

ORACLE®

# API Management in 2026

ORACLE  
**OPEN**  
WORLD

September 18–22, 2016  
San Francisco

**Emmanuel Paraskakis**

VP of Product, Apiary.io

**Luis Weir**

Cloud Principal, Cap Gemini, U.K

**Yogesh Sontakke**

Director, Product Strategy

ORACLE®

Copyright © 2016, Oracle and/or its affiliates. All rights reserved. |

# Safe Harbor Statement

The following is intended to outline our general product direction. It is intended for information purposes only, and may not be incorporated into any contract. It is not a commitment to deliver any material, code, or functionality, and should not be relied upon in making purchasing decisions. The development, release, and timing of any features or functionality described for Oracle's products remains at the sole discretion of Oracle.

# Agenda

- 1 Introduction – Yogesh, Oracle
- 2 Evolution and Generations of API Management  
– Luis, Cap Gemini
- 3 API Workflow in 2026 - Emmanuel, Apiary.io

# Science Fiction or Reality?



# 2026 doesn't seem 10 years away anymore!



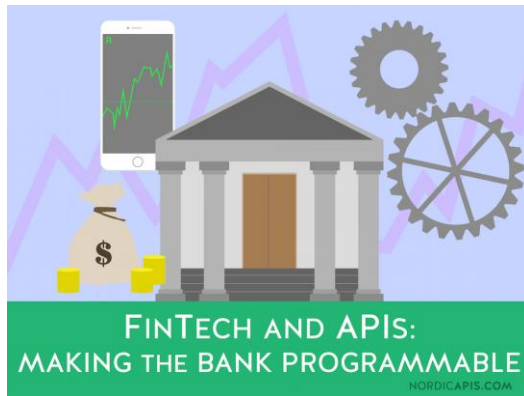
## Healthcare



## Transport



## Financial Services



## Retail



## Public Sector

### European Union Open Data Portal

Browse datasets by subject or groups



# Oracle API Platform Cloud Service

## Deliver APIs for your developers and business

### Agility with API “First”

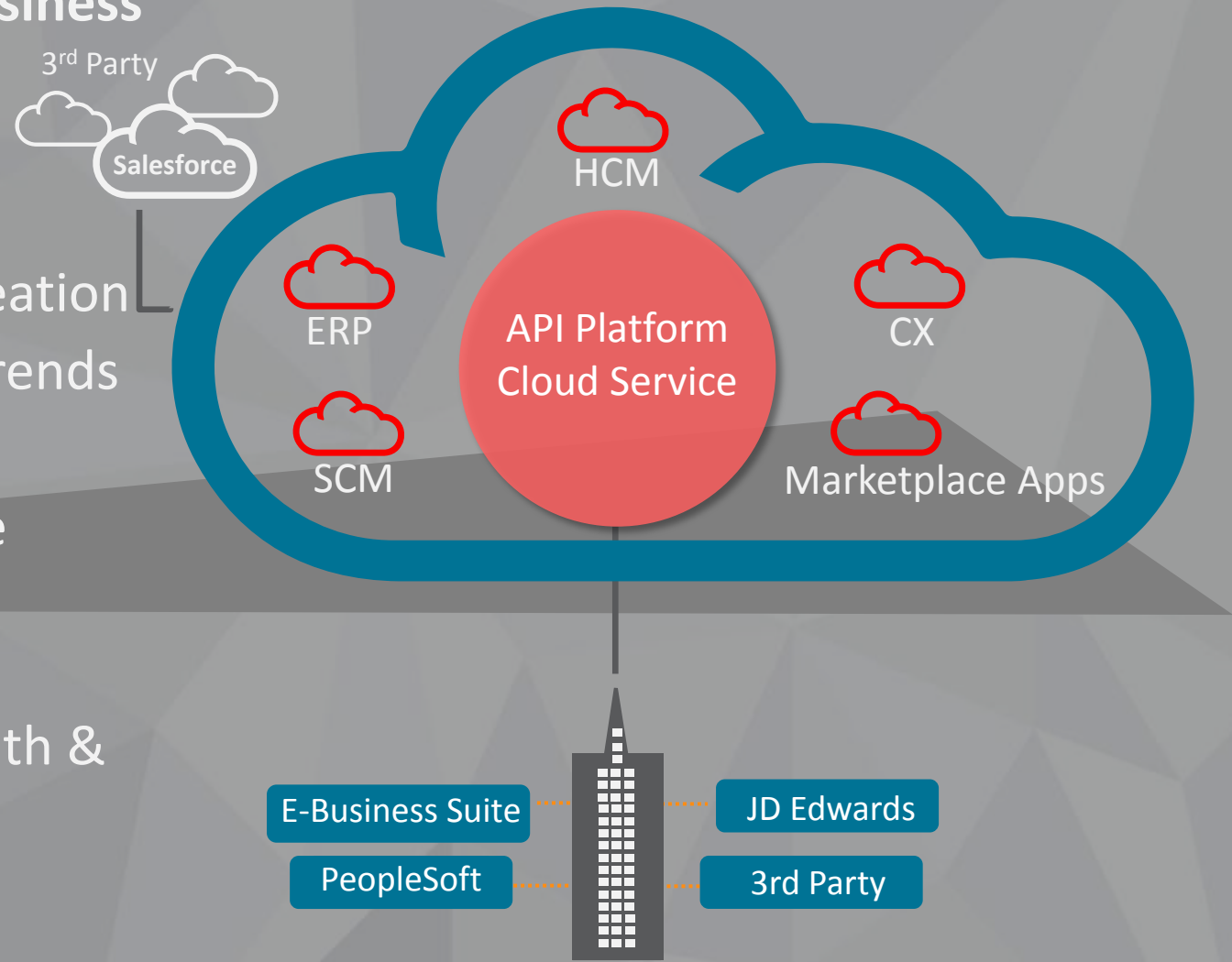
- Visual Policy Driven Secure API creation
- Rich Analytics expose important trends

