



Backing up and Restoring a Lightspeed OS Image

This App Note
applies to
Vantage
Lightspeed
Servers

Overview	2
Requirements.....	2
Hardware Requirements	2
Operating System and Software Requirements	3
Other Prerequisites.....	3
Booting the Server from the Acronis ISO.....	4
Obtain the Lightspeed Server IPMI Address.....	4
Log into the Lightspeed Server via IPMI	5
Backing up a Lightspeed Server Image	13
Restoring a Lightspeed Server Image	16
Copyright and Trademark Notice	21

Note: This guide is written for video professionals who are familiar with using Vantage. To implement applications in Vantage, you should know how to create workflows and submit jobs. If you aren't familiar with Vantage, we suggest that you review the *Vantage User's Guide* and *Vantage Domain Management Guide* as needed.



Overview

Having a factory Operating System image available for Lightspeed Servers can be a lifesaver if the Lightspeed C-drive crashes or becomes corrupted. Using this note and a complete set of OS images for all Lightspeed Server types available from Telestream Manufacturing, Telestream Support Engineers and technically capable customers can restore a Lightspeed Server to its original factory setup.

Requirements

Before you can perform backups and recoveries on Lightspeed Servers as described in this note, you will need the prerequisites described below.

Hardware Requirements

The following topics list the hardware versions and systems needed.

Lightspeed Server Versions

This note applies to all versions of the Lightspeed Server, including the original Lightspeed Server, K20, K40, K80, G5, G6, Lightspeed Live Capture, and all other variations.

Preloaded Lightspeed Image Drive

A set of OS image files for each type of Lightspeed Server is available for use by Telestream Support. These images can be copied to an external hard drive, flash drive, or network storage for use in the field or over the Internet as needed to restore customer operating systems.

Networked PC Workstation

You will need a network-connected PC workstation with an Internet browser, such as Google Chrome for remotely accessing IPMI software on the target Lightspeed server.

Operating System and Software Requirements

Please note the following software requirements.

Acronis Backup Software

This note describes doing OS, file, and complete drive backups and restores using Acronis backup software, which must be purchased separately.

The Acronis backup and restore software works independently of Telestream's Vantage software and any other software.

IPMI Software

IPMI remote network server management software comes installed on all Lightspeed Servers and is required for remote server management over an Ethernet LAN or a dedicated IPMI LAN. In the following procedures, you will log into IPMI to manage the Lightspeed Server.

Chrome Browser

A recent version of the Chrome browser is required in order to connect to the Lightspeed Server via IPMI. Internet Explorer does not work well for this purpose.

Other Prerequisites

Also observe these additional requirements:

- Make sure NIC 1 (LAN 1) on the target Lightspeed Server and your remote workstation both have network connectivity so they can communicate.
- Mount the Acronis .iso on the remote PC workstation you will use to access the Lightspeed Server.
- Ensure that the preloaded Lightspeed image drive is plugged into the Lightspeed server being imaged.

Booting the Server from the Acronis ISO

The following procedures explain how to remotely connect to the Lightspeed Server via IPMI and reboot the server from the Acronis backup and recovery software ISO.

Once you are running Acronis, you can take one of two branches in the instructions:

- [Backing up a Lightspeed Server Image](#)
- [Restoring a Lightspeed Server Image](#)

Follow the procedures below to log into the server via IPMI and boot the server from the Acronis ISO. Then perform a backup or recover as described later in this note.

Obtain the Lightspeed Server IPMI Address

Before you can access the Lightspeed Server via IPMI, you must know the IPMI address of the target Lightspeed Server.

Note: The IPMI address is not the same as the network IP address but a special address (formatted like an IP address) assigned by IPMI.

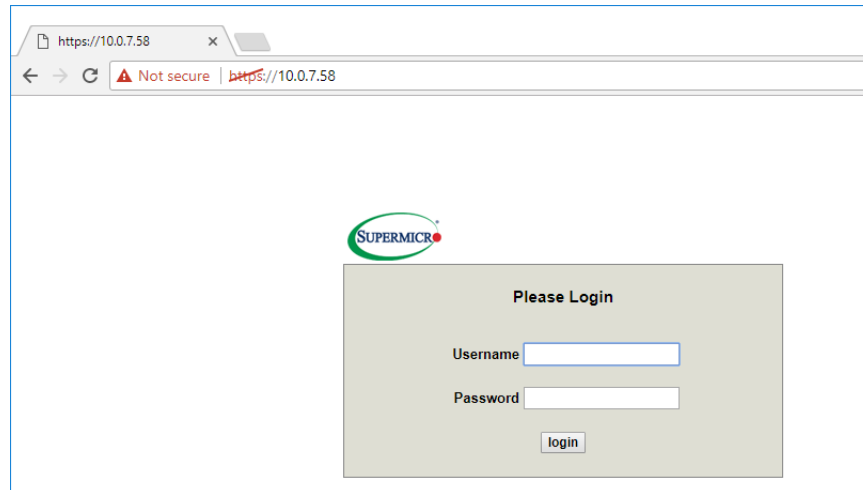
To discover the IPMI address of the Lightspeed Server, follow these steps:

1. Connect a monitor, keyboard, and mouse to the Lightspeed Server if it is operating in headless mode.
2. Reboot the Lightspeed Server and press the Delete key repeatedly during boot up to get to the BIOS. On newer K80 servers the BIOS is presented at boot up.
3. In the BIOS, navigate to the IPMI tab.
4. Arrow down to the BMC Network Configuration and press enter.
5. You will see the Station IP Address. If you don't see a Station IP Address, select Y to update, and select Static for Configuration Address Source. You can then add an IP address. Make sure that the IP address is on the same network as the workstation that you will use for a remote connection to IPMI on the Lightspeed Server.
6. Note the IP address for use in the following procedure.

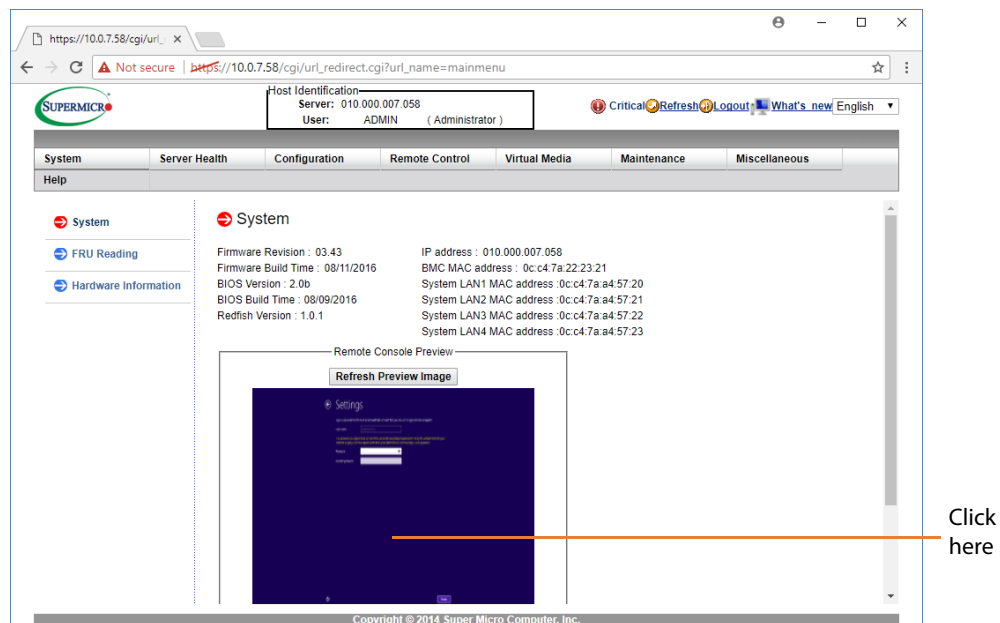
Log into the Lightspeed Server via IPMI

Follow these steps to remotely log onto a Lightspeed Server via IPMI.

