S6800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

S6800与思科3560对接NTP典型组网配置，其中S6800为时钟源，思科3560为客户端
S6800版本信息如下：
H3C Comware Software, Version 7.1.045, Release 2418P05
Copyright (c) 2004-2015 Hangzhou H3C Tech. Co., Ltd. All rights reserved.
H3C S6800-4C uptime is 240 weeks, 3 days, 12 hours, 0 minutes
Last reboot reason : USER reboot

Boot image: flash:/s6800-cmw710-boot-r2418p05.bin
Boot image version: 7.1.045, Release 2418P05
Compiled Jun 09 2015 12:06:42
System image: flash:/s6800-cmw710-system-r2418p05.bin
System image version: 7.1.045, Release 2418P05
Compiled Jun 09 2015 12:06:42
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)

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 memory.
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

S6800 NTP时钟源配置信息如下：

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

interface loopback 0
ip address 10.190.0.15 255.255.255.255
quit
```

思科3560 NTP配置如下：

```
ntp server 10.190.0.15 source Vlan400
```

S6800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 10.190.0.15
nominal freq is 119.2092 Hz, actual freq is 119.2104 Hz, precision is 2**18
reference time is E27CEEF7.3FF6A41B (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
*~10.190.0.15       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。