



Virtual Server Data Protection and High Availability

Although server virtualization reduces IT infrastructure costs, it also adds complexity to protecting the wide range of applications installed on the virtual machines and the ever-increasing volumes of data created. Disruptions to systems and application availability and loss of data typically translate to loss of revenue, lower levels of customer service and employee productivity, and even loss of reputation. Organizations need more than basic backup to provide business protection in today's fast-paced environment. They seek faster recover times with continuous data protection and high availability to support their demanding service level agreements and disaster recovery strategies.

CHALLENGES

Protecting virtualized servers, whether those servers run on VMware, Microsoft® Hyper-V™ or Citrix® XenServer, requires more than backup and restore alone can provide. Some virtualization vendors provide data protection capabilities, but they only work on their own platform. Point solutions are not cost-effective, and they make managing a mixed environment complex. And what about protecting the physical servers?

PRODUCT INFORMATION

The CA ARCserve Family of Products helps to ensure the reliability and availability of your virtualized environment. It provides fast backup, granular recovery, replication and high availability of physical and virtual environments with easy-to-use tools and innovative technology that offers exceptional flexibility. You get protection at the Hypervisor and virtual machine levels along with visualization of the entire ecosystem to ease management.

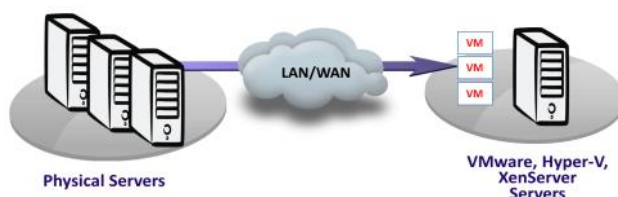
BENEFITS

With the CA ARCserve Family of Products, organizations have more control over their virtualized environment to meet demanding service-level agreements and disaster recovery strategies. The CA ARCserve Family of Products helps to eliminate downtime, providing total system and data protection, and speeds recovery of virtualized servers and data. It enables companies to easily manage and maintain their virtual servers without disruption to ongoing business operations.

Today, many IT organizations face the daunting task of protecting the information created by applications that are installed on virtual servers. Historically, some of these organizations have utilized a software backup solution, but the process of virtual server backup and restore is not the same as that performed on physical servers with only one application installed. Some backup solutions don't offer the restoration granularity required for quick restore. Others demand full VM restore to temporary disk space—even to recover a single file. Backup to tape adds additional time in finding and mounting the correct tape before the process can even begin. Then, most organizations run backups on a daily or weekly basis, which may not really support the desired recovery point objective (RPO)—which is the amount of data that an organization is willing to risk losing between periodic backups. Organizations today are turning to other complementary solutions such as VSS Snapshots, replication, continuous data protection (CDP) and high-availability technologies to minimize downtime, especially for critical applications and data and more important user groups.

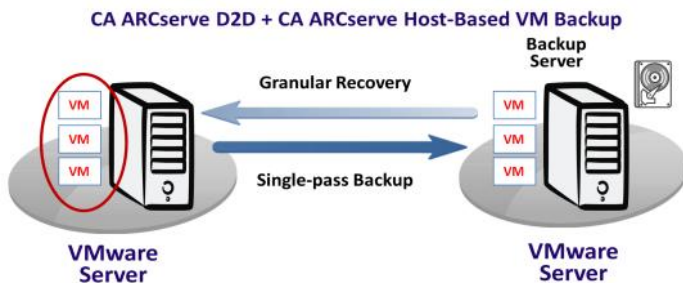
Physical to Virtual Server Migration

All organizations need a better, faster and easier way to migrate from physical to virtual servers. CA ARCserve® D2D combined with CA ARCserve® Central Virtual Standby provide a fast and easy way to migrate Windows®-based systems, applications and data from physical to virtual servers. Together, these technologies convert CA ARCserve D2D recovery points to VMware Virtual Machine Disk (VMDK) or Microsoft Virtual Hard Disk (VHD) formats. CA ARCserve



Central Virtual Standby automatically pre-registers each CA ARCserve D2D recovery point with the hypervisor for immediate use if a system outage occurs. VMs can be powered on manually or automatically. **CA ARCserve® Replication** and **CA ARCserve® High Availability** offer full system replication and failover that migrates entire systems including the operating system, system state, application and data from Windows-based physical servers to VMware vSphere™, Microsoft Hyper-V and Citrix XenServer virtual servers (virtual machines). Once migration is complete, you can manually or automatically fail over to the new virtual server without disrupting employees. CA ARCserve High Availability also enables you to migrate between virtual machines—say, from VMware to Microsoft Hyper-V—for organizations seeking to change virtualization vendors or deploy a mixed environment.

