

A New Generation of IBM z Systems is Here

Introducing the IBM z13

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IBM z Systems

The world is changing...

Transforming

how we act,

interact and

transact.



2004-2014:

37x increase in
mobile transactions
per day per user

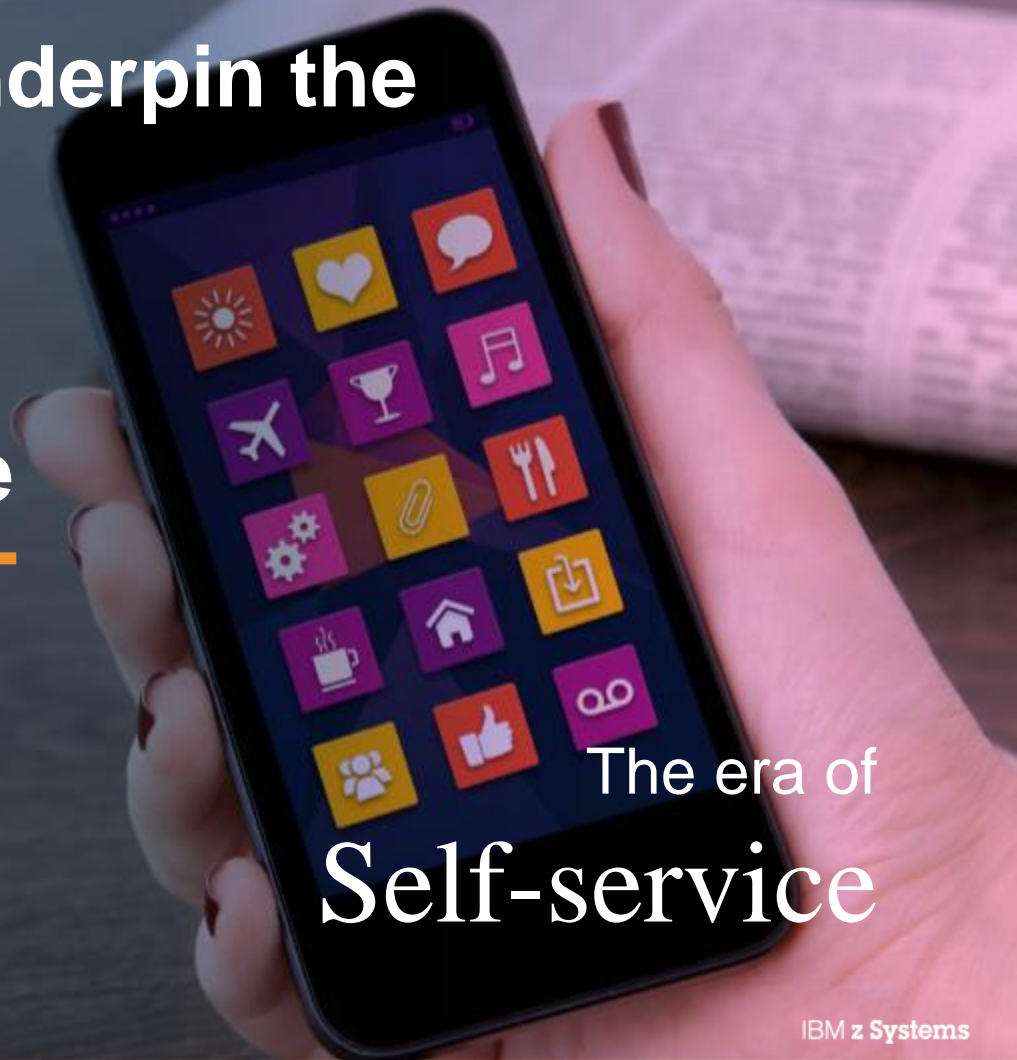
Source: Rubin Worldwide

**Mobile + analytics underpin the
'new app economy'**

Customer experience

is the new measure

of success



The era of
Self-service

Digital Business is Transforming Industries

Putting the client first
and driving exceptional
customer experiences
in **retail**

