

# Introduction to PowerApps and Flow



# Agenda

- Getting Started with Microsoft Flow
- Building Flows from Scratch
- Building a Flow to Automate Approvals



# What is Flow?

- Service for automating workflows across other services
  - Designed by Microsoft for business users more than developers
- What can you do with Flow?
  - Get notifications
  - Copy files
  - Collect data
  - Automate approvals



# Creating Flows

## What makes up a Flow?

### Example: Notification Flow

**Trigger** – the event that kicks off the flow:

- manually
- on a schedule
- on an event in the cloud

**Actions** – what the flow does  
*Can use data from the trigger*

When a record is created

\* Organization Name  
PowerAppsMSITest1

\* Entity Name  
Leads

Send an email

\* To  
Owner

Add dynamic content

\* Subject  
Follow up on Lead

\* Email body  
Don't forget to follow up with the lead: Topic . The last name is: Last Name .

Show advanced options



































# Building Flows

- **Use Microsoft Flow to create logic that performs one or more tasks when an event occurs in an app**
  - For example, configure a button:
    - *Creates an item in a SharePoint list*
    - *Sends an email*
    - *Meeting request is sent*
    - *A file is added to the cloud*
- **You can configure any control in an app to start the flow**
  - Continues to run even if you close PowerApps
- **Create Flows from scratch or from a template**





# Using Flow Templates

 Create a flow from blank	 Copy Dynamics CRM Accounts to Common Data Service customer organizations  By Microsoft Used 227 times	 Copy Dynamics CRM Accounts to customers in Dynamics 365 for Operations  By Microsoft Used 197 times	 When an object is created in Dynamics CRM, create a list item  By Microsoft Used 194 times	 Create Dynamics Leads based on Tweets with a button tap  By Microsoft Used 31 times	 Add a Dynamics Case after email approval  By Microsoft Used 31 times	 Copy new Dynamics CRM Cases to the Common Data Service  By Microsoft Used 26 times	 Create a Wunderlist Task for New CRM Leads  By James Turner Used 26 times
 When a new opportunity is created post to Yammer  By Richard Bosse Used 133 times	 Create Dynamics CRM Leads from an Excel table  By Microsoft Used 121 times	 Create Dynamics Leads based on Tweets  By Microsoft Used 118 times	 Create a new record in Dynamics CRM when a new list item is added  By Microsoft Used 95 times	 Send an mail from your SMTP server on new opportunities  By Naren Sani Used 26 times	 Copy new Dynamics CRM Leads to the Common Data Service  By Microsoft Used 25 times	 Attach OneDrive files about Dynamics Contacts as notes  By Microsoft	 Create CRM Account for new Azure Queue Messages  By Marius Pedersen
 Copy new Dynamics CRM Contacts to the Common Data Service  By Microsoft Used 91 times	 Create a SharePoint item based on a Dynamics CRM record  By Henry Schenon Used 79 times	 Create Dynamics notes for Emails  By Microsoft Used 81 times	 Move rows from and Excel table to Dynamics AX Online Vendors  By Microsoft Used 56 times	 Send a Push Notification for new Sales Orders  By Isaac Doughty	 Copy Teams from the Common Data Service to Operations Customer Groups  By Michael Bernoth	 Copy Salesforce Accounts to Dynamics AX Online Customers  By Microsoft	 When a new lead is created in Dynamics CRM, add it to a Smartsheet  By Microsoft
 Copy from Dynamics CRM to the Common Data Service and Operations  By Microsoft	 CRM Opportunity Win to Create a New Project  By Microsoft	 Create Dynamics CRM Leads from a Google Sheet  By Microsoft	 On approval create a Dynamics CRM entity for items in a SharePoint list  By Microsoft	 Create a case in Freshdesk  By Microsoft	 Low stock warning  By Microsoft	 Social Media Promotions  By Microsoft	 Add notes to a Dynamics CRM contact  By Microsoft



# Managing Flows

## Flow Details

- View and edit title and description
- Turn flow on and off
- Clone it
- View run history

The screenshot shows the 'Flow Details' page in Microsoft Power Automate. The flow is titled '2 Run sentiment analysis on tweets and push results to a Power BI dataset' and is currently 'On'. The page is divided into three main sections: a header, a main content area, and a right-hand sidebar.

**Header:** Includes navigation tabs (Flows, Approvals, Templates, Connectors, Learn), a search bar, and a toggle switch to turn the flow on or off.

