

知 3COM 4007交换机更改三层VLAN IP地址小案例

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3COM 4007交换机已经停产，菜单式配置方式。

4007交换机三层模块划分VLAN的方式有三种，基于端口的VLAN(Port based)，基于协议的VLAN(Protocol based)，基于网段的VLAN(Network based)，这和我们目前常见的交换机是完全不同的。仅知道配置命令，但没有理解这三种VLAN划分的区别，会导致修改失败的。

以下是更改三层vlan IP地址的过程，关键处及注释用红色字体标出，一看就能明白，具有较强可操作性：

```
3com4007> show module all      //显示所有模块
```

Slot	Module	Status	Description
01.01	3CB9LG9MC	Up	9 Port 1000BaseSX Layer 2 Switching Module
02.01	3CB9LG4	Managed by fabric	4 Port Gen I/O Module
03.01	3CB9RG4	Up	4 Port GBIC Layer 3 Switching Module
07.01	3CB9FG24T	Primary	24 Port Gigabit Switching Fabric, 12 Trunks
08.01	3CB9EMC	Active	Enterprise Management Controller
08.02	3CB9EME	Primary	Enterprise Management Engine

```
3com4007> connect 3.1      //连接到三层交换模块
```

Menu options (Corebuilder 9000-52C243): -----

module	- Administer module-level functions
ethernet	- Administer Ethernet ports
bridge	- Administer bridging/VLANs
ip	- Administer IP
ipx	- Administer IPX
appletalk	- Administer AppleTalk
qos	- Administer QoS
snmp	- Administer SNMP
analyzer	- Administer Roving Analysis
disconnect	- Disconnect and return to Management Console

Type ? for help.

```
CB9000@slot3.1 [4-GEN-GBIC-L3] (:): ip
```

Menu options (Corebuilder 9000-52C243): -----

interface	- Administer interfaces
route	- Administer routes
arp	- Administer the ARP cache
multicast	- Administer multicast routing
dns	- Administer DNS
vrrp	- Administer VRRP
udpHelper	- Administer the UDP broadcast helper
routing	- Enable/disable IP routing
ospf	- Administer OSPF
rip	- Administer RIP
ping	- Send ICMP echo request
advancedPing	- Send ICMP echo request with advanced options
traceRoute	- Track the route of IP packet
advancedTraceRoute	- Track the route of IP packet with advanced options
statistics	- Display statistics

Type "q" to return to the previous menu or ? for help.

```
CB9000@slot3.1 [4-GEN-GBIC-L3] (ip): rou
```

"rou" is ambiguous.

```
Did you want to select "route" (n,y) [y]: y
```

Menu options (Corebuilder 9000-52C243): -----

display - Display the routing table
static - Define a static route
remove - Remove a route
flush - Flush all learned routes
default - Define the default route
noDefault - Remove the default route
findRoute - Find route in the routing table

Type "q" to return to the previous menu or ? for help.

CB9000@slot3.1 [4-GEN-GBIC-L3] (ip/route): display //显示路由表信息

Enter IP Address [0.0.0.0]:

Enter mask [0.0.0.0]:

IP routing is enabled

There are 9 of 25600-51200 possible Routing Table entries.

Destination	Subnet mask	Metric	Gateway	Status	TTL
Default Route	--	--	10.10.1.253	Static	--
10.10.1.0	255.255.255.0	-- --		Direct	--
10.10.1.254	255.255.255.255	-- --		Local	--
10.10.3.0	255.255.255.0	-- --		Direct	--
10.10.3.254	255.255.255.255	-- --		Local	--
10.10.4.0	255.255.255.0	-- --		Direct	--
10.10.4.254	255.255.255.255	-- --		Local	--
192.168.0.0	255.255.0.0	-- --		Direct	--
192.168.0.254	255.255.255.255	-- --		Local	--

Menu options (Corebuilder 9000-52C243): -----

display - Display the routing table
static - Define a static route
remove - Remove a route
flush - Flush all learned routes
default - Define the default route
noDefault - Remove the default route
findRoute - Find route in the routing table

Type "q" to return to the previous menu or ? for help.

