

Client Use Cases and Getting Started with Mobile and z Systems

Track 3: Extending the mainframe to the mobile enterprise



Where we are in today's agenda

- Mobilizing the mainframe
- Modernizing mainframe applications for mobile and more
- Exposing mainframe applications and services to mobile
- Developing an IBM MobileFirst platform application for z Systems
- Optimizing applications and data for mobile workloads
- Client Use Cases and Getting Started with Mobile and z Systems

Agenda

- Apple + IBM Partnership
- Mobile Maturity Model – z Systems perspective
- IBM Workshops
- Mobile Reference Architecture - Overview
- Mobile Workload Pricing
- Mainframe Mobile App Throwdown
- References



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iPhone and iPad in Enterprise

Enterprise Solutions for iOS

IBM MobileFirst
for iOS
Solutions

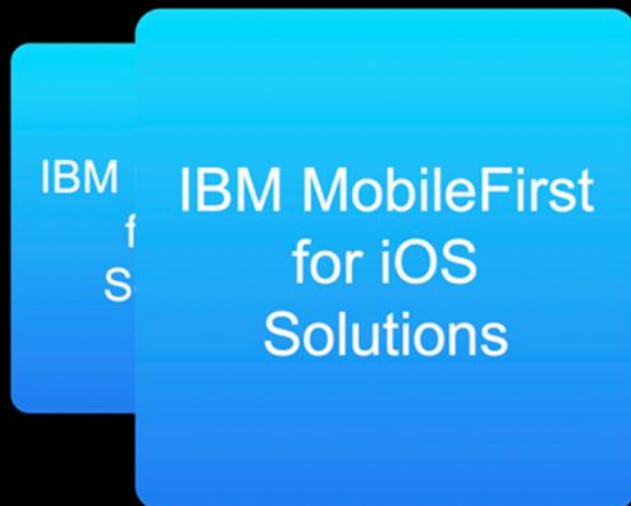
IBM MobileFirst
for iOS
Software
Services

IBM MobileFirst
Supply,
Activate, and
Manage



AppleCare
for Enterprise

IBM MobileFirst for iOS Solutions



Designed to transform enterprise mobility

Made for iPhone and iPad

Driven by big data and analytics

Unique apps only Apple and IBM can deliver

IBM MobileFirst for iOS Solutions



MobileFirst for iOS Software Services

IBM MobileFirst
for iOS
Software
Services

Application platform with analytics,
workflow, data, and mobile integration

Enterprise mobile management for
security, application and device
management, enterprise distribution

Enterprise-class cloud and on-premise
deployment optimized for iOS

MobileFirst for iOS Software Services

IBM MobileFirst Platform for iOS Development Platform



IBM MobileFirst Protect for iOS Mobile Device Management



IBM MobileFirst Supply, Activate, and Manage

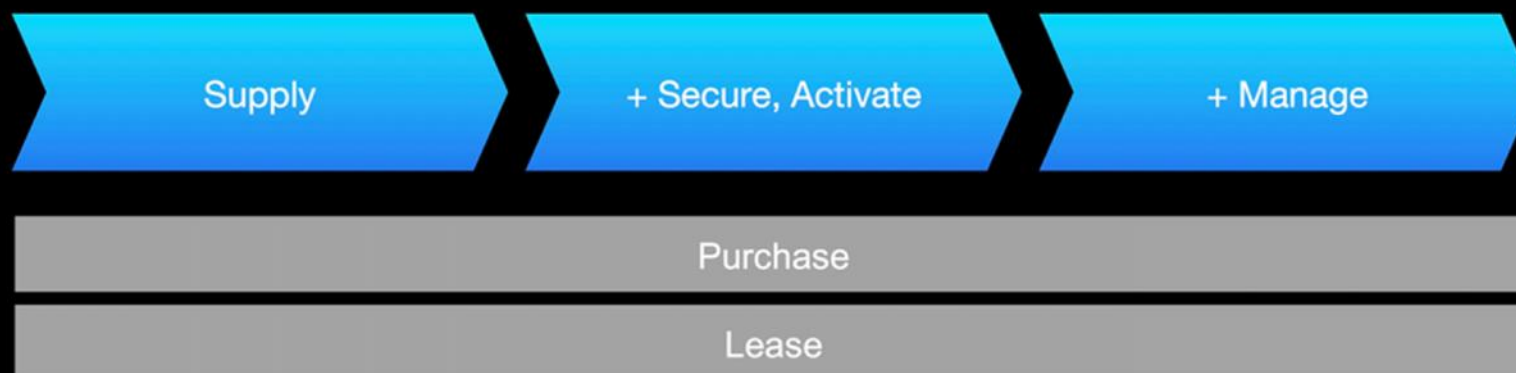
IBM MobileFirst
Supply,
Activate, and
Manage

End-to-end procurement

Device enrollment

Lifecycle management services

IBM MobileFirst Supply, Activate, and Manage



Enterprise Service and Support



Apple

- Comprehensive support for Apple hardware and operating systems
- Coverage for IT departments and end users

IBM

- Onsite repair or replacement for Apple-enrolled iOS devices

Purchase through IBM or
Apple Authorized Reseller

Transformation Starts Now

“We’re scaling the enterprise down into the hands of the individual.”

Ginni Rometty
Chairman, President, and CEO, IBM

“This is a radical step for enterprise and something that only Apple and IBM can deliver.”

