



Lenovo XClarity Essentials UpdateXpress User Guide



Version 2.7.0

Note

Before using this documentation and the products it supports, read the information in Appendix B “Notices” on page 21.

This edition applies to Lenovo XClarity® Essentials UpdateXpress 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](#)

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

- [Lenovo XClarity Essentials UpdateXpress](#)

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](#)
- [ServerProven Web site](#)
- [Lenovo Server, Storage, and Networking Resource 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 four main functions of the UpdateXpress application. For more information, see Chapter 3 “Using the UpdateXpress application” on page 9.

Updating the local server

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

Updating a remote server

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.

Remote RAID Configuration

Configure RAID controller using the BMC service.

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 ensure 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**.
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.

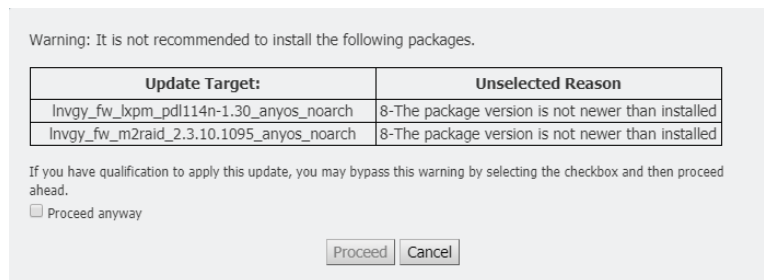
Example

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.

Update recommendation

By default, the application UpdateXpress will select the packages that are recommended for the system to install or upgrade. You can also manually select those packages to install or upgrade. In this case, you will receive a warning message similar to the following one:



If you see this message, it is recommended that you stop the update process.

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 Random-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 Lenovo ThinkSystem servers

Server	Machine type
Lenovo ThinkSystem D2 Enclosure	7X20
Lenovo ThinkSystem SD530	7X21
Lenovo ThinkSystem SD650 DWC	7X58
Lenovo ThinkSystem SE350	7Z46, 7D1X
Lenovo ThinkSystem SN550	7X16
Lenovo ThinkSystem SN850	7X15
Lenovo ThinkSystem SR150/SR158	7Y54, 7Y55
Lenovo ThinkSystem SR250/SR258	7Y51, 7Y52, 7Y53, 7Y72, 7Y73
Lenovo ThinkSystem SR530	7X07, 7X08
Lenovo ThinkSystem SR550	7X03, 7X04
Lenovo ThinkSystem SR570	7Y02, 7Y03
Lenovo ThinkSystem SR590	7X98, 7X99
Lenovo ThinkSystem SR630	7X01, 7X02
Lenovo ThinkSystem SR650	7X05, 7X06
Lenovo ThinkSystem SR670	7Y36, 7Y37, 7Y38
Lenovo ThinkSystem SR850	7X18, 7X19
Lenovo ThinkSystem SR860	7X69, 7X70
Lenovo ThinkSystem SR950	7X11, 7X12, 7X13
Lenovo ThinkSystem SR850P	7D2H, 7D2F, 7D2G
Lenovo ThinkSystem ST250/ST258	7Y45, 7Y46, 7Y47
Lenovo ThinkSystem ST550	7X09, 7X10
Lenovo ThinkSystem ST558	7Y15, 7Y16
Lenovo ThinkAgile VX Series	7Y12, 7Y13, 7Y14, 7Y92, 7Y93, 7Y94, 7Z12, 7Z13, 7D2Z

Table 1. Supported Lenovo ThinkSystem servers (continued)

Server	Machine type
Lenovo ThinkAgile HX Series	7X81, 7X82, 7X83, 7X84, 7Y88, 7Y89, 7Y90, 7Y95, 7Y96, 7Z03, 7Z04, 7Z05, 7Z06, 7Z08, 7Z09
Lenovo ThinkAgile MX Series	7Z20, 7D1H, 7D2E

