

Private VLAN Catalyst Switch Support Matrix

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Introduction

Private VLANs (PVLANS) provide Layer (L2) isolation between ports within the same VLAN. The table in this document summarizes the support of the PVLAN feature in Cisco Catalyst switches.

Refer to *Securing Networks with Private VLANs and VLAN Access Control Lists* for more information on how to understand and implement networks that use PVLANS. Click on the Catalyst switch in the table in this document. This will provide the step-by-step configuration guide on how to configure PVLANS on specific Catalyst switches.

Prerequisites

Requirements

There are no specific requirements for this document.

Components Used

This document is not restricted to specific software and hardware versions.

Conventions

Refer to *Cisco Technical Tips Conventions* for more information on document conventions.

Support for the PVLAN Feature in Cisco Catalyst Switches

This table provides information about the PVLAN feature support in Cisco Catalyst switches:

Catalyst Platform	PVLAN Supported Minimum Software Version	Isolated VLAN	PVLAN Edge (Protected Port)	Community VLAN
Catalyst 6500/6000 – Hybrid mode (CatOS on	5.4(1) on Supervisor and 12.0(7)XE1	Yes	Not Supported	Yes

Supervisor and Cisco IOS® on MSFC)	on MSFC			
Catalyst 6500/6000 – Native mode (Cisco IOS® System software on both Supervisor and MSFC)	12.1(8a)EX, 12.1(11b)E1 and later.	Yes	Not Supported	Yes
Catalyst 5500/5000	Not Supported	Not Supported	Not Supported	Not Supported
Catalyst 4500/4000 – CatOS	6.2(1)	Yes	Not Supported	Yes
Catalyst 4500/4000 – Cisco IOS	12.1(8a)EW	Yes	Not Supported	Yes. 12.2(20)EW onwards.
Catalyst 3550	Not Supported	Not Supported	Yes. 12.1(4)EA1 onwards.	Not Supported
Catalyst 2950	Not Supported	Not Supported	Yes. 12.0(5.2)WC1, 12.1(4)EA1 and later.	Not Supported
Catalyst 2900XL/3500XL	Not Supported	Not Supported	Yes. 12.0(5)XU (on 8MB switches only) onwards.	Not Supported
Catalyst 2948G–L3 / 4908G–L3	Not Supported	Not Supported	Not Supported	Not Supported
Catalyst 1900	Supported Not Supported	Supported Not Supported	Not Supported	Supported Not Supported
Catalyst 8500	Not Supported	Not Supported	Not Supported	Not Supported
Catalyst 3560	12.2(20)SE – EMI	Yes	Yes. 12.1(19)EA1 onwards.	Yes
Catalyst 3750	12.2(20)SE – EMI	Yes	Yes. 12.1(11)AX onwards.	Yes
Catalyst 3750 Metro	12.2(25)EY – EMI	Yes	Yes. 12.1(14)AX onwards.	Yes
Catalyst 2940				

	Not Supported	Not Supported	Yes. 12.1(13)AY onwards.	Not Supported
Catalyst 2948G/2980G	6.2	Yes	Not Supported	Yes
Catalyst 2955	Not Supported	Not Supported	Yes. 12.1(6)EA2 onwards.	Not Supported
Catalyst 2970	Not Supported	Not Supported	Yes. 12.1(11)AX onwards.	Not Supported
Catalyst 2960	Not Supported	Not Supported	Yes. 12.2(25)FX and later.	Not Supported
Catalyst Express 500	Not Supported	Not Supported	Not Supported	Not Supported

Additional Notes:

- The PVLAN edge (protected port) is a feature that has only local significance to the switch, and there is no isolation provided between two protected ports located on different switches. A protected port does not forward any traffic (unicast, multicast, or broadcast) to any other port that is also a protected port in the same switch. Therefore, it provides isolation. Traffic cannot be forwarded between protected ports at Layer 2. All traffic passing between protected ports must be forwarded through a Layer 3 device.
- PVLAN ports cannot be trunk ports, cannot channel, cannot have dynamic VLAN membership, and cannot be a Switched Port Analyzer (SPAN) destination.
- PVLAN is supported on sc0 in the Catalyst 4500/4000 and Catalyst 6500/6000 that run CatOS, in software release 6.3(1) and later.
- Four MB Catalyst 2900XL Series Switches do not support the protected port feature, as these cannot be upgraded to Cisco IOS 12.0(5) XU or later code. The latest version of code that runs on the Catalyst 2900XL is Cisco IOS 11.2(8)SA6.

Two-way community VLANs in PVLANS are currently not supported on the Catalyst 4500/4000 Series Switches that run Cisco IOS. Refer to Configuring Private VLANs for additional restrictions.

- PVLAN support on Firewall Services Module (FWSM) begins in software version 3.1. If you run a software version earlier than 3.1, the only possible workaround is to connect the promiscuous port of the PVLAN using the crossover cable to a regular access port. Then, make a firewall for the VLAN of that access port.

Related Information

- [Securing Networks with Private VLANs and VLAN Access Control Lists](#)
 - [Configuring Isolated Private VLANs on Catalyst Switches](#)
 - [LAN Switching Product Support](#)
 - [LAN Switching Technology Support](#)
 - [Technical Support & Documentation – Cisco Systems](#)
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