

SECURE WITH DELL

Sequestered Solutions Alaska, LLC selects the dense, scalable, and easy-to-manage Dell EqualLogic storage array to support more than 160,000 potential new storage users



Located on U.S. Air Force property in Anchorage, Alaska, Sequestered Solutions Alaska, LLC (SSA) provides data security for a wide range of commercial clients as well as state and federal government agencies. The company's data center is the only Homeland Security-designated facility in the State of Alaska—in the event of an emergency, the data center would be protected by the U.S. military. The data center's location provides not only increased security but also greatly reduced costs. SSA executives are happy to point to an abundant skilled workforce, relatively inexpensive power, and reduced need for cooling—providing a “greener” Alaskan advantage—versus data centers in the lower 48 states.

SOLUTIONS

- BACKUP/RECOVERY/ARCHIVING
- CONSOLIDATION



CUSTOMER PROFILE

COUNTRY: United States

INDUSTRY: IT/Managed Services

FOUNDED: 2003

WEB ADDRESS: www.sequesteredolutions.com

CHALLENGE

Find a reliable, cost-effective, scalable, and easy-to-manage storage system that can be deployed quickly enough to support 160,000 potential new storage users within six months.

SOLUTION

Sequestered Solutions Alaska, LLC selected Dell EqualLogic™ storage arrays to support DataCenter Vault and other IT services powered by Dell™ PowerEdge™ servers, consolidating 48 TB of data center real estate into a 4U rack space.

BENEFITS

Get IT Faster

- Configured Dell EqualLogic storage system in 15 minutes
- Decreased new storage provisioning from days to minutes

Run IT Better

- Cut acquisition costs by 60 percent and operation costs by 75 percent
- Avoided downtime while adding capacity
- Simplified storage administration

Grow IT Smarter

- Provided the ability to scale capacity to 576 TB in a single SAN
- Prepared the IT group to support more than 160,000 potential new storage clients within six months





HOW IT WORKS

HARDWARE

- Dell™ PowerEdge™ 2950 and 1950 servers with Intel® Xeon® processors
- Dell EqualLogic™ PS100E, PS200E, and PS5000E storage arrays

SOFTWARE

- DataCenter Vault service based on DataCastle
- Microsoft® SQL Server®
- Parallels Virtuozzo virtualization software
- VMware® Infrastructure 3 virtualization software

“BY HOUSING UP TO 48 TB OF RAW CAPACITY IN A SINGLE 4U SPACE, THE DELL EQUALLOGIC PS5500E SAN LEAVES US LOTS OF RACK SPACE TO SUPPORT OTHER CLIENTS AND OTHER REVENUE-GENERATING SERVICES.”

Lara Baker, chief technology officer, Sequestered Solutions Alaska, LLC

In selecting storage systems to support its current managed IT services and Storage-as-a-Service offerings, the company requires reliable hardware that can ensure around-the-clock availability. “Whether our clients are running a patient management system, providing software as a service, or backing up critical government data, we need to ensure that they can access information whenever they need it, without fail,” says Lara Baker, chief technology officer at SSA. “We pride ourselves on having delivered nearly three years of service with zero downtime, and we only choose hardware that will help us continue that expectation.”

The company’s storage systems also need to be scalable enough to address customers’ changing needs. “Clients might initially request a terabyte of storage but then use up that capacity in 30 days,” says Baker. “They’ll ask for another terabyte and then another. We need to be able to accommodate those requests quickly and cost-effectively.”

SSA needed a new storage solution quickly. The company was planning to offer a new service called DataCenter Vault, a comprehensive, online, end point data-protection and backup application for laptops and desktops. SSA anticipated supporting up to 3,000 clients on that service within 60 days and more than 160,000 individual clients within six months. “We had contracts signed already for the first batch of customers, whom we’re now supporting on our existing Dell EqualLogic SAN,” says Baker. “We needed a larger storage system that we could start using immediately and that we could expand incrementally over the course of the year.”

Like most companies, SSA also wanted a storage platform that would be easy to manage. “We don’t want to have to hire technicians with specialized skills just to configure hardware or keep it running,” says Baker. “We need systems that we can deploy and manage easily, and that will integrate smoothly with our existing infrastructure.”

SSA DEPLOYS THE DELL EQUALLOGIC SAN

After exploring a range of storage options with IT consultants Rumsey & Associates, Inc., SSA selected the Dell EqualLogic PS5500E SAN. “We considered purchasing several small storage arrays for the DataCenter Vault service, but we learned from Dave Rumsey that the Dell EqualLogic PS5500E iSCSI SAN could offer a simpler, more cost-effective solution,” says Baker. “We have used Dell EqualLogic SANs for several years, and we were confident in the reliability of the hardware.”

“Sequestered Solutions Alaska is a unique client due to their location, their lower cost, hosting services business model, and their diversified client base of both private enterprises and governmental agencies,” says David S. Rumsey, president and CEO of Rumsey & Associates, Inc. “The IT and management teams are professionals who expect their business partners to be accessible 24/7 and willing to do what

“MAINTAINING CONTINUOUS UPTIME IS ESSENTIAL FOR OUR BUSINESS....THE DELL EQUALLOGIC SANS ENABLE US TO ACCOMMODATE NEW REQUESTS FOR CAPACITY WITHOUT ANY DOWNTIME.”

