CASE STUDY

Ricoh runs its financial reporting system on IIP
Problem

The following were the traits of the existing AR reporting system -

- **Existing solution was out of product and vendor support**
- **Developed and evolved over 15 years**
- **Consisted of PL SQL code of 25K lines**
- **Difficult to make changes and bring in new transaction types to the reports**
- **Existing system was out sync with source systems to tune of multi millions. Manual data patches were run to correct the final reports.**
- **More than 400 reporting views with complex drill downs and navigation**
- **Only high level summaries available for most reports were available with no ability to navigate to details**
Solution

Based on the analysis of the source data for various Accounts Receivable reports, the following solution was designed -

• The existing code was analyzed and ported to the new IIP paradigm -
  ▸ Analyzed and created Ingestion models to ingest data from the source systems to IIP. This included porting 24 months of historical trend data.
  ▸ Created staging and design model to transform and store data for payments, credits, debits, adjustments and other transaction tables. In addition master data for customers and collectors was also brought from the source systems
  ▸ Optimized the data model, harmonized and created summarized tables in Hive

• Leveraged IIP Spark to visualize data as tableau reports
• Provided extraction ability to end users for reports that needed to extract over a million rows based on ad hoc search criteria
• Provided ad hoc search and download interface to power users, allowing them to download large amount of data for troubleshooting and auditing purposes
• Simplified the complex reporting navigation structure, improved the report performance as well as provided export options for offline analysis

Business Benefits

Improved Accuracy

▸ Reduced the variance significantly. Since the code was modularized, all the data patches in the old system were remediated. In addition, many discrepancies in discount and payment transactions were identified and fixed
  ▸ Brought new fields into the reports with minimum effort and improved the accuracy of the reports.

Flexible and simplified reporting framework

▸ Over 400 different views for reports were reduced to approximately 50 views
  ▸ Dynamic age bucketing logic provided flexibility for creating new aging buckets in Aging based reports.
  ▸ All trend reports were consolidated with current views with a more intuitive user navigation

▸ A better and usable view for Liquidation reports provided, with the ability to drill down to details
  ▸ Improved reporting capabilities for liquidation of invoices over 24 months from the earlier 13 month period
  ▸ Data extraction framework outside tableau to download files for offline analysis was also provided

Increased User Adoption

▸ Provided the ability to create additional reports and dashboards. The data can be combined with other sources and the marginal cost to build newer applications will be significantly lesser.
  ▸ Ability to do Top N type analysis on aging, liquidation and cash impact data
Technology Stack

IIP version 1.0.3

UI Tableau

Hardware 4 nodes for IIP (64 GB each) with 1 node for tableau (32 GB). Reporting over 600 GB of data for 24 months.

Statistics

Reports

All trend and current reports’ navigation made consistent with performance at par with ARMS and better in case of cash impact reports and liquidation reports. All detailed reports complete in new system within 2 minutes (downloading of 100+ MB, 1 million + rows) whereas many of the detailed reports would time out in ARMS (depending on the volume).

ETL

Daily ETL load is at par with ARMS. The team is working on optimizing the ETL and reducing the overall ETL time. Monthly ETL load is better with on time performance as compared to next day availability in ARMS.

For more information, contact askus@infosys.com