

# Backend in der Cloud

API Apps und Logic Apps in Azure



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# Agenda

- RESTful Service
  - Web API / MVC
  - Swagger – OpenAPI Specification
  - API App
- 
- Logic App
  - Trigger
  - Managed APIs
  - Custom API
  - Comming soon...

# REST

- Representational State Transfer
  - Keine Technologie oder Standard, sondern ein Stil
- Basiert auf ...
  - HTTP Verben
    - GET, POST, PUT, PATCH, DELETE, ...
  - Status Codes
    - 200 OK, 201 Created, 400 Bad request, 401 Unauthorized, 404 Not found, ...
  - URIs
    - Identifier für Ressourcen

# Demo

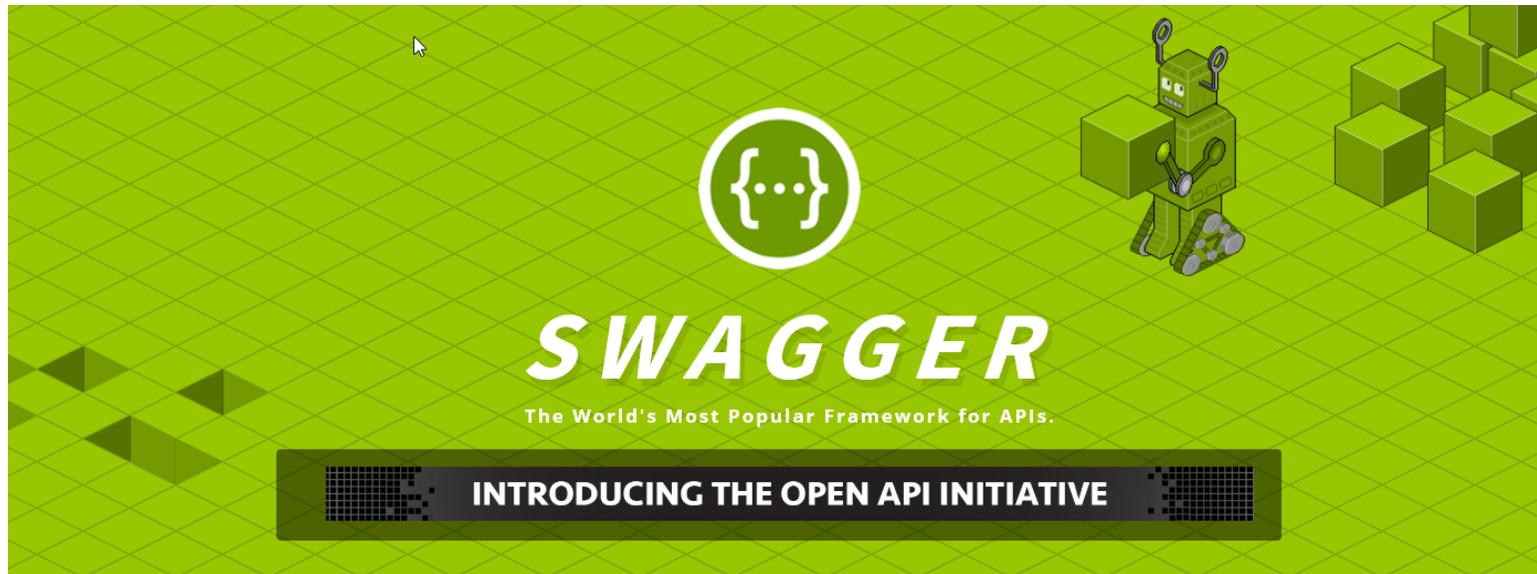
- ASP.NET Web API

# Swagger

REST vs. SOAP Services? -> „Kein WSDL“

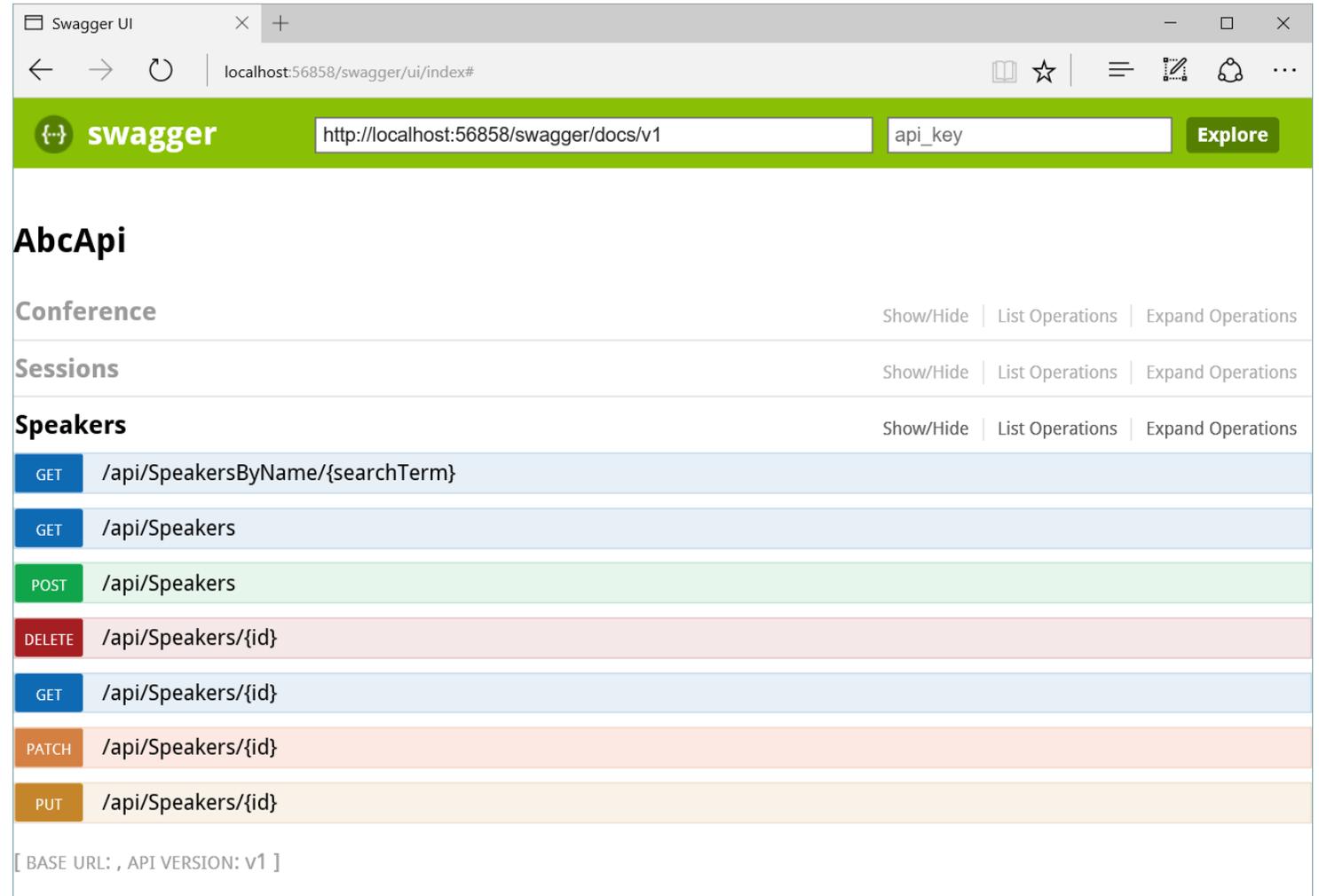
Mit Swagger existiert eine derartige Beschreibungssprache für REST.

