About Me

- SharePoint consultant who specializes in easy to use solutions for simplifying and automating business processes.
- Federal client focused.
- Project Management background, PMP.
- Experienced in requirements gathering and providing SharePoint end user support and training.
- Gardener, runner, retired Muay Thai fighter, new cat person, and mother of wild toddler.
- Angry End User in past life
Clients We Have Served
Where does they fit in?
Common Data Model

- Use the same data across applications, ensures everyone has the most up to date data.
- Out of the box entities that are useful across a variety of business and application domains.
- Entities are organized into functional groups:
  - Customer service Foundation
  - Human Resources
  - Person, Organization, and Group
  - Productivity
  - Purchasing
  - Sales
- Standard field data types Ex) Address, Boolean, Currency, PersonName, Phone, Text
- Entity relationships Ex) Customer, SalesOrder, SalesOrderLine, Product
- Entity Field properties Ex) Default values, Searchable, Picklist, Max length
- System Fields Ex) RecordID, CreatedByUser, LastModifiedDateTime
- Standard Entity Naming Conventions
So many ways to mashup my services and automate my business processes!!!
What is Flow?

"Work Less, Do More!"

- Cloud based service, replacing Microsoft Designer!
- Provides user friendly solutions to automate your personal AND organizational business processes and move content across services.
- Use content from other platforms to build workflows.
- Move content between SharePoint site collections.
- A streamlined version of the Power App’s Logic Flows feature meant for the everyday business user "Citizen Integrator".
- Use Flow templates or start from scratch.
- Mobile app that allows for users to track, manage, and create Flows.
Flow Examples

• Save my email attachments to a SharePoint document library only when it is from my partner on a project.
• Send an email to an approver when I add a document to a certain library. If they approve it send it to a different library on a different site collection.
• Save tweets from Twitter that have a certain hashtag into a SharePoint list.
• Sync my Google calendar with my Office 365 calendar and SharePoint Calendar list.
• If a SharePoint Item is approved post the text field to Yammer, Twitter, and Facebook.
Flows

• Automation of individual and business processes across a multitude of services
• Triggered by an event in SharePoint or an event occurring in other services
• Ability to connect data between different SharePoint site collections
• Package up to export and import into different environments.
• Limit of 50 Flows, more can be requested.
• Free version but has limitations. (Cannot work on premise)

Vs.

Workflows

• Automation of enterprise business processes in SharePoint
• Triggered by an event in SharePoint
• Ability to connect data only within the same site collection
• Recreate options are limited.
• Unlimited amount of workflows
• Free
Components of a Flow

➢ Services (Connectors)
➢ Triggers
➢ Conditions
➢ Actions
Flow Services

➢ There are currently many services to use in your Flows and synchronize your business processes. Examples: Twitter, Google, Dropbox, MailChimp, Salesforce, and Smartsheet.

➢ There is the ability create, connect, and share a custom API.

➢ The first step when creating a Flow from a template will be to authenticate the accounts for the services needed.

➢ To connect with SharePoint on-premise sites you will need to add a new connection and select “Connect via Gateway” check box.
Flow Triggers

➢ Triggers are the events that start a workflow when they occur.
➢ Flows can be triggered by an event in any of the services it synchronizes with.
➢ The SharePoint triggers will look familiar
SharePoint Triggers

- SharePoint - When a file is created
- SharePoint - When a new item is created
- SharePoint - When an existing item is modified
- SharePoint - When a file is modified
- SharePoint - For a selected item

TELL US WHAT YOU NEED

😊 Help us decide which connectors and triggers to add next with UserVoice
A condition allows the workflow to perform a task(s) only when something is true.
Flow Actions

➢ An action is a task or job the workflow performs.

➢ There are so many more actions for Flow than there are for Designer. This is due to the vast amount of services that it is interacting with.

➢ The main action words you will see are “Get”, “List”, “Create”, “Edit”, “Post”, “Update”, “Send”, “Text”, and “Translate” along with the service it pertains to.

➢ You can add multiple actions to the workflow and reorder them by simply dragging them where you want them. You will not be able to move an action above another action if the outputs are needed for the one you are trying to move.

➢ Run Flows on a schedule, no pesky timer jobs or pause until steps!
More Features

➢ Add a Switch Case
➢ Apply to Each
➢ Do-Until
➢ Scopes
What’s New- Flow

**Team Flows**
- Allows you to add other people in your organization as Owners for a Flow.
- All Owners can:
  - View each run of the Flow’s history
  - Manage Flow properties and definition (Change actions and conditions)
  - Add or remove other owners (excluding the Flow creator)
  - Delete the Flow
- Must have a paid Microsoft Flow plan.