TESCO

Enhancing client
value and
confidence in
financial services

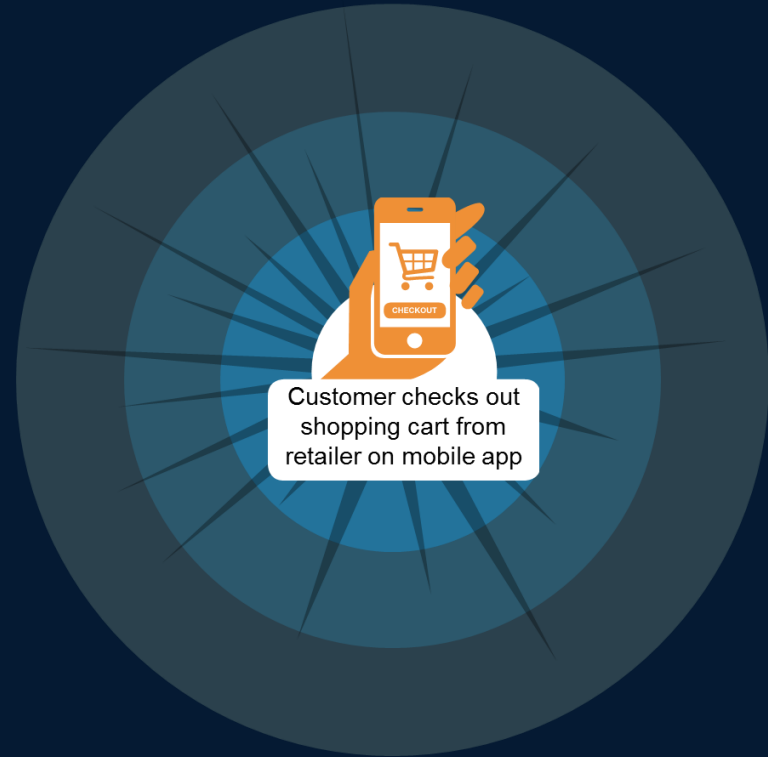
VISA

Redefining **travel**
commerce through
integration and
enabling informed
choices

Travelport 
Redefining travel commerce

The Starburst

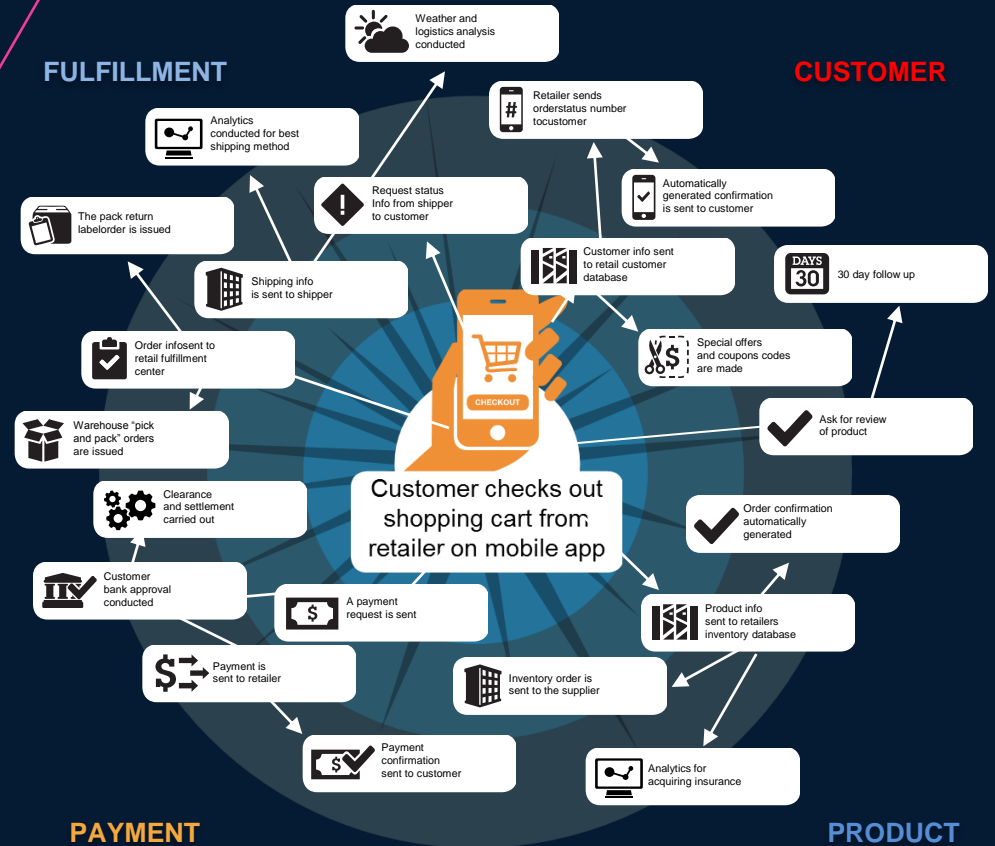
Effect



The Starburst

Effect

Each consumer transaction triggers a “starburst effect” of 4 to 100 system interactions across the network.



