

Guia de Troubleshooting do uso da alta utilização da CPU do nexo 7000

Índice

[Introdução](#)

[USO de CPU no nexo 7000 Plataformas](#)

[Comanda e passa pelo processo de script para monitorar processos e CPU](#)

[Comandos](#)

[comando show processes](#)

[mostre a recursos de sistema o comando](#)

[Comando show processes cpu](#)

[comando show processes cpu history](#)

[mostre o comando detail processador central do processo](#)

[mostre o comando cpu dos processos internos do sistema](#)

[mostre a sistema o comando interno pid do serviço do sysmgr](#)

[Script da amostra EEM](#)

[Uso da alta utilização da CPU causado pelo processo ou pelo tráfego](#)

[O processo causa o uso da alta utilização da CPU](#)

[mostre a sistema o MEM-stats /memstats internos | no comando grande](#)

[Ethanalyzer](#)

[Comandos debug](#)

[O tráfego causa o uso da alta utilização da CPU](#)

[Análise da causa raiz do uso da alta utilização da CPU](#)

[Sintomas](#)

[História CPU](#)

[comando show processes cpu history](#)

[CoPP e HWRL](#)

[mostre o comando do controle plano da relação do mapa de política](#)

[mostre o comando modificação do taxa-limitador do hardware](#)

[Direcionador Inband](#)

[mostre a hardware o CPU-MAC interno inband \[contadores | stats | comando dos eventos\]](#)

[mostre a sistema o pktmgr interno comando inband interno VDC](#)

[Netstack/Pktmgr](#)

[mostre a sistema o comando status inband do Enfileiramento](#)

[mostre a sistema o comando statistics inband do Enfileiramento](#)

[mostre a sistema o pktmgr interno comando interno global-stats VDC](#)

[mostre a sistema o comando interface ethernet interno do pktmgr](#)

[mostre a sistema o comando client interno do pktmgr](#)

[mostre a sistema o comando interno stats do pktmgr](#)

Introdução

Este documento descreve comandos e processos comuns monitorar o USO de CPU e pesquisar defeitos edições do uso da alta utilização da CPU em Plataformas do 7000 Series do nexos de Cisco. Os comandos e o script da amostra EEM são baseados na liberação 6.1 do nexos 7000 e mais adiantado e são sujeitos mudar nas liberações futuras.

USO de CPU no nexos 7000 Plataformas

A plataforma do nexos 7000 é um sistema Linux-baseado com um planificador preventivo que permita o acesso considerável aos recursos do CPU para todos os processos. Ao contrário do Cisco Catalyst 6500 Series, não há nenhum route processor (RP) separado e switch processor (SP). O Supervisor Engine 1 tem um processador do duplo-núcleo, o Supervisor Engine 2 tem um processador do quadrilátero-núcleo, e o Supervisor Engine 2E tem dois processadores do quadrilátero-núcleo.

O sistema operacional do Cisco NX-OS aproveita-se da multitarefa preventivo CPU, assim que os processos podem aproveitar-se de uma quietude CPU a fim terminar mais rapidamente tarefas. Conseqüentemente, a opção da história pode relatar os aumentos de CPU que não indicam necessariamente um problema. Contudo, se o USO de CPU médio permanece elevação comparada ao normal, USO de CPU da linha de base para uma rede particular, você pôde precisar de investigar o uso da alta utilização da CPU.

Os limitadores da taxa do hardware do padrão (HWRL) e o Policiamento do plano de controle do padrão (CoPP) são permitidos de ajudar a proteger a relação inband do supervisor no nexos 7000 Plataformas.

Comanda e passa pelo processo de script para monitorar processos e CPU

Comandos

[O analisador do CLI Cisco \(clientes registrados somente\)](#) apoia determinados comandos de exibição. Use o analisador do CLI Cisco a fim ver uma análise do emissor de comando de execução.

comando show processes

Use este Exibir informação do comando sobre processos ativo.

```
switch# show processes
```

```
PID State PC Start_cnt TTY Type Process
```

```
-----  
1 S 41520eb8 1 - 0 init  
2 S 0 1 - 0 kthreadd  
3 S 0 1 - 0 migration/0  
4 S 0 1 - 0 ksoftirqd/0  
5 S 0 1 - 0 watchdog/0  
6 S 0 1 - 0 migration/1  
7 S 0 1 - 0 ksoftirqd/1  
8 S 0 1 - 0 watchdog/1  
9 S 0 1 - 0 events/0  
10 S 0 1 - 0 events/1
```

```
11 S 0 1 - 0 khelper
12 S 0 1 - 0 kblockd/0
```

Campo Descrição

PID ID de Processo
Estado Estado de processo
PC Contador de programa atual no formato hexadecimal
Start_cnt O número de vezes um processo foi ligado ou reiniciado
TTY Terminal que controla o processo. Um hífen (--) significa geralmente um demônio que não é executado em todo o terminal particular.

Processo Nome do processo

Estado de processo Descrição

D Sono Uninterruptible (geralmente I/O)
R Praticável (na fila da corrida)
S Sono
T Seguido ou parado
Z Processo defunto (do zombi)
NR Não sendo executado
ER Deve ser executado mas atualmente não ser executado

mostre a recursos de sistema o comando

Use este comando a fim indicar estatísticas sistema-relacionadas CPU e de memória.

```
switch#show system resources
Load average: 1 minute: 0.36 5 minutes: 0.39 15 minutes: 0.44
Processes : 1068 total, 1 running
CPU states : 0.5% user, 5.5% kernel, 94.0% idle
Memory usage: 8245436K total, 3289920K used, 4955516K free
Current memory status: OK
```

Campo Descrição

Carga Número de processos que estão sendo executado. A média reflete a carga de sistema sobre o 1 passado, 5, e 15 minutos.
Processos Número de processos no sistema e quantos processos estão sendo executado realmente quando o comando for emitido.
Estado CPU Porcentagem do USO de CPU no modo do usuário, no modo do núcleo, e no tempo ocioso no último segundo. Para um supervisor do duplo-núcleo, o CPU é calculado a média através de ambos os núcleos.
Utilização de memória Memória total, memória usada, memória livre, memória usada para bufferes, e memória usada para o esconderijo nos quilobytes. Os bufferes e o esconderijo são incluídos nas estatísticas usadas da memória.

Comando show processes cpu

Use este comando a fim mostrar o USO de CPU a nível de processo:

```
switch#show processes cpu | ex 0.0

PID Runtime(ms) Invoked uSecs 1Sec Process
-----
26 66399 269718 246 0.9% kide/1
2908 115550 11310 10216 2.9% platform
3223 7248 9208 787 0.9% R2D2_usd

CPU util : 1.0% user, 3.0% kernel, 96.0% idle Please note that only processes from the requested vdc are shown above
```



```

70 **** * * * * *
60 ***** * ***** * * ***** * ***** * * * * ***** *
50 ***** * * ***** ***** ***** ***** ***** * * * *
40 *****
30 *****
20 *****
10 #####
0...5...1...1...2...2...3...3...4...4...5...5...6...6...7.
0 5 0 5 0 5 0 5 0 5 0 5 0

```

CPU% per hour (last 72 hours)
* = maximum CPU% # = average CPU%

mostre o comando do <pid> do detalhe processador central do processo

Este comando, que foi adicionado na liberação 6.2, indica a informação do USO de CPU para todas as linhas que pertencem a um PID específico.

```

switch# show processes cpu sorted | grep cli
3965 23734 17872 1328 0.0% 0.1% 0.7% - clis
4024 3047 1256 2426 0.0% 0.0% 0.0% - diagclient
4094 787 258 3052 0.0% 0.0% 0.0% - cardclient
4728 227 209 1088 0.0% 0.0% 0.0% - port_client
4729 1351 499 2708 0.0% 0.0% 0.0% - statsclient
4730 2765 550 5028 0.0% 0.0% 0.0% - xbar_client

```

```

switch# show processes cpu sorted | grep clis
3965 23734 17872 1328 0.0% 0.1% 0.7% - clis
switch# show process cpu detailed 3965

```

CPU utilization for five seconds: 3%/3%; one minute: 0%; five minutes: 1%
PID Runtime(ms) Invoked uSecs 5Sec 1Min 5Min TTY Process

```

-----
3965 23734 17873 1327 0.0% 0.1% 0.6% - clis
4227 45 334 135 0.0% 0.0% 0.0% - clis:clis-cli-t
4228 24 153 162 0.0% 0.0% 0.0% - clis:clis-nvdb-
4760 75 224 335 0.0% 0.0% 0.0% - clis:clis-seria

```

```

switch# show processes cpu sorted | grep netstack
4133 353 892 395 0.0% 0.0% 0.0% - netstack
switch# show process cpu detailed 4133

```

CPU utilization for five seconds: 5%/5%; one minute: 1%; five minutes: 1%
PID Runtime(ms) Invoked uSecs 5Sec 1Min 5Min TTY Process

```

-----
4133 353 892 395 0.0% 0.0% 0.0% - netstack
4145 322 6492 49 0.0% 0.0% 0.0% - netstack:active
4151 239 247 971 0.0% 0.0% 0.0% - netstack:ip-sys
4153 0 3 162 0.0% 0.0% 0.0% - netstack:mpplsda
4155 2 3 717 0.0% 0.0% 0.0% - netstack:mpplsct
4163 0 2 240 0.0% 0.0% 0.0% - netstack:ipv6-d
4164 97 957 101 0.0% 0.0% 0.0% - netstack:netsta
4166 15 628 25 0.0% 0.0% 0.0% - netstack:ip-sys
4167 0 3 224 0.0% 0.0% 0.0% - netstack:ip-pm-
4170 1 12 154 0.0% 0.0% 0.0% - netstack:ip-uri
4171 9 30 323 0.0% 0.0% 0.0% - netstack:ip-ipc
4173 0 5 167 0.0% 0.0% 0.0% - netstack:ip-ipc
4175 0 2 305 0.0% 0.0% 0.0% - netstack:ip-ret
4176 12 7 1838 0.0% 0.0% 0.0% - netstack:ip-ppf
4178 4 15 289 0.0% 0.0% 0.0% - netstack:ipv6-c
4179 41 445 93 0.0% 0.0% 0.0% - netstack:disp
4180 0 6 98 0.0% 0.0% 0.0% - netstack:worker
4181 33 501 66 0.0% 0.0% 0.0% - netstack:worker

```

```

4182 0 2 232 0.0% 0.0% 0.0% - netstack:worker
4183 0 2 227 0.0% 0.0% 0.0% - netstack:worker
4184 0 3 152 0.0% 0.0% 0.0% - netstack:worker
4185 0 2 278 0.0% 0.0% 0.0% - netstack:worker
4186 0 2 254 0.0% 0.0% 0.0% - netstack:worker
4187 0 3 168 0.0% 0.0% 0.0% - netstack:worker
4188 0 2 266 0.0% 0.0% 0.0% - netstack:worker
4189 0 2 248 0.0% 0.0% 0.0% - netstack:worker
4190 0 2 254 0.0% 0.0% 0.0% - netstack:worker
4191 0 3 201 0.0% 0.0% 0.0% - netstack:worker
4192 0 2 258 0.0% 0.0% 0.0% - netstack:worker
4193 0 7 111 0.0% 0.0% 0.0% - netstack:worker
4194 0 8 78 0.0% 0.0% 0.0% - netstack:worker
4195 0 2 313 0.0% 0.0% 0.0% - netstack:worker
4196 15 632 23 0.0% 0.0% 0.0% - netstack:ptacti
4197 0 5 120 0.0% 0.0% 0.0% - netstack:tcp_ip
4198 4 11 390 0.0% 0.0% 0.0% - netstack:ipv6-m
4199 0 3 240 0.0% 0.0% 0.0% - netstack:ipv6-c
4200 0 1 561 0.0% 0.0% 0.0% - netstack:ipv6-c
4201 0 3 246 0.0% 0.0% 0.0% - netstack:icmpv6
4513 0 5 112 0.0% 0.0% 0.0% - netstack:ipv6-m
4514 0 2 291 0.0% 0.0% 0.0% - netstack:ipv6-m

```

Nota: Toda a informação de processo é baseada no “proc” em NX-OS. Em NX-OS, todas as linhas compartilham da memória atribuída por toda a outra linha, assim que não é possível indicar pela informação da linha.

mostre o comando cpu dos processos internos do sistema

Este comando é equivalente ao comando **top** em Linux, que fornece um olhar em curso na atividade do processador no tempo real.

```
switch# show system internal processes cpu
```

```

top - 23:51:41 up 51 min, 3 users, load average: 0.56, 0.49, 0.46
Tasks: 433 total, 1 running, 431 sleeping, 0 stopped, 1 zombie
Cpu(s): 5.9%us, 7.8%sy, 0.0%ni, 81.9%id, 3.6%wa, 0.1%hi, 0.6%si, 0.0%st
Mem: 8245436k total, 3531776k used, 4713660k free, 5360k buffers
Swap: 0k total, 0k used, 0k free, 1458188k cached

```

```

PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND
3589 svc-isan 25 5 112m 8864 4572 S 5.7 0.1 0:21.60 stats_client
10881 sjlan 20 0 3732 1648 1140 R 3.8 0.0 0:00.04 top
26 root 20 0 0 0 0 S 1.9 0.0 1:07.07 kide/1
3280 root -2 0 101m 6104 3680 S 1.9 0.1 0:32.57 octopus
3570 root 20 0 123m 19m 6456 S 1.9 0.2 0:06.07 diag_port_lb
5151 root 20 0 205m 45m 9.8m S 1.9 0.6 0:02.61 netstack
1 root 20 0 1988 604 524 S 0.0 0.0 0:03.75 init
2 root 15 -5 0 0 0 S 0.0 0.0 0:00.00 kthreadd
3 root RT -5 0 0 0 S 0.0 0.0 0:00.00 migration/0
4 root 15 -5 0 0 0 S 0.0 0.0 0:00.61 ksoftirqd/0
5 root -2 -5 0 0 0 S 0.0 0.0 0:00.06 watchdog/0
6 root RT -5 0 0 0 S 0.0 0.0 0:00.00 migration/1
7 root 15 -5 0 0 0 S 0.0 0.0 0:04.80 ksoftirqd/1

```

Campo	Descrição
PID	ID de Processo
USUÁRIO	Nome do usuário que possui o processo
PR	Prioridade atribuída ao processo
NI	Valor agradável do processo
VIRT	Uma quantidade de memória virtual usada pelo processo

RES Uma quantidade de RAM que físico o processo se está usando (seu tamanho residente) nos quilobytes

SHR Quantidade de memória compartilhada usada pelo processo

S Estado do processo. Os valores possíveis incluem:

- D - Sono de Uninterruptibly
- R - Ser executado
- S - Sono
- T - Seguido ou parado
- Z - Zombied

%CPU Porcentagem do processador central - tempo usado pelo processo

%MEM Porcentagem de RAM físico disponível usado pelo processo

TIME+ Quantidade total de processador central - cronometre o processo consumiu desde que foi começado

