IBM System z Forum

IBM

System z Software Update

(**2013 Q4** and **2014 Q1** zSW Announcements)

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C-suite executives share their insights for the future

Is that your customer? % of organizations that have an in-depth understanding of their customers

34% | 78%
2013 | 2017

69% of C-suite executives report that creating a consistent experience across all customer touch points is one of their top initiatives

only 1 in 5 organizations has the capability to use Big Data

40% C-suite executives report are integrating internal and external data for deep insights

18% are using big data to identify new products and services

New Analytics Solutions for System z

NEW

DB2 Analytics Accelerator 4.1

- Accelerates a broader spectrum of queries
- Improves Enterprise Robustness & Scalability
- Enhances High Performance Storage Saver
- Supports new DB2 and PureData Technology

Cognos TM1 10.2.1 Cognos Insight

- Faster, more effective personal analytics, decision-making and planning
- Secure protection against both internal and external intrusions
- Consistent, enterprise-wide view of the business

zEnterprise Analytics System 9700/9710

- Refresh of new components (DB2 and accelerator)
- Additions and updates to Add-on Packs to enhance end-to-end solution
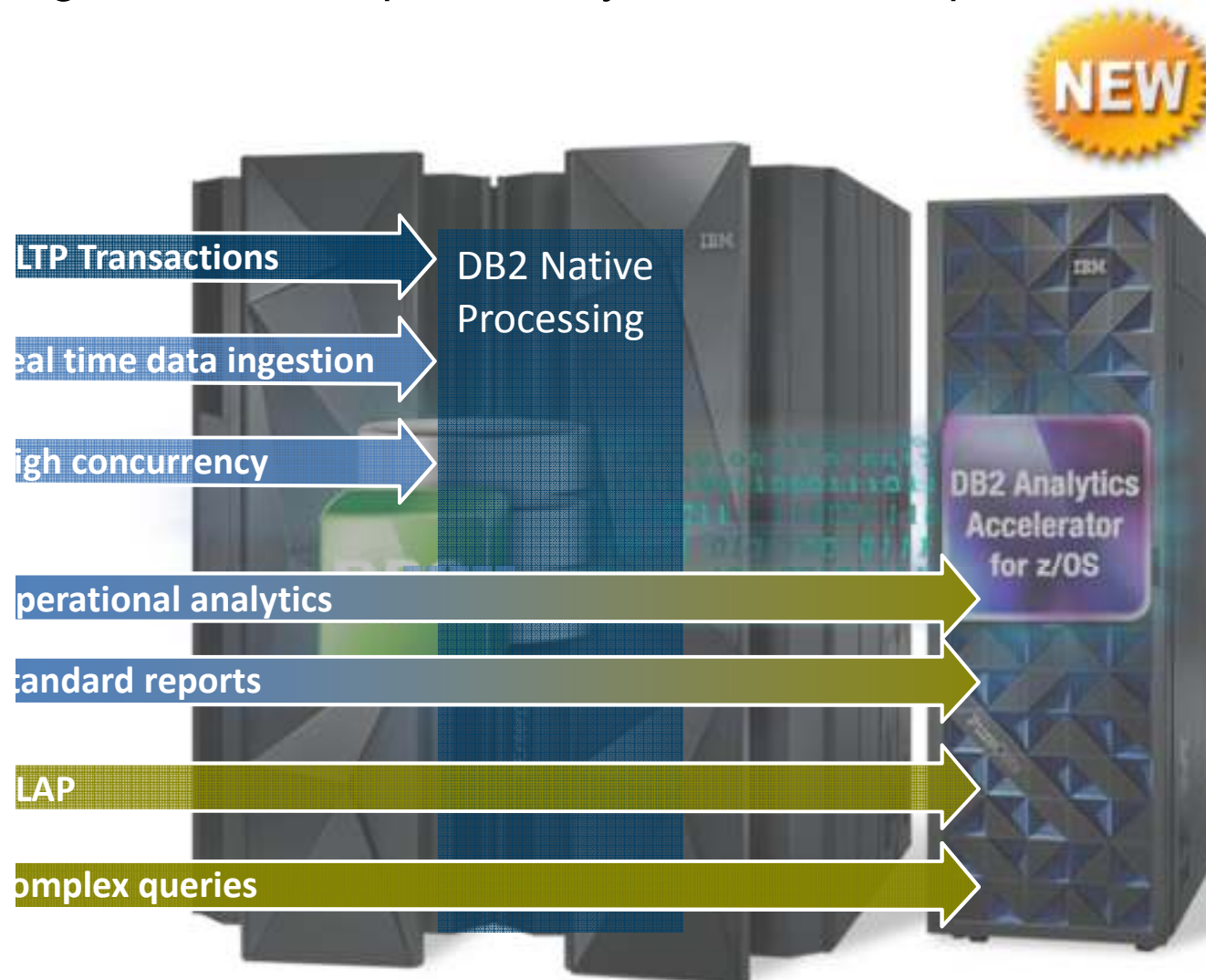
Capacity Management Analytics V1.1

