

Pivotal + Apigee Workshop

Paris, June 4th 2019

Google Cloud

Pivotal

Welcome!



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Agenda

1. Current state of Cloud and APIs [15 min]

2. Why Pivotal Cloud Foundry (PCF)? [15 min]

3. Why PCF with Apigee? [45 min]

4. Integration Options [30 min]

5. Q&A [15 min]

6. Pause [15 min]

7. Hands-on Lab [60 min]

Current state of Cloud and APIs



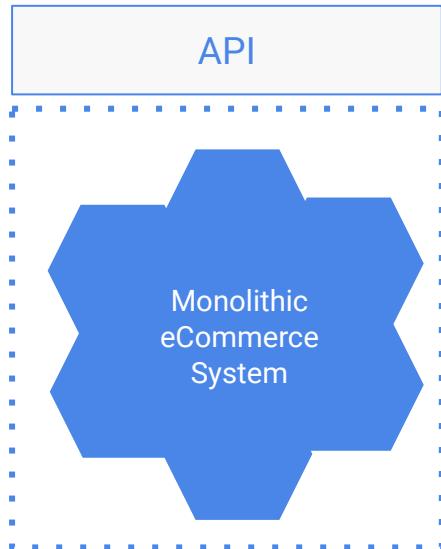
**Why
APIs?**

Because APIs
Fuel Innovation

Google Cloud

Pivotal

APIs and Microservices are complementary



Rely on APIs to grow your business



Buy More
print photos in
store



Alert
prescription refill ready

Walgreens



Rewards
earn on checkout



Schedule
flu shot in clinic

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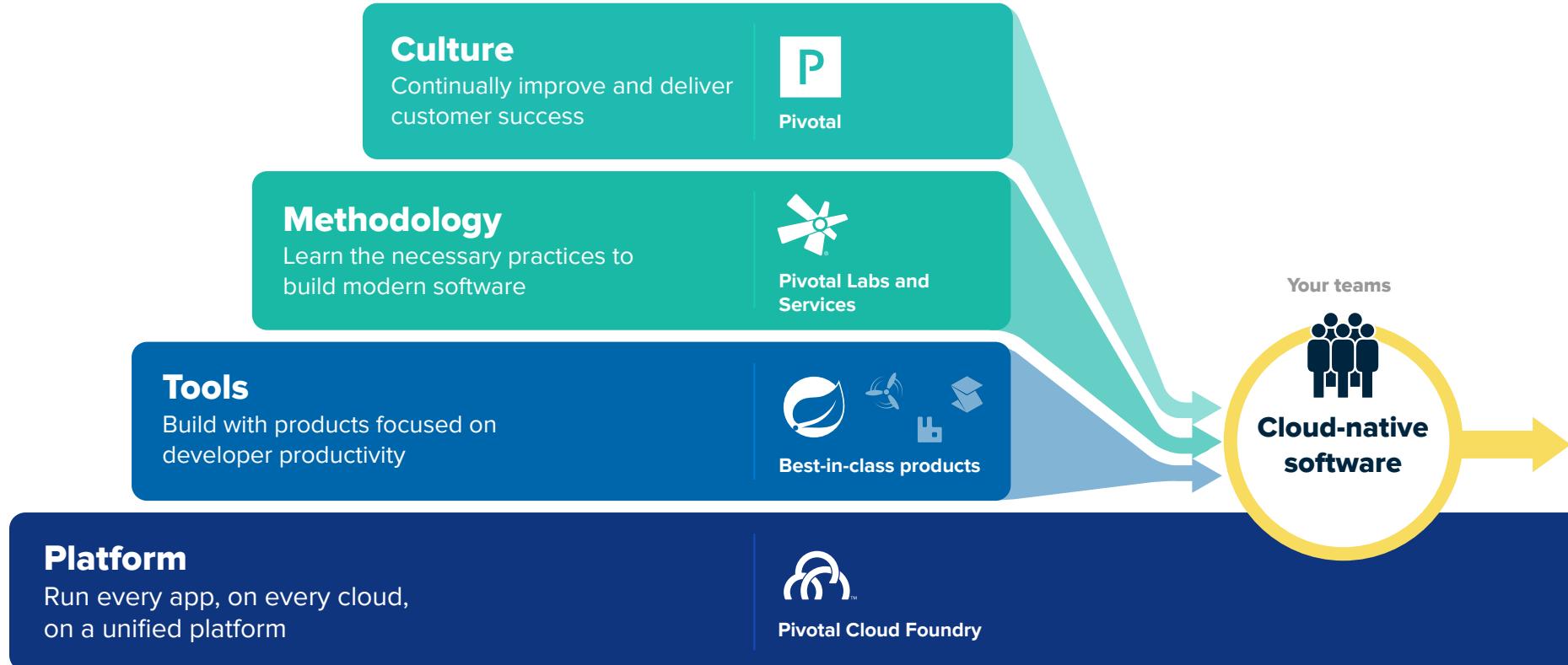
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Why Pivotal Cloud Foundry (PCF)?

Pivotal's partnership approach to software is holistic



What is Pivotal Cloud Foundry?



Pivotal Cloud Foundry is a unified cloud-native platform.

