Lenovo XClarity Essentials UpdateXpress User Guide

Version 2.0.0

Note

Before using this documentation and the products it supports, read the information in Appendix B "Notices" on page 19.

This edition applies to Lenovo® XClarity Essentials UpdateXpress version 2.0.0 and to all subsequent releases and modifications until otherwise indicated in the new editions.

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About this guide

Lenovo XClarity Essentials UpdateXpress (hereafter referred to as the UpdateXpress application) is an application that applies UpdateXpress System Packs (UXSPs) and individual updates to your server. This guide provides information about how to download and use the UpdateXpress application.

Who should read this guide

This documentation is for system administrators or other individuals responsible for system administration who are familiar with firmware and device driver maintenance.

Conventions and terminologies

Paragraphs that start with a Note, Important, or Attention in bold have specific meanings to highlight key information:

Note: These notices provide important tips, guidance, or advice.

Important: These notices provide information or advice that might help you avoid inconvenient or difficult situations.

Attention: These notices indicate possible damage to programs, devices, or data. An attention notice appears before the instruction or situation in which damage can occur.

In this documentation, when you are instructed to enter a command, type the command and press Enter.

Web resources

The following Web sites provide resources to download system-management tools for your ThinkSystem and System x servers.

- Lenovo XClarity Essentials Web site

  https://support.lenovo.com/us/en/documents/LNVO-CENTER

  Use this Web site to download multiple system-management tools for ThinkSystem and System x servers.
- Lenovo XClarity Essentials UpdateXpress

  https://support.lenovo.com/us/en/solutions/ht503692

  Use this Web site to download the UpdateXpress application.

The following Web sites provide information about product compatibility and support, warranties and licenses, and various technical resources.

- Lenovo Flex System Support products and services

  http://shop.lenovo.com/us/en/systems/servers/blades/bladecenter/
- ServerProven Web site

  http://www.lenovo.com/us/en/serverproven/
- Lenovo Server, Storage, and Networking Resource Library

  http://shop.lenovo.com/us/en/systems/server-library/

Chapter 1. Technical overview

The UpdateXpress application acquires and deploys UpdateXpress System Pack (UXSP) update packages and individual updates. UXSPs contain firmware and device driver updates.

The following section briefly introduces the three main functions of the UpdateXpress application. For more information, see Chapter 3 "Using the UpdateXpress application" on page 9.

Updating the local machine
Update the local machine currently running the UpdateXpress application. The machine type is detected and updates are acquired and automatically applied.

Updating a remote machine
Update the remote machine by the Baseboard Management Controller (BMC) running on the machine. You need a Simple File Transfer Protocol (SFTP) server to transfer the updates to the target remote machine.

Creating a repository of updates
Choose one or more machine types for which updates are acquired from the Lenovo Support Web site. Updates are downloaded to a folder that you specify, but no updates are applied. You can later use the UpdateXpress application to apply those updates by indicating that updates should be obtained from the folder you specified rather than from the Lenovo Support Web site.

UpdateXpress System Pack (UXSP)

A UXSP is an integration-tested bundle of online firmware and driver updates for System x and ThinkSystem servers. UXSPs are released semiannually for the first three years and annually for the final three years of support.

UXSPs simplify the process of downloading and installing all of the online driver and firmware updates for a given system. UXSPs ensures that you always work with a complete and most up-to-date set of updates that have been tested together and bundled by Lenovo.

UXSPs are created for a machine type and operating system combination. Separate UXSPs are provided for Windows® operating systems and each of the Linux distributions. For example, there could be several UXSPs for one particular machine type. There could also be an update for the Windows operating system and for each Linux distribution.

There is also a kind of platform UXSP which can be used to update a system in out-of-band way. The platform UXSP does not contain operating system.

UXSP format
A UXSP is delivered in an XML file. The naming convention for a UXSP has the following format:
lnvgy_utl_uxsp_*version_operatingsystem_arch*.xml
Example: `lnvgy_utl_uxsp_a3sp27a-1.00_windows_32-64.xml`

Applying UXSPs updates with the UpdateXpress application

You can use the UpdateXpress application to apply UXSP updates to your machine. The UpdateXpress application inventories the machine on which the update will be applied, queries a specified location for a list of applicable update packages, compares the inventory to the applicable update list, recommends a set of updates to apply, and then deploys those updates to the machine.

