

- > Arcserve Appliance N Series  
Hardware Installation Guide  
Lenovo Four Nodes

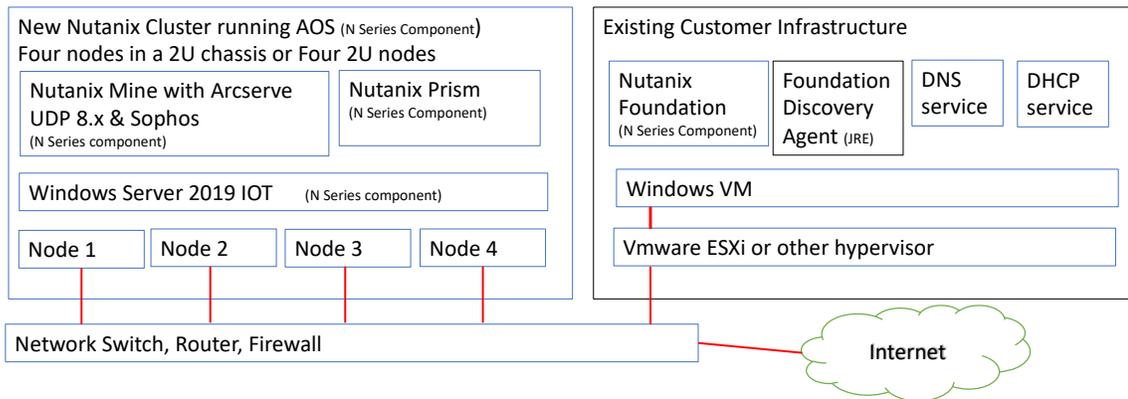


## Table of Contents

|   |           |
|---|-----------|
| <b>1. Overview</b> .....  | <b>3</b>  |
| <b>2. Product Ratings</b> .....                                   | <b>4</b>  |
| <b>3. Site Preparation</b> .....                                  | <b>5</b>  |
| <b>4. Unpacking the Appliance</b> .....                           | <b>6</b>  |
| <b>5. Installing the Appliance in a Rack</b> .....                | <b>7</b>  |
| <b>6. Rear Panel View</b> .....                                   | <b>8</b>  |
| <b>REAR PANEL CONNECTOR AND DEVICE LOCATIONS</b> .....            | <b>9</b>  |
| <b>7. Front Panel Operation</b> .....                             | <b>10</b> |
| <b>FRONT PANEL POWER SWITCHES</b> .....                           | <b>10</b> |
| <b>POWER ON A COMPUTE NODE</b> .....                              | <b>10</b> |
| <b>POWER OFF A COMPUTE NODE</b> .....                             | <b>10</b> |
| <b>8. System Administration with XClarity Administrator</b> ..... | <b>11</b> |
| <b>9. Software Sources</b> .....                                  | <b>13</b> |
| <b>HOW TO GET THE WINDOWS SERVER 2019 IOT ISO FILE</b> .....      | <b>13</b> |
| <b>10. Contact Support</b> .....                                  | <b>15</b> |
| <b>11. Warranty</b> .....   | <b>15</b> |

## 1. Overview

# Arcserve N Series Block Diagram



There are four nodes in a 2U chassis, each with six 2.5 inch form factor drive bays. Each node has a power button located below the node's center column drive bays. Full control of all nodes is available via a web browser using XClarity administrator.

## 2. Product Ratings

| Enclosure Specifications   | Description   |
|----------------------------|---|
| 2U Enclosure Size          | <ul style="list-style-type: none"> <li>• Height: 87.0 mm (3.5 inches)</li> <li>• Depth: 891.5 mm (35.1 inches)</li> <li>• Width: 488.0 mm (19.3 inches)</li> <li>• Weight: Minimum configuration (with one minimal configuration node): 22.4 kg (49.4 lbs)</li> <li>• Maximum configuration (with four maximal configuration nodes): 55.0 kg (121.2 lbs)</li> </ul>   |
| Acoustical noise emissions | <ul style="list-style-type: none"> <li>• Operation: 6.8 bels</li> <li>• Idle: 6.2 bels</li> </ul> <p>This is the maximum configuration of four nodes with two processors installed, full memory installed, full drives installed, and two 2000-watt power supplies installed.</p>   |
| Heat output                | <p>Approximate heat output total:</p> <ul style="list-style-type: none"> <li>• Minimum configuration (with one minimal configuration node): 604.1 BTU per hour (177 watts)</li> <li>• Maximum configuration (with four maximal configuration nodes): 7564.4 BTU per hour (2610 watts)</li> </ul> <p>Two 2000-watt power supplies</p>  |
| Electrical input           | <p>Sine-wave input (50-60 Hz) required</p> <p>Input voltage low range:</p> <ul style="list-style-type: none"> <li>• Minimum: 100 V AC</li> <li>• Maximum: 127 V AC</li> </ul> <p>Input voltage high range: 2000W</p> <ul style="list-style-type: none"> <li>• Minimum: 200 V AC</li> <li>• Maximum: 240 V AC</li> </ul> <p>Input kilovolt-amperes (kVA), approximately:</p> <ul style="list-style-type: none"> <li>• Minimum: 0.153 kVA</li> <li>• Maximum: 2.61 kVA</li> </ul> |
| Hot swap fans              | <ul style="list-style-type: none"> <li>• Three 60x60x56mm fans</li> <li>• Two 80x80x80mm fans</li> </ul>  |

