**Bài tập nhóm**

**Core 1**

Core1#sh ip int bri | ex un

Core1#sh cdp n

conf t

int port-channel 1

no switchport

ip add 10.0.0.1 255.255.255.252

no shut

conf t

int ra g0/1-2

no switchport

channel-group 1 mode on

conf t

port-channel load-balance src-dst-ip

**Core 2**

Core2#sh cdp n

conf t

int port-channel 1

no switchport

ip add 10.0.0.2 255.255.255.252

no shut

conf t

int ra g0/1-2

no switchport

channel-group 1 mode on

conf t

port-channel load-balance src-dst-ip

**ping 10.0.0.2**

**ping 10.0.0.1**

**D1**

sh ip int bri | ex un

conf t

vlan 3

vlan 5

vlan 9

vlan 14

en

conf t

int vlan 3

ip add 192.168.3.2 255.255.255.0

exit

int vlan 5

ip add 192.168.5.2 255.255.255.0

exit

int vlan 9

ip add 192.168.9.2 255.255.255.0

exit

int vlan 14

ip add 192.168.14.2 255.255.255.0

exit

en

conf t

ip dhcp exclude 192.168.3.1 192.168.3.3

ip dhcp exclude 192.168.5.1 192.168.5.3

ip dhcp exclude 192.168.9.1 192.168.9.3

ip dhcp exclude 192.168.14.1 192.168.14.3

en

conf t

ip dhcp pool VLAN3

net 192.168.3.0 255.255.255.0

default 192.168.3.1

domain 2112998.com

dns 8.8.8.8

ex

en

conf t

ip dhcp pool VLAN5

net 192.168.3.0 255.255.255.0

default 192.168.5.1

domain 2112998.com

dns 8.8.8.8

ex

en

conf t

ip dhcp pool VLAN9

net 192.168.3.0 255.255.255.0

default 192.168.9.1

domain 2112998.com

dns 8.8.8.8

ex

en

conf t

ip dhcp pool VLAN14

net 192.168.3.0 255.255.255.0

default 192.168.14.1

domain 2112998.com

dns 8.8.8.8

ex

**D2**

conf t

vlan 3

vlan 5

vlan 9

vlan 14

en

conf t

int vlan 3

ip add 192.168.3.3 255.255.255.0

exit

int vlan 5

ip add 192.168.5.3 255.255.255.0

exit

int vlan 9

ip add 192.168.9.3 255.255.255.0

exit

int vlan 14

ip add 192.168.14.3 255.255.255.0

exit

en

conf t

ip dhcp exclude 192.168.3.1 192.168.3.3

ip dhcp exclude 192.168.5.1 192.168.5.3

ip dhcp exclude 192.168.9.1 192.168.9.3

ip dhcp exclude 192.168.14.1 192.168.14.3

en

conf t

ip dhcp pool VLAN3

net 192.168.3.0 255.255.255.0

default 192.168.3.1

domain 2112998.com

dns 8.8.8.8

ex

en

conf t

ip dhcp pool VLAN5

net 192.168.5.0 255.255.255.0

default 192.168.5.1

domain 2112998.com

dns 8.8.8.8

ex

en

conf t

ip dhcp pool VLAN9

net 192.168.9.0 255.255.255.0

default 192.168.9.1

domain 2112998.com

dns 8.8.8.8

ex

en

conf t

ip dhcp pool VLAN14

net 192.168.14.0 255.255.255.0

default 192.168.14.1

domain 2112998.com

dns 8.8.8.8

ex

**sh vlan**

**D3**

en

Conf t

vlan 34

vlan 37

vlan 42

vlan 46

en

conf t

int vlan 34

ip add 192.168.34.2 255.255.255.0

exit

int vlan 37

ip add 192.168.37.2 255.255.255.0

exit

int vlan 42

ip add 192.168.42.2 255.255.255.0

exit

int vlan 46

ip add 192.168.46.2 255.255.255.0

exit

en

conf t

ip dhcp exclude 192.168.34.1 192.168.34.3

ip dhcp exclude 192.168.37.1 192.168.37.3

ip dhcp exclude 192.168.42.1 192.168.42.3

ip dhcp exclude 192.168.46.1 192.168.46.3

en

conf t

ip dhcp pool VLAN34

net 192.168.34.0 255.255.255.0

default 192.168.34.1

domain 2112998.com

dns 8.8.8.8

ex

en

conf t

ip dhcp pool VLAN37

net 192.168.37.0 255.255.255.0

default 192.168.37.1

domain 2112998.com

dns 8.8.8.8

ex

en

conf t

ip dhcp pool VLAN42

net 192.168.42.0 255.255.255.0

default 192.168.42.1

domain 2112998.com

dns 8.8.8.8

ex

en

conf t

ip dhcp pool VLAN46

net 192.168.46.0 255.255.255.0

default 192.168.46.1

domain 2112998.com

dns 8.8.8.8

ex

**D4**

en

Conf t

vlan 34

vlan 37

vlan 42

vlan 46

en

conf t