To apply UXSPs through the UpdateXpress application, do the following:

1. Download the UpdateXpress application from the Lenovo Support Web site.
2. Run the UpdateXpress application. Select **Update the local machine** or **Update a remote machine**.

   Note: For updating a remote machine, UXSP is supported only on the ThinkSystem servers.
3. Select **Check the Lenovo Support Web site**.
4. Select **UpdateXpress application System Packs (UXSPs)**.

You also can download the updates directly from the Lenovo Support Web site. Remember to download the update payload as well as the XML file. For convenience, choose the same destination folder for each UXSP download. You can download multiple system packs for different machine types to the same folder. When you run the UpdateXpress application, it detects the machine type and uses the correct content for that machine type. In some cases, there might be common files between system packs. Common files that are already in the folder will not be downloaded again. Therefore, the overall download time is reduced.

Handling a UXSP as a bundle

The UpdateXpress application is designed to download and apply UXSPs. The UXSP is a collection of individual updates as specified by the UXSP XML file.

When running the UpdateXpress application, you can select to work with either UXSPs or individual updates. In most cases, it is recommended to work with UXSPs, but the option to also work with individual updates gives you greater flexibility in choosing which updates to use.

Handling update requisites

This topic describes how the update requisites are acquired and applied.

To successfully apply updates, all prerequisites and corequisites for an update must also be acquired and applied. The UpdateXpress application automatically checks for, acquires, and applies prerequisites and corequisites. Updates frequently require you to apply prerequisite files before they can be successfully applied or to include corequisite packages to properly use the applied update. To simplify the update process, the UpdateXpress application uses information included in the update file to identify requisite packages for your specified updates. The UpdateXpress application then applies these requisite packages.

Prerequisite files

The update packages provided by Lenovo include information about which prerequisite files must be applied before you can successfully apply the update. When you specify an update, the UpdateXpress application reads this information and locates the prerequisite packages.

By default, the UpdateXpress application acquires the update packages and evaluates them to determine whether the prerequisite conditions have been met, and if necessary, applies the prerequisite files automatically before applying the specified update. You can choose not to apply the prerequisite files. However, this could cause the update not to be applied successfully.

If prerequisite packages have prerequisites or corequisites, they are acquired, evaluated, and applied in the same manner.

Corequisite files

Some updates require corequisite files, that is, additional packages that must be applied to complete the update successfully, but these packages do not have to be applied prior to the update you have specified.

By default, the UpdateXpress application identifies, acquires, evaluates, and applies the corequisite packages as part of your update.

If corequisite packages have prerequisites or corequisites, they are acquired, evaluated, and applied in the same manner.

Example

As an example, consider an update that has both prerequisites and corequisites. By default, the UpdateXpress application takes the following steps:

1. To ensure that the update can be completed, the UpdateXpress application first downloads the update.
2. The prerequisite files are downloaded.
3. The corequisite files are downloaded.
4. The prerequisite or corequisite files are evaluated against the current state of the system. If the system is already at the required level because these requisites have already been applied, the requisite is ignored.
5. The necessary prerequisite files are applied.
6. The update is applied.
7. The necessary corequisite files are applied.

