

Future Electronics Optimizes Backup Environment & Reduces Restore Time from Seven Hours to One



Future Electronics, Inc.
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Industry

- Semiconductors and passive, interconnect and electro-mechanical components

IT Profile

- 6 (now 2) DLT Tape Drives
- HP NonStop Environment

Benefits

- Able to retire 4 tape drives
- Instant Data Recovery vs. a 5- to 7-hour process
- Full restore speed increased by 93 percent
- Full backups dropped from 5 to 2 hours

"After the implementation of HP Virtual TapeServer, we were able to retire 4 our 6 tape drives. Our full backup went from 5 hours to 2 hours, and our full restore dropped from 7 hours to 1 hour. It's a very good technology that pays off!"

~Jalil Falsafi – Future Electronics, Inc.

Future Electronics operates in 169 locations in 41 countries in the Americas, Europe and Asia, and has served the electronics industry for 40 years, the company is a global distributor of electronic components supporting customers of all sizes worldwide. Jalil Falsafi, Director of Information Technology at Future Electronics, was used to difficult and long backups and restores using six tape drives. Today, his entire environment has changed dramatically with Virtual TapeServer (VTS).

Data Was Safe, but Time Was Wasted before VTS

The company used to have a standard backup and restore for its NonStop systems using 6 conventional DLT tape drives. "We were looking for a way to speed up the backup and restore processes," said Falsafi, "When we backed up our production system, we would take the tapes to the disaster recovery site. If we needed to restore, we had to send staff to pick up the tapes and bring them back to the primary site to restore, so there was a lot of time wasted to keep the information safe."

Before VTS, "We had three tape drives on our primary site and three on our disaster recovery site. The backups took about 5 hours and restores took from 5 to 7," said Falsafi. The IT department would be called to restore files an average of 2 times a week. The staff's time was being used to make sure the tapes are secure at the disaster recovery site, the rotation of the media is correct and returning to the disaster recovery site for restores.

OS System Migration Backups/Restores Took Almost 12 Hours

According to Falsafi, "Every time we have to do a system migration to go to the next OS, the backup and restore chewed up a good chunk of our time – almost 12 hours." Future Electronics is supposed to be available 24/7, so when the IT staff has a window for implementation, that window must be short. In the past, when Falsafi and his team would do implementations, it would take 1-2 days (and sometimes, nights).

VTS is Recommended as a Solution That Could Solve Fasalfi's Problems

HP VTS is a virtual tape appliance and software solution that delivers scalable, high performance virtual tape for disk-based backup and restore. VTS uses low-cost disk RAID arrays that emulate the properties of physical tape to create virtual tape drives and virtual tape cartridges that can be pooled together to create virtual tape libraries. If archive and disaster recovery operations require data be written to physical tape, VTS efficiently writes virtual tape to physical media. "We looked at HP VTS from a cost and an operational perspective and both made sense to us. First, we did a cost/benefit comparison over the next 7 years, and our savings came close to \$200,000," said Falsafi. "Our yearly savings would be approximately \$30,000 a year." Operational benefits included being able to keep all information on the SAN using the Instant/DR option. "We would no longer have to send someone to the disaster recovery site to get the tapes and begin the long process of a restore," said Falsafi.

Five Months Later, VTS is a Crucial Part of Future Electronics IT Department

After the implementation of VTS, Falsafi is happy that they were able to retire 4 tape drives, reducing maintenance costs to only 2 drives. "Every night, when we do a backup of our production system, we send a copy off to our disaster recovery systems using the Instant/DR option," said Falsafi. "So we have the backup copy in two systems, and we keep them for one year." Instant/DR provides an alternate approach for performing differential backups for support of disaster recovery operations, using two operating modes: synchronization and replication. Synchronization mode isolates byte-level changes in data and synchronizes the changes between the local and remote VTS systems by transferring only the byte-level data that has changed between the current files and the previous copy of the file. In file level replication mode, Instant/DR transmits entire files that have changed to the remote sites(s).

This way, Falsafi doesn't have to send someone to gather tapes from the recovery site. After one year, they store a backup to tape. "Our major achievement is that we used to do, on average, 2 trips per week to the disaster recovery site in addition to the daily trips," said Falsafi. "We don't do this anymore. Now, we only do *4 trips a year* to the DR site, and we only maintain two tape drives versus six." Falsafi is very glad that they won't be needing to buy new tape drives, and he was very happy to retire two-thirds of his existing drives. Now, according to Falsafi, it only takes two hours to backup the full database and one hour to restore. If anyone needs IT to restore a file, it is restored very quickly because the two sites are synchronized.

A Recommendation for VTS in HP NonStop Environments

"If someone is using the NonStop server and backup and restore plays a critical role, my suggestion is to take a look at VTS and see all the benefits they can reap," said Falsafi. "In my case, I am able to keep data on cheaper SAN and the backup and restore is very quick." He explained that there are many operational advantages in terms of migration and implementation and you save a lot of time. "It's a very good technology that pays off in the long term," said Falsafi.



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