CICS TS V3 Business Value

Putting the S in SOA

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

Why are IT Organizations Embracing SOA?

**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

SOA entry point: Reuse and service generation

- **WebSphere Developer for System z**
- **Rational Application Developer**
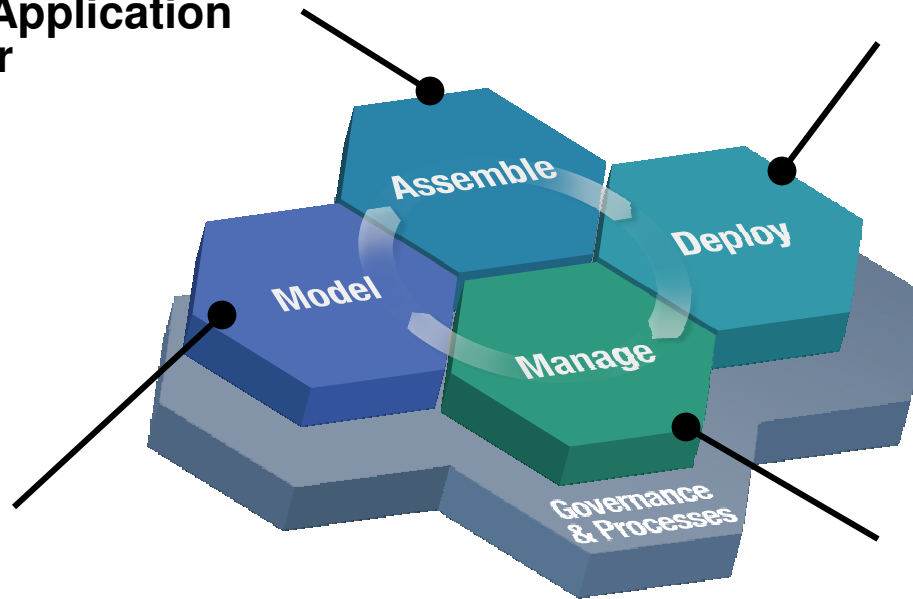
- **CICS Transaction Server**
- **IMS**
- **WebSphere Application Server**
- **zTPF**

Assemble

Deploy

Model

Manage

Governance & Processes

- **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 as an SOA Entry Point for Creating & Reusing Services *Create and Deploy Flexible, Service-based Business Applications*

Benefit from:

- Flexibility and elimination of redundancy for reduced cycle times and lower project risks

- Expanded access to core applications and business rules

- Consultant studies have found it 5X less expensive to re-use existing applications than to write new applications
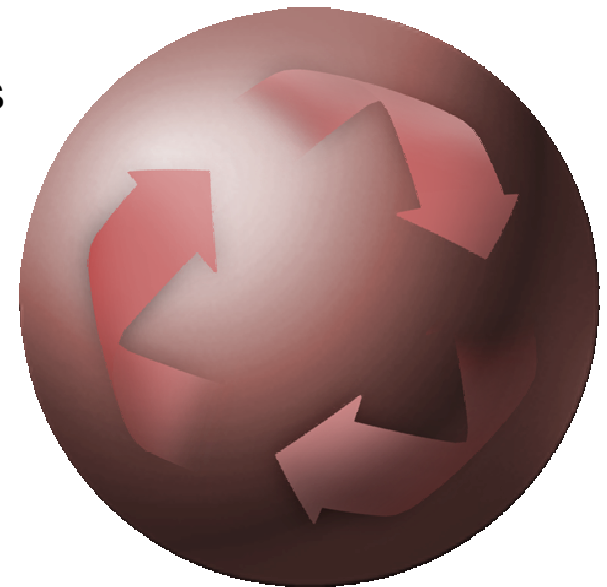
Begin with:

- Identify high-value existing enterprise assets and service-enable them for reuse
- Fill in gaps by creating new services for today's business needs and future reuse
- Registry/repository to facilitate centralized access and control of reusable services

