CICS Family Update

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Large Systems Update October 2007

SOA on your terms and our expertise – www.ibm.com/cics

Why are IT Organizations Embracing SOA?

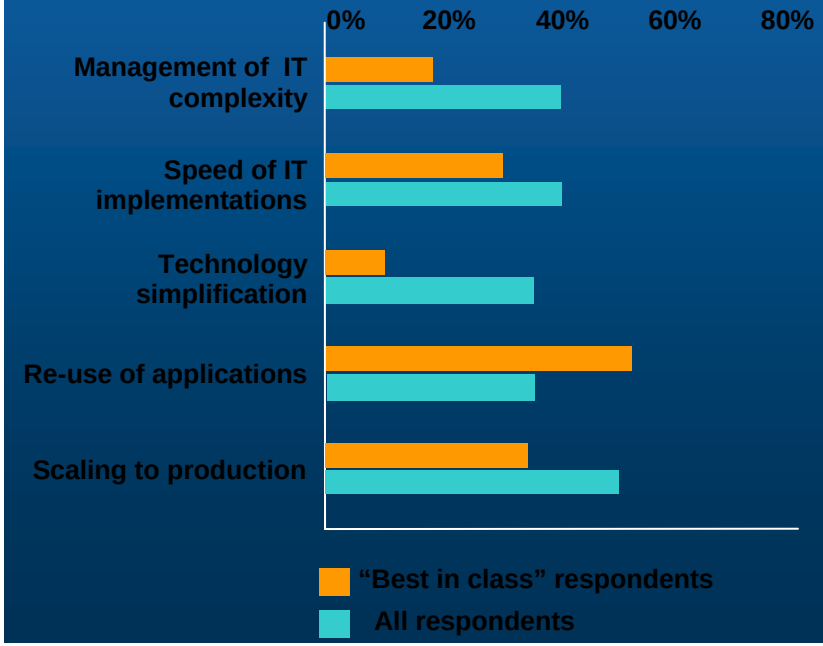
600+ Company Respondents Across 4 Studies

Business Drivers for IT Adoption of SOA

- Management of IT complexity
- Speed of IT implementations
- Technology simplification and consolidation of legacy middleware
- Re-use of applications via Web Services

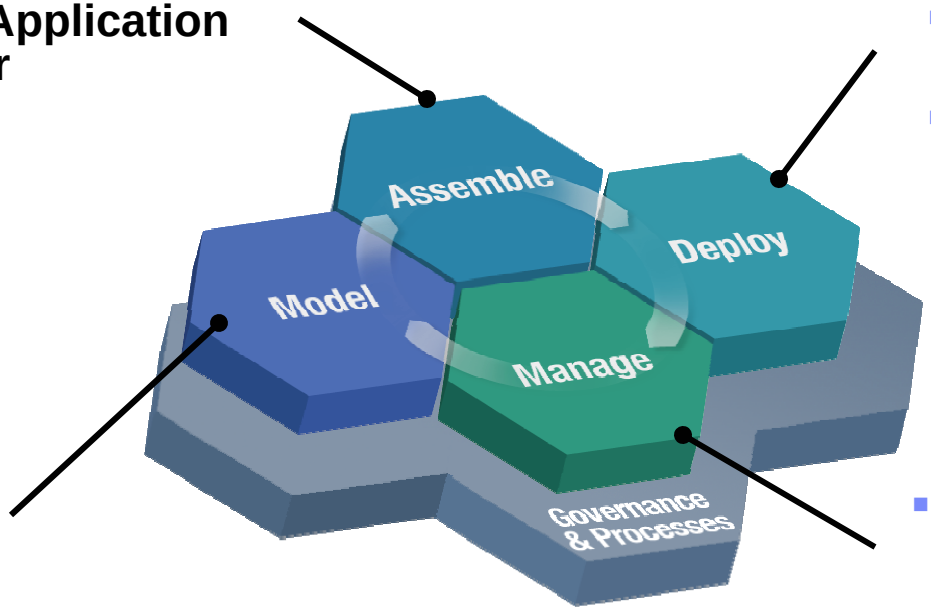
Top Technology Challenges

- Scaling to production volumes, reliability & availability



SOA entry point: Reuse and service generation

- **Rational Developer for System z**
- **Rational Application Developer**



- **CICS Transaction Server**
- **IMS**
- **WebSphere Application Server**
- **zTPF**

