



L'ECONOMIA delle APIs

Providing self-service, one-to-many, reusable interfaces.

PESCARA - 05/04/2018



Uno strumento essenziale

per poter gestire al meglio l'integrazione dei propri dati
con gli strumenti digitali interni ed esterni

per poter integrare in modo sicuro e scalabile
l'ecosistema di partner esterni con la propria rete




APIs

uno strumento che rende i dati di un sito internet comprensibili da un elaboratore, attraverso il quale un computer può visualizzare e modificare dati, nello stesso modo in cui un utente carica una pagina nel browser o invia i dati di una form.

ovvero la creazione di una serie di **endpoint** (delle URL) che rispondono alle richieste fatte da uno sviluppatore.

Praticamente una raccolta di metodi che ci permettono di collegare librerie o applicazioni presenti su diversi sistemi.



“A set of Hypertext Transfer Protocol (HTTP) request messages, along with a definition of the structure of response messages, which is usually in an Extensible Markup Language (XML) or JavaScript Object Notation (JSON) format.”

Hence a Web API can be defined without the technical specifics as:

“An interface to a software component that can be invoked at a distance over a communications network using standards based technologies.”

*"Open" Means "As Open as
You'd Like"*

An estimated 90% of APIs are not public.





REST Web Services

- **consistenza** all'interno dell'intera API;
- non implica la creazione di sessioni all'interno dei nostri server creando quindi un'**esistenza stateless** dove il nostro server, tra un'operazione e un'altra, non salva le informazioni di login;
- vengono utilizzati gli **status code HTTP** che aiutano e velocizzano le risposte dei nostri server;
- vengono create delle **URL endpoint** che seguono una determinata logica;
- la versione delle API viene **salvata nelle URL** piuttosto che all'interno degli status code HTTP

