



Perform Preliminary Checks

After successfully logging into the console, you must perform some preliminary checks to verify the default setup. If any setup issue is detected, take corrective action before making further configurations.



Note The output of the examples in the procedures is not from the latest software release. The output will change for any explicit references to the current release.

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Verify Status of Hardware Components

To verify the status of all the hardware components installed on NCS 1020, perform the following procedure.

Before you begin

Ensure that all the required hardware components are installed on NCS 1020. For installation details, see *Cisco Network Convergence System 1020 Hardware Installation Guide*.

Procedure

show platform

When you execute this command, the status of Cisco IOS XR is displayed.

Example:

```
RP/0/RP0/CPU0:ios#show platform
```

```
Mon May 6 16:38:13.609 IST
```

Node	Type	State	Config state
0/RP0/CPU0	NCS1010-CTR2-B-K9 (Active)	IOS XR RUN	NSHUT, NMON
0/FT0	NCS1010-FAN	OPERATIONAL	NSHUT, NMON
0/FT1	NCS1010-FAN	OPERATIONAL	NSHUT, NMON
0/FT4	NCS1020-FAN	OPERATIONAL	NSHUT, NMON
0/FT5	NCS1020-FAN	OPERATIONAL	NSHUT, NMON
0/FT6	NCS1020-FAN	OPERATIONAL	NSHUT, NMON
0/FT7	NCS1020-FAN	OPERATIONAL	NSHUT, NMON
0/0/NXR0	NCS1K-E-OLT-C	OPERATIONAL	NSHUT, NMON
0/1/NXR0	NCS1010-FLR-P	PRESENT	NSHUT, NMON
0/2/NXR0	NCS1K14-CCMD-16-C	OPERATIONAL	NSHUT, NMON
0/3/NXR0	NCS1K14-CCMD-16-C	OPERATIONAL	NSHUT, NMON
0/4/NXR0	NCS1K14-BLANK	PRESENT	NSHUT, NMON
0/5/NXR0	NCS1K14-BLANK	PRESENT	NSHUT, NMON
0/6/NXR0	NCS1K14-BLANK	PRESENT	NSHUT, NMON
0/7/NXR0	NCS1K14-BLANK	PRESENT	NSHUT, NMON
0/8/NXR0	NCS1K14-BLANK	PRESENT	NSHUT, NMON
0/9/NXR0	NCS1K14-BLANK	PRESENT	NSHUT, NMON
0/PM0	NCS1K4-AC-PSU-2	OPERATIONAL	NSHUT, NMON
0/PM1	NCS1K4-AC-PSU-2	OPERATIONAL	NSHUT, NMON

Verify that all the components of NCS 1020 are displayed in output. The state must be in the OPERATIONAL state. The various states are:

- OPERATIONAL—Node is operating normally and is fully functional.
- POWERED_ON—Power is on and the node is booting up.
- FAILED—Node is powered on but has encountered an internal failure.
- PRESENT—Node is in intermediate state in the boot sequence.
- POWERED_OFF—Power is off and the node cannot be accessed.
- IOS XR RUN—Node is running IOS XR.

- OFFLINE—Input power is not connected to the power modules.

Verify the Status of the Chassis Door

To verify the status and alarm condition of the chassis door installed on NCS 1020, perform the following procedure.

Procedure

Step 1 show platform chassis-door

Displays the status of the installed chassis door.

Example:

```
RP/0/RP0/CPU0:ios#show platform chassis-door
Mon Jul  1 05:54:59.600 UTC
Chassis door present: Yes
```

Step 2 environment chassis-door-alarm enable

Enables the alarm details of the installed chassis door.

Note

By default, the chassis door alarm is disabled.

Example:

```
RP/0/RP0/CPU0:ios#configuration
RP/0/RP0/CPU0:ios(config)#environment chassis-door-alarm enable
RP/0/RP0/CPU0:ios#commit
```

Step 3 show alarms [brief | detail] system active

Displays the chassis door information in detail or brief.

Example:

```
RP/0/RP0/CPU0:ios#show alarms brief system active | i Door
Fri May 24 11:26:06.091 UTC
0          Minor          Environ          05/24/2024 11:19:21 UTC    Chassis Door is Open
```

```
RP/0/RP0/CPU0:ios#show alarms detail system active | i Door
```

```
Fri May 24 11:26:06.091 UTC
Description:          Chassis Door is Open
Location:             0

AID:                 SM/HW_MISC_ERR/45

Tag String:          FAM_FAULT_TAG_HW_ENVMON_CHASSIS_DOOR_OPEN

Module Name:         N/A

EID:                 CHASSIS/LCC/1
```

```

Reporting Agent ID:      65587
Pending Sync:           false
Severity:               Minor
Status:                 Set
Group:                  Environ
Set Time:               05/24/2024 09:56:23 UTC
Clear Time:             -
Service Affecting:     NotServiceAffecting
Transport Direction:   NotSpecified
Transport Source:      NotSpecified
Threshold Value:       -
Current Value:         -
Bucket Type:           NotSpecified
Event Type:            Default
Interface:              N/A

Alarm Name:             Chassis Door alarm

```

The following output shows the alarm details when the chassis door is open.

```

RP/0/RP0/CPU0:May 24 10:03:39.472 UTC: envmon[190]: %PKT_INFRA-FM-4-FAULT_MINOR : ALARM_MINOR :Chassis
Door alarm :DECLARE :0:

```

The following output shows the alarm details when the chassis door is closed.

```

RP/0/RP0/CPU0:May 24 10:03:35.471 UTC: envmon[190]: %PKT_INFRA-FM-4-FAULT_MINOR : ALARM_MINOR :Chassis
Door alarm :CLEAR :0:

```

Verify Inventory

The **show inventory** command displays details of the hardware inventory of NCS 1020.

To verify the inventory information for all the physical entities, perform the following procedure.

Procedure

show inventory

Displays the details of the physical entities of NCS 1020 along with the details of SFPs.

Example:

```

RP/0/RP0/CPU0:ios#show inventory

```

```

Mon May 6 16:38:33.857 IST

```

```

NAME: "Rack 0", DESCR: "NCS 1020 Shelf Assembly"

```

```

PID: NCS1020-SA , VID: V00, SN: FCB2749B0FD

```

```

NAME: "0/RP0/CPU0", DESCR: "NCS 1010, 1012, 1020 Controller with 9600bps console rate"

```

```

PID: NCS1010-CTR2-B-K9 , VID: V00, SN: FCB2748B01S

```

NAME: "0/RP0-PTP0", DESCR: "Cisco Pluggable Optics Module"

PID: ONS-SI-GE-LX , VID: V01, SN: AGC1703UE1M

NAME: "0/RP0-PTP1", DESCR: "Cisco Pluggable Optics Module"

PID: GLC-SX-MMD , VID: V01, SN: OPM221407E5

NAME: "0/RP0-PTP2", DESCR: "Cisco Pluggable Optics Module"

PID: SFP-GE-S , VID: V01, SN: FNS17040APG

NAME: "0/RP0-PTP3", DESCR: "Cisco Pluggable Optics Module"

