Arcserve Appliance N Series Hardware Installation Guide Lenovo Large Node HX5521 SR650

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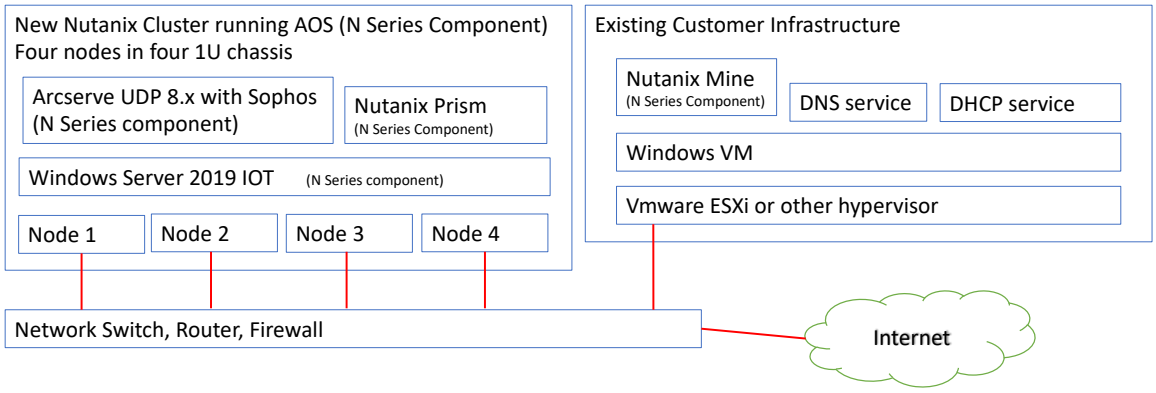
1. Overview

Arcserve N Series Block Diagram



The Large system is a single node in a 2U chassis, with twelve 3.5 inch form factor drive bays.
Four nodes are required to form a Nutanix Cluster.
The power button is located on the front right of the chassis.
Full control of the node is available via a web browser using XClarity administrator.
The Lenovo machine type and serial number are located on the ID label on the front right rack latch.
The XClarity® Controller network access label is attached on the top side of the pull-out information tab.

2. Product Ratings

Specifications	Description
2U Enclosure Size	• Height: 86.5 mm (3.4 inches) • Depth: 763.7 mm (30.1 inches) without bezel • Width: 482.0 mm (19.0 inches) • Weight: 32.0 kg (70.6 lbs) fully loaded with drives
Heat output	Approximate thermal design power is 205 watts. • 700 BTU per hour
Electrical input	Dual 1100-watt D2 Platinum Power supplies Sine-wave input (50-60 Hz) required Input voltage low range: • Minimum: 100 V AC • Maximum: 127 V AC Input voltage high range: • Minimum: 200 V AC • Maximum: 240 V AC Input kilovolt-amperes (kVA), approximately: • Minimum: 0.153 kVA • Maximum: 2.61 kVA
Hot swap fans	• Six single rotor fans, one is redundant

3. Site Preparation

Setup location, rack, and appliance precautions

- **Elevated Operating Ambient Temperature** - If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient temperature. Therefore, consideration should be given to installing the equipment in an environment compatible with the maximum ambient temperature (TMA) specified by the manufacturer.

  Always keep the rack's front door and all panels and components on the appliances closed when not servicing to maintain proper cooling.

- **Reduced Air Flow** - Installation of the equipment in a rack should be such that the amount of air flow required for safe operation of the equipment is not compromised. Leave enough clearance, approximately 25 inches in the front, and 30 inches in the back of the rack to enable you to access appliance components and allow for sufficient air flow.

- **Mechanical Loading** - Mounting of the equipment in the rack should be such that a hazardous condition is not achieved due to uneven mechanical loading.

  ALL RACKS MUST BE MOUNTED SECURELY. Ensure that all leveling jacks or stabilizers are properly attached to the rack. If installing multiple appliances in a rack, make sure the overall loading for each branch circuit does not exceed the rated capacity.