Missing requisites

Occasionally, the UpdateXpress application might be unable to resolve a requisite condition. This might occur when requisite lists conflict and cannot be resolved or when the system firmware does not support the requisite checking performed by the UpdateXpress application. In this case, you receive a message similar to the one in the log:
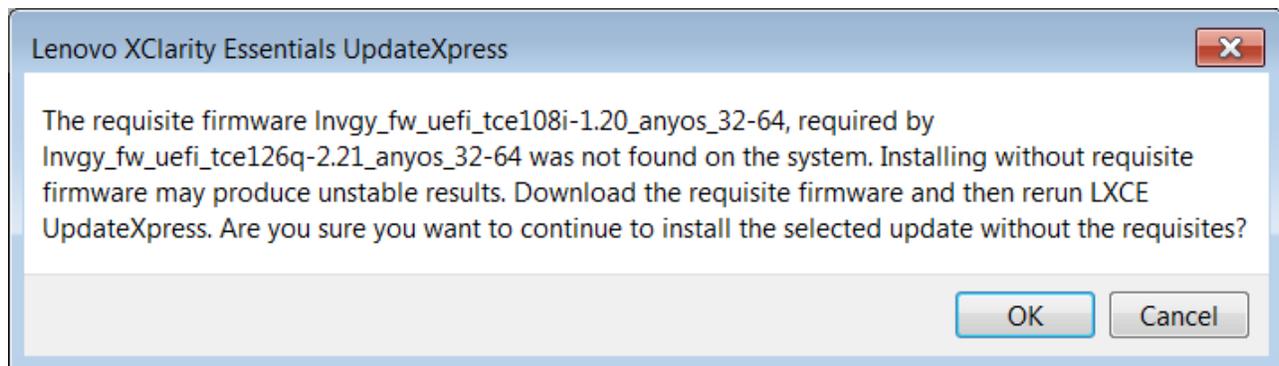
If this problem occurs, you should manually validate that the requisite has been met, select the update, and then apply it. If the requisite is not met, use the UpdateXpress application to acquire and apply the requisite package, and then try to apply the update again.

Operating system independent updates

Some individual updates apply to a specific machine type regardless of the operating system being used. These individual updates are treated as operating system independent updates. You can select operating system independent updates the same way you select operating system specific updates.

Note: When you select updates for a specific operating system, operating system independent updates are included as part of the package. Select operating system independent updates only if you are not selecting any operating system updates for a machine type.

Missing or incomplete inventory data

Sometimes an update package applies to a component for which the UpdateXpress application cannot determine the firmware or driver version. In this case, the UpdateXpress application displays the version of the update package instead of the component version. If an installed component version is not detected, the update is not selected by default. In this case, select the package as a recommended update manually.

Installing required drivers

The UpdateXpress application installs required device drivers.

The UpdateXpress application installs every driver in the UXSP when:

- The current device driver is earlier than the available device driver in the UXSP.
- The UpdateXpress application is unable to determine the current device driver version, which typically occurs when the device driver is not installed.

    Note: The UpdateXpress application displays `Undetected` when an installed device driver version is not detected.

You can take advantage of this behavior to install the following device drivers, which are required for firmware updates:

- Intelligent Peripheral Management Interface (IPMI)
- IPMI Mapping Layer

Chapter 2. Hardware and software requirements

Before you begin to use the UpdateXpress application, review the hardware, operating system, and the local operating system privilege requirements. Systems running the UpdateXpress application require at least 1 GB of Radom-Access Memory (RAM).

Supported hardware components

The UpdateXpress application supports Windows and Linux device drivers and firmware that are included in available UXSPs. A list of currently supported components device drivers and firmware can be found in the UpdateXpress application readme file that is included in each system pack.

The following tables list products that are supported by the UpdateXpress application.

Table 1. Supported ThinkSystem servers

Server	Machine type
Lenovo ThinkSystem SR630 Server	7X01, 7X02
Lenovo ThinkSystem SR550 Server	7X03, 7X04
Lenovo ThinkSystem SR650 Server	7X05, 7X06
Lenovo ThinkSystem SR530 Server	7X07, 7X08
Lenovo ThinkSystem ST550 Server	7X09, 7X10
Lenovo ThinkSystem SR950 Sever	7X11, 7X12, 7X13
Lenovo ThinkSystem SN850 Server	7X15
Lenovo ThinkSystem SN550 Server	7X16
Lenovo ThinkSystem SR850 Server	7X18, 7X19
Lenovo ThinkSystem D2 Enclosure	7X20
Lenovo ThinkSystem SD530 G6 Server	7X21

Table 2. Supported System x servers

Server	Machine type
System x3550 M5	5463, 8869
Converged HX Series	8693, 8695
System x3850 X6/x3950 X6	6241
Flex System x240 M4 Compute Node	2588, 7162
Flex System x240 M5 Compute Node	2591, 9532
Flex System x440 Compute Node	2590, 7167
Flex System x280 X6/x480 X6/x880 X6 Compute Node	4258, 7196
System x3250 M6	3633, 3943
System x3750 M4	8753
NeXtScale nx360 M5	5465, 5467
System x3650 M5	5462, 8871
System x3500 M5	5464

Notes: When updating the local machine, the following products support both single node and multi node:

- System x3850 X6/x3950 X6, 6241
- Lenovo Flex System x280 X6/x480 X6/x880 X6 Compute Node, 4258, 7196

Supported operating systems

The UpdateXpress application version 2.0.0 is supported on Linux and Windows operating systems.

