CICS Product Update

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August 2012

Session Number 11417

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in Anaheim
2012

Agenda

- Solved: A brief history of CICS

  - A reflection on some revolutionary solutions

- Solving: today's challenges, today

  - What's New in the CICS Family

- Future challenges: Early opportunities

  - CICS Transaction Server V5.1 open beta

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A History of Solutions: 1969...

SYSTEM/360 CUSTOMER INFORMATION CONTROL SYSTEM PROGRAM PRODUCT (5736-U11) READY FOR SHIPMENT

The Customer Information Control System Program Product 5736-U11 is ready for shipment at PID.

It is a highly responsive, transaction oriented, data base, data communication interface between Operating System/360 and user-written application programs.

In addition to providing programs necessary for inquiry and conversational data entry applications, the system has functions for many standard terminal applications, including message switching, broadcasting, data collection, and order distribution.

The Customer Information Control System was designed for the very demanding customer information system environment; however, it has been found to be applicable to most on-line real-time data base systems.

Major functions provided by the Customer Information Control System are:

- Task Management
- Storage Management
- Program Management
- Terminal Management
- File Management
- Transient Data Management
- Temporary Storage Management

In addition to the management functions, the Custom-

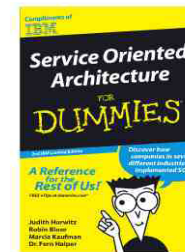# A History of Solutions: 1974 to 1996

- More...

  - Compatibility

    First high level API, interprogram communication

  - Capability

    Mixed language workloads, database access

  - Scalability

    Inter-systems communication, sysplex exploitation, WLM

  - Reliability

    Storage protection, transaction isolation

  - Managability

    Online changes (RDO), single system image, single point of control

A History of Solutions: 1996 to 2005

- CICS Transaction Server Version 1
    - The age of e-business
    - The birth of Java
    - The rebirth of CICS

- CICS Transaction Server Version 2
    - Java for the Enterprise
    - A lot of performance
    - A little bit of SOAP

- CICS Transaction Server Version 3
    - CICS Web Services
    - Production SOA
    - A philosophy of reuse

A History of Solution: 2009 – A Major Event

- CICS Transaction Server Version 4
    - Event enablement, extracting more value from your assets
    - Simple and integrated CICS Explorer interface for management and tools
    - A Java Server infrastructure that changes the game

An Icon of Progress: 2011

- June 2011: IBM formally recognized CICS as one of the 100 most iconic achievements in its entire first 100 years
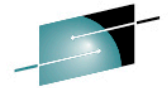
securing online transactions

One of just **7** software-related innovations to make the list

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CICS TS Version 4 : Over 1,000 customers

CICS TS Version 4 – No cost trial
CICS Transaction Server for z/OS V4.2 Developer Trial

- Try-before-you-buy the latest production-ready edition of CICS Transaction Server

- Zero-cost license, no single version charging (SVC) period, no reason to wait

- Easy ordering via IBM ShopzSeries, with internet or physical delivery options

- What's new with the developer trial?

  – Evaluate the value of a CICS TS v4.2 upgrade, before committing time and resources to a production migration project

  – Explore all the CICS TS v4.2 features and benefits, in non-production environments only

  – Decide to upgrade to CICS TS v4.2 and benefit from major enhancements in five key areas

New!

Events

Java

Connectivity

Management

Scalability

Get ready for the cloud with CICS TS V4.2

New!

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What's New with IBM CICS Explorer and CICS Tools

- **CICS Explorer v1.1.1 delivers major new function including:**
    - Enterprise-scale deployment using Java Web Start
    - Consistent connectivity management and integration with z/OS Explorer
    - More access to core z/OS functions with z/OSMF

- **CICS Performance Analyzer v3.2.1 Explorer plug-in adds:**
    - New dashboard view, new customizable sheet views, server-side sorting/filtering, and wait analysis

- **CICS Configuration Manager v2.1.1 Explorer plug-in adds:**
    - CSD Group Install, Deployment Analysis and Change Package editing/control

- **Tivoli OMEGAMON XE for CICS v5.1 delivers:**
    - A reinvented, cross-product, enhanced 3270 user interface
    - CICSplex-level monitoring
    - zIIP-offloading of key processing plus
    - Reduced configuration and application of maintenance

