



# Enabling Digital Transformation with IMS

Barry M. Baker

Director, z Systems Software: IMS & TPF



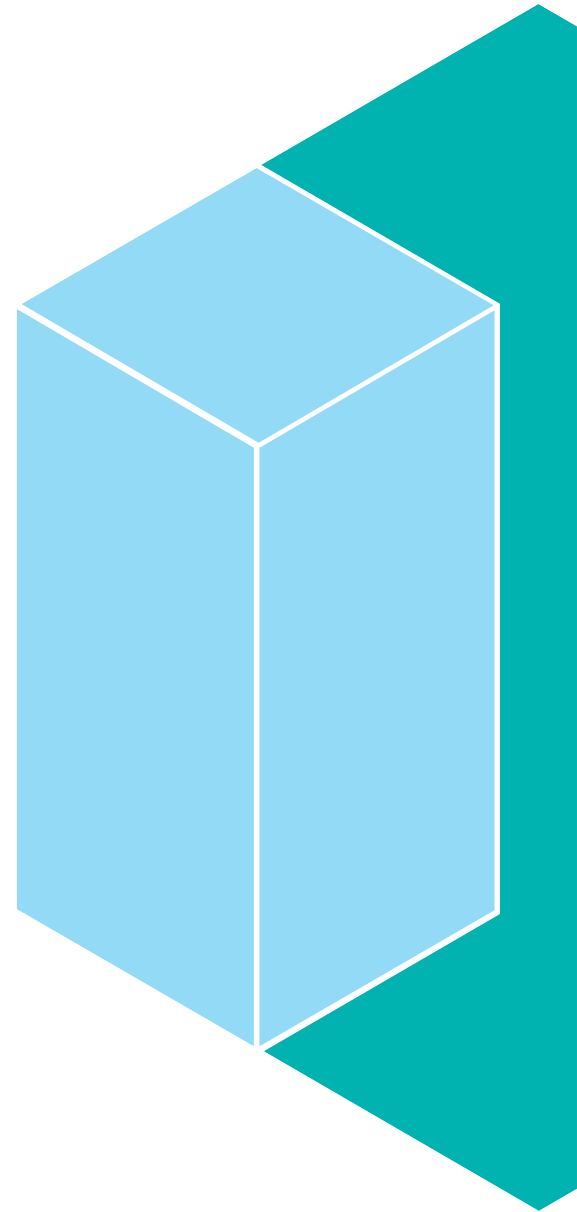
Sharpen your competitive edge

2016 IMS Technical Symposium

March 7 – 10, 2016

Wiesbaden, Germany

[www.ims-symposium.com](http://www.ims-symposium.com)



# Agenda

## Digital Transformation: Drivers for Change

- Digitization for consumer empowerment
- Business model disruption



## Meet the Digital Demand with IMS & z Systems

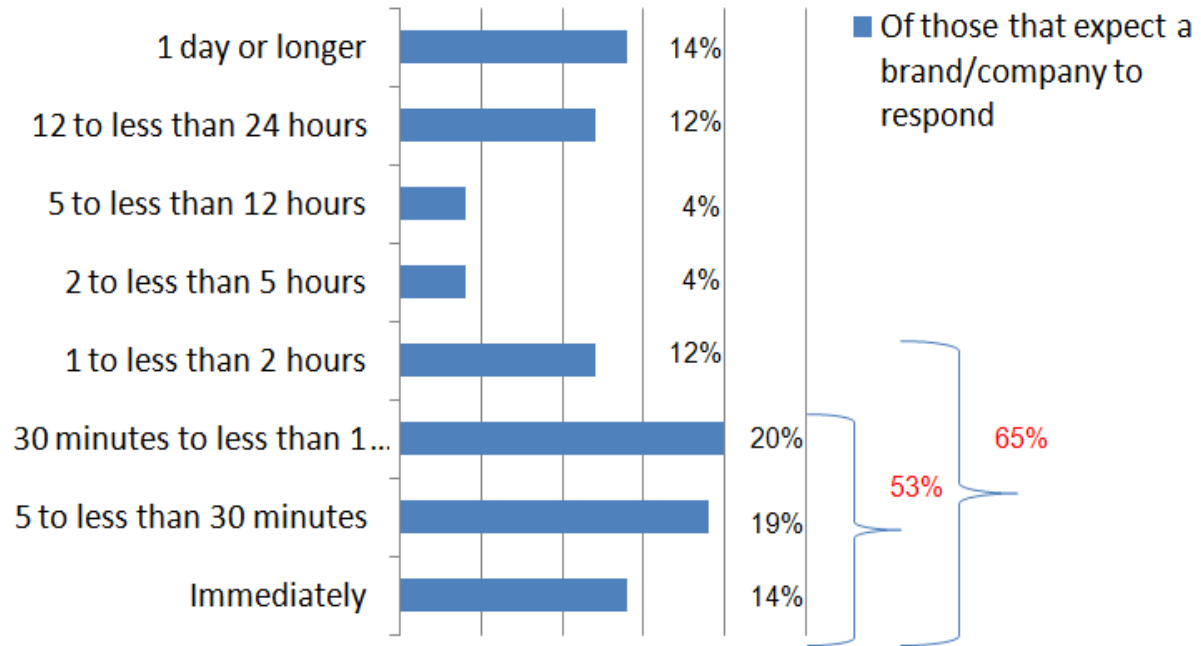
- IMS 14 and Enterprise Suite 3.2
- Exploiting the API Economy & Hybrid Cloud
- Making the decision in real-time w/ Analytics
- Deliver at the speed of business w/ cloud and devops
- Engage with IMS!





Empowered customers  
give rise to a new era of business.

### Of those that expect a brand/company to respond



**Empowered customers  
give rise to a new era of business.**



Some beat the competition with digital.





Some have digital thrust upon them.



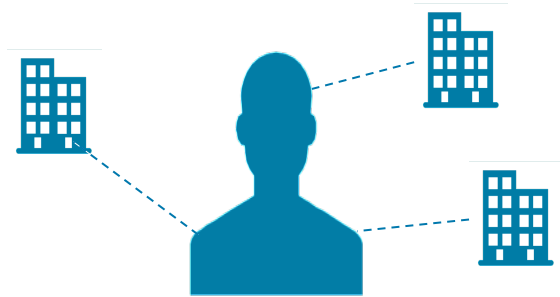
# Digitization for consumer empowerment

## Organization-centered economy



- Organizations drive consumption
- Channels are governed by different incentives
- Each channel offers a different user experience
- User experience may be less intuitive
- Consumer input from focus groups & market research

## Individual-centered economy



- Consumers expect experiences “my way”
- Integrated channels for seamless experience
- Micro-segments are employed
- Ease of use and curation
- Big Data & analytics underpin capabilities

Sources:

1. “Digital reinvention”, IBM Institute for Business Value, December 2013

2. “Inside the mind of Generation D”, IBM Center for Applied Insights, October 2014

# Business Model Disruption: Banking example



## Non-bank entrants

## New banks

## New payment models

## New lending models

## New Depository

**Tesco** Range of insurance, credit cards, savings, current account, mortgages. Originally 50/50 joint venture with RBS, now 100% Tesco owned, with banking license

**Fidor** New bank built on a cloud ecosystem of financial product providers. API-centric core bank platform. Strong social dimensions and P2P lending

**Apple Pay** Insertion into existing payments value chain, providing added value (e.g., new customers, usability, reduced fraud) for a % fee

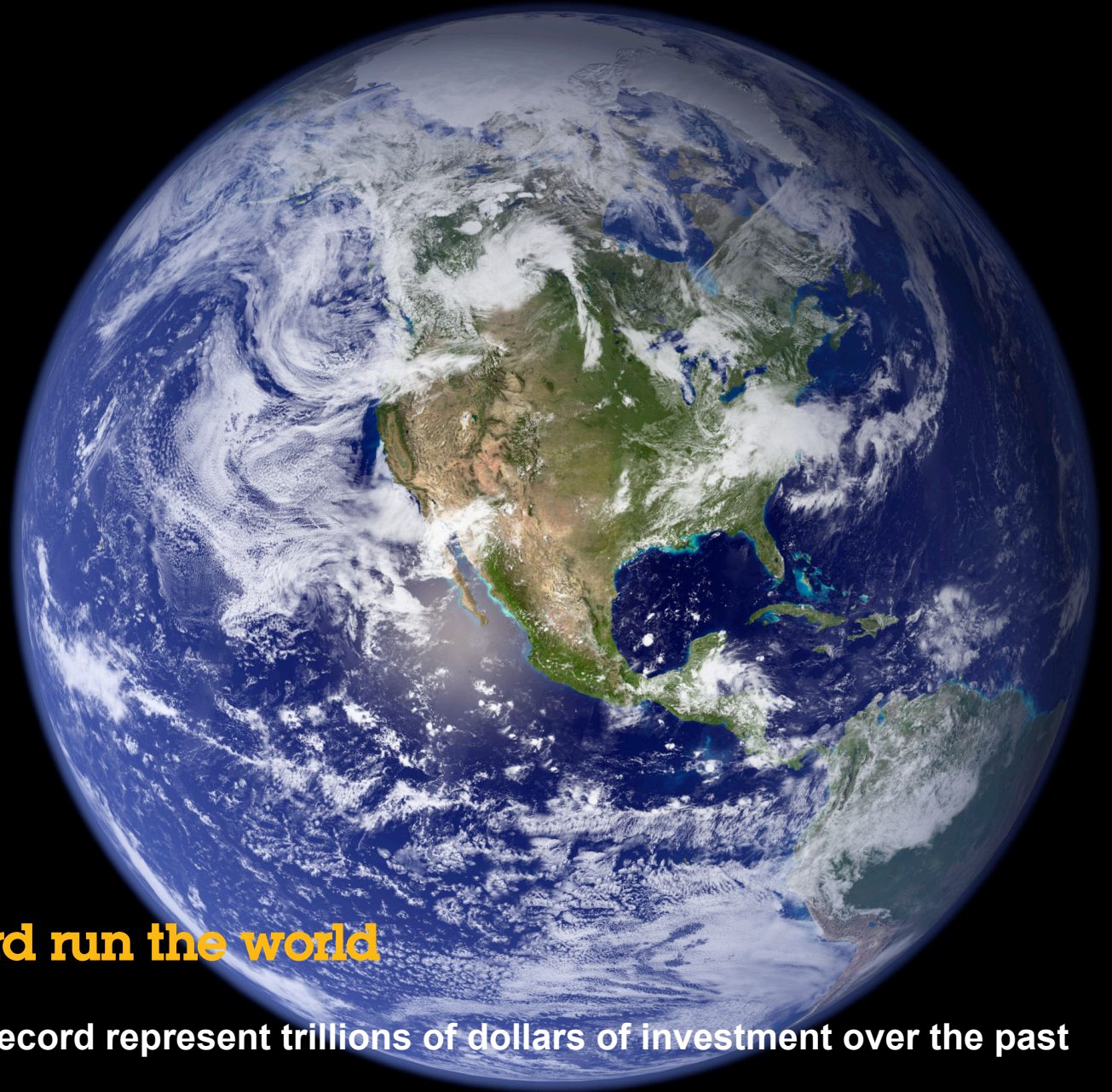
**Alibaba - Zhao Cai Bao** Platform that lets small businesses and individuals borrow from investors directly. Created a 14 billion yuan marketplace.

**Starbucks** Brand-specific mobile payments for use in Starbucks's own stores. Customers loaded \$1.6b in 4Q14, up 17% YTY

Source details in speaker notes

<http://www-935.ibm.com/services/us/gbs/thoughtleadership/innovatingbanking/>





## **Systems of record run the world**

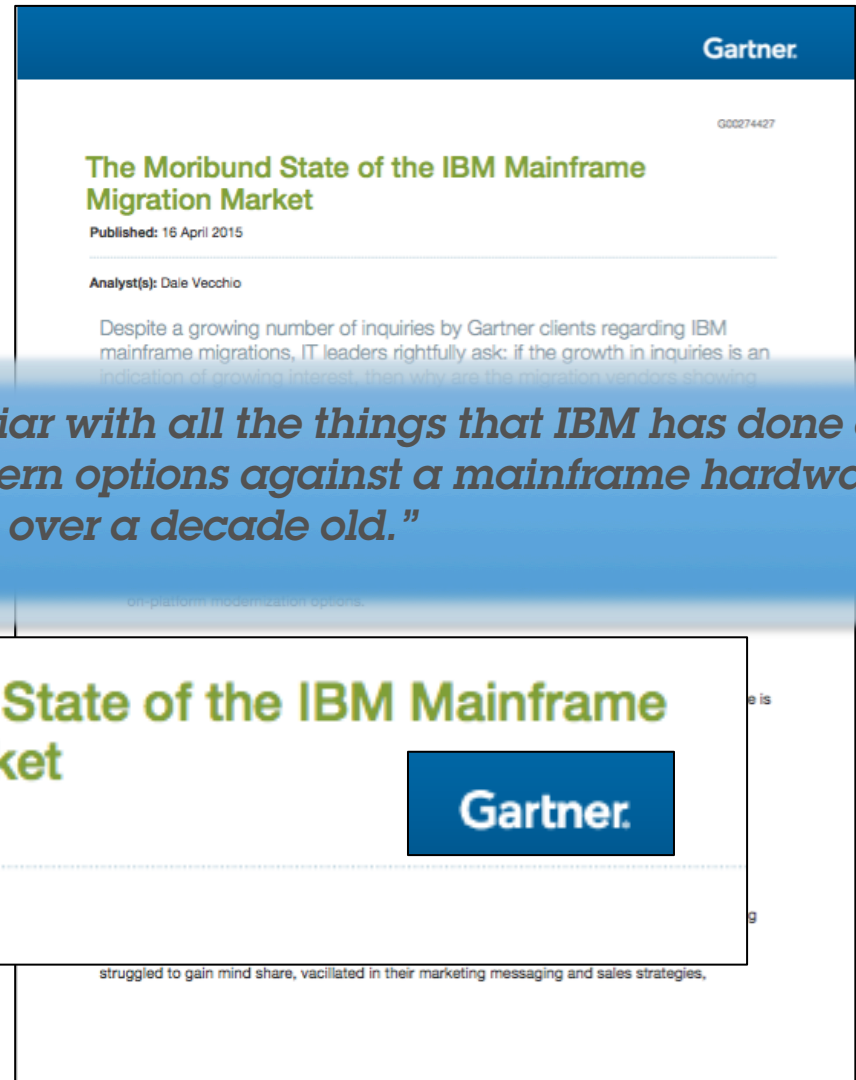
Deployed systems of record represent trillions of dollars of investment over the past three decades

# ...and mainframe migration is fraught with costs and risks yielding a low low success rate of re-inventing systems of record

## ▪ Key reasons for failure

- Change is hard
- It's more complicated than it looks
- Vendors overpromise and under

*“...many mainframe shops are unfamiliar with all the things that IBM has done on this platform. They are measuring modern options against a mainframe hardware and software environment that may be over a decade old.”*





# ...and the CIO/IT Leader is at the center of it all and needs to act



**Margaret**  
**Chief Information Officer**

## Responsibilities

- Effectively integrate business and technology.
- Create flexible and scalable systems and infrastructures that help drive change, deliver new business insights and build sustainability.

