

Bring Your Own Device or Cloud, or Use Ours

Choice and Flexibility for Axcient Partners

Axcient is unique in providing our partners with the greatest choice and flexibility of any BDR vendor in the channel. Because x360Recover is hardware agnostic, it enables Axcient's BYOD approach, or "Bring Your Own Device," meaning Partners can build or repurpose their own hardware for use as a local BDR appliance or purchase a turn-key hardware and software bundle from Axcient. Partners can purchase hardware from Axcient outright or enroll in the Axcient hardware leasing program. Additionally, BYOC, or "Bring Your Own Cloud," means that Axcient Partners can use the Axcient Cloud, provide their own cloud through their own data center, or do both to retain multiple offsite copies of critical data.



This choice and flexibility gives partners the ability to design the best service for their customers to support optimal total cost of ownership and customer SLAs. Depending on SMB customer requirements and industry-specific use cases, this level of choice and flexibility can be critical for effective data protection and reduce the number of solutions in an MSPs vendor stack that must be mastered by their team.

BYOD Bring Your Own Device

Because x360Recover is hardware agnostic, you can choose to use your own hardware, so long as it meets the minimum hardware requirements. The BYOD option requires that you download and install the software onto your hardware. This means you'll need to pay special attention to hardware requirements.

BYOD Hardware Requirements

The x360Recover appliance and vault use the same ISO image for installation. The procedures are the same for installing any of x360Recover's main components. You will assign the device to a particular role during the "Setup & Configuration" stage, which is performed after installing the base operating system.

- x360Recover automatically updates all of the software and agents so you do not have to worry about managing the underlying operating system. Additionally, the

Axcient support team is available to assist you whenever necessary. Review the [Using the Linux Shell](#) article for instructions on accessing our simplified Linux command line environment.

- Prior to your first deployment of x360Recover, please review x360Recover [Best Practices](#). This should answer many of the questions you may have during your installation process, and provide you with an understanding of best practices to use when deploying the product.

Ubuntu Linux

x360Recover does not require you to purchase proprietary hardware. You can choose your own hardware if it meets the minimum hardware requirements; however, the hardware you choose must be compatible with Ubuntu Linux 16.04 LTS (Xenial Xerus). Current versions of x360Recover ship an updated kernel, so please consult the following links to determine whether or not the hardware you want to use will support Linux:

- <https://ubuntu.com/certified?category=Server>
- <https://ubuntu.com/certified?category=Desktop>
- For individual components, like NICs or HBA controllers, visit www.ubuntu.com/certification/catalog

- You do not need to know Linux in order to run and operate x360Recover software, as all management and operations are performed from within the Web Management interface. However, a basic understanding of Linux, and common Linux shell commands can be useful when troubleshooting and maintaining the product. See our Linux primer [here](#).

Bare Metal Install

We recommend that you install the x360Recover appliance software **on bare metal** for the best performance and to take advantage of automated backup verification booting.

Minimum hardware configuration

- **OS:** 8GB RAM, 4 Cores minimum recommended for 1-5 protected systems
- **Compatibility:** Must be compatible with Ubuntu 16.04 LTS (Xenial) and must be 64-bit OS

If you are backing up more than five (5) servers:

- For every additional five protected systems (production servers being backed up), x360Recover requires four (4) more GB's of RAM and two (2) more cores.

Example: To backup 6-10 servers, x360Recover requires a minimum of 12 GB RAM and 6 cores.

Add the additional memory needed to support running the protected systems as virtual machines.

Example: Two protected systems that normally run with 4GB of RAM would need the standard 8GB of RAM plus 8GB of RAM for virtualization so a total of 16GB.

- We recommend using ECC RAM for data protection and performance.

Machine must have at least three physical hard drives:

- One drive must be dedicated to the operating system. A minimum of 100 GBs is needed for the OS drive, but use of a 256 GB M.2 is recommended. NVMe is supported with x360Recover v8.2.3 and above.

- The remaining two or more drives must be used for storage in a RAID1, RAID5 or RAID6 set.
- x360Recover uses a software RAID. If your BDR has a hardware RAID controller it must be set to a RAID0 or JBOD configuration. Some RAID controllers may not be supported.

SMR-based hard drives are not suitable as x360Recover storage devices.

