



# Be the automator – not the automated

Jan Egil Ring | Microsoft MVP

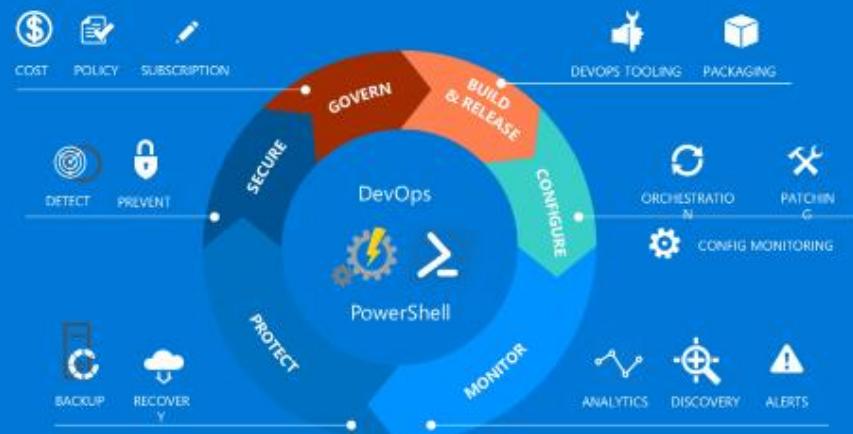
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@JanEgilRing

# Agenda

- Intro
- Being a modern IT Pro
- Tooling
- Demo scenario
  - Automated user on/offboarding