  Do not slide more than one appliance out from the rack at a time. Extending more than one appliance at a time may result in the rack becoming unstable. Install your appliance in the lower part of the rack because of its weight and for ease in accessing appliance components.

- **Circuit Overloading** - Consideration should be given to the connection of the equipment to the supply circuit and the effect that overloading of the circuits might have on overcurrent protection and supply wiring. Appropriate consideration of equipment nameplate ratings should be used when addressing this concern.

- **Reliable Earthing** - Reliable earthing of rack-mounted equipment should be maintained. Particular attention should be given to supply connections other than direct connections to the branch circuit (for example, use of power strips).

- **Install near appropriate AC outlets**, and Ethernet hubs or individual jacks. Be sure to install an AC Power Disconnect for the entire rack assembly. The Power Disconnect must be clearly marked. Ground the rack assembly properly to avoid electrical shock.

4. Unpacking the Appliance

When this solution is delivered, verify that the shipment contains everything that was expected.

This solution package includes the following items:

- 2U server
- Rail installation kit
- Cable management arm or cable management bar
- Material box with power cords, rack installation template, and accessory kit
- Software license numbers

Customer Provided Items

- 19” rack with 2U (per node) of available rack space
- Power distribution unit outlets. There are two power cords for the power supplies to connect to the redundant power sources within the rack cabinet
- CAT5 or better LAN cables
- GBICs for fibre or captive GBICs on twinax cables
- Network switch
- DNS network services
- DHCP network services
- Windows Server to run Nutanix Foundation (dedicated or virtual) connected to the same switch as the new appliance to be configured.

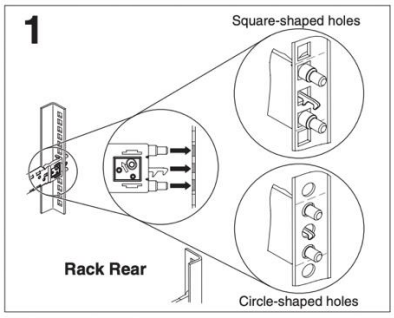
5. Installing the Appliance in a Rack

Two or more people are required to install this device in a 19-inch rack cabinet.

Install the server in a rack that meets the following requirements:

- Minimum depth of 70 mm (2.76 in.) between the front mounting flange and inside of the front door.
- Minimum depth of 157 mm (6.18 in.) between the rear mounting flange and inside of the rear door.

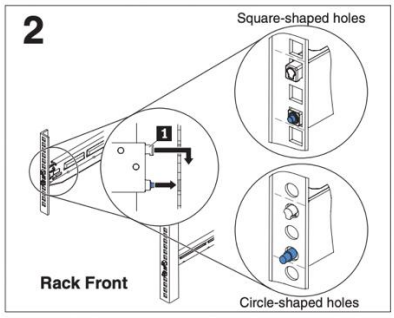
For rack with square-shaped or circle-shaped holes



Installing the rear end of the rails in a rack with non-threaded holes.

Note: The non-threaded holes on the rack will either be square-shaped or circle-shaped.

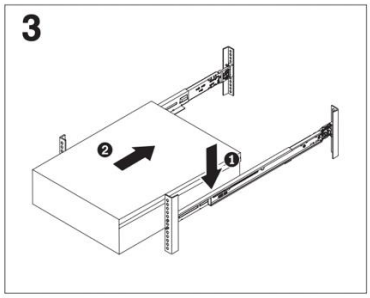
Choose one of the rails for installation. By facing the front side of the racks, line up the pins on the rear of the rail with either the square-shaped or circle-shaped holes on the rear of the rack. Push the rail so that the pins go into the holes and latches into place.



Installing the front end of the rails in a rack with non-threaded holes.