The new imperatives for digital business

Availability

24x7x365
application
availability

Response Time

Users expect
<1 second
app utility

Personalization

80%
of Marketers send
the same content to
all subscribers

Trust

70%
lack confidence in
data security

Integration

91%
of new customer-facing
apps access mainframe

Scale

35%
mobile transaction
growth annually

The all new **IBM z13**

Redefining enterprise IT for digital
business and mobile app economy

Over \$1 billion investment with
more than 5000 developers

Co-created with clients

Extending **core strengths**
of the mainframe

z Systems



Transact at the scale and speed of
mobile

Deliver insights at the point of
engagement with integrated
analytics

Ensure highest levels of security
and trust through **cloud**

The world's premier data and transaction server

Now empowering the mobile generation

141 high performance cores delivering **40%** more capacity

Simultaneous multi-threading for up to **30%** more throughput

10TB memory to eliminate I/Os for up to **70%** faster response time

320 Separate channels of dedicated I/O

2x The Cache and I/O Bandwidth

DS8000 flash enclosures for **3x** increase in z Systems database performance

An integrated transaction and analytics system

For right-time insights at the point of impact

DB2 Analytics Accelerator

delivering in-database transformation and advanced predictive analytics

DB2 BLU Acceleration

speeds analytics and reporting for DB2 on Linux

HADOOP

support for InfoSphere BigInsights with new connector technology

SIMD

speeding complex mathematical queries up to **80%** with single instruction multiple dataset

zEDC

accelerated data compression to reduce data transfer volumes & storage costs by up to **75%**

The world's most efficient and trusted cloud system

Transforming the economics and agility of enterprise IT

8000

virtual servers in a single system, more than **50** per core

85 LPARs

increasing flexibility in workload deployment

KVM*

supports open virtualization with access to **open source** databases, tools & applications

