MAC-Based VLAN Groups on a Cisco Business 350 Switch

Objective

This article provides instructions on how to configure MAC-Based groups on a switch.

Applicable Devices | Software Version

- CBS350 **(Data Sheet)** | 3.0.0.69 **(Download latest)**
- CBS350-2X **(Data Sheet)** | 3.0.0.69 **(Download latest)**
- CBS350-4X **(Data Sheet)** | 3.0.0.69 **(Download latest)**

Introduction

A Virtual Local Area Network (VLAN) allows you to logically segment a Local Area Network (LAN) into different broadcast domains. In scenarios where sensitive data may be broadcast on a network, VLANs can be created to enhance security by designating a broadcast to a specific VLAN. Only users that belong to a VLAN are able to access and manipulate the data on that VLAN. VLANs can also be used to enhance performance by reducing the need to send broadcasts and multicasts to unnecessary destinations.

Networking devices on which multiple protocols are running cannot be grouped to a common VLAN. Non-standard devices are used to pass traffic between different VLANs in order to include the devices participating in a specific protocol. For this reason, the user cannot take advantage of the many features of VLAN.

VLAN groups are used to load balance the traffic on a Layer 2 network. The packets are distributed with respect to different classifications and are assigned to VLANs. Many different classifications exist, and if more than one classification scheme is defined, the packets are assigned to the VLAN in this order:

- Tag — The VLAN number is recognized from the tag.
- MAC-Based VLAN — The VLAN is recognized from the source Media Access Control (MAC)-to-VLAN mapping of the ingress interface.
- Subnet-Based VLAN — The VLAN is recognized from the source Subnet-to-VLAN mapping of the ingress interface. To learn how to configure this feature, click **here** for instructions.
- Protocol-Based VLAN — The VLAN is recognized from the Ethernet type Protocol-to-VLAN mapping of the ingress interface.
- PVID — VLAN is recognized from the port default VLAN ID.

The MAC-based VLAN classification enable packets to be classified according to their

source MAC address. You can then define MAC-to-VLAN mapping per interface. You can also define several MAC-based VLAN groups, which each group containing different MAC addresses. These MAC-based groups can be assigned to specific ports or LAGs. MAC-based VLAN groups cannot contain overlapping ranges of MAC addresses on the same port.

Configure MAC-Based VLAN Groups on the Switch

Add MAC-Based VLAN Group

Step 1

Log in to the web-based utility and choose **Advanced** from the Display Mode drop-down list.
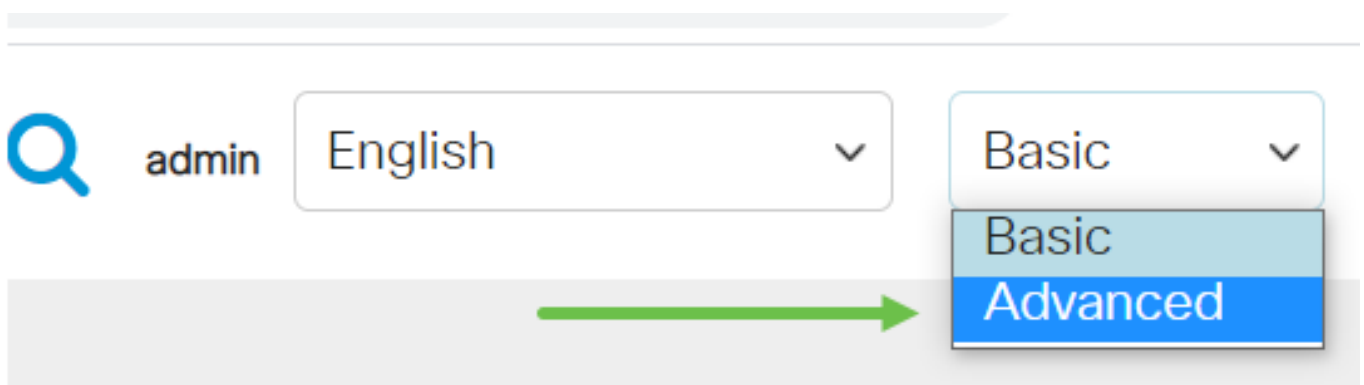
Step 2

Choose **VLAN Management >VLAN Groups > MAC-Based Groups.**