Shingled magnetic recording (SMR) is a hard drive storage technology that improves data density and storage capacity on disk, at the expense of write performance. SMR drives achieve high storage density by overlapping tracks of data slightly on top of neighboring tracks. The underlying storage mechanism writes entire tracks in a high density fashion that is not conducive to the random write patterns associated with the native copy-on-write functionality of ZFS. Severe performance limitations have been observed with x360Recover when employing SMR based hard drives, and these storage devices are not recommended for use with the product.

Please note: Nightly Boot VM Checks are enabled by default and require an additional 2 GB of RAM and 2 available CPU cores to perform.

If you intend to use virtualization for instant recovery:

1. Processor must support hardware assisted virtualization:
 - Intel VT
 - AMD-V
 - Intel processors significantly outperform AMD
 - **Note:** VMware ESXi 5.5+ supports only Intel processors for Nested Virtualization
2. You must include additional RAM and CPU cores for running virtual machines
3. The minimum total memory required to enable BootVM checks is 10GB

The software/hardware RAID controllers available onboard some motherboards are not supported by Linux and can be used only in IDE/SATA mode.

Unless you are using SAN storage, we recommend using the software RAID provided by the appliance rather than a hardware RAID controller. ZFS Software RAID is more robust than hardware RAID. Alerting for faulted disks, and failed disk replacement are not supported within the x360Recover GUI when using hardware RAID.

Hybrid Software/Hardware RAID controllers are not supported

- We highly recommend installing on bare metal
- Microsoft Volume Shadowcopy Service (VSS) requires sufficient free space on the disk to maintain changed data during backup operations. We recommend maintaining at least 10% free space on each drive volume to ensure sufficient free space is available to backup the system.

Access the [preinstall prerequisites and learn more about installing the OS, installing x360Recover, configuring the device, and setting up the storage pool on the Axcient Knowledgebase.](#)

Use an Axcient Device

We offer a variety of choices if you have decided to use an Axcient backup appliance. You can choose to purchase or lease BDR hardware appliances from us (and, of course, x360Recover installs in <10-minutes on any Ubuntu certified hardware).

Your appliance options

We offer a range of high performance BDR hardware devices, shipped directly to you or your customer. The following options are available:

The x360Recover Eco2

The Eco2 is a compact server and comes in two models:

- Eco2-1500 has 1.5 TB usable storage and 16 GB of RAM
- Eco2-3000 has 3 TB of usable storage and 16 GB of RAM

Any non-SSD Eco2 models use Enterprise HDD's for storage hard drives.

Eco appliances cannot be upgraded and do not have field replaceable parts.

April 2022, we launched a new and improved Eco2, with powerful IPMI functionality. IPMI makes it possible to control and monitor servers centrally and could save MSPs a lot of time and operational overhead.

Access the [Quickstart Guides and learn more about the Eco2 options on the Axcient Knowledgebase](#)

The x360Recover Mini2

Our Mini2 BDR appliance, provides Axcient's most popular storage capacities and price points. The Mini2 is a mini tower which includes a Xeon E-2126G, 32GB RAM, and a 3-year warranty. (The Mini2-6000 is available with 64GB RAM.) Extended 4 or 5 year warranties are available at the time of purchase.

Features include:

- Hot-swap drive bays for easy storage drive replacement
- IPMI for remote access

- Field upgrade to 1.5, 3 or 6 TB of usable storage for hybrid variants (depending on the original model purchased)
- Spare parts kits available for hybrid units
- Any non-SSD Mini2 models use Enterprise HDD's for storage hard drives.

[Learn More about the Mini2 options on the Axcient Knowledgebase](#)

Rack Gen2

The second generation Axcient x360Recover Rack Gen2 BDR appliance is a standard 2U 19" server rack chassis with (8) 3.5" hot swap drive bays. The default configuration is four bays populated with 2, 4, or 8 TB disks. The remaining four slots can be populated with like-sized disks to double the initial storage capacity.

Any non-SSD Rack models use Enterprise HDD's for storage hard drives. The Rack Gen2 is a turnkey BDR appliance that ships pre-configured with x360Recover backup software and can be requested with end-customer configurations during ordering for direct-drop shipping.

[Learn More about the Rack Gen2 options on the Axcient Knowledgebase](#)

[Access the Rack Gen2 Specs and Datasheet](#)

Buy or Lease Your Device? Default or Advanced Configuration?

You can choose to buy an Axcient appliance, or you can opt to lease. You'll make the choice between buying and leasing during the online purchase process, when you also choose the payment terms that best meet your business needs. Leasing is amortized on a 36-month term basis.