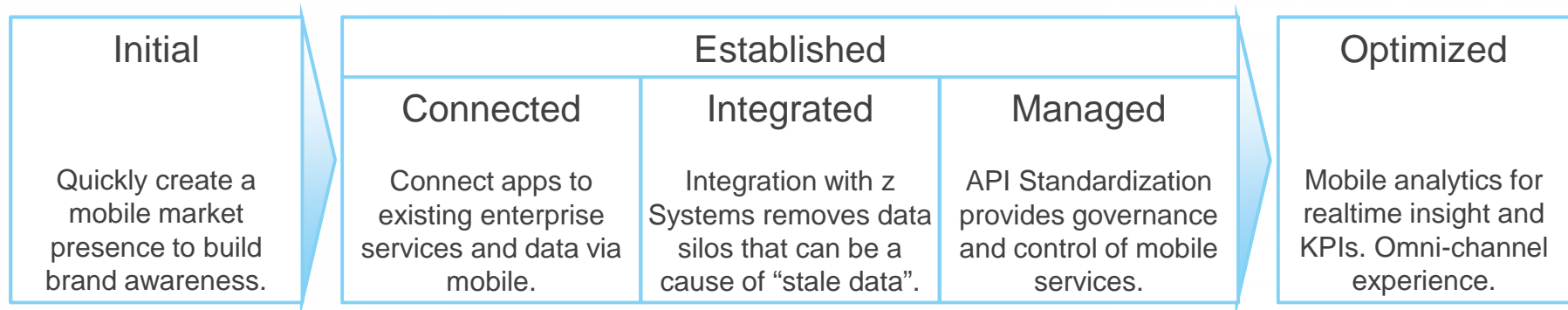
Tim Cook
CEO, Apple



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Demo

Mobile Maturity Model: z Systems perspective



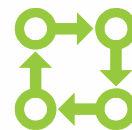
Time to market

- Rapidly deliver tactical apps
- Reuse existing assets



Build and reuse

- Connect to proven services on z
- Revitalize aging interfaces



Service integration

- End-to-end security
- Accurate data for B2C and B2E
- Exploit mobile device capabilities



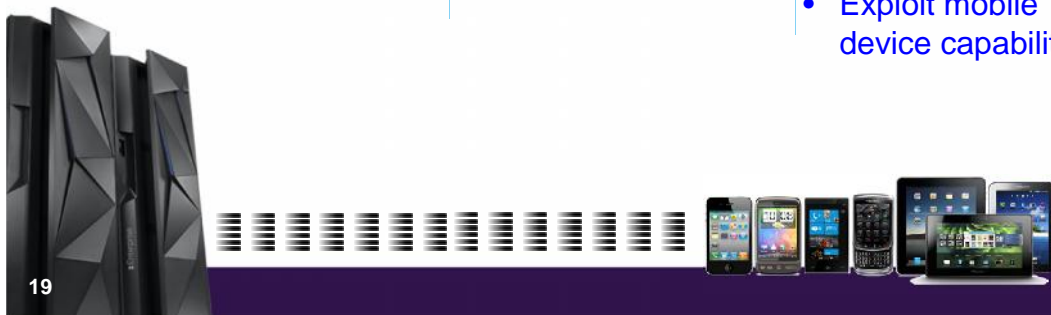
Scalable services

- Mobile services shared across the enterprise
- Scalable services grow with demand
- Efficiently manage mobile workload



In-flight analytics

- Insight into in-flight transactions on z
- Mobile processes optimized for B2C and B2E
- Personalized customer experience



Guiding questions:

How do you start to build a mobile solution? Is mobile a primary channel for you?

What existing assets do you have that can quickly be repurposed for mobile?

Getting started

Identify mobile needs

- Creating a clear vision of you mobile needs helps to build a roadmap to success

Identify existing assets

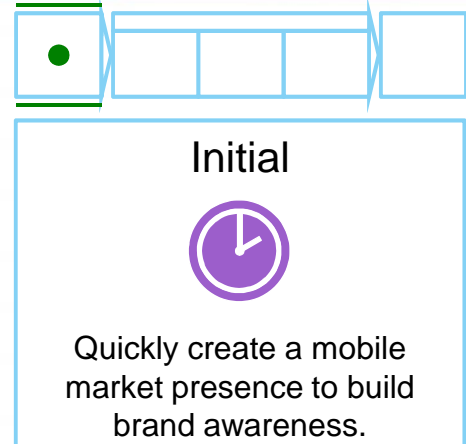
- Web Assets/Channels enable you to quickly create a mobile presence
- Tools portfolio helps to identify reusable assets for mobile solutions

Employee or consumer?

- Employee facing apps allow you to develop mobile best-practice in-house

Free Mobile Workshop

- Identify how to progress and build a roadmap for mobile success



Common Characteristics:

Rapidly deliver tactical apps:

Mobile apps deployed rapidly to achieve time to market goals.

3rd party providers might not have experience with enterprise systems.

Reuse existing assets:

Common to find mobile apps reusing web channel assets

Guiding questions:

Does the architecture consider enterprise scalability, security, integration, and reuse?

Are the services and interactions tailored to a mobile form-factor?

Getting connected

Enterprise connectivity

- Revitalize core applications with a new mobile interface (Eg. 3270)
- Reuse enterprise applications with a proven track record of scale and stability
- Connect to z Systems using mobile friendly RESTful/JSON APIs

Mobile lifecycle tools

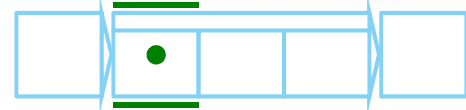
- Dev. tools integrated with z Systems
- Build native and hybrid apps with ease
- Dev. tools facilitate agile development
- CICS & PD Tools optimize mobile services

Realtime visibility of data

- Connectivity with z Systems brings accurate enterprise data to mobile

Free Mobile Workshop

- Identify how to progress and build a roadmap for mobile success



Connected



Connect apps to existing enterprise services and data via mobile.