### Innovate everywhere

- True Hybrid Platform, deploy once available everywhere

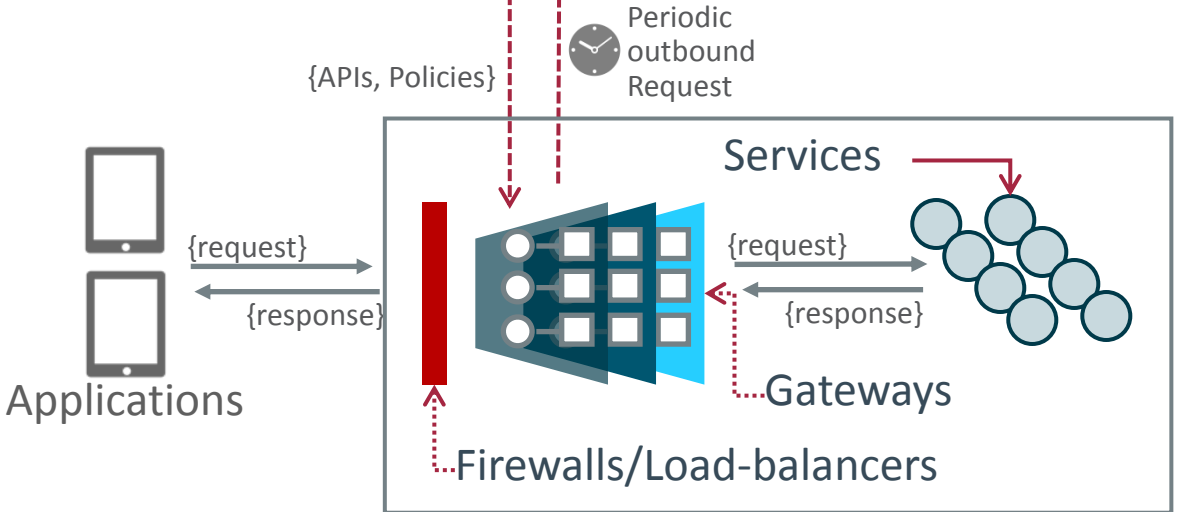
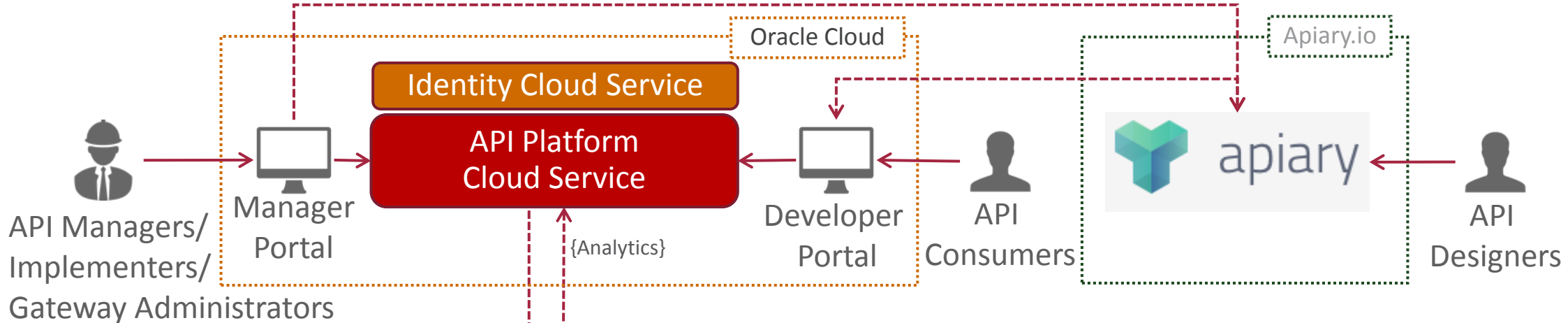
### Ensure Security

- Entitle users, and secure with Oauth & other pre-built industry standards

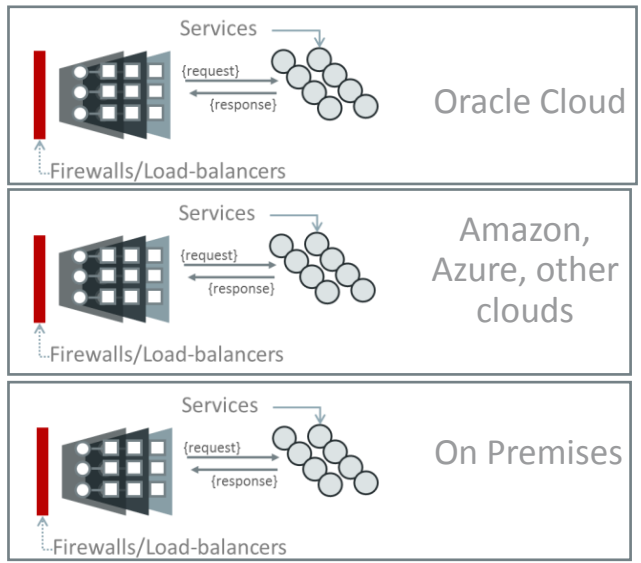


# Oracle API Platform Cloud Service

For 2016, 2026 and beyond!



Gateways can run anywhere....





**12,000+**

APIs exposed by firms just on  
a single open API website

**90%**

of **Expedia's** revenue is  
generated from APIs

**60%**

of **eBay's** revenue is  
generated from APIs

Source: Harvard Business Review - [Strategic Value of APIs](#)

# Agenda


- 1 Introduction – Yogesh, Oracle
- 2 **Evolution and Generations of API Management**  
– Luis, Cap Gemini
- 3 API Workflow in 2026 - Emmanuel, Apiary.io

 **Luis Weir**

[luis.weir@capgemini.com](mailto:luis.weir@capgemini.com)

 [uk.linkedin.com/in/lweir](https://uk.linkedin.com/in/lweir)

 [@luisw19](https://twitter.com/luisw19)

 [soa4u.co.uk/](http://soa4u.co.uk/)

# API Management in the Year 2026!

## Oracle OpenWorld

San Francisco | September 18-22, 2016

# Table of Contents

- 1 Introduction
- 2 The value of APIs
- 3 Evolution of API Management through generations
- 4 4th Generation API Management



# Introduction

# Resume



## Luis Weir

### Oracle Ace Director – Cloud Principal at Capgemini UK

I am an Oracle Ace Director, Cloud Principal and a Thought Leader specialised in Oracle Fusion Middleware & Oracle PaaS. With more than 15 years of experience implementing IT solutions across the globe, I have been exposed to a wide wide variety of business problems many of which I've helped solved by adopting SOA architectural styles such as traditional SOA, API management and now Microservices. My current focus is in assisting organisations define and implement solutions and strategies that can help them realise the benefits that such technologies have to offer.

