Lenovo ThinkSystem NE0152T RackSwitch

Release Notes

For Lenovo Cloud Network Operating System 10.8

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.

Release Notes

This release supplement provides the latest information regarding Lenovo Cloud Network Operating System 10.8 for the Lenovo ThinkSystem NE0152T (referred to as NE0152T throughout this document).

This supplement modifies and extends the following Cloud NOS documentation for use with *CNOS* 10.8:

- *Lenovo Network Application Guide for Lenovo Cloud Network Operating System 10.8*

- *Lenovo Network Command Reference for Lenovo Cloud Network Operating System 10.8*

- *Lenovo Network Python Programming Guide for Lenovo Cloud Network Operating System 10.8*

- *Lenovo Network REST API Programming Guide for Lenovo Cloud Network Operating System 10.8*

- *Lenovo ThinkSystem NE0152T Installation Guide for Lenovo Cloud Network Operating System*

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/elie-1.7.1/licenses/. For details on how to obtain open source code, please contact Lenovo Support.

Hardware Support

CNOS 10.8 software is supported on the NE0152T high performance Layer 2-3 network switches.

The NE0152T is 1U in height and can be mounted horizontally or vertically, depending on your application. Mounting options are available for a variety of rack systems.

For superior reliability, the NE0152T uses redundant, hot-swap power supply modules and hot-swap fan modules. Module options are available for either front-to-rear airflow or rear-to-front airflow.

The NE0152T contains the following ethernet ports:

● Forty-eight 10/100/1000 Base-T RJ45 ports

● Four 10 GbE Small Form Pluggable Plus (SFP+) ports

Figure 1. NE0152T front panel

Management Panel
10/100/1000 BASE-T RJ45 Ports
10 GbE SFP+ Ports
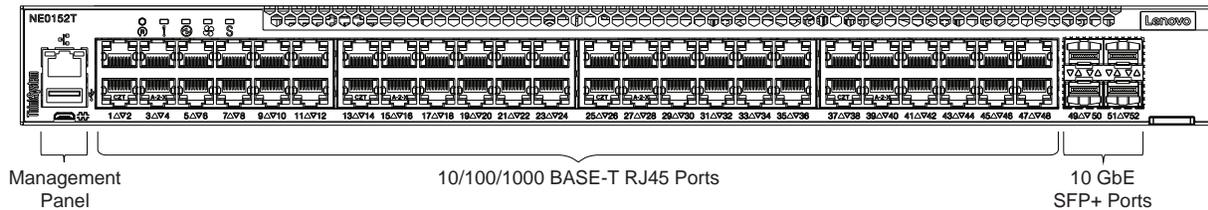
Supplemental Information

This section provides additional information about configuring and operating the NE0152T and CNOS.

The BIOS Menu

The Basic Input/Output System (BIOS) menu allows you to have complete system control at boot.

You can interrupt the startup process of the switch and enter the BIOS menu from the serial console port. When the system displays the following message, press **Delete** or **Esc**.

```
Version 2.17.1245. Copyright (C) 2018 American Megatrends, Inc.
BIOS Date: 08/28/2018 13:21:30 Ver:0203B

Press <DEL> or <ESC> to enter setup.

Entering Setup...
```

The BIOS menu appears.
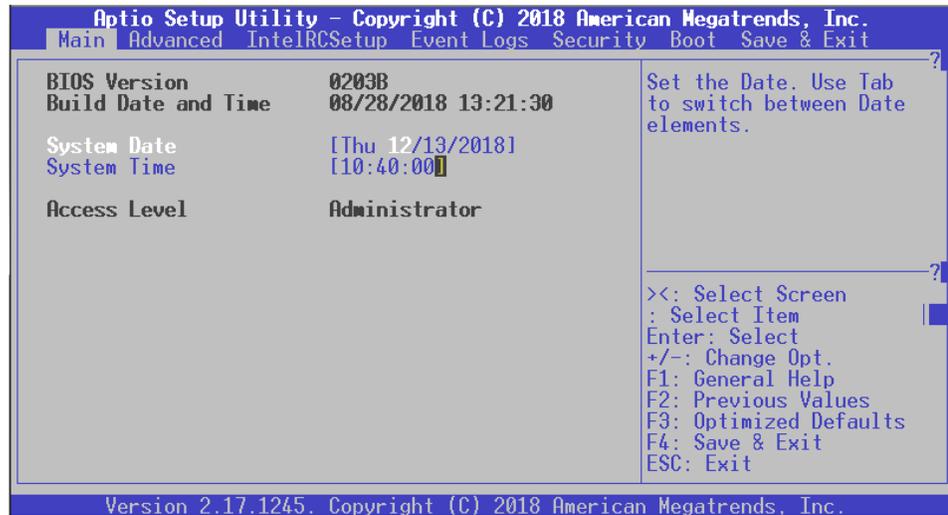
This menu permits the following actions:

- Monitoring system configuration
- Setting user passwords
- Switching to Secure Boot Mode
- Performing key provisioning

The Grub Menu

The Grub menu allows you to switch the software image. The menu appears on the screen automatically during the switch startup process.

```
Welcome to GRUB!


                    GNU GRUB  version 2.OO

+---------------------------------------------------------------------+
|CNOS slot 1                                                          |
|CNOS slot 2                                                          |
|Recovery Mode                                                        |
|ONIE                                                                 |
|                                                                     |
|                                                                     |
|                                                                     |
|                                                                     |
|                                                                     |
+---------------------------------------------------------------------+

      Use the ^ and v keys to select which entry is highlighted.
      Press enter to boot the selected OS, `e' to edit the commands
      before booting or `c' for a command-line. ESC to return
      previous menu.
```

Note: For more information on ONIE, please see the *Lenovo ThinkSystem NE0152T RackSwitch ONIE User Guide*.

Rescue Mode

The Rescue Mode option allows you to recover from a failed firmware or boot image upgrade using TFTP or a USB drive.

To enter Rescue Mode, select Recovery Mode in the GRUB menu. The following menu appears.

```
Entering Rescue Mode.
Please select one of the following options:
        T) Configure networking and tftp download an image
        U) Install image from USB stick
        F) Filesystem Menu
        I) Select which image to boot
        C) Reset configuration to factory default
        Z) Reset the Network Administrator (admin) password
        B) Reset the password required to enter privileged exec mode
        R) Reboot
        E) Exit

Option? :
```

The Rescue Mode menu allows you to perform the following actions:

- To recover from a failed software or boot image upgrade using TFTP, press **T** and follow the screen prompts.

- To recover using an image from a USB stick, press **U**.

- To enter the Filesystem Menu, press **F**. The following menu appears:

```
Filesystem Options.
Please select one of the following options:
        F) Run filesystem check
        W) Wipe filesystem
        E) Exit
```

   ○ To check if the switch is ready to run Cloud NOS, press **F**. It performs a check to see if the filesystem is optimally partitioned and updates it accordingly.
   ○ To erase CNOS firmware images and configuration files from the switch, press **W**.
   ○ To go back to the Rescue Mode menu, press **E**.
- To select which firmware image to boot, press **I**.
- To reset the switch configuration to factory defaults, press **C**.
- To reset the Network Administrator account (admin) password, press **Z**.
- To reset the password required to enter Privileged EXEC mode, press **B**.
- To restart the reload process from the beginning, press **R**.
- To exit the Rescue Mode menu, press **E**.

Known Issues

This section describes known issues for CNOS 10.8 on the Lenovo ThinkSystem NE0152T RackSwitch.

Note: Please check the Change History documentation posted with the Switch Firmware to check if any of these issues have been fixed in the latest release.

ARP

The NE0152T supports up to 15,872 entries in its ARP table. (ID: 146430)

IGMP

When populating the hardware multicast table with IGMP groups, hash collisions might occur and prevent entries from being added to the table. (ID: 148693)

The following message appears when such collisions take place:

```
Group limit exceeded - hardware hash collision
```

Logging

- When establishing a second SSH or Telnet session with the switch, terminal logging may not properly initialize for the session. (ID: 158485)

  The following message appears when this occurs:

  ```
  NEO152T(cnos:default) %IMI-6-TTY_LOGGING_INIT_IGNORE: Terminal logging
  initialization ignored due to log service busy (cannot obtain mutex
  lock), no log messages will forward to the corresponding terminal
  (<current terminal ID>)
  ```

- If the logging service is not available, syslog messages are cached and logged once the service is operational. This results in syslog messages being displayed in an incorrect sequence. (ID: 158487)

Network Policy Agent

On the NE0152T, the Network Policy Agent (NPA) only works with VMware's Virtual Domain Manager (VDM). (ID: 146604)

PVID Ingress Tagging

The inner tag of Layer 3 double tagged packets is deleted at egress. (ID: 147563)