

BusinessConnect and SolutionsConnect

It's time to make bold moves.

Interactions to Transactions



Business transactions have moved beyond the enterprise... The planet is wiring itself to a new nervous system

1 billion *Smartphone users by 2016*



534 billion

Dollars in mobile transactions by 2015



69.1%

Increase in mobile transaction volume since 2011



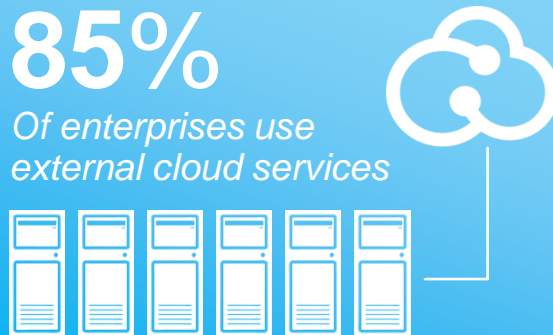
1 trillion

Devices connected to the internet by 2013



85%

Of enterprises use external cloud services



126 million

Tablet users by 2016



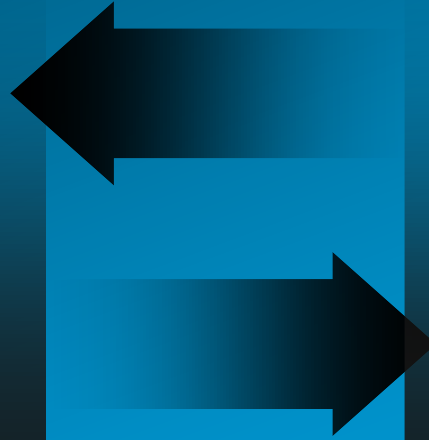
Bridge tomorrow's innovations with the systems that power the businesses today

Systems of Interaction

Systems of Engagement



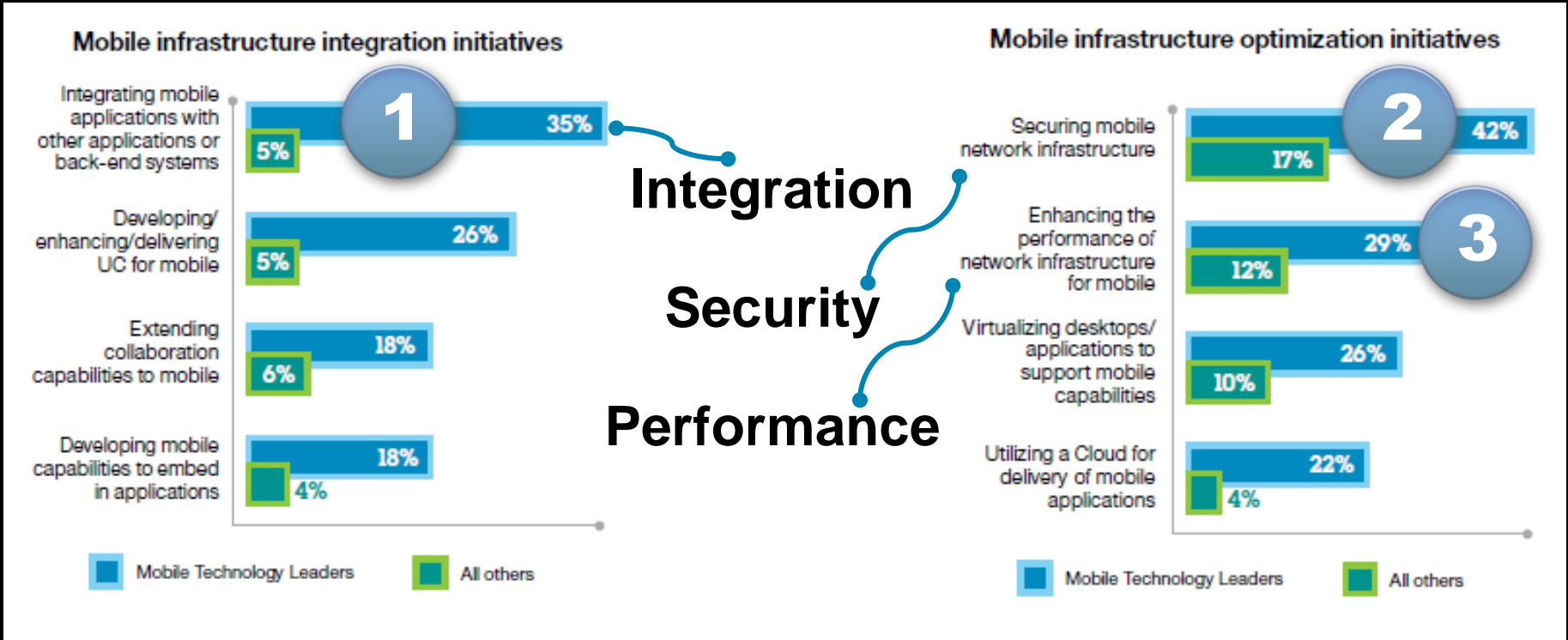
Systems of Record



Business transactions have moved beyond the enterprise..

Best Practices of Mobile Success

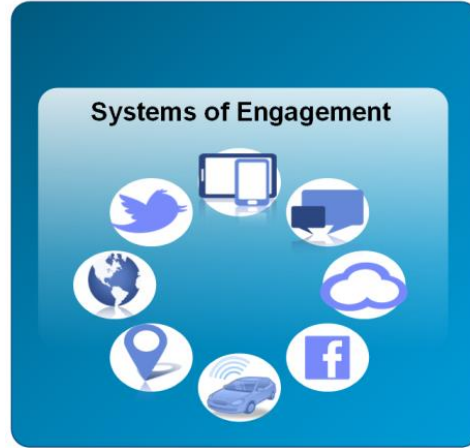
What are the Mobile Technology Leaders Doing Well?



Source: IBM Global IT Study on Mobile Infrastructure 2013

When Systems of Engagement are unplugged...