I am very passionate about technology. I have be the lead authored of two books (Oracle SOA Governance 11g Implementation and Oracle API Management 12c Implementation), I am a regular blogger and speaker in major conferences and events. A well-known industry expert especially when it comes to Oracle middleware technologies I am also an OTN certified SOA black belt.



**2nd Place**  
1st OTN Cloud  
Hackathon  
June, 2016



**Cloud  
Contribution Award**  
SOA Community  
March, 2016



**Oracle API Management  
12c Implementation**

Learn how to successfully implement API management using Oracle's API Management Solution 12c

Luis Weir Rolando Carrasco [PACKT] enterprise  
Andrew Bell PUBLISHING



**Oracle SOA Governance  
11g Implementation**

Successfully implement SOA governance using Oracle SOA Governance Suite 11g with the help of practical examples and real-world use cases

Luis Augusto Weir [PACKT] enterprise  
Andrew Bell PUBLISHING

### Latest Media:

- Oracle Magazine May/June 2016 (<http://bit.ly/1RTCAU3>)
- Systematic Approach for Migrating to Oracle Cloud SaaS (<http://bit.ly/1Xr6acs>)
- Oracle Magazine Jan/Feb 2016 (<http://ora.cl/Vhh>)
- API Management Implementation (<http://ora.cl/Gcw>)
- A Word About Microservices and SOA (<http://bit.ly/25Dk5go>)



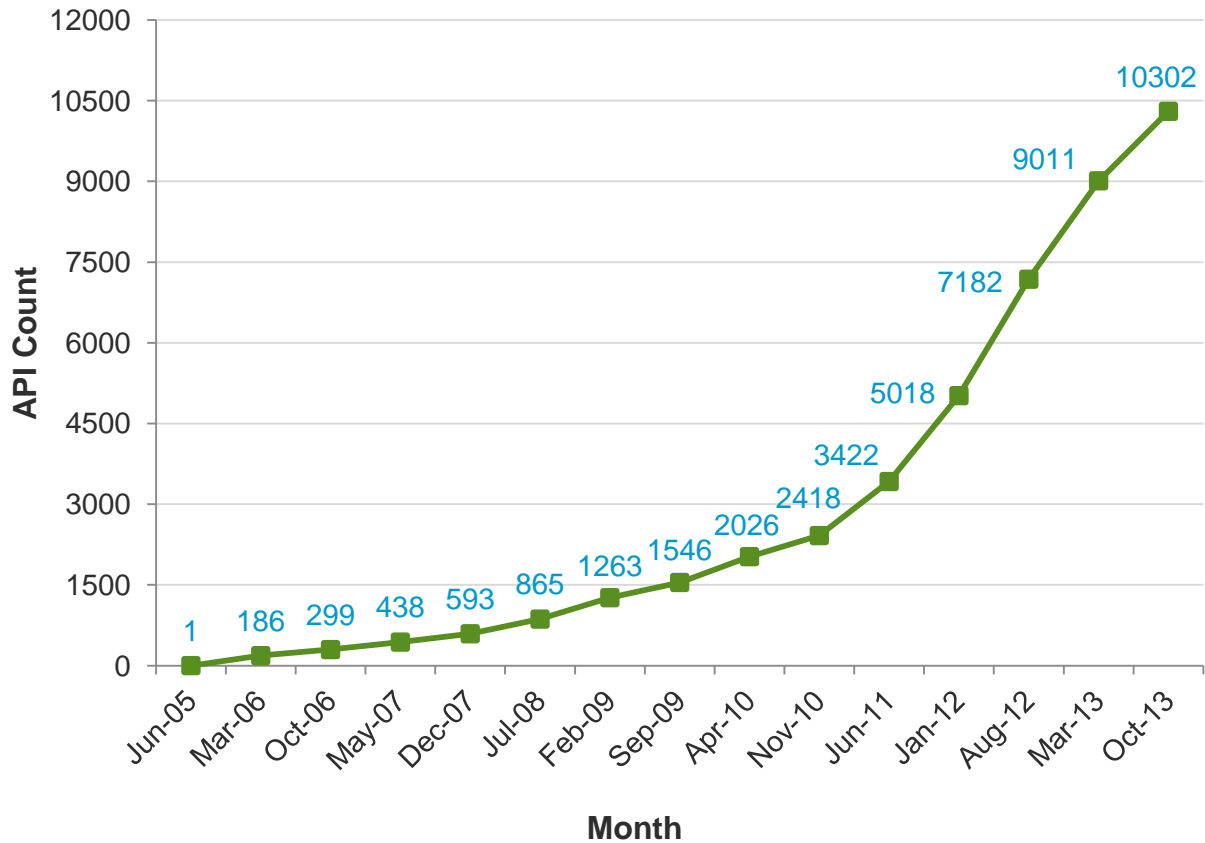
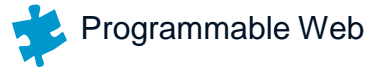
A photograph capturing a night festival scene. In the foreground, a person is silhouetted against a bright, warm light, holding a camera up to take a picture. To their right, another person's hands are visible, holding a smartphone to capture the moment. The background is filled with the soft glow of a large red lantern on the left and a series of colorful, blurred lights in the distance, creating a bokeh effect. The overall atmosphere is vibrant and celebratory.