- Performs business focused analysis of the zEnterprise infrastructure on zLinux or z/OS to drive agreed to service levels in cost effective manner.

An easy entry point into zEnterprise analytics
A single, workload-optimized system for both operations AND warehousing

NEW

LTP Transactions → DB2 Native Processing

eal time data ingestion →

igh concurrency →

perational analytics →

tandard reports →

LAP →

omplex queries →

DB2 Analytics Accelerator for z/OS

- **CPU savings** for DB2 query workloads including short running operational analytics and reporting **now with static SQL, multi-row FETCH, and multiple encodings on the same Accelerator**

- **DB2 analytics accelerator benefits** data warehouse, OLAP and complex queries with **improved enterprise robustness, scalability and high performance storage saver**

Managing your data queries and data governance

World-class set of features and functions for IBM DB2 queries, reporting, dashboarding and analytics with **IBM DB2 Query Management Facility 11 for z/OS**

- Expanded analytics for QMF TSO users with sophisticated new charting and statistical analysis capabilities
- Access to QMF dashboards and reports now on tablet devices
- Text analytics capabilities to process and extract key information

Continuously monitor access to sensitive data and identify vulnerabilities in databases, data warehouses, Big Data environments, and file shares with **InfoSphere Guardium 9.1 for z/OS**

- Lower customers' security risk through new event blocking for DB2 on z/OS
- Expanded range of audited events and data sources for monitoring providing more comprehensive audit trail
- Improved performance and greater use of zIIP
- Improved administrative and operational characteristics
- Integration with zSecure and QRadar

Swiss Mobiliar deploys a new platform to deliver actionable insights

Swiss **Mobiliar**
Insurance & Pensions

Need:

Cost-effective way to deliver complex analysis for eligibility and excess requirements for insurance products

Solution:

Implemented DB2 Analytics Accelerator and zEnterprise to provide transaction processing and analytics workloads in a cost-effective solution

50%
of the queries performed 100 times faster

20 seconds
to complete queries that took 5 hours

"*IBM DB2 Analytics Accelerator enables us to support the additional workloads that come with business growth without activating more cores on the mainframe.*"

Core data management solutions for the 21st Century

NEW

DB2 11 for z/OS

IMS 13

Unmatched availability, reliability, and security for business critical information

Delivering the highest levels of performance, availability, security, and scalability in the industry

- **Up to 40% CPU reductions and performance improvements** for online transaction processing (OLTP), batch, and business analytics

- **Improved data sharing performance** and efficiency

- **Integration with InfoSphere BigInsights™ / Hadoop and noSQL support**

- **Improved utility performance** and additional zIIP eligible workload

- **CPU reductions up to 62%** for Java applications, and additional SQL support

- **Improved efficiency** with native SQL access to IMS data from COBOL applications

