

# Integrating Microsoft Flow into a Power BI Solution



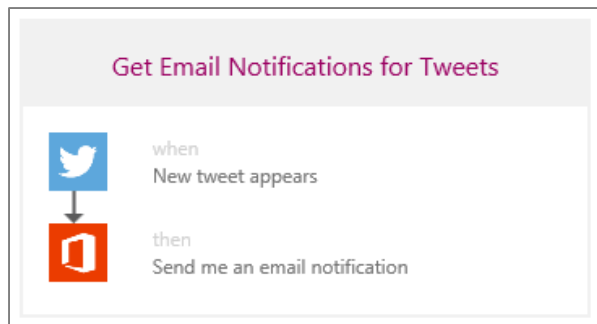
# Agenda

- Microsoft Flow
- PowerApps
- Common Data Model



# Microsoft Flow

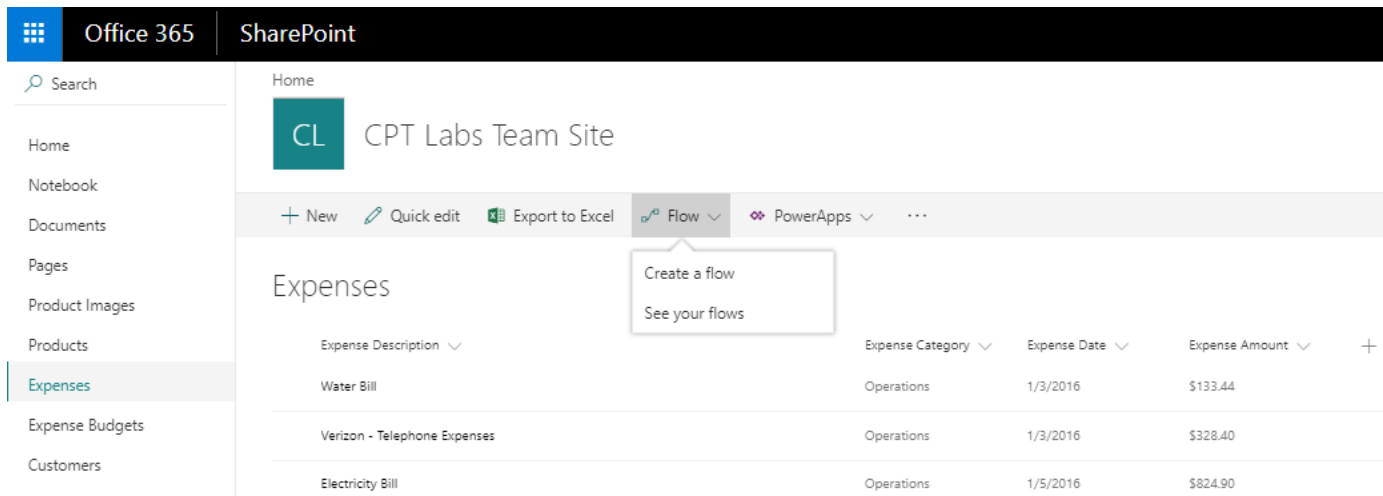
- Previously called Logic Flows
  - Rich workflows connected to services
  - Built using actions and conditions
  - No-code approach to building interconnected systems
  - Flows built from Templates -or- from scratch
- Simplified version of Azure Logic Apps



