【1】实验目的

a)利用单臂路由，VTP，TRUNK-LINK,VLAN 使得相同部门内主机可以通讯，不同部门间主机也可以通讯

【2】实验步骤

步骤2：完成交换机上的TRUNK LINK 配置

SW2

interface ran fa 0/22 -24

sw mo tr

SW0

int fa 0/23

sw mo tr

SW1

int fa 0/22

sw mo tr

SW2#show interface trunk

Port Mode  **Encapsulation**  **Status**  **Native vlan**

Fa0/22 on 802.1q trunking 1

Fa0/23 on 802.1q trunking 1

Port Vlans allowed on trunk

Fa0/22 1-1005

Fa0/23 1-1005

步骤2：完成VTP的配置

SW2

vtp mode server

vtp domain justech

vtp password passccie

SW0 SW1

vtp mode client

vtp domain justech

vtp password passccie

SW2#show vtp status

VTP Version : 2

**Configuration Revision : 0 //修订号**

Maximum VLANs supported locally : 255

Number of existing VLANs : 5

**VTP Operating Mode : Server**

**VTP Domain Name : justech**

VTP Pruning Mode : Disabled

VTP V2 Mode : Disabled

VTP Traps Generation : Disabled

MD5 digest : 0xE9 0x2D 0x84 0x6B 0x09 0x1B 0x9C 0xBA

Configuration last modified by 0.0.0.0 at 0-0-00 00:00:00

Local updater ID is 0.0.0.0 (no valid interface found)

SW2#

SW2#show vtp password

VTP Password: passccie

步骤3：完成VLAN 配置

在完成配置之前，请先校验每台设备的现有VLAN 配置

SW2#show vlan

VLAN Name Status Ports

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1 default active Fa0/1, Fa0/2, Fa0/3, Fa0/4

Fa0/5, Fa0/6, Fa0/7, Fa0/8

Fa0/9, Fa0/10, Fa0/11, Fa0/12

Fa0/13, Fa0/14, Fa0/15, Fa0/16

Fa0/17, Fa0/18, Fa0/19, Fa0/20

Fa0/21, Fa0/24

1002 fddi-default act/unsup

1003 token-ring-default act/unsup

1004 fddinet-default act/unsup

1005 trnet-default act/unsup

VLAN Type SAID MTU Parent RingNo BridgeNo Stp BrdgMode Trans1 Trans2

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1 enet 100001 1500 - - - - - 0 0

1002 fddi 101002 1500 - - - - - 0 0

1003 tr 101003 1500 - - - - - 0 0

1004 fdnet 101004 1500 - - - ieee - 0 0

1005 trnet 101005 1500 - - - ibm - 0 0

Remote SPAN VLANs

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Primary Secondary Type Ports

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SW2#

SW2

switch(config)#vlan 20

name HR

vlan 13

name CEO

完成如上配置后，请到SW0 和SW1 上确认VLAN 被同步

步骤4：将SW0 与SW1 上的接口划入指定VLAN

SW0

interface fa0/1

sw mo ac

sw ac vlan 20

!

int fa 0/2

sw mo ac

sw ac vlan 13

SW1

interface int fa0/1

sw mo ac

sw ac vlan 20

!

int fa 0/2

sw mo ac

sw ac vlan 13

完成如上配置后，P0 P2 可以通讯，P1 P3 可以通讯，测试如下

步骤5：完成单臂路由，使得不同子网可以相互通讯

R0

en

conf t

host R0

int fa0/0

no ip add

no sh

!

interface fa0/0.20

encapsulation dot1q 20

ip add 192.168.20.254 255.255.255.0

!

interface fa0/0.13

encapsulation dot1q 13

ip add 192.168.13.254 255.255.255.0

完成如上配置后，请校验不同网段主机是否可以通讯