## The value of APIs

Why should organisations care about APIs and what are the driving forces behind it

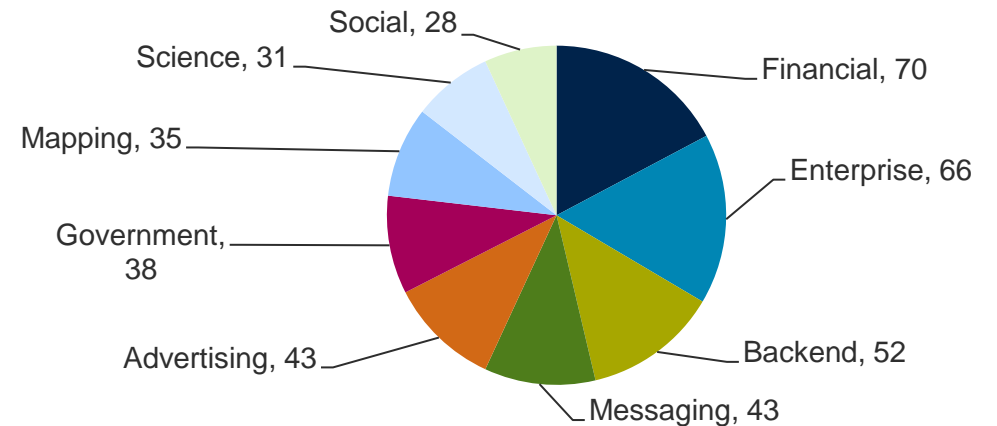
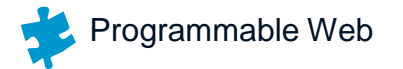
# API growth is exponential

## Growth In Web APIs Since 2005

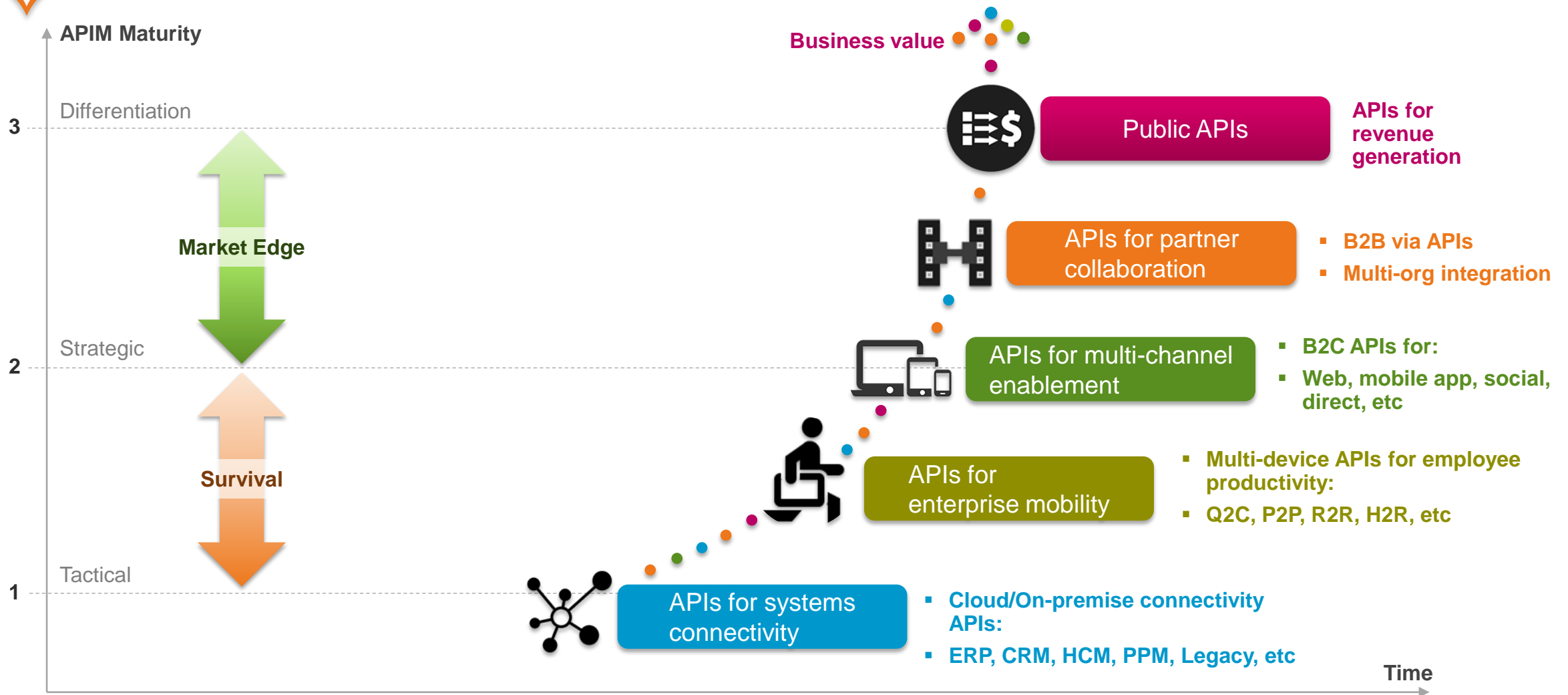


- API growth in the enterprise exponential
- API accelerated growth will continue:
  - Partner integration APIs
  - B2C APIs
  - Enterprise mobility APIs
  - IoT APIs