Common Characteristics:

Drive transactions on z:

JSON/REST/web services enable mobile applications to easily connect to and reuse proven z Systems services

New workload patterns:

Connectivity to enterprise systems allows for reuse leading to new patterns in workload.

Basic security:

Basic authentication between mobile and z Systems

Guiding questions:

How do you manage multiple devices and mobile specific capabilities?

Can you identify and manage workload originating on mobile devices?

Becoming integrated

Mobile Platform

- Exploit push-notification to minimize read-only queries against z Systems
- Support all major mobile form factors
- Support BYOD across the enterprise
- Point of control for mobile workload

End-to-end Security

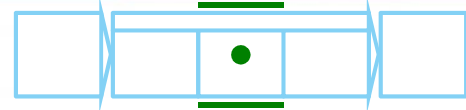
- User/Role/Device level security
- Integration with z Systems security

Co-located Architecture

- Consolidate distributed components to zLinux for improved response times
- Easily scale to meet mobile demand
- Reduce architectural complexity

Free Mobile Workshop

- Identify how to progress and build a roadmap for mobile success



Integrated



Integration with z Systems removes data silos that can be a cause of “stale data”.

Common Characteristics:

Designed for mobile:

Broad range of mobile devices supported and device specific features exploited

Integrated security:

Mobile and z Systems security is integrated

Accurate data for B2C and B2E:

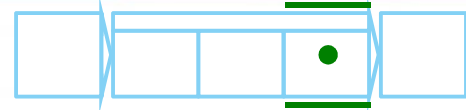
Push notifications minimizes repeat queries, and data silos are eliminated avoiding potential “stale data” issues.

Guiding questions:

How can the LOB define and deploy new services for mobile that are available outside the organization?

How can the LOB monitor usage, control access, and understand user interactions to make improvements?

Becoming managed



Managed



API Standardization provides governance and control of mobile services.

Single Interface to z

- Standardized access to z System sub-systems and services
- Simplify identification of mobile workload on z Systems

API Self-Service

- Create, deploy, and socialize APIs to internal and external Dev. Community
- Rapidly provision new service offerings
- API analytics provide insight into mobile application usage patterns

Managed Mobile Lifecycle

- Automated deployment of new mobile applications
- Tools, process, and services support continuous delivery for mobile solutions

Free Mobile Workshop

- Identify how to progress and build a roadmap for mobile success

Common Characteristics:

Controlled growth to meet demand

Quickly define and deploy new mobile services that scale to meet user demand.

Mobile workload identified

Mobile workload identified at point of origin; automatically tracked and managed.

Mobile services shared across enterprise

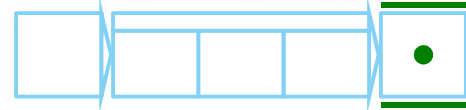
Self-service registration, quotas, and usage monitoring across the enterprise.

Guiding questions:

How do you capture insight from in-flight transactions to drive the most effective business process decisions?

How do you create an omni-channel experience combining apps, systems, and data for personalized interactions?

Becoming optimized



Optimized



Mobile analytics for realtime insight and KPIs. Omni-channel experience.

Common Characteristics:

Insight into in-flight transactions

Business events generated by in-flight transactions used to drive efficient business process decisions.

Mobile processes optimized for B2C and B2E

Transaction analytics, API usage, and App usage patterns optimize processes.

Personalized customer experience

Channel integration and analytic insights provide unique user experience.

Transactional insight

- Business events provide immediate insight into business transactions on z Systems
- Optimize decisions and processes based on actual behavior in real-time

Decision management

- Consolidate business rules on z Systems near the data, apps, and transactions
- Intelligent and predictive insight for repeatable decision processing

Omni-channel

- Integrated offer management, marketing, business process, channel interactions, and user experience
- Personalization of business services

Free Mobile Workshop

- Identify how to progress and build a roadmap for mobile success

IBM Workshops - Mobile Agenda Workshop

One day interactive workshop with an IBM Mobile expert to help enterprises plan and develop a customized roadmap for success (one day, no-cost interactive workshop)

Workshop



For Line of business and IT leaders seeking expertise and experience in developing, enhancing, and/or executing their mobile enterprise strategy.

Client Value



- Industry expertise with top use cases and successes
- Capability assessment including identification of opportunities and gaps in mobile strategy
- A detailed client report and next steps

Highlights



- Interactive discussion to understand client business drivers, pains and requirements
- Overview of IBM MobileFirst Strategy, technology & POV's
- Industry trends & imperatives
- Structured working session to outline next steps

CICS Mobile 1 day event & 2 day workshop

Summary



- **The CICS Mobile 1 day event is intended to be an introductory session into how to develop a mobile strategy for z Systems**
 - IBM MobileFirst
 - IBM's MobileFirst strategy – includes mobile pricing policy, z/OS Connect and IOS Apps
 - IBM MobileFirst Platform Foundation (formerly IBM Worklight)
 - Summary of the IBM MobileFirst components: Studio, Server, Runtime, Application Center and Console
 - What our customers are doing
 - Real customer experience of Mobile
- **Demonstrations:**
 - Application life cycle:
 - develop, build, test and deploy to IBM MobileFirst server on Linux for z Systems
 - Connecting a mobile app to a CICS application using CICS Mobile Feature Pack and z/OS Connect

