Power BI Architecture Diagram Legend

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1) Power BI Desktop is no-cost Power BI's authoring and publishing tool. Here you'll define the semantic model including data sources, relationships, business metrics, data cleansing rules, hierarchies, and visuals. You'll publish your Power BI content to your Power BI site or Power BI Report Server portal to share with your team. Download Power BI Desktop here.

2) With the Power BI publisher plugin for Excel, you can publish your Excel workbooks right to your Power BI site in order to share your Excel spreadsheets, pivot tables, and pivot charts with other users. Your Excel workbooks can also be hosted on your Power BI Report Server portal. You can also use Excel to browse Power BI data models published to the Power BI service directly from Excel on your desktop. Download Power BI publisher for Excel here. Also, PowerPivot models embedded in Excel can also be converted to Power BI data models.

3) Power BI Report Server data sources, datasets, paginated reports, mobile reports, KPIs, and Power BI Reports can be developed using SQL Server Data Tools, Report Builder, and Mobile Report Publisher. Download the latest version of SQL Server Data Tools here. Download SQL Server Mobile Report Publisher here. Report Builder can be downloaded from your Power BI Report Server portal.

4) Your Power BI Report Server content is published to your report server. Your report server enables report authoring experiences, report rendering, report delivery, security, and administration. Download the latest trial of Power BI Report Server here.

5) The Data Gateway enables you to deploy, configure, and manage a collection of data sources requiring data transfer between your on-premises data sources and your Power BI site. The gateway supports periodic data refreshes and DirectQuery for certain data sources. Download the Data Gateway here.

6) Power BI Dataflows are used to ingest, transform, integrate, and enrich big data by defining data source connections, ETL logic, refresh schedules, and more. Data is stored as entities in the Common Data Model in Azure Data Lake Storage Gen2. Dataflows are created and managed in app workspaces by using the Power BI service. Also, Dataflow entities can be consumed as a data source in Power BI and by using Power BI Desktop. Read more about Dataflows here.

7) Datasets are the heart of Power BI and can be created using Power BI Desktop, Excel, or in the Power BI site. Datasets include the tables, relationships, calculations, and hierarchies and are created using a variety of data sources such as SQL Server databases, Oracle databases, Excel files, text files, and many more. Learn how to create datasets using Power BI Desktop here.

8) A Power BI report is one or more pages of visualizations (charts and graphs). Reports can be created from scratch within the Power BI site or by using Power BI Desktop. Learn more about creating reports using Power BI Desktop here.

9) A Power BI dashboard is a single canvas that contains one or more tiles. Each tile displays a single visualization that was created within a report using a dataset. A dashboard can include visualizations from multiple reports referencing different data sources. Learn more about creating dashboards here.

10) Power BI Premium provides dedicated capacity for your organization or team, giving you dependable performance and larger data volumes. Power BI Premium also enables widespread distribution of your Power BI content without requiring you to purchase per-user licenses for viewers. Power BI Premium also allows you to embed Power BI reports in Teams, SharePoint Online, and/or your custom applications. Read more about Power BI Premium here.

11) Power BI Embedded is a Platform as a Service solution intended for use by independent software vendors. Power BI Embedded supports developers that want to use Power BI visualizations within their custom applications. Learn more about Power BI Embedded here.

12) Power BI Premium and Power BI Embedded support embedding reports and dashboards into Teams, SharePoint Online, as well as custom applications. Learn more about embedding Power BI visualizations in your applications here.

13) The Android, iOS, and Windows 10 apps for Microsoft Power BI offer live, touch-enabled mobile access to your reports and dashboards hosted in your Power BI site and to on-premises mobile reports and KPIs published to your Power BI Report Server portal. Learn more about the Power BI mobile apps here.

14) With the exposure of the XMLA endpoints for the data model engine within the Power BI service, you can connect directly to data models hosted in Power BI using any client that support XMLA. This means you can connect to Power BI hosted data models using Tableau, Qlik, SQL Server Reporting Services, and other client tools that support XMLA. Read more about XMLA endpoint access for third party client connectivity here.

15) Power BI allows you to stay connected to your data from anywhere whether you're browsing with Edge, Chrome, or another supported browser.
16) Data models hosted in Power BI can be browsed by authenticated users who wish to build pivot tables and pivot charts in Excel.