1. On a remote PC workstation, open a browser, such as Google Chrome, and enter the Lightspeed Server's IPMI address in the browser's address field. **Note:** this is not the same as the network IP address but a special address assigned by IPMI.
2. Ignore the "Not secure" message, and enter *ADMIN* in all capitals as the user name and password at the login prompt. The SuperMicro IPMI program opens.



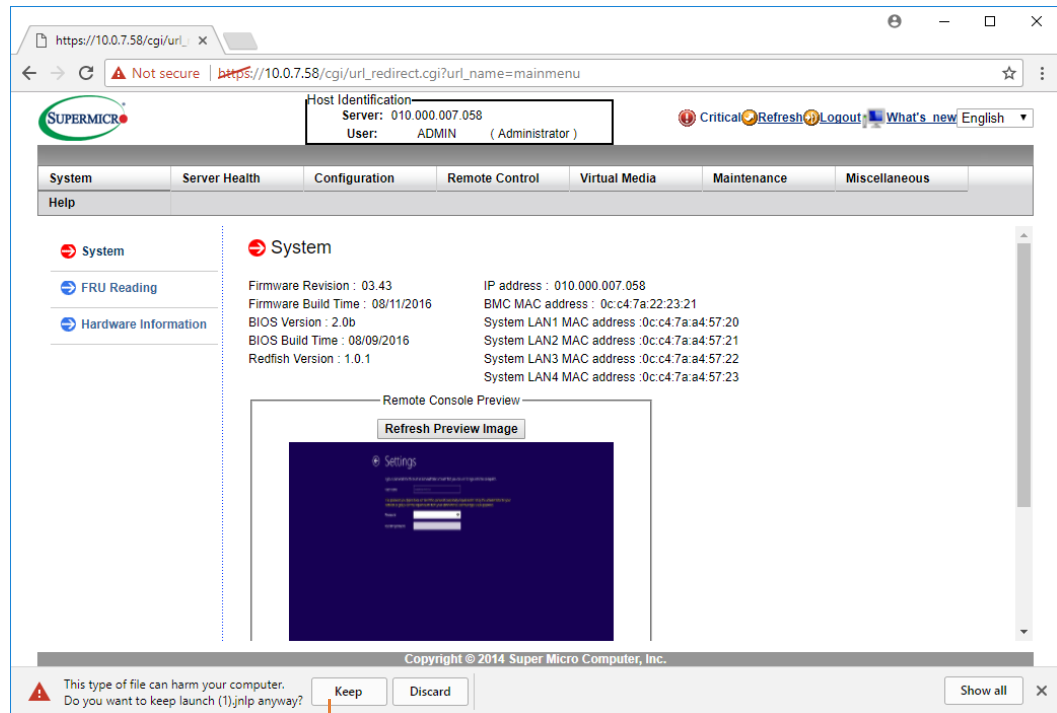
3. Click the center of the Remote Console Preview image. You can tell you have the right spot to click when the cursor turns into a pointer finger.



6 | Backing up and Restoring a Lightspeed OS Image

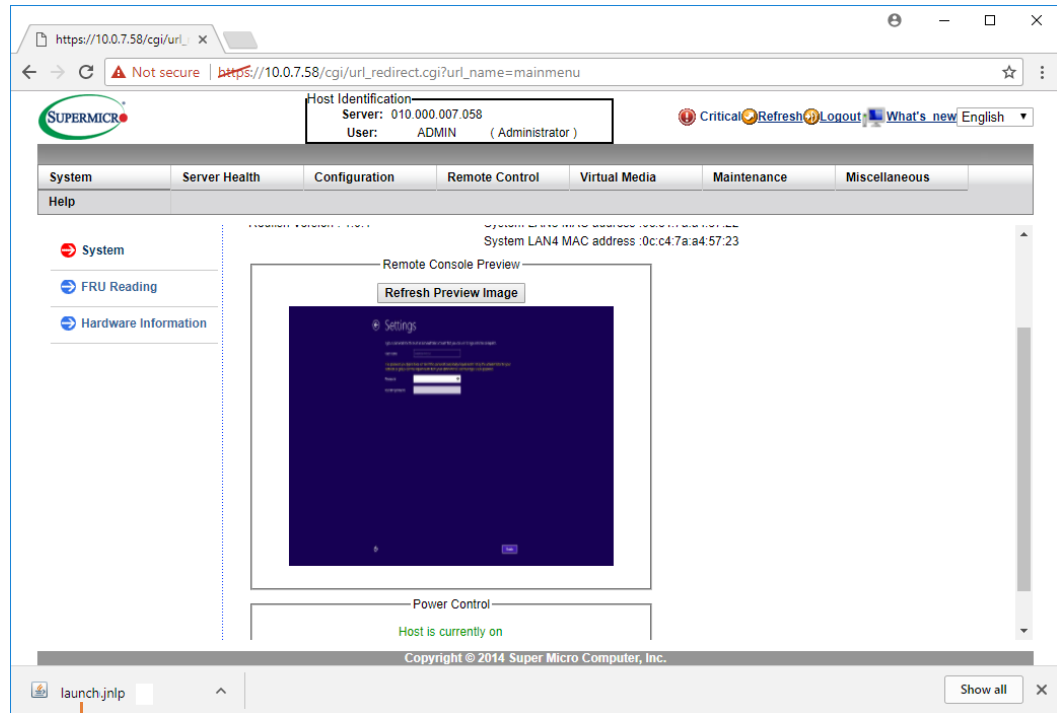
Booting the Server from the Acronis ISO

4. A java runtime file downloads, and a dialog in the lower left corner asks you whether to Keep or Discard the file. Ignore the security warning, and click Keep.



