

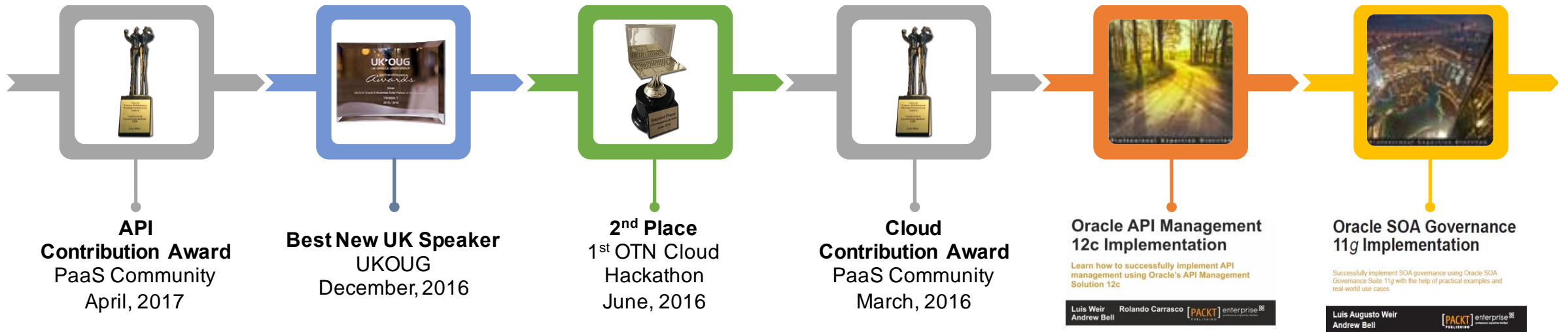
```
{  
  "presentation":  
  {  
    "title" : "APIM & Microservices – a match made in heaven",  
    "location" : "Beijing",  
    "date" : "2017-04-20",  
    "event": "#OracleCode",  
    "downloadUrl" : ""  
  }  
}
```

About Me



Luis Weir
Oracle Ace Director –
Chief Architect at Capgemini UK

luis.weir@capgemini.com
uk.linkedin.com/in/lweir
[@luisw19](https://twitter.com/luisw19)
<http://www.soa4u.co.uk>



Capgemini is One of the World's Largest Consulting, Technology, and Outsourcing Firms & a global “full service” business transformation provider



Group Workforce: 195,800+
Offshore workforce: 111,300

Across 40+ countries, 100 nationalities



North America
UK & Ireland

Central Europe
Morocco

Nordics
Benelux

Asia Pacific
Latin America

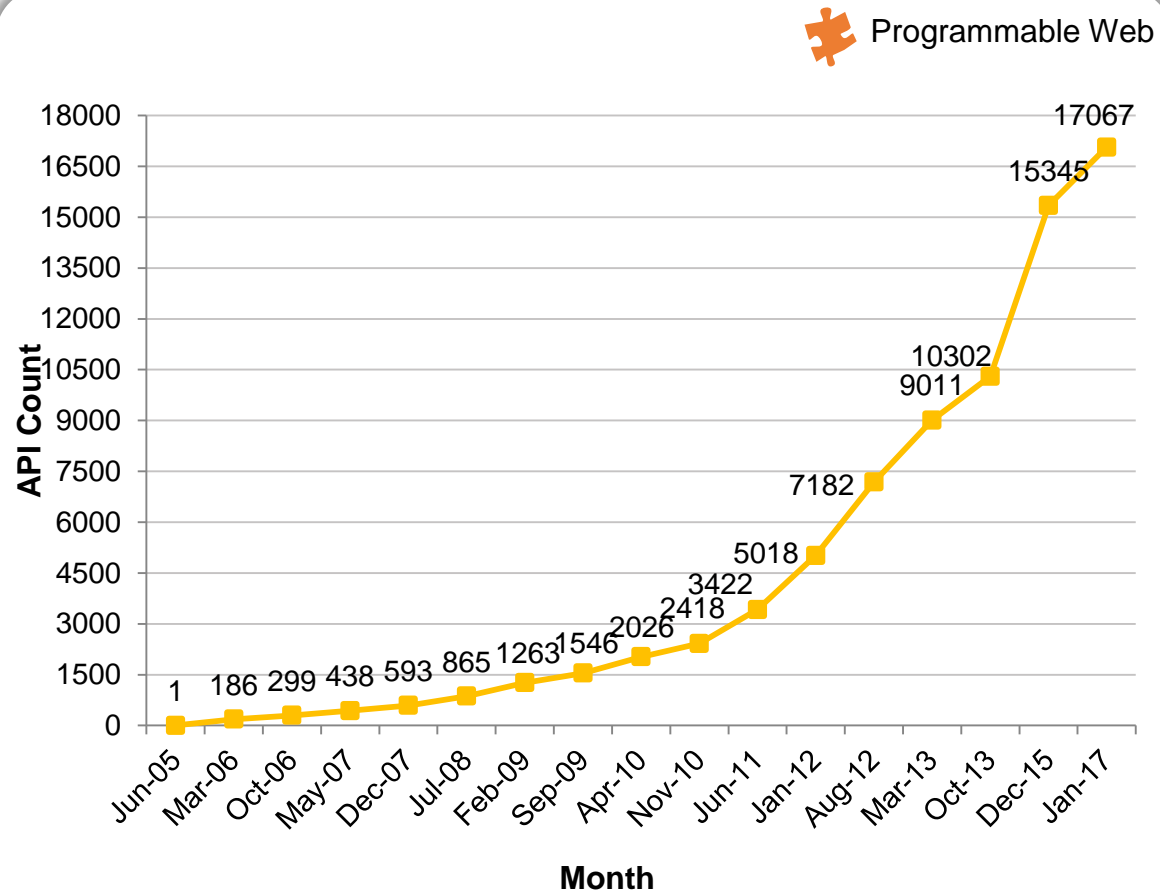
People matter, results count.

“It is the quality of our people, and their capacity to deliver fitting solutions, with you and for you, that drive real business results.”

