

CICS Transaction Server for z/OS

September 2013



Pressures on the CIO

Reduce	Manage	Deliver
<ul style="list-style-type: none"> • Cost • Risk • Complexity • Outage 	<ul style="list-style-type: none"> • Operational efficiency • Critical business data • Security & Compliance • Skills and resources 	<ul style="list-style-type: none"> • Service agility • Business Intelligence • Mobile solutions • Cloud solutions



“Agility and accessibility will make the successful organization of the future.”



Digital technologies lead CIO technology priorities

CIO technologies	Ranking of technologies CIOs selected as one of their top 3 priorities in 2013				
	2013	2012	2011	2010	2009
Analytics and business intelligence	1	1	5	5	1
Mobile technologies	2	2	3	6	12
Cloud computing (SaaS, IaaS, PaaS)	3	3	1	2	16

Every business requires systems of record

Businesses today...

- More channels to customers
- Greater customer expectations
- Explosion in quantity of data
- Need immediate decisions

Millions of transactions per day

Systems of record...

- Manage critical, shared, business data
- Ensure data integrity is maintained
- Manage high-volume updates to shared data
- Robust and reliable for 24x7x365 operation

Where data accuracy and integrity are paramount

“They are a necessary condition of doing business”

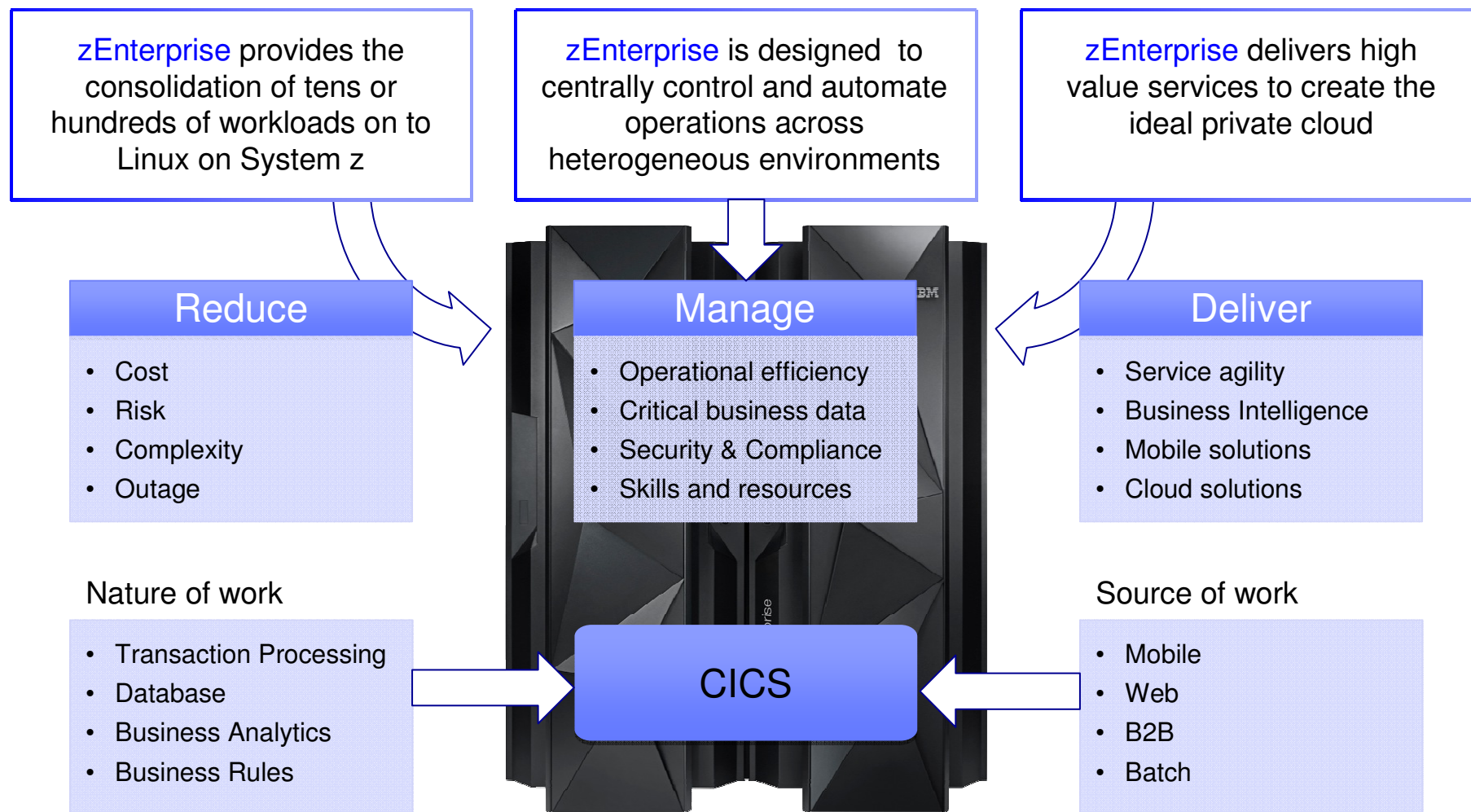
- Geoffrey Moore




Mission-critical applications need to maintain **ironclad transactional and process integrity** and thus have more stringent infrastructure resiliency requirements than other workloads

