

Lenovo ThinkSystem NE1032/NE1032T/NE1072T Rackswitch

Release Notes

For Lenovo Cloud Network Operating System 10.4

Lenovo[™]

Note: Before using this information and the product it supports, read the general information in the *Safety information and Environmental Notices* and *User Guide* documents on the *Lenovo Documentation CD* and the *Warranty Information* document that comes with the product.

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Release Notes

This release supplement provides the latest information regarding Lenovo Cloud Network OS 10.4 for the Lenovo ThinkSystem NE1032/NE1032T/NE1072T Rackswitch (referred to as NE1032/NE1032T/NE1072T throughout this document).

This supplement modifies and extends the following Cloud NOS documentation for use with CNOS 10.4:

- *Lenovo Network Application Guide for Lenovo Cloud Network OS 10.4*
- *Lenovo Network Command Reference for Lenovo Cloud Network OS 10.4*
- *Lenovo Network Python Programming Guide for Lenovo Cloud Network Operating System 10.4*
- *Lenovo Network REST API Programming Guide for Lenovo Cloud Network Operating System 10.4*
- *Lenovo ThinkSystem NE1032 RackSwitch Installation Guide*
- *Lenovo ThinkSystem NE1032T RackSwitch Installation Guide*
- *Lenovo ThinkSystem NE1072T RackSwitch Installation Guide*

These publications are available from the following website:

http://systemx.lenovofiles.com/help/topic/com.lenovo.systemx.common.nav.doc/overview_rack_switches.html

Please keep these release notes with your product manuals.

Note: The Lenovo Cloud Network OS is based on the Embedded Linux Integration Environment (ELIE). To obtain open source code licenses, go to <https://github.com/lenovo/ELIE/tree/master/elic-1.7.1/licenses/>. For details on how to obtain open source code, please contact Lenovo Support.

Hardware Support

CNOS 10.4 software is supported on the NE1032/NE1032T/NE1072T high performance Layer 2-3 network switches.

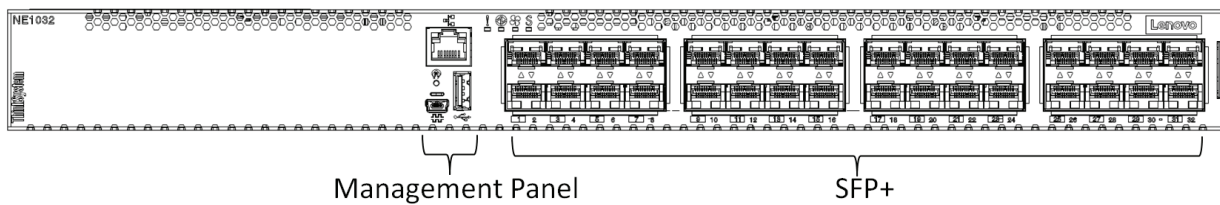
The NE1032/NE1032T/NE1072T is a 1U GbE switch and it can be mounted horizontally or vertically, depending on your application. Mounting options are available for a variety of rack systems.

For superior reliability, the NE1032/NE1032T/NE1072T uses redundant, hot-swap power supply modules and three (NE1032 and NE1032T) or five (NE1072T) hot-swap fan modules. Module options are available for either front-to-rear airflow, or rear-to-front airflow.

The NE1032 contains the following ethernet ports:

- Thirty-two 10 Gigabit Ethernet (GbE) Small Form Pluggable Plus (SFP+) ports which also support legacy 1 GbE connections

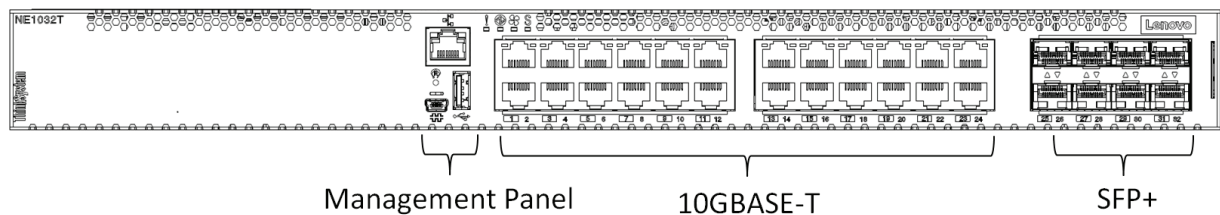
Figure 1. NE1032 front panel



The NE1032T contains the following ethernet ports:

- Twenty-four 100/1000/10G BASE-T RJ45 ports
- Eight 10G SFP+ Uplinks
- Ten Gigabit Ethernet (GbE) Small Form Pluggable Plus (SFP+) ports which also support legacy 1 GbE connections

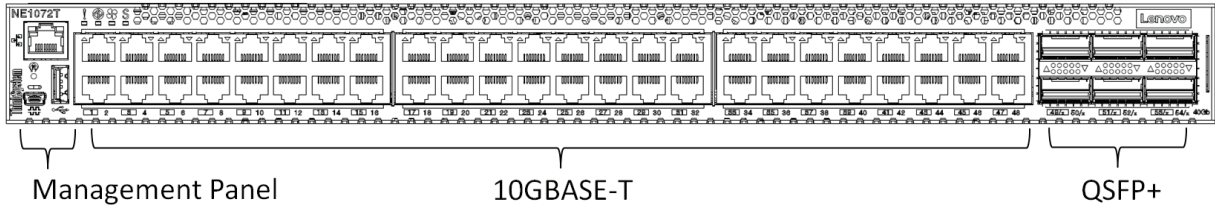
Figure 2. NE1032T front panel



The NE1072T contains the following ethernet ports:

- Forty-eight 100/1000/10G BASE-T RJ45 ports
- Six 40 GbE Quad Small Form Pluggable Plus (QSFP+) ports, all of which ports can optionally be used as four 10 GbE ports

Figure 3. NE1072T front panel



Supplemental Information

This section provides additional information about configuring and operating the NE1032/NE1032T/NE1072T and CNOS.

