

**Mark Tomlinson**

CTO, Cloud Computing, IBM UK & Ireland

## **Building a cloud strategy with IBM SoftLayer**

WebSphere User Group UK, March 2014

A photograph of a data center aisle, showing rows of server racks on both sides. The racks are filled with server units, and the perspective is looking down the aisle, creating a sense of depth. The lighting is dim, with some highlights on the server units.

**CLOUD, FORTIFIED WITH IRON.**

Meet the only cloud with bare metal and virtual servers in one seamless platform.  
All on demand. All at your service.

You need a partner that's helped tens of thousands of clients to...



Strategize how to use cloud to drive revenue growth and efficiencies.



Build and run your private or hybrid cloud.



Utilize cloud services delivered from IBM SmartCloud.



IBM has a full breadth of cloud offerings to help you achieve those powerful business outcomes, no matter where your entry point is.

    
Think it. Build it. Tap into it.



**Business Process  
as a Service**

#### Automating Business Innovation

Business  
Processes

Recruiting

Procurement

Payment  
Processing

Help Desk

Accounting



**Software  
as a Service**

#### Marketplace of High Value Consumable Business Applications

Marketing

Commerce

Supply  
Chain

Talent  
Management

Analytics

Collaboration

IT  
Management



**Platform  
as a Service**

#### Rapid App Development through Composable and Integrated Platform Built using open standards

Mobile

Security

Big Data &  
Analytics

Development  
& DevOps

Integration

Integration/  
API Mgmt

Traditional  
Workloads



**Infrastructure  
as a Service**

#### Enterprise Class, Optimized Infrastructure Built using open standards

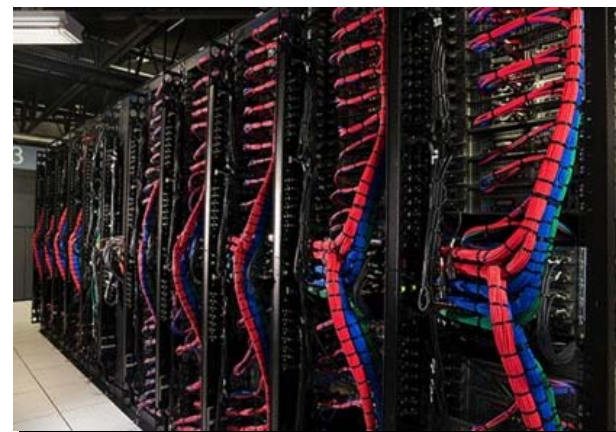
Compute

Storage

Networking

**Public. Private. Dynamic Hybrid.**

## SoftLayer - A global hosting leader



<b>Customers</b>	21,000 in 140 countries
<b>Devices</b>	190,000
<b>Employees</b>	685
<b>Data centers</b>	13
<b>Network PoPs</b>	17



