The configuration about dynamic link aggregation on S5130 switchs and CentOS 7

Servers Switches 唐勋 2020-12-18 Published

Network Topology

CentOS version

```
[tx@localhost ~]$ cat /proc/version
Linux version 3.10.0-1160.6.1.el7.x86_64 (mockbuild@kbuilder.bsys.centos.org) (gcc version 4.8.5 20150623 (Red H
at 4.8.5-44) (GCC) ) #1 SMP Tue Nov 17 13:59:11 UTC 2020
```

Switch model and version

```
[sw1]dis version
H3C Comware Software, Version 7.1.070, Release 3506P02
Copyright (c) 2004-2019 New H3C Technologies Co., Ltd. All rights reserved.
H3C S5130-28S-PWR-EI uptime is 0 weeks, 0 days, 1 hour, 55 minutes
Last reboot reason : Cold reboot

Boot image: flash:/s5130ei_e-cmw710-boot-r3506p02.bin
Boot image version: 7.1.070, Release 3506P02
  Compiled Dec 16 2019 11:00:00
System image: flash:/s5130ei_e-cmw710-system-r3506p02.bin
System image version: 7.1.070, Release 3506P02
  Compiled Dec 16 2019 11:00:00
Feature image(s) list:
  flash:/s5130ei_e-cmw710-freeradius-r3506p02.bin, version: 7.1.070
    Compiled Dec 16 2019 11:00:00


Slot 1:
Uptime is 0 weeks,0 days,1 hour,55 minutes
S5130-28S-PWR-EI with 1 Processor
BOARD TYPE:          S5130-28S-PWR-EI
DRAM:                1024M bytes
FLASH:               512M bytes
PCB 1 Version:       VER.B
Bootrom Version:     147
CPLD 1 Version:      002
Release Version:     H3C S5130-28S-PWR-EI-3506P02
Patch Version  :     None
Reboot Cause   :     ColdReboot
[SubSlot 0] 24GE+4SFP Plus

Slot 2:
Uptime is 0 weeks,0 days,1 hour,55 minutes
S5130-28S-PWR-EI with 1 Processor
BOARD TYPE:          S5130-28S-PWR-EI
DRAM:                1024M bytes
FLASH:               512M bytes
PCB 1 Version:       VER.B
Bootrom Version:     147
CPLD 1 Version:      002
Release Version:     H3C S5130-28S-PWR-EI-3506P02
Patch Version  :     None
Reboot Cause   :     ColdReboot
[SubSlot 0] 24GE+4SFP Plus
```

Configuration Steps

1.In this case,I congfigure irf between the two switches.(You can refer to the configuration guide on of ficial website or you can skip this if you have only one switches).

2.congfigure link-aggregation.

[sw1]int bridge-aggregation 1

[sw1-bridge-aggregation1]link-aggregation mode dynamic

[sw1]int ten 1/0/25

[sw1-ten-gigabitethernet1/0/25]port link-a group 1

[sw1]int ten 2/0/25

[sw1-ten-gigabitethernet2/0/25]port link-a group 1

3.configure team in CentOS

3.1 check current device in the CentOS

```
[root@localhost tx]# nmcli connection show
NAME        UUID                                  TYPE      DEVICE
ens1f0      61377788-8bb3-4ef1-84d4-cf578ce6b2b6  ethernet  ens1f0
ens1f1      29ec96d4-e1c1-4013-a651-8480acdb2987  ethernet  ens1f1
virbr0      a3683f0e-8032-458f-a63c-1e8370085169  bridge    virbr0
enp61s0f0   f8d73fc4-2ee1-46ab-9014-3ab94fc2df1b  ethernet  --
enp61s0f1   7c240fa7-39d5-48c8-b55d-1a61cef72384  ethernet  --
enp61s0f2   bdf62665-5ef0-4279-a261-408bfe19ba6e  ethernet  --
enp61s0f3   a22fd6aa-d488-4fb4-804f-9b874ec12651  ethernet  --
```

3.2.create team0

[root@localhost tx]nmcli connection add type team con-name team0 ifname team0 config “{“runner”:{“name”:”lacp”}}”