Windows client

Mac client

Android client

iOS

Apps that run
inside Spotify

Put Spotify
in your product

Put Spotify
in your website



Spotify

Spotify servers


+

Platform / API

Serve music
(meta) data

Trigger plays

Stream

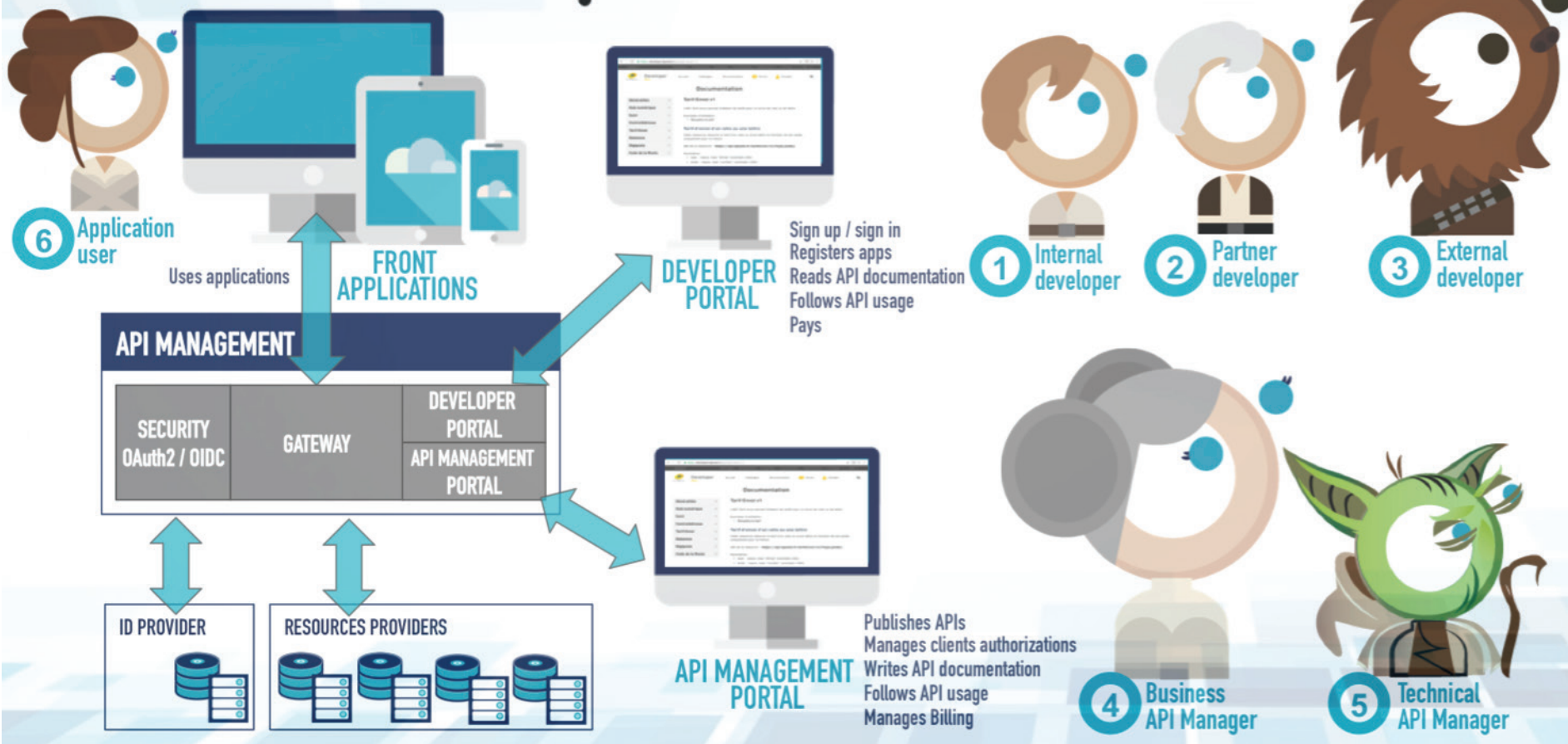


“ Le API sono il collante tra l’infrastruttura preesistente, i nuovi repository infrastrutturali (es. piattaforme SaaS cloud) e tutta la pletora di dispositivi collegati alla rete che devono poter accedere ai dati aziendali (app, ma anche tutti i device IoT).

”

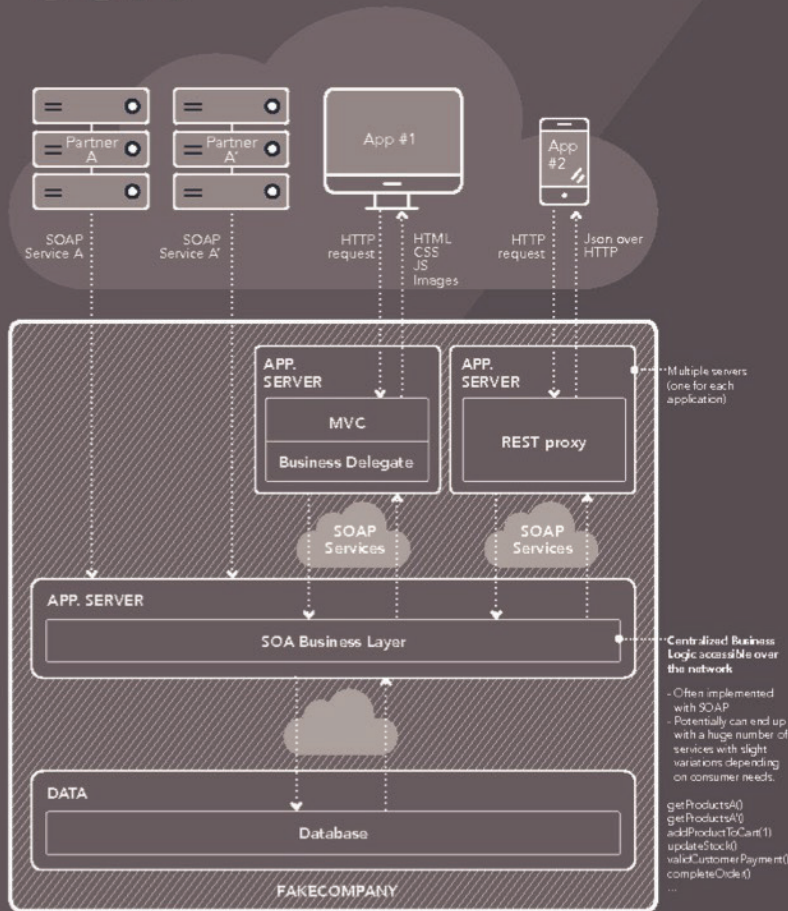
Le API permettono di aumentare la produttività senza dover stravolgere le architetture, saving TIME&MONEY