- **WebSphere Studio Asset Analyzer**
- **IBM Asset Transformation Workbench**

- **Tivoli Composite Application Manager (ITCAM)**
- **Tivoli OMEGAMON**
- **Tivoli Federated Identity Manager**
- **WebSphere Registry and Repository**

System z is Fundamental to IBM's SOA Vision

SOA is one of IBM's long term strategies to enable innovation

Customers are adopting SOA on System z

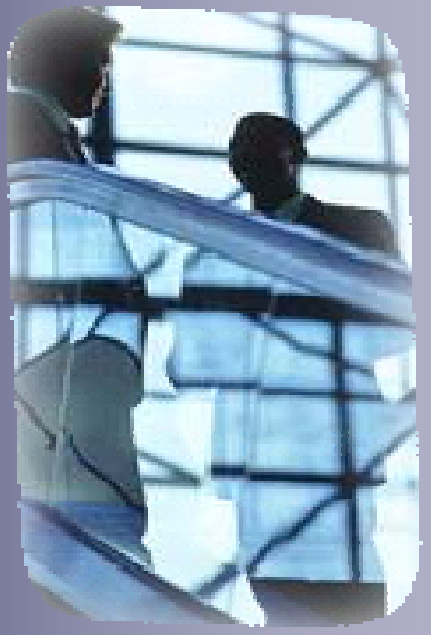
- *Over 1000 customers deploying SOA on CICS Transaction Server V3.1 … and the fastest uptake of any version of CICS TS*
- *WebSphere Application Server for zSeries had 21% growth in 2005…. and 25% penetration in z accounts*
- *zAAPs outperformed expectations by 36% in 2005*
- *New System z9 processor range from 26 to 18,000 MIPS*

IBM's view of SOA is business centric

- People, process and information entry points
- Reuse and connectivity are critical

Entry points are accelerated by SOA Foundation products including…

- 4 enhanced System z products
- 3 new System z products
- 2 new adapters



CICS Transaction Server for z/OS V3.2 – Delivering on the Promise

- **CICS is IBM's premier transaction processor for the z/OS that provides:**
  - An efficient and optimized runtime for the extension and reuse of existing CICS applications
  - Services to easily develop applications that exploit new technologies by building on CICS skills
  - First class management and support of mixed application types and workloads

Application Connectivity *Enables extending existing applications beyond their original designs to support integrated business processes via standard APIs and protocols*	• Maturing the Web Services capabilities and SOAP standards • Wider support of binary payload format (XOP & MTOM) • Conforming with WSDL 2.0 • Optimization of the HTTP Transport to give better performance, robustness and manageability • Providing a new option for uniform CICS connectivity using TCPIP
Application Reuse *Enables the creation of components from existing applications which are more flexible & configurable for use in new applications.*	• Exploitation of 64-bit storage for channels and containers • More extensive Web Services support for COBOL data types • Service Flow Feature - Easier installation and management; Invoke web services from a flow; Support for channels and containers
Service Management *Enables effective management of large runtime configurations via modern user interfaces, so that demanding service level and IT governance objectives can be met*	▪ Continued enhancements to OTE enabling some File Control configurations and the MQ Bridge Adapter ▪ Remove capacity restraints relating to Data ▪ Enterprise wide workload management ▪ CPSM Integrated install and definition & CPSM WUI enhancements ▪ JDK 1.4.2 JVM management and PD improvements

CICS application connectivity

CICS TS V3.1

- Provides capabilities to enable CICS-based applications to be exposed as Web Services.
  - Both a Web Services service provider and service requestor
- Provides WS standards-based interfaces to software functionality.
  - Consumers need have no knowledge beforehand about a Service
  - Software developers to focus on the business issues not the architecture.
- Simple transformation through the CICS Web Services Assistant.
  - Provided for COBOL, C/C++ and PL/I
  - Enables leverage of traditional programs in new business processes
- Workload distribution & Resource management

