AS/400 Backup and Recovery System Enables Shiseido to Recover from Disk Failure without Interrupting Business Operations

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Easy, reliable and fast AS/400 backup and recovery software made it possible for the cosmetics company, Shiseido, to perform an entire system restore with no interruption of daily operations. After a disk failure that took place on a Saturday morning, technical support staff implemented the software's smart restore functions to automatically locate all the necessary tapes. The recovery was complete by early Monday morning, and there was no disruption in the company's operations. Even before this incident, technical support staff had grown confident in the backup and recovery software's ability to ensure that vital information is available when needed. The software does this by preventing people from accidentally overwriting active data and also by eliminating the errors inherent in a manual record-keeping system.

Shiseido Co, Ltd. Japan combines Eastern spirit and western sophistication to create a wide range of health and beauty products. The company makes every effort to meet the highest standards, not only of technology and quality, but also of aesthetics and creativity. From fundamental research on skin physiology to advanced work in pharmaceuticals, the company's exceptional commitment to R&D is based on the pursuit of total mental and physical human health. These endeavors have earned Shiseido an impressive string of accolades and worldwide acclaim. In addition to its cosmetics products, the company also operates a highly visible chain of restaurants in Japan. Shiseido is known as a pioneer in introducing western food to that country.
AS/400-based operations

Shiseido runs its businesses on an IBM AS/400 computer using the MAPICS/XA Software System. For security, the system is backed up every evening. For some time after purchasing the AS/400, the technical support staff attempted to keep track of the backup process on paper. A chart was kept indicating the name of each backup tape, its contents, when the backup was performed, when the tape was available for reuse, and so on. The backup process took about one hour each evening, but staff members spent another three hours each week on tasks associated with keeping the log up-to-date.

The manual system had several serious limitations. First, when it was necessary to use a tape to restore a file, the manual system made it difficult to locate the right tape. The paper log would indicate which 10 tapes corresponded to a particular day's backup, for example. But it did not include a list of all objects on the tapes. A technical support staff member had to load each tape and search it until he found the object he wanted. Second, there was always the risk of overwriting active data with the manual approach. Sometimes a staff member would accidentally load a tape that hadn't expired, and with the manual system no warning that this was an active tape was received. Third, the company typically stores some tapes off-site for additional security. With the manual system, this added another factor to keep track of (where the tape was currently located), and added to the possibility that the log was not always up-to-date.

These problems led the company to look for a way of automating the backup and restore process. A search of available technology led to RTAPE/400(r). This software package appeared to offer all of the capabilities Shiseido needed including:

1) Automatically preventing backup tapes from being written over
2) Locating tape volumes to which libraries, objects and members have been saved
3) Automating many tasks that otherwise have to be performed manually such as checking for new libraries, entering backup jobs, printing labels, etc.
4) Allowing for concurrent backup of libraries in a job to multiple tape drives
5) Automatically grouping, sequencing and organizing libraries to most efficiently utilize multiple tape drives
6) Supporting unattended and restricted state processing as well as save while active processing
7) Allowing failed jobs to be restarted at the point of failure. Management made the decision to purchase the software from its developer, RICOMM Systems, Inc. of Marlton, New Jersey.

Day-to-Day Process

Using the RTAPE/400 software, the technical support staff has reorganized the management of tape backup operations. Because the process is now completely automated, the three hours per week previously spent on "housekeeping" chores associated with the manual system have been eliminated. Using RTAPE/400, staff members define tape data set names and how long each type of data is to remain active. At backup time, RTAPE/400 uses tapes already mounted in the specified tape drive. If tapes are not mounted, it issues a prompt for the operator to mount any available volume in a specific tape drive. Before the software permits the tape to be overwritten, the mounted tape is checked to be sure it does not contain unexpired data. The use of this tape management software has completely eliminated the problem of overwriting active data.
The process of restoring an object is fast and easy. All that is required is to search for the object name within RTAPE/400. The backup and restore software tells the operator which volume to load and its location. All the operator has to do is find the tape on the rack and load it. The new software also lets Shiseido schedule automatic backups, typically done on Sundays. A staff member simply leaves a tape on the machine and the product runs the backup sequence automatically at the specified time.

RTAPE/400 also monitors the storage of tapes in on- and off-site locations. If a tape will be going off-site, that action is scheduled by RTAPE/400. When the tape is scheduled to be moved, the software informs operators of this, and on which rack the tape should be stored. It tracks the movement of tapes from the primary site to the secondary site and even provides for automatic volume movement from one vault to the next for up to 50 vaults. Volumes can be recalled at will or based on specific aging criteria such as vault retention days.
Big problem

Normally, most restore operations are simple, involving an object that was accidentally deleted, for example. But Shiseido technical support had an opportunity to put its disaster recovery plan into

operation during what started out as a routine drive swap. Shiseido uses the mirroring capability of the AS/400 to ensure that a hard drive failure does not cause a serious problem. If the active drive goes down, another drive containing a mirror image of the data can be swapped in while people are working. Typically, the process takes 5 to 10 minutes. But on one Saturday morning, something went wrong. After installing a mirrored disk in the place of the disk with problems, the mirrored disk also crashed.

Because all data on both disks were lost, the entire system had to be restored from backup tapes. The technical support manager called in all tapes from both off-site and on-site locations. After loading the operating system on the AS/400, he loaded RTAPE/400. He then proceeded to restore every application that had been running on the computer, and after that all the data files. All of this was done through RTAPE/400. The technical support manager highlighted the application or file that he needed and the software told him which tape to load. Working almost straight through from Saturday morning to early Monday morning, he continued to load tapes and have RTAPE/400 restore the data to the AS/400's drive. Once this task was completed, he performed tests to make sure everything was restored. On Monday morning employees noticed nothing amiss and the technical support staff was commended by management for its handling of what could have been a serious situation.

This experience convinced Shiseido of the value of RTAPE/400 for disaster recovery. If they had tried to solve this problem with the manual tape tracking system, it would have taken far longer and caused more inconvenience to the company or it may have failed entirely if volumes had been overwritten. Shiseido has also come to value the use of RTAPE/400 for day-to-day use. It has dramatically improved backup procedures and data security has been substantially improved since the risk of accidentally overwriting an unexpired tape has been eliminated.