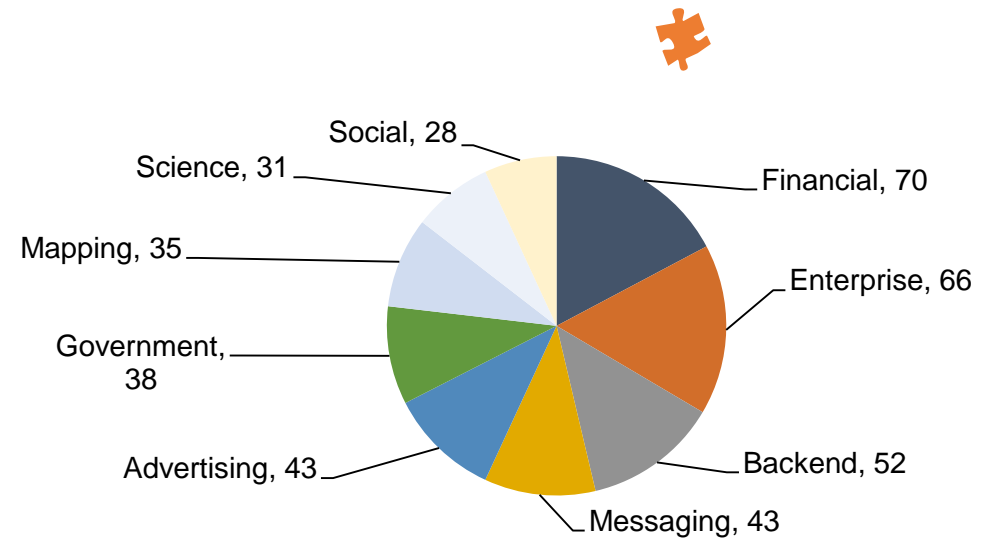
Agenda

- Context
- Evolution of APIs and services platforms + sample architectures
- Demo

What is the approximate number of publicly available APIs?



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



Why should a business care about APIs? Why should you care?



60%

Salesforce.com has a marketplace (App Exchange) for apps created by its partners that work on its platform; they now number more than 300 partners.



90%

Expedia's APIs allow people using third-party websites to tap its functionality in order to book flights, cars, and hotels.



60%

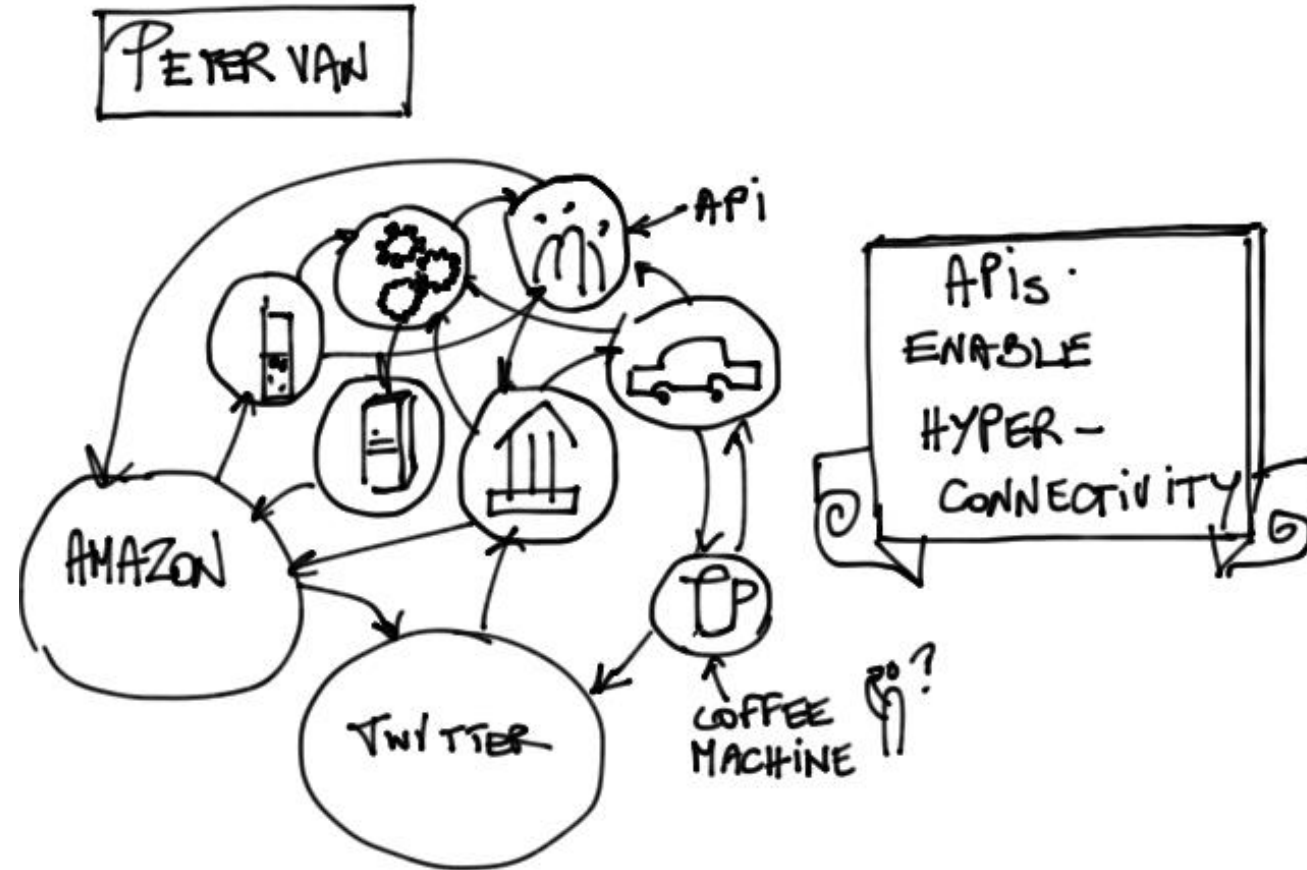
eBay to list its auctions on other websites, get bidder information about sold items, collect feedback on transactions, and list new items for sale — all of which give additional exposure to eBay items and increase revenue.