The Boot Management Menu

The Boot Management menu allows you to switch the software image or to recover from a failed software download.

You can interrupt the boot process and enter the Boot Management menu from the serial console port. When the system displays Memory Test, press **<Shift + B>**. The Boot Management menu appears.

```
Resetting at 10:55:49 Sun Feb 19, 2017...
Memory Test .....
Boot Management Menu
  I - Change booting image
  R - Boot in recovery mode (tftp and xmodem download of images to
recover switch)
  P - Password reset
  O - ONIE boot menu
  Q - Reboot
  E - Exit
Please choose your menu option: I
Current boot image is 1. Enter image to boot: 1 or 2: 2
Booting from image 2
```

The Boot Management menu allows you to perform the following actions:

- To change the booting image, press **I** and follow the screen prompts.
- To boot in recovery mode, press **R**.
- To reset the default user password, press **P** and follow the screen prompts.
- To boot in ONIE menu, press **O**. The submenu is available, but executing any of its options results in an error, unless the ONIE license key is installed.
- To reboot the switch, press **Q**. The booting process restarts.
- To exit the Boot Management menu, press **E**. The booting process continues.

Recovering from a Failed Software Upgrade

Use the following procedure to recover from a failed software upgrade.

1. Connect a PC to the serial port of the switch.
2. Open a terminal emulator program that supports TFTP (preferred) or Xmodem download (for example, HyperTerminal, SecureCRT, PuTTY). If using Xmodem, make sure the following settings are in effect:
 - Speed: 9600 bps
 - Data Bits: 8
 - Stop Bits: 1
 - Parity: None
 - Flow Control: None
3. To access the Boot Management menu, you must interrupt the boot process from the Console port. Boot the NE1032/NE1032T/NE1072T, and when the system begins displaying Memory Test progress (a series of dots), press **<Shift B>**. The Boot Management menu will display:

```
Resetting at 10:55:49 Sun Feb 12, 2017...
Memory Test .....
Boot Management Menu
  I - Change booting image
  R - Boot in recovery mode (tftp and xmodem download of images to
recover switch)
  P - Password reset
  O - ONIE boot menu
  Q - Reboot
  E - Exit
Please choose your menu option:
```

4. Select **R** for **Boot in recovery mode**. You will see the following display:

```
Entering Rescue Mode.
Please select one of the following options:
  T) Configure networking and tftp download an image
  X) Use xmodem 1K to serial download an image
  P) Physical presence (low security mode)
  F) Filesystem check
  R) Reboot
  E) Exit

Option?:
```

- If you choose option **T** (TFTP download), go to step [5](#).
- If you choose option **X** (Xmodem serial download), go to step [6](#).

5. **TFTP download:** The switch prompts you to enter the following information:

```
Performing TFTP rescue. Please answer the following questions (enter 'q'
to quit):
IP addr      :
Server addr:
Netmask     :
Gateway     :
Image Filename:
```

- a. Enter the required information and press **<Enter>**.
- b. You will see a display similar to the following:

```
Host IP      : 10.10.98.110
Server IP    : 10.10.98.100
Netmask      : 255.255.255.0
Broadcast    : 10.10.98.255
Gateway      : 10.10.98.254
Installing image NE1032/NE1032T/NE1072T-CNOS-10.4.2.0_OS.imgs from
TFTP server 10.10.98.100
```

- c. When you see the following prompt, enter the image number where you want to install the new software and press **<Enter>**.

```
Install image as image 1 or 2 (hit return to just boot image): 1
```

- d. The following message is displayed when the image download is complete.
Continue to step 7.

```
Entering Rescue Mode.
Please select one of the following options:
  T) Configure networking and tftp download an image
  X) Use xmodem 1K to serial download an image
  P) Physical presence (low security mode)
  F) Filesystem check
  R) Reboot
  E) Exit

Option?:
```


6. **Xmodem download:** When you see the following message, change the Serial Port characteristics to 115200 bps:

```
Change the baud rate to 115200 bps and hit the <ENTER> key before
initiating the download.
```

- a. Press **<Enter>** to set the system into download accept mode. When the readiness meter displays (a series of "C" characters), start XModem on your terminal emulator.
- b. When you see the following message, change the Serial Port characteristics to 9600 bps:

```
Change the baud rate back to 9600 bps, hit the <ESC> key.
```

- c. When you see the following prompt, enter the image number where you want to install the new software and press **<Enter>**.

```
Install image as image 1 or 2 (hit return to just boot image): 1
```

- d. The following message is displayed when the image download is complete. Continue to step 7.

```
Entering Rescue Mode.
Please select one of the following options:
    T) Configure networking and tftp download an image
    X) Use xmodem 1K to serial download an image
    P) Physical presence (low security mode)
    F) Filesystem check
    R) Reboot
    E) Exit

Option?:
```

7. Image recovery is complete. Perform one of the following steps:
- Press **R** to reboot the switch.
 - Press **E** to exit the Boot Management menu
 - Press the Escape key (**<Esc>**) to re-display the Boot Management menu.

