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Overview of IBM Cloud Integration

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Agenda

- Market Observations

- API Economy

- Integration

- IBM Cloud Integration Offerings

The world is changing and each of these technology shifts has potential to make a significant impact.

Big Data

90 percent of the data created in the last two years alone.

Mobile

1 billion (plus) smart devices shipped in 2013 alone.

Social

81 percent of customers depend on social sites for purchasing advice.
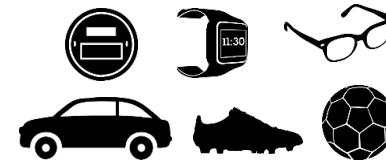
Cloud

62 percent of total workloads will be in the cloud by 2016.
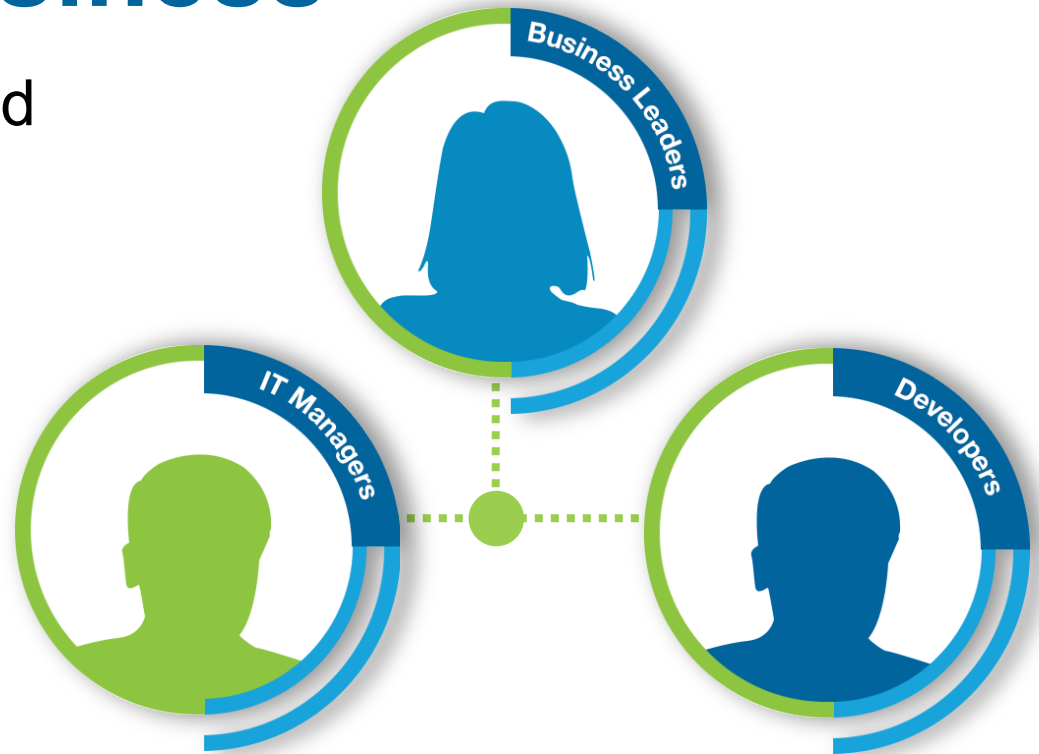
Internet of Thing

75 billion devices connected to the internet by 2020.

