

SNMP coldStart Traps Device Reload Behavior

Document ID: 40360

Introduction

Prerequisites

Requirements

Components Used

Conventions

Determining the Cause of the coldStart Trap

1. A Reload via CLI
2. A Reload Due to Power Failure
3. A Reload After a Crash
4. A Shutdown through SNMP Reload Trap

Related Information

Introduction

An SNMP agent sends a coldStart trap when it is initialized. You can use the information in this document when you troubleshoot to help determine the reason for a device reload.

Prerequisites

Requirements

Readers of this document should be knowledgeable of SNMP Traps, this includes the ability to translate Object IDs into Object Names.

Specific SNMP Objects users should be familiar with include:

- sysUpTime
- whyReload
- ItsLineSessionTable

Components Used

This document is not restricted to specific software and hardware versions.

Conventions

For more information on document conventions, see the Cisco Technical Tips Conventions.

Determining the Cause of the coldStart Trap

These sections describe causes of coldStart traps on your router.

1. A Reload via CLI

```
Oct 13 13:10:17 nms-server2 snmptrapd[223]: 1.2.3.4:
Cold Start Trap (0) Uptime: 0:00:24.57,
system.sysUpTime.sysUpTimeInstance = Timeticks: (2457) 0:00:24.57,
```

```
enterprises.cisco.local.lsystem.whyReload.0 = "reload"
```

The reload **show version** command indicates the system returned to ROM by reload.

2. A Reload Due to Power Failure

```
Oct 13 13:19:23 nms-server2 snmptrapd[223]: 1.2.3.4 [1.2.3.4]:  
Trap system.sysUpTime.sysUpTimeInstance = 1984,  
.iso.org.dod.internet.snmpV2.snmpModules.snmpMIB.snmpMIBObjects.snmpTrap.  
snmpTrapOID.0 = OID:  
.iso.org.dod.internet.snmpV2.snmpModules.snmpMIB.snmpMIBObjects.snmpTraps.  
coldStart,  
system.sysUpTime.sysUpTimeInstance = Timeticks: (1984) 0:00:19.84,  
enterprises.cisco.local.lsystem.whyReload.0 = "power-on"
```

The **show version** command indicates the system returned to ROM by power-on.

3. A Reload After a Crash

```
Oct 13 13:12:05 nms-server2 snmptrapd[223]: 1.2.3.4 [1.2.3.4]:  
Trap system.sysUpTime.sysUpTimeInstance = 1984,  
.iso.org.dod.internet.snmpV2.snmpModules.snmpMIB.snmpMIBObjects.snmpTrap.  
snmpTrapOID.0 = OID:  
.iso.org.dod.internet.snmpV2.snmpModules.snmpMIB.snmpMIBObjects.snmpTraps.  
coldStart,  
system.sysUpTime.sysUpTimeInstance = Timeticks: (1984) 0:00:19.84,  
enterprises.cisco.local.lsystem.whyReload.0 = "error - Signal 23, Exception  
code (0x0024)!, PC 0x801E2EC0"
```

The **show version** command indicates the system returned to ROM by error – Signal 23, Exception code (0x0024)!, PC 0x801E2EC0.

You may also see this trap when an administrator was Telnetted to the router and performed some task when the router crashed. This trap (SNMP v2c) is generated as the router is coming up after crash reload.

```
Oct 13 13:37:42 nms-server2 snmptrapd[223]: 1.2.3.4 [1.2.3.4]:  
Trap system.sysUpTime.sysUpTimeInstance = 8287,  
.iso.org.dod.internet.snmpV2.snmpModules.snmpMIB.snmpMIBObjects.snmpTrap.  
snmpTrapOID.0 = OID:  
enterprises.cisco.cisco#.tcpConnectionClose,  
enterprises.cisco.local.lts.ltsLineSessionTable.ltsLineSessionEntry.  
tslineSesType.2.1 = telnet(5),  
tcp.tcpConnTable.tcpConnEntry.tcpConnState.14.32.12.254.80.172.18.123.68.43280 =  
finWait2(7),  
enterprises.cisco.local.ltcp.ltcpConnTable.ltcpConnEntry.loctcpConnElapsed.  
14.32.12.254.80.172.18.123.68.43280 = Wrong Type (should be Timeticks): 17,  
enterprises.cisco.local.ltcp.ltcpConnTable.ltcpConnEntry.loctcpConnInBytes.  
14.32.12.254.80.172.18.123.68.43280 = 66,  
enterprises.cisco.local.ltcp.ltcpConnTable.ltcpConnEntry.loctcpConnOutBytes.  
14.32.12.254.80.172.18.123.68.43280 = 168,  
enterprises.cisco.local.lts.ltsLineTable.ltsLineEntry.tsLineUser.2 = ""
```

OR

You may see this trap (SNMP v1), if IP connection was available for the trap to get out before the router reloads.

```
Oct 13 14:35:55 nms-server2 snmptrapd[223]: 1.2.3.4:  
Enterprise Specific Trap (tcpConnectionClose) Uptime: 0:04:15.25,
```

```
enterprises.cisco.local.lts.ltsLineSessionTable.ltsLineSessionEntry.  
  tslineSesType.130.1 = telnet(5),  
tcp.tcpConnTable.tcpConnEntry.tcpConnState.10.5.1.123.23.172.18.123.33.1840 =  
  established(5),  
enterprises.cisco.local.ltcp.ltcpConnTable.ltcpConnEntry.loctcpConnElapsed.  
  10.5.1.123.23.172.18.123.33.1840 = Wrong Type (should be Timeticks): 19504,  
enterprises.cisco.local.ltcp.ltcpConnTable.ltcpConnEntry.loctcpConnInBytes.  
  10.5.1.123.23.172.18.123.33.1840 = 93,  
enterprises.cisco.local.ltcp.ltcpConnTable.ltcpConnEntry.loctcpConnOutBytes.  
  10.5.1.123.23.172.18.123.33.1840 = 1766,  
enterprises.cisco.local.lts.ltsLineTable.ltsLineEntry.tsLineUser.130 = "cse"
```

Note: Examples 2 and 3 were taken from a router configured to generate SNMP v2c, whereas examples 1 and 4 are taken from a router configured to generate SNMP v1 traps.

4. A Shutdown through SNMP Reload Trap

```
Oct 13 14:30:23 nms-server2 snmptrapd[223]: 1.2.3.4:  
Enterprise Specific Trap (reload)  
Uptime: 0:03:05.98, system.sysUpTime.sysUpTimeInstance = Timeticks: (18598) 0:03:05.98,  
enterprises.cisco.local.lsystem.whyReload.0 = "snmp shutdown request"
```

The **show version** command after router reloads, shows that the system returned to ROM by reload.

Note: These bugs are related to coldStart traps not getting generated in Catalyst 2900/3500 XL switches: CSCdy10697 [🔗](#) (registered customers only), CSCdp41669 [🔗](#) (registered customers only), and CSCdm02220 [🔗](#) (registered customers only).

Related Information

- [Technical Support – Cisco Systems](#)

[Contacts & Feedback](#) | [Help](#) | [Site Map](#)

© 2008 – 2009 Cisco Systems, Inc. All rights reserved. [Terms & Conditions](#) | [Privacy Statement](#) | [Cookie Policy](#) | [Trademarks of Cisco Systems, Inc.](#)

Updated: Oct 26, 2005

Document ID: 40360
