ETL Architecture and Development

Opportunity:

A large Michigan based financial institution needed help to architect, configure, and support their Extraction, Transformation, and Loading (ETL) processes for a large Data Warehousing project as part of their Risk Management Initiative.

Solution:

POA Systems provided consulting services to the client Data Warehousing Initiative.

Our staff reviewed the source data systems and data structure needs. Based on the data needs of the user community, we developed data mappings and scripts using Informatica Power Center and Power Exchange to propagate data from source systems to the Data Warehouse.

We developed logical and physical data models that supported data processing, information management, and delivery to the Data Warehouse.

We setup, configured, and administered Informatica servers in Development, Quality Assurance, and Production environments. Some of the Informatica configuration and administration tasks included upgrade of Power Exchange, upgrade of the Informatica Data Quality tool set and application of required patches.

Our staff was responsible for performance tuning of ETL processes and research solutions to ETL challenges, mainly pertaining to using Power Exchange to load mainframe databases. In order to improve performance, our staff implemented new capabilities such as bulk loads to the Mainframe.

Once all the code was developed, our team configured connections to Sql Server, DB2, and Oracle sources. The code was then migrated from Development to Quality Assurance and Production environments. In order to foster code reuse and provide an audit trail, our staff enabled version control of the Repository and documented the new procedures for migrating code from Development to Production. On a continuing basis throughout the project, we assisted developers with design and coding issues.

We integrated third party Job Scheduling with Informatica. A major Customer requirement was the capability to launch an Informatica job immediately following the completion of a dependent Mainframe job process. The third party scheduling enabled the coupling of the Mainframe Job Process with the Informatica Job, in a sequential manner.

Our team also enabled Auditing and implemented additional security features as a final step in the implementation of the Data Warehouse project.

A successful delivery of the Data Warehouse project resulted in better Risk which was made possible by a properly configured and maintained ETL infrastructure.