**Main Content Area:** Displays the flow's title, a description, and a 'See analytics' link. Below this is a 'RUN HISTORY' table showing the status of recent runs.

Status	Time	Duration	Action
Succeeded	37 seconds ago	33 seconds	>
Succeeded	37 seconds ago	32 seconds	>
Running	37 seconds ago	37 seconds ago	>
Running	37 seconds ago	37 seconds ago	>
Running	37 seconds ago	37 seconds ago	>
Running	37 seconds ago	37 seconds ago	>
Succeeded	37 seconds ago	33 seconds	>
Succeeded	37 seconds ago	33 seconds	>
Running	37 seconds ago	37 seconds ago	>
Succeeded	37 seconds ago	33 seconds	>

**Right-hand Sidebar:** Contains two sections: 'CONNECTIONS' and 'OWNERS'. The 'CONNECTIONS' section lists three connections: 'Test Analysis' (anji@microsoft.com), 'anjli@microsoft.com' (anji@microsoft.com), and 'anjli' (anji@microsoft.com). The 'OWNERS' section lists the owner 'Anjli Chaudhry' (anji@microsoft.com) and a link to 'Add another owner'.



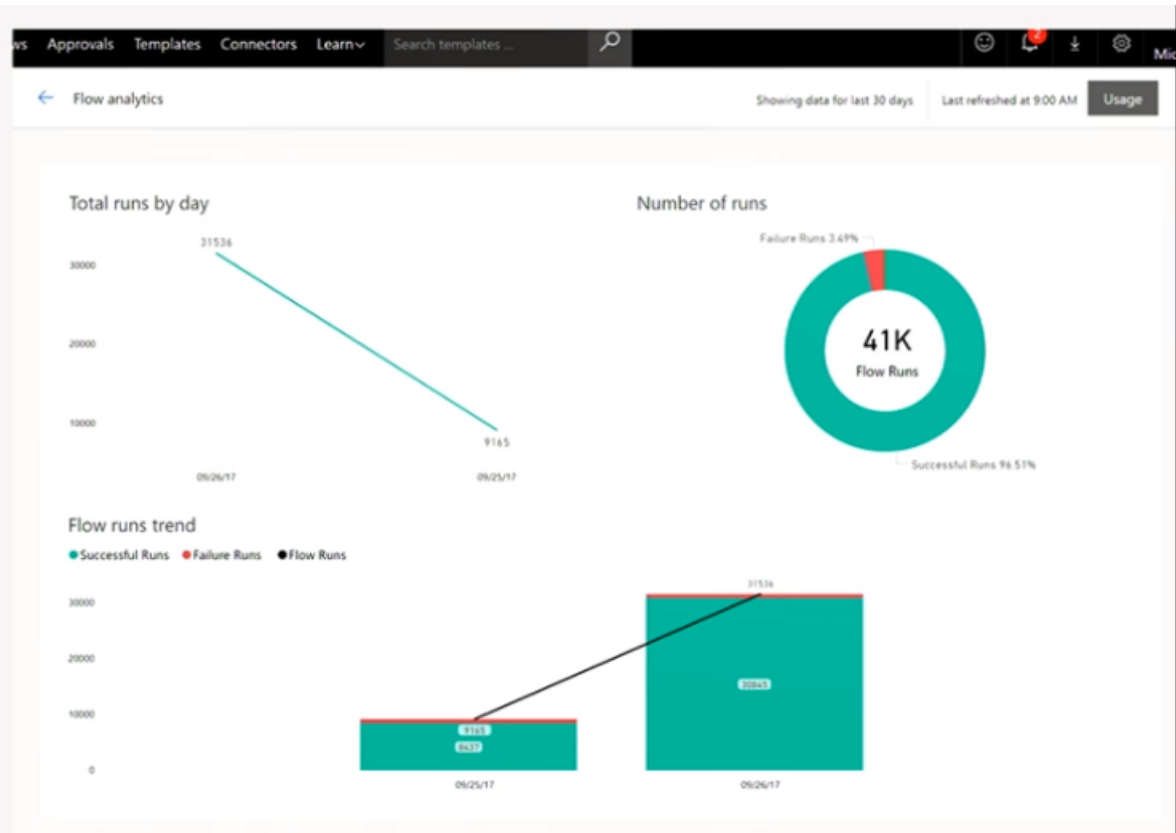
# View Flows Details

## Flow Details

- View and edit title and description
- Turn flow on and off
- Clone it
- View run history