## Evaluated on

- IT's contribution to driving strategic value
- Effective management of existing infrastructure to support business objectives

## Challenges

- Navigate a “digital now, digital first” reality.
- Align with corporate culture to build a digital culture.
- Find ways for IT to add strategic value to the business, versus being an operational leader managing a cost center.
- Move from IT efficiency to value creation —improving IT productivity by increasing revenue per dollar of IT cost.
- Manage security threats for the enterprise.
- Simplify and streamline IT operations to help deliver on the corporate roadmap, despite shrinking budgets.

## ...What is Margaret to do?



**Margaret**  
**Chief Information Officer**

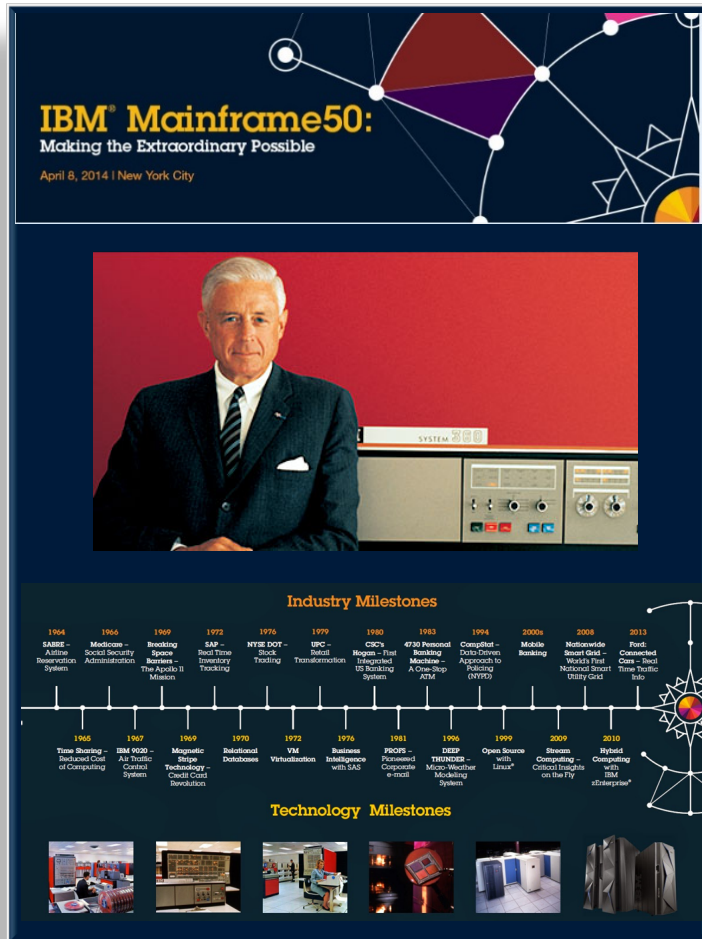


**Remaining  
competitive means  
continually  
optimizing and  
innovating**



# IBM z Systems

## The innovation continues



## IBM z13

**Up to 141** Configurable cores - CP, IFLS, zIIP, ICFs, SAP

**40%** Total capacity improvement over zEC12

**Up to 10 TB** >3X more available memory

**Up to 320** Separate channels of dedicated I/O

**2 SODs** zKVM\* and GDPS appliance for Linux on z Systems\*

- Mega Memory
- Simultaneous Multi-Threading
- SIMD
- Data Compression Acceleration
- Crypto Express 5S
- KVM for z Systems
- IBM zAware for Linux
- zBX Model 004
- z/OSV2.2 Preview
- z/OS SPE v2.1

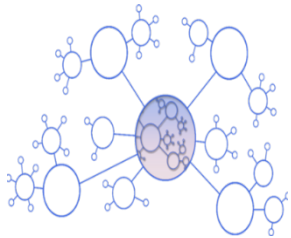
**Reinventing enterprise IT for digital business**

# IMS strategy supports your digital transformation

## Strategic Intent



- Continue to deliver the IMS Value Proposition
  - Superior performance, reliability, availability and serviceability
  - Minimize cost per transaction



- Innovate and extend the value of your IMS investment



- Expand and empower the IMS talent population

## Investment

- Core Capabilities
  - Reduce path length, contention, I/O...
  - Reduce planned outages
  - More dynamic capabilities

- Data & Analytics
  - Accelerate time to insight
- Cloud/Mobile Access
  - Rapidly enable/control cloud & mobile access to IMS resources

- Open interfaces & Java
- Modern tooling for administrators, developers and DBAs

# IMS 14 and Enterprise Suite 3.2

Available  
Now!

## IMS 14 & ES 3.2 GA – 10/30/2015

Optimize and extend the value of your IMS investment and enable your digital transformation

- Simplified, standards-based management and integration for cloud, analytics, mobile, and big data
- Improved IMS TCO and Qualities of Service

12 QPP  
Participants

5 clients in  
production  
before GA

97%  
Overall QPP  
Satisfaction  
Rating

Requirements  
addressed 48

300M tx/day  
@ GA

## IMS Strategic Intent

Continue to deliver  
the IMS Value  
Proposition

## IMS 14 & IMS ES 3.2

- **Scale:** improved workload balance, increased data set size and # simultaneously open
- **Availability:** Reduced need for Gen, Open DB usage stats, flood control, dynamic DB changes
- **Performance & TCO:** Increased zIIP offload, compression offload...

Innovate and  
extend the value of  
your IMS  
investment

### Data/Analytics

- Predictive in-transaction scoring with SPSS & Zementis
- Integration w/ Apache Spark

### Cloud/Mobile

- Increased security granularity and call-out control

Expand and  
empower the IMS  
talent population

- Standard data definition support for defining and changing db schemas (DDL)
- Continuous application release and deployment w/ Urban Code
- Internal move to modern and open tools

# IMS 14 is ready for your mission critical workload!

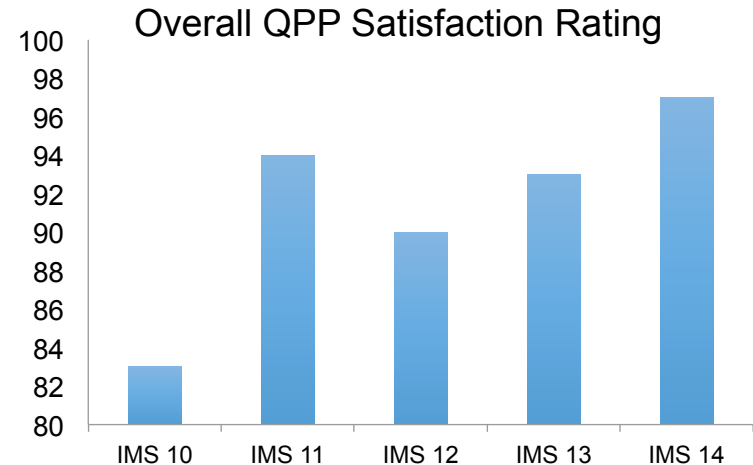
## IBM IMS Solutions: Sharpen Your Competitive Edge



**Betty Patterson**

IMS Chief Architect, IBM Corporation

<http://ibm.biz/ims14solutions>



***“IMS V14 migration was a quiet migration with no business impact even though new, much needed enhancements were part of IMS V14.”***

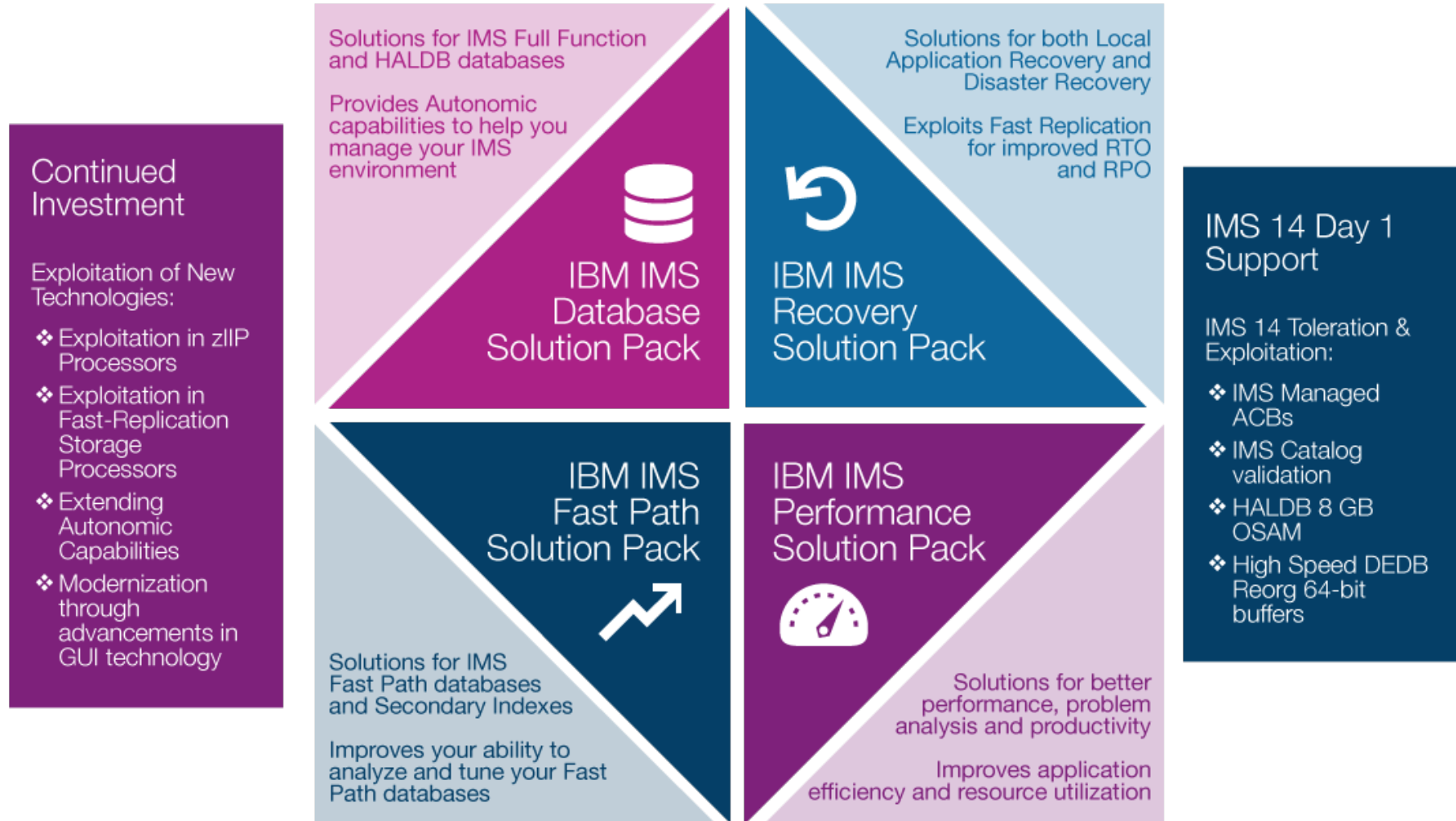
***“A modernization leap with DDL support in IMS V14”***

***“We are very happy to be part of the IMS QPP. We’ve gotten great benefit out of it for the past several IMS versions.”***



# IBM IMS Tools: Enhancing IT Landscapes

Simplifying and Automating the Management of Your IMS Environment





# Leaders are optimizing & innovating with IMS

## Systems Management



Performance

TCO

Database  
Management

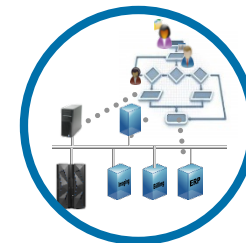
Scalability

Tx Management

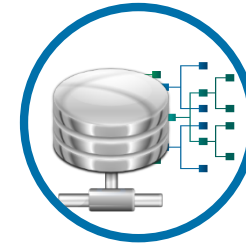


### IMS Tools

- Complete Database Management
- Optimize IMS Performance
- Accelerate IMS upgrades



SOA and Open  
Integration



Open  
Database



Mobile  
Access



Business  
Analytics

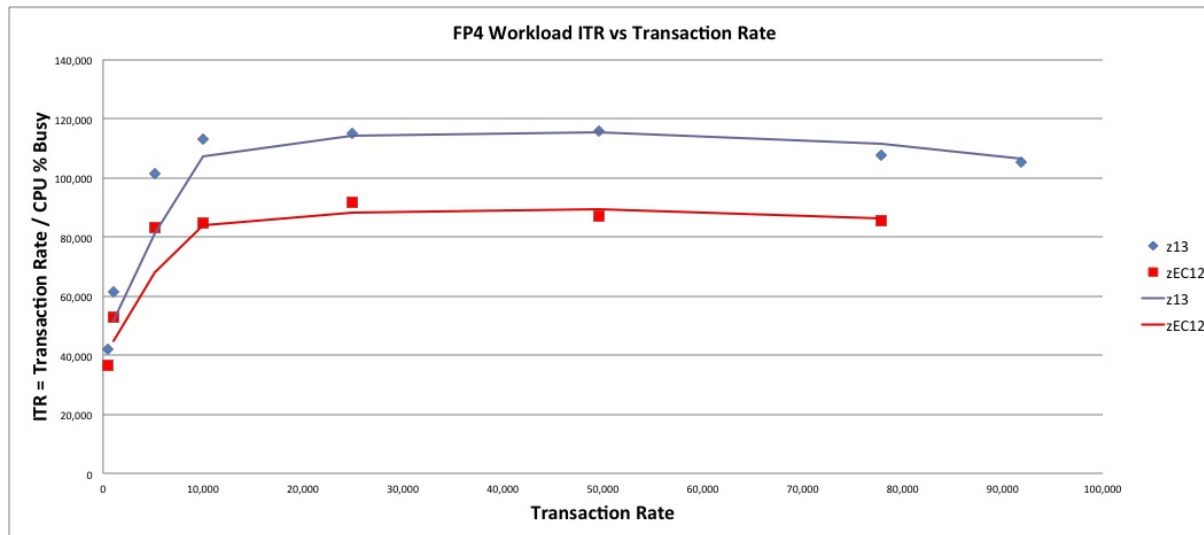


Application Modernization

Optimize

Innovate

# IMS 14 Fast Path Performance on z13



***15-34% throughput improvement***  
over IMS 14 on equivalent EC12 using an IBM internal high volume fast path workload