PID: ONS-SI-GE-LX , VID: V02, SN: FNS19170MGZ

NAME: "0/0/NXR0", DESCR: "NCS 1010 Optical Line Terminal - C-band, enhanced"

PID: NCS1K-E-OLT-C , VID: V01, SN: FCB2721B1DP

NAME: "0/9/NXR0", DESCR: "Network Convergence System 1014 Filler"

PID: NCS1K14-BLANK , VID: V01, SN: N/A

NAME: "0/1/NXR0", DESCR: "Network Convergence System 1010 Passive Filler"

PID: NCS1010-FLR-P , VID: V01, SN: N/A

NAME: "0/2/NXR0", DESCR: "NCS 1014 16 port Colorless Direct attach LC with EDFA C-band"

PID: NCS1K14-CCMD-16-C , VID: V01, SN: FCB2749B06U

NAME: "0/3/NXR0", DESCR: "NCS 1014 16 port Colorless Direct attach LC with EDFA C-band"

PID: NCS1K14-CCMD-16-C , VID: V00, SN: FCB2744B0FA

NAME: "0/4/NXR0", DESCR: "Network Convergence System 1014 Filler"

PID: NCS1K14-BLANK , VID: V01, SN: N/A

NAME: "0/5/NXR0", DESCR: "Network Convergence System 1014 Filler"

PID: NCS1K14-BLANK , VID: V01, SN: N/A

NAME: "0/6/NXR0", DESCR: "Network Convergence System 1014 Filler"

PID: NCS1K14-BLANK , VID: V01, SN: N/A

NAME: "0/7/NXR0", DESCR: "Network Convergence System 1014 Filler"

PID: NCS1K14-BLANK , VID: V01, SN: N/A

NAME: "0/8/NXR0", DESCR: "Network Convergence System 1014 Filler"

PID: NCS1K14-BLANK , VID: V01, SN: N/A

NAME: "0/FT0", DESCR: "NCS1010 - Shelf Fan"

PID: NCS1010-FAN , VID: V01, SN: FCB2719B0WP

NAME: "0/FT1", DESCR: "NCS1010 - Shelf Fan"

PID: NCS1010-FAN , VID: V01, SN: FCB2720B2H2

NAME: "0/FT4", DESCR: "NCS 1020 FAN Tray"

PID: NCS1020-FAN , VID: V00, SN: FCB2752B05V

NAME: "0/FT5", DESCR: "NCS 1020 FAN Tray"

PID: NCS1020-FAN , VID: V00, SN: FCB2752B05W

NAME: "0/FT6", DESCR: "NCS 1020 FAN Tray"

PID: NCS1020-FAN , VID: V00, SN: FCB2752B08C

NAME: "0/FT7", DESCR: "NCS 1020 FAN Tray"

PID: NCS1020-FAN , VID: V00, SN: FCB2752B072

NAME: "0/PM0", DESCR: "Network Convergence System 1004 AC Power Supply Unit 2.5KW"

PID: NCS1K4-AC-PSU-2 , VID: V01, SN: POG27430N29

```
NAME: "0/PM1", DESCR: "Network Convergence System 1004 AC Power Supply Unit 2.5KW"  
PID: NCS1K4-AC-PSU-2 , VID: V01, SN: POG27430N1P
```

Verify Software Version

NCS 1020 is shipped with the Cisco IOS XR software preinstalled. Verify that the latest version of the software is installed.

To verify the version of Cisco IOS XR Software running on NCS 1020, perform the following procedure.

Procedure

show version

Displays the software version and details such as system uptime.

Example:

```
RP/0/RP0/CPU0:ios#show version  
  
Mon May 6 16:38:47.424 IST  
  
Cisco IOS XR Software, Version 24.2.1.32I LNT  
  
Copyright (c) 2013-2024 by Cisco Systems, Inc.  
  
  
Build Information:  
  
Built By      : cisco  
  
Built On     : Thu Apr 11 02:06:44 UTC 2024  
  
Build Host   : iox-ucs-033  
  
Workspace    : /auto/iox-ucs-033-san1/prod/24.2.1.32I.SIT_IMAGE/ncs1010/ws/  
  
Version      : 24.2.1.32I  
  
Label        : 24.2.1.32I-MSFT_PILOT  
  
  
cisco NCS1010 (C3758R @ 2.40GHz)  
  
cisco NCS1020-SA (C3758R @ 2.40GHz) processor with 32GB of memory  
  
NCS1020_P1B_DT_10 uptime is 4 days, 5 hours, 9 minutes  
  
NCS 1020 Chassis
```

Verify Firmware Version

The firmware version on various hardware components of NCS 1020 must be compatible with the installed Cisco IOS XR release. Incompatibility may cause NCS 1020 to malfunction.

To verify the firmware version, perform the following procedure.

Procedure

Step 1 show hw-module fpd

Displays the firmware information of various hardware components of NCS 1020.

Example:

```
RP/0/RP0/CPU0:ios#show hw-module fpd
```

```
Mon May 6 16:39:04.587 IST
```

```
Auto-upgrade:Enabled
```

```
Attribute codes: B golden, P protect, S secure, A Anti Theft aware
```

```

                                FPD Versions
                                =====
Location   Card type           HWver FPD device   ATR Status   Running Programd   Reload Loc
-----
0/RP0/CPU0 NCS1010-CTR2-B-K9   0.1   ADMCONFIG        CURRENT      1.00    1.00    NOT REQ
0/RP0/CPU0 NCS1010-CTR2-B-K9   0.1   BIOS             S CURRENT      5.20    5.20    0/RP0
0/RP0/CPU0 NCS1010-CTR2-B-K9   0.1   BIOS-Golden      BS CURRENT      1.90    1.90    0/RP0
0/RP0/CPU0 NCS1010-CTR2-B-K9   0.1   CpuFpga          S CURRENT      1.06    1.06    0/RP0
0/RP0/CPU0 NCS1010-CTR2-B-K9   0.1   CpuFpgaGolden    BS CURRENT      1.02    1.02    0/RP0
0/RP0/CPU0 NCS1010-CTR2-B-K9   0.1   SsdMicron5300    S CURRENT      0.01    0.01    0/RP0
0/RP0/CPU0 NCS1010-CTR2-B-K9   0.1   TamFw            S CURRENT      9.07    9.07    0/RP0
0/RP0/CPU0 NCS1010-CTR2-B-K9   0.1   TamFwGolden      BS CURRENT      9.06    9.06    0/RP0
0/PM0      NCS1K4-AC-PSU-2     1.0   PO-PrimMCU       CURRENT      1.03    1.03    NOT REQ
0/PM0      NCS1K4-AC-PSU-2     1.0   PO-SecMCU        CURRENT      1.05    1.05    NOT REQ
0/PM1      NCS1K4-AC-PSU-2     1.0   PO-PrimMCU       CURRENT      1.03    1.03    NOT REQ
0/PM1      NCS1K4-AC-PSU-2     1.0   PO-SecMCU        CURRENT      1.05    1.05    NOT REQ