CICS TS V3.2

- Further enhance WS standards-based interfaces enabling interoperation with tools, infrastructure and service components
  - WSDL 2.0 & WS-I BP 1.1 and SSBP 1.0
  - Extending support for WS-Security
- MTOM and XOP support
  - enables data such as jpg, gif, wav, pdf, doc, blob, contained in web services to be efficiently processed
- Enables the WDz IDE to generate data translation mappings that are optimized for the CICS runtime for a wide range of language data types and XML schema types and generate high performance data translations.
- Continue to deliver high performing and compliant HTTP transport in order that Web services objects are processed efficiently
- Reduce dependency on SNA by moving towards making IP pervasive for CICS inter-connectivity starting with DPL
- Provide simple and robust management capability for TCP/IP workloads in CICS

CICS application reuse

CICS TS V3.1

- Provides improved method of exchanging data
  - Not limited in size to 32KB. limited only by the amount of storage available.
- Pass data in a more structured way.
  - Reduces the complexity of designing programs
  - Reduces the amount of transaction storage needed
  - Delivers an acceptable deployment environment for C++ and Java programs
- Service Flow Feature
  - a no-charge, orderable feature
  - Included 10 copies of WD4z v6.01 Service Flow Modeller/XSE along with CICS Service Flow runtime
  - Builds Web services from existing CICS applications
  - Aggregates multiple CICS transactions into high-level business processes through visual modeling
  - Supports CICS BMS (terminal-based) applications & CICS commarea applications
  - Highly optimized CICS runtime supporting Web services and XML interfaces

CICS TS V3.2

- Extends channels and containers with 64 bit support
  - Removes storage limitation
- Better integration of CICS/MQ applications
- J2SE 5.0 Support
- January, 07 upgraded WD4z to v7.0 Service Flow Modeller/XSE
  - Channel & Container support
  - Service flow to invoke an external web service

CICS service management

CICS TS V3.1

- The CICSPlex System Manager
  - Reduces the complexity of management of CICS systems
  - Presents them as a simple and integrated whole.
  - Cooperates with Tivoli products to deliver an integrated systems management solution.
  - Continues the strategic themes for systems management of integration, simplification, monitoring and automation.
- CICSPlex SM Web User Interface
  - CICS has a modern intuitive interface for all aspects of CICS system management.
  - Improved screen design to ensure a great improvement in usability
  - Business Application Scoping (BAS) administration restructured
- CICSPlex SM significantly reduces the time to exploitation of new functions and reduces the complexity of migration.
- Open Transaction Environment
  - CICS TS 2.2 we added support that enabled CICS/DB2 applications
  - CICS TS V3.1 introduced the ability for all types of threadsafe applications
    - Removed a major bottle neck in the application throughput running under CICS.
  - Reduces CPU utilization

CICS TS V3.2

- CICSPlex System Manager is installed, configured and started as part of the CICS startup procedure reducing operations management costs
- Provide a set of WUI menus and viewsets specific to operations tasks to aid productivity
- Directly view an application in an end to end scenario measuring availability, performance and usage through EWLM support
- Online management of program libraries make it easier to maintain continuous system availability
- Improved system management and problem determination for Java programs
- Improved timing data precision giving more accurate accounting of CPU time for charging
- Extend CICS API for threadsafe applications
  - Make File Control threadsafe for local VSAM and RLS resources
  - Ensure MQ interfaces exploit OTE
- Support for Data Tables > 2GB enables large quantities of read-only application data for high performance access
- Support for large capacity VSAM ESDS file

CICS TS 3.2 – a new look at beta programs

Innovation around an old concept…

CICS TS 3.2 beta and isv partner program started in Jan 2006.

