



Forum The Ark

API Culture - Comment augmenter la valeur de
votre logiciel en le dotant de sa propre API ?

API : product with opportunity & responsibility

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API : product with opportunity & responsibility

- History of Web API (one API fits all)
- Who is doing What
- Why having an API ⇐ *opportunity*
- Business models ⇐ *product*
- How & tips from best practices
- Developers' onboarding ⇐ *responsibility*

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Salesforce in February 2000

Sales force automation as a "Internet as a service", with XML APIs were part of Salesforce.com from day one.

The screenshot shows the Salesforce.com website interface. At the top left is the "salesforce.com" logo. To its right is a navigation bar with buttons for "Home", "Accounts", "Contacts", "Opportunities", and "Forecasts". Below this is a purple bar with "Contact Us", "Company Profile", and "Join Our Team". On the left side, there is a "Secure Customer Login" section with a "User Name" input field, a "Password" input field, and a "Go!" button. Below the login section is a "Sign up!" section with the text "Take advantage of the benefits of salesforce.com." On the right side, there is a large red heading "Just Sign On!" followed by "Online Sales Force Automation" in red. Below this is a paragraph of text: "Exploit the power of the Internet to access, manage and share all of your business' sales information...[safely](#), [securely](#), [immediately](#)."

eBay Application Program Interface (API) November 2000

with the eBay Developers Program, but for only a select number of licensed eBay partners & developers

The screenshot shows the eBay Developers Program website. At the top left is the eBay logo with the text "Developers Program" next to it. Below the logo is a search bar with a "Go" button. To the right of the search bar is a "News" section. The main headline in the news section is "eBay Launches New Initiative to Provide Expanded E-Commerce Solutions". Below this headline is a paragraph of text: "SAN JOSE, Calif., Nov. 20 – eBay®, the world's leading online trading community, today l... eBay to drive their own businesses. The groundbreaking initiative will initially be rolled ou...". Below this paragraph is another paragraph: "Our new API has tremendous potential to revolutionize the way people do business on e... providing the tools that developers need to create applications based on eBay technology...". Below this paragraph is a third paragraph: "The API will provide three basic benefits. First, it will allow eBay to be fully integrated into... money from the start-up process. For example, a site selling musical instruments through... 19 million registered users." On the left side of the page, there is a navigation menu with links: "Search", "Tips for searching", "Secure Search", "Getting Started", "Development Products", "Apply for the Developers Program", "Application Certification", "Developer Support", and "News".

eBay™ Developers Program

Search

[Tips for searching](#)
[Secure Search](#)

[Getting Started](#)
[Development Products](#)
[Apply for the Developers Program](#)
[Application Certification](#)
[Developer Support](#)

[News](#)

News

eBay Launches New Initiative to Provide Expanded E-Commerce Solutions

SAN JOSE, Calif., Nov. 20 – eBay®, the world's leading online trading community, today l... eBay to drive their own businesses. The groundbreaking initiative will initially be rolled ou...

"Our new API has tremendous potential to revolutionize the way people do business on e... providing the tools that developers need to create applications based on eBay technology...

The API will provide three basic benefits. First, it will allow eBay to be fully integrated into... money from the start-up process. For example, a site selling musical instruments through... 19 million registered users.

Amazon Web Service (AWS) 2002

The modern Web API movement was kicked off.

The screenshot shows the Amazon.com homepage from July 2002. At the top left is the Amazon logo. To its right, there is a navigation bar with links for "Your Amazon.com", "Today's Deals", "Gifts & Wish Lists", and "Gift Cards". Below this is a search bar with a dropdown menu set to "All Departments" and a "Shop All Departments" button. On the left side, there is a "Media Room Home" sidebar with links to "News Releases", "Media Kit", "Inquiries", "Images", "Special Content", "Amazon Support for Author and Writer Groups", and "Amazon and the Environment". The main content area features a "News Release" section with a headline: "Amazon.com Launches Web Services; Developers Can Now Incorporate Amazon.com Content into Their Own Web Sites; Extends 'Welcome Mat' for Developers". The text below the headline states: "SEATTLE, Jul 16, 2002 -- Today Amazon.com (Nasdaq: AMZN) launched its first version of 'Amazon.com Web Services' -- creating innovative Web solutions and services designed specifically for developers and web site owners. By using Amazon.com Web Services (www.amazon.com/webservices) developers can build applications and tools that incorporate many of the unique features of Amazon.com into their web sites -- free of charge. 'We're putting out a welcome mat for developers -- this is an important beginning and new direction for us,' said CEO of Amazon.com. 'Developers can now incorporate Amazon.com content and features directly onto their own web sites to see how they're going to surprise us.'"

amazon.com Hello. [Sign in](#) to get personalized recommendations. New customer? [Start here](#).

Your Amazon.com | Today's Deals | [Gifts & Wish Lists](#) | [Gift Cards](#)

[Shop All Departments](#) Search

Media Room Home

- [News Releases](#)
- [Media Kit](#)
- [Inquiries](#)
- [Images](#)
- [Special Content](#)
- [Amazon Support for Author and Writer Groups](#)
- [Amazon and the Environment](#)

News Release

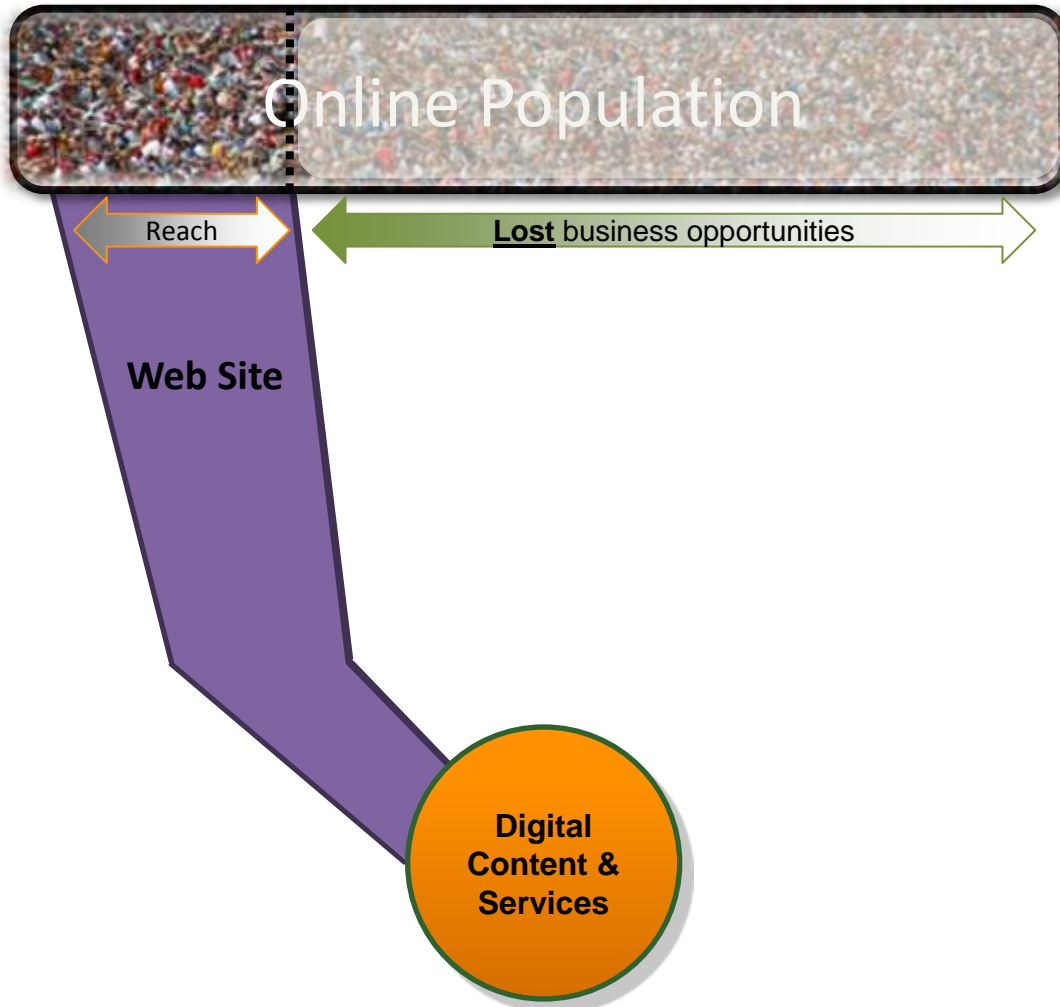
Amazon.com Launches Web Services; Developers Can Now Incorporate Amazon.com Content into Their Own Web Sites; Extends "Welcome Mat" for Developers

SEATTLE, Jul 16, 2002 -- Today Amazon.com (Nasdaq: AMZN) launched its first version of "Amazon.com Web Services" -- creating innovative Web solutions and services designed specifically for developers and web site owners.

By using Amazon.com Web Services (www.amazon.com/webservices) developers can build applications and tools that incorporate many of the unique features of Amazon.com into their web sites -- free of charge.

