

## 组网及说明

S10510与思科3560对接NTP典型组网配置, 其中S10510为时钟源, 思科3560为客户端

S10510版本信息如下:

H3C Comware Software, Version 7.1.070, Release 7536P05

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H3C S10510 uptime is 92 weeks, 2 days, 4 hours, 3 minutes

Last reboot reason : USER reboot

Boot image: flash:/S10500-CMW710-BOOT-R7536P05.bin

Boot image version: 7.1.070, Release 7536P05

Compiled Mar 28 2017 16:00:00

System image: flash:/S10500-CMW710-SYSTEM-R7536P05.bin

System image version: 7.1.070, Release 7536P05

Compiled Mar 28 2017 16:00:00

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-ipservices-mz.122-35.SE5/c3560-ipservices-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
* 1	52	WS-C3560G-48TS	12.2(35)SE5	C3560-IPSERVICES-M

Configuration register is 0xF

## 配置步骤

S10510 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
```

S10510查看NTP显示信息:

```
dis ntp sessions  
source reference stratum 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 (synced), # master (unsynced), + 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。