COMANDO Nome do comando que foi incorporado para começar o processo

“{#seconds} | não mais” opção permite o comando ser cada executado #seconds automaticamente até que um **Ctrl-c** esteja incorporado. Este é exemplo de saída:

```
switch# show system internal processes cpu 5 | no-more
top - 17:31:12 up 4 days, 18:31, 3 users, load average: 0.52, 0.40, 0.32
Tasks: 449 total, 3 running, 446 sleeping, 0 stopped, 0 zombie
Cpu(s): 3.5%us, 4.5%sy, 0.0%ni, 91.2%id, 0.1%wa, 0.1%hi, 0.5%si, 0.0%st
Mem: 8245436k total, 4192740k used, 4052696k free, 27644k buffers
Swap: 0k total, 0k used, 0k free, 1919612k cached
PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND
2908 root 20 0 112m 8516 5516 S 7.5 0.1 264:44.25 pfm
31487 sjlan 20 0 3732 1652 1140 R 5.6 0.0 0:00.05 top
3059 svc-isan 20 0 80288 7536 4440 S 3.8 0.1 65:44.59 diagmgr
3192 root 20 0 334m 47m 11m S 1.9 0.6 25:36.52 netstack
3578 svc-isan 20 0 118m 13m 6952 S 1.9 0.2 24:57.36 stp
5119 svc-isan 20 0 139m 14m 7028 S 1.9 0.2 3:48.60 urib
5151 root 20 0 209m 46m 11m S 1.9 0.6 38:53.39 netstack
5402 svc-isan 20 0 117m 15m 9140 S 1.9 0.2 36:07.13 stp
6175 svc-isan 20 0 118m 16m 9580 S 1.9 0.2 47:09.41 stp
1 root 20 0 1988 604 524 S 0.0 0.0 0:06.51 init
2 root 15 -5 0 0 0 S 0.0 0.0 0:00.00 kthreadd
3 root RT -5 0 0 0 S 0.0 0.0 0:00.08 migration/0
4 root 15 -5 0 0 0 S 0.0 0.0 1:07.77 ksoftirqd/0

top - 17:31:18 up 4 days, 18:31, 3 users, load average: 0.48, 0.39, 0.32
Tasks: 449 total, 1 running, 448 sleeping, 0 stopped, 0 zombie
Cpu(s): 3.5%us, 4.5%sy, 0.0%ni, 91.2%id, 0.1%wa, 0.1%hi, 0.5%si, 0.0%st
Mem: 8245436k total, 4192592k used, 4052844k free, 27644k buffers
Swap: 0k total, 0k used, 0k free, 1919612k cached

PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND
2908 root 20 0 112m 8516 5516 S 7.5 0.1 264:44.47 pfm
31490 sjlan 20 0 3732 1656 1140 R 3.8 0.0 0:00.04 top
1 root 20 0 1988 604 524 S 0.0 0.0 0:06.51 init
2 root 15 -5 0 0 0 S 0.0 0.0 0:00.00 kthreadd
3 root RT -5 0 0 0 S 0.0 0.0 0:00.08 migration/0
4 root 15 -5 0 0 0 S 0.0 0.0 1:07.77 ksoftirqd/0
5 root -2 -5 0 0 0 S 0.0 0.0 0:13.74 watchdog/0
6 root RT -5 0 0 0 S 0.0 0.0 0:00.10 migration/1
7 root 15 -5 0 0 0 S 0.0 0.0 0:54.47 ksoftirqd/1
8 root -2 -5 0 0 0 S 0.0 0.0 0:00.20 watchdog/1
9 root 15 -5 0 0 0 S 0.0 0.0 0:02.94 events/0
10 root 15 -5 0 0 0 S 0.0 0.0 0:02.58 events/1
11 root 15 -5 0 0 0 S 0.0 0.0 0:00.00 khelper
top - 17:31:23 up 4 days, 18:31, 3 users, load average: 0.44, 0.39, 0.32
```

```
Tasks: 449 total, 1 running, 448 sleeping, 0 stopped, 0 zombie
Cpu(s): 3.5%us, 4.5%sy, 0.0%ni, 91.2%id, 0.1%wa, 0.1%hi, 0.5%si, 0.0%st
Mem: 8245436k total, 4192584k used, 4052852k free, 27644k buffers
Swap: 0k total, 0k used, 0k free, 1919612k cached
```

```
PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND
31493 sjlan 20 0 3732 1656 1140 R 3.8 0.0 0:00.04 top
5004 svc-isn 20 0 118m 13m 6852 S 1.9 0.2 41:35.81 stp
10337 svc-isn 20 0 133m 11m 7948 S 1.9 0.1 1:42.81 mcecm
1 root 20 0 1988 604 524 S 0.0 0.0 0:06.51 init
2 root 15 -5 0 0 0 S 0.0 0.0 0:00.00 kthreadd
3 root RT -5 0 0 0 S 0.0 0.0 0:00.08 migration/0
4 root 15 -5 0 0 0 S 0.0 0.0 1:07.77 ksoftirqd/0
5 root -2 -5 0 0 0 S 0.0 0.0 0:13.74 watchdog/0
6 root RT -5 0 0 0 S 0.0 0.0 0:00.10 migration/1
7 root 15 -5 0 0 0 S 0.0 0.0 0:54.47 ksoftirqd/1
8 root -2 -5 0 0 0 S 0.0 0.0 0:00.20 watchdog/1
9 root 15 -5 0 0 0 S 0.0 0.0 0:02.94 events/0
10 root 15 -5 0 0 0 S 0.0 0.0 0:02.58 events/1
top - 17:31:29 up 4 days, 18:31, 3 users, load average: 0.41, 0.38, 0.32
Tasks: 449 total, 1 running, 448 sleeping, 0 stopped, 0 zombie
Cpu(s): 3.5%us, 4.5%sy, 0.0%ni, 91.2%id, 0.1%wa, 0.1%hi, 0.5%si, 0.0%st
Mem: 8245436k total, 4192708k used, 4052728k free, 27644k buffers
Swap: 0k total, 0k used, 0k free, 1919616k cached
```

mostre a sistema o comando interno do <pid> pid do serviço do sysmgr

Use este comando a fim indicar detalhes adicionais, tais como o tempo do reinício, o estado do impacto, e o estado atual, no processo/serviço pelo PID.

```
switch# show system internal processes cpu 5 | no-more
top - 17:31:12 up 4 days, 18:31, 3 users, load average: 0.52, 0.40, 0.32
Tasks: 449 total, 3 running, 446 sleeping, 0 stopped, 0 zombie
Cpu(s): 3.5%us, 4.5%sy, 0.0%ni, 91.2%id, 0.1%wa, 0.1%hi, 0.5%si, 0.0%st
Mem: 8245436k total, 4192740k used, 4052696k free, 27644k buffers
Swap: 0k total, 0k used, 0k free, 1919612k cached
PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND
2908 root 20 0 112m 8516 5516 S 7.5 0.1 264:44.25 pfm
31487 sjlan 20 0 3732 1652 1140 R 5.6 0.0 0:00.05 top
3059 svc-isn 20 0 80288 7536 4440 S 3.8 0.1 65:44.59 diagmgr
3192 root 20 0 334m 47m 11m S 1.9 0.6 25:36.52 netstack
3578 svc-isn 20 0 118m 13m 6952 S 1.9 0.2 24:57.36 stp
5119 svc-isn 20 0 139m 14m 7028 S 1.9 0.2 3:48.60 urib
5151 root 20 0 209m 46m 11m S 1.9 0.6 38:53.39 netstack
5402 svc-isn 20 0 117m 15m 9140 S 1.9 0.2 36:07.13 stp
6175 svc-isn 20 0 118m 16m 9580 S 1.9 0.2 47:09.41 stp
1 root 20 0 1988 604 524 S 0.0 0.0 0:06.51 init
2 root 15 -5 0 0 0 S 0.0 0.0 0:00.00 kthreadd
3 root RT -5 0 0 0 S 0.0 0.0 0:00.08 migration/0
4 root 15 -5 0 0 0 S 0.0 0.0 1:07.77 ksoftirqd/0

top - 17:31:18 up 4 days, 18:31, 3 users, load average: 0.48, 0.39, 0.32
Tasks: 449 total, 1 running, 448 sleeping, 0 stopped, 0 zombie
Cpu(s): 3.5%us, 4.5%sy, 0.0%ni, 91.2%id, 0.1%wa, 0.1%hi, 0.5%si, 0.0%st
Mem: 8245436k total, 4192592k used, 4052844k free, 27644k buffers
Swap: 0k total, 0k used, 0k free, 1919612k cached
```

```
PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND
2908 root 20 0 112m 8516 5516 S 7.5 0.1 264:44.47 pfm
31490 sjlan 20 0 3732 1656 1140 R 3.8 0.0 0:00.04 top
1 root 20 0 1988 604 524 S 0.0 0.0 0:06.51 init
2 root 15 -5 0 0 0 S 0.0 0.0 0:00.00 kthreadd
3 root RT -5 0 0 0 S 0.0 0.0 0:00.08 migration/0
```

```

4 root 15 -5 0 0 0 S 0.0 0.0 1:07.77 ksoftirqd/0
5 root -2 -5 0 0 0 S 0.0 0.0 0:13.74 watchdog/0
6 root RT -5 0 0 0 S 0.0 0.0 0:00.10 migration/1
7 root 15 -5 0 0 0 S 0.0 0.0 0:54.47 ksoftirqd/1
8 root -2 -5 0 0 0 S 0.0 0.0 0:00.20 watchdog/1
9 root 15 -5 0 0 0 S 0.0 0.0 0:02.94 events/0
10 root 15 -5 0 0 0 S 0.0 0.0 0:02.58 events/1
11 root 15 -5 0 0 0 S 0.0 0.0 0:00.00 khelper
top - 17:31:23 up 4 days, 18:31, 3 users, load average: 0.44, 0.39, 0.32
Tasks: 449 total, 1 running, 448 sleeping, 0 stopped, 0 zombie
Cpu(s): 3.5%us, 4.5%sy, 0.0%ni, 91.2%id, 0.1%wa, 0.1%hi, 0.5%si, 0.0%st
Mem: 8245436k total, 4192584k used, 4052852k free, 27644k buffers
Swap: 0k total, 0k used, 0k free, 1919612k cached

```

```

PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND
31493 sjlan 20 0 3732 1656 1140 R 3.8 0.0 0:00.04 top
5004 svc-isan 20 0 118m 13m 6852 S 1.9 0.2 41:35.81 stp
10337 svc-isan 20 0 133m 11m 7948 S 1.9 0.1 1:42.81 mcecm
1 root 20 0 1988 604 524 S 0.0 0.0 0:06.51 init
2 root 15 -5 0 0 0 S 0.0 0.0 0:00.00 kthreadd
3 root RT -5 0 0 0 S 0.0 0.0 0:00.08 migration/0
4 root 15 -5 0 0 0 S 0.0 0.0 1:07.77 ksoftirqd/0
5 root -2 -5 0 0 0 S 0.0 0.0 0:13.74 watchdog/0
6 root RT -5 0 0 0 S 0.0 0.0 0:00.10 migration/1
7 root 15 -5 0 0 0 S 0.0 0.0 0:54.47 ksoftirqd/1
8 root -2 -5 0 0 0 S 0.0 0.0 0:00.20 watchdog/1
9 root 15 -5 0 0 0 S 0.0 0.0 0:02.94 events/0
10 root 15 -5 0 0 0 S 0.0 0.0 0:02.58 events/1
top - 17:31:29 up 4 days, 18:31, 3 users, load average: 0.41, 0.38, 0.32
Tasks: 449 total, 1 running, 448 sleeping, 0 stopped, 0 zombie
Cpu(s): 3.5%us, 4.5%sy, 0.0%ni, 91.2%id, 0.1%wa, 0.1%hi, 0.5%si, 0.0%st
Mem: 8245436k total, 4192708k used, 4052728k free, 27644k buffers
Swap: 0k total, 0k used, 0k free, 1919616k cached

```

Script da amostra EEM

Este é um exemplo de script que capture o uso intermitente da alta utilização da CPU. Os valores usados assim como os comandos emitidos podem ser alterados segundo as exigências:

```

switch# show system internal processes cpu 5 | no-more
top - 17:31:12 up 4 days, 18:31, 3 users, load average: 0.52, 0.40, 0.32
Tasks: 449 total, 3 running, 446 sleeping, 0 stopped, 0 zombie
Cpu(s): 3.5%us, 4.5%sy, 0.0%ni, 91.2%id, 0.1%wa, 0.1%hi, 0.5%si, 0.0%st
Mem: 8245436k total, 4192740k used, 4052696k free, 27644k buffers
Swap: 0k total, 0k used, 0k free, 1919612k cached
PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND
2908 root 20 0 112m 8516 5516 S 7.5 0.1 264:44.25 pfm
31487 sjlan 20 0 3732 1652 1140 R 5.6 0.0 0:00.05 top
3059 svc-isan 20 0 80288 7536 4440 S 3.8 0.1 65:44.59 diagmgr
3192 root 20 0 334m 47m 11m S 1.9 0.6 25:36.52 netstack
3578 svc-isan 20 0 118m 13m 6952 S 1.9 0.2 24:57.36 stp
5119 svc-isan 20 0 139m 14m 7028 S 1.9 0.2 3:48.60 urib
5151 root 20 0 209m 46m 11m S 1.9 0.6 38:53.39 netstack
5402 svc-isan 20 0 117m 15m 9140 S 1.9 0.2 36:07.13 stp
6175 svc-isan 20 0 118m 16m 9580 S 1.9 0.2 47:09.41 stp
1 root 20 0 1988 604 524 S 0.0 0.0 0:06.51 init
2 root 15 -5 0 0 0 S 0.0 0.0 0:00.00 kthreadd
3 root RT -5 0 0 0 S 0.0 0.0 0:00.08 migration/0
4 root 15 -5 0 0 0 S 0.0 0.0 1:07.77 ksoftirqd/0

top - 17:31:18 up 4 days, 18:31, 3 users, load average: 0.48, 0.39, 0.32
Tasks: 449 total, 1 running, 448 sleeping, 0 stopped, 0 zombie
Cpu(s): 3.5%us, 4.5%sy, 0.0%ni, 91.2%id, 0.1%wa, 0.1%hi, 0.5%si, 0.0%st