Run modern apps



Run containerized workloads



Run scale-to-0 functions



Ecosystem of Pivotal and partner services



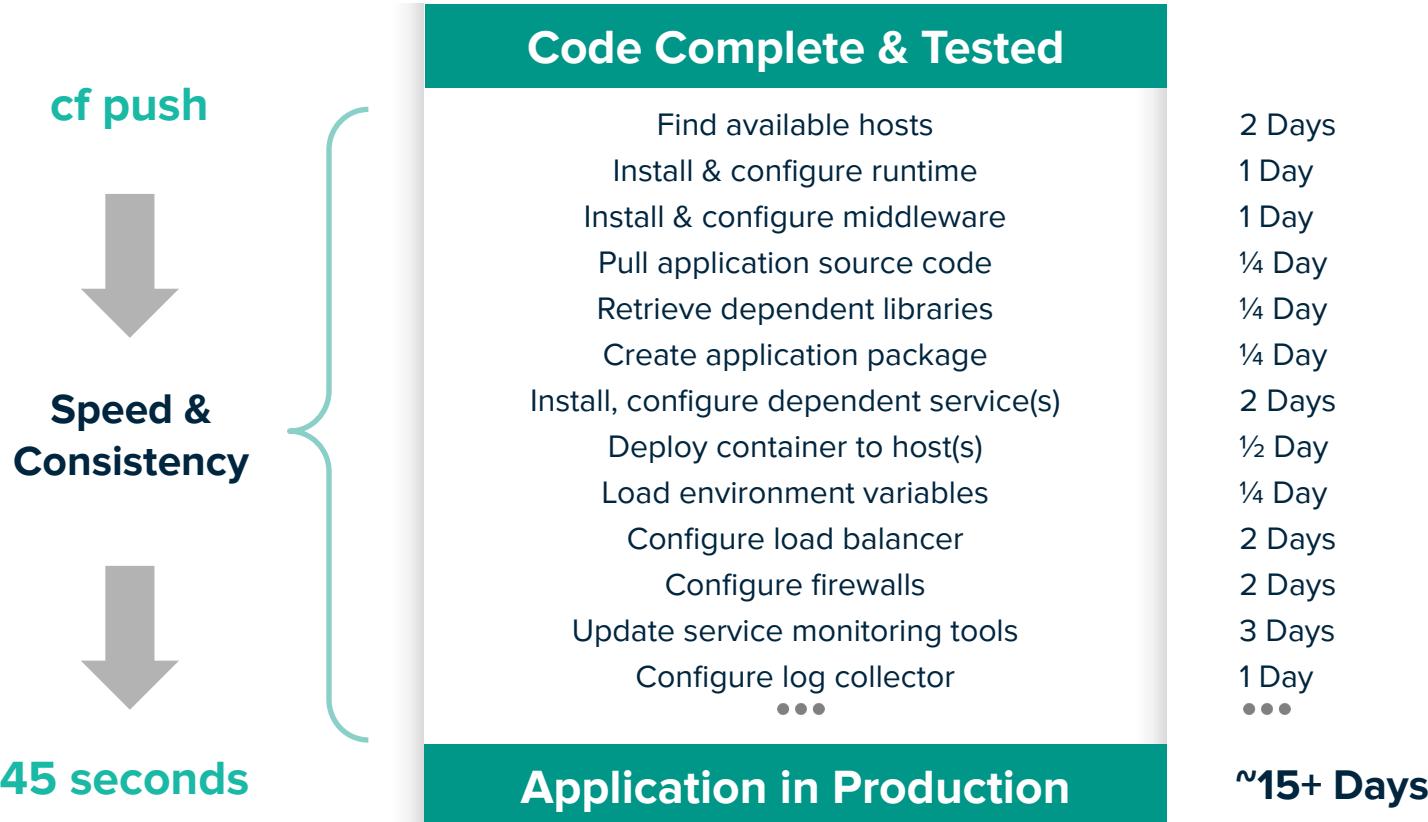
Platform security

Innovative engineering of **extensive automation** and **go-fast-to-stay-safe** approach

Multi-cloud



No More Tickets — Self-Service Provision and Deploy



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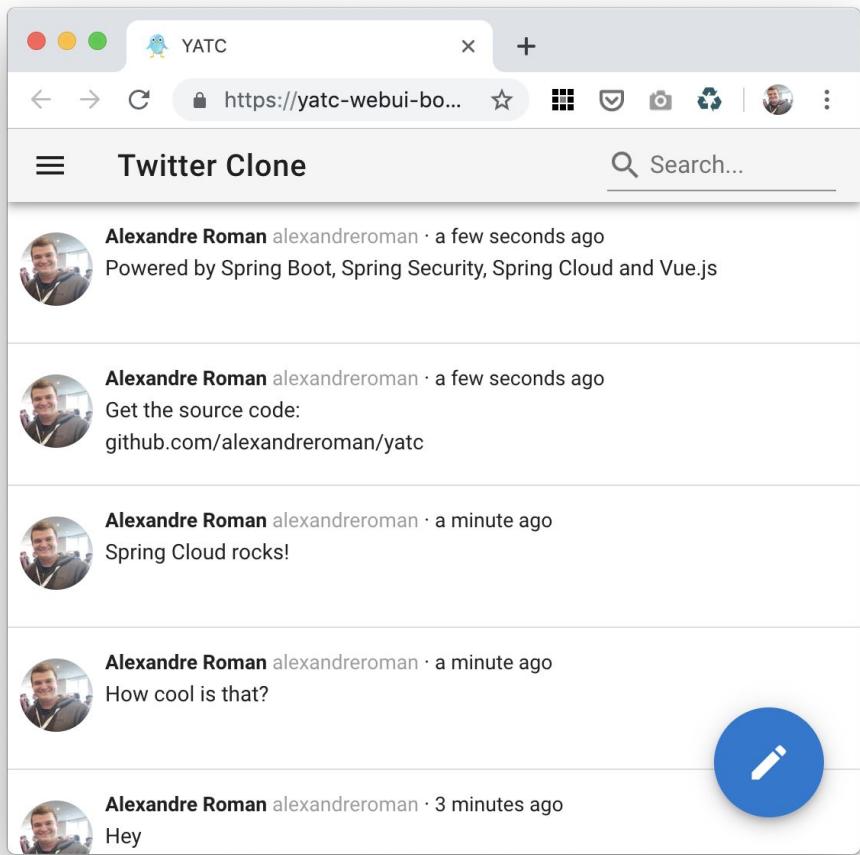
Why PCF with Apigee ?

Step 1 - I have an idea...

Let's write a micro-blogging site!

