

Virtualization with Arcserve® Unified Data Protection

Server and desktop virtualization have become very pervasive in most organizations, and not just in the enterprise. Everybody agrees that server virtualization offers many advantages, saves money, offers more flexibility, etc. Although server virtualization helps reduce 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 on shared storage devices...But it can also help in disaster recovery scenarios and can offer some level of high availability.

This apparent contradiction is an opportunity that can be seized to enhance service levels, in particular to better control those metrics focused on system and data recoverability. To do so, users need to truly understand the operational ramifications of virtualization deployments. One critical step is to adopt the right approach and technologies when it comes to data protection.

The solution is not to add more complexity by adding yet another point solution or vendor, but rather to take a holistic and unified view of data protection across the infrastructure, virtual and physical.

Introducing Arcserve® Unified Data Protection

Arcserve delivers the only data protection solution suite to deliver enterprise-grade capabilities without the complexity often associated with enterprise solutions. With Arcserve Unified Data Protection (UDP), small and over-stretched IT teams safeguard cloud, virtual and physical data by protecting to and from any target, while configuring and managing all aspects of data protection through a single, elegantly simple user console. As business needs change or requirements evolve, IT teams easily turn on high-performance capabilities without burdensome forklift upgrades or layering on additional point solutions. Arcserve UDP leverages multiple modern technologies to optimize operational efficiencies such as global deduplication on any storage hardware.

Arcserve UDP is the first solution to combine industry-proven backup, replication, high availability and true global deduplication technologies within one solution and unlike competitive products, does not require expensive professional services.

The newest version of Arcserve UDP further improves our channel partners and customers' ability to deliver higher operational efficiencies as they improve their RPOs and RTOs with a combination of innovative new features and enhancements. Users leverage expanded data protection capabilities for on-premise and



cloud environments, including further integration into public cloud infrastructures for disaster recovery (DR). Reporting and orchestration is effortless with new and enhanced capabilities that enable more control over data protection processes. Arcserve offers several deployment modalities: software, appliances (Arcserve 8000 Appliance Series), and the Arcserve Cloud.

Unified Solution with Broad Features	Image backup, high availability, tape, cloud; virtual, physical, global deduplication One UI, all core data protection technologies unified under one solution Global, source-side deduplication across Windows / Linux physical / virtual systems Advanced support for Disaster Recovery in Public Cloud environments
Ease of Use	Out of the box enterprise class protection that leverages wizards (improves end-to-end customer experience) Unified Tape Management module Single installation with Unified Product Installer
Assured Recovery Recovery Point and Time Assurance	Recovery Time and Recovery Point Assurance Assured Recovery with full system high availability Automated Virtual Standby Advanced reporting capabilities, logs, RPO/RTO reports
Service Provider Friendly	Reboot-less Agent Deployment Document API and Log Schema Role-based Administration

Fast, simple, agentless backup for VMware and Hyper-V host environments

Arcserve UDP offers a wide array of functionalities to enhance data protection easily and efficiently:

- Agent-less backup of all VMs without the need to install software agents on each VM
- Automatic protection of newly added VMware VMs
- Auto-discovery of VMs on target hypervisor
- Integrated with VMware vStorage API's
- Application consistent (Exchange, SQL etc.) and transaction-log purge
- Only backs up changed blocks
- Fast, flexible recovery options with Instant VM and Instant BMR
- Easy recovery of individual files and folders from within each Windows or Linux VM
- Centralized node, group and plan management from Arcserve UDP Console