zAware & GDPS

for continuous business operations, now available for **LINUX**

Crypto Express5S

accelerating speed of encryption up to **2x**

Hybrid Cloud Connect Test Drive

to optimize integration with SoftLayer

**The z13 is engineered to
meet the toughest
demands**

z Systems



IBM z Systems

z13 is built for mobile performance

2.5B
transactions
per day

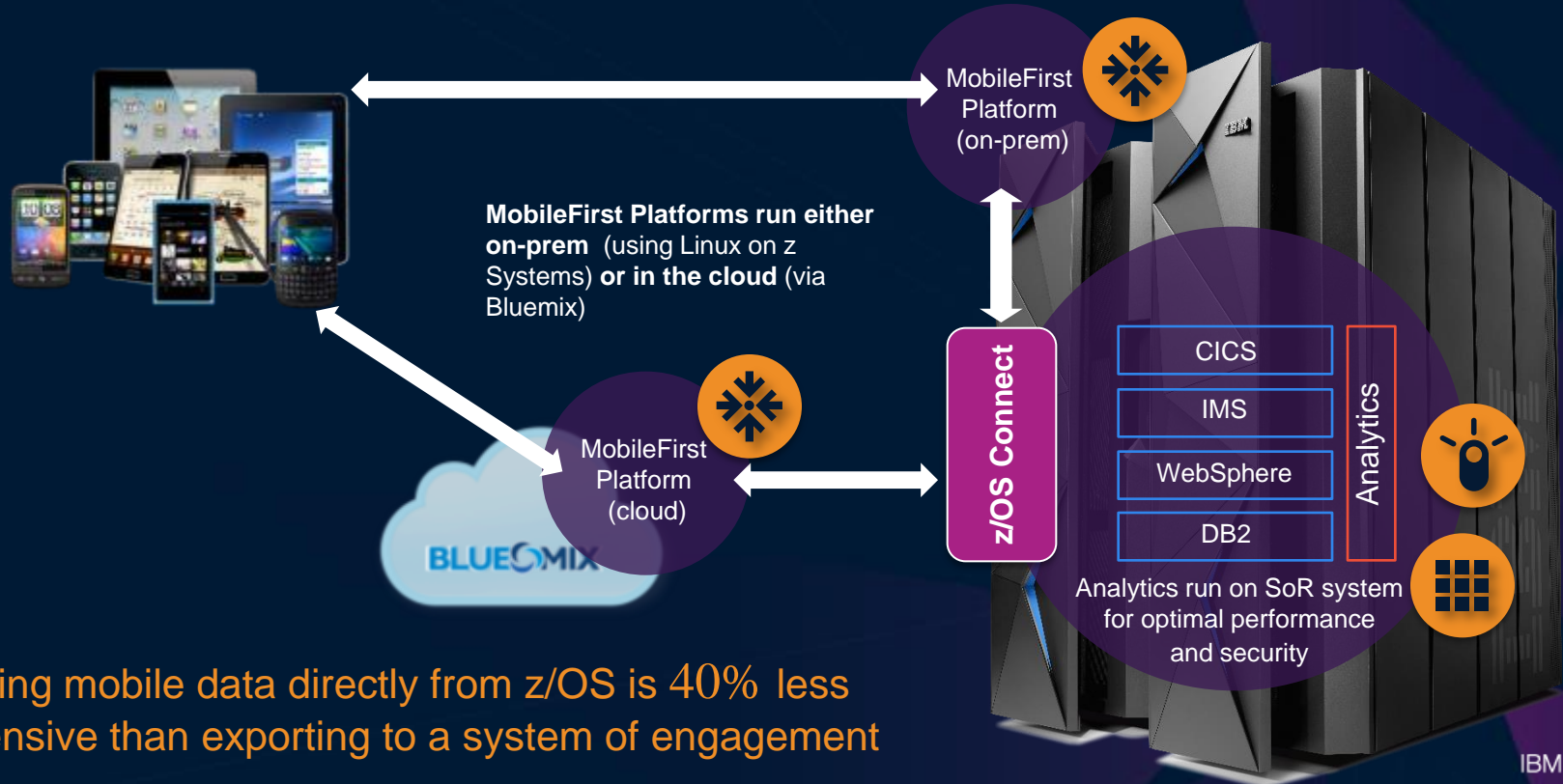
61%
better
throughput

36%
faster
response time

17-37%
lower cost
per transaction

Analytics built in to **100%** of
transactions

IBM z Systems bridge Systems of Record with Systems of Engagement for optimized service delivery



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



Croatia government APIS IT puts government at citizens' fingertips

As mobile becomes more pervasive, analytics can drive true differentiation in engagement

“Thank you for your request, please find below your account balance as at close of business...”

Postal



One-off custom queries - response in hours / days based on historical analysis

80s / 90s

“Other customers who purchased this product also purchased...”

Web



Product association - response in near real time based on historical analysis

2000s

“Here is a voucher for a new product we think you will like which is located in the next aisle in the store...”

Mobile

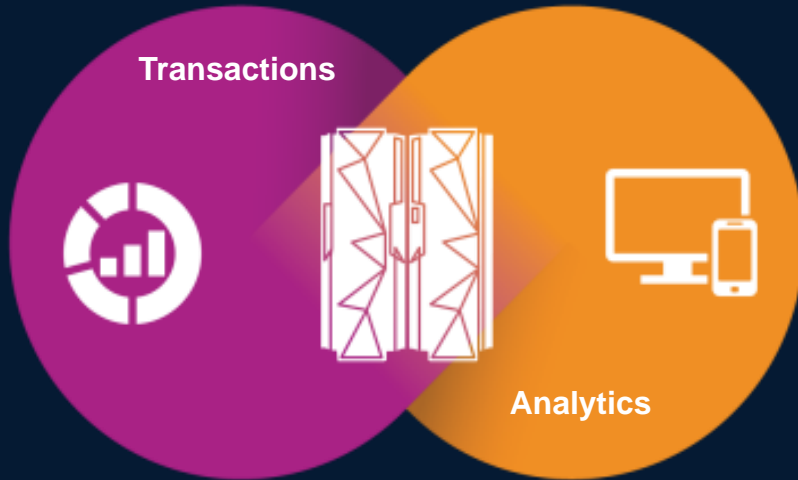


Personalized offer based on situational awareness - response and analysis in real time

