

经典的三层网络案例分析 PDF转换可能丢失图片或格式，建议阅读原文

https://www.100test.com/kao_ti2020/267/2021_2022__E7_BB_8F_E5_85_B8_E7_9A_84_E4_c101_267028.htm 目的：让不同的vlan之间可以互相通讯。 IP规划 vlna ID ip网段 vlan网关

vlan	IP网段	网关
1	172.16.1.0/24	172.16.1.7-9
2	172.16.2.0/24	172.16.2.252-254
3	172.16.3.0/24	172.16.3.252-254
4	172.16.4.0/24	172.16.4.252-254
5	172.16.5.0/24	172.16.5.252-254
6	172.16.6.0/24	172.16.6.252-254
7	172.16.7.0/24	172.16.7.252-254
8	172.16.8.0/24	172.16.8.252-254
9	172.16.9.0/24	172.16.9.252-254

拓朴图见最后面 器配置 cisco路由

器配置：

```
EnableConfigure terminalService
password-encryptionHostname cisco1721Enable secret
654321Enable password 123456ip subnet-zeroip name-server
202.96.134.133 202.96.172.218interface fastethernet 0ip address
61.142.221.5 255.255.255.240speed autono shutdowninterface serial
0ip unnumbered fastethernet 0encapsulation pppno
fair-queuebandwidth 2048no shutdownnextip classlessip route 0.0.0.0
0.0.0.0 serial 0no ip http serverline con 0line aux 0line vty 0
4password 12345678loginno scheduler allocate end 请注意NAT等
是在防火墙设置的。交换机配置 一、Catalyst 4006-s3交换机
配置：
```

```
EnableConfigure terminalservice padservice
password-encryptionhostname c4006-s3enable password
123456.Enable secret 654321Ip subnet-zeroIp name-server
172.16.8.1 172.16.8.2ip routingExitVlan databaseVtp mode
serverVtp domain centervtpVlan 2 name vlan2Vlan 3 name
```

```
vlan3Vlan 4 name vlan4Vlan 5 name vlan5Vlan 6 name vlan6Vlan 7
name vlan7Vlan 8 name vlan8Vlan 9 name vlan9ExitConfigure
terminalInterface port-channel 1Interface gigabitethernet
2/1channel-group 1Interface gigabitethernet 2/2channel-group
1Interface gigabitethernet 2/1switchport mode trunkswitchport
trunk encapsulation dot1qswitchport trunk allowed vlan allinterface
gigabitethernet 2/3switchport mode trunkswitchport trunk
encapsulation dot1qswitchport trunk allowed vlan allinterface
gigabitethernet 2/4switchport mode trunkswitchport trunk
encapsulation dot1qswitchport trunk allowed vlan allinterface
gigabitethernet 2/5switchport mode trunkswitchport trunk
encapsulation dot1qswitchport trunk allowed vlan allinterface
gigabitethernet 2/6switchport mode trunkswitchport trunk
encapsulation dot1qswitchprot trunk allowed vlan allinterface
gigabitethernet 2/7switchport access vlan 9no shutdowninterface
range gigabitethernet 2/8 20switchport mode accessswitchport
access vlan 8no shutdownspanning-tree portfastinterface
gigabitethernet 3/1switchport mode trunkswitchport trunk
encapsulation dot1qswitchport trunk allowed vlan allinterface
gigabitethernet 3/2switchport mode trunkswitchport trunk
encapsulation dot1qswitchport trunk allowed vlan allspanning-tree
vlan 1-9 root primaryspanning-tree backbonefastinterface vlan 1 ip
address 172.16.1.7 255.255.255.0no shutdownstandby 1 ip
172.16.1.9standby 1 priority 110 preemptinterface vlan 2 ip address
172.16.2.252 255.255.255.0no shutdownstandby 2 ip
172.16.2.254standby 2 priority 110 preempt interface vlan 3ip
```

```
address 172.16.3.252 255.255.255.0no shutdownstandby 3 ip
172.16.3.254standby 3 priority 110 preempt interface vlan 4ip
address 172.16.4.252 255.255.255.0no shutdownstandby 4 ip
172.16.4.254standby 4 priority 110 preempt interface vlan 5ip
address 172.16.5.252 255.255.255.0no shutdownstandby 5 ip
172.16.5.254standby 5 priority 110 preemptinterface vlan 6ip address
172.16.6.252 255.255.255.0no shutdownstandby 6 ip
172.16.6.254standby 6 priority 110 preempt interface vlan 7ip
address 172.16.7.252 255.255.255.0no shutdownstandby 7 ip
172.16.7.254standby 7 priority 110 preempt interface vlan 8ip
address 172.16.8.252 255.255.255.0no shutdownstandby 8 ip
172.16.8.254standby 8 priority 110 preemptinterface vlan 9ip address
172.16.9.252 255.255.255.0no shutdownstandby 9 ip
172.16.9.254standby 9 priority 110 preempt exitip classlessip route
0.0.0.0 0.0.0.0 172.16.9.250line con 0line aux 0line vty 0 15password
12345678login end 100Test 下载频道开通，各类考试题目直接
下载。详细请访问 www.100test.com
```