<http://swagger.io/>



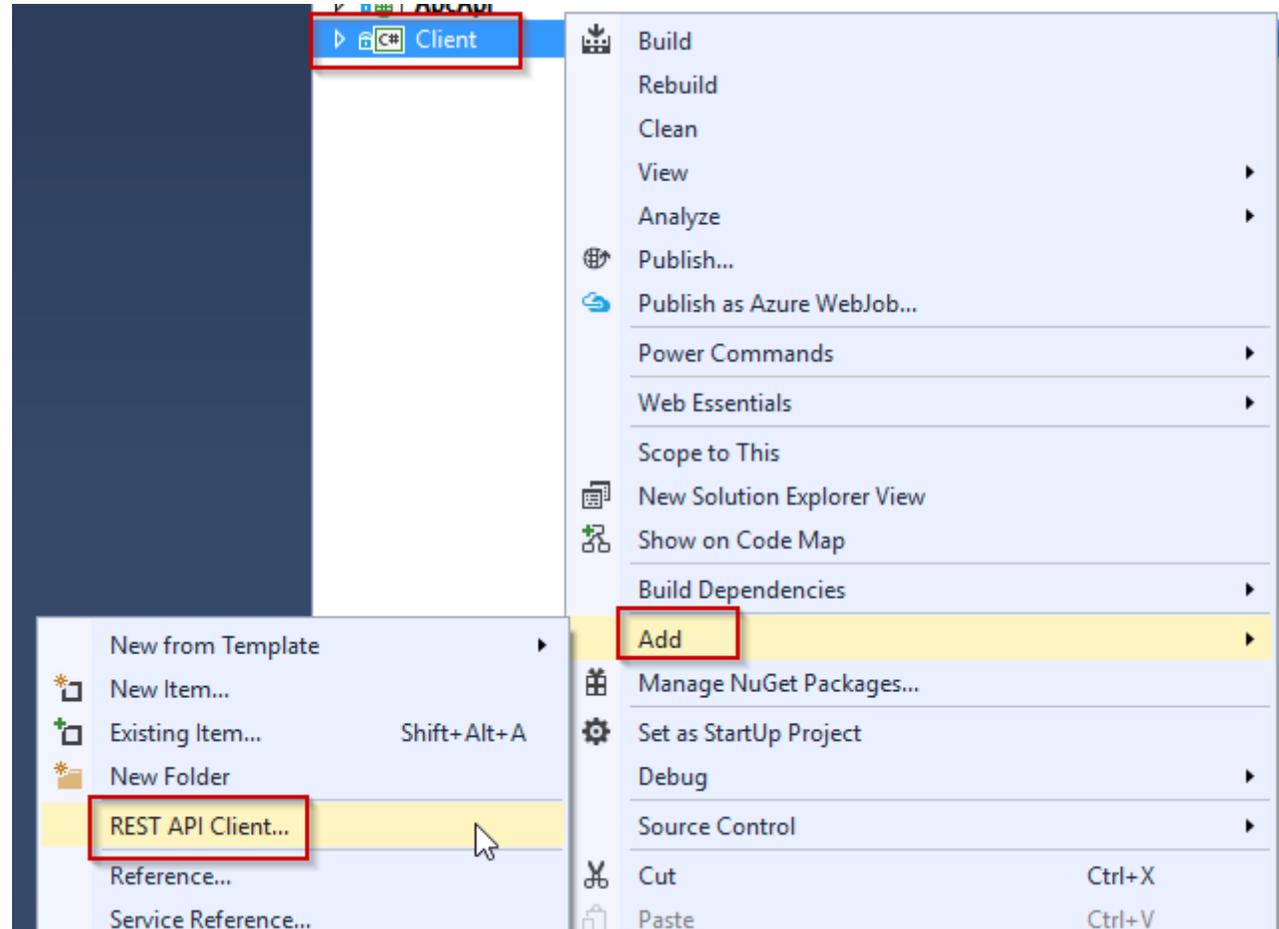
# Swagger

- In ASP.NET Web API:
  - Automatische Swagger Erzeugung durch Swashbuckle (via NuGet)
  - Erstellt auch eine UI zum Testen der API



The screenshot displays the Swagger UI interface in a web browser. The browser's address bar shows the URL `localhost:56858/swagger/ui/index#`. The Swagger UI header includes the Swagger logo, a search bar containing `http://localhost:56858/swagger/docs/v1`, an `api_key` input field, and an `Explore` button. The main content area lists the API endpoints for `AbcApi`, organized into sections: `Conference`, `Sessions`, and `Speakers`. Each section has `Show/Hide`, `List Operations`, and `Expand Operations` links. The `Speakers` section is expanded, showing a list of endpoints with their respective HTTP methods: `GET /api/SpeakersByName/{searchTerm}`, `GET /api/Speakers`, `POST /api/Speakers`, `DELETE /api/Speakers/{id}`, `GET /api/Speakers/{id}`, `PATCH /api/Speakers/{id}`, and `PUT /api/Speakers/{id}`. At the bottom, the status bar indicates `[ BASE URL: , API VERSION: v1 ]`.