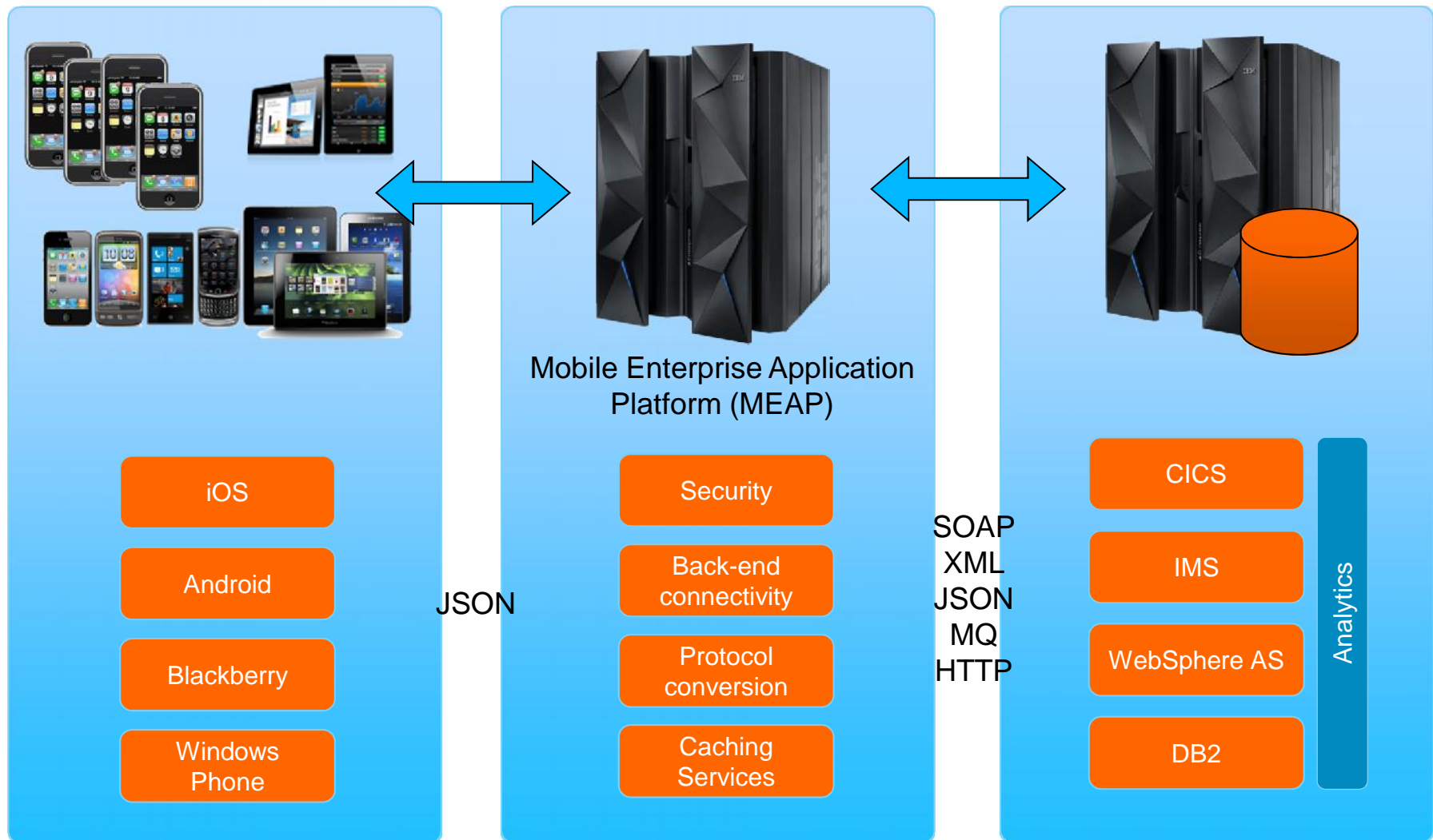
- **The CICS Mobile 2 day workshop is intended to be an hands on session into how to develop a mobile strategy for z Systems**
 - IBM MobileFirst
 - IBM's MobileFirst strategy – includes mobile pricing policy, z/OS Connect and IOS Apps
 - IBM MobileFirst Platform Foundation (formerly IBM Worklight)
 - Summary of the IBM MobileFirst components: Studio, Server, Runtime, Application Center and Console
 - What our customers are doing
 - Real customer experience of Mobile
- **Hands on Mobile Workshops:**
 - 1: CICS Mobile Extension
 - Configure a JVM profile in CICS
 - 2: CICS JSON Web Service
 - Use the JSON assistant utility to create a JSON Web Service
 - 3: IBM MobileFirst Studio
 - Gain familiarity with IBM MobileFirst Studio and the Mobile Browser simulator