```

0/0/NXR0	NCS1K-E-OLT-C	1.0	OLT	S	CURRENT	3.14	3.14	NOT REQ
0/2/NXR0	NCS1K14-CCMD-16-C	1.0	CpuModFw	S	CURRENT	42.15	42.15	NOT REQ
0/2/NXR0	NCS1K14-CCMD-16-C	1.0	OptModFw	S	CURRENT	20.02	20.02	NOT REQ
0/3/NXR0	NCS1K14-CCMD-16-C	1.0	CpuModFw	S	CURRENT	42.15	42.15	NOT REQ
0/3/NXR0	NCS1K14-CCMD-16-C	1.0	OptModFw	S	CURRENT	20.02	20.02	NOT REQ
0/Rack	NCS1020-SA	0.1	ADMCONFIG		CURRENT	1.00	1.00	NOT REQ
0/Rack	NCS1020-SA	0.1	IoFpgaLow	S	CURRENT	1.08	1.08	NOT REQ
0/Rack	NCS1020-SA	0.1	IoFpgaLowGolden	BS	CURRENT		0.07	NOT REQ
0/Rack	NCS1020-SA	0.1	IoFpgaUp	S	CURRENT	1.08	1.08	NOT REQ
0/Rack	NCS1020-SA	0.1	IoFpgaUpGolden	BS	CURRENT		0.06	NOT REQ
0/Rack	NCS1020-SA	0.1	SsdMicron5400	S	CURRENT	0.02	0.02	0/Rack

Step 2 show fpd package

Displays the FPD image version available with this software release for each hardware component.

Example:

```
RP/0/RP0/CPU0:ios#show fpd package
Wed Apr 24 15:59:13.897 IST
```

```

=====
                                Field Programmable Device Package
                                =====
Card Type           FPD Description           Req   SW   Min Req   Min Req
=====  =====  =====  =====  =====  =====
                                Reload  Ver   SW Ver   Board Ver
-----
NCS1010-CTR2-B-K9  ADMCONFIG                 NO    1.00   1.00     0.1
                  BIOS                   YES    5.20   5.20     0.0
                  BIOS-Golden             YES    5.10   0.01     0.0
                  CpuFpga                 YES    1.06   1.06     0.0
                  CpuFpgaGolden           YES    1.02   0.01     0.0
                  SsdIntelS4510           YES   11.32  11.32     0.0
                  SsdMicron5300           YES    0.01   0.01     0.0
                  SsdMicron5400           YES    0.02   0.02     0.0
                  TamFw                   YES    9.07   9.07     0.0
                  TamFwGolden             YES    9.06   0.01     0.0
-----
NCS1010-CTR2-K9   ADMCONFIG                 NO    1.00   1.00     0.1
                  BIOS                   YES    5.20   5.20     0.0
                  BIOS-Golden             YES    5.10   0.01     0.0
                  CpuFpga                 YES    1.06   1.06     0.0
                  CpuFpgaGolden           YES    1.02   0.01     0.0
                  SsdIntelS4510           YES   11.32  11.32     0.0
                  SsdMicron5300           YES    0.01   0.01     0.0
                  SsdMicron5400           YES    0.02   0.02     0.0
                  TamFw                   YES    9.07   9.07     0.0
                  TamFwGolden             YES    9.06   0.01     0.0
-----
NCS1020-SA        ADMCONFIG                 NO    1.00   1.00     0.0
                  IoFpgaLow               NO    1.08   1.08     0.0
                  IoFpgaLowGolden         NO    0.07   0.01     0.0
                  IoFpgaUp                NO    1.08   1.08     0.0
                  IoFpgaUpGolden         NO    0.06   0.01     0.0

```

	SsdIntelSC2KB	YES	1.20	1.20	0.0
	SsdMicron5400	YES	0.02	0.02	0.0
NCS1K-E-ILA-2R-C	ILA	NO	3.14	3.14	0.1
	ILA	NO	0.28	0.28	99.1
	Raman-1	NO	3.14	3.14	0.1
	Raman-1	NO	0.28	0.28	99.1
	Raman-2	NO	3.14	3.14	0.1
	Raman-2	NO	0.28	0.28	99.1
NCS1K-E-ILA-R-C	ILA	NO	3.14	3.14	0.1
	ILA	NO	0.28	0.28	99.1
	Raman-1	NO	3.14	3.14	0.1
	Raman-1	NO	0.28	0.28	99.1
NCS1K-E-ILA-R-C-2	ILA	NO	3.14	3.14	0.1
	ILA	NO	0.28	0.28	99.1
	Raman-2	NO	3.14	3.14	0.1
	Raman-2	NO	0.28	0.28	99.1
NCS1K-E-OLT-C	OLT	NO	3.14	3.14	0.1
	OLT	NO	0.28	0.28	99.1
NCS1K-E-OLT-L	OLT	NO	3.12	3.12	0.1
NCS1K-E-OLT-R-C	OLT	NO	3.14	3.14	0.1
	OLT	NO	0.28	0.28	99.1
	Raman-1	NO	3.14	3.14	0.1
	Raman-1	NO	0.28	0.28	99.1
NCS1K-ILA-2R-C	ILA	NO	3.14	3.14	0.1
	ILA	NO	0.28	0.28	99.1
	Raman-1	NO	3.14	3.14	0.1
	Raman-1	NO	0.28	0.28	99.1
	Raman-2	NO	3.14	3.14	0.1
	Raman-2	NO	0.28	0.28	99.1
NCS1K-ILA-C	ILA	NO	3.14	3.14	0.1
	ILA	NO	0.28	0.28	99.1
NCS1K-ILA-L	ILA	NO	3.12	3.12	0.1
NCS1K-ILA-R-C	ILA	NO	3.14	3.14	0.1
	ILA	NO	0.28	0.28	99.1
	Raman-1	NO	3.14	3.14	0.1
	Raman-1	NO	0.28	0.28	99.1
NCS1K-OLT-C	OLT	NO	3.14	3.14	0.1
	OLT	NO	0.28	0.28	99.1
NCS1K-OLT-L	OLT	NO	3.12	3.12	0.1
NCS1K-OLT-R-C	OLT	NO	3.14	3.14	0.1
	OLT	NO	0.28	0.28	99.1
	Raman-1	NO	3.14	3.14	0.1
	Raman-1	NO	0.28	0.28	99.1
NCS1K14-CCMD-16-C	CpuModFw	NO	42.14	42.14	0.0
	OptModFw	NO	20.02	20.02	0.0
NCS1K14-CCMD-16-L	CpuModFw	NO	42.14	42.14	0.0
	OptModFw	NO	20.02	20.02	0.0

NCS1K4-AC-PSU-2	PO-PrimCU	NO	1.03	1.03	0.1
	PO-SecMCU	NO	1.05	1.05	0.1

Verify Management Interface Status

To verify the management interface status, perform the following procedure.

Procedure

Step 1 show interfaces MgmtEth 0/RP0/CPU0/0

Displays the management interface configuration.