## 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:

- Four Compute node(s)
- One Enclosure
- 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 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 (five)
- GBICs for fibre or captive GBICs on twinax cables (four or eight, depending on the network)
- Network switch with enough ports for the four node connections
- 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.

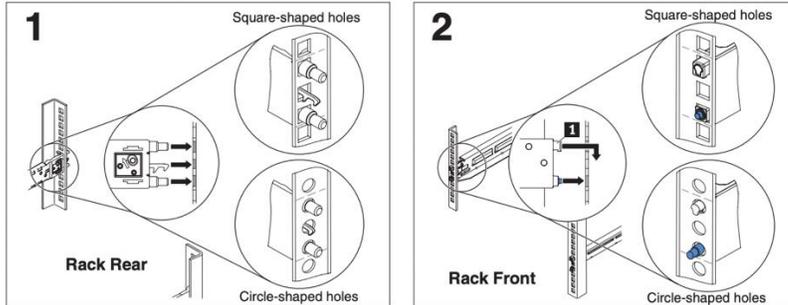
## 5. Installing the Appliance in a Rack

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



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

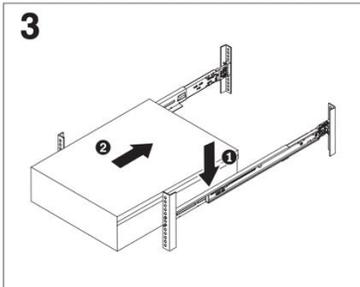
**Note:** The non-threaded holes on the rack will either be square-shaped or circle-shaped.

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.

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

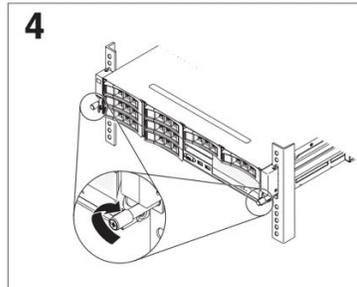
Pull the rail forward and insert the pins **1** on the front of the rail into either the square-shaped or circle-shaped holes on the front of the rack. Drop the rail down until it latches into place.

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.



**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.



**4** 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. Rear Panel View

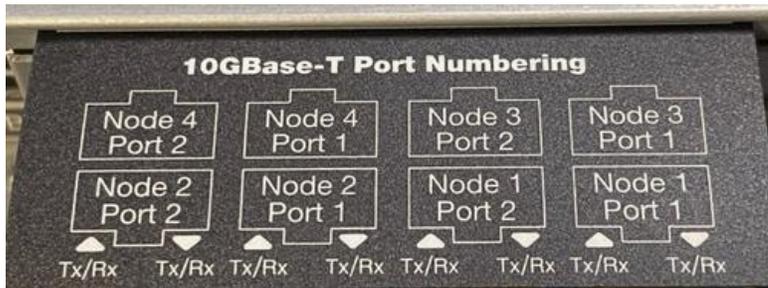
The 2U enclosure is a ThinkAgile HX-7321.

For more information, click

[https://thinkagile.lenovofiles.com/help/topic/com.lenovo.thinkagile.7Y88.doc/7Y88\\_user\\_guide.pdf](https://thinkagile.lenovofiles.com/help/topic/com.lenovo.thinkagile.7Y88.doc/7Y88_user_guide.pdf)

There are four nodes in this 2U chassis. All the node network connections are on the rear of the four-bay chassis. There are no display (VGA) connectors for a local monitor. Use a computer browser to access the node displays via the XClarity controller.