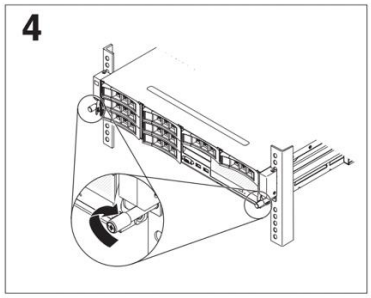
Pull the rail forward and insert the pins **1** on the front of the rail into either the square-shaped or circle-shaped holes on the front of the rack. Drop the rail down until it latches into place.

Repeat steps 1 and 2 to install the other rail. Make sure that each rail is securely engaged in the rack. Go to step 3.



Installing the server on the rails.

Carefully hold the server and tilt it into position over the rails, and then slowly lower the rear of the server on the rails **1**. Make sure that the server sits on the rails securely and push the server **2** all the way into the rack.



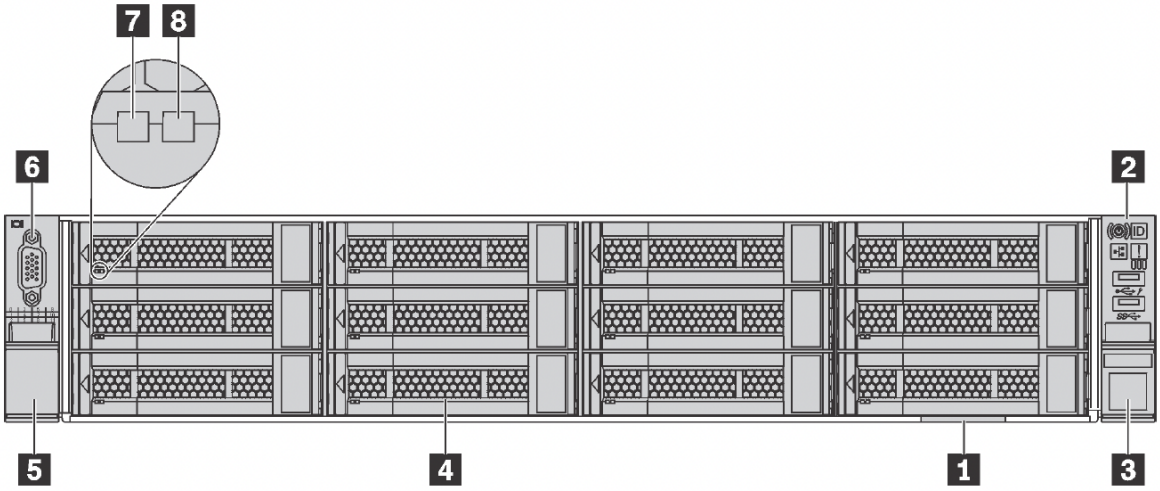
Tightening the front thumbscrews.

When you move the rack cabinet, or if you install the rack cabinet in a vibration-prone area, tighten the two thumbscrews on the front of the server to secure the server in the rack cabinet.

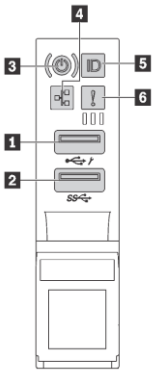
6. Front Panel Operation

Front Panel

From the factory, the node will automatically power on with the initial connection to power. The node has a pushbutton push on/push off power switch.



1. Pull-out information tab	2. Operator Info Panel (see below)
3. Rack latch (right)	4. 3.5 inch form factor drive bays
5. Rack latch (left)	6. VGA connector
7. Drive activity LED	8. Drive status LED



Operator Information Panel

1.	XClarity Controller USB connector
2.	USB 3.0 connector
3.	Power button with power status LED
4.	Network activity LED
5.	System ID button with system ID LED
6.	System error LED

Power on button with power status LED

Press the power button to turn on the server. Hold the power button for several seconds to turn off the server if operating system control is not working.

