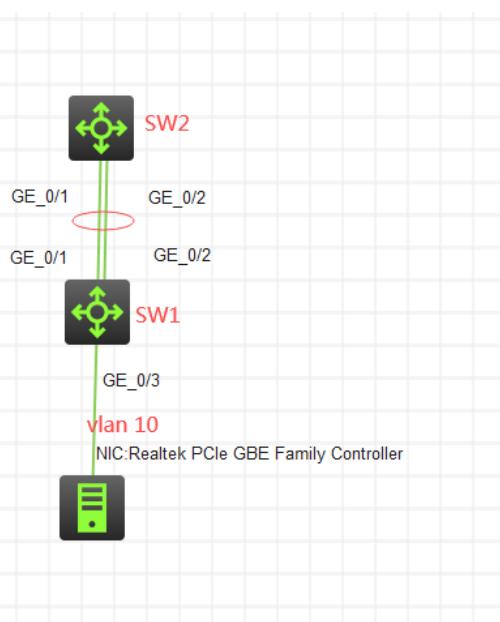


知 IPV6之二层链路聚合典型组网配置案例

IPv6 二层链路聚合 VLAN H3C模拟器 韦家宁 2020-02-26 发表

组网及说明



组网说明：

本案例采用H3C HCL模拟器来模拟IPV6 二层链路聚合典型组网配置。SW1为接入设备，SW2为网关所在的核心设备。为了提高链路带宽及确保设备的冗余性，因此在SW1和SW2之间使用两条物理链路，并通过二层链路聚合技术实现捆绑。

配置步骤

- 1、按照网络拓扑图正确划分VLAN
- 2、SW1和SW2之间采用二层链路聚合

配置关键点

SW1:

```
<H3C>sys  
System View: return to User View with Ctrl+Z.  
[H3C]sysname SW1  
[SW1]vlan 10  
[SW1-vlan10]quit  
[SW1]int Bridge-Aggregation 1  
[SW1-Bridge-Aggregation1]quit  
[SW1]int range gi 1/0/1 to gi 1/0/2  
[SW1-if-range]port link-aggregation group 1  
[SW1-if-range]quit  
[SW1]int Bridge-Aggregation 1  
[SW1-Bridge-Aggregation1]port link-type trunk  
[SW1-Bridge-Aggregation1]undo port trunk permit vlan 1  
[SW1-Bridge-Aggregation1]port trunk permit vlan 10  
[SW1-Bridge-Aggregation1]quit  
[SW1]int gi 1/0/3  
[SW1-GigabitEthernet1/0/3]port link-type access  
[SW1-GigabitEthernet1/0/3]port access vlan 10  
[SW1-GigabitEthernet1/0/3]quit
```

SW2:

```
<H3C>sys  
System View: return to User View with Ctrl+Z.  
[H3C]sysname SW2  
[SW2]vlan 10
```

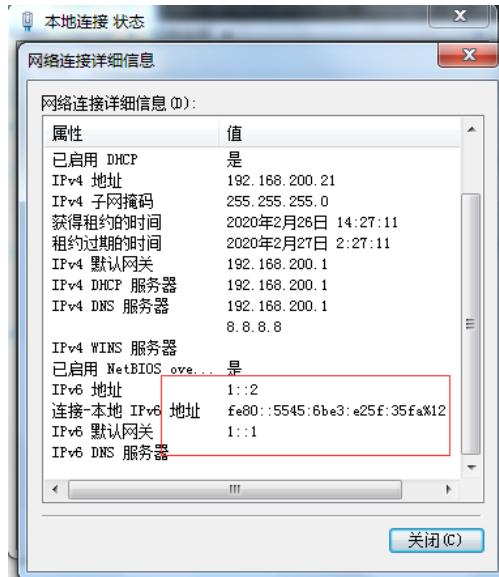
```

[SW2-vlan10]quit
[SW2]int vlan 10
[SW2-Vlan-interface10]ipv6 address 1::1 64
[SW2-Vlan-interface10]quit
[SW2]int Bridge-Aggregation 1
[SW2-Bridge-Aggregation1]quit
[SW2]int range gi 1/0/1 to gi 1/0/2
[SW2-if-range]port link-aggregation group 1
[SW2-if-range]quit
[SW2]int Bridge-Aggregation 1
[SW2-Bridge-Aggregation1]port link-type trunk
[SW2-Bridge-Aggregation1]undo port trunk permit vlan 1
[SW2-Bridge-Aggregation1]port trunk permit vlan 10
[SW2-Bridge-Aggregation1]quit