[More info: How to Buy or Lease an appliance from Axcient](#)

When you purchase or lease a new x360Recover appliance on the Licensing Portal, you will select either a **Default configuration** or an **Advanced configuration**. Also, Each x360Recover BDR appliance ships with a user-friendly [Quick Start guide](#) describing how to connect to the network.

[Learn more about advanced vs default configuration on the Axcient Knowledgebase.](#)

BYOC Bring Your Own Cloud

Looking to use an your own private cloud vaults? Axcient partners can BYOC, or use self-hosted private cloud vaults when they deploy **x360Recover Direct-to-Cloud (D2C)** to back up remote endpoints, desktops, laptops, servers, and workstations. x360Recover D2C offers a great deal of flexibility – backing up directly to the secure **Axcient Cloud**, an MSP's own **private cloud**, or in the **public cloud** without a BDR appliance. This means they can use the Axcient Cloud, provide their own cloud through their own data center, or do both to retain multiple offsite copies of critical data.

x360Recover Direct-to-Cloud can be used with an Axcient-hosted cloud vault in order to set up Direct-to-Cloud backups. Any x360Recover partner with an **Axcient-hosted Scale-Out Cloud vault** may deploy agents supporting Direct-to-Cloud backup.

MSPs who have built their own data centers can now easily store, replicate, and deploy data with Axcient's Direct-to-Cloud offering, so they can also opt to use x360Recover Direct-to-Cloud on your privately-hosted cloud, if desired.

Private Cloud vaults for Direct-to-Cloud

x360Recover release **10.6.1** now supports Direct-to-Cloud backups on your self-hosted private cloud vaults.

Enable this feature to provide all the functionality of Axcient-hosted Direct-to-Cloud backups.

Prerequisites:

Hosting Direct-to-Cloud backups on your self-hosted vaults has some requirements above and beyond those of normal vault operation.

Firewall ports:

Additional services will be running to receive backup data, so additional firewall ports will need to be opened.

The following firewall ports must be opened from the internet to your vault:

- TCP 80 (Http)
- TCP 443 (Https/TLS)

- TCP 9079 (Thrift/TLS – Endpoint Manager)
- TCP 9082 (Thrift/TLS – Cloudserver)
- TCP 9090 (Thrift/TLS – Backup Manager)

Static, public IP address and public DNS 'A' record

Also, your vault will require a static, public IP address and a public DNS 'A' record to provide the Fully Qualified Domain Name (FQDN) address of the vault.

Ensure that your vault is assigned a public Static IP address and has a DNS 'A' record created. Direct-to-Cloud mode requires that the vault be assigned a valid publicly trusted certificate, and certificates cannot be assigned to a simple IP address. (Certificate management is handled automatically by the system.)

Learn more about how to enable Direct-to-Cloud private vaults in the Axcient Knowledgebase.

Use the Axcient Cloud

When speaking about cloud, there are few things more valuable than access and security of your data. Where it resides, is it accessible, highly resilient, and secure are fundamental questions that need to be addressed and answered. For years, Axcient data centers have exceeded industry standards for security, integrity, resiliency, availability, and performance. Today, tens of thousands of companies around the world choose to host their data in Axcient data centers.

Axcient data centers are SSAE 16 Type II Certified or SOC Certified and have 99.999% reliability, translating to less than 5 minutes average downtime per year. The company's data centers have undergone strict audits to ensure compliance.

Key Features of the Axcient Cloud:

- TCP 80 (Http)
- Secure and compliant data centers, exceeding industry standards
- Highly resilient and disaster proof data centers, providing 99.999% reliability
- Multi-level physical and virtual security, ensuring safety of cloud data
- 24/7/365 monitoring and management of data centers, allowing proactive resolution

- Secure always-on network, eliminating service interruptions
- Comprehensive data integrity systems with extensive redundancy, providing total data integrity assurance

[Learn more about the Axcient Cloud and Axcient Datacenters](#)

Ready to learn more or try Axcient yourself?
Start a no-cost, no-obligation trial today.

info.axcient.com/trial-signup

ABOUT AXCIENT:

Axcient is an award-winning leader in business continuity and disaster recovery for Managed Service Providers (MSPs). Axcient x360 provides one platform for MSPs to Protect Everything™, and includes BCDR, Microsoft 365 and Google Workspace backup, and secure sync and share. Trusted by more than 3,000 MSP partners worldwide, Axcient protects business data and continuity in the event of security breaches, human error, and natural disasters.

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