Click Keep

5. A Launch button appears in the lower left corner. Click Launch to launch a Java Viewer.



Click Launch

6. Click Continue followed by Run to run the Java app.

Resolving Java Error Messages:

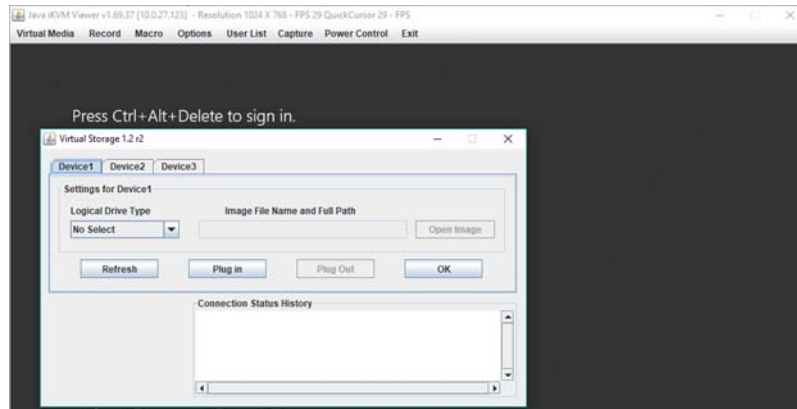
If Java is not installed, if it is outdated, if the Java .jnlp file type is not associated with the Java app, or if there is a security issue, you may get an error message.

- If Java is not installed, you can obtain it from <https://www.Java.com/en/download>.
- If Java is outdated, click the link in the message to update it (or you may be able to cancel the update, and the Java version you have will still work).
- If the .jnlp file type is not associated with a program, click *Start*, search for *Default Programs*, click *Associate a file type or protocol with a specific program*, and associate the .jnlp type with Java.
- If there is a security issue, the error message will tell you which port is not accessible. Assign that port to the Java program.

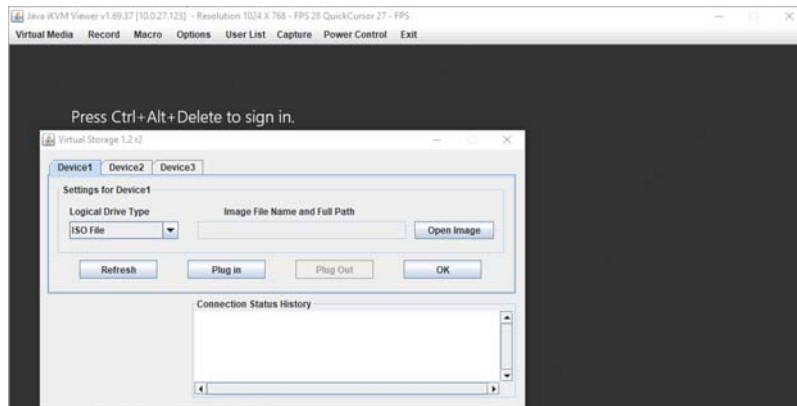
8 | Backing up and Restoring a Lightspeed OS Image

Booting the Server from the Acronis ISO

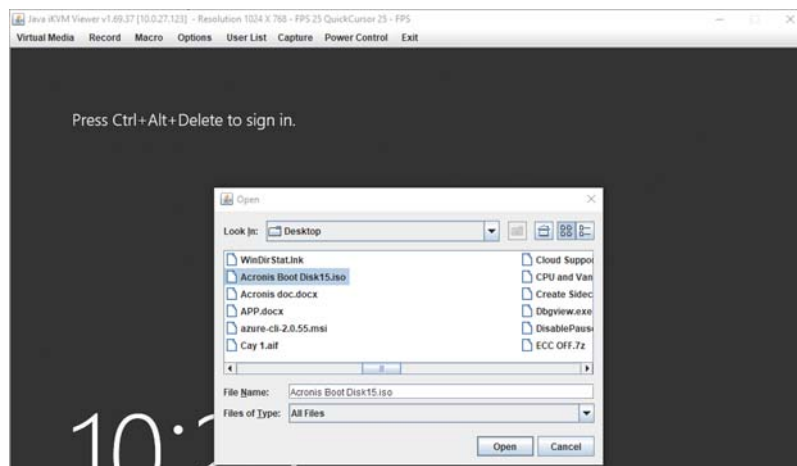
7. Click Virtual media, and select Virtual Storage to open the Virtual Storage page.



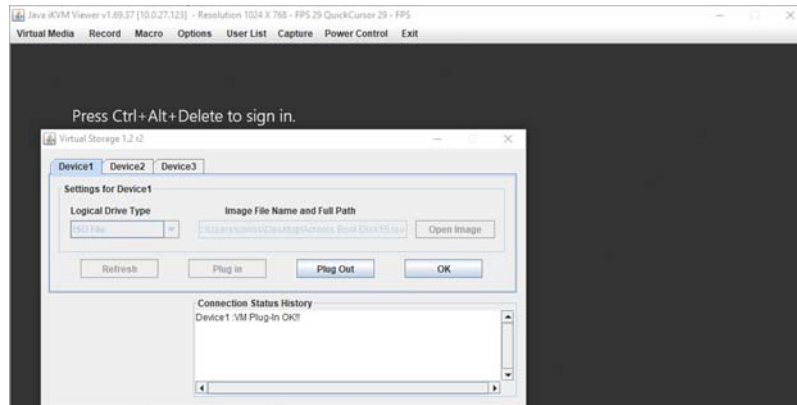
8. Click the Logical Drive Type drop down menu and select ISO File.



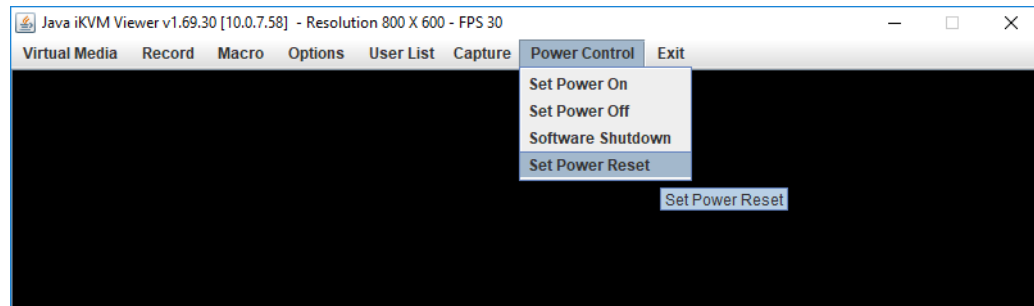
9. Select Open Image and browse to the .iso file on the host server.



