## Lenovo Support Plan

Intelligent Cluster Solutions/ EveryScale

Worldwide

Infrastructure Solutions Group 2023





#### Welcome to Lenovo!

Thank you for choosing Lenovo! Lenovo offers a comprehensive portfolio of services with a global service delivery network that provides a level of service and execution that you will not get from other companies. The Lenovo Services team is here to support you with services that are reliable, flexible, and trusted.

This Support Plan provides contact numbers, resources, and guidance to help you get the best support possible when and where you need it.

#### Terms and conditions

The Lenovo statement of limited warranty

To review the base warranty in the Lenovo license agreement, go to: <a href="https://datacentersupport.lenovo.com/en/warrantylookup/warrantypolicy">https://datacentersupport.lenovo.com/en/warrantylookup/warrantypolicy</a>

Services warranty service agreement terms and conditions

To review the service agreement for warranty extensions and upgrades, go to: <a href="http://download.lenovo.com/pccbbs/thinkservers/global data center services">http://download.lenovo.com/pccbbs/thinkservers/global data center services</a> <a href="https://agreement.english.pdf">agreement.english.pdf</a>

#### Warranty information

Warranty status and expiration

To use the Warranty and Parts lookup Support portal, the four-digit machine type and serial number are required. Use the following link to access the Warranty and Parts Lookup portal.

For System x, ThinkSystem, and ThinkServer products, go to:

https://datacentersupport.lenovo.com/us/en/warrantylookup

Warranty upgrade information

Go to: <a href="https://datacentersupport.lenovo.com/warrantylookup#/upgrade">https://datacentersupport.lenovo.com/warrantylookup#/upgrade</a>

General warranty information

Go to: https://datacentersupport.lenovo.com/warrantylookup#/



## Intelligent Cluster Solutions/ EveryScale

#### Solution overview

Intelligent Cluster™ solutions/Lenovo Scalable Infrastructure (EveryScale) is a framework for designing, manufacturing, integrating, and delivering data center solutions with a focus on High Performance Computing (HPC), Technical Computing, and Artificial Intelligence (AI) environments. The optimized IT solutions EveryScale delivers to the customer are preintegrated, preloaded, tested, and ready to install, which increases time-to-value and reduces deployment risk.

EveryScale solutions are based on:

- Industry-leading Lenovo ThinkSystem servers, storage systems, and networking
- Open-source and OEM software
- Best-of-breed third-party components -- especially in high-performance networking and acceleration

Lenovo thoroughly tests and optimizes all EveryScale components for reliability, interoperability, and maximum performance, so clients can quickly deploy the system and get to work achieving their business goals.

Lenovo Scalable Infrastructure provides "Best Recipe" guides to determine interoperability of hardware, software, and firmware among a variety of Lenovo and third-party components.

For more information about EveryScale, refer to: <a href="https://lenovopress.com/lp0900-lenovo-scalable-infrastructure-everyscale-solutions">https://lenovopress.com/lp0900-lenovo-scalable-infrastructure-everyscale-solutions</a>

#### Scope of support

A Lenovo Scalable Infrastructure solution can consist of many different components including Lenovo servers, networking, storage, Lenovo OEM HPC networking, and software components.

All components are supported individually based on their individual warranty and maintenance scope or purchased support entitlement.

In addition, EveryScale provides solution-level interoperability support, which is initiated by opening a Hardware (HW) ticket based on the EveryScale Rack (Model 1410) or EveryScale Client Site Integration Kit (Model 7X74). The EveryScale Support team will then triage the issue and recommend further steps for you, which might include opening tickets with other components of the solution.

To warrant interoperability and support, EveryScale relies on the use of best recipe software / firmware levels. Refer to the Best Recipe section for more information.

For issues that require debugging beyond hardware and firmware (driver, UEFI, IMM/XCC, and other items), an additional ticket will have to be opened with the software (SW) vendor (for example, Lenovo SW support or third-party SW vendor) to assist working toward a fix. The EveryScale Support team will then work with the SW Support team in isolating the root cause and fixing the defect.