CB9000@slot3.1 [4-GEN-GBIC-L3] (ip/route): q

Menu options (Corebuilder 9000-52C243): -----

interface - Administer interfaces
route - Administer routes
arp - Administer the ARP cache
multicast - Administer multicast routing
dns - Administer DNS
vrrp - Administer VRRP
udpHelper - Administer the UDP broadcast helper
routing - Enable/disable IP routing
ospf - Administer OSPF
rip - Administer RIP
ping - Send ICMP echo request
advancedPing - Send ICMP echo request with advanced options
traceRoute - Track the route of IP packet
advancedTraceRoute - Track the route of IP packet with advanced options
statistics - Display statistics

Type "q" to return to the previous menu or ? for help.

CB9000@slot3.1 [4-GEN-GBIC-L3] (ip): interface

Menu options (Corebuilder 9000-52C243): -----

summary - Display summary information
detail - Display detail information
define - Define a new interface
modify - Modify an existing interface
remove - Remove an interface
arpProxy - Enable/disable ARP proxy
broadcastAddress - Define broadcast address
directedBroadcast - Enable/disable forwarding of directed broadcasts
icmpRedirect - Enable/disable ICMP redirects
icmpRouterDiscovery - Enable/disable ICMP router discovery
statistics - Display interface statistics

Type "q" to return to the previous menu or ? for help.

CB9000@slot3.1 [4-GEN-GBIC-L3] (ip/interface): sum

Select IP interfaces (1-3,8|all|?): all

IP routing is enabled

Index	IP address	Subnet mask	State	Type	ID
1	10.10.1.254	255.255.255.0	Up	VLAN 1	(VID: 1)
2	192.168.0.254	255.255.0.0	Up	VLAN 2	(VID: 2)
3	10.10.3.254	255.255.255.0	Up	VLAN 3	(VID: 3)
8	10.10.4.254	255.255.255.0	Up	VLAN 8	(VID: 8)

Menu options (Corebuilder 9000-52C243): -----

summary - Display summary information
detail - Display detail information
define - Define a new interface
modify - Modify an existing interface
remove - Remove an interface
arpProxy - Enable/disable ARP proxy
broadcastAddress - Define broadcast address
directedBroadcast - Enable/disable forwarding of directed broadcasts
icmpRedirect - Enable/disable ICMP redirects
icmpRouterDiscovery - Enable/disable ICMP router discovery
statistics - Display interface statistics

Type "q" to return to the previous menu or ? for help.

CB9000@slot3.1 [4-GEN-GBIC-L3] (ip/interface): remove //去除VLAN 2三层接口地址, 注意: 直接在此改IP地址会提示不成功。

Select IP interfaces (1-3,8|all|?) [1-3,8]: 2

Menu options (Corebuilder 9000-52C243): -----

summary - Display summary information
detail - Display detail information
define - Define a new interface
modify - Modify an existing interface
remove - Remove an interface
arpProxy - Enable/disable ARP proxy
broadcastAddress - Define broadcast address
directedBroadcast - Enable/disable forwarding of directed broadcasts
icmpRedirect - Enable/disable ICMP redirects
icmpRouterDiscovery - Enable/disable ICMP router discovery
statistics - Display interface statistics

Type "q" to return to the previous menu or ? for help.

CB9000@slot3.1 [4-GEN-GBIC-L3] (ip/interface): summary

Select IP interfaces (1,3,8|all|?): all

IP routing is enabled

Index	IP address	Subnet mask	State	Type	ID
1	10.10.1.254	255.255.255.0	Up	VLAN 1	(VID: 1)
3	10.10.3.254	255.255.255.0	Up	VLAN 3	(VID: 3)
8	10.10.4.254	255.255.255.0	Up	VLAN 8	(VID: 8)

Menu options (Corebuilder 9000-52C243): -----

summary	- Display summary information
detail	- Display detail information
define	- Define a new interface
modify	- Modify an existing interface
remove	- Remove an interface
arpProxy	- Enable/disable ARP proxy
broadcastAddress	- Define broadcast address
directedBroadcast	- Enable/disable forwarding of directed broadcasts
icmpRedirect	- Enable/disable ICMP redirects
icmpRouterDiscovery	- Enable/disable ICMP router discovery
statistics	- Display interface statistics

Type "q" to return to the previous menu or ? for help.

