Google Cloud

Edge API Lifecycle and Tools

API Design & Documentation using OpenAPI

Open API Initiative

What?

Open governance structure under the Linux Foundation focused on standardizing how REST APIs are described

Who?

3scale, Apiary, **Apigee**, Atlassian, CapitalOne, Cloud Elements, **Google**, Hart, IBM, Isa, Mashape, Microsoft, Paypal, Restlet, Artik Cloud, SmartBear, Tyk.io

How?

This vendor agnostic API description format is based in the OpenAPI specification donated by SmartBear.

OpenAPI Specification (OAS)

Open source framework backed by a large ecosystem of tools helping design, build, document, and consume RESTful APIs.

Design

Design APIs in an editor visually rendering the definition with real time feedback and error handling.

Build

Quickly build APIs turning a OpenAPI definition into code (server stubs, client libraries). Over 40 languages supported.

Document

Generate interactive documentation allowing end consumers to easily use the API.

OpenAPI Specification (OAS)

General information about the API

Available paths (/resources)

Available operations on each path (get / resources)

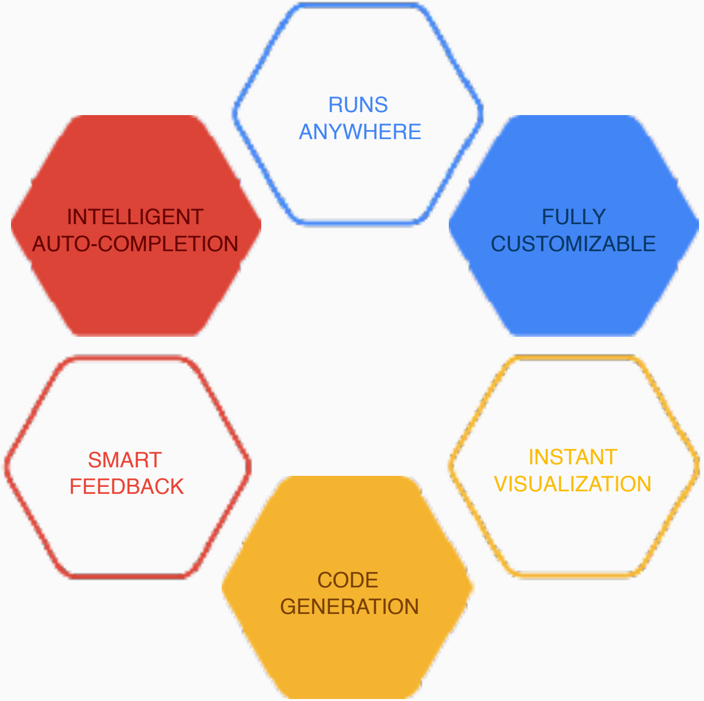
Input/Output for each operation

OpenAPI Specification (OAS)

```yaml
---
swagger: '2.0'
info:
  version: 1.0.0
  title: Echo
  description: |
    #Echos back every URL, method, parameter and header
schemes:
  - http
host: mazimi-prod.apigee.net
basePath: /echo
paths:
  /:
    get:
      responses:
        200:
          description: Echo GET
    post:
      responses:
        200:
          description: Echo POST
      parameters:
        - name: name
          in: formData
          description: name
          type: string
        - name: year
          in: formData
          description: year
          type: string
```

Editor

http://editor.swagger.io/



RUNS ANYWHERE

INTELLIGENT AUTO-COMPLETION

FULLY CUSTOMIZABLE

SMART FEEDBACK

INSTANT VISUALIZATION

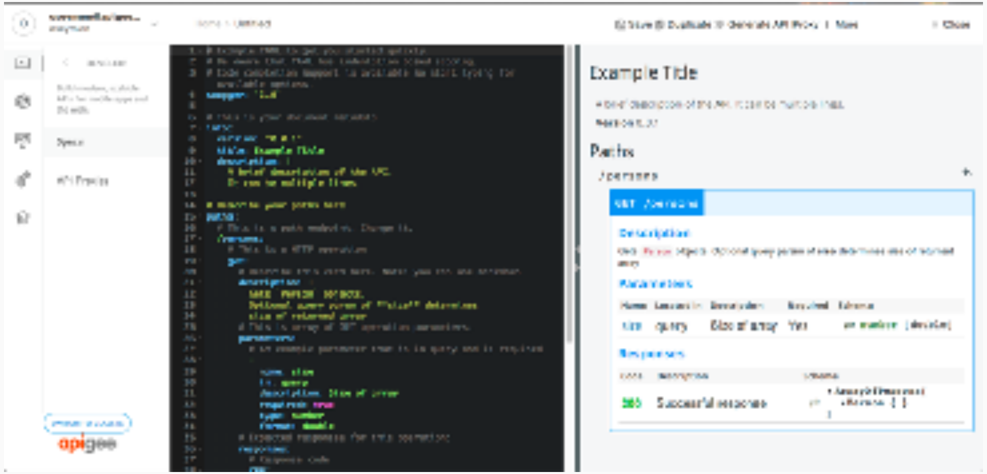
CODE GENERATION

Edge Specs

Embedded OAS editor

Specs Management

Generate new API Proxies



Smartdocs

SmartDocs lets you document APIs on the Developer Portal so the API documentation is fully interactive, meaning that users can:

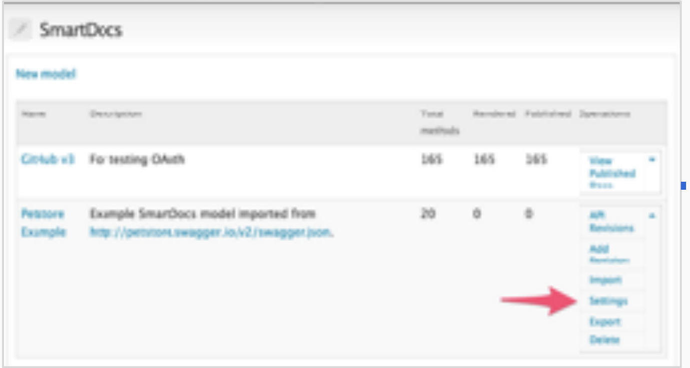
- Read about your APIs
- Send a live request to your API
- View a live response returned from the API

The general steps that you follow to use SmartDocs are:

- **Configure** the Drupal SmartDocs module on the portal.
- **Create** a SmartDocs model.
- **Add** APIs to the model from a WADL file, OpenAPI specification, or manually.
- **Render** the model as a collection of Drupal nodes.
- **Publish** the Drupal nodes. Once published, your developer portal users can view and interact with your API.
- **Enable TLS**. SmartDocs can send authentication credentials to the backend as part of making a request to the APIs. This way we ensure that those credentials are secure.

Smartdocs

Model Creation and OAS Import



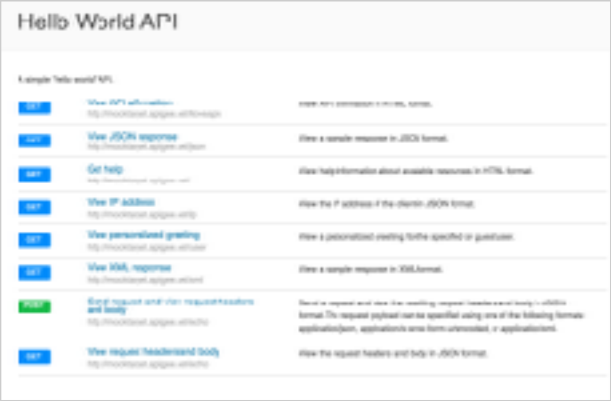
SmartDocs

New model

Name	Description	Total methods	Rendered	Published	Operations
Github v3	For testing OAuth	165	165	165	View Published docs
Petstore Example	Example SmartDocs model imported from http://petstore.swagger.io/v2/swagger.json.	20	0	0	API Revisions Add Revision Import Settings Export Delete

Develope
r Portal

Rendered API Documentation

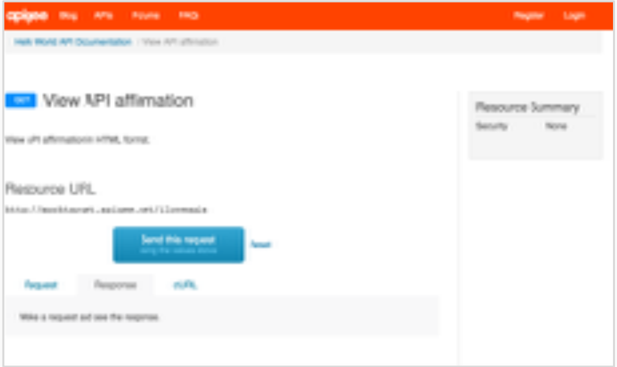


Hello World API

A simple 'hello world' API.

GET	View API affirmation http://mocktarget.apigee.net/iloveapis	View API affirmation in HTML format.
GET	View JSON response http://mocktarget.apigee.net/json	View a sample response in JSON format.
GET	Get help http://mocktarget.apigee.net	View help information about available resources in HTML format.
GET	View IP address http://mocktarget.apigee.net/ip	View the IP address of the client in JSON format.
GET	View personalized greeting http://mocktarget.apigee.net/user	View a personalized greeting for the specified or guest user.
GET	View XML response http://mocktarget.apigee.net/xml	View a sample response in XML format.
POST	Send request and view request headers and body http://mocktarget.apigee.net/echo	Send a request and view the resulting request headers and body in JSON format. The request payload can be specified using one of the following formats: application/json, application/x-www-form-urlencoded, or application/xml.
GET	View request headers and body http://mocktarget.apigee.net/echo	View the request headers and body in JSON format.

Interactive



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Hello World API Documentation / View API affirmation

GET View API affirmation

View API affirmation in HTML format.

Resource URL

http://mocktarget.apigee.net/iloveapis

Send this request using the values above

Reset

Request Response cURL

Make a request and see the response.

Resource Summary

Security None

SmartDocs

Manage SmartDocs using Management API

https://github.com/dzuluaga/apigee-tutorials/tree/master/apiproxies/sample-api-smartdocs

Publish to Developer Portal via API

https://community.apigee.com/articles/30739/apis-for-publishing-smartdocs-on-developer-portal.html

THANK YOU