EveryScale components have the following support structure:

#### EveryScale hardware components

- Lenovo Servers, Storage, Networking; Mellanox, and Intel HPC networking
- · Mellanox and Intel HPC networking
- VLH DDN Storage (<a href="https://support.ddn.io/">https://support.ddn.io/</a>)

EveryScale hardware components are supported through Lenovo HW Support. Lenovo uses IBM as the service provider to manage and execute L1 and onsite support. Details of how to contact support are described in the Contacting support section.

All HW Support should be initiated with the rack-level machine type and serial number, not the individual component level. The rack machine type is written on a label at the back of the rack and typically is either 1410 or 7X74. The serial number is written next to it on the same label.

#### EveryScale software components

- RedHat Enterprise Linux and SuSE Linux Enterprise Server
  - If the license and subscription was purchased through Lenovo with RedHat or SuSE support included, support is provided directly by RedHat or SuSE.
     Details of how to contact RedHat or SuSE can be found with the license details.
  - If the license and subscription was purchased through Lenovo with Lenovo support, support is provided by Lenovo via Enterprise Software Support (ESS).Ddetails of how to contact support are described in the Contacting support section.
- CentOS Linux
  - CentOS is tested for interoperability with EveryScale. For questions and support forums about CentOS, the community is available at: <a href="https://www.centos.org">https://www.centos.org</a>
- Rocky Linux
  - Rocky Linux is a community supported distribution of Linux that has been tested for interoperability with EveryScale. For questions and support forums about Rocky Linux, visit <a href="https://rockylinux.org/">https://rockylinux.org/</a>.
- NVIDIA Omniverse Enterprise
  - NVIDIA Omniverse Enterprise is a community supported distribution of NVIDIA that has been tested for interoperability with EveryScale. For questions and support forums about Omniverse Enterprise, there are two ways to get support from NVIDIA:
    - i. By Phone (Refer to the current phone numbers listed on NVIDIA's Enterprise Support page)
    - ii. By accessing the <u>NVIDIA Support Portal</u>\* (bottom left of page)

Note: To access the NVIDIA Enterprise Support Portal, you will need to log in with the account that holds their entitlement licenses to the NVIDIA software.

If you cannot define that it is an NVIDIA Omniverse enterprise issue, then refer to the Contacting support section below to first call Lenovo support.

#### • IBM Spectrum Scale

If the license, subscription, and support were purchased through Lenovo, IBM Spectrum Scale will be supported by Lenovo. Details of how to contact support are described in the Contacting support section.

#### xCat / Confluent

- As part of a Scalable Infrastructure implementation, Lenovo supports xCat
  / Confluent through EveryScale Solution Support. Details of how to contact
  support are described in the Contacting support section.
  (After October 1st, 2023, Lenovo will no longer provide technical support for
  xCAT for Lenovo Scalable Infrastructure or DSS-G. We recommend the use of
  Confluent instead or changing to the community supported edition of xCAT.)
- Lenovo Intelligent Computing Orchestration (LiCO)
  - LiCO is supported by Lenovo through a support subscription. Details of how to contact support are described in the LiCO Support Plan at <a href="https://datacentersupport.lenovo.com/">https://datacentersupport.lenovo.com/</a>. Lenovo Intelligent Computing Orchestration (LiCO)

#### BeeGFS

 BeeGFS is supported by Lenovo through a support subscription. Details of how to contact support are described in the BeeGFS Support Plan, which you can download at <u>download.lenovo.com/km/media/attachment/lenovo\_support\_plan\_beegfs\_supplement.pdf</u>.

#### Other Components

Sometimes, a Scalable Infrastructure Solution is integrated with components from other vendors that might not be tested for interoperability with EveryScale. For example, through the Lenovo Vendor Logo Hardware (VLH) program. For support pertaining to VLH components, contact this vendor directly.



