switch scenario, HSRP ensures that if the primary (active) switch fails, a standby switch automatically takes over, maintaining uninterrupted network connectivity. HSRP uses a virtual IP address and a virtual MAC address shared among the participating switches, with one switch elected as active and another as standby based on priority and IP address.

Key Features for Core Switch Deployment

- Active and Standby Roles:** The active switch forwards traffic, while the standby switch monitors the active switch and takes over if it fails.
- Preemption:** Allows a higher-priority switch to become active automatically when it comes online, ensuring the most capable switch handles traffic.
- Timers:** Default hello timer is 3 seconds and hold timer is 10 seconds, but these can be tuned for faster failover in core networks.
- Interface Tracking:** HSRP can track interfaces or IP SLA targets; if a tracked object fails, the switch reduces its priority, triggering failover to the standby switch.
- HSRP Versions:** HSRPv1 supports fewer groups and uses older multicast addresses, while HSRPv2 supports more groups, IPv6, and different virtual MAC addresses, making it suitable for large core networks.

Configuration Example on Core Switches

For multiple VLANs on two core switches (SW1 and SW2), HSRP can be configured on Switch Virtual Interfaces (SVIs):

VLAN 10 on SW1 (Active):

```
Copyinterface Vlan10 ip address 10.10.10.2 255.255.255.0 standby 10 ip 10.10.10.1 standby 10 priority 110 standby 10 preempt standby 10 timers msec 100 msec 300 standby version 2
```

VLAN 11 on SW2 (Active):

```
Copyinterface Vlan11 ip address 10.10.11.2 255.255.255.0 standby 11 ip 10.10.11.1 standby 11 priority 1...
```

Article Content

Solved: HSRP Between 3 COREs

Solved: Hello all I currently have 2 4506 CORE switch trunking each other 4GB channel, and the HSRP is working on them! We're studying a new site backup like 3km distance.. We decided

how to configure cisco core switch HSRP integrate with fortigate ...

In this video we will continue our configure cisco core switch HSRP integration with fortigate firewall step by step.

Collapsed core switch stacking and HSRP

Greetings, Imagine 2 access layer switches connected to a collapsed core layer stack switch with 2 x L3 switches. The collapsed core layer switch stack

Cisco Router HSRP Configuration - Two Examples

The standard router redundancy protocol which is used by other vendors is VRRP (Virtual Router Redundancy Protocol), however Cisco has created its own

Hot Standby Router Protocol (HSRP)

HSRP is a virtual gateway protocol for Cisco devices, in this lesson you will learn how it works and how to configure it.

vPC & HSRP Nexus 9K. A few years back I was

Above is the vPC connections between the core and a set of distribution switches. Due to other configuration limitations, all routing and HSRP

Configuring HSRP

HSRP-group-name [routing-redundancy] global configuration command to enable the same HSRP standby group to be used for command switch and routing redundancy. If you create a cluster with

How to configure HSRP on switches and VLANs

Core Issue Hot Standby Router Protocol (HSRP) provides redundancy for IP networks to ensure that user traffic immediately and transparently recovers from first hop router failures. HSRP

HSRP Version 2 Configuration on Cisco Switch for Multiple VLANs

In this post, we covered the configuration of HSRP on Cisco switches for multiple VLANs. By implementing HSRP, you can enhance the reliability of your network and ensure continuous

HSRP between 2 access switches and 2 core switches

Hi I am looking for running HSRP between 2 access switches and 2 core switches for client PC and Server network's next-hop redundancy as per

High Availability Campus Recovery Analysis Design

If HSRP is configured to preempt the role of active gateway, upon activation of the primary distribution switch, root bridge, and HSRP higher

Here are the optimized titles for each section: **Core Networking ...

- What is the difference between Layer 2 and Layer 3 switches? - How do you configure inter-VLAN routing? - What is HSRP/VRRP, and why is it used? - Explain route summarization.

#networking #cybersecurity #noc #ciscoasa #ospf #hsrp # ...

Key components: □□ Dual Cisco ASA firewalls with NAT, security-level zoning (INSIDE/OUTSIDE/DMZ), and ACL-based traffic inspection policies □□ Redundant Multilayer Switches with HSRP for ...

Mission Critical Systems L3 Core Switch HA

Mission Critical Systems L3 Core Switch HA In this lab, we will use HSRP protocol to create high availability for our topology using two core switches as primary and secondary (backup)

Solved: GBLP vs HSRP on Layer2/3 Core

Would I be correct in assuming that HSRP would be the ideal load balancing protocol where layer 2 and layer 3 termination happens on the core (collapsed core)? I have MST to evenly

HSRP Issue between two Core switches

I have two core switches connected together with trunk interface, SW-1 is the Main and SW-2 is the backup, i applied HSRP on the SVI on both switches with high priority on SW-1, now for

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 step by step.

HSRP Instances for VRF redundancy in a Core L3 Switch

We want to implement HSRP between the two catalyst 9300 switch stacks to offer high availability to the 4 VRFs. As I mentioned, each VRF consists of 5 different subnets. Each VRF will

HA (active Passive) at FortoGate with HSRP at Coisc Core

Hi guys, I have one question, would be very thankful for help Design is as follows
Core switch HSRP configured at the core, one acts as active for some vlans and the other core for the rest. -SVI

HSRP High Availability: Cisco Config Step-by-Step

FHRP HSRP High Availability: Configure Cisco HSRP Step-by-Step Learn how to deploy Cisco HSRP for gateway redundancy, including detailed

Mission Critical Systems L3 Core Switch HA

HSRP (Hot Standby Router Protocol) is a redundancy protocol developed by Cisco to provide high availability for network gateways. It ensures that if one core switch (primary) fails,

Solved: HSRP Active-Active configuration

Hi Experts, We have a current scenario with two core switches (4503) having HSRP one in Active and other in Standby mode. Since the active core switch utilization increased in now a days,

How to configure redundant core switch in collapsed core?

Without VPC (Nexus) or VSS/VSW your options are either a first-hop redundancy protocol like HSRP, VRRP, or GLBP (which will run on SVIs) or routed access. With a routed access design, you'd

Troubleshoot HSRP Common Issues

This document describes common issues and ways to troubleshoot Hot Standby Router Protocol (HSRP) problems.

Need Help to Setup Core Switch Redundancy Using HSRP

To All, Good day! Need help to setup redundancy for our core switch. I have attached our network diagram. Basically we have one core switch & no

How to configure redundant core switch in collapsed core?

What configuration/technology should I look into to help me accomplish the redundant core switch? One option I have looked at include HSRP but that seems to be only for routers and not for SVI interfaces.

Understand the Hot Standby Router Protocol Features and ...

This document describes how the Hot Standby Router Protocol (HSRP) functions and reviews its features.

Solved: HSRP

The network is a classic two-tier design with one access switch on each floor of the building and two core switches (fault-tolerance issue) places in the data center. The two core

Configuring HSRP

The switch supports Multiple HSRP (MHSRP), an extension of HSRP that allows load sharing between two or more HSRP groups. You can configure MHSRP to achieve load-balancing and to use two or

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