## A working definition

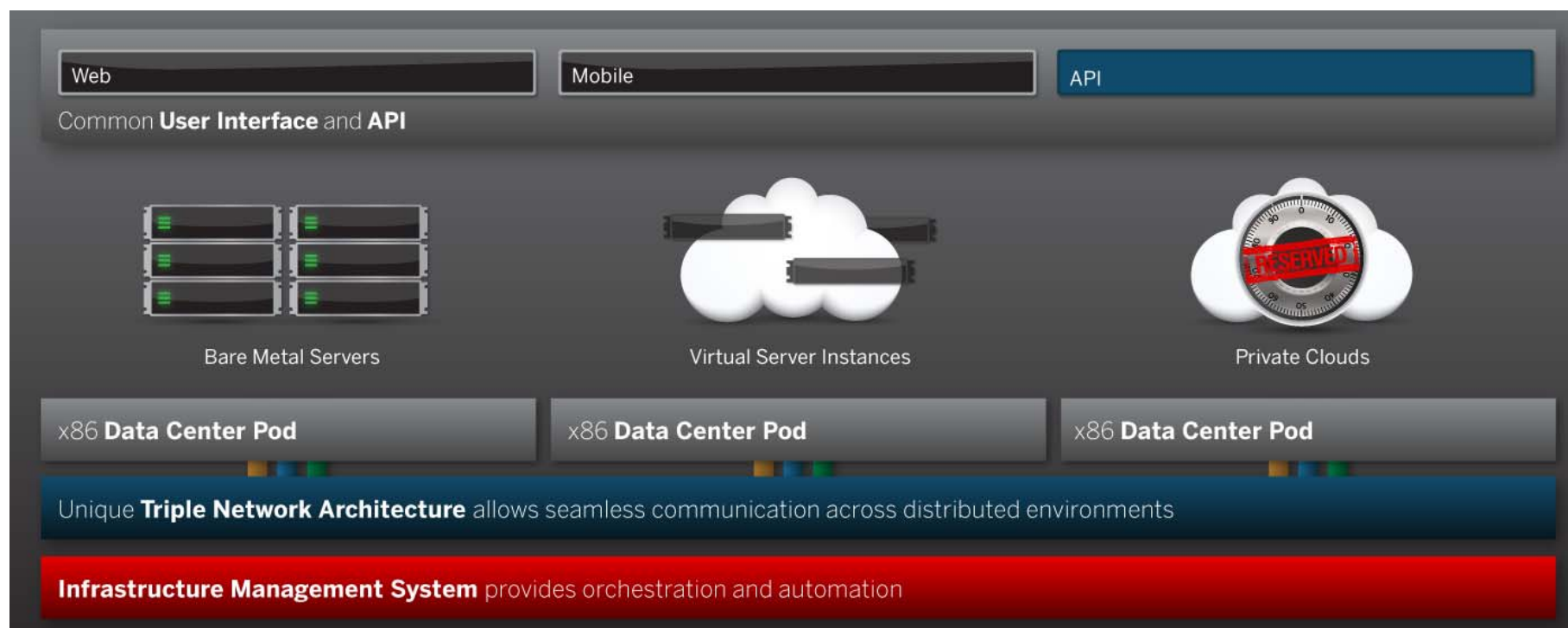
**Cloud** (*n*) On-demand compute with consumptive billing

- **On-demand**  
Rapidly provisioned services
  - **Compute**  
Servers, network, storage, firewalls, ancillary services
  - **Consumptive billing**  
Turns traditional fixed IT costs into variable – monthly or hourly
- 
- Initial model – virtualized multi-tenancy computing – does not meet requirements for 100% of applications and use cases
  - For broadest applicability, user-selectable levels of performance and isolation are required

# A better platform

## *Unified architecture with common management and programming interfaces*

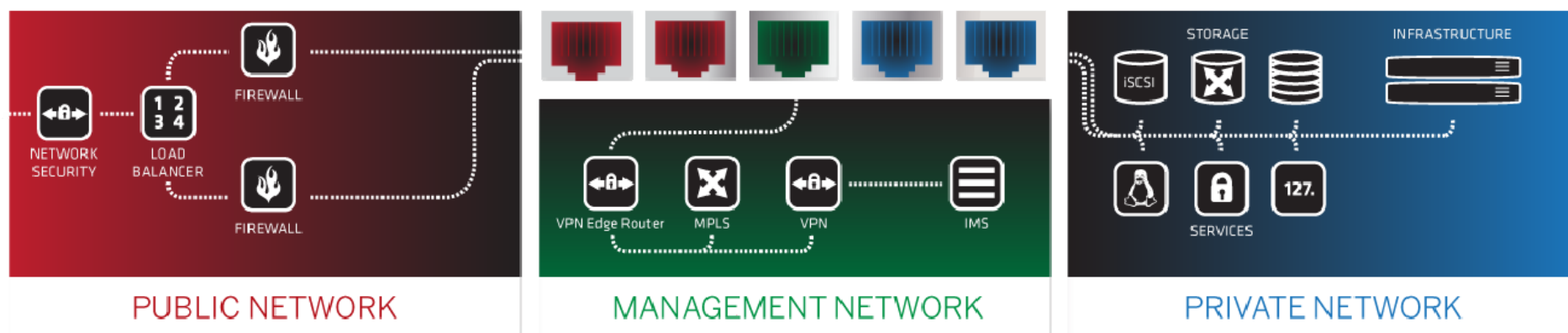
- Common command and control interface across a unified architecture
- Combine bare-metal servers, public cloud instances and private cloud deployments into distributed hybrid architectures and manage from a single control pane and API
- All deployed on-demand and provisioned in real-time
- Ideally suited to big data deployments, high I/O and latency-sensitive apps



