



Why is Data Migration so Critical

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Executive Approach

The common Industry approach to data migration has been to tackle it as a technology problem whereas the Business needs the data to be correct right from the inception of the project. Data Quality and Data Completeness are both very critical aspects of any migration from the legacy system to a new application. In the context of Dealing Room and Trading platforms, it becomes even more sensitive because of the direct impact of the data on the financial health of the customer. This paper elaborates on the issues related to Data quality during any Trading floor implementation and identifies the right approach to data migration in such projects.

Introduction

Businesses invest substantial amounts of time and money in their attempts to build or buy new applications in order to improve their core operations. The starting point for many of these initiatives is the migration of legacy data for use in the new information-intensive applications. A successful data migration preserves core business knowledge and makes it accessible from the new application, but the degree to which the new application will succeed depends heavily on the quality of data that emerges from the Data Migration process.

According to The Data Warehousing Institute, data quality problems cost U.S. businesses more than \$600 billion a year. Larry English, author of "Improving Data Warehouse and Business Information Quality," states that poor information quality can cost organizations 10-20 percent of total revenue.

Repeatedly, data migration projects highlight serious data quality issues that all too often lead to delayed projects and cost overruns. In extreme cases, poor data quality has led to the abandonment of new business initiatives. Often it is a big surprise to an organization when management discovers just how bad the data in their core databases is. Legacy data degrades relatively quickly. According to Gartner, customer data degrades at a rate of two percent per month. Doing nothing to fix this could add up to a big headache over the course of just one year.

In some cases, data quality issues are invisible until the data is migrated from a legacy system to a new application with increased functionality, or from operational systems to a data warehouse. Only then do users realize that critical functionality within these new systems is unusable due to previously unidentified data quality problems.

Getting the data right from the inception is essential if a data migration project and subsequent business application implementation is to succeed. Organizations need to be able to rapidly identify and correct data quality problems before the new system goes live.

Why is Data Migration critical for Dealing room applications?

Data Quality and Data Completeness are both very critical aspects of any migration from the legacy system to a new application. In the context of Dealing Room and Trading platforms, it becomes even more sensitive because of the direct impact of the data on the financial health of the customer. Customers and Product vendors have to be cognizant of the need to carry out data migration in a planned and sequential manner to ensure that there is no impact on the reported financial figures.

Adopting the right approach to data migration is the differentiator for a faster and productive implementation of any Trading Platform. In a typical application implementation project, the data migration phase is normally scheduled in the latter phases usually before the system testing phase. This creates the risk of running into some of the data quality issues that we identified earlier. Hence we recommend that some aspects of a data migration exercise start earlier:

- designing end-user support mechanisms for fixing data problems;
- agreeing the prioritization mechanisms;
- deciding what constitutes acceptable quality data;
- identifying the key stakeholders and getting their sponsorship of the project.

These are tasks critical to the success of the project, but they always have long elapsed times because they are dependent on a succession of meetings with often hard to pin down business people. These are also 'soft' tasks, dealing with setting up mechanisms and project controls, not the 'hard' data-munching tasks that we, as technologists, feel more at home with. But they have to be done and can be done independent of access to the new system data model.

Data migration on its own will do nothing to address the problem of bad data in legacy systems. On the contrary, the move from rarely audited legacy systems to data-intensive environments will only highlight problems with data quality. To be successful, any data migration project must have a data quality and enhancement program at its core.

What is the right Migration approach?

Ser. No	Step	Description
1	Identify the data components involved	<p>Identify the types of data involved in the migration. For e.g.</p> <ul style="list-style-type: none"> • Static Data <ul style="list-style-type: none"> ○ Currencies, Countries, Holidays... ○ Processing Organisations, Counterparties, Brokers, Issuers, Agents... ○ Trading desk hierarchy ○ Standard Settlement Instructions ○ Master Services Agreements and other contracts ○ Chart of accounts and account balances • Market Data <ul style="list-style-type: none"> ○ Financial instruments like Bonds, Index definitions, Equities, Commodities... ○ Market Quotes ○ Curves and surface definitions • Other Items <ul style="list-style-type: none"> ○ User access framework ○ Any other rules and workflow definitions • Trade Data <ul style="list-style-type: none"> ○ Trade data ○ Position data ○ Cash Flows
2	Define the sequence of data components	<ul style="list-style-type: none"> • The dependency of static data and trade data on each other has to be identified and documented. For e.g., Financial instruments like Bonds and Equities cannot be migrated without the issuers getting defined in the system. Standard settlement Instructions cannot be migrated without the legal entities defined. • Often while implementing new systems, some of the static data is already pre-loaded so studying what's already available and what is the incremental migration is required
3	Analyse data from legacy system	<p>Once the data items to be migrated are identified, the data available from the legacy system has to be analyzed for</p> <ul style="list-style-type: none"> • Consistency <ul style="list-style-type: none"> ○ Merging data from multiple systems can often lead to inconsistent data and values that represent conflicting information

		<ul style="list-style-type: none"> • Conformity <ul style="list-style-type: none"> ○ Data has to be of a standard format to be reusable hence transformation and mapping rules have to be defined • Accuracy (Up to date) <ul style="list-style-type: none"> ○ Data that is incorrect or out of date is a very common problem • Completeness <ul style="list-style-type: none"> ○ Data can be missing or unusable • Uniqueness <ul style="list-style-type: none"> ○ Multiple instances of the same data is the single biggest inhibitor of effective data migration • Integrity <ul style="list-style-type: none"> ○ Missing important relationship linkages degrade the quality of data
4	Transform the legacy data	Based on the gaps identified after analyzing the legacy data, transformation and mapping rules need to be applied to the data to make it compatible with the new system
5	Plan migration	The migration plan to be drawn up and executed to ensure that there are no business errors before the actual migration of production data happens

Quinnox Value Proposition

Quinnox has focused on the area of migration as one of its Core service offerings and using the domain and technology skills available within the Practice and its partnership with some of the Product vendors in this domain has designed a framework that handles conversion and migration to products like Calypso and Wall Street Systems. The framework uses open-source technology and has in-built error handling and verification capabilities. This provides the customer an easy migration option that cuts down costs as well as boosts productivity.

Quinnox has successfully used these tools and services to deliver mission critical multi-country rollouts of cross asset front-to-back product implementations. More details of our tools, services and customer case studies can be found on our corporate website.

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About Quinnox

Quinnox is an IT services and solutions provider headquartered in the US, with offices in UK, Japan, Germany and India. We also have four state-of-the-art development centers in India that leverage a cost-effective delivery mechanism and a wide talent pool catering to a client base consisting of Fortune 500 companies.

Quinnox offers the full spectrum of IT lifecycle solutions, right from development to support services, including packaged implementations and product development services. We are a technology-focused company, with a wide experience in select industries – Banking and Financial Services, Retail and Manufacturing.

QUINNOX FACTFILE

- Headquartered in Naperville, Illinois in US
- Over 1000+ employees globally
- ISO 9001:2000 certified
- Preferred IT solutions partner for several Fortune 500 companies

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