



VLANs

This chapter describes how to identify and resolve problems that might occur when implementing VLANs.

Information About VLANs

VLANs can isolate devices that are physically connected to the same network but are logically considered to be part of different LANs that do not need to be aware of one another.

We recommend using only the following characters in a VLAN name:

- a-z or A-Z
- 0 to 9
- - (hyphen)
- _ (underscore)

Initial Troubleshooting Checklist

Troubleshooting a VLAN problem involves gathering information about the configuration and connectivity of individual devices and the entire network. In the case of VLANs, begin your troubleshooting activity as follows.

Checklist	✓
Verify the physical connectivity for any problem ports or VLANs.	
Verify that both end devices are in the same VLAN.	

The following CLI commands are used to display VLAN information:

- **show system internal private-vlan info**
- **show system internal private-vlan event-history errors**
- **show system internal private-vlan event-history traces**

Cannot Create a VLAN

Symptom	Possible Cause	Solution
You cannot create a VLAN.	<ul style="list-style-type: none">• The Cisco Nexus 1000V is using a reserved VLAN ID.• Check the configuration of the <code>type_driver</code> and <code>tenant_network_type</code> in <code>ml2_conf.ini</code>	VLANs 3968 to 4047 and 4094 are reserved for internal use and cannot be changed.