The Future is a
Composable
Business

- Restless reinvention and process innovation

- Better decision making from actionable insight

- Speed to market

The Path to
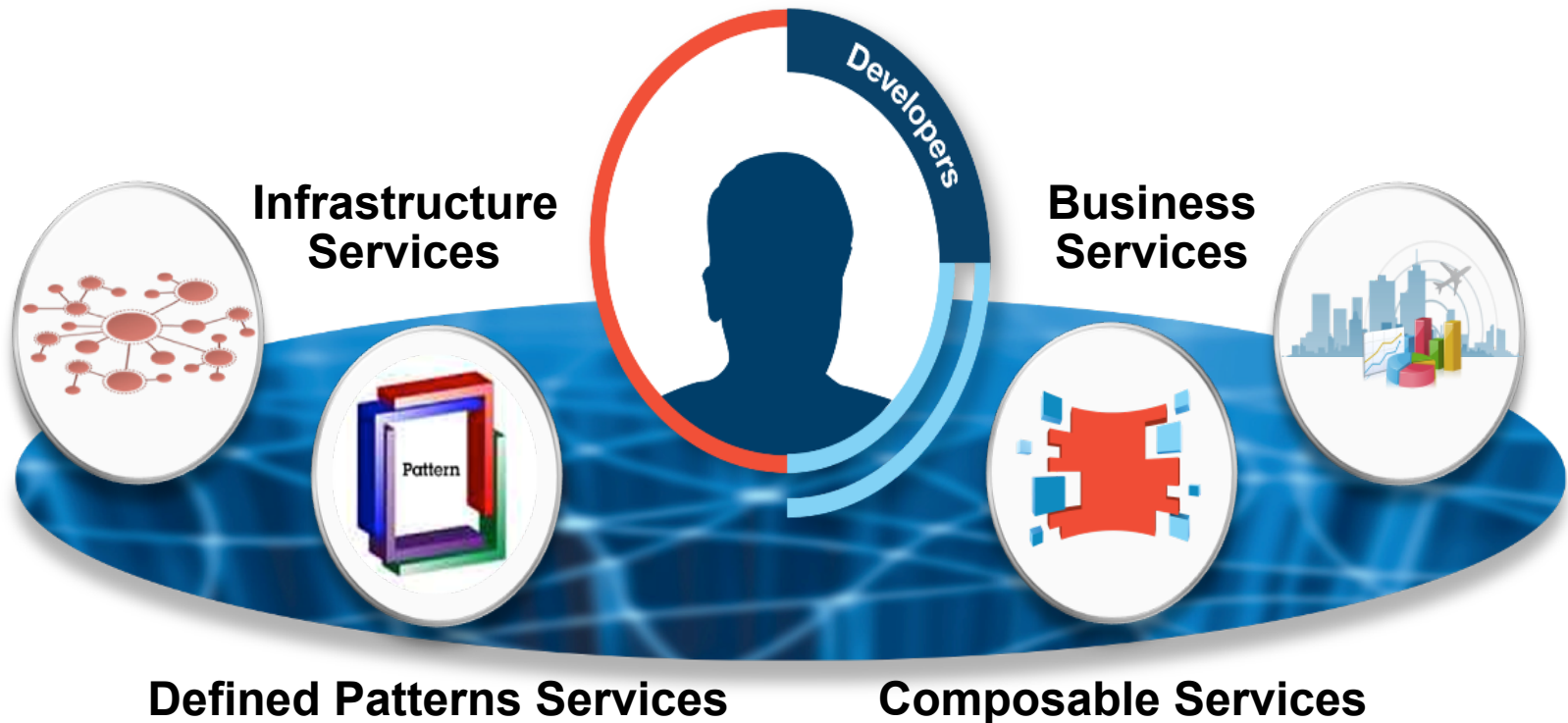# Composable Business IS
Dynamic Cloud

Business Leaders

IT Managers

Developers

The ability to dynamically consume, interconnect and orchestrate all types of clouds and IT to speed innovation and adapt to changing business conditions.

Composable Business Requires a Continuum of Services

Ranging from a an IaaS based virtual machine to a SaaS application

Infrastructure Services

Developers

Business Services

Defined Patterns Services

Composable Services

Public or Private? Dynamic is the future

Private Cloud & IT

Benefits:
- Fully customizable
- Robust management
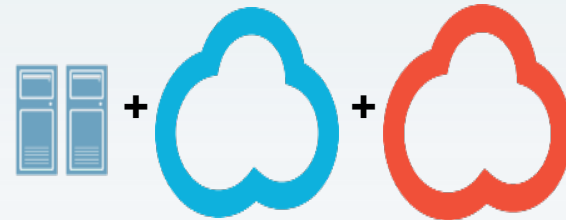- Secure by design

Public Cloud

Benefits:
- Low entry cost
- Pay-per-use
- Highly elastic

Dynamic Cloud

**Best of both worlds.
Better outcomes.**

☑ Maximize return on existing IT investments

☑ Match workloads to best-fit infrastructure

☑ Hit the right balance of risk to speed

☑ Meet seasonal capacity without CapEx

☑ Add new capabilities quickly

# *Questions to consider…*

1. How aggressive is your company playing in the API Economy? Mostly a Provider? Consumer?
   On a scale from 1-5…. (5 highest)

2. Which are the top 3 Cloud Solutions you are most likely to rent?

3. What sorts of innovative applications are you most likely to "mash up" using 3rd Party APIs?

4. Are you looking to create a marketplace for your company? What's in it?

APIs are a path to new business opportunities

Business models are evolving

stores → (800) ###s → web sites → web APIs
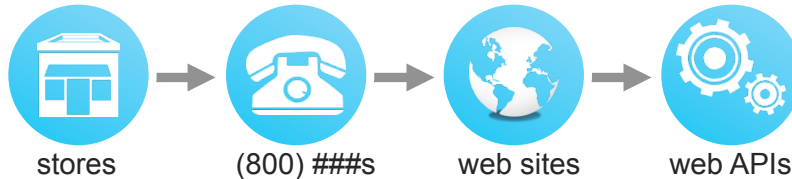
APIs represent a new, fast-growing channel opportunity

