

A wide-angle photograph of a mountain range at sunset. The sky is filled with warm orange and yellow hues, and a bright sun is visible on the horizon. In the foreground, a vibrant rainbow arches across the scene, its colors transitioning from red to blue. The mountains in the background are dark silhouettes against the bright sky.

# Connecting Salesforce.com & Office 365 using Microsoft Flow & PowerApps

**Jared Matfess**

*Solution Principal, Slalom*

# Boston Code Camp 27 - Thanks to our Sponsors!

- Platinum



- Gold



- Silver



- Bronze



- In-Kind Donations



# Jared Matfess

Solution Principal, Slalom Consulting

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 jaredm@slalom.com



- Microsoft MVP
- Technology Consultant
- Craft Beer Snob



# Session Agenda

- Quick Intro
- Overview of Salesforce.com
- Introduction to PowerApps
- Introduction to Microsoft Flow
- Demo all the things
- Resources

# Session Caveat

- This session will not cover integrating Salesforce & SharePoint from a document management perspective



# Overview of Salesforce.com (for an O365 crowd)

# What is Salesforce.com?

Cloud Software as a Service (SaaS)

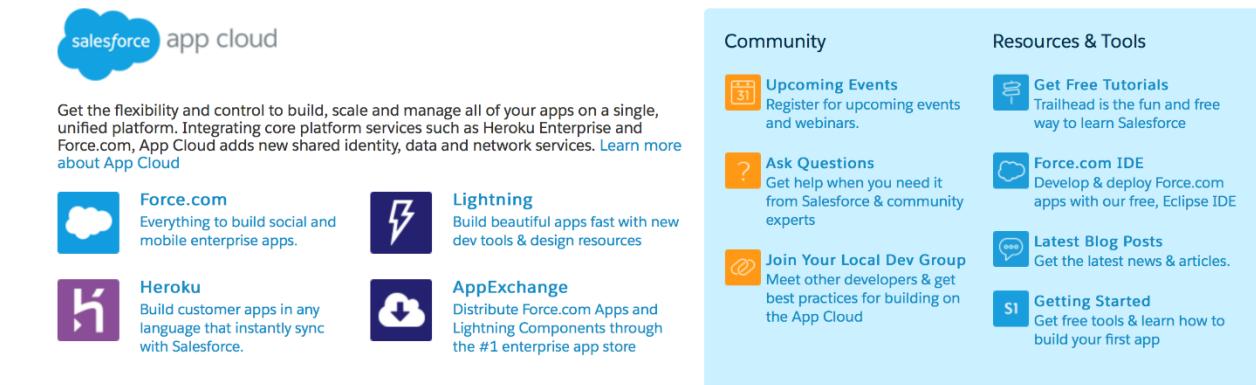
- Sales Cloud
- Service Cloud
- Market Cloud
- Community Cloud
- Chatter
- Analytics
- Apps



# Sign up for Developer instance



The screenshot shows the top navigation bar of the Salesforce Developers website. The bar includes the Salesforce logo, the word "developers", and navigation links for "PRODUCTS", "RESOURCES", "COMMUNITY", "BLOG", and "TRAILHEAD". On the right side of the bar are "Search", "Login", and a prominent green "Sign Up" button. A large blue arrow points to the "Sign Up" button.



The screenshot shows the "App Cloud" section of the Salesforce Developers website. It features a "New Lightning Dev Center" section with a "Get Resources" button and a sidebar with links to "Lightning Dev Center", "Mobile Dev Center", "Summer '16 Preview", "Reinvent your resume", and "Get started". Below this, the "Community" and "Resources & Tools" sections are displayed in a grid format.

Community	Resources & Tools
<b>Upcoming Events</b> Register for upcoming events and webinars.	<b>Get Free Tutorials</b> Trailhead is the fun and free way to learn Salesforce
<b>Ask Questions</b> Get help when you need it from Salesforce & community experts	<b>Force.com IDE</b> Develop & deploy Force.com apps with our free, Eclipse IDE
<b>Join Your Local Dev Group</b> Meet other developers & get best practices for building on the App Cloud	<b>Latest Blog Posts</b> Get the latest news & articles.
	<b>Getting Started</b> Get free tools & learn how to build your first app

<http://developer.salesforce.com>

# Trailhead for Additional Learning



*the fun way to learn Salesforce*

Everyone can learn Salesforce. Whether you are an admin, user, or developer, there is a trail for you.

▼ Start learning for free

<https://developer.salesforce.com/trailhead>

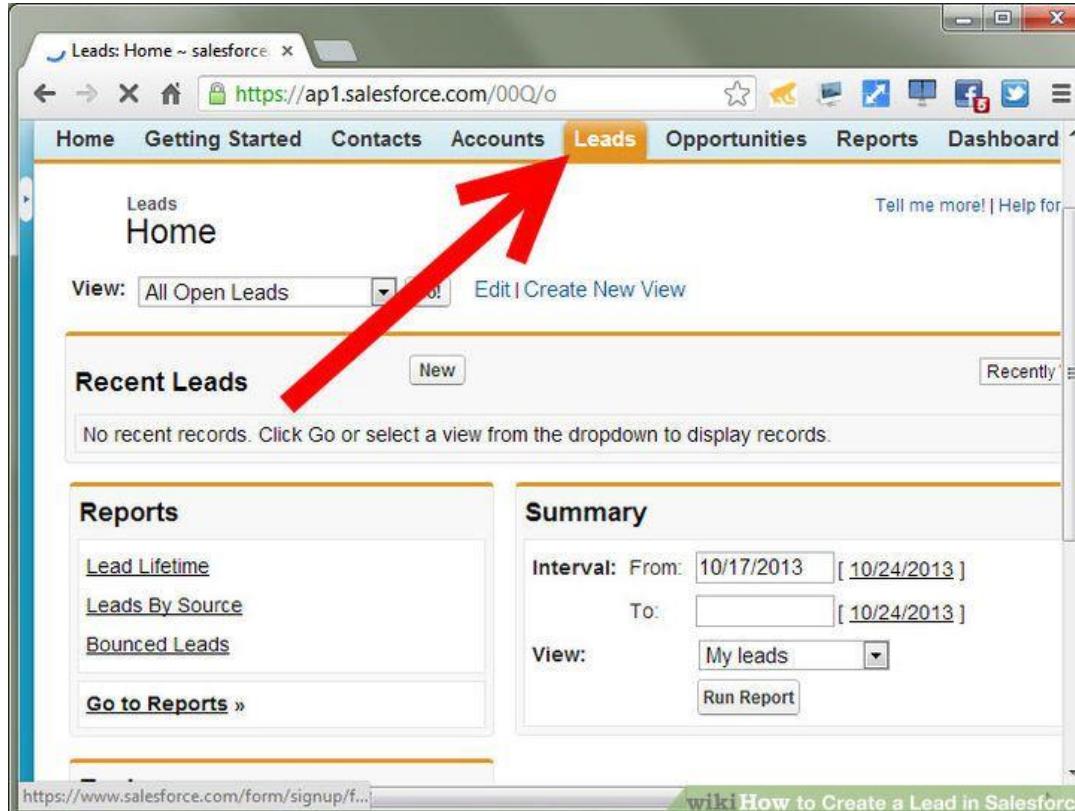
# Salesforce Objects

- Similar to SharePoint Lists
  - Fields / Columns
- Pages are “Visual Force Pages”
  - Combination of HTML & Apex Code
- Salesforce1 Mobile App
  - “Integrate your custom apps” into this phone app



# Tonight's Featured Salesforce Object

- The Lead ☺



wiki How to Create a Lead in Salesforce

# Enabling Files Connect

## I. Enable Files Connect

1. Setup>Customize>Salesforce files>Settings>Files Connect
2. Tick mark Enable Files Connect
3. Choose the File Sharing Type (Copy or Reference based on your requirement)

## II. Once the above is done, Give Permission Set to user to use Files Connect Cloud

1. Go to Setup>Administer>Manager Users>Permission Sets
2. Create New and give the Name/Label
3. Inside the permission set, go to System Permissions under System
4. Click Edit and check the box which says: Files Connect Cloud.