Feb 2014: IBM is investing \$1.2B to significantly expand our SoftLayer presence and provide clients with localized data management



# Triple-network architecture



- High-performance public network with transit from multiple tier-1 carriers
- Secure OOB management via VPN
- Private network for intra-application and inter-facility communications, access to shared services
- Native IPv6 support
- Virtual racks for integrated management
- Complete suite of network services



# Robust, full-featured API

Improves customer control, reduces error, increases flexibility

SoftLayer API provides 1,600 function calls to over 200 services

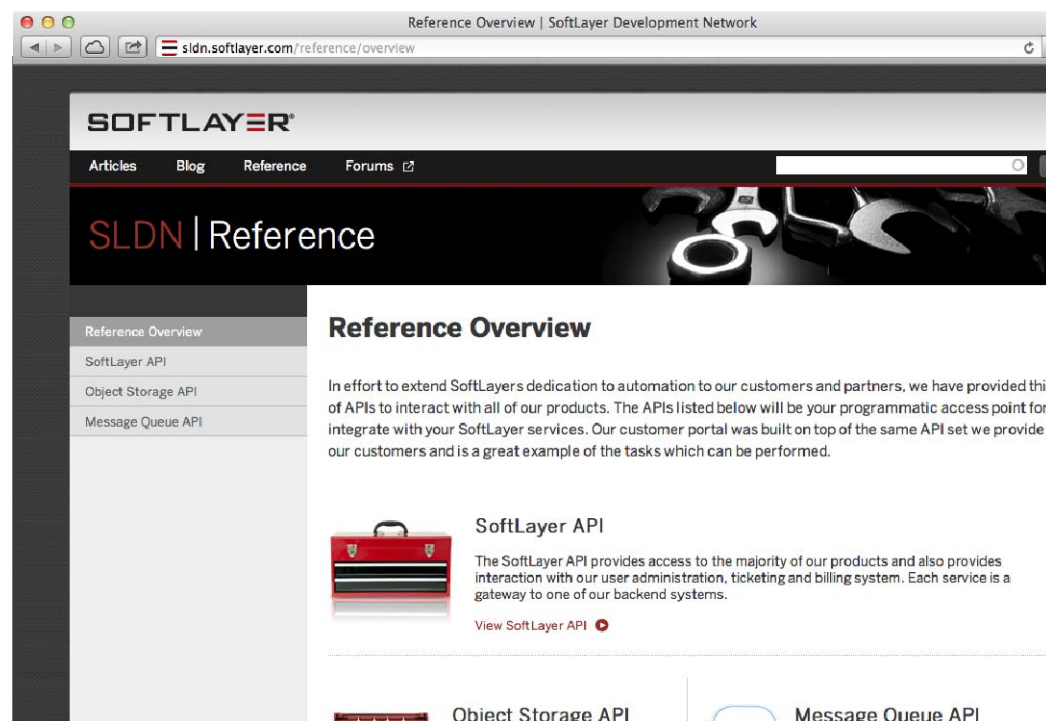
Supports REST, SOAP & XML-RPC interfaces

Enables full auto-scaling implementations

OpenStack Swift interface for Object Storage today and Jumpgate bridge

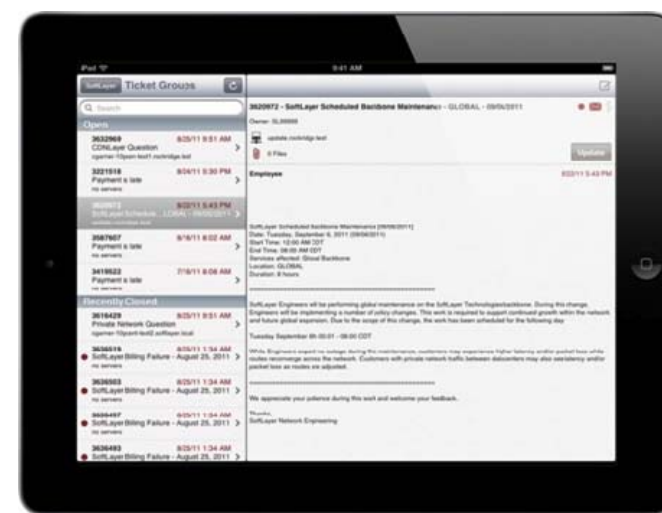
## Functions include:

