

## VISUCATE Maintains Hyper-V Availability, Business Continuity with SIOS DataKeeper®

Software company serving educational institutions uses SIOS' cost-effective replication and recovery solution for continuous data protection



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VISUCATE became one of many small businesses to deploy Microsoft Hyper-V when the much anticipated Windows Server 2008 R2 became available in late October, allowing the company to utilize new Hyper-V features such as live migration. In an effort to complete its set-up, VISUCATE wanted a business continuity platform that met its small business expectations.

Along with taking advantage of the included high availability features of Windows Server Failover Clustering, VISUCATE needed additional assurances that a loss of critical data or downtime would not compromise its software sales. Also, like other small enterprises, VISUCATE required a data replication solution that was reasonably priced and delivered first-class protection.

To address these specific data replication hurdles, VISUCATE, a Fresno, Calif., reseller of Autodesk to educational institutions, turned to SIOS DataKeeper Cluster Edition.

"VISUCATE is a small company. Data replication is very important because without our data we would be out of business," said Jeremy Null, CTO at VISUCATE.

Null was not exaggerating: Estimates from Contingency Planning, Strategic Research Corp. and DTI/Price Waterhouse Coopers suggest 70% of small firms that experience a major data loss go out of business within a year.

"Knowing that data loss is one of the greatest causes for small businesses to fail we had to do something about protecting our data," said Null.

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### The Challenge

As with any business, large or small, VISUCATE required an affordable, uncomplicated and robust data replication platform to protect its new Hyper-V set-up. To prevent any downtime, the company needed its servers to replicate and maintain their operational capabilities: If one server fails, the other server is configured to take over to sustain operations, maximize uptime and assure user productivity.

The joint solution of Microsoft Hyper-V with Windows Server Failover Clustering and SIOS DataKeeper Cluster Edition addressed those business requirements essential for VISUCATE as well as any organization intent on overcoming this challenge.

"It's crucial to have our data protected and available at all times. When we're down we can't be selling, and when we can't be selling we're losing money," said Null.

VISUCATE has a sizable sales effort that targets high schools, colleges and other academic customers in California, Oregon, Alaska, Hawaii and U.S. territories in the Pacific. As such, a solution that provided continuous data protection at a low cost was an absolute requirement for meeting their business objectives.

## The Solution

VISUCATE deployed Windows Server 2008 R2 on two physical servers with the Hyper-V role enabled. The company uses Windows Server Failover Clustering and SIOS DataKeeper Cluster Edition together to provide replication and failover of the company's virtual machines. With the Hyper-V deployment VISUCATE's five virtual machines were installed across both servers, with three in one server and two on the other server.

"In this set-up, if one box fails only about half of the virtual machines need to 'transfer' over to the other box," said Null. "We are cost-effectively utilizing our resources. One box won't be just sitting there waiting for the other to fail. They will both be used."

By keeping an operational Windows Server 2008 Hyper-V virtual machine synchronized between two physical servers, SIOS DataKeeper enables disaster recovery without the recovery and downtimes typically associated with traditional back-up and restore technology. Real-time continuous replication of active Windows Server 2008 Hyper-V virtual machines ensures that in the event of any downtime impacting VISUCATE set-up the replicated virtual machine can be automatically brought into service with minimal or no data loss.

VISUCATE considered several options for a failover cluster solution. The company dismissed the option of creating a cluster with either a low-cost SAN or NAS/file server. If the SAN in that configuration crashed, the entire set-up would fail.

"We needed our servers to replicate and be able to 'hold their own' on a standalone basis, so that if one failed the other could take over, SIOS DataKeeper Cluster Edition does this for us," said Null.

For companies such as VISUCATE, SIOS DataKeeper Cluster Edition reduces the cost of deploying clusters by eliminating the need for a SAN and increasing the availability of virtual machines and applications by eliminating the single point of a failure that the SAN represents in a traditional shared storage cluster.

## Benefits

SIOS DataKeeper Cluster Edition allows companies such as VISUCATE to build "shared-nothing" and geographically dispersed Windows Server 2008 Hyper-V clusters. By eliminating the requirement for shared storage, companies can protect against both planned and unplanned downtime for servers and storage. Also, the use of SIOS DataKeeper with Windows Server 2008 Hyper-V virtual machines allows for non-disruptive disaster recovery testing. By simply accessing the replicated virtual machine in the disaster recovery site, VISUCATE and other companies can segment a virtual network separate from the production network and start the replicated virtual machine for disaster recovery testing. An administrator can perform complete disaster recovery testing without impacting the production site.

In addition to support for Hyper-V clusters, SIOS DataKeeper Cluster Edition enables multi-site clusters for all other Microsoft cluster resource types such as SQL Server, Exchange, File/Print and DHCP.

The SIOS DataKeeper data replication solution for Windows Server 2003 and Windows Server 2008 is available in two versions. The first version, SIOS DataKeeper, delivers data replication services as an extension to Windows Server 2003 and Windows Server 2008. The second version, SIOS DataKeeper Cluster Edition, further extends the capabilities of Microsoft Cluster Services and Windows Server Failover Clustering. Both editions support real-time replication of Windows Server 2008 Hyper-V virtual machines between physical servers across either LAN or WAN connections.

SIOS DataKeeper and SIOS DataKeeper Cluster editions are certified to work with Windows Server 2008 R2.

## About SIOS

SIOS delivers innovative software solutions that provide application availability and disaster protection for Windows and Linux environments.

### Clusters Your Way.™

An essential ingredient in any cluster solution, SIOS SAN and SANless clustering software provides the flexibility to build clusters your way to protect your choice of Windows or Linux environment – and any configuration (or combination) of physical, virtual and cloud (public, private, and hybrid) storage – without sacrificing performance or availability. SIOS provides unique #SANLess clustering software that eliminates both the cost and the single-point-of-failure risk of traditional SAN-based cluster solutions.

Founded in 1999, SIOS Technology Corp., is headquartered in San Mateo, California, and has offices throughout the United States, United Kingdom, and Japan.

## About VISUCATE

VISUCATE specializes in providing Autodesk Computer Aided Design (CAD) software and services for educators in middle schools, high schools, vocational/technical schools, community colleges and universities in California, Oregon, Hawaii and Alaska and throughout U.S. territories in the Pacific.