Example:

```
RP/0/RP0/CPU0:ios#show interfaces MgmtEth 0/RP0/CPU0/0
Wed May 25 11:49:18.118 UTC
MgmtEth0/RP0/CPU0/0 is up, line protocol is up
  Interface state transitions: 1
  Hardware is Management Ethernet, address is 38fd.f866.0964 (bia 38fd.f866.0964)
  Internet address is 10.33.0.61/16
  MTU 1514 bytes, BW 1000000 Kbit (Max: 1000000 Kbit)
    reliability 255/255, txload 0/255, rxload 0/255
  Encapsulation ARPA,
  Full-duplex, 1000Mb/s, CX, link type is autonegotiation
  loopback not set,
  Last link flapped 15:05:21
  ARP type ARPA, ARP timeout 04:00:00
  Last input never, output 00:00:00
  Last clearing of "show interface" counters never
  5 minute input rate 0 bits/sec, 0 packets/sec
  5 minute output rate 0 bits/sec, 0 packets/sec
    53138 packets input, 6636701 bytes, 0 total input drops
    0 drops for unrecognized upper-level protocol
    Received 12145 broadcast packets, 40082 multicast packets
      0 runts, 0 giants, 0 throttles, 0 parity
    0 input errors, 0 CRC, 0 frame, 0 overrun, 0 ignored, 0 abort
  217288 packets output, 60964220 bytes, 0 total output drops
  Output 1 broadcast packets, 15 multicast packets
  0 output errors, 0 underruns, 0 applique, 0 resets
  0 output buffer failures, 0 output buffers swapped out
  1 carrier transitions
```

Step 2 show interfaces summary and show interfaces brief

Verifies the management interface status.

Example:

```
RP/0/RP0/CPU0:ios#show interfaces summary
Wed May 25 11:50:02.558 UTC
Interface Type          Total    UP      Down    Admin Down
-----
ALL TYPES                9        5        0        4
-----
IFT_ETHERNET            1        1        0        0
IFT_LOOPBACK            2        2        0        0
```

```
IFT_ETHERNET      3      1      0      2
IFT_NULL          1      1      0      0
IFT_PTP_ETHERNET  2      0      0      2
```

Example:

```
RP/0/RP0/CPU0:ios#show interfaces brief
Wed May 25 11:50:28.438 UTC
```

Intf Name	Intf State	LineP State	Encap Type	MTU (byte)	BW (Kbps)
Lo0	up	up	Loopback	1500	0
Lo3	up	up	Loopback	1500	0
Nu0	up	up	Null	1500	0
Gi0/0/0/0	up	up	ARPA	1514	1000000
Mg0/RP0/CPU0/0	up	up	ARPA	1514	1000000
Mg0/RP0/CPU0/1	admin-down	admin-down	ARPA	1514	1000000
Mg0/RP0/CPU0/2	admin-down	admin-down	ARPA	1514	1000000
PT0/RP0/CPU0/0	admin-down	admin-down	ARPA	1514	1000000
PT0/RP0/CPU0/1	admin-down	admin-down	ARPA	1514	1000000

Example:

```
RP/0/RP0/CPU0:ios#show ipv4 interfaces brief
Tue Jul 12 07:32:42.390 UTC
```

Interface	IP-Address	Status	Protocol	Vrf-Name
Loopback0	10.3.3.21	Up	Up	default
Loopback3	10.1.1.2	Up	Up	default
GigabitEthernet0/0/0/0	10.7.1.20	Up	Up	default
MgmtEth0/RP0/CPU0/0	10.4.33.63	Up	Up	default
PTP0/RP0/CPU0/0	unassigned	Shutdown	Down	default
MgmtEth0/RP0/CPU0/1	unassigned	Down	Down	default
PTP0/RP0/CPU0/1	unassigned	Shutdown	Down	default
MgmtEth0/RP0/CPU0/2	unassigned	Down	Down	default

Verify Alarms

You can view the alarm information using the **show alarms** command.

Procedure

```
show alarms [ brief [ card | rack | system ] [ location location ] [ active | history ] | detail [ card | rack | system ] [ location location ] [ active | clients | history | stats ] ]
```

Displays alarms in brief or detail.

Example:

```
RP/0/RP0/CPU0:ios#show alarms brief system active
```

```
Thu Apr 28 06:16:50.524 UTC
```

Active Alarms

Location	Severity	Group	Set Time	Description
0/RP0/CPU0	Major	Ethernet	04/28/2022 06:03:39 UTC	RP-SW: SPI flash config is incorrect
0/PM0	Major	Environ	04/28/2022 06:03:50 UTC	Power Module Error (PM_VIN_VOLT_OOR)
0/PM0 (PM_OUTPUT_DISABLED)	Major	Environ	04/28/2022 06:03:50 UTC	Power Module Output Disabled
0	Major	Environ	04/28/2022 06:03:50 UTC	Power Group redundancy lost
0/PM0 Current State	Major	FPD_Infra	04/28/2022 06:04:08 UTC	One Or More FPDs Need Upgrade Or Not In
0/PM1 Current State	Major	FPD_Infra	04/28/2022 06:04:09 UTC	One Or More FPDs Need Upgrade Or Not In
0/0	Minor	Environ	04/28/2022 06:04:10 UTC	ILAC_CT_1: Invalid sensor read error.
0/0	Minor	Environ	04/28/2022 06:04:10 UTC	ILAC_CT_2: Invalid sensor read error.
0/0	Minor	Environ	04/28/2022 06:04:10 UTC	ILAC_CT_3: Invalid sensor read error.
0/0	Minor	Environ	04/28/2022 06:04:10 UTC	ILAC_CT_4: Invalid sensor read error.
0/0	Major	Controller	04/28/2022 06:05:12 UTC	Osc0/0/0/0 - Provisioning Failed
0/0	Major	Controller	04/28/2022 06:05:12 UTC	Osc0/0/0/2 - Provisioning Failed
0/0	Major	Controller	04/28/2022 06:05:12 UTC	Ots0/0/0/0 - Provisioning Failed
0/0	Major	Controller	04/28/2022 06:05:12 UTC	Ots0/0/0/2 - Provisioning Failed

Note

In the maintenance mode, all the alarms are moved from active to suppressed and the **show alarms** command does not display the alarms details.

Verify Environmental Parameters

The **show environment** command displays the environmental parameters of NCS 1020.

To verify that the environmental parameters are as expected, perform the following procedure.

Procedure

```
show environment [ all | current | fan | power | voltages [ location | location ] | temperature [ location | location ] ]
```

Displays the environmental parameters of NCS 1020.