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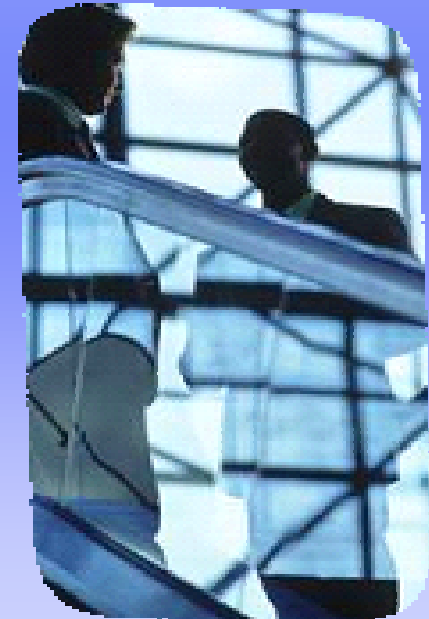
CICS Transaction Server for z/OS V3.2 – Delivering on the Promise

- **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
- **CICS TS V3.2 will be available 29 June 2007**

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 in a Service Oriented Architecture | www.ibm.com/cics

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 shared Data Tables > 2GB enables large quantities of read-only application data for high performance access
- Support for large capacity VSAM ESDS file

CICS Transaction Gateway
IBM's most popular connector from WebSphere to CICS
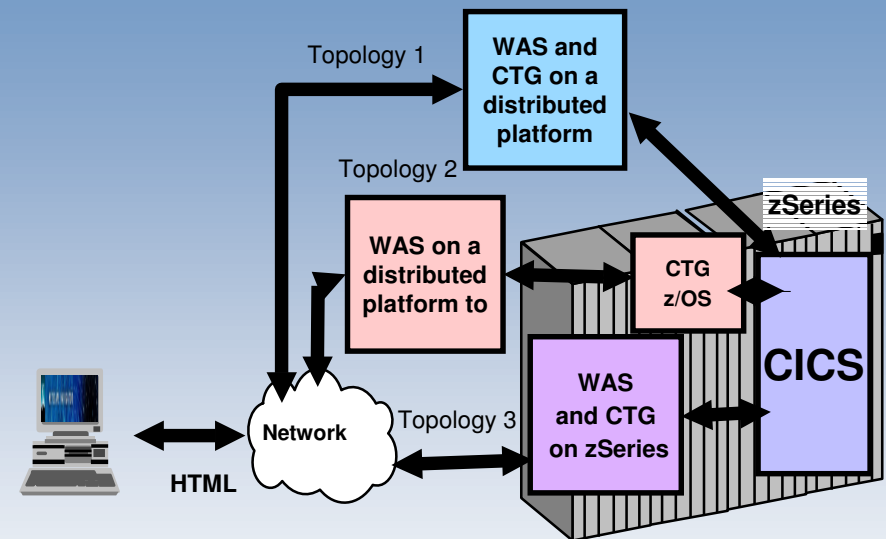
2006: System Monitoring V7.0

- A window into the 'black box' providing capacity planning and problem determination

- End to End Automation

- Reliability, availability and serviceability enhancements to TCP/IP (IPv6, WLM)

2007: JCA Support for CICS TS Containers/Channels V7.1

- Passing of greater than 32KB of data through the CICS TG enabling fuller SOA participation

- Advanced Monitoring and Statistics

Topology 1

WAS and CTG on a distributed platform

Topology 2

zSeries

WAS on a distributed platform to

CTG z/OS

Network

Topology 3

WAS and CTG on zSeries

CICS

HTML

WebSphere Developer for System z (WDz)
Develop composite enterprise applications

- **What is WDz?**

  ▪ **The IDE speeding modern composite (SOA) application development – linking WAS and core system z processing**..