Windows

The UpdateXpress application version 2.0.0 is supported on both the 32-bit and 64-bit operating systems. Use the information in the following table to identify operating systems that are supported by the UpdateXpress application.

Table 3. Supported Windows operating systems

Operating system	Update Local	Update Remote	Local Repository
Microsoft® Windows 7	No	Yes	Yes
Microsoft Windows 8	No	Yes	Yes
Microsoft Windows 10	No	Yes	Yes
Microsoft Windows Server 2008 R2	Yes	Yes	Yes
Microsoft Windows Server 2012	Yes	Yes	Yes
Microsoft Windows Server 2012 R2	Yes	Yes	Yes
Microsoft Windows Server 2016	Yes	Yes	Yes

Note: To support the UpdateXpress application on the Windows 64-bit operating system, it requires Microsoft Windows on Windows (WOW).

Linux

The UpdateXpress application is supported on the following versions of Linux operating systems.

Table 4. Supported Linux operating systems

Operating system	Update Local	Update Remote	Local Repository
Red Hat Enterprise Linux 7.0 AMD64/EM64T and above	Yes	Yes	Yes
SUSE Linux Enterprise Server 12.0 AMD64/EM64T and above	Yes	Yes	Yes

Notes:

- 500 MB of free disk space is recommended when running the UpdateXpress application on a Linux operating system.
- The UpdateXpress application supports fuzzy operating system check. If the current operating system does not support the firmware packages in a UXSP, the firmware packages might also be listed in the comparison result of the UpdateXpress application.
- The UpdateXpress application depends on the **ifconfig** command on Linux operating systems, which might not be installed on RHEL 7.0. To update firmware on RHEL 7.0, you must install **nettools** rpm.
- Linux device driver updates require specific packages. The following packages are required to be installed:
  - Red Hat Enterprise Linux: rpm-build, perl, and bash
  - SUSE Enterprise Linux: perl and bash

Operating system privileges

To run the UpdateXpress application, you must have administrator or root-equivalent operating system privileges. The UpdateXpress application returns an error when a user with insufficient privileges attempts to run the program.

Store the UpdateXpress application, including its extractions, and all the sensitive logs to a safe place where only authorized users can access.

Chapter 3. Using the UpdateXpress application

You can use the UpdateXpress application to interactively deploy updates. A screen resolution of 1024 x 768 or higher is recommended when running the UpdateXpress application. To run the UpdateXpress application, extract the compressed file and invoke the executable file for your operating system. No installation is required.

Windows

For Windows operating system, the UpdateXpress application version 2.0.0 is named as follows:

```
lnvgy_utl_lxce_ux_2.0.0_windows_i386.zip
```

For each release of the UpdateXpress application, you can distinguish the Windows ZIP file name by its version number. The Windows ZIP file is specified as **lnvgy_utl_lxce_ux_version_windows_i386.zip** where *lnvgy_utl_lxce_ux* is the name of the ZIP file and *version* indicates the UpdateXpress application version number.

Linux

For Linux operating system, the UpdateXpress application version 2.0.0 is named as follows:

Operating system	Name of the UpdateXpress application
Red Hat Enterprise Linux 7.0 AMD64/EM64T and above	`lnvgy_utl_lxce_ux_2.0.0_rhel7_x86-64.tgz`
SUSE Linux Enterprise Server 12.0 AMD64/EM64T and above	`lnvgy_utl_lxce_ux_2.0.0_sles12_x86-64.tgz`

The name of the UpdateXpress application is different for Windows and Linux operating systems. For convenience, hereafter *<Zipfile>* is used to refer to the name of the UpdateXpress application for both Windows and Linux operating systems in this documentation.

Launching the UpdateXpress application

You can use the UpdateXpress application to acquire the latest UXSPs and individual updates.