```

测试：

物理机填写IP地址，且可以PING通网关即可：



```

Administrator: C:\Windows\system32\cmd.exe
Microsoft Windows [版本 6.1.7601]
版权所有 © 2009 Microsoft Corporation。保留所有权利。
C:\Users\Administrator.USER-20190510M>ping 1::1

正在 Ping 1::1 具有 32 字节的数据:
来自 1::1 的回复: 时间=28ms
来自 1::1 的回复: 时间<1ms
来自 1::1 的回复: 时间=1ms
来自 1::1 的回复: 时间=1ms

1::1 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 = 28ms, 平均 = 7ms

C:\Users\Administrator.USER-20190510M>

```

查看SW1和SW2的链路聚合信息：

```

[SW1]dis link-aggregation verbose
Loadsharing Type: Shar -- Loadsharing, NonS -- Non-Loadsharing
Port A -- Auto
Port Status: S -- Selected, U -- Unselected, I -- Individual
Flags: A -- LACP_Activity, B -- LACP_Timeout, C -- Aggregation,
D -- Synchronization, E -- Collecting, F -- Distributing,
G -- Defaulted, H -- Expired

Aggregate Interface: Bridge-Aggregation1
Aggregation Mode: Static
Loadsharing Type: Shar
Port      Status  Priority Oper-Key
-----  

GE1/0/1    S      32768   1
GE1/0/2    S      32768   1
[SW1]

```

```
[SW2]dis link-aggregation verbose
Loadsharing Type: Shar -- Loadsharing, NonS -- Non-Loadsharing
Port: A -- Auto
Port Status: S -- Selected, U -- Unselected, I -- Individual
Flags: A -- LACP_Activity, B -- LACP_Timeout, C -- Aggregation,
D -- Synchronization, E -- Collecting, F -- Distributing,
G -- Defaulted, H -- Expired

Aggregate Interface: Bridge-Aggregation1
Aggregation Mode: Static
Loadsharing Type: Shar
  Port      Status  Priority Oper-Key
-----  

  GE1/0/1    S      32768   1  

  GE1/0/2    S      32768   1  

[SW2]
```

分别查看SW1和SW2的链路聚合后的速率为2G:

```
[SW1]dis int brief
Brief information on interfaces in route mode:
Link: ADM - administratively down; Stby - standby
Protocol: (s) - spoofing
Interface      Link Protocol Primary IP      Description
InLoop0        UP   UP(s)   --  

MGE0/0/0       DOWN DOWN   --  

NULL0          UP   UP(s)   --  

REG0           UP   --      --  

Brief information on interfaces in bridge mode:
Link: ADM - administratively down; Stby - standby
Speed: (a) - auto
Duplex: (a)/A - auto; H - half; F - full
Type: A - access; T - trunk; H - hybrid
Interface      Link Speed Duplex Type PVID Description
BAGG1          UP   2G(a) F(a)   T   1  

FGE1/0/53     DOWN 40G   A     A   1  

FGE1/0/54     DOWN 40G   A     A   1  

GE1/0/1        UP   1G(a) F(a)   T   1  

GE1/0/2        UP   1G(a) F(a)   T   1  

GE1/0/3        UP   1G(a) F(a)   A   10  

GE1/0/4        DOWN auto  A     A   1  

GE1/0/5        DOWN auto  A     A   1  

---- More ----
```

```
  GE1/0/2      S      32768   1
[SW2]dis in brief
Brief information on interfaces in route mode:
Link: ADM - administratively down; Stby - standby
Protocol: (s) - spoofing
Interface      Link Protocol Primary IP      Description
InLoop0        UP   UP(s)   --  

MGE0/0/0       DOWN DOWN   --  

NULL0          UP   UP(s)   --  

REG0           UP   --      --  

Vlan10         UP   UP      --  

Brief information on interfaces in bridge mode:
Link: ADM - administratively down; Stby - standby
Speed: (a) - auto
Duplex: (a)/A - auto; H - half; F - full
Type: A - access; T - trunk; H - hybrid
Interface      Link Speed Duplex Type PVID Description
BAGG1          UP   2G(a) F(a)   T   1  

FGE1/0/53     DOWN 40G   A     A   1  

FGE1/0/54     DOWN 40G   A     A   1  

GE1/0/1        UP   1G(a) F(a)   T   1  

GE1/0/2        UP   1G(a) F(a)   T   1  

GE1/0/3        DOWN auto  A     A   1  

GE1/0/4        DOWN auto  A     A   1  

GE1/0/5        DOWN auto  A     A   1  

GE1/0/6        DOWN auto  A     A   1  

GE1/0/7        DOWN auto  A     A   1  

GE1/0/8        DOWN auto  A     A   1  

GE1/0/9        DOWN auto  A     A   1
```

至此，IPV6之二层链路聚合典型组网配置案例已完成！