Example:

The following example shows a sample output of the **show environment** command with the **fan** keyword.

```
RP/0/RP0/CPU0:ios#show environment fan
```

```
Mon Apr 29 11:34:01.781 IST
```

```
=====
```

Fan speed (rpm)					
Location	FRU Type	FAN_0	FAN_1	FAN_2	

Verify Environmental Parameters

0/FT0	NCS1010-FAN	7860	7860	7860
0/FT1	NCS1010-FAN	7800	7740	7740
0/FT4	NCS1020-FAN	7740	7740	
0/FT5	NCS1020-FAN	7740	7740	
0/FT6	NCS1020-FAN	3960	3960	
0/FT7	NCS1020-FAN	4020	3960	
0/PM0	NCS1K4-AC-PSU-2	5632	5504	
0/PM1	NCS1K4-AC-PSU-2	5536	5568	

The following example shows a sample output of the **show environment** command with the **temperatures** keyword for *0/RP0* location.

```
RP/0/RP0/CPU0:ios#show environment temperature location 0/RP0
```

```
Mon Apr 29 11:41:39.134 IST
```

```
=====
```

Location	TEMPERATURE	Value	Crit	Major	Minor	Minor	Major
Crit		(deg C)	(Lo)	(Lo)	(Lo)	(Hi)	(Hi)
(Hi)	Sensor						

0/RP0/CPU0							
90	RP_TEMP_PCB	22	-10	-5	0	80	85
90	RP_TEMP_HOT_SPOT	26	-10	-5	0	80	85
95	RP_TEMP_LTM4638_0	41	-10	-5	0	85	90
95	RP_TEMP_LTM4644_0	29	-10	-5	0	85	90
95	RP_TEMP_LTM4644_1	32	-10	-5	0	85	90
90	TEMP_CPU_DIE	29	-10	-5	0	80	85
90	TEMP_DDR_DIMM	25	-10	-5	0	80	85
80	TEMP_CPU_SSD	28	-10	-5	0	70	75
80	TEMP_CHASSIS_SSD	24	-10	-5	0	70	75

The following example shows a sample output of the **show environment** command with the **temperatures** keyword for *0/0/NXR0* location.

RP/0/RP0/CPU0:ios#**show environment temperature location 0/0/NXR0**

Mon Apr 29 11:41:39.134 IST

```

=====
Location  TEMPERATURE          Value  Crit  Major  Minor  Minor  Major
  Crit
(Hi)      Sensor              (deg C)  (Lo)  (Lo)  (Lo)  (Hi)  (Hi)
-----
0/0/NXR0
33      OLTC_LT_P0_iEDFA0          25     17    18    19    31    32
33      OLTC_LT_P0_iEDFA1          25     17    18    19    31    32
33      OLTC_LT_P0_iEDFA2          25     17    18    19    31    32
33      OLTC_LT_P2_iEDFA0          25     17    18    19    31    32
33      OLTC_LT_P3_iEDFA0          25     17    18    19    31    32
33      OLTC_LT_P0_eEDFA0          24     17    18    19    31    32
81      OLTC_CT_1                   23    -11    -8    -6    76    78
33      OLTC_LT_P0_eEDFA1          24     17    18    19    31    32
76      OLTC_CT_2                   20    -11    -8    -6    71    74
76      OLTC_CT_3                   22    -11    -8    -6    71    74
76      OLTC_CT_4                   23    -11    -8    -6    71    74
66      OLTC_FT_P0_iEDFA0          59     54    56    57    63    65
66      OLTC_FT_P2_iEDFA0          59     54    56    57    63    65
66      OLTC_FT_P3_iEDFA0          59     54    56    57    63    65
66      OLTC_FT_P0_eEDFA0          59     54    56    57    63    65
    
```

The following example shows a sample output of the **show environment** command with the **power** keyword.

```
RP/0/RP0/CPU0:ios#show environment power
```

```
Mon Apr 29 11:36:36.442 IST
```

```
=====
```

```
CHASSIS LEVEL POWER INFO: 0
```

```
=====
```

```
Total output power capacity (Group 0 + Group 1) :    2500W +    2500W
Total output power required                       :    1189W
Total power input                                 :    278W
Total power output                                :    204W
```

```
Power Group 0:
```

```
=====
```

Power	Supply	-----Input----		-----Output---		Status
Module	Type	Volts	Amps	Volts	Amps	
0/PM0	NCS1K4-AC-PSU-2	232.0	0.6	12.1	9.5	OK

```
Total of Group 0:                139W/0.6A          114W/9.5A
```

```
Power Group 1:
```

```
=====
```

Power	Supply	-----Input----		-----Output---		Status
Module	Type	Volts	Amps	Volts	Amps	
0/PM1	NCS1K4-AC-PSU-2	231.8	0.6	12.1	7.5	OK

```
Total of Group 1:                139W/0.6A          90W/7.5A
```

```
=====
```

Location	Card Type	Power	Power	Status
		Allocated	Used	

		Watts	Watts	
0/RP0/CPU0	NCS1010-CTR2-B-K9	70	16	ON
0/FT0	NCS1010-FAN	110	9	ON
0/FT1	NCS1010-FAN	110	9	ON
0/FT2	-	110	0	RESERVED
0/FT3	-	110	0	RESERVED
0/FT4	NCS1020-FAN	73	6	ON
0/FT5	NCS1020-FAN	73	6	ON
0/FT6	NCS1020-FAN	73	3	ON
0/FT7	NCS1020-FAN	73	1	ON
0/0/NXR0	NCS1K-E-OLT-C	142	73	ON
0/2/NXR0	NCS1K14-CCMD-16-C	100	17	ON
0/3/NXR0	NCS1K14-CCMD-16-C	100	21	ON
0/Rack	NCS1020-SA	45	18	ON

The following example shows a sample output of the **show environment** command with the **voltages** keyword.

RP/0/RP0/CPU0:ios#**show environment voltage location 0/RP0**

Mon Apr 29 11:40:53.949 IST

Location	VOLTAGE	Value	Crit	Minor	Minor	Crit
	Sensor	(mV)	(Lo)	(Lo)	(Hi)	(Hi)

0/RP0/CPU0						
	RP_ADM1266_12V0	12035	10800	11280	12720	13200
	RP_ADM1266_3V3_STANDBY	3314	3070	3200	3400	3530
	RP_ADM1266_5V0	4993	4650	4850	5150	5350
	RP_ADM1266_3V3	3325	3070	3200	3400	3530
	RP_ADM1266_2V5_PLL	2522	2330	2430	2580	2680
	RP_ADM1266_2V5_FPGA	2494	2330	2430	2580	2680
	RP_ADM1266_1V2_FPGA	1204	1120	1160	1240	1280
	RP_ADM1266_3V3_CPU	3336	3070	3200	3400	3530
	RP_ADM1266_2V5_CPU	2509	2330	2430	2580	2680
	RP_ADM1266_1V8_CPU	1803	1670	1750	1850	1930

RP_ADM1266_1V24_VCCREF	1238	1150	1200	1280	1330
RP_ADM1266_1V05_CPU	1050	980	1020	1080	1120
RP_ADM1266_1V2_DDR_VDDQ	1199	1120	1160	1240	1280
RP_ADM1266_1V0_VCC_RAM	1106	650	700	1250	1300
RP_ADM1266_1V0_VNN	918	550	600	1250	1300
RP_ADM1266_1V0_VCCP	1153	450	500	1250	1300
RP_ADM1266_0V6_DDR_VTT	602	560	580	620	640