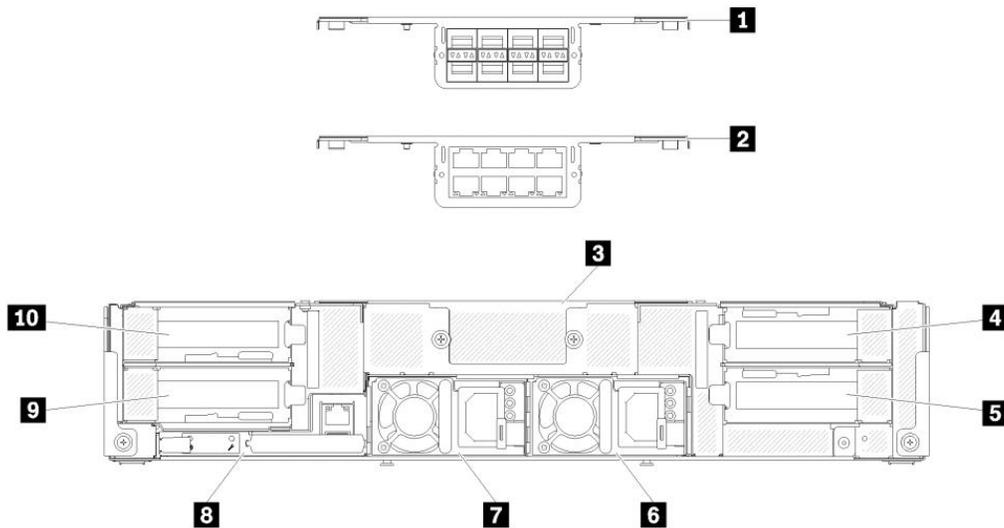
For the initial node connections to a network, attach single connections from the nodes to the customer supplied switch. There are two rows of four RJ45s each in the top rear panel center bay.



|                 |                    |                 |                    |
|-----------------|--------------------|-----------------|--------------------|
| (No connection) | Connect for Node 4 | (No connection) | Connect for Node 3 |
| (No connection) | Connect for Node 2 | (No connection) | Connect for Node 1 |



## Rear Panel Connector and Device Locations



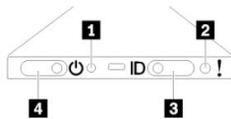
- #1 Shows eight SFP+ ports that are mounted in the top center bay, #3. (SFP+ option only)
- #2 Shows eight RJ45 10BaseT ports that are mounted in the top center bay, #3 (BASET option only)
- #4 PCIe rear panel slot for Node 3, with a dual port SFP+ 10/25 gigabit interface that requires a GBIC (customer supplied)
- #5 PCIe rear panel slot for Node 1, with a dual port SFP+ 10/25 gigabit interface that requires a GBIC (customer supplied)
- #6 Power Supply #2, 120-240 VAC
- #7 Power Supply #1, 120-240 VAC
- #8 System out of band management module with dedicated RJ-45 port.
- #9 PCIe rear panel slot for Node 2, with a dual port SFP+ 10/25 gigabit interface that requires a GBIC (customer supplied)
- #10 PCIe rear panel slot for Node 4, with a dual port SFP+ 10/25 gigabit interface that requires a GBIC (customer supplied)

## 7. Front Panel Operation

### Front Panel Power Switches

From the factory, the four nodes will automatically power on with the initial connection to power. Each of the four nodes has a pushbutton push on/push off power switch.

The power switches are located under the center two drive bays in each of the four nodes.



1. NMI pinhole
2. System error LED
3. ID button and LED
4. Power button and LED for one node

### Power on a compute node

When first connected to power, the compute node performs a short self-test (power status LED flashes rapidly) and then 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:

- One can press the front panel power button(s).
- The compute node can restart automatically after a power interruption.
- The compute node can respond to remote power-on requests sent to the Lenovo XClarity Controller.

### Power off a compute node

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:

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

## 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> .

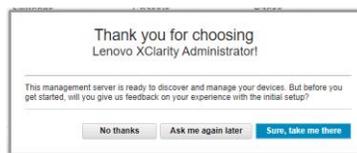
### Follow these steps:

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:** PASSWORD

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 space
- 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 Clarity Administrator**

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  Enable encapsulation

Unmanage offline devices:  Disabled  Enabled

Inventory

- Servers
- Storage
- Switches
- Chassis
- Racks
- Resource Groups

Discover and Manage New Devices

Manage Selected | Last SLP discovery: 1 minutes ago | SLP discovery is: **Enabled**

| Name                                  | IP Addresses                         | Serial Number | Type   | Type-Model  |
|---------------------------------------|--------------------------------------|---------------|--------|-------------|
| <input type="checkbox"/> SN#J101VYLT  | 10.10.127.250, fe80:a94:eff:fefc:763 | J101VYLT      | Server | 7Y88-CTO2WW |
| <input type="checkbox"/> SN#J101VYLV  | 10.10.127.197, fe80:a94:eff:fefc:a57 | J101VYLV      | Server | 7Y88-CTO2WW |
| <input type="checkbox"/> SN#J101VYLX  | 10.10.127.66, fe80:a94:eff:fefc:d9b  | J101VYLX      | Server | 7Y88-CTO2WW |
| <input type="checkbox"/> SN#J101VYLVW | 10.10.127.200, fe80:a94:eff:fefc:d9b | J101VYLVW     | Server | 7Y88-CTO2WW |

