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BENEFIT CASE STUDY

IBM WEBSHERE CAST IRON CLOUD INTEGRATION

THE MUSEUM OF MODERN ART

THE BOTTOM LINE

The Museum of Modern Art recently used IBM WebSphere Cast Iron Cloud integration to integrate its Salesforce.com deployment and AS400 system. When Nucleus examined the deployment, analysts identified benefits that included avoided headcount additions, avoided integration project costs, and improved productivity.

- **Avoided three new hires in the IT department**
- **Reduced integration project cycle time by 66 percent**
- **Improved data quality**
- **Avoided report building**

THE COMPANY

The Museum of Modern Art (MoMA) is one of New York City's premier art museums. After opening in 1929 with an initial gift of eight pieces, the collection at MoMA has grown to include over 150,000 paintings, sculptures, drawings, prints, photographs, architectural models, and design objects. MoMA has a film archive that includes approximately 22,000 films and four million film stills. The museum's library and archives are a premier research facility with more than 300,000 books and publications, as well as individual files on more than 70,000 artists. MoMA hosts approximately 3.1 million visitors annually, has 136,000 members, and operates two Web sites that receive approximately 23 million visitors annually.

THE CHALLENGE

In 2009, MoMA's senior managers decided that the museum needed better access to information about its donors, visitors, shoppers, members, and event attendees. Although the museum used an AS400-based custom application as its primary system of record, the system was 30 years old and few employees were trained in its use. Some of the challenges with the system included:

- **Manual processes.** With so few employees knowing how to operate the AS400 or use it as a source for reporting, analytical projects and decision making typically required employees to manually create new reports and tools in Microsoft Excel.
- **Data silos.** Some data sets, such as research profiles on potential donors, were stored in unstructured data sources such as word documents, and could not be entered into the AS400. With so much data residing outside of the

AS400, many data sources and reports could not be integrated or synchronized, resulting in narrow analytical and decision making processes.

- Inaccuracies. With so many Excel-based work arounds, governance and testing of reporting and analytical procedures was not possible, causing problems such as reporting errors and spreadsheet crashes.

As a result of its data challenges, it had become difficult for MoMA's decision makers to have a single view of an important party such as a donor, and more time was spent on manual reporting than on fundraising or attracting new visitors.

In order to acquire a single view of MoMA's donors, visitors, and customers, a project team comprised of members of the Membership and Development department and IT partners decided to adopt Salesforce.com. While this would enable productivity and visibility improvements for employees in roles such as fundraising and marketing, the museum still had significant data-integration challenges. Although large data sets would immediately migrate to Salesforce.com, other data sources, such as transactional and payment-related data, would remain in the on-premise AS400 and migrate at a later time. In order to have accurate reporting across the enterprise, the Museum needed a way to integrate and synchronize all of the data residing in both Salesforce.com and the AS400.

THE STRATEGY

MoMA had two choices to make in achieving synchronization and integration between its Salesforce.com and AS400 data sources. First, it had to decide whether to build or buy an application for migrating and exchanging data between the two applications. The build option was discarded for two reasons. First, building an application would have required too many costly changes to the AS400 and too much APEX-based custom code. Once built, a homegrown integration asset would also have required extensive support and maintenance on an ongoing basis. Speed was also an issue. The Museum was concerned that it would not have been able to create custom-built integration applications in time to support the roll out of Salesforce.com.

Using a combination of demos, reference checks, and a small proof-of-concept project, the project team evaluated integration applications from three major vendors. IBM's integration product was selected for reasons that included:

- Speed. The project team was confident the application's pre-built Salesforce.com-related assets would enable developers to accelerate the creation of integration assets.
- Scale. By evaluating all of the vendors' applications in demonstrations and evaluating technical specifications, the team became confident the application would be able to process MoMA's large data sets without deterioration in application performance.
- Breadth. MoMA anticipated making use of cloud applications and greater application integration across the organization. With prebuilt integrations for multiple cloud-based endpoints other than Salesforce.com and many on-premise applications, IBM's integration product was viewed as a tool that would support the museum's long term cloud migration initiative.