Power LED Status	Color	Description
Solid on	Green	The server is on and running.
Slow blinking (about one flash per second)	Green	The server is off and is ready to be powered on (standby state).
Fast blinking (about four flashes per second)	Green	The server is off, but the XClarity Controller is initializing, and the server is not ready to be powered on.
Off	None	There is no ac power applied to the server.

When first connected to power, the compute node performs a short self-test (power status LED flashes rapidly) and then it enters the standby state where the power status LED flashes once per second.

A compute node can be turned on (power LED on) in any of the following ways:

- Press the front panel power button.
- The compute node restarts automatically after a power interruption.
- The compute node responds to remote power-on requests sent to the Lenovo XClarity Controller.

Network activity LED

Status	Color	Description
On	Green	The server is connected to a network.
Blinking	Green	The network is connected and active.
Off	None	The server is disconnected from the network.

System error LED

Status	Color	Description	Action
On	Yellow	An error has been detected on the server. Causes might include but not limited to the following errors: • The temperature of the server reached the non-critical temperature threshold. • The voltage of the server reached the non-critical voltage threshold. • A fan has been detected to be running at low speed. • A hot-swap fan has been removed. • The power supply has a critical error. • The power supply is not connected to the power.	Check the event log to determine the exact cause of the error.
Off	None	The server is off, or the server is on and is working correctly.	None

Power off

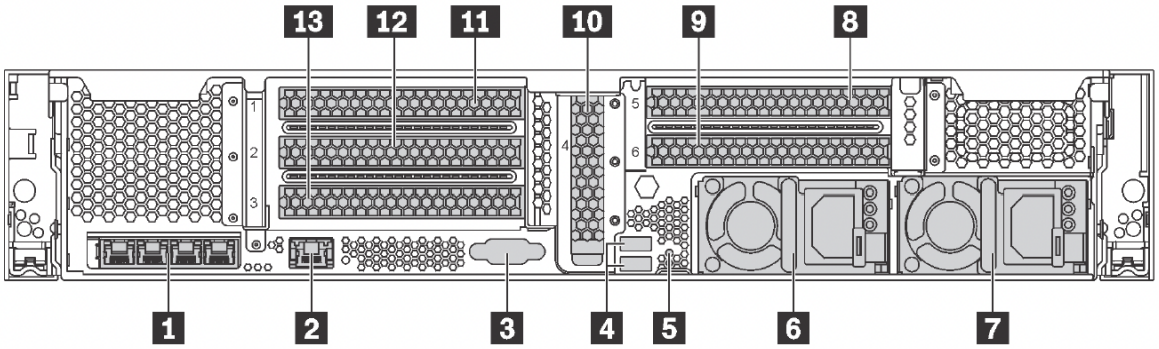
The compute node remains in the standby state when connected to a power source, while Lenovo XClarity Controller is allowed to respond to remote power-on requests. To completely power off the compute node (power status LED off), you must disconnect all power cables.

To power off the node that is in a standby state (power status LED flashes once per second), do the following:

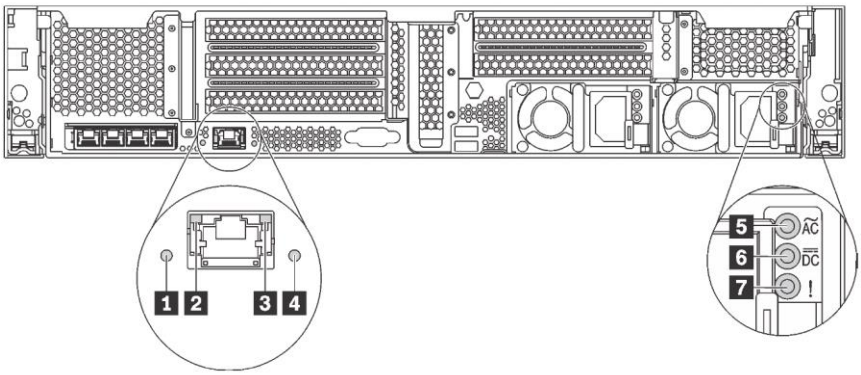
1. The Lenovo XClarity Controller places the compute node in a standby state as an automatic response to a critical system failure.
2. Start an orderly shutdown using the operating system (if supported by your operating system).
3. Press the power button(s) to start an orderly shutdown (if supported by your operating system).
4. Press and hold the front power button(s) for more than 4 seconds to force the shutdown.