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and growth is accelerating dramatically
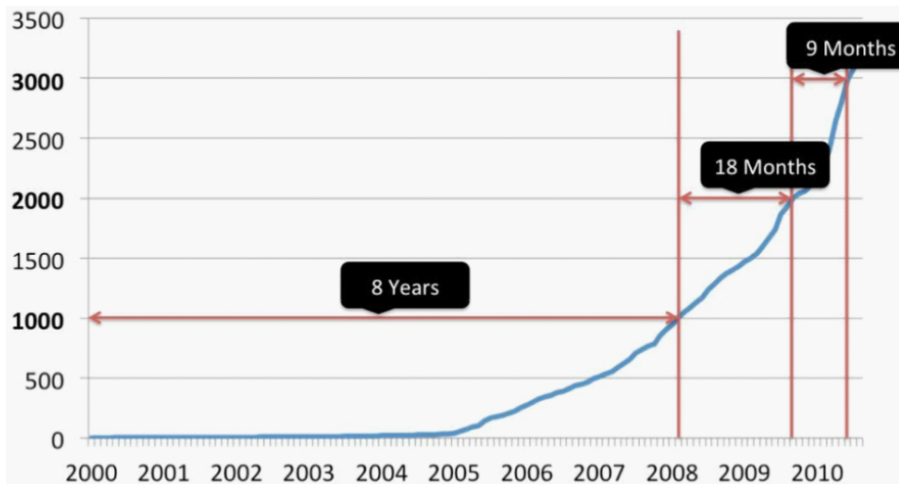
Total APIs Over Time

By 2014, **75%** of the Fortune 1000 will offer public Web APIs.

By 2016, **50%** of B2B collaboration will take place through Web APIs.

API Economy
Lifecycle

Business Assets
Exposable Enterprise
Services

Web APIs
APIs providing
commercial access
to the Business Assets

Developers
Use APIs to
create Apps

Apps
Use backend
services through
Web APIs

End Users
Increase revenue
by using Apps with
Business Assets

APIs

APP

The API Economy
Where companies [providers] expose their (internal) digital business assets or
services in the form of (Web) APIs to third parties [consumers] with the goal of
unlocking additional business value through the creation of new assets

API Economy
Mobile App Assembly

IBM APIs
- Watson
- Cloud Provisioning
- Xtify

Insurance APIs
- Life
- Home
- Auto
- Claims

Bank APIs
- Mortgage
- Online Payment
- Loans
- Account Query
- Calculators

Auto Dealer APIs
- Price
- Availability
- Location
- Configuration

Map Provider APIs
- Address
- Locator
- Weather
- Traffic

Mobile App Assemblers
Developers & Partners

cars.com

mint.com

Zillow.com

New Customers

API Economy
Provider Perspective

IBM
APIs
Watson
Cloud Provisioning
Xtify

Insurance
APIs
Life
Home
Auto
Claims

**Bank
APIs**
Mortgage
Online Payment
Loans
Account Query

Auto Dealer
APIs
Price
Availability
Location
Configuration

Map Provider
APIs
Address
Locator
Weather
Traffic

Zillow.com

cars.com

mint.com
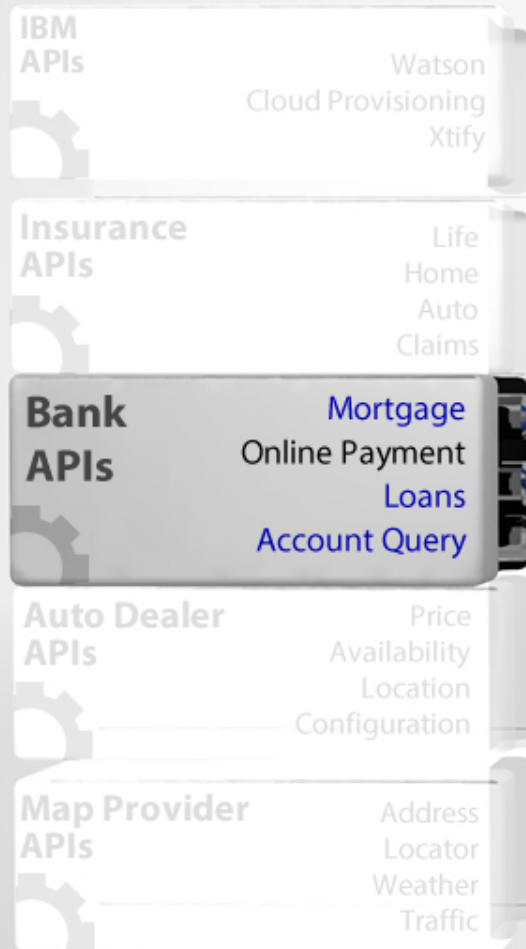
New Customers

Providers

Consumers

Pitney Bowes, a global leader in software innovations, and mailing and shipping solutions, powers billions of transactions in modern commerce