API & API Management users



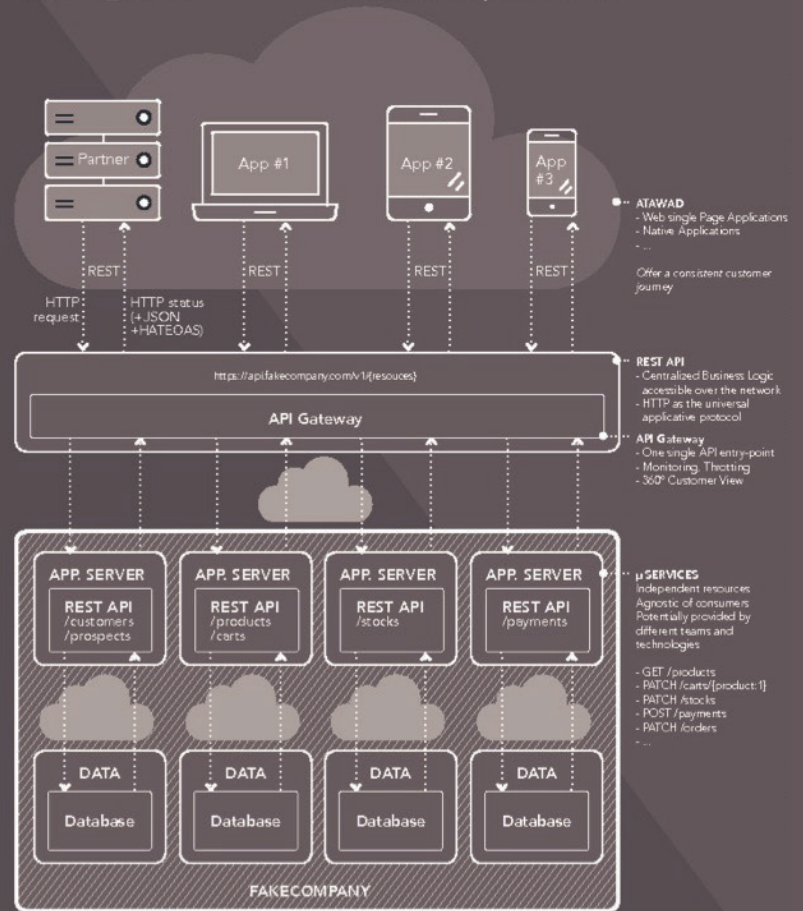
SOA

SERVICE ORIENTED ARCHITECTURE





WOA

WEB ORIENTED ARCHITECTURE (REST API based & μ services based)





- 1. API MANAGEMENT PORTAL**
 - Users enrolment
 - Publication / versioning
 - Usage statistics
 - Quotas
- 2. DEVELOPER PORTAL**
 - Self-enrolment
 - API Doc / Try-it interface
- 3. SECURITY**
 - API_KEY
 - OAuth2* / OIDC*  complicated
- 4. API FAÇADE (ESB)**  use with caution

Why an API strategy?

“Anytime, Anywhere, Any device” are the key problems of digitalisation. API is the answer to “Business Agility” as it allows you to rapidly build new GUI for upcoming devices.

An API layer enables

- › Cross device
- › Cross channel
- › 360° customer view

Open API allows

- › To outsource innovation
- › To create new business models

Embrace WOA

“Web Oriented Architecture”

- › Build a fast, scalable & secure REST API
- › Based on: REST, HATEOAS, Stateless decoupled µ-services, Asynchronous patterns, OAuth2 and OpenID Connect protocols
- › Leverage the power of your existing Web infrastructure

DISCLAIMER

This Reference Card does not claim to be 100% accurate. The design concepts shown here are a result of our previous work in the REST area. Please check out our blog <http://blog.octo.com>, and feel free to comment or challenge this API cookbook. We're really looking forward to talking with you.

API Architecture Strategy.

As soon as we start working on an API, architecture issues arise. Many mistaken common beliefs turn out to be fiction in this area. A poorly designed API architecture will lead to misuse or – even worse – not be used at all by its intended clients: application developers.

To facilitate and accelerate design and development of your APIs, we share our vision and beliefs with you in this Reference Card. They come from our direct experience on API projects.

API Levels.

The API level you are targeting can be reflected by the type of consumers you are addressing.



The main difference lies in the way you need to “industrialize” the enrolment process and the quality required for your API.