Customer uses Mobile app to interact with eg Airline

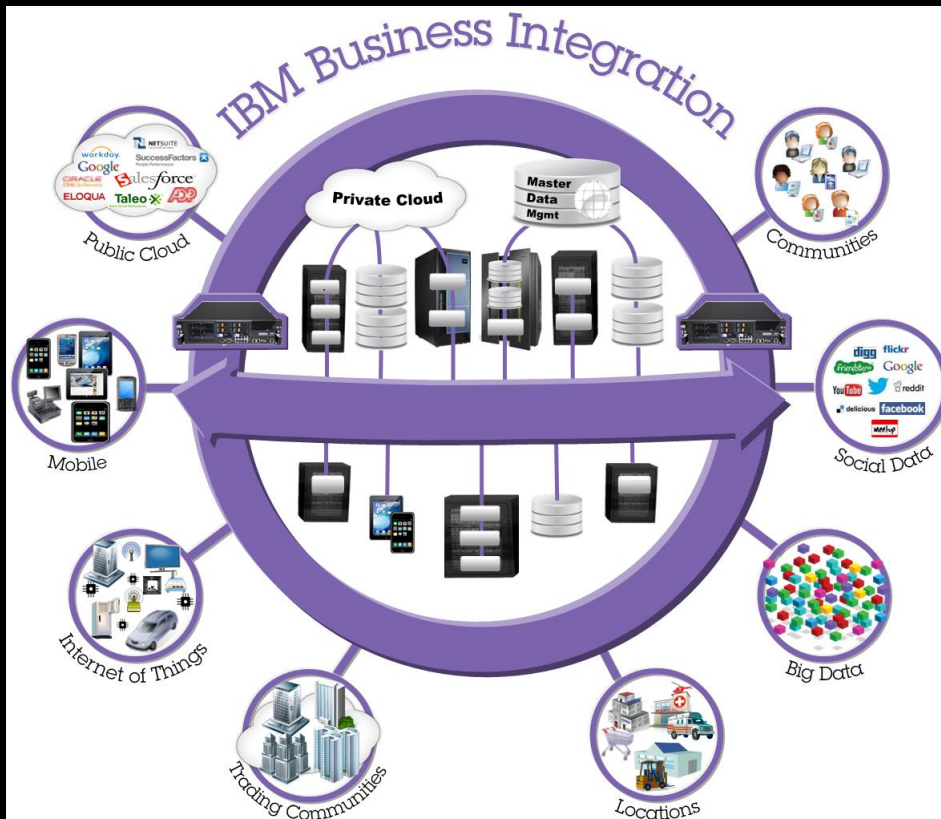


- ✓ **Can** show my ticket
- ✓ **Can** show my seat
- ✓ **Can** see upgrade option
- ✓ **Can** check flight status



- ✗ **Can't** change my ticket
- ✗ **Can't** move my seat
- ✗ **Can't** buy upgrade
- ✗ **Can't** change flight

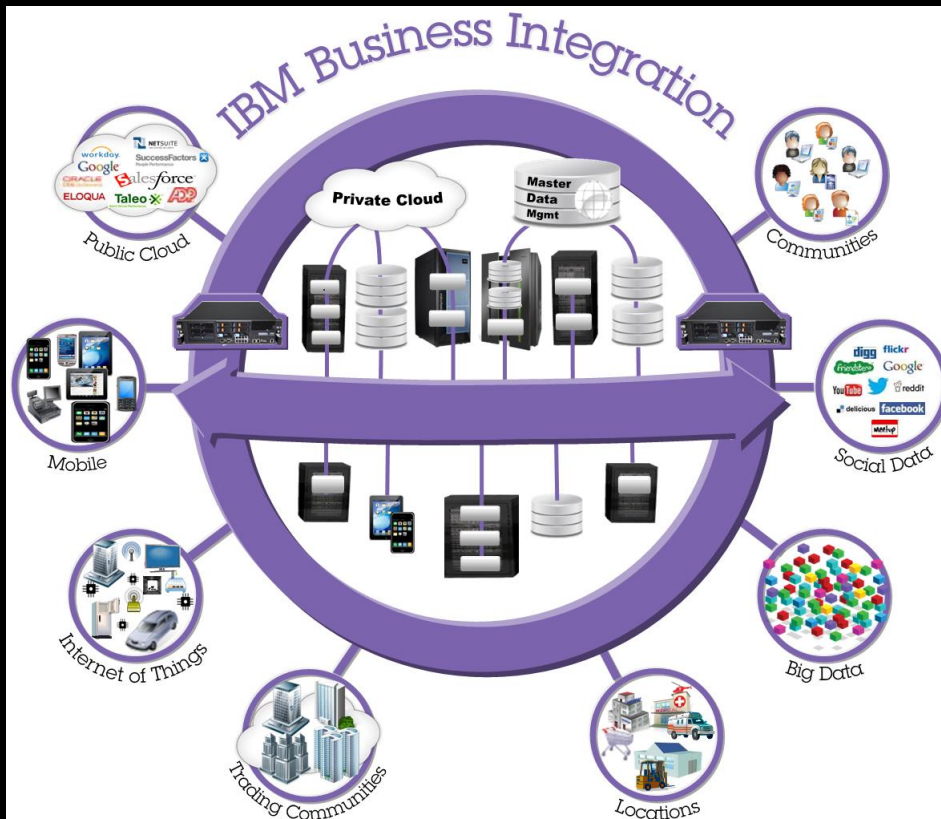
Today's challenges demand a complete integration solution



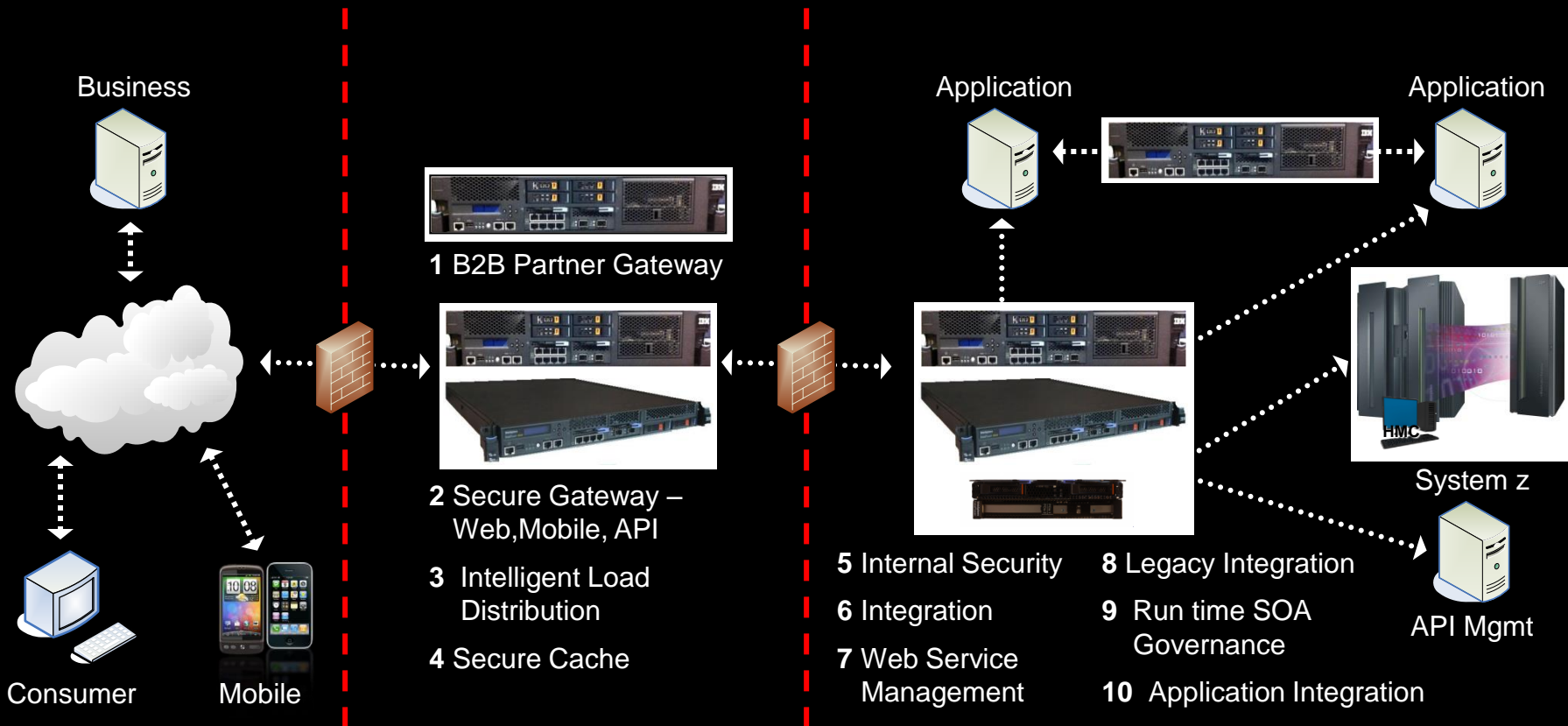
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IBM DataPower Appliance