Yet Another Twitter Clone

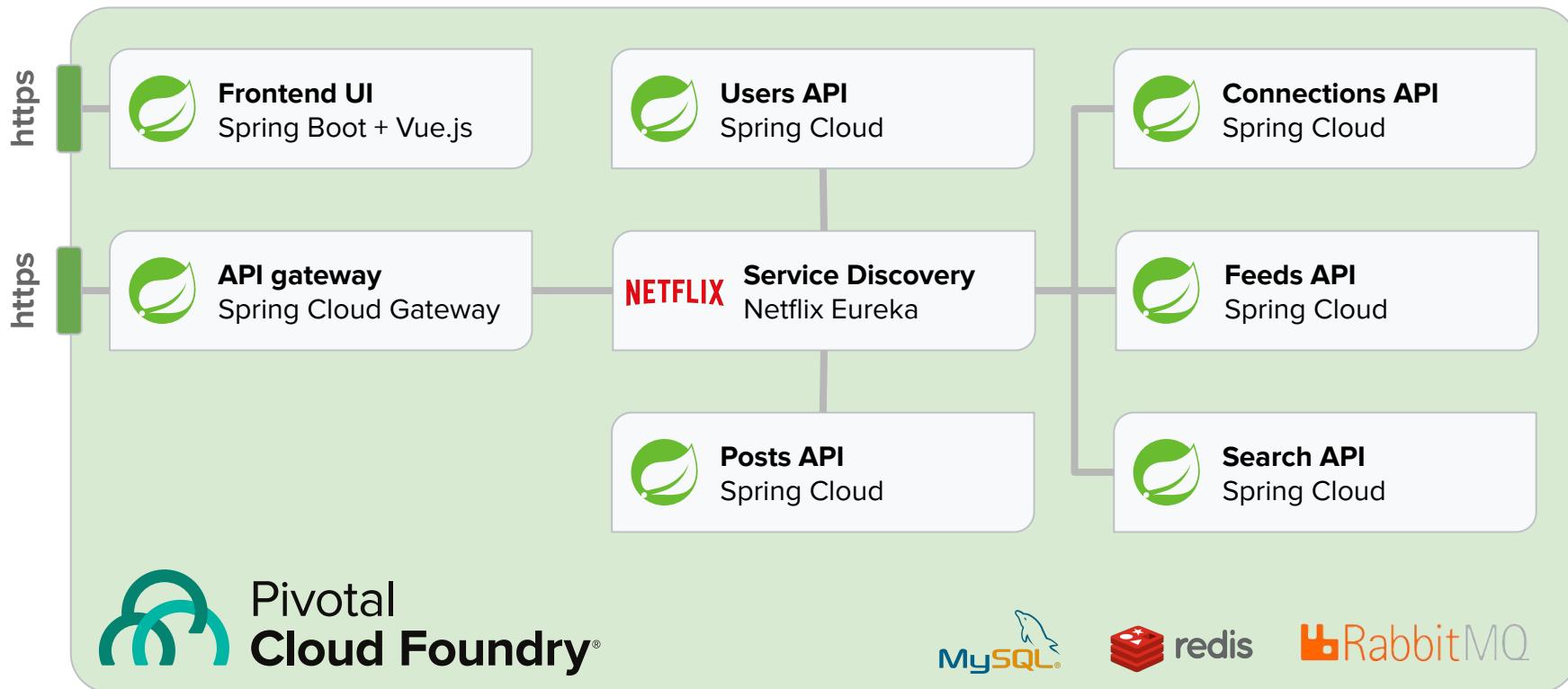
The app is live:
yatc.cfapps.io



A screenshot of a web browser window titled "YATC". The address bar shows the URL <https://yatc-webui-bo...>. The main content area is titled "Twitter Clone". It displays five tweets from a user named "Alexandre Roman" (alexandreroman). Each tweet was posted "a few seconds ago". The tweets are as follows:

- Powered by Spring Boot, Spring Security, Spring Cloud and Vue.js
- Get the source code:
github.com/alexandreroman/yatc
- Spring Cloud rocks!
- How cool is that?
- Hey

A blue circular button with a white pen icon is located on the right side of the screen.



Pivotal
Cloud Foundry®



Google Cloud

Pivotal

Step 2 - My app is live & at scale

My app becomes famous: new users start using it every day

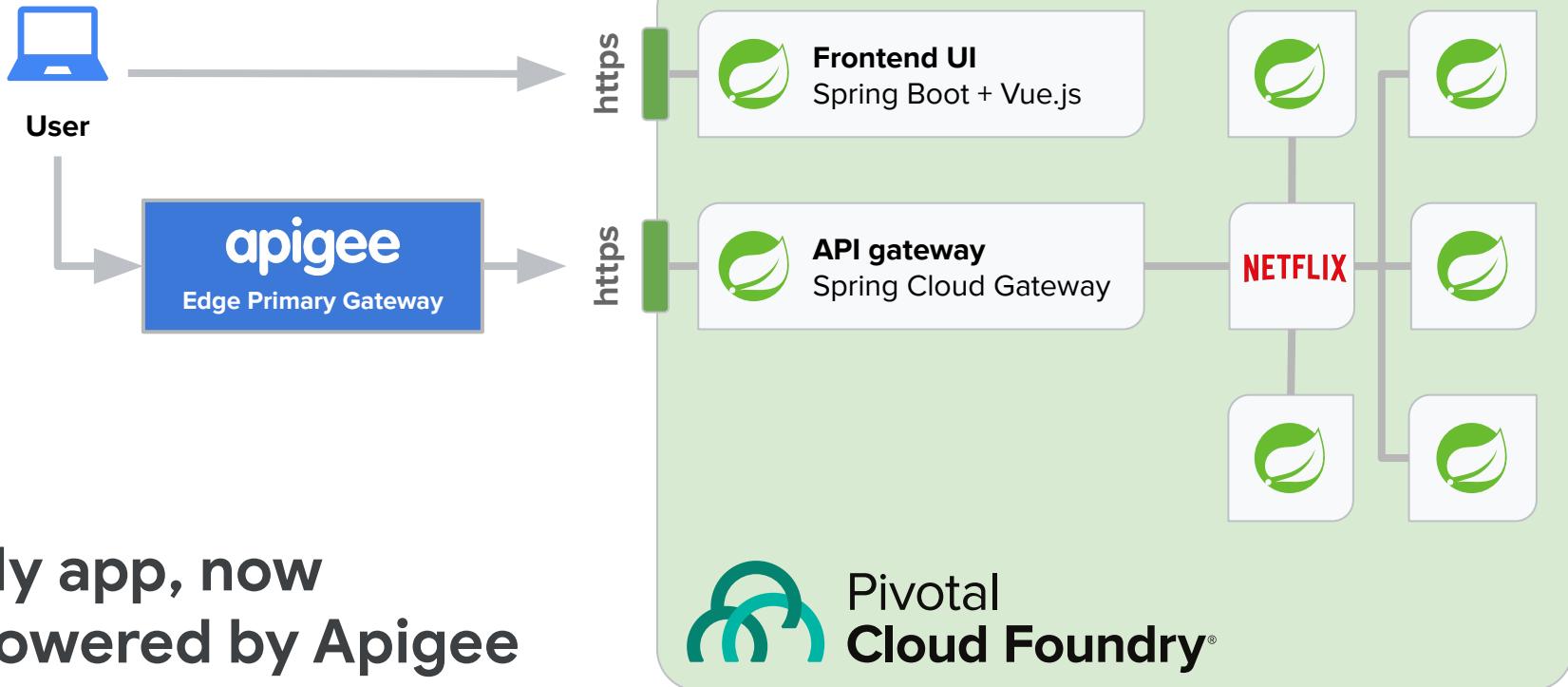
How can we handle more traffic coming to our API endpoint?

I want to open my app to partners

We'll soon have to tackle new challenges: API access, API documentation, API usage, monetization

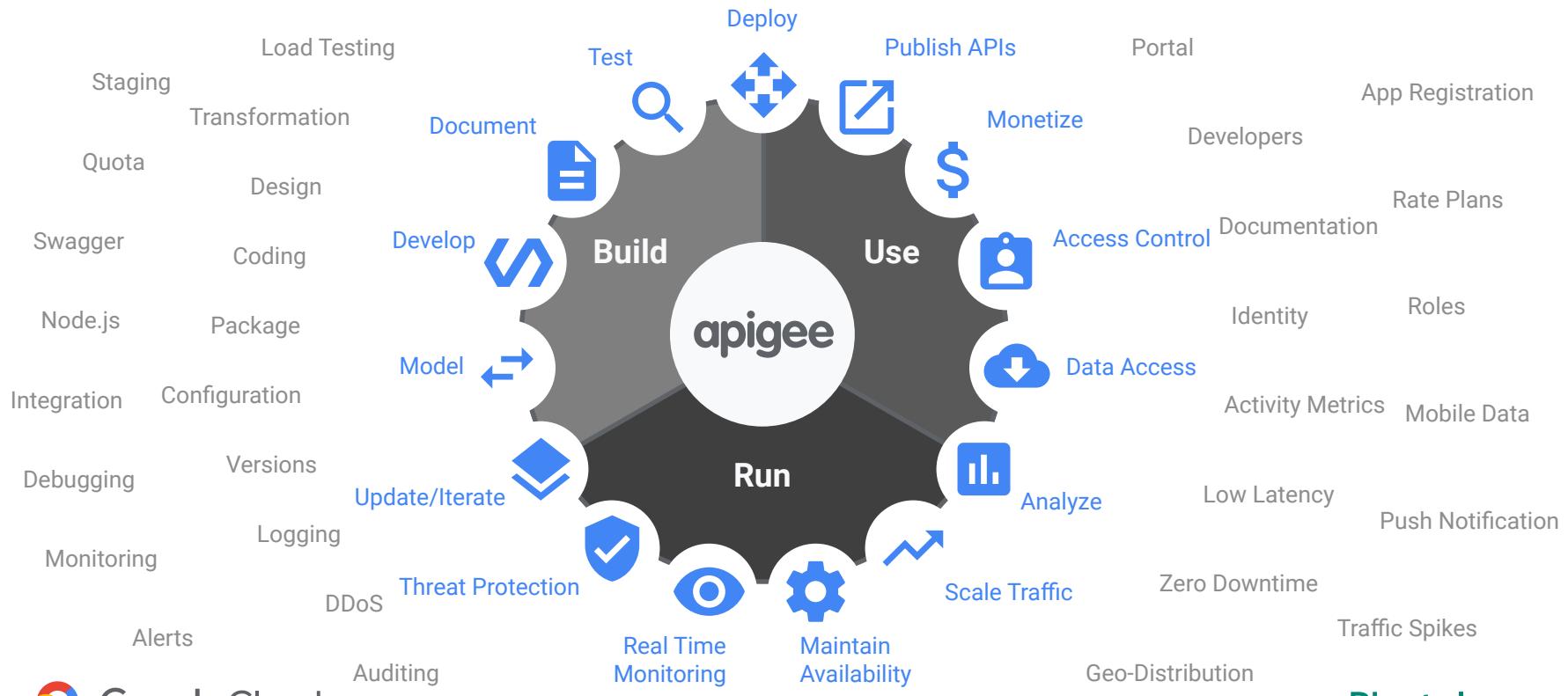
I could build my own API management tool...