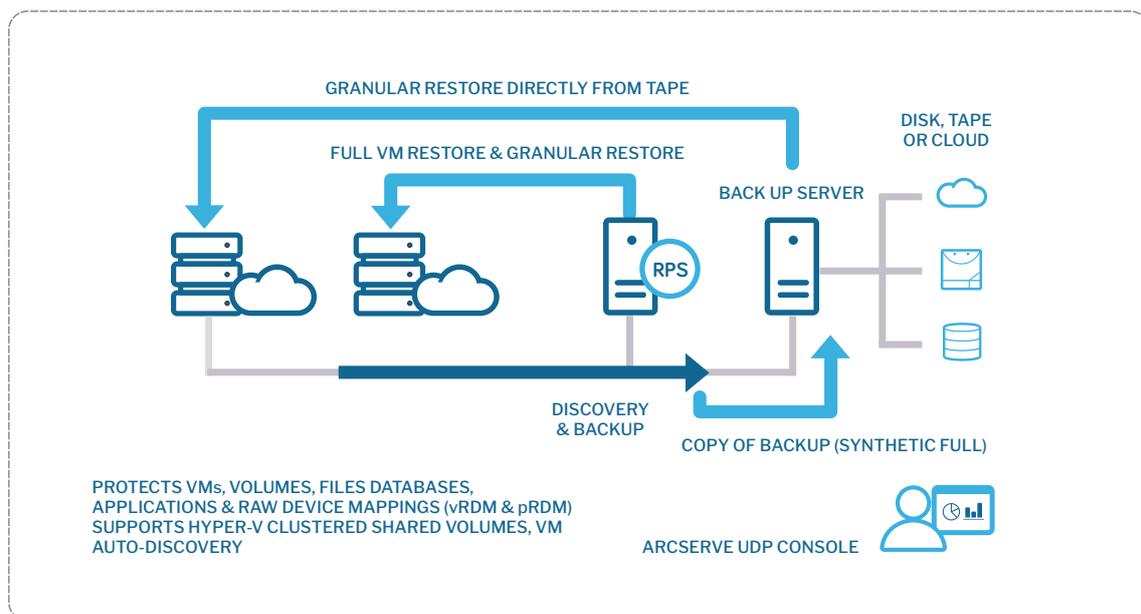


Focus on host-based backup for VMware and Hyper-V

The Host-Based/Agentless Backup Proxy technology enables single-pass backup of all Windows and Non-Windows VMs, without the need to install software agents on each VM.

For VMware ESX/ESXi and Microsoft Hyper-V environments, Arcserve UDP introduces a new changed block tracking mechanism that tracks changes to the virtual disk file of a Virtual Machine. With changed block tracking, only the changed or used blocks of the virtual disk are actually read, which improves performance significantly, as well as reducing overall storage requirements. In addition, Arcserve UDP leverages VSS snapshot technology to help ensure file system and application consistent backups. The resulting backup session format is identical to Arcserve UDP client backups and host-based backup of VMware VMs.

Agentless Backup for VMware & Hyper-V





High Availability Features

Arcserve UDP not only leverages local and virtual remote standby capabilities that can provide a shorter RPO and RTO than traditional backup technologies, but also provides a sophisticated high availability solution for both virtual and physical systems.

Migration capabilities

Migrations often offer operational challenges and complexity in execution. With Arcserve UDP and its high availability and hypervisor support capabilities, many permutations are available whether you are conducting migrations in house or as a service provider. Among the supported topologies and migration use case are:

- Physical System to Physical System (P2P)
- Physical to Virtual (P2V)
- Virtual to Physical (V2P)
- Virtual to Virtual (V2V) including cross-hypervisor migrations. This capability allows users to easily migrate a system from one supported hypervisor to another.

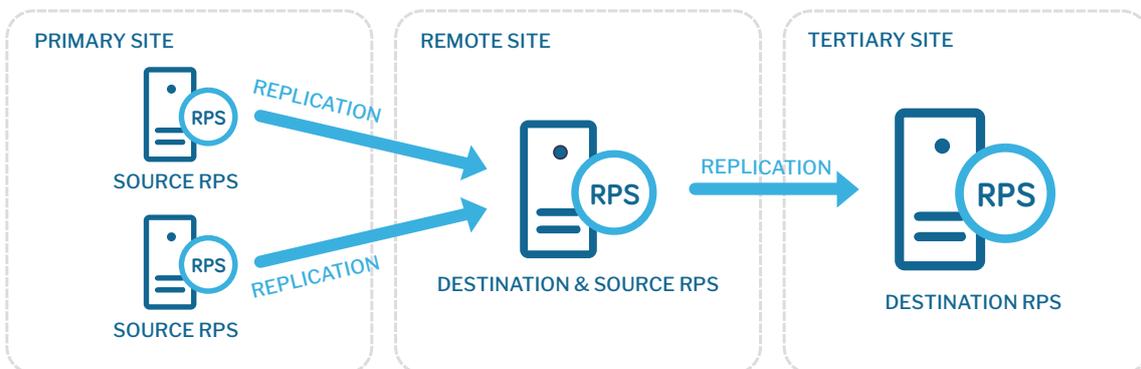
Full System High Availability

- Integrated with Arcserve UDP Console
- Protects Windows and Linux Full Systems (OS, Apps, Data)
- Continuous full system replication enables near-instant recovery of an entire system including business applications, files & data
- Automated DR testing and/or push button fail-over, fail-back
- WAN optimized replication & offline sync, for remote sites
- Extensive migration capabilities (see above)
- Supports DAS, SAN, NAS & cloud storage