Mobile Reference Architecture - Overview

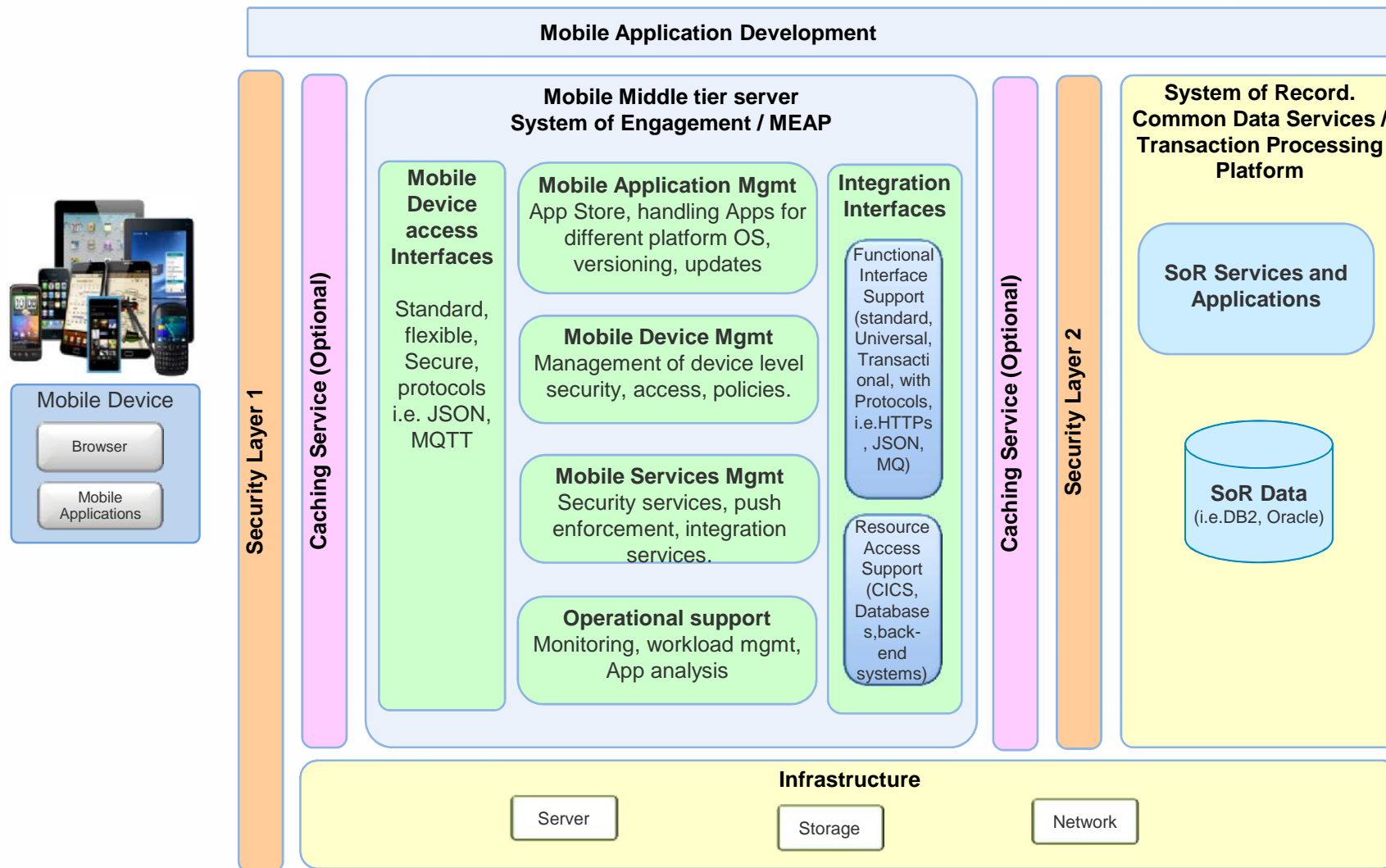
Mobile Devices

Systems of Engagement

Systems of Record



A Complete Mobile Environment Consists of



The Mobile Middle Tier adds these components, that are not present in typical web applications

▪ **Mobile Device Access Interfaces**

- Mobile devices can interact with the Mobile Middle Tier (Runtime Servers) using open source protocol standards for mobile devices like JSON or MQTT. The interfaces supported by the Middle tier server qualify it for universality and flexibility.

▪ **Mobile Application Management. (MAM)**

- The ability to manage –multiple– applications with respect to versions, device specifics and OSes

▪ **Mobile Device Management (MDM)**

- Management of device level security, access, policies.
- The mobile device management is responsible to support multiple mobile devices and deliver an ease of use management for new devices and the process to keep existing ones current with the PUSH notification

▪ **Mobile Services Management (MSM)**

- A variety of mechanisms to help control and manage mobile apps regardless of their type and OS, for example
 - Application versions (to block faulty or out-of-date version and seamlessly direct people to the (enterprise) app store
 - Authentication and access control
 - Push Services Management
 - Usage reports and analytics

▪ **Mobile Operational Support**

- Mobile applications behave different than traditional applications, and have a much shorter life cycle management and change behavior, are more dynamic and have to respond very fast to customer requirements.
- The behavior of the Mobile Server has to be monitored and (automatic) actions have to be taken to avoid unplanned outages.

