

知 S6520与思科3560对接NTP典型组网配置案例

NTP 韦家宁 2020-05-30 发表

组网及说明

S6520与思科3560对接NTP典型组网配置，其中S6520为时钟源，思科3560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3560版本信息如下：

Cisco IOS Software, C3560 Software (C3560-IPSERVICES-M), Version 12.2(35)SE5, RELEASE SO

FTWARE (fc1)

Copyright (c) 1986-2007 by Cisco Systems, Inc.

Compiled Thu 19-Jul-07 18:15 by nachen

Image text-base: 0x00003000, data-base: 0x01300000

ROM: Bootstrap program is C3560 boot loader

BOOTLDR: C3560 Boot Loader (C3560-HBOOT-M) Version 12.2(25r)SEE4, RELEASE SOFTWARE

(fc1)

JMTJ-K-1 uptime is 2 years, 18 weeks, 6 days, 13 hours, 6 minutes

System returned to ROM by power-on

System restarted at 01:44:59 UTC Fri Jan 19 2018

System image file is "flash:c3560-ip-services-mz.122-35.SE5/c3560-ip-services-mz.122-35.SE5.bin"

cisco WS-C3560G-48TS (PowerPC405) processor (revision F0) with 122880K/8184K bytes of memo
ry.

Processor board ID FOC1442Z4EH

Last reset from power-on

3 Virtual Ethernet interfaces

52 Gigabit Ethernet interfaces

The password-recovery mechanism is enabled.

512K bytes of flash-simulated non-volatile configuration memory.

Base ethernet MAC Address : EC:C8:82:39:BD:80

Motherboard assembly number : 73-10214-06

Power supply part number : 341-0107-01

Motherboard serial number : FOC1442737L

Power supply serial number : AZS143501Q2

Model revision number : F0

Motherboard revision number : A0

Model number : WS-C3560G-48TS-E

System serial number : FOC1442Z4EH

Top Assembly Part Number : 800-27479-03

Top Assembly Revision Number : A0

Version ID : V05

CLEI Code Number : COMBG10BRA

Hardware Board Revision Number : 0x09

Switch	Ports	Model	SW Version	SW Image
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* 1 52 WS-C3560G-48TS 12.2(35)SE5 C3560-IPSERVICES-M

Configuration register is 0xF

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3560 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3560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 119.2104 Hz, precision is 2**18
reference time is E27CEE7.3FF6A41B (14:40:55.249 UTC Sat May 30 2020)
clock offset is -0.0129 msec, root delay is 1.63 msec
root dispersion is 11.40 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 81 128 377 1.6 -0.01 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。