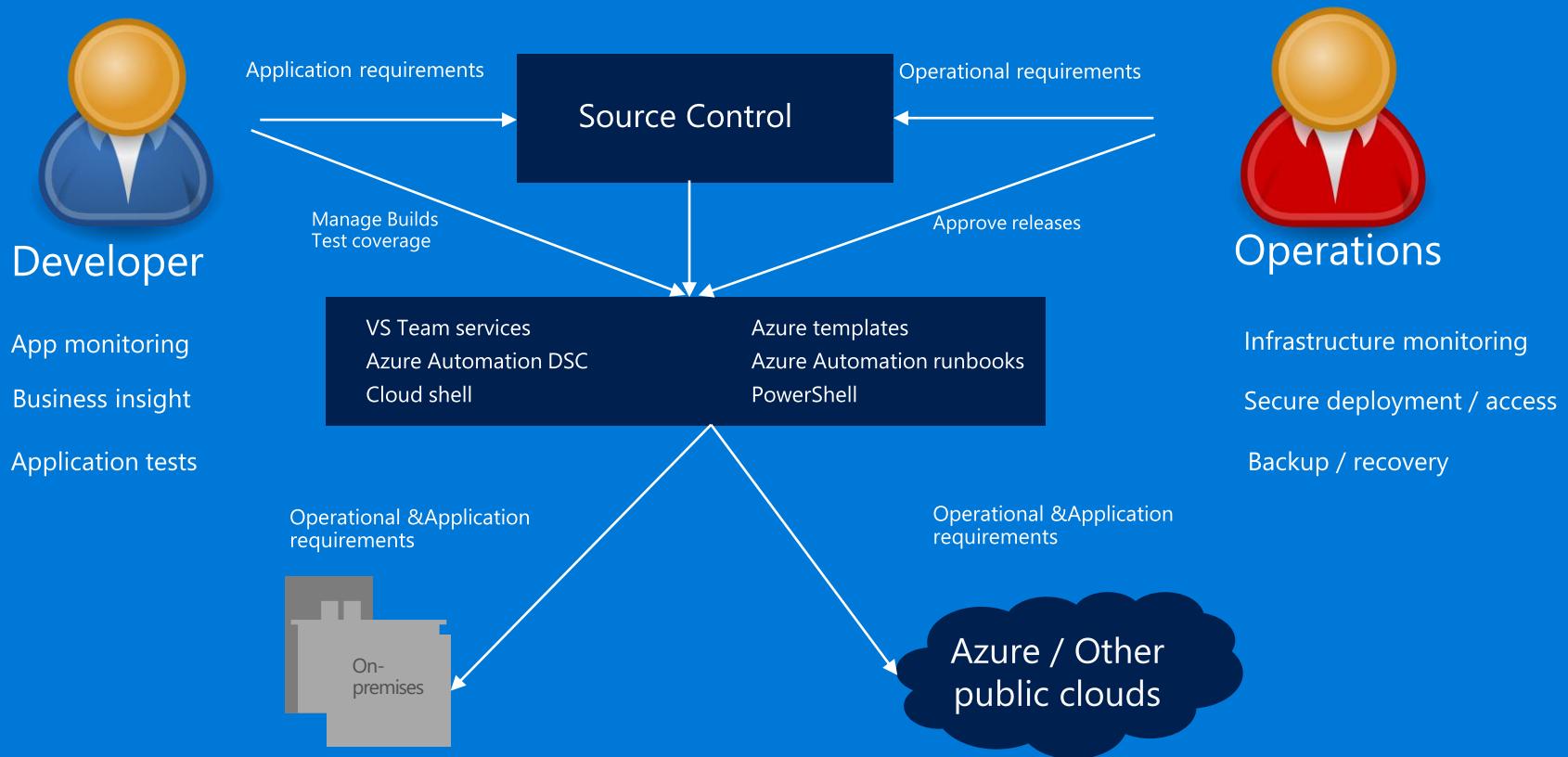
## Continuous Management



## DevOps lifecycle



# DevOps scenario in hybrid world



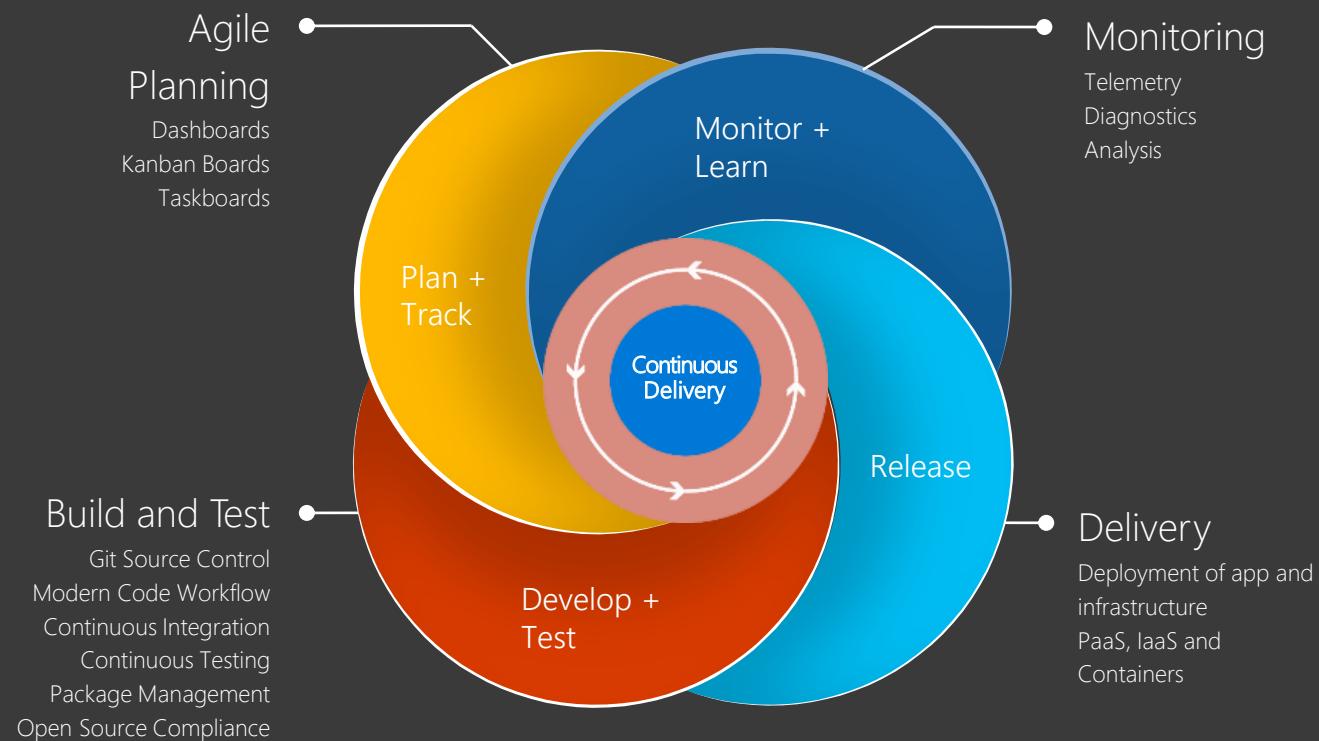
# **Scenario: Automated user on/offboarding**

- Frontend: PowerApps
- Data store: Sharepoint list
- Trigger/workflow engine: Azure Logic Apps
- Automation engine: Azure Automation & PowerShell
- Continous Integation/Delivery: Visual Studio Team Services



# Visual Studio Team Services

Continuous  
Delivery for  
Every Team,  
Every App,  
Every Platform



# Demo

## Visual Studio Team Services



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# PowerApps

Cloud-first

Cross-platform

Connected

Centrally manageable

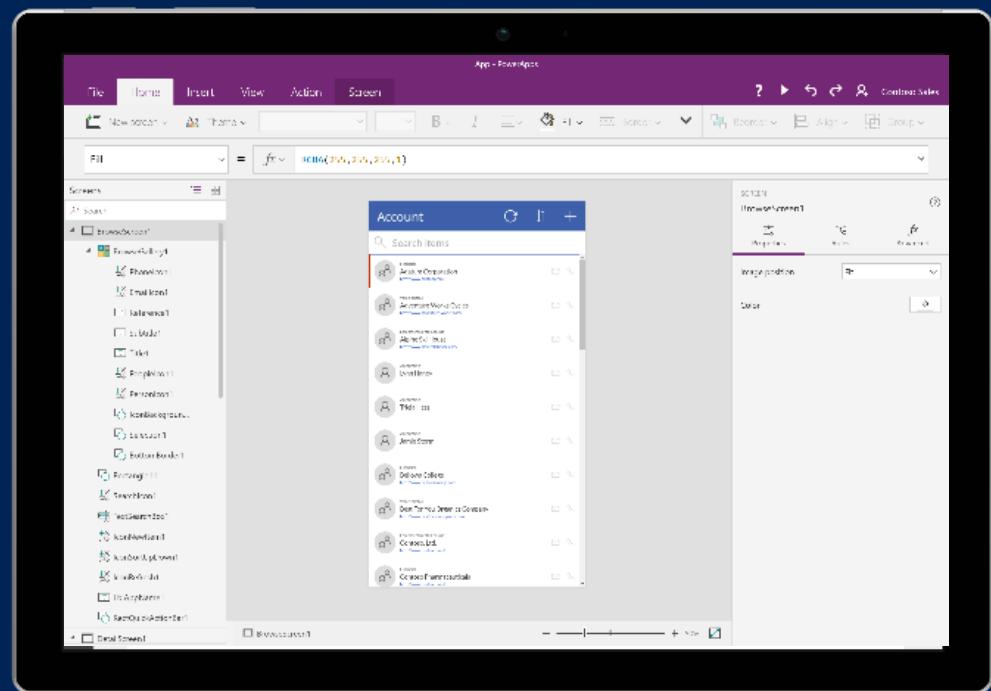
"No cliffs"

