

San Diego Supercomputer Center Chooses Crossroads ReadVerify™ Appliance to Help Ensure Recoverability of Irreplaceable Scientific Data



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San Diego Supercomputer
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Industry

- Education/Life Sciences

IT Profile

- Six Sun Powderhorn 9310 tape libraries
- 5 petabytes of stored data, 25 petabyte capacity
- Irreplaceable scientific data collections

Benefits

- Highly interoperable
- No change to existing tape storage applications or infrastructure
- Proactive tape media management
- Error determination and correlation between tape media and tape drives
- Backup, archive and HSM performance monitoring
- Ensured recoverability of data

“Crossroads ReadVerify Appliance has given us an important new tool to help ensure that the vast amounts of irreplaceable scientific data maintained at San Diego Supercomputer Center can be reliably archived and restored. RVA also gives us insight into ways we can improve the performance and utilization of our data management infrastructure and plan for future growth.”

~Bryan Banister – San Diego Supercomputer Center, SDSC

San Diego Supercomputer, La Jolla, CA.

For more than two decades, San Diego Supercomputer Center (SDSC) has been a key resource to academia and industry by enabling ground-breaking science and engineering discoveries through advances in computational science and high performance computing. SDSC is an organized research unit of the University of California, San Diego, and one of the founding sites of the National Science Foundation's TeraGrid.

The IT Challenge

As a leader in data management for scientists and engineers, SDSC is driving high performance computing towards development of petaflop computers and extensive storage management infrastructures. SDSC is actively collaborating with researchers and national scale projects to keep pace with public and private databases and data collections that represent exceptional, historic work from a wide range of scientific domains. Data is archived on six Sun Powderhorn 9310 tape libraries with 104 IBM and Sun tape drives that host more than 5 petabytes of data. Backup and archival operations are complex and increasingly difficult to manage so new innovative approaches are constantly being sought.

The RVA Solution

When Bryan Banister, SDSC Manager – Storage Systems (Production Systems Department), heard about the capabilities of Crossroads Systems ReadVerify Appliance (RVA), he immediately saw the value it could provide. After installing RVA, Bryan saw the following benefits:

Interoperability

As an appliance, RVA installed quickly and without impact to the existing backup and archive infrastructure. This was particularly important at SDSC because both IBM and Sun tape drives and archival systems were already in place. “Interoperability was absolutely a requirement and as an appliance, I knew RVA would not negatively impact the infrastructure we already had in place,” said Banister. “RVA was compatible with all our existing IBM and Sun tape drives and archival systems.”

Reliable Tape Media Management

RVA reports on the integrity of tape media used for backup and archive operations. Data generated by RVA showed a high level of soft errors being logged on one of the six tape libraries, and further analysis pointed to specific tape media that were not performing to manufacturer’s specifications. These tapes were pro-actively replaced. “Much of our data is irreplaceable so maximizing the reliability of data

management operations is a priority,” continued Banister. “RVA gave us another tool to ensure that data written to tape can be reliably retrieved during a future restore event. We never had intelligence in that part of our data management infrastructure before.” Magsipoc continued.

Tape System Optimization and Utilization

RVA provides data that tracks the performance and utilization of the entire backup environment. With this information, SDSC now has the tools to optimize and balance system usage and effectively plan for future growth. “Since we corrected our operational inefficiencies, we now have accurate system utilization rates and can be assured of how and when to plan for future growth,” added Banister. “Our proposed capital expenditures have become much more predictable and manageable.”

In conclusion, Banister says, “RVA has done more than improve the reliability of tape media used in backup and restore operations. Data provided by RVA has allowed us to optimize the performance and utilization of every aspect of our data management operations. RVA is now an integral component of our storage management infrastructure.”



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ABOUT CROSSROADS

Headquartered in Austin, Texas, Crossroads Systems delivers flexible solutions to protect, secure and restore business-critical “data-at-rest.” Crossroads (symbol:CRDS) is currently traded on Pink Sheets and also posts its financial disclosure reports, press releases and other related documentation on the OTCIQ webservice of the Pink Sheets website. For more information, please visit www.crossroads.com.



Crossroads promotes institutional and personal environmental responsibility within the company, with our partners and with the users of our products. We are committed to providing the best products and services while encouraging practices consistent with sustainable living and resource conservation.