NSD NETWORK DAY02

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1 案例1: 划分VLAN

1.1 问题

在交换机上创建以下VLAN,按照拓扑图-1将端口加入到指定的VLAN并配置服务器IP地址,实现同VLAN主机的通信

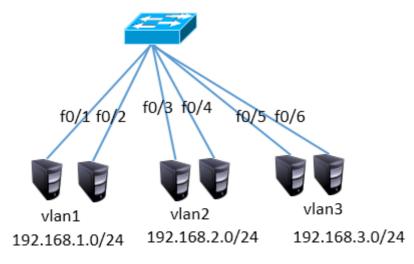


图-1

1.2 步骤

由于默认情况下所有接口都在VLAN1中,且VLAN1默认就存在,所以只需要配置VLAN2和VLAN3即可。

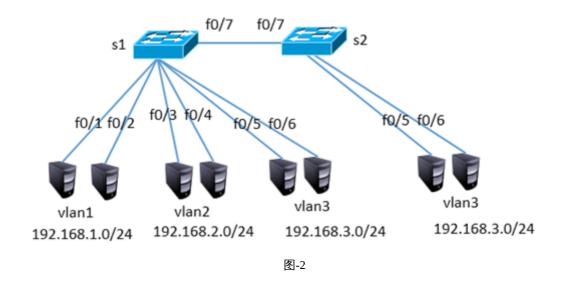
- 01. <Huawei>system-view
- 02. [Huawei]vlan batch 2 3 //创建VLAN2、3
- 03. [Huawei]port-group 1
- 04. [Huawei-port-group-1]group-member Ethernet0/0/3 Ethernet0/0/4
- 05. [Huawei-port-group-1]port link-type access
- 06. [Huawei-port-group-1]port default vlan 2
- 07. [Huawei-port-group-1]quit
- 08. [Huawei]port-group 2
- 09. [Huawei-port-group-2]group-member Ethernet0/0/5 Ethernet0/0/6
- 10. [Huawei-port-group-2]port link-type access

11. [Huawei-port-group-2]port default vlan 3

2案例2:多交换机VLAN的划分

2.1 问题

通过配置交换机实现图-2中的同VLAN主机互通



2.2 步骤

注:以下配置需要在案例1的基础上完成 S1配置

- 01. [Huawei]interface Ethernet0/0/7
- 02. [Huawei-Ethernet0/0/7] port link-type access
- 03. [Huawei-Ethernet0/0/7] port default vlan 3

S2配置

- 01. <Huawei>system-view
- 02. [Huawei]vlan 3 //创建VLAN3
- 03. [Huawei]port-group 1
- 04. [Huawei-port-group-1]group-member Ethernet0/0/5 to Ethernet0/0/7
- 05. [Huawei-port-group-1]port link-type access
- 06. [Huawei-port-group-1]port default vlan 3

3案例3:配置trunk中继链路

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3.1 问题

通过配置实现跨交换机的同VLAN通信,如图-3所示

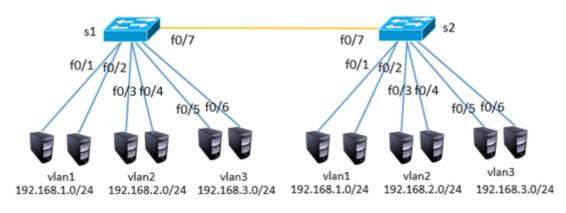


图-3

3.2 步骤

注:以下配置需要在案例2的基础上完成 S1配置

- 01. [Huawei]interface Ethernet0/0/7
- 02. [Huawei-Ethernet0/0/7]port default vlan 1
- 03. [Huawei-Ethernet0/0/7]port link-type trunk
- 04. [Huawei-Ethernet0/0/1]port trunk allow-pass vlan all

S2配置

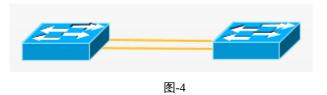
- 01. <Huawei>system-view
- 02. [Huawei]vlan 2 //创建VLAN2
- 03. [Huawei]port-group 1
- 04. [Huawei-port-group-1]group-member Ethernet0/0/3 Ethernet0/0/4
- 05. [Huawei-port-group-1]port link-type access
- 06. [Huawei-port-group-1]port default vlan 2
- 07. [Huawei]interface Ethernet0/0/7
- 08. [Huawei-Ethernet0/0/7]port default vlan 1
- 09. [Huawei-Ethernet0/0/7]port link-type trunk
- 10. [Huawei-Ethernet0/0/1]port trunk allow-pass vlan all

