

KulenDayz

IT Innovation Conference

31.08 – 01.09.2018.

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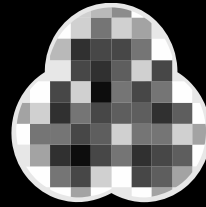


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KulenDayz
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Discover Microsoft's Cloud Automation Suite

Jaap Brasser
@jaap_brasser



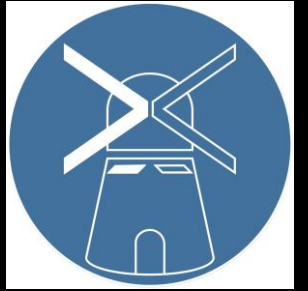
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jaapbrasser.com/about



- Technical Marketing Engineer at Rubrik
- PowerShell Conference EU/Asia
- Dutch PowerShell User Group
- Speaker / Blogger / Tech Enthusiast
- PowerShell Gallery
- TechNet / MSTechCommunity

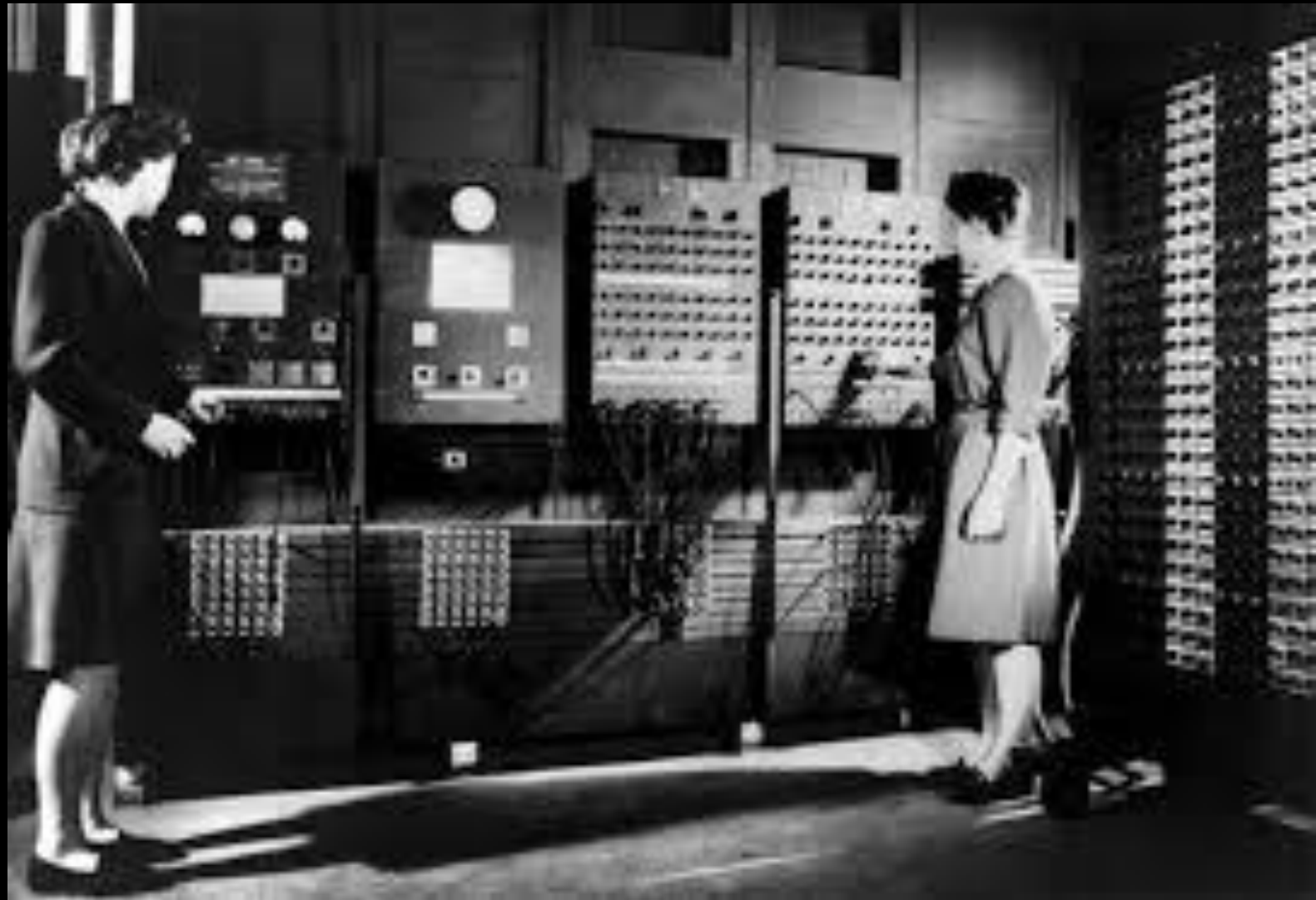


 @jaap_brasser

Agenda

- What is Cloud Automation
- Azure Automation
- Microsoft Flow
- Azure Functions
- Q & A

