

Easing the data migration burden

Understand the risks of data migration and how to leverage quality information



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Introduction

Data migrations are a critical process that many businesses go through today. As organizations deal with changes in technology, consolidation in technology and a focus on data-driven insight, combining information sources is a necessity. However, these efforts demand time, are cost intensive and can carry a fair amount of risk.

A data migration is defined as the process of transferring data between storage types, formats or computer systems. These are essential for any system implementation, upgrade or consolidation. While that seems boring, these migrations are anything but. Complex systems of data need to be joined together and that is no easy task.

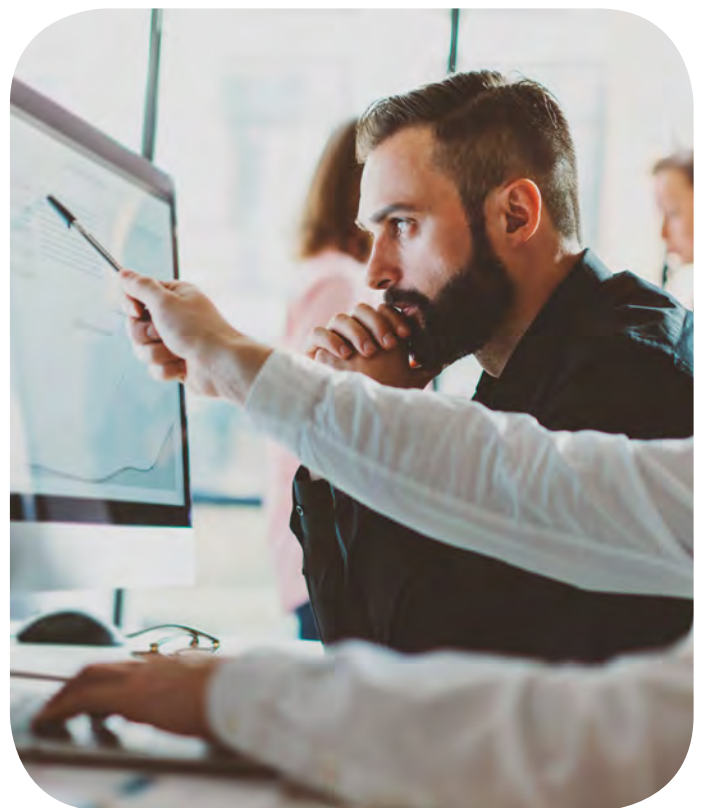
Data migrations are full of challenges, such as a lack of communication, differing data standardization and systems designs that are not planned properly. In addition, most organizations are dealing with massive data quality issues. The majority of businesses in a recent Experian study believe at least some of their information is inaccurate, and on average, businesses believe a third of their information is wrong.

While migrations are becoming more prevalent, they are certainly not any easier. In fact, given the data landscape today, they are only becoming more challenging with the types of systems in place and the volume of data.

To combat key challenges facing data migrations,

organizations have to understand the inherent risks and how to prevent them from occurring. Stakeholders need to use the right tools and communication techniques to ensure success in the project.

With so much executive focus on data insight and big data, it is essential that the data migration projects are successful and produce data that is valuable for a wide variety of business initiatives.



Prevalence of data migrations

Data migrations are very common in today's business environment. In fact, according to a recent Experian study, 91 percent of companies engage in data migration projects.

Most commonly, organizations engage in data migrations when there is:

- A merger or acquisition
- A de-merger or buy-out
- System replacement
- System upgrade or new system purchase
- Regulatory changes

These projects are becoming more prevalent due to the reliance on data for a number of business applications. During any of the business changes listed above, organizations may not only need to merge data to continue basic operations, but also need to gain needed consumer insight.

Ninety-five percent of businesses feel driven to turn data into insight. The four main drivers for insight are understanding customer needs, finding new customers, increasing the value of each customer, and securing future budgets. All of these are critical areas of success for businesses to drive growth.

While data migration projects are time-consuming and complicated, they are absolutely necessary to progress on key initiatives. However, they need to be given the right amount of preparation and time in terms of processes, project plans and data preparation.



Common migration challenges

There are a number of challenges businesses face as they look to migrate data. Most have to do with the processes, the data itself and the technology that is used to assist in implementation.

Data migration challenges are often not minor. Rather, they impact the overall success of data within the business and execute on the project. Many data migration projects will exceed budget and/or result in some form of business disruption due to flawed execution.

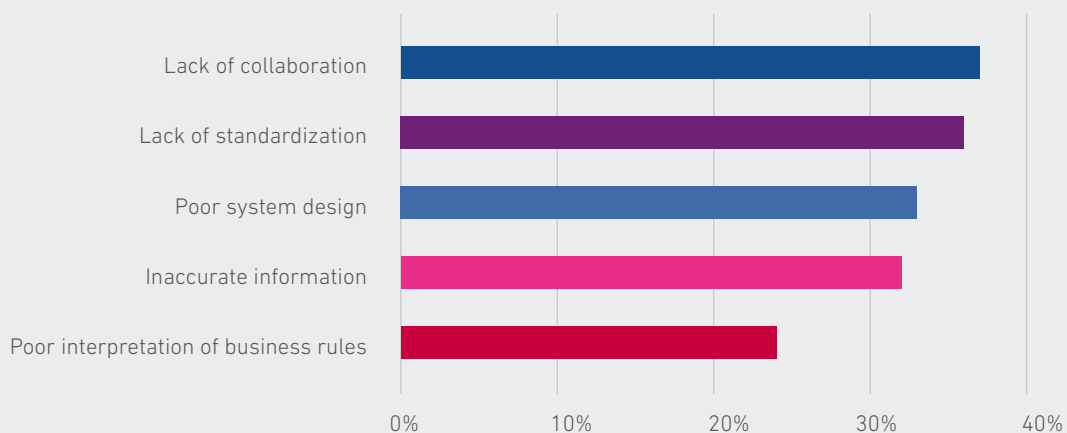
That flawed execution occurs often, with 85 percent of companies experiencing data migration challenges according to a recent Experian study. But, it is important to keep in mind that businesses are not just affected by a single challenge, most companies experience more than one of the issues highlighted below.