Sam Morales, chief executive officer, Sequestered Solutions Alaska, LLC

is necessary to help them meet the aggressive requirements of their client base. They appreciate our commitment to them and we, in turn, show the value of their commitment to us by earning their continued business rather than expecting it.”

Rumsey & Associates, Inc. arranged for SSA to test a beta unit of the EqualLogic PS5500E, and Baker’s team was able to get the SAN up and running rapidly. “Compared with storage systems from other vendors we have used, the Dell EqualLogic PS5500E is much easier to set up and manage,” says Baker. “Our staff was trained on previous Dell EqualLogic systems, and that knowledge transferred easily to this new system. We were able to deploy the new system in just 15 minutes, after installing the physical array in our advanced rack technology. It took longer to unpack the box than it did to deploy the SAN. A competing Fibre Channel SAN took more than eight hours to deploy.”

Thorough testing proved that the PS5500E is a reliable system that can deliver outstanding performance under real-world conditions. “We set up a test environment with a few hundred virtual machines, all accessing data on the PS5500E,” says Baker. “We tried to find the performance limits of the machine for our application workloads, but we haven’t found any yet. We have more than 20 physical machines—and many virtual machines—connected to the SAN at the same time. We haven’t seen any slowdown in I/O.”

The density of the Dell EqualLogic SAN enables SSA to optimize data center real estate. “The more space that a system occupies, the less space we have for other services,” says Baker. “By housing up to 48 TB of raw capacity in a single 4U space, the Dell EqualLogic PS5500E SAN leaves us lots of rack space to support other clients and other revenue-generating services.”

SSA REDUCES PROVISIONING TIME FROM DAYS TO MINUTES

With simplified configuration and management, the Dell EqualLogic PS5500E SAN can help SSA deploy new storage capacity rapidly. “With other SANs, it might take hours or days to deploy new storage,” says Baker. “Once the Dell EqualLogic PS5500E was installed, we deployed new storage in 15 minutes after powering up the PS5500E. Provisioning new storage is simple—we can allocate capacity with just a few clicks. That speed lets us be more responsive to our clients’ needs while enabling us to devote more time and energy to new projects like the DataCenter Vault service.”

Baker’s team can also deploy new storage and allocate capacity without additional specialized training. “By selecting the PS5500E, we don’t have to hire a full-time storage person trained on Fibre Channel,” says Baker. “With standard network and systems training, our administrators can manage this system easily. We can install the SAN with iSCSI initiators and standard Ethernet cabling, and they just work. We just plug it into a gigabit switch and go.”

THE DELL EQUALLOGIC SAN OFFERS SCALABILITY FOR HUNDREDS OF TERABYTES

With the potential to scale out to 576 TB by integrating additional units under a single management interface, the EqualLogic PS5500E also provides an easy way to accommodate growth. “If we run out of space on a single system, we can just buy an additional unit, connect it to the existing system, and it is recognized immediately as additional available storage,” says Baker. “The newly expanded system operates as a single pool of storage, so it’s very easy to manage. We don’t have to spend time worrying about where data is located on the SAN. We can just allocate capacity and keep moving.”

The SSA IT group will need that scalability as it rolls out the DataCenter Vault service to more than 160,000 potential new clients. “We estimate that we will need 800 TB of new storage capacity in the first six months,” says Baker. “By choosing the PS5500E as our storage platform, we can reach that capacity cost-effectively, without taking up too much space in the data center and without draining our administrative resources.”

THE DELL EQUALLOGIC SAN HELPS EXTEND MANAGED SERVICE OFFERINGS

In addition to using the Dell EqualLogic PS5500E for the new DataCenter Vault service, the IT group will integrate the system into its virtualized environment for all managed IT services. Currently that infrastructure uses Dell PowerEdge 2950 and 1950 servers, existing Dell EqualLogic SANs, plus VMware® Infrastructure 3 and Parallels Virtuozzo virtualization software. The typical VMware ESX Server host installation includes Microsoft® SQL Server® databases, a Web server, and an application server, all working from the SAN.

“Using a Dell EqualLogic SAN in a virtualized environment helps us keep applications running even in the event of physical server failures,” says Baker. “If there is a problem with a server in the VMware environment, we can use VMware High Availability software to restart the virtual machines on another physical server. The SAN makes it easy to access application data from a shared pool.”

“We plan to deploy the PS5500E into that managed services environment to expand our storage space and extend our current storage offerings,” continues Baker. “We also plan to use it for some new high-performance computing initiatives that we’re pursuing. The PS5500E is a good fit in a range of different roles.”

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Lara Baker, chief technology officer, Sequestered Solutions Alaska, LLC

SSA AVOIDS DOWNTIME WITH THE DELL EQUALLOGIC SAN

Designed for linear scalability, the Dell EqualLogic PS5500E enables the IT group to add capacity transparently, without interrupting service to clients. “Maintaining continuous uptime is essential for our business,” says Sam Morales, chief executive officer of SSA. “With other SANs, you need to take the system offline to add trays or disks, and that can cause significant problems for the customer. The Dell EqualLogic SANs enable us to accommodate new requests for capacity without any downtime.”