# API Client



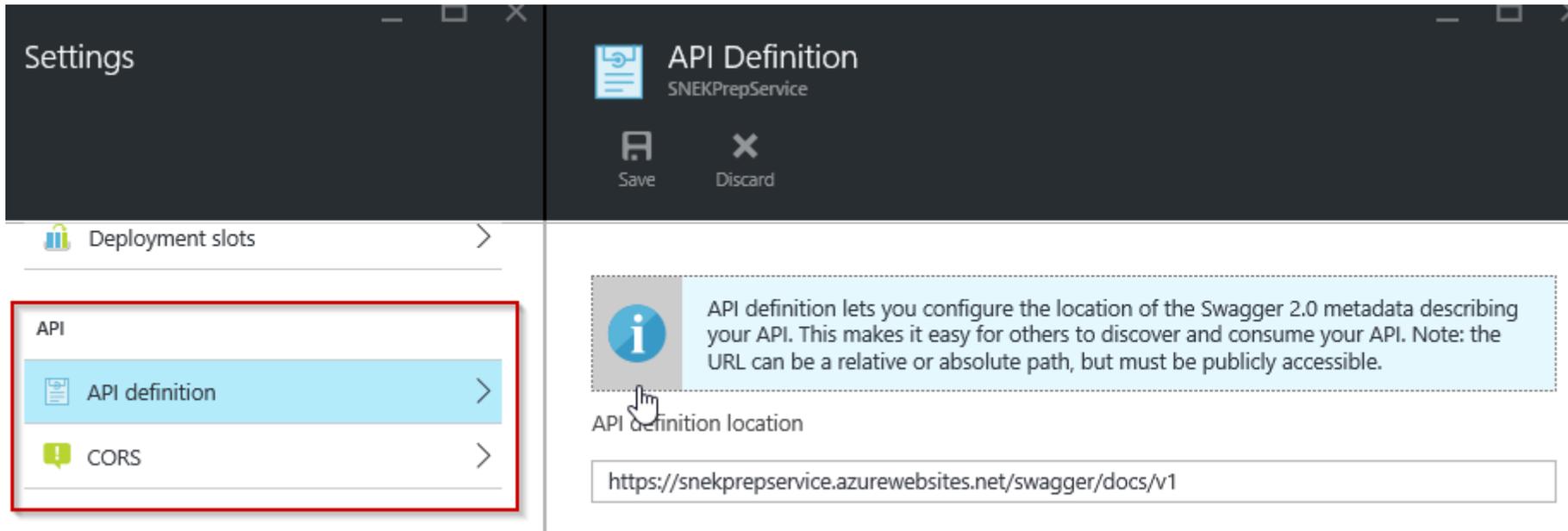
# API Apps

The image shows two overlapping windows from Visual Studio. The background window is titled "New ASP.NET Project - WebApplication2" and displays a "Select a template:" dialog. It is divided into two sections: "ASP.NET 4.6.1 Templates" and "ASP.NET 5 Templates". Under "ASP.NET 4.6.1 Templates", there are icons for "Empty", "Web Forms", "MVC", and "Web API". Under "ASP.NET 5 Templates", there are icons for "Empty", "Web API", and "Web Application". Below the templates, there are checkboxes for "Add folders and core references for:" with "Web Forms", "MVC", and "Web API" (checked). There is also an "Add unit tests" checkbox and a "Test project name:" field containing "WebApplication2.Tests".

The foreground window is titled "Create App Service" and features the Azure logo and the text "Host your web and mobile applications, REST APIs, and more in Azure". It shows a Microsoft account "thomas@mutzl.com". The "Hosting" tab is selected, and the "Services" section is active. The "API App Name" field contains "Snek16Api". The "Subscription" is set to "Azure Pass". The "Resource Group" is "WestEurope" with a "New..." button. The "App Service Plan" is "DemoAppServicePlan" with a "New..." button. A summary section states: "Clicking the Create button will create the following Azure resources" and lists "App Service - Snek16Api". A note at the bottom says: "If you have removed your spending limit or you are using Pay as You Go, there may be monetary impact if you provision additional resources." with a "Learn More" link. At the bottom of the dialog are "Export...", "Create", and "Cancel" buttons.

# API Apps – Einstellungen im Portal

- API Definition -> Pfad zur Swaggerdefinition
- CORS -> \*



The screenshot shows the 'Settings' window for an API Definition in the Azure Portal. The left sidebar is titled 'Settings' and contains a list of configuration options: 'Deployment slots', 'API', and 'CORS'. The 'API' section is expanded, showing 'API definition' and 'CORS'. The 'API definition' option is highlighted in blue. The main content area is titled 'API Definition' for 'SNEKPrepService' and includes 'Save' and 'Discard' buttons. A blue information box explains that the API definition configures the location of the Swagger 2.0 metadata. Below this, the 'API definition location' is set to `https://snekprepservice.azurewebsites.net/swagger/docs/v1`.