## III. Assign the permission set to the desired user

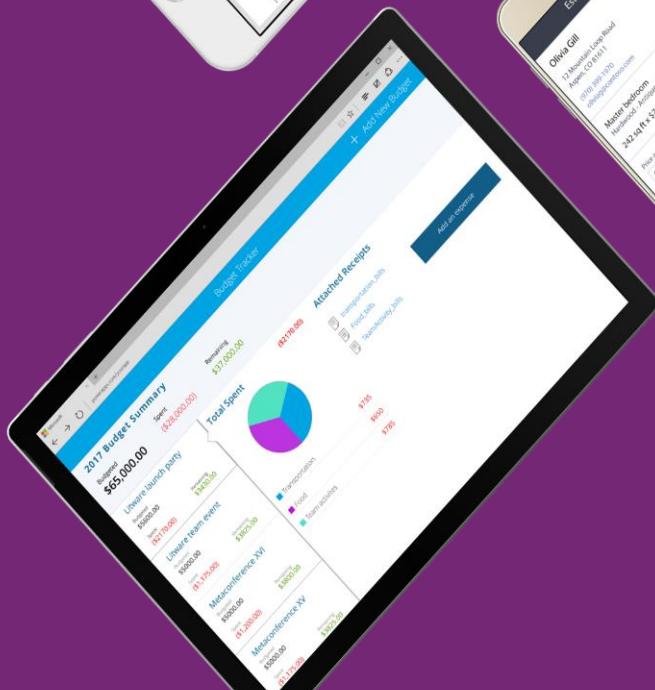
1. Go to Administer>Manage Users>Users
2. Click on the Users
3. Go to Permission Set Assignments
4. Click Edit Assignments
5. Select the newly created Permission Set and Add it to Enabled Permission Sets and Save.

## IV. Check if you have the option under External Data Sources

1. Setup>Build>External Data Sources>New External Data Source
2. Select Type as Files Connect: SharePoint Office 365



# PowerApps





when you're building business apps  
**it's hard to keep everyone happy**

Secure

Scalable

Managed

Integrated

Compliant

Fast

Iterative

Cross-platform

Beautiful

Easy



VS

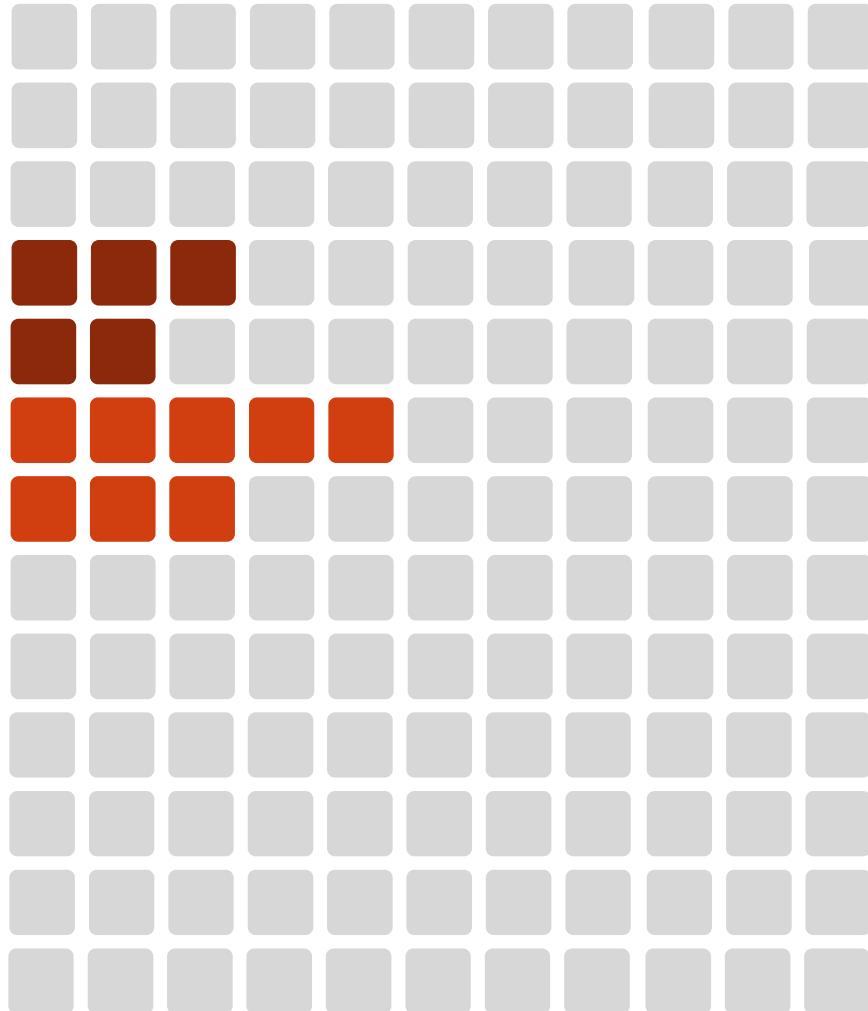


Demand for mobile apps  
is growing **5x** faster than  
IT departments can  
deliver

Only a handful of business apps  
merit the time and cost of  
traditional **custom software**  
**development...**

...and only so many problems can  
be solved with **off-the-shelf SaaS**.

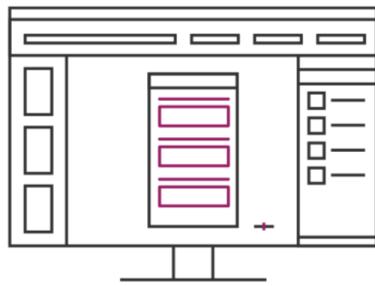
**What about every  
other need your  
business faces?**



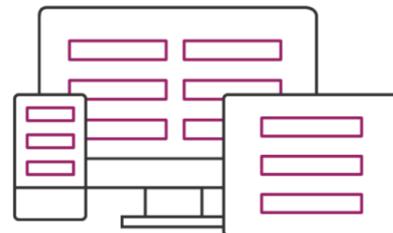
# PowerApps is a service for low-cost rapid application development