Table 2. Supported Lenovo System x systems

Server	Machine type
Lenovo Flex System x240 Compute Node	7162, 2588
Lenovo Flex System x240 M5 Compute Node	2591, 9532
Lenovo Flex System x280 X6/x480 X6/x880 X6 Compute Node	4258, 7196
Lenovo Flex System x440	7167, 2590
Lenovo NeXtScale nx360 M5	5465, 5467
Lenovo System x3250 M6	3633, 3943
Lenovo System x3500 M5	5464
Lenovo System x3550 M5	5463, 8869
Lenovo System x3650 M5	5462, 8871
Lenovo System x3750 M4	8753
Lenovo System x3850 X6/x3950 X6	6241
Lenovo Converged HX 3310 Appliance	8693
Lenovo Converged HX 5510/7510 Appliance	8695

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 is supported on Linux and Windows operating systems.

Windows

The UpdateXpress application 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

Table 3. Supported Windows operating systems (continued)

Operating system	Update Local	Update Remote	Local Repository
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
Microsoft Windows Server 2019	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 8.X AMD64/EM64T	Yes	Yes	Yes
Red Hat Enterprise Linux 7.X AMD64/EM64	Yes	Yes	Yes
SUSE Linux Enterprise Server 12.X AMD64/EM64	Yes	Yes	Yes
SUSE Linux Enterprise Server 15.X AMD64/EM64T	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.
- Depending on the **ifconfig** command on Linux OS, UpdateXpress might not be installed on RHEL 7.0 or later versions. To update the firmware on RHEL 7.0 or later versions, you should install net-tools.
- 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 is named as follows:

```
lnvgy_utl_lxce_ux{ build id }_2.x.x_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{ build id }_{ version }_windows_i386.zip** where *lnvgy_utl_lxce_ux* is the name of the ZIP file, *build id* indicates the build number and *version* indicates the UpdateXpress application version number.

Linux

For Linux operating system, the UpdateXpress application 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{ build id }_2.x.x_rhel_x86-64.tgz
SUSE Linux Enterprise Server 12.0 AMD64/EM64T and above	lnvgy_utl_lxce_ux{ build id }_2.x.x_sles_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 server 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 server**, and click **Next**.
4. In the Update Setting window, do one or more of the following based on your needs:
 - To input BMC information, select **Input BMC access information**, and click **Next**.
 - To downgrade the firmware, select **Enable updating to a back-level firmware**, and click **Next**.
 - To upgrade the backup system firmware, select **Only update the backup image of the BMC (and UEFI where applicable)**, and click **Next**.
5. In the Update Location window, select **Check the Lenovo support web site**, and click **Next**.
6. In the Update Type window, select the update type you want to acquire, and click **Next**.
7. In the Target Directory window, specify the location for the updates to be downloaded or accept the default location, and click **Next**.
8. In the Network Access window, specify the proxy information if required, click **Test Connection** to test the availability of the proxy, and click **Next**.
9. In the Update Comparison window, do one of the following based on your needs:
 - To compare the versions of installed driver and firmware with the latest versions, click **Begin**. After the progress is completed, select one or more packages you want to upgrade, and click **Next**.
 - To compare the version of devices installed in the local system with the latest version, select **Only compare installed devices**, and click **Begin**. After the progress is completed, select one or more packages you want to upgrade, and click **Next**.
10. In the Acquire Updates window, the acquisition table displays the acquiring progress of the packages. When the progress is completed, click **Next**.
11. In the Update Execution window, click **Begin Update and confirm to continue on the pop window**. The execution table displays the upgrade progress of the packages. When the upgrade progress is completed, click **Next**.
12. In the Finish window, click **View Log** to check the upgrade log, copy and save the commands generated, and click **Finish** to exit.

Updating a local server 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 server**, and click **Next**.
4. In the Update Setting window, do one or more of the following based on your needs:
 - To input BMC information, select **Input BMC access information**, and click **Next**.
 - To downgrade the firmware, select **Enable updating to a back-level firmware**, and 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 field beside the **Browse** button, and click **Next**.
6. In the Update Type window, select the update type you want to acquire, and click **Next**.
7. In the Update Comparison window, do one of the following based on your needs:
 - To compare the versions of installed driver and firmware with the latest versions, click **Begin**. After the progress is completed, select one or more packages you want to upgrade, and click **Next**.
