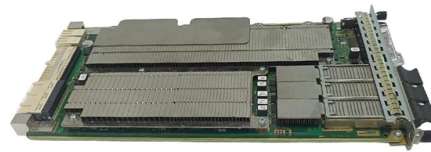


Multi-VLAN Configuration of Huawei Core Switches



AI Overview

Huawei core switches support multi-VLAN configurations using VLAN creation, port assignment, and Layer 3 inter-VLAN communication via VLANIF or sub-interfaces.

VLAN Creation and Port Assignment

Access the CLI: Connect via console, SSH, or Telnet to the switch.

Create VLANs: Use the `vlan batch` command to create multiple VLANs at once. For example, `vlan batch 10 20 30` creates VLANs 10, 20, and 30.

Assign Ports:

Access Ports: Bind end devices to a VLAN using:

```
CodeCopyinterface range GigabitEthernet 0/0/1 to 0/0/25port link-type accessport default vlan 10
```

This assigns VLAN 10 to the selected ports.

Trunk Ports: For inter-switch links carrying multiple VLANs:

```
CodeCopyinterface GigabitEthernet 0/0/26port link-type trunkport trunk allow-pass vlan 10 20 30
```

This allows VLAN-tagged traffic to traverse the trunk.

VLAN Forwarding and Security

Huawei switches support VLAN Switch and stack-vlan features to improve forwarding efficiency and security. Stack-vlan adds an outer VLAN tag to frames, while switch-vlan modifies VLAN tags between interfaces, helping prevent broadcast storms and MAC address attacks.

VLANs can also be dynamically assigned using RADIUS authentication, and unused ports can be placed in a “dead” VLAN to block unauthorized access.

Inter-VLAN Communication

By default, VLANs isolate broadcast domains, so hosts in different VLANs cannot communicate at Layer 2. To enable inter-VLAN communication:

VLANIF Interfaces: Create a Layer 3 logical interface for each VLAN and assign an IP address:

```
CodeCopyinterface Vlanif10ip address 192.168.10.1 255.255.255.0
```

Repeat for each VLAN. This method is simple but consumes IP addresses for each VLAN.

Sub-Interfaces (Dot1q Termination): Use a single physical interface to connect multiple VLANs via sub-interfaces:

```
CodeCopyinterface GigabitEthernet0/0/1 10encapsulation dot1q 10ip add...
```

Article Content

Adding Interfaces to a VLAN

CX91x Series Switch Modules V100R001C00 Configuration Guide 09 This document provides the basic concepts, configuration procedures, and configuration examples in different application scenarios of

Configuring Devices to Be Managed by the Controller (in the Hybrid ...

Configuration Roadmap Configure the core switches running V600 to be managed by iMaster NCE-Campus using commands. Configure the aggregation and access switches running

Assigning VLANs

S300, S500, S2700, S5700, and S6700 V200R022C00 Configuration Guide - Ethernet Switching

VLAN Routing with Layer 2 Switch and Router on Huawei

Huawei VLAN Routing with Layer 2 Switch is done with the help of a Layer 3 device, a router. Mainly, in the router, in layer 3, gateways are created for the VLANs.

01-04 VLAN CONFIGURATION

Assign VLANs on Switch_1 and Switch_2, configure Switch_1 and Switch_2 to transparently transmit VLAN packets to the Layer 3 switch, and configure a VLANIF interface for each VLAN on the Layer 3

Configuring the Core Switch

Configuring the Core Switch Context In this scenario, IP addresses of the interfaces connecting the core switch to the BRASs and firewalls and OSPF need to be configured on the core

Assigning VLANs

When multiple VLANs are created on the device, you can configure names for the VLANs to facilitate management. After a name is configured for a VLAN, you can directly enter the VLAN view using the

Huawei Network Advanced Certification Experiment Technology

This article provides an analysis of advanced certification experiments related to Huawei's networking technologies focusing on practical configurations involving multiple switches' VLANs &

How to configure VLAN on Huawei

Virtual Local Area Network (VLAN) technology divides a physical LAN into multiple broadcast domains, each of which is called a VLAN. Hosts within a VLAN can communicate with each other but cannot

Huawei VLAN Configuration on Huawei Switches * | Huawei NE40

In this lesson we will learn Huawei VLAN Configuration on Huawei Switches. VLAN Configuration is one of the key lessons for Huawei HCNA.

Typical VLAN Configuration

The VLANIF interface and Dot1q termination sub-interface can only allow hosts on different network segments in different VLANs to communicate, whereas super-VLAN (VLAN aggregation) and the

What Is a VLAN?

This chapter defines Virtual Local Area Networks (VLANs), introduces related concepts, and provides configuration examples. VLAN is a basic feature of Huawei data communications

Huawei Switch Configuration

I'd like to configure multiple vlans for a single interface. For example, I have vlans 5, 6, and 20 that all need to be assigned to ports 16 to 22 on the switch.

Inter-VLAN Communication

When hosts in different VLANs connect to multiple Layer 3 switches, you need to configure static routes or a dynamic routing protocol in addition to VLANIF interface addresses.

Configure VLANs on Huawei Switches Like a Pro in 10 Minutes!

In this Huawei VLAN Configuration lesson, you will learn how to configure Virtual LANs on Huawei switches. After this lesson, you will be familiar with VLAN commands of Huawei switches.

VXLAN & BGP-EVPN: The Ultimate Data Center Fabric

The Spine Layer (Route Reflectors): Deploy Huawei CloudEngine CE8800 or Ruijie 800G Data Center Switches. These switches act as the high-speed Underlay

01-04 VLAN CONFIGURATION

Hosts in the same VLAN may be connected to different switches, in which case the VLAN spans multiple switches. To enable communication between these hosts, interfaces between switches must be able

Assign VLANs Based on IP Subnets in the Huawei Switch

In the figure below, the switch connects to the office server, production server, and disaster recovery server on different network segments. Different services need to be assigned to

Configuring Inter-VLAN Communication

S1720, S2700, S5700, and S6720 V200R011C10 Configuration Guide - Ethernet Switching This document describes the configuration of Ethernet services, including configuring link aggregation,

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

Enterprise High-Availability: VRRP, MLAG & ECMP

The Core Layer (ECMP): Deploy high-performance Huawei CloudEngine or Ruijie 800G core switches. Run OSPF/BGP with ECMP to

How to Create VLAN on Huawei Switch: Are You

Huawei's Hybrid port mode lets a single port handle multiple VLANs, simplifying adds/moves. Imagine a retail chain adding POS systems: Hybrid

SME Network Solution Typical Configuration Examples

"Gateway + Core Switch + Access Switch + AP + AR180" Networking: Huawei eKit Cloud Management "Gateway + Core Switch + Access Switch + WAC + AP" Networking: Local Entire Network

Step-by-Step Guide to Configure VLAN and Bind Ports on a Huawei

Configuring a Huawei switch to assign an IP address to VLAN 1 and binding multiple ports to it can seem challenging, but this step-by-step guide simplifies the process.

Assign VLANs Based on IP Subnets in the Huawei Switch

Assign VLANs Based on IP Subnets in the Huawei Switch A data center network has multiple services, including office services, production

Huawei router and switch connection configuration plan, two

So how are Huawei's routers and switches connected in a network? Today, Linknewnet engineers teach you 2 ways.

Contact Us

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