But can we have a better solution, so that we can focus on writing OUR app instead?



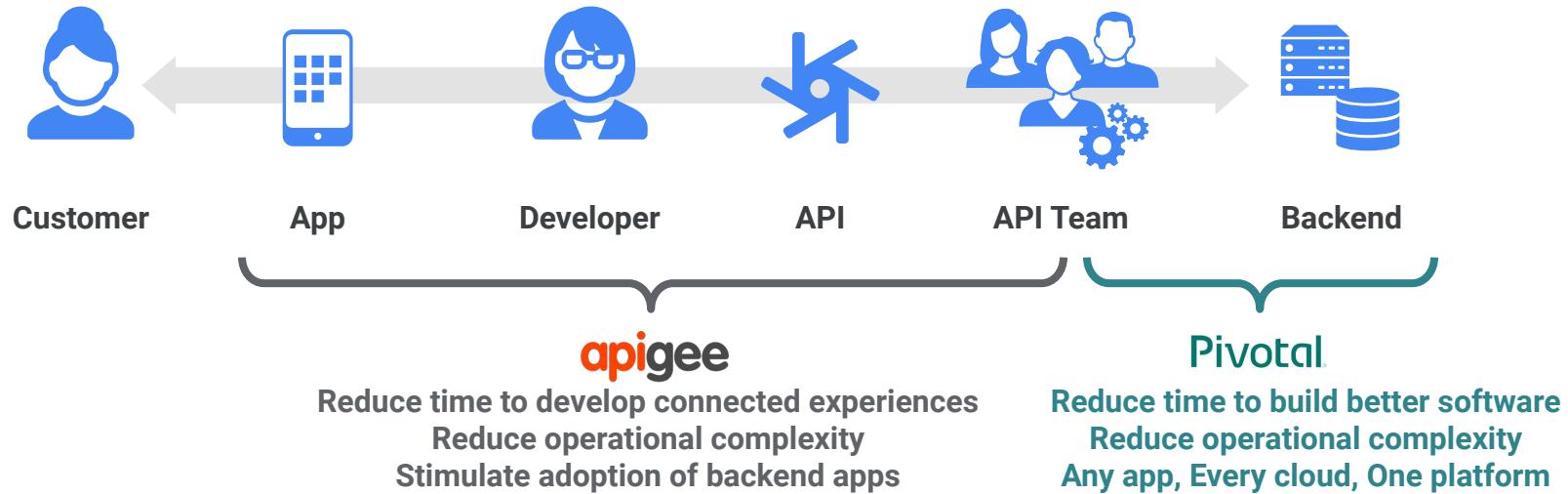
My app, now
powered by Apigee

It's about the full API Lifecycle



Why?