No other single platform can deliver the CIOs needs

Together, CICS & System z help you reduce, manage, and deliver...



The most trusted, robust, reliable, and capable middleware platform



Trusted by 1000s of customer in 23 industries, spanning 75 countries
 100% of the Global Fortune 100 Banking and Financial Services use CICS



- **Scalable**
- **Secure**
- **Available**
- **Adaptable**
- **Integrated**

CICS grows with your business, all the way up to 1 billion+ transactions per day

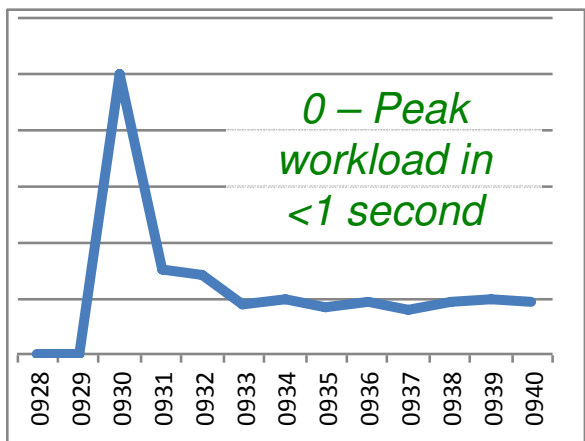
An application's strength is in its foundation

40+ years of development, refinement, and tuning, of the most advanced transaction server in the world



“A high-end online-transaction-processing-style **application server** delivers business applications with guaranteed levels of performance, availability and integrity.”

Scaling to meet immediate demand and future growth



Workload at stock market open

Coping with exceptional and unpredictable workloads...

Stock market opening drives unprecedented levels of work

- Near instant demand
- Near instant response

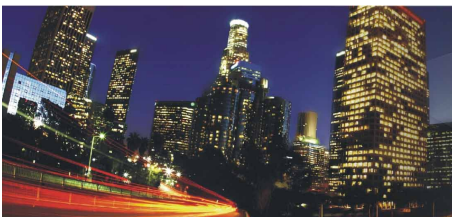
CICS architecture provides highly scalable, high performance processing, to handle the worlds most demanding workloads



Customers demand a platform that grows with them...

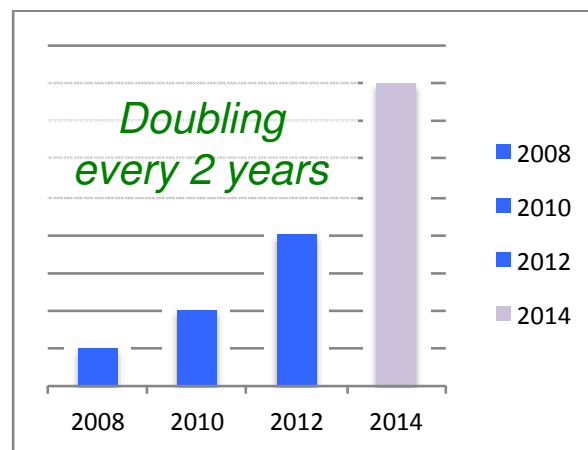
If you double your customer base every 2 years...

- Can your platform process double the workload?
- Can you continue to meet your business SLAs?