- **Greater flexibility and faster deployment** for new applications with database versioning

7

Industry's leading mainframe data server with unmatched reliability
DB2 11 for z/OS

NEW

Up to **10%**

CPU savings for complex online transaction processing

Up to **15%**

CPU savings for update intensive batch queries

Up to **40%**

CPU savings for select query workloads

– **Cost-effective archiving of warm and cold data** with easy access to both within a single query

– **Intelligent statistics gathering and advanced optimization technology** for efficient query execution in dynamic workloads

– **Additional online schema changes** that simplify management, reduce the need for planned outages, and minimize the need for REORG

– **Efficient in-transaction real-time scoring** to directly improve accuracy and your ability to act

DB2

SAP Certified

"""We have seen some really good results regarding CPU savings – we have been so impressed with the product stability and have already moved an internal production system to DB2 11." – **Stefan Korte, GAD**

DB2 11 for z/OS Tools & Utilities – More than day 1 support

Global & non-stop availability of data reducing application outage

- Online reorganization improvements that reduce the application outage window by up to 90%

- Intelligent statistics recommendations based on DB2 optimizer input.

- Up to 80% additional offload to zIIP processors for RUNSTATS and inline statistics gathering

- Greater parallelism of utilities with more control over usage

More performance, reduced costs

- Simplify and speed up historical performance analysis

- Faster time-to-market for DB2 11 upgrades

- More synergy with DB2 Optimizer and DB2 Automation Tool to provide more meaningful information to influence access path

Supporting Business Analytics

NEW

- *New* IBM DB2 Analytics Accelerator Loader for z/OS with increased performance, reduced system costs and flexible options

- Full management functions via DB2 Administration Tool

Over 35 new releases and new products in Q4 2013

BMW Group manages a mountain of data driven by apps for drivers, sustainability and eco-drive initiatives

Sheer
Driving Pleasure

Need:

Develop a sustainable and smarter driving strategies through mountain of data created by these innovations

Solution:

implemented IBM® DB2® 11 for z/OS® on zEnterprise eC12, which offers optimized management of information and workload and enhanced cost savings with capabilities for analytics, forecasting and reporting.

Up to 11%

reduced workload processing

24/7

support for constant increase in workloads

Efficient

decompression algorithms

" *With DB2 11 the combination of the ability to break into persistent threads and the enhanced dynamic schema change capabilities allow us to react to business requirements more quickly and with less operational impact….* "

Multi-site near-continuous availability and query workload balancing across unlimited distances for DB2 z/OS, IMS and VSAM workloads

Expand System z continuous availability solution that provides near one minute time to recovery across unlimited distances with automated query workload balancing across multiple data centers.

- New automated query workload balancing across data centers through the latest release of GDPS Active-Active Continuous Availability with **IBM Multi-site Workload Lifeline v2.0**

- Improved non-relational z/OS data integration and replication of data between IMS and VSAM databases with **InfoSphere Data Replication and Federation Solutions for z/OS**

- New network automation, and network and systems management among systems with **NetView Monitoring for GDPS**

NEW

Automated multi-site continuous availability and workload distribution

GDPS / Active-Active

Enhanced Resilience for zLinux/zVM

xDR

Storage CA solution

GDPS/ HyperSwap Manager

Zero dataloss Metro distance CA/DR solution

GDPS/PPRC

3-site solution

GDPS/MGM

GDPS/MzGM

GDPS/GM

GDPS/XRC

Disaster Recovery solution Unlimited distance

Application deployment and integration solutions for greater business agility

New CICS feature packs to enhance CICS applications

- **Rapidly create and deploy situational applications based on the popular PHP scripting language** with **CICS Transaction Server feature pack for Dynamic Scripting**

- **Support for the Open standard SAML data format for exchanging authentication and authorization data between CICS TS and other parties** with **CICS Transaction Server feature pack for Security Token Extensions**