- **Link with Themes**

  ▪ **Enterprise Modernization**
  - Supports common IDE for COBOL, PL/I, Java, and web services development
  - Transforms UML to COBOL
  - Provides interactive access to z/OS for development, debug, job generation, submission, monitoring, command execution

  ▪ **SOA**
  - Enables CICS and IMS applications for web services and SOA
  - Supports for J2EE, JCA, XML, web services

  ▪ **IT Governance**
  - Supports the full application lifecycle – model, architect, develop, test, deploy, manage

- **Value Proposition**

  For System z customers looking for a flexible architecture and modern development environment that supports composite application workloads integrating COBOL, PL/1, ASM, Java, web services, CICS, and IMS, IBM provides a complete solution in WDz.

- **Pricing**

  ▪ $5500 per developer seat
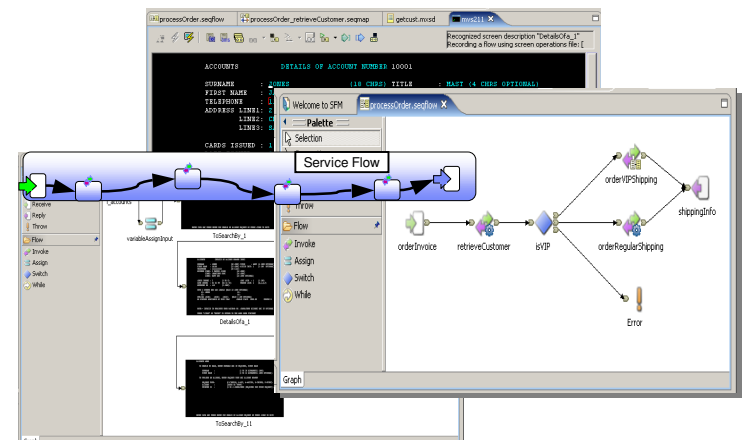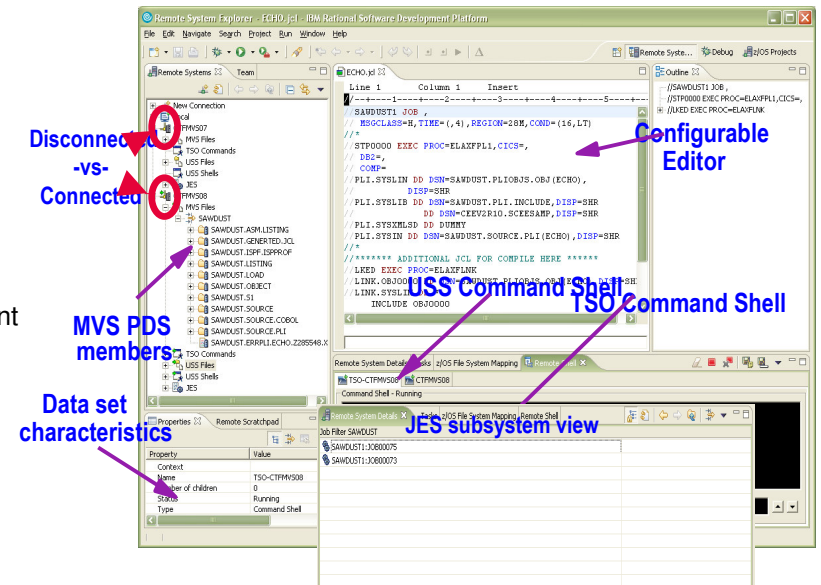
AD Tools to support CICS TS V3.2

Enhancement!   Service Flow Modeler in WebSphere Developer for zSeries

- **Compose multiple CICS transactions into high-level business services through visual modeling**

  - Easier installation and management

  - Invoke web services from a flow

  - Support for channels and containers

- **The CICS Service Flow Feature is a no-charge, orderable feature**

Includes 10 copies of WD4z v7 Service Flow Modeller/XSE along with CICS Service Flow runtime

A business service integration adapter for all CICS applications

Host Access Transformation Services – Lightweight refacing and integration of CICS terminal applications

