

组网及说明

S6520与思科2960对接NTP典型组网配置，其中S6520为时钟源，思科2960为客户端

S6520版本信息如下：

H3C Comware Software, Version 7.1.070, Release 1110P02

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H3C S6520X-54QC-EI uptime is 31 weeks, 3 days, 21 hours, 12 minutes

Last reboot reason : Cold reboot

Boot image: flash:/s6520x-cmw710-boot-r1110p02.bin

Boot image version: 7.1.070, Release 1110P02

Compiled Aug 14 2018 11:00:00

System image: flash:/s6520x-cmw710-system-r1110p02.bin

System image version: 7.1.070, Release 1110P02

Compiled Aug 14 2018 11:00:00

思科2960版本信息如下：

Cisco IOS Software, C2960 Software (C2960-LANBASEK9-M), Version 12.2(50)SE5, RELEASE SOFTWARE (fc1)

Technical Support: <http://www.cisco.com/techsupport>

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Compiled Tue 28-Sep-10 13:44 by prod_rel_team

Image text-base: 0x00003000, data-base: 0x01400000

ROM: Bootstrap program is C2960 boot loader

BOOTLDR: C2960 Boot Loader (C2960-HBOOT-M) Version 12.2(44)SE5, RELEASE SOFTWARE (fc1)

anquanpingtai-ha-v4-1 uptime is 2 years, 45 weeks, 15 hours, 9 minutes

System returned to ROM by power-on

System restarted at 23:37:34 UTC Wed Jul 19 2017

System image file is "flash:c2960-lanbasek9-mz.122-50.SE5/c2960-lanbasek9-mz.122-50.SE5.bin"

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cisco WS-C2960G-48TC-L (PowerPC405) processor (revision H0) with 65536K bytes of memory.

Processor board ID FOC1520W692

Last reset from power-on

6 Virtual Ethernet interfaces

48 Gigabit Ethernet interfaces

The password-recovery mechanism is enabled.

64K bytes of flash-simulated non-volatile configuration memory.

Base ethernet MAC Address : 20:37:06:04:0C:00

Motherboard assembly number : 73-10300-12
Power supply part number : 341-0098-02
Motherboard serial number : FOC15200C86
Power supply serial number : DCA151090Q4
Model revision number : H0
Motherboard revision number : A0
Model number : WS-C2960G-48TC-L
System serial number : FOC1520W692
Top Assembly Part Number : 800-27071-06
Top Assembly Revision Number : D0
Version ID : V06
CLEI Code Number : COMB800BRA
Hardware Board Revision Number : 0x01

Switch Ports	Model	SW Version	SW Image
* 1 48	WS-C2960G-48TC-L	12.2(50)SE5	C2960-LANBASEK9-M

配置步骤

S6520 NTP时钟源配置信息如下:

```
clock protocol none
ntp-service enable
ntp-service refclock-master 2
```

```
interface Vlan-interface100
description YunWeiGuanLi
ip address 10.190.8.1 255.255.255.192
quit
```

思科2960 NTP配置如下:

```
ntp server 10.190.8.1 source Vlan400
```

S6520查看NTP显示信息:

```
dis ntp sessions
      source      reference      stra reach poll now offset delay disper
*****
[25]10.190.8.252 LOCL          1 255 64 51 -28825 0.9002 18.218
[12345]LOCAL(0) LOCL          1 255 64 42 0.0000 0.0000 0.9155
Notes: 1 source(master), 2 source(peer), 3 selected, 4 candidate, 5 configured.
Total sessions: 2
```

```
dis ntp status
Clock status: synchronized
Clock stratum: 2
System peer: LOCAL(0)
Local mode: client
Reference clock ID: 127.127.1.0
Leap indicator: 00
Clock jitter: 0.000000 s
Stability: 0.000 pps
Clock precision: 2^-21
Root delay: 0.00000 ms
Root dispersion: 10.98633 ms
Reference time: e27ced67.56daf74f Sat, May 30 2020 14:34:15.339
System poll interval: 64 s
```

思科2960查看NTP显示信息:

```
sh ntp status
```

Clock is synchronized, stratum 3, reference is 10.190.8.1
nominal freq is 119.2092 Hz, actual freq is 119.2098 Hz, precision is 2**18
reference time is E27CECF0.B7440A60 (14:32:16.715 UTC Sat May 30 2020)
clock offset is 0.0861 msec, root delay is 1.63 msec
root dispersion is 11.38 msec, peer dispersion is 0.26 msec

sh ntp associations

	address	ref clock	st	when	poll	reach	delay	offset	disp
*~	10.190.8.1	127.127.1.0	2	354	512	377	1.6	0.09	0.3

* master (syncd), # master (unsyncd), + selected, - candidate, ~ configured

配置关键点

- 1、 确保时钟源和时钟客户端路由可达。
- 2、 时钟源及时钟客户端都需要开启NTP功能。
- 3、 时钟客户端指定时钟源为NTP服务器。
- 4、 时钟源所在的设备配置为时钟源。