• A 15-34% improvement in ITR was observed when comparing an IBM internal high volume IMS Fast Path workload running on a zEC12 vs z13 both configured with 9 general purpose engines

# IBM continues to deliver improvements in Java and Compilers

## Java 8 and z13

Optimized CICS, IMS, and other  
transactions



1989

Up to **56%**  
better throughput  
on z13 and Java8  
than Intel Haswell  
for IBM  
middleware  
solutions

Up to  
improvement  
application

Up to 2x  
improvement in the  
per core for security enabled  
applications

Compilers: **COBOL, PL/I,**

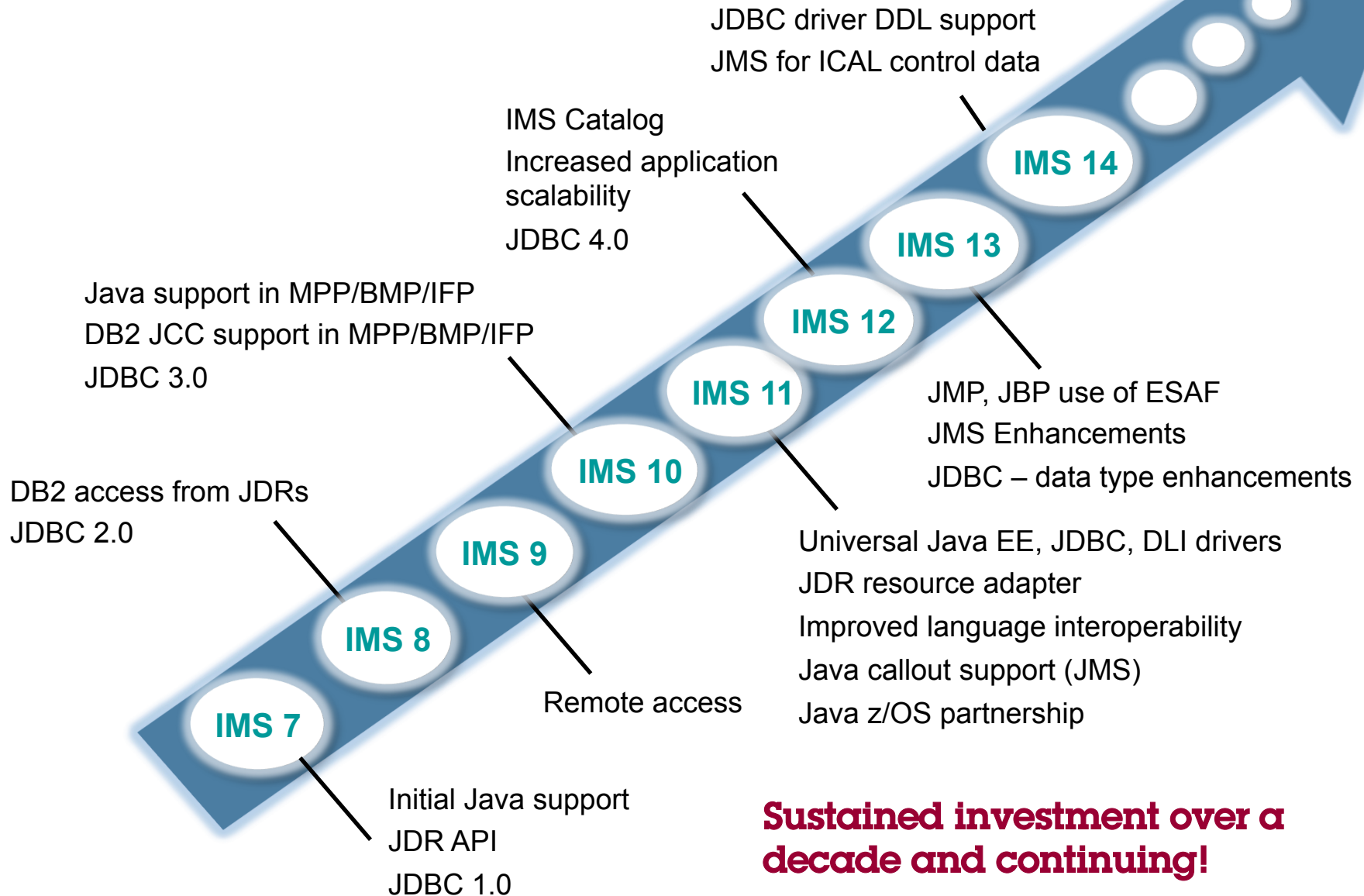
increases performance

Up to **17%**  
performance improvement

**1.5x** performance gain for  
COBOL apps using packed  
decimal

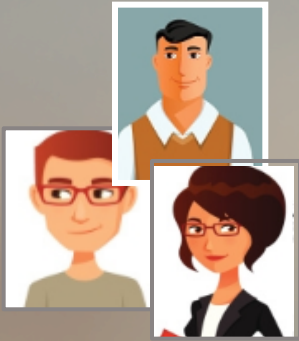
**30x** performance gain for  
COBOL statements with SIMD  
instructions

# Java and IMS – IMS 7 to IMS 14 highlights



**Sustained investment over a decade and continuing!**

# Java on z Survey



**Enterprise Architects**  
**System programmers**  
**Application Developers**

## had the most influence On Java on z projects

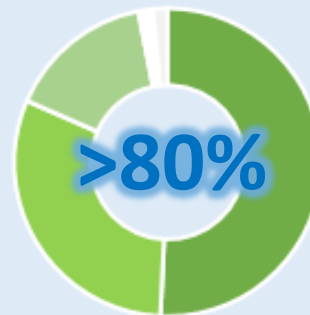


## 145 surveys returned

## 95 client responses

## 68% Java Project on z

## In 1 week...



Classified Java projects  
as  $\geq$  successful



now have Java applications  
in production

# What are you waiting for?

# Are you taking advantage of new software pricing?

## Mobile Workload Pricing (MWP)

can reduce the cost of growth for mobile transactions processed by programs such as CICS®, IMS™, and DB2® for z/OS.

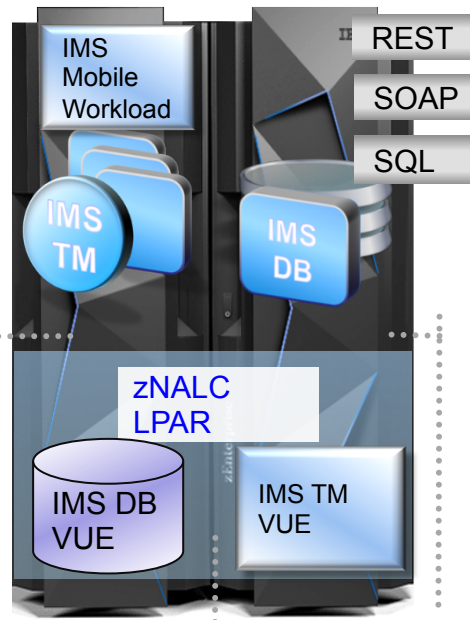
Up to **60%** reduction in incremental growth from mobile transactions

## z Systems Collocated Application Pricing (zCAP)

For new applications, new workloads priced as if in a dedicated environment while technically integrated in LPARs with other workloads

## IMS DB and TM Value Unit Editions (VUE)

Introduces a new one-time-charge pricing metric specifically for new workloads like data sharing to enable new analytics workloads, new IMS Open Database for Java or SQL workloads, new mobile applications, new Java applications, etc.



## zIIP Enablement

can help free-up general computing capacity and lower overall total cost of computing for select data and transaction processing workloads

Up to **22%** GP savings for DRDA (SQL)  
Up to **8%** GP savings for SOAP (SOA)

## Country Multiplex Pricing

Unprecedented flexibility to move and run workloads anywhere and to migrate to new hardware - eliminating duplicate sub-cap peaks and sysplex aggregated pricing rules





## **The democratization of data**

**Empower your businesses with controlled and secured access to your mission critical systems of record data**



# Some organizations are using analytics to seize opportunities and solve problems

Complying with mandates,  
understanding clients



*Penalty risk reduced to <1%  
Savings: ~ €300,000*

Exploring data for  
competitive advantage



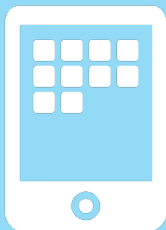
*9.5M+ consumers identified for  
business opportunity signals*

Understanding risk,  
accelerating decisions



*Queries of 2.5 billion transactions  
50%+ faster, reports 70% faster*

Understanding  
customer behavior



*100% increase in subscribers*

Identifying  
traffic risk factors



*80% reduction in  
serious accidents*

Real-Time Fraud  
Analysis

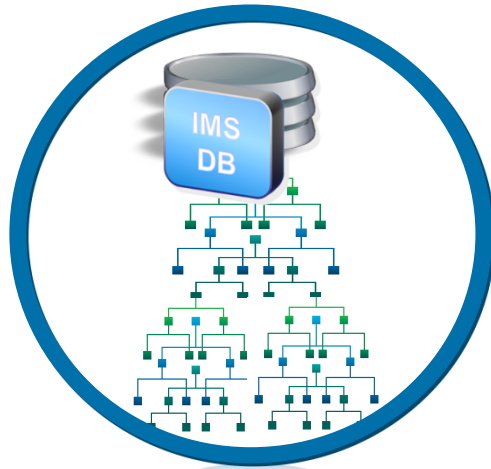


*Millions of Euros of illegally  
shipped goods seized*



# We've been on a journey to transform IMS DB

## Access

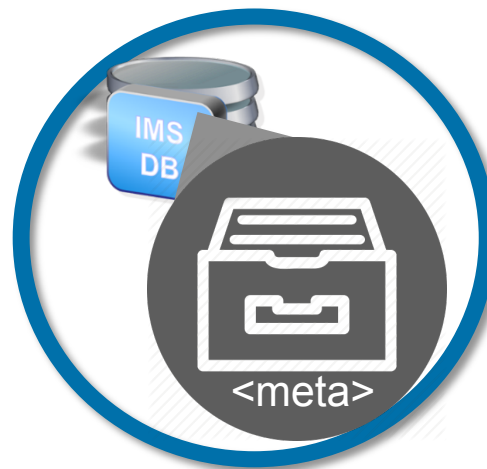


2009

A developer can access IMS DB from any platform using industry standard APIs and syntax

Open Database

## Integrate

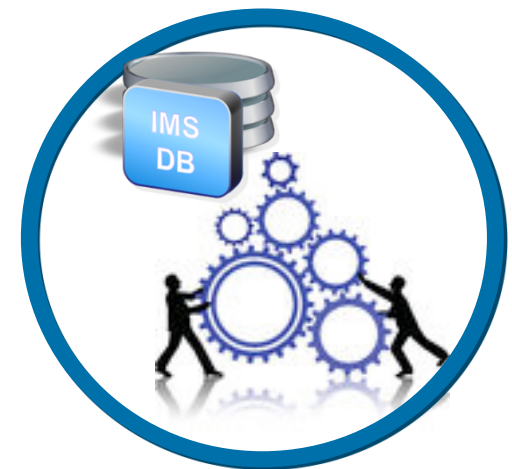


2011

Developers, system programmers, and DBAs can integrate and connect IMS DB with standard tools for modeling, discovery and data insight

Catalog

## Act



2015

A DBA can evolve the IMS DB structure and schema using industry standard syntax without taking an outage