## Contacting support

#### Option 1: Call support

You will find your local support number at: <a href="https://download.lenovo.com/servers">https://download.lenovo.com/servers</a> pdf/FindingSystemSerialNumbersDCGproduct.pdf.

Have your Lenovo customer number, machine type, and serial number ready for entitlement. After the service entitlement process, you will be connected to a Remote Technical Support Center Representative, who will help to diagnose your hardware problem and, if necessary, create a plan to resolve it. When appropriate, this would include recommending parts to the IBM System Services Representative (SSR) responsible for supporting you. The Service Delivery Manager or National Duty Manager can assist you with any service issues. (See the Escalation process section below.)

#### Option 2: Submit a service request online

To submit a request online, go to:

https://datacentersupport.lenovo.com/us/en/servicerequest

Entitled customers with maintenance agreements, warranty service upgrade (WSU), and/or warranty coverage can submit a service request for hardware or software problems online.

If you would like multiple people in your company to be able to create and view all of your service requests, you will need to apply for an ECI company number. After you have registered for an IBM ID, contact <a href="mailto:psteam@us.ibm.com">psteam@us.ibm.com</a> and ask for the SR ECI Registration Form.

Note: Premier Support for EveryScale is available. For details of how to open a support case, use the following link to reference the Premier Support Plan: https://datacentersupport.lenovo.com/us/en/solutions/ht505332



# Working with your remote technical service representative

#### Before contacting support

To help support technicians more quickly determine and resolve your problem, make sure to have the following information available:

Machine type, model, and serial number

- For Scalable Infrastructure solution level support, make sure to have both the rack-level as well as the individual product-level machine type and serial number ready. The rack machine type is on a label at the back of the rack and is typically either 1410 or 7X74. The serial number is next to it on the same label.
- To find the machine type and serial number, you can also refer to the blue or red binder that was delivered with your rack.
- BIOS, firmware, microcode versions (if appropriate)
- Other pertinent information such as error messages and/or logs that you have received
- For software support, obtain the customer number, software support entitlement number, and/or Passport Advantage (PPA) entitlement number
- A definition of the problem being able to describe the problem and symptoms when contacting support helps to expedite the problem-solving process. Helpful background information might include answers to the following questions.
  - Has the problem happened before?
  - What steps led up to the failure?
  - Can the problem be re-created?
- The problem's business impact
- On-site personnel available to work with Lenovo support technicians

#### Placing the call

After you have gathered the appropriate information, you will be ready to place a call.

Dial your local support number found here: <a href="https://datacentersupport.lenovo.com/tw/en/supportphonelist">https://datacentersupport.lenovo.com/tw/en/supportphonelist</a> and follow the guidelines set out below to select the appropriate option.

## HARDWARE (for warranty break/fix issues and EveryScale solution support)

Use this option for hardware issues. Resolving these types of calls might involve updating or replacing microcode/device drivers to assist problem determination.

*IMPORTANT:* Record your case number, and then verify it with the support staff, who can dispatch the hardware Customer Service Representative if necessary. You might be asked to provide log information.

#### **SOFTWARE**

Use this option for fee-based software support, including questions on installing, using, and configuring both the software and the hardware.

- After selecting your option, your call will be passed through to an entitlement agent.
- To verify your entitlement to the service, you will be asked for entitlement information, such as your system serial number or your customer number.
- After confirmation, you are asked a few questions to help document the problem you are experiencing. You will then be transferred directly to a technical specialist.

*IMPORTANT:* To receive software support, you must have a valid software support contract. Please have your IBM Customer Number (ICN) ready when calling. Your ICN will be located on your invoice and typically begins with "LNV". If you do not have an ICN for software support, contact your Lenovo Sales Representative.