# Easy Authoring

Truly WYSIWYG – full control over user experience, use it as you build it

Create app logic with familiar Excel-like expressions

Mash up data from multiple sources right at the app level

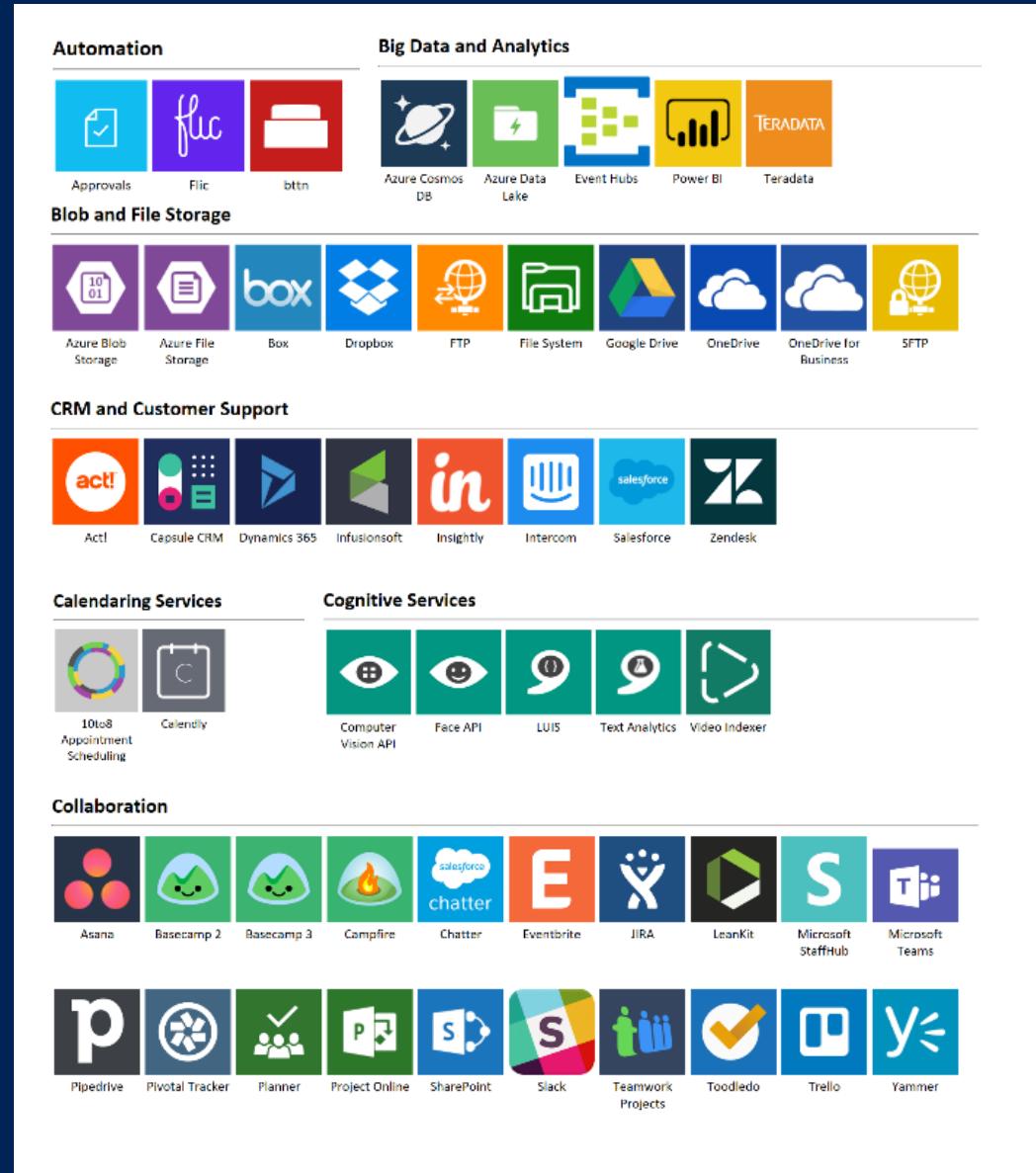


# Connected data

Common data service provides a rich platform + standard model that gets creators instantly productive

Add 160+ connected data sources

Add custom connectors and on-premises sources



## **FOR WHAT SCENARIOS?**

Customize and extend existing apps

Mobile worker scenarios (e.g., inspection)