In the standby state, the compute node responds to remote power-on requests sent to the Lenovo XClarity Controller. The XClarity controller is accessed with a browser-based interface via the dedicated controller LAN port on the rear of the enclosure.

7. Rear Panel Connections and Device Locations



1. Four Ethernet connections on the LOM adapter	2. PC XClarity Controller dedicated network port
3. VGA connector	4. USB 3.0 connectors
5. NMI button	6. Power supply 1
7. Power supply 2	8. PCIe slot 5 on riser 2
9. PCIe slot 6 on riser 2	10. PCIe slot 4
11. PCIe slot 1 on riser 1	12. PCIe slot 2 on riser 1
13. PCIe slot 3 on riser 1	



Rear View LEDs

1. System ID LED	2. Ethernet link LED
3. Ethernet activity LED	4. System error LED
5. Power input LED	6. Power output LED
7. Power supply error LED	

8. System Administration with XClarity Administrator

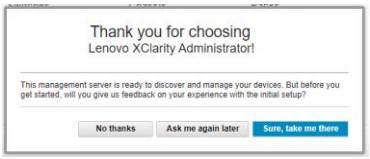
Lenovo XClarity Administrator runs on a virtual machine to automate discovery, inventory, tracking, monitoring, and provisioning for server, network, and storage hardware. To install the XClarity Administrator according to the Lenovo instructions, click https://support.lenovo.com/ca/en/solutions/ht507722-installing-lenovo-xclarity-administrator-on-vmware-vsphere.

Follow these steps:

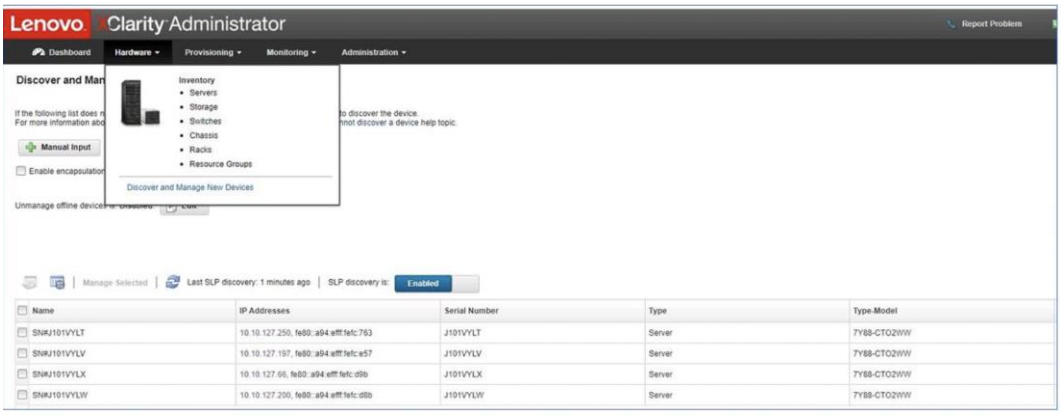
1. Discover the node IP addresses needed to configure and operate the Nutanix cluster.
2. Log into the Lenovo XClarity Administrator using a URL based on the VMware virtual machine IP address that was set during the VM creation. For example: https://192.0.2.10/ui/login.html
3. Type the following default username and password:
   - **User name:** USERID
   - **Password:** PASSW0RD