Together, we accelerate modern app development and simplify operations processes



Apigee API Management Platform

Artificial Intelligence

Developer Ecosystem



API Catalog



Client/SDK



API Products



API Monetization



API Marketplace

API Analytics



Developer Engagement Metrics



Business Metrics



Operational Metrics



API Program Metrics



API Monitoring

Mediation Engine



Security



Transformation



Extensions



Orchestration



API Abuse Prevention

API Runtime



Enterprise Gateway



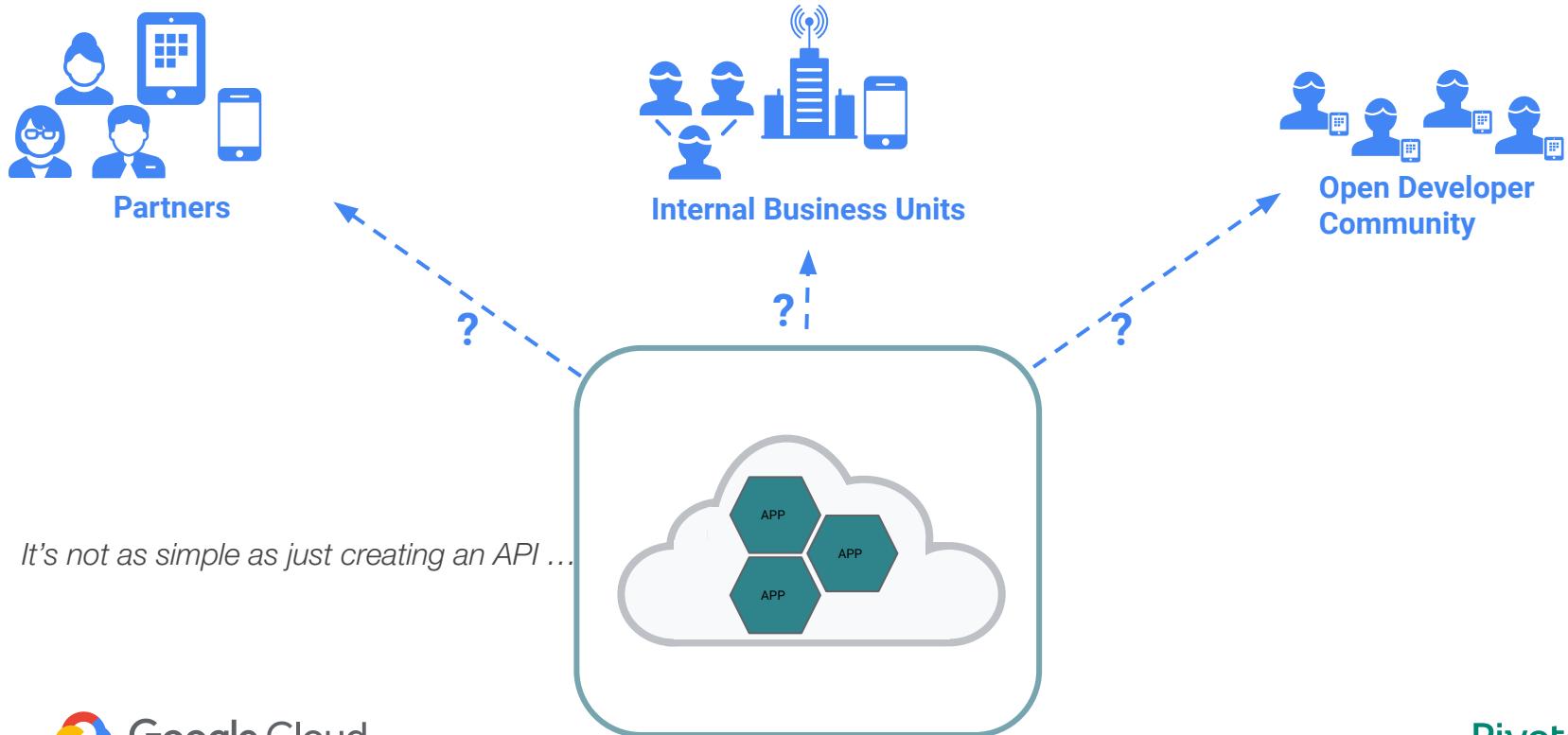
Istio



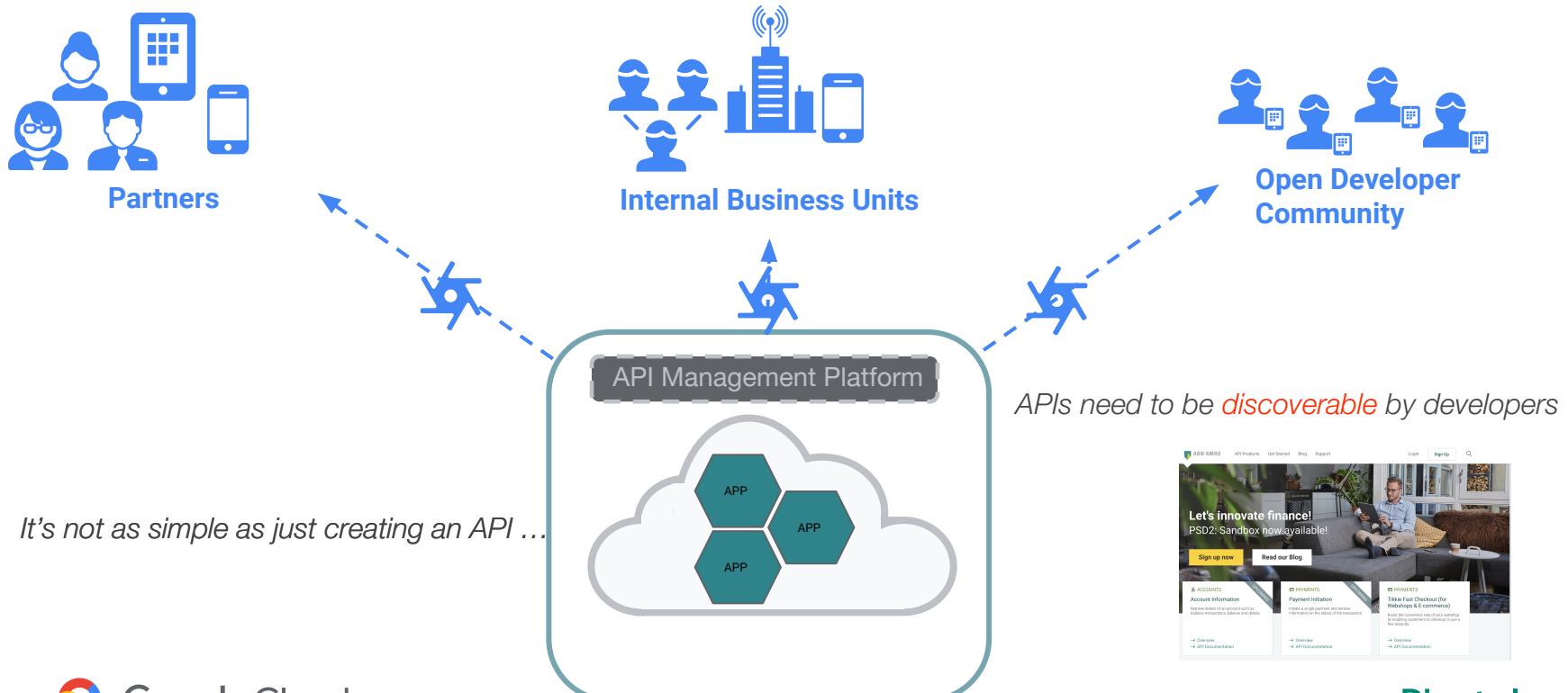
Google Cloud

Pivotal

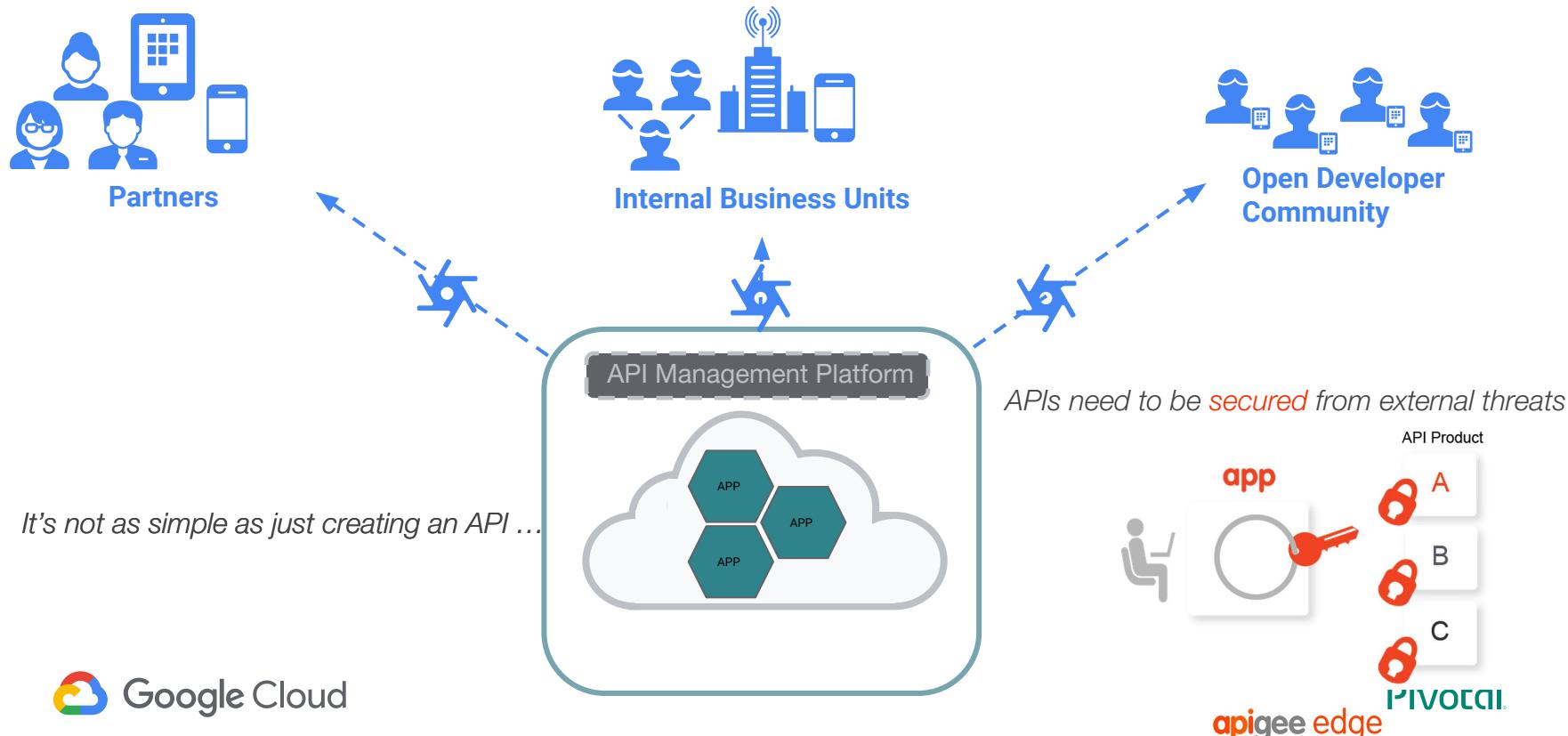
So, how do you share your PCF app with other developers?