Connect to data & systems you're already using; create the data you need



Create apps, forms, and workflows without writing code



Use apps on web and mobile

# Connect to cloud and on premises data

Over 70 out of the box connectors with new connectors every week

Use Custom APIs to connect to any custom REST endpoint

Connect to on-premises data using gateways



SharePoint Online



Salesforce



Dynamics CRM Online



Google Drive



Dropbox



Excel



OneDrive



Slack



Twitter



Office 365

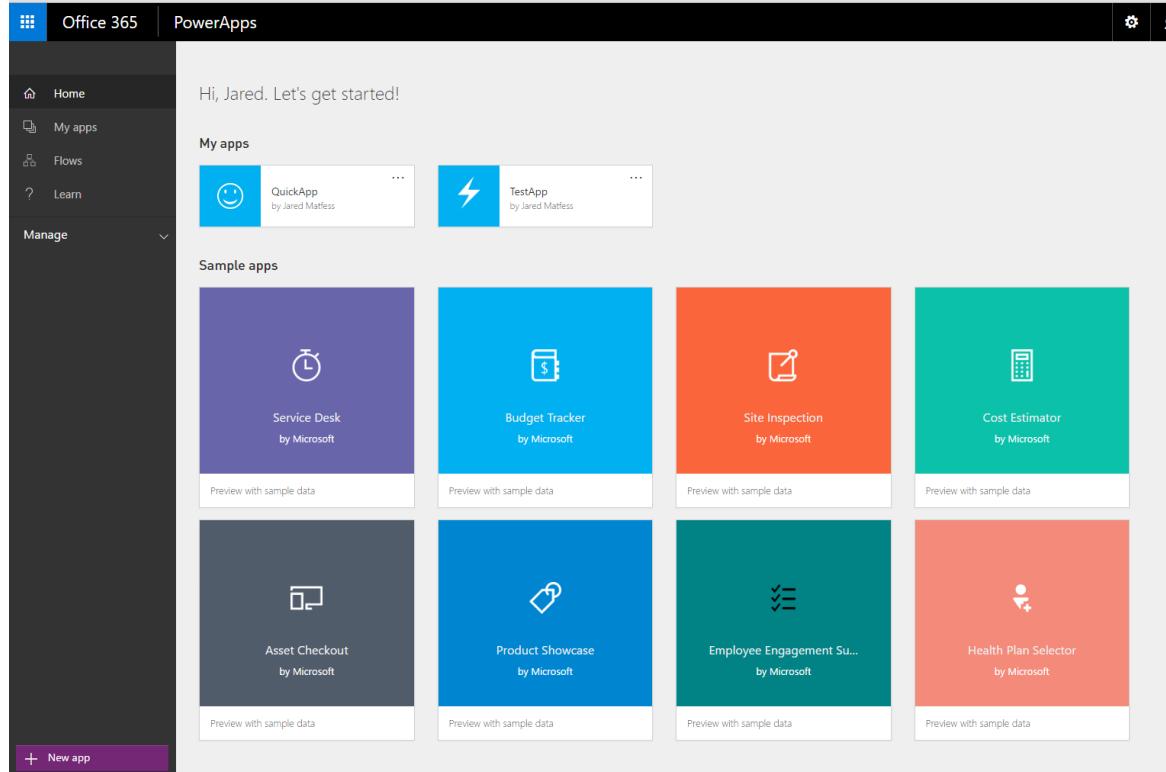


Microsoft Azure



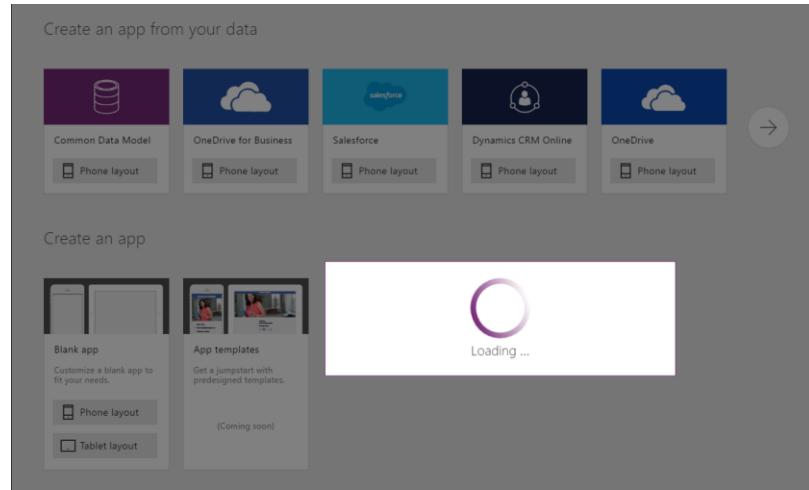
Custom APIs

# Part of O365 App Launcher

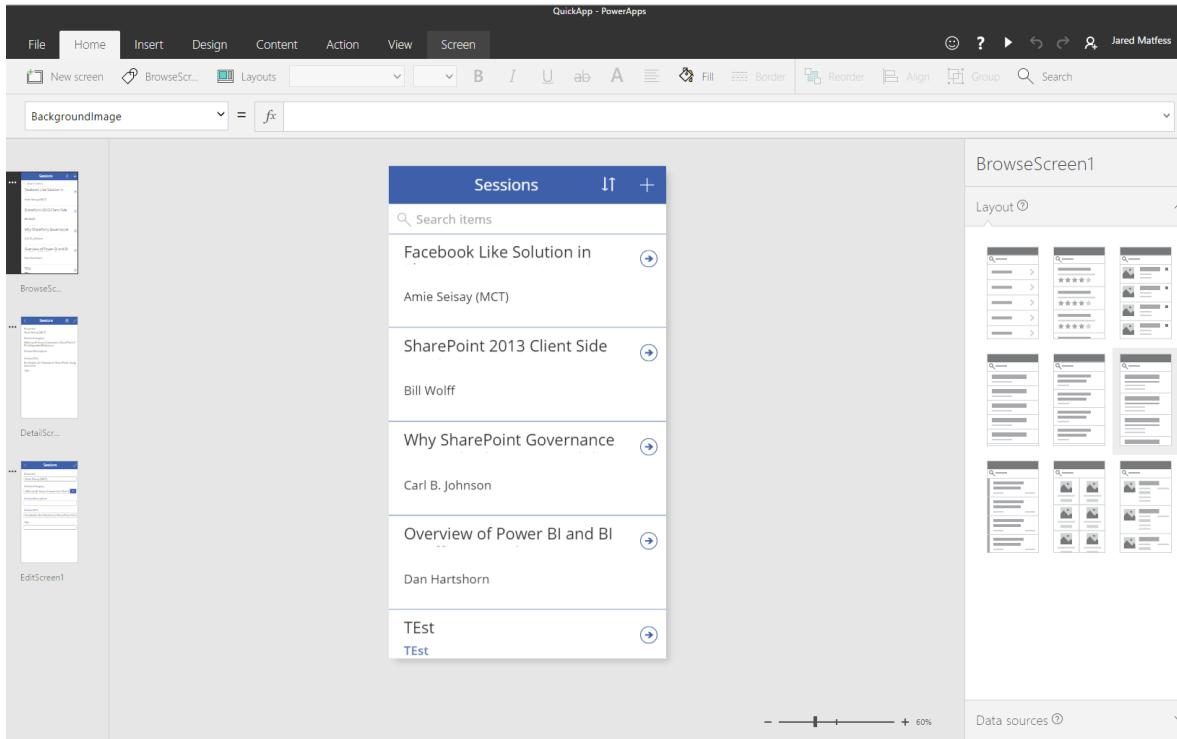


# Development Options

- Build Apps in the Browser (a little buggy)
- Build Apps in Windows App (a little buggy)



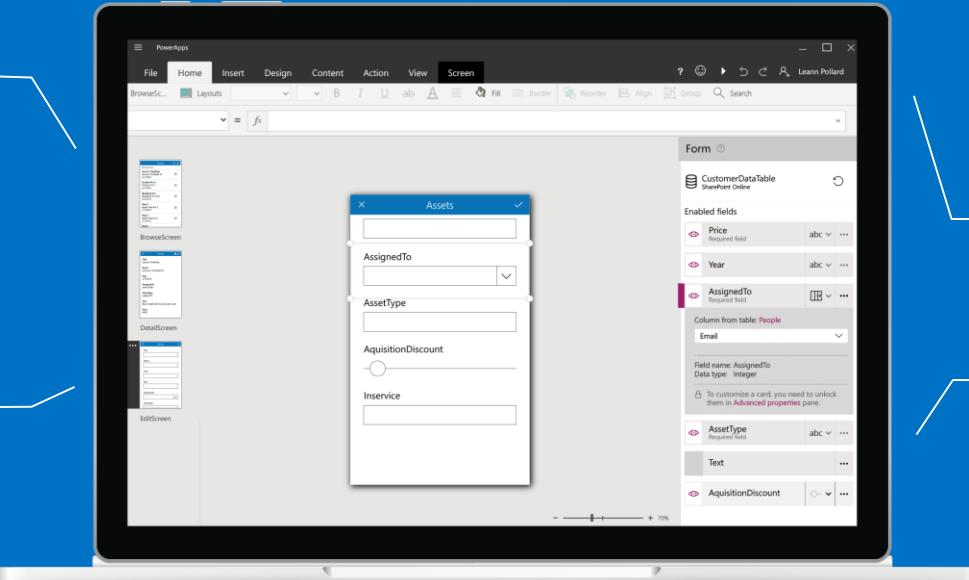
# PowerApps Authoring



# Build useful apps without writing code

Craft forms and screens in a visual designer that helps you see exactly what you'll get