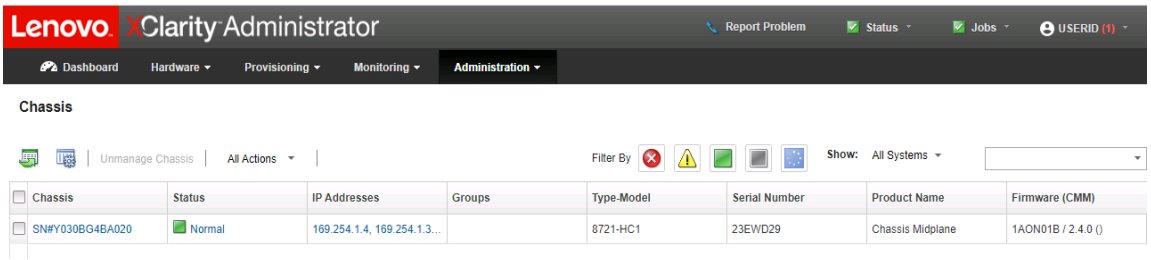
   The username and password are case sensitive. The “o” in password has been replaced with a zero. The first-time login requires a password change. Passwords must meet the following criteria:

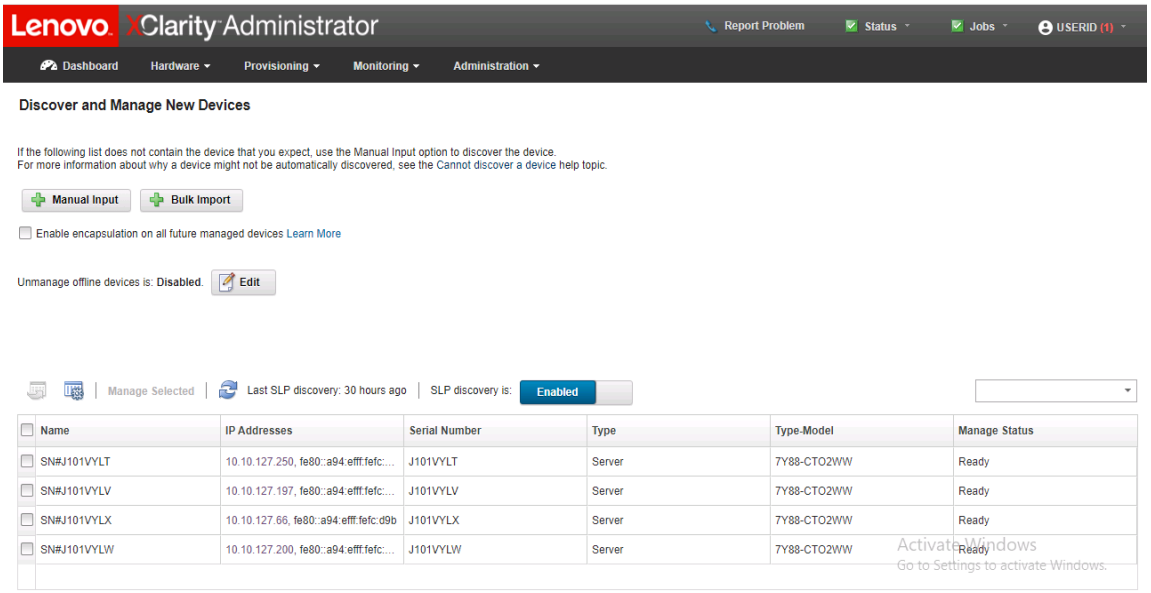
   - Must contain eight or more characters with at least one number (0 - 9) and one alphabetical character (a - z, A - Z)
   - Cannot contain spaces
   - Cannot repeat or reverse the user name
   - Cannot use more than three of the same characters consecutively
   - Must contain at least two of the following combinations:
     - One uppercase alphabetical character
     - One lowercase alphabetical character
     - One of the following special characters:
       ; @ _ ! ' $ & +



4. Navigate to the Hardware drop-down list, and then click **Discover and Manage New Devices**.
5. To manage a node, select the node checkbox, and then click the **Manage Selected** option to get into node screen.
   Record the DHCP issued IP addresses for the nodes.