"Pitney Bowes location-based services on IBM BlueMix will allow innovators and developers to seamlessly extend their products and services to the cloud and mobile devices."
-Roger Pilc, Chief Innovation Officer, Pitney Bowes

The topology of ~~Integration~~ Interaction

Public Cloud

Private Cloud

Internet

Enterprise

Mobile

Sensors

DMZ

Extended Ecosystem

Messaging backbone in the data center connects application pillars and extends to web frontends

70's, 80's & 90's: Assured delivery & Pub/sub

The topology of ~~Integration~~ Interaction

2000's: Service creation

Integration Bus integrates apps/ data/services and partners while controlling and optimizing transactions

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The topology of ~~Integration~~ Interaction

2000's: Service creation

Integration Bus integrates apps/
data/services and partners while
controlling and optimizing
transactions

2000's: Optimize backend access

Cache grids and traffic
policies improve scale and
performance of applications
and services

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Private Cloud

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Extended Ecosystem

Secure
appliances
enable
controlled
access to
Enterprise
resources

Messaging backbone in
the data center
connects application
pillars and extends to
web frontends

70's, 80's & 90's: Assured delivery & Pub/sub

2000's: Secure gateway

The topology of ~~Integration~~ Interaction

2013: Cloud integration

Connectivity to applications in the public cloud enables Enterprises to leverage a new cloud economy
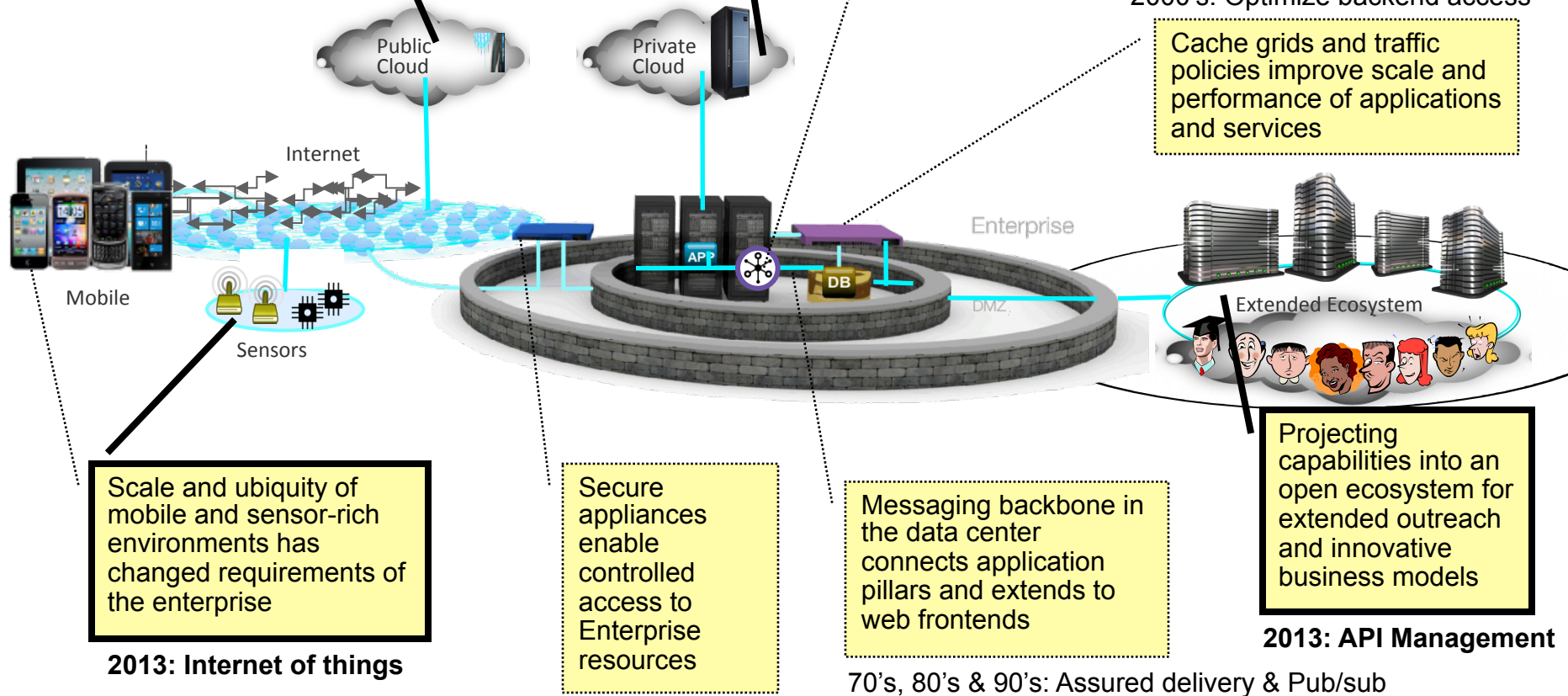
2013: "On demand" & "Follow the sun"

