

aCelera Sync: Accelerating Storage Backup, Replication and Recovery Over the WAN

The WAN Impact on Data Protection and Business Continuity

When deploying business continuity (BC) capabilities over a wide area network (WAN), data backup and replication processes among data centers, branches, and replication sites can be significantly slowed down. Low bandwidth, high latency, network contention, and packet loss can interfere with an enterprise's ability to quickly and efficiently achieve recovery time objective (RTO) and recovery point objective (RPO) goals.

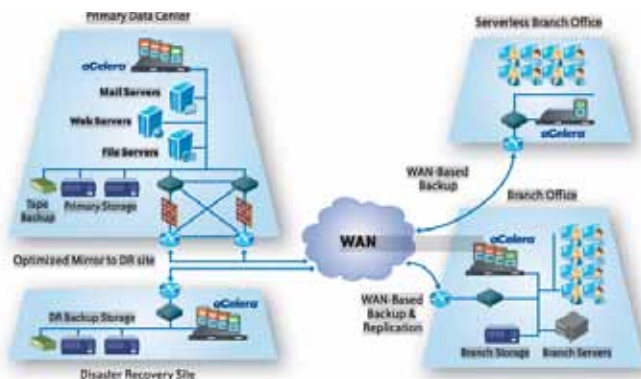
aCelera Sync

Certeon's aCelera Sync software enables more efficient data replication and backup over the WAN. aCelera Sync helps enterprises to quickly and efficiently recover their most valuable asset, their company data, in record time while reducing BC costs. Certeon understands the importance of reducing backup window times and network bandwidth consumption. With aCelera Sync software, distributed enterprises can deploy industry-leading data protection solutions and deliver cost-efficient real-time performance to critical remote backup sites.

aCelera Sync is an open software virtual machine that runs on industry-standard servers. aCelera Sync is supported on VMware ESX and ESXi, Microsoft Hyper-V, Citrix XenServer and Red Hat KVM hypervisors, as well as on Microsoft Windows Server 2008 R2. aCelera Sync leverages the scalability features of virtualized environments, allowing for increases in storage, CPU, memory, and multiple virtual appliance instances within a single system.

Deploying aCelera Sync for Business Continuity

aCelera Sync software is symmetrically deployed at the data center, remote offices, and mirrored sites. aCelera Sync can also be configured to support high-availability (HA) environments commonly found in BC infrastructures. As opposed to its hardware counterparts, with aCelera Sync HA can be deployed at no additional charge.



aCelera Sync Business Continuity Environment
Supporting Storage Backup and Replication Acceleration

Are You Experiencing?

- Long storage backup windows
- Slow storage replication over the WAN
- Time-consuming incremental backups
- Lost productivity waiting for data restores
- Costly network bandwidth consumption
- Replications not being scheduled often
- Large data-loss risk windows
- Replication competing with other WAN traffic

With aCelera Sync you can:

- Dramatically improve RTO and RPO
- Decrease remote backup and replication times
- Increase backup frequency to reduce data-loss risk
- Decrease WAN bandwidth requirements
- Optimize industry-leading data recovery solutions, including, but not limited to:
 - CA XOSoft
 - Commvault
 - Dell Compellent
 - Dell EqualLogic
 - Double-Take
 - EMC Celerra Replicator
 - EMC SRDF/A
 - FalconStor
 - Hitachi HDS
 - HP & HP LeftHand (HP P4000)
 - IBM Tivoli Fast Back
 - IBM Tivoli Storage Manager
 - NetApp SnapMirror
 - Symantec NetBackup

Virtual Appliance

- Ready-to-load software for any industry standard server
- Uses minimal system resources and can reside with other applications

Supported Virtual Machine Operating Systems

- VMware ESX or ESXi
- VMware vSphere
- Microsoft Windows Hyper-V
- Microsoft Windows Server 2008 R2
- Citrix XenServer
- Red Hat KVM

Support for Backup, Recovery and Replication Solutions

aCelera Sync reduces the backup and replication times of many of the industry's leading backup, recovery and replication solutions. Supported backup, recovery and replication solutions include, but are not limited to, products from the following companies: CA XOSoft, Commvault, Dell Compellent, Dell EqualLogic, Double-Take, EMC Celerra Replicator, EMC SRDF/A, FalconStor, Hitachi HDS, HP & HP LeftHand (HP P4000), IBM Tivoli Fast Back, IBM Tivoli Storage Manager, NetApp SnapMirror and Symantec NetBackup.

aCelera Sync for Storage Backup, Recovery and Replication Acceleration

aCelera Sync is tightly integrated with VMware to enable flexible deployment, scalability, and management of systems and network resources. Benefits of aCelera Sync and VMware integration include:

- **Centralized Management** — aCelera Sync can be managed and provisioned via VMware VirtualCenter tools. VMotion enables system managers to move aCelera VA instances from one virtual machine to another without restarting the system providing flexible, ease of maintenance, and configuration without losing connections to any other devices.
- **Scalable Performance** — Support for Dynamic Resource Scheduling (DRS) provides enhanced resource allocation and scalability, enabling system managers to reduce or increase CPU allocation, clock cycles, and memory that an aCelera VA needs to meet overall system and performance requirements. DRS, enables system managers to over commit the system memory to support multiple applications. If more performance is required, another instance of aCelera can be started on any virtual machine (VM).
- **Flexible Deployment** — aCelera Sync's support of the Virtual Machine File System (VMFS) allows system managers to deploy aCelera Sync VA software on any storage device. aCelera Sync software can be deployed to remote offices from centralized storage devices within a data center.
- **High Availability (HA)** — If a VM dies that has aCelera Sync software running on it, then VMware HA migrates the aCelera VA and all other applications to a backup system located anywhere within the VMware environment. If an aCelera Sync VA stops working, then VMware automatically restarts the aCelera Sync VA instance.
- **Business Continuance/Disaster Recovery** — As a part of the VMware environment, aCelera Sync takes advantage of BC/DR environments for half of the cost. Using DRS, system managers can manage and scale aCelera Sync resources as needed within BC/DR environments.

About Certeon

Certeon is the application performance company. With Certeon, enterprises and cloud providers successfully realize key initiatives including consolidation, virtualization, replication and application SLAs. Certeon's aCelera is the only software-based product that is hypervisor agnostic, hardware agnostic and cost effective. aCelera's ability to provide automated, secure and optimized access to centralized applications at the lowest possible TCO make aCelera a cornerstone of enterprise and cloud provider infrastructures. Founded in 2003, Certeon is a private company, headquartered in Burlington, Massachusetts.



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Performance Results

- In performance tests of specific business continuity applications, aCelera Sync reduced full data replication times by up to 97%*. Incremental replication times were decreased by up to 94%*.
- aCelera Sync also decreases network bandwidth requirements by up to 95%*, saving on costly purchases of incremental bandwidth.

Cost Savings

- aCelera Sync software is more cost efficient than is proprietary hardware appliances, saving IT capital, network bandwidth, and operations costs. aCelera software can save IT managers up to 60% in total cost of ownership when compared to hardware appliances.
- IT managers will realize these cost savings in a number of different ways, from their initial investment in the aCelera Sync, to energy savings from reducing the systems footprint, to no charge for High Availability, to operations savings from managing complex distributed BC environments.

* Acceleration results may vary based upon traffic type, network contention and network configuration.

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