Lenovo XClarity Administrator
Report Problem
Dashboard
Hardware
Provisioning
Monitoring
Administration
Inventory
Servers
Storage
Switches
Chassis
Racks
Resource Groups
Discover and Manage New Devices
Manual Input
Enable encapsulation
Manage Selected
Last SLP discovery: 1 minutes ago
SLP discovery is:
Enabled
Name
IP Addresses
Serial Number
Type
Type-Model
SN#J101VYLT
10.10.127.250, fe80::a94:efff:fefc:783
J101VYLT
Server
7Y88-CTO2WW
SN#J101VYLV
10.10.127.197, fe80::a94:efff:fefc:e57
J101VYLV
Server
7Y88-CTO2WW
SN#J101VYLX
10.10.127.66, fe80::a94:efff:fefc:d9b
J101VYLX
Server
7Y88-CTO2WW
SN#J101VYLW
10.10.127.200, fe80::a94:efff:fefc:d8b
J101VYLW
Server
7Y88-CTO2WW


Lenovo XClarity Administrator
Report Problem
Status
Jobs
USERID (1)
Dashboard
Hardware
Provisioning
Monitoring
Administration
Chassis
Unmanage Chassis
All Actions
Filter By
Show:
All Systems
Chassis
Status
IP Addresses
Groups
Type-Model
Serial Number
Product Name
Firmware (CMM)
SN#Y030BG4BA020
Normal
169.254.1.4, 169.254.1.3...
8721-HC1
23EWD29
Chassis Midplane
1AON01B / 2.4.0 ()


Lenovo XClarity Administrator
Report Problem
Status
Jobs
USERID (1)
Dashboard
Hardware
Provisioning
Monitoring
Administration
Discover and Manage New Devices
If the following list does not contain the device that you expect, use the Manual Input option to discover the device.
For more information about why a device might not be automatically discovered, see the Cannot discover a device help topic.
Manual Input
Bulk Import
Enable encapsulation on all future managed devices Learn More
Unmanage offline devices is: Disabled.
Edit
Manage Selected
Last SLP discovery: 30 hours ago
SLP discovery is:
Enabled
Name
IP Addresses
Serial Number
Type
Type-Model
Manage Status
SN#J101VYLT
10.10.127.250, fe80::a94:efff:fefc:...
J101VYLT
Server
7Y88-CTO2WW
Ready
SN#J101VYLV
10.10.127.197, fe80::a94:efff:fefc:...
J101VYLV
Server
7Y88-CTO2WW
Ready
SN#J101VYLX
10.10.127.66, fe80::a94:efff:fefc:d9b
J101VYLX
Server
7Y88-CTO2WW
Ready
SN#J101VYLW
10.10.127.200, fe80::a94:efff:fefc:...
J101VYLW
Server
7Y88-CTO2WW
Ready
Activate Windows
Go to Settings to activate Windows.