To launch the UpdateXpress application, do the following:

- **For Windows**:
    1. Extract the *<Zipfile>* to a local folder.
    2. Right-click **lxce_ux.exe** and click **Run as administrator** in the pop-up menu.
- **For Linux**:
  Type the following commands in the terminal:
  `tar xvf <Zipfile>`
  `./start_lxce_ux.sh`

Updating a local machine from the Web site

The UpdateXpress application can update a local machine with UXSPs or individual updates acquired from the Web site.

The following prerequisites are required to complete this task:

- The UpdateXpress application is running on a local machine to be updated.
- The machine is running a supported operating system. For details of supported operating systems, see "Supported operating systems" on page 6.

To update a local machine from the Web site, do the following:

1. Launch the UpdateXpress application. See "Launching the UpdateXpress application" on page 9.
2. In the Welcome window, click **Next**.
3. In the Update Task window, select **Update the local machine** and click **Next**.
4. In the Update Location window, select **Check the Lenovo Support Web site** and click **Next**.
5. In the Update Type window, select the type of update you want to acquire and click **Next**.

   - Select **UpdateXpress System Packs (UXSPs)** if you want to update UXSP. The Update Selection window is skipped if you select **UpdateXpress System Packs (UXSPs)**, but all the UXSP packages are downloaded.
   - Select **Latest available individual updates** if you want to update individual packs. The Update Selection window is displayed in the following step if you select **Latest available individual updates**, you need to select the packages to be downloaded.

6. In the Proxy Setting window, specify proxy information if required and click **Test Connection** to test the availability of the proxy. Then click **Next**.
7. In the Target Directory window, specify the folder where you want to download the updates to or accept the default location. Then click **Next**.
8. If you select **Latest available individual updates**, the Update Selection window is displayed. Select the updates you want, and then click **Next**.
9. In the Acquire Updates window, the acquisition table displays the acquiring progress of the packages. When the acquiring progress is finished, click **Next**.
10. In the Update Recommendation window, select the package(s) you want to upgrade after the program finishes comparing the system and displays the package grid. Then click **Next**.
11. In the Update Execution window, click **Begin** to start updating the packages. Upgrading program is running in background. The execution table displays the upgrade progress of the packages. When the upgrade progress is finished, click **Next**.
12. In the Finish window, click **View Log** if you want to check the upgrade log. Click **Finish** to exit the application.

Updating a local machine from a local directory

The UpdateXpress application can update a local machine with UXSPs or individual updates acquired from a local folder.

The following prerequisites are required to complete this task:

- The UpdateXpress application is running on a local machine to be updated.
- The machine is running a supported operating system. For details of supported operating systems, see "Supported operating systems" on page 6.

To update a local machine from a local directory, do the following:

1. Launch the UpdateXpress application. See "Launching the UpdateXpress application" on page 9.
2. In the Welcome window, click **Next**.
3. In the Update Task window, select **Update the local machine** and click **Next**.

4. In the Update Location window, select **Look in local directory**. To specify a local folder, do one of the following:

   - Click **Browse**, select the desired folder, and then click **Next**.
   - Input the folder path into the input field beside the **Browse** button, and then click **Next**.

5. In the Update Type window, select the type of update you want to acquire and click **Next**.

   - Select **UpdateXpress System Packs (UXSPs)** if you want to update UXSP. The Update Selection window is skipped if you select **UpdateXpress System Packs (UXSPs)**, but all the UXSP packages are downloaded.
   - Select **Latest available individual updates** if you want to update individual packs. The Update Selection window is displayed in the following step if you select **Latest available individual updates**, you need to select the packages to be downloaded.

6. In the Update Recommendation window, select the package(s) you want to upgrade after the program finishes comparing the system and displays the package grid. Then click **Next**.

7. In the Update Execution window, click **Begin** to start updating the packages. Upgrading program is running in background. The execution table displays the upgrade progress of the packages. When the upgrade progress is finished, click **Next**.

8. In the Finish window, click **View Log** if you want to check the upgrade log. Click **Finish** to exit the application.

Updating a remote machine from the Web site

The UpdateXpress application can update a remote machine with UXSPs or individual updates acquired from the Web site.

The following prerequisite is required to complete this task:

The UpdateXpress application is running on a machine installed with a supported operating system. For details of supported operating systems, see "Supported operating systems" on page 6.

