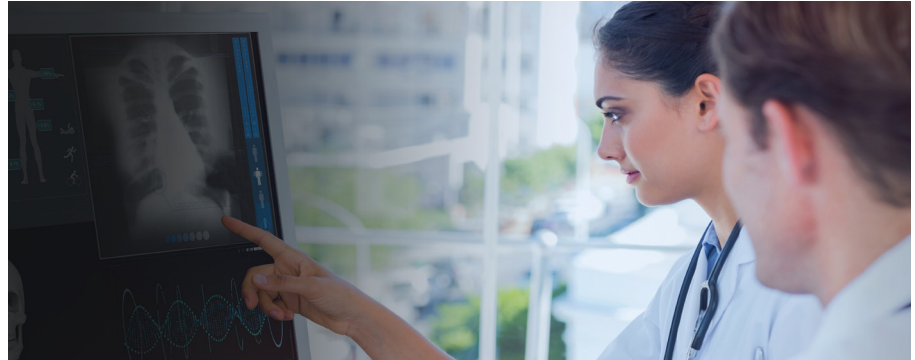


ALYN Hospital Ensures High Availability for its Critical Applications with SIOS DataKeeper

SIOS Chosen for its Cost-effectiveness and Application-agnostic Design

“With SIOS we found a solution that delivers carrier-class capabilities with a remarkably low total cost of ownership. For us, it was an obvious choice.” - Uri Inbar, ALYN Hospital IT Director



ALYN Hospital (www.alyn.org) is acknowledged worldwide as a premier pediatric rehabilitation hospital. As the only facility of its kind in Israel, ALYN specializes in diagnosing and rehabilitating infants, children and adolescents with physical disabilities, both congenital and acquired. The children treated at ALYN come from Israel and abroad to benefit from its multidisciplinary team providing a wide range of medical services, paramedical therapies and additional state-of-the-art rehabilitation services.

The Environment

The IT Department at ALYN Hospital operates a variety of applications in a virtualized Microsoft Windows Server environment. The most critical of its applications include electronic medical records, customer relationship management, SQL Server databases, Exchange and Office. “As a hospital we are subject to some fairly strict government regulations, so we needed to implement strong business continuity provisions for many of our applications,” explained Uri Inbar, ALYN’s IT Director.

Hyper-V Replica, which is integral to Microsoft’s Hyper-V hypervisor,

was an obvious choice for ALYN’s business continuity needs. The IT Department operates two, physically-separated server rooms on premises, which enables all critical virtual machines running on any Hyper-V host server to be replicated to another in the other room. “We were really struggling to satisfy our recovery point and recovery time objectives with this arrangement, so we started investigating other options,” Inbar recalls.

The Challenge

As a private, non-profit organization, ALYN Hospital receives no government funding or other subsidies. To help keep the cost of care affordable for families, the IT Department is asked to operate on a limited budget. One potentially cost-effective option was Windows Server Failover Clustering. But WSFC utilizes shared storage, and because ALYN did not already have a storage area network, it would have been cost-prohibitive to implement identical SANs in both server rooms. Without a viable option available as part of its existing infrastructure, Inbar expanded his investigation to third-party solutions.

The Evaluation

To evaluate third-party failover clustering software, Inbar established three criteria: The solution had to work with existing hardware; it had to provide both high availability (HA) and disaster recovery (DR) protections all of the hospital's critical applications; and the total cost had to fit within the department's limited budget.

The IT staff quickly narrowed the third-party options to two, and after carefully evaluating both, found that only one met all of its criteria: DataKeeper from SIOS Technologies. "While we needed a solution that was cost-effective, we were determined not to sacrifice quality or capabilities," Inbar emphasized. "With SIOS we found a solution that delivers carrier-class capabilities with a remarkably low total cost of ownership. For us, it was an obvious choice."

The Solution

SIOS DataKeeper is ideal for ALYN Hospital's needs because it is purpose-built to provide both HA and DR protections in a single, cost-effective solution. The software-only product combines real-time, block-level data replication with continuous application-level monitoring and flexible failover/failback policies in a total solution that is easy to implement and manage. By leveraging WSFC, SIOS DataKeeper maintains compatibility with the operating environment, thereby affording familiarity for system administrators. Which is why after a relatively short learning curve, the IT staff was quickly able to complete the HA configurations for all applications.

The ability to create 3-node SANless failover clusters with a single active and two standby instances has proven to be especially valuable for ALYN's needs. "We are updating systems and software continuously, and with DataKeeper we can do that without any disruption to operations," notes Inbar. Because the data replication supports multiple standbys, and enables manual, dynamic assignment of the active and standby instances, the active instance can be moved to any server in a 3-node cluster and remain fully protected during periods of planned hardware and software maintenance.

The 3-node configuration has another advantage. Applications that can be safely protected with only a single standby instance in a 2-node cluster still require a file witness, creating a third node that is critical to dependable operation. Locating these file witnesses

in virtual machines running on host servers already being used for active or standby instances in 3-node configurations ensures that all elements of all clusters are being properly managed for high availability.

Other SIOS DataKeeper features that are important to ALYN's needs include the ability to work with any type of storage and WAN-optimized data replication. "The SIOS cluster seamlessly supports any storage volume recognized by Windows, and this substantially simplifies operations while enabling us to utilize all of our storage resources," Inbar explains.

The WAN optimization will prove useful as Inbar and his team implement the remote disaster recovery site. To maintain high transactional throughput performance, data replication across the WAN must occur asynchronously. SIOS DataKeeper utilizes special techniques to optimize the data transmission, which enables the DR protections to satisfy fairly demanding recovery point and recovery time objectives.

The Results

The SIOS DataKeeper solution is currently providing high-availability protection for all of ALYN Hospital's mission-critical applications. While there has only been one actual failure so far (caused by "operator error"), Inbar is confident the SIOS SANless failover cluster will perform as desired when needed: "We test the configuration regularly, and routinely change the active and standby designations, while redirecting the data replication as needed during planned software updates, and the applications have always continued to run uninterrupted. It just works and that's very reassuring."

About SIOS Technology Corp.

SIOS Technology Corp. makes software products that provide the insights and guidance that IT managers need to manage and protect business-critical applications in large, complex data centers. SIOS SAN and SANLess software is an essential part of any cluster solution that provides the flexibility to build Clusters Your Way™ to protect your choice of Windows or Linux environment in any configuration of physical, virtual and cloud without sacrificing performance or availability. Founded in 1999, SIOS Technology Corp. (<https://us.sios.com>) is headquartered in San Mateo, California, and has offices throughout the United States, United Kingdom and Japan.



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