The following example shows a sample output of the **show environment current** command with the **current** keyword.

```
RP/0/RP0/CPU0:ios#show environment current
```

```
Mon Apr 29 11:33:28.410 IST
```

```
=====
Location  CURRENT                               Value
          Sensor                          (mA)
-----
```

```
0/RP0/CPU0
```

```
RP_CURRMON_LTM4638_0          387
RP_CURRMON_LTM4644_0          171
RP_CURRMON_LTM4644_1          320
RP_JMAC_1V0_VCCP_IMON         125
RP_JMAC_1V0_VNN_IMON          125
RP_JMAC_1V0_VCC_RAM_IMON      0
RP_JMAC_1V2_DDR_VDDQ_IMON     156
```

```
0/2/NXR0
```

```
IMON_OPTM                     1167
IMON_CTLPL                     521
```

```
0/3/NXR0
```

```
IMON_OPTM                     1242
IMON_CTLPL                     525
```

```
0/Rack
```

```
SA_U_INA230_3V3_IMON          2740
SA_U_INA230_1V0_XGE_CORE_IMON 3295
SA_U_INA230_1V0_POLLUX10_CORE 979
```

SA_U_ADM1275_12V_EITU_IMON	1528
SA_U_ADM1275_12V_CPU0_IMON	1398
SA_U_ADM1275_12V_MOD0_IMON	5886
SA_U_ADM1275_12V_MOD1_IMON	18
SA_U_ADM1275_12V_MOD2_IMON	18
SA_U_ADM1275_12V_LC2_IMON	1629
SA_U_ADM1275_12V_LC3_IMON	1716
SA_U_ADM1275_12V_LC4_IMON	6
SA_U_ADM1275_12V_LC5_IMON	18
SA_L_INA230_1V0_PROPUS10_CORE	942
SA_L_INA230_5V_USB_IMON_A	99
SA_L_INA230_5V_USB_IMON_B	97
SA_L_ADM1275_12V_CPU1_IMON	13
SA_L_ADM1275_12V_MOD3_IMON	51
SA_L_ADM1275_12V_MOD4_IMON	18
SA_L_ADM1275_12V_MOD5_IMON	18
SA_L_ADM1275_12V_FAN0_IMON	799
SA_L_ADM1275_12V_FAN1_IMON	762
SA_L_ADM1275_12V_FAN2_IMON	43
SA_L_ADM1275_12V_FAN3_IMON	18
SA_L_ADM1275_12V_LC6_IMON	6
SA_L_ADM1275_12V_LC7_IMON	30
SA_L_ADM1275_12V_LC8_IMON	6
SA_L_ADM1275_12V_LC9_IMON	30
SA_L_ADM1275_12V_FAN4_0_IMON	294
SA_L_ADM1275_12V_FAN4_1_IMON	288
SA_L_ADM1275_12V_FAN5_0_IMON	319
SA_L_ADM1275_12V_FAN5_1_IMON	362
SA_L_ADM1275_12V_FAN6_0_IMON	96
SA_L_ADM1275_12V_FAN6_1_IMON	114
SA_L_ADM1275_12V_FAN7_0_IMON	145
SA_L_ADM1275_12V_FAN7_1_IMON	127

The following example shows a sample output of the **show environment** command with the **all** keyword.

```
RP/0/RP0/CPU0:ios#show environment all
```

```
Mon Apr 29 11:32:46.987 IST
```

```
=====
```

Location Crit	TEMPERATURE Sensor	Value (deg C)	Crit (Lo)	Major (Lo)	Minor (Lo)	Minor (Hi)	Major (Hi)

0/RP0/CPU0							
90	RP_TEMP_PCB	22	-10	-5	0	80	85
90	RP_TEMP_HOT_SPOT	27	-10	-5	0	80	85
95	RP_TEMP_LTM4638_0	42	-10	-5	0	85	90
95	RP_TEMP_LTM4644_0	30	-10	-5	0	85	90
95	RP_TEMP_LTM4644_1	32	-10	-5	0	85	90
90	TEMP_CPU_DIE	29	-10	-5	0	80	85
90	TEMP_DDR_DIMM	25	-10	-5	0	80	85
80	TEMP_CPU_SSD	29	-10	-5	0	70	75
80	TEMP_CHASSIS_SSD	24	-10	-5	0	70	75
0/0/NXR0							
33	OLTC_LT_P0_iEDFA0	25	17	18	19	31	32
33	OLTC_LT_P0_iEDFA1	25	17	18	19	31	32
33	OLTC_LT_P0_iEDFA2	25	17	18	19	31	32
33	OLTC_LT_P2_iEDFA0	25	17	18	19	31	32
33	OLTC_LT_P3_iEDFA0	25	17	18	19	31	32
33	OLTC_LT_P0_eEDFA0	24	17	18	19	31	32

81	OLTC_CT_1	23	-11	-8	-6	76	78
33	OLTC_LT_P0_eEDFA1	24	17	18	19	31	32
76	OLTC_CT_2	20	-11	-8	-6	71	74
76	OLTC_CT_3	23	-11	-8	-6	71	74
76	OLTC_CT_4	23	-11	-8	-6	71	74
66	OLTC_FT_P0_iEDFA0	59	54	56	57	63	65
66	OLTC_FT_P2_iEDFA0	60	54	56	57	63	65
66	OLTC_FT_P3_iEDFA0	60	54	56	57	63	65
66	OLTC_FT_P0_eEDFA0	59	54	56	57	63	65
0/2/NXR0							
105	TEMP_DX_PCB	24	-10	-5	0	95	100
105	TEMP_DX_ZYNQ	27	-10	-5	0	95	100
0/3/NXR0							
105	TEMP_DX_PCB	23	-10	-5	0	95	100
105	TEMP_DX_ZYNQ	27	-10	-5	0	95	100
0/PM0							
72	Air Inlet Temperature	22	-10	-5	0	62	67
92	Air Outlet Temperature	24	-10	-5	0	82	87
87	Oring MOSFET	29	-10	-5	0	77	82
0/PM1							
72	Air Inlet Temperature	24	-10	-5	0	62	67
92	Air Outlet Temperature	25	-10	-5	0	82	87
	Oring MOSFET	30	-10	-5	0	77	82

Verify Environmental Parameters

87						
0/Rack						
90	SA_U_TMP421_EITU_PCB_HOTSPOT0	28	-10	-5	0	80 85
90	SA_U_TMP421_EITU_PCB_HOTSPOT1	37	-10	-5	0	80 85
90	SA_U_TMP421_EITU_PCB_HOTSPOT2	30	-10	-5	0	80 85
90	SA_U_TMP421_EITU_PCB_HOTSPOT3	34	-10	-5	0	80 85
60	SA_L_TMP421_CHASSIS_INLET0	20	-10	-5	0	45 55
90	SA_L_TMP421_CHASSIS_EXHAUST0	22	-10	-5	0	75 85
90	SA_L_TMP421_CHASSIS_EXHAUST1	24	-10	-5	0	75 85
90	SA_L_TMP421_CHASSIS_EXHAUST2	22	-10	-5	0	75 85
90	SA_L_TMP421_CHASSIS_EXHAUST3	21	-10	-5	0	75 85
90	SA_L_TMP421_CHASSIS_EXHAUST4	23	-10	-5	0	75 85
90	SA_L_TMP421_CHASSIS_EXHAUST5	22	-10	-5	0	75 85