CB9000@slot3.1 [4-GEN-GBIC-L3] (ip/interface): q

Menu options (Corebuilder 9000-52C243): -----

interface	- Administer interfaces
route	- Administer routes
arp	- Administer the ARP cache
multicast	- Administer multicast routing
dns	- Administer DNS
vrrp	- Administer VRRP
udpHelper	- Administer the UDP broadcast helper
routing	- Enable/disable IP routing
ospf	- Administer OSPF
rip	- Administer RIP
ping	- Send ICMP echo request
advancedPing	- Send ICMP echo request with advanced options
traceRoute	- Track the route of IP packet
advancedTraceRoute	- Track the route of IP packet with advanced options
statistics	- Display statistics

Type "q" to return to the previous menu or ? for help.

CB9000@slot3.1 [4-GEN-GBIC-L3] (ip): q

Menu options (Corebuilder 9000-52C243): -----

module	- Administer module-level functions
ethernet	- Administer Ethernet ports
bridge	- Administer bridging/VLANs
ip	- Administer IP
ipx	- Administer IPX
appletalk	- Administer AppleTalk
qos	- Administer QoS
snmp	- Administer SNMP
analyzer	- Administer Roving Analysis
disconnect	- Disconnect and return to Management Console

Type ? for help.

CB9000@slot3.1 [4-GEN-GBIC-L3] (): bridge

Menu options (Corebuilder 9000-52C243): -----

display	- Display bridge information
ipFragmentation	- Enable/Disable IP Fragmentation
ipxSnapTranslation	- Enable/Disable IPX 802.3-FDDI SNAP Translation
addressThreshold	- Set the bridge address threshold

agingTime - Set the bridge address aging time
spanningTree - Administer spanning tree
gvrpState - Enable/disable GVRP
port - Administer bridge ports
packetFilter - Administer packet filters
vlan - Administer VLANs
trunk - Administer trunks

Type "q" to return to the previous menu or ? for help.

CB9000@slot3.1 [4-GEN-GBIC-L3] (bridge): vlan

Menu options (Corebuilder 9000-52C243): -----

summary - Display summary information
detail - Display detail information
define - Define a VLAN
modify - Modify a VLAN
remove - Remove a VLAN
mode - Configure VLAN mode
vlanAwareMode - Configure VLAN-aware mode

Type "q" to return to the previous menu or ? for help.

CB9000@slot3.1 [4-GEN-GBIC-L3] (bridge/vlan): remove //去除VLAN 2
Select VLAN interface indexes (1-3,6,8|all|?): 2

Menu options (Corebuilder 9000-52C243): -----

summary - Display summary information
detail - Display detail information
define - Define a VLAN
modify - Modify a VLAN
remove - Remove a VLAN
mode - Configure VLAN mode
vlanAwareMode - Configure VLAN-aware mode

Type "q" to return to the previous menu or ? for help.

CB9000@slot3.1 [4-GEN-GBIC-L3] (bridge/vlan): define //重新定义VLAN 2
Enter VID (2-4094) [2]: 2
Select bridge ports (1-5|all|?): 5
Enter protocol suite
(IP,IPX,Apple,XNS,DECnet,SNA,Vines,X25,NetBEUI,unspecified,IPX-II,IPX-802.2,
IPX-802.3,IPX-802.2-SNAP): ip
Enter protocol suite ('q' to quit)
(IPX,Apple,XNS,DECnet,SNA,Vines,X25,NetBEUI,IPX-II,IPX-802.2,IPX-802.3,
IPX-802.2-SNAP): q
Configure layer 3 address? (n,y) [y]: n
Configure per-port tagging? (n,y) [y]: y
Enter port 5-8 tag type (none,802.1Q) [none]: 802.1Q
Enter VLAN Name {?} []: vlan-2

Menu options (Corebuilder 9000-52C243): -----

summary - Display summary information
detail - Display detail information
define - Define a VLAN
modify - Modify a VLAN
remove - Remove a VLAN
mode - Configure VLAN mode
vlanAwareMode - Configure VLAN-aware mode

Type "q" to return to the previous menu or ? for help.