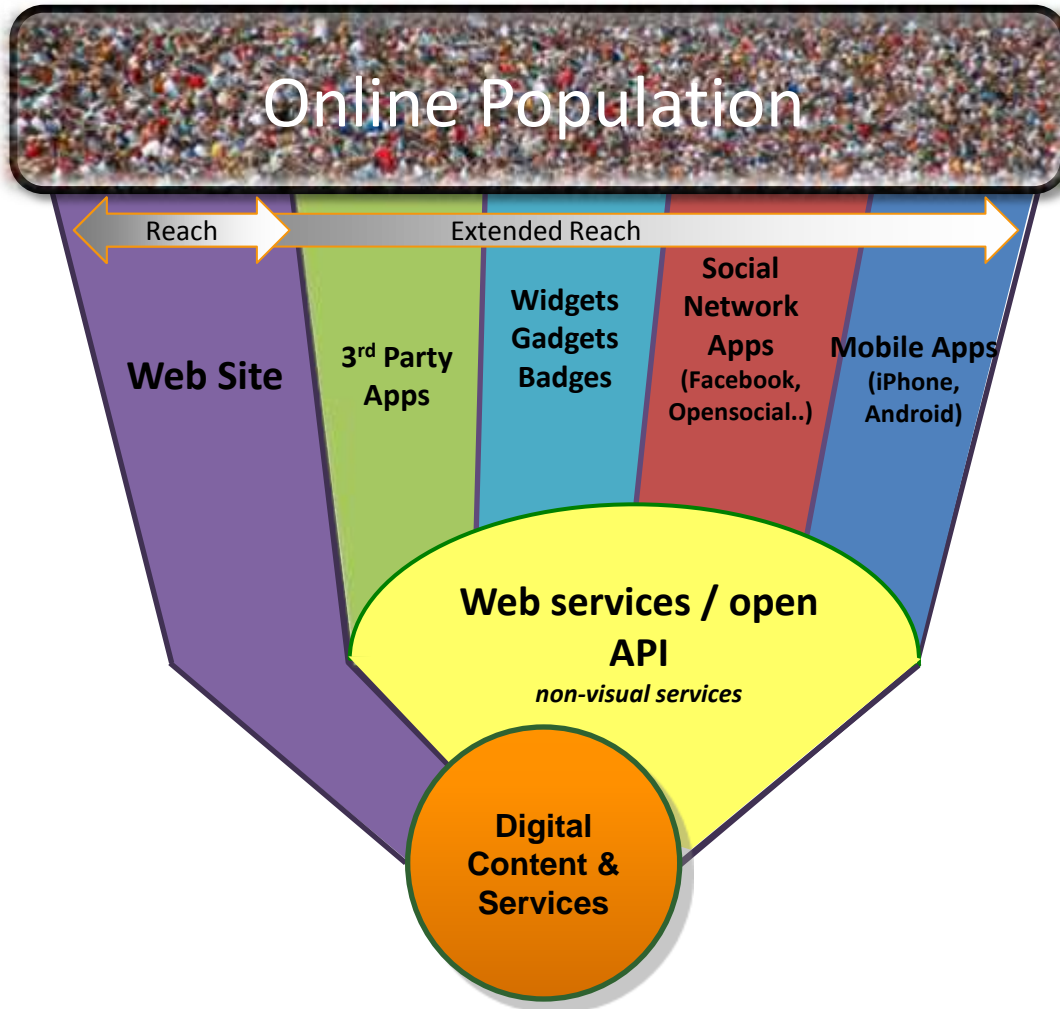
"We're putting out a welcome mat for developers -- this is an important beginning and new direction for us," said CEO of Amazon.com. "Developers can now incorporate Amazon.com content and features directly onto their own web sites to see how they're going to surprise us."

How do you reach your users/clients?



- Limited reach
- Lost business opportunities
- Limited brand awareness
- Web scraping risks
- Important SEO and SEM costs

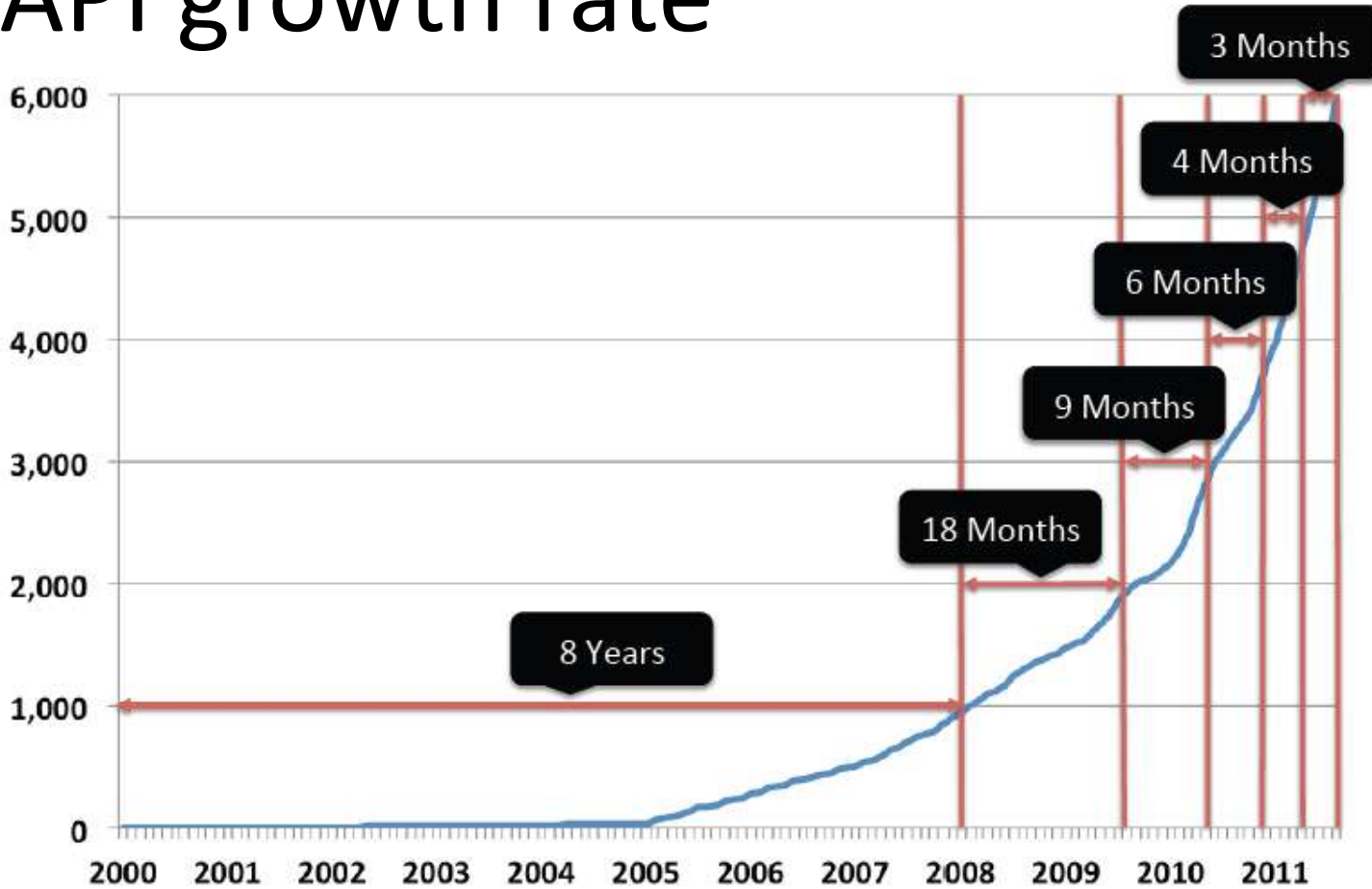
Develop a distributed web strategy...
...and make your content/services ubiquitous



next: Semantic Web

APIs unlock new distribution channels and unleash the power of your web service and online business.

API growth rate



API growth rate

Based on directory of 6,000 web APIs listed at ProgrammableWeb, May 2012

October 2013 ! :

10067
APIs

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Open API Timeline (Source: John Musser, Programmable Web)

API Billionaires Club



13 billion API calls / day *(May 2011)*



5 billion API calls / day *(April 2010)*



5 billion API calls / day *(October 2009)*



1.4 billion API calls / day *(May 2012)*



1.1 billion API calls / day *(April 2011)*



1 billion API calls / day *(May 2012)*



1 billion API calls / day *(Q1 2012)*



1 billion API calls / day *(January 2012)*

More API Billionaires



12 billion API calls / month *(May 2011)*



5 billion API calls / month *(May 2011)*



3.7 billion calls / month *(August 2011)*



3 billion API calls / month *(July 2011)*



2.5 billion API calls / month *(April 2012)*



6 billion API calls / month *(February 2011)*




3.2 billion API-delivered stories / month *(October 2011)*



2 billion API calls / month *(December 2010)*

APIs, now a billion \$ business


Expedia[®] = \$2 billion/year
Affiliate Network

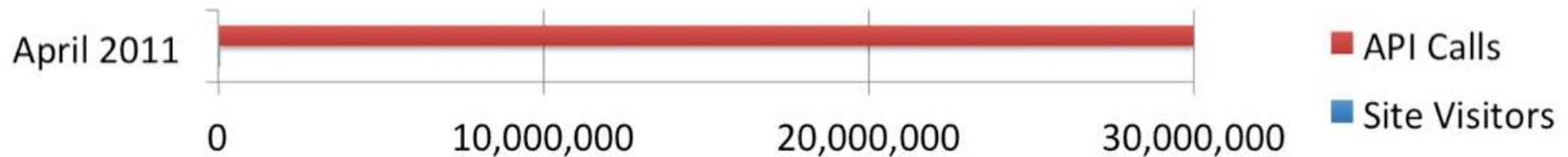
“90% of what we do is
business through APIs”

Forget the web site, let's focus on the API



**Qwerly shuttered profile pages in favor
of lucrative 'DNS for people' API**

TechCrunch, May 5, 2011



API as Product



FullContact



customer == developer

API as Brand

APIbrandJohnMusserProgrammableWeb2012

New API

“Powered by”