9. Software Sources

Name	Purpose	Source
Lenovo XClarity Administrator	Discover and manage the nodes	Download from https://datacentersupport.lenovo.com/us/en/solutions/lnvo-lxcaupd. For more information about Lenovo XClarity Administrator, click https://www3.lenovo.com/us/en/data-center/software/systems-management/xclarity/
Nutanix AOS	Acropolis Operating System	Version 5.20 LTS is preloaded on the delivered nodes. Upgrades are available from mynutanix.com. Log into the mynutanix.com, find the blue Launch button for the Support Portal, and then select **Downloads**.
Nutanix Foundation	Bootstrap, deploy and configure a bare-metal Nutanix cluster from start-to-end, (reload AOS)	Log into the mynutanix.com, find the blue Launch button for the Support Portal, select **Downloads**, and then look for Essential Tools – Foundation.
Nutanix Prism	Management and operations for virtualized datacenter environments including administration, reporting, and system administration automation	Log into the mynutanix.com, find the blue Launch button for the Support Portal, select **Downloads**, and then look for Prism Central.
Arcserve N-Series Mine deployment Image	Arcserve Nutanix Mine deployment image bundled with Arcserve Unified Data Protection (UDP) and LBS ISO	Download https://support.arcserve.com/s/article/Arcserve-Appliance-Nseries-UDP-Nutanix-Mine-Build
Windows Server 2019	Run as a VM on the Nutanix cluster as the operating system that runs the Arcserve UDP software and Nutanix Prism	Arcserve provides license with the hardware. To download the ISO image, use the same process that is used for the Arcserve N-Series order fulfillment. For more information, see How to get Windows Server IOT ISO File below.

How to get the Windows Server 2019 IOT ISO File

1. Customers that have validated the Arcserve orders can use the following link (always the same) from the order confirmation documents. The Product license key is a sticker on the delivered unit.

   https://forms.gle/rzEHMxGWptxn5n216

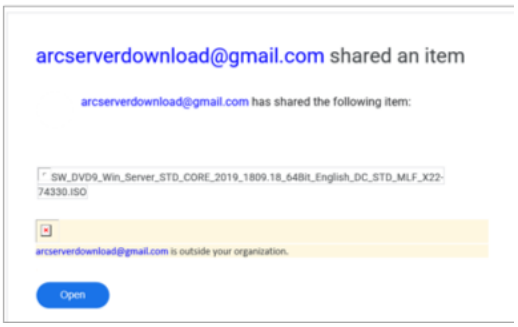
2. To request a download link, enter the following details:

    - Free Google account name
    - Email address
    - Order number
    - Name
    - Address
    - Phone Number

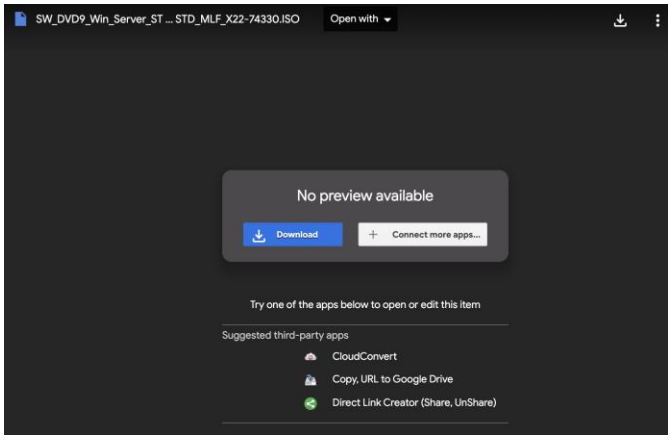
3. After the form is completed, click the **Submit** button.

    A confirmation message appears, and the cited email address gets a confirmation of the request.

4. The Arcserve order administrator validates the request. Within a two-business day interval, the system will generate an email to the customer provided address with a customer specific link. The link of each customer is unique.



5. The email recipient clicks the **Open** button to get to the blue Download button. A free Google account login is required to see the Download button. If not logged in, one can provide the Google account credentials with a sign-on button on the upper right corner of the web page.



6. The Windows Server 2019 ISO file is 5.2 GB. It is too big for Google to scan for viruses. Click **Download Anyway** to download.

10. Contact Support

If you encounter any issues with your appliance, visit our Arcserve Support site to search our Knowledge Base for solutions to common problems or to get Live Support for immediate assistance (the serial number is located on rear of appliance) at: arcserve.com/support.

11. Warranty

Each Arcserve Appliance comes with a 3-year hardware warranty. For detailed information about this warranty, visit: arcserve.com/udp-appliance-warranty.

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