- **Configurability.** In using the application, developers and project team members determined the application would enable them to rapidly modify prebuilt and existing integration assets, which would be important in enabling the integration assets to adapt to changing business requirements.

The project team integrated Salesforce.com and the AS400 over a 14-week period. In order to fully integrate the applications, the team first created a list of data fields that needed to be migrated between the applications and established nomenclature for the new integration assets. The team then established mechanisms, such as Web services and batch-based commands, for invoking integration acquisitions. Prior to deployment, the team tested the new integrations for load capacity and accuracy.

The museum went live with its Salesforce.com to AS400 integration in September 2011 and uses integration assets to migrate, integrate, and synchronize data sets that reside in both Salesforce.com in the cloud and the on-premise AS400 deployment. The data sets, which include information on customers, shoppers, visitors, donors, members, and event attendees, are synchronized on an hourly basis. As is typical with complex integration projects, post production issues, such as outages in the connection between MoMA and IBM, required some fine tuning by both parties.

KEY BENEFIT AREAS

Adopting IBM's integration product for the deployment and integration of Salesforce.com enabled MoMA to avoid additions to the IT staff while increasing productivity and improving data quality.

Direct benefits

By using IBM to automate the creation of integration assets, MoMA achieved direct benefits that included:

- **Avoided IT headcount.** If MoMA had not adopted IBM's integration product, it would have required at least three additional IT administrators: one specializing in migrating data in and out of the AS400, a second specializing in moving data in and out of Salesforce.com using APEX code, and a third assisting with support of the new homegrown assets. These new headcount requirements would have increased with the addition of new endpoints, such as accounting or ERP systems, to the integration project.
- **Avoided deployment costs.** By opting to create integration assets using IBM's integration product rather than creating homegrown assets, MoMA reduced the length of its Salesforce.com to AS400 integration project by 66 percent.

Indirect benefits

By using IBM's integration product to synchronize data sets within Salesforce.com and the AS400 deployment, MoMA was able to achieve indirect benefits that included:

- **Increased productivity.** The amount of time required for report building was reduced by creating integration assets which have individual assets such as Microsoft Excel spreadsheets as endpoints.

- Improved data accuracy. By using ETL, data quality, and error-handling functionality within the product, the project team improved the quality of data provided to MoMA employees. With more accurate data, employees are able to improve activities such as fundraising and marketing.

BEST PRACTICES

One factor critical to MoMA's successful use of IBM's integration product was the team's ability to make the application both easy to use and broadly deployed. One ease of use factor was the careful naming of integrations. The product uses visual depictions to identify integration orchestrations and the variables within them. Members of the deployment team found that project work was simplified when team members identified integrations with intuitive names such as "insert row" or "new donor address check." The invocation of integration assets was another area where the project team was careful to maximize usability. The project team found it useful to establish multiple ways to invoke integrations. For example, while some integrations run on a batch basis, these assets can also be invoked any time using a Web service. There are several advantages to this. First, it enables more rapid testing cycles of newly built or modified integration assets. Second, it prevents delays to workflows. For example, if a series of integrations need to be run in a particular order to create a report for a marketing campaign, Web services can be used to invoke integrations in a customized order.

CONCLUSION

One reason MoMA's use of IBM's integration product was so successful is that the project team focused on the enterprise, not the project. In deciding whether to buy or build and selecting an integration vendor, the goals of the deployment team went well beyond support of the Salesforce.com deployment, important though it was. By thinking beyond the project at hand, three benefits were achieved. First, the deployment team acquired an integration platform capable of reaching more endpoints than a homegrown application could have achieved. The ability to reach more endpoints means that more data can be accessed from the AS400, Salesforce.com, and other applications for accelerated reporting and better data analysis by decision makers in a variety of roles at the museum. Second, costs will be lower. Had MoMA built a homegrown system or selected a vendor with fewer prebuilt assets, ongoing application support would have been more expensive and more of a distraction to the IT department. A stronger integration roadmap is a third benefit. End users continuously change how they access and utilize enterprise applications. With IBM's integration product in place and its capability of reaching a large number of endpoints, MoMA will be more capable of delivering data to end users when their usage habits change.