

Huawei Aggregation Switch VRRP Firewall Networking



AI Overview

Huawei aggregation switches can use VRRP to provide high-availability gateway redundancy, ensuring uninterrupted traffic flow even if a master device fails.

Overview of VRRP on Huawei Switches

VRRP (Virtual Router Redundancy Protocol) is a fault-tolerant protocol that groups multiple physical devices into a virtual router. The virtual router has a virtual IP and MAC address that hosts use as their default gateway. If the master device fails, VRRP automatically switches traffic to a backup device, maintaining service continuity and network reliability ().

Key points:

- VRRP separates logical and physical devices, allowing route selection among multiple egress gateways. Hosts are unaware of the physical master or backup; they only communicate with the virtual router.
- Preemption mode allows a backup with higher priority to take over as master when necessary, while non-preemption mode prevents unnecessary master changes ().

Configuring VRRP on Aggregation Switches

VLANIF and Interface Setup: Create VLANs and assign interfaces to them. Configure IP addresses on VLANIF interfaces. VRRP can be configured on VLANIF, Layer 3 Ethernet interfaces, and sub-interfaces depending on the switch model and software version ().

Master/Backup Mode: Assign one switch as master and another as backup. Configure the VRRP group with a virtual IP and MAC address. Set preemption delay to allow status synchronization and prevent dual-master conflicts ().

Active-Active Gateways with M-LAG: For data center aggregation, configure M-LAG between aggregation switches to enable dual-homing and load balancing. Create VRRP groups on VLANIF interfaces across primary and backup data centers. Use different virtual MAC addresses for VRRP groups in different data centers to avoid conflicts ().

Time Parameters and Optimization: Adjust VRRP timers (advertisement interval, preempti...

Article Content

Overview of VRRP

This document provides typical configuration examples for interoperation between Huawei switches and mainstream IP phones, Cisco ISE authentication servers, Cisco ACS authentication servers, Aruba

Enterprise High-Availability: VRRP, MLAG & ECMP

Eliminate network downtime with our 2026 High-Availability guide. Compare VRRP, MLAG, and ECMP to build a fault-tolerant multi-vendor network

Networking Description

The networking is described as follows: To ensure device-level reliability, firewalls work in VRRP master/backup mode, two core switches are deployed in standalone mode, and aggregation and

VGMP/VRRP/HRP in Huawei Firewall 07/08 Update SLTechnology

Shulou (Shulou)06/01 Report-- Vgmp VRRP Group Management Protocol When there is a problem with the equipment caused by the dual-computer hot backup, the back-and-forth

Example for Configuring M-LAG and VRRP Across Data Centers ...

Multi-level M-LAG at the aggregation and access layers can ensure reliability, improve link utilization, and expand the dual-homing access network scale to meet the customer's requirements. In addition,

Issue with VRRP between Link Aggregation interfaces

If the Huawei switches are in a true Stack, you may be able to span the LACP across the multiple members on the switch side, allowing the Gate to bring up all 8 ports in the LACP group.

Overview of VRRP

This document provides typical configuration examples for interoperation between Huawei switches and mainstream IP phones, firewalls, routers, Microsoft NLB servers, multi-NIC servers, Cisco switches,

Configuring HSB on Firewalls

Choose System > High Availability > Dual-System Hot Standby. Click Edit and configure the HSB function of the firewalls based on the data plan. The following example configures VRRP VRID 1 on

Configuring VRRP

If the firewall is configured for the VRRP group to improve security, the firewall blocks traffic that is sent and received along different paths. In addition, it is difficult to monitor such traffic and collect traffic

Ethernet Switch Port Types Explained 2026: RJ45,

A complete engineering guide to Ethernet switch port types: RJ45, SFP, SFP+, SFP28, QSFP+, QSFP28, Combo, Stack, PoE, access/trunk/hybrid modes.

NetEngine A821 E V800R024C10SPC500 Configuration Guide

Definition The Virtual Router Redundancy Protocol (VRRP) is a standard-defined fault-tolerant protocol that groups several physical routing devices into a virtual one. If a physical routing device (master)

Link Aggregation Configuration

Example for Configuring Link Aggregation in Manual Mode When Switches Are Directly Connected Overview Ethernet link aggregation increases link bandwidth by bundling multiple physical links to

01-06 VRRP CONFIGURATION

6 VRRP Configuration This chapter describes how to configure the Virtual Router Redundancy Protocol (VRRP). VRRP is a fault-tolerant protocol.

Deploying VRRP on a Data Center Network with 3-Layer Architecture ...

Deploying VRRP on a Data Center Network with 3-Layer Architecture Applicable Products and Versions CloudEngine series switches running V100R001C00 or later versions USG5500 series products

01-05 VRRP CONFIGURATION

VRRP allows logical and physical devices to work separately and implements route selection among multiple egress gateways. On the network shown in Figure 5-1, a VRRP group is configured on two

NHRP: VRRP config (Huawei)

How to properly set VRRP config on Huawei? The Virtual Router Redundancy Protocol (VRRP) groups multiple routing devices into a virtual router.

Huawei USG Firewall Dual System Guide

The document discusses Huawei's USG firewall dual system solution, which uses three protocols - VRRP, VGMP, and HRP - to provide redundancy. VRRP

Deploying VRRP on a Data Center Network with 3-Layer Architecture ...

Deploy VRRP between SwitchA and SwitchB to implement link redundancy at the aggregation layer. Deploy MSTP between SwitchA, SwitchB, and SwitchC to eliminate loops at the access and

Configuring VRRP on Huawei Switches as a Master/Backup Mode

Today I am going to talk about the configuration example of VRRP in Master/Backup mode on the Huawei switches. Before I started with the VRRP configuration, I guess people should

Application of Firewalls in the Core Network PS Domain

Introduction This section describes the application of firewalls in the PS security solution. By analyzing the security issues faced by the mobile core network, this section provides a typical

Typical VRRP Configuration

Configure a VRRP group on Switch A and Switch B. Set a higher priority for Switch A so that Switch A functions as the master to forward traffic, and set the preemption delay to 20s on Switch A. Set a

Typical VRRP Configuration

VRRP solves this problem. VRRP virtualizes multiple routing devices into a virtual router without changing the networking, and uses the virtual router IP address as the default gateway address to

How to Configure Huawei Smart Selection VRRP for Network

In today's hyperconnected business environments, network downtime isn't just inconvenient—it's costly. Huawei's Smart Selection VRRP (Virtual Router Redundancy Protocol) offers an enterprise-grade

How to Configure Huawei Smart Selection VRRP for Network

Configuring Huawei Smart Selection VRRP isn't just about entering commands—it's about understanding how redundancy interacts with your unique network architecture.

VRRP Configuration

Definition The Virtual Router Redundancy Protocol (VRRP) is a standard-defined fault-tolerant protocol that groups several physical routing devices into a virtual one. If a physical routing device (master)

Networking Description

The user gateway (core switch) is deployed in centralized mode, as shown in Figure 4-1. The networking is described as follows: To ensure device-level reliability, firewalls work in VRRP hot standby (HSB)

Huawei CloudEngine S6730-H-V2 Series 25GE Switches Datasheet

Introduction Huawei CloudEngine S6730-H-V2 series 25GE switches are next-generation enterprise-class core and aggregation switches that offer high performance, high reliability, cloud management,

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