Gateway for secure & controlled access to enterprise resources,

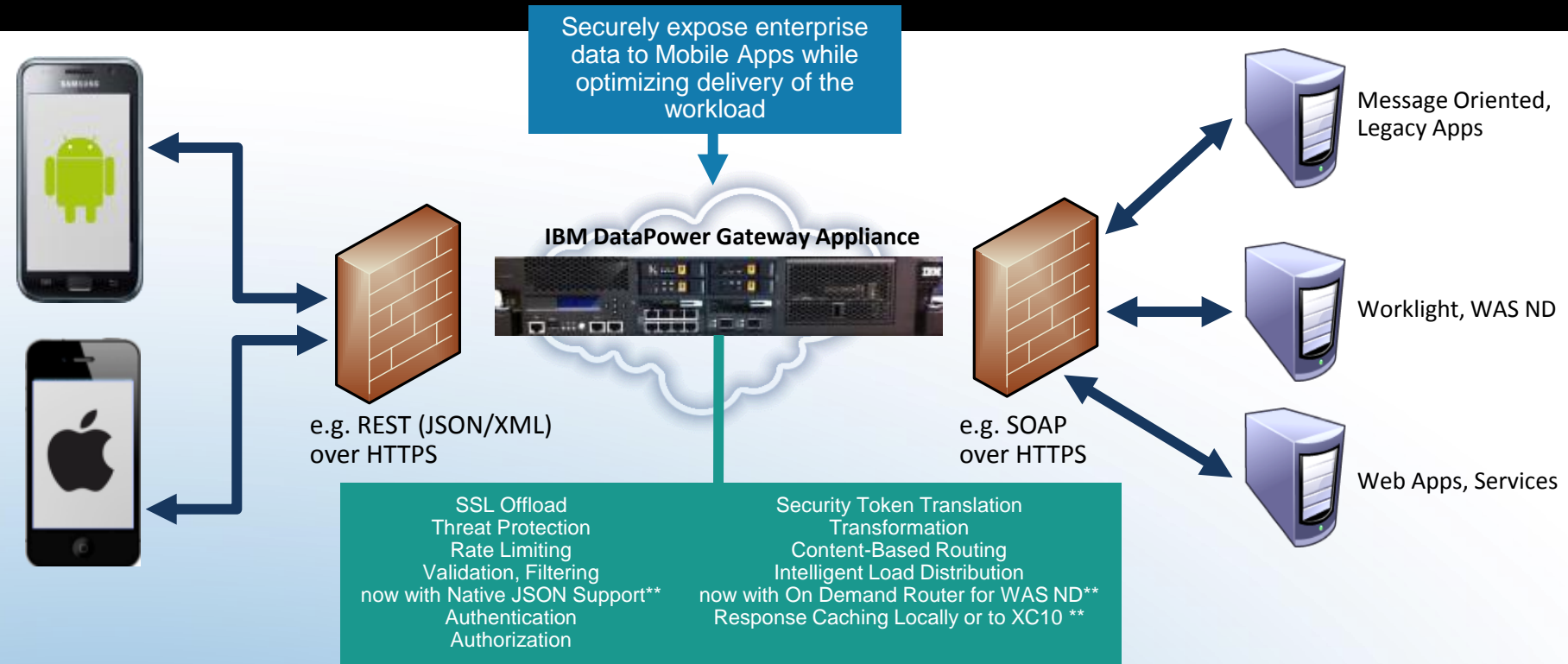


WebSphere DataPower - Use Cases



Connect Mobile Apps with Enterprise Apps & Services

Security, Control, Integration & Optimization of mobile workload



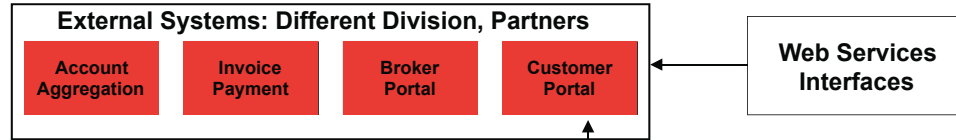
** Available in DataPower firmware version 6.0

Financial Firm: Security & Integration Scenario

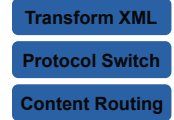
1. External Party makes Web Service request (Web Services= HTTP with XML Payload)
2. Verify Signature
3. Decrypt and Validate
4. Access Identity Management System
5. Authenticate & Authorise
6. Insert Security Token (eg SAML, Kerberos)
7. Send Request to Integration Layer

Identity Mgmt System
Tivoli, LDAP etc.....

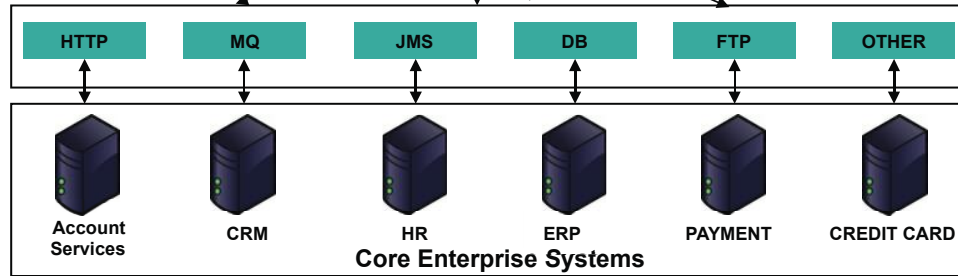
8. Transform XML
9. Switch Protocol (eg HTTP to MQ)
10. Route Based on Content



17. Send Response back
16. Encrypt & Sign
15. Filter Response

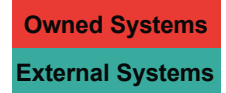


14. Send to Security Layer
13. Transform Response
12. Switch Protocol
11. Aggregate Response



Request Message

Response Message



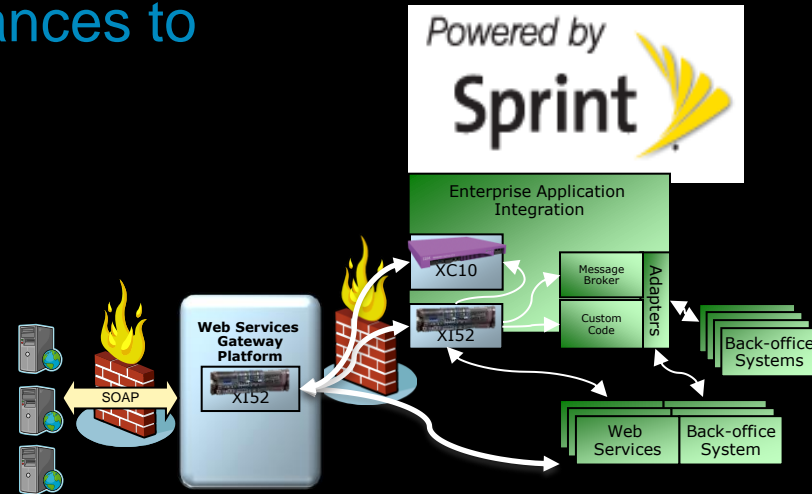
Sprint leverages IBM DataPower appliances to rapidly & securely grow revenue