Enterprises looking to achieve "more with less" by better managing IT resources as collectives

2000's: Service creation

Integration Bus integrates apps/data/services and partners while controlling and optimizing transactions

2000's: Optimize backend access

Cache grids and traffic policies improve scale and performance of applications and services

Internet

Public Cloud

Private Cloud

Enterprise

Mobile

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Extended Ecosystem

Scale and ubiquity of mobile and sensor-rich environments has changed requirements of the enterprise

2013: Internet of things

Secure appliances enable controlled access to Enterprise resources

2000's: Secure gateway

Messaging backbone in the data center connects application pillars and extends to web frontends

70's, 80's & 90's: Assured delivery & Pub/sub

Projecting capabilities into an open ecosystem for extended outreach and innovative business models

2013: API Management

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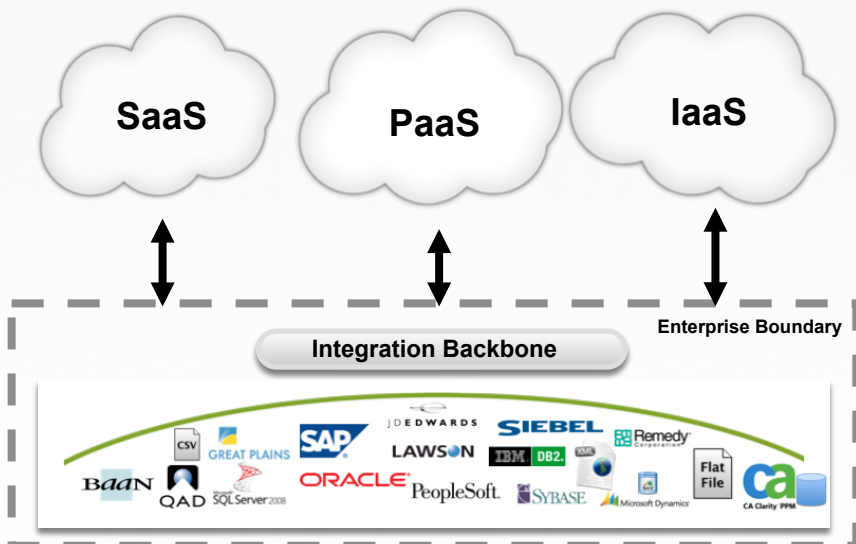# Hybrid Integration – Different Perspectives, different expectations

Enterprise-Out

Enterprise IT

1. How to Integrate and govern cloud assets as part of my enterprise

2. How to expose enterprise assets for controlled consumption in the cloud

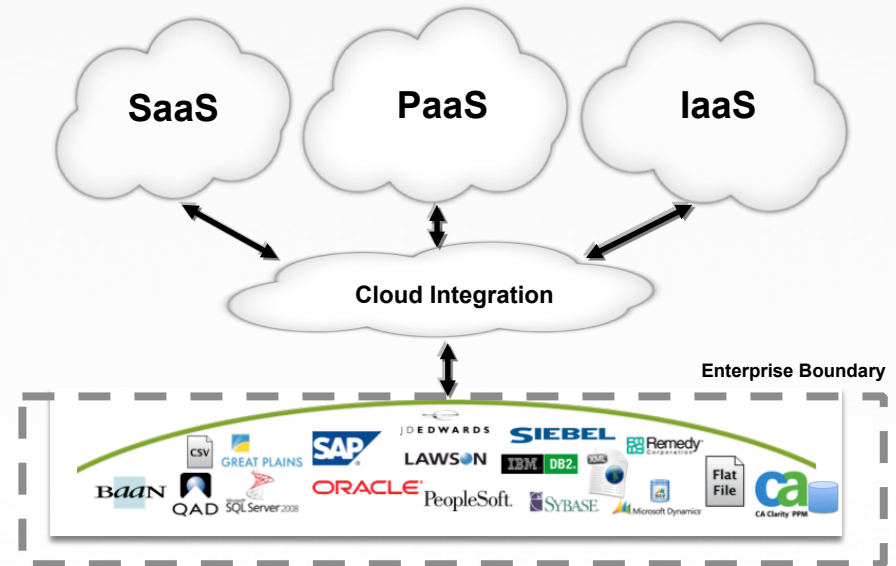IT lead Strategic Integration

Cloud-In

PaaS app developer

SaaS admin

How do I quickly integrate enterprise data/ services into my app to give value to my business

