DE Series Premium Feature Key Enabling Procedures

This document provides information about how to enable the premium feature key for the Lenovo ThinkSystem™ DE Series storage, or retrieve a previously generated key. When you are ordering a new premium feature or changing the storage host protocol, enable the premium feature key first.

Obtaining the premium feature key

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When ordering a new premium feature

To obtain the premium feature key when you are ordering a new premium feature, prepare the storage machine type, chassis serial number, and feature enable identifier first.

Step 1.   Locate the chassis serial number.

    a. From ThinkSystem System Manager, select **Support ➔ SUPPORT CENTER**.

    b. Select the **Support Resources** tab, and then scroll to the **View top storage array properties** section.

    c. Locate the **Chassis Serial Number**.

    d. Copy and paste this value to a text file.

Step 2.   Locate the feature enable identifier.

    a. From ThinkSystem System Manager, select **Settings ➔ System**.

    b. Scroll down to **Add-ons**.

    c. Under **Enable a Premium Feature**, locate the **Feature Enable Identifier** (which is also referred to as the Safe ID).

    d. Copy and paste this value to a text file.

Step 3.   Go to Lenovo Features on Demand to obtain the premium feature key.

    a. Log in to the Lenovo FoD Web site with your user account and password. If you have not previously registered, register first.

    b. Click the **Request activation key** tab.

    c. Enter your authorization code which was supplied to you by e-mail or on hard copy as part of the ordering process, and then click **Continue**.

    d. In the **Machine Type** field, select your machine type from the drop-down list box.

    e. In the **Machine Serial number** field, enter the chassis serial number.

    f. In the **Lenovo Storage Licensing Number** field, enter the feature enable identifier (Safe ID).

    g. Follow the instructions on the screen to generate the premium feature key.

The premium feature key can be downloaded or sent to a specified e-mail address after the authorization process is completed on the Lenovo FoD Web site.

When changing the storage host protocol

To obtain the premium feature key when you are changing the storage host protocol, first locate the feature code from the right-hand column of the table below, along with the machine type, CTO, chassis serial number, and feature enable identifier of your storage.

Step 1. Find the feature code for the desired configuration in the following tables. For DE4000H and DE4000F, the HIC port protocol setting only applies to the 16Gb FC/10GbE HIC (option PN: 4C57A14366).

For all other non-configurable HICs, only the base-board port selection applies, and HIC ports are not affected. Depending on your configuration, the controller might be shipped with or without two base-board ports on the rear.

- For the controller that has two base-board ports on the rear:

Table 1. Feature codes for DE2000H (7Y70CTO1WW, 7Y71CTO1WW)

DE2000H starting configuration	DE2000H ending configuration	Feature code
Base-board ports	Base-board ports	
FC	iSCSI	B4DH
iSCSI	FC	B4XC

Table 2. Feature codes for DE4000H (7Y74CTO1WW, 7Y75CTO1WW, 7Y77CTO1WW)

DE4000H starting configuration		DE4000H ending configuration		Feature code
Base-board ports	HIC ports (only for 16Gb FC/10GbE HIC)	Base-board ports	HIC ports (only for 16Gb FC/10GbE HIC)	
FC	FC	iSCSI	FC	B4XH
FC	FC	iSCSI	iSCSI	B4E1
FC	FC	FC	iSCSI	B4XK
iSCSI	FC	FC	FC	B4XJ
iSCSI	FC	FC	iSCSI	B4XM
iSCSI	FC	iSCSI	iSCSI	B4XP
FC	iSCSI	FC	FC	B4XL
FC	iSCSI	iSCSI	FC	B4XN
FC	iSCSI	iSCSI	iSCSI	B4XR
iSCSI	iSCSI	FC	FC	B4XG
iSCSI	iSCSI	iSCSI	FC	B4XQ
iSCSI	iSCSI	FC	iSCSI	B4XS

Table 3. Feature codes for DE4000F (7Y76CTO1WW)

DE4000F starting configuration		DE4000F ending configuration		Feature code
Base-board ports	HIC ports (only for 16Gb FC/10GbE HIC)	Base-board ports	HIC ports (only for 16Gb FC/10GbE HIC)	
FC	FC	iSCSI	FC	B4DK
FC	FC	FC	iSCSI	B4XU

Table 3. Feature codes for DE4000F (7Y76CTO1WW) (continued)

DE4000F starting configuration		DE4000F ending configuration		Feature code
Base-board ports	HIC ports (only for 16Gb FC/10GbE HIC)	Base-board ports	HIC ports (only for 16Gb FC/10GbE HIC)	
FC	FC	iSCSI	iSCSI	B4G7
iSCSI	FC	FC	FC	B4DL
iSCSI	FC	FC	iSCSI	B4XW
iSCSI	FC	iSCSI	iSCSI	B4XY
FC	iSCSI	FC	FC	B4XV
FC	iSCSI	iSCSI	FC	B4XX
FC	iSCSI	iSCSI	iSCSI	B4Y0
iSCSI	iSCSI	FC	FC	B4XT
iSCSI	iSCSI	iSCSI	FC	B4XZ
iSCSI	iSCSI	FC	iSCSI	B4LZ

Table 4. Feature codes for DE6000H (7Y78CTO1WW, 7Y80CTO1WW)