To update a remote machine from the Web site, do the following:

1. Launch the UpdateXpress application. See "Launching the UpdateXpress application" on page 9.

2. In the Welcome window, click **Next**.

3. In the Update Task window, select **Update a remote machine** and click **Next**.

4. In the Remote Setting window, input the following information, and then click **Next**.

   - (BMC Setting) IP address or Host name: BMC IP address or host name of the target system.
   - (BMC Setting) CIM Port: BMC port number. If you do not input, the default port is used.
   - (BMC Setting) User Name: BMC user name of the target system.
   - (BMC Setting) Password: BMC password of the target system.
   - (SFTP Setting) IP address or Host name: IP address or host name of the SFTP server.
   - (SFTP Setting) Port: Port number of the SFTP server. If you do not input, the default port is used.
   - (SFTP Setting) User Name: User name of the SFTP server.
   - (SFTP Setting) Password: Password of the SFTP server.
   - (SFTP Setting) Directory: The location on the SFTP server where update packages are copied to.

     Note: Input a full path on the SFTP server.

   The UpdateXpress application checks the BMC server's certificate and SFTP server's key fingerprint and displays the content on a pop-up dialog. Click **OK**.

Note: If you do not want to check the BMC server's certificate and SFTP server's key fingerprint, select the checkbox before the message: `Accept BMC server's certificate and SFTP server's key fingerprint by default`. Then click **Next**.

5. In the Update Location window, select **Check the Lenovo Support Web site** and click **Next**.

6. In the Proxy Setting window, specify proxy information if required and click **Test Connection** to test the availability of the proxy. Then click **Next**.

7. In the Target Directory window, specify the folder where you want to download the updates to or accept the default location. Then click **Next**.

8. If the remote machine is a System x server, the Update Selection window is displayed. Select the updates you want, and then click **Next**.

   Note: By default, ThinkSystem servers only support updating by UXSP mode while System x servers only support by latest individual updates acquired from the Lenovo Support Web site. So the Update Selection window is skipped for ThinkSystem servers.

9. In the Acquire Updates window, the acquisition table displays the acquiring progress of the packages. When the acquiring progress is finished, click **Next**.

10. In the Update Recommendation window, select the package(s) you want to upgrade after the program finishes comparing the system and displays the package grid. Then click **Next**.

11. In the Update Execution window, click **Begin** to start updating the packages. Upgrading program is running in background. The execution table displays the upgrade progress of the packages. When the upgrade progress is finished, click **Next**.

12. In the Finish window, click **View Log** if you want to check the upgrade log. Click **Finish** to exit the application.

Updating a remote machine from a local directory

The UpdateXpress application can update a remote machine with UXSPs or individual updates acquired from a local folder.

The following prerequisite is required to complete this task:

The UpdateXpress application is running on a machine installed with a supported operating system. For details of supported operating systems, see "Supported operating systems" on page 6.

To update a remote machine from a local directory, do the following:

1. Launch the UpdateXpress application. See "Launching the UpdateXpress application" on page 9.

2. In the Welcome window, click **Next**.

3. In the Update Task window, select **Update a remote machine** and click **Next**.

4. In the Remote Setting window, input the following information, and then click **Next**.

   • (BMC Setting) IP address or Host name: BMC IP address or host name of the target system.

   • (BMC Setting) CIM Port: BMC port number. If you do not input, the default port is used.

   • (BMC Setting) User Name: BMC user name of the target system.

   • (BMC Setting) Password: BMC password of the target system.

   • (SFTP Setting) IP address or Host name: IP address or host name of the SFTP server.

   • (SFTP Setting) Port: Port number of the SFTP server. If you do not input, the default port is used.

   • (SFTP Setting) User Name: User name of the SFTP server.

   • (SFTP Setting) Password: Password of the SFTP server.

- (SFTP Setting) Directory: The location on the SFTP server where update packages are copied to.

   Note: Input a full path on the SFTP server.

   The UpdateXpress application checks the BMC server's certificate and SFTP server's key fingerprint and displays the content on a pop-up dialog. Click **OK**.

   Note: If you do not want to check the BMC server's certificate and SFTP server's key fingerprint, select the checkbox before the message: `Accept BMC server's certificate and SFTP server's key fingerprint by default`. Then click **Next**.