Tactical business need driven

Hybrid 2.0 is designed for Enterprise-Out and Cloud-In

Integration today is designed for one perspective or the other

Hybrid 1.0

Born in the cloud
Connecting SaaS to the enterprise
Designed to securely reach into enterprise end points
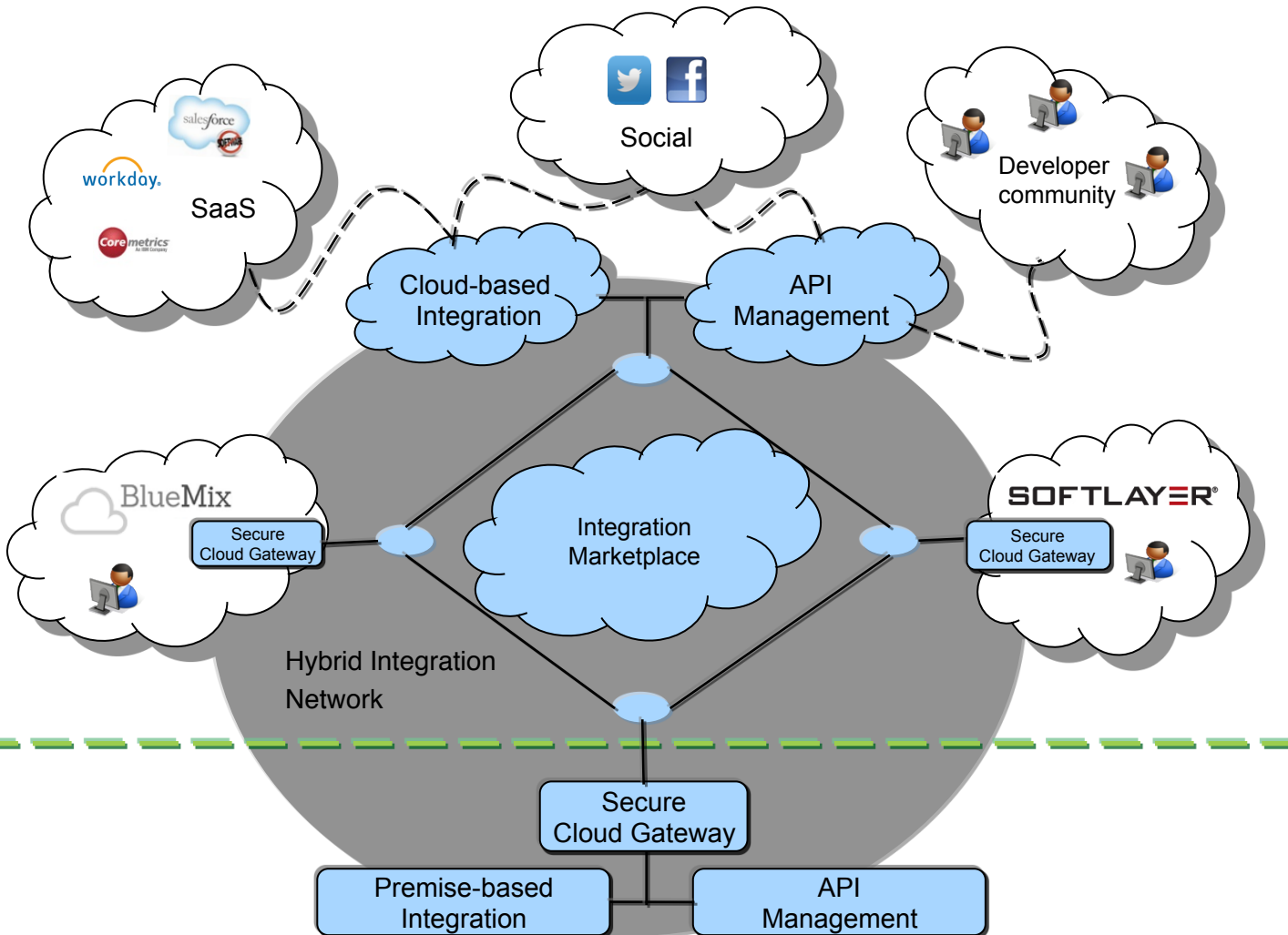Designed to be ***Cloud In***