```

Mem: 8245436k total, 4192592k used, 4052844k free, 27644k buffers
Swap: 0k total, 0k used, 0k free, 1919612k cached

```
PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND
2908 root 20 0 112m 8516 5516 S 7.5 0.1 264:44.47 pfm
31490 sjlan 20 0 3732 1656 1140 R 3.8 0.0 0:00.04 top
1 root 20 0 1988 604 524 S 0.0 0.0 0:06.51 init
2 root 15 -5 0 0 0 S 0.0 0.0 0:00.00 kthreadd
3 root RT -5 0 0 0 S 0.0 0.0 0:00.08 migration/0
4 root 15 -5 0 0 0 S 0.0 0.0 1:07.77 ksoftirqd/0
5 root -2 -5 0 0 0 S 0.0 0.0 0:13.74 watchdog/0
6 root RT -5 0 0 0 S 0.0 0.0 0:00.10 migration/1
7 root 15 -5 0 0 0 S 0.0 0.0 0:54.47 ksoftirqd/1
8 root -2 -5 0 0 0 S 0.0 0.0 0:00.20 watchdog/1
9 root 15 -5 0 0 0 S 0.0 0.0 0:02.94 events/0
10 root 15 -5 0 0 0 S 0.0 0.0 0:02.58 events/1
11 root 15 -5 0 0 0 S 0.0 0.0 0:00.00 khelper
top - 17:31:23 up 4 days, 18:31, 3 users, load average: 0.44, 0.39, 0.32
Tasks: 449 total, 1 running, 448 sleeping, 0 stopped, 0 zombie
Cpu(s): 3.5%us, 4.5%sy, 0.0%ni, 91.2%id, 0.1%wa, 0.1%hi, 0.5%si, 0.0%st
Mem: 8245436k total, 4192584k used, 4052852k free, 27644k buffers
Swap: 0k total, 0k used, 0k free, 1919612k cached
```

```
PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND
31493 sjlan 20 0 3732 1656 1140 R 3.8 0.0 0:00.04 top
5004 svc-isan 20 0 118m 13m 6852 S 1.9 0.2 41:35.81 stp
10337 svc-isan 20 0 133m 11m 7948 S 1.9 0.1 1:42.81 mcecm
1 root 20 0 1988 604 524 S 0.0 0.0 0:06.51 init
2 root 15 -5 0 0 0 S 0.0 0.0 0:00.00 kthreadd
3 root RT -5 0 0 0 S 0.0 0.0 0:00.08 migration/0
4 root 15 -5 0 0 0 S 0.0 0.0 1:07.77 ksoftirqd/0
5 root -2 -5 0 0 0 S 0.0 0.0 0:13.74 watchdog/0
6 root RT -5 0 0 0 S 0.0 0.0 0:00.10 migration/1
7 root 15 -5 0 0 0 S 0.0 0.0 0:54.47 ksoftirqd/1
8 root -2 -5 0 0 0 S 0.0 0.0 0:00.20 watchdog/1
9 root 15 -5 0 0 0 S 0.0 0.0 0:02.94 events/0
10 root 15 -5 0 0 0 S 0.0 0.0 0:02.58 events/1
top - 17:31:29 up 4 days, 18:31, 3 users, load average: 0.41, 0.38, 0.32
Tasks: 449 total, 1 running, 448 sleeping, 0 stopped, 0 zombie
Cpu(s): 3.5%us, 4.5%sy, 0.0%ni, 91.2%id, 0.1%wa, 0.1%hi, 0.5%si, 0.0%st
Mem: 8245436k total, 4192708k used, 4052728k free, 27644k buffers
Swap: 0k total, 0k used, 0k free, 1919616k cached
```

Nota: É necessário definir a “saída-val.” Enquanto o script recolhe dados, aumenta a utilização CPU. Um valor para a saída-val assegura-se de que o script não seja executado em um loop infinito.

Uso da alta utilização da CPU causado pelo processo ou pelo tráfego

Não há nenhum processo contra o USO de CPU da interrupção (como em plataformas de software do [®]do Cisco IOS) quando o USO de CPU é monitorado. Uma maneira rápida determinar a causa do uso da alta utilização da CPU é usar o [comando cpu dos processos internos do sistema da mostra](#). Na maior parte provavelmente, o uso da alta utilização da CPU provocado pelo tráfego faria com que Netstack, assim como outros recursos e processos tais como o Address Resolution Protocol (ARP) e o Internet Group Management Protocol (IGMP), fossem executado altamente.

O processo causa o uso da alta utilização da CPU

Segundo os processos e as edições que estão causando o uso da alta utilização da CPU, você pode precisar de capturar comandos específicos. Estas seções descrevem os métodos que puderam ser úteis.

mostre a sistema o MEM-stats do <feature>/memstats internos | no comando grande

Use este comando a fim mostrar a alocação de memória para um processo; use "" na opção grande para monitorar a memória total grande. Um escape de memória pode fazer com que um processo porte-se mal, que possa conduzir ao uso da alta utilização da CPU.

Ethanalyzer

Use Ethanalyzer para monitorar o tráfego ao CPU.

Comandos debug

Nota: Consulte [Informações Importantes sobre Comandos de Depuração](#) antes de usar comandos **debug**. Use comandos debug sabiamente em um switch de produção evitar o rompimento do serviço.

Use o comando do **arquivo histórico debugar** sempre que possível dirigir a saída a um arquivo especificado e evitá-la travar acima da sessão para encher acima o Syslog. Este é um exemplo de debuga o Simple Network Management Protocol (SNMP):

```
switch# show system internal processes cpu 5 | no-more
top - 17:31:12 up 4 days, 18:31, 3 users, load average: 0.52, 0.40, 0.32
Tasks: 449 total, 3 running, 446 sleeping, 0 stopped, 0 zombie
Cpu(s): 3.5%us, 4.5%sy, 0.0%ni, 91.2%id, 0.1%wa, 0.1%hi, 0.5%si, 0.0%st
Mem: 8245436k total, 4192740k used, 4052696k free, 27644k buffers
Swap: 0k total, 0k used, 0k free, 1919612k cached
PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND
2908 root 20 0 112m 8516 5516 S 7.5 0.1 264:44.25 pfm
31487 sjlan 20 0 3732 1652 1140 R 5.6 0.0 0:00.05 top
3059 svc-isan 20 0 80288 7536 4440 S 3.8 0.1 65:44.59 diagmgr
3192 root 20 0 334m 47m 11m S 1.9 0.6 25:36.52 netstack
3578 svc-isan 20 0 118m 13m 6952 S 1.9 0.2 24:57.36 stp
5119 svc-isan 20 0 139m 14m 7028 S 1.9 0.2 3:48.60 urib
5151 root 20 0 209m 46m 11m S 1.9 0.6 38:53.39 netstack
5402 svc-isan 20 0 117m 15m 9140 S 1.9 0.2 36:07.13 stp
6175 svc-isan 20 0 118m 16m 9580 S 1.9 0.2 47:09.41 stp
1 root 20 0 1988 604 524 S 0.0 0.0 0:06.51 init
2 root 15 -5 0 0 0 S 0.0 0.0 0:00.00 kthreadd
3 root RT -5 0 0 0 S 0.0 0.0 0:00.08 migration/0
4 root 15 -5 0 0 0 S 0.0 0.0 1:07.77 ksoftirqd/0

top - 17:31:18 up 4 days, 18:31, 3 users, load average: 0.48, 0.39, 0.32
Tasks: 449 total, 1 running, 448 sleeping, 0 stopped, 0 zombie
Cpu(s): 3.5%us, 4.5%sy, 0.0%ni, 91.2%id, 0.1%wa, 0.1%hi, 0.5%si, 0.0%st
Mem: 8245436k total, 4192592k used, 4052844k free, 27644k buffers
Swap: 0k total, 0k used, 0k free, 1919612k cached

PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND
2908 root 20 0 112m 8516 5516 S 7.5 0.1 264:44.47 pfm
```

```

31490 sjlan 20 0 3732 1656 1140 R 3.8 0.0 0:00.04 top
1 root 20 0 1988 604 524 S 0.0 0.0 0:06.51 init
2 root 15 -5 0 0 0 S 0.0 0.0 0:00.00 kthreadd
3 root RT -5 0 0 0 S 0.0 0.0 0:00.08 migration/0
4 root 15 -5 0 0 0 S 0.0 0.0 1:07.77 ksoftirqd/0
5 root -2 -5 0 0 0 S 0.0 0.0 0:13.74 watchdog/0
6 root RT -5 0 0 0 S 0.0 0.0 0:00.10 migration/1
7 root 15 -5 0 0 0 S 0.0 0.0 0:54.47 ksoftirqd/1
8 root -2 -5 0 0 0 S 0.0 0.0 0:00.20 watchdog/1
9 root 15 -5 0 0 0 S 0.0 0.0 0:02.94 events/0
10 root 15 -5 0 0 0 S 0.0 0.0 0:02.58 events/1
11 root 15 -5 0 0 0 S 0.0 0.0 0:00.00 khelper
top - 17:31:23 up 4 days, 18:31, 3 users, load average: 0.44, 0.39, 0.32
Tasks: 449 total, 1 running, 448 sleeping, 0 stopped, 0 zombie
Cpu(s): 3.5%us, 4.5%sy, 0.0%ni, 91.2%id, 0.1%wa, 0.1%hi, 0.5%si, 0.0%st
Mem: 8245436k total, 4192584k used, 4052852k free, 27644k buffers
Swap: 0k total, 0k used, 0k free, 1919612k cached

```

```

PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND
31493 sjlan 20 0 3732 1656 1140 R 3.8 0.0 0:00.04 top
5004 svc-isan 20 0 118m 13m 6852 S 1.9 0.2 41:35.81 stp
10337 svc-isan 20 0 133m 11m 7948 S 1.9 0.1 1:42.81 mcecm
1 root 20 0 1988 604 524 S 0.0 0.0 0:06.51 init
2 root 15 -5 0 0 0 S 0.0 0.0 0:00.00 kthreadd
3 root RT -5 0 0 0 S 0.0 0.0 0:00.08 migration/0
4 root 15 -5 0 0 0 S 0.0 0.0 1:07.77 ksoftirqd/0
5 root -2 -5 0 0 0 S 0.0 0.0 0:13.74 watchdog/0
6 root RT -5 0 0 0 S 0.0 0.0 0:00.10 migration/1
7 root 15 -5 0 0 0 S 0.0 0.0 0:54.47 ksoftirqd/1
8 root -2 -5 0 0 0 S 0.0 0.0 0:00.20 watchdog/1
9 root 15 -5 0 0 0 S 0.0 0.0 0:02.94 events/0
10 root 15 -5 0 0 0 S 0.0 0.0 0:02.58 events/1
top - 17:31:29 up 4 days, 18:31, 3 users, load average: 0.41, 0.38, 0.32
Tasks: 449 total, 1 running, 448 sleeping, 0 stopped, 0 zombie
Cpu(s): 3.5%us, 4.5%sy, 0.0%ni, 91.2%id, 0.1%wa, 0.1%hi, 0.5%si, 0.0%st
Mem: 8245436k total, 4192708k used, 4052728k free, 27644k buffers
Swap: 0k total, 0k used, 0k free, 1919616k cached

```

Use o comando do debugar-filtro quando possível a fim minimizar a saída em um sistema da produção. Por exemplo, uma perda de pacotes causa a UniDirectional Link Detection (UDLD) o eco vazio:

```

switch# show system internal processes cpu 5 | no-more
top - 17:31:12 up 4 days, 18:31, 3 users, load average: 0.52, 0.40, 0.32
Tasks: 449 total, 3 running, 446 sleeping, 0 stopped, 0 zombie
Cpu(s): 3.5%us, 4.5%sy, 0.0%ni, 91.2%id, 0.1%wa, 0.1%hi, 0.5%si, 0.0%st
Mem: 8245436k total, 4192740k used, 4052696k free, 27644k buffers
Swap: 0k total, 0k used, 0k free, 1919612k cached
PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND
2908 root 20 0 112m 8516 5516 S 7.5 0.1 264:44.25 pfm
31487 sjlan 20 0 3732 1652 1140 R 5.6 0.0 0:00.05 top
3059 svc-isan 20 0 80288 7536 4440 S 3.8 0.1 65:44.59 diagmgr
3192 root 20 0 334m 47m 11m S 1.9 0.6 25:36.52 netstack
3578 svc-isan 20 0 118m 13m 6952 S 1.9 0.2 24:57.36 stp
5119 svc-isan 20 0 139m 14m 7028 S 1.9 0.2 3:48.60 urib
5151 root 20 0 209m 46m 11m S 1.9 0.6 38:53.39 netstack
5402 svc-isan 20 0 117m 15m 9140 S 1.9 0.2 36:07.13 stp
6175 svc-isan 20 0 118m 16m 9580 S 1.9 0.2 47:09.41 stp
1 root 20 0 1988 604 524 S 0.0 0.0 0:06.51 init
2 root 15 -5 0 0 0 S 0.0 0.0 0:00.00 kthreadd
3 root RT -5 0 0 0 S 0.0 0.0 0:00.08 migration/0
4 root 15 -5 0 0 0 S 0.0 0.0 1:07.77 ksoftirqd/0

top - 17:31:18 up 4 days, 18:31, 3 users, load average: 0.48, 0.39, 0.32

```

```
Tasks: 449 total, 1 running, 448 sleeping, 0 stopped, 0 zombie
Cpu(s): 3.5%us, 4.5%sy, 0.0%ni, 91.2%id, 0.1%wa, 0.1%hi, 0.5%si, 0.0%st
Mem: 8245436k total, 4192592k used, 4052844k free, 27644k buffers
Swap: 0k total, 0k used, 0k free, 1919612k cached
```

```
PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND
2908 root 20 0 112m 8516 5516 S 7.5 0.1 264:44.47 pfm
31490 sjlan 20 0 3732 1656 1140 R 3.8 0.0 0:00.04 top
1 root 20 0 1988 604 524 S 0.0 0.0 0:06.51 init
2 root 15 -5 0 0 0 S 0.0 0.0 0:00.00 kthreadd
3 root RT -5 0 0 0 S 0.0 0.0 0:00.08 migration/0
4 root 15 -5 0 0 0 S 0.0 0.0 1:07.77 ksoftirqd/0
5 root -2 -5 0 0 0 S 0.0 0.0 0:13.74 watchdog/0
6 root RT -5 0 0 0 S 0.0 0.0 0:00.10 migration/1
7 root 15 -5 0 0 0 S 0.0 0.0 0:54.47 ksoftirqd/1
8 root -2 -5 0 0 0 S 0.0 0.0 0:00.20 watchdog/1
9 root 15 -5 0 0 0 S 0.0 0.0 0:02.94 events/0
10 root 15 -5 0 0 0 S 0.0 0.0 0:02.58 events/1
11 root 15 -5 0 0 0 S 0.0 0.0 0:00.00 khelper
top - 17:31:23 up 4 days, 18:31, 3 users, load average: 0.44, 0.39, 0.32
Tasks: 449 total, 1 running, 448 sleeping, 0 stopped, 0 zombie
Cpu(s): 3.5%us, 4.5%sy, 0.0%ni, 91.2%id, 0.1%wa, 0.1%hi, 0.5%si, 0.0%st
Mem: 8245436k total, 4192584k used, 4052852k free, 27644k buffers
Swap: 0k total, 0k used, 0k free, 1919612k cached
```

```
PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND
31493 sjlan 20 0 3732 1656 1140 R 3.8 0.0 0:00.04 top
5004 svc-isan 20 0 118m 13m 6852 S 1.9 0.2 41:35.81 stp
10337 svc-isan 20 0 133m 11m 7948 S 1.9 0.1 1:42.81 mcecm
1 root 20 0 1988 604 524 S 0.0 0.0 0:06.51 init
2 root 15 -5 0 0 0 S 0.0 0.0 0:00.00 kthreadd
3 root RT -5 0 0 0 S 0.0 0.0 0:00.08 migration/0
4 root 15 -5 0 0 0 S 0.0 0.0 1:07.77 ksoftirqd/0
5 root -2 -5 0 0 0 S 0.0 0.0 0:13.74 watchdog/0
6 root RT -5 0 0 0 S 0.0 0.0 0:00.10 migration/1
7 root 15 -5 0 0 0 S 0.0 0.0 0:54.47 ksoftirqd/1
8 root -2 -5 0 0 0 S 0.0 0.0 0:00.20 watchdog/1
9 root 15 -5 0 0 0 S 0.0 0.0 0:02.94 events/0
10 root 15 -5 0 0 0 S 0.0 0.0 0:02.58 events/1
top - 17:31:29 up 4 days, 18:31, 3 users, load average: 0.41, 0.38, 0.32
Tasks: 449 total, 1 running, 448 sleeping, 0 stopped, 0 zombie
Cpu(s): 3.5%us, 4.5%sy, 0.0%ni, 91.2%id, 0.1%wa, 0.1%hi, 0.5%si, 0.0%st
Mem: 8245436k total, 4192708k used, 4052728k free, 27644k buffers
Swap: 0k total, 0k used, 0k free, 1919616k cached
```

O tráfego causa o uso da alta utilização da CPU

Use estas ferramentas quando o tráfego causa o uso da alta utilização da CPU:

- **Ethalyzer** - Monitore o tipo de tráfego a ou do CPU.
- **Configuração** - Verifique a configuração do interruptor/relação/característica
- **CoPP/limitador taxa do hardware** - Assegure-se de que CoPP e HWRL estejam configurados corretamente. Às vezes o CPU não pôde ser executado altamente porque está sendo protegido por CoPP e por limitadores da taxa. Verifique CoPP e HWRL para ver se há umas gotas com certeza traficam/pacotes.