#### HOW-TO/CONFIGURATION

Use this option if you have purchased Enterprise Software Support (ESS), previously known as Remote Technical Support (RTS). Select options leading to software support.

- After selecting your option, your call will be passed through to an entitlement agent.
- To verify your entitlement to the service, you will be asked for entitlement information, such as your system serial number or your IBM customer number (ICN).
- After confirmation, you will be asked a few questions to help document the problem you are experiencing. You will then be transferred directly to a technical specialist.

*IMPORTANT:* To obtain How-To and Configuration assistance, you will need to have purchased ESS, previously known as RTS. Please contact your Lenovo Sales Representative if you need to purchase this service.

## Collecting and sending in logs for the problem determination process

- Collect a DSA log. If the situation involves a chassis or flex, it would be helpful to collect the service data.
- Collect gpfs.snap from the GSS or DSS head node.
- After recording your seven-character case number, you can submit the logs for analysis.
- Logs can be submitted using the Lenovo Upload tool at: <a href="https://logupload.lenovo.com/">https://logupload.lenovo.com/</a>
- Once you have submitted logs, you must call back to continue the process and have logs analyzed by one of the agents.

*IMPORTANT:* Lenovo is not responsible for lost data or software and is not required to advise or remind you of appropriate backup, security, or other procedures. Before repairs are made to your ThinkSystem, ThinkServer, System x, or Storage device, it is your responsibility to:

- Back up all data and software on the system
- Remove any removable media
- Reload data and software



### **Escalation** assistance

While working with a remote technical support representative, if at any time you are not satisfied with the level of support they are providing, you can request that the case be escalated. However, we recommend working with Level 1 support for the initial phase, as these representatives are responsible for gathering and analyzing the appropriate problem determination data.

- If you feel the case is not being handled properly, ask that the case be escalated to Level 2 support or ask to speak to a team leader.
- When a hardware case is escalated, support will begin referring to a Salesforce number that follows a 0###### format. IBM Level 1 and IBM Level 2 support and Lenovo Level 2 and Lenovo Product Engineering (L3) refer to the Salesforce number.
- If you are concerned about the progress of a case or you are having issues with the technicians that have been dispatched in the field, you can request assistance from a National Duty Manager (NDM). This request can be initiated with a call center agent or by dialing your local support number and requesting the NDM. Both the NDM and team leads are available 24 x 7 x 365.
- If further escalation is needed, reach out to your account team and we can open a formal complaint (CMT) on your behalf. The complaint will be assigned to one of our Designated Resolution Owners (DRO).



## **Best Recipe**

To offer solution-level interoperability support for HPC and AI configurations based on the Lenovo ThinkSystem portfolio and OEM components, Scalable Infrastructure extensively tests the components and their combinations. The extensive testing results in a "Best Recipe" release of software and firmware levels. Lenovo warrants Best Recipe components to work seamlessly together as a fully integrated data center solution instead of a collection of individual components at the time of implementation.

The latest best recipes for Scalable Infrastructure at Lenovo can be found by accessing this link: <a href="https://support.lenovo.com/us/en/solutions/HT510136">https://support.lenovo.com/us/en/solutions/HT510136</a>.

The Solution Support is engaged by opening a hardware ticket based on the EveryScale Rack (model 1410) or EveryScale Client Site Integration Kit (model 7X74). The EveryScale Support team will then triage the issue and recommend further steps for you, which might include opening tickets with other components of the solution.

For issues that require debugging beyond hardware and firmware (driver, UEFI, IMM/XCC, and other items), an additional ticket has to be opened with the software vendor (for example, Lenovo SW support or third-party SW vendor) to assist working toward a fix. The EveryScale Support team will then work with the SW Support team in isolating the root cause and fixing the defect.

When a cluster ships, it will use the most recent Best Recipe (compliant version) and the cluster will be delivered as a solution for that specific release. Customers can request a review to check if their solution is also compatible with a newer Best Recipe release. If it is, the solution can be upgraded while maintaining solution interoperability support.