Integration Platforms

Born within the enterprise
Designed for enterprise IT
Designed to be secured at the enterprise boundary
Starting to be extended to reach out to the cloud

Hybrid 2.0 is designed for Enterprise-Out and Cloud-In

Hybrid 2.0

Born to be hybrid
Designed to be *Enterprise Out* & *Cloud In*
Provides speed and simplicity for the business to implement tactical integration solution
Enables IT to manage and control tactical and strategic cloud integration solutions
One integration solution, run on premise, in the cloud, in your IaaS, with your PaaS apps

Cloud Integration Vision – Design Layout

SaaS — salesforce, workday., Coremetrics

Social — Twitter, Facebook

Developer community

Cloud-based Integration

API Management

BlueMix — Secure Cloud Gateway

Integration Marketplace

SOFTLAYER — Secure Cloud Gateway

Hybrid Integration Network

Secure Cloud Gateway

Premise-based Integration

API Management

SAP, DB2, ORACLE E-BUSINESS SUITE, Enterprise Services, WebSphere COMMERCE

Multi-Use Case
(cloud integ, API,
premise-based integ)
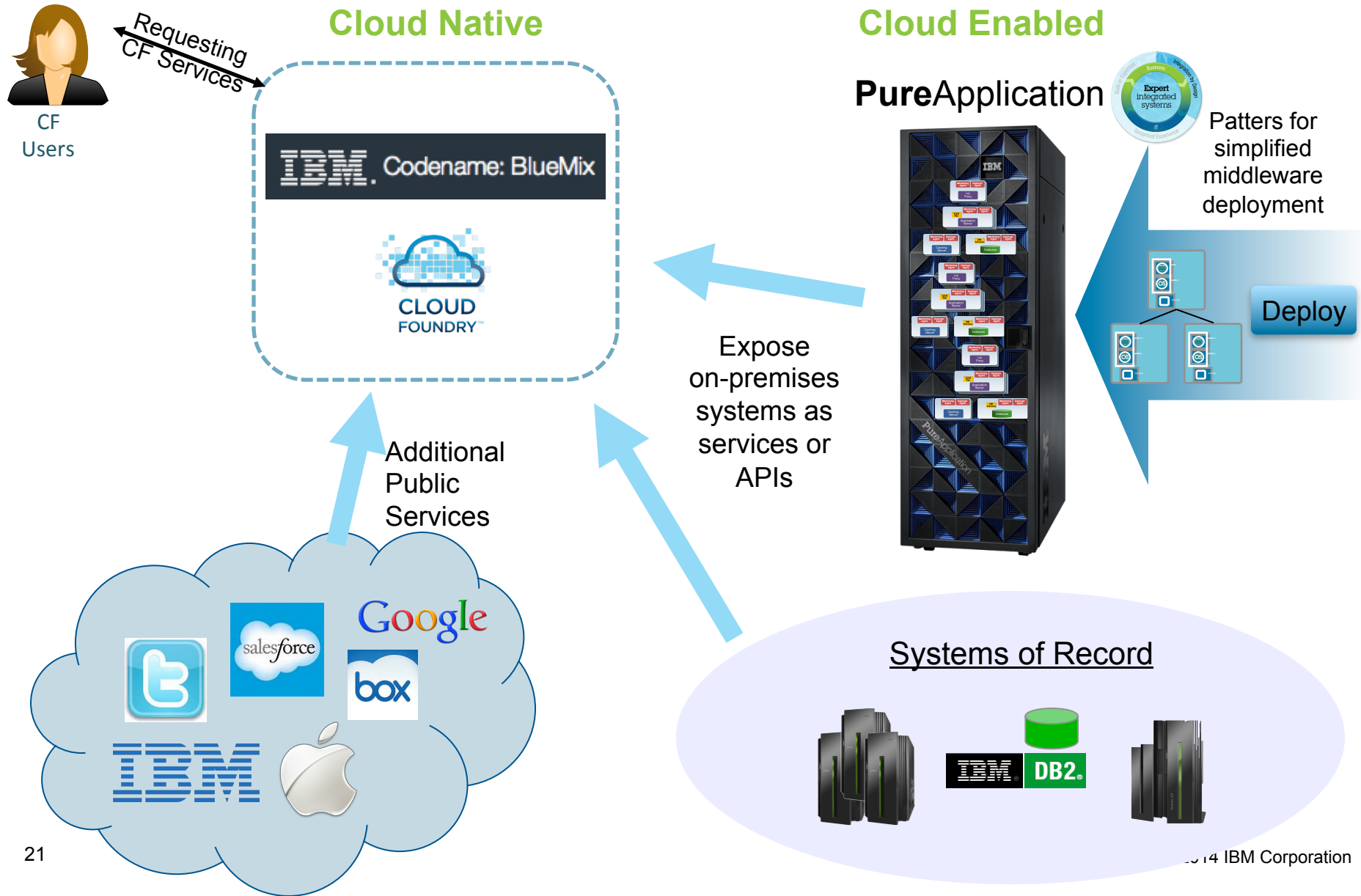
Heavily distributed