Additional Features

- Protection of non-Windows VMs
- Backup of powered off VMs / Single Pass backup with UAC enabled
- vDS VLAN
- Protection of VM with Snapshot

Full System High Availability/Failover





Focus Feature: Assured Recovery

Arcserve UDP uniquely provides capabilities to test and measure your RPO and RTOs through a set of automated and non-disruptive features. Instead of objectives, you can now actively manage your infrastructure with actual numbers: assured recovery metrics.

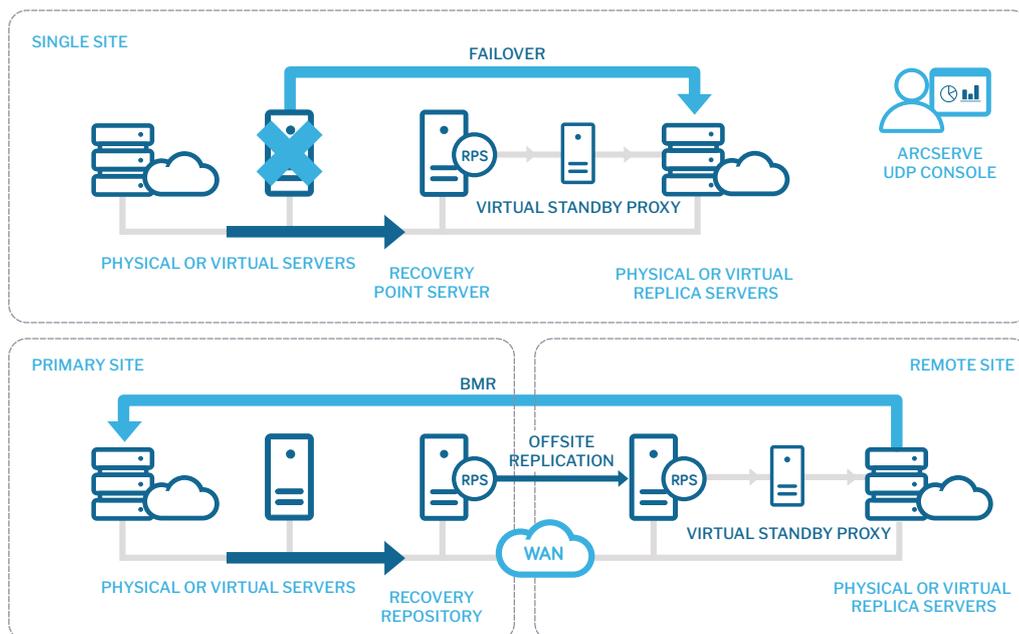
- Enables automated disaster recovery testing of business-critical systems, applications and data, on a separate, replica server
- Non-disruptive process avoids business downtime and impact to production systems
- Recovery testing can be fully automated, or performed on a scheduled basis, as needed
- Assured Recovery reporting provides evidence of system recoverability for compliance auditor RPO and RTO reports are now available in UDP

Local and remote virtual standby

With Arcserve UDP you can enhance your RPO and RTO locally or over distance:

- Periodic, image-based system, application & data protection for Windows Servers & VMs
- Replication to remote location (remote office, DR site, MSP & Cloud)
- Recovery point conversion into VHD or VMDK formats at the remote site to a virtual server
- Register with Hypervisor
- Server Heartbeat Monitoring
- Manual failover to remote resources
- Virtual Standby for Windows supports the conversion of recovery points to virtual machine formats on AWS EC2

Local & Remote Virtual Standby with RPS





New **Arcserve UDP** is a next-generation unified architecture data protection solution. It means now you can simply forget about physical backup and virtual backup and high availability and Exchange backup and Windows backup and Linux backup and cloud-based backup and NAS/NDMP backup and disk-based backup and Unix backup and tape backup (breathe) and Citrix Xen backup and Sharepoint backup and SQL backup and Oracle backup and workstation & laptop backup and bare metal recovery and deduplication and file archiving point solutions and just think about how great life can be when data protection **simply works.**

For more information on Arcserve, **please visit** arcserve.com

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