First server





Servers through the years

Cloud Automation



Microsoft Flow

Code

Events + data

Azure Functions



Azure Automation

Azure Automation

Azure Automation Capabilities

Runbook Authoring in Azure:

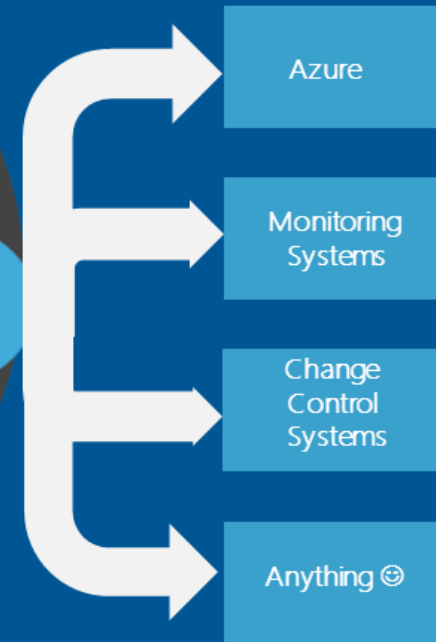
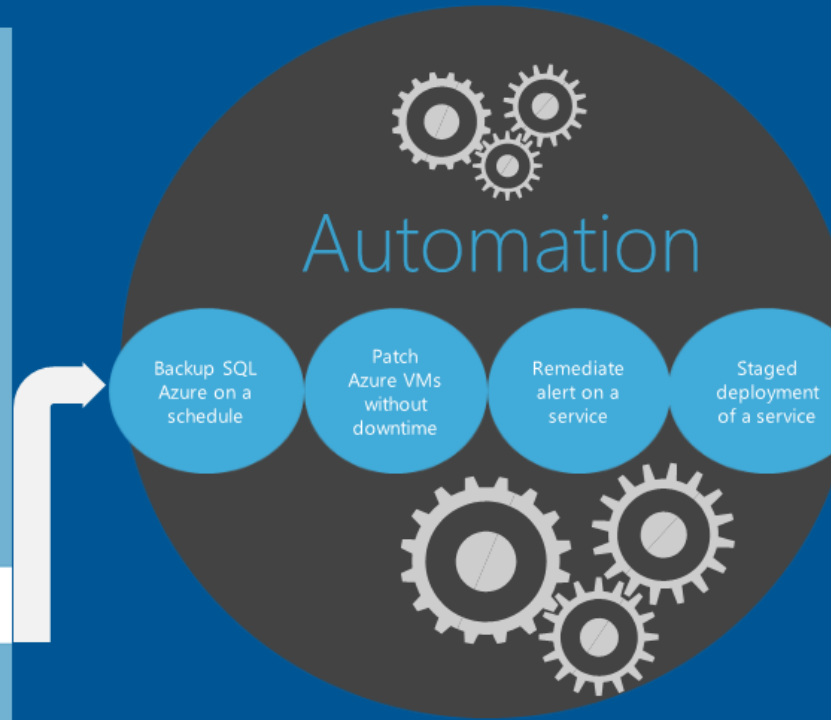
Create runbooks to automate all aspects of cloud operations, from deployment, monitoring, and optimizations

Highly Available Engine:

Support requirements for scale and H/A. Built on PowerShell Workflow. Isolation for runbook jobs

Integration into other systems:

Import PS modules and create additional modules and runbooks for Azure services or to connect into 3rd party systems





Demo

Hybrid Runbook Workers

```
PS C:\WINDOWS\system32> find-script "New-OnPremiseHybridWorker"
```

Version	Name	Repository	Description
-----	----	-----	-----
1.5	New-OnPremiseHybridWorker	PSGallery	This Azure/OMS Automation runbook onboa..

```
PS C:\WINDOWS\system32> find-script "New-OnPremiseHybridWorker" | install-script
```