- Automatic server deployment
- Service provisioning
- Reboots & reloads
- Ticketing
- Hardware configuration
- Software load
- DNS
- Network
- Storage
- Security scans
- Monitoring

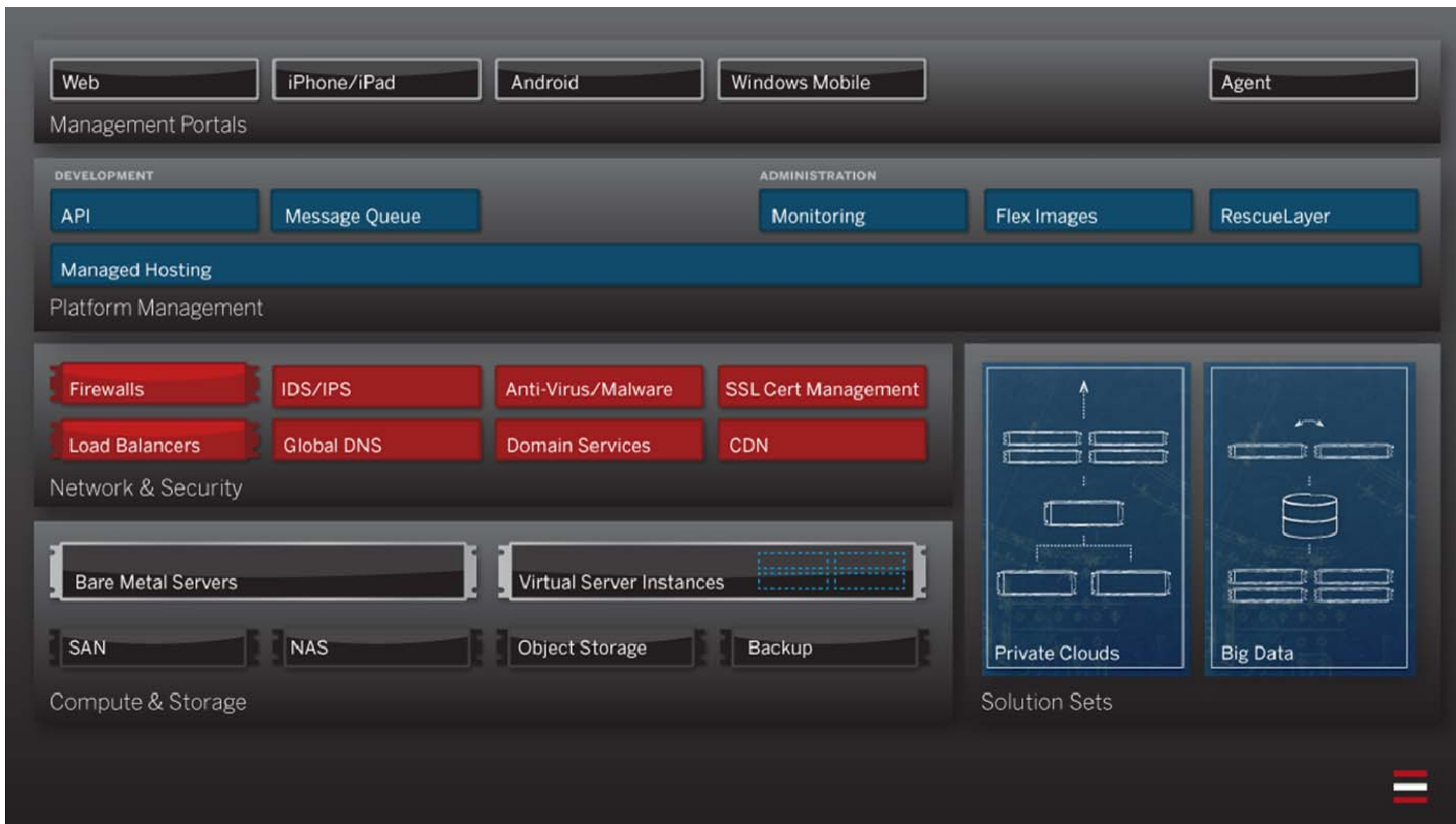


# Complete control

- Mobile and Web-based management portals
- Purchase, provision, deploy & manage infrastructure
- Access to services, tools, automation & tutorials
- Secure access via VPN to management network
- Two-factor authentication to Web portal



# Service portfolio



# The perfect couple – IBM SoftLayer and Codename:Bluemix

Codename: BlueMix
Catalog
DASHBOARD
CATALOG
DOCS
mark\_tomlinson@uk.ibm.com

CLOUD FOUNDRY

☒ IBM Created
 ☒ IBM Certified
 ☒ Community

### Runtimes

Liberty for Java™  
[View More](#)

Node.js  
IBM Created

Ruby on Rails  
Community

Ruby Sinatra  
Community

### Services

BLUAcceleration  
IBM Created

Cloud Integration  
IBM Created

Cloudant  
IBM Created

CloudCode  
IBM Created

Decision  
IBM Created

ElasticMQ  
IBM Created

JazzHub DevOps  
IBM Created

JSONDB  
IBM Created

## Mobile Backend Starter

Quickly get started with your next mobile app using mobile services for shared data, push, and server-side scripting. Includes SDKs for Android and iOS.

[CREATE APPLICATION](#)

