

Nexus(NX-OS)提示和诀窍

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简介

本文档介绍一些可能增强NX-OS故障排除体验的快速提示和技巧。

快速十六进制/十进制转换

十六进制表示十六进制十进制，十进制表示十进制

```
NX-OS# dec 0x89
137
NX-OS# hex 137
0x89
```

一次执行多个CLI

CLI代表命令行界面

```
N7k-LabSW# show clock ; show switchname ; show license host-id
19:10:59.016 UTC Mon Apr 04 2016
N7k-LabSW
License hostid: VDH=TBM14354170
```

#也适用于配置：

```
N7k-LabSW# conf t ; hostname N7k-LabSW-DEFAULT ; end
```

Enter configuration commands, one per line. End with CNTL/Z.

N7k-LabSW-DEFAULT#

CLI完成所花的时间：

```
N7k-LabSW# show clock ; show run | ex .* ; show clock
```

```
07:56:08.709 UTC Tue Apr 05 2016
```

```
07:56:08.834 UTC Tue Apr 05 2016
```

使用CLI变量

```
N7k-LabSW# show cli variables
```

```
VSH Variable List (* = session vars)
```

```
-----
```

```
SWITCHNAME="N7k-LabSW"
```

```
TIMESTAMP="2016-04-05-08.34.18"
```

```
N7k-LabSW# tac-pac bootflash:${SWITCHNAME}-${TIMESTAMP}-show-tech-all.gz
```

```
N7k-LabSW# dir bootflash: | i show-tech-all
```

```
15091722 Apr 05 08:41:27 2016 N7k-LabSW-2016-04-05-08.35.57-show-tech-all.gz
```

还可以创建您自己的变量：

[CCO参考](#)

自定义终端设置

1)避免终端会话超时：

```
N7k-LabSW# show terminal | i Timeout
```

```
Session Timeout: 30 minutes
```

```
N7k-LabSW# terminal session-timeout ?
```

```
<0-525600> Enter timeout in minutes, 0 to disable
```

```
N7k-LabSW# terminal session-timeout 0
```

```
N7k-LabSW# show terminal | i Timeout
```

```
Session Timeout: 0 minutes
```

2)设置显示终端的宽度/长度：

当您不希望输出中断到长宽输出的新行时，该功能非常方便

```
N7k-LabSW# show terminal | i Width
```

```
Length: 25 lines, Width: 98 columns
```

```
N7k-LabSW# terminal width 300
```

```
N7k-LabSW# show terminal | i Width
```

```
Length: 25 lines, Width: 300 columns
```

根据需要延迟命令执行

```
N7k-LabSW# show clock ; sleep 10 ; show clock
```

```
19:27:07.435 UTC Mon Apr 04 2016
```

```
19:27:17.445 UTC Mon Apr 04 2016
```



```
5 1 1 2 0023.ac66.1dc1 0x010c7 1 0x000 0 0 0 1 0 0 0
0 0 0 0 0 0x00 0 0 0 0 0x000 0x000 0x000 0x010c7
```

Command outputs from Default VDC are pulled here

```
module-4# vdc 6 >>>>> switches LC to pull this VDC specific outputs only
```

```
module-4# show hardware mac address-table
```

FE	Valid	PI	BD	MAC	Index	Stat	SW	Modi	Age	Tmr	GM	Sec	TR	NT	RM
RMA	Cap	Fld	Always	PV	RD	NN	UC	PI_E8	VIF	SWID	SSWID	LID			
									ic	fied	Byte	Sel	ure	AP	FY
	TURE		Learn												
0	1	1	92	0023.ac66.1dc6	0x010c7	1	0x000	0	0	0	1	0	0	0	0
0	0	0	0	0x00 0 0 0	0	0	0x000 0x000	0x000	0x010c7						
0	1	0	91	0019.3074.9c02	0x00414	0	0x009	0	118	2	0	0	0	0	0
0	0	0	0	0x00 1 0 1	0	0	0x000 0x000	0x000	0x00414						