Mash up multiple sources

Focused task-based experiences

# Demo

## PowerApps

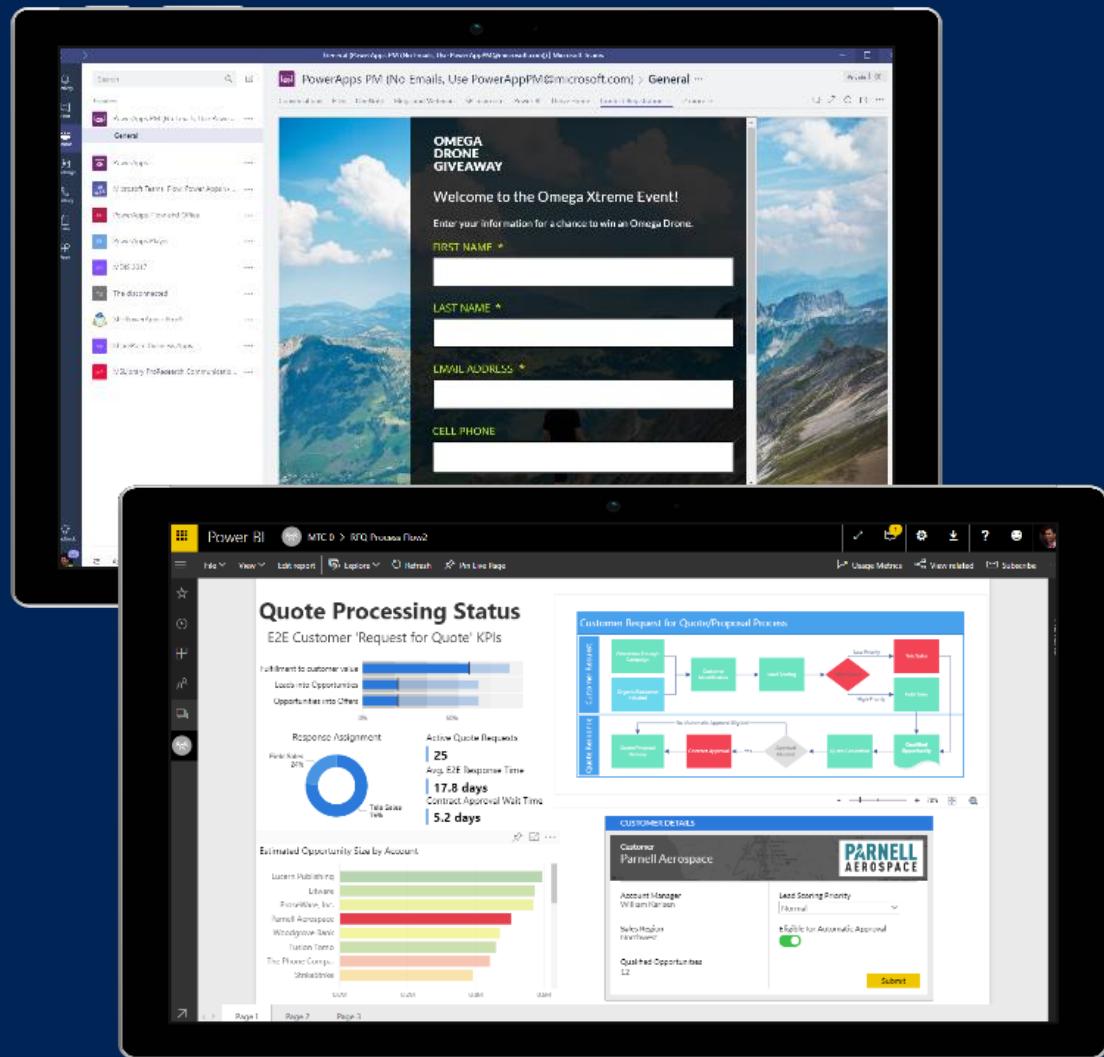


# PowerApps everywhere

Easily publish and share PowerApps  
within an organization

Embed PowerApps in Microsoft  
Teams

Embed PowerApps in Power BI  
dashboards



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# SharePoint



# PowerApps & Flow

# Demo

## Sharepoint list

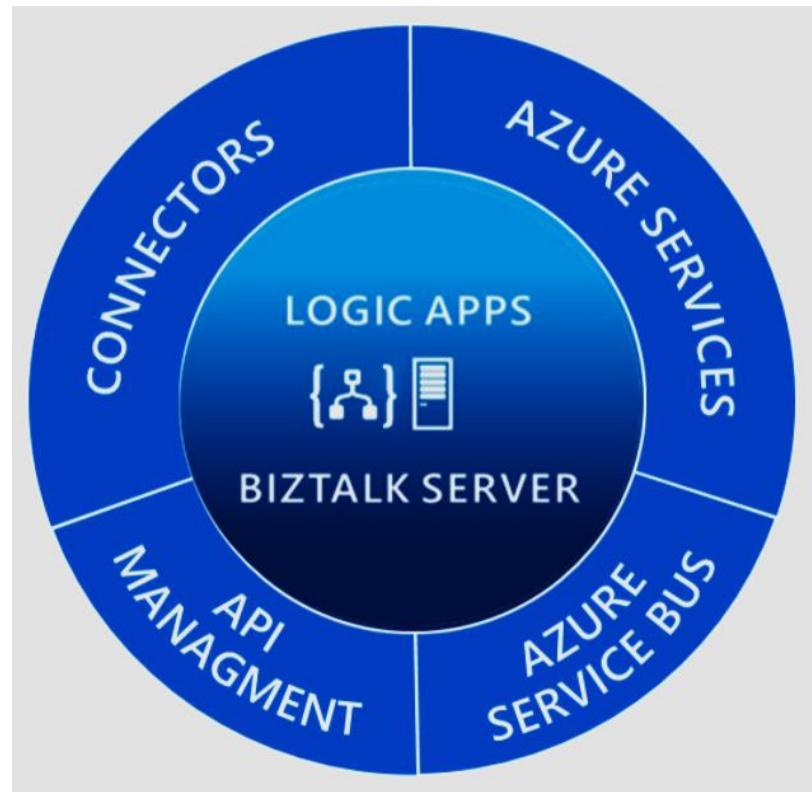


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# Integration. Evolved.