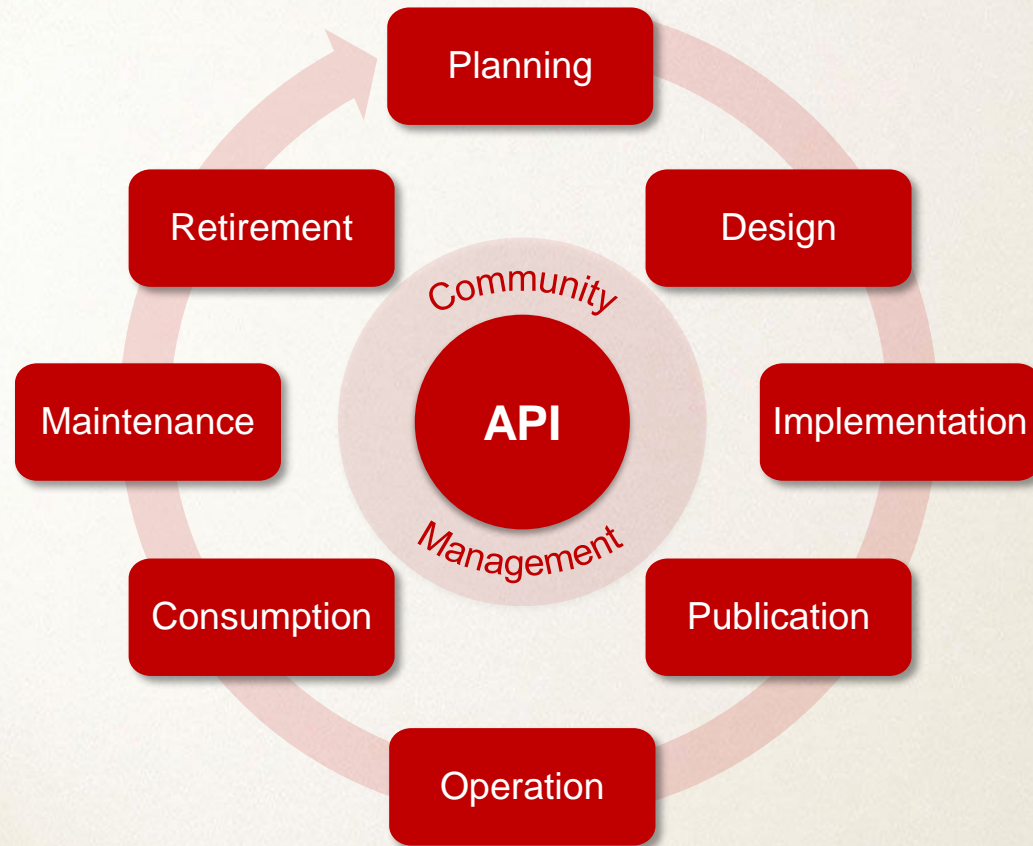
The GoPro Developer Program provides toolkits, APIs, technical information and support to enable companies to incorporate GoPro connectivity into their products.

In a thought market, Go-pro is looking at APIs enabled digital engagement (i.e. user generated content) as means to deliver value-add.

APIs are greatBut can result in a lot of ad-hoc mess if APIs are not managed...



API management delivers the processes and platforms required to implement enterprise-grade APIs but also manage the communities around it.



The technology industry has realised the value.



What is a Microservice?

“Loosely coupled service oriented architecture with bounded context”,

– Adrian Cockcroft, April 2015



adrian cockcroft
@adrianco



Following

@kellabyte @mamund I used to call what we did "fine grain SOA". So microservices is SOA with emphasis on small ephemeral components

RETWEETS
3

LIKES
4



5:16 PM - 10 Dec 2014



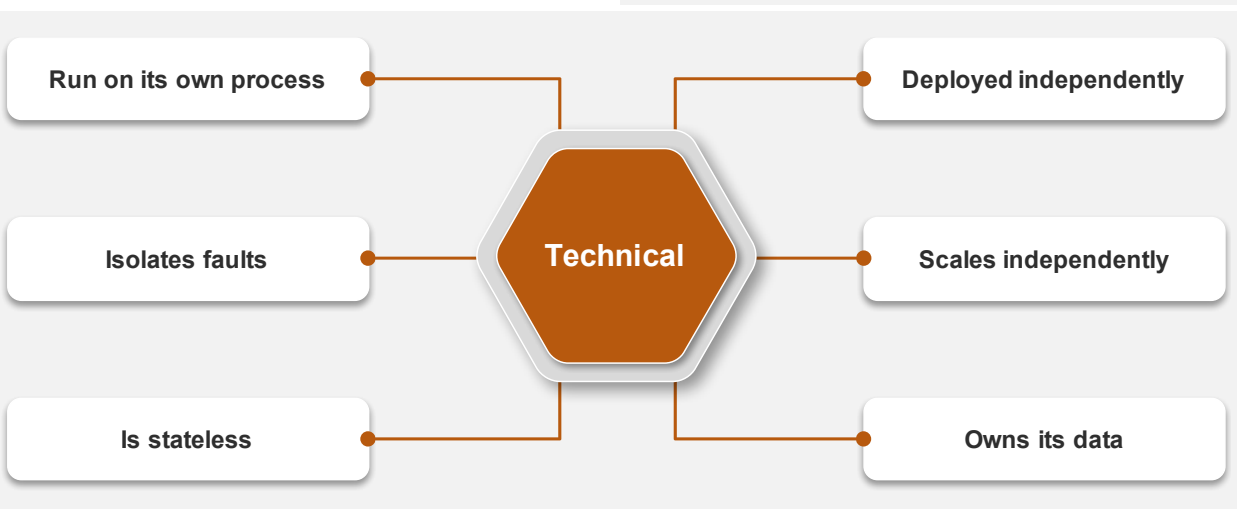
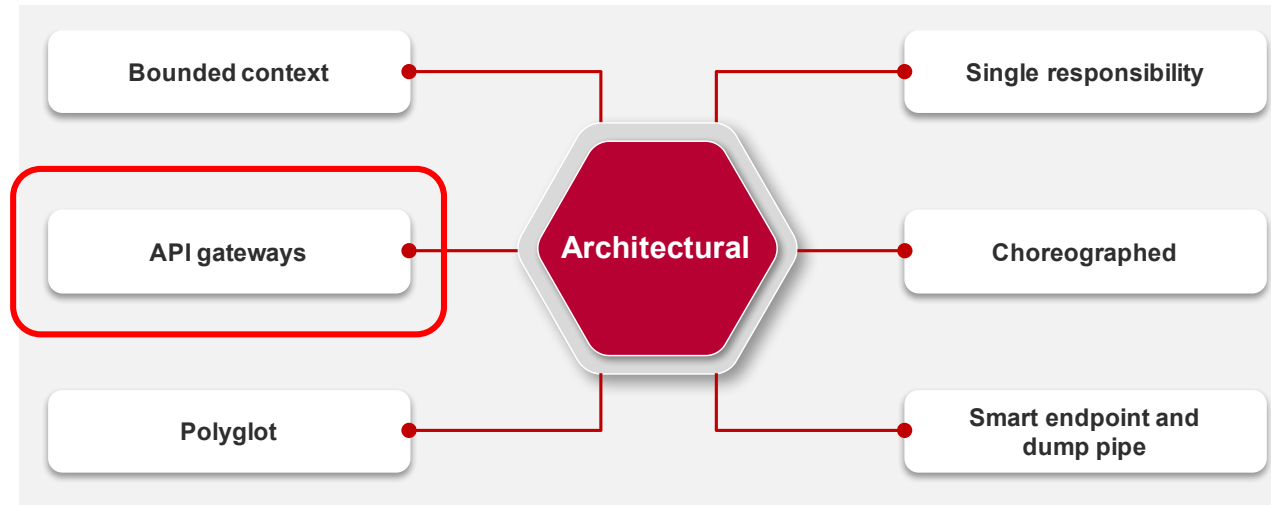
Functional decomposition of systems into manageable and independently deployable components,