Take advantage of device capabilities like cameras, GPS, and pen controls

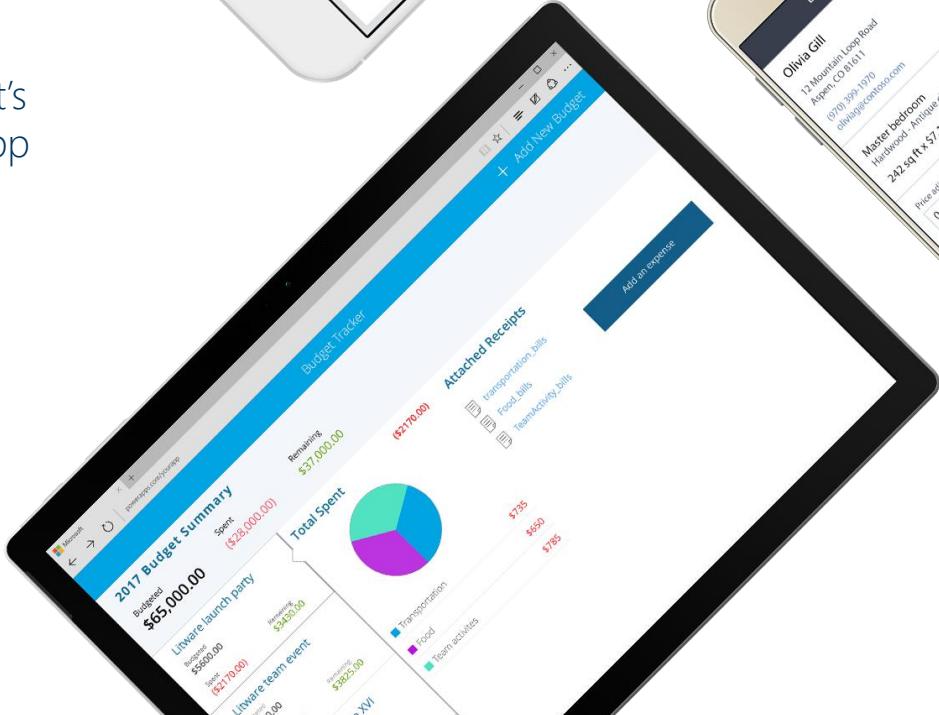
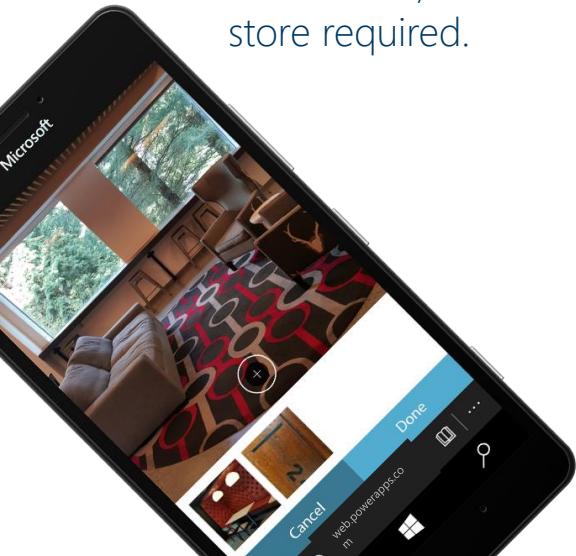


Build business logic into your apps with an Excel-inspired expression language

Extend the capabilities of connected data sources, or focus just on the bits you need

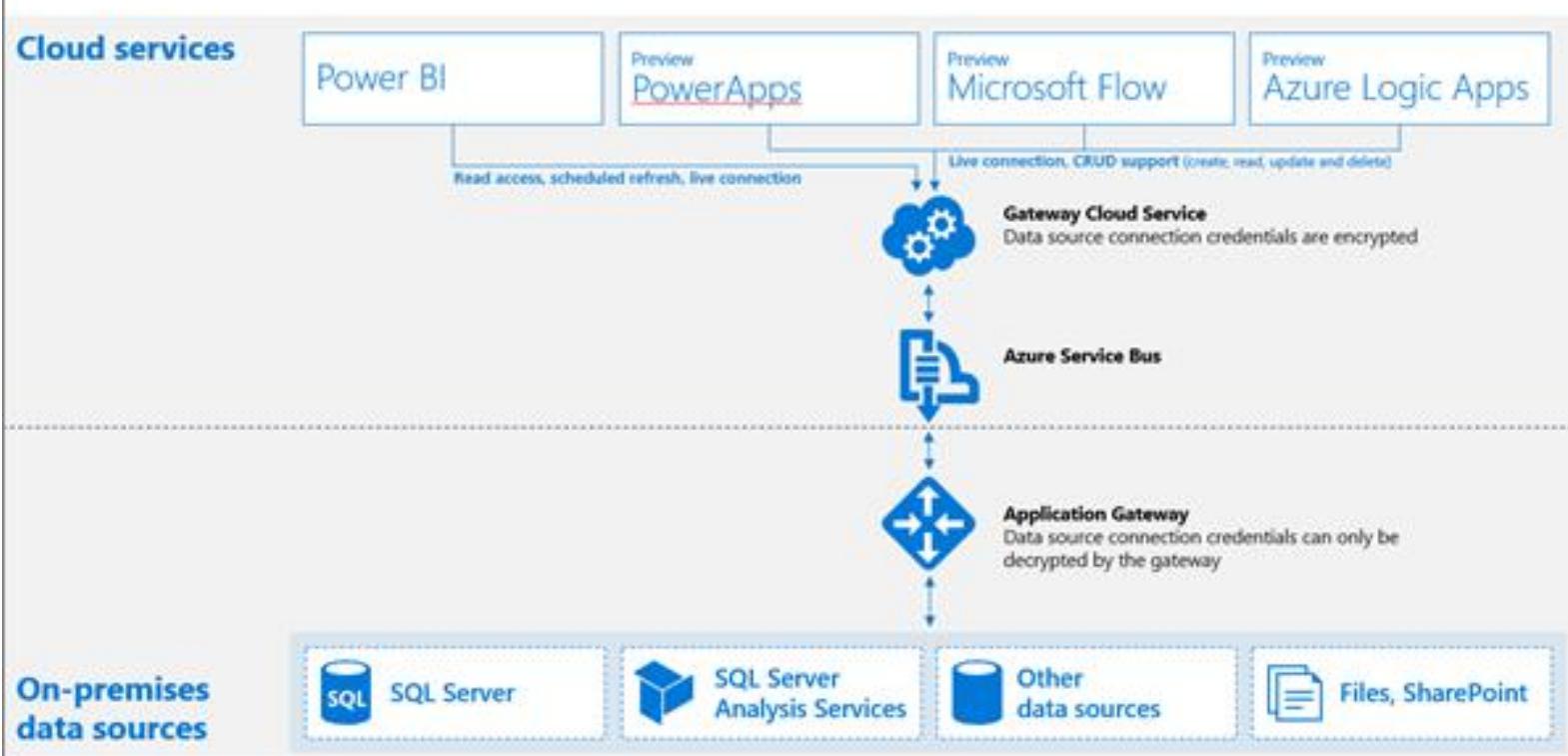
# Publish apps instantly for web and mobile

Get apps to your team when and where they're needed, whether that's on the web, iOS or Android—no app store required.

