

Incentium Increases Data Protection and Efficiency with EMC Backup and Recovery Solutions



Faster, more reliable Avamar solution with data deduplication enables a more strategic focus

Challenges

Incentium provides employee, customer, and sales channel incentive and loyalty programs to Fortune 500 and top-tier emerging businesses. As one of the fastest-growing companies in the U.S., Incentium was concerned that its expanding information infrastructure would not support its next phase of growth. For example, full backups had increased to seven terabytes and took 60 hours to execute, bleeding beyond the weekends.

Shawn Scott, Incentium's Manager of Server Engineering, explained, "Backups of our physical and virtual servers were getting so big that they were often failing and files were being skipped. Plus, we were spending about 20 hours a week trouble-shooting. Our tape backup infrastructure was a huge administrative burden and a risk to our business."

With headquarters in Chattanooga, Tennessee, Incentium also sought to reduce costs and complexity associated with its growing server, backup and storage environments.

Solutions

After evaluating multiple solutions, Incentium replaced its Symantec Backup Exec solution with EMC® Avamar® backup software with integrated data deduplication and deployed EMC RecoverPoint software for disaster recovery. LPS Integration, a Nashville, Tennessee-based IT integration firm, helped Incentium implement the new solution.

"LPS did an outstanding job of bringing the Avamar solution in on time and making sure that everything worked," Scott said. "We had everything up and running in days and we've never looked back. It's been great."

EMC Avamar provides fast, daily full backups for Incentium's physical servers and VMware® virtual machines, protecting critical applications such as Microsoft Exchange email, SQL Server, SharePoint, CRM, and Web and file serving. At the primary data center in Chattanooga, Incentium backs up its physical and virtualized servers to the Avamar Data Store grid, which are replicated to another Avamar server residing at a remote data center in Atlanta 100 miles away.

Incentium also leverages EMC RecoverPoint software to provide continuous remote replication (CRR) of data stored on an EMC CX4 CLARiiON® system at Incentium's primary site to another CLARiiON CX4 in Atlanta. All of Incentium's application data and VMware virtual machines reside on the CLARiiONs and are protected with the RecoverPoint data replication solution.

Challenges

- Error-prone backups consuming significant staff time
- Full backups of servers taking more than two days
- Data center running out of floor space
- Critical data to protect on growing virtual and physical server environments

Solutions

- EMC Avamar backup software with global, source data deduplication
- EMC RecoverPoint Continuous Remote Replication (CRR) solution
- EMC CLARiiON CX4 networked storage
- VMware ESX Server virtualization solution

Results

- Daily full backups slashed from 60 hours to 4 hours
- Backup administrator time monitoring backups reduced from 9 hours to just 10 minutes weekly
- Recovery point objective reduced from 24 hours to 15 minutes
- \$100,000 in data center expansion costs avoided through virtualization and data deduplication

Results

Since deploying EMC and VMware solutions, Incentium has achieved significant improvements in data protection and IT efficiency. For example, Avamar's integrated data deduplication capabilities reduced the initial full backup by 30 percent. Over the following weeks, daily full backups were slashed by approximately 95 percent, and have maintained this performance for more than a year.

Scott said, "We just couldn't keep up with our storage growth, especially with our growing VMware deployment. We are over 90 percent virtualized on VMware today, but with our Symantec tape solution, protecting both physical and virtual environments became a nightmare. Weekly full backups were taking 60 hours and incrementals lasted up to 17 hours. It was unacceptable. Now thanks to Avamar, we complete full backups every day in only four hours. The performance is like night and day."

Unlike traditional backup methods, Avamar deduplicates backup data at the client, within and across virtual and physical environments, so that only new, unique sub-file data segments are transferred and stored during daily full backups. Avamar also deduplicates backup data stored to disk across sites and servers, reducing total required backend disk storage by up to 50 times.

"EMC deduplication has been fantastic. It was sold to us as a set it and forget it solution for our physical servers and VMware and it's delivered 100 percent on this promise. The administrative backup burden has gone away and I have more time focus on value-add activities."

Shawn Scott, Manager of Server Engineering, Incentium

Avamar's efficiencies enable Incentium to retain weeks of backup on disk, reducing the monthly tape usage by 95 percent. Applications that require long term storage are moved to tape on a periodic basis.

Data recovery time has also improved now that files can be recovered in just a few seconds using Avamar. Incentium recently restored a nine-gigabyte database in just three minutes with Avamar. Prior to using Avamar, it would have taken four days to ship the tape from an off-site facility and restore the database. But Scott says the importance of data recovery is more than just speed. "The database that got corrupted was on our Visual Studio Team Suite which is where all the code promotions go across our business. It would have shut down our code promotions for a day on development, and then we would have waited at least another day for the tapes to be restored. Time is money for a fast-moving company like us."

Avamar has greatly streamlined backup and recovery operations. With the previous solution, Incentium's backup administrators used to spend approximately nine hours a week validating backups and resolving minor issues. About half the time backup issues would need to be escalated to support or engineering, which would spend an additional 20 to 30 hours on individual issues. Now, with Avamar, backup validations take just 10 minutes per week and issues requiring escalation are non-existent.

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Remote data replication with RecoverPoint has enabled Incentium to reduce its recovery point objective (RPO) from 24 hours to 15 minutes, enabling quick recovery to its remote data center. To minimize data loss, Incentium has decreased its recovery time objective (RTO) from 72 hours to 30 minutes.

“Avamar and RecoverPoint have been like a breath of fresh air because they require so little maintenance and just work,” Scott explained. “Our confidence is so much higher with our backups and data protection in general.”

In addition, data deduplication and consolidation through virtualization have contributed to a smaller, more efficient IT infrastructure. Incentium has virtualized 90 percent of its servers with VMware ESX® Server, reducing its physical server count from 75 to 13. By consolidating server-based storage onto EMC CLARiiON, Incentium was able to reduce overall storage capacity from 80 to 20 terabytes.

“Because we’re utilizing less physical space,” explained Scott, “we’ve reduced the load on our electrical power systems by 65 percent and lowered our cooling requirements by over 50 percent,” Scott said. “We avoided expanding our data center, which would have cost us \$100,000 just in capital improvements.”

Scott commented how the role of IT has evolved because of its new solutions. “We’re a fast-paced company that does thousands of transactions a day and we can’t afford even a few minutes of disruption to our operations. As a lean IT department, we value time and costs saved with automation and avoidance of outages so we can focus more resources on strategic tasks and growing the business.”



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