Settings

API Definition  
SNEKPrepService

Save Discard

Deployment slots

API

API definition

CORS

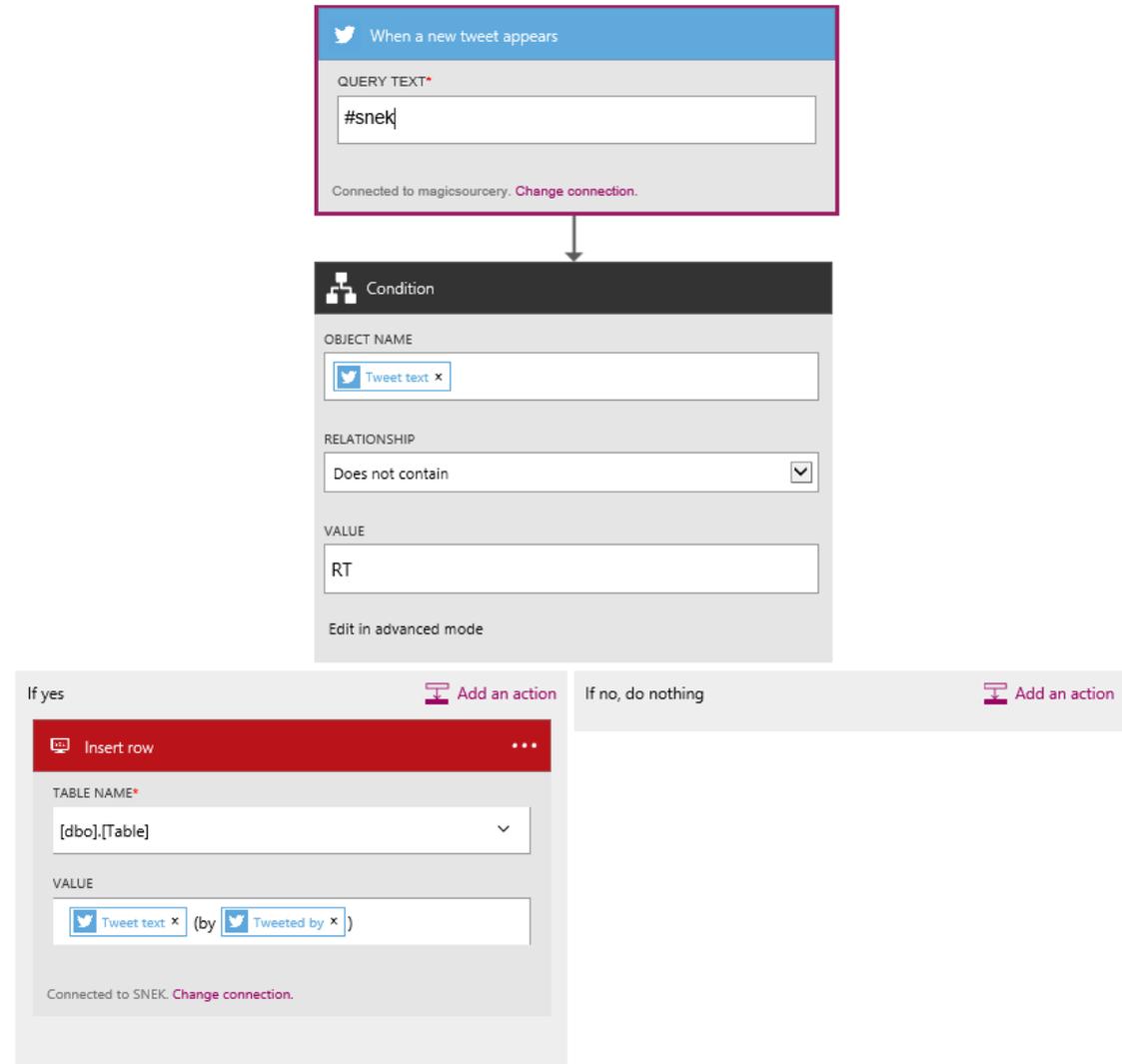
API definition lets you configure the location of the Swagger 2.0 metadata describing your API. This makes it easy for others to discover and consume your API. Note: the URL can be a relative or absolute path, but must be publicly accessible.