› At Level 1, if an application developer faces an issue, he can directly meet the guys from the API team

You should target Open API from the beginning (even if you are targeting Level 1 or 2 in the short term):

› So that you can fully industrialize the way developers consume your “services” on your developer portal: <https://developers.fakecompany.com/>

› This is the only way to offer good enrolment, TTFAC* & support in a digital way

API SQUAD



BUSINESS ANALYSTS [Business]

Co-design API resources
Write automated functional tests (TDR)



PRODUCT OWNER [Business]

Sync development with other teams
Responsible for API success
Define Follow-up indicators



COMMUNITY MANAGER [Marketing]

Drive External Developers (API users)
Social networking
API Evangelist
Administrate developer portal



OPS [IT]

Automated testing
Automated deployment
Scalability (elasticity) and SLA



DEVELOPERS [IT]

Design & develop API resources
Write API documentation
Measure and improve API performance
Write unit automated test



TECH-LEAD [IT]

Design & develop API resources
Write API documentation
Measure and improve API performance
Write unit automated test



Company - Product Stage



Investment Needed Funding Stage

\$25K	\$100K	\$500K	\$2M	\$10M	\$50M
Pre-seed Funding	Seed Funding	Start-up Funding	Expansion Mezzanine	Operating & Growth	



Source of Funding



Company Valuation

\$100K	\$500K	\$2M	\$10M	\$75M	\$250M
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APIs are the building blocks of the digital economy. They make existing capabilities fungible, so that it is possible to use them in new ways, quickly and easily, thereby spurring innovation and new value creation.

Laura Merling, VP Ecosystems and Solutions AT&T

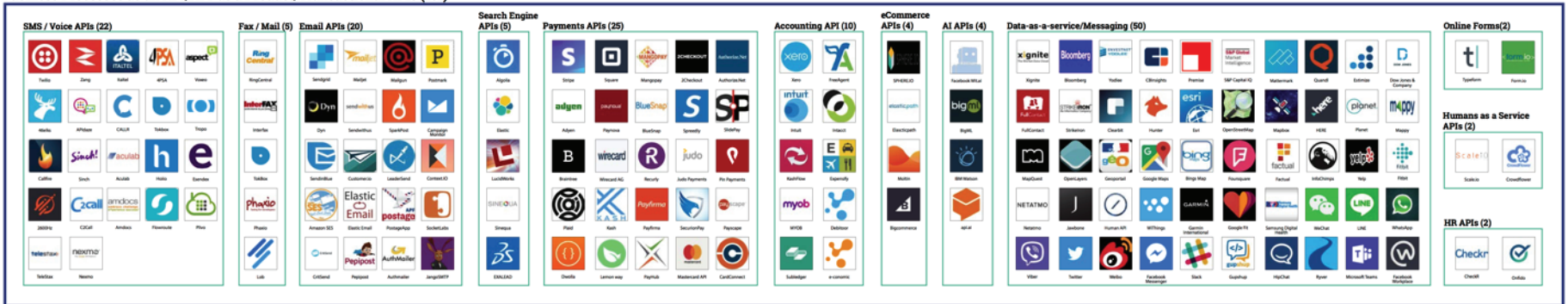
DESIGNED BY
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The API Landscape

Last Update: March, 2017

POWERED BY
spoke

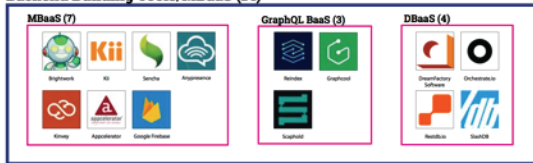
Business Processes as an API/API-as a Product/Transactional APIs (151)



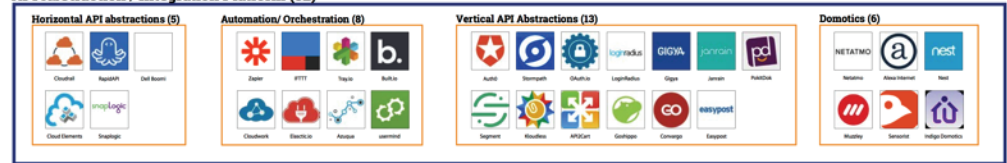
API Lifecycle platform (78)



Backend Building Tools/MBaaS (14)



API Abstraction / Integration Platform (32)





SDK for app optimization



Attribution



In-App Analytics



A/B Testing



Marketing Automation



Advertising/Monetization



Crash/APM



Ratings & Feedback



Other

La guida umana, e ancora una volta, la pianificazione meticolosa dei passi da intraprendere, è fondamentale!

Bibliografia

Cooksey, Brian. An Introduction to APIs

Willmott, Steven; Balas, Guillaume. Winning in the API Economy



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