Find and Install PowerShell script


```
PS C:\WINDOWS\system32> New-OnPremiseHybridWorker.ps1

cmdlet New-OnPremiseHybridWorker.ps1 at command pipeline position 1
Supply values for the following parameters:
AAResourceGroupName: AzureAutomation
SubscriptionID:
AutomationAccountName: AutomationDavid
HybridGroupName: MiBookWorker
Importing necessary modules...
    Successfully installed version 6.8.1 of AzureRM...
Pulling Azure account credentials...
Accessing Azure Automation Account named AutomationDavid in region westeurope...
Creating new OMS Workspace named hybridWorkspace66820 in region westeurope...
Downloading and installing the Microsoft Monitoring Agent...
Waiting for agent registration to complete...
Registering the hybrid runbook worker...
```

Run script to Install Hybrid Runbook Worker

TutorialTest
HybridWorkerGroup

Search (Ctrl+/)

Overview

SETTINGS

Properties

HYBRID WORKER GROUPS

Hybrid worker group settings

Hybrid Workers

Delete

Essentials


Resource group	Account
TestAzureAuto	TestAzureAuto
Location	Subscription name
eastus2	Microsoft Azure
Last registration time	Last seen time
12/11/2017 12:56 PM	12/11/2017 1:27 PM
Group type	Run As
User	--

Details

Hybrid Workers

1

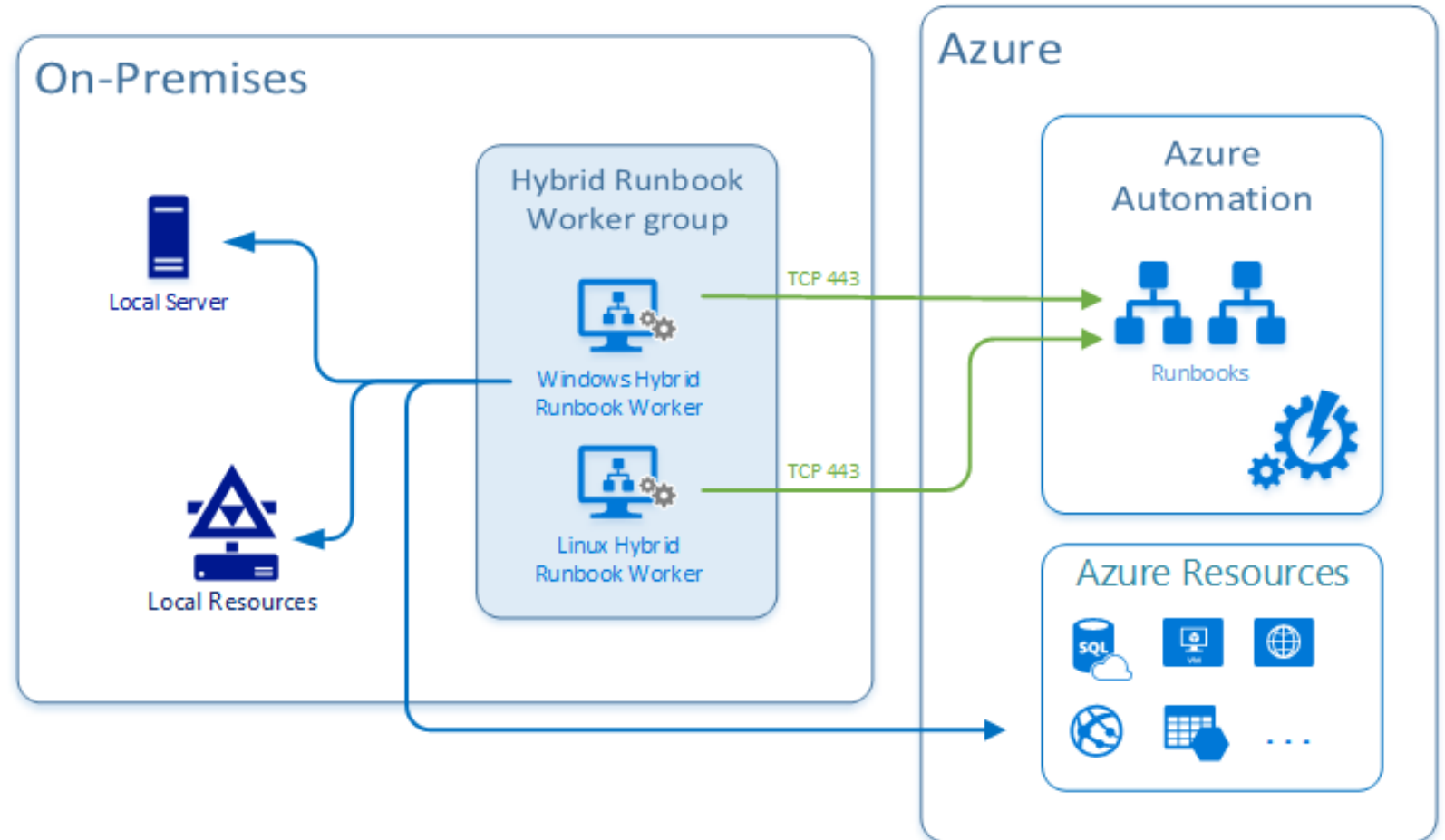
Run script to Install Hybrid Runbook Worker