int vlan 34

ip add 192.168.34.3 255.255.255.0

exit

int vlan 37

ip add 192.168.37.3 255.255.255.0

exit

int vlan 42

ip add 192.168.42.3 255.255.255.0

exit

int vlan 46

ip add 192.168.46.3 255.255.255.0

exit

en

conf t

ip dhcp exclude 192.168.34.1 192.168.34.3

ip dhcp exclude 192.168.37.1 192.168.37.3

ip dhcp exclude 192.168.42.1 192.168.42.3

ip dhcp exclude 192.168.46.1 192.168.46.3

**A1**

En

Conf t

Vlan 3

Vlan 5

**A2**

En

Conf t

Vlan 3

Vlan 5

**A3**

En

Conf t

Vlan 9

Vlan 14

**A4**

En

Conf t

Vlan 9

Vlan 14

**A5**

En

Conf t

Vlan 34

Vlan 37

**A6**

En

Conf t

Vlan 34

Vlan 37

**A7**

En

Conf t

Vlan 42

Vlan 46

**A8**

En

Conf t

Vlan 42

Vlan 46

**DC1**

En

Conf t

Vlan 250

Name DC

En

Conf t

Int fa0/5

No switchport

Ip add 10.0.0.69 255.255.255.252

No shut

**DC2**

En

Conf t

Vlan 250

Name DC

En

Conf t

Int fa0/5

No switchport

Ip add 10.0.0.70 255.255.255.252

No shut

**Data\_switch\_1**

En

Conf t

Vlan 250

Name DC

**Data\_switch\_2**

En

Conf t

Vlan 250

Name DC

En

Conf t

Hostname S3

**line console 0**

**password cisco**

**login**

**line vty 0 15**

**password cisco**

**login**

**exit**

**en**

**conf t**

**enable secret class**

**int fa0/6**

switchport mode access

switchport access vlan 30

int fa0/11

switchport mode access

switchport access vlan 10

int fa0/18

switchport mode access

switchport access vlan 20

end

**copy running-config startup-config**

**VLAN**

**int fa0/6**

**switchport mode access**

**switchport access vlan 30**

**int fa0/11**

**switchport mode access**

**switchport access vlan 10**

int fa0/18

**switchport mode access**

**switchport access vlan 20**

**end**

**copy running-config startup-config**

en

conf t

int range fa0/1 -5

switchport mode trunk

switchport trunk native vlan 99

no shut

exit

int range fa0/6 -10

switchport mode access

switchport access vlan 30

no shut

exit

int range fa0/11 -17

switchport mode access

switchport access vlan 10

no shut

exit

int range fa0/18 -24

switchport mode access

switchport access vlan 20

no shut

exit

conf t

int vlan 99

ip add 172.17.99.12 255.255.255.0

**vlan 99**

**name Management&Native**

exit

**vlan 10**

**name Faculty/Staff**

**exit**

**vlan 20**

**name Students**

**exit**

**vlan 30**

**name Guest(Default)**

**exit**

en

conf t

no ip domain-lookup

**Lab3.3.12\_2112998\_LamQuangLinh\_ Packet Tracer - VLAN Configuration**

**S1**

int fa0/11

switchport mode access

switchport access vlan 10

int fa0/18

switchport mode access

switchport access vlan 20

int fa0/6

switchport mode access

switchport access vlan 30

vlan 10

name Faculty/Staff

exit

vlan 20

name Students

exit

vlan 30

name Guest(Default)

exit

vlan 99

name Management&Native

exit

vlan 150

name VOICE

exit

**S2**

int fa0/11

switchport mode access

switchport access vlan 10

int fa0/18

switchport mode access

switchport access vlan 20

int fa0/6

switchport mode access

switchport access vlan 30

vlan 10

name Faculty/Staff

exit

vlan 20

name Students

exit

vlan 30

name Guest(Default)

exit

vlan 99

name Management&Native

exit

vlan 150

name VOICE

exit

**S3**

int fa0/11

switchport mode access

switchport access vlan 10

int fa0/18

switchport mode access

switchport access vlan 20

int fa0/6

switchport mode access

switchport access vlan 30

vlan 10

name Faculty/Staff

exit

vlan 20

name Students

exit

vlan 30

name Guest(Default)

