Business Continuity and Disaster Recovery Planning
IT organizations face many challenges when planning business continuity (BC) and disaster recovery (DR) strategies. We all know that traditional tape-based backups are slow and risky due to the inherent problems of tape drives and media. To make matters worse, the explosive growth of data makes it almost impossible to meet backup windows. And if you don’t have the right solution, disk-based backup can significantly increase DR costs due to ever-growing storage requirements. In addition to data protection, IT staffs are tasked with meeting demanding service level agreements (SLAs) for system and application availability and recovery. Then you have the challenge of getting copies of your systems, applications and data off-site to address man-made disasters such as fire and power outages as well as natural disasters like floods, earthquakes, hurricanes, tornados and blizzards. How can your IT organization build a BC/DR strategy with a single solution that addresses all these risks?
Customer Challenges

Guarding against the myriad of day-to-day system and application outages and the risk of data loss due to human error, malicious attacks and even theft is imperative in today’s tough economic and competitive climate. Businesses just can’t afford for employees to sit idle when unexpected system outages occur, nor can they afford to have staff manually re-enter lost or damaged data – especially in a high transaction processing environment. And preparing for man-made and natural disasters on top of that just makes it harder. It’s tougher than ever to meet the recovery time objectives (RTO) and recovery point objectives (RPO) that service-level agreements (SLAs) and business goals demand. In addition, with rampant expansion of server virtualization, exponential data growth, distributed computing and interest in the cloud and Software-as-a-service (SaaS), the IT environment is becoming more and more complex over time. IT professionals like you need an easy to use, yet comprehensive solution for the protection, recovery and availability of the systems, applications and data on which your business depends—all while trying to control or reduce IT costs.

The Solution: CA ARCserve

CA ARCserve provides many capabilities to help you address your RTO and reduce risk of data loss to achieve better RPO, all while maximizing the value of a private or public cloud for offsite data protection and system availability. You get:

- image and file-based backup that can deliver fast backup and restore while reducing storage requirements and costs
- Scheduled replication to copy backups offsite and to the cloud for disaster recovery and continuous replication to complement periodic backups for critical servers and applications
- Automated system failover for high availability and business continuity
- Bare metal recovery (BMR) that speeds system recovery by up to 80% over traditional methods.
- Support for both physical and virtual servers including VMware, Hyper-V and XenServer

CA ARCserve is also tightly integrated with public cloud services such as Microsoft Windows Azure, Amazon Web Services, Eucalyptus and Fujitsu Global Cloud Platform. And it is used by MSPs around the world to deliver on-premise and hosted managed BC/DR services.

Backup and Recovery

CA ARCserve provides fast image-based disk-to-disk backup and recovery for Windows-based physical and virtual servers (VMware, Hyper-V and XenServer) as well as distributed workstations, providing fast RTO. Its block-level, Infinite Incremental (I² Technology™) helps speed backups to address backup window constraints and can significantly reduce storage costs and the volume of data transmitted across the network. It also enables more frequent backups (up to every 15-minutes) to help improve your RPO. You get an easy to use solution with centralized deployment, management and reporting to help improve IT productivity. CA ARCserve also provides hardware-independent bare metal recovery (BMR) to enable slashed system recovery time over traditional methods. Once local backups are completed, critical data and information can be automatically copied to Amazon Web Services (AWS/S3) and Microsoft Windows Azure clouds for offsite data protection and archiving. Information is encrypted for security and you can define file versioning and retention policies to help control cloud storage costs and meet compliance requirements.
If you require backup to tape, or have a mixed operating system environment (Windows, Linux, UNIX, MAC), CA ARCserve provides file-based backup with comprehensive tape management and support. You also get a comprehensive backup dashboard, SRM reporting and infrastructure visualization to monitor the environment and help reduce unplanned outages. Once local backups are completed, they can be migrated to private and public clouds for offsite data protection and archiving. This technology is integrated with Amazon Web Services (AWS/S3) and Eucalyptus clouds. Since CA ARCserve file-based backup includes deduplication at no additional cost, to help reduce cloud storage costs it probably makes sense to dedupe your backups first and then replicate the deduplicated data to the cloud.

**Replication**

If you’re looking to migrate physical or virtual server backups from the data center or remote offices offsite or to the cloud, CA ARCserve provides scheduled replication that is used once backup completes. CA ARCserve’s replication can be used with deduplicated data to reduce the amount of data transmitted and stored in the cloud. If you’re looking to reduce risk of data loss and address demanding recovery point objectives (RPOs), you can use continuous data replication—whether to a local server or to the cloud. CA ARCserve’s replication technology is integrated with Amazon Web Services (AWS/EC2) public cloud for quick and easy offsite data protection if you don’t have your own remote site.