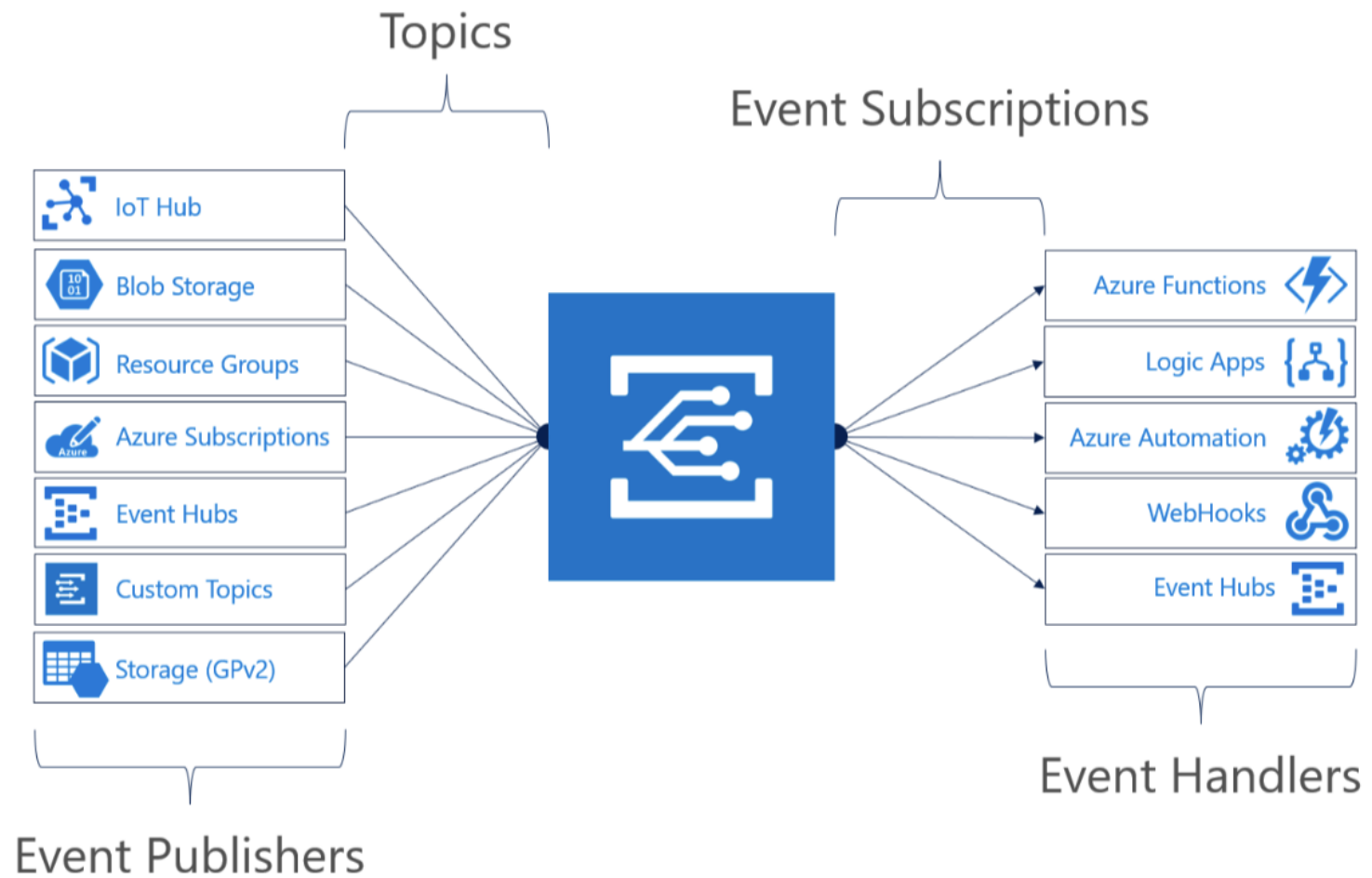
Demo Summary

- Discovered PowerShell script on Gallery
- Installed script using Install-Script
- Added a Hybrid Runbook Worker