Microservice Architectures by Dr. Andreas Schroeder
(<http://bit.ly/1TOGZK8>)

The **three** aspects of Microservices Architecture

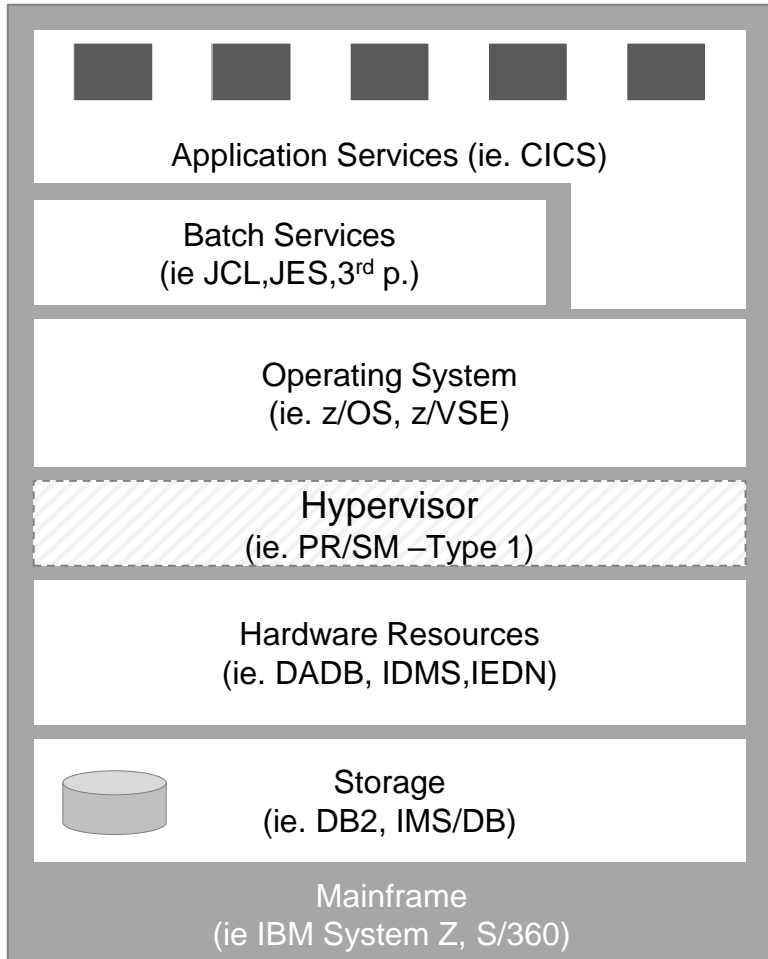


The **three** aspects of Microservices Architecture

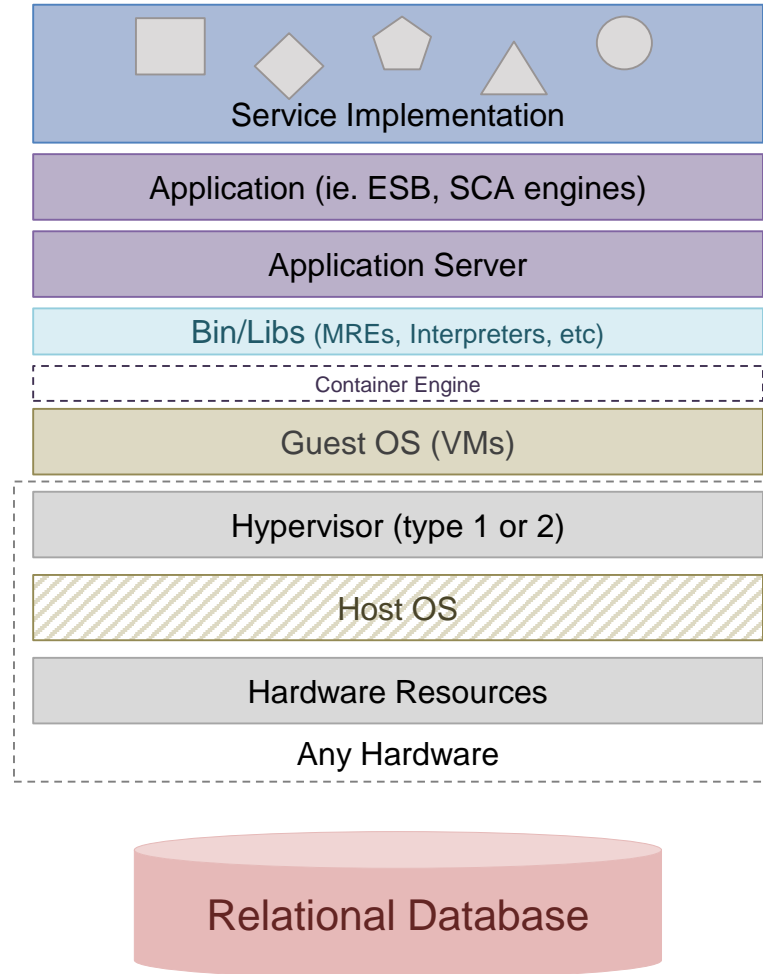


Microservices Stack → What's different?