**Virtual Standby**

CA ARCserve provides Virtual Standby for fast system recovery. It automatically converts periodic image-based backup recovery points to a virtual disk format and registers with the standby Virtual Server (VMware or Hyper-V) hypervisor. If the system fails for any reason, you can perform manual or automatic failover for fast recovery. Virtual Standby can be used at the VM level as well as at the host level to protect all VMs on a single host. This solution supports both P2V and V2V failover scenarios.
High Availability

For your most critical systems, CA ARCserve provides comprehensive system, application and data high availability for physical and virtual servers running Windows, Linux and UNIX. It performs continuous replication, server & application monitoring, automatic and push-button failover, and push-button failback after the production server is repaired or replaced. You can deploy this solution onsite, offsite and in the cloud. The Full System Protection option replicates an entire Windows server environment (O/S, system state, application and data) to an offline virtual machine and provides hardware independent BMR system recovery and non-disruptive re-synchronization for failback. CA ARCserve’s high availability component includes integration with Amazon Web Services (AWS/EC2) for failover to a public cloud and when using Full System Protection, since the failover VM is offline, you typically don’t pay for server processing time until an actual failover.

Licensing

CA ARCserve offers flexible licensing options. For environments with a large number of servers, you can use Managed Capacity licensing that allows for an unlimited number of servers and VMs based on the volume of data being protected. For virtual servers, per-host licensing is offered that allows you to protect an unlimited number of Virtual Machines (VMs) on a single host server with one, low-cost license. You can also choose from per-socket (unlimited cores) licensing and per-VM licensing—which ever best meets your specific needs.

Software-as-a-Service (SaaS)

CA ARCserve is available as SaaS if you prefer a subscription-based, service offering. If you want a Disaster Recovery solution, CA ARCserve offers CA ARCserve® D2D On Demand, where you perform image-based backups to local disk and then critical files and data are automatically copied or archived to bundled Microsoft Windows Azure public cloud storage for offsite data protection. If you want a Business Continuity solution, CA ARCserve offers CA Instant Recovery On Demand™ that provides real-time continuous replication, system and application monitoring, and automatic and push-button failover using CA’s cloud data center to keep business going after an unexpected system or application outage. Its continuous data replication helps you reduce risk of data loss too.

The CA ARCserve Advantage

- **Delivers true hybrid data protection:** That means fast onsite backup and restore along with integrated cloud support for offsite system and data protection.
- **Helps you build effective business continuity and disaster recovery strategies:** You can use your own on-premise and remote facilities and resources, partner with a managed services provider (MSP) or leverage a public cloud. Besides offering onsite protection and recovery, it allows you to quickly and easily migrate files, applications and even entire systems offsite and to a public cloud for disaster recovery. You can even run your systems and applications from the cloud for business continuity.
- **Allows you to recover assets where, when and how you like:** That includes all your systems, applications and data. You can recover a single file, folder or email, an Exchange mailbox, a large server volume or an entire Exchange, SQL Server or SharePoint database.
- **Helps you virtualize with confidence and protect your investment:** VMware. Hyper-V. XenServer. You’re covered, whether you choose one or some combination of these for your server virtualization platform. By using server virtualization as part of your system and data protection strategy, you can speed recovery time and
reduce costs.

- **Scales to meet your business’ future needs:** As your business grows and your IT environment and data protection strategies evolve, you can adopt new components to address new challenges.

**Benefits**

- Reduce cost, risk and complexity by having one solution with comprehensive protection and recovery capabilities for both physical and virtual servers.
- Enhance business continuity and disaster recovery by recovering systems, applications and data up to 80 percent faster than with traditional methods.
- Reduce storage requirements by up to 95 percent.
- Meet demanding compliance requirements.
- Save money by taking advantage of flexible, needs-based license management.

**Summary**

Whether you’re protecting a handful of servers or thousands of servers and virtual machines across your enterprise, CA ARCserve offers you a wide range of cloud integrated technologies that provide a solid foundation for your business continuity and disaster recovery strategies to help reduce business downtime caused by system outages and data loss.

**Next Steps**

Learn more about CA ARCserve by visiting [arcserve.com](http://arcserve.com). Please contact your local reseller or visit [arcserve.com/us/partners-info](http://arcserve.com/us/partners-info) to locate an authorized partner in your area.

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