- Exploits security & scalability of WAS and WebSphere Portal

- Host screens are converted to GUIs on the fly, in real time

- Improved navigation of host application

- Zero footprint on the desktop with Web deployment

- Support deployment to Rich Client

- Combine screens and data from multiple applications

- Eliminates need to customize every screen

- Generate Web services from host transactions

- Requires Websphere

CICS TS V3.2 Complementary Tools

Application Lifecycle

Debug Tool Utilities AF V7
Source code and subsystem debugging

Fault Analyzer V7
rapidly pinpoint cause of failed application (abends)

IBM CICS Interdependency Analyzer for z/OS V2.1
Day 1 toleration PTF for new and updated API and SPI commands in CICS TS V3.2 will also assist migration to CICS TS 3.2 by highlighting those applications currently running in previous versions of CICS which are most sensitive to CICS TS 3.2 changes.
A subsequent PTF for CICS IA 2.1 will provide exploitation of new and changed CICS TS V3.2 API and SPI commands.
Later in 2007, CICS IA V2.2 will identify candidate applications that are suitable for exposure as Web Services and provide integration with CICS CM and WSAA

Data Management

IBM CICS VSAM Recovery for z/OS V2.1
New version will provide toleration and exploitation support of CICS TS 3.2 within 30 days of its general availability. New capabilities include being able to run in thread-safe mode.

File Manager V7
Data management for VSAM, DB2, and IMS

File Export
Exporting related sets of DB2,
IMS, VSAM and sequential data

CICS TS V3.2 Complementary Tools

Performance & Tuning

IBM CICS Performance Analyzer for z/OS V2.1
New version provides Day 1 support & exploitation of CICS TS V3.2 including support for new SMF record formats, plus increased integration with OMEGAMON XE for CICS

Workload Simulator
Application stress and regression testing

Application Performance Analyzer (APA) V7
Isolate application performance bottlenecks

Operations Management

IBM CICS Configuration Manager for z/OS V1.2
Day 1 PTF provides toleration and exploitation of new and revised resource definitions in CICS TS 3.2

Batch Application Controller (CICS BAC)

VSAM Transparency
– Support PTF

On-line Transmission Time Optimizer (OTTO)

IBM Session Manager
– no support PTF required

Open Beta

First time ever an Open Beta Program for the new release of CICS TS V3.2

There will be no formal education for this beta, however educational documentation and presentations will be made available via a download site.

Objectives
To give customers early access to the new function in CICS TS V3.2
   To provide feedback to development, Marketing & Strategy
   To test the code in various and unique environments
   To ensure that the code functions as designed and developed

- Link from the CICS TS V3.2 web site

The Objectives of CICS On-Demand Seminars

- **The CICS Seminar program presents to customers, at their site, a customised technical agenda of CICS TS and CICS tools.**

- **Convey our message about CICS TS and Tools to a wide audience and skill set (AD & System Programmers, Architects etc) at customers own location.**

- **Obtain customer references and statements in support of the SOA capabilities of the latest CICS release.**

- **Develop new workload on CICS; show customers how they can use the new features in the latest release to leverage their existing solutions**

- **Stimulate Migration; bring as many customers as possible up to date with the latest release of CICS TS. Opportunity to sell Tools.**

IBM SOA Success Stories

Wrap up

More information www.ibm.com/cics-White papers, presentations, Demos
Ann March 27th 2007
GA June 29th 2007
Register your clients for the Open Beta
Impact 2007

CICS TS V3.2 is a balanced release that delivers on the promise of SOA and the mainframe Charter. It offers new capabilities to take advantage of SOA technologies, as well as rich improvements for traditional workloads. It provides an efficient and optimized runtime for the extension and reuse of your valuable CICS applications. Developers benefit from new and enhanced features that ease application development. IT operations benefits from first class management and support of mixed application types and workloads.

For Additional Information

Debbie Cass

WebSphere Analyst Relations

905-413-5909

dcass@ca.ibm.com