Hybrid Runbook Worker



Event Grid



Download example runbooks



Quick access

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App-V	17
Backup and System Restore	90
Databases	952
Desktop Management	726
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Exchange	950
Group Policy	130
Hardware	376
Interoperability and Migration	16
Local Account Management	104
Logs and monitoring	222
Lync	112
Messaging & Communication	53
Microsoft Dynamics	21
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Script resources for IT professionals

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327 Automation results [Clear]

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Start Azure V2 VMs

[Azure Automation Product Team](#) - Microsoft

This Graphical PowerShell runbook connects to Azure using an Automation Run As account and starts all V2 VMs in an Azure subscription or in a resource group or a single named V2 VM. You can attach a recurring schedule to this runbook to run it at a specific time. The asso

[Azure Virtual Machines](#), [Start VM](#), [GraphicalPS](#)

★★★★★ (20)
Updated 10/23/2016
Released 1/7/2016
62,069 Downloads

Stop Azure V2 VMs

[Azure Automation Product Team](#) - Microsoft

This Graphical PowerShell runbook connects to Azure using an Automation Run As account and stops all V2 VMs in an Azure subscription or in a resource group or a single named V2 VM. You can attach a recurring schedule to this runbook to run it at a specific time.

[Azure Virtual Machines](#), [Stop VM](#), [GraphicalPS](#)

★★★★★ (18)
Updated 10/23/2016
Released 1/7/2016
58,119 Downloads

Scheduled Virtual Machine Shutdown/Startup

[Automys](#)

Automates the scheduled startup and shutdown of Azure virtual machines. Schedules are implemented by tagging VMs or resource groups with individual simple schedules. Schedules can define multiple time periods for shutdown, including time ranges and days of week or dates.

[VM Lifecycle Management](#), [Dev / Test Environments](#)

★★★★★ (18)
Updated 2/29/2016
Released 5/21/2015
40,531 Downloads
[PowerShell](#)

Azure Automation Summary

Automate processes

Cross-platform configuration management

Download example runbooks and scripts

Event grid integration

Can run local with Hybrid Runbook Worker

Microsoft Flow

What is
Microsoft
Flow



Microsoft Flow

Connectors



Office 365 Outl...



OneDrive for B...



Office 365 Users



SharePoint



Twitter



Notifications



RSS



Outlook.com

Recently added connectors



AtBot Admin



Marketing Cont...



Pitney Bowes T...



Excel Online (B...




Excel Online (O...




Azure SQL Data...

Flow Templates




Save Office 365 email attachments to OneDrive for Business

By Microsoft
Used 235650 times




Get a push notification when you receive an email from your...

