

Module 3

Direct Connectivity

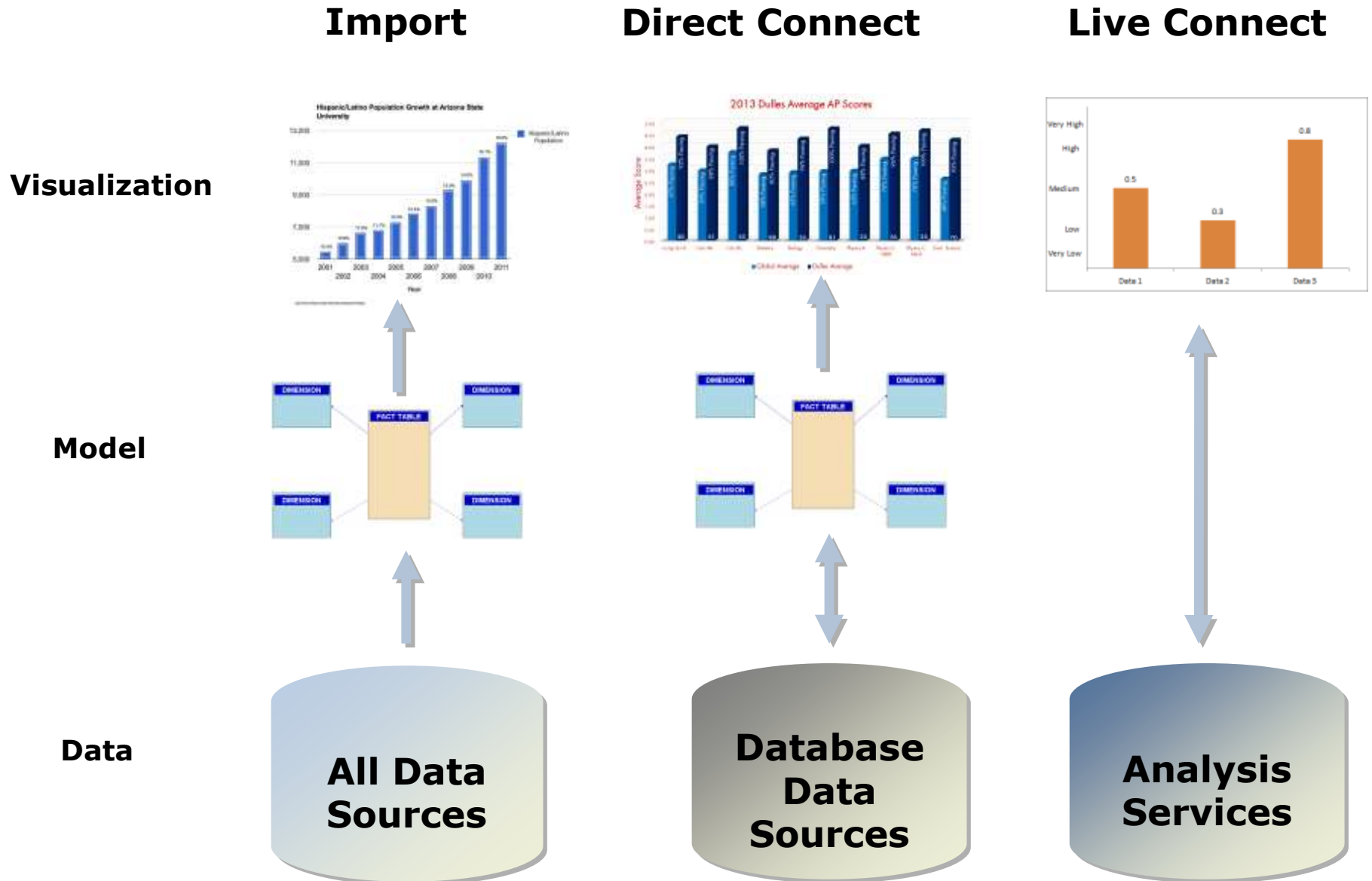
Module Overview

- Differences between Connection Types
- Cloud data
- Connecting to Analysis Services

Lesson 1: Type of Direct Connectivity

- Differences between Connection Types
- New Aggregation Feature (July 2019 GA)
- Demonstrate implementing Aggregations

Differences between Connection Types

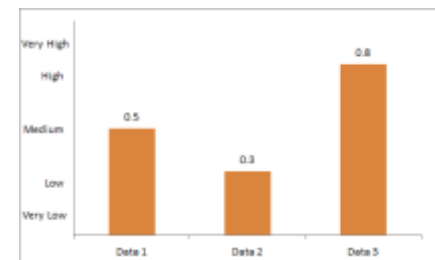


New Aggregation Feature (July 2019 GA)

