

# Migrating Databases in an Organization

*by Sophia Tutorial*



## WHAT'S COVERED

This tutorial explores various issues with database migrations in two parts:

1. Make A Data Migration Plan
2. Backup To Avoid Data Loss And Corruption

## 1. Make A Data Migration Plan

The process of migrating databases can be quite challenging. Migration may not only include the database but also the applications and equipment. It can be complex and can lead to a number of issues if not planned appropriately. It is quite easy to fail to inventory the various systems or data, or to underestimate the resources that are needed for the migration. Having a solid data migration plan should be one of the first steps in any data migration. This includes identifying the individuals that should be migrating the data and any potential concerns.

Another common issue is having a siloed database, or data that is isolated from the rest of an organization. This can happen if you have a data that has been migrated but may not be integrated into the existing database infrastructure for an organization. There can be other issues, like disparate databases that exist in different departments, locations, geographies, or that even have completely different purposes. For some organizations, this can be more of an issue when there is a database need that is developed within a group and used only within that group rather than across the entire organization.

## 2. Backup To Avoid Data Loss And Corruption

Data loss and corruption are other big areas of concern. We must ensure that we test for this data loss or corruption during the data transfer. If there is a physical drive or system that we are migrating from, we may need to ensure that the drives aren't corrupt or damaged. Although in some cases data loss may not be a problem if we can recover from the backups, losing confidential or private information is always a concern. Depending on where the data loss is, it may not be noticed until an application crashes or a query does not work correctly. To avoid this issue, we need to ensure that we have backups and that we have backups for those backups. Ensuring business continuity is also important, meaning we may need to have mission critical data still available to the business users during the data migration.

Security is another issue in data migration. Organizations could encrypt the data or remove personally identifiable information as part of the process. However, if this data is removed, rebuilding it can add some additional issues, especially if there are compatibility problems between migrations. As we saw in a prior

tutorial, you can have different data types or sizes that may need some intervention to make the necessary changes. This element can require changes to the database structure, as well as the applications that interface with the database.

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## SUMMARY

Database migrations can be quite challenging. There are a number of different factors to consider for a smooth transition.

Source: Authored by Vincent Tran