- ✓ Hybrid
- ✓ API First
- ✓ Connect Everything
- ✓ Gain Insights

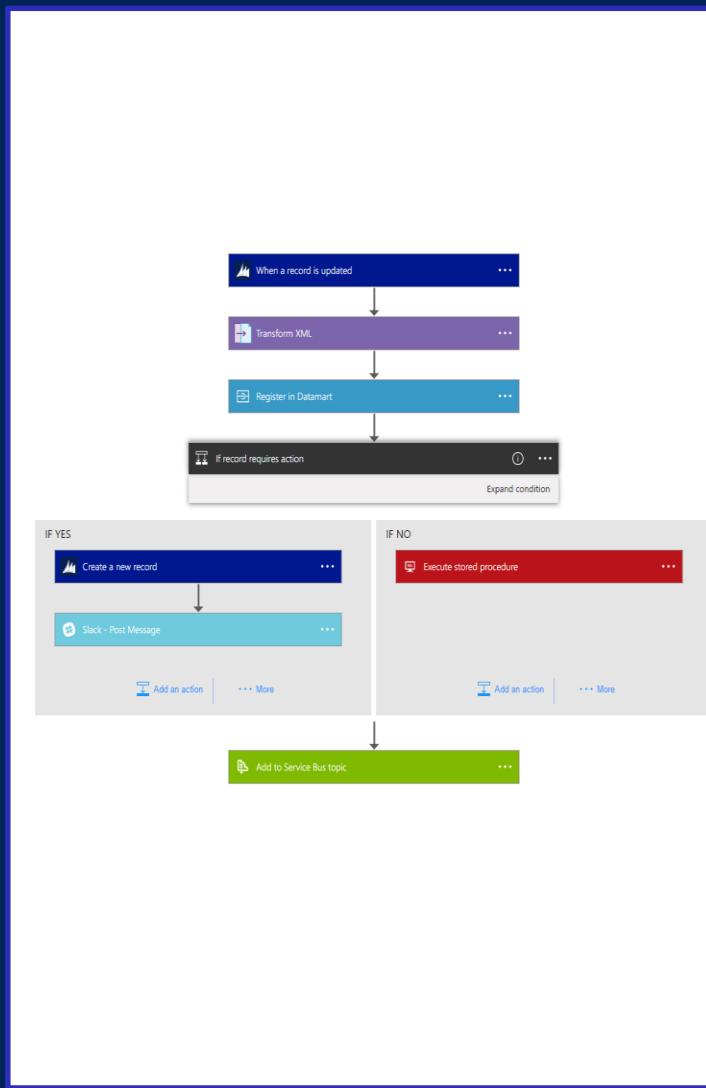


# Logic Apps - Powerful Integration



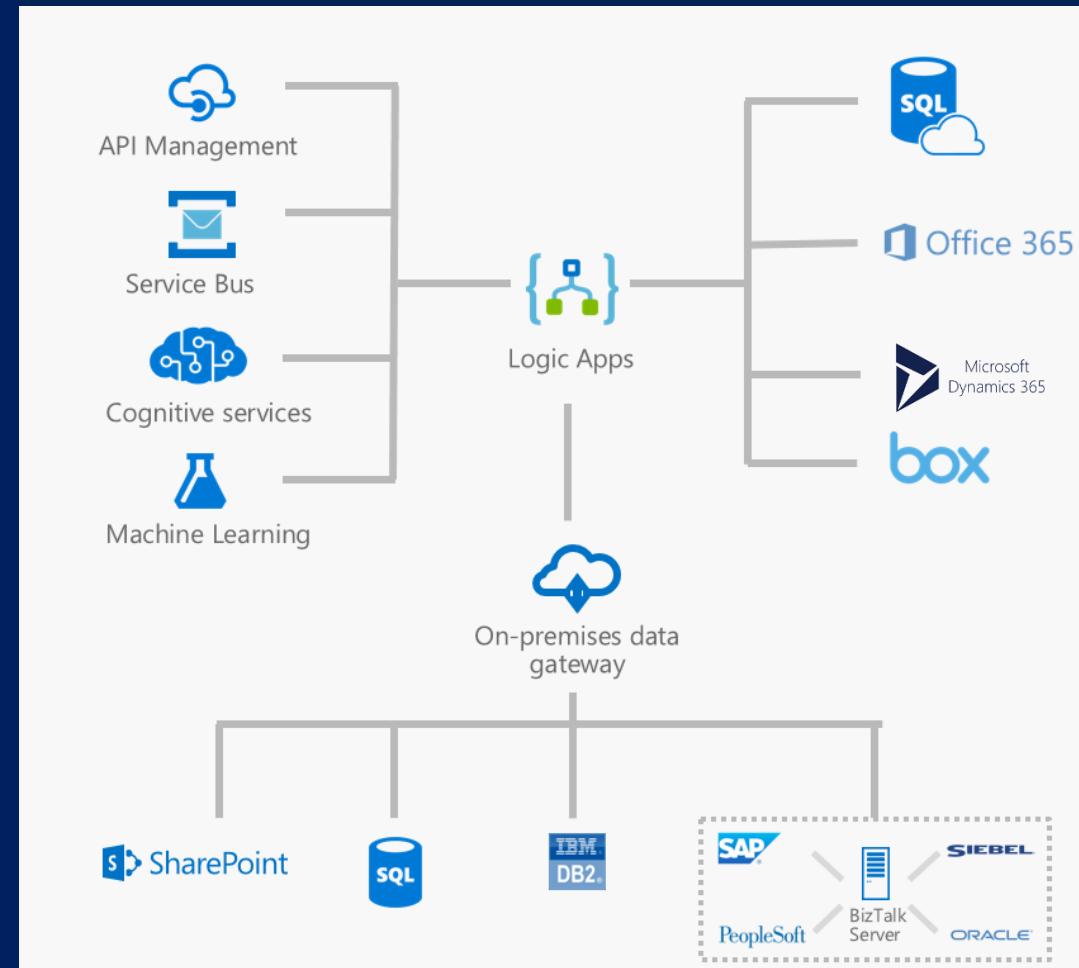
Hyperscale Workflow Engine, born in Azure

- Faster integration using innovative Visual Designer
- Easy workflow creation with triggers and actions
- Mashup applications, data and services
- Built for mission critical Enterprise Integration
- Create, deploy, manage and monitor

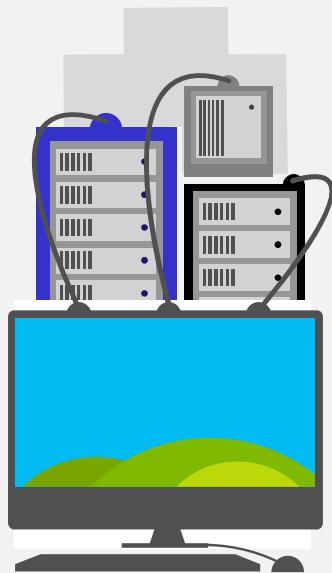


# Microsoft's Hybrid Integration Platform

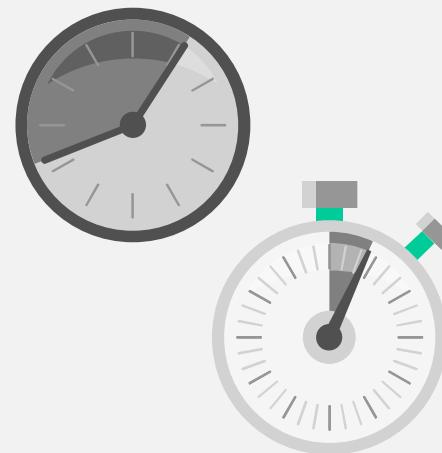
- Connect on-premises, hybrid and cloud applications
- Run mission-critical, complex integration scenarios with ease
- Enhance business productivity by automating business processes where it makes sense, on-premises or in Azure
- Build "Smart" Integrations leveraging Machine Learning/Cognitive Services



