Migration tools

Tools to help you with your database migration to the cloud.

A number of third-party tools exist that can make your migration less daunting by automating many of the onerous tasks, such as table definitions. We don't recommend doing the work manually unless it is a simple database of low complexity. This is because it will be a time-consuming process, and it is easy to introduce errors.

We recommend tools provided by AWS, as they are cloud native and have good automation. These are the **AWS Schema Conversion Tool (SCT)** and the **AWS Database Migration Service (DMS)**. Despite being AWS products, you can use them to migrate to ***either*** cloud that BNZ uses (Azure, or AWS).

Using AWS Schema Conversion Tool

> **NOTE**
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> SCT is only required for databases that do not have native object conversion support in AWS DMS. SCT does not migrate any data.

The AWS Schema Conversion Tool (SCT) makes heterogeneous database migrations easy by automatically converting the source database schema and a majority of the custom code to a format compatible with the target database. The custom code that the tool converts includes views, stored procedures, and functions. Any code that SCT can't convert automatically is clearly marked so that you can convert it yourself.

Run SCT on the on-premises Server that hosts your database, or another server with connectivity to your database. We have documented how to use AWS SCT as an example, but the AWS documentation is thorough.

Using AWS Database Migration Service

AWS Database Migration Service (DMS) is a web service that you can use to migrate data from a source data store to a target data store. These two data stores are called endpoints. You can migrate between source and target endpoints that use the same database engine, such as from an Oracle database to an Oracle database. You can also migrate between source and target endpoints that use different database engines, such as from an Oracle database to a PostgreSQL database. The only requirement to use AWS DMS is that one of your endpoints must be on an AWS service. You can't use AWS DMS to migrate from an on-premises database to another on-premises database."

DMS is used inside an AWS account as it is cloud based. We've also documented how to use DMS to migration your data to PostgreSQL on AWS or Azure.

Note, in discussions with AWS support, it appears our example of data migration from a DB2 on-premises database "directly" to an Azure database is not officially encouraged/supported by AWS. AWS expects at least one end-point (source or target database) to be hosted on AWS. Our example uses DMS on AWS as the "middle-man"; the *Source* database being on-premises, while the *Target* database is on Azure. See the note in ***Solution Scope*** in our Database Migration Service - Design on a Page in Confluence.

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