CB9000@slot3.1 [4-GEN-GBIC-L3] (bridge/vlan): summary
Select VLAN interface index(s) (1-3,6,8|all|?): 2

VLAN summary

VLAN Mode: allOpen

VLAN-aware mode: allPorts

Index	VID	Type	Origin
2	2	open	static

Index	Name	Ports
2	vlan-2	5-8

Menu options (Corebuilder 9000-52C243): -----

summary	- Display summary information
detail	- Display detail information
define	- Define a VLAN
modify	- Modify a VLAN
remove	- Remove a VLAN
mode	- Configure VLAN mode
vlanAwareMode	- Configure VLAN-aware mode

Type "q" to return to the previous menu or ? for help.

CB9000@slot3.1 [4-GEN-GBIC-L3] (bridge/vlan): q

Menu options (Corebuilder 9000-52C243): -----

display	- Display bridge information
ipFragmentation	- Enable/Disable IP Fragmentation
ipxSnapTranslation	- Enable/Disable IPX 802.3-FDDI SNAP Translation
addressThreshold	- Set the bridge address threshold
agingTime	- Set the bridge address aging time
spanningTree	- Administer spanning tree
gvrpState	- Enable/disable GVRP
port	- Administer bridge ports
packetFilter	- Administer packet filters
vlan	- Administer VLANs
trunk	- Administer trunks

Type "q" to return to the previous menu or ? for help.

CB9000@slot3.1 [4-GEN-GBIC-L3] (bridge): q

Menu options (Corebuilder 9000-52C243): -----

module	- Administer module-level functions
ethernet	- Administer Ethernet ports
bridge	- Administer bridging/VLANs
ip	- Administer IP
ipx	- Administer IPX
appletalk	- Administer AppleTalk
qos	- Administer QoS
snmp	- Administer SNMP
analyzer	- Administer Roving Analysis
disconnect	- Disconnect and return to Management Console

Type ? for help.

CB9000@slot3.1 [4-GEN-GBIC-L3] (): ip

Menu options (Corebuilder 9000-52C243): -----

interface	- Administer interfaces
route	- Administer routes
arp	- Administer the ARP cache

multicast - Administer multicast routing
dns - Administer DNS
vrrp - Administer VRRP
udpHelper - Administer the UDP broadcast helper
routing - Enable/disable IP routing
ospf - Administer OSPF
rip - Administer RIP
ping - Send ICMP echo request
advancedPing - Send ICMP echo request with advanced options
traceRoute - Track the route of IP packet
advancedTraceRoute - Track the route of IP packet with advanced options
statistics - Display statistics

Type "q" to return to the previous menu or ? for help.

CB9000@slot3.1 [4-GEN-GBIC-L3] (ip): interface

Menu options (Corebuilder 9000-52C243): -----

summary - Display summary information
detail - Display detail information
define - Define a new interface
modify - Modify an existing interface
remove - Remove an interface
arpProxy - Enable/disable ARP proxy
broadcastAddress - Define broadcast address
directedBroadcast - Enable/disable forwarding of directed broadcasts
icmpRedirect - Enable/disable ICMP redirects
icmpRouterDiscovery - Enable/disable ICMP router discovery
statistics - Display interface statistics

Type "q" to return to the previous menu or ? for help.

CB9000@slot3.1 [4-GEN-GBIC-L3] (ip/interface): define //重新定义VLAN 2三层接口地址
Enter IP address: 172.16.0.254
Enter subnet mask [255.255.0.0]: 255.255.0.0
Enter interface type (vlan,port) [vlan]: vlan
Enter VLAN interface index {2,6|?}: 2

Menu options (Corebuilder 9000-52C243): -----

summary - Display summary information
detail - Display detail information
define - Define a new interface
modify - Modify an existing interface
remove - Remove an interface
arpProxy - Enable/disable ARP proxy
broadcastAddress - Define broadcast address
directedBroadcast - Enable/disable forwarding of directed broadcasts
icmpRedirect - Enable/disable ICMP redirects
icmpRouterDiscovery - Enable/disable ICMP router discovery
statistics - Display interface statistics

Type "q" to return to the previous menu or ? for help.

