

组网及说明

S12508与思科3560对接NTP典型组网配置, 其中S12508为时钟源, 思科3560为客户端

S12508版本信息如下:

H3C Comware Platform Software
Comware Software, Version 5.20, Release 1828P05
Copyright (c) 2004-2014 Hangzhou H3C Tech. Co., Ltd. All rights reserved.
H3C S12508 uptime is 58 weeks, 4 days, 15 hours, 32 minutes
Last reboot reason : User reboot

思科3560版本信息如下:

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

WAI-F7-XZC-1 uptime is 31 weeks, 5 days, 17 hours, 24 minutes
System returned to ROM by power-on
System restarted at 23:07:18 china Sun Oct 20 2019
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 memory.
Processor board ID FOC1442Z4FZ
Last reset from power-on
2 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 : B4:14:89:E7:D1:80
Motherboard assembly number : 73-10214-06
Power supply part number : 341-0107-01
Motherboard serial number : FOC14425UBW
Power supply serial number : AZS143501S4
Model revision number : F0
Motherboard revision number : A0
Model number : WS-C3560G-48TS-E
System serial number : FOC1442Z4FZ
Top Assembly Part Number : 800-27479-03
Top Assembly Revision Number : A0
Version ID : V05
CLEI Code Number : COMBG10BRA
Hardware Board Revision Number : 0x09

Table with 5 columns: Switch, Ports, Model, SW Version, SW Image. Row 1: * 1 52 WS-C3560G-48TS 12.2(35)SE5 C3560-IPSERVICES-M

Configuration register is 0xF

配置步骤

S12508 NTP时钟源配置信息如下:

```
ntp-service refclock-master 2

interface Vlan-interface4
ip address 10.190.4.254 255.255.255.0
vrrp vrid 4 virtual-ip 10.190.4.1
vrrp vrid 4 priority 105
packet-filter 3002 inbound
packet-filter 3002 outbound
```

思科3560 NTP配置如下:

```
ntp server 10.190.9.1
```

S12508查看NTP显示信息:

```
dis ntp status
Clock status: synchronized
Clock stratum: 2
Reference clock ID: 127.127.1.0
Nominal frequency: 100.0000 Hz
Actual frequency: 100.0000 Hz
Clock precision: 2^14
Clock offset: 0.0000 ms
Root delay: 0.00 ms
Root dispersion: 43.43 ms
Peer dispersion: 10.00 ms
Reference time: 08:26:28.027 UTC May 30 2020(E27C9734.072367E4)
```

```
dis ntp sessions
source      reference  stra reach poll now offset delay disper
*****
[12345]127.127.1.0 LOCL      1 255 64 44 0.0 0.0 1.0
note: 1 source(master),2 source(peer),3 selected,4 candidate,5 configured
Total associations : 1
```

思科3560查看NTP显示信息:

```
sh ntp status
Clock is synchronized, stratum 3, reference is 10.190.9.1
nominal freq is 119.2092 Hz, actual freq is 119.2075 Hz, precision is 2**18
reference time is E27C96FA.5A6B2A48 (16:25:30.353 china Sat May 30 2020)
clock offset is -0.0319 msec, root delay is 0.98 msec
root dispersion is 43.59 msec, peer dispersion is 0.06 msec
```

```
sh ntp associations

address      ref clock  st when poll reach delay offset disp
*~10.190.9.1 127.127.1.0 2 479 512 377 1.0 -0.03 0.1
* 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。