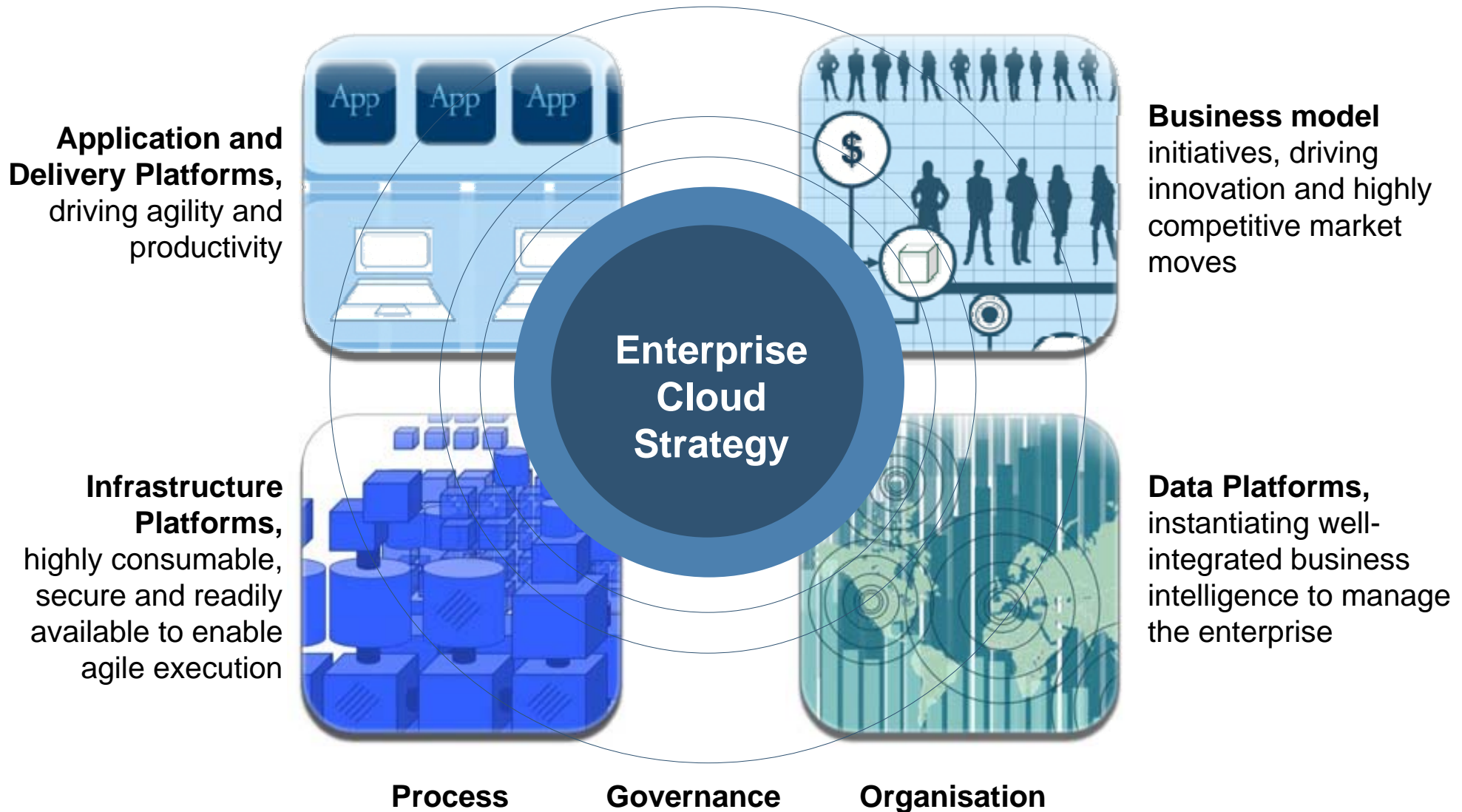
### Push

Create and schedule push notifications for iOS and Android devices to engage users when they aren't using the app. User tagging enables the user to select desired push topics.

[View full documentation](#)

