

CASE STUDY

INDUSTRY: GOVERNMENT

APPLICATION: DATA SECURITY AND RETENTION

ROI: LOW TCO, RAPID ACCESS, LONG-TERM RETENTION

SOLUTION: G638-SERIES LIBRARY, UDO DRIVES/MEDIA



FAA selects Plasmon UDO storage technology to archive 22,000 pages a day!

Federal Aviation Administration Civil Aviation Registry

The Organization

The Federal Aviation Administrations Civil Aviation Registry is custodian of official agency records for both aircraft and airmen. It plays a key role in aviation safety by providing statistics, technical advice, and certified copies of records to law enforcement, FAA Aviation Safety Inspectors, and National Transportation Safety Board investigators.

Additionally, the Civil Aviation Registry is responsible for registering more than 320,000 U.S. civil aircraft. Annually, they issue approximately 70,000 aircraft registration certificates and over 240,000 new certificates each year to pilots, flight engineers, flight and ground instructors, aircraft dispatchers, mechanics, repairmen, parachute riggers, control tower operators, and flight navigators. The Registry also maintains more than 4.2 million airmen records.

With such critical records under its supervision, the Registry must insure their information is always protected and readily accessible.

Business Challenge

Unlike other federal agencies, the FAA Civil Aviation Registry maintains the official copy of record for all of the documents under its control. All of these records were kept on paper, microfilm and microfiche from 1927 to 2002. In 2002, the Registry made the decision to transform the data to a digital format to make it more secure and to insure that document access would be quicker and more efficient. The process took four years.

The Civil Aviation Registry is now working on a project to create a stable, long-term archive that will protect the FAAs business critical assets and insure that it can be safely stored for the life of the data. This project is the final step in a process to prevent the loss of any valuable data. The primary motivator is to create a true archive that also serves as a disaster recovery solution.

"The very low TCO of UDO storage, and the authenticity, longevity and speed of access to the data makes this solution a win-win situation for the FAA Registry,"

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The Solution

Because of the critical nature of the data the FAA Civil Aviation Registry maintains and its strict compliance regulations, it was paramount to develop a solution that could provide longevity, authenticity and ease of access to their critical business data while meeting all data retention regulations. These also represent the reasons that the Registry chose to work with Plasmon as part of its best practices storage archive solution.

The Registry's data center team developed an environment that would maintain three copies of their most critical data and create a parallel stream for storing the information in three different locations on two different types of media. The goal of this strategy was to achieve a true archive that is protected for the life of the data but still easily accessible.

"I recently heard a best practice for the storage of critical data that made quite a bit of sense to me," said Mr. Mike Frakes, team lead, data center for the Federal Aviation Administrations Civil Aviation Registry. "The principle is to maintain three copies of your critical data and have it stored on at least two different types of media. This is the standard that has guided us to where we are today with a mix of magnetic and optical storage."

The FAA Civil Aviation Registry's data center includes two magnetic tiered storage devices geographically separated using replication over leased fiber to maintain the first and second copies of their data. To diversify and ensure they were meeting the FAA's strict standards, the data center team at the Registry deployed a Plasmon G638 Series Library to create a third copy of data that is stored on UDO (Ultra Density Optical) media.

"The combination of the very low TCO of UDO storage, and the authenticity, longevity, and the speed of access to the data makes this solution a win-win situation for the FAA Registry," said Frakes.

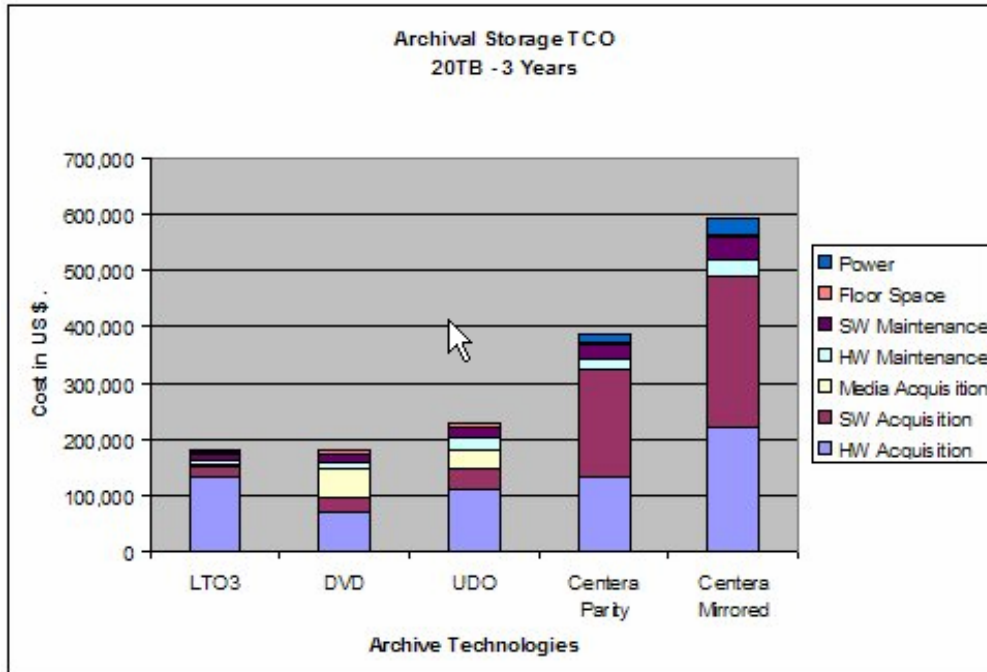
The Plasmon G Series Library is set up to be the FAA's second archive layer behind an EMC Centera. Everything that comes into the Registry's data center goes directly to the Plasmon Library and the EMC Centera at the same time. With this set up, the data center team has the ability to instantly change any one of the devices to the primary for retrieval of data in an emergency.

The Plasmon Library purchased by the FAA holds 638, thirty gigabyte platters for a total capacity of 18.6 Terabytes of raw storage with twelve UDO drives. The current amount of critical data for the Registry fills approximately half of the available platters in the Plasmon G638, leaving room for growth.

"To keep to the best practice of storing three copies of all data on two different types of media was one consideration for going with the Plasmon solution," commented Frakes. "The high price of EMC magnetic storage is another consideration for choosing the UDO solution offered by Plasmon and lastly the speed advantage of optical over tape lead us to the Plasmon UDO Library as an important component of our archive strategy."



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The chart above shows the total cost of ownership of UDO compared to other archival storage options.

Results

"The cost savings of this structure is significant," said Frakes. "Not only are we saving time and money not having to search for data on microfilm and microfiche, we are seeing a notable savings by leveraging a less expensive archive solution that is stable and long-lasting with Plasmon."

The Plasmon Library is an integral part of the storage system that is the repository for all the data for the Registry's document imaging system. All mail coming into the Registry is scanned, batched, indexed and added to the system which is approximately 22,000 pages per day and each page averages approximately 200 KB in size.

"I finally have piece of mind knowing that since we put the Plasmon Library into the mix I don't have to worry about my data," commented Frakes. "Additionally, because the FAA now has multi-level redundancy built into our disaster recovery strategy, we can easily meet the FAA's policy on retaining information for the life of the data."

With the constant influx of information to the Registry, the amount of critical information that needs to be archived continues to grow exponentially. With the addition of the Plasmon G638 Series Library, the Registry can now meet its goal to store data in three locations on two different types of media to meet compliance and FAA best practices requirements.