Customers trust CICS because CICS can

Chinese bank sees account growth



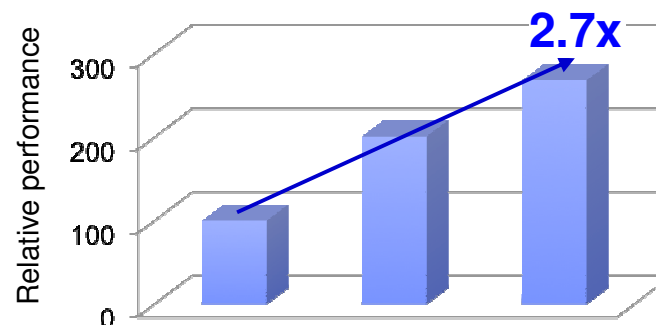
Proven Foundation: Extreme Performance and Scalability

Large Latin American Bank uses CICS

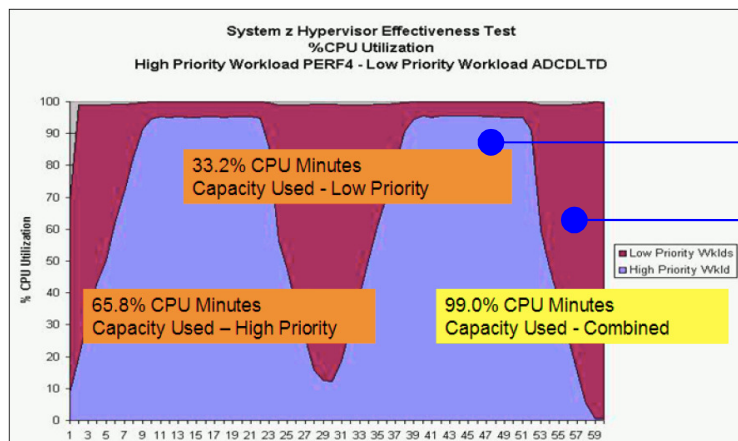


1 Billion Transactions/day
Peak: 35,000 tps
0.004ms Avg response

Continuous performance improvements

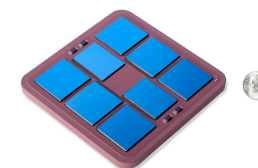


CICS online banking (IBM Friendly bank)



Mixed priority workloads achieve 99% utilization

CICS WLM is tightly integrated with z/OS workload manager for efficient scalability & CPU utilization



“Core enterprise applications process transactions — lots of transactions — and so can’t be scaled by adding load balancers and spawning new copies of services. They scale by adding capacity to the transaction processing engine”

Co-location of critical business applications and data

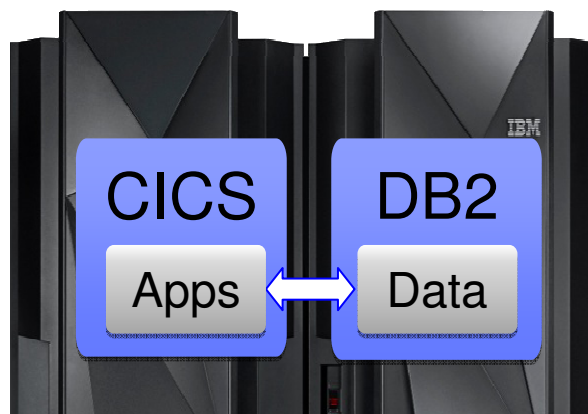
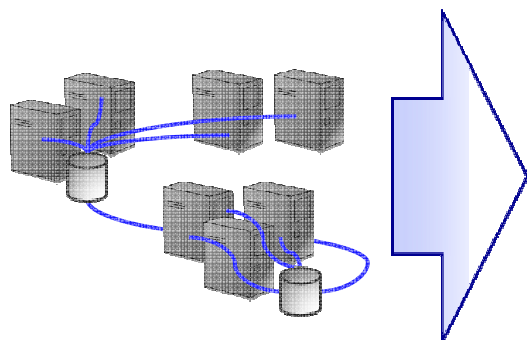


Trusted combination of world-class hardware and middleware

Improve response time by removing network and connector overheads

CICS is optimized for efficient multi-threaded connections into DB2

Consolidate distributed data to reduce cost, duplication, and redundancy



Co-locate applications and data into a single unified security environment



Large US Insurance company

IBM TCO Eagle Study

Moved HP servers & ISV package to CICS and DB2
 Reduced cost of claims from \$0.79 to \$0.12
 Increase support staff productivity 6.6x

Increased their claim processing capacity 12x

Proven foundation: Unparalleled Security you can trust

“**97% of executives** surveyed said that information security is highly critical to their company’s ability to compete in their market or industry”



Level 5 security with sophisticated encryption

- Only system with EAL5+ level security
- Solutions to monitor privileged users, SMF data collection and built in intrusion detection
- RACF integration with key software solutions
 - CICS, DB2, WebSphere, MQ....