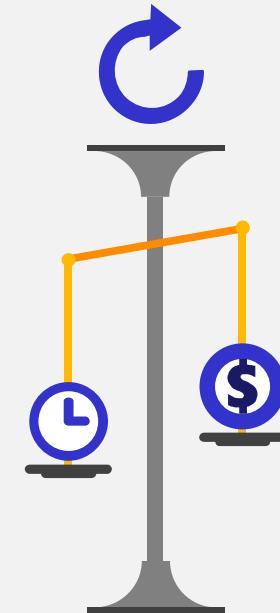
# Logic Apps is Serverless



Reduced  
devops



Reduced time  
to market



Per action billing

# Logic Apps is Connected

## Cloud APIs and platform functionality

To your services, apps, LOB systems

Hosted and managed within the platform

Scales to meet your needs

First class designer experience

Rapid development

## API connections

Authenticate once and reuse

Differentiate connection configuration

Simple to deploy

Portal experience for managing API Connections

## SaaS

- 10to8
- Act!
- Adobe Creative Cloud
- appFigures
- Asana
- Azure Active Directory
- Azure API Management
- Azure App Services
- Azure Application Insights
- Azure Automation
- Azure Cognitive Face API
- Azure Cognitive LUIS
- Azure Cognitive Text Analytics
- Azure Cognitive Vision
- Azure Data Lake Store
- Azure Document DB
- Azure Event Hubs
- Azure Event Grid
- Azure Files
- Azure Functions
- Azure Machine Learning
- Azure Resource Manager
- Azure Service Bus
- Azure SQL
- Azure Storage Blob
- Azure Storage Queues
- Basecamp2&3
- Benchmark Email
- Bing Maps
- Bing Search
- BitBucket
- Bitly
- Blogger
- Box
- Buffer
- Calendly
- Campfire
- CapsuleCRM
- Chatter
- Cognito Forms
- Common Data Service
- Disqus
- DocuSign
- Dropbox
- Dynamics CRM Online
- Dynamics CRM Service Bus
- Dynamics for Financials
- Dynamics for Operations
- Dynamics NAV
- Easy Redmine
- Elastic Forms
- Eventbrite
- Facebook
- FreshBooks
- Freshdesk
- FreshService
- GitHub
- Gmail
- Google Calendar
- Google Contacts
- Google Drive
- Google Sheets
- Google Tasks
- GoTo Meeting
- GoTo Training
- GoTo Webinar
- Harvest
- HelloSign
- HipChat
- Infusionsoft
- Inoreader
- Insightly
- Instagram
- Instapaper
- Intercom
- JIRA
- JotForm
- LeanKit
- LiveChat
- MailChimp
- Mandrill
- Microsoft Forms
- Microsoft Teams
- Microsoft Translator
- Medium
- MSN Weather
- Muhimbi PDF
- Nexmo
- Office 365
- Office 365 Users
- Office 365 Video
- OneDrive
- OneDrive for Business
- OneNote
- Outlook.com
- Outlook Customer Manager
- Outlook Tasks
- Paylocity
- PagerDuty
- Parseerr
- Pinterest
- Pipedrive
- Pivotal Tracker
- Planner
- Power BI
- Project Online
- Redmine
- Salesforce
- Salesforce Chatter
- SendGrid
- SharePoint Online
- Slack
- SmartSheet
- SparkPost
- Stripe
- Survey Monkey
- Teamwork
- Teradata
- Todoist
- Toodledo
- Trello
- Twilio
- Twitter
- Typeform
- UserVoice
- Vimeo
- VS Team Services
- Webmerge
- Wordpress
- Wunderlist
- Yammer
- YouTube
- Zendesk

## Hybrid

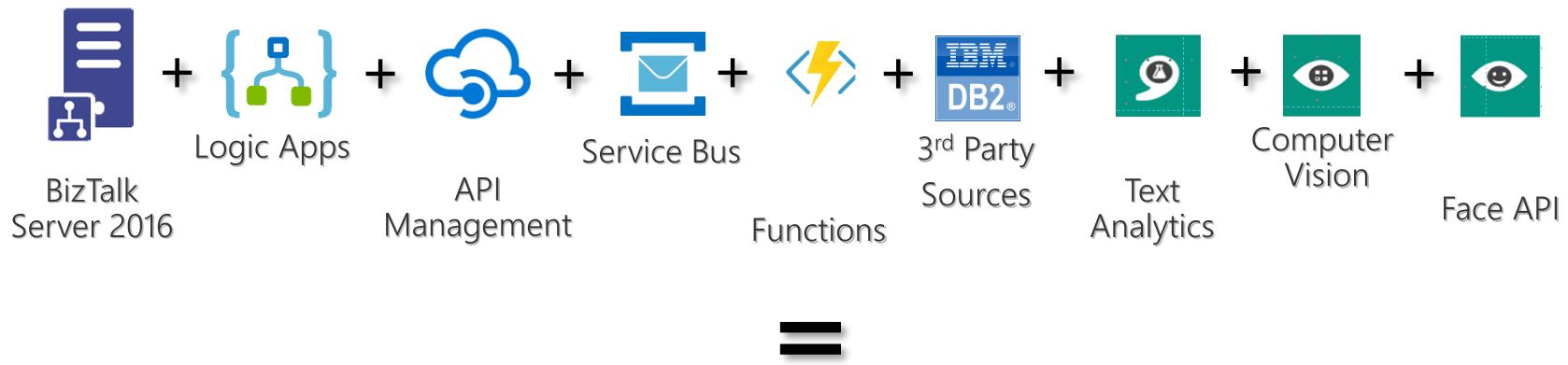
- BizTalk Server
- File System
- IBM DB2
- Informix
- Oracle DB
- MySQL
- PostgreSQL
- SharePoint Server
- SQL Server
- SFTP

## Protocol/ Native

- HTTP, HTTPS
- HTTP Webhook
- FTP, SFTP
- SMTP
- RSS
- Compose, Parse JSON
- Query, Join, Table, Select



# Better Together.



Limitless Possibilities

# Demo

## Azure Logic Apps



# Microsoft Flow vs Logic Apps

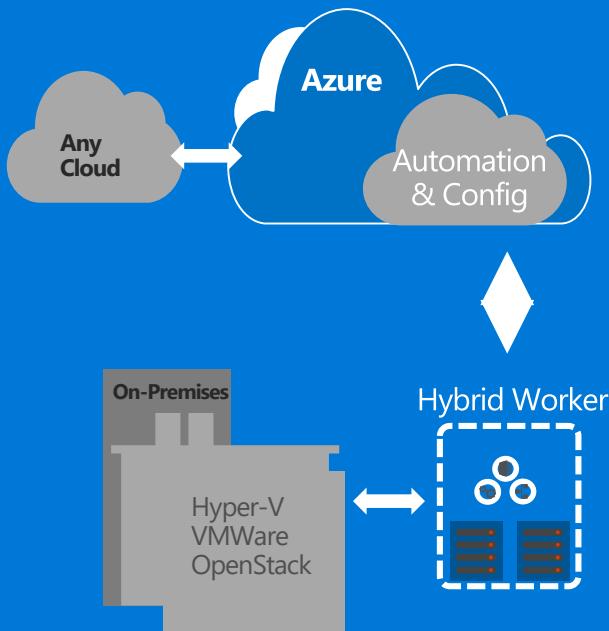
The following table helps you determine whether Flow or Logic Apps is best for a given integration.