=

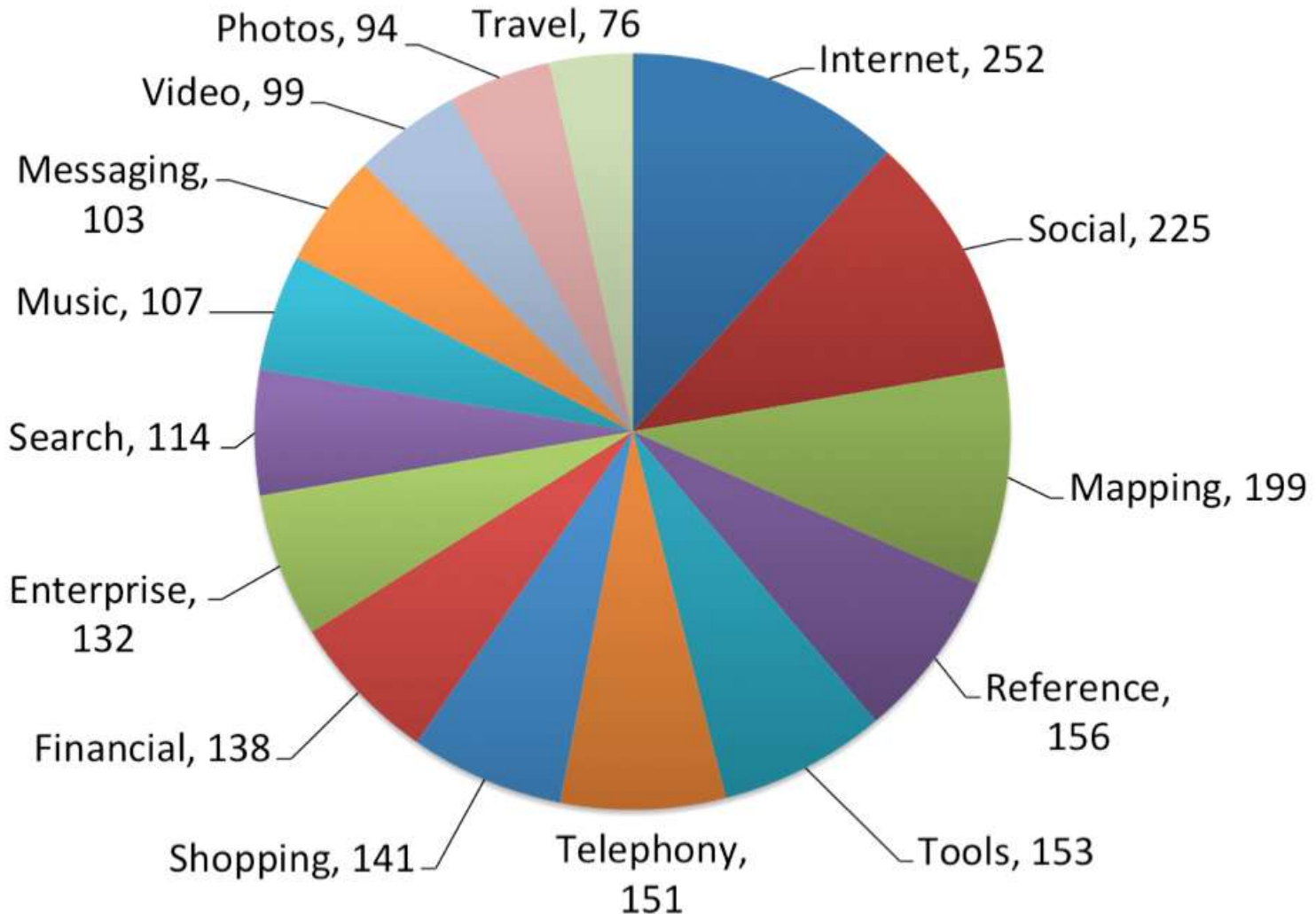


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APIs: some very competitive markets

Number of APIs, Top 15 Categories



Based on directory of 3,200 web APIs listed at ProgrammableWeb, May 2011

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Open APIs: Why bother?

- **Make money**

- 60% of all listings on eBay.com added via their APIs



- **Save money**

- SmugMug saves > \$500K/year with Amazon S3 Storage



- **Build brand**

- Google Maps 300% growth vs 20% MapQuest



- **Move to the cloud**

- Over 50% of all transactions via their API



- **Go anywhere**

- Netflix now available on over 200 devices



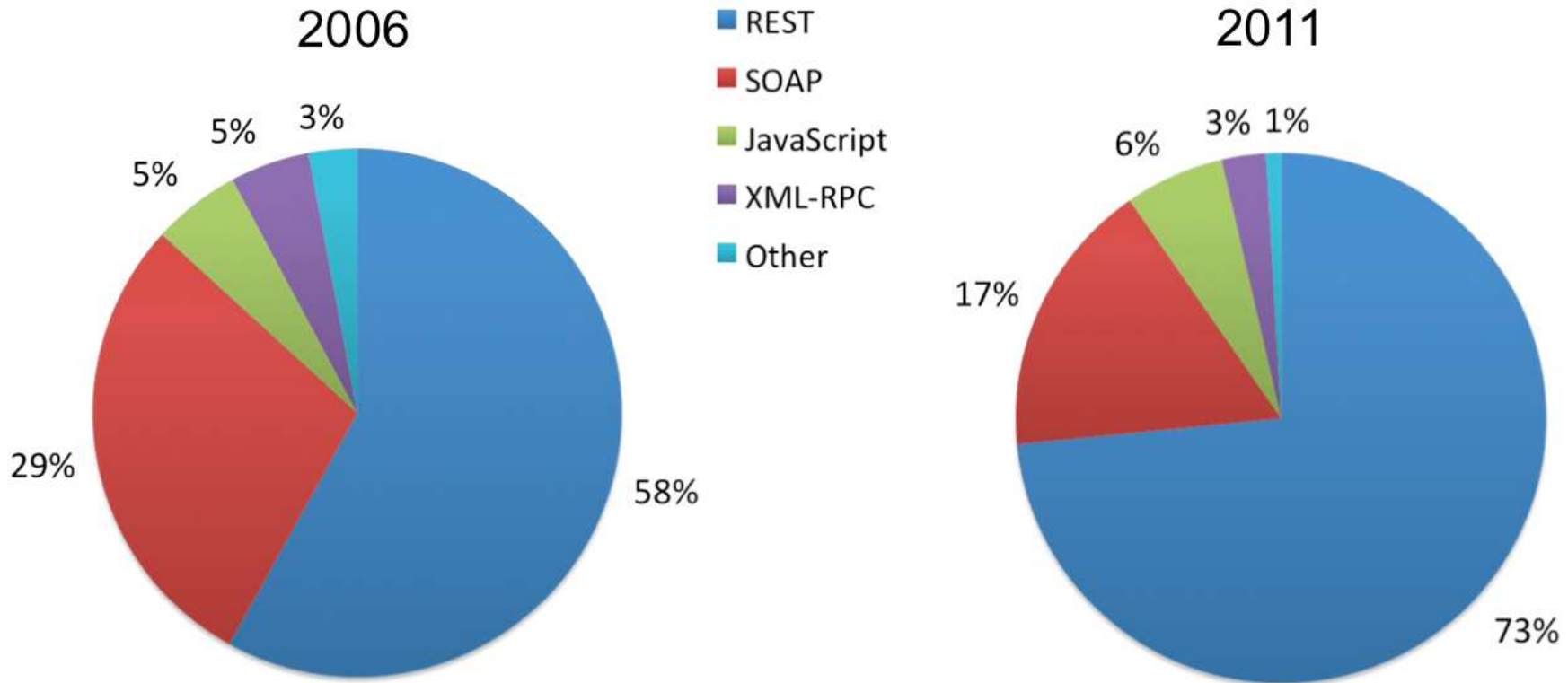
Why

- Unlock business of data & services assets, but considering
 - Lack of resource
 - Need of external to mix & combine (mashup)
 - Use partner's communication, marketing, & sales
- “Mobile first” needs & supports RESTful
- (en)force a correct service-oriented architecture (SOA)
- Reverse IT systems aspect ... that were sometime barrier to innovation instead of a barrier to entry

API needs: systems challenges

- More than SOA (change: internal > external)
 - developer portals (“on boarding”)
 - access (key) management & approval
 - metering, monitoring, reporting, billing
- For SOA native: from SOAP & XML to RESTfull (& Json)
- Hybrid architecture taking account of legacy systems (for integration)
 - different integration technologies
 - on-premises & cloud-based integration solutions

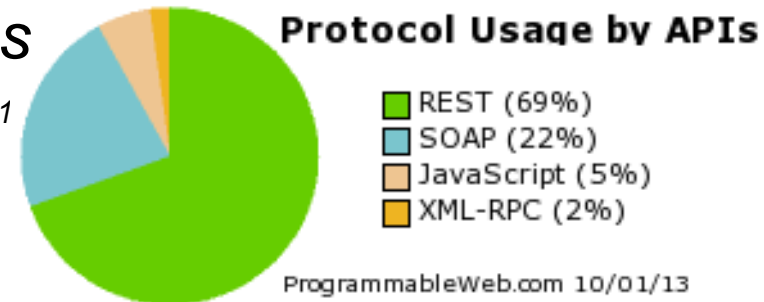
REST vs. SOAP: Simplicity wins again



Distribution of API protocols and styles

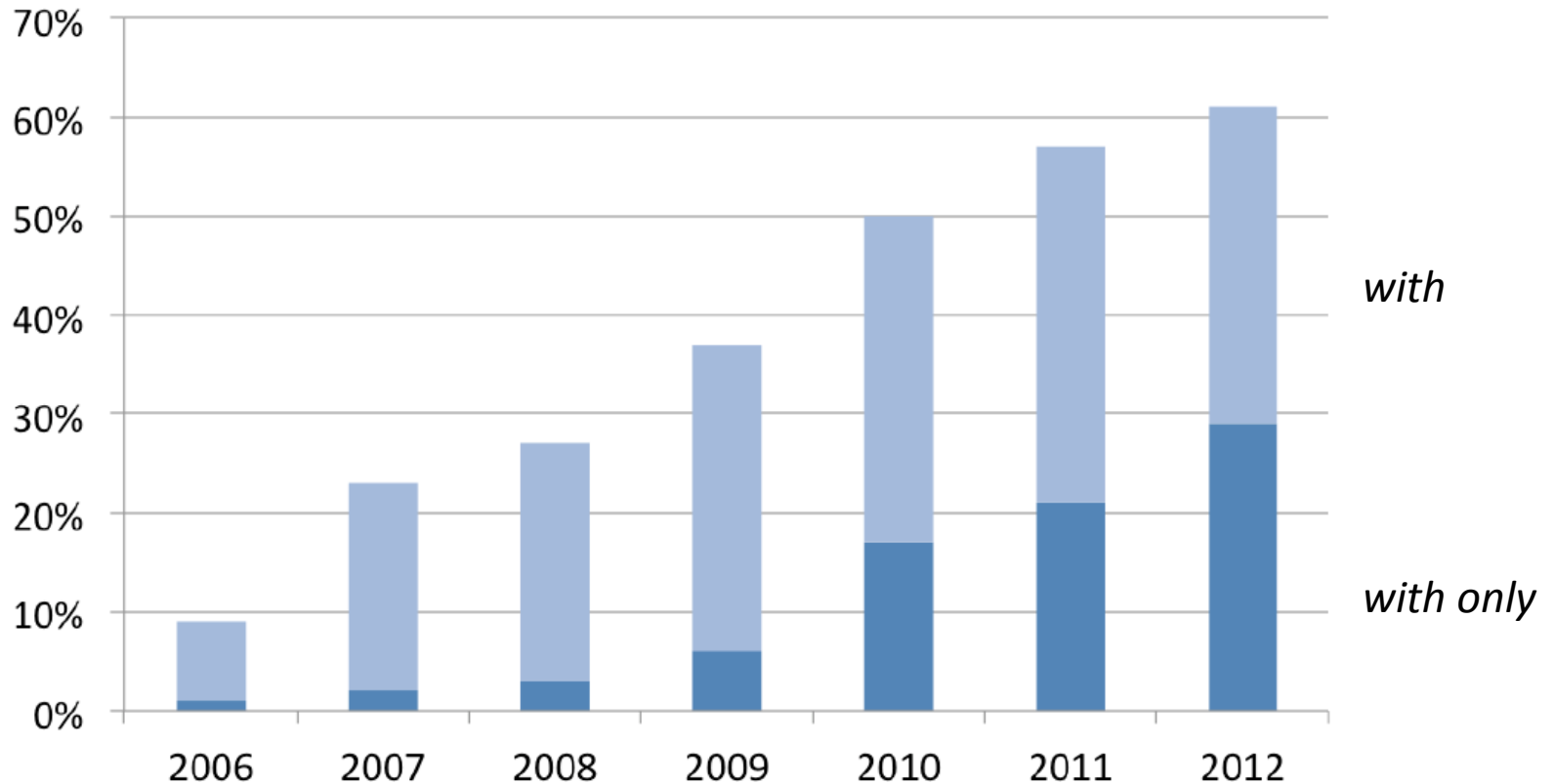
Based on directory of 3,200 web APIs listed at ProgrammableWeb, May 2011