10. After selecting the image, click Plug In to mount the .iso. If done correctly, you will see Device1 :VM Plug-in OK!!

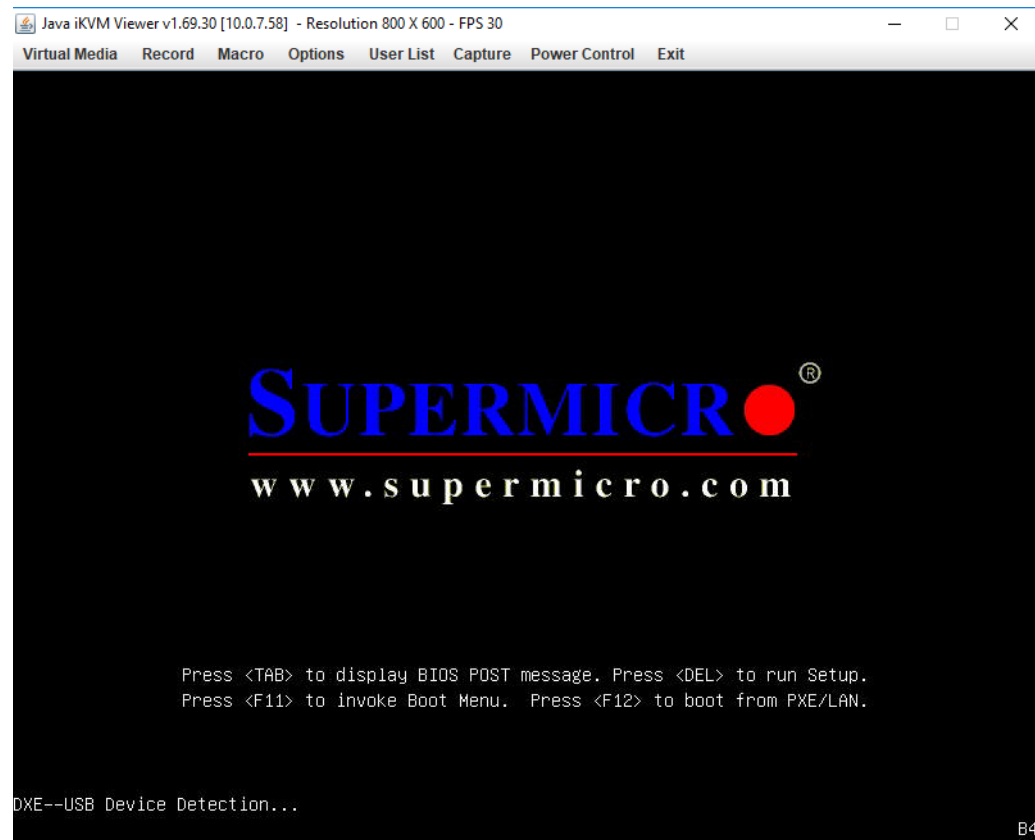


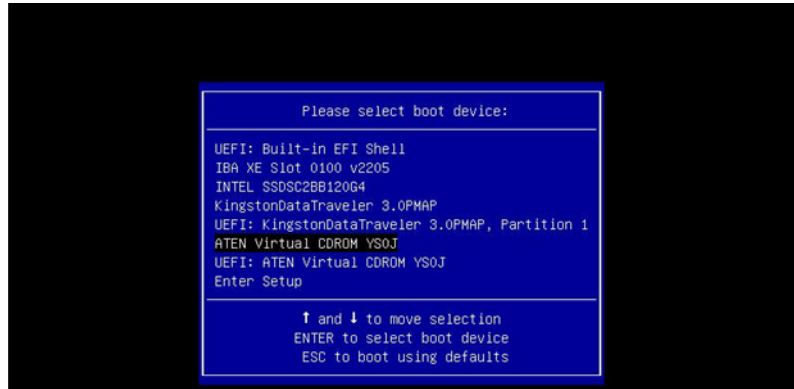
11. Click OK.
12. In the Java Viewer app, select the Power Control menu and Set Power Reset. This will start a reboot of the server.



10 | Backing up and Restoring a Lightspeed OS Image
Booting the Server from the Acronis ISO

13. While the server is booting up, press F11 repeatedly until you see the boot drive menu (*Please select boot device*).





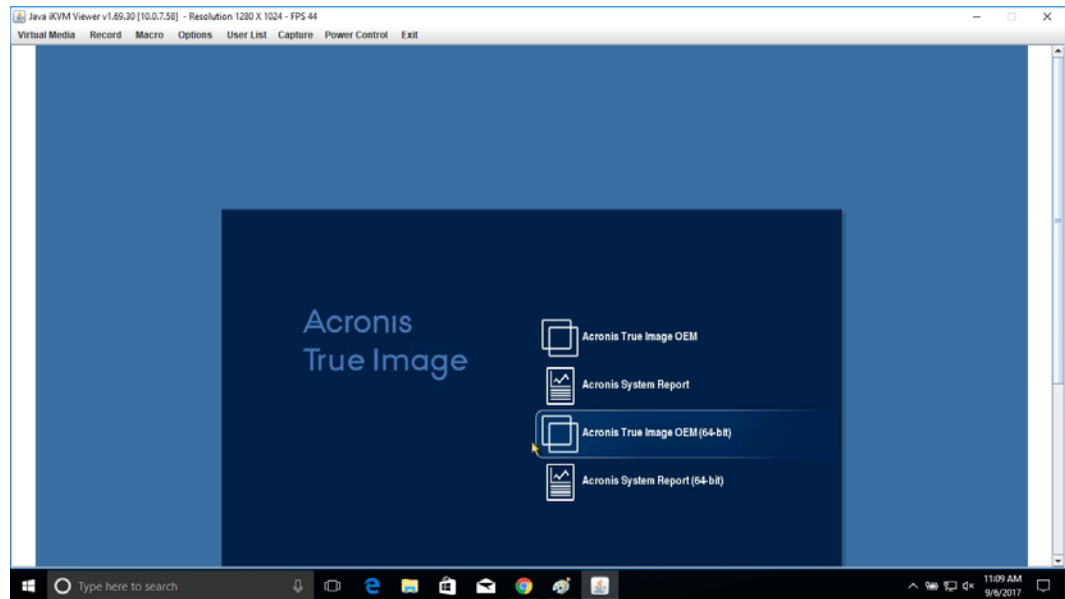
14. Use the arrow key to scroll to the name of the external boot drive containing the factory disk images. This will be the ATEN Virtual CDROM in the preceding figure. If you do not see the ATEN Virtual CDROM, the .iso has not been mounted.

CAUTION: DO NOT SELECT any UEFI versions or the drive will have to be removed and reformatted. All data will be lost.

15. Click Enter to boot from the image drive. After the server restarts and reboots from the external image drive, the Acronis backup software launch window opens.

12 | Backing up and Restoring a Lightspeed OS Image

Booting the Server from the Acronis ISO



16. Click the highlighted (default) version of Acronis to launch it, or just press Enter. The Acronis software opens to the main page where you can select Backup or Restore.