Nota: CoPP e HWRL estão disponíveis somente do contexto do dispositivo virtual do padrão (VDC). São reforçados por cada módulo de E/S individual. O tráfego agregado dos módulos múltiplos pode ainda carregar o CPU pesadamente.

Análise da causa raiz do uso da alta utilização da CPU

Uma parada de rede pode ser resolvida pela intervenção de usuário, ou pode recuperar por si só. Se você suspeita que o uso da alta utilização da CPU causou uma parada de rede, use estas diretrizes a fim investigar causas.

Sintomas

Os sintomas do uso da alta utilização da CPU incluem a instabilidade plana do controle, os problemas de conectividade planos dos dados causados pela falha do plano do controle, o flapping do protocolo tal como a desabilitação do flapping do Hot Standby Router Protocol (HSRP) /RP, do erro UDLD, a falha do Spanning Tree Protocol (STP), e os outros problemas de conectividade.

História CPU

comando show processes cpu history

Se o interruptor não foi recarregado nem foi comutado sobre, execute o **comando show processes cpu history** dentro de 72 horas da indisponibilidade a fim ver se o uso da alta utilização da CPU ocorreu na altura do evento.

CoPP e HWRL

Se o uso da alta utilização da CPU era a causa de raiz da após a indisponibilidade, e se você suspeita que a indisponibilidade esteve provocada pelo tráfego de rede, você pode usar CoPP e HWRL (limitador da taxa do hardware) a fim ajudar a identificar o tipo de tráfego.

mostre o comando do controle plano da relação do mapa de política

Este é exemplo de saída do comando do controle plano da relação do mapa de política da **mostra**:

```
switch# show system internal processes cpu 5 | no-more
top - 17:31:12 up 4 days, 18:31, 3 users, load average: 0.52, 0.40, 0.32
Tasks: 449 total, 3 running, 446 sleeping, 0 stopped, 0 zombie
Cpu(s): 3.5%us, 4.5%sy, 0.0%ni, 91.2%id, 0.1%wa, 0.1%hi, 0.5%si, 0.0%st
Mem: 8245436k total, 4192740k used, 4052696k free, 27644k buffers
Swap: 0k total, 0k used, 0k free, 1919612k cached
PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND
2908 root 20 0 112m 8516 5516 S 7.5 0.1 264:44.25 pfm
31487 sjlan 20 0 3732 1652 1140 R 5.6 0.0 0:00.05 top
3059 svc-isan 20 0 80288 7536 4440 S 3.8 0.1 65:44.59 diagmgr
3192 root 20 0 334m 47m 11m S 1.9 0.6 25:36.52 netstack
3578 svc-isan 20 0 118m 13m 6952 S 1.9 0.2 24:57.36 stp
5119 svc-isan 20 0 139m 14m 7028 S 1.9 0.2 3:48.60 urib
5151 root 20 0 209m 46m 11m S 1.9 0.6 38:53.39 netstack
5402 svc-isan 20 0 117m 15m 9140 S 1.9 0.2 36:07.13 stp
6175 svc-isan 20 0 118m 16m 9580 S 1.9 0.2 47:09.41 stp
1 root 20 0 1988 604 524 S 0.0 0.0 0:06.51 init
2 root 15 -5 0 0 0 S 0.0 0.0 0:00.00 kthreadd
3 root RT -5 0 0 0 S 0.0 0.0 0:00.08 migration/0
4 root 15 -5 0 0 0 S 0.0 0.0 1:07.77 ksoftirqd/0
```

```
top - 17:31:18 up 4 days, 18:31, 3 users, load average: 0.48, 0.39, 0.32
Tasks: 449 total, 1 running, 448 sleeping, 0 stopped, 0 zombie
Cpu(s): 3.5%us, 4.5%sy, 0.0%ni, 91.2%id, 0.1%wa, 0.1%hi, 0.5%si, 0.0%st
Mem: 8245436k total, 4192592k used, 4052844k free, 27644k buffers
Swap: 0k total, 0k used, 0k free, 1919612k cached
```

```
PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND
2908 root 20 0 112m 8516 5516 S 7.5 0.1 264:44.47 pfm
31490 sjlan 20 0 3732 1656 1140 R 3.8 0.0 0:00.04 top
1 root 20 0 1988 604 524 S 0.0 0.0 0:06.51 init
2 root 15 -5 0 0 0 S 0.0 0.0 0:00.00 kthreadd
3 root RT -5 0 0 0 S 0.0 0.0 0:00.08 migration/0
4 root 15 -5 0 0 0 S 0.0 0.0 1:07.77 ksoftirqd/0
5 root -2 -5 0 0 0 S 0.0 0.0 0:13.74 watchdog/0
6 root RT -5 0 0 0 S 0.0 0.0 0:00.10 migration/1
7 root 15 -5 0 0 0 S 0.0 0.0 0:54.47 ksoftirqd/1
8 root -2 -5 0 0 0 S 0.0 0.0 0:00.20 watchdog/1
9 root 15 -5 0 0 0 S 0.0 0.0 0:02.94 events/0
10 root 15 -5 0 0 0 S 0.0 0.0 0:02.58 events/1
11 root 15 -5 0 0 0 S 0.0 0.0 0:00.00 khelper
```

```
top - 17:31:23 up 4 days, 18:31, 3 users, load average: 0.44, 0.39, 0.32
Tasks: 449 total, 1 running, 448 sleeping, 0 stopped, 0 zombie
Cpu(s): 3.5%us, 4.5%sy, 0.0%ni, 91.2%id, 0.1%wa, 0.1%hi, 0.5%si, 0.0%st
Mem: 8245436k total, 4192584k used, 4052852k free, 27644k buffers
Swap: 0k total, 0k used, 0k free, 1919612k cached
```

```
PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND
31493 sjlan 20 0 3732 1656 1140 R 3.8 0.0 0:00.04 top
5004 svc-isan 20 0 118m 13m 6852 S 1.9 0.2 41:35.81 stp
10337 svc-isan 20 0 133m 11m 7948 S 1.9 0.1 1:42.81 mcecm
1 root 20 0 1988 604 524 S 0.0 0.0 0:06.51 init
2 root 15 -5 0 0 0 S 0.0 0.0 0:00.00 kthreadd
3 root RT -5 0 0 0 S 0.0 0.0 0:00.08 migration/0
4 root 15 -5 0 0 0 S 0.0 0.0 1:07.77 ksoftirqd/0
5 root -2 -5 0 0 0 S 0.0 0.0 0:13.74 watchdog/0
6 root RT -5 0 0 0 S 0.0 0.0 0:00.10 migration/1
7 root 15 -5 0 0 0 S 0.0 0.0 0:54.47 ksoftirqd/1
8 root -2 -5 0 0 0 S 0.0 0.0 0:00.20 watchdog/1
9 root 15 -5 0 0 0 S 0.0 0.0 0:02.94 events/0
10 root 15 -5 0 0 0 S 0.0 0.0 0:02.58 events/1
```

```
top - 17:31:29 up 4 days, 18:31, 3 users, load average: 0.41, 0.38, 0.32
Tasks: 449 total, 1 running, 448 sleeping, 0 stopped, 0 zombie
Cpu(s): 3.5%us, 4.5%sy, 0.0%ni, 91.2%id, 0.1%wa, 0.1%hi, 0.5%si, 0.0%st
Mem: 8245436k total, 4192708k used, 4052728k free, 27644k buffers
Swap: 0k total, 0k used, 0k free, 1919616k cached
```

mostre o comando <x> modificação do taxa-limitador do hardware

Este é exemplo de saída do comando 1 modificação do taxa-limitador do hardware da mostra mais cedo do que a liberação 6.1 NX-OS:

```
switch# show system internal processes cpu 5 | no-more
top - 17:31:12 up 4 days, 18:31, 3 users, load average: 0.52, 0.40, 0.32
Tasks: 449 total, 3 running, 446 sleeping, 0 stopped, 0 zombie
Cpu(s): 3.5%us, 4.5%sy, 0.0%ni, 91.2%id, 0.1%wa, 0.1%hi, 0.5%si, 0.0%st
Mem: 8245436k total, 4192740k used, 4052696k free, 27644k buffers
Swap: 0k total, 0k used, 0k free, 1919612k cached
PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND
2908 root 20 0 112m 8516 5516 S 7.5 0.1 264:44.25 pfm
31487 sjlan 20 0 3732 1652 1140 R 5.6 0.0 0:00.05 top
3059 svc-isan 20 0 80288 7536 4440 S 3.8 0.1 65:44.59 diagmgr
3192 root 20 0 334m 47m 11m S 1.9 0.6 25:36.52 netstack
```

```
3578 svc-isan 20 0 118m 13m 6952 S 1.9 0.2 24:57.36 stp
5119 svc-isan 20 0 139m 14m 7028 S 1.9 0.2 3:48.60 urib
5151 root 20 0 209m 46m 11m S 1.9 0.6 38:53.39 netstack
5402 svc-isan 20 0 117m 15m 9140 S 1.9 0.2 36:07.13 stp
6175 svc-isan 20 0 118m 16m 9580 S 1.9 0.2 47:09.41 stp
1 root 20 0 1988 604 524 S 0.0 0.0 0:06.51 init
2 root 15 -5 0 0 0 S 0.0 0.0 0:00.00 kthreadd
3 root RT -5 0 0 0 S 0.0 0.0 0:00.08 migration/0
4 root 15 -5 0 0 0 S 0.0 0.0 1:07.77 ksoftirqd/0
```

```
top - 17:31:18 up 4 days, 18:31, 3 users, load average: 0.48, 0.39, 0.32
Tasks: 449 total, 1 running, 448 sleeping, 0 stopped, 0 zombie
Cpu(s): 3.5%us, 4.5%sy, 0.0%ni, 91.2%id, 0.1%wa, 0.1%hi, 0.5%si, 0.0%st
Mem: 8245436k total, 4192592k used, 4052844k free, 27644k buffers
Swap: 0k total, 0k used, 0k free, 1919612k cached
```

```
PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND
2908 root 20 0 112m 8516 5516 S 7.5 0.1 264:44.47 pfm
31490 sjlan 20 0 3732 1656 1140 R 3.8 0.0 0:00.04 top
1 root 20 0 1988 604 524 S 0.0 0.0 0:06.51 init
2 root 15 -5 0 0 0 S 0.0 0.0 0:00.00 kthreadd
3 root RT -5 0 0 0 S 0.0 0.0 0:00.08 migration/0
4 root 15 -5 0 0 0 S 0.0 0.0 1:07.77 ksoftirqd/0
5 root -2 -5 0 0 0 S 0.0 0.0 0:13.74 watchdog/0
6 root RT -5 0 0 0 S 0.0 0.0 0:00.10 migration/1
7 root 15 -5 0 0 0 S 0.0 0.0 0:54.47 ksoftirqd/1
8 root -2 -5 0 0 0 S 0.0 0.0 0:00.20 watchdog/1
9 root 15 -5 0 0 0 S 0.0 0.0 0:02.94 events/0
10 root 15 -5 0 0 0 S 0.0 0.0 0:02.58 events/1
11 root 15 -5 0 0 0 S 0.0 0.0 0:00.00 khelper
```

```
top - 17:31:23 up 4 days, 18:31, 3 users, load average: 0.44, 0.39, 0.32
Tasks: 449 total, 1 running, 448 sleeping, 0 stopped, 0 zombie
Cpu(s): 3.5%us, 4.5%sy, 0.0%ni, 91.2%id, 0.1%wa, 0.1%hi, 0.5%si, 0.0%st
Mem: 8245436k total, 4192584k used, 4052852k free, 27644k buffers
Swap: 0k total, 0k used, 0k free, 1919612k cached
```

```
PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND
31493 sjlan 20 0 3732 1656 1140 R 3.8 0.0 0:00.04 top
5004 svc-isan 20 0 118m 13m 6852 S 1.9 0.2 41:35.81 stp
10337 svc-isan 20 0 133m 11m 7948 S 1.9 0.1 1:42.81 mcecm
1 root 20 0 1988 604 524 S 0.0 0.0 0:06.51 init
2 root 15 -5 0 0 0 S 0.0 0.0 0:00.00 kthreadd
3 root RT -5 0 0 0 S 0.0 0.0 0:00.08 migration/0
4 root 15 -5 0 0 0 S 0.0 0.0 1:07.77 ksoftirqd/0
5 root -2 -5 0 0 0 S 0.0 0.0 0:13.74 watchdog/0
6 root RT -5 0 0 0 S 0.0 0.0 0:00.10 migration/1
7 root 15 -5 0 0 0 S 0.0 0.0 0:54.47 ksoftirqd/1
8 root -2 -5 0 0 0 S 0.0 0.0 0:00.20 watchdog/1
9 root 15 -5 0 0 0 S 0.0 0.0 0:02.94 events/0
10 root 15 -5 0 0 0 S 0.0 0.0 0:02.58 events/1
```

```
top - 17:31:29 up 4 days, 18:31, 3 users, load average: 0.41, 0.38, 0.32
Tasks: 449 total, 1 running, 448 sleeping, 0 stopped, 0 zombie
Cpu(s): 3.5%us, 4.5%sy, 0.0%ni, 91.2%id, 0.1%wa, 0.1%hi, 0.5%si, 0.0%st
Mem: 8245436k total, 4192708k used, 4052728k free, 27644k buffers
Swap: 0k total, 0k used, 0k free, 1919616k cached
```