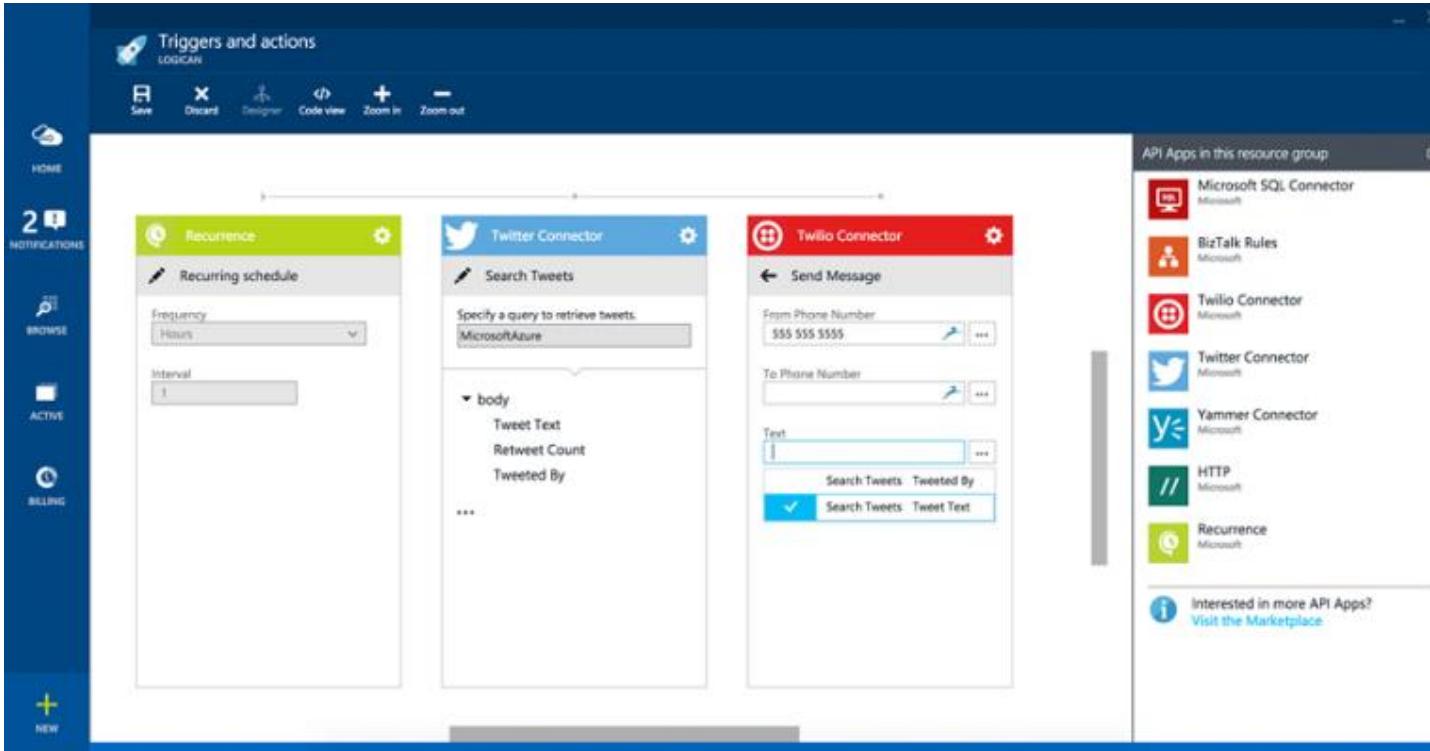


# On-premises data gateway

## One gateway for multiple cloud services and experiences



# What about Azure Logic Apps?



The screenshot shows the Azure Logic Apps Designer interface. The top navigation bar includes 'Triggers and actions', 'LOGICAN', 'Save', 'Discard', 'Designer', 'Code view', 'Zoom in', and 'Zoom out'. The left sidebar has 'HOME', 'NOTIFICATIONS' (2), 'BROWSE', 'ACTIVE', 'BILLING', and a 'NEW' button. The main workspace displays a workflow with three actions:

- Recurrence**: Set to 'Recurring schedule' with 'Frequency' as 'Hours' and 'Interval' as '1'.
- Twitter Connector**: Action 'Search Tweets' with query 'MicrosoftAzure'.
- Twilio Connector**: Action 'Send Message' with 'From Phone Number' as '555 555 5555' and 'To Phone Number' as a placeholder.

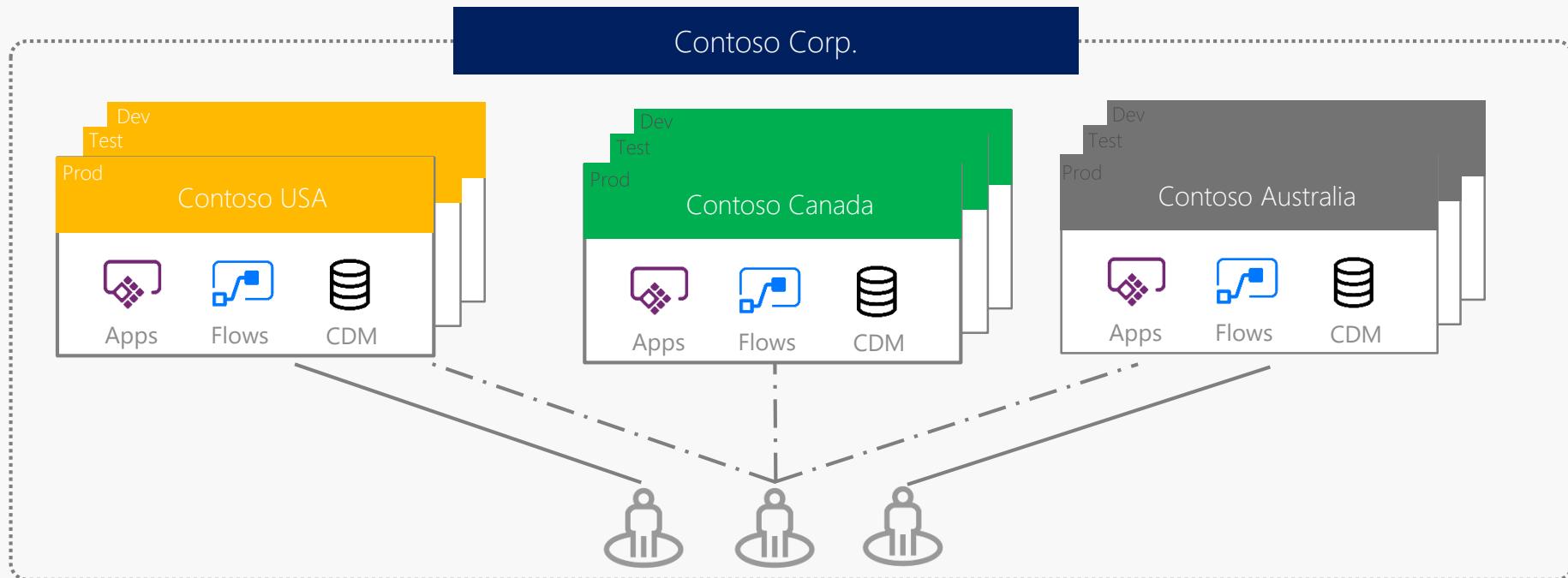
The 'body' section of the Twilio action includes fields for 'Text', 'Search Tweets', 'Tweeted By', and 'Tweet Text'. A 'More' button is also present. The right sidebar lists 'API Apps in this resource group':

- Microsoft SQL Connector (Microsoft)
- BizTalk Rules (Microsoft)
- Twilio Connector (Microsoft)
- Twitter Connector (Microsoft)
- Yammer Connector (Microsoft)
- HTTP (Microsoft)
- Recurrence (Microsoft)

At the bottom, a note says: 'Interested in more API Apps? Visit the Marketplace.'