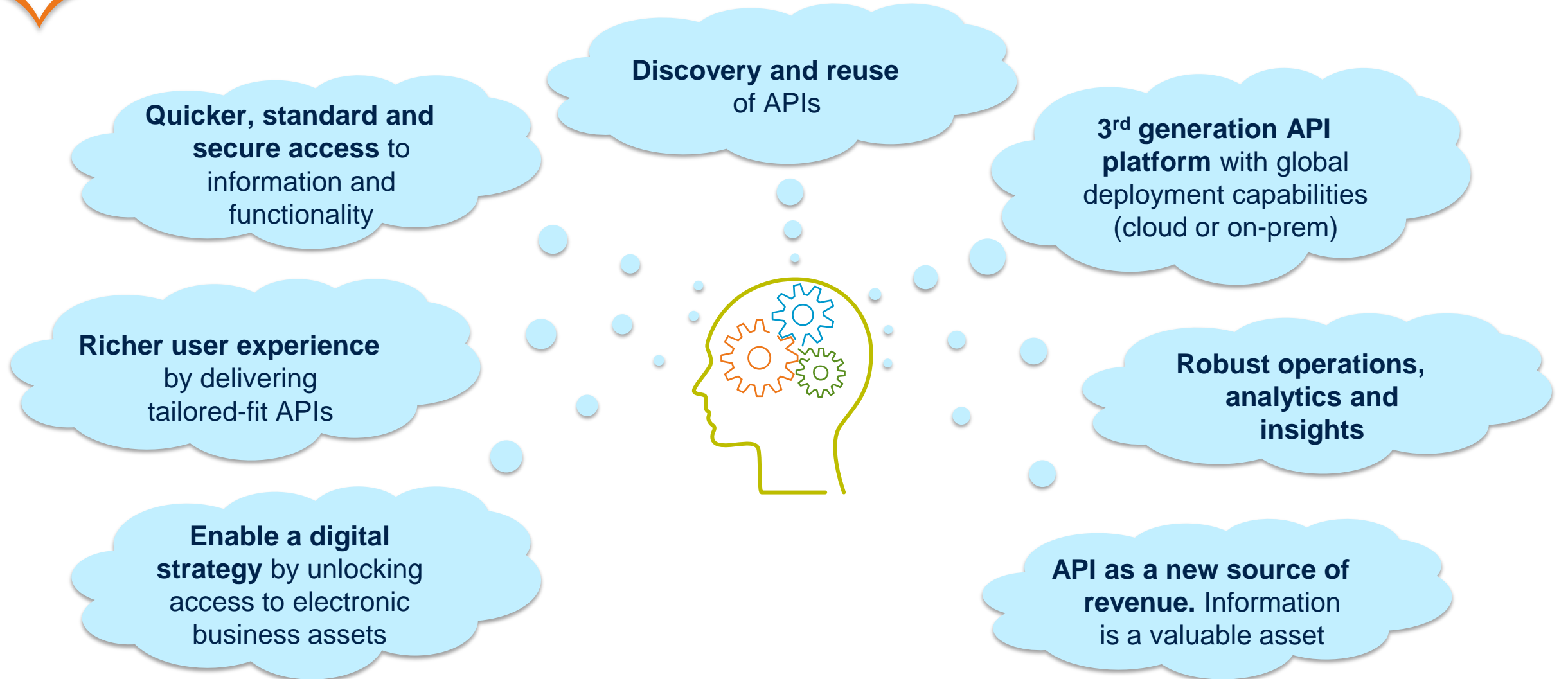
## Fastest Growing Web API Categories (6 months)




# The API Value Chain



# Drivers for API Management

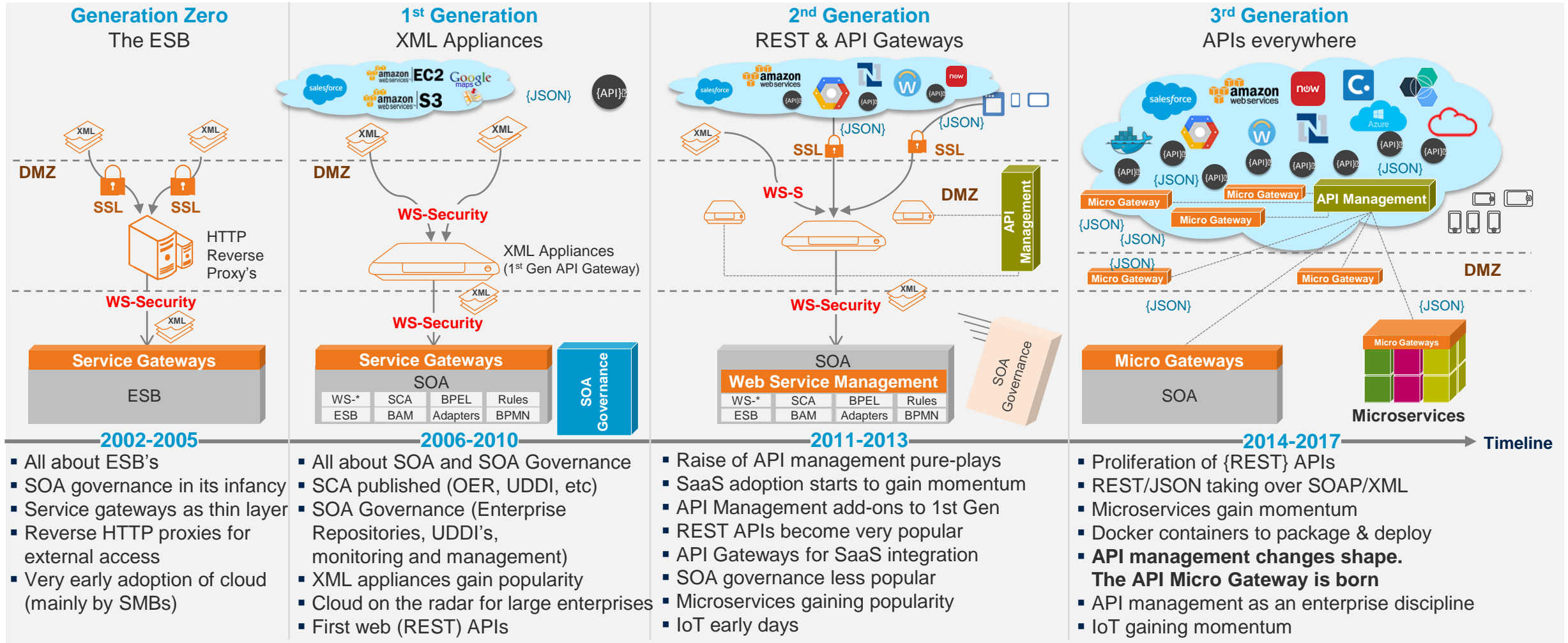




## **Evolution of API Management through generations**

A walkthrough the evolution of API management. From the first generation API-like gateways to today's 3<sup>rd</sup> generation API management infrastructure