2015

Analytics provides new opportunities to extract the most value out of every interaction and transaction

Bring analytics to where the data and transactions originate for greatest value

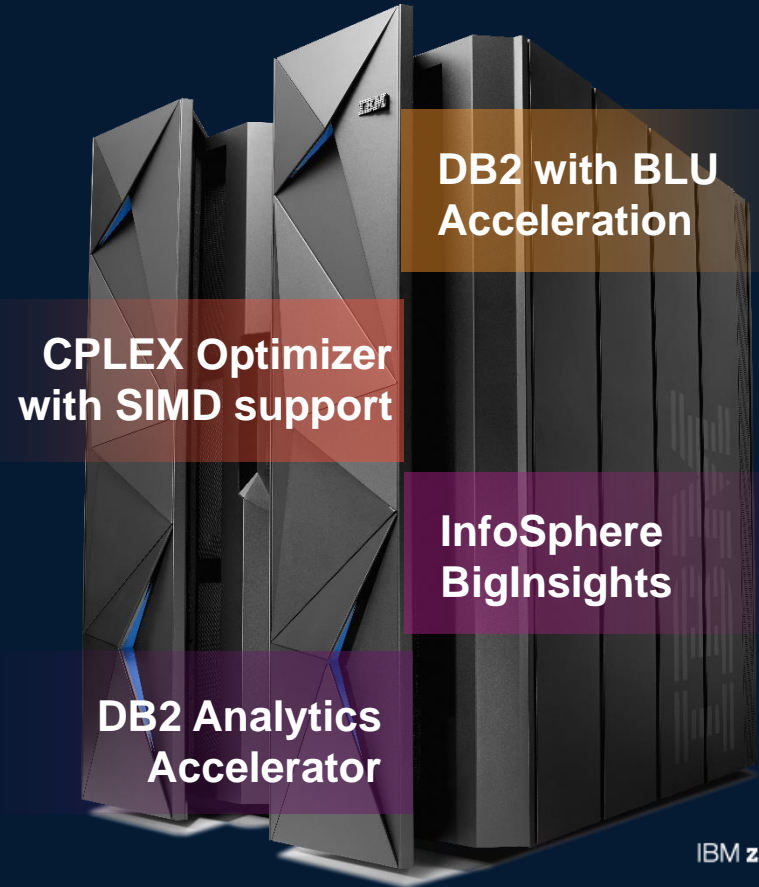


- Deliver right-time insights at the point of impact
- Manage data lifecycle and governance
- Eliminate redundancy and avoid ETL

z13: Delivers superior insight at the point of impact

IBM expands Big Data & Analytics portfolio on z:

- Reduce cost and accelerate insights with DB2 in-memory computing
- Optimize decisions, solve complex problems faster
- Garner new insight, use Hadoop analytics on TX and log data
- Act faster, analyze and score transactions as they happen



z Systems are optimized for operational analytics

Standalone
Pre-Integrated
Competitor V4



Eight Unit



17x performance
13x price performance

IBM z Systems
Analytics 9700

z13

IBM DB2 Analytics Accelerator
(N3001-010)

\$514

Per Report per Hour
(3yr TCA at no discount)

Workload Time	1,810 mins
Reports per Hour (RpH)	5,343
Competitor Eight Unit (HW + SW + Storage)	\$ 2,745,041

Workload Time

105 mins

Workload Time	105 mins
Reports per Hour (RpH)	92,095
z13 (1 GP + 3 zIIP + HW + SW + Storage) + Accelerator V4.1	\$ 3,652,131

\$40

Per Report per Hour
(3yr TCA at no discount)





Kenya Power

Using technology to build a better future
with reliable energy

Cloud is the new infrastructure model of the digital era for efficient and flexible service delivery



Private Cloud

z/OS and Linux on z Systems as the foundation of the most secure, scalable private cloud infrastructure



Hybrid Cloud

Leveraging BlueMix and interoperability with SoftLayer, AWS and other public cloud offerings