## Flow Analytics

- See number of runs and trends

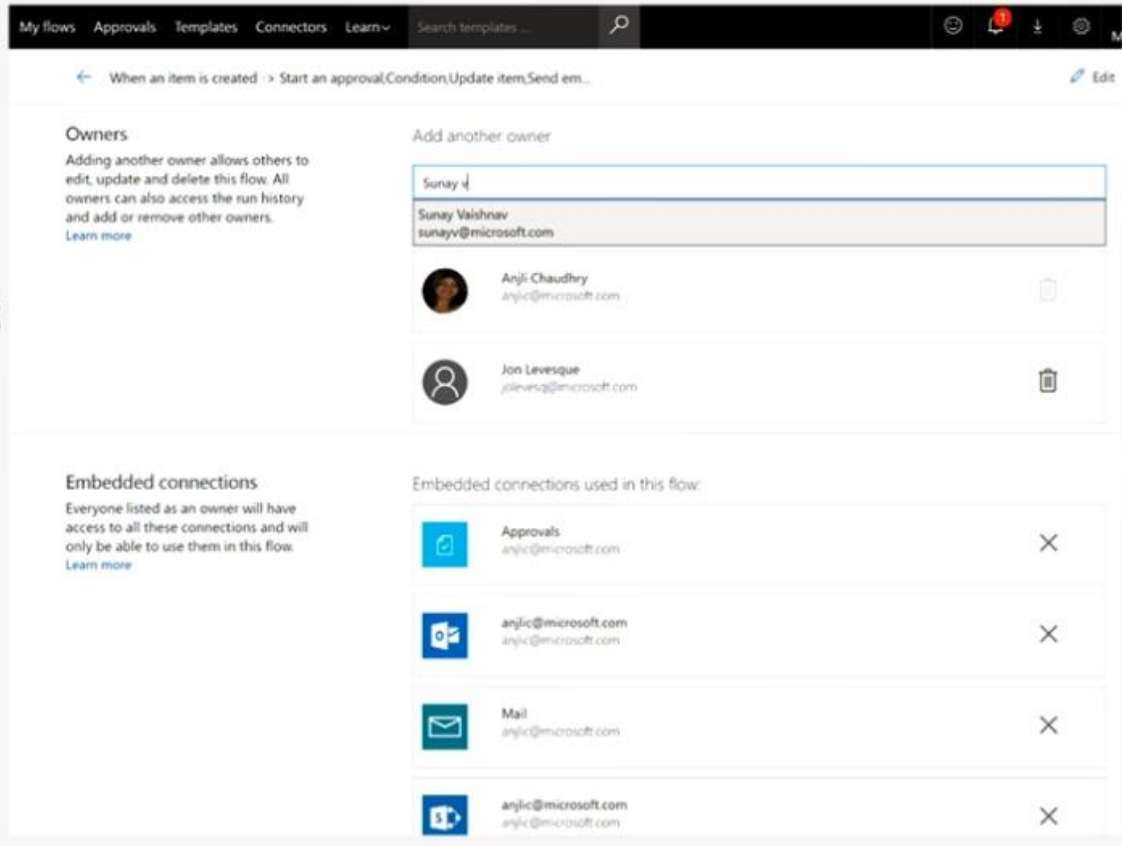




# Collaborate with Co-workers

## Co-authoring

- Many authors can edit a flow, not just a single owner
- If the original author leaves the company the flow continues to function