The five most common challenges are:

1. Lack of collaboration
2. Lack of data standardization or data consistency
3. Poor system design
4. Inaccurate information
5. Poor interpretation of business rules

The most common challenge is a lack of collaboration or sharing of knowledge across departments, with technology providers or with database consultants. Communication is an issue between all parties involved. Many times this can be due to a lack of project scoping or not engaging the right business stakeholders. Often, IT may want to engage in a data migration within a silo. All departments who are affected by various data sources need to be involved in the scoping so the full range of data requirements can be uncovered.

Chart 1
Data migration challenges



Another common challenge is a lack of data standardization or data consistency. This affects 37 percent of respondents. Traditionally in a migration, there are a large number of data sources organizations are trying to combine. Based on existing data management structures, there are vast differences in the way data is stored, standardized, maintained, and structured, resulting in a large degree of data inconsistency.

Next, organizations complain about poor system design. Sometimes migrations fail because the system designed to house all the information is not fit for a given department's purpose. In addition, the system may not be fit to manage and handle the types of information required due to poor scoping or a lack of understanding.

A high degree of inaccurate information in existing systems is a significant challenge to data migrations. Most businesses do not understand the full extent of their data quality issue. This can be a major reason for failure in data migration as undetected issues could cause rework or damage to the integrity of the data migrated. A large number of organizations also fail to use tools, like data profiling, in migration projects to understand the full extent of their data issues.

Finally, a quarter of companies say poor interpretation of business data rules is a challenge. Companies cannot blindly apply rules to the data, but at the same time, rules have to be created so the data can be fit for a given purpose. When rules are created without thought to the data or the business process that will be using information, organizations can lose valuable information or it will not be fit for a given purpose.

All of these challenges can cause major problems for businesses and their overall data health. However, these challenges can be alleviated if proper precautions are taken prior to the migration process.

Alleviating the challenges

In order to eliminate as many barriers as possible, organizations need to carefully plan their migration strategies. Here are some recommendations to avoid the aforementioned challenges.

Lack of collaboration

Data migrations are often thought of as something that the technical side of the business has to deal with. In actuality, business users need to be heavily involved. To avoid collaboration challenges and confusion, ensure all stakeholders are bought in and have a seat at the table. Additionally, develop a clear project plan and assign specific owners to tasks and deliverables. It will sometimes be difficult, but collaboration is key to a successful migration.



Lack of data standardization of data consistency

Data standardization is a huge challenge for organizations embarking on a data migration project. From dates that are in the wrong format to addresses that are not standardized to the post office address formula, standardization plays a critical role in an organization's ability to leverage data as an asset. Alignment on terms and definitions across the business is the first step in standardizing data. For example, should dates be entered as 01/01/2015, or 1 JAN 2015, or some other preferred format? Do you have standards in place to keep addresses formatted in the same way? Identifying these issues and making decisions before the migration will help keep data consistent. When data is standardized across the business, it will eliminate errors and rework that could derail the migration, as well as decrease any unexpected costs and delays that may arise.

Poor system design

Poor system design is often a by-product of complex legacy systems that are being held together with the digital equivalent of duct tape. In fact, 33 percent of organizations see poor system design as a significant migration challenge. The technical team may not fully understand the scope of what the new system should look like, or they may have to go it alone due to a lack of engagement or clearly defined requirements from the business side. Additionally, there will likely be a myriad of people working to build the system in tandem. Between internal team members and external vendors, there are plenty of opportunities for confusion or duplicated efforts that could negatively affect the system's architecture. Be sure to have clearly defined scoping documents, a centralized location like a project management system that every team member can access and update, and be sure to build in extra time for problems that will undoubtedly be uncovered as the migration progresses.

Inaccurate information

Migrating poor quality data will cause major challenges. Many organizations don't have an effective data quality strategy in place. If they do have some type of data quality protocols in place, it might be very manual, or only clean certain aspects of the data. Leveraging a data quality solution to ensure data is ready for migration and fit for business purpose will help mitigate risks of inaccurate information. Also, don't underestimate the amount of time it will take to correct legacy data issues – just like poor system design challenges, be sure to build extra time for unforeseen data issues. At the end of the day, what is the point of migrating bad data to your shiny new system?

Poor interpretation of business rules

As mentioned, technology and business users need to be closely aligned and collaborative during data migration projects. When IT is left to make decisions on their own or interpret business rules without business stakeholders at the table, there will be challenges. Business users must be held accountable for defining their requirements so the technology team has a clear understanding of their data rules ahead of the migration.

Conclusion

Data migrations are extremely difficult, but data should be seen as your organization's most strategic asset. Businesses will likely suffer at least one of these challenges during the course of their migration project. Start your data migration with a clear definition of roles and responsibilities that align with both business and technical needs to ensure your project goes as smoothly as possible.

There are two ways a migration project can go—one of which is easily. Start your project on the right foot. We can help!

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