▪ **Integration Interfaces**

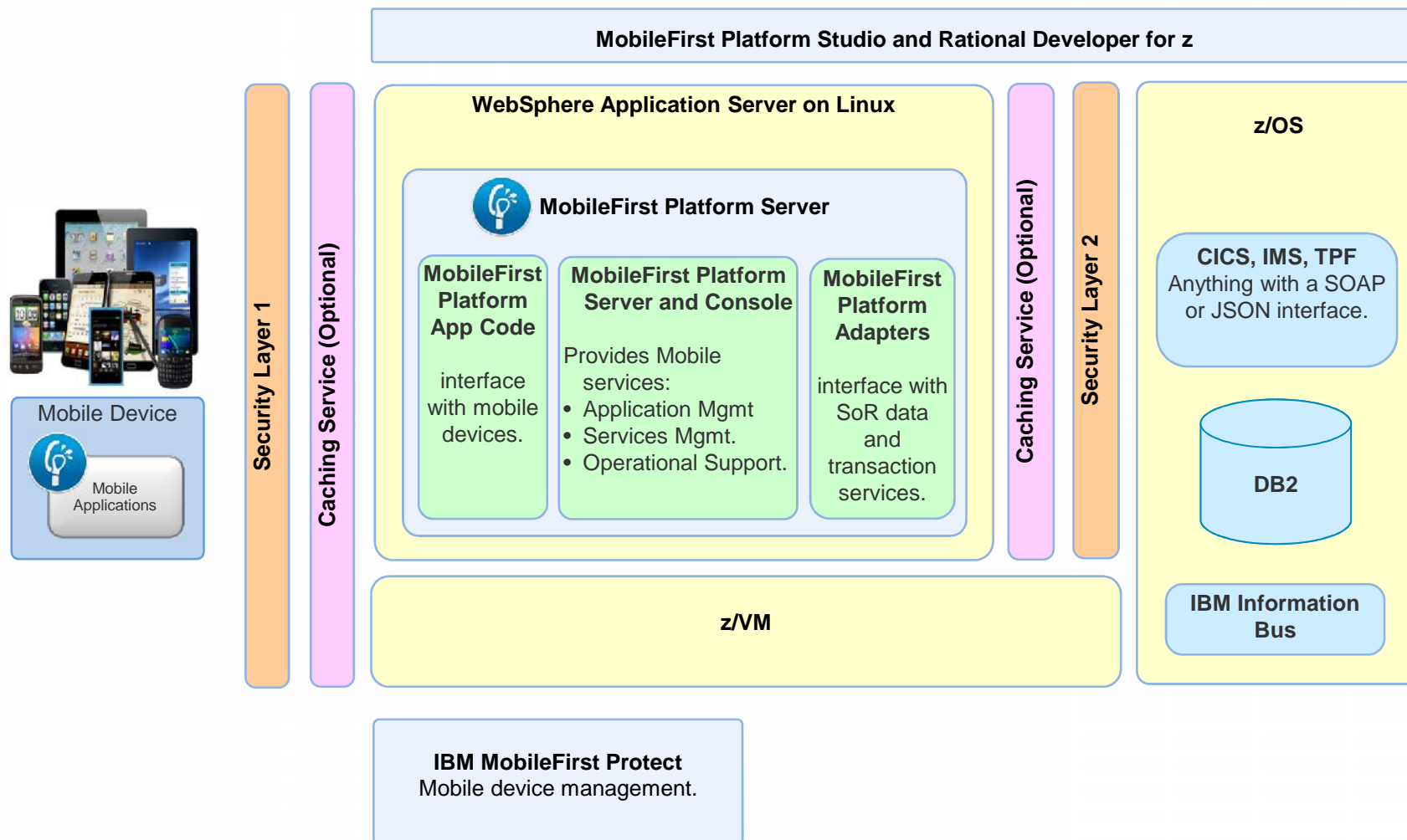
- The interfaces to access and interact with data services and transactional services, enable an integration of back-end systems such as transactional environments with CICS and Data Services from different Databases and platforms.

Other Mobile Terminology

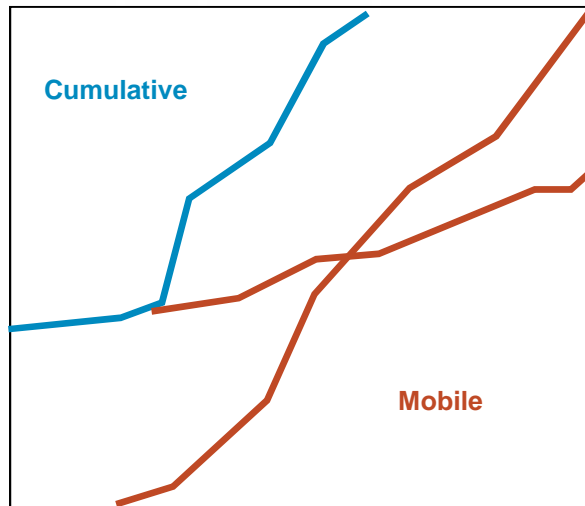
▪ **Mobile Enterprise Application Platform (MEAP)**

- MEAP is a comprehensive suite of products and services that enable development of mobile applications for Enterprises
- MEAPs address the difficulties of developing mobile software by managing the diversity of devices, networks and user groups at the time of deployment and throughout the mobile solution's lifecycle. Unlike standalone apps, a MEAP provides a comprehensive, long-term approach to deploying mobility. Cross-platform considerations are one big driver behind using MEAPs
- IBM MobileFirst Platform is an example of a MEAP.

On z Systems, this looks like



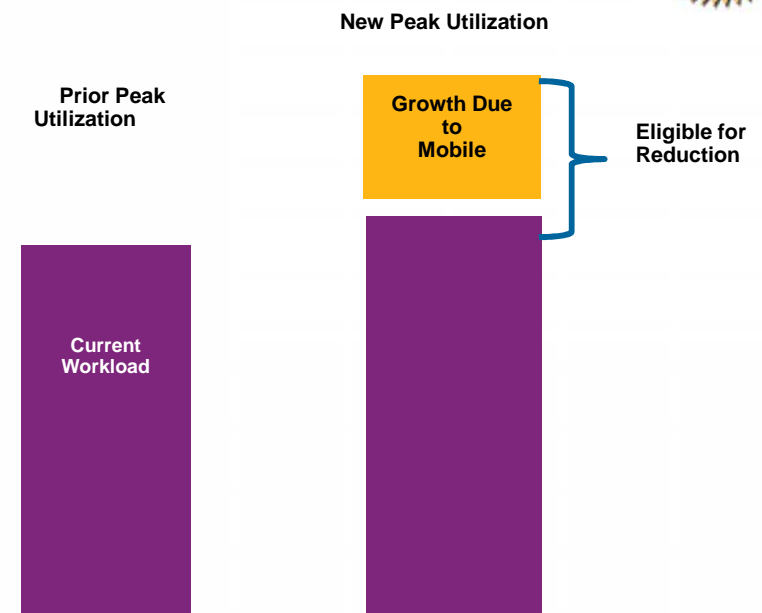
Grow mobile transactions on z/OS with z Systems Mobile Workload Pricing