Dynamic Change & DDL

# Enabling you to take advantage of leading analytic offerings with IMS Data



## Use Case

Real-time BI and dash boarding of IMS Data

Analyze IMS data with unstructured data

Deep and fast analysis of IMS data

Visualize all data assets including IMS data

## Solution

IBM DB2 Query Management Facility  
**COGNOS**

InfoSphere Big Insights



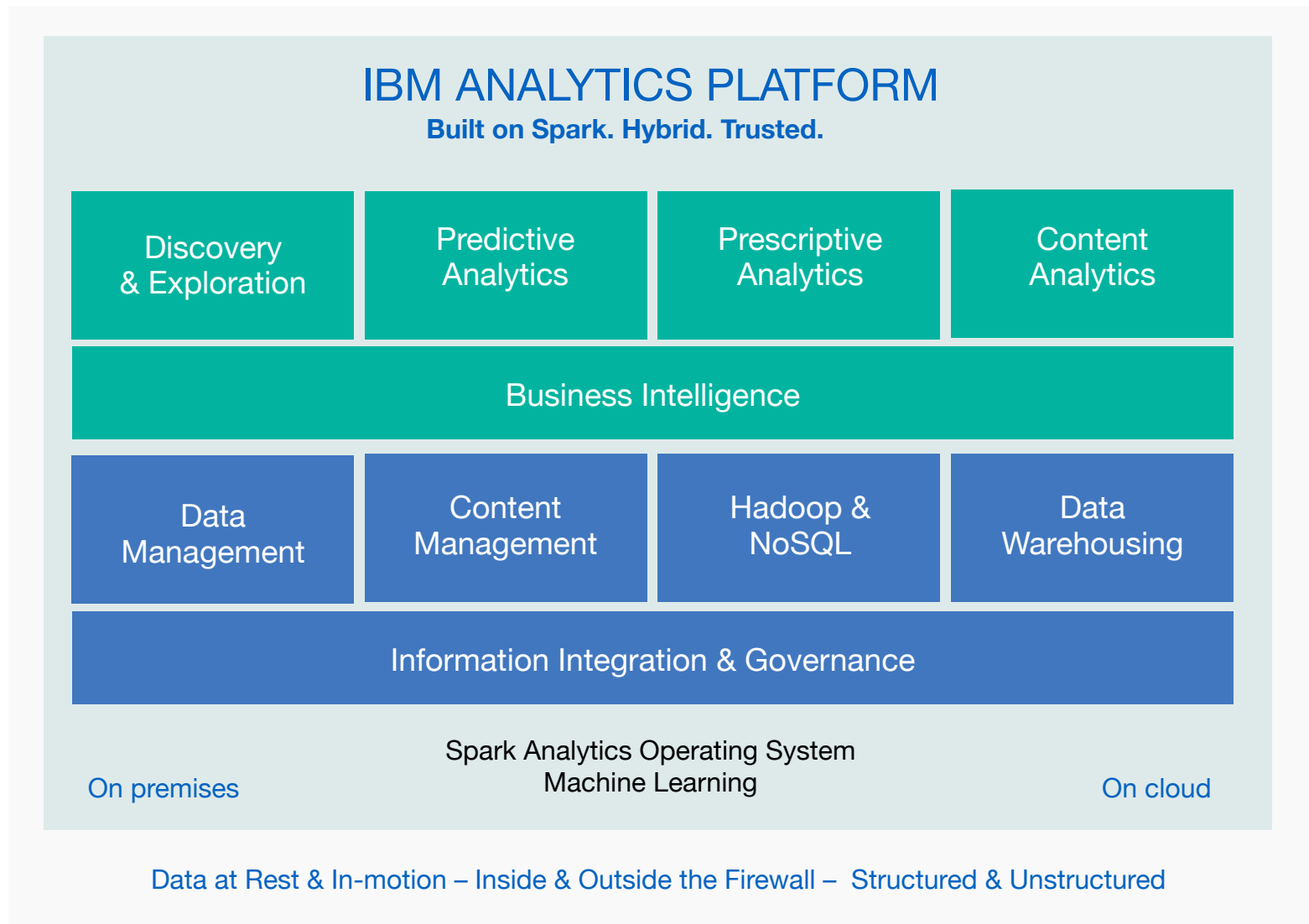
**UPDATE**  
IDAA



Watson Explorer

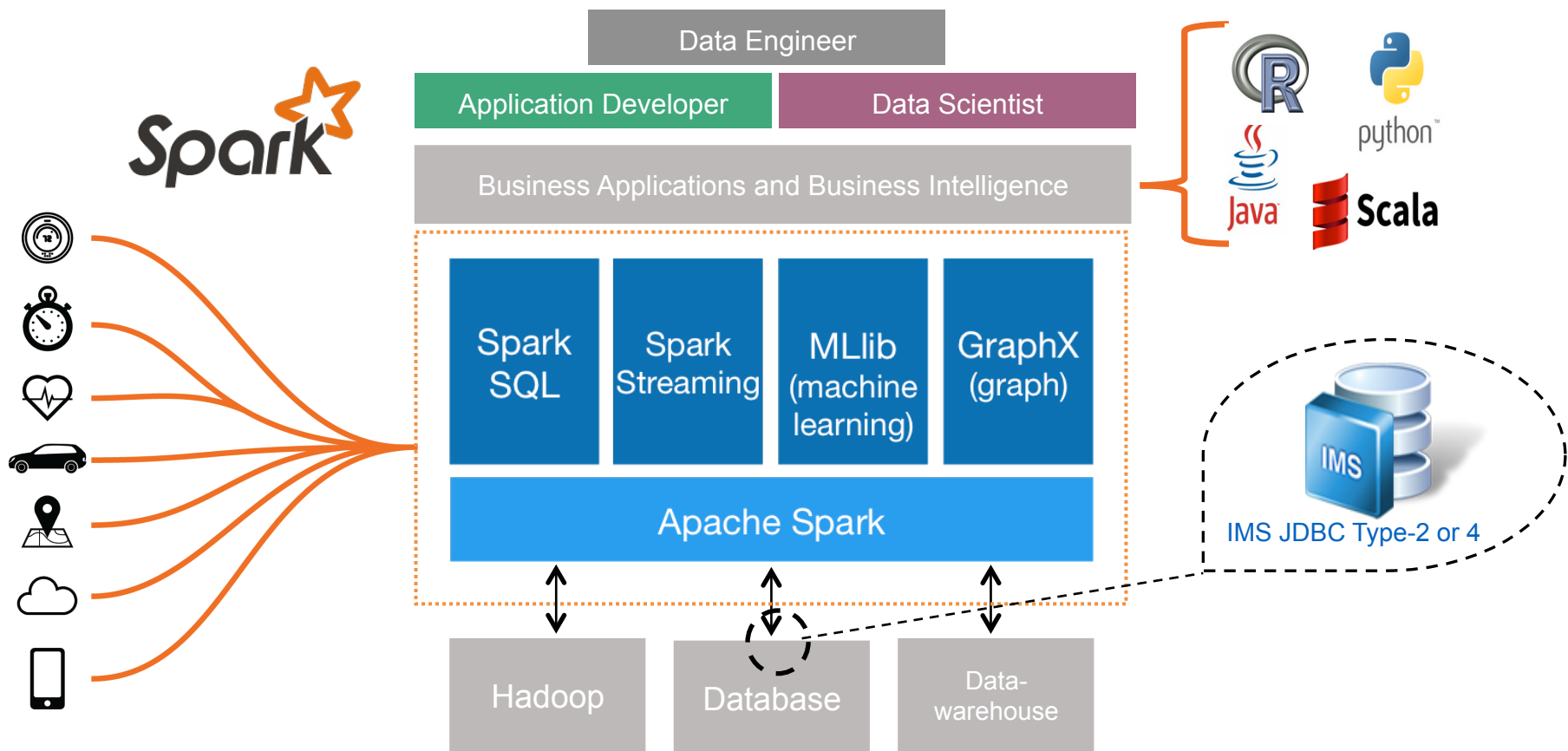


# IBM Analytics Platform



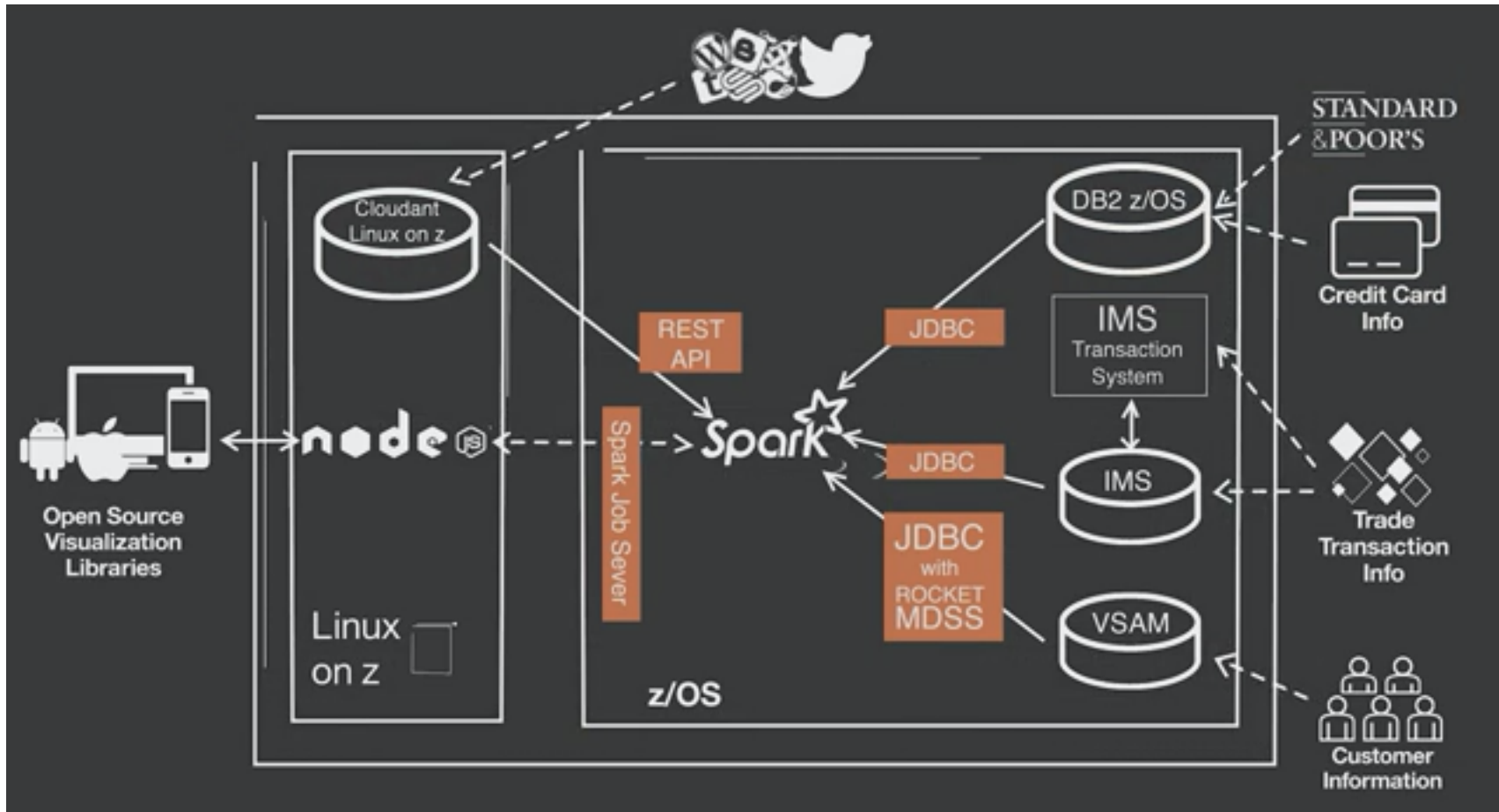
# Integrate Apache Spark with IMS DB

Available Now!



## ...and now run Spark on z/OS

NEW



<https://www.youtube.com/watch?v=sDmWcuO5Rk8>

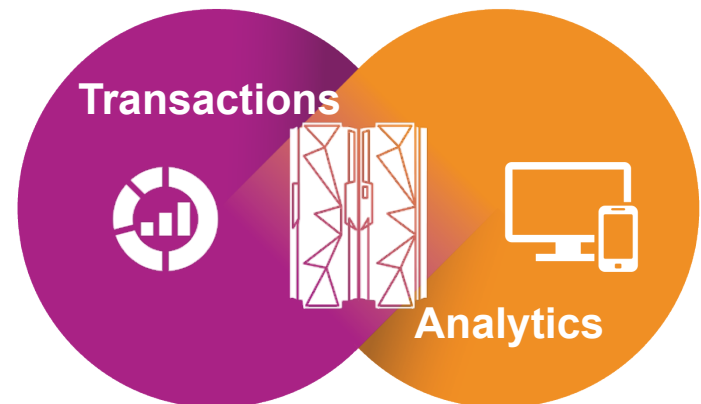
# Introducing Predictive Analytics for IMS

Available  
Now!



Zementis for IBM z Systems integrates enterprise-grade predictive analytics into the IBM z Systems data lifecycle

- Increase business agility
- Improve data governance and security
- Reduce infrastructure cost and complexity



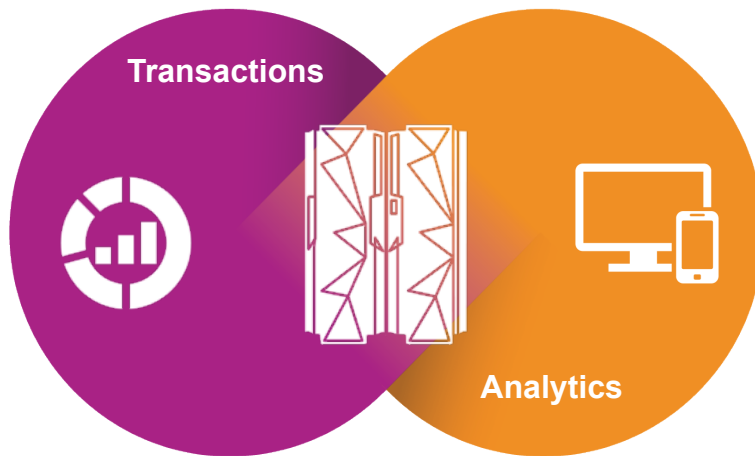
Create  
predictive  
model



Deploy  
predictive  
model



## ...and we will continue to integrate analytics with core transactions



- Right-time insight at point of impact
- Increased business agility
- Improved data governance and security
- Reduced infrastructure cost and complexity



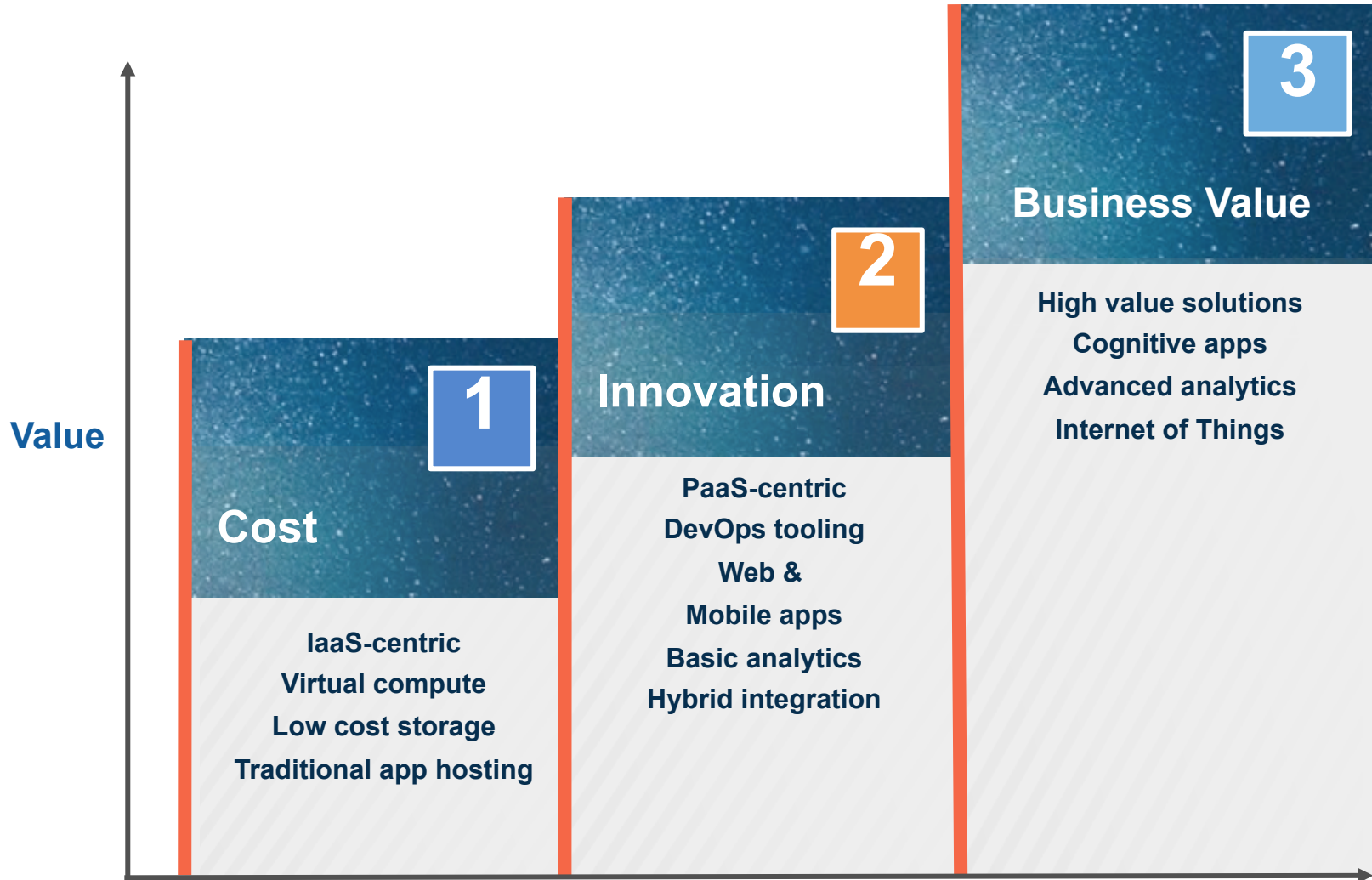


## **Digital Transformation Requires Speed**

**Disruptors are reinventing business processes and leading their industries with digital transformations**



# The role of cloud is maturing into the environment for innovation and business value



# Your journey to cloud with IMS starts with z/OS Management Facility & IMS Tools

Available  
Now!