CICS TS is fully integrated with the RACF security model at 3 levels

- Transaction security
- Resource security
- Command security

Providing essential control & governance

Unparalleled Security

Privacy Rights Clearinghouse noted **535** security breaches during 2011, involving 30.4 million sensitive records ...

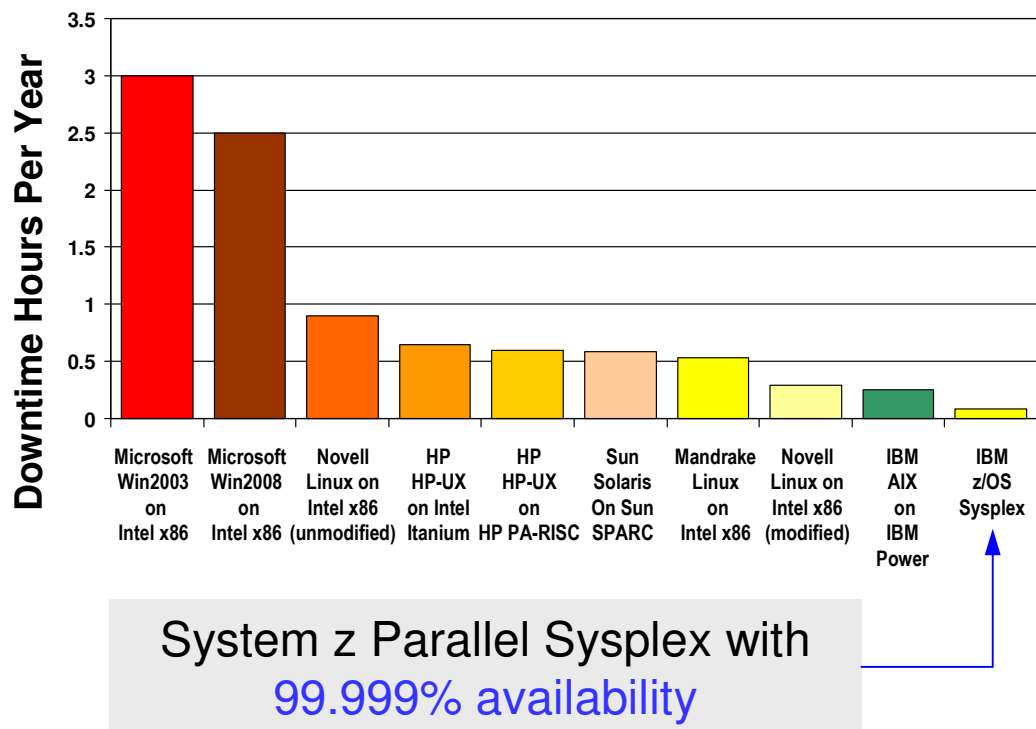
System z security breaches: 0

Central Processor Assist for Cryptographic Function (CPACF)

- Free of charge, one coprocessor per core
- 290-960 MB/sec bulk encryption rate
- Support DES, SHA-1/2, AES

Proven foundation: Unparalleled Availability and Reliability

Downtime Survey (400 participants in 20 countries)



Built-in protection to ensure reliability of critical systems

For example...

Error Detection

- ▶ Error detection/ correction codes
- ▶ Data capture

Recovery

- ▶ Spare CPU
- ▶ Sysplex failover

Change Management

- ▶ Non-disruptive

Maintenance

- ▶ “Phone Home”