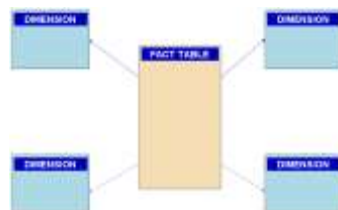
Visualization



Live Connect



Model



Import

Direct Connect

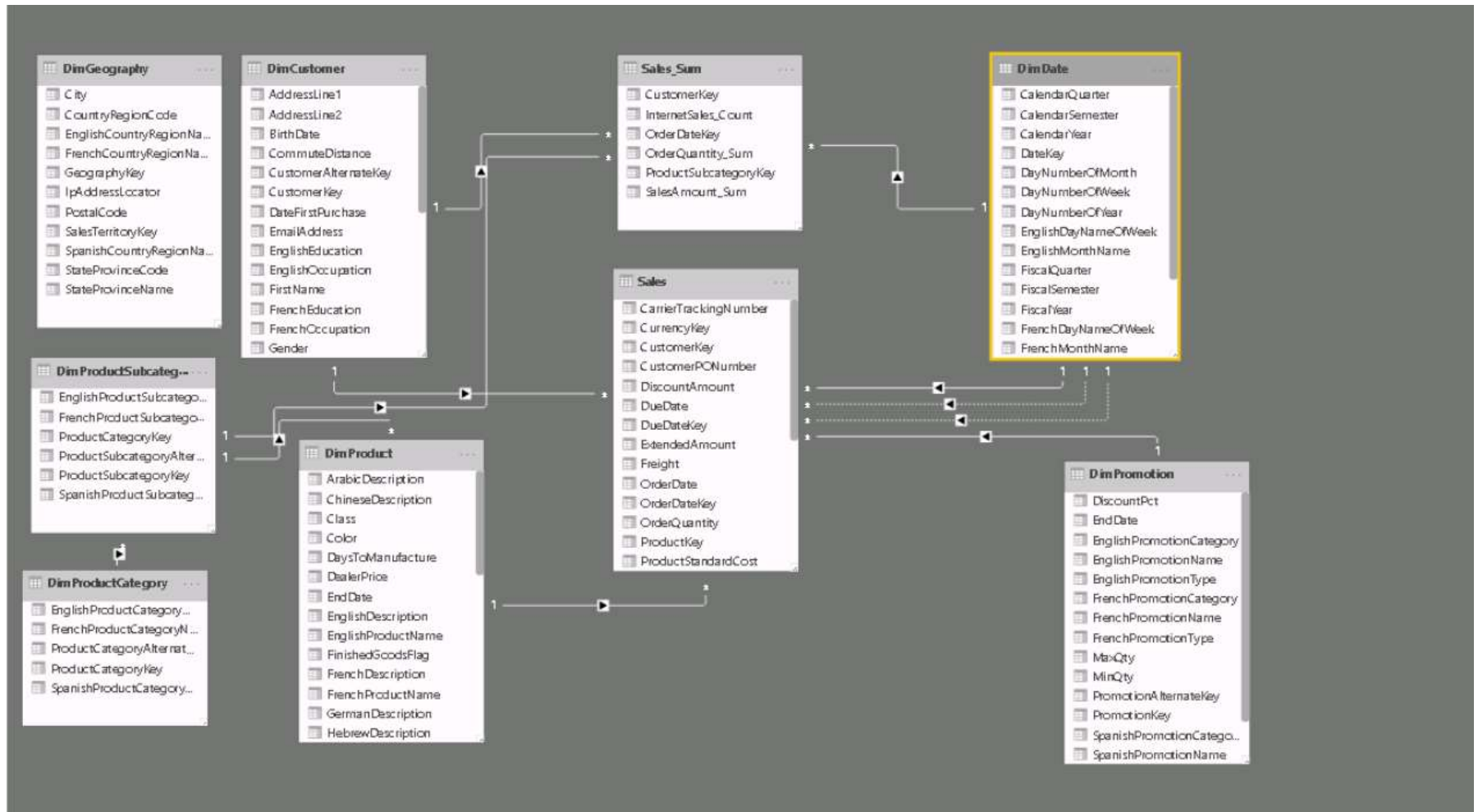
Data

All Data Sources

Database Data Sources

Analysis Services

Aggregations Example



Demonstration: Aggregations

You will see how to:

- Define an aggregate table
- Populate the aggregate table
- Add to a Power BI model
- Enable Aggregations in the Model
- Test Query Rewrite

Lesson 2: Cloud data

- Direct connectivity to SQL Services in Azure
- Connecting to big data

Direct connectivity to SQL Services in Azure

- Set firewall settings in Microsoft Azure to allow connections at server
- Importing data
- Using DirectQuery:
 - Good for very large datasets
 - Always current data
 - Single database

Connecting to big data

- Connecting to HDFS:
 - Add IP address and host name of Hadoop cluster to host file
 - Connect using the fully qualified name of the Hadoop server or cluster, such as *<server name>.cloudapp.net*
- Connecting to Spark:
 - Connect using the fully qualified name of the server; for example, *<clustername>.azurehdinsight.net*

Demonstration and Exercise 1

You will see how to:

- Import data from tables in a database in Azure SQL Database
- View relationships between the tables

Lesson 3: Connecting to Analysis Services

- Direct connectivity to Analysis Services
- SSAS multidimensional models

Direct connectivity to Analysis Services

- Connect to SSAS from Power BI Desktop or service:
 - Connect to on-premises SSAS 2012 or later tabular models from Power BI Desktop and Power BI service
 - Use a live connection to connect to tabular models
- Power BI Desktop:
 - Can also connect to multidimensional models
 - Can import data from tabular or multidimensional models
 - Use a live connection for multidimensional models

SSAS multidimensional models

- SQL Server Analysis Services multidimensional mode (SSAS MD)
 - Supported in Power BI service and Power BI Desktop
- For direct connection to an OLAP cube, select option to **Connect live**
- Browse databases, and select cubes, models, or perspectives
 - Perspectives show preview of available dimensions or measures
 - Cubes show KPIs that are defined in the cube

Demonstration and Exercise 3 and 4

In this demonstration, you will see how to:

- How to connect to both a Tabular and Multidimensional SSAS cube from Power BI Desktop
- Review how a Live Connection effects the creating of Power BI reports