# Deployment environments

Easily manage enterprise scale-out of applications and data.  
Move solutions across environments with packages.



# Admin center

## Environment administration

Lifecycle and management for all resources

Manages roles and role membership

List and monitor list of all resources in a given environment (\*)

## Data Loss Protection

Provide IT-administrators with full control of how data flows within an organization

Set policies for classification of services

## Local agility, central control

Allow developers/teams control over their environment and still have centralized control

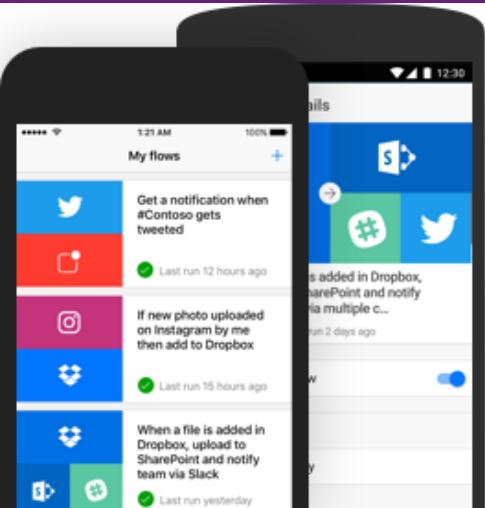
(\*) Capabilities planned for Post GA release

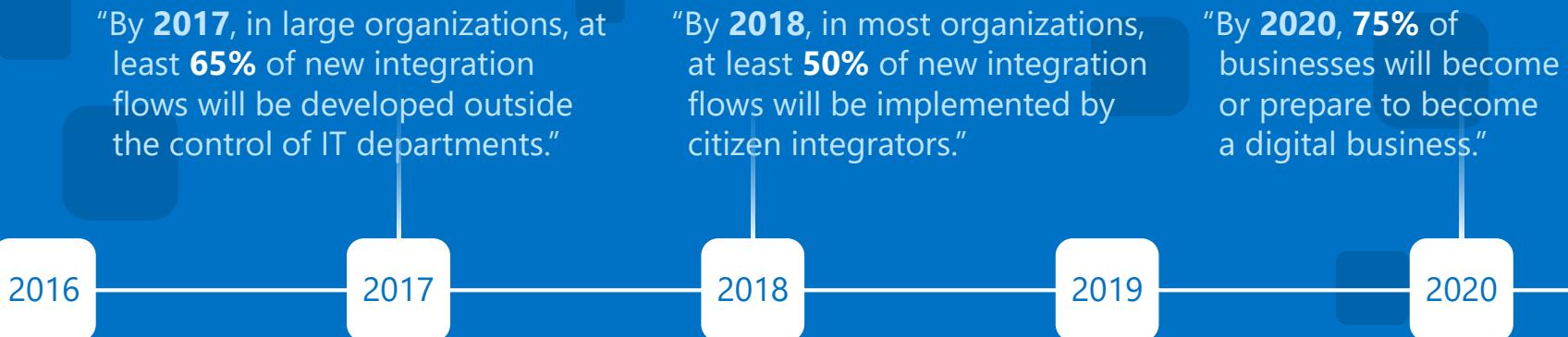
Flows and apps that combine services from your business data and Non-business data groups will be automatically blocked. Services may only appear in one data group but can be moved at any time.

The screenshot shows the Admin center's Data Loss Protection interface. It is organized into three main sections: 'Business data only', 'Non-critical, mixed data (Default)', and 'Non-business data'. Each section contains a list of services with an 'Add' button. The 'Business data only' section includes Dynamics CRM, SharePoint, Salesforce, SQL, OneDrive for Business, Yammer, Office 365, Box, and Office 365 Video. The 'Non-critical, mixed data (Default)' section includes SendGrid, Mailchimp, Slack, Trello, Mandrill, Wunderlist, Github, Azure Blob Storage, and Visual Studio. The 'Non-business data' section includes OneNote, Twilio, Outlook.com, Facebook, Slack, Twitter, OneDrive, Dropbox, Google Drive, Instagram, and Bing. At the bottom is a large blue button with a checkmark and the text 'Create data policy'.



# Microsoft Flow







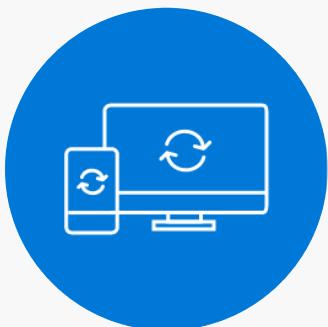
# Manual Tasks



Microsoft Flow helps non-developers work smarter by automating workflows across apps and services



Get notifications



Synchronize files

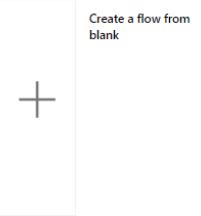
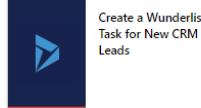
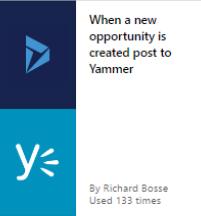
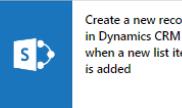
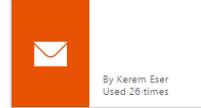
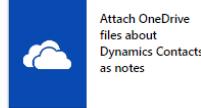
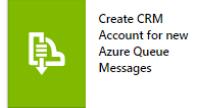
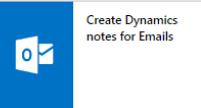
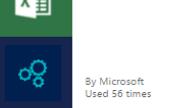
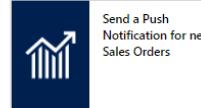
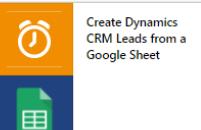
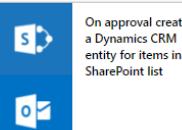
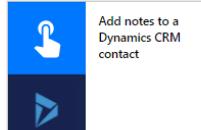


