APPLIEDINFORMATIONSCIENCES

The Kennedy Center

CLIENT

The John F. Kennedy Center for the Performing Arts

INDUSTRY

Arts

PROJECT NAME

National Symphony Orchestra Archive

PROJECTED COST SAVINGS

Multiple man-months of work saved on initial and future archivals.

PROJECT DESCRIPTION

The goal of the project was to store the entire collection of digital archives of National Symphony Orchestra (NSO) recordings dating back to the 1920's in SharePoint 2010.

- The recordings, each of which reached up to 2 GB in size, were to be tag-able, searchable and accessible to only authorized users.
- Data was to be pulled in from an external system for automatic tagging of complex, customized, metadata fields.
- Each performance had a pre-existing set of data associated to it in a third party system that needed to be surfaced in SharePoint, next to the digital records.
- The John F. Kennedy Center for the Performing Arts (JFKC) also required the design and build of a workflow process to account for the physical recordings sent to the archivists.
- The out-of-the-box SharePoint 2010 feature set would not satisfy the project's requirements, so a customized solution was developed and implemented by Applied Information Sciences, Inc. (AIS).

"Historically we had difficulty realizing accurate accountability of highly valuable artistic artifacts. We required a customized solution that fit within our budgetary constraints. AIS allowed us to implement a more efficient means of performing day-to-day operations, while reducing required man hours and adding capabilities once thought to be many years away – ranging from improved searches to added ROI through the monetization of our materials."

Alan C. Levine
Chief Information Officer
The Kennedy Center

THE CHALLENGE

Electronically preserve nearly 100 years worth of NSO recordings originating in all manner of analog/digital formats with the following requirements:

- Content was to be organized according to a complex hierarchy of metadata including season, performance, work, movement and piece.
- The complex hierarchy of recording entries and corresponding descriptions were to be tag-able and searchable via an expansive array of querying options.
- Recording entry tags were to be sourced from third party databases.
- Archive entries were required to adhere to a workflow that allows for recordings to be digitally archived and entered into the system in batches over a period of years – with all source recordings being traceable to ensure their proper return from the archivist after conversion.
- AIS' proposed solution was required to be performant and supported by a failsafe disaster recovery (D/R) plan.

THE SOLUTION

AIS designed a customized solution based on the Microsoft SharePoint 2010 platform, while also integrating Remote Blob Storage (RBS) to overcome the file size limitations of the out-of-the-box SharePoint 2010 platform. Metalogix StoragePoint™'s RBS solutions were leveraged to solve any problems associated with the sheer number of recordings and their respective file sizes, which ranged up to 2 GB per recording.

- AIS guided the evaluation of third-party RBS providers and ultimately selected and implemented a solution for RBS that enabled the system to be performant and meet D/R requirements.
- Business Connectivity Services (BCS) were used for lookups to external data for tagging from simple to complex types.
- Out-of-the-box SharePoint features were implemented for Information Architecture, with a key provision for tagging complex performance descriptions and enabling an equally robust search component to accommodate virtually any combination of metadata fields.
- SharePoint 2010 was used as the front-end interface for the stored digitized recordings.
- StoragePoint RBS was utilized to handle the storage of the large files to make the system perform faster, with higher reliability.
- JFKC needed to account for its original analog recordings. As such, SharePoint's barcoding system was utilized to uniquely identify the inventory of analog performances before being sent out to keep reliable track of all outgoing and incoming source materials.
- Through the implementation of StoragePoint Librarian, the system was designed to allow JFKC to upload the digital recordings in bulk, reducing the amount of time required to otherwise upload files manually, one by one.
- The system was constructed to meet and work within any constraints of JFKC's stated long-term SharePoint design. AIS developed multiple iterations of the solution to provide Kennedy Center with tangible results early and often, and then refined each iteration until final build completion.