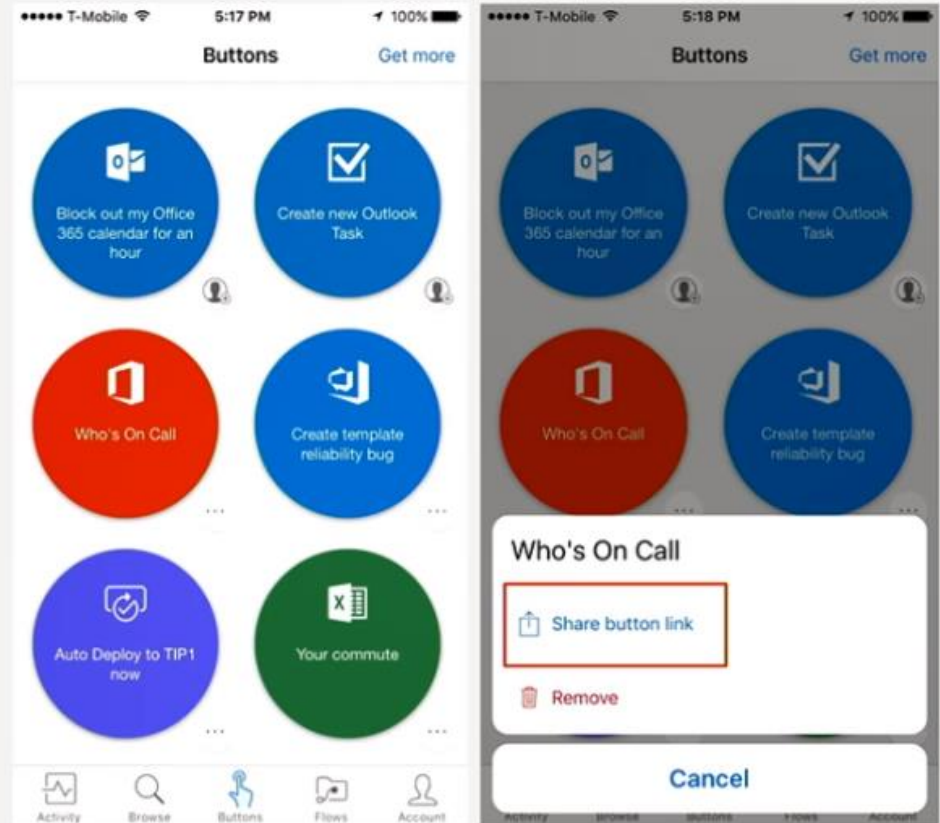
# Creating and Sharing Flow Buttons

## What are buttons?

- Easy way to trigger on demand flows with a push of a button!
- Buttons widget on phone and in the Flow app
- Physical buttons with Flic and Btn

## Sharing buttons

- Make buttons available to your co-workers to automate their tasks



# Build a Flow from Scratch

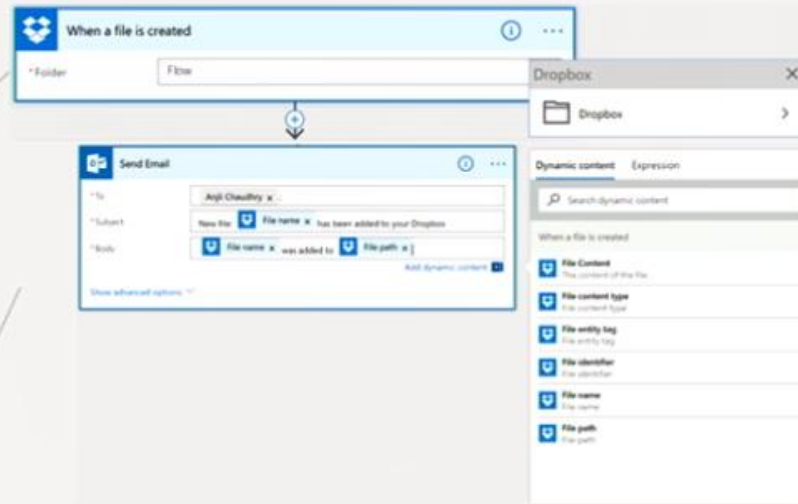
Sending an Exchange email when a new file is added in Dropbox

Authenticate to your Dropbox account.

Select folder to monitor

Authenticate to your O365 account.

Build email *Subject* and *Body*



Choose to include properties from previous step (Dropbox file) to improve relevance

Specify *Send To* email address and additional properties (optional): *From*, *CC*, *BCC* and *Importance*



# Flow Visual Designer

Sending an Exchange email when a new file is added in Dropbox

Authenticate to your Dropbox account.

Select folder to monitor

Authenticate to your O365 account.