Collect data



Automate approvals

# Templates help users to get started

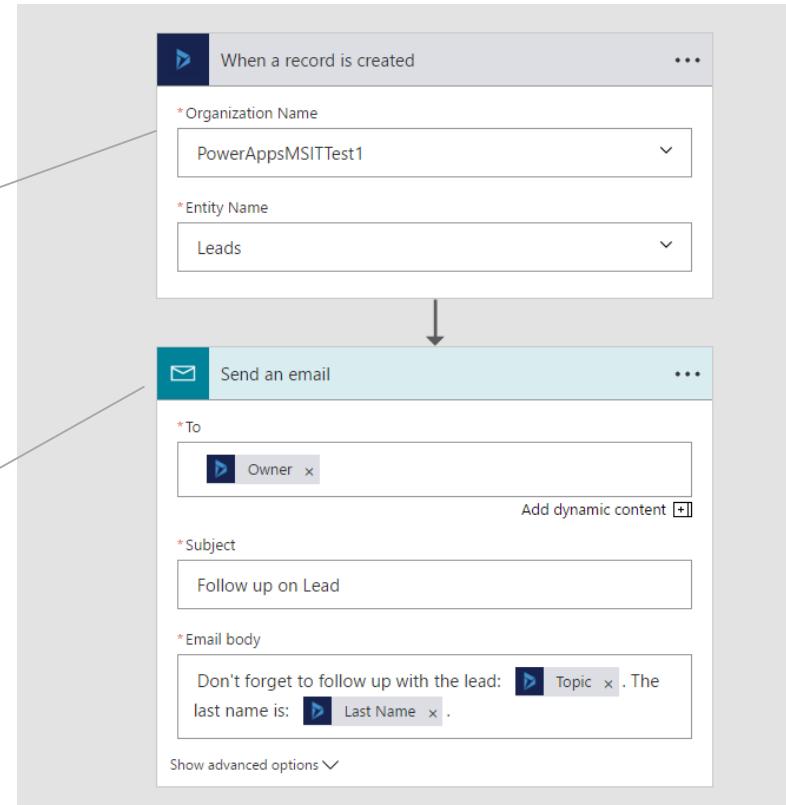
 <p>Create a flow from blank</p>	  <p>Copy Dynamics CRM Accounts to Common Data Service customer organizations</p>	  <p>Copy Dynamics CRM Accounts to customers in Dynamics 365 for Operations</p>	  <p>When an object is created in Dynamics CRM, create a list item</p>	  <p>Create Dynamics Leads based on Tweets with a button tap</p>	  <p>Add a Dynamics Case after email approval</p>	  <p>Copy new Dynamics CRM Cases to the Common Data Service</p>	  <p>Create a Wunderlist Task for New CRM Leads</p>
  <p>When a new opportunity is created post to Yammer</p>	  <p>Create Dynamics CRM Leads from an Excel table</p>	  <p>Create Dynamics Leads based on Tweets</p>	  <p>Create a new record in Dynamics CRM when a new list item is added</p>	  <p>Send an mail from your SMTP server on new opportunities</p>	  <p>Copy new Dynamics CRM Leads to the Common Data Service</p>	  <p>Attach OneDrive files about Dynamics Contacts as notes</p>	  <p>Create CRM Account for new Azure Queue Messages</p>
  <p>Copy new Dynamics CRM Contacts to the Common Data Service</p>	  <p>Create a SharePoint item based on a Dynamics CRM record</p>	  <p>Create Dynamics notes for Emails</p>	  <p>Move rows from an Excel table to Dynamics AX Online Vendors</p>	  <p>Send a Push Notification for new Sales Orders</p>	  <p>Copy Teams from the Common Data Service to Operations Customer Groups</p>	  <p>Copy Salesforce Accounts to Dynamics AX Online Customers</p>	  <p>When a new lead is created in Dynamics CRM, add it to a Smartsheet</p>
  <p>Copy from Dynamics CRM to the Common Data Service and Operations</p>	  <p>CRM Opportunity Win to Create a New Project</p>	  <p>Create Dynamics CRM Leads from a Google Sheet</p>	  <p>On approval create a Dynamics CRM entity for items in a SharePoint list</p>	  <p>Create a case in Dynamics from Freshdesk</p>	  <p>Low stock warning</p>	  <p>Social Media Promotions</p>	  <p>Add notes to a Dynamics CRM contact</p>

# What makes up a Flow?

Example: Notification Flow

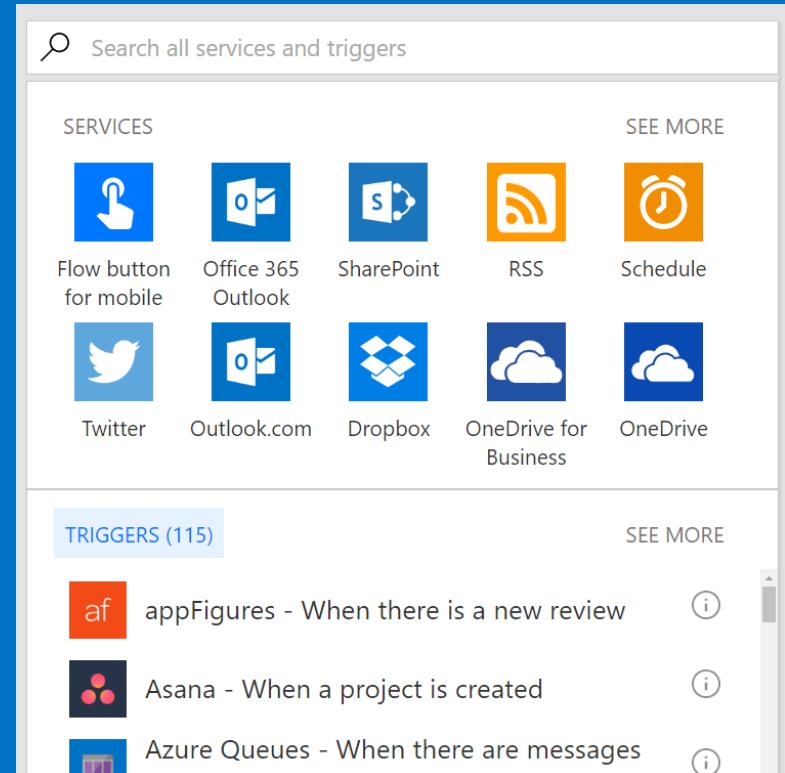
Trigger – the event that kicks off the flow