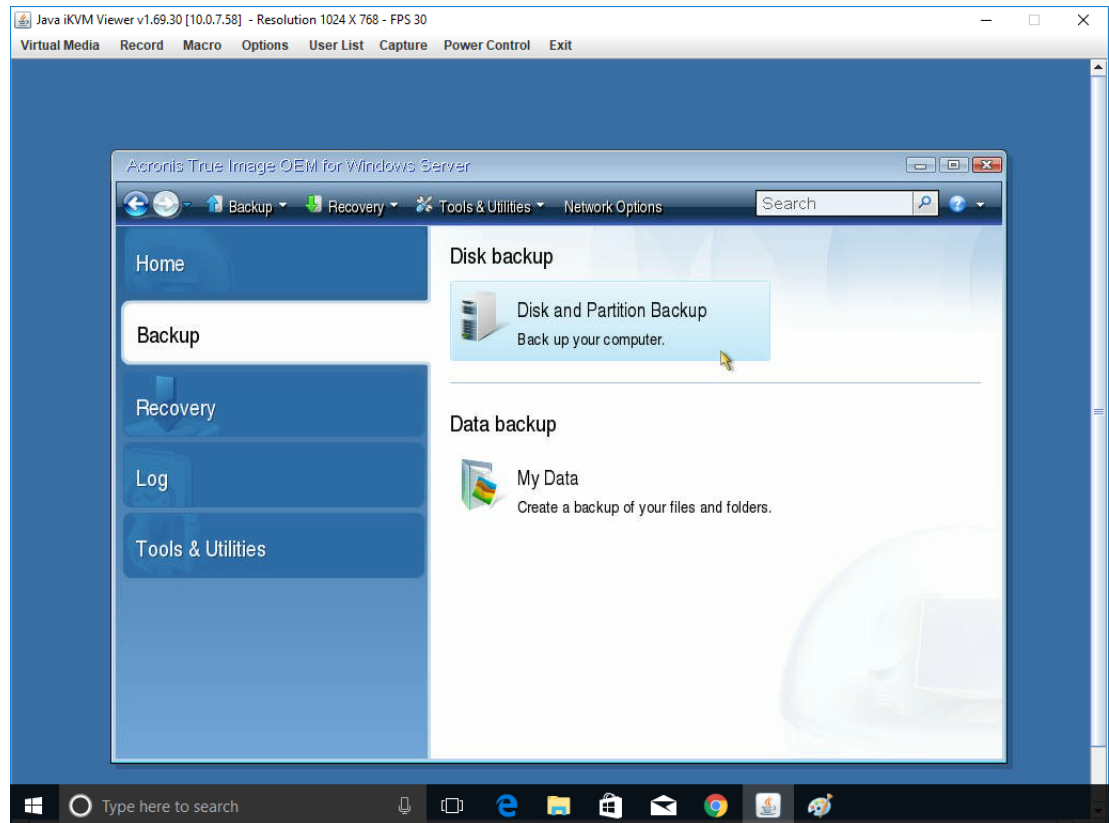
Note: If you do not select this promptly, it will reboot itself to windows and you will need to start from the boot window again.

17. Click Backup or Restore, depending on whether you want to make a new backup image of your server, or you want to restore your server to the factory boot image.
18. Continue with either the backing up or restoring procedure, depending on which operation you chose in the previous step:
- [Backing up a Lightspeed Server Image](#)
 - [Restoring a Lightspeed Server Image](#)

Backing up a Lightspeed Server Image

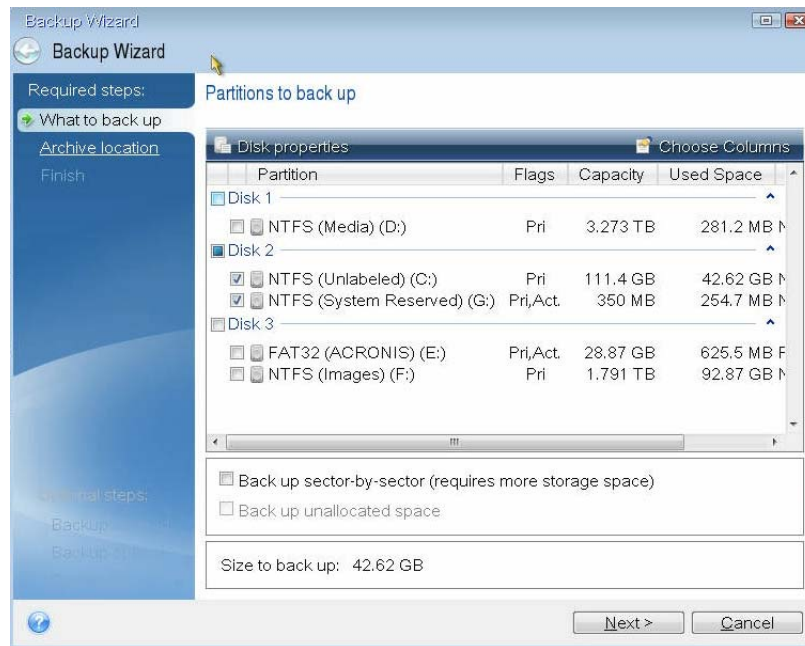
After booting up your server from the external drive and starting Acronis as explained in [Booting the Server from the Acronis ISO](#), you are ready to create a backup image of the server:

1. Select *Backup*, and select *Disk and Partition Backup*.



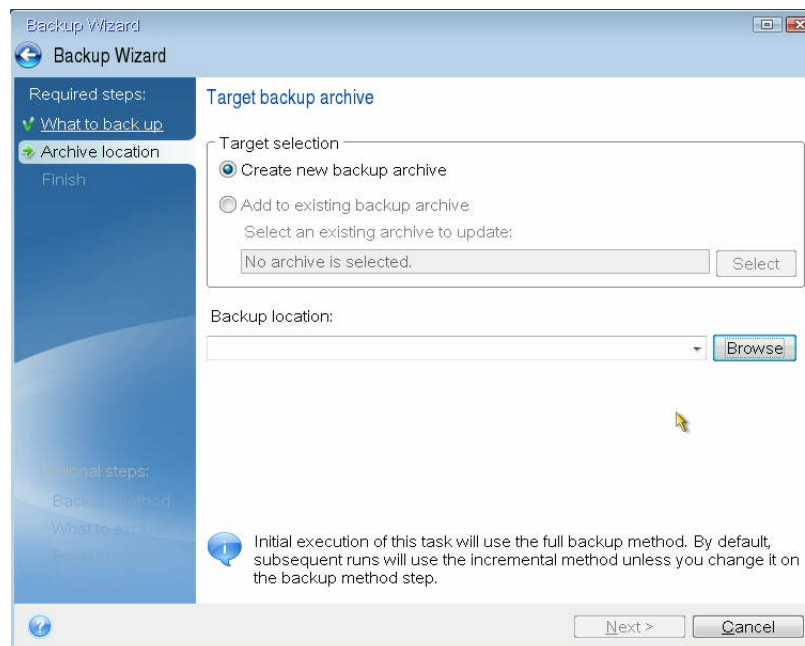
Note: You may notice that the mouse cursor splits into two arrows. The yellow arrow works inside the Acronis app, and the white arrow works on programs outside the Acronis app. If you plan to work only in Acronis, you can select Options > Preference > Input > Single Mouse, and click OK to eliminate the white arrow. Note that if you do this, you won't be able to work outside of Acronis unless you use Ctrl-Alt-Delete > Task Manager > End Task to kill the Java app that Acronis runs in.