John Musser, ProgrammableWeb,
@johnmusser, SemTech 2011



JSON Rising: 55% of all new APIs support JSON

20% of all new APIs support only JSON



Percentage of new APIs with (only) JSON support

Based on directory of 3,200 web APIs listed at ProgrammableWeb, May 2011

API management solutions (1/2)

Figure 1. Magic Quadrant for Application Services Governance



Source: Gartner (August 2013)

As of August 2013

API management solutions (2/2)

Figure 5 Forrester Wave™: API Management Platforms, Q1 '13



API B2B users (evolution, inspiration for step-by-step implementation)

- Internal developers (same group, other departments, subsidiaries, acquired firms)
 - Known customers (under contract)
 - API as (free) subpart of other product(s)
 - API as standalone product (own business model)
 - Known partners (Resellers, Affiliates, Suppliers)
-
- Unknown external developers
 - new customers & partners from online self-service
 - (switch) from partner model to platform model

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API business models

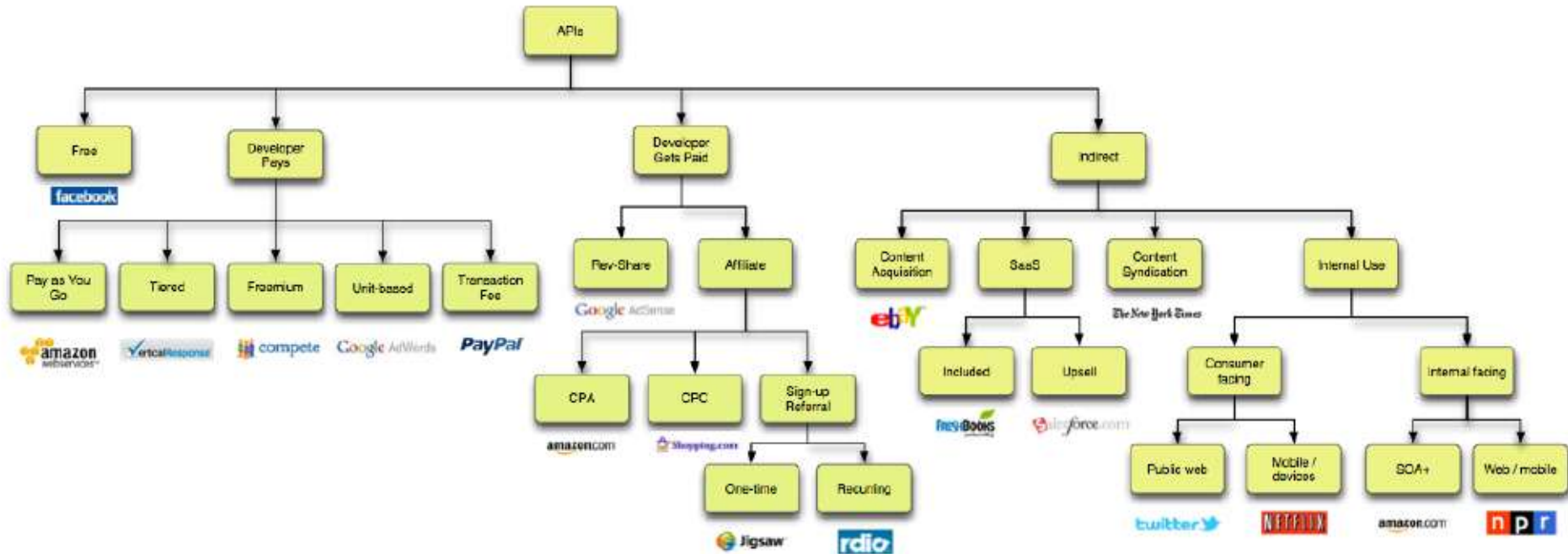
<i>Who</i>	<i>What</i>	<i>How</i>
Amazon Associates	Retail	Affiliate Model
Amazon S3	Infrastructure	Pay-as-you-go
eBay	Auctions	APIs for listings
Exact Target	Bulk Email	Tiered pricing
Rhapsody	Music	Partnerships
Salesforce.com	CRM / SFA	SaaS per-seat licenses

Best practice: Bake your business model into your API

Salesforce API pricing (license upsell)

			Most popular	
CONTACT MANAGER	GROUP	PROFESSIONAL	ENTERPRISE	UNLIMITED
Contact management for up to 5 users	Basic sales & marketing for up to 5 users	Complete CRM for any size team	Customize CRM for your entire business	Premier+Success Plan optimize CRM for your business
\$5	\$25	\$65	\$125	\$250
/user/month* (billed annually)	/user/month* (billed annually)	/user/month* (billed annually)	/user/month* (billed annually)	/user/month* (billed annually)
Try for FREE >	Try for FREE >	Try for FREE >	Try for FREE >	Try for FREE >
Includes the following features:	Contact Manager features	Group features	Professional features	Enterprise features
Accounts & contacts	+	+	+	+
Task & event tracking	Opportunity tracking	Mass email	Workflow & approval automation	24x7 toll-free premier support
Outlook, Gmail email integration	Lead scoring, routing & assignment	Campaigns	Integration via web service API	Multiple sandboxes
Mobile access	Email templates & tracking	Customizable dashboards	Profiles and page layouts	Mobile customization & administration
Content library				Unlimited access to

API Business Models, 2012



John Musser, ProgrammableWeb,
@johnmusser

Note: models are not exclusive - one API can support multiple models

API Business Models

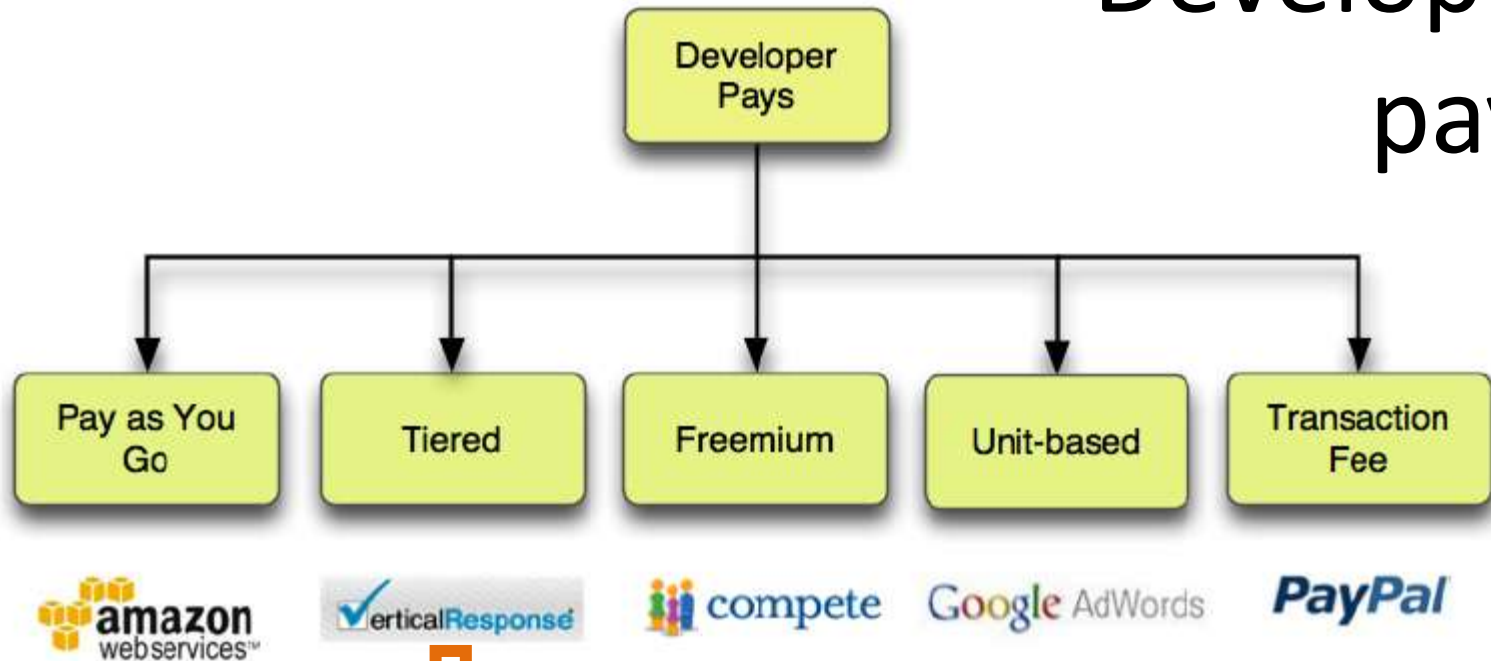
Free



facebook

API Business Models

Developer
pays



Number of Email Credits	up to 1,000	up to 2,500	up to 25,000	up to 50,000	up to 100,000	up to 500,000	over 500,000
Price per Email	1.5¢	1.3¢	1.2¢	1¢	.85¢	.75¢	Email Us