Location	VOLTAGE	Value	Crit	Minor	Minor	Crit
	Sensor	(mV)	(Lo)	(Lo)	(Hi)	(Hi)

0/RP0/CPU0

RP_ADM1266_12V0	12035	10800	11280	12720	13200
RP_ADM1266_3V3_STANDBY	3314	3070	3200	3400	3530
RP_ADM1266_5V0	4993	4650	4850	5150	5350
RP_ADM1266_3V3	3325	3070	3200	3400	3530
RP_ADM1266_2V5_PLL	2522	2330	2430	2580	2680
RP_ADM1266_2V5_FPGA	2494	2330	2430	2580	2680
RP_ADM1266_1V2_FPGA	1204	1120	1160	1240	1280
RP_ADM1266_3V3_CPU	3336	3070	3200	3400	3530
RP_ADM1266_2V5_CPU	2509	2330	2430	2580	2680

RP_ADM1266_1V8_CPU	1803	1670	1750	1850	1930
RP_ADM1266_1V24_VCCREF	1238	1150	1200	1280	1330
RP_ADM1266_1V05_CPU	1050	980	1020	1080	1120
RP_ADM1266_1V2_DDR_VDDQ	1199	1120	1160	1240	1280
RP_ADM1266_1V0_VCC_RAM	1103	650	700	1250	1300
RP_ADM1266_1V0_VNN	918	550	600	1250	1300
RP_ADM1266_1V0_VCCP	1154	450	500	1250	1300
RP_ADM1266_0V6_DDR_VTT	598	560	580	620	640
0/2/NXR0					
VIN_5_0V	5023	4500	4750	5250	5500
VAUX_3_3V_ST	3317	3053	3135	3465	3548
VIN_12_0V	12066	10800	11400	12600	13200
VMON_3_3V	3298	3135	3201	3399	3465
VMON_1_8V_MGT	1796	1710	1746	1854	1890
VMON_1_8V	1799	1710	1746	1854	1890
VMON_1_2V	1200	1140	1164	1236	1260
VMON_2_5V	2489	2357	2425	2575	2625
VMON_0_85V_MGT	852	808	825	876	893
VMON_0_85V	849	808	825	876	893
0/3/NXR0					
VIN_5_0V	5003	4500	4750	5250	5500
VAUX_3_3V_ST	3313	3053	3135	3465	3548
VIN_12_0V	12051	10800	11400	12600	13200
VMON_3_3V	3292	3135	3201	3399	3465
VMON_1_8V_MGT	1799	1710	1746	1854	1890
VMON_1_8V	1796	1710	1746	1854	1890
VMON_1_2V	1202	1140	1164	1236	1260
VMON_2_5V	2500	2357	2425	2575	2625
VMON_0_85V_MGT	853	808	825	876	893
VMON_0_85V	849	808	825	876	893
0/Rack					
SA_U_ADM1266_12V_BUS_EITU	12042	10800	11280	12720	13200

Verify Environmental Parameters

SA_U_ADM1266_2V5	2498	2325	2400	2600	2675
SA_U_ADM1266_3V3	3308	3069	3168	3432	3531
SA_U_ADM1266_3V3_STANDBY	3297	3069	3168	3432	3531
SA_U_ADM1266_1V2_PROPUS10_FPGA	1203	1116	1152	1248	1284
SA_U_ADM1266_1V0_PROPUS10_FPGA	1008	930	960	1040	1070
SA_U_ADM1266_5V0_USB_A	5085	4650	4800	5200	5350
SA_U_ADM1266_5V0_USB_B	5070	4650	4800	5200	5350
SA_U_ADM1275_12V_EITU	12048	10800	11280	12720	13200
SA_U_ADM1275_12V_CPU0	12027	10800	11280	12720	13200
SA_U_ADM1275_12V_MOD0	12048	10800	11280	12720	13200
SA_U_ADM1266_5V0	4998	4650	4800	5200	5350
SA_U_ADM1275_12V_MOD1	-	10800	11280	12720	13200
SA_U_ADM1275_12V_MOD2	-	10800	11280	12720	13200
SA_U_ADM1275_12V_LC2	12042	10800	11280	12720	13200
SA_U_ADM1275_12V_LC3	12037	10800	11280	12720	13200
SA_U_ADM1275_12V_LC4	-	10800	11280	12720	13200
SA_U_ADM1275_12V_LC5	-	10800	11280	12720	13200
SA_U_ADM1266_1V8_ZARLINK_DPLL	1799	1674	1728	1872	1926
SA_U_ADM1266_1V0_PHY	1009	930	960	1040	1070
SA_L_ADM1275_12V_CPU1	-	10800	11280	12720	13200
SA_L_ADM1275_12V_MOD3	-	10800	11280	12720	13200
SA_L_ADM1275_12V_MOD4	-	10800	11280	12720	13200
SA_L_ADM1275_12V_MOD5	-	10800	11280	12720	13200
SA_L_ADM1275_12V_FAN0	12027	10800	11280	12720	13200
SA_L_ADM1275_12V_FAN1	12032	10800	11280	12720	13200
SA_L_ADM1275_12V_FAN2	-	10800	11280	12720	13200
SA_L_ADM1275_12V_FAN3	-	10800	11280	12720	13200
SA_U_ADM1266_1V0_ALDRIN_CORE	983	910	930	1070	1090
SA_L_ADM1275_12V_LC6	-	10800	11280	12720	13200
SA_L_ADM1275_12V_LC7	-	10800	11280	12720	13200
SA_L_ADM1275_12V_LC8	-	10800	11280	12720	13200
SA_L_ADM1275_12V_LC9	-	10800	11280	12720	13200

SA_L_ADM1275_12V_FAN4_0	12027	10800	11280	12720	13200
SA_L_ADM1275_12V_FAN4_1	12037	10800	11280	12720	13200
SA_L_ADM1275_12V_FAN5_0	12058	10800	11280	12720	13200
SA_L_ADM1275_12V_FAN5_1	12017	10800	11280	12720	13200
SA_L_ADM1275_12V_FAN6_0	12058	10800	11280	12720	13200
SA_L_ADM1275_12V_FAN6_1	12037	10800	11280	12720	13200
SA_U_ADM1266_1V0_ALDRIN_SERDES	1008	930	960	1040	1070
SA_L_ADM1275_12V_FAN7_0	12032	10800	11280	12720	13200
SA_L_ADM1275_12V_FAN7_1	12058	10800	11280	12720	13200
SA_U_ADM1266_1V0_POLLUX10_FPGA	1006	930	960	1040	1070
SA_U_ADM1266_1V2_POLLUX10_FPGA	1203	1116	1152	1248	1284
SA_U_ADM1266_1V8	1806	1674	1728	1872	1926