DE6000H starting configuration		DE6000H ending configuration		Feature code
Base-board ports	HIC ports	Base-board ports	HIC ports	
FC	Per HIC	iSCSI	Per HIC	B4JM
iSCSI	Per HIC	FC	Per HIC	B4XD
Disabled	NVMe-oF	iSCSI	Per HIC	B6Z0
iSCSI	Per HIC	Disabled	NVMe-oF	B6Z1
Disabled	NVMe-oF	FC	Per HIC	B6Z2
FC	Per HIC	Disabled	NVMe-oF	B6Z3

Table 5. Feature codes for DE6000F (7Y79CTO1WW)

DE6000F starting configuration		DE6000F ending configuration		Feature code
Base-board ports	HIC ports	Base-board ports	HIC ports	
FC	Per HIC	iSCSI	Per HIC	B4JK
iSCSI	Per HIC	FC	Per HIC	B4XE
Disabled	NVMe-oF	iSCSI	Per HIC	B6Z4
iSCSI	Per HIC	Disabled	NVMe-oF	B6Z5
Disabled	NVMe-oF	FC	Per HIC	B6Z6
FC	Per HIC	Disabled	NVMe-oF	B6Z7

Note: NVMe-oF includes NVMe over RoCE and NVMe OVER Fibre Channel, based on the installed HIC.

- For the controller that has no base-board ports on the rear:

    No feature code is available for DE2000H (7Y70CTO2WW, 7Y71CTO2WW), DE4000H (7Y74CTO2WW, 7Y75CTO2WW, 7Y77CTO2WW) and DE4000F (7Y76CTO2WW).

Table 6. Feature codes for DE6000H (7Y78CTO2WW, 7Y80CTO2WW)

DE6000H starting configuration	DE6000H ending configuration	Feature code
HIC ports	HIC ports	
NVMe-oF	Per HIC	BQH3
Per HIC	NVMe-oF	BQH2

Table 7. Feature codes for DE6000F (7Y79CTO2WW)

DE6000F starting configuration	DE6000F ending configuration	Feature code
HIC ports	HIC ports	
NVMe-oF	Per HIC	BQH5
Per HIC	NVMe-oF	BQH4

Note: NVMe-oF includes NVMe over RoCE and NVMe OVER Fibre Channel, based on the installed HIC.

Step 2. Locate the chassis serial number.

   a. From ThinkSystem System Manager, select **Support ➜ SUPPORT CENTER**.

   b. Select the **Support Resources** tab, and then scroll to the **View top storage array properties** section.

   c. Locate the **Chassis Serial Number**.

   d. Copy and paste this value to a text file.

Step 3. Locate the feature enable identifier.

   a. From ThinkSystem System Manager, select **Settings ➜ System**.

   b. Scroll down to **Add-ons**.

   c. Under **Change Feature Pack**, locate the **Feature Enable Identifier** (which is also referred to as the Safe ID).

   d. Copy and paste this value to a text file.

Step 4. Go to Lenovo Features on Demand to obtain the premium feature key.

   a. Log in to the Lenovo FoD Web site with your user account and password. If you have not previously registered, register first.

   b. Click the **Storage Host Protocol Change** tab.

   c. In the **Machine Type** field, select your machine type from the drop-down list box.

   d. In the **CTO** field, select your CTO from the drop-down list box.

   e. In the **Feature** field, select the feature code from the drop-down list box.

   f. In the **Machine Serial** field, enter the chassis serial number.

   g. In the **Safe ID or Feature Enable Identifier** field, enter the feature enable identifier (Safe ID).

   h. Follow the instructions on the screen to generate the premium feature key.

The premium feature key can be downloaded or sent to a specified e-mail address after the authorization process is completed on the Lenovo FoD Web site.

Note: For more information about changing the host protocol, refer to the "Host port protocol" section in the *ThinkSystem DE Series Hardware Installation and Maintenance Guide for 2U Enclosures* at: https://thinksystem.lenovofiles.com/storage/help/topic/thinksystem_storage_de_series/overview.html

Enabling the premium feature key with ThinkSystem System Manager

Once the premium feature key is ready, use the ThinkSystem System Manager to apply the premium feature key and activate the premium feature.

Note: Ensure that you have downloaded the premium feature key on the management client (the system with a browser for accessing the ThinkSystem System Manager).

Step 1. Select **Settings ➜ System**.

Step 2. Under **Add-ons**, select **Enable Premium Feature**.
The Enable a Premium Feature window opens.

Step 3. Click **Browse**, and then select the premium feature key file.
The file name is displayed in the window.

Step 4. Click **Enable**.

Retrieving a license key

To retrieve a license key that has been previously generated for a DE series storage, go to Lenovo Features on Demand Web site.

Step 1. Log in to the Lenovo FoD Web site with your user account and password. If you have not previously registered, register first.

Step 2. Click the **Retrieve history** tab on the left bar.

Step 3. In the **Search type** field, select your search type from the drop-down list box.

Step 4. In the **Search value** field, enter the corresponding search value data.

> **Notes:**
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> • If you have selected **Search history via UID** in the **Search type** field, enter the feature enable identifier (Safe ID) of the DE Storage system(s) that require the license key.
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> • If you have selected **Search history by machine type serial number** in the **Search type** field, an example format is **7Y75 J200BDJ6**.

Step 5. Click **Continue**.

Step 6. From the Retrieve history screen, you can select the license key(s) that need to be retrieved or you can select **Select All**. Then select **Email**.

Step 7. When the license key is received, follow the instructions in "Enabling the premium feature key with ThinkSystem System Manager" on page 5 to apply the license key.