# Microsoft Flow

## SharePoint Integration

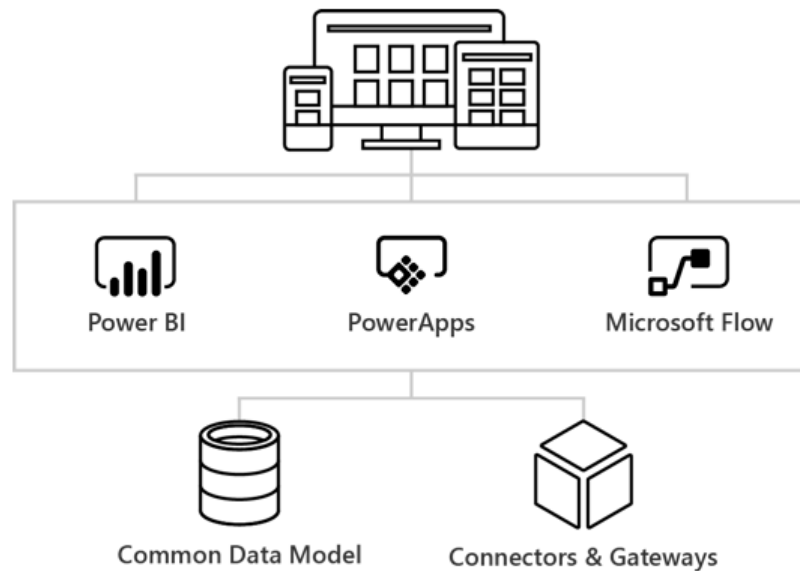
- Connect to a SharePoint List

A screenshot of the SharePoint interface. The top navigation bar shows 'Office 365' and 'SharePoint'. The left sidebar contains a search bar and a list of site sections: Home, Notebook, Documents, Pages, Product Images, Products, Expenses (highlighted), Expense Budgets, and Customers. The main content area shows the 'Home' page for the 'CPT Labs Team Site'. Below the site title, there is a toolbar with buttons for '+ New', 'Quick edit', 'Export to Excel', 'Flow', 'PowerApps', and a menu icon. The 'Flow' button is highlighted with a tooltip that says 'Create a flow' and 'See your flows'. Below the toolbar, there is a table titled 'Expenses' with columns: Expense Description, Expense Category, Expense Date, and Expense Amount. The table contains three rows of data: 'Water Bill', 'Verizon - Telephone Expenses', and 'Electricity Bill'.

# On-Premises Data Gateway

## Connect to on-prem data

- Same technology used by Power BI, PowerApps, and MS Flow



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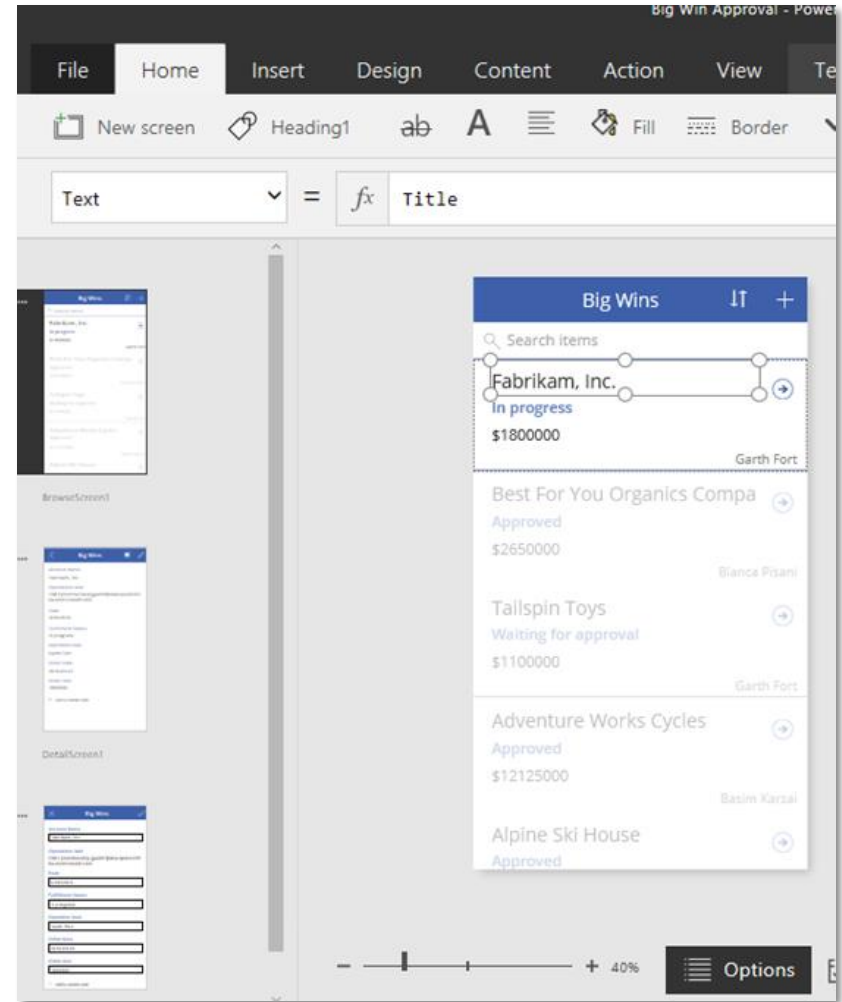
# PowerApps background

- Extension of Project Sienna
- Cloud-based apps for range of mobile devices
- Authentication through Azure Active Directory
- Built in connectors for some popular data sources
- Extensibility through custom managed APIs
  - (Azure Functions, Azure API Apps...) and Microsoft Azure