Este é um exemplo de saída do comando 1 modificação do taxa-limitador do hardware da mostra a liberação em 6.1 NX-OS ou em mais atrasado:

```
switch# show system internal processes cpu 5 | no-more
top - 17:31:12 up 4 days, 18:31, 3 users, load average: 0.52, 0.40, 0.32
Tasks: 449 total, 3 running, 446 sleeping, 0 stopped, 0 zombie
Cpu(s): 3.5%us, 4.5%sy, 0.0%ni, 91.2%id, 0.1%wa, 0.1%hi, 0.5%si, 0.0%st
Mem: 8245436k total, 4192740k used, 4052696k free, 27644k buffers
```

```
Swap: 0k total, 0k used, 0k free, 1919612k cached
PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND
2908 root 20 0 112m 8516 5516 S 7.5 0.1 264:44.25 pfm
31487 sjlan 20 0 3732 1652 1140 R 5.6 0.0 0:00.05 top
3059 svc-isan 20 0 80288 7536 4440 S 3.8 0.1 65:44.59 diagmgr
3192 root 20 0 334m 47m 11m S 1.9 0.6 25:36.52 netstack
3578 svc-isan 20 0 118m 13m 6952 S 1.9 0.2 24:57.36 stp
5119 svc-isan 20 0 139m 14m 7028 S 1.9 0.2 3:48.60 urib
5151 root 20 0 209m 46m 11m S 1.9 0.6 38:53.39 netstack
5402 svc-isan 20 0 117m 15m 9140 S 1.9 0.2 36:07.13 stp
6175 svc-isan 20 0 118m 16m 9580 S 1.9 0.2 47:09.41 stp
1 root 20 0 1988 604 524 S 0.0 0.0 0:06.51 init
2 root 15 -5 0 0 0 S 0.0 0.0 0:00.00 kthreadd
3 root RT -5 0 0 0 S 0.0 0.0 0:00.08 migration/0
4 root 15 -5 0 0 0 S 0.0 0.0 1:07.77 ksoftirqd/0
```

```
top - 17:31:18 up 4 days, 18:31, 3 users, load average: 0.48, 0.39, 0.32
Tasks: 449 total, 1 running, 448 sleeping, 0 stopped, 0 zombie
Cpu(s): 3.5%us, 4.5%sy, 0.0%ni, 91.2%id, 0.1%wa, 0.1%hi, 0.5%si, 0.0%st
Mem: 8245436k total, 4192592k used, 4052844k free, 27644k buffers
Swap: 0k total, 0k used, 0k free, 1919612k cached
```

```
PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND
2908 root 20 0 112m 8516 5516 S 7.5 0.1 264:44.47 pfm
31490 sjlan 20 0 3732 1656 1140 R 3.8 0.0 0:00.04 top
1 root 20 0 1988 604 524 S 0.0 0.0 0:06.51 init
2 root 15 -5 0 0 0 S 0.0 0.0 0:00.00 kthreadd
3 root RT -5 0 0 0 S 0.0 0.0 0:00.08 migration/0
4 root 15 -5 0 0 0 S 0.0 0.0 1:07.77 ksoftirqd/0
5 root -2 -5 0 0 0 S 0.0 0.0 0:13.74 watchdog/0
6 root RT -5 0 0 0 S 0.0 0.0 0:00.10 migration/1
7 root 15 -5 0 0 0 S 0.0 0.0 0:54.47 ksoftirqd/1
8 root -2 -5 0 0 0 S 0.0 0.0 0:00.20 watchdog/1
9 root 15 -5 0 0 0 S 0.0 0.0 0:02.94 events/0
10 root 15 -5 0 0 0 S 0.0 0.0 0:02.58 events/1
11 root 15 -5 0 0 0 S 0.0 0.0 0:00.00 khelper
```

```
top - 17:31:23 up 4 days, 18:31, 3 users, load average: 0.44, 0.39, 0.32
Tasks: 449 total, 1 running, 448 sleeping, 0 stopped, 0 zombie
Cpu(s): 3.5%us, 4.5%sy, 0.0%ni, 91.2%id, 0.1%wa, 0.1%hi, 0.5%si, 0.0%st
Mem: 8245436k total, 4192584k used, 4052852k free, 27644k buffers
Swap: 0k total, 0k used, 0k free, 1919612k cached
```

```
PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND
31493 sjlan 20 0 3732 1656 1140 R 3.8 0.0 0:00.04 top
5004 svc-isan 20 0 118m 13m 6852 S 1.9 0.2 41:35.81 stp
10337 svc-isan 20 0 133m 11m 7948 S 1.9 0.1 1:42.81 mcecm
1 root 20 0 1988 604 524 S 0.0 0.0 0:06.51 init
2 root 15 -5 0 0 0 S 0.0 0.0 0:00.00 kthreadd
3 root RT -5 0 0 0 S 0.0 0.0 0:00.08 migration/0
4 root 15 -5 0 0 0 S 0.0 0.0 1:07.77 ksoftirqd/0
5 root -2 -5 0 0 0 S 0.0 0.0 0:13.74 watchdog/0
6 root RT -5 0 0 0 S 0.0 0.0 0:00.10 migration/1
7 root 15 -5 0 0 0 S 0.0 0.0 0:54.47 ksoftirqd/1
8 root -2 -5 0 0 0 S 0.0 0.0 0:00.20 watchdog/1
9 root 15 -5 0 0 0 S 0.0 0.0 0:02.94 events/0
10 root 15 -5 0 0 0 S 0.0 0.0 0:02.58 events/1
```

```
top - 17:31:29 up 4 days, 18:31, 3 users, load average: 0.41, 0.38, 0.32
Tasks: 449 total, 1 running, 448 sleeping, 0 stopped, 0 zombie
Cpu(s): 3.5%us, 4.5%sy, 0.0%ni, 91.2%id, 0.1%wa, 0.1%hi, 0.5%si, 0.0%st
Mem: 8245436k total, 4192708k used, 4052728k free, 27644k buffers
Swap: 0k total, 0k used, 0k free, 1919616k cached
```

Procure qualquer classe com o incremento deixado cair da contagem. Encontre se é normal para uma classe que excede o limiar configurado.

Direcionador Inband

mostre a hardware o CPU-MAC interno inband [contadores / stats / comando dos eventos]

Use este comando a fim verificar para ver se há gotas no trajeto CPU, controle de fluxo XOFF, o máximo CPU recebem e transmitem taxas, e assim por diante.

```
switch# show system internal processes cpu 5 | no-more
top - 17:31:12 up 4 days, 18:31, 3 users, load average: 0.52, 0.40, 0.32
Tasks: 449 total, 3 running, 446 sleeping, 0 stopped, 0 zombie
Cpu(s): 3.5%us, 4.5%sy, 0.0%ni, 91.2%id, 0.1%wa, 0.1%hi, 0.5%si, 0.0%st
Mem: 8245436k total, 4192740k used, 4052696k free, 27644k buffers
Swap: 0k total, 0k used, 0k free, 1919612k cached
PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND
2908 root 20 0 112m 8516 5516 S 7.5 0.1 264:44.25 pfm
31487 sjlan 20 0 3732 1652 1140 R 5.6 0.0 0:00.05 top
3059 svc-isan 20 0 80288 7536 4440 S 3.8 0.1 65:44.59 diagmgr
3192 root 20 0 334m 47m 11m S 1.9 0.6 25:36.52 netstack
3578 svc-isan 20 0 118m 13m 6952 S 1.9 0.2 24:57.36 stp
5119 svc-isan 20 0 139m 14m 7028 S 1.9 0.2 3:48.60 urib
5151 root 20 0 209m 46m 11m S 1.9 0.6 38:53.39 netstack
5402 svc-isan 20 0 117m 15m 9140 S 1.9 0.2 36:07.13 stp
6175 svc-isan 20 0 118m 16m 9580 S 1.9 0.2 47:09.41 stp
1 root 20 0 1988 604 524 S 0.0 0.0 0:06.51 init
2 root 15 -5 0 0 0 S 0.0 0.0 0:00.00 kthreadd
3 root RT -5 0 0 0 S 0.0 0.0 0:00.08 migration/0
4 root 15 -5 0 0 0 S 0.0 0.0 1:07.77 ksoftirqd/0
```

```
top - 17:31:18 up 4 days, 18:31, 3 users, load average: 0.48, 0.39, 0.32
Tasks: 449 total, 1 running, 448 sleeping, 0 stopped, 0 zombie
Cpu(s): 3.5%us, 4.5%sy, 0.0%ni, 91.2%id, 0.1%wa, 0.1%hi, 0.5%si, 0.0%st
Mem: 8245436k total, 4192592k used, 4052844k free, 27644k buffers
Swap: 0k total, 0k used, 0k free, 1919612k cached
```

```
PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND
2908 root 20 0 112m 8516 5516 S 7.5 0.1 264:44.47 pfm
31490 sjlan 20 0 3732 1656 1140 R 3.8 0.0 0:00.04 top
1 root 20 0 1988 604 524 S 0.0 0.0 0:06.51 init
2 root 15 -5 0 0 0 S 0.0 0.0 0:00.00 kthreadd
3 root RT -5 0 0 0 S 0.0 0.0 0:00.08 migration/0
4 root 15 -5 0 0 0 S 0.0 0.0 1:07.77 ksoftirqd/0
5 root -2 -5 0 0 0 S 0.0 0.0 0:13.74 watchdog/0
6 root RT -5 0 0 0 S 0.0 0.0 0:00.10 migration/1
7 root 15 -5 0 0 0 S 0.0 0.0 0:54.47 ksoftirqd/1
8 root -2 -5 0 0 0 S 0.0 0.0 0:00.20 watchdog/1
9 root 15 -5 0 0 0 S 0.0 0.0 0:02.94 events/0
10 root 15 -5 0 0 0 S 0.0 0.0 0:02.58 events/1
11 root 15 -5 0 0 0 S 0.0 0.0 0:00.00 khelper
top - 17:31:23 up 4 days, 18:31, 3 users, load average: 0.44, 0.39, 0.32
Tasks: 449 total, 1 running, 448 sleeping, 0 stopped, 0 zombie
Cpu(s): 3.5%us, 4.5%sy, 0.0%ni, 91.2%id, 0.1%wa, 0.1%hi, 0.5%si, 0.0%st
Mem: 8245436k total, 4192584k used, 4052852k free, 27644k buffers
Swap: 0k total, 0k used, 0k free, 1919612k cached
```

```
PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND
31493 sjlan 20 0 3732 1656 1140 R 3.8 0.0 0:00.04 top
5004 svc-isan 20 0 118m 13m 6852 S 1.9 0.2 41:35.81 stp
10337 svc-isan 20 0 133m 11m 7948 S 1.9 0.1 1:42.81 mcecm
1 root 20 0 1988 604 524 S 0.0 0.0 0:06.51 init
2 root 15 -5 0 0 0 S 0.0 0.0 0:00.00 kthreadd
3 root RT -5 0 0 0 S 0.0 0.0 0:00.08 migration/0
```

```

4 root 15 -5 0 0 0 S 0.0 0.0 1:07.77 ksoftirqd/0
5 root -2 -5 0 0 0 S 0.0 0.0 0:13.74 watchdog/0
6 root RT -5 0 0 0 S 0.0 0.0 0:00.10 migration/1
7 root 15 -5 0 0 0 S 0.0 0.0 0:54.47 ksoftirqd/1
8 root -2 -5 0 0 0 S 0.0 0.0 0:00.20 watchdog/1
9 root 15 -5 0 0 0 S 0.0 0.0 0:02.94 events/0
10 root 15 -5 0 0 0 S 0.0 0.0 0:02.58 events/1
top - 17:31:29 up 4 days, 18:31, 3 users, load average: 0.41, 0.38, 0.32
Tasks: 449 total, 1 running, 448 sleeping, 0 stopped, 0 zombie
Cpu(s): 3.5%us, 4.5%sy, 0.0%ni, 91.2%id, 0.1%wa, 0.1%hi, 0.5%si, 0.0%st
Mem: 8245436k total, 4192708k used, 4052728k free, 27644k buffers
Swap: 0k total, 0k used, 0k free, 1919616k cached

```

Após a versão 5.X NX-OS, os “eventos são um comando option que forneça o tempo em que os pacotes máximos por segundo (PPS) recebem (RX) ou transmitem (TX) a taxa CPU são alcançados. Este exemplo mostra como determinar o tempo em que o último pico do tráfego CPU foi encontrado:

```

switch# show system internal processes cpu 5 | no-more
top - 17:31:12 up 4 days, 18:31, 3 users, load average: 0.52, 0.40, 0.32
Tasks: 449 total, 3 running, 446 sleeping, 0 stopped, 0 zombie
Cpu(s): 3.5%us, 4.5%sy, 0.0%ni, 91.2%id, 0.1%wa, 0.1%hi, 0.5%si, 0.0%st
Mem: 8245436k total, 4192740k used, 4052696k free, 27644k buffers
Swap: 0k total, 0k used, 0k free, 1919612k cached
PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND
2908 root 20 0 112m 8516 5516 S 7.5 0.1 264:44.25 pfm
31487 sjlan 20 0 3732 1652 1140 R 5.6 0.0 0:00.05 top
3059 svc-isan 20 0 80288 7536 4440 S 3.8 0.1 65:44.59 diagmgr
3192 root 20 0 334m 47m 11m S 1.9 0.6 25:36.52 netstack
3578 svc-isan 20 0 118m 13m 6952 S 1.9 0.2 24:57.36 stp
5119 svc-isan 20 0 139m 14m 7028 S 1.9 0.2 3:48.60 urib
5151 root 20 0 209m 46m 11m S 1.9 0.6 38:53.39 netstack
5402 svc-isan 20 0 117m 15m 9140 S 1.9 0.2 36:07.13 stp
6175 svc-isan 20 0 118m 16m 9580 S 1.9 0.2 47:09.41 stp
1 root 20 0 1988 604 524 S 0.0 0.0 0:06.51 init
2 root 15 -5 0 0 0 S 0.0 0.0 0:00.00 kthreadd
3 root RT -5 0 0 0 S 0.0 0.0 0:00.08 migration/0
4 root 15 -5 0 0 0 S 0.0 0.0 1:07.77 ksoftirqd/0

top - 17:31:18 up 4 days, 18:31, 3 users, load average: 0.48, 0.39, 0.32
Tasks: 449 total, 1 running, 448 sleeping, 0 stopped, 0 zombie
Cpu(s): 3.5%us, 4.5%sy, 0.0%ni, 91.2%id, 0.1%wa, 0.1%hi, 0.5%si, 0.0%st
Mem: 8245436k total, 4192592k used, 4052844k free, 27644k buffers
Swap: 0k total, 0k used, 0k free, 1919612k cached

