On Demand Migration for Power BI

Migrating Microsoft Power BI content can be complex, particularly when taking all of the data sources that can be used for reporting into account. And there are only limited native tools to assist with planning and execution, mainly PowerShell.

Microsoft Power BI Reports are primarily templates. The reports do contain data and do manipulate data, but by and large the reporting is dependent on source data systems. This creates the first part of the complexity for planning a migration. The second part is the management of who administers and consumes the reports from a scheduling perspective.

The Power BI module for On Demand Migration helps with the analysis and migration of shared workspace content, with a focus on end-user-created reporting content that is shared with the business. This provides insights into what would need to be migrated, what dependencies need to be accounted for in a migration and allows for a more managed approach with fewer manual steps and intervention that native tools would require.

The On Demand Migration Power BI module delivers pre-migration reporting for shared workspaces to provide a controlled migration path for shared workspaces based on supported data sources.

Features

Discovery of workspaces

Any migration requires planning. A starting point for that is knowing what is present in the source tenant, in this case, the Online Microsoft 365 Power BI Service. The On Demand Migration Power BI module discovers source tenant contents, starting with workspaces and the shared permissions for these. This can help provide a top level overview of the scope of a migration project, along with the business owners of reporting functions, for planning scheduling and communications during a migration project.

Discovery of reports and semantic models

Once the discovery is complete for workspaces, a second process can be run for a deeper check of the source workspace contents. This collects information on the Reports and Semantic Models (data storage) within the workspaces and provides details on the number of reports that may be considered for migration, along with high level information such as report template modification times.

The number of reports and semantic models will be a factor from a planning perspective in terms of migration times and scheduling.

Discovery of gateways and connections

One of the main items to consider for a Power BI migration is the source data of the reports. This data is imported into Power BI, but it typically has a source that is external to Power BI itself. The source data can reside in on premises systems, in which case a gateway and connection is needed. It can also reside in online systems that do not require a gateway but would still have a connection to the source data. The Power BI discovery collects information on gateways and connections, as well as determines the data source type, such as Microsoft SQL Server for example.

Premigration reports

A downloadable MS Excel-based report is made available following the discovery processing. This report includes details of the workspaces, reports, semantic models, connections, gateways and permissions that were collected during the source tenant Power BI Service analysis.

The data presented can then be used for planning a tenant-to-tenant migration of shared workspaces that are covered by supported data sources.

Migration of shared workspaces

The tenant-to-tenant migration of shared workspaces is the focus of On Demand Migration for Power BI, and it's based on the source data from which the reports within the workspaces were created.

On Demand Migration for Power BI currently supports reports based on imported Microsoft Excel data, Microsoft SQL Server (on premises) and Microsoft Azure SQL (online).

The migration of shared workspaces would include reports and semantic models contained within the workspaces. It also allows for renaming of workspaces in the target tenant to handle naming conflicts.

Migration of connections

The source data connections are a vital part of report functionality and are necessary to ensure that reports can continue to display the information they are designed for. On Demand Migration for Power BI will migrate connections for supported data sources and will reconnect these connections to the original systems the reports are designed for, such as Microsoft Azure SQL. This does require an authentication component for the source system and the migration process allows for providing these credentials and then removing the credentials from the migration system.

Rebinding of reporting connections

The migration of reports and semantic models creates a static image of the data in the target tenant at the time of the migration. To ensure that the reports are maintained and refreshed post migration, the workspace migration will reconnect semantic models to migrated connections in the target tenant. This allows for the data connection to be processed by the migrated reports, along with any source data changes refreshed in the new tenant and semantic models.

Gateway mappings

While gateways can't be migrated directly, as these do require an installation and configuration component, the migration process does allow for mapping gateways between the source and target tenants. The gateways would need to be created in the target tenant prior to migration. Once this is completed a mapping (or matching if the names are kept the same) can be provided for use when reconnecting data source connections.

Migration of workspace permissions

Access to shared workspaces and reports is essential for maintaining business continuity post migration of Microsoft Power BI Service objects. The migration process will set sharing permissions on shared workspaces based on the source workspace access permissions, along with defined roles. This will leverage the On Demand Migration for Accounts processing that will provide source and target account matching.

Shared content migration

On Demand Migration for Power BI covers shared workspaces currently and the supported data sources, imported Microsoft Excel data, Microsoft SQL Server and Microsoft Azure SQL Server.

Microsoft Power BI personal workspaces, applications and pipelines are not included.

Microsoft limitations for extracting data from the Power BI Service do apply.

For details on supported migration processing please review our On Demand Migration User Guide section: What We Migrate.

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