Compete API Pricing

- premium access
- annually contracted subscription
- each billing cycle with given a data-point allotment
- how much data access with subscription

Metric costs in datapoints:

Metric	Historical Data	Cost per Metric/Month
Rank	25 months	1 datapoint
Unique Visitors	25 months	1 datapoint
Visits	25 months	1 datapoint
Page Views	25 months	1 datapoint
Average Stay	25 months	1 datapoint
Visits/Person	25 months	1 datapoint
Pages/Visit	25 months	1 datapoint
Attention	25 months	1 datapoint
Daily Reach	365 days	1 datapoint
Daily Attention	365 days	1 datapoint
Gender	25 months	1 datapoint
Income	25 months	4 datapoints
Age	25 months	6 datapoints
Incoming Traffic	Current Month	158 datapoints
Top Keyword	90 day rolling	500 datapoints

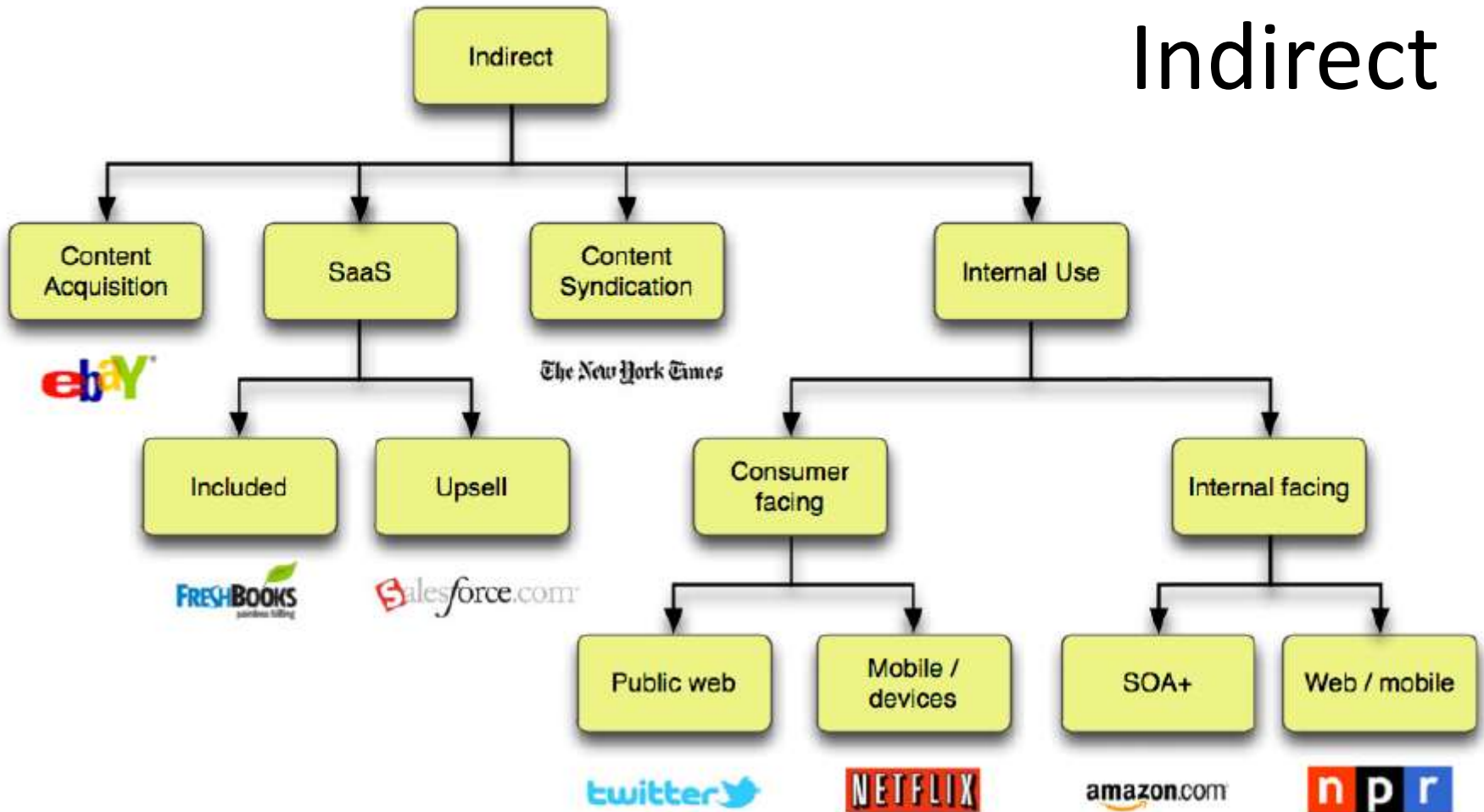
API Business Models

Developer gets paid



API Business Models

Indirect



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Success: Consider API as a product!

Strategy & concept (checklist)

- identify the goals and audience (segmentation of developers/companies and of end-users)
- understanding how an API can grow your business: make money or expand your service? (revenue, retention or reach?) / differentiation to competition? / etc.
- Business model? freemium? revenue share? cover costs? ...
- benefit of opening up my data & services in terms of reach and revenue outweigh the risk and cost (really?)
- who in the company (department) will “own” the product
- able to devote the resources needed to build a successful API team and program
- use of API management tools & platforms or do it alone, internally (on premise vs. SaaS)

Action plans

Content and services are the digital assets

- Identify your core digital assets
- Brainstorm what solutions could be invented with the help of your digital assets
- Define a few scenarios for an API-based business strategy and business model
- Scope out requirements to implement your API initiative
- Start with one strategy and business model, and be ready to adapt and change

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You cannot
substitute,
change heavily,
or just stop!

Attract developers (1/3)

- What kind of recognition does your brand already have?
- What makes your service or your API different
- Offer developers something meaningful - usually that's fame or fortune (direct economic benefit or indirect)
- Target developers who need your API to solve a real problem they have
- What kind of buzz will you get from an API launch?
- Highly segmented, individual campaigns are much more successful (“reach Twitter developers building mobile apps,” than it is to say, “I’m going to reach everyone”)
- Enough focus in the marketing in the initial months after an API launch
- How much are you willing to invest in promoting your API and supporting its users?

Attract developers (2/3)

- Be part of the community of developers you're trying to build: online communities (Blogs, wikis with documentation, newsgroups, venues for code examples, developers can share their own codes), reward the best apps, organize dev camps & hackathons, contests with interesting prizes, evangelize
- No slow onboarding, e.g. avoid complex registration and key issuance protocols
- As simple to use as possible (e.g. follow REST design principles and lower the barrier to entry, lots of communication and documentation. Code samples. Active forums where questions are answered quickly and accurately)
- How fast will you act on feedback from your API users?

Attract developers (3/3)

- Having references (developers) that relate to your business
- Few trusted developers to use a private, “pre-alpha” version of your API, and put your API through a thorough beta stage
- Use the feedback you get to improve your design, find & squash bugs, plan new version
- Partnering with other companies with APIs related to your business (complement each other, ready for mashup)
- Ready for the scope and scale of API traffic, different from the traffic your web app might see (build your infrastructure accordingly)
- Be ready to change direction / Start small. Get an API out there and learn

I ♥ APIs

- questions -

@NicolasSierro

nicolas@galixo.com

Galixo

-- backup slides --

Simple pricing

Supermarket API

Supermarket API Is The First Open Source Grocery Products API

[Sign Up](#)

API License's

3 Week Free Trial

[Try Now](#)

A simple ,easy to use set of [API functions](#). We advise starting here to get a real feel for all the power behind SupermarketAPI. In addition to having access to over 1,000,000 (1 Million) Grocery and home products that are carried at stores like Walmart,Safeway,Target,CostCo,Trader Joes and Whole Foods ,you will receive access to the following data:

- Product Name
- Product Description
- Product Image
- Product Location
- Product Weight
- NO API Support

Commercial (\$199/yr)

[Buy Now](#)

This license is for developers, that want to take the app that they build to a commercial level. [Expanded API Methods](#) All the features of the Trial License, also you will receive access to the following data:

- Product Name
- Product Description
- Product Category
- Product Image
- Product Location (if submitted with StoreID)
- Product Weight
- Product Price
- Product UPC/Barcode (September 2013)
- API Support (Email)
- First Access to New Data

“Data.com Connect” pricing (Jigsaw API)

2 contacts

Free

[Join now](#)

Give contacts to
get contacts

350 contacts

For \$250/year*

[Buy now](#)

\$1.00/contact for
additional contacts

750 contacts

For \$500/year*

[Buy now](#)