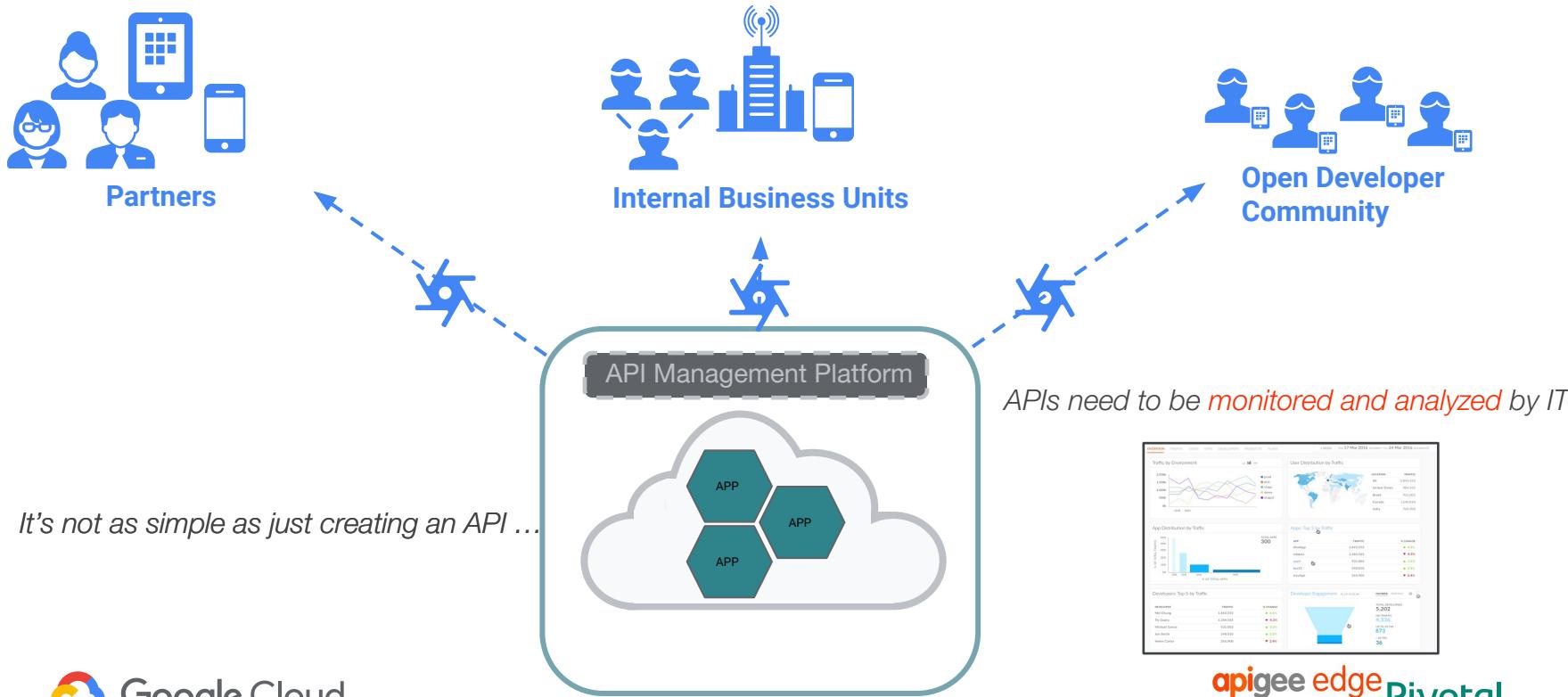
Discoverability with Dev Portal



Security with Edge Policies and Extensions



API Analytics End-to-End



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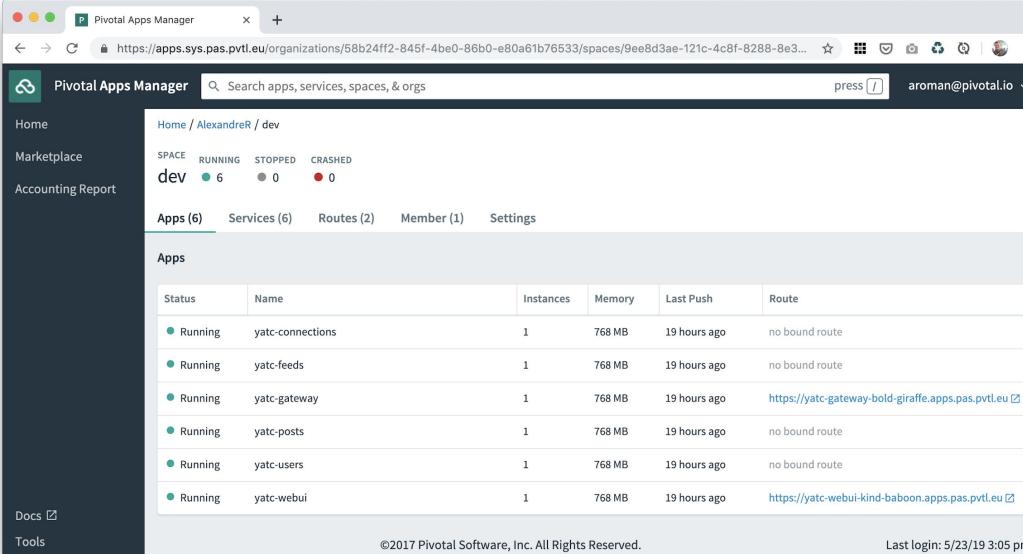
6. Pause [15 min]

