

连结监控程序内存和CPU使用Python Cli

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Introduction

本文描述如何监控CPU和内存与使用内藏的Python cli模块和日程表系统日志通知。

Prerequisites

Requirements

Cisco 建议您了解以下主题：

- [嵌入式活动管理器](#)
- [连结调度程序](#)

Components Used

本文档中的信息基于以下软件和硬件版本：

- 连结3000 - 7.0(3)I4(7)
- 连结9000 - 7.0(3)I7(1)

The information in this document was created from the devices in a specific lab environment. All of the devices used in this document started with a cleared (default) configuration. If your network is live, make sure that you understand the potential impact of any command.

Configure

对于此示例，请监控其CPU和内存的进程PTP。

保证配置。

```
feature ptp
```

```
feature scheduler
```

Python脚本用于监控CPU和内存在设备运行的一个特定的进程的。

```
import cisco
import sys
from cli import *

def main(process):

mem = ""
cpu = ""

ptp_cpu = cli('sh proc cpu | i '+process)
ptp_mem = cli('sh proc mem | i '+process)

if ptp_cpu:
csplit = ptp_cpu.split()
cpu = csplit[4]
if ptp_mem:
msplit = ptp_mem.split()
mem = msplit[3]

cli('syslog priority notifications msg for '+process+' mem: '+mem+' and cpu '+cpu)

return

if __name__ == "__main__":
main(sys.argv[1])
```

保存文件作为ptp_alert_mem_cpu.py。

Verify

使用本部分可确认配置能否正常运行。

从CLI运行文件。

运行脚本的语法：

Python <script file> <process name>

```
Nexus# python bootflash:ptp_alert_mem_cpu.py ptp
```

```
Nexus# show logg last 5
```

```
2018 Dec 13 10:59:30 Nexus %VSHD-5-VSHD_SYSLOG_CONFIG_I: Configured from vty by admin on vsh.28744
```

```
2018 Dec 13 11:02:30 Nexus %VSHD-5-VSHD_SYSLOG_CONFIG_I: Configured from vty by admin on vsh.28867
```

```
2018 Dec 13 11:03:37 Nexus %EEM_ACTION-5-NOTIF: for ptp mem: 649089024 and cpu 0.00%
```

如被看到这里，此Syslog戒备为PTP进程被触发并且包括CPU和存储器使用。

同样输出从连结CLI被看到。

```
Nexus# show logg last 5
```

```
2018 Dec 13 10:59:30 Nexus %VSHD-5-VSHD_SYSLOG_CONFIG_I: Configured from vty by admin on vsh.28744
```

```
2018 Dec 13 11:02:30 Nexus %VSHD-5-VSHD_SYSLOG_CONFIG_I: Configured from vty by admin on vsh.28867
```

```
2018 Dec 13 11:03:37 Nexus %EEM_ACTION-5-NOTIF: for ptp mem: 649089024 and cpu 0.00%
```

这是展示的另一示例脚本如何用于结束进程，当内存超过指定的极限。

脚本采取两输入、进程名和mem大小，在后进程将被杀害。

```
Nexus# show logg last 5
```

```
2018 Dec 13 10:59:30 Nexus %VSHD-5-VSHD_SYSLOG_CONFIG_I: Configured from vty by admin on vsh.28744
```

```
2018 Dec 13 11:02:30 Nexus %VSHD-5-VSHD_SYSLOG_CONFIG_I: Configured from vty by admin on vsh.28867
```

```
2018 Dec 13 11:03:37 Nexus %EEM_ACTION-5-NOTIF: for ptp mem: 649089024 and cpu 0.00%
```

```
Nexus# show logg last 5
```

```
2018 Dec 20 07:00:09 BGL14.1-G.17-N3K-C31108PC-1 %EEM_ACTION-5-NOTIF: Killing ptp mem: 691027968
```

```
2018 Dec 20 07:00:09 BGL14.1-G.17-N3K-C31108PC-1 %VSHD-5-VSHD_SYSLOG_CMD_EXEC: User:admin executed the command:run bash
```

```
2018 Dec 20 07:00:09 BGL14.1-G.17-N3K-C31108PC-1 %SYSMGR-2-SERVICE_CRASHED: Service "ptp" (PID 29107) hasn't caught signal 6 (core will be saved).
```

安排脚本

使用EEM

此EEM脚本将被触发每一个分钟系统消息然后生成。

```
Nexus# show logg last 5
```

```
2018 Dec 20 07:00:09 BGL14.1-G.17-N3K-C31108PC-1 %EEM_ACTION-5-NOTIF: Killing ptp mem: 691027968
```

```
2018 Dec 20 07:00:09 BGL14.1-G.17-N3K-C31108PC-1 %VSHD-5-VSHD_SYSLOG_CMD_EXEC: User:admin executed the command:run bash
```

```
2018 Dec 20 07:00:09 BGL14.1-G.17-N3K-C31108PC-1 %SYSMGR-2-SERVICE_CRASHED: Service "ptp" (PID 29107) hasn't caught signal 6 (core will be saved).
```

```
Nexus# show logg last 5
```

```
2018 Dec 20 07:00:09 BGL14.1-G.17-N3K-C31108PC-1 %EEM_ACTION-5-NOTIF: Killing ptp mem: 691027968
```

```
2018 Dec 20 07:00:09 BGL14.1-G.17-N3K-C31108PC-1 %VSHD-5-VSHD_SYSLOG_CMD_EXEC: User:admin executed the command:run bash
```

```
2018 Dec 20 07:00:09 BGL14.1-G.17-N3K-C31108PC-1 %SYSMGR-2-SERVICE_CRASHED: Service "ptp" (PID 29107) hasn't caught signal 6 (core will be saved).
```

使用调度程序

此调度程序工作将被触发每一个分钟系统消息然后生成。

```
Nexus# show logg last 5
```

```
2018 Dec 20 07:00:09 BGL14.1-G.17-N3K-C31108PC-1 %EEM_ACTION-5-NOTIF: Killing ptp mem: 691027968  
2018 Dec 20 07:00:09 BGL14.1-G.17-N3K-C31108PC-1 %VSHD-5-VSHD_SYSLOG_CMD_EXEC: User:admin  
executed the command:run bash  
2018 Dec 20 07:00:09 BGL14.1-G.17-N3K-C31108PC-1 %SYSMGR-2-SERVICE_CRASHED: Service "ptp" (PID  
29107) hasn't caught signal 6 (core will be saved).
```

```
Nexus# show logg last 5
```

```
2018 Dec 20 07:00:09 BGL14.1-G.17-N3K-C31108PC-1 %EEM_ACTION-5-NOTIF: Killing ptp mem: 691027968  
2018 Dec 20 07:00:09 BGL14.1-G.17-N3K-C31108PC-1 %VSHD-5-VSHD_SYSLOG_CMD_EXEC: User:admin  
executed the command:run bash  
2018 Dec 20 07:00:09 BGL14.1-G.17-N3K-C31108PC-1 %SYSMGR-2-SERVICE_CRASHED: Service "ptp" (PID  
29107) hasn't caught signal 6 (core will be saved).
```

Troubleshoot

目前没有针对此配置的故障排除信息。