exit

vlan 99

name Management&Native

exit

vlan 150

name VOICE

exit

int int f0/11

mls qos trust cos

switchport voice vlan 150

**3.4.5 Packet Tracer - Configure Trunks**

**S1**

interface range g0/1 - 2

switchport mode trunk

switchport trunk native vlan 99

**S2**

interface range g0/1 - 2

switchport mode trunk

switchport trunk native vlan 99

**S3**

interface range g0/1 - 2

switchport mode trunk

switchport trunk native vlan 99

**3.4.6 Packet Tracer - Configure VLANs and Trunking - Physical Mode**

en

conf t

hostname S1

enable secret class

line console 0

password cisco

login

exit

vty 0 15

password cisco

login

exit

service password-encryption

banner motd &Unauthorized Access is Prohibited!&

int vlan 1

ip add 192.168.1.11 255.255.255.0

no shut

exit

int range f0/2-5, f0/7-24, g0/1-2

shutdown

clock set 10:25:00 29 September 2021

copy running-config startup-config

vlan 10

name Operations

exit

vlan 20

name Parking\_Lot

exit

vlan 99

name Management

exit

vlan 1000

name Native

end

interface f0/6

switchport mode access

switchport access vlan 10

interface vlan 1

no ip address

shutdown

interface vlan 99

ip address 192.168.1.12 255.255.255.0

end

interface range f0/11-24

switchport mode access

switchport access vlan 99

end

int f0/1

switchport mode dynamic desirable

**3.5.5 Packet Tracer - Configure DTP**

vlan 10

name Red

exit

vlan 20

name Blue

exit

vlan 30

name Yellow

end

interface range f0/1 - 8

switchport mode access

switchport access vlan 10

interface range f0/9 -16

switchport mode access

switchport access vlan 20

interface range f0/17 - 24

switchport mode access

switchport access vlan 30

S1

interface g0/1

switchport mode dynamic desirable

exit

interface g0/2

switchport mode trunk

switchport nonegotiate

interface range g0/1 - 2

switchport trunk native vlan 999

S2

interface range g0/1 - 2

switchport trunk native vlan 999

S3

interface g0/1

switchport mode dynamic desirable

exit

interface g0/2

switchport mode trunk

switchport nonegotiate

interface range g0/1 - 2

switchport trunk native vlan 999

**3.6.1 Packet Tracer - Implement VLANs and Trunking**

vlan 10

name Admin

exit

vlan 20

name Accounts

exit

vlan 30

name HR

vlan 40

name Voice

exit

vlan 99

name Management

exit

vlan 100

name Native

end

interface range f0/1

switchport mode access

switchport access vlan 10

interface range f0/2

switchport mode access

switchport access vlan 20

interface range f0/3

switchport mode access

switchport access vlan 30

interface range f0/4

switchport mode access

switchport access vlan 40

switchport voice vlan 40

SWA

int vlan 99

ip add 192.168.99.252 255.255.255.0

no shut

exit

SWB

int vlan 99

ip add 192.168.99.253 255.255.255.0

no shut

exit

SWC

int vlan 99

ip add 192.168.99.254 255.255.255.0

no shut

exit

int g0/1

sw mode trunk

sw nonegotiate

sw trunk native vlan 100

exit

int g0/2

sw mode dynamic desirable

sw trunk native vlan 100

exit

**4.3.8 Packet Tracer - Configure Layer 3 Switching and Inter-VLAN Routing**

**MLS**

int g0/2

no switchport

ip address 209.165.200.225 255.255.255.252

vlan 10

name Staff

exit

vlan 20

name Student

exit

vlan 30

name Faculty

exit

int vlan 10

ip add 192.168.10.254 255.255.255.0

int vlan 20

ip add 192.168.20.254 255.255.255.0

int vlan 30

ip add 192.168.30.254 255.255.255.0

int vlan 99

ip add 192.168.99.254 255.255.255.0

exit

int g0/1

switchport mode trunk

switchport trunk native vlan 99

switchport trunk encapsulation dot1q

ip routing

MLS#show ip route

Ipv6 unicast-routing

Int vlan 10

**ipv6 address 2001:db8:acad:10::1/64**

**exit**

**int vlan 20**

**ipv6 address** 2001:db8:acad:20::1/64

exit

int vlan 30

ipv6 address 2001:db8:acad:30::1/64

exit

**int g0/2**

**ipv6 address 2001:db8:acad:a::1/64**

**exit**

**S1**

int g0/1

switchport mode trunk

switchport trunk encapsulation dot1q

**4.4.9 Packet Tracer - Troubleshoot Inter-VLAN Routing - Physical Mode**

En

Conf t

Int g0/0/1.0

Encapsulation dot1q 8 native

Exit

int f0/5