By Microsoft
Used 136809 times




Send myself a reminder in 10 minutes

By Microsoft
Used 95634 times




Get today's weather forecast for my current location

By Microsoft
Used 83902 times



Save Outlook.com email attachments to your OneDrive

By Microsoft Flow Community
Used 64359 times



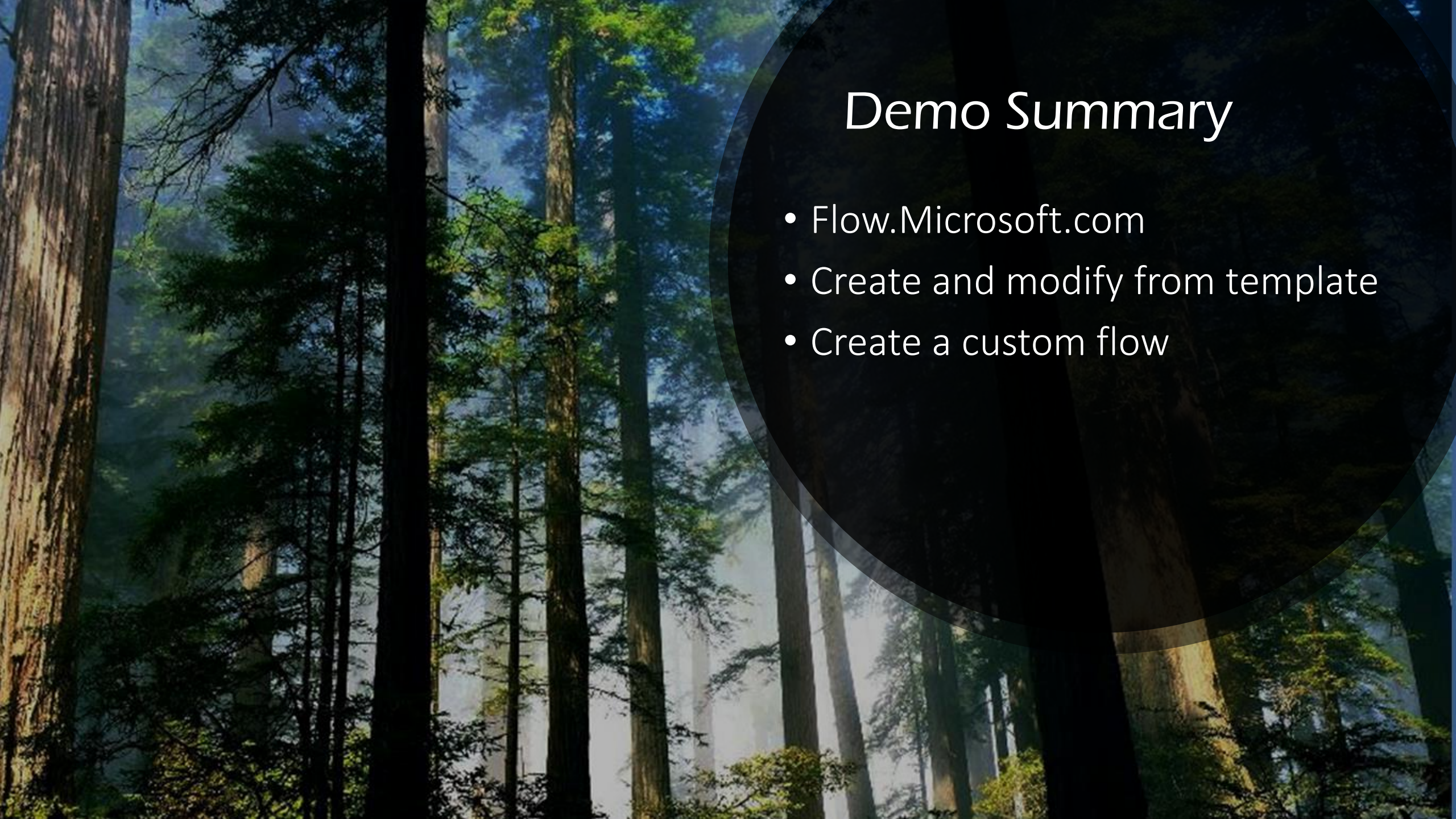
Get a push notification with updates from the Flow blog

By Microsoft
Used 47714 times



Demo

Create your first Flow



Demo Summary

- [Flow.Microsoft.com](https://flow.microsoft.com)
- Create and modify from template
- Create a custom flow

Request limits


These are limits for a single outgoing request.

Timeout

Name	Limit
Request Timeout	120 Seconds

Message size

Name	Limit	Notes
Message size	100 MB	Not all APIs support the full 100MB.
Expression evaluation limit	131,072 characters	<code>@concat()</code> , <code>@base64()</code> , <code>string</code> can't exceed this limit.



Request
Limits

Run duration and retention

These are the limits for a single flow run.

Name	Limit	Notes
Run duration	30 days	Includes workflows with pending steps like approvals. After 30 days, any pending steps time-out. Timed-out approvals are removed from the approvals center. If someone attempts to approve a timed-out request, they'll receive an error message.
Storage retention	30 days	This is from the run start time.
Min recurrence interval	1 minute	
Max recurrence interval	500 days	



Runtime
Limits

Microsoft Flow Summary

Use connectors to get data

Create triggers based on this data

Build workflows

Integrate and combine different services

Azure Functions

What are Azure Functions



What is
serverless?



Azure Web Apps



Advantages of Azure Functions

Pay for what you use

No Infrastructure to manage

No maintenance of servers

Can be placed in existing subscriptions

Simplify code writing

What are we solving?

Using our scripting skills in the cloud

Re-using existing code / scripts

Faster deployment

Less maintenance



Demo 1

Exploring Azure Functions



Demo Summary

- Triggers available
- Scenarios available
- Experimental flag
- How to create Azure Function
- Delete Azure Function

Azure Functions Summary

Use existing scripting / programming skills

Develop serverless code

Interact with other services

Free tier

functions.azure.com



Questions? |