在Linux内核和NX-OS之间来回切换而不退出调试插件

```
N5600-Lab# load dplugg
```

```
Loading plugin version 7.1(1)N1(1)
```

```
#####
```

```
Warning: debug-plugin is for engineering internal use only!
```

```
For security reason, plugin image has been deleted.
```

```
#####
```

```
Successfully loaded debug-plugin!!!
```

```
Linux(debug)# vsh >>>> Moves back to NX-OS prompt
```

```
Cisco Nexus Operating System (NX-OS) Software
```

```
TAC support: http://www.cisco.com/tac
```

```
Copyright (c) 2002-2015, Cisco Systems, Inc. All rights reserved.
```

```
The copyrights to certain works contained in this software are
```

```
owned by other third parties and used and distributed under
```

```
license. Certain components of this software are licensed under
```

```
the GNU General Public License (GPL) version 2.0 or the GNU
```

```
Lesser General Public License (LGPL) Version 2.1. A copy of each
```

```
such license is available at
```

```
http://www.opensource.org/licenses/gpl-2.0.php and
```

```
http://www.opensource.org/licenses/lgpl-2.1.php
```

```
N5600-Lab# show clock
```

```
20:20:07.468 UTC Mon Apr 04 2016
```

```
N5600-Lab# exit >>>> Moves back to Linux prompt
```

```
Linux(debug)#
```

```
Linux(debug)# clock
```

```
Mon Apr 4 20:20:13 2016 -0.282195 seconds UTC
```

NOTE: "Debug Plugin" should only be used in presence of Cisco TAC and is not available for customer use.

Please do not modify any setting unless guided by Cisco TAC.

或者，NX-OS CLI可以直接从调试插件运行：

```
Linux(debug)# vsh -c "show switchname"
```

```
N5600-Lab
```

```
Linux(debug)# vsh -c "show module"
```

Mod	Ports	Module-Type	Model	Status
1	52	Nexus 56128P Supervisor	N5K-C56128P-SUP	active *

Mod	Sw	Hw	World-Wide-Name(s) (WWN)
1	7.1(1)N1(1)	1.1	--

<snipped>

直接通过VSH加载配置

VSH代表虚拟外壳

```
NEXUS-LABSWITCH# echo "hostname LAB" | vsh
LAB#
```

```
Mon Apr  4 20:51:14 2016:type=update:id=10.61.236.97@pts/1:user=admin:cmd=echo "hostname LAB" |
vsh (SUCCESS)
Mon Apr  4 20:51:14 2016:type=start:id=vsh.9326:user=admin:cmd=
Mon Apr  4 20:51:14 2016:type=update:id=vsh.9326:user=admin:cmd=configure terminal ; hostname
LAB (SUCCESS)
```

```
LAB# echo "hostname NEXUS-LABSWITCH" | vsh
NEXUS-LABSWITCH#
```

```
Mon Apr  4 20:51:23 2016:type=update:id=10.61.236.97@pts/1:user=admin:cmd=echo "hostname NEXUS-
LABSWITCH" | vsh (SUCCESS)
Mon Apr  4 20:51:23 2016:type=start:id=vsh.9390:user=admin:cmd=
Mon Apr  4 20:51:23 2016:type=update:id=vsh.9390:user=admin:cmd=configure terminal ; hostname
NEXUS-LABSWITCH (SUCCESS)
```

```
N5600-Lab# show run | i hostname | sed "s/N5600-Lab/N56128/" | vsh
N56128#
```

```
N56128# show accounting log | last 3
Mon Apr  4 21:23:23 2016:type=start:id=vsh.6762:user=admin:cmd=
Mon Apr  4 21:23:23 2016:type=update:id=vsh.6762:user=admin:cmd=configure terminal ; hostname
N56128 (SUCCESS)
Mon Apr  4 21:23:23 2016:type=stop:id=vsh.6762:user=admin:cmd=
```

```
N5600-Lab# echo "hostname N56128" > bootflash:CLI
N5600-Lab#
N5600-Lab# show file CLI
hostname N56128
N5600-Lab# show file CLI | vsh
N56128#
```

使用差分 — 列出计数器之间的差异

差异代表差异

```
N5600-Lab# show int mgmt0 | diff
N5600-Lab# show int mgmt0 | diff
11,12c11,12
<    9393 input packets 829764 bytes
<141 unicast packets 3715 multicast packets
---
>    9395 input packets 830217 bytes
>142 unicast packets 3716 multicast packets
15,16c15,16
<    214 output packets 47396 bytes
<27 unicast packets 181 multicast packets
---
>    215 output packets 47640 bytes
>27 unicast packets 182 multicast packets
```

使用Watch CLI — 自7.0(3)I2(x)起特定于N9k

N9K代表Nexus 9000

```
BRU-N9K3-1# watch differences interval 1 show int mgmt0 counter
```

```
Every 1.0s: vsh -c "show int mgmt0 counter"
```

Mon Apr 4 23:42:27 2016

[CCO reference](#)