5. In the Update Location window, select **Look in local directory**. To specify a local folder, do one of the following:

   - Click **Browse** , select the desired folder, and then click **Next**.
   - Input the folder path into the input field beside the **Browse** button, and then click **Next**.

6. In the Update Recommendation window, select the package(s) you want to upgrade after the program finishes comparing the system and displays the package grid. Then click **Next**.

7. In the Update Execution window, click **Begin** to start updating the packages. Upgrading program is running in background. The execution table displays the upgrade progress of the packages. When the upgrade progress is finished, click **Next**.

8. In the Finish window, click **View Log** if you want to check the upgrade log. Click **Finish** to exit the application.

Creating a repository of updates

The UpdateXpress application can create a repository of UXSPs or individual updates acquired from the Web site.

The following prerequisites are required to complete this task:

- The UpdateXpress application is running on a machine where the repository is to be created.
- The machine is running a supported operating system. For details of supported operating systems, see "Supported operating systems" on page 6.

To create an update repository, do the following:

1. Launch the UpdateXpress application. See "Launching the UpdateXpress application" on page 9.

2. In the Welcome window, click **Next**.

3. In the Update Task window, select **Create a repository of updates** and click **Next**.

4. In the Update Type window, select the type of update you want to acquire and click **Next**.

   - Select **UpdateXpress System Packs (UXSPs)** if you want to update UXSP. The Update Selection window is skipped if you select **UpdateXpress System Packs (UXSPs)**, but all the UXSP packages are downloaded.
   - Select **Latest available individual updates** if you want to update individual packs. The Update Selection window is displayed in the following step if you select **Latest available individual updates**, you need to select the packages to be downloaded.

5. In the Proxy Setting window, specify proxy information if required and click **Test Connection** to test the availability of the proxy. Then click **Next**.

6. In the Machine Types window, select the machine types you want to acquire updates for and click **Next**.

   You can select all of the listed machine types by checking the top checkbox in the header. You can add and remove machine types from the list using the **Add** and **Remove** buttons.

   - To add a machine type, click **Add**, and then specify the machine type.

- To remove a machine type, select the machine type in the list, and then click **Remove**.

7. In the Operating Systems window, select the operating systems you would like to acquire updates for, and then click **Next**.

8. In the Target Directory window, specify the folder where you want to download the updates to or accept the default location. Then click **Next**.

9. If you select **Latest available individual updates**, the Update Selection window is displayed. Select the updates you want, and then click **Next**.

10. In the Acquire Updates window, the acquisition table displays the acquiring progress of the packages. When the acquiring progress is finished, click **Next**.

11. In the Finish window, click **View Log** if you want to check the upgrade log. Click **Finish** to exit the application.

Chapter 4. Troubleshooting

This chapter provides information about what to do if you experience a problem with the UpdateXpress application.

Limitations and problems

There are presently no known limitations and problems for the UpdateXpress application version 2.0.0.

Workarounds

There are presently no known problems or workarounds for the UpdateXpress application version 2.0.0.

Coexistence and compatibility

The UpdateXpress application builds on OneCLI, but has no interactions with other programs on the system. Do not run the UpdateXpress application and OneCLI at the same time.

Appendix A. Accessibility features

Accessibility features help users who have a disability, such as restricted mobility or limited vision, to use information, technology, and products successfully.

The following list includes the major accessibility features in the UpdateXpress application:

- Keyboard-only operation
- Interfaces that are commonly used by screen readers

Keyboard navigation

You can use the keyboard to navigate through the graphical user interface (GUI).

The following keyboard shortcuts is applicable on both the Windows and Linux operating systems.

Shortcut	Function
Tab	Go to the next control.
Shift+Tab	Move to the previous control.
Left arrow	Move back one character.
Right arrow	Move forward one character.
Backspace	Delete the character to the left of the cursor.
Delete	Delete the character under the cursor.
Up arrow	Move focus and selection upwards through the radio button.
Down arrow	Move focus and selection downwards through the radio button.
Space	Select or clear an option.