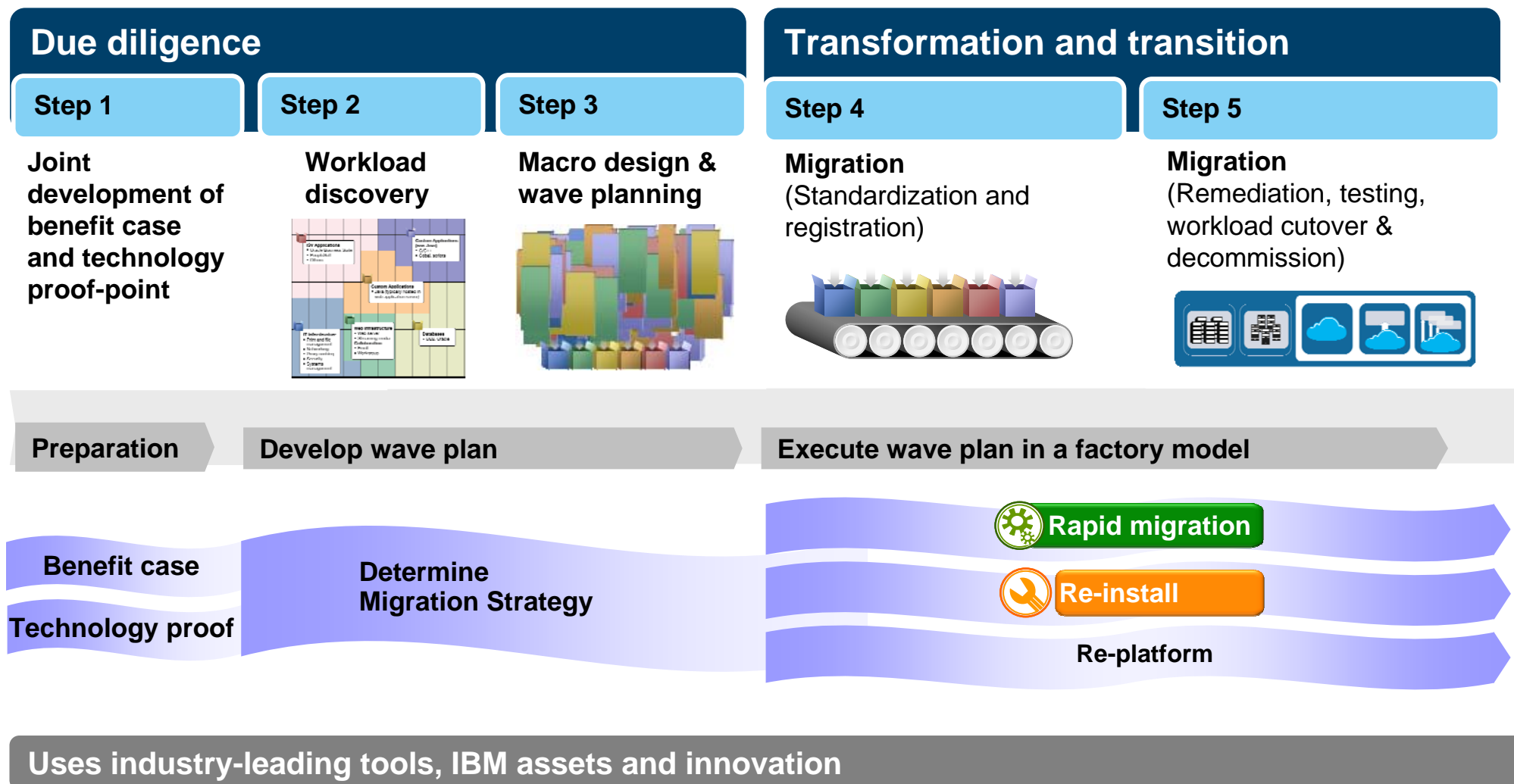
# Critical elements of a Cloud strategy

Our guidance builds on a core set of time-based transformative practices. Our model drives innovation, and focuses on time-to-value – flowing from Industry, enterprise and technology analysis.





# IBM offers a systematic approach for migrating to cloud



# IBM SoftLayer is well suited to many different application workloads

<b>Big Data, Analytics, Database Services and Archive</b> <ul style="list-style-type: none"> <li>• High I/O intensity, Predictable QOE</li> <li>• Flexibility to add additional servers/cloud instances</li> <li>• High availability / security</li> <li>• Pre-configured Big Data solutions</li> <li>• Database management services</li> </ul>	<b>Social Business</b> <ul style="list-style-type: none"> <li>• High I/O intensity/Load balancing</li> <li>• Integrated dedicated servers and cloud instances</li> <li>• Storage services for files and media</li> <li>• Reliable Collaboration software infrastructure platform</li> </ul>	<b>Mobile</b> <ul style="list-style-type: none"> <li>• High I/O intensity, Predictable QOE</li> <li>• Scale cloud instances in minutes</li> <li>• High performing load balancers for variable demand</li> <li>• Robust content delivery network</li> </ul>