在内部检查CPU使用率

CPU代表中央处理器

此命令每5秒（可以更改）提供一次输出，显示哪个进程消耗了CPU。它的输出与linux top命令相同：

```
NEXUS# show system internal processes cpu 5 | no-more
top - 12:41:55 up 117 days, 17:00, 5 users, load average: 0.44, 0.50, 0.55 Tasks: 2883 total, 2
running, 1022 sleeping, 0 stopped, 1859 zombie Cpu(s): 1.0%us, 0.9%sy, 0.0%ni, 98.0%id, 0.0%wa,
0.0%hi, 0.1%si, 0.0%st Mem: 32744992k total, 14563132k used, 18181860k free, 61308k buffers
Swap: 0k total, 0k used, 0k free, 4091160k cached PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+
COMMAND 18465 admin 20 0 5200 3108 1148 R 16.6 0.0 0:00.17 top 6389 root 20 0 699m 53m 14m S 3.3
0.2 113:49.07 netstack 18473 root 20 0 97940 3804 2796 R 3.3 0.0 0:00.02 vsh 10 root 15 -5 0 0 0
S 1.7 0.0 9:10.85 ksoftirqd/2 4876 root 15 -5 369m 27m 6564 S 1.7 0.1 67:33.91 sysmgr 9581 svc-
isan 20 0 446m 41m 11m S 1.7 0.1 21:16.15 isis_l2mp 1 root 20 0 1980 652 572 S 0.0 0.0 3:02.73
init 2 root 15 -5 0 0 0 S 0.0 0.0 0:00.03 kthreadd 3 root RT -5 0 0 0 S 0.0 0.0 0:00.49
migration/0 4 root 15 -5 0 0 0 S 0.0 0.0 22:48.66 ksoftirqd/0 5 root -2 -5 0 0 0 S 0.0 0.0
0:00.00 watchdog/0 6 root RT -5 0 0 0 S 0.0 0.0 0:00.65 migration/1 7 root 15 -5 0 0 0 S 0.0 0.0
2:27.70 ksoftirqd/1 top - 12:42:01 up 117 days, 17:00, 5 users, load average: 0.37, 0.48, 0.54
Tasks: 2887 total, 1 running, 1027 sleeping, 0 stopped, 1859 zombie Cpu(s): 1.0%us, 0.9%sy,
0.0%ni, 98.0%id, 0.0%wa, 0.0%hi, 0.1%si, 0.0%st Mem: 32744992k total, 14562360k used, 18182632k
free, 61308k buffers Swap: 0k total, 0k used, 0k free, 4091160k cached PID USER PR NI VIRT RES
SHR S %CPU %MEM TIME+ COMMAND 18502 admin 20 0 5200 3112 1148 R 18.5 0.0 0:00.17 top 6389 root
20 0 699m 53m 14m S 1.7 0.2 113:49.08 netstack 6402 root -2 0 366m 13m 8660 S 1.7 0.0 1032:41
clx 9015 root 20 0 482m 21m 11m S 1.7 0.1 225:45.72 pm 10066 svc-isan 20 0 403m 22m 9.9m S 1.7
0.1 268:31.28 ospf 10487 svc-isan 20 0 354m 9992 6596 S 1.7 0.0 194:52.11 ecp 1 root 20 0 1980
652 572 S 0.0 0.0 3:02.73 init 2 root 15 -5 0 0 0 S 0.0 0.0 0:00.03 kthreadd 3 root RT -5 0 0 0
S 0.0 0.0 0:00.49 migration/0 4 root 15 -5 0 0 0 S 0.0 0.0 22:48.66 ksoftirqd/0 5 root -2 -5 0 0
0 S 0.0 0.0 0:00.00 watchdog/0 6 root RT -5 0 0 0 S 0.0 0.0 0:00.65 migration/1 7 root 15 -5 0 0
0 S 0.0 0.0 2:27.70 ksoftirqd/1
```

发布内部版本

N7k/N9k

```
N7k-LabSW# show version internal build-identifier
Kickstart image file: bootflash:///n7000-s2-kickstart.6.2.10.bin : S102
System image file: bootflash:///n7000-s2-dk9.6.2.10.bin : S102
```

```
BRU-N9K3-1# show version internal build-identifier
nxos image file: bootflash:///nxos.7.0.3.I2.2a.bin : S30
```

N5k/6k:

N5600-Lab# show platform fwm info global | i FwM

FwM build Details: Built at Sat Apr 18 11:11:18 PDT 2015 on nuo-sw-build40 in directory /auto/n5kiluka/daily_build/iplus/nexus/522/src/build by builds)