



Lenovo XClarity Integrator Unified Service Installation Guide



Version 3.2.0

Note

Before using this information and the product it supports, read the information in Appendix B “Notices” on page 19.

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About this publication

This book provides instructions for installing Lenovo XClarity Integrator Unified Service.

Lenovo XClarity Integrator Unified Service v3.2.0 is a subcomponent of the following software products.

- Lenovo XClarity Integrator for Microsoft System Center, v7.1
- Lenovo Add-in for Microsoft System Center Virtual Machine Manager, v3.1
- Lenovo XClarity Integrator for VMware vCenter, v5.1

Conventions and terminology

Paragraphs that start with a bold **Note**, **Important**, or **Attention** are notices with specific meanings that 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.

Web resources

The following web pages provide resources for understanding, using, and troubleshooting IBM System x, Lenovo BladeCenter blade servers, and systems management and systems deployment tools.

System Management with Lenovo XClarity Solution

This website provides an overview of Lenovo XClarity solutions that integrate into System x M5 and M6, as well as Flex System to provide system management capability.

- System Management with Lenovo XClarity Solution website

Lenovo technical support portal

This website can assist you in locating support for hardware and software:

- Lenovo Support Portal website

Lenovo ServerProven pages

Obtain information about hardware compatibility with Lenovo System x, BladeCenter, and IBM IntelliStation hardware.

- Lenovo ServerProven: Compatibility for BladeCenter products
- Lenovo ServerProven: Compatibility for Flex System Chassis
- Lenovo ServerProven: Compatibility for System x hardware, applications, and middleware

Microsoft System Center website

This website can assist you in locating Microsoft System Center products:

- Microsoft System Center website

VMware website

This website can assist you in locating VMware products:

- VMware website

Chapter 1. About Lenovo XClarity Integrator Unified Service

The Lenovo XClarity Integrator Unified Service is the backend component of Lenovo XClarity Integrator. It provides the functionality for Lenovo XClarity Integrator to access and manage Lenovo servers. It also provides the implementation for the underlying tools, applications, and programming SDKs.

Lenovo XClarity Integrator

The Lenovo XClarity Integrator extensions include a set of plug-ins for Microsoft System Center and VMware vCenter standalone applications and service applications.

With Lenovo XClarity Integrator, Lenovo expands the management capabilities of Microsoft System Center and VMware vCenter by integrating Lenovo hardware management functionality, providing affordable, basic management of physical and virtual environments to reduce the time and effort required for routine system administration. It provides the discovery, configuration, monitoring, event management, and power monitoring needed to reduce cost and complexity through server consolidation and simplified management.

Lenovo XClarity Integrator Unified Service

The Lenovo XClarity Integrator Unified Service needs to be installed and works in conjunction with either Lenovo XClarity Integrator for Microsoft System Center Operations Manager, Lenovo Add-in for Microsoft System Center Virtual Machine Manager, or Lenovo XClarity Integrator for VMware vCenter.

Chapter 2. Licensing

The Lenovo XClarity Integrator Unified Service is a proprietary product, released under either the IBM International License Agreement for Evaluation of Programs (ILAE) or the IBM International Program License Agreement (IPLA). ILAE allows of 90 days of trial with almost full functions.

Chapter 3. Hardware and software requirements

Information about supported Lenovo XClarity Integrator releases, required hardware and software, and suggested requirements for improved performance are described.

Supported Lenovo XClarity Integrator releases

- Lenovo XClarity Integrator for Microsoft System Center, v7.1
- Lenovo Add-in for Microsoft System Center Virtual Machine Manager, v3.1
- Lenovo XClarity Integrator for VMware vCenter, v5.1

Hardware requirements (minimum)

- Single x86-64 processor/core
- 2 GB RAM
- 20 GB of free hard drive space
- 100 Mbps network card

For improved performance, use:

- Four x86-64 processors/cores
- 8 GB RAM
- 40 GB of free hard drive space
- 10,000 Mbps network card

Software requirements

- Windows Server 2016
- Windows Server 2008 x64, 2008 R2, 2012, or 2012 R2
- Microsoft Visual C++ 2008 SP1 Redistributable Package (x86) [webpage](#)
- Microsoft Visual C++ 2010 Redistributable Package (x86) [webpage](#)
- Microsoft Visual C++ 2010 Redistributable Package (x64) [webpage](#)

Chapter 4. Installing Lenovo XClarity Integrator Unified Service

Information about download sites for Lenovo XClarity Integrator for Microsoft System Center products and Lenovo XClarity Integrator for VMware vCenter are provided, along with instructions for installing the products.

