CS305-2022Spring Lab14 Report

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Lab Time：Thursday 10:20 a.m. to 12:10 p.m.

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Practice 14.1

1. Connection:

2. ping:

```
C:\users\Administrator>ping 172.18.5.120

正在 Ping 172.18.5.120 具有 32 字节的数据:
来自 172.18.5.120 的回复: 字节=32 时间<1ms TTL=128
来自 172.18.5.120 的回复: 字节=32 时间<1ms TTL=128
来自 172.18.5.120 的回复: 字节=32 时间<1ms TTL=128
来自 172.18.5.120 的回复: 字节=32 时间<1ms TTL=128
```

3. two ways:

```
[H3C]mac-address blackhole 309c-236e-8f35 vlan 1
[H3C]display mac-address
MAC Address       VLAN ID    State           Port/Nickname           Aging
309c-236e-8f35    1          Blackhole       N/A                     N
309c-236e-907b    1          Learned         GE1/0/11                Y
[H3C]ping 172.18.5.121
Ping 172.18.5.121 (172.18.5.121): 56 data bytes, press CTRL_C to break
Request time out
Request time out
Request time out
Request time out
Request time out
```

```
[H3C-GigabitEthernet1/0/11]int GigabitEthernet 1/0/15
[H3C-GigabitEthernet1/0/15]port-isolate enable group 8
[H3C-GigabitEthernet1/0/15]display port-isolate group
 Port isolation group information:
 Group ID: 5
 Group members:
    No ports.

 Group ID: 8
 Group members:
    GigabitEthernet1/0/11         GigabitEthernet1/0/15

[H3C-GigabitEthernet1/0/15]display mac-address
MAC Address       VLAN ID    State           Port/Nickname           Aging
309c-236e-8f35    1          Learned         GE1/0/15                Y
309c-236e-907b    1          Learned         GE1/0/11                Y
[H3C-GigabitEthernet1/0/15]port-isolate group 5
[H3C]int GigabitEthernet 1/0/15
[H3C-GigabitEthernet1/0/15]ping 172.18.5.120
Ping 172.18.5.120 (172.18.5.120): 56 data bytes, press CTRL_C to break
Request time out
Request time out
Request time out
Request time out
Request time out

--- Ping statistics for 172.18.5.120 ---
5 packet(s) transmitted, 0 packet(s) received, 100.0% packet loss
[H3C-GigabitEthernet1/0/15]%Jan  1 00:52:17:300 2013 H3C PING/6/PING_STATISTICS:
```

```
C:\users\Administrator>ping 172.18.5.120

正在 Ping 172.18.5.120 具有 32 字节的数据:
来自 172.18.5.121 的回复: 无法访问目标主机。
来自 172.18.5.121 的回复: 无法访问目标主机。
来自 172.18.5.121 的回复: 无法访问目标主机。

172.18.5.120 的 Ping 统计信息:
    数据包: 已发送 = 3, 已接收 = 3, 丢失 = 0 (0% 丢失),
Control-C
^C
C:\users\Administrator>ping 172.18.5.120

正在 Ping 172.18.5.120 具有 32 字节的数据:
来自 172.18.5.120 的回复: 字节=32 时间<1ms TTL=128
来自 172.18.5.120 的回复: 字节=32 时间<1ms TTL=128
来自 172.18.5.120 的回复: 字节=32 时间<1ms TTL=128
来自 172.18.5.120 的回复: 字节=32 时间<1ms TTL=128

172.18.5.120 的 Ping 统计信息:
    数据包: 已发送 = 4, 已接收 = 4, 丢失 = 0 (0% 丢失),
往返行程的估计时间(以毫秒为单位):
    最短 = 0ms, 最长 = 0ms, 平均 = 0ms
```

4. Mac address table:

```
display mac-address
MAC Address       VLAN ID    State           Port/Nickname           Aging
309c-236e-8f35    1          Learned         GE1/0/15                Y
309c-236e-907b    1          Learned         GE1/0/11                Y
[H3C-GigabitEthernet1/0/15]
```

(a) 2 items. They are dynamic since their aging is 'Y'.

(b) They belong to the connected PC.

Practice 14.2

1. display vlan brief

```
<H3C>display vlan brief
Brief information about all VLANs:
Supported Minimum VLAN ID: 1
Supported Maximum VLAN ID: 4094
Default VLAN ID: 1
VLAN ID   Name                                Port
1         VLAN 0001                           GE1/0/1  GE1/0/5  GE1/0/6  GE1/0/7
                                              GE1/0/8  GE1/0/9  GE1/0/10
                                              GE1/0/11  GE1/0/12  GE1/0/13
                                              GE1/0/14  GE1/0/15  GE1/0/16
                                              GE1/0/17  GE1/0/18  GE1/0/19
                                              GE1/0/20  GE1/0/21  GE1/0/22
                                              GE1/0/23  GE1/0/24  GE1/0/25
                                              GE1/0/26  GE1/0/27  GE1/0/28
2         VLAN 0002
3         VLAN 0003
4         VLAN 0004
5         VLAN 0005
6         VLAN 0006
7         VLAN 0007
8         VLAN 0008
9         VLAN 0009
10        VLAN 0010
11        VLAN 0011
---- More ----
```

2. default VLAN:

```
[H3C]display vlan
 Total VLANs: 4094
 The VLANs include:
 1(default), 2-4094
[H3C]
```

v

There is 1 default vlan. They belong to the 11 port.