## z/OS Management Facility

### ■ Monitor Resources

- Retrieve historical performance data; export data to a spreadsheet for further analysis

### ■ Manage capacity and workloads

- Support the provisioning of capacity based on overall CPC-wide utilization
- Create, change, and delete software instances with REST APIs for z/OSMF Software Management plug-in

### ■ z/OSMF workflows

- Migration workflows and health checks
- Customizable workflows – including the automatic execution of workflow steps
- REST APIs to create, delete, initiate, monitor cancel or link workflows.

## IBM IMS Cloning Tool for z/OS

- Automates the cloning process for IMS systems and databases, helping to reduce the time required to copy IMS databases or create a complete IMS system

### Innovating in IMS: A case study using z/OSMF to simplify system provisioning

Dario D'Angelo, Poonam Chitale, and Chad DeLuca, IBM IMS Development

**IBM z/OS Management Facility**

Workflow Name Filter | Description Filter | Version Filter | Owner Filter | System Filter | Status | Percent Complete | Vendor Filter

Workflow Name Filter	Description Filter	Version Filter	Owner Filter	System Filter	Status	Percent Complete	Vendor Filter
IMS TM-DB System Manual Provisioning - V14-STLABE0-CHAD-2	IMS TM-DB System Manual Provisioning	13.0	chad	PLXE0E1 STLABE0	✓ Complete	100%	IBM
IMS TM-DB System Manual Deprovisioning - V14-STLABE0-CHAD-2	IMS TM-DB System Manual Deprovisioning	13.0	chad	PLXE0E1 STLABE0	✓ Complete	100%	IBM
Betty's test workflow to provision an IMS TM-DB System - Workflow_1	Procedure to provision an IMS TM-DB System	0.1	chad	PLXE0E1 STLABE0	🟢 In Progress	12%	IBM
HDAM DB Provisioning - Workflow_3	HDAM DB Provisioning	1.0	chad	PLXE0E1 STLABE0	🟢 In Progress	78%	IBM
Procedure to provision an IMS TM-DB System - Workflow_2	Procedure to provision an IMS TM-DB System	0.1	chad	PLXE0E1 STLABE0	✓ Complete	100%	IBM
HDAM DB Provisioning - Workflow_4	HDAM DB Provisioning	1.0	chad	PLXE0E1 STLABE0	🟢 In Progress	78%	IBM

Total: 130, Filtered: 6, Selected: 0

Refresh Last refresh: Oct 19, 2015, 12:53:24 PM local time (Oct 19, 2015, 7:53:24 PM GMT)

<http://www-148.ibm.com/bin/newsletter/tool/landingPage.cgi?view=1&lpId=7195>

# z/OS Cloud Beta

IBM United States Software Announcement  
215-453, dated September 29, 2015



## Statement of Direction: IBM to deliver IBM z/OS cloud enhancements

### Table of contents

#### 1 Overview

### Overview

IBM® intends to deliver enhancements to the z/OS operating system that clients can use to be more efficient in generating service provided over the Internet. With such cloud capabilities,

- Rapidly provision environments for workload deployment and release the resources to a shared pool when complete.
- Enable direct access of z/OS computing resources by end users through a self-service portal.
- Establish metered service methodologies to enable pay for use.
- Create service catalogs with customizable services that enable multi-tenancy and rapid elasticity.
- Invoke these new functions through a web browser-based user interface or through programmable REST interfaces.

Enabling the z/OS platform with these cloud capabilities will span innovations not only in certain infrastructure elements and components of the z/OS operating system, but also in selected levels of various z/OS software subsystems such as IBM CICS® Transaction Server for z/OS, IBM IMS™ for z/OS, IBM DB2® for z/OS, IBM MQ for z/OS, and IBM WebSphere® Application Server for z/OS.

[http://www-01.ibm.com/common/ssi/rep\\_ca/3/897/ENUS215-453/ENUS215-453.PDF](http://www-01.ibm.com/common/ssi/rep_ca/3/897/ENUS215-453/ENUS215-453.PDF)

[https://www-01.ibm.com/marketing/iwm/dre/signup?source=stg-web&S\\_PKG=ov44345](https://www-01.ibm.com/marketing/iwm/dre/signup?source=stg-web&S_PKG=ov44345)

IBM

### IBM z/OS cloud beta

New z/OS capabilities enabling dynamic, on-demand provisioning and management of z/OS Middleware. Take advantage of new Middleware provisioning capabilities.

➔ No thank you. Please take me to more information regarding hybrid cloud and IBM z.

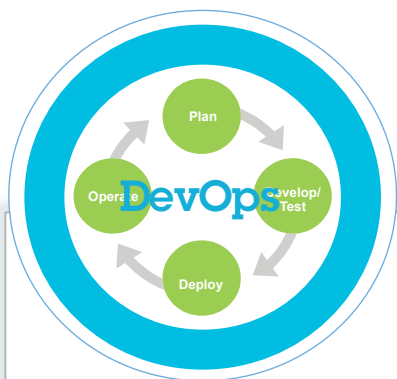
NEW

# Automated Application Deployment with IBM UrbanCode Deploy and IMS

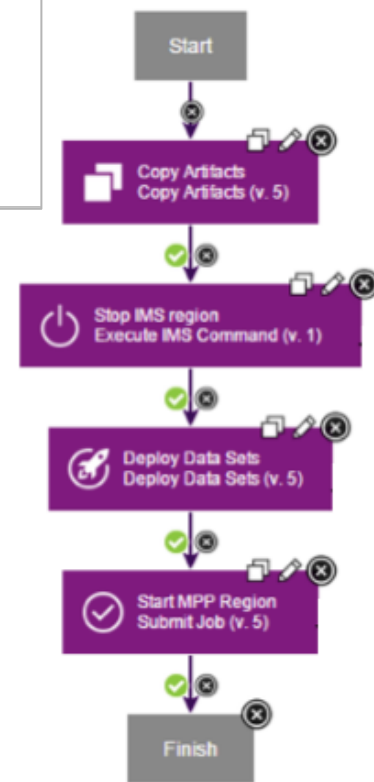
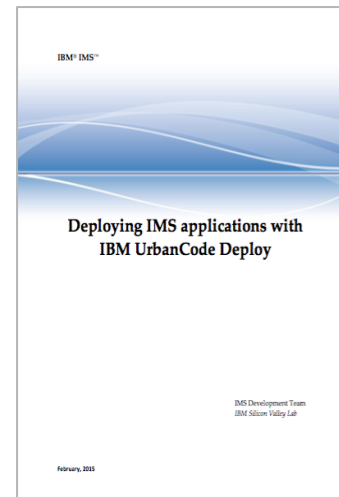
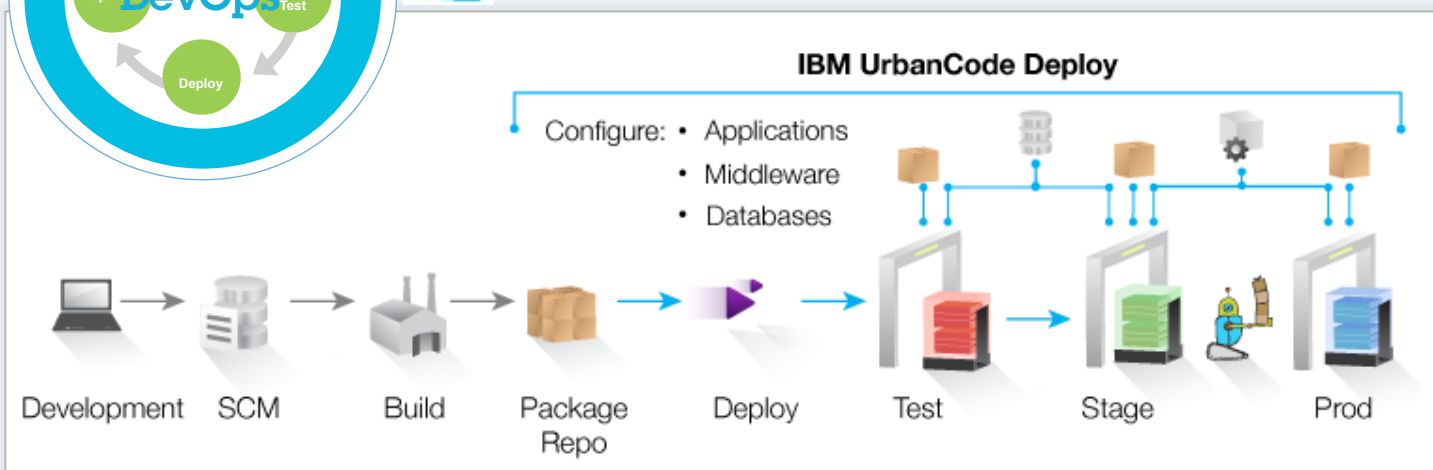
Available  
Now!

## UrbanCode Deploy provides

- Automated, consistent deployments and rollbacks of applications
- Orchestration of changes across servers, tiers and components
- Configuration and security differences across environments
- Clear visibility: what is deployed where and who changed what
- Integrated with middleware, provisioning and service virtualization



## Continuous Release and Deployment







## Expectations have changed

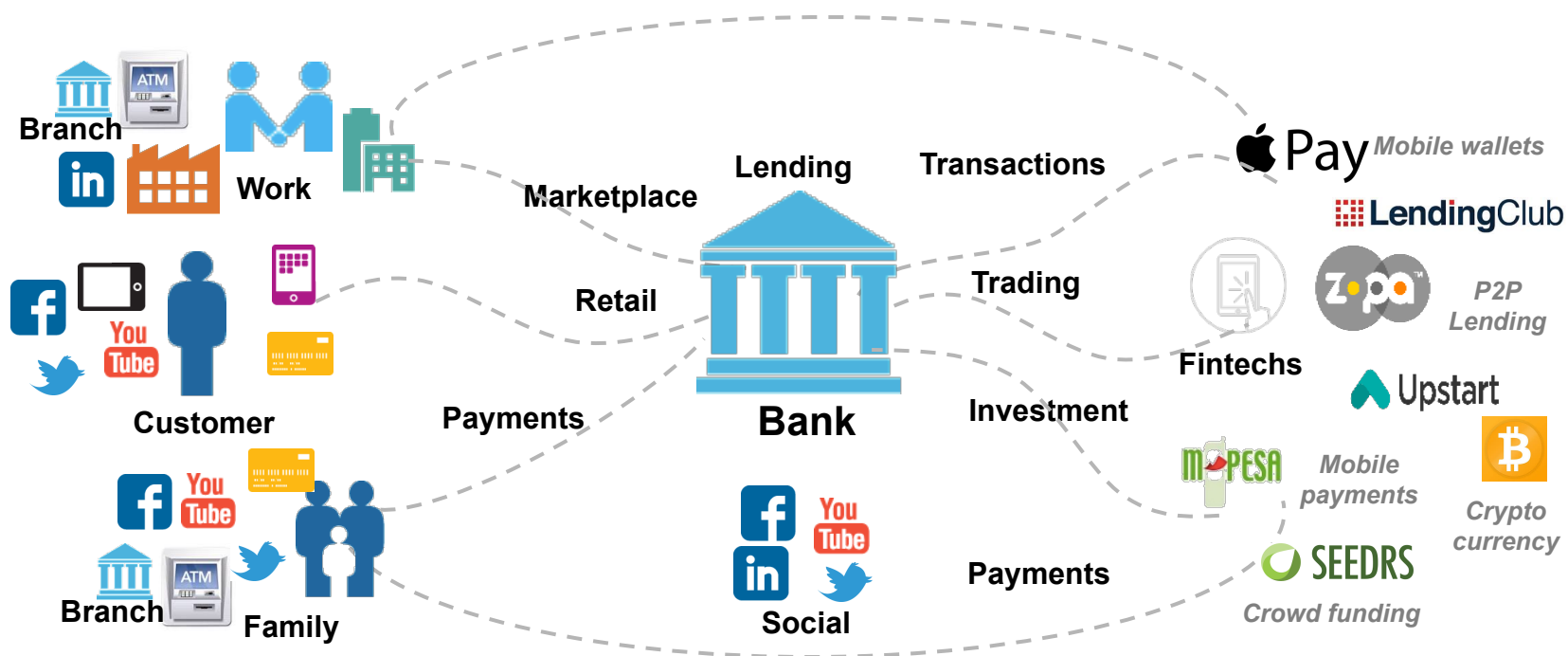
**Gone are the days when companies had plenty of time to adapt to new technologies and new ways of interacting with customers and partners**



By enabling a collaborative environment with customers and partners, banks create new ecosystems to produce rapid innovation and new capabilities