**Increase in Flow Integration with SharePoint**
- Simple approval and feedback Flow baked in to SharePoint lists and libraries, no connector needed.

**Admin Controls**
- Flow solutions can be imported and exported to move across environments. This allows you to be able to move from test to production environment.
- Ability to DL flow usage, see metrics, and track billing quotas.
- Administrators can see all of the Microsoft Flow and PowerApps licenses (both trial and paid) in the Admin Center.
- Environment Administrators can manage Flow owners in the Admin Center.

**More Robust Button Capabilities**
- Control authentication on shared buttons: Either have users provide their account or use a baked in account.
- Define inputs for buttons, for example drop down lists

**Microsoft Teams Flow**
- Trigger Flows from within Teams conversations.
What are PowerApps?

- Cloud based service.
- Provides no code solutions to create line of business mobile apps and forms to view and edit your data.
- Use data sources from Office 365 and other platforms.
- Use PowerApp templates or start from scratch.
PowerApps Examples

- View SharePoint list data and metrics from a mobile app
- Create a mobile knowledge base with FAQs, search capabilities and ability to post new questions.
- View Power BI data while on the go from a mobile device.
- Create a SharePoint interface with cascading dropdowns.
- Have a app for a ticketing system connected with SharePoint lists that displays ticket details, metrics and also has a button to quickly close a ticket while on the go.
PowerApps  Vs.  InfoPath

- Display, edit, and manipulate data from a multitude of services.
- Ability to connect data between different SharePoint site collections.
- Package up to export and import into different environments.
- Not XML based.
- Cannot be shared with external users.
- Formulas based.
- Cost is a monthly service per user.

- Used for stand alone forms and authoring XML connecting to web services, databases, SharePoint.
- External submit data connections from a web service, SharePoint, Email messages, or a hosting environment.
- Recreate options are limited.
- XML based.
- Shared with external users.
- Rules based.
- Traditionally sold as part of the MS Office Suite.
What’s New-PowerApps

Screen Explorer Tree View
• Displays the list of screens, then control panels in a hierarchical manner on the left side of screen.
• Greatly reduces the time spent looking for and selecting objects.
• Intuitively copy, paste, and rename objects.

Increase in Flow Integration with SharePoint
• Ways to Leverage SharePoint Document Libraries and Calendar
• Further integration with SharePoint forms is expected.

Admin Controls
• PowerApps solutions can be imported and exported to move across environments. This allows for you to be able to move from test to production environment.
• Administrators can see all of the Microsoft Flow and PowerApps licenses (both trial and paid) in the Admin Center.

Embed Power BI tiles in PowerApps
Enhanced Date formatting
• Input and display dates in formats such as yy-mm-dd

Cache and save data offline when no signal is available

PowerApps Release Notes:
Admin Center

Environments

- Geolocated, data locality.
- Contains Users, manage permissions.
- Separate and manage test and production environments.
- Create a boundary for the data between teams or sub organizations.
- Separate Dev, Test, Production Environments

Data Policies

- Establish data loss prevention policies to all or only selected environments.
- Admins to define which services specific business data can be shared with.
- Categorize connectors (services) into two data groups, “Business Data Only” and “No Business Data Allowed”.
- Users will be blocked from combining the “Business Data Only” and “No Business Data Allowed” connectors in a Flow.

Environment Permissions

- Two built in permission levels within environments you can configure
  1. Environment Admin - Manages permissions, Provision a Common Data Service database for the environment, View and manage all resources created within an environment, Set Data Loss Prevention policies
  2. Environment Maker - can create Flows and PowerApps, connections, custom APIs.
On Premise Data Gateway

On-premises data gateway

You are signed in as Melissa@melihubbs.onmicrosoft.com and are ready to register the gateway.

New on-premises data gateway name
SP2016 Flow Gateway

Recovery key (8 character minimum)

This key is needed to restore the gateway and can’t be changed. Record it in a safe place.

Confirm recovery key

We’ll use this region to connect the gateway to cloud services: East US 2 Change Region
Mobile App

- Monitor, manage, and create flows from templates and from scratch using your mobile device.
- Currently available for iOS, Android and Windows phone.
- Download is free but you will need to log into your Microsoft Flow account to use it.
Mobile App- Activity

View a Summary of Flows being Triggered
Note: The screenshots are from the iPhone version of the app.

Track which of your Flows are being triggered and whether they are succeeding or failing. Green check means success, red exclamation point means epic fail.

