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- Daniele Bovina, Systems Architect, Bonfiglioli

Leading Manufacturer Uses SIOS DataKeeper to Overcome Barriers to Moving Business-Critical SAP ERP System to Cloud

SIOS Software Delivers High Availability Data Protection in a User-Friendly Cloud Environment



Bonfiglioli is a leading Italian design, manufacturing and distribution company that specializes in industrial automation, mobile machinery and wind energy products. With more than 3,600 employees in locations around the world, the company relies on its IT infrastructure and applications such as its business-critical SAP-based Enterprise Resource Planning (ERP) application to keep business operations running smoothly.

The Environment

The company's IT infrastructure is an on-premises VMware-based data center and a remote data center for business continuity/disaster protection.

Since most of their applications run on the Microsoft Windows operating system, they used guest-level Windows Server failover clustering in their VMware environment to provide high availability and disaster protection.

The Challenge

This forward-looking company's IT team implemented a program to move part of their IT operations into the Microsoft Azure cloud in a methodical, phased approach. Another key aspect was to leverage Azure as a Disaster Recovery site. "Our ongoing IT strategy is to take advantage of the most advanced service models offered by the public cloud providers," said Daniele Bovina, Systems Architect, Bonfiglioli.

A key component of their migration planning was ensuring that they could still meet strict SLAs for application performance and availability in the cloud. "Before we performed an OS and database migration of our SAP ERP system, from AS400/DB2 to Microsoft Windows/SQL Server, we had to ensure that the new architecture would be cloud-ready and that it would provide better high availability protection than before," said Bovina.



Operations in their on-premises environment were protected by VMware clustering that allows Windows Server Failover Clustering to manage a failover of operations to a secondary server in the event of an infrastructure fault or failure. Providing this type of protection in the cloud posed a challenge because guest-clustering with shared-bus disks is not a viable solution in a public cloud.

The Evaluation

Bonfiglioli considered a variety of options to protect their sensitive, business-critical SAP ERP system and turned to their partner BGP Management Consulting for advice. Based on their extensive experience in helping companies like Bonfiglioli provide high availability protection for important application in the cloud, BGP recommended using SIOS DataKeeper Cluster Edition. The SIOS DataKeeper software had several key advantages. First, SIOS DataKeeper is the only certified high availability clustering solution for SAP in a public cloud. Second, BGP had firsthand experience with SIOS DataKeeper and knew that it was very simple to install, transparent to the OS, and a proven, highly effective solution.

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The Solution

Creating a cluster in VMware using Raw Device Mapping and shared-bus disks (RDM) is challenging and creates limitations for backing up the VMs. SIOS DataKeeper removed these barriers by enabling Bonfiglioli to create a cluster environment without the need for RDM. They simply created a two-node cluster in VMware and added SIOS DataKeeper Cluster Edition to synchronize storage in each cluster instance. The synchronized storage appears to WSFC as a single shared storage disk in their on-premises environment.

The SIOS DataKeeper software also provides high availability protection for their SAP Central Services Instance and eliminates a single point of failure risk of the SAP Netweaver architecture. SIOS DataKeeper replicates an SSD-tiered disk partition in the company's on-premises data center, allowing Bonfiglioli to restore their VMs on Microsoft Azure in the event of a disaster.

The Results

"The SIOS DataKeeper product is not only SAP certified, it is rock-solid and very transparent to the OS, allowing us to take advantage of all the simplicity and benefits of a Windows Server Failover Cluster and the cost-efficiencies and flexibility of the Microsoft Azure cloud." said Bovina.

About SIOS Technology Corp.

SIOS Technology Corp. high availability and disaster recovery solutions ensure availability and eliminate data loss for critical Windows and Linux applications operating across physical, virtual, cloud, and hybrid cloud environments. SIOS clustering software is essential for any IT infrastructure with applications requiring a high degree of resiliency, ensuring uptime without sacrificing performance or data - protecting businesses from local failures and regional outages, planned and unplanned.

Founded in 1999, SIOS Technology Corp. (https://us.sios.com) is headquartered in San Mateo, California, with offices worldwide.