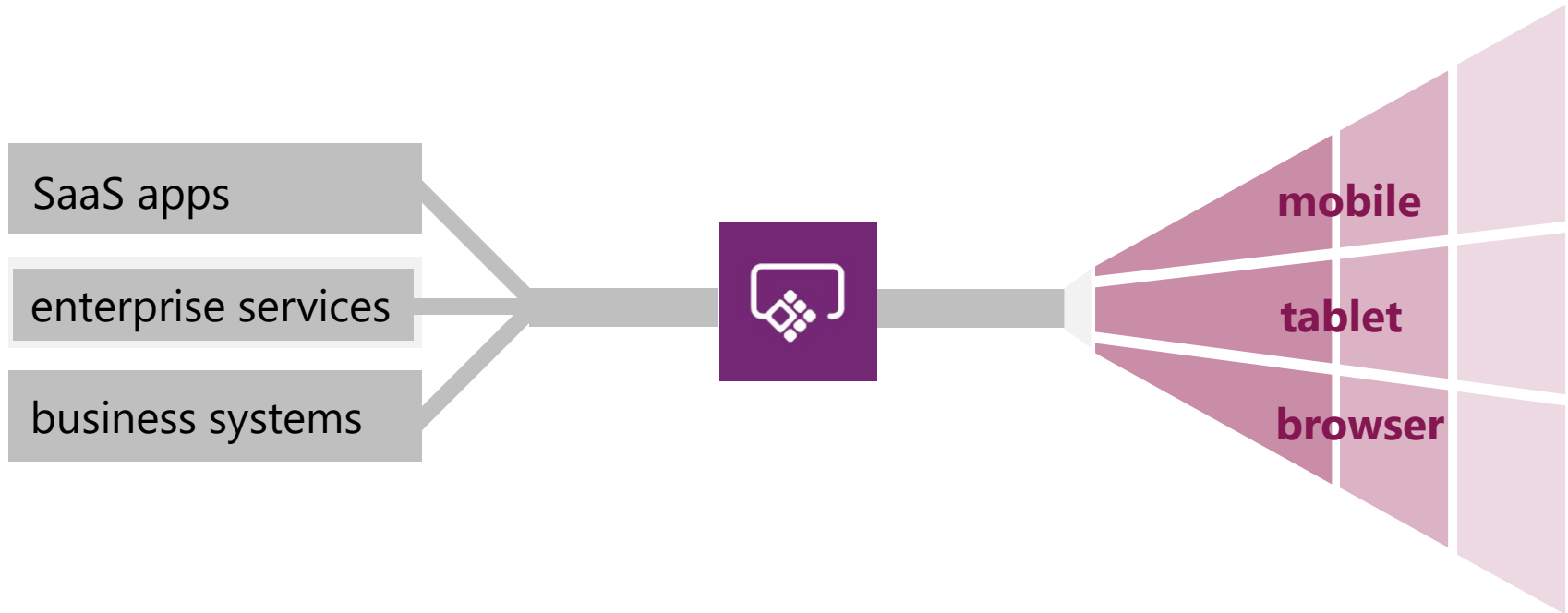
# What can I build with PowerApps?

- Apps based on data
  - SharePoint\*, SQL, but also DropBox and Google Drive
- One-dimensional, form-based apps
- Simple, single-task apps
- Microphone, camera, GPS coordinates. Ink and pen support.
- Multiple data sources in one app
- Multiple screens





# High-level architecture



# PowerApps Architecture Overview

PowerApps  
clients

Web  
clients

Mobile  
clients

Desktop  
clients, etc.

APIs



App Service Environment



Web app



Mobile app



API app



Logic app

Your existing backend



Other SaaS and cloud systems



On-Prem systems



# PowerApps Pricing Tiers

FREE	STANDARD	ENTERPRISE
\$0	\$	\$\$
For anyone who wants to try and use PowerApps	Free during preview	For enterprise with IT and developer capabilities
Create and use an unlimited number of apps	Create and use an unlimited number of apps	Create and use an unlimited number of apps
2 connections to SaaS data sources per user	Unlimited connections to SaaS data sources	Unlimited connections to SaaS and on-premises data sources as well as custom APIs
Shared Infrastructure	Shared Infrastructure	Dedicated infrastructure (Azure App Service Environment)
		App governance, secure access control, and usage reporting
		API management



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# Common Data Model

## Organizational database in the cloud

- Entities define domain language
  - People = Employee, Team, Contractor...
  - Sales = Customer, Contact, Sales Order...
- Able to define custom entities
- Create relationships between entities

Id	Title	CustomerId	OrderId



CustomerName	Locale	CustomerId

OrderId	OrderDate	Price



# Summary

- ✓ Microsoft Flow
- ✓ PowerApps
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