no switchport access vlan 3

switchport mode trunk

switchport trunk native vlan 8

no switchport access vlan 3

switchport trunk allowed vlan 3,4,8,13

exit

**4.5.1 Packet Tracer - Inter-VLAN Routing Challenge**

**R1**

En

Conf t

int g0/1

no shut

int g0/1.10

encapsulation dot1q 10

ip add 172.17.10.1 255.255.255.0

int g0/1.20

encapsulation dot1q 20

ip add 172.17.20.1 255.255.255.0

int g0/1.30

encapsulation dot1q 30

ip add 172.17.30.1 255.255.255.0

int g0/1.88

encapsulation dot1q 88 native

ip add 172.17.88.1 255.255.255.0

int g0/1.99

encapsulation dot1q 99

ip add 172.17.99.1 255.255.255.0

**S1**

int vlan 99

ip add 172.17.99.10 255.255.255.0

no shut

exit

ip default-gateway 172.17.99.1

En

Conf t

Vlan 10

Name Faculty/Staff

Exit

Vlan 20

Name Students

Exit

Vlan 30

Name Guest(Default)

Exit

Vlan 88

Name Native

Exit

Vlan 99

Name Management

Exit

Int rang f0/11-17

switchport mode access

switchport access vlan 10

Int rang f0/18-24

switchport mode access

switchport access vlan 20

Int rang f0/6-10

switchport mode access

switchport access vlan 30

Int g0/1

switchport mode trunk

switchport trunk native vlan 88

Int rang f0/1-5,g0/2

Shutdown

exit

**5.1.9 Packet Tracer - Investigate STP Loop Prevention**

show spanning-tree vlan 1

**6.2.4 Packet Tracer - Configure EtherChannel**

en

conf t

hostname S1

exit

show interfaces | include Ethernet

show interface status

show interfaces trunk

exit

int rang fa0/21-22, g0/1-2

switchport mode trunk

exit

int range f0/21-22

shutdown

channel-group 1 mode desirable

no shut

exit

interface range g0/1 - 2

shutdown

channel-group 2 mode active

no shutdown

interface port-channel 2

switchport mode trunk

exit

spanning-tree vlan 1 root primary

en

conf t

hostname S2

int rang fa0/23-24, g0/1-2

switchport mode trunk

exit

int port-channel 1

switchport mode trunk

exit

int range f0/23-24

channel-group 3 mode passive

no shutdown

exit

interface port-channel 3

switchport mode trunk

exit

int range g0/1-2

shutdown

channel-group 2 mode active

no shutdown

exit

int port-channel 2

switchport mode trunk

en

conf t

hostname S3

int rang fa0/21-24

switchport mode trunk

exit

int range f0/21-22

shutdown

channel-group 1 mode desirable

no shutdown

exit

interface port-channel 1

switchport mode trunk

en

conf t

interface range fa0/23-24

shutdown

channel-group 3 mode active

no shutdown

exit

int port-channel 3

switchport mode trunk

**6.3.4 Packet Tracer - Troubleshoot EtherChannel**

S1

en

conf t

int port-channel 1

switchport mode trunk

exit

S2

en

conf t

int range f0/21-22

switchport mode trunk

end

int range f0/23-24

switchport mode trunk

exit

int range g0/1-2

switchport mode trunk

end

int port-channel 2

switchport mode trunk

int port-channel 6

switchport mode trunk

end

show run

S3

en

conf t

int range f0/21-22

channel-group 6 mode active

no channel-group

channel-group 6 mode active

en

conf t

int range f0/23-24

no channel-group

channel-group 4 mode active

en

conf t

int range g0/1-2

no channel-group

channel-group 1 mode active

S4

en

conf t

int range f0/21-22

no channel-group

channel-group 5 mode active

end

**6.4.1 Packet Tracer - Implement Etherchannel**

SWA

en

conf t

int range g0/1-2

switchport mode trunk

shutdown

channel-group 1 mode desirable

no shutdown

exit

int port-channel 1

switchport mode trunk

show etherchannel summary

en

conf t

int range fa0/21-22

switchport mode trunk

shutdown

channel-group 2 mode active

no shut

exit

int port-channel 2

switchport mode trunk

SWB

en

conf t

int range g0/1-2

switchport mode trunk

shutdown

channel-group 1 mode desirable

no shutdown

exit

int port-channel 1

switchport mode trunk

SWC

en

conf t

int range fa0/21-22

switchport mode trunk

shutdown

channel-group 2 mode active

no shut

exit

int port-channel 2

switchport mode trunk

en

conf t

int range fa0/23-24

switchport mode trunk

shutdown

channel-group 3 mode passive

no shut

exit

int port-channel 3

switchport mode trunk