

Article Overview

Huawei aggregation and core switches can be configured for management, VLANs, and link aggregation using Eth-Trunk with manual or LACP modes, ensuring high bandwidth, redundancy, and load balancing.

Management and Initial Deployment

For large-scale deployments, aggregation and access switches can be managed via iMaster NCE-Campus using Zero Touch Provisioning (ZTP) or manual methods. Three deployment modes are available: importing device/link info via templates, manually adding devices with auto-negotiation, or manually adding devices with Eth-Trunk configured on the controller. Core switch configuration for management includes:

- o Setting a management subnet (e.g., VLAN 4080, IP 192.168.100.254/24)
- o Enabling DHCP server on the gateway interface for access switches
- o Configuring static management IP ranges (e.g., 192.168.100.1-192.168.100.100)
- o Enabling controller address auto-negotiation for seamless integration with iMaster NCE-Campus. This ensures that access switches can obtain IP addresses dynamically during first-time plug-and-play deployment.

VLAN and Subnet Configuration

- o Create VLANs for different network segments (e.g., VLAN10, VLAN20)
- o Assign interfaces to VLANs before adding them to Eth-Trunks to prevent broadcast storms
- o Configure the core switch as the root device for management VLAN auto-negotiation

Link Aggregation (Eth-Trunk)

Huawei switches support manual and LACP modes for link aggregation: Manual Mode:

- o Create an Eth-Trunk and add member interfaces manually
 - o All active links forward data and perform load balancing
 - o Ensure member interfaces on both ends have the same Ethernet type, rate, duplex, and flow control
- LACP Mode:
- o Enables dynamic negotiation of aggregated links using Link Aggregation Control Protocol (LACP)
 - o Only active links connected to the correct remote device forward traffic
 - o Provides redundancy: if an active link fails, traffic is switched to backup links
 - o Configure system priority and active interface thresholds to control which links are active and ensure guaranteed bandwidth
- Example Steps for LACP Eth-Trunk:

Huawei Switching Aggregation and Core Switch Configuration

- o Create Eth-Trunk1 on SwitchA and SwitchB
- o Add member interfaces to Eth-Trunk1
- o Configure VLANs to pass through the Eth-Trunk (e.g., VLAN10, VLAN20)
- o Set system priority (e.g., 100) and active interface upper threshold (e.g., 2)
- o Configure interface priority to select active links

Best Practices

- o Always exit interfaces from default VLAN1 or shut them down before joining Eth-Trunk
 - o Ensure matching configurations on both ends of the Eth-Trunk to avoid communication issues
 - o Use static or dynamic IP assignment for management depending on deployment scale
 - o Monitor Eth-Trunk status and clear LACPDU statistics periodically to maintain reliability
- By following these steps, Huawei aggregation and core switches can be configured for high-performance, reliable, and scalable campus networks with proper management, VLAN segmentation, and link aggregation.

Configure the management VLAN auto-negotiation function on the core switch acting as the root device.
Create

Table 3-2 Link aggregation configuration tasks Scenario Task Switches Are Directly Connected Perform either of the two operations:

This document describes the configuration of Ethernet services, including configuring link aggregation, VLANs, Voice VLAN, VLAN

S1720, S2700, S5700, and S6720 V200R011C10 Configuration Guide - Ethernet Switching This document describes the

Networking Requirements Core switches set up a CSS that functions as the core of the entire campus network to implement high

Let's start with Huawei Layer 2 Link Aggregation. For this example, we will use the below topology consist of two switches and three

Applicable Product Models and Versions This example applies to Huawei S series and CloudEngine data center switches of all

Huawei Ethernet Switches Turbocharge your enterprise network with high-performance, high-availability for resilient services and

Huawei Switching Aggregation and Core Switch Configuration

The Huawei S6730 Switch series sets a high bar as both an Aggregation Switch and Core Switch, offering 10 GE

Configure the core switch as the management subnet gateway of the aggregation and access switches. For details,

Ethernet link aggregation, also called Eth-Trunk, bundles multiple physical links into a logical link to increase link bandwidth, without

Ethernet link aggregation increases link bandwidth by bundling multiple physical links to form a logical link. Link aggregation can

LACP provides a standard negotiation mechanism for a switching device so that the switching device can be configured to

Here, we will aggregate switch ports step by step and we will follow the below steps: Eth-Trunk configuration Adding

This document provides instructions for configuring Huawei switch commands. It discusses starting a configuration session, viewing

Switches After more than 20 years of unremitting efforts and stable development, Huawei provides extensive experience in Ethernet

Web: <https://bssoda.pl>