Before you begin

Because the Lenovo XClarity Integrator Unified Service installer is a part of Lenovo XClarity Integrator installers, you do not need to download it separately. Instead, download the installer of either the Lenovo XClarity Integrator for Microsoft System Center or Lenovo XClarity Integrator for VMware vCenter.

- Download the latest version of Lenovo XClarity Integrator for Microsoft System Center Operations Manager or Lenovo Add-in for Microsoft System Center Virtual Machine Manager from the Lenovo XClarity Integrator for Microsoft System Center website.
- Download the latest version of the Lenovo XClarity Integrator for VMware vCenter from the Lenovo XClarity Integrator for VMware website.

Procedure

The installation process starts automatically during the installation of Lenovo XClarity Integrator for Microsoft System Center Operations Manager or Lenovo XClarity Integrator for VMware vCenter.

- Step 1. Enter a password for the user account admin to access Lenovo XClarity Integrator Unified Service, and then click **Next**.
- Step 2. On the Database Configuration page, enter the PostgreSQL password and click **Next**.

The database user, postgres, cannot be edited. Do not change the TCP port the database service is listening to. Click **Next**.

- Step 3. Keep the default value in the **Specify the TCP Port** field. Click **Next**.

The default port is 9500. This is the port that Lenovo XClarity Integrator Unified Service listens on. If you require enhanced security, select the check box **Only use HTTPS protocol to communicate with IMM nodes** to use HTTPS as the communication protocol with IMM CIMON.

If IPv6 Only is selected, Lenovo XClarity Integrator Unified Service listens only on the IPv6 port, and not the IPv4 port.

Notes: If this port is blocked by your servers firewall, Lenovo XClarity Integrator Unified Service does not work correctly. Follow these steps to allow the port to pass through the firewall:

1. In the Windows Start menu, navigate to **Administrative Tools → Windows Firewall with Advanced Security → Inbound Rules → New Rule**.
2. Follow the New Inbound Rule wizard.
3. Specify the **Rule Type**: Port
4. Click **Next**.
5. Select Apply to TCP.
6. Specify local ports: 9500 (or the value you used here)
7. Click **Next**.
8. Select Allow the connection
9. Click **Next**. The Profile page displays.

10. Keep the default.
11. Click **Next**.
12. Name the rule.
13. Click **Finish**.

Step 4. On Installation Option page, specify a database (SQL Server or PostgreSQL) for the installation, and click **Next**.

Step 5. On the SQL Server configuration page, enter SQL Server name, port first, provide Windows authentication or SQL server login account, then click **Next**.

SQL Server name can be a computer name or IP address. The default port is 1433.

Note: Ensure that you enable Windows authentication and SQL server authentication mode on SQL server before installation. You must provide the Windows authentication or SQL server account on configuration page so that Unified Service can create the database and a new login account to manage the database on the SQL Server. The login account must have enough privilege to login SQL Server, create database and create user on SQL Server. The new login credentials are saved in the Unified Service configure file.

Step 6. On the PostgreSQL Database Configuration page, enter the PostgreSQL password, and click **Next**

The database user `postgres` cannot be edited. Do not change the TCP port on which the database service listens

Step 7. Click **Next**.

Step 8. Click **Next** to continue with the installshield file database installation.

Step 9. When the installation is complete, click **Finish** to exit the installation wizard.

Chapter 5. Upgrading Lenovo XClarity Integrator Unified Service

If an earlier version of Lenovo XClarity Integrator Unified Service is installed, you can upgrade to a newer version by completing the following upgrade procedure.

About this task

If an earlier version of Lenovo XClarity Integrator Unified Service is detected, the Lenovo XClarity Integrator Unified Service InstallShield Wizard opens.

Procedure

- Step 1. Click **Update** to continue with the upgrade.
- Step 2. After the installation completes, click **Finish**.

Chapter 6. Uninstalling Lenovo XClarity Integrator Unified Service

Use this procedure to uninstall the Lenovo XClarity Integrator Unified Service.

Procedure

- Step 1. From the Control Panel, open the **Programs and Features** window. Right click on **Lenovo XClarity Integrator Unified Service**, then select **Uninstall**.
- Step 2. Click **Yes** to continue with the uninstallation.

Uninstalling PostgreSQL

This is an optional operation. It is possible to uninstall Lenovo XClarity Integrator Unified Service but retain a copy of PostgreSQL on your system for future use.

Procedure

- Step 1. From the Control Panel, open the **Programs and Features** window. Right click **PostgreSQL**, then select **Uninstall/Change**.
- Step 2. Click **Yes** to uninstall PostgreSQL and all of its modules.
A window opens notifying you that the user data and configuration files are kept in the file system for future use and that if you want to remove them from the system, you must do it manually.
- Step 3. Click **OK** to close the Warning dialog box and then click **Next** to continue uninstalling PostgreSQL.
The files that are kept are shown in the postgresql_data window. If you do not need them in the future, you can manually remove them.
- Step 4. Click **OK** to finish uninstalling PostgreSQL.

