A Storage Success Story

Aberdeen Helps Out The U.S. Army With Its Stirling Storage Solutions

Storage is an important facet of any data center, but when the data center in question belongs to the U.S. Army, finding a secure, reliable storage solution is even more vital. With the U.S. Army in need of a large, fast storage solution for hosting user data and providing disk-based backups, Jeff Dupere, network administrator of the AATD (Aviation Applied Technology Directorate), turned to Aberdeen. “We also needed a complete turnkey solution to begin leveraging a virtualized environment,” Dupere says. “This included a storage-area network, hosts for running the virtual machines, and the Fibre Channel connectivity to tie the two together. Also, the entire solution needed to be VMware-certified.”

The Right Stuff

Aberdeen’s sales rep provided Dupere with the expertise of one of Aberdeen’s engineers, who helped to determine the best solution for the U.S. Army’s environment and needs. The solution included four Stirling 266 servers (2U SuperServers that support Intel’s Nehalem processors), an XDAS D-Series SAN (a 4U, 24-bay Fibre SGSAS 6G DAS), and a Stirling X888 (an 8U storage server). “The Stirling 266s provided us with the hosts for running our VMs, the DAS gave us the backend storage for hosting the data for those VMs, and the X888 met the storage requirements for our user data and disk backups,” Dupere says. The equipment offered all of the required features necessary for the job, such as full redundancy, high amounts of storage, and fast I/O.

Aberdeen’s solution was evaluated against several well-known competitors. “In the end, the solution Aberdeen offered was well-supported, exceeded our performance requirements, and was significantly less expensive than the other offerings,” Dupere says.

Aberdeen also preloaded ESXi on the hosts of the server, which made the environment turnkey for the Army. “We more or less just had to install the equipment in the racks and turn it on,” Dupere says. “They also were able to provide all the extras we needed (additional drives, controllers, etc.) to make onsite repairs much quicker.”

“Aberdeen is not a huge company like some of their competitors, as evidenced that few folks will recognize the name of the company. From sales, to the product itself, to the support you receive afterward, you will not be disappointed.” — Jeff Dupere, network administrator of the U.S. Army’s AATD (Aviation Applied Technology Directorate)

Aberdeen XDAS D-Series

The XDAS D-Series is a 4U high-speed, high-availability SAN that features four 8GB Fibre Channel host ports on each of the controllers which are ideal for the fast throughput and I/Ops needed by the U.S. Army. The XDAS also features full support for 6Gbps SAS drives to provide support for today’s fastest hard drives. The XDAS D-Series is also designed to be always available with fault-tolerant hardware modules, including redundant controllers, PSUs, and fans. As such, there’s no single point of failure for the Army to worry about.

Other helpful protection features include real-time problem detection and notifications through multiple monitoring capabilities on the XDAS. And intelligent firmware helps to protect against hardware failure to optimize performance and maintain data integrity. The XDAS D-Series uses a power supply that’s more than 80% efficient, and it can spin down the drive to save energy when the disks aren’t in use.

The U.S. Army benefits from the XDAS D-Series’ local replication abilities. XDAS storage provides the Army with both snapshot and volume copy/mirror capabilities. Full data copies let administrators quickly restore service if a RAID volume fails, and files can be restored or rolled back through the XDAS’ snapshot copied. Some upgrades when needed, the server features quad Gigabit Ethernet LAN and dual SAS expansion ports. And Aberdeen’s Teaming Technology offers transfer rates up to 430MBps with an added XDAS-iSCSI RAID enclosure.

The 8U chassis comes with a 1,760W power supply that’s more than 80% efficient, and it helps to protect against hardware failure to optimize performance and maintain data integrity. The XDAS also features full support for today’s fastest hard drives. The XDAS D-Series is also designed to be always available with fault-tolerant hardware modules, including redundant controllers, PSUs, and fans. As such, there’s no single point of failure for the Army to worry about.

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Aberdeen Storage Solutions

A number of intelligent storage systems, including the Stirling 266 servers, Stirling X888 storage server, and the XDAS D-Series SAN, designed to offer high-capacity, high-performance solutions to organizations in need of fast and reliable storage.

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