**Powerful Tools.
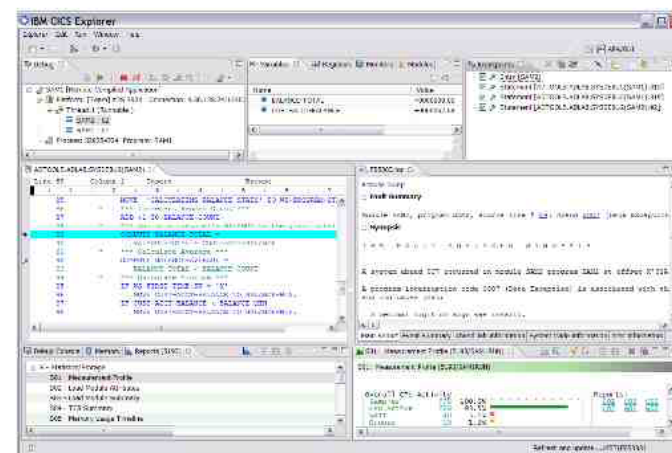Scalable deployments.
Rich capabilities.**

IBM Problem Determination Tools for z/OS

- Best in Class suite of z/OS Problem Determination Tools: full function, deep integration, very competitively priced:

  - Debug Tool

  - Fault Analyzer

  - File Manager

  - Application Performance Analyzer

  - Workload Simulator

- **What's new in Version 12?**

  - Extended Explorer interface support adds CICS and DB2 capability to the File Manager and introduces Explorer Plug-in for Workload Simulator

  - Enhanced integration with z/OS Explorer capabilities for PD Tools, CICS and/or IMS

  - CICS TS v4.2, IMS V12 and MQ 7.5 updates

  - Improved Java support in Application Performance Analyzer and Fault Analyzer

13 years of development.
#1 PD Tools Vendor. Again.

WebSphere Extended Transaction Runtime (WXTR) v2.1

- Best in Class co-location of COBOL, C and WebSphere Java applications on the AIX platform

- Superior transaction integrity with global transaction support across multiple languages

- A true modernization platform for Oracle Tuxedo customers, adding capability and reducing costs

- **What's new in WXTR v2.1**

  - C language applications hosting in WebSphere

  - Clustering and distributed WLM with WAS ND

  - Global Transaction (2PC) for composite applications

  - Improved DB2 support and new Oracle DB support

  - Tooling and APIs for Oracle Tuxedo migrations

New!

COBOL & C Transactional Integrity in WAS

Enhanced WebSphere Integration

Oracle Tuxedo Migration & Modernization
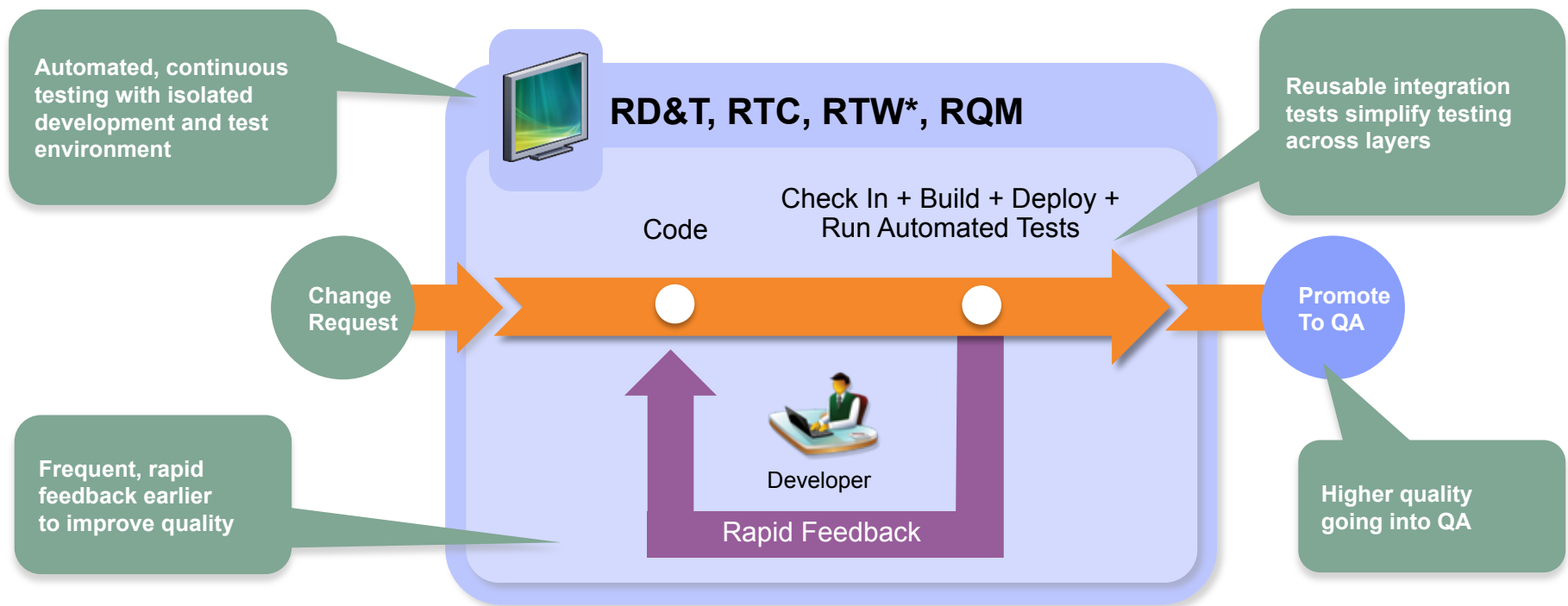
Is your old Tuxedo looking a little dated?