3.3 configure ip and gateway for team0

```
[root@localhost tx]# nmcli connection modify team0 ipv4.addresses "192.168.128.1
23/24"
[root@localhost tx]# nmcli connection modify team0 ipv4.gateway "192.168.128.1"
[root@localhost tx]# nmcli connection modify team0 ipv4.method manual
```

3.4 add interface to team0

```
[root@localhost tx]# nmcli connection add type team-slave ifname ens1f0 con-name
 team0-0 master team0
Connection 'team0-0' (43b3da10-6f55-41d1-b2b6-6979948b2141) successfully added.
[root@localhost tx]# nmcli connection add type team-slave ifname ens1f1 con-name
 team0-1 master team0
Connection 'team0-1' (d68b249f-88da-46fc-8710-acc5ce313658) successfully added.
```

Key Configuration

1.check team0 configuration file

```
TEAM_CONFIG="{\"runner\": {\"name\": \"lacp\", \"tx_hash\": [\"eth\", \"ipv4\",
\"ipv6\"]}}"
PROXY_METHOD=none
BROWSER_ONLY=no
BOOTPROTO=none
DEFROUTE=yes
IPV4_FAILURE_FATAL=no
IPV6INIT=yes
IPV6_AUTOCONF=yes
IPV6_DEFROUTE=yes
IPV6_FAILURE_FATAL=no
IPV6_ADDR_GEN_MODE=stable-privacy
NAME=team0
UUID=0959cdf4-6419-4f80-8bc1-3a99cf04c52b
DEVICE=team0
ONBOOT=yes
DEVICETYPE=Team
IPADDR=192.168.128.123
PREFIX=24
GATEWAY=192.168.128.1
```

2.check active device

```
[root@localhost network-scripts]# nmcli con sho
NAME        UUID                                  TYPE      DEVICE
team0       0959cdf4-6419-4f80-8bc1-3a99cf04c52b  team      team0
virbr0      a3683f0e-8032-458f-a63c-1e8370085169  bridge    virbr0
team0-0     5294e6cb-34de-4772-a47d-9f6a8f7e5a3c  ethernet  ens1f0
team0-1     889af404-e928-43cb-a214-c39c1331689d  ethernet  ens1f1
enp61s0f0   f8d73fc4-2ee1-46ab-9014-3ab94fc2df1b  ethernet  --
enp61s0f1   7c240fa7-39d5-48c8-b55d-1a61cef72384  ethernet  --
enp61s0f2   bdf62665-5ef0-4279-a261-408bfe19ba6e  ethernet  --
enp61s0f3   a22fd6aa-d488-4fb4-804f-9b874ec12651  ethernet  --
ens1f0      61377788-8bb3-4ef1-84d4-cf578ce6b2b6  ethernet  --
```

3.check port status on switch.All ports are selected to the bridge-aggreation.

```
[sw2]dis link-a verbose
Loadsharing Type: Shar -- Loadsharing, NonS -- Non-Loadsharing
Port Status: S -- Selected, U -- Unselected, I -- Individual
Port: A -- Auto port, M -- Management port, R -- Reference port
Flags:  A -- LACP_Activity, B -- LACP_Timeout, C -- Aggregation,
        D -- Synchronization, E -- Collecting, F -- Distributing,
        G -- Defaulted, H -- Expired

Aggregate Interface: Bridge-Aggregation1
Creation Mode: Manual
Aggregation Mode: Dynamic
Loadsharing Type: Shar
Management VLANs: None
System ID: 0x8000, 9428-2e40-8618
Local:
  Port              Status   Priority Index    Oper-Key              Flag
  XGE1/0/25(R)      S        32768    1        1                     {ACDEFG}
  XGE2/0/25         U        32768    2        1                     {ACG}
Remote:
  Actor             Priority Index    Oper-Key SystemID              Flag
  XGE1/0/25         32768    0        0        0x8000, 0000-0000-0000 {DEF}
  XGE2/0/25         32768    0        0        0x8000, 0000-0000-0000 {DEF}
```