\$1.00/contact for
additional contacts

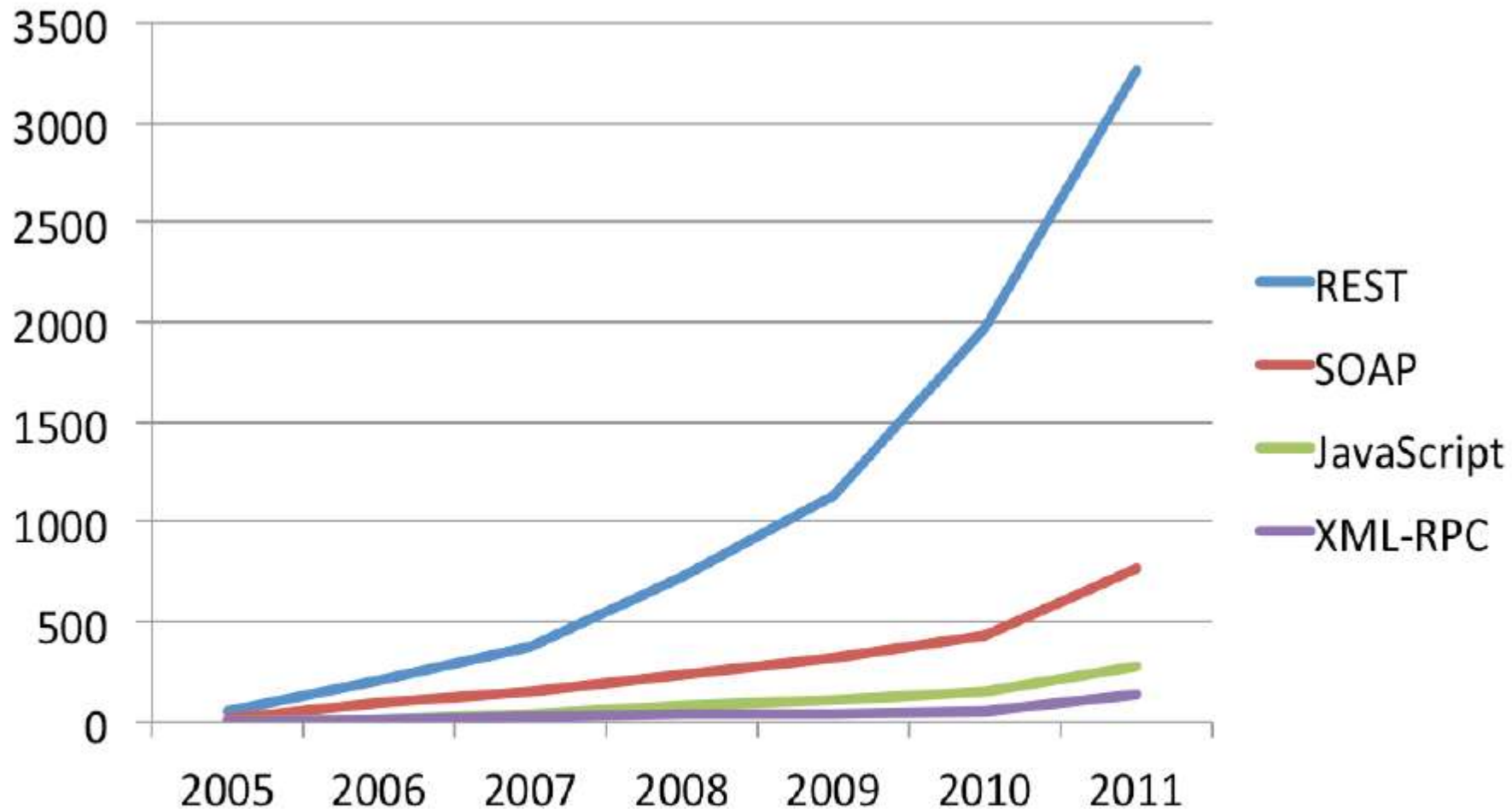
Connect Plus

3,600 contacts

For \$1,500/year*

[Buy now](#)

- Unlimited view of complete contact information
- List suppression up to 200k contacts
- \$.50/contact for additional contacts



API protocols and styles

Based on directory of 5,100 web APIs listed at ProgrammableWeb, February 2012

SOAP

```
POST /GetStock HTTP/1.1
Host: www.example.org
Content-Type: application/soap+xml
```

```
<?xml version="1.0"?>
<soap:Envelope
xmlns:soap="http://www.w3.org/2001/12/soap-
envelope"
soap:encodingStyle="http://www.w3.org/
2001/12/soap-encoding">

<soap:Body xmlns:m="http://www.example.org/
stock">
  <m:GetStockPrice>
    <m:StockName>IBM</m:StockName>
  </m:GetStockPrice>
</soap:Body>
</soap:Envelope>
```

REST

```
GET http://example.org/stock/IBM
```

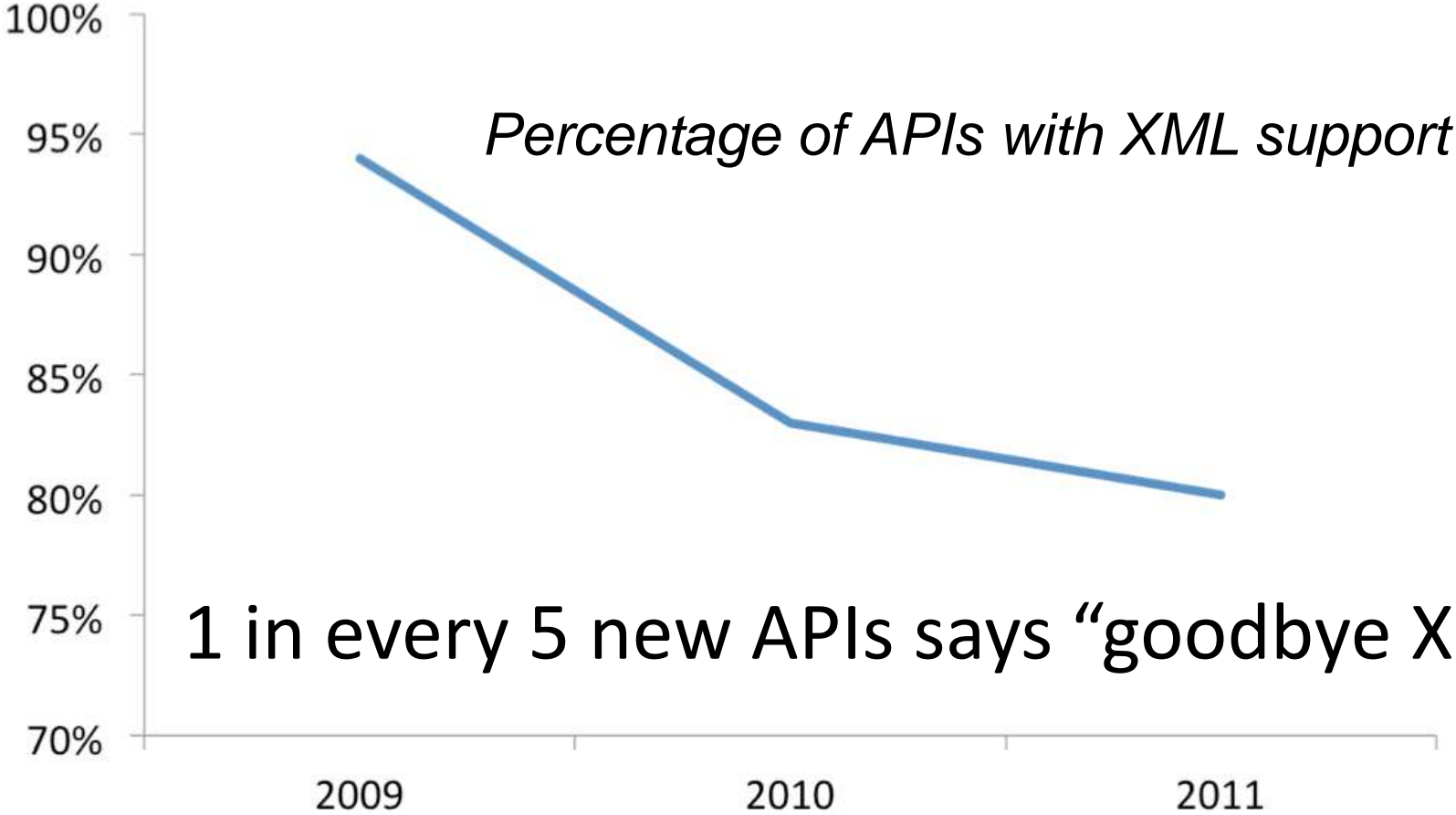
JSON

```
{  
  "symbol": "IBM",  
  "price": 94.72,  
}
```

XML

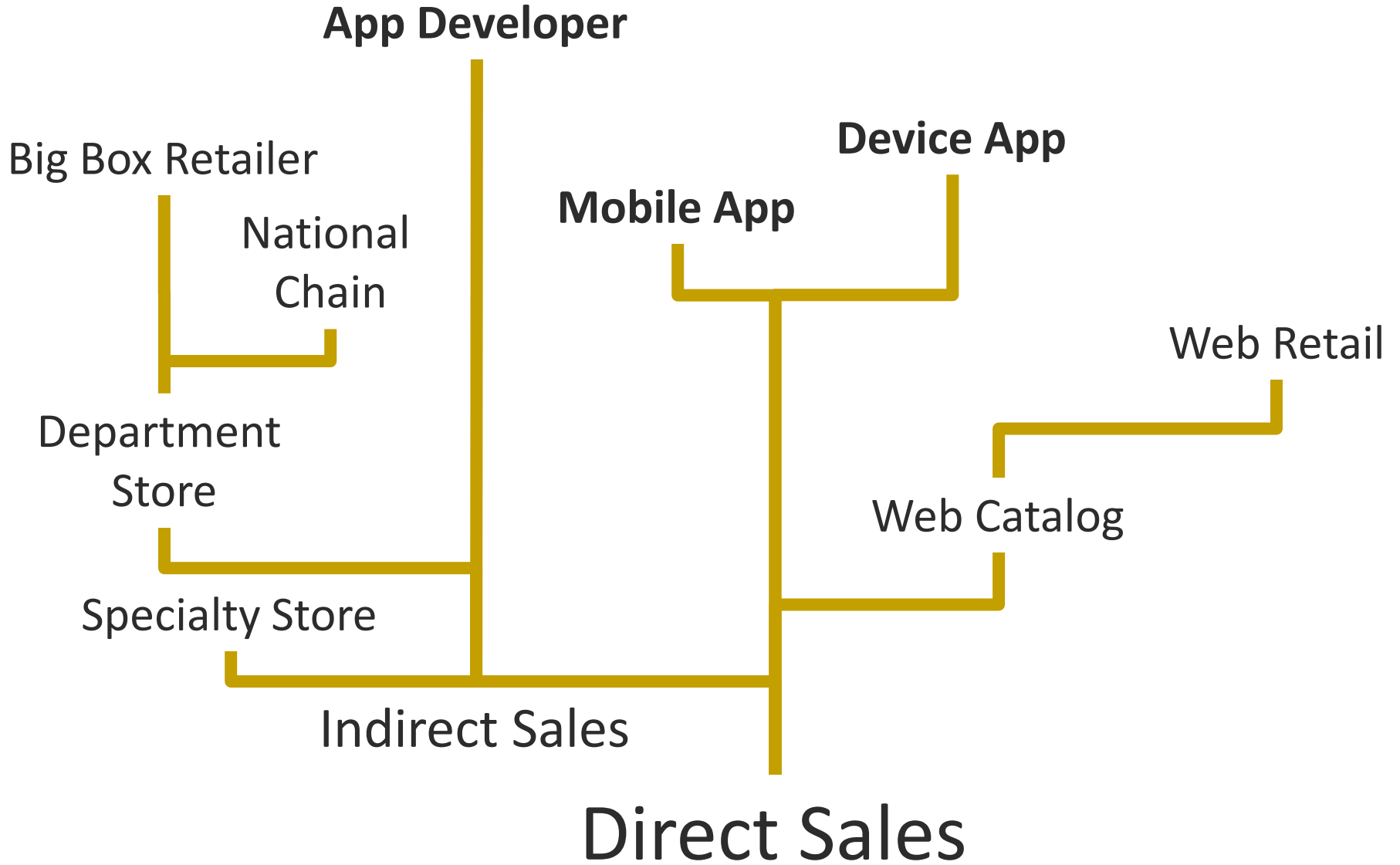
```
<?xml version="1.0"?>  
<soap:Envelope  
  xmlns:soap="http://www.w3.org/2001/12/soap-  
  envelope"  
  soap:encodingStyle="http://www.w3.org/  
  2001/12/soap-encoding">  
  
  <soap:Body xmlns:m="http://www.example.org/  
  stock">  
    <m:GetStockPriceResponse>  
      <m:Price>34.5</m:Price>  
    </m:GetStockPriceResponse>  
  </soap:Body>  
  
</soap:Envelope>
```