Public Cloud

Enabling MSPs/CSPs to deliver differentiated mainframe-based service offerings

z Systems provide the infrastructure to support all dimensions of cloud service delivery



IBM z Systems

Cloud economics without the risk

The IBM Enterprise Cloud System

Built on z Systems technology

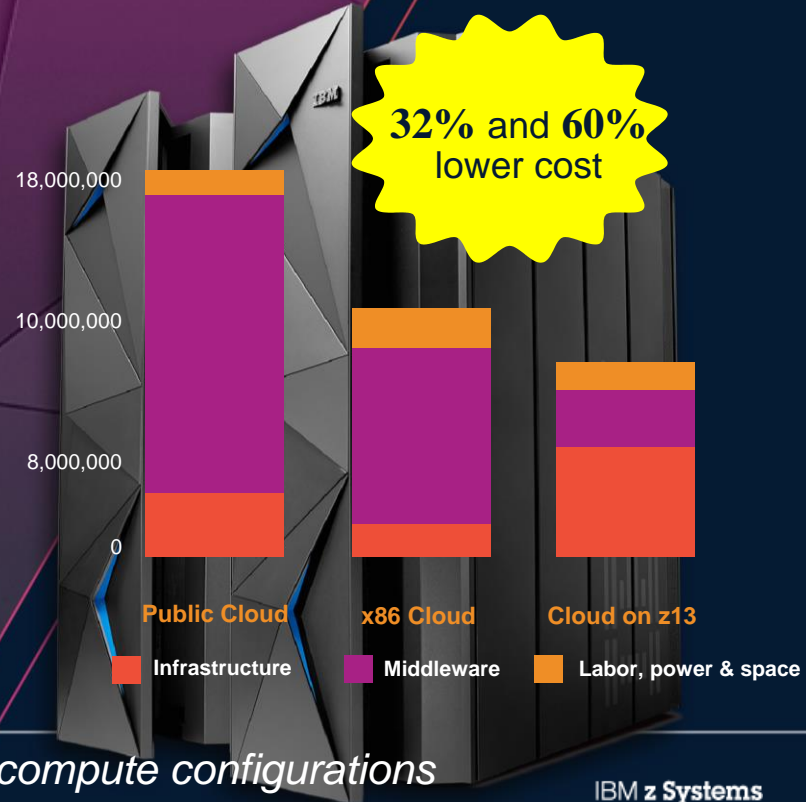
Factory integrated and tested

Rapid production deployment

Security and resiliency built in

Linux and Open Source enabled

z Systems



Available on zEC12, zBC12, and z13* compute configurations

IBM z Systems



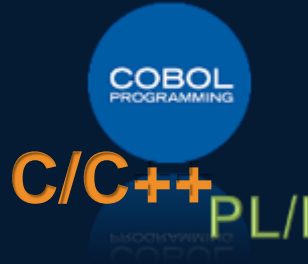
**Serving 2.6 million people while
supporting rapid business growth**

Developing for z Systems accelerates time to value

**Custom
Patterns for Linux
on z Systems**



IBM Bluemix™
with z Systems



80%
reduction

in multi-product
deployment in a cloud
with patterns

Days
vs. months

from idea to running
applications using
Bluemix Services

17%
improvement

in application
performance with
Enterprise compilers

10M+
Java
developers

available to
develop on
z Systems

IBM z Systems software pricing announcements

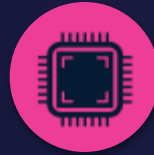
IBM continues to deliver software price/performance with latest hardware



IBM Collocated Application Pricing (ICAP)

Run your systems the way they were meant to be run

Integration of new applications priced as if in a dedicated environment



z/TPF Transformation Engine Offering

Supporting the growth of analytics, mobile and security

Special priced engines for new z/TPF workloads without impact to software charges



Country Multiplex Pricing

Evolution of Sysplex pricing, a shift to total flexibility and simplicity

Flexibility to move and run work anywhere within a multiplex



Mobile Workload Pricing for z/OS (Announced in 2Q 2014)

Enables IT investments to scale with growth & business returns of mobile

Up to 60% reduction in incremental growth from mobile transactions

z13: a new system

designed for mobile, analytics

and trusted cloud

**With the highest speeds, the most diverse workloads,
and simply the best security on the planet**