Screen-reader technology

Screen-reader technologies are primarily focused on software program interfaces, help information systems, and various online documents. For additional information about screen readers, see the following:

- Using the JAWS screen reader:

  http://www.freedomscientific.com/Products/Blindness/JAWS
- Using the NVDA screen reader:

  http://www.nvaccess.org/

Lenovo and accessibility

For more information about the Lenovo commitment to accessibility, go to http://www.lenovo.com/lenovo/us/en/accessibility.html.

Appendix B. Notices

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Important notes

Processor speed indicates the internal clock speed of the microprocessor; other factors also affect application performance.

When referring to processor storage, real and virtual storage, or channel volume, KB stands for 1024 bytes, MB stands for 1 048 576 bytes, and GB stands for 1 073 741 824 bytes.

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Glossary

Glossary

This glossary includes terms and definitions for the
UpdateXpress application.

A

AMM

> See **Advanced Management Module**.

Advanced Management Module

> Advanced Management Module is a hardware unit
> that provides system-management functions for all
> the servers in a System x chassis.

B

Baseboard Management Controller

> A controller that monitors system platform
> management events such as fan failure and
> temperature or voltage increases, and logs their
> occurrence.

Basic Input/Output System (BIOS)

> The code that controls basic hardware operations,
> such as interactions with diskette drives, hard disk
> drives, and the keyboard.

BIOS

> See **Basic Input/Output System**.

C

CLI

> See **Command-line interface**.

Command-line interface

> A type of computer interface in which the input
> command is a string of text characters.

D

Deployment

> Install of update packages.

Device driver

> A program that provides an interface between a
> specific device and the application program that
> uses the device.

Dynamic System Analysis

> A systems management software product that
> collects and analyzes system information to aid in
> diagnosing system problems.

E

Ethernet

> A packet-based networking technology for local
> area networks (LANs) that allows multiple access
> and handles contention by using Carrier Sense

Multiple Access with Collision Detection (CSMA/CD)
as the access method. Ethernet is standardized in
the IEEE 802.3 specification.

Extensible Markup Language (XML)

> A standard metalanguage for defining markup
> languages that is based on Standard Generalized
> Markup Language (SGML).

F

Firmware

> Proprietary code that is usually delivered as
> microcode as part of an operating system. Firmware
> is more efficient than software loaded from an
> alterable medium and more adaptable to change
> than pure hardware circuitry. An example of firmware
> is the Basic Input/Output System (BIOS) in read-only
> memory (ROM) on a PC system board.

G

GUI

> See **Graphical user interface**.

Graphical user interface

> A type of computer interface that presents a visual
> metaphor of a real-world scene, often of a desktop,
> by combining high-resolution graphics, pointing
> devices, menu bars and other menus, overlapping
> windows, icons and the object-action relationship.

I

Inventory

> To gather information about the system including
> installed hardware, device driver versions, and
> firmware levels.

Intelligent Peripheral Management Interface

> A standard for controlling intelligent devices that
> monitor a system. It provides for dynamic discovery
> of sensors in the system and the ability to monitor
> the sensors and be informed when the sensor's
> values change or go outside certain boundaries.

IPMI

> See **Intelligent Peripheral Management Interface**.

L

LXCE

> Lenovo XClarity Essentials. See **XClarity Essentials
> UpdateXpress**.

O

OOB

> Out-of-Band. Pertaining to user-specific data that
> has meaning only for connection-oriented (stream)

sockets. The server generally receives stream data in the same order that it was sent. OOB data is received independent of its position in the stream (independent of the order in which it was sent).

Online update

An update package that can be applied through the native operating system.

OneCLI

OneCLI is a collection of server management tools that utilize a command line interface program to manage firmware, hardware, and operating systems.

P

Prerequisite (pre-req)

A package that must be installed before another package.

U

Update

An UpdateXpress System Pack consisting of an executable file and an XML description.

UpdateXpress System Pack

Integration-tested bundle of online firmware and driver updates for System x and ThinkSystem servers.

UpdateXpress application

An graphical user interface (GUI) based application for applying UpdateXpress System Pack updates to your system.

UXSP

UpdateXpress System Pack. See **UpdateXpress System Pack**.

X

XML

See **Extensible Markup Language**.

XClarity Essentials UpdateXpress

A software application that applies UpdateXpress System Pack updates to your system.

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