1 in every 5 new APIs says “goodbye XMI”



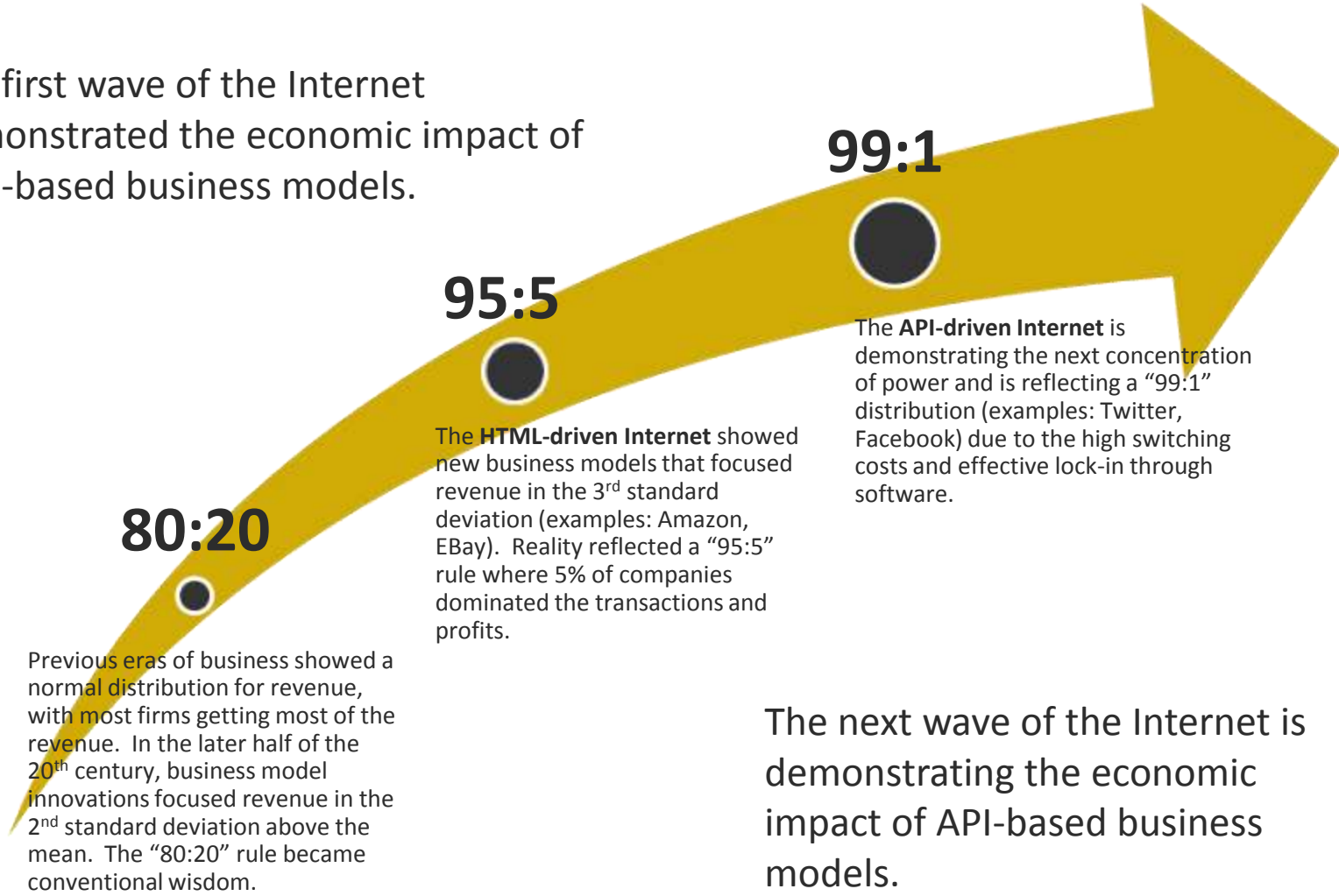
1 in every 5 new APIs says “goodbye XML”

Based on directory of 3,200 web APIs listed at ProgrammableWeb, May 2011



Hardt's Theorem: The Internet Power Law

The first wave of the Internet demonstrated the economic impact of web-based business models.