# From Generation Zero to 3<sup>rd</sup> Generation API Management



- All about ESB's
- SOA governance in its infancy
- Service gateways as thin layer
- Reverse HTTP proxies for external access
- Very early adoption of cloud (mainly by SMBs)

- All about SOA and SOA Governance
- SCA published (OER, UDDI, etc)
- SOA Governance (Enterprise Repositories, UDDI's, monitoring and management)
- XML appliances gain popularity
- Cloud on the radar for large enterprises
- First web (REST) APIs

- Raise of API management pure-plays
- SaaS adoption starts to gain momentum
- API Management add-ons to 1st Gen
- REST APIs become very popular
- API Gateways for SaaS integration
- SOA governance less popular
- Microservices gaining popularity
- IoT early days

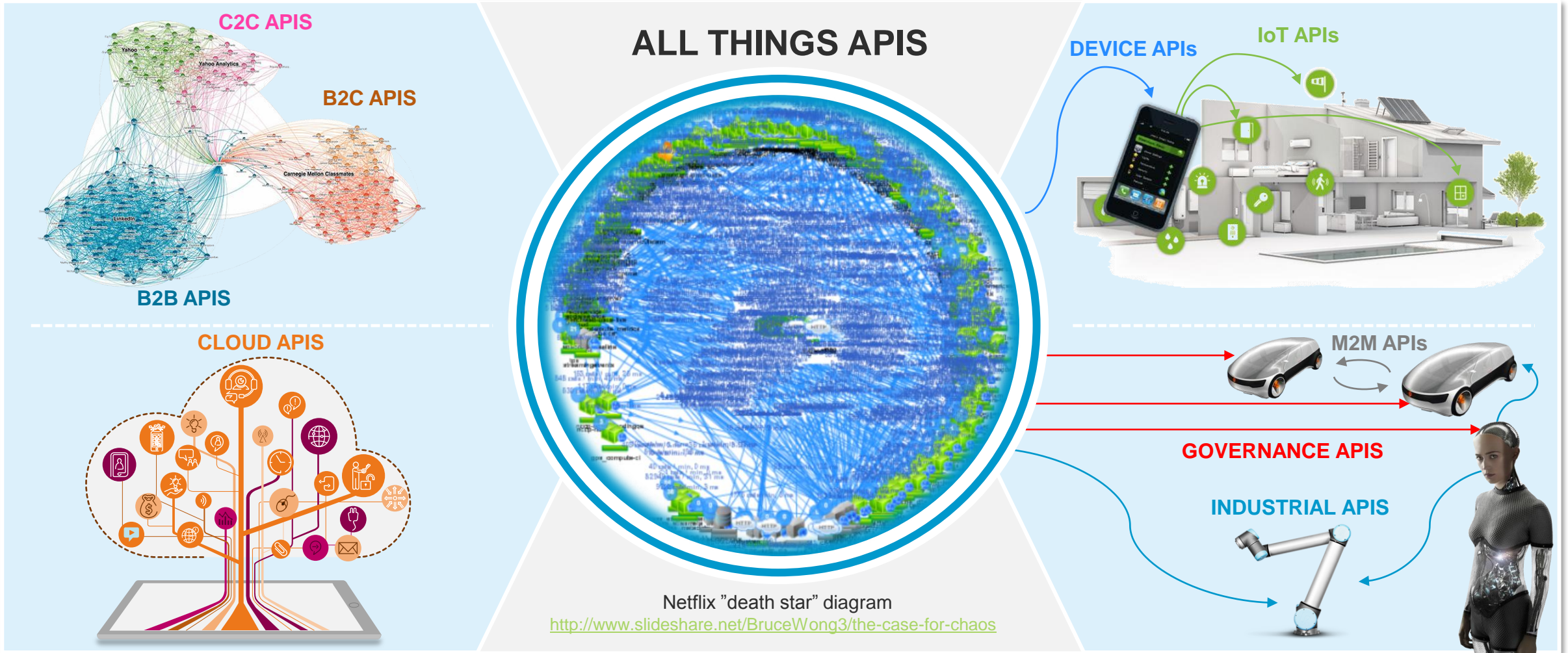
- Proliferation of {REST} APIs
- REST/JSON taking over SOAP/XML
- Microservices gain momentum
- Docker containers to package & deploy
- **API management changes shape. The API Micro Gateway is born**
- API management as an enterprise discipline
- IoT gaining momentum



## 4<sup>th</sup> Generation API Management

How I see API management in the year 2026

# 4<sup>th</sup> Generation API Management



# API's evolution

**Prior 1980's**  
APIs inside a monolith



**1980's**  
ONC RPC



**Early/  
mid 1990's**  
CORBA



**Late 1990's**  
XML-RPC &  
SOAP



**Early 2000's**  
REST, Websocket,  
CoAP, MQTT, AMQP



**2026**  
*All things API*  
(multi-protocol,  
multi-function)



**2050**  
Judgement day!!



## About Capgemini and Sogeti

With more than 180,000 people in over 40 countries, Capgemini is a global leader in consulting, technology and outsourcing services. The Group reported 2015 global revenues of EUR 11.9 billion. Together with its clients, Capgemini creates and delivers business, technology and digital solutions that fit their needs, enabling them to achieve innovation and competitiveness. A deeply multicultural organization, Capgemini has developed its own way of working, the Collaborative Business Experience™, and draws on Rightshore®, its worldwide delivery model.

Learn more about us at [www.capgemini.com](http://www.capgemini.com).

Sogeti is a leading provider of technology and software testing, specializing in Application, Infrastructure and Engineering Services. Sogeti offers cutting-edge solutions around Testing, Business Intelligence & Analytics, Mobile, Cloud and Cyber Security. Sogeti brings together more than 23,000 professionals in 15 countries and has a strong local presence in over 100 locations in Europe, USA and India. Sogeti is a wholly-owned subsidiary of Cap Gemini S.A., listed on the Paris Stock Exchange.