Enhanced functional application performance analysis , code quality, and problem identification with **Problem Determination Tools (PDT) V13**

Enhanced interactive and batch capabilities for working with partitioned data sets (PDSs) and PDS extended (PDSEs) and their members with **IBM Data Set Commander for z/OS, V8.1**

New developers edition to evaluators, enabling them to develop and functionally test solutions ahead of deployment to the z/OS platform with **IBM Integration Bus for Developers V9**

Solution Packs for CICS and z/OS – convenience and affordability

NEW

Quickly optimize performance of CICS systems and applications with **CICS Interdependency Analyzer, CICS Deployment, CICS Performance Analyzer, CICS Configuration Manager**

Understand deployed CICS application and system resources, connect from non-mainframe devices, and create CICS infrastructure to support the increased workload with **CICS Interdependency Analyzer, CICS Deployment Assistant, CICS Transaction Gateway for z/OS**

Cost effective problem analysis for z/OS sub-systems and languages with both GUI & 3270 interface with **File Manager for z/OS, Fault Analyzer for z/OS, Debug Tool for z/OS, Workload Simulator for z/OS and OS/390, Hour Glass, Data Set Commander**

Reduce testing time, improve application reliability and user diagnosis capabilities, and improving user's ability to regulate and monitor testing activities with **Debug Tool for z/OS , Workload Simulator for z/OS and OS/390, Hour Glass**

Upgrade from standalone products using trade-ups

Enabling new workloads with additional pricing options

WebSphere MQ for z/OS Value Unit Edition	CICS Transaction Server for z/OS Value Unit Edition	IMS Database Value Unit Edition	DB2 for z/OS Value Unit Edition
NEW		**Enhanced**	**Enhanced**

Ability to develop and support new workloads with one-time-charge (OTC) price metric for eligible workloads that are deployed in qualified System z New Application License Charge (zNALC) logical partitions (LPARs)
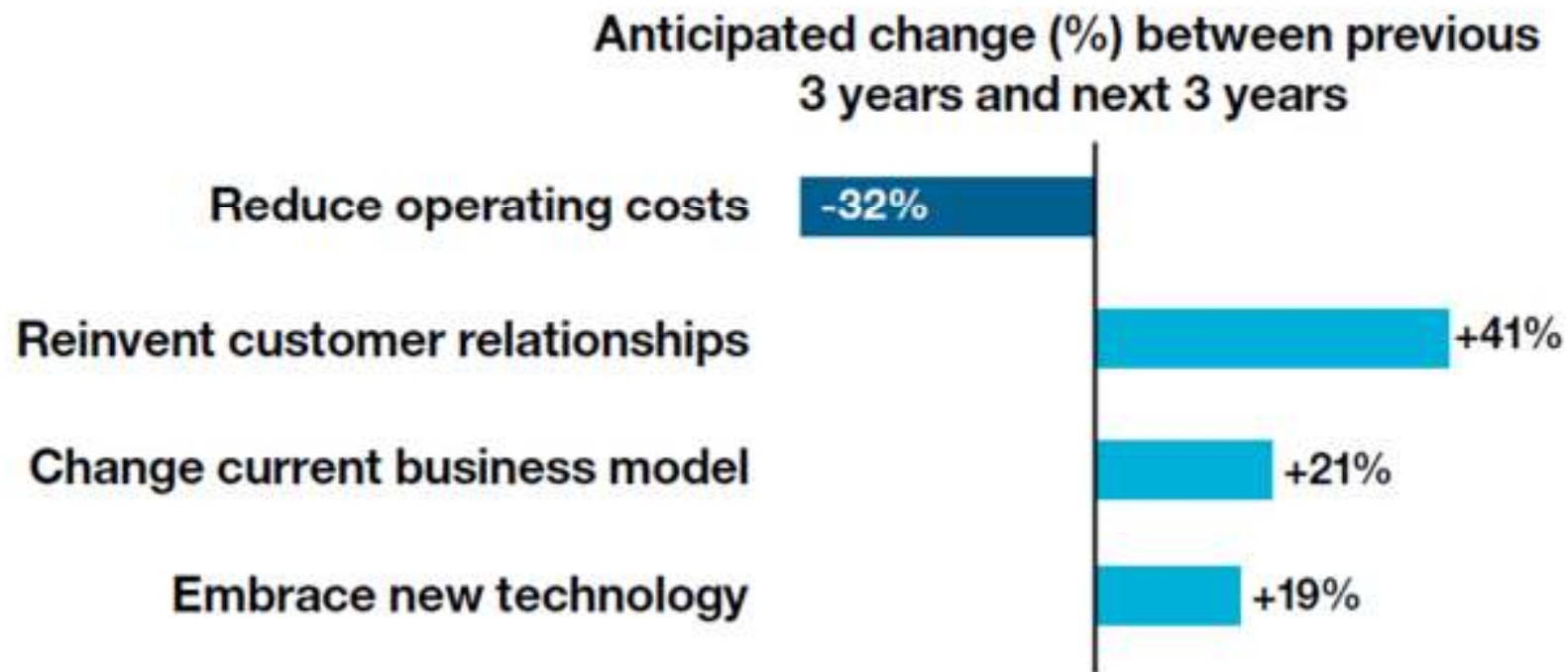
Achieve competitive advantage and cost savings by leveraging the unique capabilities of software and zEnterprise