Build email *Subject* and *Body*

The screenshot shows the Flow Visual Designer interface. The top step is 'When a file is created' (Dropbox / Dropbox) with the folder 'PowerApps' selected. The bottom step is 'Send Email' (Exchange / Microsoft 365). The 'Send Email' step is being configured with the following fields:

- Subject\***: New file: File name has been added to your Dropbox
- Body\***: New information available
- You can insert data from previous steps...**: Outputs from When a file is created
  - ☒ File content
  - ☒ File identifier
  - ☒ File name
  - ☒ File path
  - ☒ File entity tag
  - ☒ File content type
- Include a To**: To:

Arrows indicate the flow from the 'When a file is created' step to the 'Send Email' step, and from the 'Dropbox / Dropbox' folder selection dialog to the 'Folder\*' field in the 'When a file is created' step.

Choose to include properties from previous step (Dropbox file) to improve relevance

Specify *Send To* email address and additional properties (optional): *From*, *CC*, *BCC* and *Importance*



# Building Blocks of Flow

- Flows whether created from a template or from scratch:
  - Will contain **building blocks** that work together in certain ways (much like a flowchart)
- Building blocks of Flow:
  - **Services** - sources and destinations of data in a flow
  - **Triggers** - events that start a flow
  - **Actions** - tasks accomplished by the flow
  - **Conditions** - allow for branching if/then logic in a flow
  - **Loops** - for iterating over actions more than once



# Triggers

- Triggers are events that initiate a Flow
- First entry in a Flow
- Linked to Connections
  - Services
  - Data sources





# Conditions, Actions and Loops

- **Conditions**

- A **condition** is essentially your “**If Statement**”.
  - If this happens do this or if that happens do something else.
  - Specify that a flow performs one or more tasks only if a particular condition is true.

- **Actions**

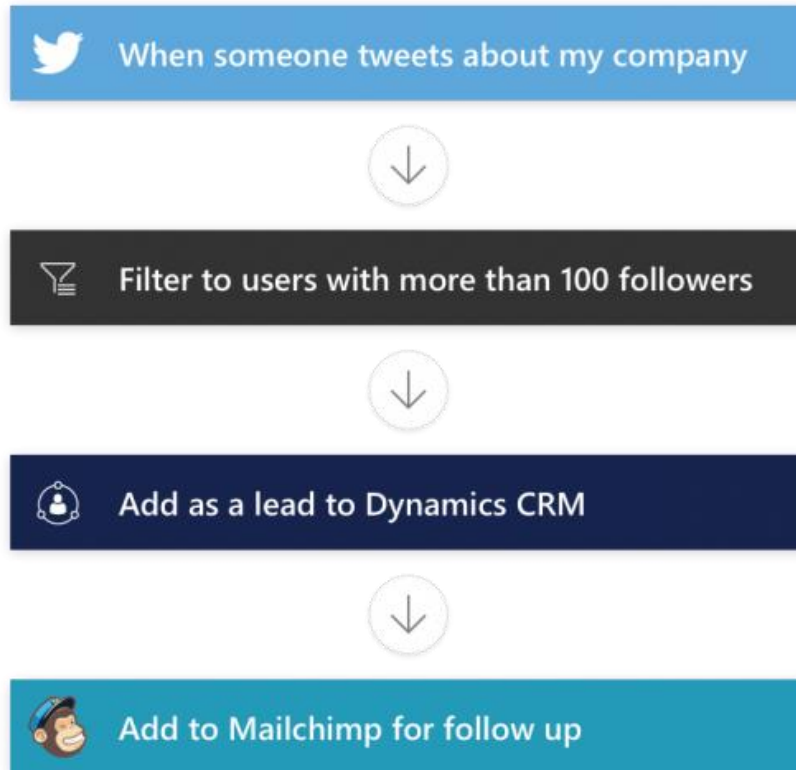
- An **action** is something that occurs as a result of the workflow.
- Add multiple actions and advanced options to a flow.

- **Loops**

- Add sequences or instances where actions need to be repeated based on a condition