[www.capgemini.com](http://www.capgemini.com)

[www.sogeti.com](http://www.sogeti.com)

# Agenda

- 1 Introduction – Yogesh, Oracle
- 2 Evolution and Generations of API Management  
– Luis, Cap Gemini
- 3 **API Workflow in 2026 - Emmanuel, Apiary.io**

# THE API WORKFLOW IN 2026



[openworld.apiary.io](https://openworld.apiary.io)

[@manp](https://twitter.com/manp)

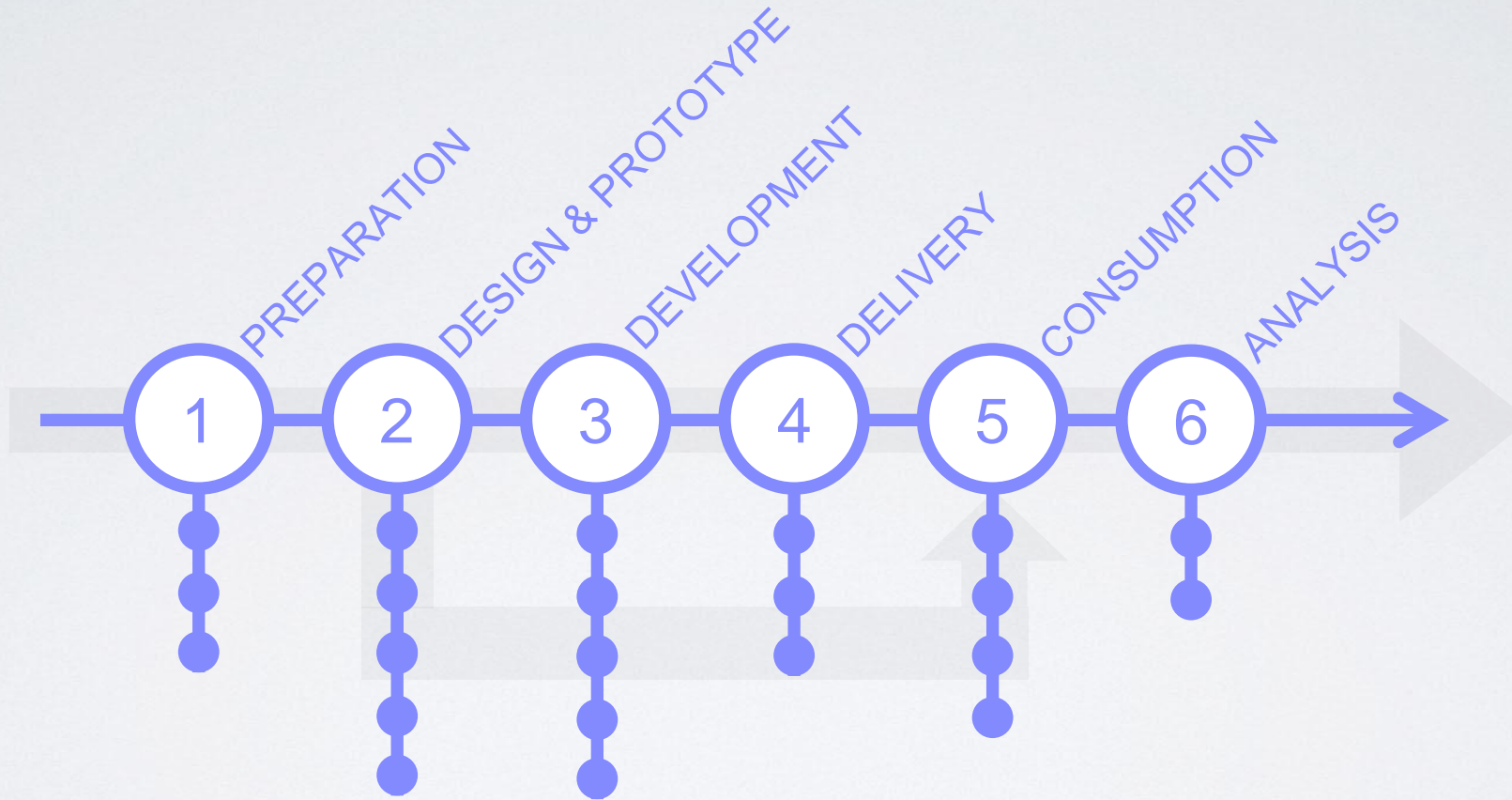
[emmanuel@apiary.io](mailto:emmanuel@apiary.io)

# /ME

- [Emmanuel Paraskakis](#),
- [VP of Product](#) @ Apiary
- Built API Businesses for the past 10 years