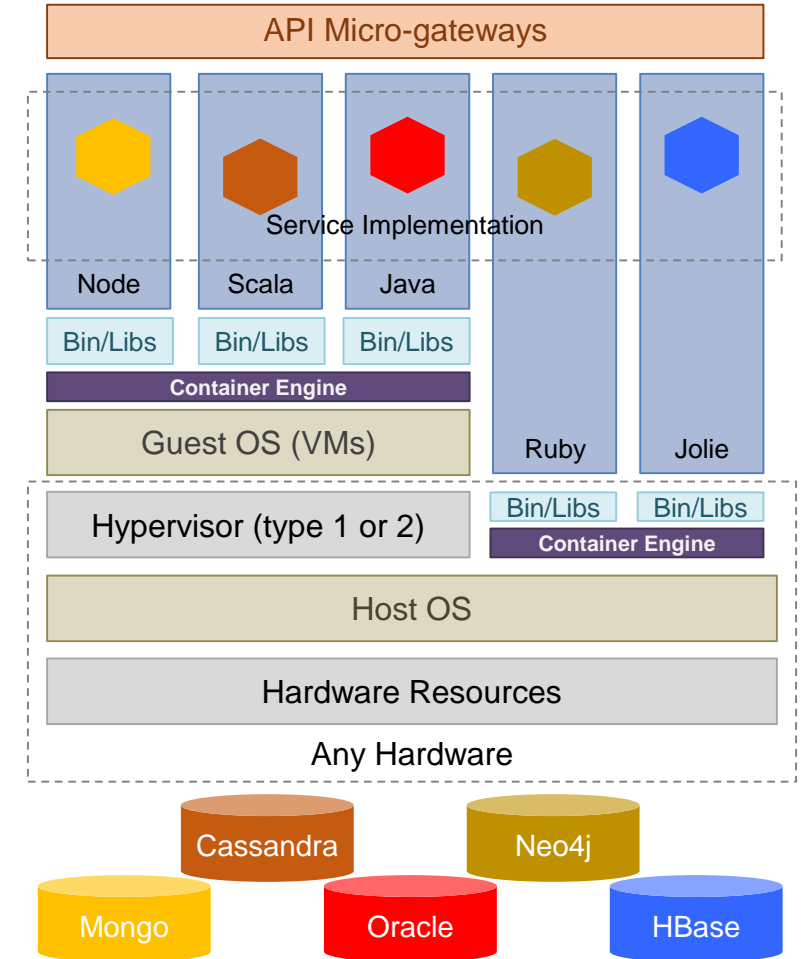
Legacy Monolith



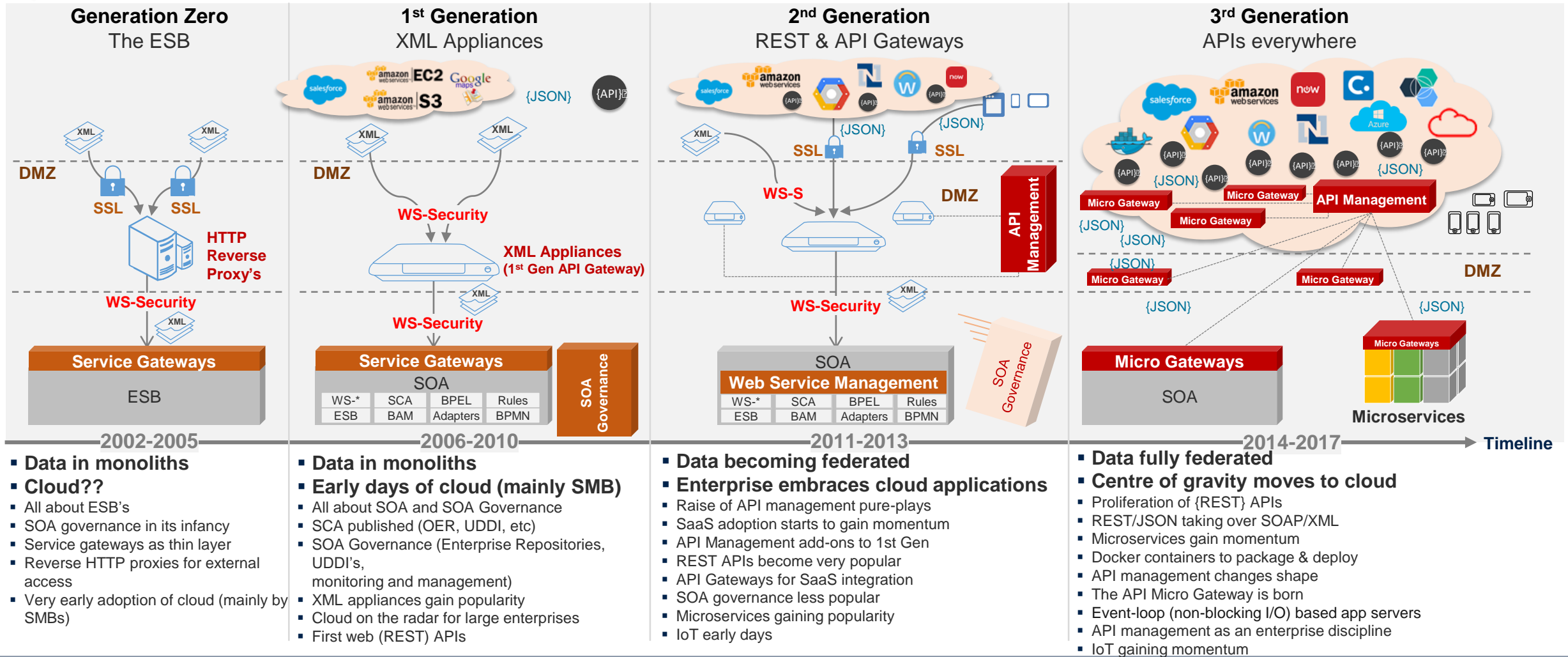
Modern Monolith



Microservice Architecture

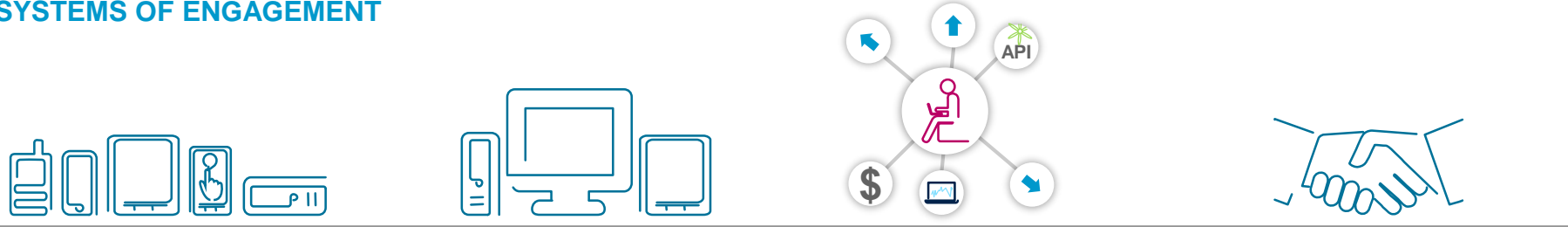


API gateways evolution (<https://tinyurl.com/3rdgenapim>)