```

```

PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND
2908 root 20 0 112m 8516 5516 S 7.5 0.1 264:44.47 pfm
31490 sjlan 20 0 3732 1656 1140 R 3.8 0.0 0:00.04 top
1 root 20 0 1988 604 524 S 0.0 0.0 0:06.51 init
2 root 15 -5 0 0 0 S 0.0 0.0 0:00.00 kthreadd
3 root RT -5 0 0 0 S 0.0 0.0 0:00.08 migration/0
4 root 15 -5 0 0 0 S 0.0 0.0 1:07.77 ksoftirqd/0
5 root -2 -5 0 0 0 S 0.0 0.0 0:13.74 watchdog/0
6 root RT -5 0 0 0 S 0.0 0.0 0:00.10 migration/1
7 root 15 -5 0 0 0 S 0.0 0.0 0:54.47 ksoftirqd/1
8 root -2 -5 0 0 0 S 0.0 0.0 0:00.20 watchdog/1
9 root 15 -5 0 0 0 S 0.0 0.0 0:02.94 events/0
10 root 15 -5 0 0 0 S 0.0 0.0 0:02.58 events/1
11 root 15 -5 0 0 0 S 0.0 0.0 0:00.00 khelper
top - 17:31:23 up 4 days, 18:31, 3 users, load average: 0.44, 0.39, 0.32
Tasks: 449 total, 1 running, 448 sleeping, 0 stopped, 0 zombie
Cpu(s): 3.5%us, 4.5%sy, 0.0%ni, 91.2%id, 0.1%wa, 0.1%hi, 0.5%si, 0.0%st
Mem: 8245436k total, 4192584k used, 4052852k free, 27644k buffers
Swap: 0k total, 0k used, 0k free, 1919612k cached

```

```

PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND
31493 sjlan 20 0 3732 1656 1140 R 3.8 0.0 0:00.04 top
5004 svc-isan 20 0 118m 13m 6852 S 1.9 0.2 41:35.81 stp
10337 svc-isan 20 0 133m 11m 7948 S 1.9 0.1 1:42.81 mcecm
1 root 20 0 1988 604 524 S 0.0 0.0 0:06.51 init
2 root 15 -5 0 0 0 S 0.0 0.0 0:00.00 kthreadd
3 root RT -5 0 0 0 S 0.0 0.0 0:00.08 migration/0
4 root 15 -5 0 0 0 S 0.0 0.0 1:07.77 ksoftirqd/0
5 root -2 -5 0 0 0 S 0.0 0.0 0:13.74 watchdog/0
6 root RT -5 0 0 0 S 0.0 0.0 0:00.10 migration/1
7 root 15 -5 0 0 0 S 0.0 0.0 0:54.47 ksoftirqd/1
8 root -2 -5 0 0 0 S 0.0 0.0 0:00.20 watchdog/1
9 root 15 -5 0 0 0 S 0.0 0.0 0:02.94 events/0
10 root 15 -5 0 0 0 S 0.0 0.0 0:02.58 events/1
top - 17:31:29 up 4 days, 18:31, 3 users, load average: 0.41, 0.38, 0.32
Tasks: 449 total, 1 running, 448 sleeping, 0 stopped, 0 zombie
Cpu(s): 3.5%us, 4.5%sy, 0.0%ni, 91.2%id, 0.1%wa, 0.1%hi, 0.5%si, 0.0%st
Mem: 8245436k total, 4192708k used, 4052728k free, 27644k buffers
Swap: 0k total, 0k used, 0k free, 1919616k cached

```

mostre a sistema o pktmgr interno comando inband interno do <int> VDC

Use este comando identificar a fonte de tráfego punted ao CPU.

```

switch# show system internal processes cpu 5 | no-more
top - 17:31:12 up 4 days, 18:31, 3 users, load average: 0.52, 0.40, 0.32
Tasks: 449 total, 3 running, 446 sleeping, 0 stopped, 0 zombie
Cpu(s): 3.5%us, 4.5%sy, 0.0%ni, 91.2%id, 0.1%wa, 0.1%hi, 0.5%si, 0.0%st
Mem: 8245436k total, 4192740k used, 4052696k free, 27644k buffers
Swap: 0k total, 0k used, 0k free, 1919612k cached
PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND
2908 root 20 0 112m 8516 5516 S 7.5 0.1 264:44.25 pfm
31487 sjlan 20 0 3732 1652 1140 R 5.6 0.0 0:00.05 top
3059 svc-isan 20 0 80288 7536 4440 S 3.8 0.1 65:44.59 diagmgr
3192 root 20 0 334m 47m 11m S 1.9 0.6 25:36.52 netstack
3578 svc-isan 20 0 118m 13m 6952 S 1.9 0.2 24:57.36 stp
5119 svc-isan 20 0 139m 14m 7028 S 1.9 0.2 3:48.60 urib
5151 root 20 0 209m 46m 11m S 1.9 0.6 38:53.39 netstack
5402 svc-isan 20 0 117m 15m 9140 S 1.9 0.2 36:07.13 stp
6175 svc-isan 20 0 118m 16m 9580 S 1.9 0.2 47:09.41 stp
1 root 20 0 1988 604 524 S 0.0 0.0 0:06.51 init
2 root 15 -5 0 0 0 S 0.0 0.0 0:00.00 kthreadd
3 root RT -5 0 0 0 S 0.0 0.0 0:00.08 migration/0
4 root 15 -5 0 0 0 S 0.0 0.0 1:07.77 ksoftirqd/0

top - 17:31:18 up 4 days, 18:31, 3 users, load average: 0.48, 0.39, 0.32
Tasks: 449 total, 1 running, 448 sleeping, 0 stopped, 0 zombie
Cpu(s): 3.5%us, 4.5%sy, 0.0%ni, 91.2%id, 0.1%wa, 0.1%hi, 0.5%si, 0.0%st
Mem: 8245436k total, 4192592k used, 4052844k free, 27644k buffers
Swap: 0k total, 0k used, 0k free, 1919612k cached

```

```

PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND
2908 root 20 0 112m 8516 5516 S 7.5 0.1 264:44.47 pfm
31490 sjlan 20 0 3732 1656 1140 R 3.8 0.0 0:00.04 top
1 root 20 0 1988 604 524 S 0.0 0.0 0:06.51 init
2 root 15 -5 0 0 0 S 0.0 0.0 0:00.00 kthreadd
3 root RT -5 0 0 0 S 0.0 0.0 0:00.08 migration/0
4 root 15 -5 0 0 0 S 0.0 0.0 1:07.77 ksoftirqd/0
5 root -2 -5 0 0 0 S 0.0 0.0 0:13.74 watchdog/0
6 root RT -5 0 0 0 S 0.0 0.0 0:00.10 migration/1
7 root 15 -5 0 0 0 S 0.0 0.0 0:54.47 ksoftirqd/1
8 root -2 -5 0 0 0 S 0.0 0.0 0:00.20 watchdog/1

```

```
9 root 15 -5 0 0 0 S 0.0 0.0 0:02.94 events/0
10 root 15 -5 0 0 0 S 0.0 0.0 0:02.58 events/1
11 root 15 -5 0 0 0 S 0.0 0.0 0:00.00 khelper
top - 17:31:23 up 4 days, 18:31, 3 users, load average: 0.44, 0.39, 0.32
Tasks: 449 total, 1 running, 448 sleeping, 0 stopped, 0 zombie
Cpu(s): 3.5%us, 4.5%sy, 0.0%ni, 91.2%id, 0.1%wa, 0.1%hi, 0.5%si, 0.0%st
Mem: 8245436k total, 4192584k used, 4052852k free, 27644k buffers
Swap: 0k total, 0k used, 0k free, 1919612k cached
```

```
PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND
31493 sjlan 20 0 3732 1656 1140 R 3.8 0.0 0:00.04 top
5004 svc-isan 20 0 118m 13m 6852 S 1.9 0.2 41:35.81 stp
10337 svc-isan 20 0 133m 11m 7948 S 1.9 0.1 1:42.81 mcecm
1 root 20 0 1988 604 524 S 0.0 0.0 0:06.51 init
2 root 15 -5 0 0 0 S 0.0 0.0 0:00.00 kthreadd
3 root RT -5 0 0 0 S 0.0 0.0 0:00.08 migration/0
4 root 15 -5 0 0 0 S 0.0 0.0 1:07.77 ksoftirqd/0
5 root -2 -5 0 0 0 S 0.0 0.0 0:13.74 watchdog/0
6 root RT -5 0 0 0 S 0.0 0.0 0:00.10 migration/1
7 root 15 -5 0 0 0 S 0.0 0.0 0:54.47 ksoftirqd/1
8 root -2 -5 0 0 0 S 0.0 0.0 0:00.20 watchdog/1
9 root 15 -5 0 0 0 S 0.0 0.0 0:02.94 events/0
10 root 15 -5 0 0 0 S 0.0 0.0 0:02.58 events/1
top - 17:31:29 up 4 days, 18:31, 3 users, load average: 0.41, 0.38, 0.32
Tasks: 449 total, 1 running, 448 sleeping, 0 stopped, 0 zombie
Cpu(s): 3.5%us, 4.5%sy, 0.0%ni, 91.2%id, 0.1%wa, 0.1%hi, 0.5%si, 0.0%st
Mem: 8245436k total, 4192708k used, 4052728k free, 27644k buffers
Swap: 0k total, 0k used, 0k free, 1919616k cached
```

Netstack/Pktmgr

Netstack é uma pilha de IP completa executada no espaço do usuário do nexo 7000. Os componentes incluem um gerente do pacote L2, um ARP, um gerente da adjacência, um IPv4, um protocolo Protocolo de control de mensajes de Internet (ICMP) v4 (ICMPv4), um IPv6, um ICMPv6, um TCP/UDP, e uma biblioteca do soquete. Quando o tráfego ao CPU está provocando o uso da alta utilização da CPU, você vê frequentemente que Netstack e seu processo respectivo estão sendo executado altamente.

mostre a sistema o comando status inband do Enfileiramento

Este exemplo mostra como indicar o algoritmo de enfileiramento de Netstack no uso:

```
switch# show system internal processes cpu 5 | no-more
top - 17:31:12 up 4 days, 18:31, 3 users, load average: 0.52, 0.40, 0.32
Tasks: 449 total, 3 running, 446 sleeping, 0 stopped, 0 zombie
Cpu(s): 3.5%us, 4.5%sy, 0.0%ni, 91.2%id, 0.1%wa, 0.1%hi, 0.5%si, 0.0%st
Mem: 8245436k total, 4192740k used, 4052696k free, 27644k buffers
Swap: 0k total, 0k used, 0k free, 1919612k cached
PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND
2908 root 20 0 112m 8516 5516 S 7.5 0.1 264:44.25 pfm
31487 sjlan 20 0 3732 1652 1140 R 5.6 0.0 0:00.05 top
3059 svc-isan 20 0 80288 7536 4440 S 3.8 0.1 65:44.59 diagmgr
3192 root 20 0 334m 47m 11m S 1.9 0.6 25:36.52 netstack
3578 svc-isan 20 0 118m 13m 6952 S 1.9 0.2 24:57.36 stp
5119 svc-isan 20 0 139m 14m 7028 S 1.9 0.2 3:48.60 urib
5151 root 20 0 209m 46m 11m S 1.9 0.6 38:53.39 netstack
5402 svc-isan 20 0 117m 15m 9140 S 1.9 0.2 36:07.13 stp
6175 svc-isan 20 0 118m 16m 9580 S 1.9 0.2 47:09.41 stp
1 root 20 0 1988 604 524 S 0.0 0.0 0:06.51 init
2 root 15 -5 0 0 0 S 0.0 0.0 0:00.00 kthreadd
3 root RT -5 0 0 0 S 0.0 0.0 0:00.08 migration/0
```

```
4 root 15 -5 0 0 0 S 0.0 0.0 1:07.77 ksoftirqd/0
```

```
top - 17:31:18 up 4 days, 18:31, 3 users, load average: 0.48, 0.39, 0.32
Tasks: 449 total, 1 running, 448 sleeping, 0 stopped, 0 zombie
Cpu(s): 3.5%us, 4.5%sy, 0.0%ni, 91.2%id, 0.1%wa, 0.1%hi, 0.5%si, 0.0%st
Mem: 8245436k total, 4192592k used, 4052844k free, 27644k buffers
Swap: 0k total, 0k used, 0k free, 1919612k cached
```

```
PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND
2908 root 20 0 112m 8516 5516 S 7.5 0.1 264:44.47 pfm
31490 sjlan 20 0 3732 1656 1140 R 3.8 0.0 0:00.04 top
1 root 20 0 1988 604 524 S 0.0 0.0 0:06.51 init
2 root 15 -5 0 0 0 S 0.0 0.0 0:00.00 kthreadd
3 root RT -5 0 0 0 S 0.0 0.0 0:00.08 migration/0
4 root 15 -5 0 0 0 S 0.0 0.0 1:07.77 ksoftirqd/0
5 root -2 -5 0 0 0 S 0.0 0.0 0:13.74 watchdog/0
6 root RT -5 0 0 0 S 0.0 0.0 0:00.10 migration/1
7 root 15 -5 0 0 0 S 0.0 0.0 0:54.47 ksoftirqd/1
8 root -2 -5 0 0 0 S 0.0 0.0 0:00.20 watchdog/1
9 root 15 -5 0 0 0 S 0.0 0.0 0:02.94 events/0
10 root 15 -5 0 0 0 S 0.0 0.0 0:02.58 events/1
11 root 15 -5 0 0 0 S 0.0 0.0 0:00.00 khelper
```

```
top - 17:31:23 up 4 days, 18:31, 3 users, load average: 0.44, 0.39, 0.32
Tasks: 449 total, 1 running, 448 sleeping, 0 stopped, 0 zombie
Cpu(s): 3.5%us, 4.5%sy, 0.0%ni, 91.2%id, 0.1%wa, 0.1%hi, 0.5%si, 0.0%st
Mem: 8245436k total, 4192584k used, 4052852k free, 27644k buffers
Swap: 0k total, 0k used, 0k free, 1919612k cached
```

```
PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND
31493 sjlan 20 0 3732 1656 1140 R 3.8 0.0 0:00.04 top
5004 svc-isan 20 0 118m 13m 6852 S 1.9 0.2 41:35.81 stp
10337 svc-isan 20 0 133m 11m 7948 S 1.9 0.1 1:42.81 mcecm
1 root 20 0 1988 604 524 S 0.0 0.0 0:06.51 init
2 root 15 -5 0 0 0 S 0.0 0.0 0:00.00 kthreadd
3 root RT -5 0 0 0 S 0.0 0.0 0:00.08 migration/0
4 root 15 -5 0 0 0 S 0.0 0.0 1:07.77 ksoftirqd/0
5 root -2 -5 0 0 0 S 0.0 0.0 0:13.74 watchdog/0
6 root RT -5 0 0 0 S 0.0 0.0 0:00.10 migration/1
7 root 15 -5 0 0 0 S 0.0 0.0 0:54.47 ksoftirqd/1
8 root -2 -5 0 0 0 S 0.0 0.0 0:00.20 watchdog/1
9 root 15 -5 0 0 0 S 0.0 0.0 0:02.94 events/0
10 root 15 -5 0 0 0 S 0.0 0.0 0:02.58 events/1
```

```
top - 17:31:29 up 4 days, 18:31, 3 users, load average: 0.41, 0.38, 0.32
Tasks: 449 total, 1 running, 448 sleeping, 0 stopped, 0 zombie
Cpu(s): 3.5%us, 4.5%sy, 0.0%ni, 91.2%id, 0.1%wa, 0.1%hi, 0.5%si, 0.0%st
Mem: 8245436k total, 4192708k used, 4052728k free, 27644k buffers
Swap: 0k total, 0k used, 0k free, 1919616k cached
```

mostre a sistema o comando statistics inband do Enfileiramento

Este exemplo mostra os contadores no processo núcleo-loadable do espaço do módulo (KLM) e do usuário.