# API WORKFLOW



# APIARY

279,461 API Designs

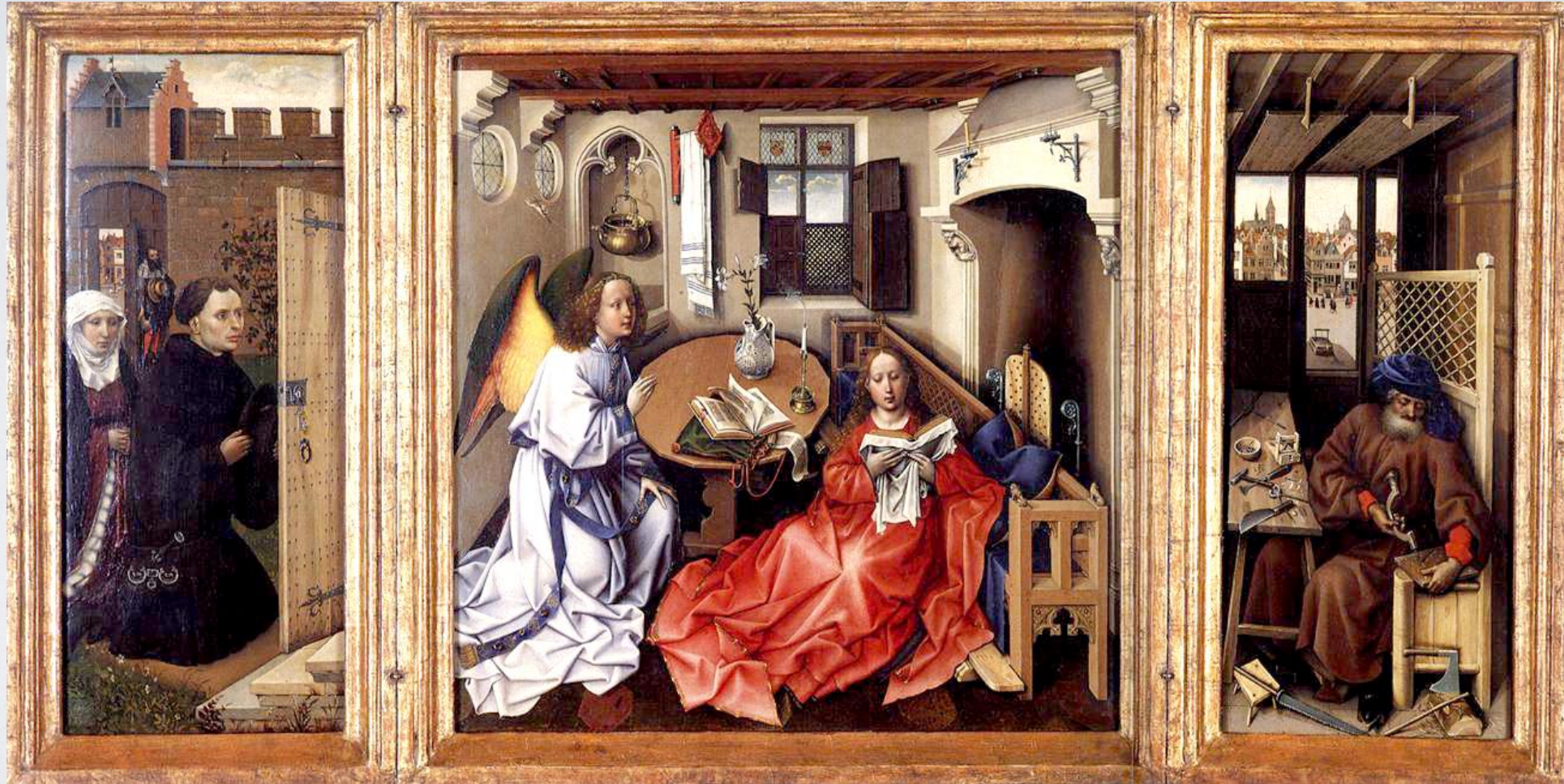




- [Partnering with Oracle](#) API Management
- Seamless Suite, Covers Entire API Workflow



# HOW WE USED TO BUILD APIs



# HANDCRAFTED

- One API at a Time  
(Systems Integration)
- Byproduct of existing code:  
“You Get What You Get”
- One off:  
Consistency, Maintainability Didn't Matter



# HOW WE'RE BUILDING APIs



# JUST ADD PEOPLE

- 10's at a time  
(Public APIs, Apps, [Steve Yegge's Rant](#))
- Manual Processes
- Lack of Control & Project Risk
- Short-Term Gain: Long-Term Pain
- Lack of Automation: Error Prone



# HOW WE'LL NEED TO BUILD APIs



# HIGHLY AUTOMATED

- 1000's at a time  
(Microservices, IoT, Partnerships)
- Establish & Maintain Control
- Consistency & Quality
- Scale & Efficiency



# WE CAN HELP!

- Tools, Specific to API/Service Delivery
- Processes & Best Practices, Designed to Scale
- Automation, for Efficiency & Control



# API GOVERNANCE

- Today: Apiary Style Guide
- Consistency: Easy to Use/Hard to Misuse
- Constrain Protocols, Formats, Vocabulary
- Focus on Semantics:  
Make Implementation Details Swappable



# APPLICATION PROFILES

- Today: API Descriptions as Source of Truth
- Data Descriptions:  
Common across Enterprise or Industry
- Validations & Domain Data: Reuse
- Capabilities:  
What you can do with the Data



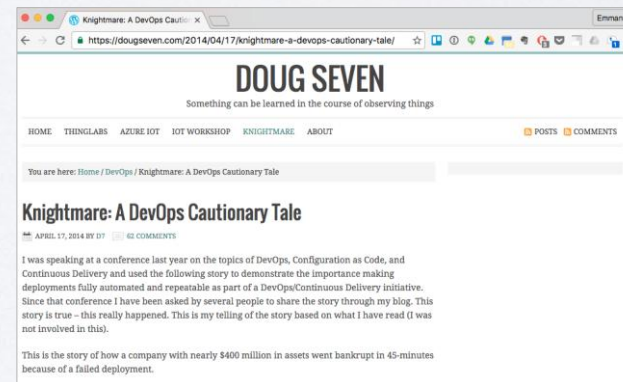
# DESIGN DRIVES RUNTIME

- Today: *Apiary/Oracle* API Management Integration
- Highly Evolved API Gateways/Monitoring
- Advanced Analytics to Understand Consumption
- Resilient Client Management



# VERIFY DEPLOYMENT

- Today: Apiary Automated Testing
- Verify in Continuous Integration
- Deploy Services to Correct Environment
- Avoid the [Knightmare!](#)



# MEANINGFUL DISCOVERY

- Today: “Service X lives on IP address a.b.c.d”
- Services will expose Application Profiles
- “Is Service with Capability Y Available?”
- “Is my Dependency, with Capability Z Up?”



# WANT TO TALK APIs?



+

**ORACLE®**

Moscone South  
Platform Showcase, Middleware

[openworld.apiary.io](http://openworld.apiary.io)

[@manp](https://twitter.com/manp)

[emmanuel@apiary.io](mailto:emmanuel@apiary.io)