API Reference Architecture

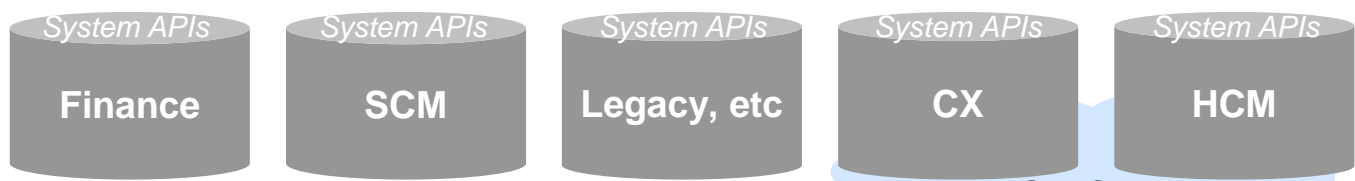
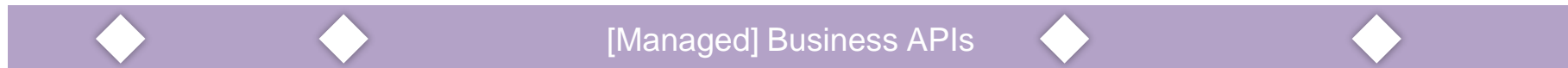
SYSTEMS OF ENGAGEMENT



Management

- Design & Development Portals
- Policy Definition
- Lifecycle Management
- Runtime Analytics
- User Management