 - To compare the version of devices installed in the local system with the latest version, select **Only compare installed devices**, and click **Begin**. After the progress is completed, select one or more packages you want to upgrade, and click **Next**.
8. In the Update Execution window, click **Begin Update and confirm to continue on the pop window**. The execution table displays the upgrade progress of the packages. When the upgrade progress is completed, click **Next**.
9. In the Finish window, click **View Log** to check the upgrade log, copy and save the commands generated, and click **Finish** to exit.

Updating a remote server 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 server**, and click **Next**.
4. In the Update Setting window, input the following information:
 - (BMC Setting) IP address or Host name: BMC IP address or host name of the target system.
 - (BMC Setting) User Name: BMC user name of the target system.
 - (BMC Setting) Password: BMC password of the target system.
 - (BMC Setting) CIM Port: BMC port number. If you do not input, the default port is used.
 - (SFTP Setting) IP address or Host name: IP address or host name of the SFTP server.
 - (SFTP Setting) User Name: User name of the SFTP server.
 - (SFTP Setting) Password: Password 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) 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 certificate and SFTP server key fingerprint, and displays the content on a pop-up dialog. Click **OK**. Do one of the following based on your needs:

- To downgrade the firmware, select **Enable updating to a back-level firmware**, and click **Next**.
- To upgrade the backup system firmware, select **Only update the backup image of the BMC (and UEFI where applicable)**, and click **Next**.

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

5. In the Update Location window, select **Check the Lenovo Support Web site**, and click **Next**.
6. In the Target Directory window, specify the location for the updates to be downloaded or accept the default location, and click **Next**.
7. In the Network Access window, specify proxy information if required, click **Test Connection** to test the availability of the proxy, and click **Next**.
8. In the Update Type window, select the update type you want to acquire, and click **Next**.
9. In the Update Comparison window, click **Begin** to compare the version of firmware with the latest version. After the progress is completed, select one or more packages you want to upgrade, and click **Next**.
10. In the Acquire Updates window, the acquisition table displays the acquiring progress of the packages. When the progress is completed, click **Next**.
11. In the Update Execution window, click **Begin Update and confirm to continue on the pop window**. The execution table displays the upgrade progress of the packages. When the upgrade progress is completed, click **Next**.
12. In the Finish window, click **View Log** to check the upgrade log, copy and save the commands generated, and click **Finish** to exit.

Updating a remote server 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 server**, and click **Next**.
4. In the Update Setting window, input the following information.
 - (BMC Setting) IP address or Host name: BMC IP address or host name of the target system.
 - (BMC Setting) User Name: BMC user name of the target system.
 - (BMC Setting) Password: BMC password of the target system.
 - (BMC Setting) CIM Port: BMC port number. If you do not input, the default port is used.

- (SFTP Setting) IP address or Host name: IP address or host name of the SFTP server.
- (SFTP Setting) User Name: User name of the SFTP server.
- (SFTP Setting) Password: Password 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) 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 certificate and SFTP server key fingerprint, and displays the content on a pop-up dialog. Click **OK**. Do one of the following based on your needs:

- To downgrade the firmware, select **Enable updating to a back-level firmware**, and click **Next**.
- To upgrade the backup system firmware, select **Only update the backup image of the BMC (and UEFI where applicable)**, and click **Next**.

Note: If you do not want to check the BMC server certificate and SFTP server key fingerprint, select **Accept BMC server's certificate and SFTP server's key fingerprint by default**, and 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 click **Next**.
 - Input the folder path into the field beside the **Browse** button, and click **Next**.
6. In the Update Type window, select the update type you want to acquire, and click **Next**.
7. In the Update Comparison window, click **Begin** to compare the version of installed firmware with the latest version. After the progress is completed, select one or more packages you want to upgrade, and click **Next**.
8. In the Update Execution window, click **Begin Update and confirm to continue on the pop window**. The execution table displays the upgrade progress of the packages. When the upgrade progress is completed, click **Next**.