Regular refresh of beta code as function became available

50+ participants

For the first time ever in CICS TS history

Early in 2007 announced an open beta for CICS TS 3.2

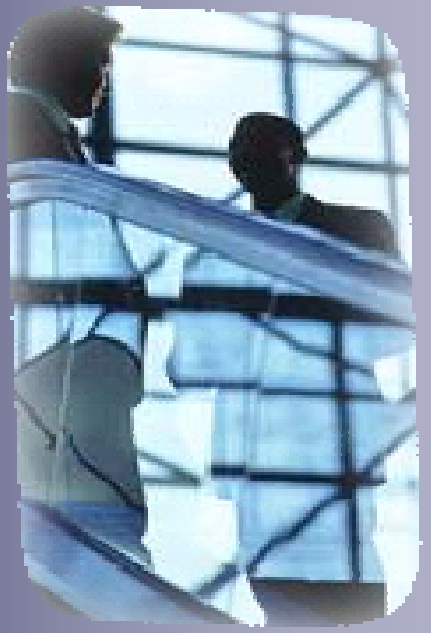
100+ participants

Why is this important?

Length of the beta program

Testing in ‘real’ environments

Means CICS TS 3.2 is ready for you today…



CICS Red Books – Most Popular

- Implementing CICS Web Services *NEW
  - 500+ downloads
- Application Development for CICS Web Services *NEW
- Architecting access to CICS within an SOA *NEW
- Java Application Development for CICS
- Threadsafe considerations for CICS

CICS Transaction Gateway

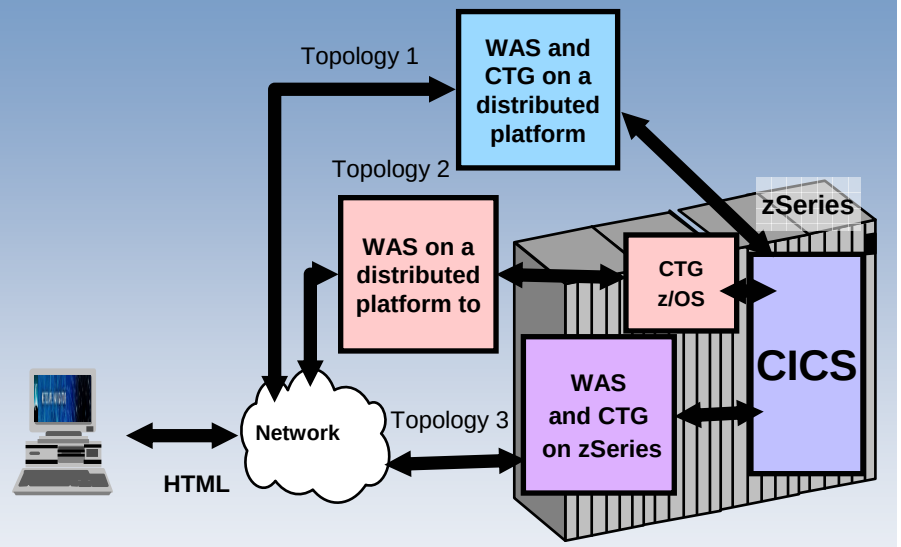
IBM's most popular connector from WebSphere to CICS

CICS Transaction Gateway v7.0

- **System Monitoring**
  - A window into the 'black box' providing capacity planning and problem determination
  - End to End Automation (as for CICS TS 3.2)
  - Omegamon for CTG is the first tool to exploit new facility
- **Reliability, availability and serviceability enhancements to TCP/IP (IPv6, WLM)**

Next release will include

- Java apps can exchange >32 kb data with CICS apps using the channels and containers API.
- …and more!



The Objectives of CICS On-Demand Seminars

- The CICS Seminar program presents a customised technical agenda of CICS TS and CICS tools.
- It's free!
- Suitable for a wide audience and skill set (AD & System Programmers, Architects etc) at customers' own location.
- Demonstrates how to use the new features in the latest releases to leverage existing solutions
- Can be tailored to customers interests
  - Web Services, migration, tooling etc.

IBM SOA Success Stories

Hannaford

CASAS BAHIA DEDICAÇÃO TOTAL A VOCÊ

Zagrebačka banka UniCredit Group

Caisses Sociales de Monaco

Soluções para um Brasil de Todos SERPRO

ALTE LEIPZIGER

MORRISONS

FairIsaac

BMO Financial Group

OCG OHIO CASUALTY GROUP Protect What's Yours®

KODIT KOREA CREDIT GUARANTEE FUND

NORWICH UNION an AVIVA company

STANDARD LIFE

DATEV

SSB GROUP