Single Purpose APIs



Utility APIs

- Identity
- Logging
- Error Handling
- Notifications

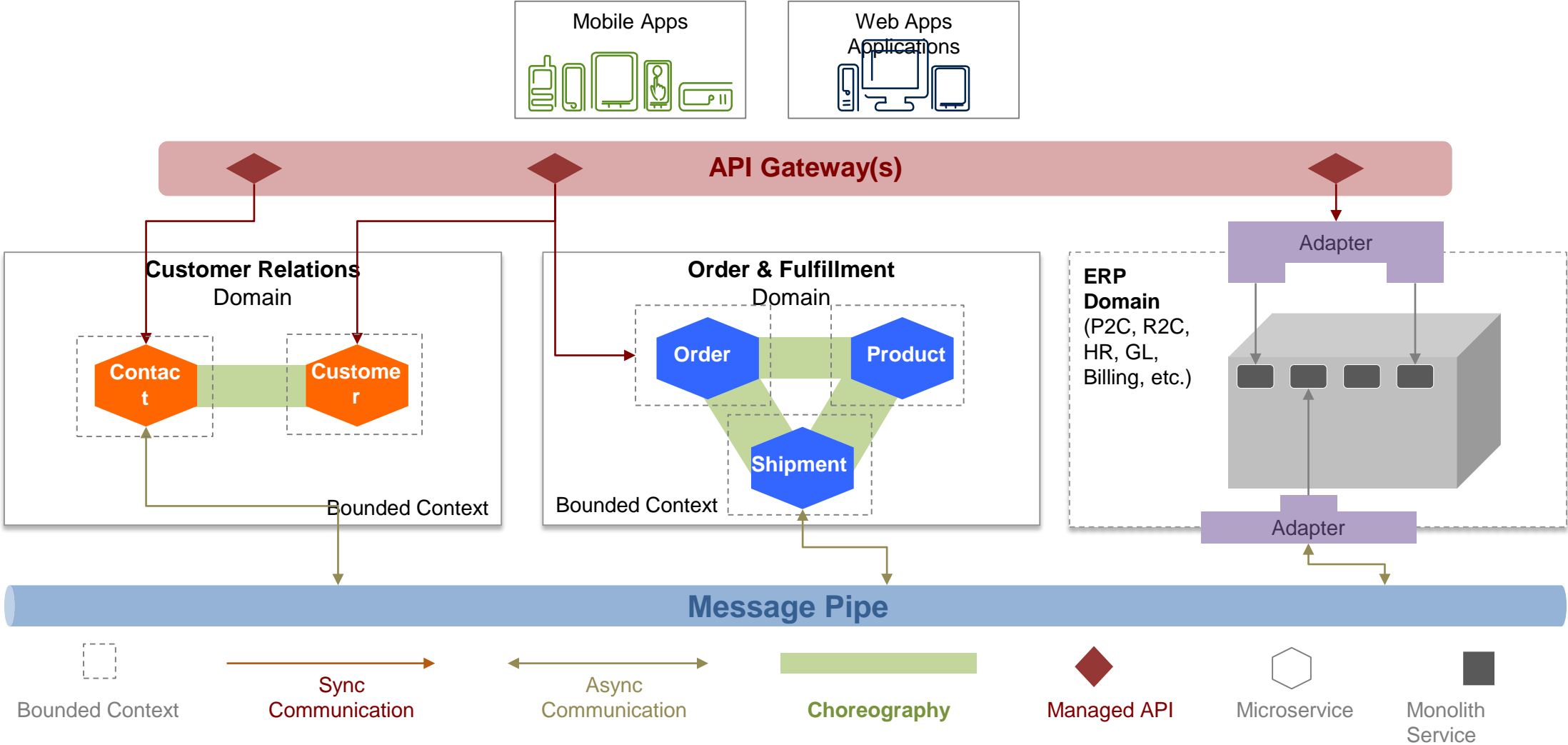
SYSTEMS OF ENABLEMENT

SYSTEMS OF RECORDS

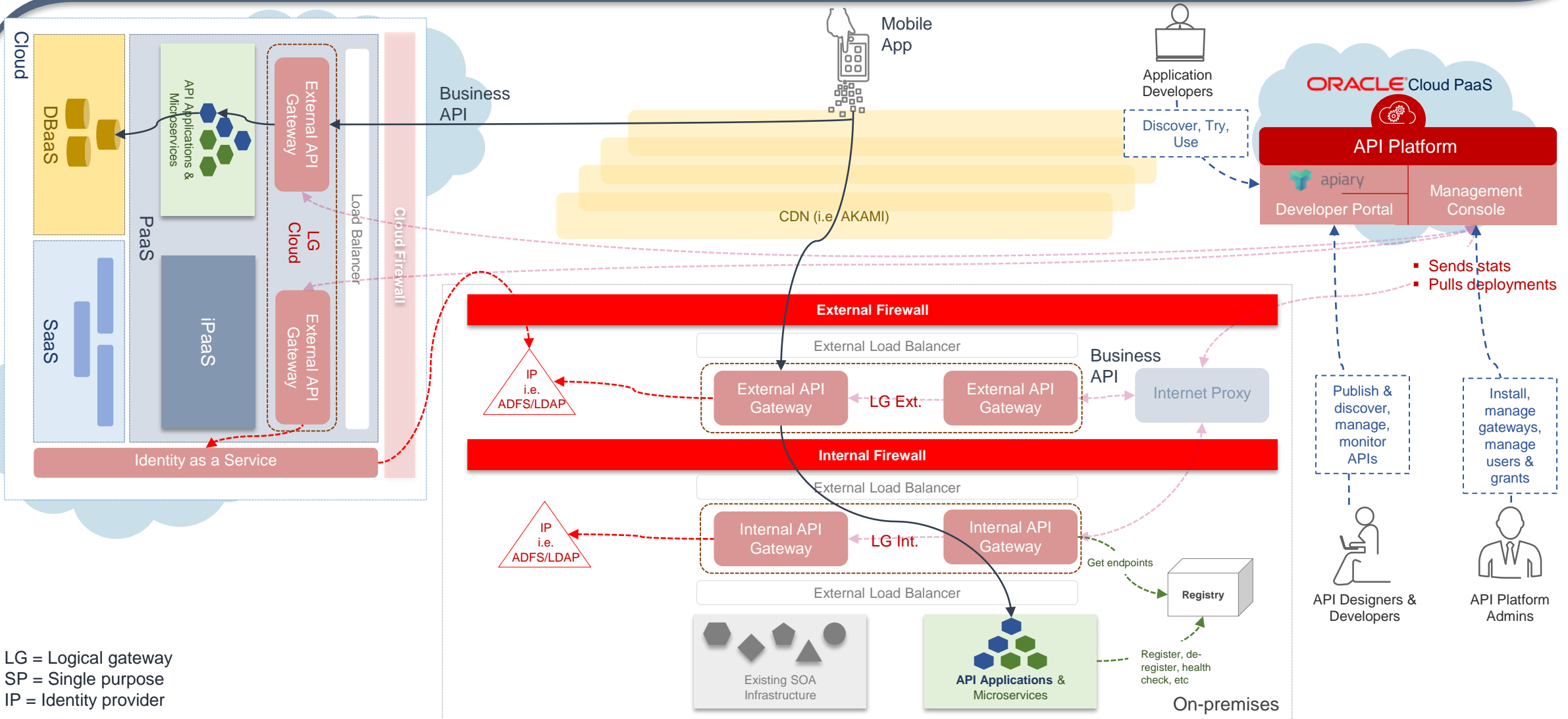
SYSTEMS OF INNOVATION



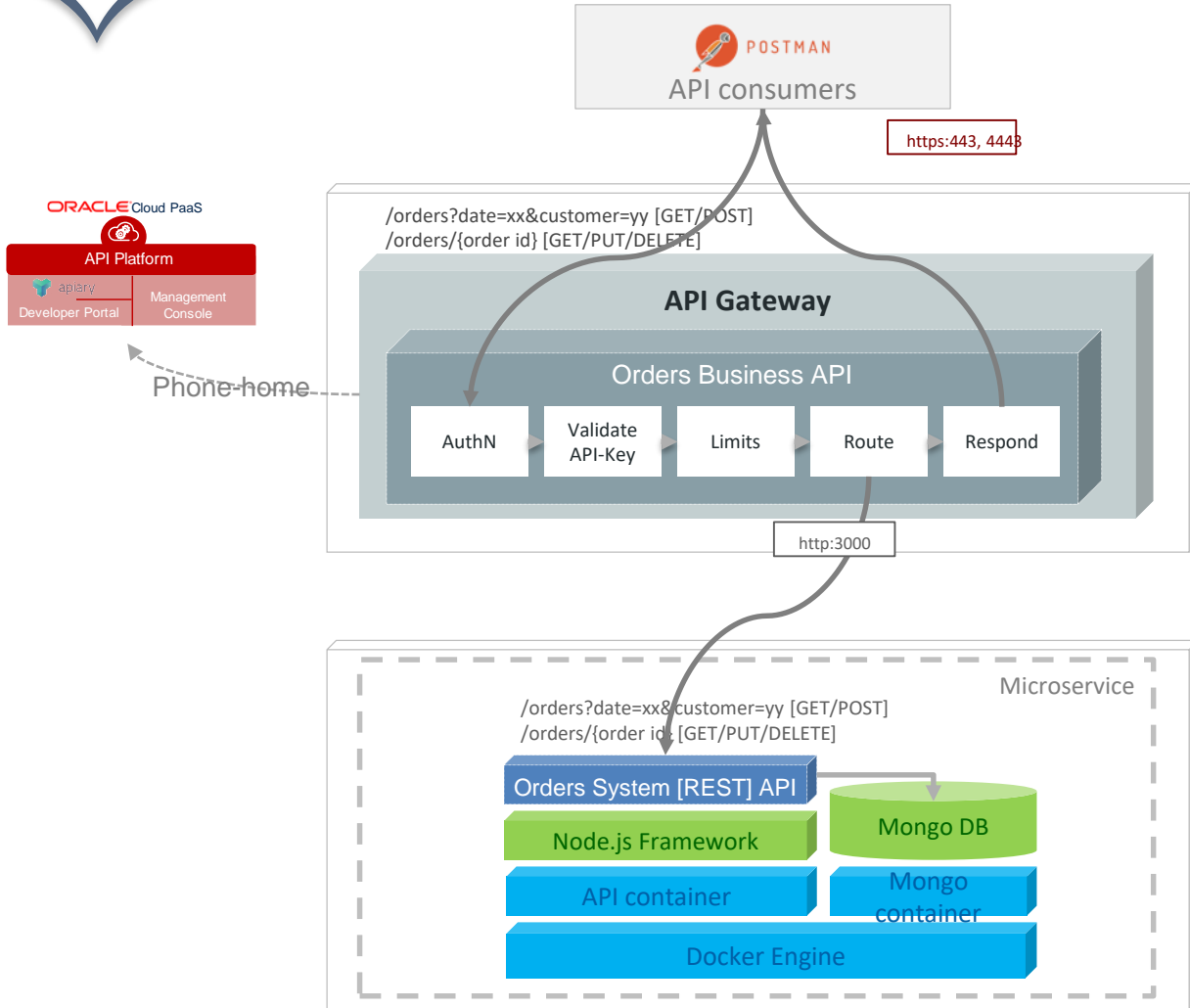
Solution Architecture



Oracle API Platform Implementation Architecture



Demo: Architecture



Download from:

<https://github.com/luisw19/node>

Or create docker-compose.yml:

```
version: '2'
services:
  order_api:
    #Uncomment if you wish to build from source code
    #build: ./orders_api
    image: luisw19/orders_api
    depends_on:
      - mongo_db
    ports:
      - "3000:3000"
    command: npm start
    links:
      - mongo_db

  mongo_db:
    image: mongo:3.2.9
```


Summary

- APIs bring tangible value to businesses
 - And like doors, APIs are of different type, shapes and forms
- Microservices Architecture provide a robust/lightweight/scalable/decoupled way to implement APIs
 - There are 3 aspects to microservices: architectural, technical, organisational
 - Bounded Context helps shape microservice scope & definition
- 3rd generation API platforms are microservice oriented and hybrid – not monolithic
- Oracle API Platform Cloud Service (to be released very soon!) + APIary deliver a pure play 3rd gen platform
- Using APIary for API-first brings agility and simplifies process of designing APIs and Microservices

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.

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

www.sogeti.com

Alliance and Strategic Partnership