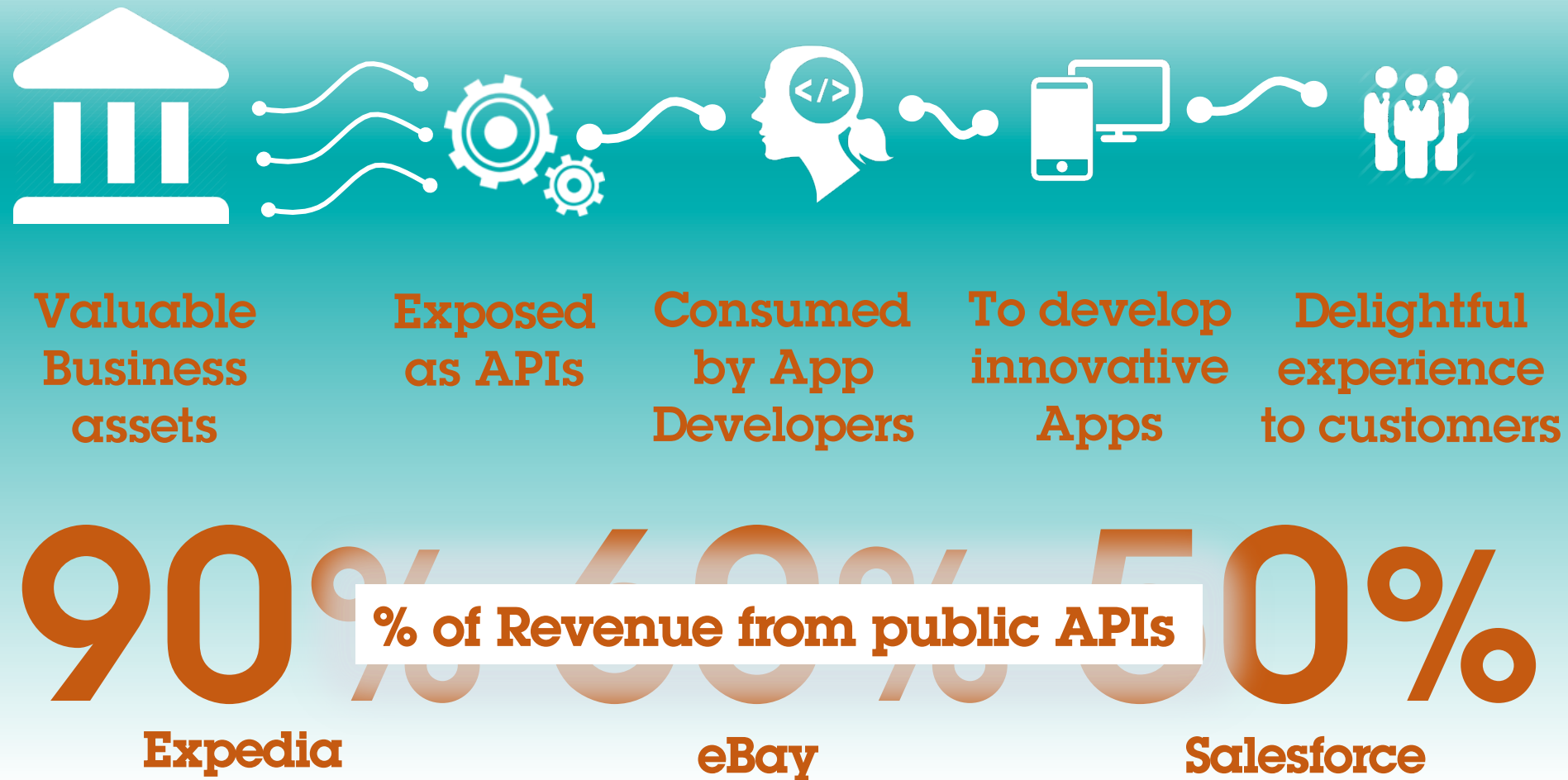
## Customer ecosystem

## Partner ecosystem



Family

# APIs enable the future of collaboration and engagement... and business



APIs provide the path forward regardless of where you are starting

48%

of Gen Digital enterprises  
offer **their own APIs**  
to the marketplace

According to Gartner, by 2016, 75% of the top 50 global banks will have launched an API platform and 25% will have launched a customer-facing app store.

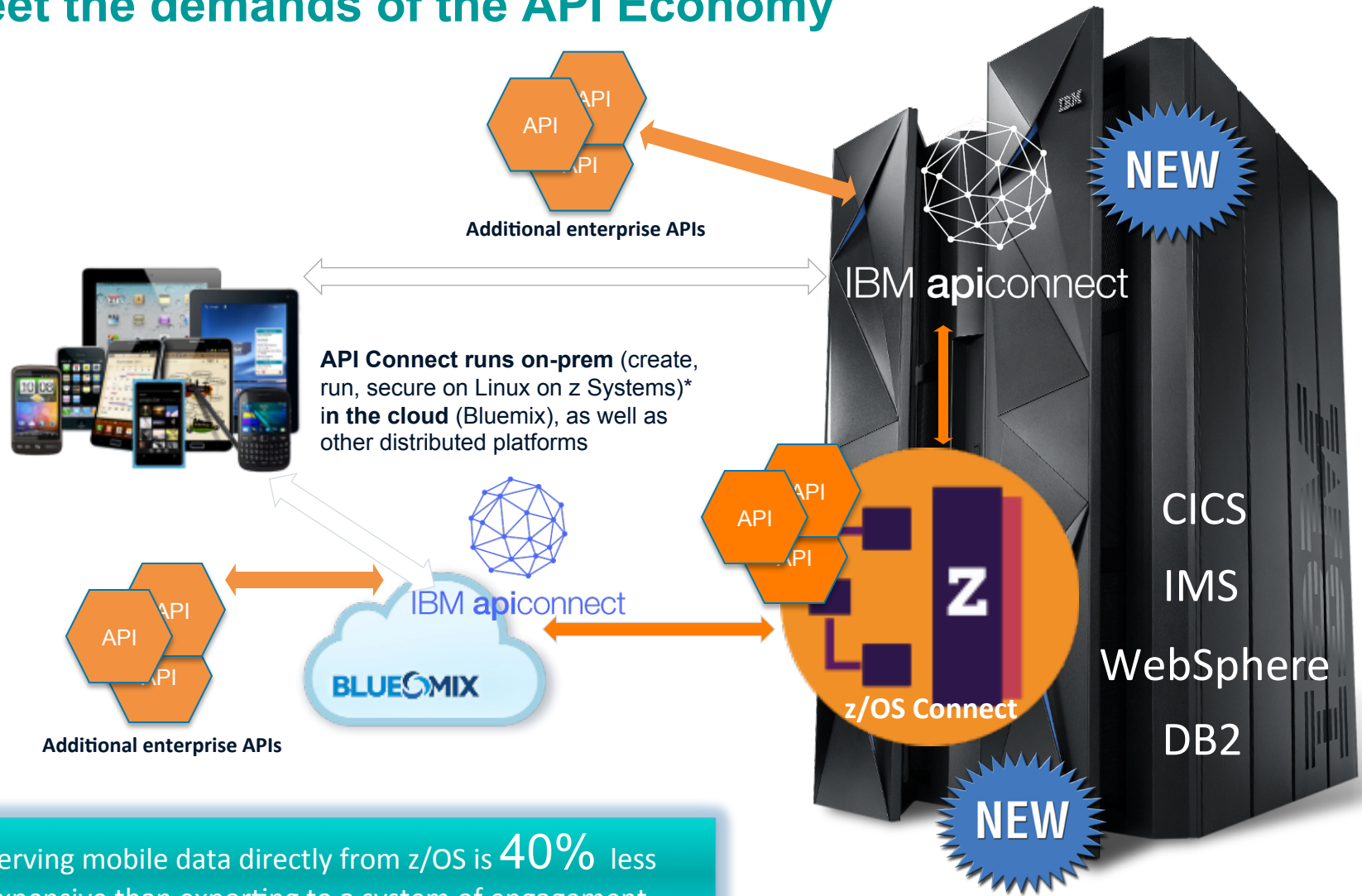
14,000+

APIs published today,  
public APIs doubled in  
the past 18 months<sup>3</sup>

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

3) See ProgrammableWeb, [http://www.programmableweb.com/category/all/apis?order=field\\_popularity](http://www.programmableweb.com/category/all/apis?order=field_popularity).

# z/OS Connect provides optimized infrastructure to meet the demands of the API Economy

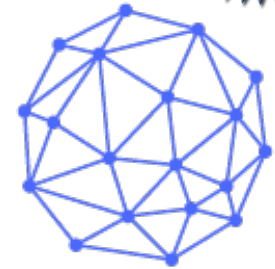


Serving mobile data directly from z/OS is **40%** less expensive than exporting to a system of engagement

\*manage does not run on Linux on z

# API Connect and z/OS Connect Enterprise Edition

NEW



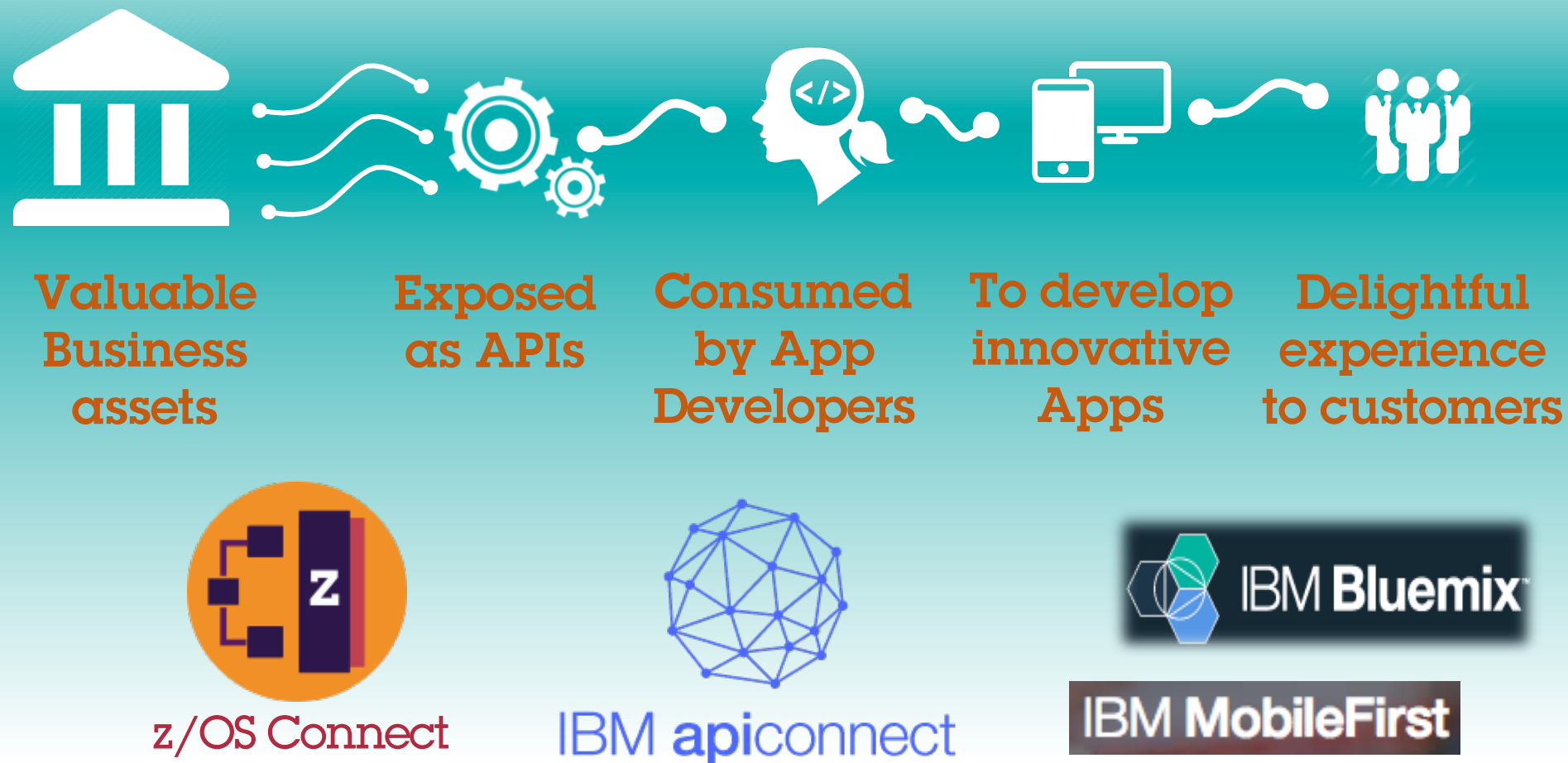
IBM apiconnect

- Create APIs and microservices that consume z Systems APIs
  - Manage and secure z System APIs created by z/OS Connect
  - *Intend to support: connect to and discover z/OS Connect APIs and generate LoopBack models (1Q 2016)*
- 
- Comprehensive tooling that enables API developers to create RESTful APIs from z/OS-based assets
  - Delivers APIs as a discoverable resource using the OpenAPI specification (formerly swagger)
    - *Intend to support: push APIs directly to API Connect catalog (2Q 2016)*





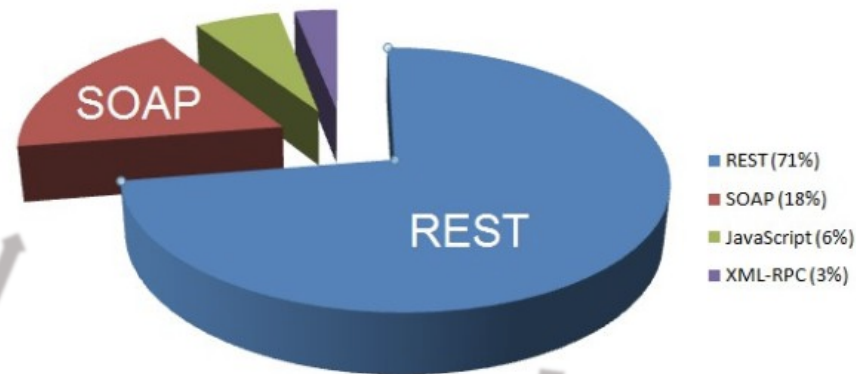
# IBM is investing heavily to enable this new value chain including z Systems



# Growing our list of IMS partners...now for SOAP!

## IBM Statement of Direction – 2/16/2016

- IBM intends to stop developing major enhancements to IBM IMS Enterprise Suite SOAP Gateway, a component of IBM IMS Enterprise Suite, program number 5655-TDA.
- Customers interested in enhanced SOAP capabilities may want to consider other options such as Ivory Service Architect, offered by IBM Business Partner GT Software.





