

## 组网及说明

S6520与思科3750对接NTP典型组网配置，其中S6520为时钟源，思科3750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3750信息如下：

Cisco IOS Software, C3750 Software (C3750-IPSERVICESK9-M), Version 12.2(52)SE, RELEASE SOFTWARE (fc3)

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Compiled Fri 25-Sep-09 08:32 by sasyamal

Image text-base: 0x01000000, data-base: 0x02E00000

ROM: Bootstrap program is C3750 boot loader

BOOTLDR: C3750 Boot Loader (C3750-HBOOT-M) Version 12.2(44)SE5, RELEASE SOFTWARE (fc1)

JCW\_C3750\_A uptime is 1 year, 18 weeks, 1 day, 9 hours, 34 minutes

System returned to ROM by address error at PC 0x1765528, address 0x0

System restarted at 05:21:37 GX Thu Jan 24 2019

System image file is "flash:/c3750-ipservicesk9-mz.122-52.SE.bin"

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If you require further assistance please contact us by sending email to [export@cisco.com](mailto:export@cisco.com).

cisco WS-C3750G-48TS (PowerPC405) processor (revision H0) with 131072K bytes of memory.

Processor board ID FOC1446Y0A6

Last reset from address error

7 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 : F0:25:72:81:E7:80

Motherboard assembly number : 73-10218-10

Power supply part number : 341-0107-01

Motherboard serial number : FOC14434ZZ4  
Power supply serial number : AZS143207C1  
Model revision number : H0  
Motherboard revision number : A0  
Model number : WS-C3750G-48TS-E  
System serial number : FOC1446Y0A6  
Top Assembly Part Number : 800-27483-05  
Top Assembly Revision Number : D0  
Version ID : V07  
CLEI Code Number : CMMAN00ARA  
Hardware Board Revision Number : 0x09

Switch Ports Model	SW Version	SW Image
* 1 52 WS-C3750G-48TS	12.2(52)SE	C3750-IPSERVICESK9-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3750 NTP配置如下:

```
ntp server 10.190.8.1 source Loopback0
```

S6520查看NTP显示信息:

```
dis ntp sessions  
source reference strata 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3750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 119.2110 Hz, precision is 2**18
```

reference time is E27CEE35.8C7EDE85 (14:37:41.548 GX Sat May 30 2020)  
clock offset is 0.5777 msec, root delay is 1.36 msec  
root dispersion is 12.39 msec, peer dispersion is 0.70 msec

sh ntp associations

```
address      ref clock  st when poll reach delay offset disp
*~10.190.8.1 127.127.1.0 2 544 1024 377 1.4 0.58 0.7
* 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。