Optimized for 'data
residency' and 'data
gravity'

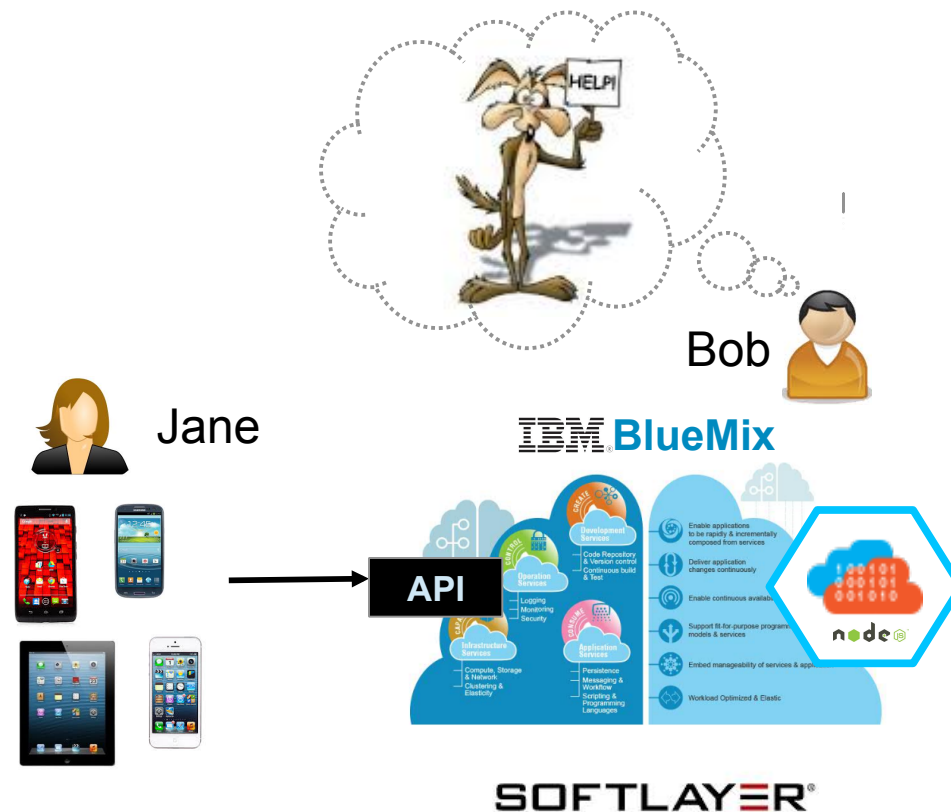Elastic and Scalable to
handle volatile
workloads and peaks

Handles all types of
data, app and service
integration

Integration Catalog
- TIPs
- Connectors
- Integration APIs &
SDKs

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Cloud Integration is the Glue Across a Continuum of Services

Cloud Native

Cloud Enabled

Requesting CF Services

CF Users

IBM. Codename: BlueMix

CLOUD FOUNDRY™

PureApplication

Patters for simplified middleware deployment

Deploy

Expose on-premises systems as services or APIs

Additional Public Services

Google

salesforce

box

IBM

Systems of Record

IBM DB2

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Demo: ACME Acquires Anvils.com

Bob

Jane

IBM BlueMix

API

SOFTLAYER

SaaS clouds

Partner APIs

Pitney Bowes

On-premise resources

ACME DataCenter

➢ ACME CRM is using on-prem DB2 SoR and Salesforce

➢ Bob is ACME's integration developer

➢ Jane is ACME's mobile developer

MATT WHITEBOARD

Motivation & Opportunity (in a nutshell)

▪ *Why now?*

• Mobile + Internet of Things (user centric design & insight)

• Cloud + API Economy (lean innovation = fast & awesome)

▪ *How do I participate?*

• Bring your innovation (liberate it) to the cloud as APIs, unleashing new channels of innovation

• Consume the best innovative APIs that the cloud has to offer

• Compose solutions by combining your awesomeness with the industries awesomeness (rent everything else)

• Do it Fast and Don't get Fired…Always In the Know…
  IT Operation Intelligence