- Oracle Diamond Partner (highest partnership level with less than 10 companies at this level)
- Oracle Cloud Managed Service Provider (*New!) partner – only a handful of SI's
- Only Global SI to be accredited as Oracle Authorized Education Center
- Part of Beta programmes for:
 - API platform
 - Integration cloud
 - Process cloud
 - Oracle Self-Service Automation
 - Oracle IoT Cloud
 - Oracle Mobile Cloud

Awards and Recognition

- 2016 – Oracle Specialized Partner of the Year: Industry
- 2016 – Oracle University Partner of the Year
- 2016 – BPM and Cloud community awards
- 2015 – Oracle Customer Support Services Partner of the Year
- 2011 – Global Partner of the Year Award for Oracle Applications
- 2012 – Fusion Middleware partner of the year
- 2010 – Partner of the year for Oracle Fusion Middleware
- 2010 – 2010 EMEA Industry Partner of the Year
- 2010 – Oracle Customer Services Partner of The Year
- 2009 – Oracle Customer Services Partner of The Year
- 2008 – Oracle Customer Services Partner of The Year



Key Differentiators

- Over 300 certified consultants
- One of few diamond partners
- Continuous investments in cloud accelerators such as:
 - API management
 - iPaaS
 - Chat bot's
 - BPM
 - SOA
- Real experts and thought leaders including:
- 4 published Oracle books:
 - 2013: Oracle SOA Governance Implementation
 - 2015: Oracle API Management Implementation
 - 2016: Oracle Case Management Solutions
 - 2017: Implementing Cloud service
 - Soon: Enterprise API Management!
- 5 Oracle Aces: ♠ 2 Directors, ♠ 2 Aces, ♠ 1 Ace Associate

Reference Implementations