CICS TS enables leading card processing company to hit new record

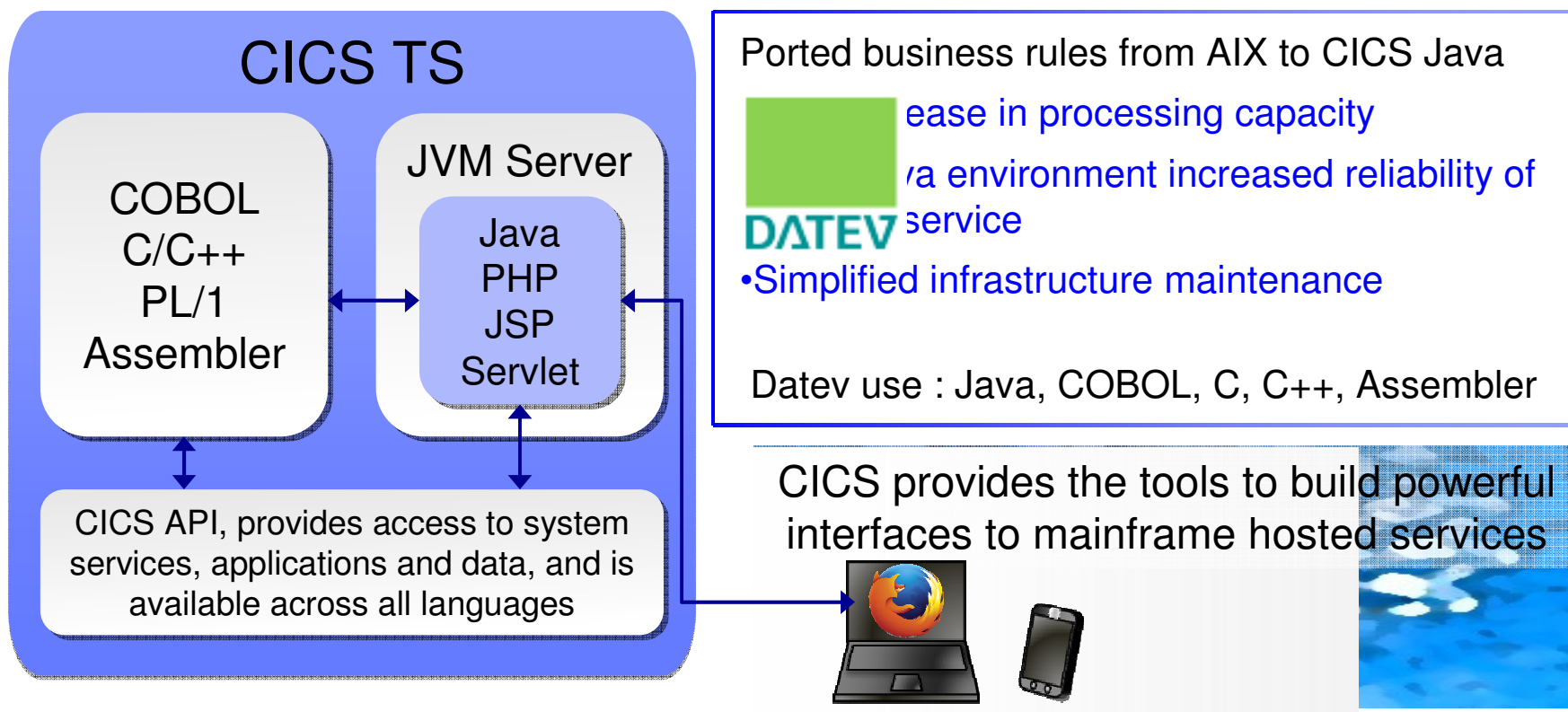
“The card processing company exceeded one million transactions for the first time.

Availability during the month was 100 percent with no incidents and no performance related issues in handling the volume.” – IBM Case study