IBM Continuous Integration Solution for System z

New!

Reduced delivery time, end-to-end visibility of test activities, safer and faster V2V migrations

Automated, continuous testing with isolated development and test environment

RD&T, RTC, RTW*, RQM

Reusable integration tests simplify testing across layers

Code

Check In + Build + Deploy + Run Automated Tests

Change Request

Promote To QA

Developer

Rapid Feedback

Frequent, rapid feedback earlier to improve quality

Higher quality going into QA

- Rational Team Concert 4.0
- Rational Quality Manager 4.0
- Rational Development and Test Environment for System z 8.5 **NEW!**
- Rational Testing Workbench powered by Green Hat Technology

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Looking forward…

- Cloud deployment capabilities challenge software developers, tools, and processes to keep up

- Hardware and OS provide ability to deliver innovation rapidly

- Some in the industry are doing this weekly, daily, even hourly

> ### *Realities of critical business systems…*
> - Large scale business critical workloads, some > 1bn transactions per day
> - Large installations with complex topologies, 100s of CICS regions in Sysplex configurations
> - Large existing investment in CICS assets in need of greater agility…

Conversation in "Beta-land"

FASTER

"Hey Simon, I need to test my new version of the payroll **application.**"

"Sure Abigail, you should get the latest payroll test **platform** from the repository, I'll send you a link."

"Thanks, I'll **deploy my app** onto that platform on the development plex later today."
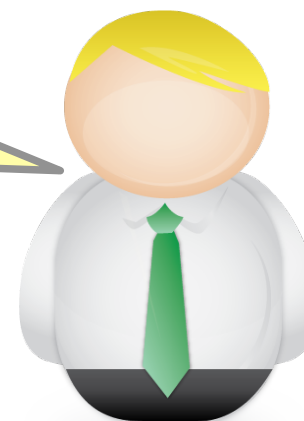
SIMPLER

"That should be fine, just check with Oliver that the **policies** on the plex are going to be OK for your app's changes."

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CICS TS provides a solid foundation

How do we make CICS applications and management more agile?

*"How can I deploy **applications** in CICS more easily?"*

*"How can I better manage my CICS **platform**?"*

Broad Network Access

CICS put SOA at its core, delivering greater integration and connectivity across the enterprise

Resource Pooling

CICS is a first-class resource manager built to efficiently manage system and application resources

Measured Service

CICS has extensive monitoring and statistics to enable customers to understand the cost of their applications running in CICS

On-demand Self Service

CICS Explorer and the collection of portfolio tools enable a greater degree of automation

Rapid Elasticity

CICS WLM, combined with z/OS, enables CICS to rapidly respond to fluctuating workload demands

System z and z/OS

CICS TS V5.1 Open Beta Introduces Cloud capabilities…

Applications

Faster & easier deployment of CICS applications & resources

- Logically define CICS resources as a single entity
- Deploy to CICS as a single resource
- Managed as a single entity throughout its lifecycle

Platforms

Faster & easier management of CICS application environment

- Facilitates the easier deployment of CICS applications
- Abstraction layer to decouple applications from the underlying topology