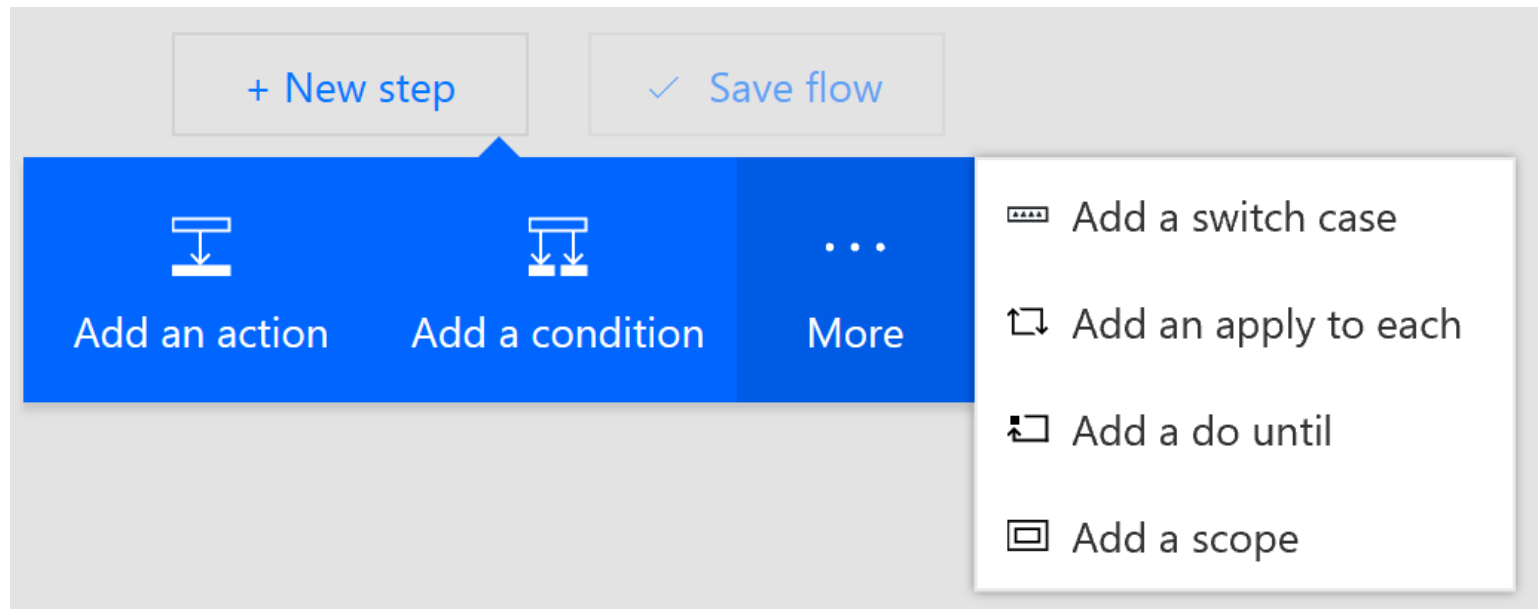


# Looping Flow Example



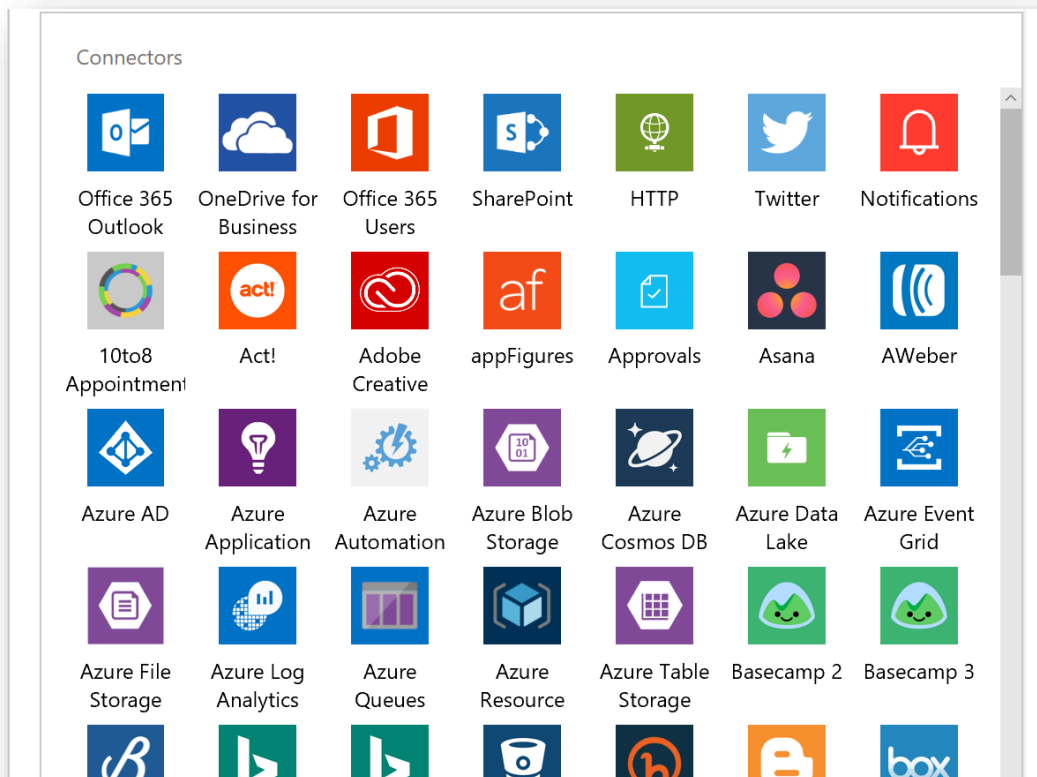
# Creating New Steps

- Action, Condition, More...



# Connectors

- Connect to services
- Surfaces Actions, Triggers
- Can manage ahead of time or when adding an action



# Actions

PowerApps

Choose an action

Search all connectors and actions

Connectors

Office 365 Outlook OneDrive for Business Office 365 Users SharePoint HTTP Twitter Notifications

Actions (264)

Office 365 Outlook Create contact

Office 365 Outlook Create event (V1)

Office 365 Outlook Create event (V2)

Office 365 Outlook Send an email

Office 365 Outlook Send approval email

OneDrive for Business

SharePoint

Search all actions

Triggers (6) Actions (21)

SharePoint Create file

SharePoint Create item

SharePoint Get entity values

SharePoint Get file properties

SharePoint Get files (properties only)

SharePoint Get items

SharePoint List folder

SharePoint Copy file

SharePoint Delete file




# Advanced Options

- Customize a flow by adding one or more advanced options and multiple actions for the same trigger.
