

某局点S6805-54HF NTP同步失败问题处理经验案例

NTP 刁勇 2023-10-30 发表

组网及说明

组网不涉及

问题描述

设备作为客户端找服务器同步时间失败

过程分析

查看设备时间异常，但是查看同步状态显示又已同步：

```
<DC01-ECC-TOR25-5FJFBC09>dis clock
21:44:54.863 BJ Mon 07/02/2001
Time Zone : BJ add 08:00:00
<DC01-ECC-TOR25-5FJFBC09>dis ntp status
Clock status: synchronized
Clock stratum: 2
System peer: [REDACTED]
Local mode: client
Reference clock ID: [REDACTED]
Leap indicator: 00
Clock jitter: 0.001007 s
Stability: 0.000 pps
Clock precision: 2^-22
Root delay: 0.12207 ms
Root dispersion: 1970.65857 ms
Reference time: beaef95b.00000000 Mon, Jul 2 2001 21:44:59.000
System poll interval: 64 s
```

Clock status

系统时间的状态，取值为：

- **synchronized: 系统时间已同步**
- unsynchronized: 系统时间未同步

和同步正常的客户端对比配置未见异常：

```
<DC01-ECC-TOR23-5FJFBC14>dis clock
16:49:03.663 BJ Wed 09/13/2023
Time Zone : BJ add 08:00:00
<DC01-ECC-TOR23-5FJFBC14>
```

clock timezone BJ add 08:00:00

clock protocol ntp

ntp-service enable

ntp-service source M-GigabitEthernet0/0/0

ntp-service unicast-server X.X.X.X vpn-instance OOB priority

ntp-service unicast-server X.X.X.X vpn-instance OOB

确认网络中没有其他NTP服务器后在设备上Debugging ntp-service all查看同步过程：

```
*Jul 3 02:26:40:857 2001 DC01-ECC-TOR25-5FJFBC09 NTP/7/ACL: Access restrict: 0x00000008.
*Jul 3 02:26:40:857 2001 DC01-ECC-TOR25-5FJFBC09 NTP/7/AUTH: Received a packet at
15790995, from X.X.X.X, mode 4, key ID 00000000, length 48, authentication result 0
*Jul 3 02:26:40:857 2001 DC01-ECC-TOR25-5FJFBC09 NTP/7/PARAM: Clock filter param: number
8, offset 700663072.709299, delay 0.000084, dispersion 0.004191, jitter 0.000572, burst 0
*Jul 3 02:26:40:857 2001 DC01-ECC-TOR25-5FJFBC09 NTP/7/SELECT: endpoint -1,
700663072.703395
*Jul 3 02:26:40:857 2001 DC01-ECC-TOR25-5FJFBC09 NTP/7/SELECT: endpoint -1,
700663072.706161
*Jul 3 02:26:40:857 2001 DC01-ECC-TOR25-5FJFBC09 NTP/7/SELECT: endpoint 0,
700663072.709299
*Jul 3 02:26:40:857 2001 DC01-ECC-TOR25-5FJFBC09 NTP/7/SELECT: endpoint 0,
700663072.709794
*Jul 3 02:26:40:857 2001 DC01-ECC-TOR25-5FJFBC09 NTP/7/SELECT: endpoint 1,
700663072.713427
*Jul 3 02:26:40:857 2001 DC01-ECC-TOR25-5FJFBC09 NTP/7/SELECT: endpoint 1,
700663072.715203
*Jul 3 02:26:40:857 2001 DC01-ECC-TOR25-5FJFBC09 NTP/7/SELECT: peer X.X.X.X, offset
700663072.709794, low 700663072.706161, high 700663072.713427, flags 00000421
*Jul 3 02:26:40:857 2001 DC01-ECC-TOR25-5FJFBC09 NTP/7/SELECT: peer X.X.X.X, offset
700663072.709299, low 700663072.706161, high 700663072.713427, flags 00000401
*Jul 3 02:26:40:857 2001 DC01-ECC-TOR25-5FJFBC09 NTP/7/SELECT: Survivor X.X.X.X, distance
1.000526
*Jul 3 02:26:40:857 2001 DC01-ECC-TOR25-5FJFBC09 NTP/7/SELECT: Survivor X.X.X.X, distance
```

1.000921

*Jul 3 02:26:40:857 2001 DC01-ECC-TOR25-5FJFBC09 NTP/7/SELECT: Combine offset 70066307
2.709794164, jitter 0.000318697

*Jul 3 02:26:40:857 2001 DC01-ECC-TOR25-5FJFBC09 NTP/7/SYNCH: Synchronized to peer X.X.
X.X

解决方法
*Jul 3 02:26:40:857 2001 DC01-ECC-TOR25-5FJFBC09 NTP/7/SELECT: Clock update at 15790995

可以手动修改系统时间，然后再重启NTP进程尝试恢复，重启NTP进程无影响

问题图下：
*Jul 3 02:26:40:858 2001 DC01-ECC-TOR25-5FJFBC09 NTP/7/ADJUST: One-off system time adjust
ment failed: Error: Success slot 1

*Jul 3 02:26:41:858 2001 DC01-ECC-TOR25-5FJFBC09 NTP/7/ADJUST: Failed to adjust system ti
me.

*Jul 3 02:26:42:855 2001 DC01-ECC-TOR25-5FJFBC09 NTP/7/ADJUST: Failed to adjust system ti
me.

*Jul 3 02:26:43:855 2001 DC01-ECC-TOR25-5FJFBC09 NTP/7/ADJUST: Failed to adjust system ti
me.

*Jul 3 02:26:44:855 2001 DC01-ECC-TOR25-5FJFBC09 NTP/7/ADJUST: Failed to adjust system ti
me.

*Jul 3 02:26:45:855 2001 DC01-ECC-TOR25-5FJFBC09 NTP/7/ADJUST: Failed to adjust system ti
me.

查看过程发现NTP报文交互正常，但是在调整系统时间时返回码为Error: Success，怀疑为C2538 CP
U 浮点寄存器污染问题导致NTP下底层设置时间失败。

MPU(M) Slot 1:

Uptime is 25 weeks,6 days,12 hours,58 minutes

H3C S6805-54HF MPU(M) with 1 C2538 Processor(s)

