

Configure Virtual Local Area Network (VLAN) Protocol-Based Groups to VLAN on a Cisco Business 250 or 350 Series Switch

Objective

This article provides instructions on how to configure VLAN protocol-based groups to VLAN on a Cisco Business 250 or 350 series switch.

Applicable Devices | Software Version

- CBS250 ([DataSheet](#)) | 3.0.0.69 ([Download latest](#))
- 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.

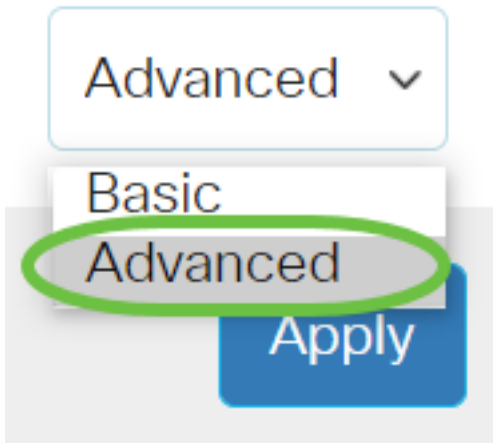
Networking devices on which multiple protocols are running cannot be grouped to a common VLAN. Non-standard devices are used to pass traffic between different VLANs in order to include the devices participating in a specific protocol. For this reason, the user cannot take advantage to the many features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

Configuration of the switch with protocol-based VLAN can fix this issue. It divides the physical network into logical VLAN groups for each required protocol. In the inbound packet, the frame is checked and the VLAN membership can be determined based on the protocol type. The Protocol-Based Groups to VLAN mapping helps to map a protocol group to a single port. To learn more about the configuration of VLAN protocol-based group, click [here](#).

If you are unfamiliar with terms in this document, check out [Cisco Business: Glossary of New Terms](#).

Configure VLAN Settings on the Switch

Step 1. Log in to the web-based utility and choose **Advanced** in the Display Mode drop-down list.



[Step 2.](#) Choose **VLAN Management > VLAN Groups > Protocol-Based Groups to VLAN.**

▼ VLAN Management

1

VLAN Settings

Interface Settings

Port to VLAN

Port VLAN Membership

▶ VLAN Translation

Private VLAN Settings

GVRP Settings

▼ VLAN Groups

2

▼ VLAN Groups

MAC-Based Groups

MAC-Based Groups to
VLAN

Subnet-Based Groups

Subnet-Based Groups
to VLAN

Protocol-Based
Groups

Protocol-Based
Groups to VLAN

3

The available VLAN Management options may vary depending on the switch that you have.

Step 3. In the Mapping Group to VLAN Table, click **Add**.

Protocol-Based Groups to VLAN

Mapping Group to VLAN Table



Interface

Group ID

VLAN ID

0 results found.

Step 4. The type of the group is displayed in the Group Type field automatically. Click one of the following interface type radio buttons in the Interface area to which the VLAN protocol-based group is assigned and choose the desired interface from the drop-down list.

Add Group to VLAN Mapping

Group Type: Protocol-Based

Interface:



Port

GE5



LAG

4



- LAG - The several ports of the switch are combined to form a single group called a Link Aggregation Group (LAG).

In this example, GE5 port is chosen.

Step 5. Choose the desired group ID of the VLAN group from the Group ID drop-down list. The group ID is used for the VLAN protocol to be mapped to the specific groups created. In this example, the Group ID is 5.

Add Group to VLAN Mapping

Group Type: Protocol-Based

Interface: Port GE5 ▾ LAG 4 ▾

Group ID: 5 ▾

The Group ID is available only if it is configured in the Protocol-Based Groups page. To learn how to configure this feature, click [here](#).


Step 6. Enter the VLAN ID that attaches the interface to a user-defined VLAN ID in the VLAN ID field.

Add Group to VLAN Mapping

Group Type: Protocol-Based

Interface: Port GE5 ▾ LAG 4 ▾

Group ID: 5 ▾

 VLAN ID: 20 (Range: 1 - 4094, Default: 1)

In this example, 20 is used. To learn how to configure a VLAN on a switch, click [here](#) for instructions.

Step 7. Click **Apply** then click **Close**.

Add Group to VLAN Mapping

X

Group Type: Protocol-Based

Interface: Port GE5 LAG 4

Group ID: 5

VLAN ID: 20 (Range: 1 - 4094, Default: 1)

Apply

Close

Step 8. (Optional) Click **Save** to save settings to the startup configuration file.



CBS350-8P-E-2G - swi...



Protocol-Based Groups to VLAN

You have now configured the VLAN protocol-based groups to VLAN settings on your switch.

Looking for more information on VLANs for your Cisco Business Switches? Check out any of the following links for more information.

[Create VLANs](#) [Port to VLAN Membership](#) [Private VLAN Membership](#) [Access and Trunk Ports](#) [Port to VLAN Settings](#) [Subnet-Based VLAN](#) [Configure Multicast TV Group to VLAN](#) [Protocol-Based VLAN Groups](#) [Access Port Multicast TV VLAN Membership](#) [Customer Port Multicast TV VLAN Membership](#)