Backup and Recovery

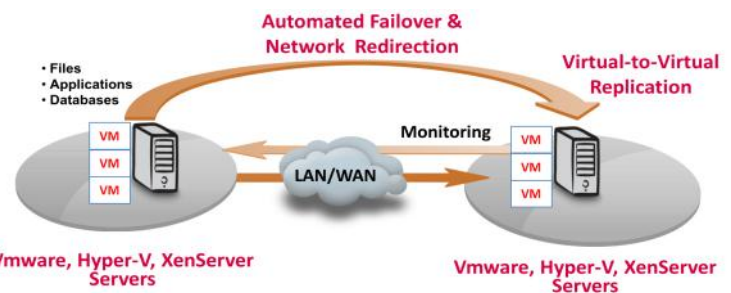


Both **CA ARCserve® Backup** and **CA ARCserve® D2D** are used to protect virtual servers. CA ARCserve Backup protects VMware vSphere, Microsoft Hyper-V and Citrix XenServer virtual servers. It provides fast, image-based backups with “one-step” granular restore and Infrastructure Visualization to easily identify the various virtual and physical servers in a network diagram for your environment. Built-in data deduplication also reduces backup storage requirements by up to 95 percent. CA ARCserve D2D protects VMware vSphere,

Microsoft Hyper-V and Citrix XenServer servers with infinite, incremental backups and bare-metal restore for quick recovery and easy server migration. Combine CA ARCserve D2D with CA ARCserve® Central Host-Based VM Backup to protect a single VMware host environment—performing backup of all VMs via a single-pass backup without having to install CA ARCserve D2D inside each VM. CA ARCserve Central Host-Based VM Backup captures just the changes since the last backup, enables granular recovery of files and folders from each individual VM and also enables restore of supported applications running within a VM, simplifying protection and recovery of your virtual servers. Both CA ARCserve Backup and CA ARCserve D2D offer bare-metal restore for fast system recovery. CA ARCserve D2D combined with CA ARCserve Central Virtual Standby provides near-instantaneous system, application and data recovery.

Replication and High Availability

Both **CA ARCserve® Replication** and **CA ARCserve® High Availability** protect Windows, Linux® and UNIX® environments on physical and virtual servers. You get VM-level protection for VMware virtual infrastructure and VMware vSphere, Hypervisor and Guest-level protection for Microsoft Hyper-V and VM-level protection for Citrix XenServer—all with a single solution. There’s no need for cluster architecture or storage area network (SAN) replication. CA ARCserve High Availability provides server-level and application-level monitoring with automatic failover and end-user redirection and push-button failback.



Whether you perform backup and restore, replicate data off-site or to the cloud for disaster recovery or plan high availability for critical file, application and database systems, the CA ARCserve Family of Products enables you to virtualize your servers with confidence.

Overview of the CA ARCserve Family of Products

Don't Compromise! Whether you're protecting a handful of servers or thousands of servers across your enterprise, the CA ARCserve Family of Products gives you control over your virtualized environments by delivering total protection, recovery and availability for your virtualized servers, applications and data. The CA ARCserve Family of Products is the only solution that offers a full range of products from bare-metal restore to fully automatic failover for high availability—whether it is deployed on-premise, off-premise or in the cloud. You get a complete strategy to manage backup, recovery and availability in both virtual and physical environments, providing the scalability, flexibility and security you need today.

CA ARCserve® Backup goes beyond backup, giving businesses highly reliable data protection with centralized management that makes sense, no matter how complex your data or IT infrastructure is. CA ARCserve Backup offers all this at a fraction of the cost of the competition. Reduce your backup storage by up to 95 percent and regain precious time with the only product that combines data deduplication; integrated backup copy to cloud storage; granular restore of applications such as Active Directory®, Microsoft Exchange and Microsoft SharePoint®; Infrastructure Visualization; and archiving—for both physical and virtual servers in a single package.¹ Synthetic full backups reduce backup windows and integration with CA ARCserve D2D provides a single catalog to recover data, regardless of how it was backed up. It also offers auto-discovery of your VMware and Hyper-V virtualized server environment and enables image-based backups with granular restore without the need for a staging server.