...but you need  
more than just IMS



# IMS Engagement

**Discover**



**Learn**



**Try**



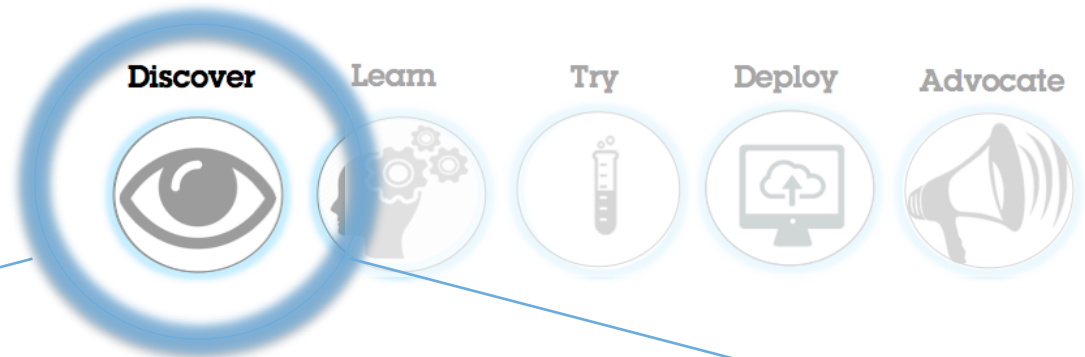
**Deploy**



**Advocate**



# Discover

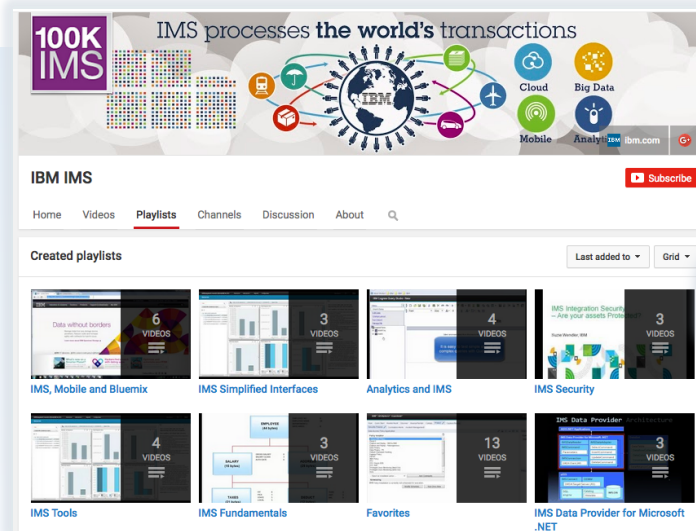


## External

- Conferences
- Redbooks/Whitepapers
- Web/Social

## IMS Programs

- Technical Advocate Program
- Customer Advisory Council
- Regional Users group
- IMS Quality Partnership Program



7 Playlists  
over 25 videos  
over 10,000 views

Now available on  
[www.ibm.com/ims/](http://www.ibm.com/ims/)

160 Customer Lab Advocates





## z Systems welcomes the next generation of mainframers:



### The Mission:

To encourage the new generation of technical experts into the exciting world of mainframes

### The Workshop

A one day session exploring some the exciting opportunities that come with working on z Systems

### The Community

We have a wide network of virtual Gen z connections reinforced by meetups at key conferences

Join the community on Facebook:

[ibm.biz/ibmgencz](https://www.facebook.com/ibmbiz/genz)



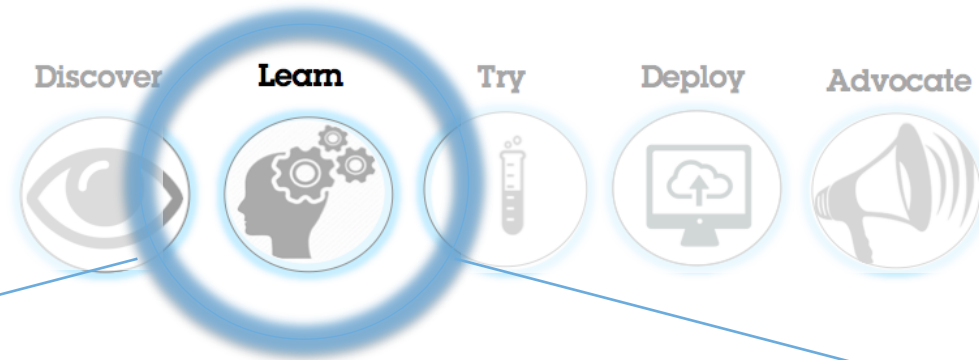
Or find out more:  
[genz@uk.ibm.com](mailto:genz@uk.ibm.com)

Ask a question on Reddit:

[/r/mainframe](https://www.reddit.com/r/mainframe)



# Learn



## External

- YouTube/Slideshare
- DeveloperWorks
- Education

## IMS Programs

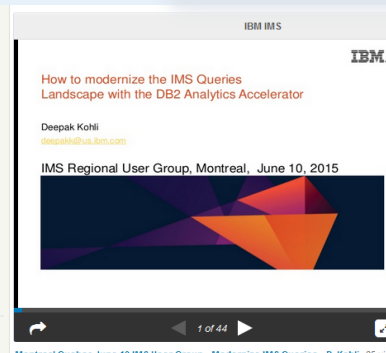
- IMS Customer Internships
- Technical Advocate Program
- Regional Users group
- Business Value Assessments
- IMS Quality Partnership Program



453 Slide Shares  
119 Followers

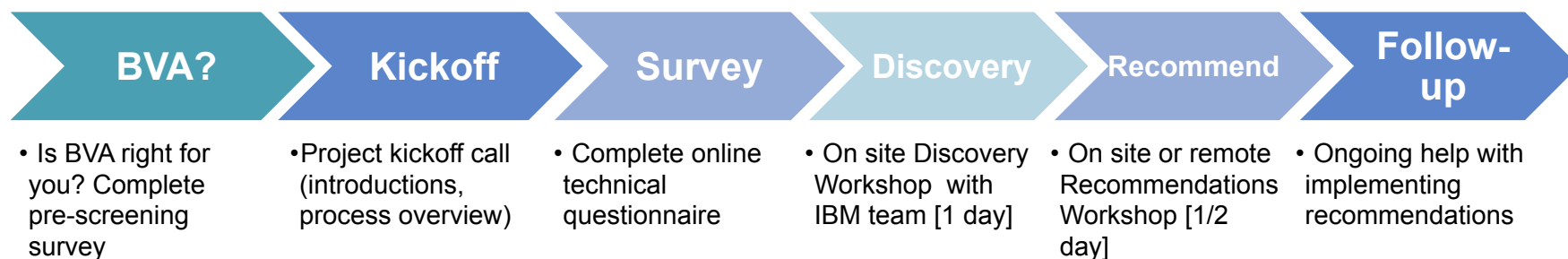
3 WW Internships  
53 interns  
31 companies

## IMS Internships





# IMS Business Value Assessment Workshop



BVA helps identify ways to get the most out of your IMS investment

- Tactical and strategic recommendations to:
  - Increase benefits while lowering costs
  - Improve processing efficiencies for IMS applications
  - Modernize access to IMS applications and data

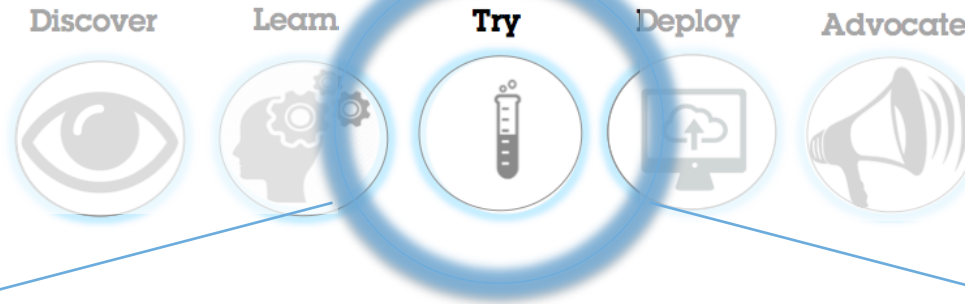
Complete this short survey to get started:

- <https://ibm.biz/BdHAFG>



*A no-charge workshop!*

# Try



## External

- YouTube Hands-on Lab
- IMS Exchange (DeveloperWorks)
- Services

## IMS Programs

- Demos
- Wildfire Workshops
- IMS Quality Partnership Program



IMS Wildfire Workshops

112 clients  
8 workshops  
In last in 3Q15 alone!

**IMS Exchange**

**The Exchange**

Overview  
Recent Updates  
Members  
Blog  
Files

**Blog**

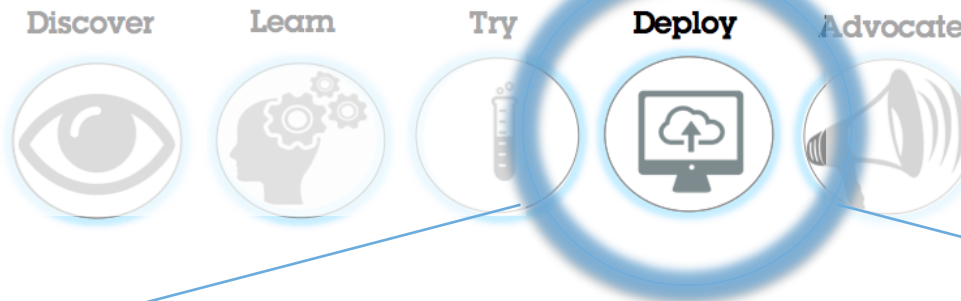
- “Getting started with the IMS Mobile solution”  
ylai | July 28 | Tags: mobile install | 596 Visits
- “z/OS Management Facility workflow samples for compiling IMS Enterprise Suite SOAP Gateway XML converters”  
ylai | Dec 19 2014 | Tags: converters workflow samples z/osmf soap | 916 Visits
- “Building an IMS mobile application: An end-to-end tutorial”  
ylai | Nov 20 2014 | Tags: ims tutorial explorer mobile | 3 Comments | 1538 Visits
- “Technology Preview: Discovering IMS Enterprise Suite SOAP Gateway web services with IBM API Management”  
ylai | Nov 14 2014 | Tags: ims\_ims\_soap soap discovery apim | 1195 Visits
- “Using the IMS SOAP Gateway installation videos with version 3.1”  
DavidHanson | Feb 17 2014 | 709 Visits

[View All](#)

29 blogs  
cookbooks  
over 30,000 views



# Deploy



## External

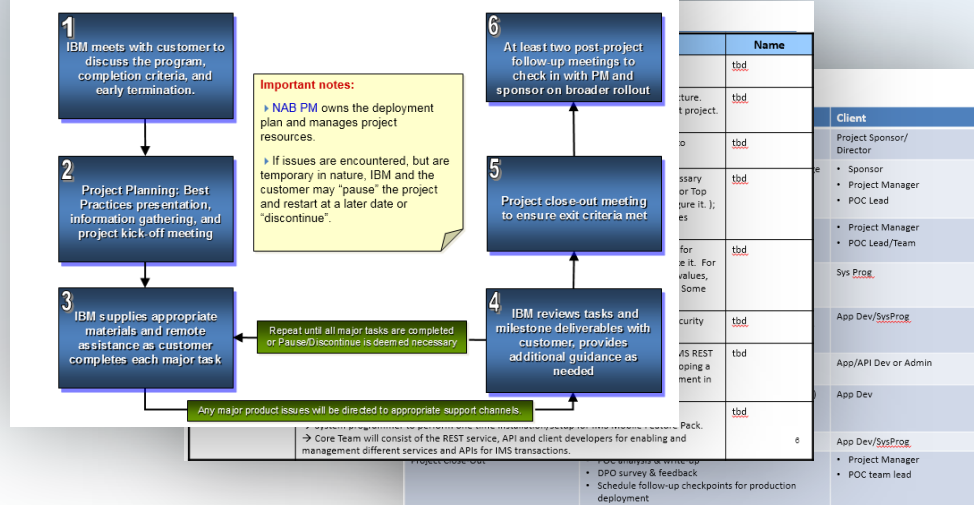
- Services

## IMS Programs

- IMS Deployment Program
- Published Cookbooks
- IMS Quality Partnership Program

## IMS Deployment Program

### DPO Engagement Model



# IMS Deployment Program

NEW

1. Guided deployment for:
  - Creating RESTful APIs from z/OS-based assets
  - Opening up access to IMS DB
  - Java on IMS
2. Prove the value with:
  - No charge service engagement (up to 50 hours)
  - Installation, configuration and deployment planning assistance
  - Best practices for production adoption



*Services to accelerate time to value*

# Advocate

Discover

Learn

Try

Deploy

Advocate



## External

- Web/Social
- Conferences

## IMS Programs

- IMS Marketing

### Standard Life

Leading Long-term Savings and Investments Company, headquartered in Edinburgh and operating internationally

**Pilot Objective:** Provide more sustainable/better/easier data insight and analysis into IMS data than current "green-screen" tooling

**Business challenges**

- Majority of policy data resides in IMS. This data needs to be queried for in-house analysis and testing
- Fewer personnel with IMS specific skills
- "Green-screen" data access methods, "scary" and "off-putting" for new personnel or those not familiar with it

**Solution**

- SQL query access to IMS data from modern Eclipse based GUI
- 52 databases and metadata from 300 copybooks stored in IMS Catalog

**Benefits**

- Modern "non-proprietary" interface into IMS
- Similar look and feel as "better-known" relational access which personnel are used to

**Pilot Result:** IMS Explorer for Development will be rolled-out for in-house usage in Q4 2015

### Standard Life

**\*Pilot Users' comments:**

"Don't have a couple days to try and test limits of query cases...just make best guess. Now with Explorer it's easy to find what we need immediately."

**"Massive step forward"**

In reference to one user's initial exposure to "green-screen" tooling: "This is going back to the Dark Ages." Same user's experience with IMS Explorer: "It is great just to be able to do queries"

**\*Photos included 15 Architects, Analysts and Developers**

**Solution components:**

- IMS Explorer for Development
- IMS Connect, Open Database Manager & IMS Catalog implementation on IMS 13

First National Bank processes over 1 billion transactions monthly with IMS

E.Sun Bank selects IMS SOA Solutions and IBM System z

## Insight 2015

BANCODE ESPAÑA  
Eurosistema



TRAVELERS  
TELUS  
the future is friendly®



IBM Interconnect, SHARE, IMS Symposium,  
zTechnical University, IBM Insight  
6 Conferences: 75 IMS Sessions