The industry's ONLY mixed language application platform

Mixed language runtime environment with a common API available to all

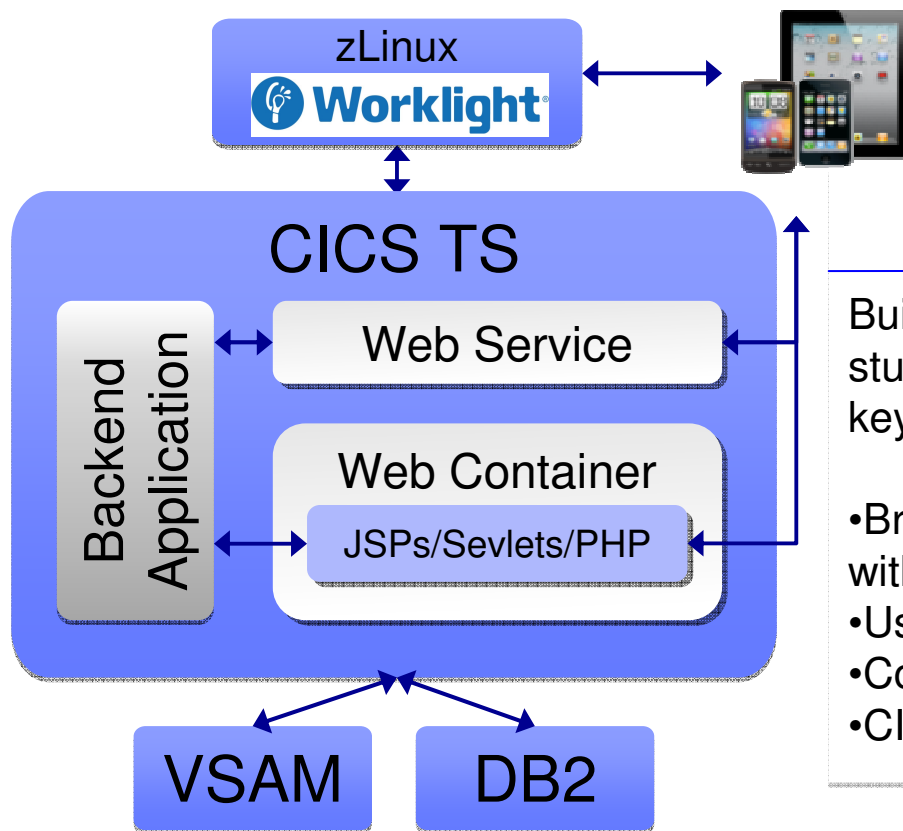
- Automatic storage protection and transaction isolation improves system reliability
- IBM 64-bit Java 7 JVM – offload work to cost effective zAAP processor
- Exploit a broad skill base using the language most suited to the task



Mobile ready with JSON & RESTful interface support

Develop mobile solutions to deliver new business opportunities

- CICS TS V5.1's advanced scalability makes it the ideal platform for mobile
- JSON data and RESTful interface makes integration with mobile devices simple
- IBM Worklight Server provides a integration tier for delivery of mobile solutions



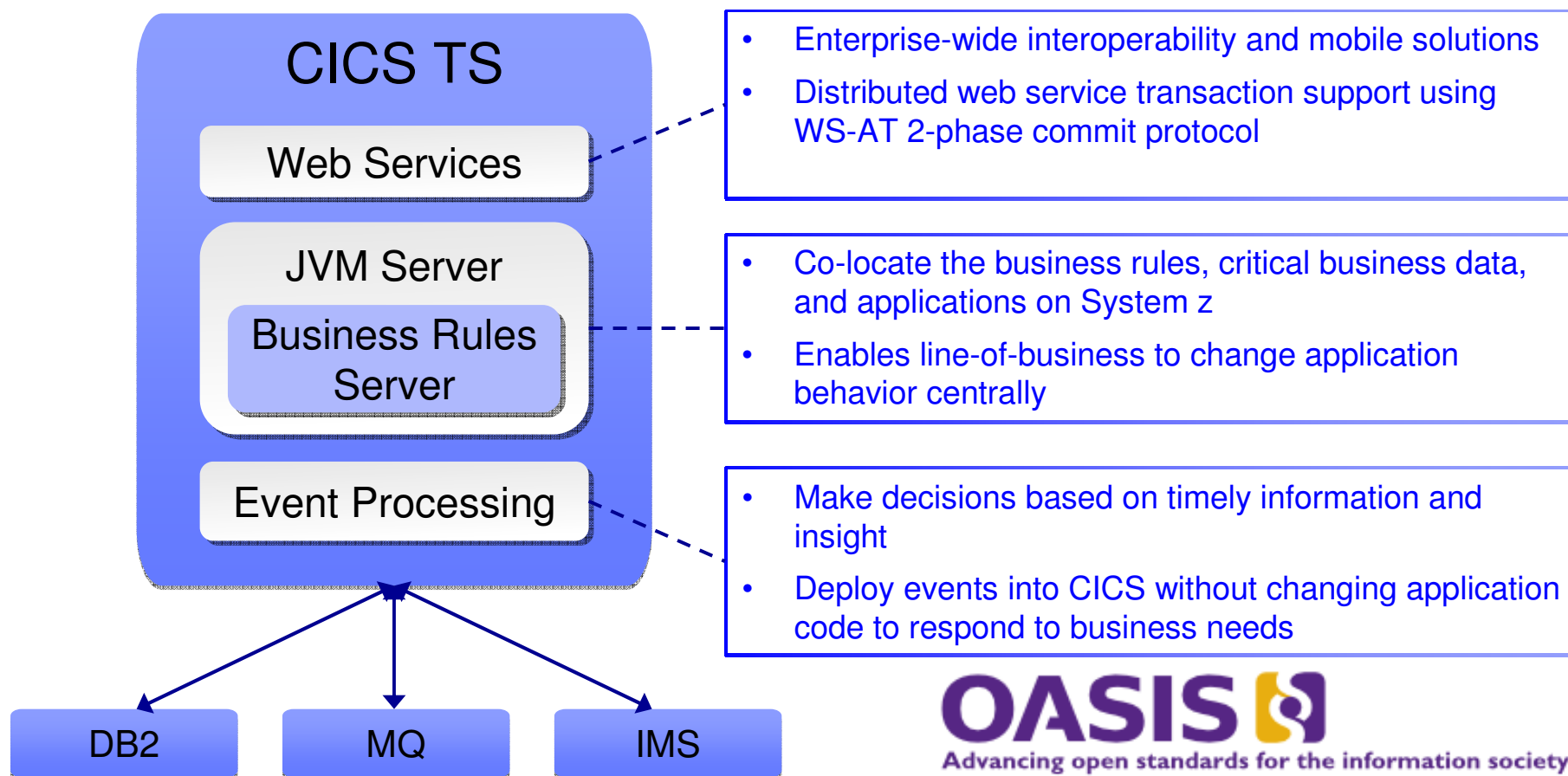
Built a mobile solution on CICS for it's 50,000 students and 5,400 faculty members to access key services.