  - For example, add an advanced option that sends an email message as high priority.
  - In addition to sending mail when an item is added to a SharePoint list, create a file in Dropbox that contains the same information.







# Recurring Flows


 recurrence

Connectors

See more

  
Office 365  
Outlook



  
Schedule



  
Outlook.co...

Triggers (1)


Actions (2)

See more

 Schedule - Recurrence 

 Recurrence 


\* Frequency

Day 

\* Interval

1

Time zone



Start time

Example: 2017-03-24T15:00:00Z

[Hide advanced options](#) ^



# Delayed Flows

Triggers (1)

Actions (2)



Schedule - Delay



Schedule - Delay until



Delay



\* Count

Specify the count of unit to delay

\* Unit

Minute



Day

Hour

Minute

Second

Enter custom value



Delay until



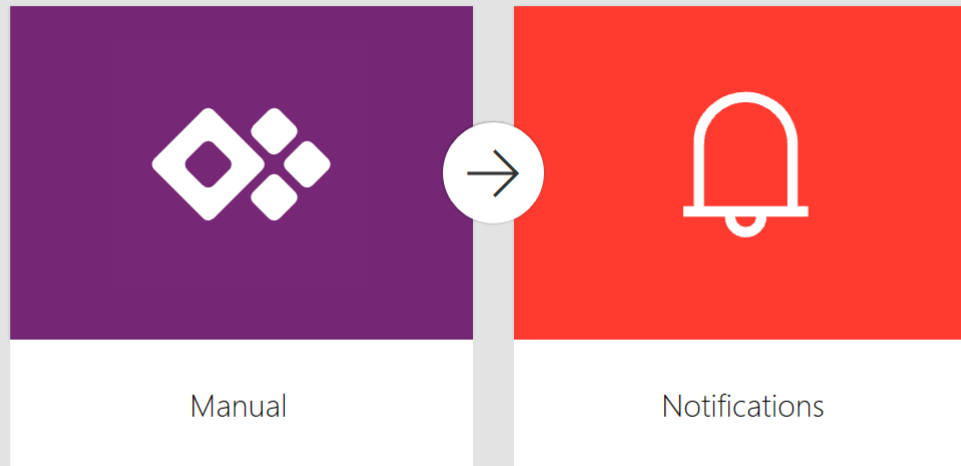
\* Timestamp

Example: 2016-07-11T14:45Z



# Push Notifications

Send a push notification triggered by PowerApps



This flow sends a push notification to your Flow App through PowerApps, when triggered with a button tap. You will need an installation of the Flow App for this template.