As long as a cluster (model 1410 or 7X74) is under Lenovo warranty or maintenance entitlement, full solution interoperability support will be provided for the original Best Recipes. Even when newer Best Recipes are available, the previous Best Recipe will remain valid and supported.

Customers can choose not to adhere to the Best Recipe and deploy different software and firmware versions or integrate other components that were not tested for interoperability. While Lenovo cannot warrant interoperability with those deviations from the tested scope, a client will continue to receive full break and fix support for the components based on the individual warranty and maintenance entitlement of the components. This is comparable to the level of support customers receive when they do not buy their system as an EveryScale LeSI solution, but instead build a solution from individual components or roll your own (RYO).

In such cases, to minimize risk, Lenovo recommends that you stay as close as possible to the Best Recipe, even when deviating. If deviating, you are recommended to first test the deviation on a small portion of the cluster and only roll it out if the test is stable.

For issues or Common Vulnerabilities and Exposures (CVE) fixes that are part of the Best Recipe, a support call should be placed on the 1410 or 7X74 rack and serial number. Lenovo product engineering will review the proposed changes and advise the customer regarding the viability of an upgrade path. If an upgrade can be supported and is performed, EveryScale will note the change in the support records for the solution.



## Resources

Description	URL
Lenovo Corporate	http://www.lenovo.com
WEB SUPPORT PORTAL	
System x, ThinkSystem, and ThinkServer	https://datacentersupport.lenovo.com/
ToolsCenter	https://datacentersupport.lenovo.com/us/ en/solutions/LNVO-CENTER
	https://datacentersupport.lenovo.com/ us/en/solutions/Invo-tcli
ToolsCenter InfoCenter	http://publib.boulder.ibm.com/infocenter/ toolsctr/v1r0/index.jsp
Open a Service Request	https://datacentersupport.lenovo.com/us/ en/servicerequest
HARDWARE TECHNICAL SUPPORT	
System x, ThinkSystem, and ThinkServer	https://datacentersupport.lenovo.com/
Lenovo Press	http://www.lenovopress.com
Enterprise Solution Services	http://shop.lenovo.com/us/en/systems/ services/
SERVICES LOOKUP TOOLS	
Data Center Solution Configurator	http://dcsc.lenovo.com/
Firmware Best Practices Guide	https://datacentersupport.lenovo.com/ us/en/products/solutions-andsoftware/ intelligent-cluster/
MY NOTIFICATIONS Alerting	https://account.lenovo.com/us/en#/ mysubscriptions
WARRANTY	
System x, ThinkSystem, and ThinkServer Warranty Look-Up	https://datacentersupport.lenovo.com/us/ en/systemxwarrantylookup
Lenovo Statement of Limited Warranty	https://datacentersupport.lenovo.com/us/ en/warrantylookup/warrantypolicy
Services Warranty Service Agreement	https://datacentersupport.lenovo.com/us/ en/solutions/ht116628
MISCELLANEOUS	
3D Product Tours	http://www.lenovofiles.com/3dtours/ products/index.html
Lenovo Forums	https://forums.lenovo.com/t5/English- Community/ct-p/Community-EN
Product Registration	http://shop.lenovo.com/us/en/landingpage/ product-registration/?linkTrack=footer:Reso urces Product%20Registration



## Services lookup tools

#### **Data Center Solution Configurator**

To instantly find compatible services for any Lenovo server, storage system, or network, use the Lenovo Enterprise Sales Configurator at: <a href="http://dcsc.lenovo.com">http://dcsc.lenovo.com</a>.



#### Data Center Services Portfolio

Lenovo offers a comprehensive portfolio of services that supports the full lifecycle of your Lenovo IT assets. At every stage from planning through end-of-life, we offer the expertise and services you need to more accurately budget for IT expenses, deliver better service level agreements, and generate greater end-user satisfaction.