Policies

Autonomic management of CICS reduces risk

- New dynamic policy-based management capability
- Control applications and platforms behaviour during CICS run time

Greater control of CICS topology and resources delivered by enhancements to CICS Explorer and CICS DA	**MQ Connectivity improvements** for large messages and **improved SSL capabilities** ensure CICS remains connected across the enterprise. **Liberty, IMS**	**Policies enable CICS to automatically respond to resource usage.** Enhancements to threadsafe and 64bit support enable CICS to efficiently manage workload demands.	**Quickly scale up a CICS topology** through the use of the platform resource, in response to LOB requirements	**Improved monitoring and statistics** give a greater understanding of the load, capacity and performance of the system. Monitor CICS at an application level.
On-demand Self Service	Broad Network Access	Resource Pooling	Rapid Elasticity	Measured Service

More Capability and Scalability...

- **Vertical scaling**

  - Relieve region storage constraints

  - Further virtual storage constraint relief

  - Maximum task limit has been doubled

*Run more, **more easily***
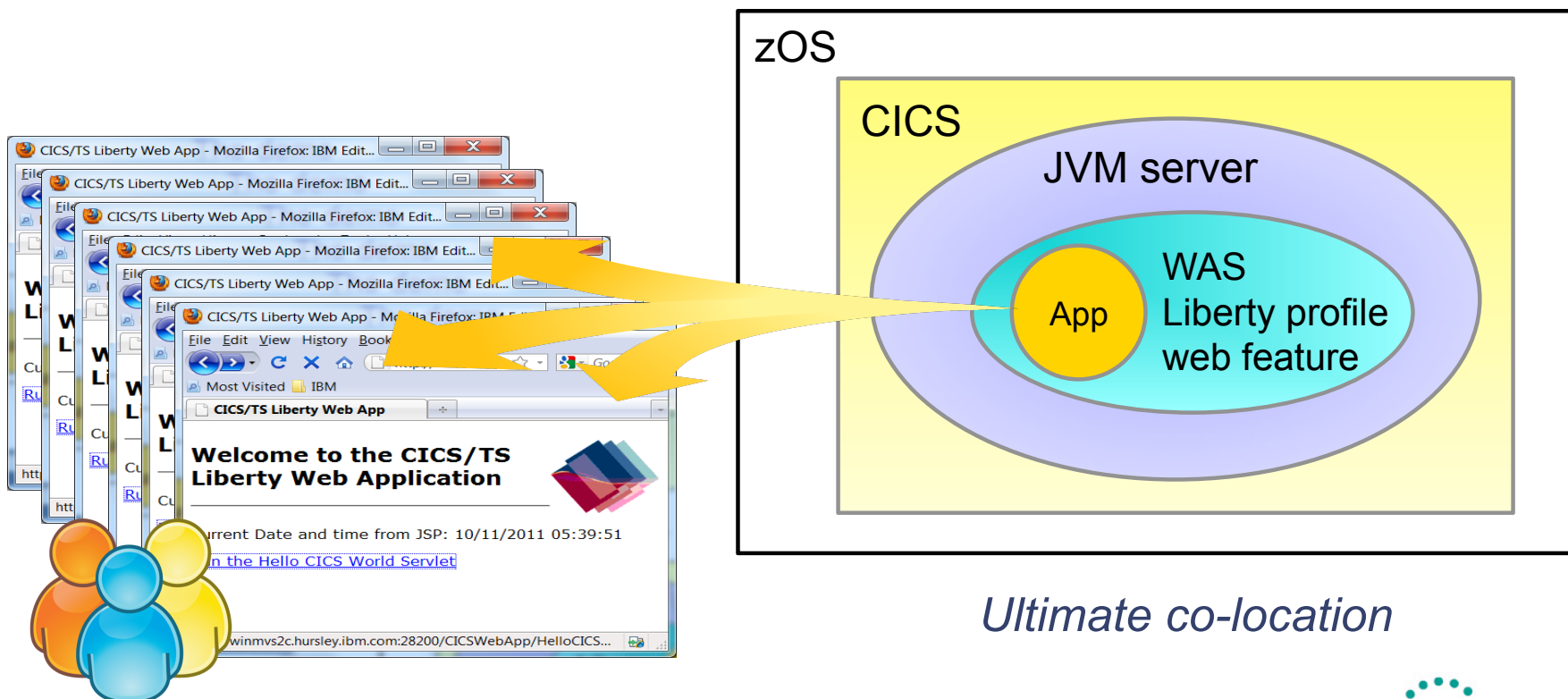
- **Horizontal scaling**