2. Select (check) the disk to back up (C:), and click *Next*.

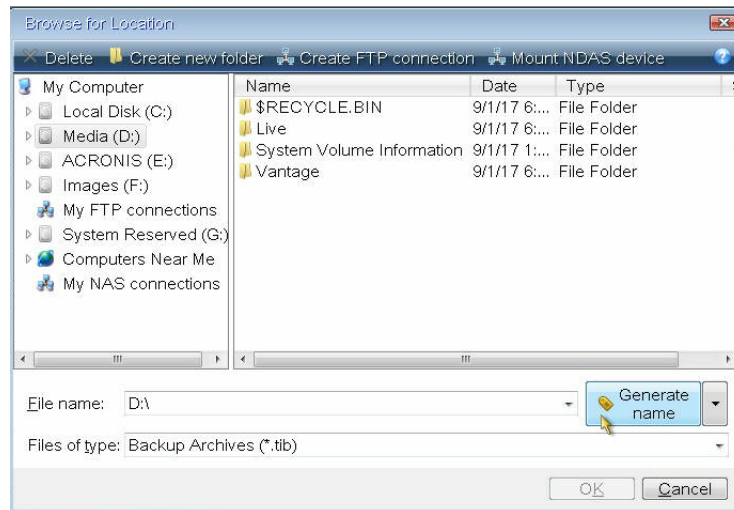


3. Select *Create new backup archive*, browse to the location where you want to store the backup, and click *Next*.

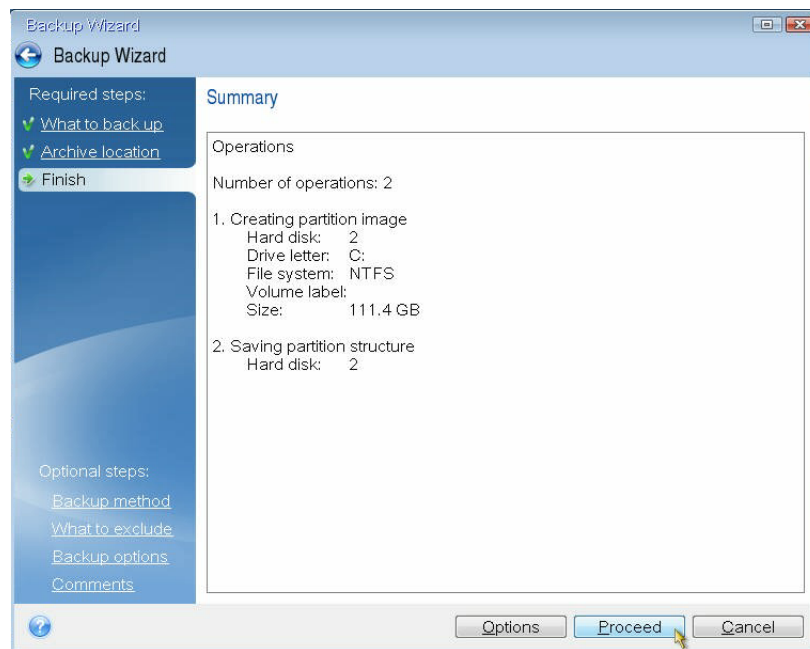
Note: Be sure to store the back up on a drive other than the one being backed up.



4. Enter a file name, or click *Generate Name*, and click *OK* and *Next* until you arrive at the Backup Wizard Summary window.



5. Click *Proceed* to begin the processing of creating a backup image.

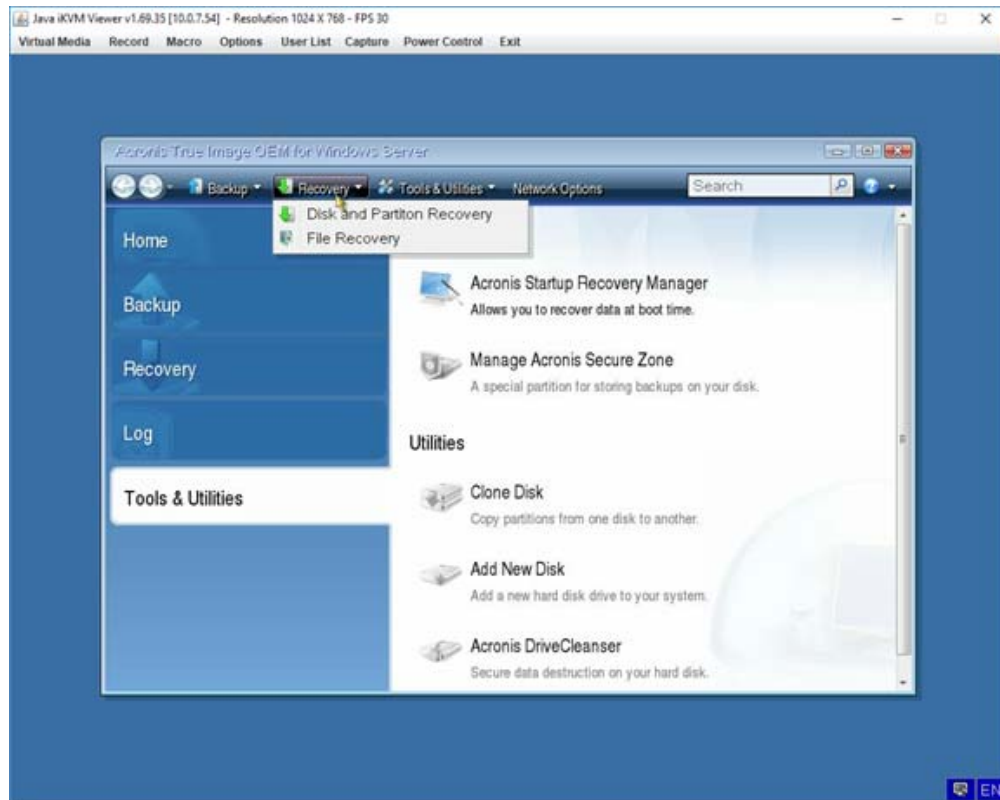


6. When you get a completion window indicating that the backup is finished, restart the server and let it boot from the C-drive to resume normal operation.