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Integration Options

Option 1: Spring Cloud Gateway

Already done that: backend APIs served by Spring Cloud Gateway



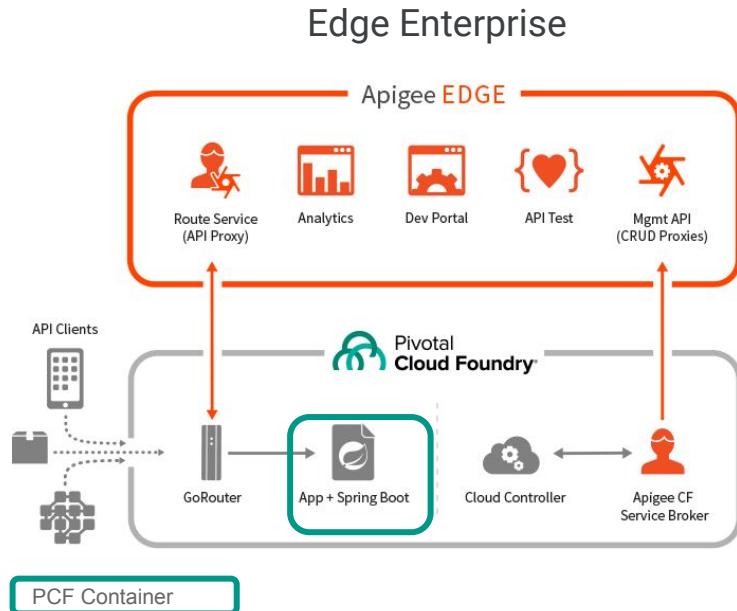
The screenshot shows the Pivotal Apps Manager interface. At the top, there's a navigation bar with links for Home, Marketplace, and Accounting Report. The main area displays a summary for the 'dev' space, showing 6 running instances, 0 stopped, and 0 crashed. Below this, a table lists six applications under the 'Apps' tab:

Status	Name	Instances	Memory	Last Push	Route
Running	yatc-connections	1	768 MB	19 hours ago	no bound route
Running	yatc-feeds	1	768 MB	19 hours ago	no bound route
Running	yatc-gateway	1	768 MB	19 hours ago	https://yatc-gateway-bold-giraffe.apps.pas.pvtl.eu
Running	yatc-posts	1	768 MB	19 hours ago	no bound route
Running	yatc-users	1	768 MB	19 hours ago	no bound route
Running	yatc-webui	1	768 MB	19 hours ago	https://yatc-webui-kind-baboon.apps.pas.pvtl.eu

At the bottom of the page, there are copyright and login information: ©2017 Pivotal Software, Inc. All Rights Reserved. Last login: 5/23/19 3:05 pm.

Option 2: Edge Enterprise “Org Plan”

Edge Enterprise “Org Plan” (Public or Private Cloud)



- Edge Proxy (Cloud or On-Premises)
- Enterprise Gateway (30+ OOTB & custom policies)
- Comprehensive & Tiered API Management
- Route Services / External or Internal Routing
- Traffic Management, Quota Enforcement, Security

When do I use Org Plan?

- Network latency is not a concern
- Complex API use cases
- You want Cloud Foundry to be the entry point into your network

ELB → Cloud Foundry Go Router → Edge

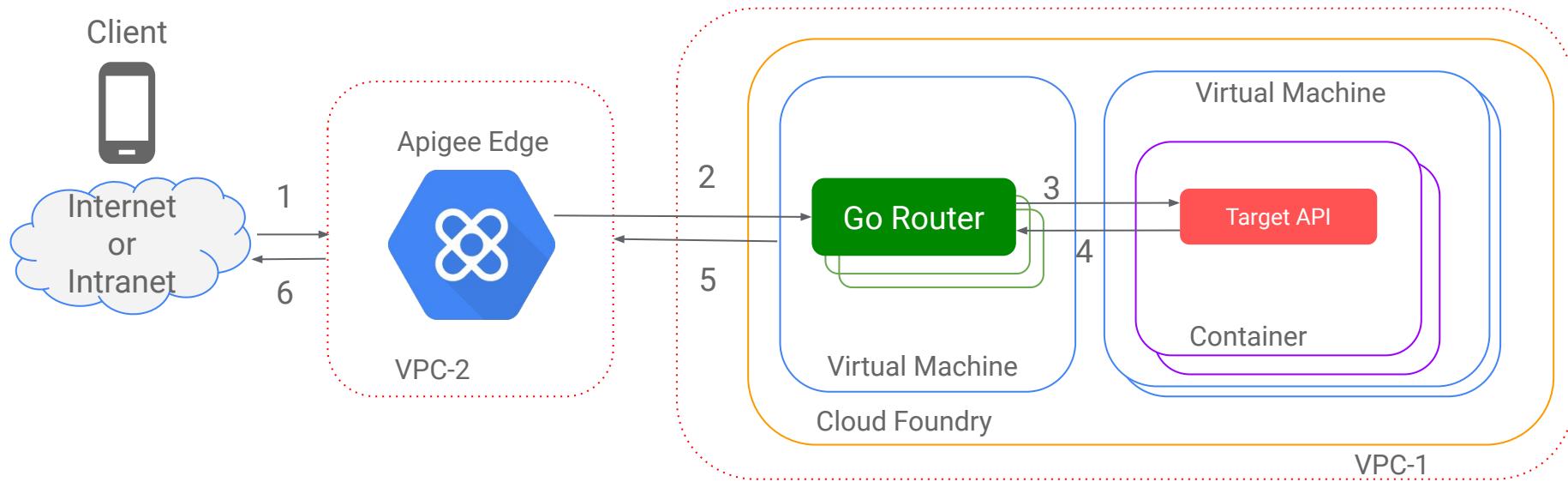
- Expose Cloud Foundry dynamic routes to clients

Option 3:

Apigee Edge Primary Gateway

“Just Another Target (JAT)”

Apigee Edge Primary Gateway



When do I use Apigee Edge as the Primary Gateway?

- If you only want a single point of ingress/egress
- If you only want to expose the Edge domain and hide Cloud Foundry domain
- Edge must be the first point of contact
- Network latency is not a concern
- Complex API use cases

Summary - How to decide?



Spring Cloud Gateway

First choice when creating API
Seamless integration with
Spring Framework



Edge Enterprise

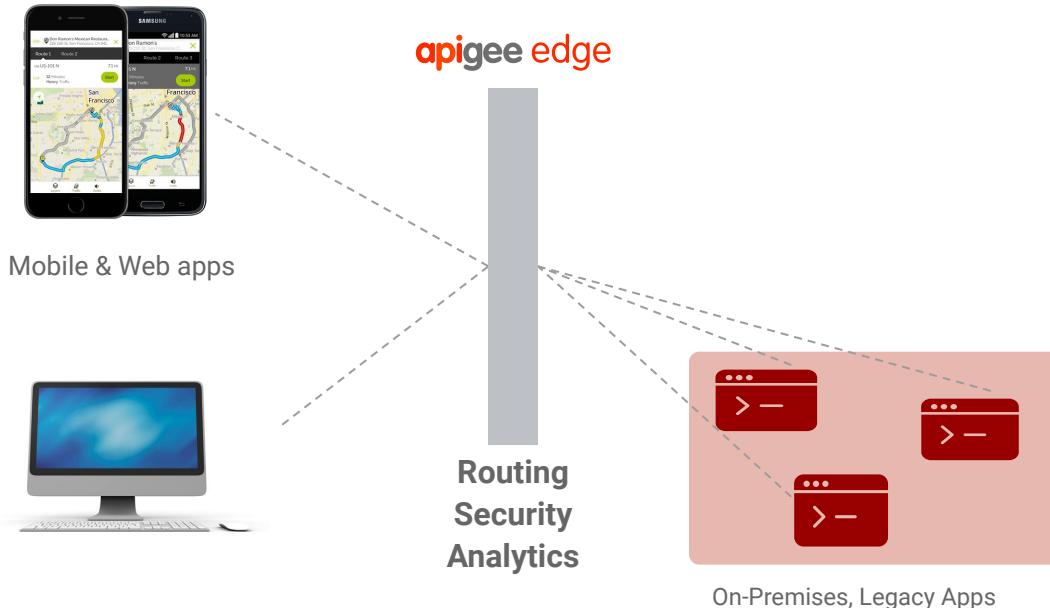
Need to use full Apigee platform
Traffic must be routed to PCF first