Large European bank

Increased mobile transaction volumes by **40%** from 2011 to 2013

Mobile Workload Pricing



*Industry first for pricing mobile workloads provides up to a **60% reduction** on the processor capacity reported for mobile transactions*

*Serving mobile data directly from z/OS is **38% less expensive** than exporting to a System of Engagement*



MAINFRAME MOBILE APP 2015 THROWDOWN

CICS | IMS | WAS | DB2

**The Mainframe Mobile App Throwdown
is back for 2015!**

Can YOU become the mobile champ this year?

Submit entries by April 12, 2015

Register: ibm.biz/mmthrowdown

2014: an appy pilot

- An 8 week pilot of the contest – open for entry by z clients
- Great feedback from clients and IBMers alike
- The 2014 winner was Aetna – read about it in [IBM Systems Magazine](#)



MMA Throwdown Finale at Enterprise 2014

2015 MAINFRAME MOBILE APP THROWDOWN

Will you be
the appy
champion?

Key Facts

What?

- A mainframe mobile app building contest
- Easy to enter - only requires prototyping, not full function, and no submission of code

Who?

- Open to **z Systems clients** and **business partners**

Win?

- Prizes include a **week of IBM mobile design assistance** and **passes to IBM Edge 2015** (May 11-15)

When?

- Contest opens: **Jan 14, 2015**
- **Early entry bonus:** clients can submit a **draft entry by Feb 19, 2015** to receive a free 1:1 with an IBM zMobile expert, and be entered into an iPad draw
- For clients attending **InterConnect 2015**, there will be numerous Throwdown-related sessions, talks and activities
- Final closing date for contest entries: **Apr 12, 2015**
- Winners announced at Edge 2015 in May

How?

- Entrants can register at ibm.biz/mmathrowdown



Common Questions

Q: Are you constrained to build their app on z Systems?

A: No! You can mobilize an application either on or connecting to z Systems. There is no restriction on how this is done – you could use the trial edition of MobileFirst Platform running on a Windows/Linux laptop, on a PureApp box or on z/Linux or anything else! Whatever works best for you.

Q: Do you need to submit a completed app? This takes time!

A: No! You do not need to have a completed, fully-functional app - a rough prototype is fine. You only submit screenshots and a quick video to enter, and the innovation and value of the concept is a large part of the judging. We're talking days, not weeks of work here.

Q: Isn't this a lot of work?

A: No, the contest is designed to be fun, lightweight, and no-commitment. We provide how-to guides, free software downloads and expert helpers to allow you to sandbox and experiment. You don't need to buy anything, or get tied in to anything at all.

For further information please contact Anna Bridgen/UK/IBM.

References

Banca Carige

Providing superior customer service by launching innovative mobile services on a secure platform

24/7 mobile banking

Meets customer demands for more flexible services

Secure transactions

Help strengthen customer trust

Five 9s availability

Supports always-on banking services

Solution components

Software

- IBM® Campaign
- IBM CICS® solutions
- IBM DB2® solutions
- IBM SPSS® Modeler
- IBM WebSphere® solutions
- IBM MobileFirst Platform Foundation®

Hardware

- IBM zEnterprise® EC12



The transformation: To stay ahead of growing competition, Banca Carige wanted to develop a customer-centric approach to delivering services, but first needed a deeper understanding of consumer behavior. Deploying new analytics and mobile capabilities on the tried-and-tested IBM mainframe enabled the bank to transform its services without jeopardizing customer trust.

“The IBM zEnterprise stack, both hardware and software, is central to our banking activities.” – Daniele Cericola, ICT Governance Manager, Banca Carige Group



Providing superior customer service at **Banca Carige** by launching innovative mobile services and analytics



Challenges


Banca Carige needed to develop an improved understanding of consumer behavior through analytics, and launch new mobile services that engage and retain customers through great service.

Solution

Banca Carige built an analytics environment and a new mobile banking service using IBM software on IBM zEnterprise EC12 mainframes, which provide round-the-clock availability and high security.

Benefits

Launching new services meets changing customer demands, while the proven underlying technology accelerates deployment and reduces risk; consolidating to a single platform cuts cost and complexity.



ABK Systeme GmbH
Processing a surging tide of mobile payments
quickly and securely

ABK-Systeme

Bringing innovative mobile applications to the financial services industry

Business need

Payment logistics specialist ABK-Systeme saw an opportunity to bring mobile applications to the financial services industry. To seize the advantage, the company needed to move fast.

Solution

ABK-Systeme built a comprehensive software development platform with IBM® Worklight® Foundation running on an IBM zEnterprise® BC12 server

Benefits

ABK-Systeme is ideally placed to move into the mobile applications space, gaining a head start against the competition in bringing secure, reliable mobile applications to customers faster.