KLM é uma instância única que as corridas no padrão VDC e operem sobre o inband e a interface de gerenciamento. KLM entra à imagem somente durante o pacote de ingresso que processa para enviar quadros do ingresso ao Netstack do VDC direito para processar.

```
switch# show system internal processes cpu 5 | no-more
top - 17:31:12 up 4 days, 18:31, 3 users, load average: 0.52, 0.40, 0.32
Tasks: 449 total, 3 running, 446 sleeping, 0 stopped, 0 zombie
Cpu(s): 3.5%us, 4.5%sy, 0.0%ni, 91.2%id, 0.1%wa, 0.1%hi, 0.5%si, 0.0%st
Mem: 8245436k total, 4192740k used, 4052696k free, 27644k buffers
```

```
Swap: 0k total, 0k used, 0k free, 1919612k cached
PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND
2908 root 20 0 112m 8516 5516 S 7.5 0.1 264:44.25 pfm
31487 sjlan 20 0 3732 1652 1140 R 5.6 0.0 0:00.05 top
3059 svc-isan 20 0 80288 7536 4440 S 3.8 0.1 65:44.59 diagmgr
3192 root 20 0 334m 47m 11m S 1.9 0.6 25:36.52 netstack
3578 svc-isan 20 0 118m 13m 6952 S 1.9 0.2 24:57.36 stp
5119 svc-isan 20 0 139m 14m 7028 S 1.9 0.2 3:48.60 urib
5151 root 20 0 209m 46m 11m S 1.9 0.6 38:53.39 netstack
5402 svc-isan 20 0 117m 15m 9140 S 1.9 0.2 36:07.13 stp
6175 svc-isan 20 0 118m 16m 9580 S 1.9 0.2 47:09.41 stp
1 root 20 0 1988 604 524 S 0.0 0.0 0:06.51 init
2 root 15 -5 0 0 0 S 0.0 0.0 0:00.00 kthreadd
3 root RT -5 0 0 0 S 0.0 0.0 0:00.08 migration/0
4 root 15 -5 0 0 0 S 0.0 0.0 1:07.77 ksoftirqd/0
```

```
top - 17:31:18 up 4 days, 18:31, 3 users, load average: 0.48, 0.39, 0.32
Tasks: 449 total, 1 running, 448 sleeping, 0 stopped, 0 zombie
Cpu(s): 3.5%us, 4.5%sy, 0.0%ni, 91.2%id, 0.1%wa, 0.1%hi, 0.5%si, 0.0%st
Mem: 8245436k total, 4192592k used, 4052844k free, 27644k buffers
Swap: 0k total, 0k used, 0k free, 1919612k cached
```

```
PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND
2908 root 20 0 112m 8516 5516 S 7.5 0.1 264:44.47 pfm
31490 sjlan 20 0 3732 1656 1140 R 3.8 0.0 0:00.04 top
1 root 20 0 1988 604 524 S 0.0 0.0 0:06.51 init
2 root 15 -5 0 0 0 S 0.0 0.0 0:00.00 kthreadd
3 root RT -5 0 0 0 S 0.0 0.0 0:00.08 migration/0
4 root 15 -5 0 0 0 S 0.0 0.0 1:07.77 ksoftirqd/0
5 root -2 -5 0 0 0 S 0.0 0.0 0:13.74 watchdog/0
6 root RT -5 0 0 0 S 0.0 0.0 0:00.10 migration/1
7 root 15 -5 0 0 0 S 0.0 0.0 0:54.47 ksoftirqd/1
8 root -2 -5 0 0 0 S 0.0 0.0 0:00.20 watchdog/1
9 root 15 -5 0 0 0 S 0.0 0.0 0:02.94 events/0
10 root 15 -5 0 0 0 S 0.0 0.0 0:02.58 events/1
11 root 15 -5 0 0 0 S 0.0 0.0 0:00.00 khelper
```

```
top - 17:31:23 up 4 days, 18:31, 3 users, load average: 0.44, 0.39, 0.32
Tasks: 449 total, 1 running, 448 sleeping, 0 stopped, 0 zombie
Cpu(s): 3.5%us, 4.5%sy, 0.0%ni, 91.2%id, 0.1%wa, 0.1%hi, 0.5%si, 0.0%st
Mem: 8245436k total, 4192584k used, 4052852k free, 27644k buffers
Swap: 0k total, 0k used, 0k free, 1919612k cached
```

```
PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND
31493 sjlan 20 0 3732 1656 1140 R 3.8 0.0 0:00.04 top
5004 svc-isan 20 0 118m 13m 6852 S 1.9 0.2 41:35.81 stp
10337 svc-isan 20 0 133m 11m 7948 S 1.9 0.1 1:42.81 mcecm
1 root 20 0 1988 604 524 S 0.0 0.0 0:06.51 init
2 root 15 -5 0 0 0 S 0.0 0.0 0:00.00 kthreadd
3 root RT -5 0 0 0 S 0.0 0.0 0:00.08 migration/0
4 root 15 -5 0 0 0 S 0.0 0.0 1:07.77 ksoftirqd/0
5 root -2 -5 0 0 0 S 0.0 0.0 0:13.74 watchdog/0
6 root RT -5 0 0 0 S 0.0 0.0 0:00.10 migration/1
7 root 15 -5 0 0 0 S 0.0 0.0 0:54.47 ksoftirqd/1
8 root -2 -5 0 0 0 S 0.0 0.0 0:00.20 watchdog/1
9 root 15 -5 0 0 0 S 0.0 0.0 0:02.94 events/0
10 root 15 -5 0 0 0 S 0.0 0.0 0:02.58 events/1
```

```
top - 17:31:29 up 4 days, 18:31, 3 users, load average: 0.41, 0.38, 0.32
Tasks: 449 total, 1 running, 448 sleeping, 0 stopped, 0 zombie
Cpu(s): 3.5%us, 4.5%sy, 0.0%ni, 91.2%id, 0.1%wa, 0.1%hi, 0.5%si, 0.0%st
Mem: 8245436k total, 4192708k used, 4052728k free, 27644k buffers
Swap: 0k total, 0k used, 0k free, 1919616k cached
```

mostre a sistema o pktmgr interno comando interno global-stats VDC

Este comando é similar ao comando **statistics inband** do Enfileiramento do sistema precedente da **mostra** e fornece muitos detalhes:

```
switch# show system internal processes cpu 5 | no-more
top - 17:31:12 up 4 days, 18:31, 3 users, load average: 0.52, 0.40, 0.32
Tasks: 449 total, 3 running, 446 sleeping, 0 stopped, 0 zombie
Cpu(s): 3.5%us, 4.5%sy, 0.0%ni, 91.2%id, 0.1%wa, 0.1%hi, 0.5%si, 0.0%st
Mem: 8245436k total, 4192740k used, 4052696k free, 27644k buffers
Swap: 0k total, 0k used, 0k free, 1919612k cached
PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND
2908 root 20 0 112m 8516 5516 S 7.5 0.1 264:44.25 pfm
31487 sjlan 20 0 3732 1652 1140 R 5.6 0.0 0:00.05 top
3059 svc-isan 20 0 80288 7536 4440 S 3.8 0.1 65:44.59 diagmgr
3192 root 20 0 334m 47m 11m S 1.9 0.6 25:36.52 netstack
3578 svc-isan 20 0 118m 13m 6952 S 1.9 0.2 24:57.36 stp
5119 svc-isan 20 0 139m 14m 7028 S 1.9 0.2 3:48.60 urib
5151 root 20 0 209m 46m 11m S 1.9 0.6 38:53.39 netstack
5402 svc-isan 20 0 117m 15m 9140 S 1.9 0.2 36:07.13 stp
6175 svc-isan 20 0 118m 16m 9580 S 1.9 0.2 47:09.41 stp
1 root 20 0 1988 604 524 S 0.0 0.0 0:06.51 init
2 root 15 -5 0 0 0 S 0.0 0.0 0:00.00 kthreadd
3 root RT -5 0 0 0 S 0.0 0.0 0:00.08 migration/0
4 root 15 -5 0 0 0 S 0.0 0.0 1:07.77 ksoftirqd/0
```

```
top - 17:31:18 up 4 days, 18:31, 3 users, load average: 0.48, 0.39, 0.32
Tasks: 449 total, 1 running, 448 sleeping, 0 stopped, 0 zombie
Cpu(s): 3.5%us, 4.5%sy, 0.0%ni, 91.2%id, 0.1%wa, 0.1%hi, 0.5%si, 0.0%st
Mem: 8245436k total, 4192592k used, 4052844k free, 27644k buffers
Swap: 0k total, 0k used, 0k free, 1919612k cached
```

```
PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND
2908 root 20 0 112m 8516 5516 S 7.5 0.1 264:44.47 pfm
31490 sjlan 20 0 3732 1656 1140 R 3.8 0.0 0:00.04 top
1 root 20 0 1988 604 524 S 0.0 0.0 0:06.51 init
2 root 15 -5 0 0 0 S 0.0 0.0 0:00.00 kthreadd
3 root RT -5 0 0 0 S 0.0 0.0 0:00.08 migration/0
4 root 15 -5 0 0 0 S 0.0 0.0 1:07.77 ksoftirqd/0
5 root -2 -5 0 0 0 S 0.0 0.0 0:13.74 watchdog/0
6 root RT -5 0 0 0 S 0.0 0.0 0:00.10 migration/1
7 root 15 -5 0 0 0 S 0.0 0.0 0:54.47 ksoftirqd/1
8 root -2 -5 0 0 0 S 0.0 0.0 0:00.20 watchdog/1
9 root 15 -5 0 0 0 S 0.0 0.0 0:02.94 events/0
10 root 15 -5 0 0 0 S 0.0 0.0 0:02.58 events/1
11 root 15 -5 0 0 0 S 0.0 0.0 0:00.00 khelper
```

```
top - 17:31:23 up 4 days, 18:31, 3 users, load average: 0.44, 0.39, 0.32
Tasks: 449 total, 1 running, 448 sleeping, 0 stopped, 0 zombie
Cpu(s): 3.5%us, 4.5%sy, 0.0%ni, 91.2%id, 0.1%wa, 0.1%hi, 0.5%si, 0.0%st
Mem: 8245436k total, 4192584k used, 4052852k free, 27644k buffers
Swap: 0k total, 0k used, 0k free, 1919612k cached
```

```
PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND
31493 sjlan 20 0 3732 1656 1140 R 3.8 0.0 0:00.04 top
5004 svc-isan 20 0 118m 13m 6852 S 1.9 0.2 41:35.81 stp
10337 svc-isan 20 0 133m 11m 7948 S 1.9 0.1 1:42.81 mcecm
1 root 20 0 1988 604 524 S 0.0 0.0 0:06.51 init
2 root 15 -5 0 0 0 S 0.0 0.0 0:00.00 kthreadd
3 root RT -5 0 0 0 S 0.0 0.0 0:00.08 migration/0
4 root 15 -5 0 0 0 S 0.0 0.0 1:07.77 ksoftirqd/0
5 root -2 -5 0 0 0 S 0.0 0.0 0:13.74 watchdog/0
6 root RT -5 0 0 0 S 0.0 0.0 0:00.10 migration/1
7 root 15 -5 0 0 0 S 0.0 0.0 0:54.47 ksoftirqd/1
8 root -2 -5 0 0 0 S 0.0 0.0 0:00.20 watchdog/1
9 root 15 -5 0 0 0 S 0.0 0.0 0:02.94 events/0
```

```
10 root 15 -5 0 0 0 S 0.0 0.0 0:02.58 events/1
top - 17:31:29 up 4 days, 18:31, 3 users, load average: 0.41, 0.38, 0.32
Tasks: 449 total, 1 running, 448 sleeping, 0 stopped, 0 zombie
Cpu(s): 3.5%us, 4.5%sy, 0.0%ni, 91.2%id, 0.1%wa, 0.1%hi, 0.5%si, 0.0%st
Mem: 8245436k total, 4192708k used, 4052728k free, 27644k buffers
Swap: 0k total, 0k used, 0k free, 1919616k cached
```

