Lenovo XClarity Integrator Service Installation Guide

Version 3.6.0

Note

Before using this information and the product it supports, read the information in Appendix B "Notices" on page 17.

Contents

Lenovo XClarity Integrator Service Installation Guide

About this publication

This book provides instructions for installing Lenovo XClarity Integrator Service.

Lenovo XClarity Integrator Service v3.6.0 is a subcomponent of the following software products.
- Lenovo XClarity Integrator Hardware Management Pack for Microsoft System Center Operations Manager, v7.6
- Lenovo XClarity Integrator Add-in for Microsoft System Center Virtual Machine Manager, v3.6

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 Service

The Lenovo XClarity Integrator 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 Service

The Lenovo XClarity Integrator Service needs to be installed and works in conjunction with either Lenovo XClarity Integrator Hardware Management Pack for Microsoft System Center Operations Manager or Lenovo XClarity Integrator Add-in for Microsoft System Center Virtual Machine Manager.

Chapter 2. 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 Hardware Management Pack for Microsoft System Center Operations Manager, v7.6
- Lenovo XClarity Integrator Add-in for Microsoft System Center Virtual Machine Manager, v3.6

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 2019

- Windows Server 2016

- Windows Server 2008 x64, 2008 R2, 2012, or 2012 R2

- Microsoft Visual C++ 2008 SPI Redistributable Package (x86) (https://www.microsoft.com/en-us/download/details.aspx?id=5582)

- Microsoft Visual C++ 2010 Redistributable Package (x86) (https://www.microsoft.com/en-us/download/details.aspx?id=5555)

- Microsoft Visual C++ 2010 Redistributable Package (x64) (https://www.microsoft.com/en-us/download/details.aspx?id=14632)

Chapter 3.   Installing Lenovo XClarity Integrator Service

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

Download the latest version of Lenovo XClarity Integrator Hardware Management Pack for Microsoft System Center Operations Manager or Lenovo XClarity Integrator Add-in for Microsoft System Center Virtual Machine Manager from the [Lenovo XClarity Integrator for Microsoft System Center website](#).

Procedure

The installation process starts automatically during the installation of Lenovo XClarity Integrator for Microsoft System Center.

Step 1.   Enter a password for the user account `admin` to access Lenovo XClarity Integrator 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.

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 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 BMC CIMON.

If **IPv6 Only** is selected, Lenovo XClarity Integrator 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 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 the **Installation Option** page, specify a database (SQL Server or PostgreSQL) for the installation, and click **Next**.

- **SQL server database**

  On the SQL server configuration page, enter the SQL server name and port, provide a Windows authentication or SQL server login account, and then click **Next**. The SQL server name can be a computer name or IP address. The default port is 1433.

  Notes:

  – Before installing XClarity Integrator Service, ensure that you enable Windows authentication and SQL server authentication on the SQL server.

  – During the database configuration, a Windows authentication or SQL server login account is mandatory, so that you can create a database and a new login account through XClarity Integrator Service to manage the database on the SQL server. Ensure that the account provided has enough privileges to log in to the SQL server, and to create databases and user accounts on the SQL server. Login credentials of the new account are saved in the Lenovo XClarity Integrator Service configuration file.

  – To connect to a remote SQL server, install the SQL-Client-tools-connectivity program on the same server installed with XClarity Integrator Service. This program is available in the SQL server installation image.

- **PostgreSQL database**

  On the PostgreSQL configuration page, enter the PostgreSQL username, password, and port. Then, click **Next**.

  Note: Before configuring the PostgreSQL database, ensure that a local PostgreSQL database is installed on the same server installed with XClarity Integrator Service.

Step 5.   When the installation is complete, click **Finish** to exit the installation wizard.

Chapter 4. Upgrading Lenovo XClarity Integrator Service

If an earlier version of Lenovo XClarity Integrator Service is installed, you should uninstall it before installing the upgraded version.

Procedure

Step 1. Uninstall the existing version of Lenovo XClarity Integrator Service.

> **Note:** The folder `%SystemDrive%\ ProgramData\Lenovo\LXCI\UUS` and the database files cannot be deleted.

Step 2. Install the latest version of Lenovo XClarity Integrator Service.

Chapter 5. Uninstalling Lenovo XClarity Integrator Service

Use this procedure to uninstall the Lenovo XClarity Integrator Service.

Procedure

Step 1.   From the Control Panel, open the **Programs and Features** window. Right click on **Lenovo XClarity Integrator Service**, then select **Uninstall**.

Step 2.   Click **Yes** to continue with the uninstallation.

> **Notes:**
>
> • In the earlier versions before v3.5.0, the "Lenovo XClarity Integrator Service" is named as "Lenovo XClarity Integrator Unified Service".

Uninstalling PostgreSQL

For Lenovo XClarity Integrator Service earlier than v3.6.0, you can uninstall PostgreSQL. The PostgreSQL installation package is not available in Lenovo XClarity Integrator Service v3.6.0 and later versions. It is possible to uninstall Lenovo XClarity Integrator 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 account from the SQL server

You can get the database name and login account from the Lenovo XClarity Integrator Service configuration file, that is, the `global.conf` file located in `%SystemDrive%\ProgramData\Lenovo\LXCI\UUS`, and then manually remove them from the SQL server.

For detailed instructions, see the following Web pages:

• Microsoft TechNet: Delete a Database webpage

• Microsoft TechNet: Drop Login webpage

Chapter 6. Configuring Lenovo XClarity Integrator Service

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

The `global.conf` file is located in `%PROGRAMDATA%\Lenovo\LXCI\UUS` of the Lenovo XClarity Integrator 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 Service must be restarted after the configuration file is modified.

Windows services

Four Windows services are created by the Lenovo XClarity Integrator 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 Service is installed by the Lenovo XClarity Integrator for Microsoft System Center products.

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 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, 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, such as `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 Service
TCP	5432	In-bound	PostgreSQL Service

Chapter 7. Troubleshooting

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

Cannot log in to Lenovo XClarity Integrator Service

Cookies are required to authenticate users in Lenovo XClarity Integrator 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 Service, see Appendix A "Cookies" on page 15.

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 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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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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