**Lenovo Clarity Administrator**

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)     |
|--|---|-----------------------------|--------|------------|---------------|------------------|--------------------|
| <input type="checkbox"/> SN#Y030BG4BA020 | <span style="color: green;">Normal</span> | 169.254.1.4, 169.254.1.3... |        | 8721-HC1   | 23EWD29       | Chassis Midplane | 1A0N01B / 2.4.0 () |

**Lenovo Clarity Administrator**

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 |
|---------------------------------------|--------------------------------------|---------------|--------|-------------|---------------|
| <input type="checkbox"/> SN#J101VYLT  | 10.10.127.250, fe80:a94:eff:fefc:... | J101VYLT      | Server | 7Y88-CTO2WW | Ready         |
| <input type="checkbox"/> SN#J101VYLV  | 10.10.127.197, fe80:a94:eff:fefc:... | J101VYLV      | Server | 7Y88-CTO2WW | Ready         |
| <input type="checkbox"/> SN#J101VYLX  | 10.10.127.66, fe80:a94:eff:fefc:d9b  | J101VYLX      | Server | 7Y88-CTO2WW | Ready         |
| <input type="checkbox"/> SN#J101VYLVW | 10.10.127.200, fe80:a94:eff:fefc:... | J101VYLVW     | Server | 7Y88-CTO2WW | Ready         |

## 9. Software Sources

| Name                                    | Purpose   | Source  |
|---|---|---|
| Lenovo XClarity Administrator           | Discover and manage the nodes   | Download from <a href="https://datacentersupport.lenovo.com/us/en/solutions/Invo-lxcaupd">https://datacentersupport.lenovo.com/us/en/solutions/Invo-lxcaupd</a> . For more information about Lenovo XClarity Administrator, click <a href="https://www3.lenovo.com/us/en/data-center/software/systems-management/xclarity/">https://www3.lenovo.com/us/en/data-center/software/systems-management/xclarity/</a> |
| 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 <b>Downloads</b> .   |
| 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 <b>Downloads</b> , 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 <b>Downloads</b> , 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 <a href="https://support.arcserve.com/s/article/Arcserve-Appliance-Nseries-UDP-Nutanix-Mine-Build">https://support.arcserve.com/s/article/Arcserve-Appliance-Nseries-UDP-Nutanix-Mine-Build</a>  |
| 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 the 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>

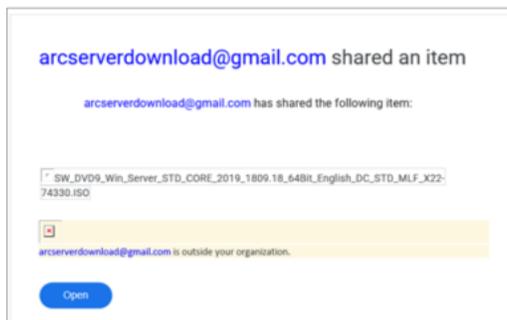
2. To request a download link, enter the following details:

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

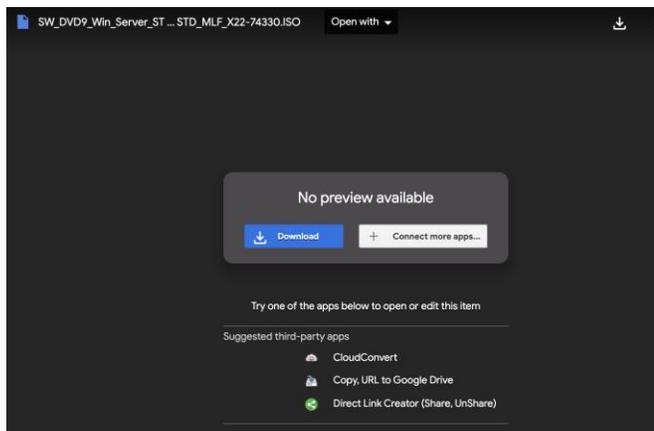
3. After the form is completed, click the **Submit** button.

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, you 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, which 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](https://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](https://arcserve.com/udp-appliance-warranty).

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