optimus information

Client Case Study

Decommissioning Teekay Financial System while Maintaining Data Access

Teekay Corporation is an operational leader and project developer in the marine midstream space. Through its general partnership interests in two master limited partnerships, Teekay LNG Partners L.P. (NYSE:TGP) and Teekay Offshore Partners L.P. (NYSE:TOO), its controlling ownership of Teekay Tankers Ltd. (NYSE:TNK), and its fleet of directly-owned vessels, Teekay is responsible for managing and operating consolidated assets of over $11.5 billion, comprised of approximately 164 liquefied gas, offshore, and conventional tanker assets. With offices in 15 countries and approximately 6,400 seagoing and shore-based employees, Teekay provides a comprehensive set of marine services to the world's leading oil and gas companies, and its reputation for safety, quality and innovation has earned it a position with its customers as The Marine Midstream Company.

Teekay Corporation

Industry	Location	Employees
Transportation	Vancouver, BC	>6000

Highlights

- The Teekaay invoice management system contained over 180,000 records.
- Each invoice consisted of the scanned image, associated metadata, and an audit history.
- The offline solution had to be self-sustained, easy-to-use, and require minimal maintenance.

The Need

Teekay was replacing their invoice management system as part of a major ERP implementation. Their old system was to be decommissioned; however, as a publicly traded corporation they are legally required to keep all financial records for at least seven years. The client had two options: either maintain the existing system or replace it with an "offline" solution.

Key Challenges

- The invoice management system contained over 180,000 records.
- Each invoice consists of the scanned image, associated metadata, and an audit history.
- The offline solution had to be self-sustained, easy-to-use, and require minimal maintenance.
- The solution had to be SOX compliant.

How Optimus Helped

The first stage was to work with the financial team to understand their needs. Through a series of workshops we identified what data they would require from the financial system. Then we proposed an "offline" solution that would make that data easily accessible outside of their existing system. Once the solution was approved, we began development.

In order to develop the "offline" solution, we needed to extract the required data. Since the information consisted of both images (in the form of scanned invoices), HTML files (the 'audit history'), and metadata (the invoice details such as invoice number, date, approval, etc). These three different datasets had to be extracted differently.

1. **Extract the Images**
   The solution had a built in mechanism to export images from the database onto the server's hard drive; however, the extracted images were placed in a complicated series of subfolders. Additionally, the images were in a proprietary format which needed to be unpacked. The system maintained a second set of folders which contained a mapping of where the image is located and what transaction it is associated with. Optimus created a custom tool which scanned both of the folders (consisting of multiple sub-folders and a total of over 1 million files), unpacked the images, then mapped each image to its corresponding transaction. This process resulted in images that were accessible by users and linked to a specific transaction.

2. **Extract the Audit History**
   The audit history was an HTML file that contained a log of a transactions flow through the financial system. It contained a record of the day the invoice was scanned, coded, and approved. These audit history files were stored in the database and needed to be extracted. Optimus worked with the client to first extract these files, then created a custom tool to read each file and map it to the corresponding transaction.

3. **Extract the Metadata**
   The data about each transaction itself was stored in the database. Optimus created a custom query that extracted all of the required information into a single CSV which could then be loaded into an Excel document.

4. **Create the Offline Solution**
   Once all of the required information and files we gathered, it was time to package it into a simple offline solution. We analyzed whether MS Access, SSRS, or Excel would be the most suitable solution and determined that with this dataset and user base Excel would be adequate. We then created an Excel document that contained all of the records extracted from the financial system with hyperlinks to the corresponding images and audit history files.

"Optimus has been a dependable long term support and development partner. Their global delivery model coupled with local presence provides us with the capabilities we need to ensure that our projects stay on time and on budget with the quality that we expect. I would recommend Optimus to anyone looking not just for a development and testing team but looking for a true extension of their in-house team."

Darin Bains
CIO

The Result

At the end of the project the users received access to a single Excel file that was linked to a database of images. By simply searching and filtering, they are able to quickly lookup any invoice scanned in the decommissioned system.

By simplifying the system, removing the required servers and software licenses, the client saved over $20,000 a year for the seven years they need access to this information.

About Optimus Information

Headquartered in Vancouver, Canada with delivery centers in Canada and India, we work as a trusted partner to medium and large businesses to solve their software and technology challenges. With a team of 150+ people Optimus Information provides global organizations with scalable, flexible and cost efficient solutions. **Optimus Information provides global reach with a local presence.**

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