Location	CURRENT	Value
	Sensor	(mA)

0/RP0/CPU0

RP_CURRMON_LTM4638_0	387
RP_CURRMON_LTM4644_0	171
RP_CURRMON_LTM4644_1	320
RP_JMAC_1V0_VCCP_IMON	187
RP_JMAC_1V0_VNN_IMON	125
RP_JMAC_1V0_VCC_RAM_IMON	0
RP_JMAC_1V2_DDR_VDDQ_IMON	156

0/2/NXR0

IMON_OPTM	1209
IMON_CTLPL	521

0/3/NXR0

IMON_OPTM	1234
IMON_CTLPL	525

0/Rack

SA_U_INA230_3V3_IMON	2680
----------------------	------

SA_U_INA230_1V0_XGE_CORE_IMON	3295
SA_U_INA230_1V0_POLLUX10_CORE	979
SA_U_ADM1275_12V_EITU_IMON	1528
SA_U_ADM1275_12V_CPU0_IMON	1417
SA_U_ADM1275_12V_MOD0_IMON	6773
SA_U_ADM1275_12V_MOD1_IMON	43
SA_U_ADM1275_12V_MOD2_IMON	55
SA_U_ADM1275_12V_LC2_IMON	1666
SA_U_ADM1275_12V_LC3_IMON	1679
SA_U_ADM1275_12V_LC4_IMON	43
SA_U_ADM1275_12V_LC5_IMON	43
SA_L_INA230_1V0_PROPUS10_CORE	942
SA_L_INA230_5V_USB_IMON_A	99
SA_L_INA230_5V_USB_IMON_B	97
SA_L_ADM1275_12V_CPU1_IMON	13
SA_L_ADM1275_12V_MOD3_IMON	113
SA_L_ADM1275_12V_MOD4_IMON	30
SA_L_ADM1275_12V_MOD5_IMON	18
SA_L_ADM1275_12V_FAN0_IMON	836
SA_L_ADM1275_12V_FAN1_IMON	836
SA_L_ADM1275_12V_FAN2_IMON	43
SA_L_ADM1275_12V_FAN3_IMON	55
SA_L_ADM1275_12V_LC6_IMON	43
SA_L_ADM1275_12V_LC7_IMON	18
SA_L_ADM1275_12V_LC8_IMON	6
SA_L_ADM1275_12V_LC9_IMON	80
SA_L_ADM1275_12V_FAN4_0_IMON	281
SA_L_ADM1275_12V_FAN4_1_IMON	281
SA_L_ADM1275_12V_FAN5_0_IMON	263
SA_L_ADM1275_12V_FAN5_1_IMON	331
SA_L_ADM1275_12V_FAN6_0_IMON	114
SA_L_ADM1275_12V_FAN6_1_IMON	114

```
SA_L_ADM1275_12V_FAN7_0_IMON      120
SA_L_ADM1275_12V_FAN7_1_IMON      52
```

```
=====
```

Location	FRU Type	Fan speed (rpm)		
		FAN_0	FAN_1	FAN_2
0/FT0	NCS1010-FAN	7860	7920	7860
0/FT1	NCS1010-FAN	7800	7740	7800
0/FT4	NCS1020-FAN	7800	7740	
0/FT5	NCS1020-FAN	7800	7740	
0/FT6	NCS1020-FAN	3960	3960	
0/FT7	NCS1020-FAN	4020	3960	
0/PM0	NCS1K4-AC-PSU-2	5504	5504	
0/PM1	NCS1K4-AC-PSU-2	5536	5600	

```
=====
```

Location	Altitude Value (Meters)	Source
0	0	config

```
=====
```

CHASSIS LEVEL POWER INFO: 0

```
=====
```

Total output power capacity (Group 0 + Group 1) :	2500W +	2500W
Total output power required	:	1189W
Total power input	:	278W
Total power output	:	206W

Power Group 0:

```
=====
```

Power Module	Supply Type	-----Input----		-----Output---		Status
		Volts	Amps	Volts	Amps	

Verify Environmental Parameters

```

=====
0/PM0      NCS1K4-AC-PSU-2 232.0    0.6    12.1    9.6    OK

```

```

Total of Group 0:          139W/0.6A      116W/9.6A

```

Power Group 1:

```

=====
Power      Supply      -----Input-----  -----Output----  Status
Module     Type          Volts    Amps    Volts    Amps
=====
0/PM1      NCS1K4-AC-PSU-2 231.8    0.6    12.1    7.5    OK

```

```

Total of Group 1:          139W/0.6A      90W/7.5A

```

```

=====
Location   Card Type          Power      Power      Status
              Allocated   Used
              Watts      Watts
=====
0/RP0/CPU0 NCS1010-CTR2-B-K9  70         17         ON
0/FT0      NCS1010-FAN       110        10         ON
0/FT1      NCS1010-FAN       110        10         ON
0/FT2      -                  110        0          RESERVED
0/FT3      -                  110        0          RESERVED
0/FT4      NCS1020-FAN       73         6          ON
0/FT5      NCS1020-FAN       73         7          ON
0/FT6      NCS1020-FAN       73         2          ON
0/FT7      NCS1020-FAN       73         2          ON
0/0/NXR0   NCS1K-E-OLT-C     142        81         ON
0/2/NXR0   NCS1K14-CCMD-16-C 100        20         ON
0/3/NXR0   NCS1K14-CCMD-16-C 100        20         ON
0/Rack     NCS1020-SA        45         18         ON

```

Environment parameter anomalies are logged in the syslog. As a result, if an environment parameter that is displayed in the **show environment** command output is not as expected, check the syslog using the **show logging** and **show alarms brief system active** command. The syslog provides details on any logged problems.

Verify Context

The **show context** command displays core dump context information of NCS 1020. Core dump is a result of abnormal exit of any process running in the system.

Procedure

show context

Displays the core dump context information of NCS 1020.

Example:

```
RP/0/RP0/CPU0:ios# show context
Mon Sep 27 17:21:59.219 UTC
```

```
node: node0_RP0_CPU0
-----
```

```
No context
```

The command output is empty during system upgrade.

Verify Core Files

Use the **run** command to go to the hard disk location and check for the core dumps of NCS 1020.

Procedure

run

Example:

```
RP/0/RP0/CPU0:ios# run
Mon Sep 27 17:29:11.163 UTC
[xr-vm_node0_RP0_CPU0:~]$cd /misc/disk1/
[xr-vm_node0_RP0_CPU0:/misc/disk1]$ls -ltr *.gz
```

Verify Memory Information

You can view the memory information using the `show watchdog memory-state` command.

Procedure

`show watchdog memory-state location all`

Displays memory snapshot in brief.

Example:

```
RP/0/RP0/CPU0:ios#show watchdog memory-state location all
Thu Jun 16 08:36:44.436 UTC
---- node0_RP0_CPU0 ----
Memory information:
  Physical Memory      : 31935.167 MB
  Free Memory          : 29236.0 MB
  Memory State         : Normal
```