## IMS Symposium 2016



finanz informatik  
technologie service

BANCODE ESPAÑA  
Eurosistema

# IMS Engagement

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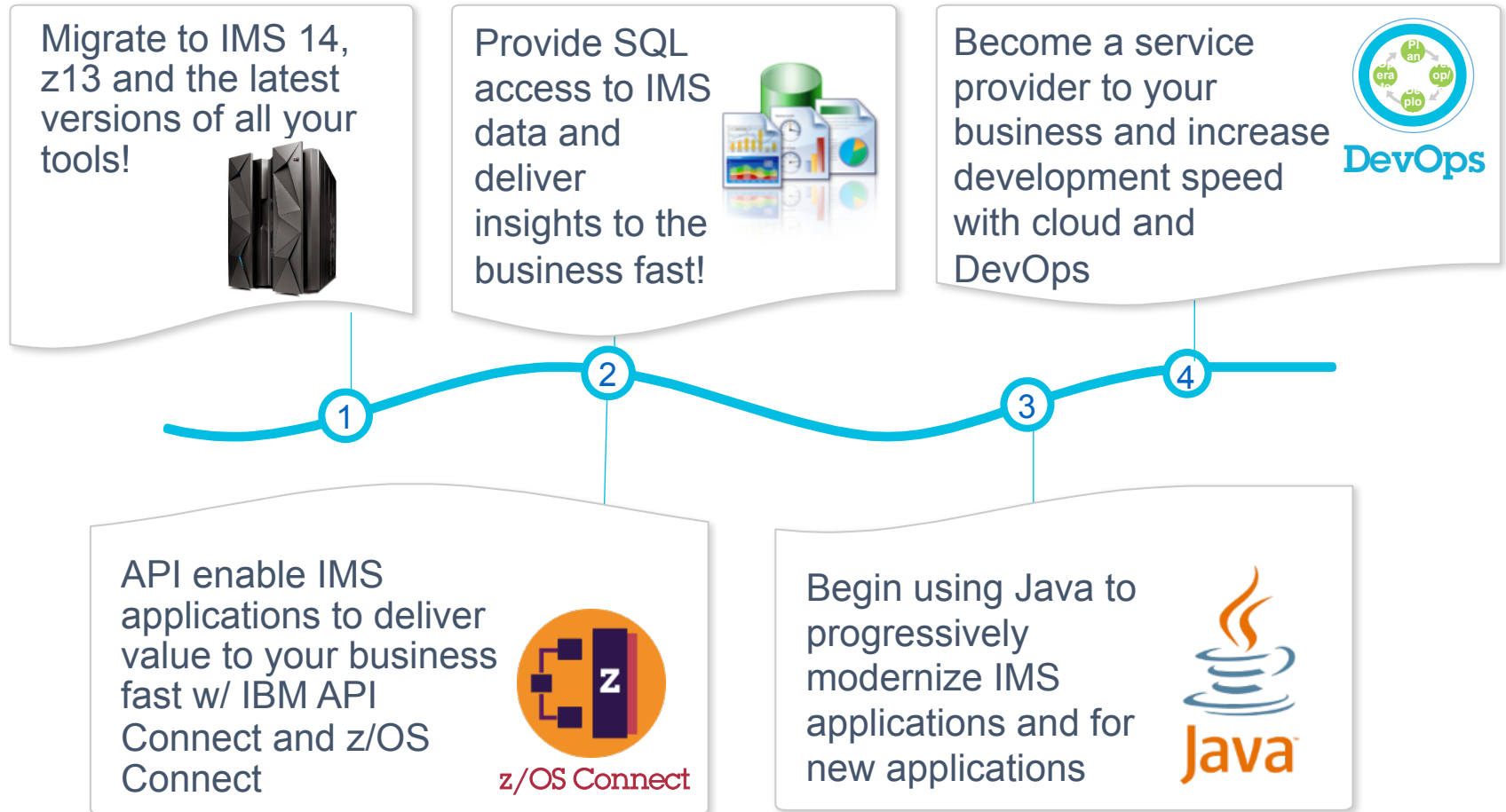


**Advocate**



**[ibmims@us.ibm.com](mailto:ibmims@us.ibm.com)**

# Chart your path to digital transformation with IMS Today!



**[ibmims@us.ibm.com](mailto:ibmims@us.ibm.com)**



## Connect with us!



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[ibm.com/ims](http://ibm.com/ims)



[linkd.in/IBM\\_IMS](http://linkd.in/IBM_IMS)



ReThink IMS



IBM IMS



[ibm.com/IMS\\_RUGs](http://ibm.com/IMS_RUGs)



# Backup

## Please Note:



**IBM's statements regarding its plans, directions, and intent are subject to change or withdrawal without notice at IBM's sole discretion.**

**Information regarding potential future products is intended to outline our general product direction and it should not be relied on in making a purchasing decision.**

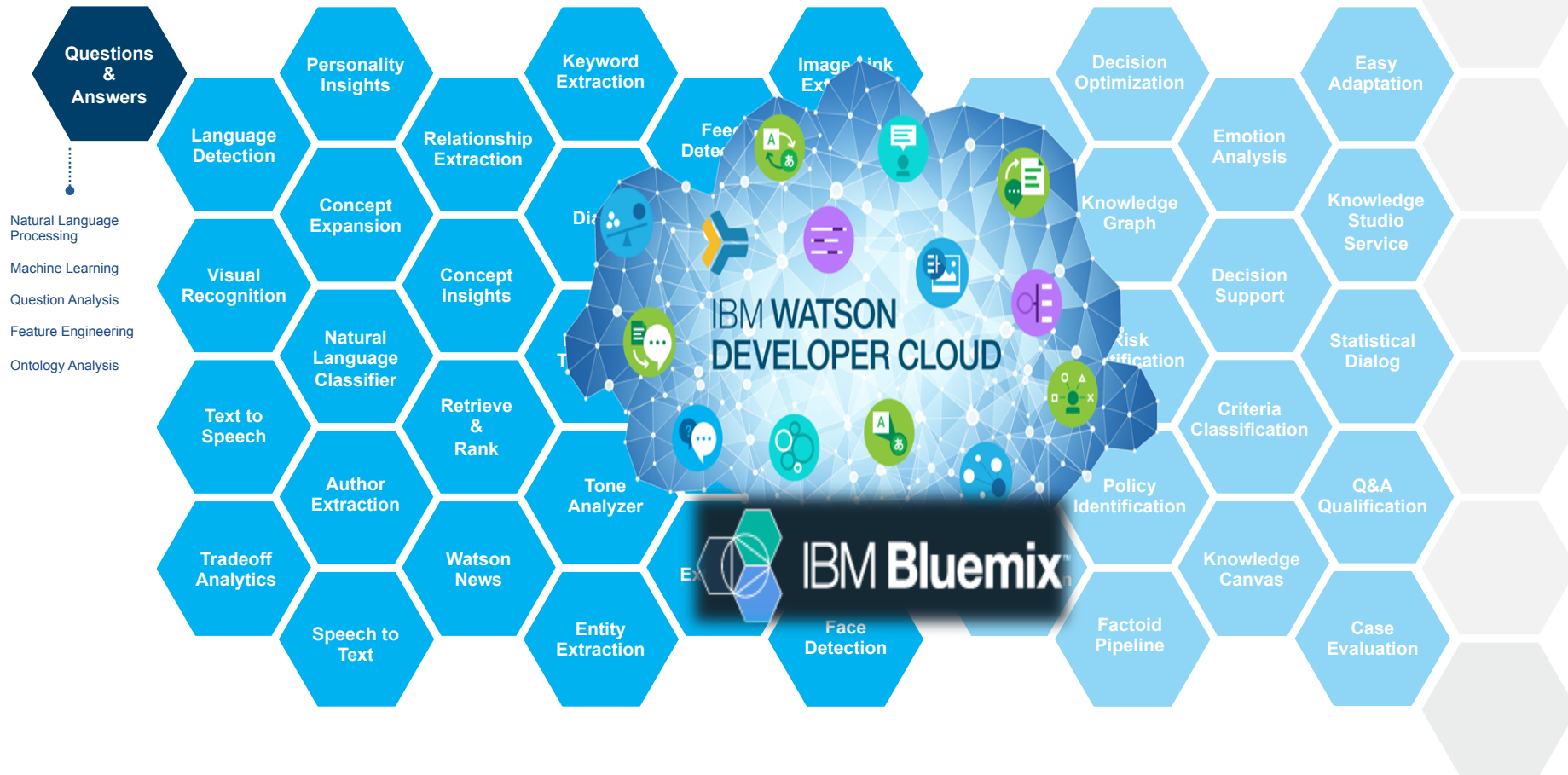
**The information mentioned regarding potential future products is not a commitment, promise, or legal obligation to deliver any material, code or functionality. Information about potential future products may not be incorporated into any contract. The development, release, and timing of any future features or functionality described for our products remains at our sole discretion.**

# With Cognitive...

The Watson that competed on *Jeopardy!* in **2011** comprised what is now a single API—**Q&A**—built on **five underlying technologies**.

Since then, Watson has grown to a family of **28 APIs**.

By the end of 2016, there will be nearly **50 Watson APIs**—with more added every year.





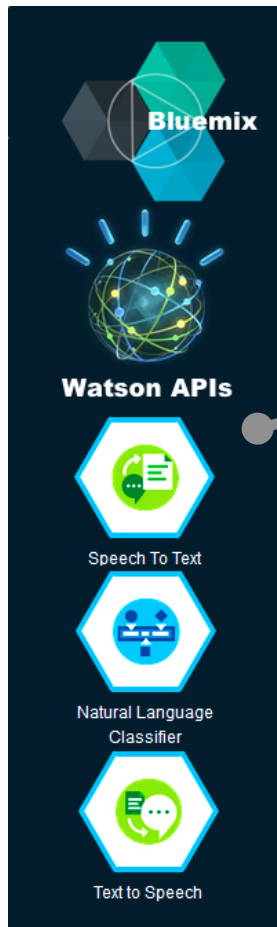


## “Project HAL”

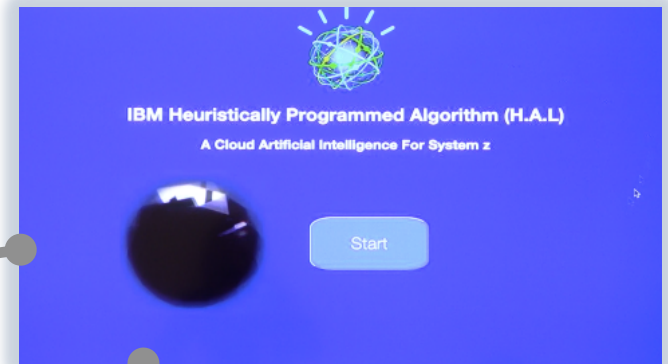
Who: Anyone

What: Can provision IMS (or other subsystems) on z Systems

Wow: In minutes, with limited knowledge



Watson APIs



Management API



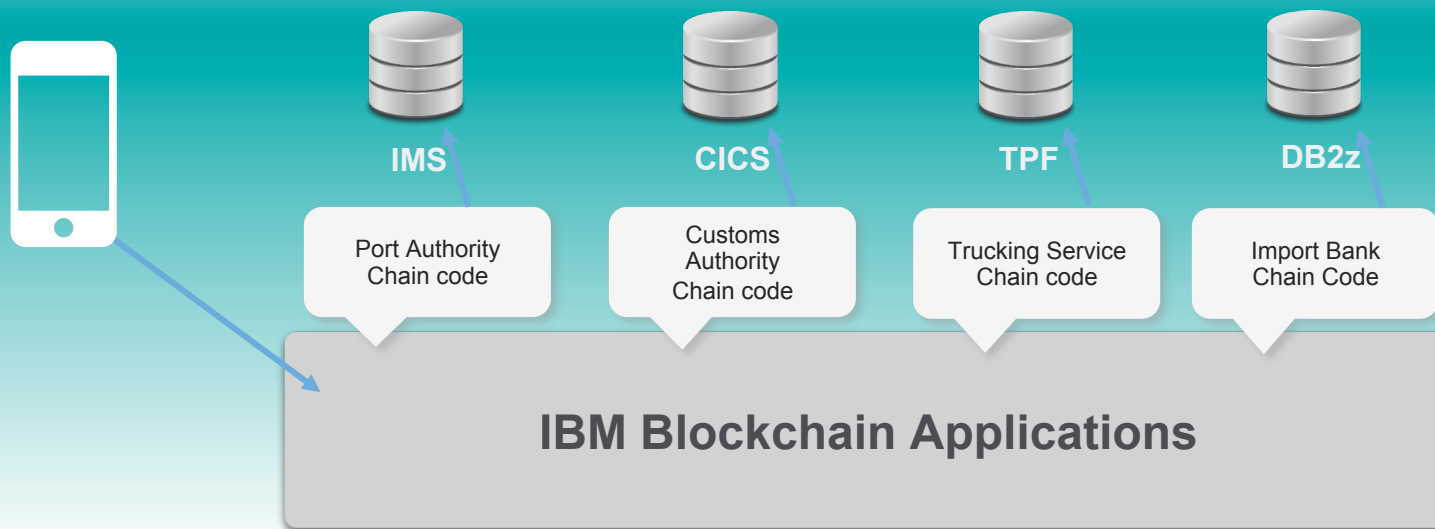
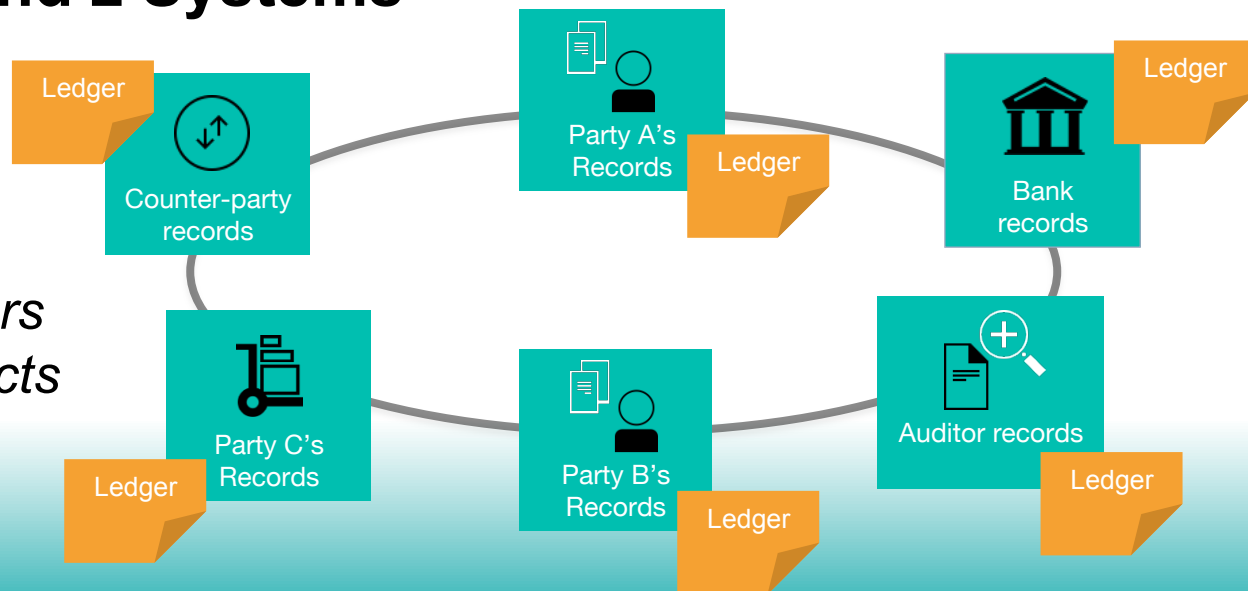
z/OS Management Facility





# Innovating w/ IBM Blockchain and z Systems

*Replicated ledgers with smart contracts*



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### **Solution components:**

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# European Bank

## Business Needs:

- Increasing demand for access to financial services
- Adapt to new customer behaviors
- Deliver new innovative apps

## IT Needs:

- Develop APIs that can be leveraged broadly
- Quickly and efficiently enable their z System-based assets to be part of their larger API ecosystem

## Solution:

- Build out full API economy complete with APIm strategy
- Have capability to blend in SoE and SoR in same API bus
- Digital Services Platform that can easily support microservices patterns

## Benefits:

- Speed to execution and value of new services
- Single channel offering API connectivity to both systems of engagement and z Systems of record
- Same standard across all APIs; look and act consistently
- App dev with consistent experience and no z specific skills
- Provides flexibility of internal and external consumption of APIs