Consolidate and grow various workloads onto a single zEnterprise

IT trends in 2014 and how the new IBM System z software announcements fit

CEOs are looking for new technology and a changing business model

Anticipated change (%) between previous 3 years and next 3 years

Reduce operating costs	-32%
Reinvent customer relationships	+41%
Change current business model	+21%
Embrace new technology	+19%

Source: IBM Global C-suite Study, CEO question: "What are the top priorities in your business strategy?"

Linux solutions for a cloud environment on a modern platform

ENHANCED! Enterprise Linux Server
- *Database simplicity with optimized CPU utlization, minimize energy use and simplified virtualization management*
- *Industry leading security features with built-in capacity on demand for instant scalability*
- *Simple consolidated design to easily enable new workloads*

NEW! IBM Wave for z/VM
- *Enable a private cloud with simplified virtualization management*
- *Maximize the value of Linux consolidations*
- *Gain insight into performance and status of resources*

Simplified zEnterprise support with enhanced analytics and cloud workload management

Over 45%
Of our Enterprise systems use Linux on System z

90 mins to 2 mins
to fix problems on CICS transactions

zEnterprise wins Tech Innovator Award for Cloud Solutions

NEW! OMEGAMON Performance Management Suite v5
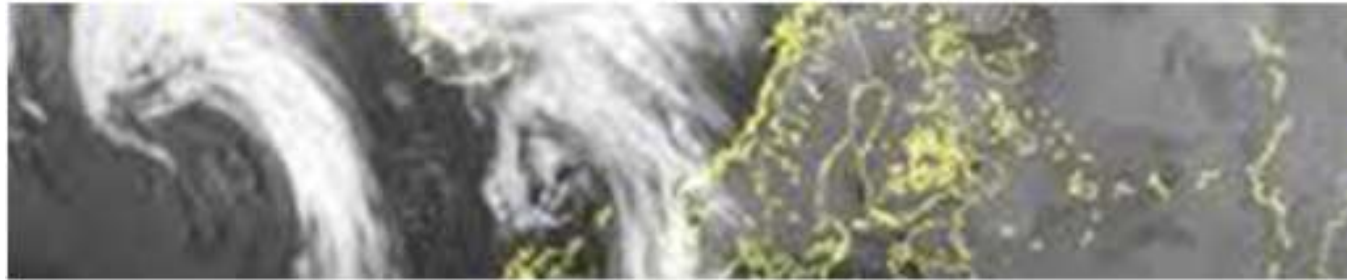*Improved visibility and management for z/OS and subsystems, including support for IBM zAware*