  - Further threadsafe support to reduce TCB switching and increase workload capacity

  - Instrumentation enhancements – understand how the platform is scaling

  - Standardization and simplification

  - Simplify CICS configuration defaults

  - A secure environment, with further integrity and self-protection

  - Enhancements in support for WebSphere MQ, event processing, SSL, and much more…

'right-size' and simplify CICS topologies

Fast, lightweight, Java web container

WebSphere Application Server Liberty profile web feature hosted within a CICS JVM server

Ultimate co-location

CICS Transaction Server for z/OS V5.1 open beta

- **Simpler and faster** development, deployment and operations with cloud-style CICS

- What's new in the 5.1 Beta?

  - *Platform as a Service (PaaS)* capabilities that can be used to host Software as a Service (SaaS)-based CICS applications.

  - *Policy-based management* to automatically modify the behaviour of tasks that exceed predefined thresholds, during runtime.

  - *Fast and lightweight Java web container* combining Java Servlets and JSPs with fast local access to CICS applications.

  - *Capability and scalability advancements* that allow CICS applications to do significantly more, with much greater ease.

Cloud Applications

Solid Foundations

Online Requirements!
CICS Family Request for Enhancement (RFE) Community

- Submit your requirements directly to IBM, interact with the Lab and track status online

- Collaborate with the community by searching, viewing, discussing and voting on requirements

- What's new with CICS Family RFEs?
    - Transparent process with no middle-men between you and the lab
    - Email notifications to let you know when the requirement request is updated
    - Private fields for information you only want to share with IBM
    - Online searches and voting of the existing RFEs in the database

- **ibm.com/developerworks/rfe/websphere**
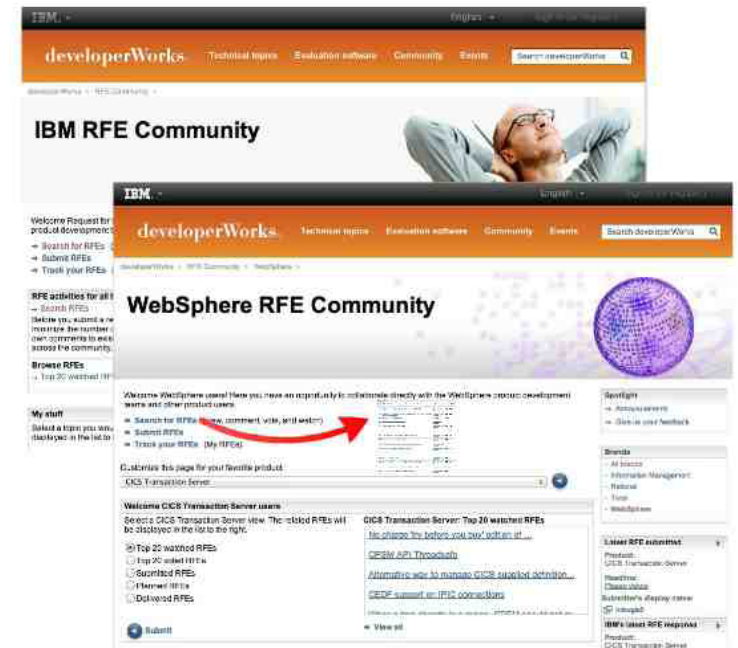
Breaking down barriers between CICS users and IBM developers

Get Involved!
Get Social

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f   facebook.com/IBMCICS

   twitter.com/IBM_CICS

You Tube   youtube.com/cicsfluff

You Tube   youtube.com/cicsexplorer

   twitter.com/IBM_System_z

W   themasterterminal.com

   CICS-L listserv (Google it!)

ibm.com/cics

CICSdev Community
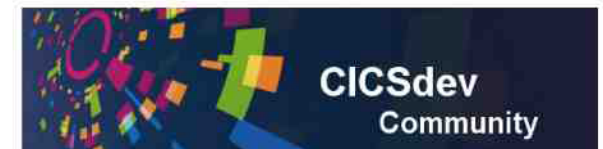
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