Challenge

- Missing out on new opportunities in mobile advertising
- Aggressive growth in mobile creating new opportunities
- Differentiation with Sprint profile information
- How to increase topline revenue
- Increase in competition from non-traditional companies
- no longer just the other carriers

Solution

- WebSphere DataPower Integration Appliance XI52 and XC10 Caching Appliance for mobile access control and security, wirespeed performance & consistent operational environment
- Deployed as a Mobile gateway, providing schema validation & trust formations
- Augmented existing infrastructure



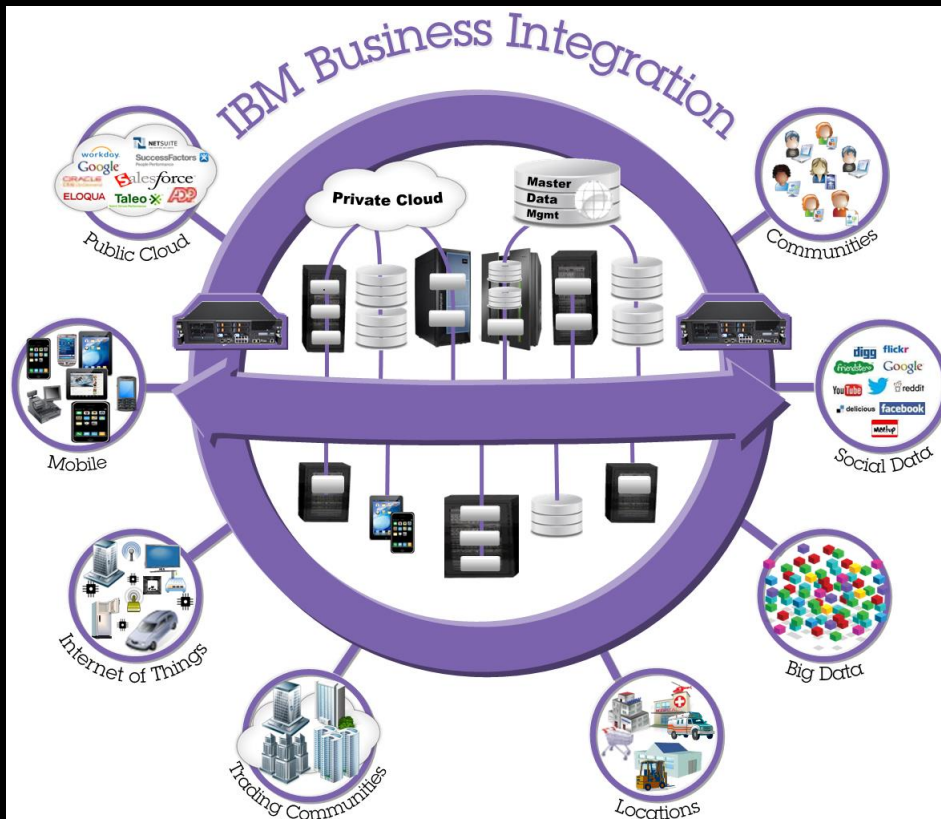
Benefits

- Fast speed to market
- Low development cost
- Well established operational support (within Sprint)
- Deployed within secured Sprint network
- Secure connectivity to dependent systems
- Sprint controlled data security
- Scalable as volumes grow
- Ability to maintain a consistent interface to clients regardless of backend changes

Today's challenges demand a complete integration solution

IBM Cast Iron

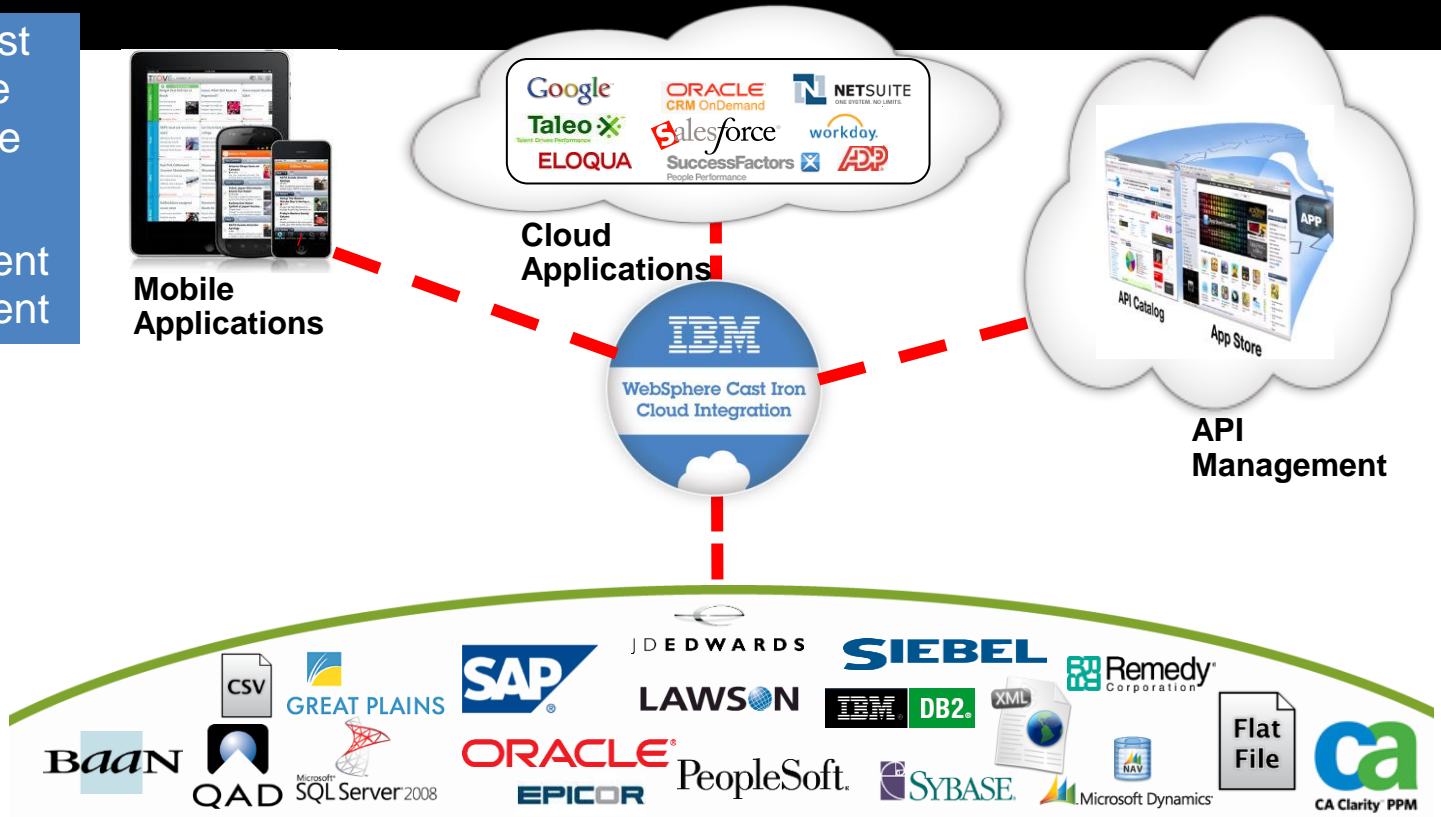
Synching data with SaaS apps to leverage new cloud economy