Restoring a Lightspeed Server Image

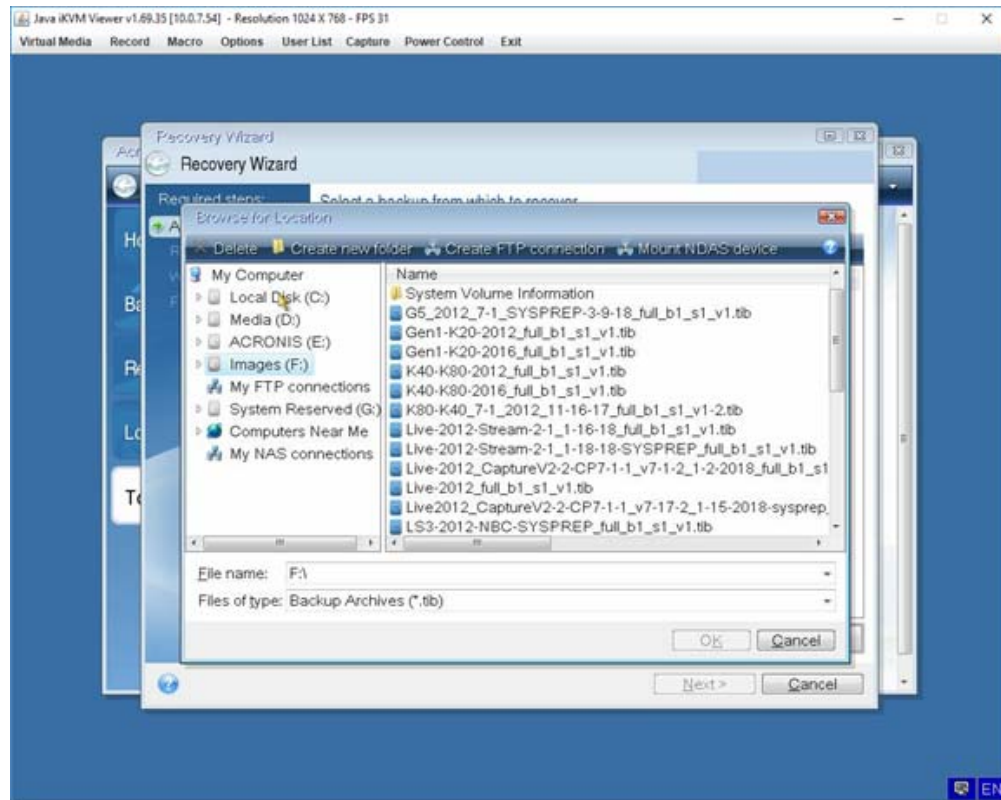
After booting up your server from the external drive and starting Acronis as explained in [Booting the Server from the Acronis ISO](#), you are ready to restore the server from a backup image:

1. Select the *Recovery* top menu, and then select *Disk and Partition Recovery*.

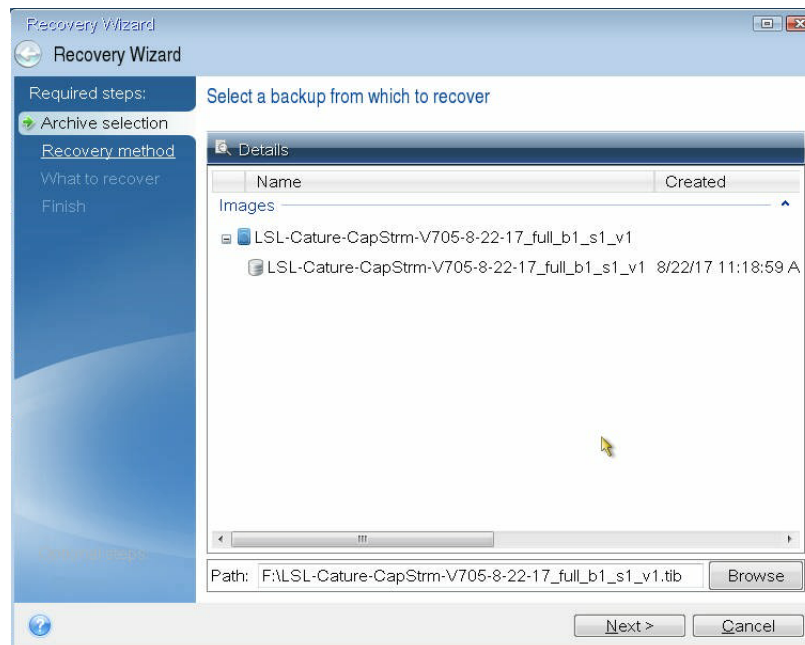


Note: You may notice that the mouse cursor splits into two arrows. The yellow arrow works inside the Acronis app, and the white arrow works on programs outside the Acronis app. If you plan to work only in Acronis, you can select Options > Preference > Input > Single Mouse, and click OK to eliminate the white arrow. Note that if you do this, you won't be able to work outside of Acronis unless you use Ctrl-Alt-Delete > Task Manager > End Task to kill the Java app that Acronis runs in.

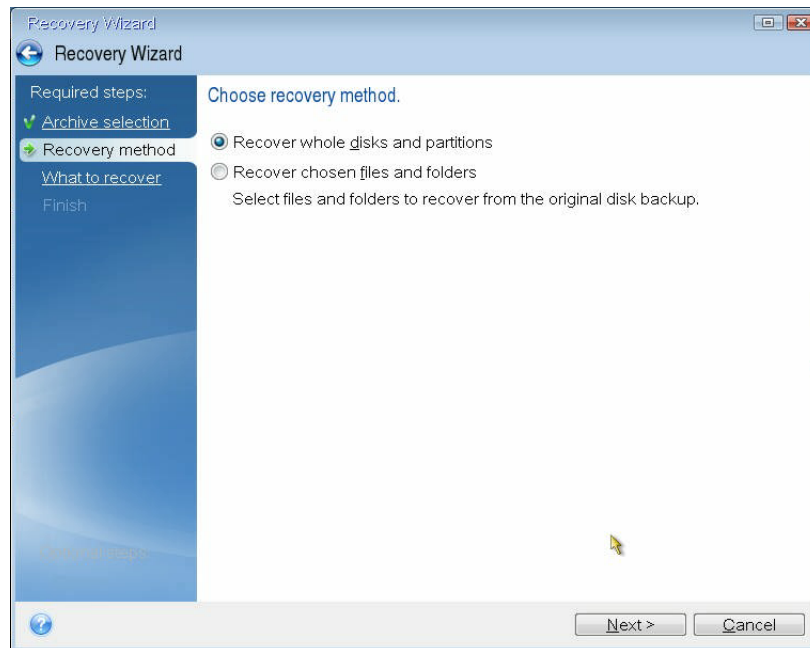
2. Select *Browse for location* to find the drive containing the backup images, and click OK.



