Observed one or more processes has been placed in the hold-down state.

Contents

Observed one or more processes has been placed in the hold-down state.

ICSeverity

3 - Error

Impact

Due to this issue, the process had stopped working which could impact the services.

Description

Process Manager (PMAN) is a critical component of Cisco IOS that supervises and manages the lifecycle of all software processes running on the device. It ensures that essential processes are running smoothly and takes corrective action when they are not. This syslog message indicates that PMAN has detected a problem with a process that has stopped functioning correctly. The process was restarted too many times with repeated failures and has been placed in the hold-down state. It could be seen when performing a hard IM (Interface Module) OIR (online insertion and removal), IM pull out, or soft IM OIR causes that process is gracefully terminated from the kernel. When a process crashes or stops unexpectedly, PMAN will usually attempt to restart it. However, if the process crashes repeatedly or encounters continuous failures upon restart, PMAN recognizes this pattern as a potentially unstable situation for the device. To prevent a process from entering a crash loop, which could severely impact the system's performance and stability, PMAN places the process in a "hold-down" state. This means the process will not be restarted for a certain period of time, or until an administrator intervenes. The hold-down state is a protective mechanism. By preventing the immediate restart of a failing process, PMAN gives system administrators the opportunity to diagnose the issue without the complication of recurring process crashes. This state also allows the rest of the system to continue operating with as little disruption as possible.

SyslogMessage

PMAN-3-PROCHOLDDOWN

MessageSample

```
Nov 05 08:45:28 <> : %PMAN-3-PROCHOLDDOWN: Fx: pman.sh:  The process cpp_ha_top_level_server has been h
```

ProductFamily

- Cisco Catalyst 9200 Series Switches
- Cisco Catalyst 9300 Series Switches
- Cisco Catalyst 9400 Series Switches
- Cisco Catalyst 9500 Series Switches
- Cisco Catalyst 9600 Series Switches
- Cisco 4000 Series Integrated Services Routers
- Cisco Catalyst 3850 Series Switches
- Cisco Catalyst 3650 Series Switches
- Cisco ASR 1000 Series Aggregation Services Routers
- Cisco ASR 900 Series Aggregation Services Routers
- Cisco Catalyst 9800 Series Wireless Controllers

Regex

N/A

Recommendation

If you encounter this PMAN syslog message, it is an indication that there may be a deeper issue at play, either with the software process itself, the hardware it's interfacing with, or possibly even with the system's software image. To resolve this issue, you would typically: 1. Examine the logs to understand the context of the crashes, you can collect these files depending on the specific platform as seen in the links below: https://www.cisco.com/c/en/us/support/docs/switches/catalyst-9200-series-switches/216945-outputs-to-collect-in-the-event-of-crash.pdf https://www.cisco.com/c/en/us/support/docs/universal-gateways-access-servers/90-series-customer-premises-equipment/7900-crashes-router-troubleshooting.html https://www.cisco.com/c/en/us/support/docs/ip/trivial-file-transfer-protocol-tftp/217967-capture-information-from-the-crashinfo-f.html 2. Perform diagnostic commands and monitor the system to gather more information. Router#show logging Router#show processes cpu sorted Router#show process memory sorted Router#show process cpu platform sorted 3. Check for known bugs or issues related to the process or the IOS version in use. Consider a planned upgrade to keep your system software updated to the latest stable version recommended by Cisco, as software updates can resolve known bugs that may cause process crashes. https://software.cisco.com/download/home

Commands

#show version

#show logging

#show platform

#show module

#show process cpu platform sorted

#show platform resources

#show processes memory platform sorted

#show clock

#show redundancy switchover history

#show process memory sorted

#show process memory platform accounting

#show hw-module all fpd

#show clock

#show inventory

#show facility-alarm status

#show process cpu history