<b>Dev Ops</b> <ul style="list-style-type: none"> <li>• High I/O intensity, Predictable QOE</li> <li>• Elasticity of offering</li> <li>• Promotion via cloud of application lifecycle</li> </ul>	<b>Web Applications / E-Commerce</b> <ul style="list-style-type: none"> <li>• High I/O intensity, Predictable QOS</li> <li>• Rapid expansion to meet market demand</li> <li>• Integrated dedicated servers and cloud instances</li> </ul>	<b>High Performance Computing</b> <ul style="list-style-type: none"> <li>• High I/O intensity, Predictable QOS</li> <li>• Dedicated high performance servers and GPUs with cloud flexibility</li> <li>• Load Balancing</li> <li>• GPU offering available</li> </ul>
<b>ISVs / Production ERP / Unmanaged Production</b> <ul style="list-style-type: none"> <li>• High I/O intensity, Predictable QOE</li> <li>• Supports existing portfolio, license model, and provides platform for future services</li> <li>• ISV Application Production Infrastructure</li> <li>• Global reach and load balancing</li> </ul>	<b>Hosted Enterprise Private Clouds</b> <ul style="list-style-type: none"> <li>• High I/O intensity, Predictable QOE</li> <li>• Excellent base to build out enterprise PC requirements (HA, data isolation, encryption, reporting, hybrid cloud, etc.)</li> <li>• IBM SCO Openstack, Citrix Private Clouds and VMWare Private Clouds</li> </ul>	

# IBM SoftLayer – Why not get started today at [softlayer.com](http://softlayer.com)?

