UNITED STATES ARMY Criminal Investigation Command

INDUSTRY: Federal Agency

PRODUCTS: 5.25" Optical Library

The Challenge:

The United States Army is required to store and maintain criminal investigative and military police records for 40 years. In paper form, these records were housed at Fort Belvoir, Virginia in a room the size of a basketball court. As the sole department responsible for these files, the records grow an additional 55 to 60 thousand records per year. With each folder containing as many as 50 pages, the Army needed to recruit a storage solution that was reliable, scalable and affordable.

The Solution:

In 1992, the Records Management Processing Division (RMPD) of the US Army conducted a test project to save on storage costs and man-hours. A conversion service was hired on a temporary contract to begin the daunting task of imaging all those documents. The service signed an optical library manufacturer to provide all of the imaging equipment, including a number of years worth of files imaged onto 5.25-inch magneto-optical (MO) media and stored in two optical libraries. Recognizing the savings provided by the optical library system, the RMPD assigned the continuing efforts of the conversion to a new department, the US Army Crime Record Center for the United States Army Criminal Investigation Command (USACIC).

The USACIC stores records on WORM (Write Once, Read Many) optical disks in compliance with government regulations to ensure that records are permanent and cannot be changed or modified. Using a custom image retrieval software program, employees quickly and easily enter a case number and retrieve any file on the system. The case file is printed and prepared under the Freedom of Information Act and the Privacy Act. At the end of July 2000, an estimated 5.3 million images have been stored on the system

The Result:

"We now have the capacity we need to store 40 years of records," said Milton Webb, Deputy Director of the USACIC. "I do plan to put about a 1 terabyte RAID unit in front of the optical jukebox for quicker access to the files because we are going in and out of them a lot. The delay with the optical library is only a matter of seconds," Webb continued, "but if I can take those same images and use my jukebox for my permanent storage and at the same time cache the images out to RAID then they are there instantaneously. When I click on a file it's there. We can store about 56 million images on a single optical library with a foot-print about the size of a single filing cabinet."

One of the major savings of the optical library system is the reduction in employee time. The office receives an average 10 thousand requests for names, and criminal history checks per month. According to Webb's studies, to pull those paper files, copy the folder and re-file it took 5.22 years or a little over 5 people to do that job in a year. The optical storage solution allows employees to do the same job in one and a half man-years.

Maintenance and backup have also been a benefit. Using the optical system, one jukebox is used as the primary storage system, while the second unit is maintained as a mirror image of the primary system for backup. Both the primary and secondary systems are updated simultaneously, ensuring that if the primary system suffers a failure or any other downtime, the USACIC's system administrator can immediately switch all functions over to the secondary system without any noticeable change to the users.

"We have no complaints about the system, the maintenance, or the manufacturer. If I were going to purchase again, I would buy from them again," continued Webb. "I have no doubt capacities will continue to double probably 2 or 3 more times before technology changes completely and I'll have all 40 years of files in my back pocket."