CA ARCserve® D2D provides fast and easy backup to disk and is the only Windows-based backup solution that offers infinite, incremental (I2) backups and bare-metal restore—including to dissimilar hardware. This new backup methodology changes how backups are performed to significantly reduce backup and restore times and eliminate the inherent risks of tape devices and media. It also enables faster and more granular recovery points—up to every 15 minutes—speeding data recovery, either from local data on disk or remote data stored in the cloud. Centralized deployment, management and reporting reduce implementation and management effort and provide status information to you for increased peace of mind. The new **CA ARCserve Central Host-Based VM Backup** application for VMware virtual servers simplifies protection of all virtual servers on a physical host while the new **CA ARCserve Central Virtual Standby** application provides near-instantaneous recovery of any server as a VM. Companies that have an installed backup system can use CA ARCserve D2D to improve their recovery time.

CA ARCserve® Central Applications deliver greater integration and easily add new functionality across the CA ARCserve Family of Products for improved recovery time, reduced IT management workload and enhanced backup of your virtualized servers. **CA ARCserve® Central Protection Manager** provides a centralized view and management of all servers and workstations that CA ARCserve D2D protects, reducing IT workload through simplified, policy-based administration. **CA ARCserve® Central Reporting** provides centralized reporting on all devices, settings and policies running on-premise and off-premise that are protected by CA ARCserve Backup and CA ARCserve D2D, so you can easily understand what is happening across your environment. **CA ARCserve Central Host-Based VM Backup** uses CA ARCserve D2D to protect a single VMware host environment, performing backup of all VMs via a single-pass backup without having to install CA ARCserve D2D inside each VM. It enables granular recovery of files and folders from each individual VM and the restore of supported applications running within a VM, simplifying protection and recovery of your virtual servers. Finally, **CA ARCserve Central Virtual Standby** makes CA ARCserve D2D backups available to run like regular VMware VMDK or Microsoft VHD virtual servers. It automatically pre-registers each recovery point with the hypervisor for immediate recovery as a VM if a system outage occurs. The recovery transfer time is eliminated and VMs can be powered on manually or automatically when they are needed to provide near-instantaneous recovery or simple migration from a physical server to a virtual server.

CA ARCserve® Replication, formerly known as CA XOSoft™ Replication, provides continuous data protection for Windows, Linux and UNIX systems on physical and virtual systems. You get an easy way to migrate and copy data between servers and locations, as well as between remote offices, and a central site for backup and archiving. It delivers local area network (LAN) and wide area network (WAN) continuous and periodic replication, whether on-premise, off-premise or in the cloud. You get Data Rewind for continuous data protection (CDP) to complement any periodic backup solution, helping to speed recovery and minimize data loss. Only CA ARCserve Replication offers offline synchronization, multi-stream replication, bandwidth throttling and multiple replication options to help balance network resources with your desired level of protection.

CA ARCserve® High Availability formerly known as CA XOSoft™ High Availability, includes all the features of CA ARCserve Replication and adds continuous system, application and data availability for your critical systems. It provides server and application monitoring, automatic and push-button failover and push-button failback to reduce risk to your sales, service, operations, employee productivity and reputation. Unlike other high-availability solutions, CA ARCserve High Availability does not require any cluster architecture or additional “witness servers” and responds to issues at the server and application levels to make sure that IT resources are available when they are needed. Only CA ARCserve High Availability offers offline synchronization to speed deployment with large Windows data sets and databases, and a unified, web-based management service.

The CA ARCserve Family of Products, along with affordable, flexible and simple licensing options, makes CA Technologies the value leader in the market, delivering enterprise-class system, application and data protection, recovery and availability for a wide range of operating environments and applications. Certified across an extensive range of industry platforms and applications, the CA ARCserve Family of Products provides compatibility and support for small and large heterogeneous environments.



Benefits

The CA ARCserve Family of Products provides economical and comprehensive solutions to address your organization's challenges and initiatives. Together, they provide a wide range of benefits and give customers more control over their changing people, processes and technologies. Benefits include:

- Providing a complete strategy and full range of products to manage your VMware, Microsoft Hyper-V and Citrix XenServer system, application and data protection
- Helping to minimize system downtime that affects sales, service, customer satisfaction, and employee productivity
- Improving overall data protection and speeding application and data recovery
- Easing the deployment, management and maintenance of virtual servers and data
- Improving service levels while reducing IT costs
- Supporting any combination of virtual and physical environments

Next Steps

Learn more about the CA ARCserve Family of Products by visiting arcserve.com/products. Please contact your local reseller or visit arcserve.com/us/partners-info to locate an authorized partner in your area.

Try the CA ARCserve Family of Products now, visit arcserve.com/software-trials