

Federal Aviation Administration Civil Aviation Registry

QuickView

Organization:

Federal Aviation Administration
Civil Aviation Registry

Industry:

Government

Application:

Data Security and Retention

Solution:

G638-Series Library, UDO
drives/media

ROI:

- > Low TCO
- > Rapid access
- > Long-term retention

The Federal Aviation Administration 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 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 that its 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 FAA's business-critical assets and ensure that they 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.



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

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.”

Mike Frakes

Team Lead / DataCenter
FAA Civil Aviation Registry

The Solution

Because of the critical nature of the data that the 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 its critical business data while meeting all data-retention regulations. These also are the reasons why 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 its 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 Administration's 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 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 to the EMC Centera at the same time.

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 was another consideration for choosing the UDO solution offered by Plasmon, and lastly the speed advantage of optical over tape led us to the Plasmon UDO Library as an important component of our archive strategy."

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; but with Plasmon we are also seeing a notable savings by leveraging a less-expensive archive solution that is stable and long-lasting."

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 — and that means

approximately 22,000 pages per day at about 200 KB per page. "I finally have peace 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."

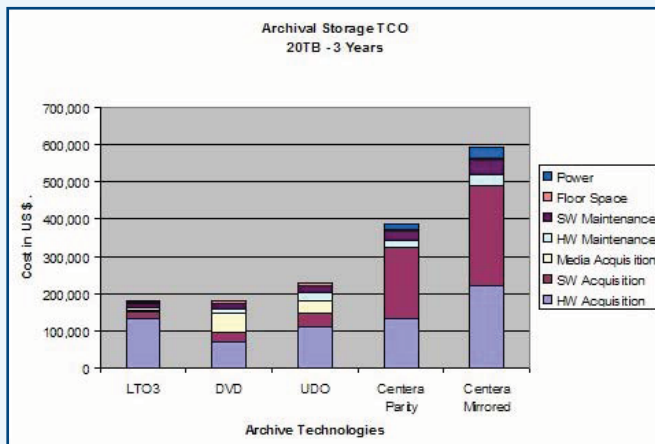
With the constant influx of information to the Registry, the amount of critical information that needs to be archived continues to grow exponentially. The addition of the Plasmon G638 Series Library means that the Registry can now meet its goal to store data in three locations on two different types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

Plasmon offers the only enterprise-class active archive solution that ensures data permanence, authenticity, access, longevity, and removability, at the low total cost of ownership that businesses demand. The no-compromise archive solution.

Plasmon is ISO 9001 certified.

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

With this setup, 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



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