mostre a sistema o comando interno do <int> dos Ethernet de interface do pktmgr

Use este comando a fim olhar a taxa de pacote de informação assim como o tipo de tráfego (unicast ou Multicast) para o tráfego CPU-punted de uma relação.

```
switch# show system internal processes cpu 5 | no-more
top - 17:31:12 up 4 days, 18:31, 3 users, load average: 0.52, 0.40, 0.32
Tasks: 449 total, 3 running, 446 sleeping, 0 stopped, 0 zombie
Cpu(s): 3.5%us, 4.5%sy, 0.0%ni, 91.2%id, 0.1%wa, 0.1%hi, 0.5%si, 0.0%st
Mem: 8245436k total, 4192740k used, 4052696k free, 27644k buffers
Swap: 0k total, 0k used, 0k free, 1919612k cached
PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND
2908 root 20 0 112m 8516 5516 S 7.5 0.1 264:44.25 pfm
31487 sjlan 20 0 3732 1652 1140 R 5.6 0.0 0:00.05 top
3059 svc-isan 20 0 80288 7536 4440 S 3.8 0.1 65:44.59 diagmgr
3192 root 20 0 334m 47m 11m S 1.9 0.6 25:36.52 netstack
3578 svc-isan 20 0 118m 13m 6952 S 1.9 0.2 24:57.36 stp
5119 svc-isan 20 0 139m 14m 7028 S 1.9 0.2 3:48.60 urib
5151 root 20 0 209m 46m 11m S 1.9 0.6 38:53.39 netstack
5402 svc-isan 20 0 117m 15m 9140 S 1.9 0.2 36:07.13 stp
6175 svc-isan 20 0 118m 16m 9580 S 1.9 0.2 47:09.41 stp
1 root 20 0 1988 604 524 S 0.0 0.0 0:06.51 init
2 root 15 -5 0 0 0 S 0.0 0.0 0:00.00 kthreadd
3 root RT -5 0 0 0 S 0.0 0.0 0:00.08 migration/0
4 root 15 -5 0 0 0 S 0.0 0.0 1:07.77 ksoftirqd/0
```

```
top - 17:31:18 up 4 days, 18:31, 3 users, load average: 0.48, 0.39, 0.32
Tasks: 449 total, 1 running, 448 sleeping, 0 stopped, 0 zombie
Cpu(s): 3.5%us, 4.5%sy, 0.0%ni, 91.2%id, 0.1%wa, 0.1%hi, 0.5%si, 0.0%st
Mem: 8245436k total, 4192592k used, 4052844k free, 27644k buffers
Swap: 0k total, 0k used, 0k free, 1919612k cached
```

```
PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND
2908 root 20 0 112m 8516 5516 S 7.5 0.1 264:44.47 pfm
31490 sjlan 20 0 3732 1656 1140 R 3.8 0.0 0:00.04 top
1 root 20 0 1988 604 524 S 0.0 0.0 0:06.51 init
2 root 15 -5 0 0 0 S 0.0 0.0 0:00.00 kthreadd
3 root RT -5 0 0 0 S 0.0 0.0 0:00.08 migration/0
4 root 15 -5 0 0 0 S 0.0 0.0 1:07.77 ksoftirqd/0
5 root -2 -5 0 0 0 S 0.0 0.0 0:13.74 watchdog/0
6 root RT -5 0 0 0 S 0.0 0.0 0:00.10 migration/1
7 root 15 -5 0 0 0 S 0.0 0.0 0:54.47 ksoftirqd/1
8 root -2 -5 0 0 0 S 0.0 0.0 0:00.20 watchdog/1
9 root 15 -5 0 0 0 S 0.0 0.0 0:02.94 events/0
10 root 15 -5 0 0 0 S 0.0 0.0 0:02.58 events/1
11 root 15 -5 0 0 0 S 0.0 0.0 0:00.00 khelper
top - 17:31:23 up 4 days, 18:31, 3 users, load average: 0.44, 0.39, 0.32
Tasks: 449 total, 1 running, 448 sleeping, 0 stopped, 0 zombie
Cpu(s): 3.5%us, 4.5%sy, 0.0%ni, 91.2%id, 0.1%wa, 0.1%hi, 0.5%si, 0.0%st
Mem: 8245436k total, 4192584k used, 4052852k free, 27644k buffers
Swap: 0k total, 0k used, 0k free, 1919612k cached
```

```
PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND
31493 sjlan 20 0 3732 1656 1140 R 3.8 0.0 0:00.04 top
5004 svc-isan 20 0 118m 13m 6852 S 1.9 0.2 41:35.81 stp
10337 svc-isan 20 0 133m 11m 7948 S 1.9 0.1 1:42.81 mcecm
```

```

1 root 20 0 1988 604 524 S 0.0 0.0 0:06.51 init
2 root 15 -5 0 0 0 S 0.0 0.0 0:00.00 kthreadd
3 root RT -5 0 0 0 S 0.0 0.0 0:00.08 migration/0
4 root 15 -5 0 0 0 S 0.0 0.0 1:07.77 ksoftirqd/0
5 root -2 -5 0 0 0 S 0.0 0.0 0:13.74 watchdog/0
6 root RT -5 0 0 0 S 0.0 0.0 0:00.10 migration/1
7 root 15 -5 0 0 0 S 0.0 0.0 0:54.47 ksoftirqd/1
8 root -2 -5 0 0 0 S 0.0 0.0 0:00.20 watchdog/1
9 root 15 -5 0 0 0 S 0.0 0.0 0:02.94 events/0
10 root 15 -5 0 0 0 S 0.0 0.0 0:02.58 events/1
top - 17:31:29 up 4 days, 18:31, 3 users, load average: 0.41, 0.38, 0.32
Tasks: 449 total, 1 running, 448 sleeping, 0 stopped, 0 zombie
Cpu(s): 3.5%us, 4.5%sy, 0.0%ni, 91.2%id, 0.1%wa, 0.1%hi, 0.5%si, 0.0%st
Mem: 8245436k total, 4192708k used, 4052728k free, 27644k buffers
Swap: 0k total, 0k used, 0k free, 1919616k cached

```

mostre a sistema o comando interno do <uuid> do cliente do pktmgr

Este comando indicam aplicativos tais como o STP ou o Cisco Discovery Protocol (CDP) que são registrados com o gerente do pacote assim como o número de pacotes enviados e recebidos por aqueles aplicativos.

```

switch# show system internal processes cpu 5 | no-more
top - 17:31:12 up 4 days, 18:31, 3 users, load average: 0.52, 0.40, 0.32
Tasks: 449 total, 3 running, 446 sleeping, 0 stopped, 0 zombie
Cpu(s): 3.5%us, 4.5%sy, 0.0%ni, 91.2%id, 0.1%wa, 0.1%hi, 0.5%si, 0.0%st
Mem: 8245436k total, 4192740k used, 4052696k free, 27644k buffers
Swap: 0k total, 0k used, 0k free, 1919612k cached
PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND
2908 root 20 0 112m 8516 5516 S 7.5 0.1 264:44.25 pfm
31487 sjlan 20 0 3732 1652 1140 R 5.6 0.0 0:00.05 top
3059 svc-isan 20 0 80288 7536 4440 S 3.8 0.1 65:44.59 diagmgr
3192 root 20 0 334m 47m 11m S 1.9 0.6 25:36.52 netstack
3578 svc-isan 20 0 118m 13m 6952 S 1.9 0.2 24:57.36 stp
5119 svc-isan 20 0 139m 14m 7028 S 1.9 0.2 3:48.60 urib
5151 root 20 0 209m 46m 11m S 1.9 0.6 38:53.39 netstack
5402 svc-isan 20 0 117m 15m 9140 S 1.9 0.2 36:07.13 stp
6175 svc-isan 20 0 118m 16m 9580 S 1.9 0.2 47:09.41 stp
1 root 20 0 1988 604 524 S 0.0 0.0 0:06.51 init
2 root 15 -5 0 0 0 S 0.0 0.0 0:00.00 kthreadd
3 root RT -5 0 0 0 S 0.0 0.0 0:00.08 migration/0
4 root 15 -5 0 0 0 S 0.0 0.0 1:07.77 ksoftirqd/0

top - 17:31:18 up 4 days, 18:31, 3 users, load average: 0.48, 0.39, 0.32
Tasks: 449 total, 1 running, 448 sleeping, 0 stopped, 0 zombie
Cpu(s): 3.5%us, 4.5%sy, 0.0%ni, 91.2%id, 0.1%wa, 0.1%hi, 0.5%si, 0.0%st
Mem: 8245436k total, 4192592k used, 4052844k free, 27644k buffers
Swap: 0k total, 0k used, 0k free, 1919612k cached

PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND
2908 root 20 0 112m 8516 5516 S 7.5 0.1 264:44.47 pfm
31490 sjlan 20 0 3732 1656 1140 R 3.8 0.0 0:00.04 top
1 root 20 0 1988 604 524 S 0.0 0.0 0:06.51 init
2 root 15 -5 0 0 0 S 0.0 0.0 0:00.00 kthreadd
3 root RT -5 0 0 0 S 0.0 0.0 0:00.08 migration/0
4 root 15 -5 0 0 0 S 0.0 0.0 1:07.77 ksoftirqd/0
5 root -2 -5 0 0 0 S 0.0 0.0 0:13.74 watchdog/0
6 root RT -5 0 0 0 S 0.0 0.0 0:00.10 migration/1
7 root 15 -5 0 0 0 S 0.0 0.0 0:54.47 ksoftirqd/1
8 root -2 -5 0 0 0 S 0.0 0.0 0:00.20 watchdog/1
9 root 15 -5 0 0 0 S 0.0 0.0 0:02.94 events/0
10 root 15 -5 0 0 0 S 0.0 0.0 0:02.58 events/1
11 root 15 -5 0 0 0 S 0.0 0.0 0:00.00 khelper

```

```
top - 17:31:23 up 4 days, 18:31, 3 users, load average: 0.44, 0.39, 0.32
Tasks: 449 total, 1 running, 448 sleeping, 0 stopped, 0 zombie
Cpu(s): 3.5%us, 4.5%sy, 0.0%ni, 91.2%id, 0.1%wa, 0.1%hi, 0.5%si, 0.0%st
Mem: 8245436k total, 4192584k used, 4052852k free, 27644k buffers
Swap: 0k total, 0k used, 0k free, 1919612k cached
```

```
PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND
31493 sjlan 20 0 3732 1656 1140 R 3.8 0.0 0:00.04 top
5004 svc-isan 20 0 118m 13m 6852 S 1.9 0.2 41:35.81 stp
10337 svc-isan 20 0 133m 11m 7948 S 1.9 0.1 1:42.81 mcecm
1 root 20 0 1988 604 524 S 0.0 0.0 0:06.51 init
2 root 15 -5 0 0 0 S 0.0 0.0 0:00.00 kthreadd
3 root RT -5 0 0 0 S 0.0 0.0 0:00.08 migration/0
4 root 15 -5 0 0 0 S 0.0 0.0 1:07.77 ksoftirqd/0
5 root -2 -5 0 0 0 S 0.0 0.0 0:13.74 watchdog/0
6 root RT -5 0 0 0 S 0.0 0.0 0:00.10 migration/1
7 root 15 -5 0 0 0 S 0.0 0.0 0:54.47 ksoftirqd/1
8 root -2 -5 0 0 0 S 0.0 0.0 0:00.20 watchdog/1
9 root 15 -5 0 0 0 S 0.0 0.0 0:02.94 events/0
10 root 15 -5 0 0 0 S 0.0 0.0 0:02.58 events/1
```

```
top - 17:31:29 up 4 days, 18:31, 3 users, load average: 0.41, 0.38, 0.32
Tasks: 449 total, 1 running, 448 sleeping, 0 stopped, 0 zombie
Cpu(s): 3.5%us, 4.5%sy, 0.0%ni, 91.2%id, 0.1%wa, 0.1%hi, 0.5%si, 0.0%st
Mem: 8245436k total, 4192708k used, 4052728k free, 27644k buffers
Swap: 0k total, 0k used, 0k free, 1919616k cached
```

mostre a sistema o comando interno stats do pktmgr

Use este comando a fim verificar se os pacotes estão alcançando o gerente do pacote no caminho de ingresso e se os pacotes estão sendo mandados pelo gerente do pacote. Este comando pode igualmente ajudá-lo a determinar se há uns problemas com os mbuffers na recepção ou a transmitir o trajeto.

```
switch# show system internal processes cpu 5 | no-more
top - 17:31:12 up 4 days, 18:31, 3 users, load average: 0.52, 0.40, 0.32
Tasks: 449 total, 3 running, 446 sleeping, 0 stopped, 0 zombie
Cpu(s): 3.5%us, 4.5%sy, 0.0%ni, 91.2%id, 0.1%wa, 0.1%hi, 0.5%si, 0.0%st
Mem: 8245436k total, 4192740k used, 4052696k free, 27644k buffers
Swap: 0k total, 0k used, 0k free, 1919612k cached
PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND
2908 root 20 0 112m 8516 5516 S 7.5 0.1 264:44.25 pfm
31487 sjlan 20 0 3732 1652 1140 R 5.6 0.0 0:00.05 top
3059 svc-isan 20 0 80288 7536 4440 S 3.8 0.1 65:44.59 diagmgr
3192 root 20 0 334m 47m 11m S 1.9 0.6 25:36.52 netstack
3578 svc-isan 20 0 118m 13m 6952 S 1.9 0.2 24:57.36 stp
5119 svc-isan 20 0 139m 14m 7028 S 1.9 0.2 3:48.60 urib
5151 root 20 0 209m 46m 11m S 1.9 0.6 38:53.39 netstack
5402 svc-isan 20 0 117m 15m 9140 S 1.9 0.2 36:07.13 stp
6175 svc-isan 20 0 118m 16m 9580 S 1.9 0.2 47:09.41 stp
1 root 20 0 1988 604 524 S 0.0 0.0 0:06.51 init
2 root 15 -5 0 0 0 S 0.0 0.0 0:00.00 kthreadd
3 root RT -5 0 0 0 S 0.0 0.0 0:00.08 migration/0
4 root 15 -5 0 0 0 S 0.0 0.0 1:07.77 ksoftirqd/0
```

```
top - 17:31:18 up 4 days, 18:31, 3 users, load average: 0.48, 0.39, 0.32
Tasks: 449 total, 1 running, 448 sleeping, 0 stopped, 0 zombie
Cpu(s): 3.5%us, 4.5%sy, 0.0%ni, 91.2%id, 0.1%wa, 0.1%hi, 0.5%si, 0.0%st
Mem: 8245436k total, 4192592k used, 4052844k free, 27644k buffers
Swap: 0k total, 0k used, 0k free, 1919612k cached
```

```
PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND
2908 root 20 0 112m 8516 5516 S 7.5 0.1 264:44.47 pfm
```

```
31490 sjlan 20 0 3732 1656 1140 R 3.8 0.0 0:00.04 top
1 root 20 0 1988 604 524 S 0.0 0.0 0:06.51 init
2 root 15 -5 0 0 0 S 0.0 0.0 0:00.00 kthreadd
3 root RT -5 0 0 0 S 0.0 0.0 0:00.08 migration/0
4 root 15 -5 0 0 0 S 0.0 0.0 1:07.77 ksoftirqd/0
5 root -2 -5 0 0 0 S 0.0 0.0 0:13.74 watchdog/0
6 root RT -5 0 0 0 S 0.0 0.0 0:00.10 migration/1
7 root 15 -5 0 0 0 S 0.0 0.0 0:54.47 ksoftirqd/1
8 root -2 -5 0 0 0 S 0.0 0.0 0:00.20 watchdog/1
9 root 15 -5 0 0 0 S 0.0 0.0 0:02.94 events/0
10 root 15 -5 0 0 0 S 0.0 0.0 0:02.58 events/1
11 root 15 -5 0 0 0 S 0.0 0.0 0:00.00 khelper
top - 17:31:23 up 4 days, 18:31, 3 users, load average: 0.44, 0.39, 0.32
Tasks: 449 total, 1 running, 448 sleeping, 0 stopped, 0 zombie
Cpu(s): 3.5%us, 4.5%sy, 0.0%ni, 91.2%id, 0.1%wa, 0.1%hi, 0.5%si, 0.0%st
Mem: 8245436k total, 4192584k used, 4052852k free, 27644k buffers
Swap: 0k total, 0k used, 0k free, 1919612k cached
```

```
PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND
31493 sjlan 20 0 3732 1656 1140 R 3.8 0.0 0:00.04 top
5004 svc-isana 20 0 118m 13m 6852 S 1.9 0.2 41:35.81 stp
10337 svc-isana 20 0 133m 11m 7948 S 1.9 0.1 1:42.81 mcecm
1 root 20 0 1988 604 524 S 0.0 0.0 0:06.51 init
2 root 15 -5 0 0 0 S 0.0 0.0 0:00.00 kthreadd
3 root RT -5 0 0 0 S 0.0 0.0 0:00.08 migration/0
4 root 15 -5 0 0 0 S 0.0 0.0 1:07.77 ksoftirqd/0
5 root -2 -5 0 0 0 S 0.0 0.0 0:13.74 watchdog/0
6 root RT -5 0 0 0 S 0.0 0.0 0:00.10 migration/1
7 root 15 -5 0 0 0 S 0.0 0.0 0:54.47 ksoftirqd/1
8 root -2 -5 0 0 0 S 0.0 0.0 0:00.20 watchdog/1
9 root 15 -5 0 0 0 S 0.0 0.0 0:02.94 events/0
10 root 15 -5 0 0 0 S 0.0 0.0 0:02.58 events/1
top - 17:31:29 up 4 days, 18:31, 3 users, load average: 0.41, 0.38, 0.32
Tasks: 449 total, 1 running, 448 sleeping, 0 stopped, 0 zombie
Cpu(s): 3.5%us, 4.5%sy, 0.0%ni, 91.2%id, 0.1%wa, 0.1%hi, 0.5%si, 0.0%st
Mem: 8245436k total, 4192708k used, 4052728k free, 27644k buffers
Swap: 0k total, 0k used, 0k free, 1919616k cached
```