Actions – what the flow does  
*Uses data from the trigger*



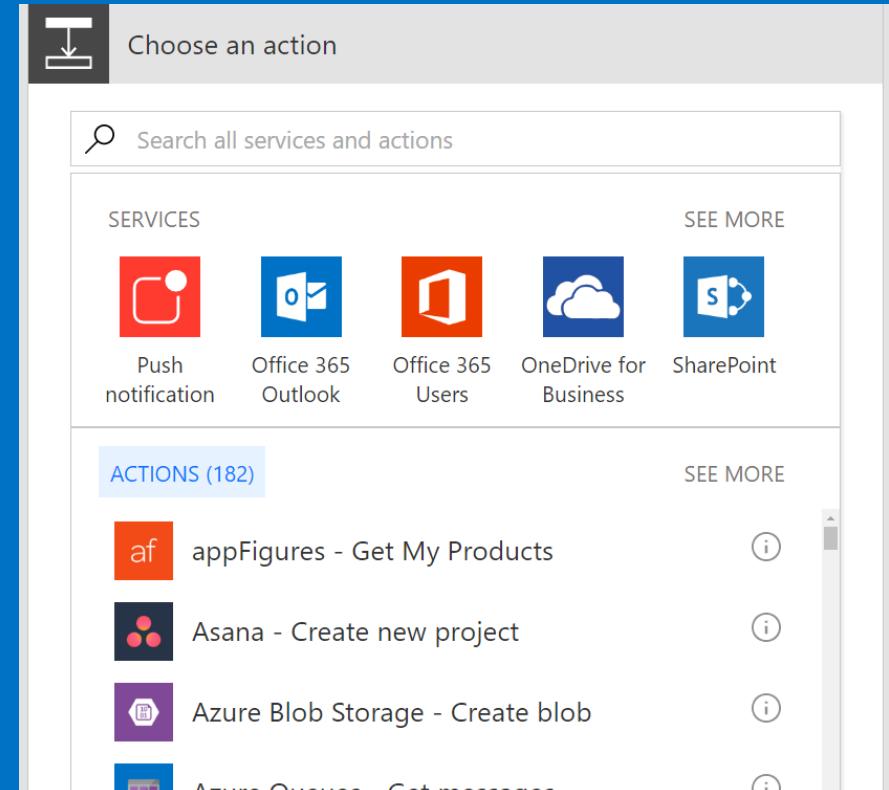
# Triggers

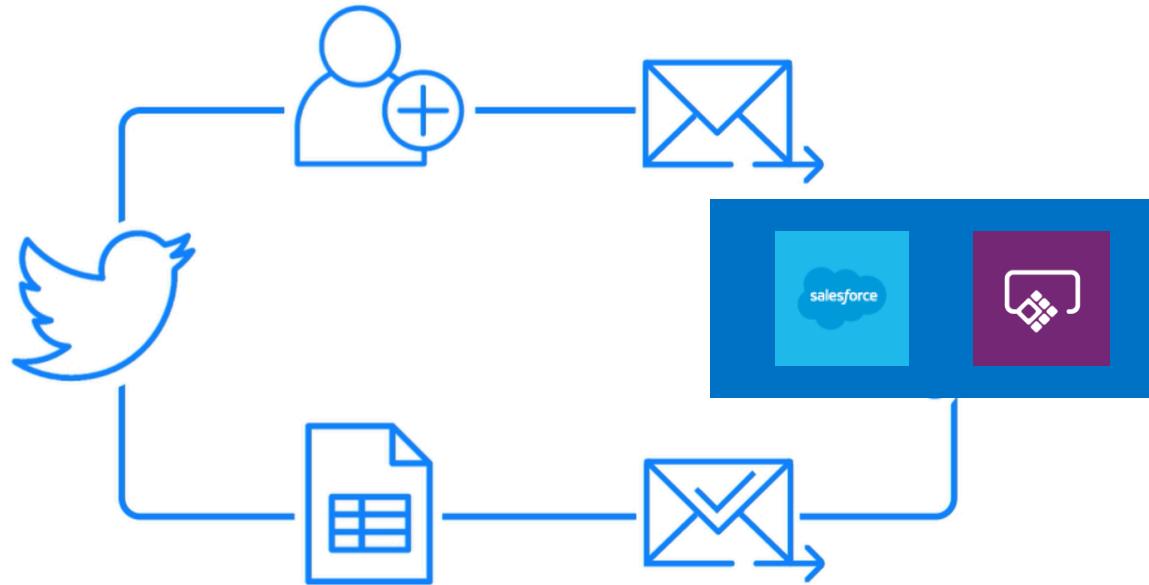
- Run manually based on user action
  - From Flow button
  - From PowerApps
- Run on a schedule
- Run based on an event that happens in the cloud



# Actions

- Connect to any cloud service
- Use the data from the trigger
- Connect even to simple HTTP endpoints if we don't have out-of-box support



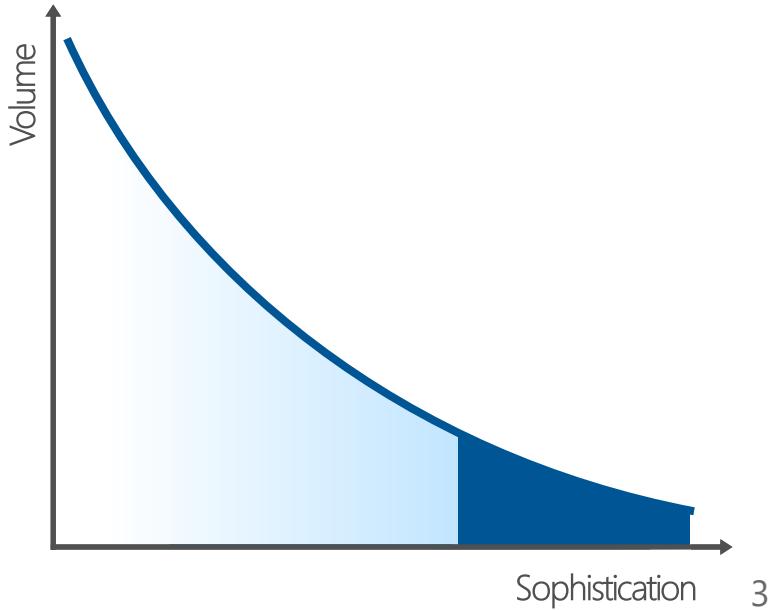


Automate advanced scenarios with multiple steps,  
branching conditions, and more

# Who is the audience for Flow?

Flow focus:  
Power Users & Specialists

Logic apps focus:  
IT Pro / Developers



# Value Proposition for Microsoft Flow

- Salesforce.com subscription licenses are expensive
- Most organizations only purchase subscription for sales personnel
- Supporting business functions & personnel can help to add values to sales cycle while not having to incur the additional expense
- Flow will bridge the gap between consumer systems, other cloud services, etc.

# Example: Conference

- Slalom Atlanta sponsors a booth at SharePoint Saturday event
- Lots of interesting conversations with potential recruits
- Team captures a few potential consulting leads but nobody has access to CRM!

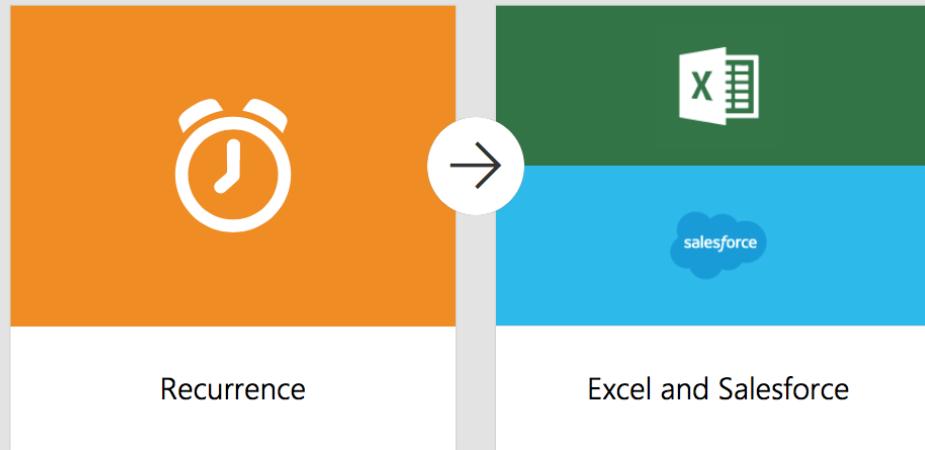


# What would you do?



# Flow it!

## Create Salesforce Leads from a Excel table



It's now very easy to create Salesforce leads. Whenever you add a new row to the Excel Table you select, a lead will be created in Salesforce (and cleaned up from the Table). You need to select a sheet that has columns for: First Name, Last Name, Company, Phone and Email.

# Limits are awesome

Company Information  
Slalom Help for this Page 

The organization's profile is below.

[User Licenses \[10+\]](#) | [Permission Set Licenses \[5\]](#) | [Feature Licenses \[13\]](#) | [Usage-based Entitlements \(BETA\) \[0\]](#)

Organization Detail		<a href="#">Edit</a>
Organization Name	Slalom	Phone
Primary Contact	Jared Matfess	Fax
Division		Default Locale
Address		Default Language
US		
Fiscal Year Starts In	January	Default Time Zone
Allow Support to Activate Multiple Currencies	<input type="checkbox"/>	Currency Locale
Newsletter	<input checked="" type="checkbox"/>	Used Data Space
Admin Newsletter	<input checked="" type="checkbox"/>	Used File Space
Hide Notices About System Maintenance	<input type="checkbox"/>	<b>API Requests, Last 24 Hours</b> <span style="background-color: yellow;">15,025 (15,000 max)</span>
Hide Notices About System Downtime	<input type="checkbox"/>	Streaming API Events, Last 24 Hours
Created By	<a href="#">Jared Matfess, 11/12/2015 10:05 AM</a>	Modified By
	<a href="#">Edit</a>	<a href="#">Jared Matfess, 5/20/2016 7:28 AM</a>

# Flow, PowerApps, & Governance

- Companies definitely need to identify “who” will build these solutions
- The ease of development does not negate the need to have data discussions
- Be aware of API limitations on target systems (Salesforce.com) is a great example
- Consider developing “naming conventions” for Flows (Logic Apps)



# slalom

[slalom.com](http://slalom.com)

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