View activity details of individual Flows by clicking on it in “Activity”
Mobile App
Custom API

• Create your API
• Test your API
• Send to Microsoft along with:
  • A Swagger file that represents
    ✓ your API and any authentication information
    ✓ An icon for your connector
    ✓ A description of your API
    ✓ Approximately 10 ideas for how your API could benefit other users through templates
• Embed Flow within your app and integrate with all the other services that Flow supports
• Use your custom app with Power Apps as well.
Flow and PowerApps Resources

- Connecting Flow with your On-Premises Environment: https://melihubb.com/2017/05/24/sharepoint-saturday-baltimore-slides/
## Pricing


<table>
<thead>
<tr>
<th>Key features</th>
<th>Power Apps for Office 365 and Dynamics 365</th>
<th>Power Apps Plan 1</th>
<th>Power Apps Plan 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create, run, and share apps</td>
<td>Unlimited</td>
<td>Unlimited</td>
<td>Unlimited</td>
</tr>
<tr>
<td>Use the Common Data Service</td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Model your data using the Common Data Service</td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Enterprise-grade administration of environments and user policies</td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

### Capacity (aggregated across tenant)

<table>
<thead>
<tr>
<th>Capacity feature</th>
<th>Power Apps for Office 365 and Dynamics 365</th>
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<th>Power Apps Plan 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flow runs per month (per user)</td>
<td>2,000</td>
<td>4,500</td>
<td>15,000</td>
</tr>
<tr>
<td>Data storage in the Common Data Service (per user)</td>
<td>20 MB</td>
<td>200 MB</td>
<td></td>
</tr>
<tr>
<td>File storage in the Common Data Service (per user)</td>
<td>2 GB</td>
<td>20 GB</td>
<td></td>
</tr>
</tbody>
</table>

### Connectivity

<table>
<thead>
<tr>
<th>Connectivity</th>
<th>Power Apps for Office 365 and Dynamics 365</th>
<th>Power Apps Plan 1</th>
<th>Power Apps Plan 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connect to Office 365 and Dynamics 365 services</td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Connect to cloud-based services like Azure SQL, Dropbox, Twitter, and many more</td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Use premium connectors like Salesforce, DB2, and many more</td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>
# Pricing


## Plans come with following features

<table>
<thead>
<tr>
<th></th>
<th>Flow Free</th>
<th>Flow for Office 365 and Flow for Dynamics 365</th>
<th>Flow Plan 1 USD $5.00 / user / mo</th>
<th>Flow Plan 2 USD $15.00 / user / mo</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>General</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Create unlimited automated workflows and powerful multi-step processes</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Maximum number of runs per month (per user)</td>
<td>730</td>
<td>2,000¹</td>
<td>4,500¹</td>
<td>13,000¹</td>
</tr>
<tr>
<td>Maximum flow frequency</td>
<td>15 minutes</td>
<td>5 minutes</td>
<td>3 minutes</td>
<td>1 minute</td>
</tr>
<tr>
<td>Access your flows on native apps for iOS and Android</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Create flows from thousands of templates available in the public gallery</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Publish flows to the public gallery</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>SLA</td>
<td>Not available</td>
<td>99.9%</td>
<td>99.9%</td>
<td>99.9%</td>
</tr>
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</table>

### Connectivity

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<th>Flow Plan 2 USD $15.00 / user / mo</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connect to Office 365, Dynamics 365, Azure SQL, and other Microsoft services</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Connect to common cloud-based services like Twitter and Wordpress using standard connectors</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Connect to line of business services like Salesforce and Oracle using premium connectors</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Access on-premises data using on-premises data gateway</td>
<td>✓²</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Create custom connectors to connect to your own systems (per user)</td>
<td>One³</td>
<td>One</td>
<td>Unlimited</td>
<td>Unlimited</td>
</tr>
</tbody>
</table>

### Management

<table>
<thead>
<tr>
<th></th>
<th>Flow Free</th>
<th>Flow for Office 365 and Flow for Dynamics 365</th>
<th>Flow Plan 1 USD $5.00 / user / mo</th>
<th>Flow Plan 2 USD $15.00 / user / mo</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create environments to deploy your flows (per user)</td>
<td>✓</td>
<td>✓</td>
<td>Two</td>
<td></td>
</tr>
<tr>
<td>Invite others to share ownership and run flows</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>View flow usage across your company</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Establish environment policies regarding the usage of different connections and flows⁴</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
</tr>
</tbody>
</table>
Questions
Grant Thornton Public Sector
*Trusted advice that gets results*

GrantThornton.com/PublicSector

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