

► Challenge

- Managing data and increasing capacity on a per server basis was both difficult and expensive and it also resulting in unwanted downtime.
- Move to a SAN to increase capacity as needed, be more efficient in utilizing storage assets and improve reliability.
- NAS solutions lacked the functionality needed to run Landrum's SQL and E-Mail databases.

► Solution

The V-Switch 2000 met the company's requirements for speed and reliability. With the savings over other solutions, Landrum elected to get a pair of V-Switches, which allowed it to cluster to provide automatic failover in the event of an outage.

► Benefits

- Solution cost \$60,000 less than an FC SAN solution
- High reliability - to date Landrum have experienced no downtime in the 18 months we've had the solution
- Solution managed to handle the increased workload as the need for extra employees for emergency work swelled with Landrum providing staffing.

"What's also been great is the reliability of the solution. It's on par with solutions running with Fortune 500 companies when it comes to uptime – to date we've experienced no downtime in the 18 months we've had the solution"

Jason Heuer, Network Administrator
Landrum



SANRAD Gets the Job at Landrum

Landrum Human Resource Companies, Inc. is a family of companies that include AmStaff Human Resources, CU Personnel Solutions, Landrum Staffing Services, and Landrum Professional Contract Service. AmStaff Human Resources is one of the leading Professional Employer Organizations (PEO) and employs 100 in-house employees approximately 11,000 client employees for over 500 client companies throughout the Southeast USA. With combined payrolls just under \$300,000,000, Landrum Human Resources Companies, Inc. is ranked in the Top 100 privately-held companies by Florida Trend Magazine.

Landrum Staffing Services has grown into the area's leading independent staffing and recruiting company that places permanent and temporary employees in jobs with businesses of all sizes.

Because of the nature of Landrum's business, it is easy to understand why it feels that the most important asset any company has is its employees. But Landrum also understands the importance of personnel data and other infrastructure information that is necessary to keep its staffing and human resource businesses running.

The company's data storage architecture was built around standalone disk drives within its network servers. Managing data and increasing capacity on a per server basis was both difficult and expensive and it also resulting in unwanted downtime. A NAS solution was ultimately rejected because it couldn't provide the functionality needed to run Landrum's SQL and E-Mail databases. The company decided to move to a SAN to increase capacity as needed, be more efficient in utilizing storage assets and improve reliability.



National enterprise solution integrator and SANRAD Premier iPartner, Arkay, helped Landrum choose an iSCSI IP-SAN solution from SANRAD. The V-Switch 2000 met the company's requirements for speed and reliability. With the savings over other solutions, Landrum elected to get a pair of V-Switches, which allowed it to cluster to provide automatic failover in the event of an outage. The cost savings in going with this solution instead of Fiber Channel was more than \$60,000. And because of the technology's simplicity, the company also avoided additional high level staff and training costs.

"We're very pleased with both the speed of the system and the reliability," said Jason Heuer, Network Administrator for Landrum. "We can't tell the difference between an IP-SAN from SANRAD and internal disk drives on a server. What's also been great is the reliability of the solution. It's on par with solutions running with Fortune 500 companies when it comes to uptime – to date we've experienced no downtime in the 18 months we've had the solution."

Especially impressive with the reliability that Landrum has experienced is its data center's location in Pensacola, Florida, which was hit hard last year with several hurricanes passing through the region. Not only did the company's iSCSI SAN function without incident during the inclement weather but it was also able to handle the increased workload as the need for extra employees for emergency work swelled with Landrum providing staffing.

"We can scale capacity and increase individual server volumes on the fly within minutes," said Jason Heuer. "It's been easy to manage and performance and reliability have never been an issue. And that is very important to a business that is expanding as quickly as Landrum."

Future Deployment

Landrum currently manages roughly a terabyte of capacity using a dual-controller RAID system for the backend storage running a Gb LAN and using 3COM switches. The company plans to continue using the clustered V-Switch solution as the primary storage system with its data center. It anticipates expanding to another array in the near future and also expects to utilize SANRAD's remote replication ability when it becomes available.