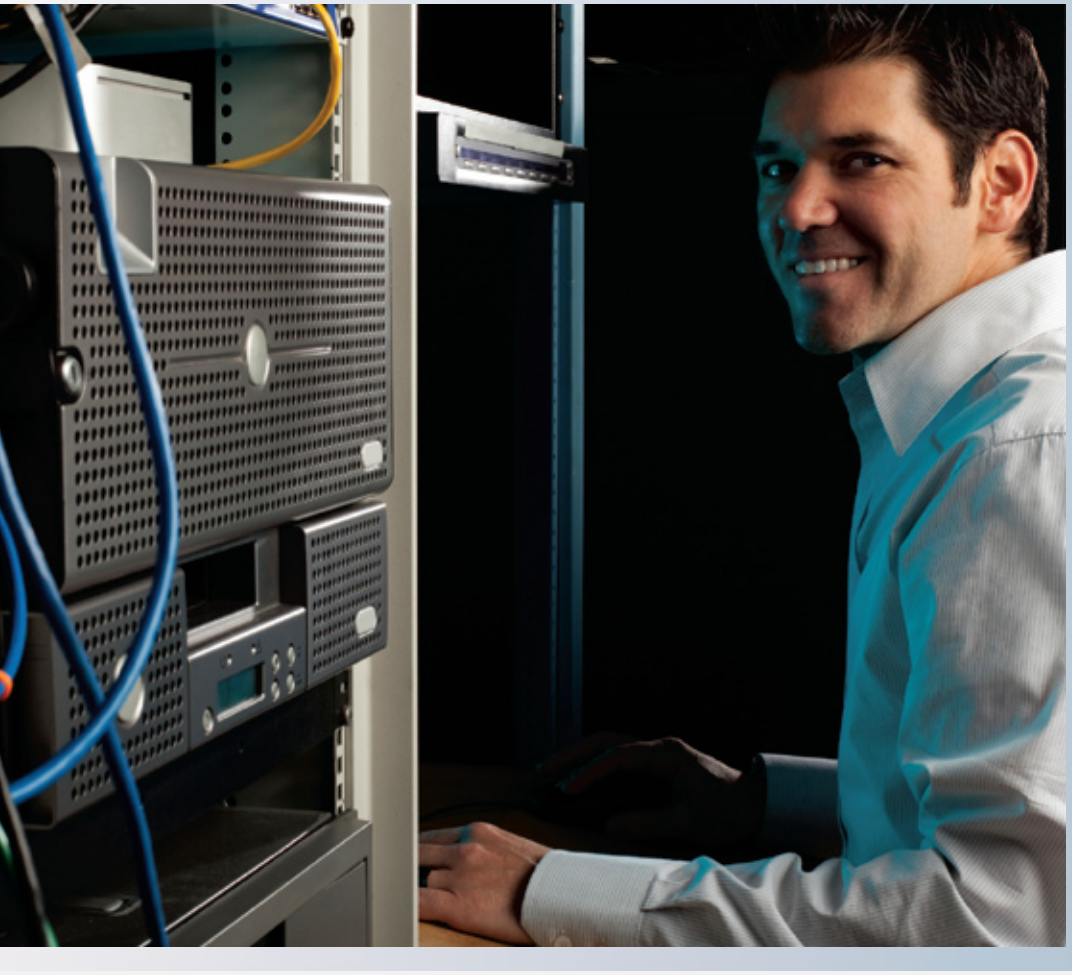
RESULTS

AIS' solution is now deployed in production and only requires a small number of business users to file and tag digital archives as they are submitted by the archivists in batches, using barcode verification to ensure that all of the physical media is returned along with the corresponding digital version.

AIS' comprehensive and streamlined solution provides ease of use, allowing business users to facilitate the entire archival process, thus relieving the need for additional IT personnel, while at the same time freeing up existing IT personnel for other, more vital tasks. Moreover, the system is completely safeguarded with a comprehensive D/R plan in place.

Three man-days of work were avoided with every batch of 100 historical recordings loaded into the system. Based on the initial archival of 2,000 historical recordings, a total of two man-months and three calendar-months of work were saved. Moving forward, each future batch of performance archives will save an additional three man-days, which can be allocated to more strategic processes.

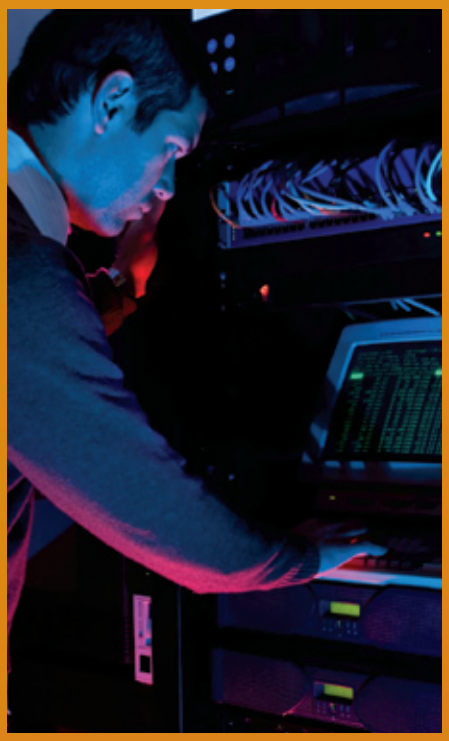
In addition, JFKC is now exploring the opportunity to create new revenue streams by providing subscription-based access to these archives by the public – an option that would not be possible without the flexibility, scalability and power of AIS' customized SharePoint and StoragePoint RBS solution.



EMPLOYED TOOLS AND METHODOLOGY

- Visual Studio 2010
- SharePoint Server 2010
- SQL Server 2008 R2
- StoragePoint RBS with Librarian
- Tessitura DB
- Tessitura API
- Custom SQL Queries for third party DB lookups

An agile iterative methodology was utilized to allow JFKC to see results quickly without specifying a lot of information up-front that wasn't always available. Through three iterations, AIS was able to design a content type/metadata structure that satisfied all of JFKC's requirements.



ABOUT AIS

Since 1982, AIS has provided software and systems engineering services to government agencies and businesses worldwide.

AIS has been an integrated premium Microsoft partner since 1994 (as a Managed Gold partner) and additionally, a member of the National Systems Integrator (NSI) program since 2007. Our analysis-driven approach to automating business solutions, combined with our commitment to deadlines and budgets, results in successful projects and long-term relationships with our customers, partners and employees. For more information, please visit: **www.appliedis.com**.

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