

CCNA (200-301) Cisco Certified Network Associate

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Lecture 4

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تسعى لتكون الكيان الأول الذي يتبنى مبدأ المجتمع التعليمي
التعاوني ويقدم العلم مقابل العمل لتنمية وبناء المجتمعات.

مزيد من التفاصيل

VLAN Configuration



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VLAN Configuration

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- ☐ Use Native VLAN
- ☐ Packets from Native VLAN untagged
- ☐ BY default VLAN1 is the Native VLAN
- ☐ Only one Native VLAN is defined in the switch
- ☐ If we change Native VLAN in one switch , we must change it in the others.

VLAN Configuration

Configuring VLANs You configure VLANs in VLAN global configuration command by entering a VLAN ID. Enter a new VLAN ID to create a VLAN, or enter an existing VLAN ID to modify that VLAN. When you have finished the configuration, you must exit VLAN configuration mode for the configuration to take effect. You can enter the copy running-configuration startup-configuration privileged EXEC command to save the configuration in the startup configuration file. To display the VLAN configuration, enter the show VLAN privileged EXEC command.

VLAN Configuration

Creating or Modifying a VLAN

Beginning in privileged EXEC mode, follow these steps to create or modify an Ethernet VLAN:

	Command	Purpose
Step 1	configure terminal	Enter global configuration mode.
Step 2	vlan <i>vlan-id</i>	Enter a VLAN ID, and enter VLAN configuration mode. Enter a new VLAN ID to create a VLAN, or enter an existing VLAN ID to modify that VLAN.
Step 3	exit	Return to privileged EXEC mode.
Step 4	show vlan	Verify your entries.
Step 5	copy running-config startup config	(Optional) This saves the configuration in the switch startup configuration file.

This example shows how to create VLAN 20:

```
Router# configure terminal
Router(config)# vlan 20
Router(config-vlan)# exit
```

VLAN Configuration

Deleting a VLAN

Beginning in privileged EXEC mode, follow these steps to delete a VLAN on the switch:

	Command	Purpose
Step 1	<code>configure terminal</code>	Enter global configuration mode.
Step 2	<code>no vlan <i>vlan-id</i></code>	Remove the VLAN by entering the VLAN ID.
Step 3	<code>exit</code>	Return to privileged EXEC mode.
Step 4	<code>show vlan</code>	Verify the VLAN removal.
Step 5	<code>copy running-config startup config</code>	(Optional) This saves the configuration in the switch startup configuration file.

To delete configuration files of VLAN : Delete VLAN.dat
As it stores in Flash

VLAN Configuration

Assigning Static-Access Ports to a VLAN

	Command	Purpose
Step 1	<code>configure terminal</code>	Enter global configuration mode
Step 2	<code>interface <i>interface-id</i></code>	Enter the interface to be added to the VLAN.

VLAN Configuration

	Command	Purpose
Step 3	<code>switchport mode access</code>	Define the VLAN membership mode for the port (Layer 2 access port).
Step 4	<code>switchport access vlan <i>vlan-id</i></code>	Assign the port to a VLAN. Valid VLAN IDs are 1 to 4094.
Step 5	<code>exit</code>	Return to privileged EXEC mode.
Step 6	<code>copy running-config startup-config</code>	(Optional) Save your entries in the configuration file.

This example shows how to configure a port as an access port in VLAN 2:

```
Router# configure terminal
Router(config)# interface gigabitethernet 0/1
Router(config-if)# switchport mode access
Router(config-if)# switchport access vlan 2
Router(config-if)# exit
```

VLAN Configuration

Configuring a Trunk Port

Beginning in privileged EXEC mode, follow these steps to configure a port as a trunk port:

	Command	Purpose
Step 1	configure terminal	Enter global configuration mode.
Step 2	interface <i>interface-id</i>	Specify the port to be configured for trunking, and enter interface configuration mode.
Step 3	switchport mode trunk	Set the interface in permanent trunking mode and negotiate to convert the link to a trunk link even if the neighboring interface is not a trunk interface.
Step 4	switchport access vlan <i>vlan-id</i>	(Optional) Specify the default VLAN, which is used if the interface stops trunking.
Step 5	switchport trunk native vlan <i>vlan-id</i>	Specify the native VLAN for IEEE 802.1Q trunks.
Step 6	exit	Return to privileged EXEC mode.
Step 7	copy running-config startup-config	(Optional) Save your entries in the configuration file.

To reset all trunking characteristics of a trunking interface to the defaults, use the **no switchport trunk** interface configuration command. To disable trunking, use the **switchport mode access** interface configuration command to configure the port as a static-access port.



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