	Flow	Logic Apps
Audience	Office workers, business users, SharePoint administrators	Pro integrators and developers, IT pros
Scenarios	Self-service	Advanced integrations
Design Tool	In-browser and mobile app, UI only	In-browser and Visual Studio, <a href="#">Code view available</a>
Application Lifecycle Management (ALM)	Design and test in non-production environments, promote to production when ready.	DevOps: source control, testing, support, automation and manageability in <a href="#">Azure Resource Management</a>
Admin Experience	Manage Flow Environments and Data Loss Prevention (DLP) policies, track licensing <a href="https://admin.flow.microsoft.com">https://admin.flow.microsoft.com</a>	Manage Resource Groups, Connections, Access Management and Logging <a href="https://portal.azure.com">https://portal.azure.com</a>
Security	Office 365 Security and Compliance audit logs, Data Loss Prevention (DLP), <a href="#">encryption at rest</a> for sensitive data, etc.	Security assurance of Azure: <a href="#">Azure Security</a> , <a href="#">Security Center</a> , <a href="#">audit logs</a> , and more.

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# Automation & Configuration



- ✓ Manage any cloud & on premises
- ✓ Windows & Linux
- ✓ Configuration Management
- ✓ Process Automation
- ✓ Update Management

## Key Features

### Configuration Management

- DSC Configurations, Pull service
- Node Management & Reporting
- Change tracking & Inventory

### Process Automation

- Author runbooks - PowerShell, scripts
- PowerShell workflow, Graphical, Python2
- Hybrid Runbook Workers with Proxy support

### Update Management

- Insights across your hybrid environment
- Orchestrated updates and troubleshooting

### Easy Onboarding

- RunAs account for Azure management
- Gallery of runbooks and modules from Microsoft and community

### Shared capabilities across features

- Role Based Access Control
- Secure, global store for variables, credentials, certificates, connections
- Schedules
- Modules
- Source control support
- Auditing
- Tags

### Integration

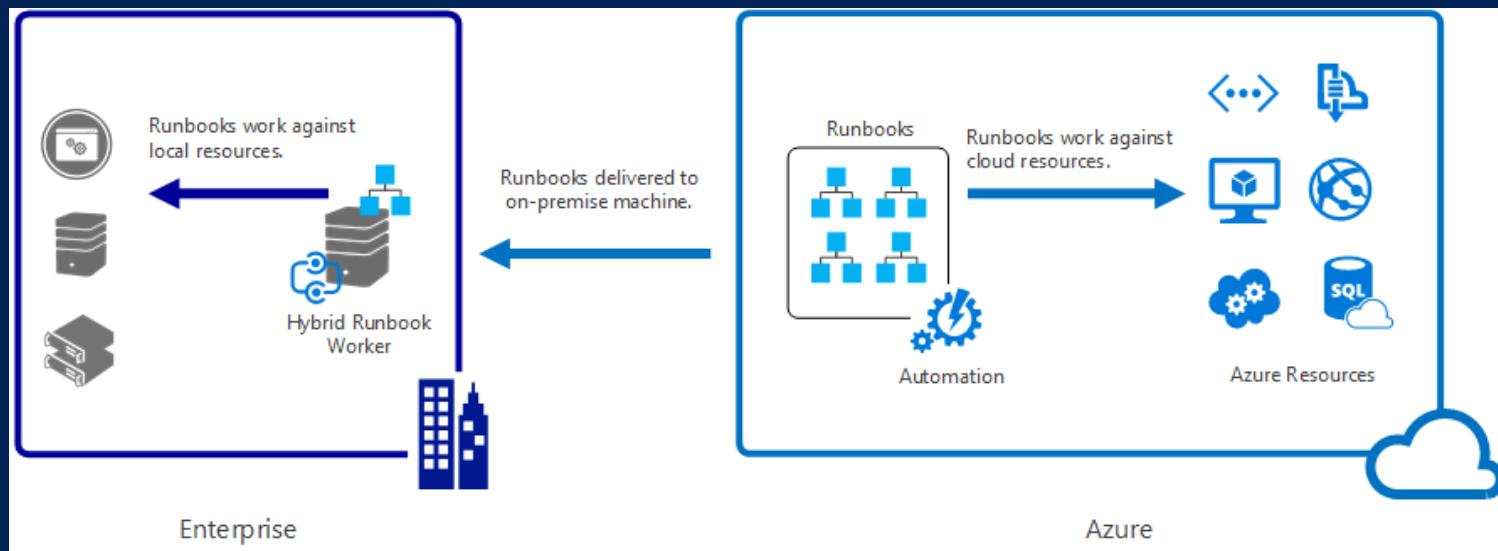
- Included with Azure SDK
- Webhooks to start runbook remotely

 Reliable, highly available, scalable

 Hybrid management Integrate existing systems



# Hybrid Workers



```
PS> cd "C:\Program Files\Microsoft Monitoring  
Agent\Agent\AzureAutomation\<version>\HybridRegistration"
```

```
PS> Import-Module HybridRegistration.psd1
```

```
PS> Add-HybridRunbookWorker -Name <String> -EndPoint <Url> -Token <String>
```