3. Select the backup image you wish to use, and click Next.

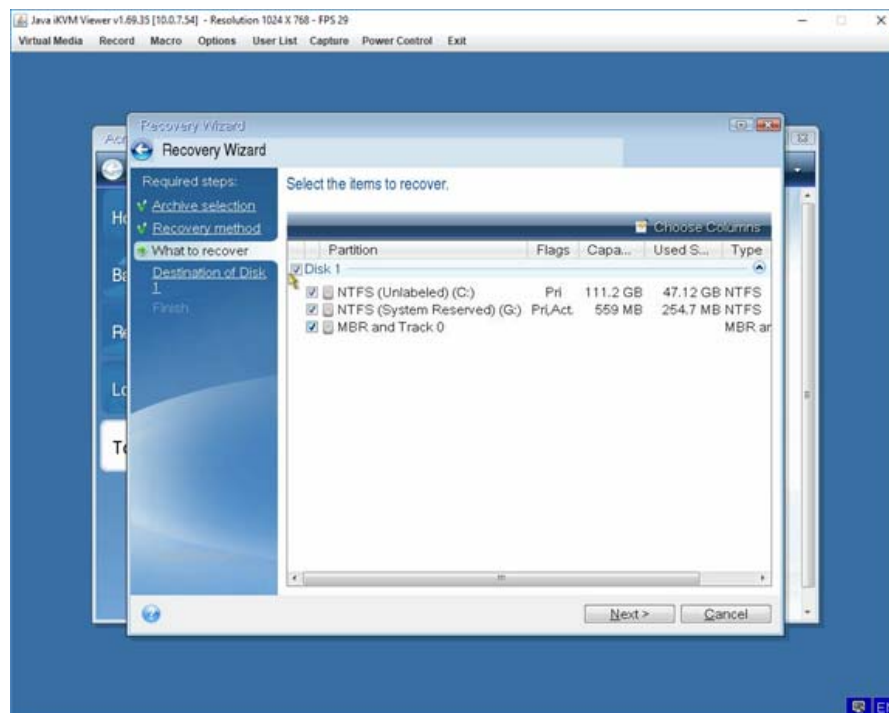


4. Select *Recover Whole Disks and Partitions*, and click *Next*.

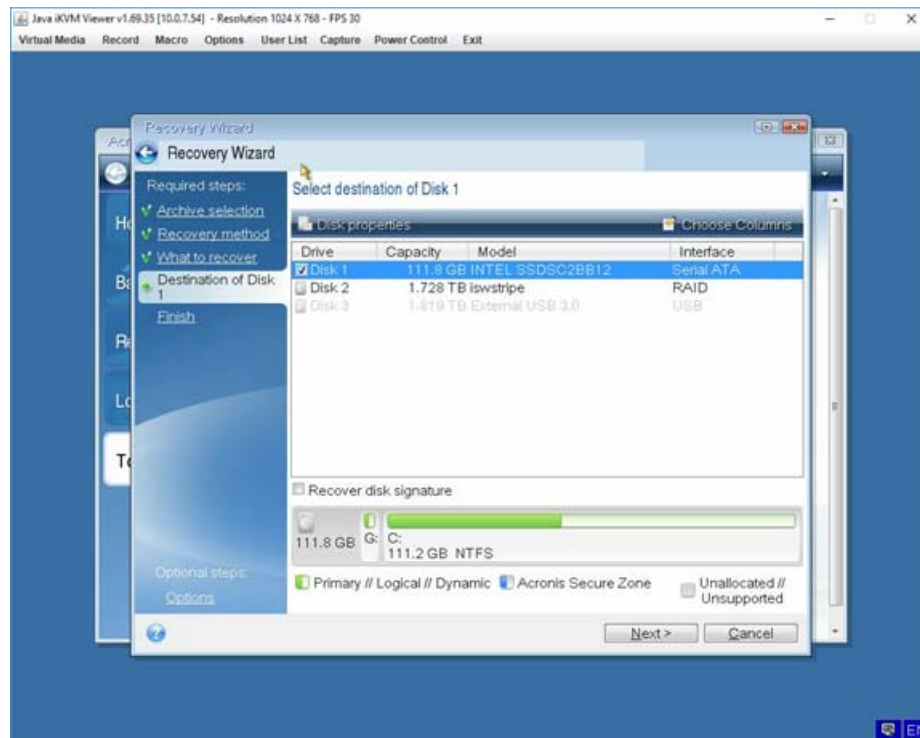


5. Select the items to recover, and click *Next*.

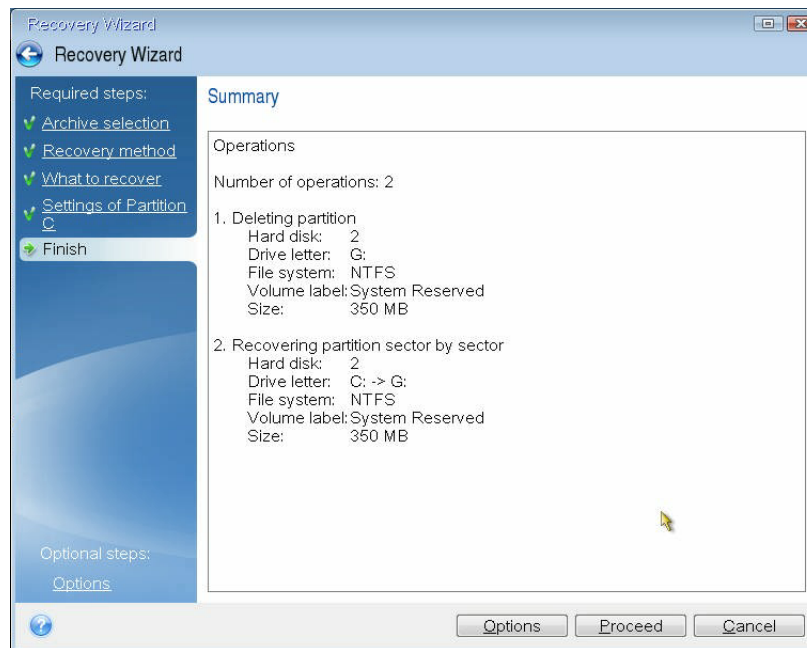
CAUTION: You are about to erase your C-drive containing the server operating system and replace it with a factory OS image. Any data on the drive will be lost.



6. Select the destination disk for the recovery.

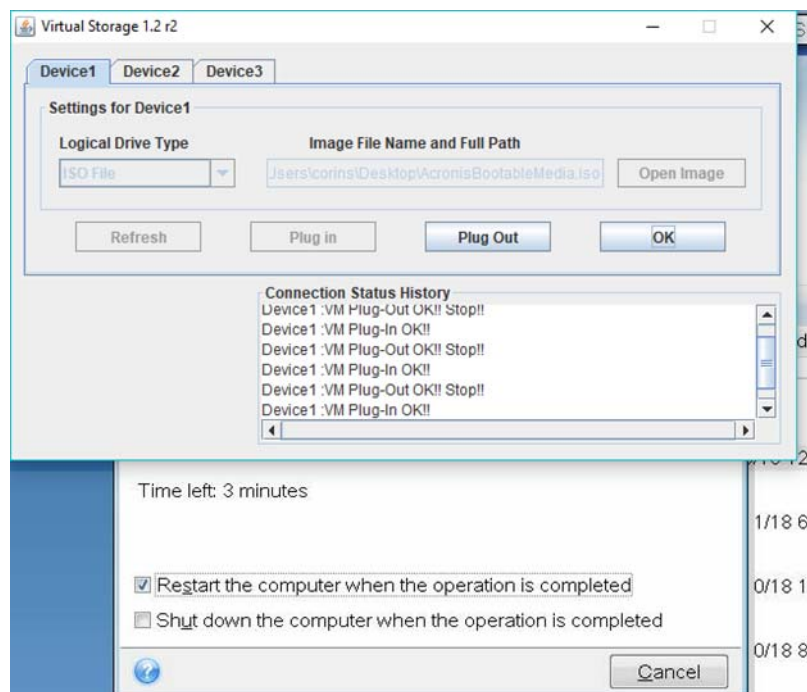


7. Examine the Summary display to make sure you are restoring the correct disk drive with the correct factory image. Then select *Proceed*.



As soon as you click Proceed, the recovery will begin. When it finishes, a completion message appears.

8. Select Restart the computer after the operation is completed.
9. Go to Virtual Media, select Virtual Storage, and Plug Out the .iso so that when the image completes, the Lightspeed Server will reboot from Windows, not the .iso.



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