9. In the Finish window, click **View Log** to check the upgrade log, copy and save the commands generated, and click **Finish** to exit.

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 update type 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 should select the packages to be downloaded.
5. In the Machine Types window, select the machine types you want to acquire updates, and click **Next**.
 - To select all listed machine types, select the check box in the header.
 - To add a machine type, click **Add**, and specify the machine type.
 - To remove a machine type, select the machine type from the list, and click **Remove**.
 6. In the Operating Systems window, select the operating systems you want to acquire updates, and click **Next**.
 7. In the Target Directory window, specify the location for the updates to be downloaded or accept the default location, and click **Next**.
 8. In the Network Access window, specify proxy information if required, click **Test Connection** to test the availability of the proxy, and click **Next**.
 9. (Optional) 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 progress is completed, click **Next**.
 11. In the Finish window, click **View Log** to check the upgrade log, copy and save the commands generated, and click **Finish** to exit.

Configuring RAID array for a remote machine

The UpdateXpress application can do some RAID configuration for a remote machine, such as collecting RAID information, creating RAID array, configuring disk status and clearing the configuration of a controller.

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 configure RAID array, 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 **Remote RAID Configuration** 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) User Name: BMC user name of the target system.
 - (BMC Setting) Password: BMC password of the target system.
 - (BMC Setting) CIM Port: BMC CIM port number. If you do not input, the default port is used.

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

Note: If you do not want to check the BMC server’s certificate, select the checkbox before the message: Accept BMC server's certificate by default. Click **Next**.

5. In the RAID Configuration window, UpdateXpress will first collect RAID information of the remote server. After it finishes collecting, RAID information will be displayed in the window.
 - You can clear the configuration of a controller by clicking **Clear Controller**.

- You can change drive status to JBOD by clicking **Make JBOD**.
 - You can change drive status to Unconfigured GOOD by clicking **Make Good**.
6. In the RAID Configuration window, you can create array for controller by clicking **Create Array**.
 - A wizard window is displayed. The wizard has three steps.
 - In step one, select RAID level, then add spans, members and hot spares for the array.
 - In step two, create volumes and set disk parameters.
 - In step three, the summary information will be displayed. Click **Create** to start creating storage array.
 - After the application finishes creating storage array, you can click **Collect** or **Refresh** to collect RAID information again.
 - Click **Next** if there is no other action needed.
 7. In the Finish window, click **View Log** to check the config log, copy and save the command generated, and click **Finish** to exit the application.

Displaying OneCLI commands in the Finish Window

UpdateXpress performs updates by invoking OneCLI commands in the GUI wizard. UpdateXpress 2.7.0 and later versions displays these commands in the new message box in the Finish window. You can save and use the commands to invoke the same function in CLI mode based on your needs.

Example of OneCLI commands:

```
<LXCE OneCLI> update flash --uselocalimg --imm USERID:***@xx.xxx.xxx.xxx --dir
D:\build\Onegui\105980\lsvg_y_utl_lxce_ux01k-2.7.0_windows_i386\workingdir --output
D:\build\Onegui\105980\lsvg_y_utl_lxce_ux01k-2.7.0_windows_i386\Lenovo_Support\ --platform --log 5
```

Chapter 4. Troubleshooting

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

Limitations and problems

- **All UpdateXpress paths must use standard English-language alphanumeric characters.**

All UpdateXpress paths must use standard English-language alphanumeric characters and must not include spaces, special characters, or non-English language characters.

- To download packages from IBM Web site through proxy, make sure the proxy server can access domain www.ibm.com and www-03.ibm.com when Windows OS is installed and access related IP address 207.25.252.197 and 129.42.160.51 when Linux OS is installed.

Workarounds

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

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 are 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>.

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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.

When referring to hard disk drive capacity or communications volume, MB stands for 1 000 000 bytes, and GB stands for 1 000 000 000 bytes. Total user-accessible capacity might vary depending on operating environments.

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