Application Integration - Cast Iron

Simply the Fastest Way to Integrate Cloud and Mobile Applications

Enabling component for API Management



Flexible: Completely Maps to Your Cloud Strategy



Total Connectivity

ROI In Months

Deployment Flexibility

***Reduce
Risk & TCO***

Repeatable Success

***Save Up to
80% in Time
& Costs***

For All Types of Projects

***Increase IT
Self-Sufficiency***

Novartis Vaccine & Diagnostics

Evolving CRM Landscape

Challenge

- Consolidating multiple CRM platforms to a single Veeva org
- Increase efficiency and data quality through more robust integration to SAP and other core applications
- Enhance business users trust in data
- Increase flexibility and responsiveness of integration layer

Solution

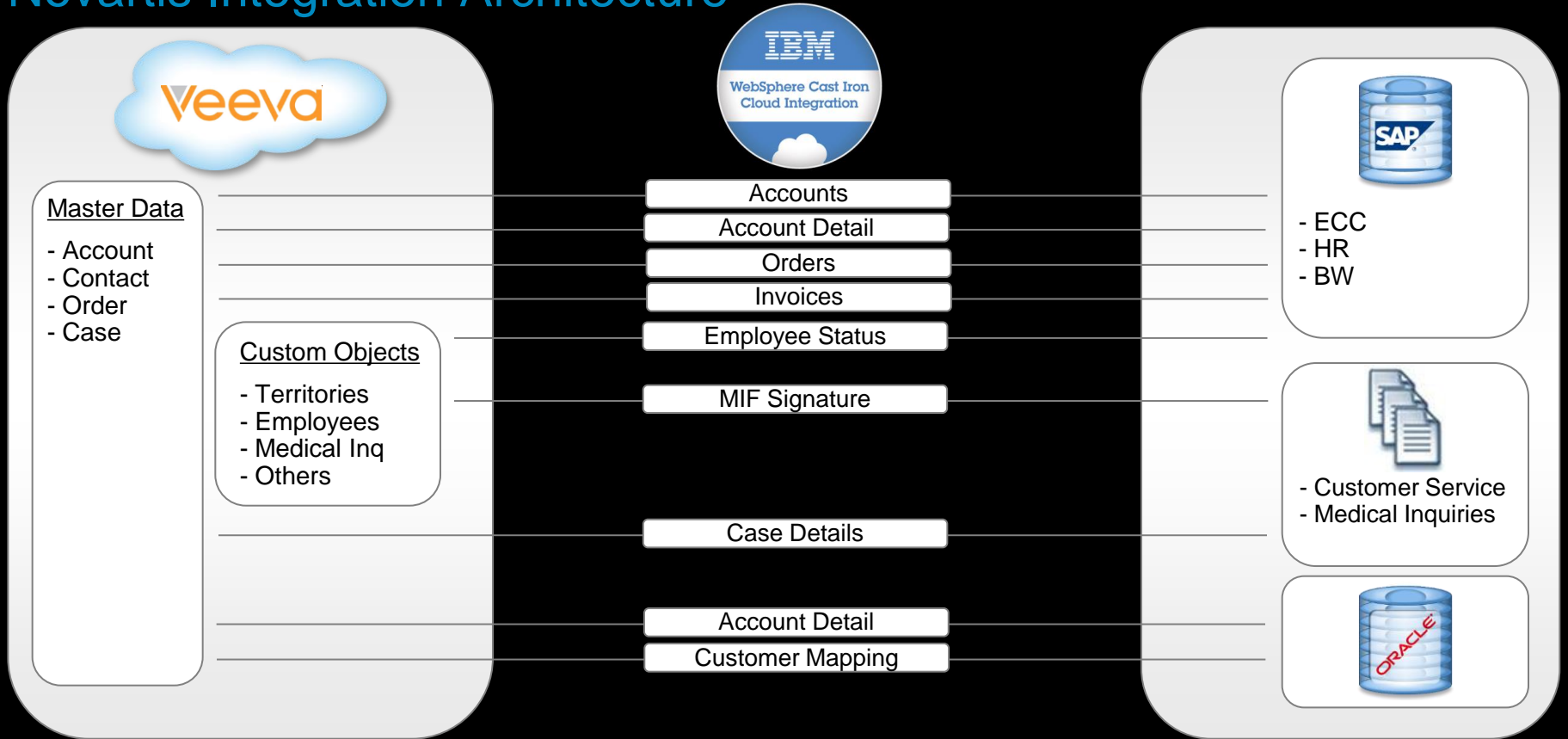
- Internal standard = SAP PI
 - No native Sales Force Dot Com connectivity
 - Expensive skill set
 - Limited resources

Solution

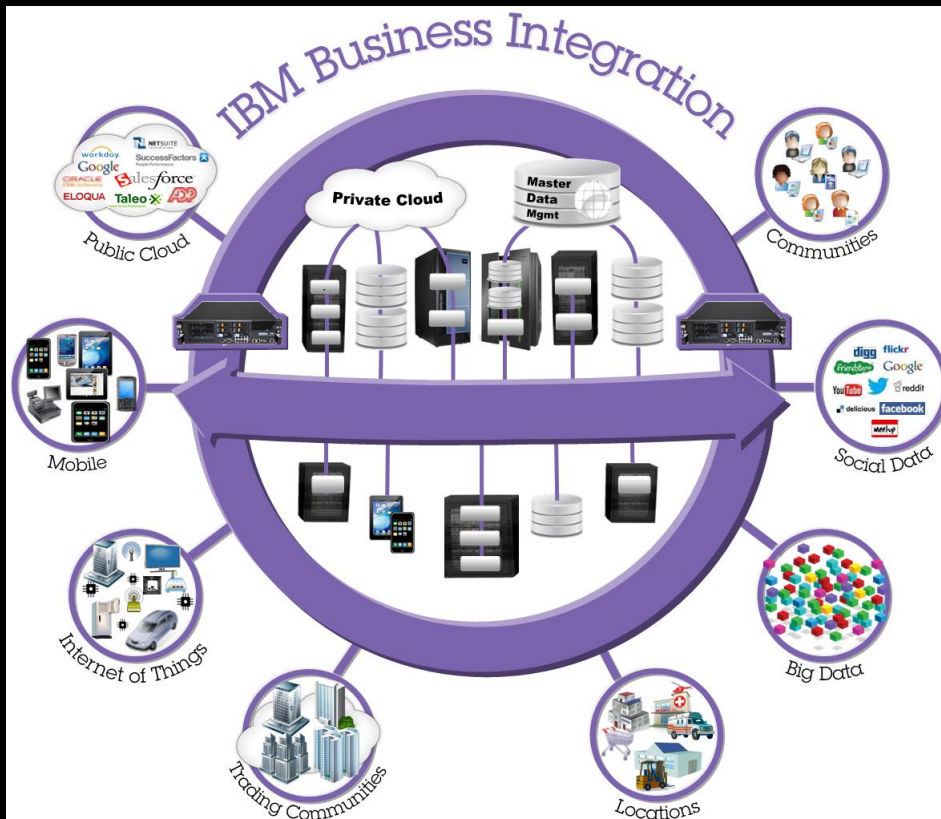
- Reduced TCO by \$300k
- ROI of 199%
- Payback of 4.8 months