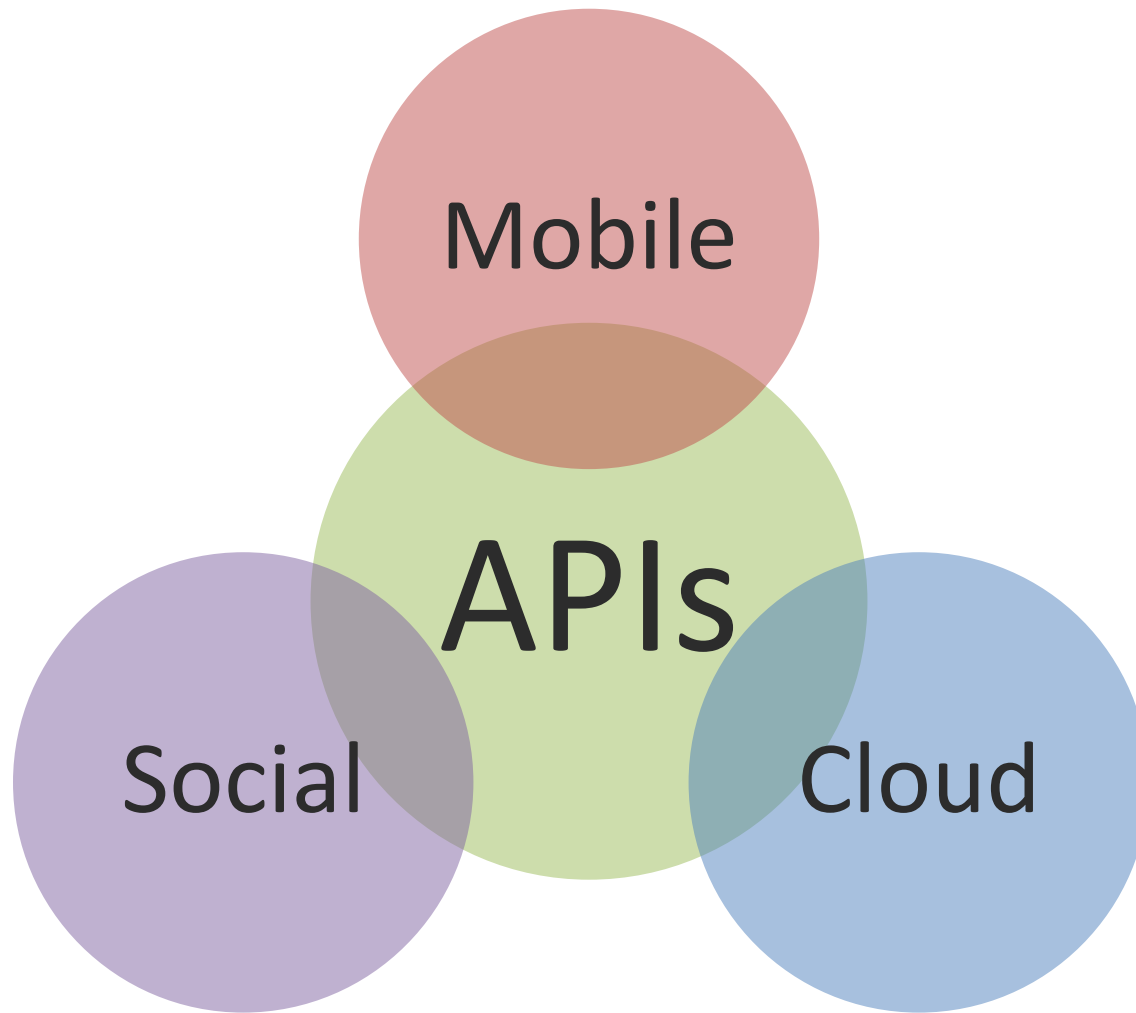




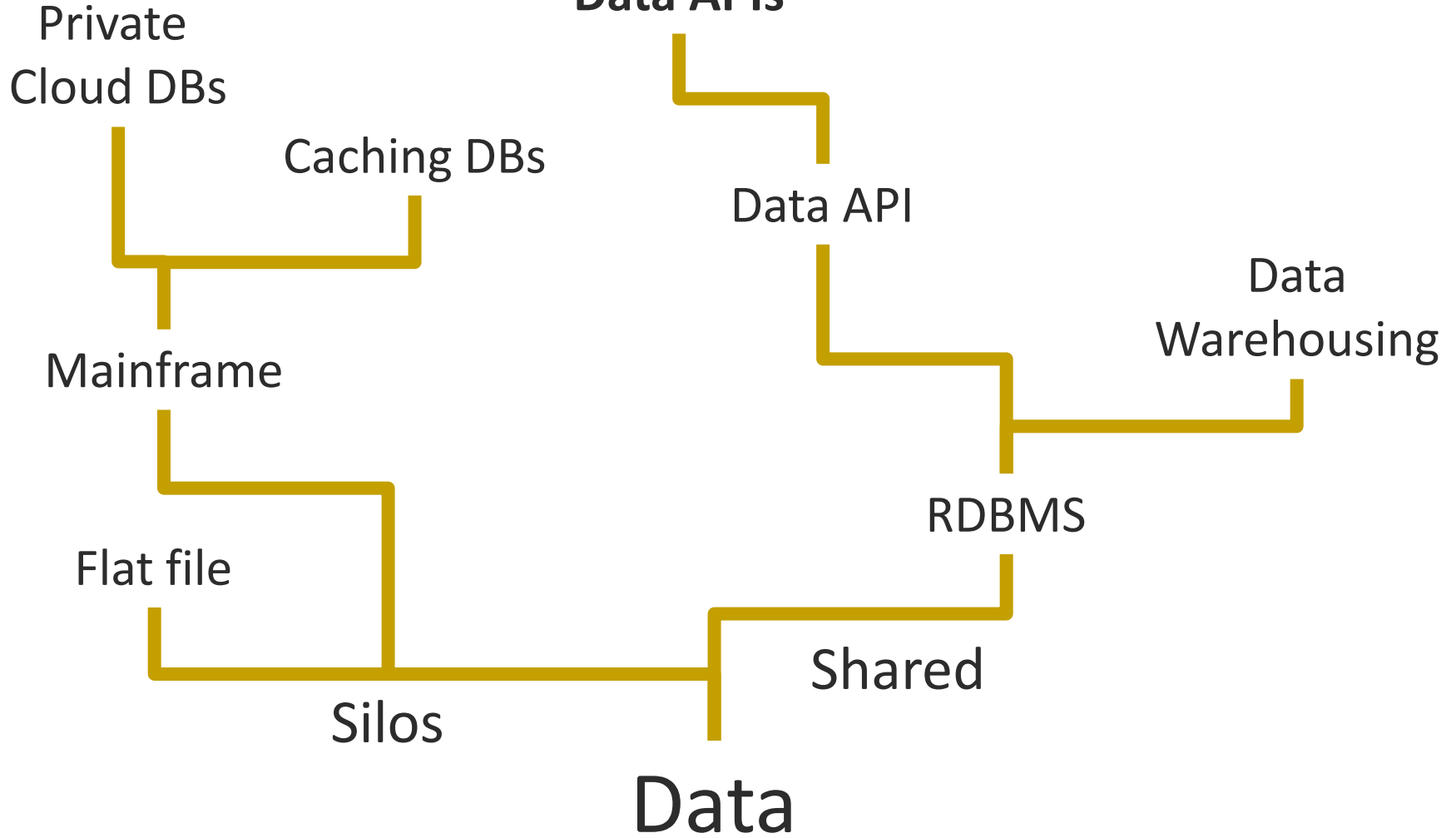
Mobile

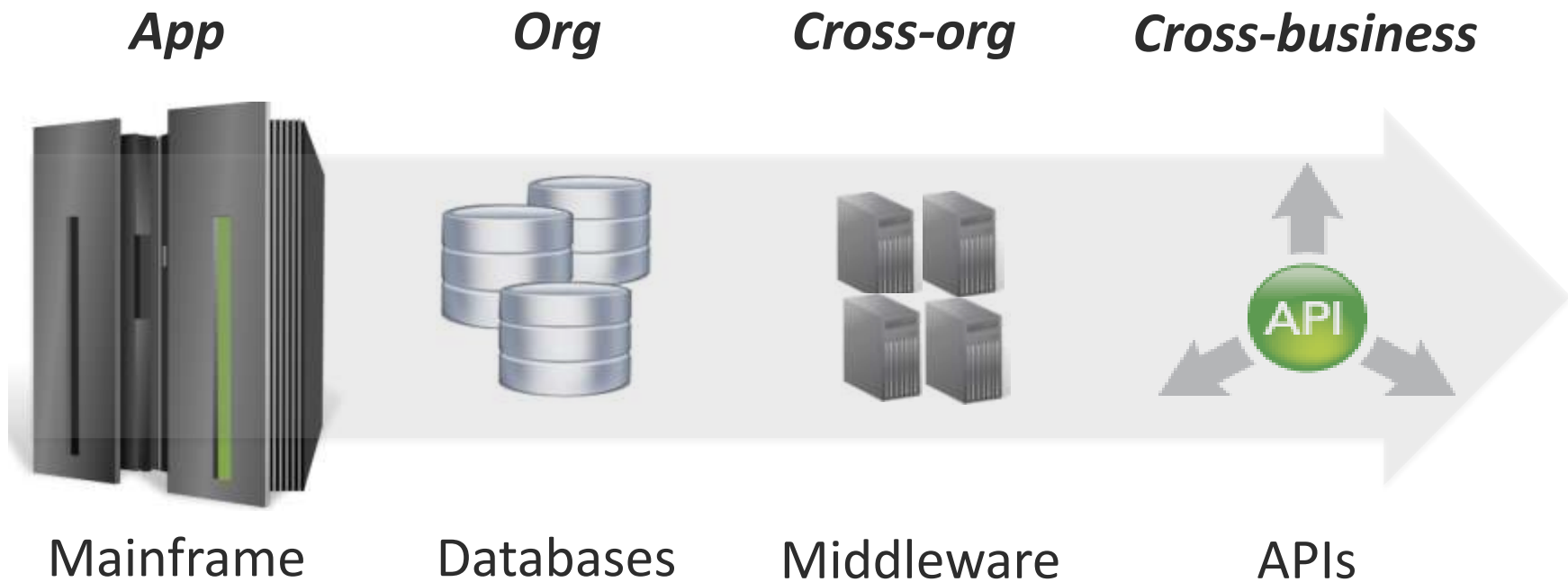
Social

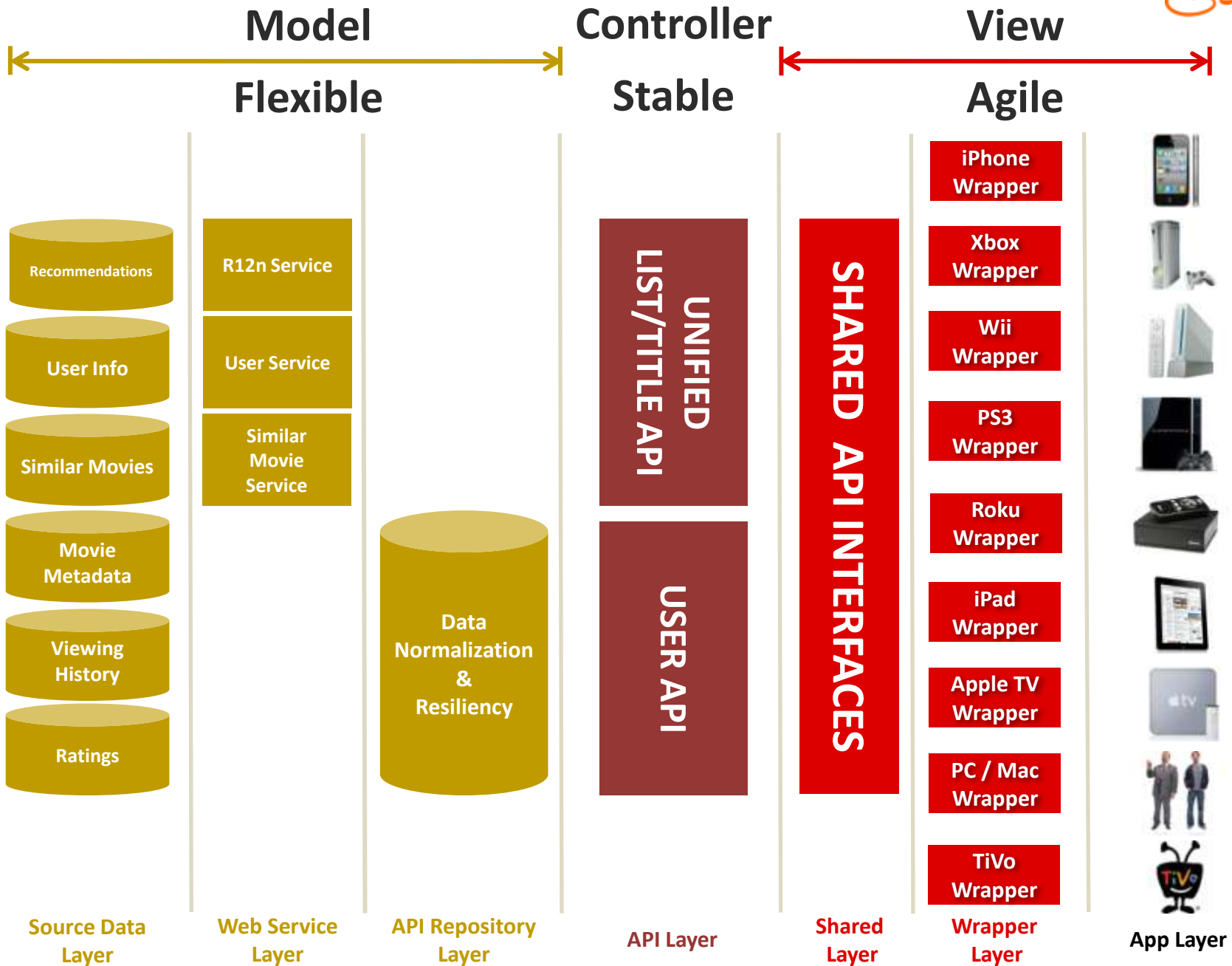
Cloud



Domain-specific Data APIs







5 Keys to a Great API

- A **valuable** service (data, function, audience, ...)
- A **plan** and a business model
- Simple, **flexible**, easily adopted
- **Managed** and measured
- Great developer **support**

"What Makes a Great Open API?" partially from page 8

Three technical approaches for API management platform market

- API gateways: on premises precise control of API traffic (to data center & public cloud)
- Plugin: access in the cloud (authentication and portal capabilities), traffic
- Cloud-based proxy: easy to deploy, but costs scale with traffic