CB9000@slot3.1 [4-GEN-GBIC-L3] (ip/interface):

Menu options (Corebuilder 9000-52C243): -----

summary - Display summary information
detail - Display detail information
define - Define a new interface
modify - Modify an existing interface
remove - Remove an interface
arpProxy - Enable/disable ARP proxy
broadcastAddress - Define broadcast address
directedBroadcast - Enable/disable forwarding of directed broadcasts

icmpRedirect - Enable/disable ICMP redirects
icmpRouterDiscovery - Enable/disable ICMP router discovery
statistics - Display interface statistics

Type "q" to return to the previous menu or ? for help.

CB9000@slot3.1 [4-GEN-GBIC-L3] (ip/interface):

Menu options (Corebuilder 9000-52C243): -----
summary - Display summary information
detail - Display detail information
define - Define a new interface
modify - Modify an existing interface
remove - Remove an interface
arpProxy - Enable/disable ARP proxy
broadcastAddress - Define broadcast address
directedBroadcast - Enable/disable forwarding of directed broadcasts
icmpRedirect - Enable/disable ICMP redirects
icmpRouterDiscovery - Enable/disable ICMP router discovery
statistics - Display interface statistics

Type "q" to return to the previous menu or ? for help.

CB9000@slot3.1 [4-GEN-GBIC-L3] (ip/interface): summary //更改成功
Select IP interfaces (1-3,8|all|?) [1,3,8]: 2
IP routing is enabled

Index	IP address	Subnet mask	State	Type	ID
2	172.16.0.254	255.255.0.0	Up	VLAN 2	(VID: 2)

Menu options (Corebuilder 9000-52C243): -----
summary - Display summary information
detail - Display detail information
define - Define a new interface
modify - Modify an existing interface
remove - Remove an interface
arpProxy - Enable/disable ARP proxy
broadcastAddress - Define broadcast address
directedBroadcast - Enable/disable forwarding of directed broadcasts
icmpRedirect - Enable/disable ICMP redirects
icmpRouterDiscovery - Enable/disable ICMP router discovery
statistics - Display interface statistics

Type "q" to return to the previous menu or ? for help.

CB9000@slot3.1 [4-GEN-GBIC-L3] (ip/interface): q

Menu options (Corebuilder 9000-52C243): -----
interface - Administer interfaces
route - Administer routes
arp - Administer the ARP cache
multicast - Administer multicast routing
dns - Administer DNS
vrrp - Administer VRRP
udpHelper - Administer the UDP broadcast helper
routing - Enable/disable IP routing
ospf - Administer OSPF
rip - Administer RIP
ping - Send ICMP echo request
advancedPing - Send ICMP echo request with advanced options
traceRoute - Track the route of IP packet
advancedTraceRoute - Track the route of IP packet with advanced options
statistics - Display statistics

Type "q" to return to the previous menu or ? for help.

CB9000@slot3.1 [4-GEN-GBIC-L3] (ip): rou

"rou" is ambiguous.

Did you want to select "route" (n,y) [y]: y

Menu options (Corebuilder 9000-52C243): -----

display	- Display the routing table
static	- Define a static route
remove	- Remove a route
flush	- Flush all learned routes
default	- Define the default route
noDefault	- Remove the default route
findRoute	- Find route in the routing table

Type "q" to return to the previous menu or ? for help.

CB9000@slot3.1 [4-GEN-GBIC-L3] (ip/route): display

Enter IP Address [0.0.0.0]:

Enter mask [0.0.0.0]:

IP routing is enabled

There are 9 of 25600-51200 possible Routing Table entries.

Destination	Subnet mask	Metric	Gateway	Status	TTL
Default Route	--	--	10.10.1.253	Static	--
10.10.1.0	255.255.255.0	-- --	Direct		--
10.10.1.254	255.255.255.255	-- --	Local		--
10.10.3.0	255.255.255.0	-- --	Direct		--
10.10.3.254	255.255.255.255	-- --	Local		--
10.10.4.0	255.255.255.0	-- --	Direct		--
10.10.4.254	255.255.255.255	-- --	Local		--
172.16.0.0	255.255.0.0	-- --	Direct		--
172.16.0.254	255.255.255.255	-- --	Local		--

--Enter <CR> to continue--

Disconnected from module 3.1.

Terminal timeout - login session terminated.

Good-Bye