Novartis Integration Architecture



Today's challenges demand a complete integration solution

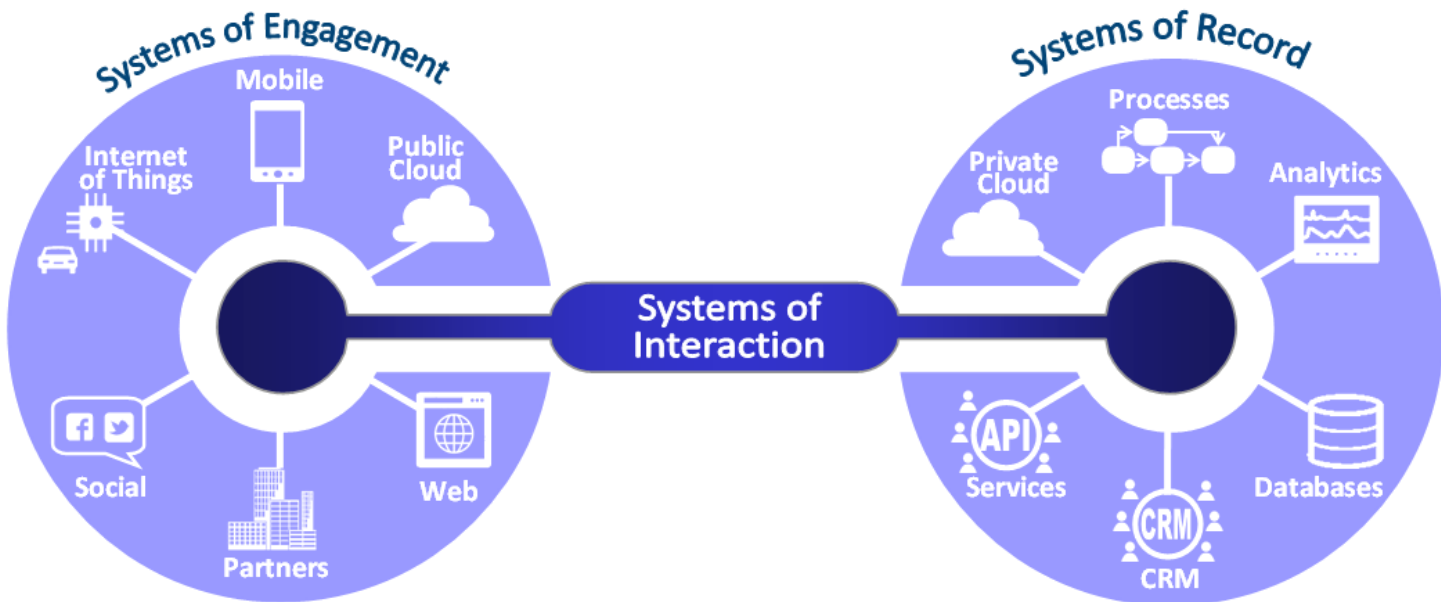


IBM Web API Management

Manage your APIs to open up access encouraging innovation from App Developers

Systems of Interaction open Systems of Record

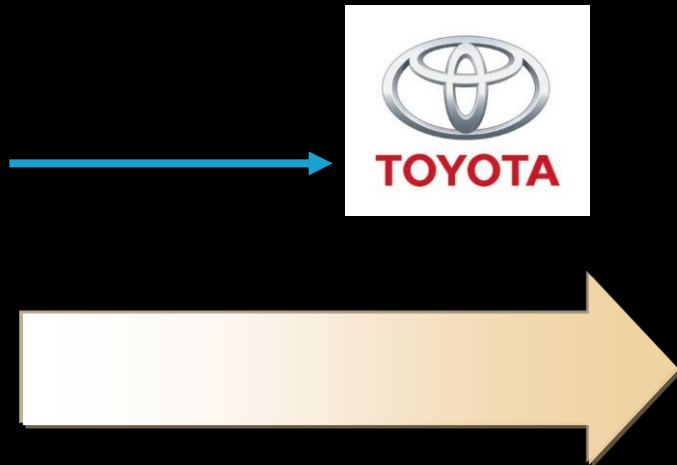
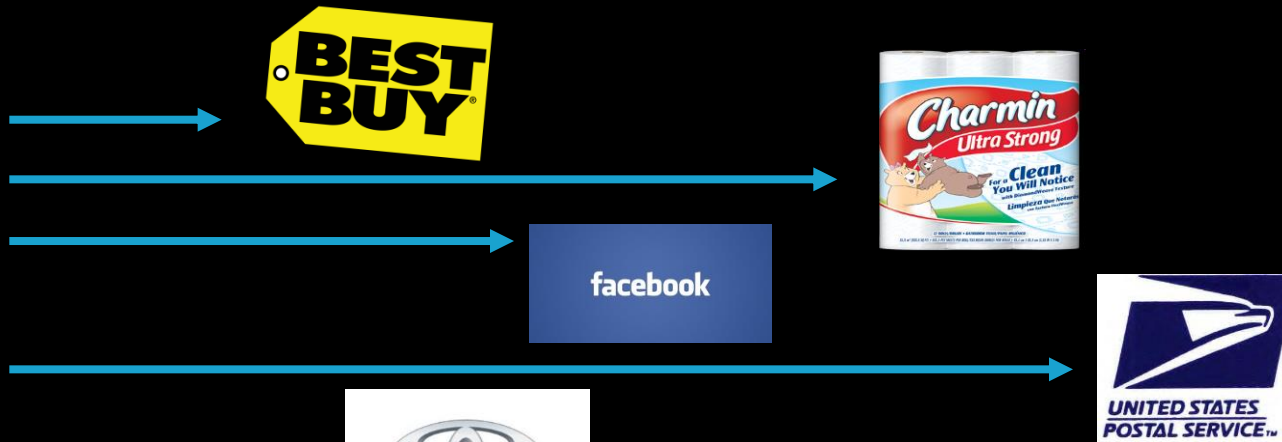
- Provide secure linkages from systems of engagement
- Extend the lifespan and utility of system of record data
- Empower mobile and cloud application deployment



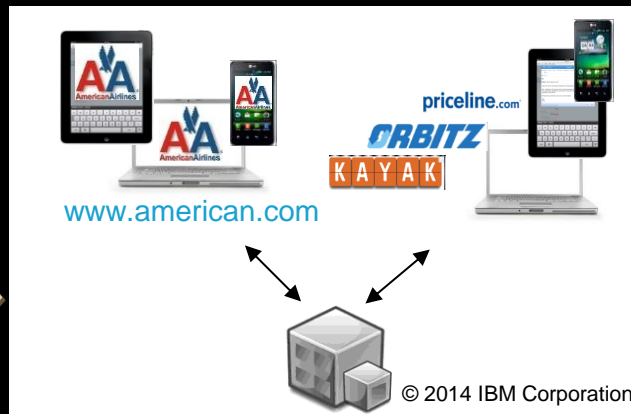
The Impact on the Enterprise

Business

- New routes to market
- Reduce cost of sale
- Drive brand awareness
- Customize products/offerings
- Increase innovation
- Drive alignment with suppliers
- New revenue sources
- Reduce operating expenses
- Customer Satisfaction