- Branched MIT Mobile Web app and integrated with CICS services
- Uses CICS, with DB2 10 and VSAM data
- Connect via IBM Communications Server
- CICS Apps in assembler and COBOL

Extensive connectivity enables enterprise wide integration with CICS

CICS operates at the heart of the organization, coordinating critical business services

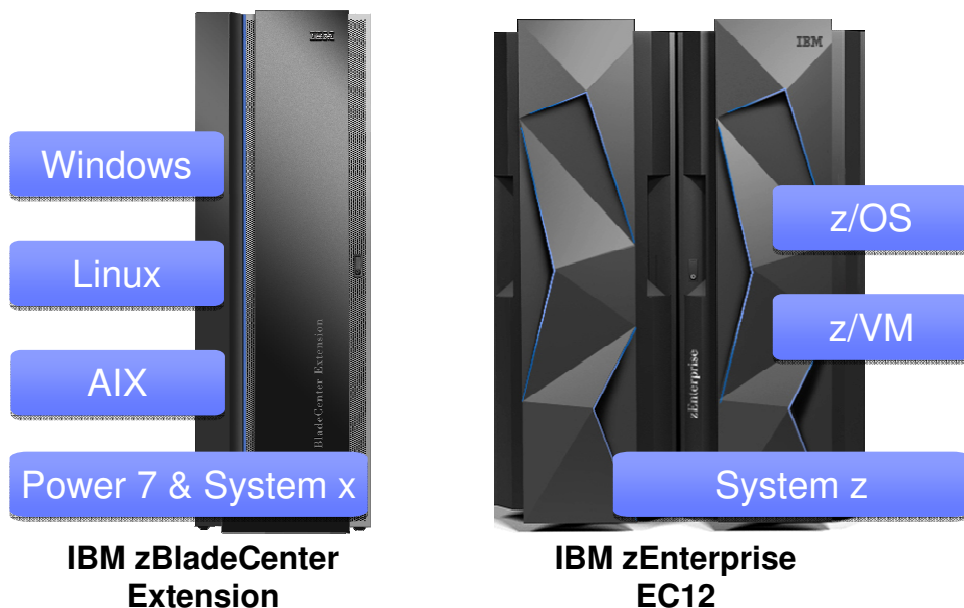
- Open standards based integration at the heart of CICS TS
- From mobile and web, to integration of legacy systems after acquisition



The ideal platform for heterogeneous private cloud solutions

The choice of architecture with the security and reliability of the mainframe
System z delivers a private cloud solution unparalleled in the industry

Providing the best-fit platform



When security is paramount



Private cloud avoids hosting data on third-party infrastructure, where multi-tenancy and shared resources are perceived to be a risk factor

zManager: Unified Resource Manager



Provides consistent, automated and reliable service delivery with a single system view

FORRESTER®

“The second generation of cloud applications is more business- and mission critical, with specific security, performance, and reliability needs that commodity infrastructure cannot easily accommodate.”

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