“I have seen it take between four to eight hours to install new capacity with other systems, and during that time, the system is unavailable,” says Baker. “The PS5500E recognizes new arrays automatically, so we can add capacity without our clients experiencing any interruption.”

SNAPSHOT AND CLONING CAPABILITIES HELP PROTECT DATA AND FACILITATE TESTING

Having had previous experience with Dell EqualLogic storage, the IT group is well-versed in the platform’s powerful management features. For example, the team uses the system’s snapshot capabilities to create frequent, space-efficient backups of client data as part of its disaster recovery strategy. Dell EqualLogic SANs allow up to 512 snapshots per volume and up to 10,000 snapshots total. “Being able to take snapshots of our clients’ Microsoft Exchange data or SQL volumes will greatly simplify the backup process and improve our ability to recover the applications,” says Baker. “Some of our clients have very large databases. By creating snapshots, we can capture that data quickly, frequently, and then move it to another SAN for safekeeping.”

Meanwhile, the volume cloning capabilities help speed up the creation of test environments. “Using the Dell EqualLogic SAN, we can create a clone of data easily so our clients can test a new application or an update on their real data,” says Baker. “Having the ability to work with real data is essential for ensuring thorough testing.”

THE DELL EQUALLOGIC SAN HELPS REDUCE OPERATING COSTS

SSA estimates that the PS5500E will help the company save significant acquisition and management costs compared with competing SANs. “We estimate this new high-density SAN technology will save us in excess of one million dollars over the next three years versus midrange fibre-based competitive products. For example, one of our clients needed an enterprise-class SAN with more than 50 TB and data protection and recovery software. We evaluated a number of options, and while another vendor’s base hardware costs were slightly lower, when you added in all of the software needed, the price went up US\$200,000. A PS5500E SAN is four times less expensive for that customer’s needs than the competing SAN,” says Baker. “Because the Dell EqualLogic SAN is so much simpler to use than other products, we estimate that it will be seven to eight times less expensive in total operating costs. Those are tremendous savings that will help us stay competitive in the field.”

Once the new SANs are installed, Baker also knows that the IT group won’t be hit with additional hidden costs. “Other vendors sell features piecemeal,” says Baker. “By working with Dell, we can eliminate all of those hidden costs. Purchasing is simple, and we get everything we need up front.” As new features are added, such as the recent Auto-Snapshot Manager/

VMware Edition, SSA can simply download software for free with the company’s valid support agreement.

SSA KNOWS IT CAN RELY ON DELL EQUALLOGIC HARDWARE

In a business that promises to protect vital information, the SSA team knows the value of using reliable hardware. “We have been using Dell and EqualLogic products since we started this business, and we have never looked back,” says Morales. “We will support a client’s request to host applications on a given server brand, but about 90 percent of our customers choose Dell hardware. As we look ahead to offering new services, we have great confidence in continuing to use Dell EqualLogic storage.”

“You cannot overestimate the value of products that perform well, just as they should, without requiring excessive management,” says Baker. “We need systems that can just sit quietly, do their job, and do it economically. We are extremely pleased with the Dell EqualLogic hardware—it just works. That reliability is particularly important in meeting our clients’ regulatory compliance needs. We team with an Alaska company, The Staser Consulting Group, to assure that our clients’ needs for data validity and availability are preserved by our reliance on the Dell EqualLogic PS5500E.”

THE PARTNER VALUE-ADD: RUMSEY & ASSOCIATES, INC. PROVIDE PERSONAL ENGAGEMENT

SSA works closely with Dell Certified Partner Rumsey & Associates, Inc. to plan infrastructure expansion and to evaluate and acquire Dell products. Rumsey & Associates, Inc. helps SSA build its business in a variety of ways—for example, they provided a General Services

Administration (GSA) buying schedule to help facilitate access to SSA's new DataCenter Vault services by U.S. government agencies. This high level of engagement and personal attention has earned the trust of SSA executives. "We really value our relationship with Rumsey & Associates, Inc. and consider them key members of our team. Dave Rumsey is a trusted advisor who helps keep our lives simple."

Rumsey says, "The primary business partner and client benefit I see in selling Dell EqualLogic storage is their philosophy of providing the SAN hardware and software as a single price point. Relative to the SAN arrays themselves as you scale up capacity you by definition scale performance concurrently. This is a major customer benefit that sets Dell EqualLogic apart from competitors."

Since the founding of the PartnerDirect Program in 2007, Rumsey has continued to succeed in selling EqualLogic storage. The consulting group has maintained solid relationships with the Dell sales team, including dedicated

technical resources that are focused on enabling success for channel partners and their clients.

"Perhaps the most significant advantage I have experienced, in comparison to other vendor partner programs and to my historical business agreement with EqualLogic, is the responsiveness of the Dell sales support group assigned to handle my company," says Rumsey. "Like most of us, I have no time to waste and the Dell sales team has exceeded my expectations in turnaround time for configuration help, quotations, and the product acquisition process."

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