API definition location

`https://snekprepservice.azurewebsites.net/swagger/docs/v1`

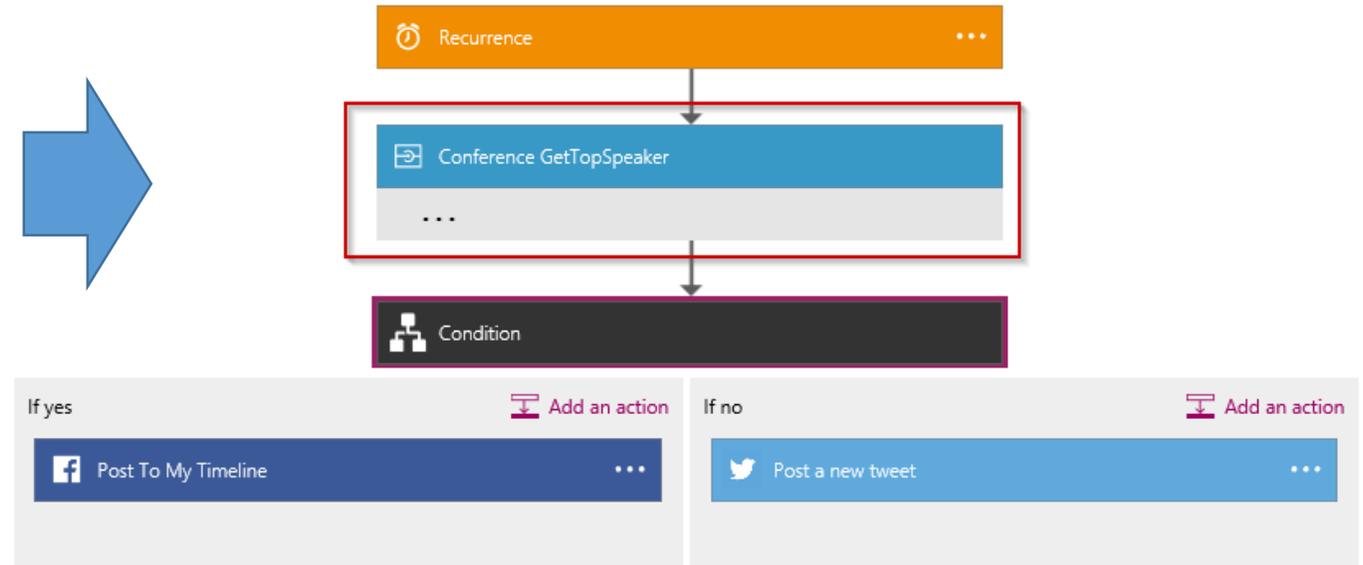
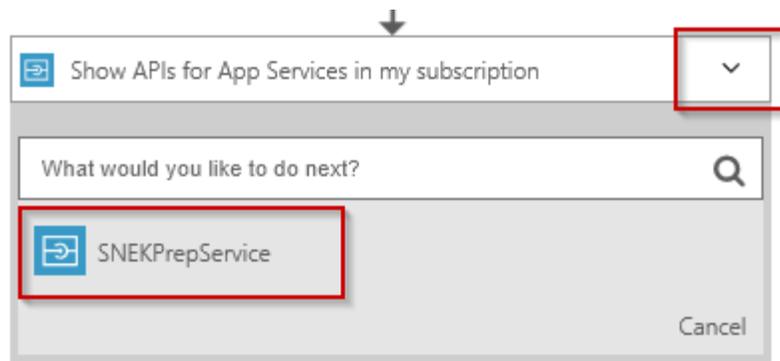
# Logic Apps

- Workflows in der Cloud
- Trigger und Connectoren
- Monitoring out-of-the-box



# Logic Apps

- Können auch mit eigenen API Apps kombiniert werden
- Metadaten für Designer -> TRex



# Kommende Features

- Parallele Aktionen im Designer
- Auto discovery von Logic Apps
- Flow Monitoring
- Bessere Trigger Infos im Designer
- Mehrere Trigger im Designer
- Designer Unterstützung von WebHooks
- Noch mehr managed APIs