www.american.com



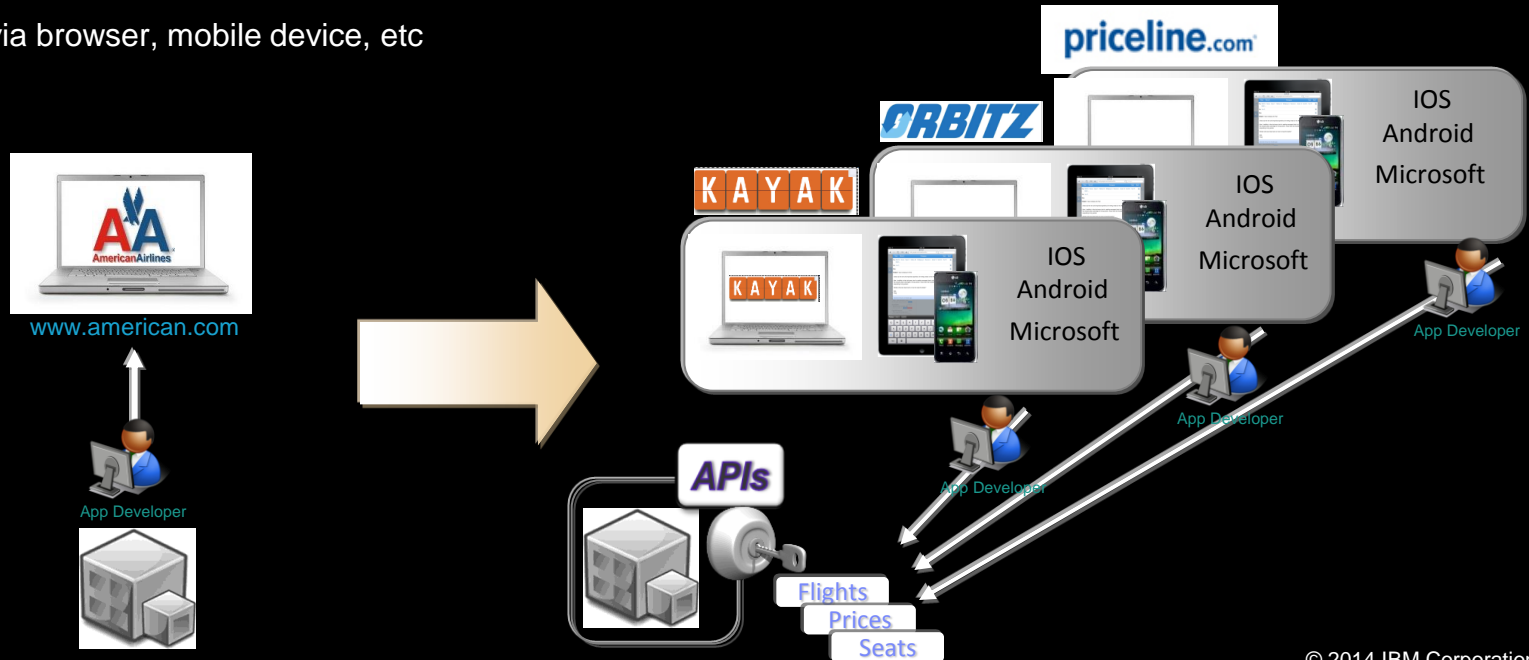
Accommodating Explosion of Data with APIs

What is an API?

- Exposes assets, data or services
- Simple for developers to access, use and understand
- Easily invoked via browser, mobile device, etc

What value does an API provide?

- Extends enterprises & opens channels
- Increases collaboration
- Extend resources/developer ecosystem



Apps, APIs and API Mgmt...



Apps = Customer facing systems of engagement (Ex: mobile app, web app, etc)



APIs = Exposes assets that developers use to create Apps

APIs

API Management = Capabilities needed by enterprises to extend APIs to developers, partners and communities.



Travel and Transportation: WestJet - Second Largest Airline in Canada



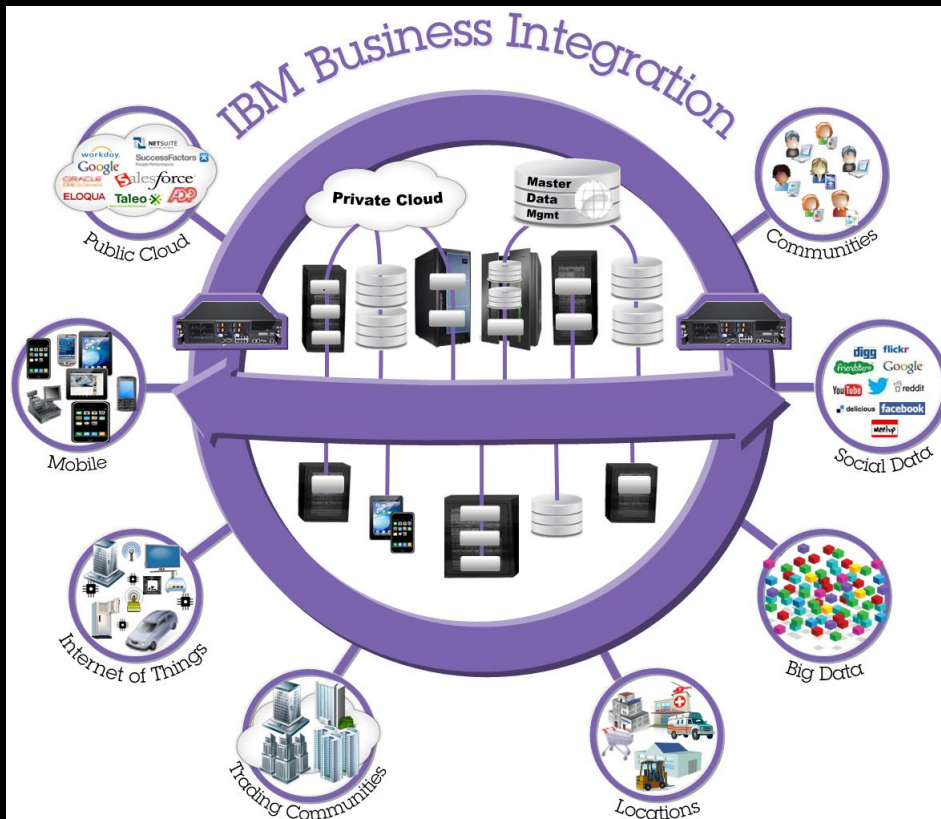
Business Challenge

- External business partners are retrieving flight information by scraping the westjet.com website
- Allows unauthorized access to full flight information (No analytics)
- Delays in updating westjet.com – difficult for authorized partner to test changes
- REST Based API had just been built but security was not in place

Value of API Management

- First project will connect westjet.com to the new APIs using APIM
 - Saved cost of building OAuth based secure access
- Next Phase will expose to External Business Partners
 - Save the implementation cost of building a developer support infrastructure and access management
- Mobile Access is still being worked out (Worklight vs. APIM)n

