

#### **CASE STUDY:**

The Pains & Gains of a Financial Institution's Core Conversion



#### **Case Study Snapshot**

COMPANY: A leading financial institution
LOCATION: Manchester, New Hampshire
CHALLENGE: Core conversion, data defects,

disparate systems

**SOLUTION:** Implementation of DQRE, deployment of lean data lake

For over a century, a leading financial institution has been helping its members with a wide range of products and services, including checking accounts, personal loans, real estate loans, business banking, and financial planning.

When they needed help with the most significant software upgrade in its history -- a core conversion -- they reached out to Arkatechture.

#### **IMPACT**:

- ✓ Fully converted to a modern system
- ✓ 100+ data quality rules put into effect to keep data clean
- ✓ 50% reduction in manual hours with automation
- Deeper customer insights and better business intelligence
- Self-service reporting and dashboards

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#### First, dirty data cleanup

After operating on its current core system for **over 20 years**, a leading financial institution began hitting some roadblocks as could be expected from using software that is outdated.

"Since we were about to undergo a massive technology upgrade — a core conversion and then adding on two additional systems — we wanted to get our arms around the <u>data quality</u> and data defects first," said the institution's vice president.

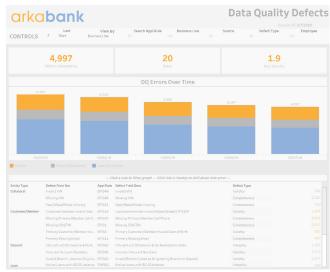
Too often during core conversions, companies convert from one system to another without regard to the quality of the data, but this smart institution was thinking ahead.

# "we wanted to get our arms around the data quality and data defects first"

Common data defects like missing Social Security numbers, incorrect TINs, invalid DOBs, incomplete addresses and phone numbers cause all kinds of problems, as you can imagine. But more specific data defects were of concern as preparations began for their core conversion. For example, if you pledge your residential loans to the Federal Home Loan Bank, as part of your liquidity program, you know that having the right information, like flood encoding or LTV is critical.

By applying its <u>Data Quality Rules Engine (DQRE)</u>, the Arkatechture team was able to craft over 100 data quality rules to pinpoint thousands of defects within the institution's data, allowing for a swift correction before undergoing the conversion process.

The DQRE also checks for **six data quality dimensions** including Accuracy, Completeness, Integrity, Timeliness, Uniqueness, and Validity. The Integrity dimension, for example, ensures the address for a customer in System A must be an exact match for the same customer address in System B.



Data Quality Rules Engine

As the team at Arkatechture dove into the data and got to know this financial institution's business processes, it became apparent that legacy data cleanup would only scratch the surface — sizeable efficiencies could be gained in several areas through strategic data optimization.

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#### Next, merging disparate systems

At the time of the engagement, the financial institution was relying on data from **disparate software systems** to provide outputs in **Excel spreadsheets**. End-users got some of the information they needed but it didn't give them a holistic view of the data.

"We needed to convert over to an updated system, and we knew we were going to need some help with that."

"The batch processing of the software made it difficult to integrate third parties with it, and it was overall just very archaic," said the business information services manager. "We needed to convert over to an updated system, and we knew we were going to need some help with that."

Worse, the company was running **nearly 1,300 custom queries** with data from multiple systems and departments. The result was stagnant, inconsistent reports, and countless hours wasted on retrieving and assembling the data.

The Arkatechture team implemented <u>a data lake (a centralized storage location for disparate data)</u> to provide the institution flexibility and efficiency in existing operations while expediting the massive conversion and migration project.

By deploying a data lake with incorporated business logic for the conversion, it laid the foundation for the solution to the institution's business process issues. Now, they would have access to historical data, as well as self-service reporting and dashboards that allow non-technical staff members across the organization to quickly access, visualize, analyze and act on data from any source.

## A DATA LAKE ENABLED OUR CLIENT TO...

- Gain easy access to historical data
- Create self-service reporting and dashboards for less technical staff
- Become flexible and efficient with their data
- Analyze and act on data from any source
- Replace 1,300 custom queries with one self-service data workbench

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## Moving from simple reports to business intelligence

Gathering data in one location made it possible for the Arkatechture team to build intelligent reports that would help the institution's management team to **quickly identify business problems** and guide the strategic direction of the organization. Intuitive dashboards were developed with the needs and objectives of specific users in mind.

#### "When used correctly, data can be an incredibly transformative tool"

Hurdles that existed before the engagement were eliminated and accurate reports and visualizations were now possible using a **single source of truth** that each team member uses on a daily basis. Now the institution can leverage its data for efficiency, more profound business insights, and competitive advantages.

"When used correctly, data can be an incredibly transformative tool," said the executive director of IT and BIS. "We continue to see areas where we can improve using our data on an almost weekly basis."

#### ABOUT ARKATECHTURE

We are a technology company dedicated to empowering our clients with a better understanding of their business through data.

Whether you need to perform a data quality check, improve customer experiences, or conquer data collection ahead of CECL, we can help.

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