4 案例4:链路聚合配置

4.1 问题

参照图-4将两台交换机的f0/1-f0/2接口互联,并实现高可用

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4.2 步骤

S1配置

- 01. [Huawei]interface Eth-trunk 1
- 02. [Huawei- Eth-trunk1]trunkport ethernet 0/0/1 0/0/2

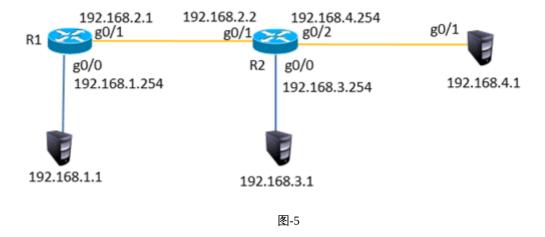
S2配置

- 01. [Huawei]interface Eth-trunk 1
- 02. [Huawei- Eth-trunk1]trunkport ethernet 0/0/1 0/0/2

5 案例5:配置静态路由

5.1 问题

按照图-5拓扑结构配置接口ip地址并通过静态路由实现全网互通



5.2 步骤

R1配置

O1. <Huawei>system-view
O2. [Huawei]interface GigabitEthernet 0/0/0
O3. [Huawei-GigabitEthernet0/0/1]ip address 192.168.1.254 24
O4. [Huawei-GigabitEthernet0/0/1]quit

- 05. [Huawei]interface GigabitEthernet 0/0/1
- 06. [Huawei-GigabitEthernet0/0/1]ip address 192.168.2.1 24
- 07. [Huawei]ip route-static 192.168.3.0 24 192.168.2.2
- 08. [Huawei]ip route-static 192.168.4.0 24 192.168.2.2

R2配置

- 01. <Huawei>system-view
- 02. [Huawei]interface GigabitEthernet 0/0/0
- 03. [Huawei-GigabitEthernet0/0/1]ip address 192.168.3.254 24
- 04. [Huawei-GigabitEthernet0/0/1]quit
- 05. [Huawei]interface GigabitEthernet 0/0/1
- 06. [Huawei-GigabitEthernet0/0/1]ip address 192.168.2.2 24
- 07. [Huawei-GigabitEthernet0/0/1]quit
- 08. [Huawei]interface GigabitEthernet 0/0/2
- 09. [Huawei-GigabitEthernet0/0/1]ip address 192.168.4.254 24
- 10. [Huawei]ip route-static 192.168.1.0 24 192.168.2.1

6 案例6:三层交换机基本配置

6.1 问题

按照图-6的拓扑结构配置ip地址并通过三层交换实现VLAN间通信

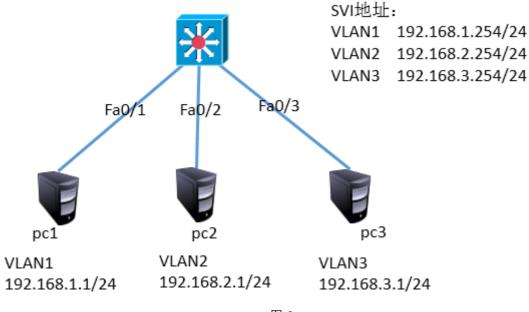


图-6

6.2 步骤

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三层交换机配置

- 01. [Huawei]vlan batch 2 3
- 02. [Huawei]interface Vlanif 1
- 03. [Huawei-Vlanif1]ip address 192.168.1.254 24
- 04. [Huawei]interface Vlanif 2
- 05. [Huawei-Vlanif1]ip address 192.168.2.254 24
- 06. [Huawei]interface Vlanif 3
- 07. [Huawei-Vlanif1]ip address 192.168.3.254 24
- 08. [Huawei]interface Ethernet0/0/2
- 09. [Huawei-Ethernet0/0/7] port link-type access
- 10. [Huawei-Ethernet0/0/7] port default vlan 2
- 11. [Huawei]interface Ethernet0/0/3
- 12. [Huawei-Ethernet0/0/7] port link-type access
- 13. [Huawei-Ethernet0/0/7] port default vlan 3

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