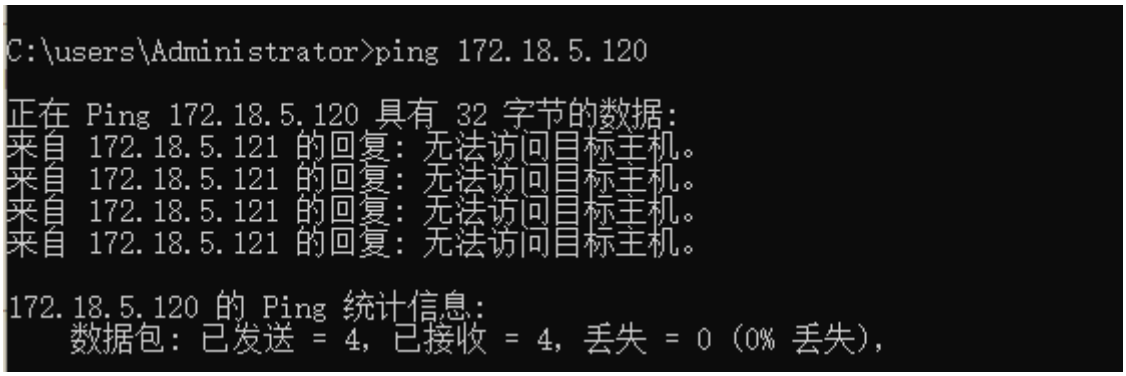
3. Create two VLANs: VLAN ‘x’ and VLAN ‘y’ on Layer3 Switch / Router.

```
[H3C]vlan 101
[H3C-vlan101]display this
#
vlan 101
 ip-subnet-vlan 0 ip 192.168.128.1 255.255.255.0
#
return
[H3C-vlan101]quit
[H3C]vlan 102
[H3C-vlan102]quit
```

4. Configure the VLANs and interfaces:

```
[H3C]int GigabitEthernet 1/0/11
[H3C-GigabitEthernet1/0/11]port access vlan 101
[H3C-GigabitEthernet1/0/11]display this
#
interface GigabitEthernet1/0/11
 port access vlan 101
 port-isolate enable group 8
#
return
[H3C-GigabitEthernet1/0/11]quit
[H3C]int GigabitEthernet 1/0/15
[H3C-GigabitEthernet1/0/15]port access vlan 102
[H3C-GigabitEthernet1/0/15]display this
#
interface GigabitEthernet1/0/15
 port access vlan 102
 port-isolate enable group 8
#
return
[H3C-GigabitEthernet1/0/15]
```

5. Setup the connections:



They cannot be connected.

6. Configure PCa and PCb with static IP addresses which belong to the same network.

Since we use PC in the lab classroom, they automatically belong to the same network.

7. Is there anyway to make the PCa reachable from PCb without changing the connection? Try and test.

Use `trunk` commands.

```
return
[H3C-GigabitEthernet1/0/11]port link-type trunk
[H3C-GigabitEthernet1/0/11]port  trunk permit vlan 101
[H3C-GigabitEthernet1/0/11]display this
#
interface GigabitEthernet1/0/11
 port link-type trunk
 port trunk permit vlan 1 101
#
return
[H3C-GigabitEthernet1/0/11]quit
[H3C]port  trunk permit vlan 102
     ^
 % Ambiguous command found at '^' position.
[H3C]port link-type trunk
     ^
 % Ambiguous command found at '^' position.
[H3C]int GigabitEthernet 1/0/15
[H3C-GigabitEthernet1/0/15]port link-type trunk
[H3C-GigabitEthernet1/0/15]port  trunk permit vlan 102
[H3C-GigabitEthernet1/0/15]display this
#
interface GigabitEthernet1/0/15
 port link-type trunk
 port trunk permit vlan 1 102
#
return
```

```
C:\users\Administrator>ping 172.18.5.120

正在 Ping 172.18.5.120 具有 32 字节的数据:
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来自 172.18.5.120 的回复: 字节=32 时间<1ms TTL=128

172.18.5.120 的 Ping 统计信息:
    数据包: 已发送 = 4, 已接收 = 4, 丢失 = 0 (0% 丢失),
往返行程的估计时间(以毫秒为单位):
    最短 = 0ms, 最长 = 0ms, 平均 = 0ms
```