Edge Primary Gateway

Simplest architecture
Need quick deploy
Traffic hits Apigee first

Traditional Use Cases



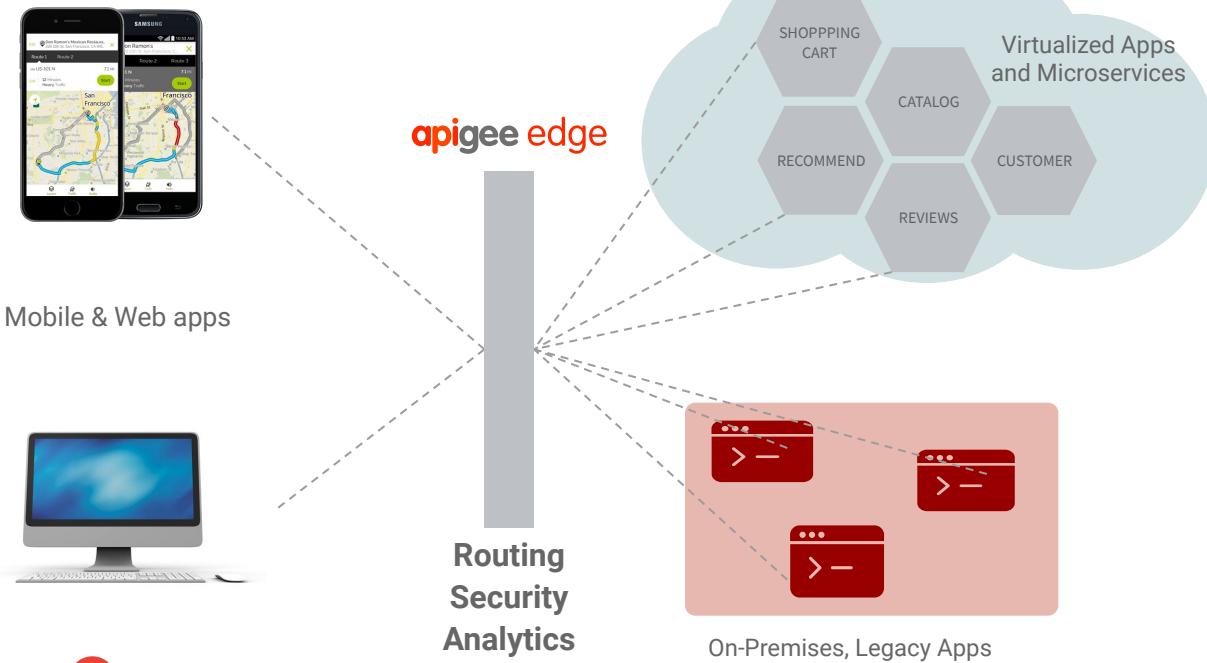
Expose APIs securely to internal developers of web and mobile apps

Transform APIs from multiple backends including inventory, commerce, and contact center systems

Offer APIs to business partners for T-Mobile Tuesday promotion



App Modernization



Insulate the modernization process
by using Apigee as an abstraction

Analyze the monolith by leveraging
Apigee's analytics capabilities

Route and monitor usage of both
legacy and modern services

Secure all services consistently from
cyber threats and traffic spikes

Pivotal

Innovation That Puts Customers First



2.5B

API transactions/quarter and growing

40%

increase in release velocity

10,000

transactions per second with
no performance degradation

30

cf pushes per day

73M customers

2x growth over the last 5 years

40,000+

containers

1,700

developers

<12

operators

How Pivotal can help you modernizing your apps?



Pivotal Labs and Services teach enterprises to accelerate their adoption of cloud, modern software practices, and organizational change.



Move your apps
[App Transformation](#)

Build better apps
[Pivotal Labs](#)

Operate your platform
[Pivotal Cloud Foundry Solutions](#)

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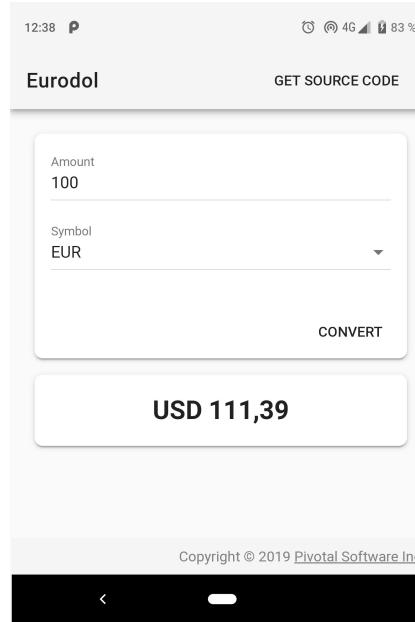
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Hands-on Lab

Labs and Assets

- Follow instructions from this GitHub repository:
<https://github.com/JoeGaucipcf-apigee>
- Push your first app to the Cloud in 15 min
- Connect this app to Apigee



Questions and feedback

Let's make it a conversation. Ask questions as you have them!

After the session, please feel free to contact us at apigee-partner@google.com and events-france@pivotal.io

We encourage you to visit these pages:

Apigee Homepage

cloud.google.com/apigee

Documentation

docs.apigee.com

Community

community.apigee.com

cloud.google.com/community

Resources

cloud.google.com/apigee/resources

Pivotal Cloud Foundry

pivotal.io/platform

Pivotal Web Services

run.pivotal.io

Getting started with PCF

pivotal.io/platform/pcf-tutorials/getting-started-with-pivotal-cloud-foundry

Getting started on Spring Cloud Gateway

spring.io/guides/gs/gateway

Join us at Pivotal Paris on 4th July

<https://connect.pivotal.io/PivotalParis19.html>

A photograph showing two women sitting at a desk in an office environment. They are both smiling and looking towards the right side of the frame. One woman has long dark hair and is wearing a light-colored top. The other woman has curly hair and is wearing a patterned top. There is a white mug on the desk in front of them.

Pivotal® Paris

4 Juillet 2019

The way the
future gets built

SpringOne Platform

Register Today and Save!

October 7–10, 2019
Austin Convention Center

A photograph of a man with glasses and a beard, wearing a dark shirt and a cap, speaking at a podium. In the background, several people are seated at tables, looking at laptops or papers. A large yellow speech bubble is overlaid on the image, containing promotional text.

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Discount Code
S1P200_EMEA