Deleting the database and login from the SQL server

User can get the database name and log-in name from the Unified Service configuration file, and then manually remove the names from the SQL server.

For detailed instructions, see the following webpages:

- Microsoft TechNet: Delete a Database webpage
- Microsoft TechNet: Drop Login webpage

Chapter 7. Configuring Lenovo XClarity Integrator Unified Service

The `global.conf` file contains all the configurable settings for the Lenovo XClarity Integrator Unified Service.

The `global.conf` file is located in `%PROGRAMDATA%\Lenovo\LXCI\UUS` of the Lenovo XClarity Integrator Unified Service server, typically `C:\ProgramData\Lenovo\LXCI\UUS`.

Unless you are sure that changes will not cause a problem, it is best to leave the settings unaltered. For changes to take effect, the Lenovo XClarity Integrator Unified Service must be restarted after the configuration file is modified.

Windows services

Four Windows services are created by the Lenovo XClarity Integrator Unified Service installer:

- Lenovo XClarity Integrator Webservice
- Lenovo XClarity Integrator Monitor
- Lenovo XClarity Integrator Server
- Lenovo XClarity Integrator Service Starter

These services automatically start when the Lenovo XClarity Integrator Unified Service is installed by the Lenovo XClarity Integrator for Microsoft System Center products or by the VMware vCenter installer. If the Lenovo XClarity Integrator Unified Service is installed as a standalone application, these services do not automatically start.

The Lenovo XClarity Integrator Server and Lenovo XClarity Integrator Monitor services depend on the Lenovo XClarity Integrator Service Starter service. When the Lenovo XClarity Integrator Service Starter service starts, it automatically starts these two services.

Database Backup and Restore

The Lenovo XClarity Integrator Unified Service itself does not back up data and restore functionality. This activity can be done through other means.

To back up and restore the database for the Lenovo XClarity Integrator for Microsoft System Center products or for VMware vCenter, use the PostgreSQL tools, such as `pg_dump`, `pg_dumpall`, and `psql`. These tools are located in the `bin` directory of the PostgreSQL installation path, typically `C:\Program Files (x86)\PostgreSQL\9.2\bin`. For usage details, refer to the online documentation.

Network and firewall settings

If a firewall application is in use, you might need to make exceptions to the firewall rules to allow the corresponding network communications. The following table provides the default network settings.

Table 1. Network access and firewall default settings

| Protocol | Port | Direction | Comments |
|----------|------|-----------|--|
| TCP | 9500 | In-bound | Lenovo XClarity Integrator Unified Service |
| TCP | 9501 | In-bound | PostgreSQLService |

Chapter 8. Troubleshooting

This section describes situations that sometimes occurs with Lenovo XClarity Integrator Unified Service and how you can solve them.

Cannot log in to Lenovo XClarity Integrator Unified Service

Cookies are required to authenticate users in Lenovo XClarity Integrator Unified Service. If cookies are disabled in your web browser, you cannot log in to the web interface.

For more information about how cookies are used in Lenovo XClarity Integrator Unified Service, see Appendix A “Cookies” on page 17.

Procedure

To enable cookies in your web browser, complete the following steps.

- For Internet Explorer 11:
 1. Click **Tools → Internet Options**.
 2. Click the **Privacy** tab at the top of the window.
 3. Move the slider down to **Medium**.
- For Google Chrome:
 1. From the Chrome menu icon, and click **Settings**.
 2. Click **Show advanced settings**.
 3. In the **Privacy** section, click **Content settings**.
 4. In the **Cookies** section, click **Allow local data to be set (recommended)**.
- For other browsers, see Managing cookies website.

Appendix A. Cookies

A cookie is a small piece of data that is stored by the web browser on your local system.

Cookie Policy

This product uses cookies for the following purposes:

- **Authentication.** When you sign in to the user interface, your unique authentication ID is stored in cookies so that you can navigate from page to page without needing to sign in again.
- **Storing user preferences.** Your preferences data is also stored in cookies to retain the same user experience each time the you sign in.

Controlling cookies

Most web browsers accept cookies by default; however, you can change the settings. See the Managing cookies website for information about managing cookies on several popular web browsers.

Attention: Cookies are used for user authentication. If you disable cookies, you cannot log in to the user interface.

Cookies that contain sensitive data expire automatically after you log out. You can also delete the cookies manually by following the steps in the Managing cookies website.

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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 1 024 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 can vary depending on operating environments.

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