

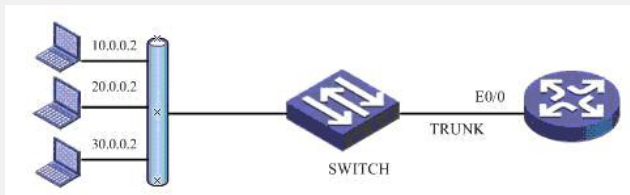
Typical VLAN (802.1q) Configuration

Keywords: MSR ; 802.1q

1. Requirements:

In the LAN, configuring VLANs on the switch can reduce the communication broadcast domain of hosts. Where some hosts in different VLANs attempt to communicate, but the switch does not support L3 switching, you can deploy a router that supports 802.1Q to realize interworking among VLANs, set up sub-interfaces on the Ethernet interface, allocate an IP address as the gateway, and enable 802.1Q.

2. Network diagram:



3. Configuration steps:

Device and version: MSR20-21 series, version 5.20 and Beta 1106

RTA key configuration scripts

```
#
// Encapsulate the sub-interface as vlan10
interface GigabitEthernet0/0.10
  vlan-type dot1q vid 10
  ip address 10.0.0.1 255.255.255.0
#
// Encapsulate the sub-interface as vlan20
interface GigabitEthernet0/0.20
  vlan-type dot1q vid 20
  ip address 20.0.0.1 255.255.255.0
#
// Encapsulate the sub-interface as vlan30
interface GigabitEthernet0/0.30
  vlan-type dot1q vid 30
  ip address 30.0.0.1 255.255.255.0
#
```

4. Tips:

1. For the switch configuration, please refer to switch manuals
2. Make sure to specify a gateway for the PC in every VLAN, and set its address to the IP address of the relevant sub-interface of the router. After the preceding configuration, PCs in these VLANs can successfully ping each other with no need of extra route.
3. To prevent some PCs in these VLANs to access each other, you can configure an ACL on the router to filter service traffic.