Today's challenges demand a complete integration solution

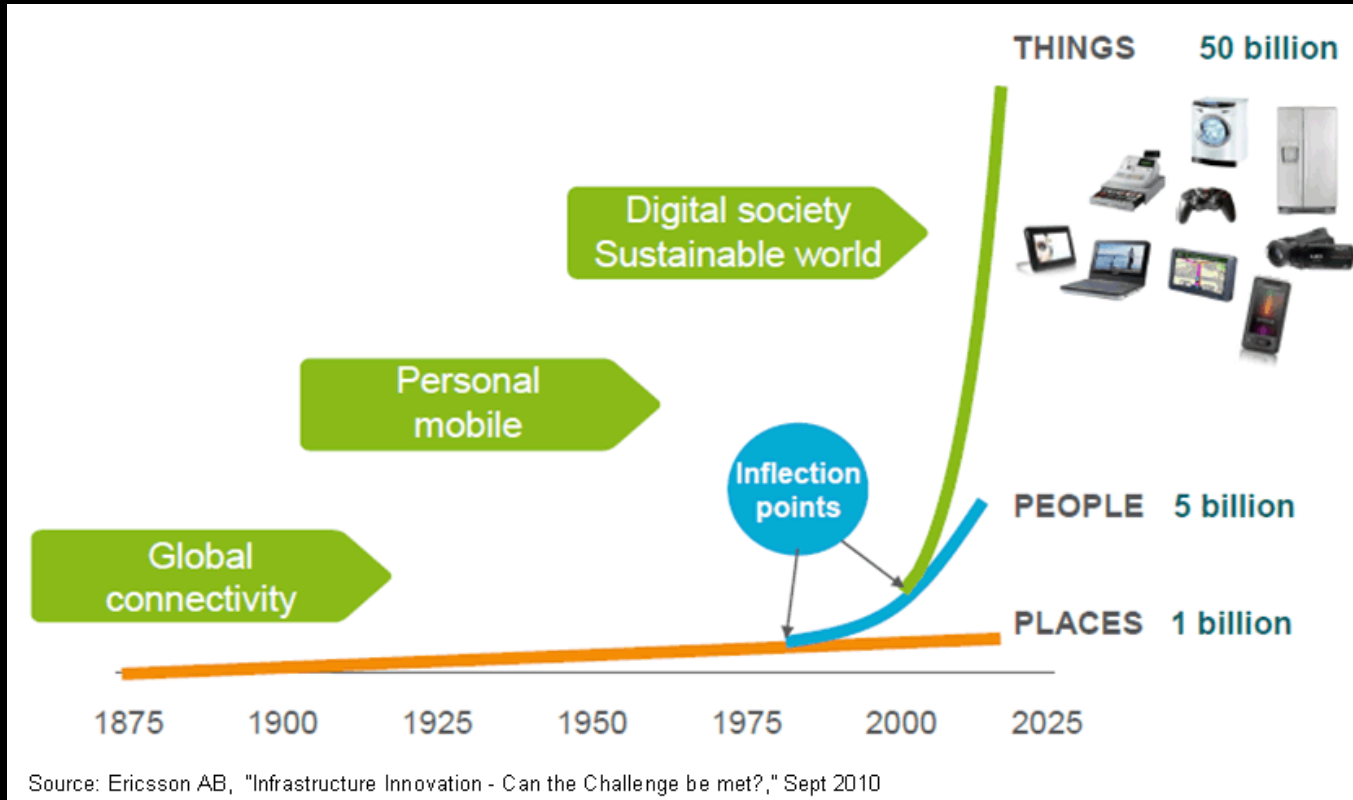


Message Sight Appliance

Large scale connectivity for mobile devices, machine to machine and telemetry scenario

New Customer Interaction Points for the 21st Century

Devices & Mobiles will be the touch points that drive new revenue streams



Internet of Things Examples

| | Banking | Healthcare | Automotive | Retail | Transport | E&U |
|------------------------|--|----------------------------------|---|--|--|--|
| <p>Monetize</p> | Cash replacement solutions Mobile Banking | Paid home care family services | Pay-per-drive car rental | Cash replacement Sensor enabled Loyalty cards | Paid Alerts to travellers Congestion charging | Pay-per-use energy |
| <p>Optimize</p> | Optimized Cash management | ER Bed Resource Mgmt | Component predictive replacement Fleet mgmt | Delivery and stock replenishment optimization Store layout optimization | Smart Cities Traffic mgmt Airport Management | Delay non-essential supply during peak loads |
| <p>Extend</p> | Banking the un-banked Biometrics Smarter Subsidies | Life style monitoring | In-car Movies, Music, Games Highly Automated Driving | Smart Vending Machines Delivery Lockers | Mobility Services | Smart home services |
| <p>Control</p> | Remote ATM Management Dynamic Authorization | Remote Hospital environment Mgmt | Remote Drive-train optimization | Store energy mgmt Store parking mgmt Dynamic price labels | Crowd mgmt Timetable mgmt Asset mgmt | Remotely control consumer devices |

Retailers Advantage vs. eTailers

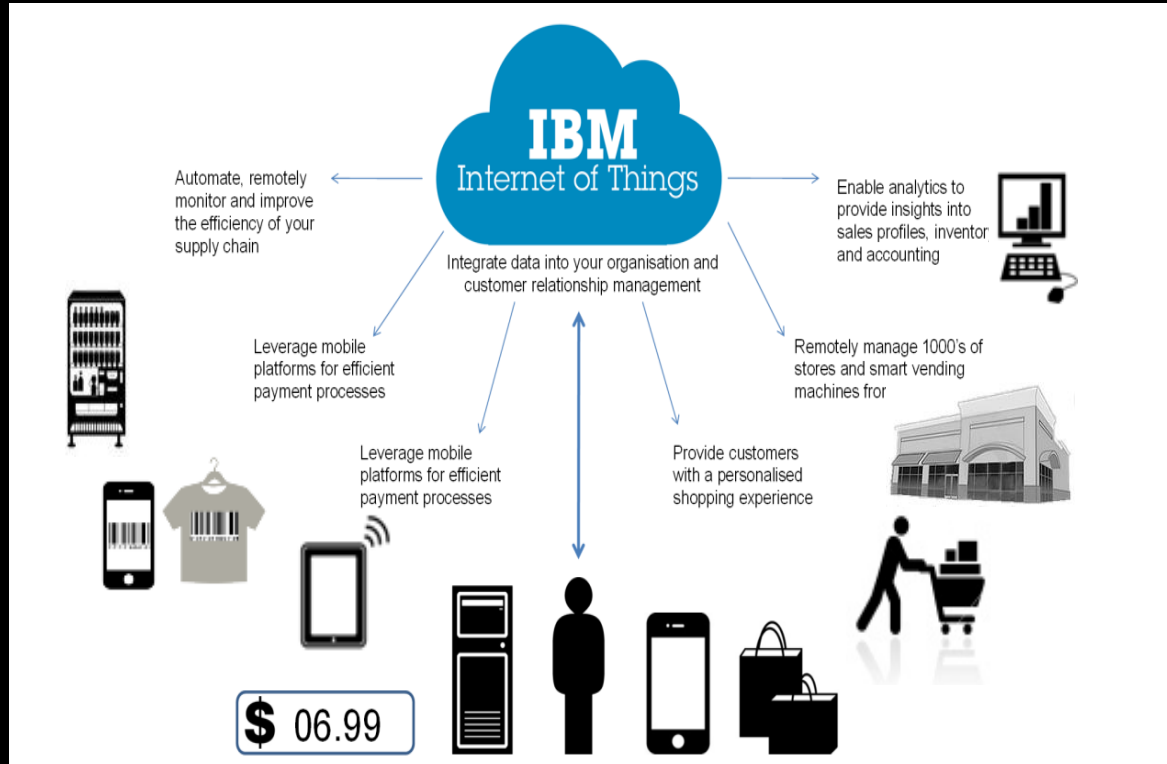
Omnichannel WebSphere Solution Set



Monetize

Traditional Retailers business is challenged: How do they convert foot traffic to sales? eTailers are stealing their business, turning them into 'Showrooms'

Walgreens & Saks teamed up with Foursquare to offer customers electronic coupons on their phones the moment they enter a store.



Appliances/Electrolux Story

 Extend

 Control

White Goods WebSphere Solution Set

- Mobile and MessageSight
- IIB, DataPower
- API Management

