

# Dicas e truques do Nexus (NX-OS)

## Contents

[Introduction](#)

[Conversão rápida de Hex/Dec](#)

[Executando várias CLIs de uma só vez](#)

[Usando variáveis CLI](#)

[Personalizar configurações de terminal](#)

[Atraso na execução de comandos por necessidade](#)

[Acesso a contexto de roteamento/VRFs](#)

[Executando CLIs para o respectivo VDC quando conectado ao LC: específico de N7k](#)

[Alternando entre Linux Kernel e NX-OS sem sair do plug-in de depuração](#)

[Carregando a configuração diretamente através da VSH](#)

[Usando Diffs - Liste as diferenças entre os contadores](#)

[Usando a CLI do Watch - específico da N9k desde a 7.0\(3\)I2\(x\)](#)

[Verificar o uso interno da CPU](#)

[Versão da compilação interna da versão](#)

## Introduction

Este documento descreve algumas dicas e truques rápidos que podem aprimorar a experiência de solução de problemas com o NX-OS.

## Conversão rápida de Hex/Dec

Hex significa Hexa Decimal, dez por Decimal

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

## Executando várias CLIs de uma só vez

CLI significa Interface de linha de comando

```
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
```

# Também funciona para configuração:

```
N7k-LabSW# conf t ; hostname N7k-LabSW-DEFAULT ; end
Enter configuration commands, one per line. End with CNTL/Z.
N7k-LabSW-DEFAULT#
```

# Tempo necessário para uma CLI ser concluída:

```
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
```

## Usando variáveis CLI

```
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
```

Também pode criar suas próprias variáveis:

[Referência do CCO](#)

## Personalizar configurações de terminal

1) Evite tempos limite de sessão de terminal:

```
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) Defina a largura/comprimento do terminal de exibição:

É útil quando você não quer que a saída quebre para uma nova linha para saídas de longa largura

```
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
```

## Atraso na execução de comandos por necessidade

```
N7k-LabSW# show clock ; sleep 10 ; show clock
19:27:07.435 UTC Mon Apr 04 2016
```

## Acesso a contexto de roteamento/VRFs

VRF significa roteamento e encaminhamento virtual

Execute CLIs para um VRF específico sem adicionar VRF <> sempre ao comando:

```
N7k-LabSW# routing-context vrf management
N7k-LabSW%management# sh ip route
IP Route Table for VRF "management"
'*' denotes best ucast next-hop
*** denotes best mcast next-hop
'[x/y]' denotes [preference/metric]
'%<string>' in via output denotes VRF <string>

0.0.0.0/0, ubest/mbest: 1/0
  *via 10.48.61.129, [1/0], 1w4d, static
10.48.61.128/26, ubest/mbest: 1/0, attached
  *via 10.48.61.150, mgmt0, [0/0], 1w4d, direct
10.48.61.150/32, ubest/mbest: 1/0, attached
  *via 10.48.61.150, mgmt0, [0/0], 1w4d, local
```

```
N7k-LabSW%management#
N7k-LabSW%management# routing-context vrf default
N7k-LabSW# sh ip route
IP Route Table for VRF "default"
'*' denotes best ucast next-hop
*** denotes best mcast next-hop
'[x/y]' denotes [preference/metric]
'%<string>' in via output denotes VRF <string>
```

## Executando CLIs para o respectivo VDC quando conectado ao LC: específico de N7k

VDC significa Virtual Device Context

LC significa Line Card

N7K significa Nexus 7000

Depois de anexadas à LC, as CLIs são executadas em relação ao VDC padrão ou precisam especificar o VDC # para o comando relacionado.

Em vez disso, você pode executar as CLIs no espaço # do VDC como o contexto de roteamento.

Exemplo:

```
N7k-LabSW# attach module 4
Attaching to module 4 ...
To exit type 'exit', to abort type '$.'
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| | | | | | | | | |
```



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>

## Carregando a configuração diretamente através da VSH

VSH significa shell virtual

```
NEXUS-LABSWICHTH# 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#**

## Usando Diffs - Liste as diferenças entre os contadores

Diferença significa Diferença

```
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
```

## Usando a CLI do Watch - específico da N9k desde a 7.0(3)I2(x)

N9K significa 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](#)

## Verificar o uso interno da CPU

CPU significa Central Processing Unit

Esse comando fornece uma saída a cada 5 segundos (pode ser alterado) que processo está consumindo a CPU. É a mesma saída do comando **superior** linux:

```
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-isani 20 0 403m 22m 9.9m S 1.7
0.1 268:31.28 ospf 10487 svc-isani 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
```

## Versão da compilação interna da versão

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 buildsa)