NEW! Tivoli Workload Scheduler for z/OS V9.2
Enhanced automation, monitoring and control of composite workflows, including support for Cloud

The Met Office: forecasts a bright outlook for Linux on zEnterprise

Need:

Consolidate its distributed infrastructure to tailor its weather forecasts for specific client needs

Solution:

Migrated its distributed 204 x86 processor cores (Linux landscape) onto a pair of zEnterprise 196 servers with 17 IFLs lowering hardware lifecycle costs

Factor of 12
reduction in licensing costs

Manageable
Linux landscape

"The amount of money you spend on distributed systems can be staggering. You're not only looking at licensing costs, but also the lifecycle and resilience aspects. …..it just made sense to move the workload to the mainframe."

A true mobile enterprise solution for business growth

10 billion+
Devices scaled to access information on System z

End-to-end
Mobile solutions from development to deployment

Mobile

NEW! Solution Edition for Mobile Computing
Improving the economics of extending enterprise apps, data and transactional capabilities through mobile computing

NEW! Mobile Quality Assurance Open Beta
Ability to instrument apps for continuous delivery of high quality mobile applications

*Try it now -
https://www.ibm.com/developerworks/community/blogs/mobilequalitybeta/*

Warehouse management capabilities on mobile devices

First National Bank: drives unprecedented growth and performance in mobile banking

Need:

Launch a mobile bank account system that is reliable, secure and highly responsive in a very short time-to-market

80M to 158M

mobile transactions

Solution:

Integrated a new Java-based mobile front-end directly with tried and trusted business logic and banking services running on IMS and zEnterprise EC12

30 ms

response time for mobile users

"At FNB, we don't just think of IBM zEnterprise as the platform for our core banking software; rather, it hosts the core functional layers that allow the channels to create value for our customers"

Superior online transaction management and connectivity for mission-critical applications

Up to 19%
Improvement in Operational Decision Management throughput

1 Billion
Transactions per day

Application Infrastructure

NEW! Java7 Release 1 for z/OS
Exploits System z and enhanced performance with new Java capabilities including Java unique security and JZOS functionality

NEW! CICS TS V5.2 Open Beta
Enhanced CICS service agility, operational efficiency, and cloud and mobile enablement, including integrated JSON and REST support

Sign up now –
www.ibm.com/software/htp/cics/openbeta

ZIONS BANK

33% improvement in business processes

Create a competitive advantage in the digital era

Operational and analytics applications reside with the data in **a single fully virtualized system**

Creating **Intelligent interaction** in transactions integrated across mobile & core processes

DevOps

Analytics

Mobile

Cloud

Security

Infrastructure

A **flexible and robust** infrastructure for rapid delivery of high quality services

A **trusted computing** platform to support secure growth in transactions and data

…make the extraordinary possible!!!

zEnterprise

zEnterprise software – Open and Advanced Technology

- Most sophisticated Big Data and analytics solutions with the fastest query performance in the market

- Best in the industry database solutions

- Most reliable and fastest system for mission critical workloads

- Easy to use development tools to for ultimate productivity

- Application deployment and integration solutions to extend data anywhere, anytime, and any device

- Ideal platform for a private cloud and mobile

Academic Initiative – Continuing to build skills and offers for System z

1000+

schools in the Academic Initiative

Free

downloads from course repository

44,000+

Students as part of the mainframe contest

New academic offering for educators with **Rational Development and Test Environment for System z**

– Enables System z software using an x86 platform under Linux

– ·One year fixed term license at 97% discount from list price

ibm.com/**university/systemz**

STUDENTS HIRED

CONNECTIONS (academia/industry)

GROWTH (# schools)

OUTREACH (community)

Program INVESTMENT

Ensuring global, widespread acceptance in academia of IBM enterprise systems

Questions?