Solution components

Software

- IBM DB2® for Linux, UNIX & Windows
- IBM WebSphere® Application Server
- IBM MobileFirst Platform Foundation®

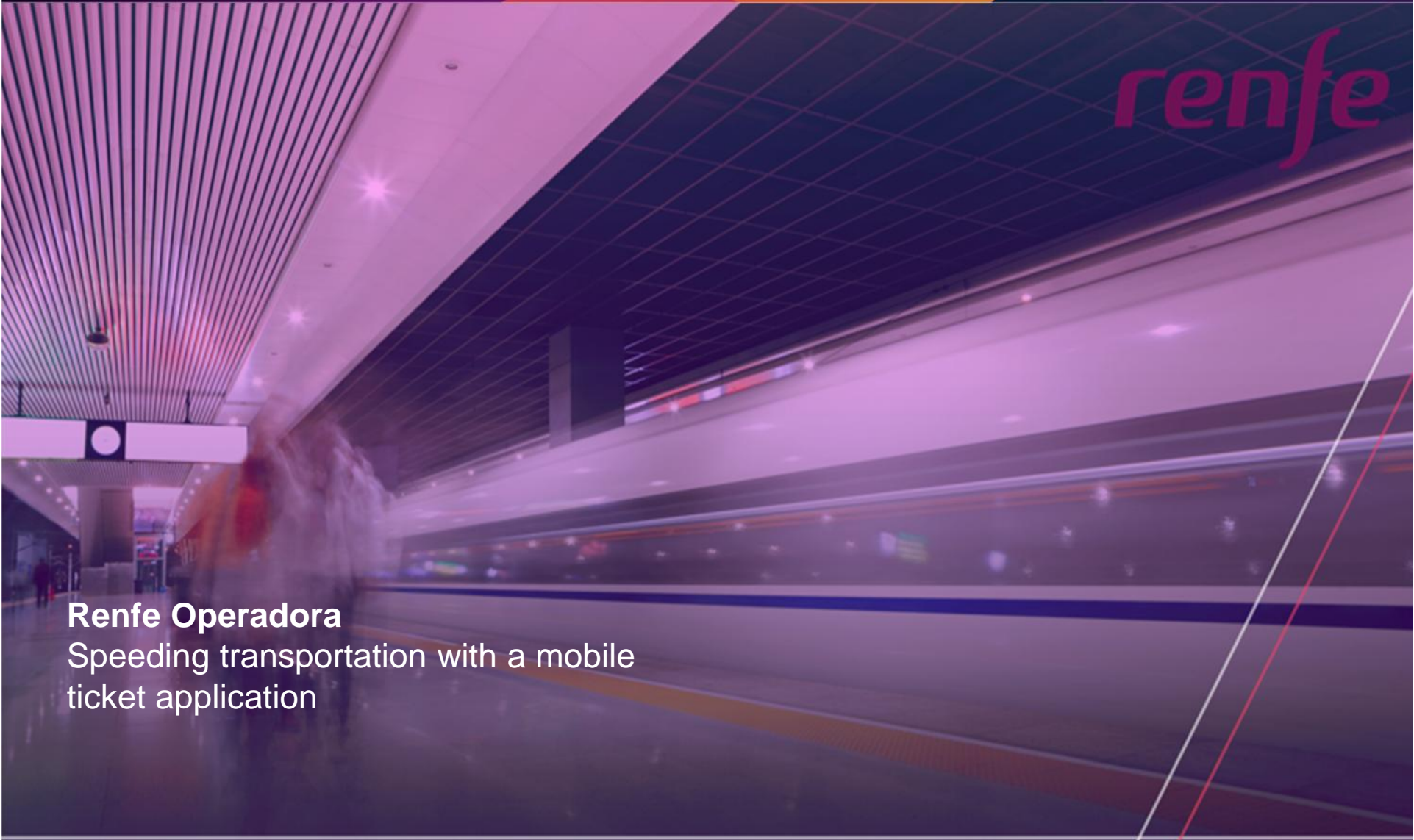
Hardware

- IBM zEnterprise® EC12

“Developing cross-platform mobile apps with IBM Worklight reduces our software maintenance costs. By helping us work more efficiently, the solution enables us to focus on developing new features and cutting development cycles”

Ulrich Buch, CTO, ABK-Systeme



The Renfe logo is positioned in the upper right area of the slide, featuring the word "renfe" in a lowercase, red, sans-serif font.The background of the slide is a photograph of a train station platform. A high-speed train is blurred in motion, moving from left to right. The platform has a modern design with a ceiling of parallel slats and recessed lighting. A person is blurred in the foreground, suggesting movement. The overall color palette is dominated by purples and blues.

Renfe Operadora
Speeding transportation with a mobile
ticket application

Renfe Operadora

Putting exceptional customer service on the fast track with IBM



Business need

Liberalization of Spain's rail network has opened up unprecedented competition for Renfe. How could the train operator ensure that it remained travelers' top choice in a newly open market?

Solution

To improve customer satisfaction and meet demand for always-on mobile and internet services, Renfe enhanced the availability and capacity of key business systems by upgrading its IBM server technology.

Benefits

Capacity increase of 33 percent allows Renfe to easily support rising transaction volumes; 24/7 system availability reduces downtime, ensuring customers can always access the services they need.

Solution components

- IBM® PureFlex®
- IBM DS8870
- IBM WebSphere® DataPower®XC10
- IBM zEnterprise® 196
- IBM zEnterprise EC12



“More of our customers were turning to website and mobile applications to book tickets, and search for travel information. As website traffic and transaction volumes grew, it was becoming harder to ensure fast access to our services around the clock—we needed greater IT capacity and performance.

“Thanks to IBM’s powerful platform, we can now manage soaring volumes of mobile transactions in no time. This enables us to unlock brand new business opportunities and maintain our competitive edge”

Javier González-Marcos, CIO, Renfe

Thank You