# Notifications Connectors

## Connectors

[See more](#)



Notifications



PowerApps  
Notification

Triggers (0)

Actions (3)



Notifications

Send me a mobile notification



Notifications

Send me an email notification



PowerApps Notification

SendPushNotification



Send me a mobile notification



\* Text

Create a notification message

Link

Include a link in the notification

Link label

The display name for the link

PREMIUM



Send me an email notification



\* Subject

Notification email subject

\* Body

Notification email body



# Flow Mobile App

- Available for:
  - iOS
  - Android
  - Windows

Create automated workflows between your favorite apps and services to get notifications, synchronize files, collect data, and more — all from the palm of your hand



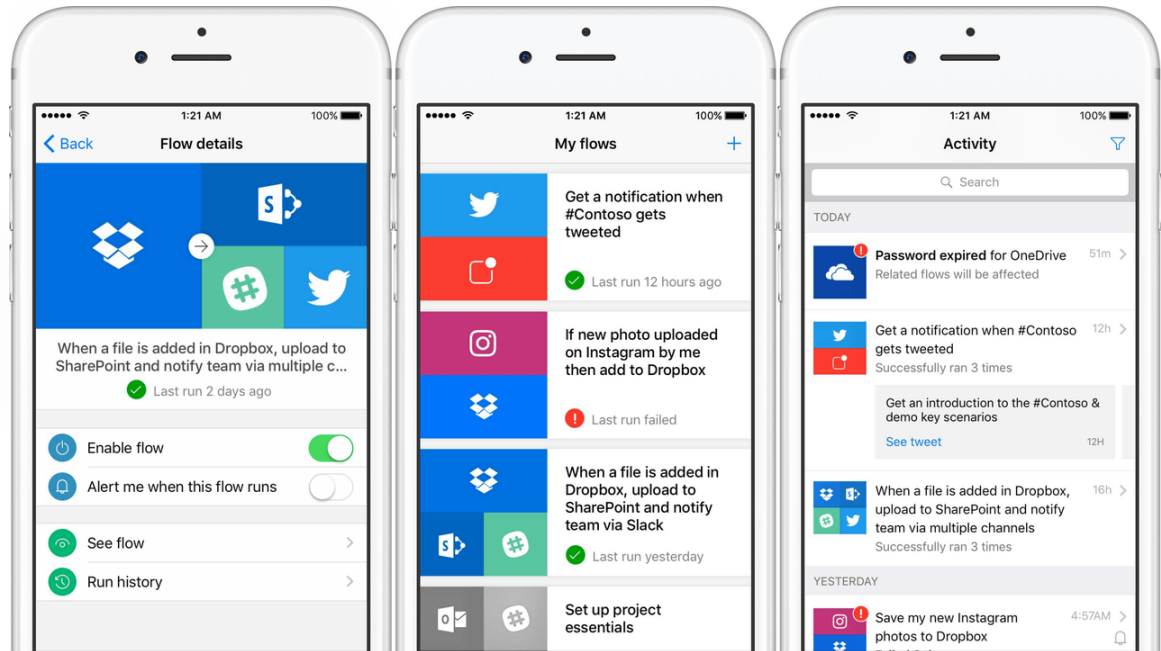
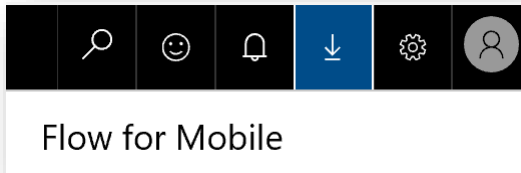
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# Flow Admin Center

## Environment administration

- Create and manage your organization's environments
- Lifecycle management of flows
- Manage roles and role membership
- View license and quota information

## Data Loss Protection


- Control how data flows within your organization
- Set policies for classification of services


## Local agility, central control


- Allow teams control over their environment and still have centralized control


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.


### Business data only


 Add


 Dynamics CRM


 SharePoint


 Salesforce


 SQL

 OneDrive for Business


 Yammer


 Office 365


 Box


 Office 365 Video


### Non-critical, mixed data (Default)


 Add


 SendGrid


 Mailchimp


 Slack


 Trello


 Mandrill


 Wunderlist

 Github


 Azure Blob Storage


 Visual Studio


 OneNote


 Twilio


### Non-business data


 Add


 Outlook.com


 Facebook


 Slack


 Twitter

 OneDrive

 Dropbox

 Google Drive

 Instagram

 Bing

[✓ Create data policy](#)





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