# Demo

## Azure Automation



# **Scenario: Automated user on/offboarding**

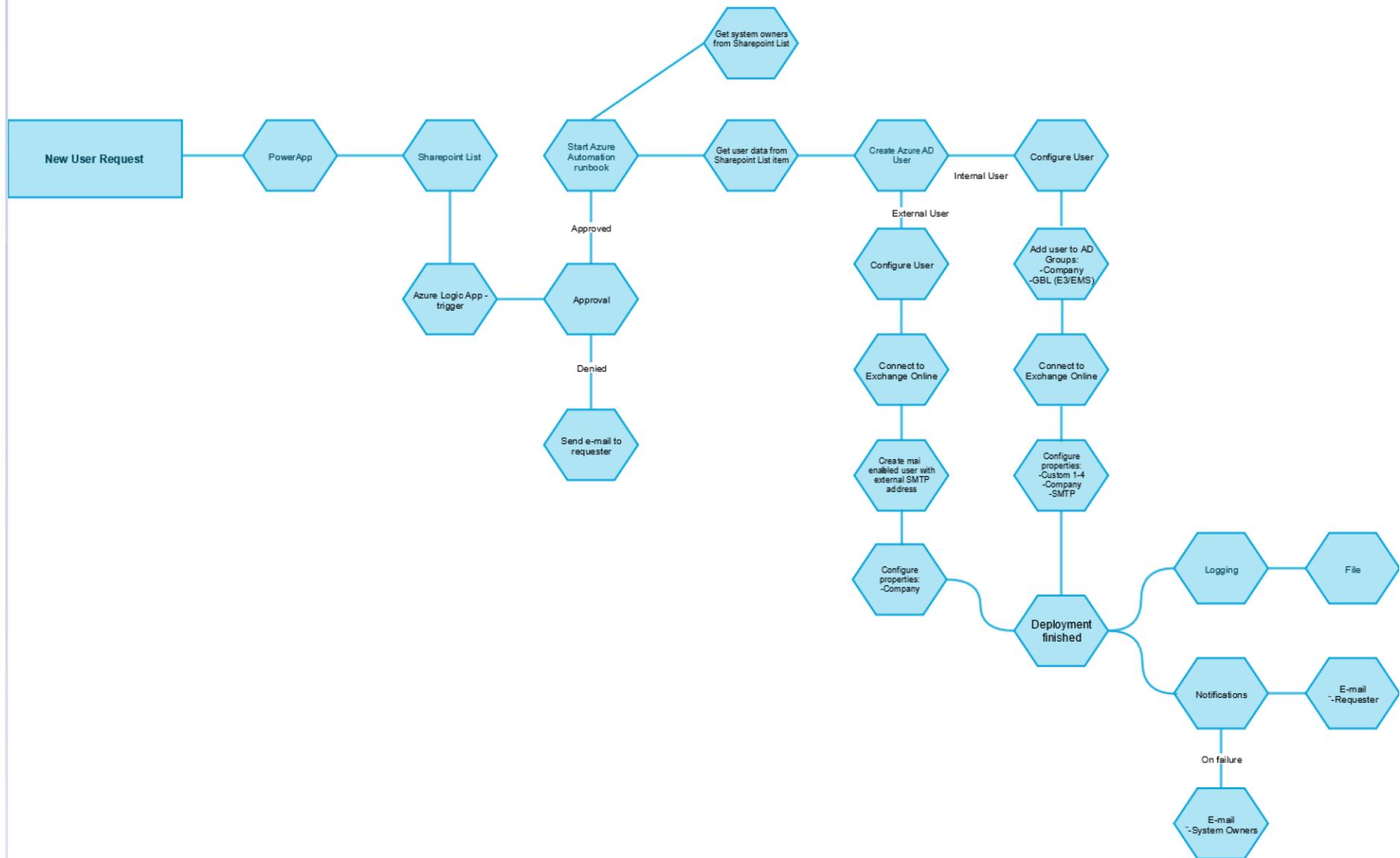
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# **Flow chart**

# **Automated user on/offboarding**

- PowerApps
- Logic Apps
- Sharepoint
- Azure Automation





# Summary

- Building blocks available in public clouds
- Patterns and practices can be reused internally
- Use Source Control, Release Management and Continuous Integration/Delivery

# Key takeaways



# #SadJoey



# about\_Author

```
Administrator: Windows PowerShell
PS C:\> Get-ContactInfo

Name      : Jan Egil Ring
E-mail    : jan.egil.ring@crayon.com
Twitter   : @JanEgilRing
Website   : {www.crayon.no, www.powershell.no, www.powershellmagazine.com}

PS C:\>
```

# Resources

- Azure Automation documentation: <https://docs.microsoft.com/en-us/azure/automation>
- Logic Apps Documentation: <http://aka.ms/logicapps-docs>
- Logic Apps Blog: <http://aka.ms/logicappsblog>
- Logic Apps Monthly Webcast: <http://aka.ms/logicappslive>
- PowerApps documentation: <https://docs.microsoft.com/en-us/powerapps>

# Next Steps

- Now: 15 min break
- Grab a coffee
- Stay here to enjoy next presentation
- Change track and switch to another room
- Ask me questions or meet me in a breakout session room afterwards

# Questions?

# Related sessions from Ignite 2017

## PowerApps

**BRK2098** Deliver sophisticated apps in days: Learn how PowerApps can transform your business

*Ryan Cunningham and Ankit Saraf*

**BRK3348** Create custom forms and digital experiences in SharePoint using Microsoft PowerApps

*Cathy Dew and Wes Preston*

**BRK4037** Deep dive: Take Microsoft PowerApps customization to the next level with advanced expressions

*Greg Lindhorst*

**BRK3342** Connect Dynamics 365 and business application data with Common Data Service for powerful results

*Jono Luk*

## Microsoft Flow

**BRK2306** Automate workflows and enable modern approvals with Microsoft Flow

*Anjli Chaudhry*

**BRK4040** Deep dive: Advanced workflow automation with Microsoft Flow

*Stephen Siciliano*

**BRK3359** Deep dive: Compare SharePoint Designer and Microsoft Flow scenarios

*Merwan Hade*

**BRK3341** Unlock extensibility by connecting your service to PowerApps and Microsoft Flow

*Theresa Palmer and Sunay Vaishnav*

## Common

**GS06** Transform your business with the Business Application Platform

*Frank Weigel and Kees Hertog*

**BRK2224** Transform business process with SharePoint, PowerApps, and Flow for biz apps, forms, and automation

*Chris McNulty, Robert Burg, Kerem Yuceturk*

**BRK2305** Administration and ALM best practices for PowerApps, Microsoft Flow and Common Data Service

*James Oleinik*

**BRK2154** Real world use cases: Custom solutions build with PowerApps, Microsoft Flow & Common Data Service

*Saurabh Pant and Pratap Ladhan*