

# **Keynote and CICS Family Update**



Dave Andrews IBM

Monday 2<sup>nd</sup> August 2010





**SHARE** in Boston

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# **Agenda – CICS Family Update**

- New zEnterprise announcement
- CICS Product Family Updates
  - CICS TS V4
    - ILOG Rules support
    - CICS Events
    - CICS Atom Support
    - CICS Dynamic Scripting
  - TXSeries
  - CICS Transaction Gateway V8
  - CICS Explorer
  - CICS Deployment Assistant



## IBM zEnterprise System – Best in Class Systems and Software **Technologies**



A system of systems that unifies IT for predictable service delivery



Unified management for a smarter system: **zEnterprise Unified Resource Manager** 

The world's fastest and most scalable system: **IBM zEnterprise**<sup>™</sup> 196 (z196)

- Ideal for large scale data and transaction serving and mission critical applications
- Most efficient platform for Large-scale Linux® consolidation
- Leveraging a large portfolio of z/OS® and Linux on System z applications
- Capable of massive scale up, over 50 Billion Instructions per Second (BIPS)

- Part of the IBM System Director family. provides platform, hardware and workload management
- Unifies management of resources, extending IBM System z® qualities of service across the infrastructure

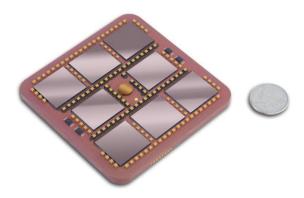


Scale out to a trillion instructions per second: **IBM zEnterprise** BladeCenter® Extension (zBX)

- Selected IBM POWER7<sup>™</sup> blades and IBM System x® Blades<sup>1</sup> for tens of thousands of AIX® and Linux applications
- High performance optimizers and appliances to accelerate time to insight and reduce cost
- Dedicated high performance private network

## **IBM zEnterprise System and CICS**

- •96 total cores running at 5.2 GHz
- •New Instructions particularly advantageous for Java workload
- •Delivers up to 60% improvement in performance and total capacity compared z10 EC





#### **CICS Benefits**

- •Existing applications get immediate throughput benefit
- •CICS Java applications can exploit new z-Instuctions



## IBM zEnterprise BladeCenter Extension and CICS



- Expanded ISV support for enterprise applications
- √ Targeted for applications that interact with mainframe data and transactions
- ✓ Provisioned and managed by System z

#### **CICS Benefits**

•Consolidation point for TXSeries and CICS Transaction Gateway servers







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## **CICS Future Directions**

- 1. Build a enterprise level transaction processing platform
  - Supports Traditional CICS values of quality, performance and reliability
  - Supports Enterprise Modernization through
    - Mixed programming languages
    - Modern programming architectures (SOA, Web2.0 etc)
- 2. Simplify management and reduce skills needs for CICS system programmers and application programmers
- 3. Encourage a vibrant partner ecosystem and community
- 4. Extend reach to emerging geographies and new customers



# **Driving Agility while Optimizing Costs**



#### **Business Needs**

Core Capabilities

"Ensure applications consistently deliver on business needs in all situations"



Rock Solid SOA Application Infrastructure

"Provide access and links into the heart of the enterprise"



Connectivity & Integration

"Quickly adapt and respond to changing customer expectations and business demands"



Dynamic Application Platform

# The CICS Family



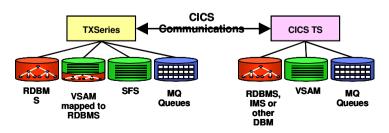
## **CICS Transaction Server**

The worlds most popular transaction processor



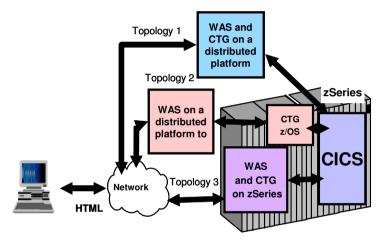
## **TXSeries**

IBM's popular distributed CICS offering



# **CICS** Transaction Gateway

The most popular connector from WebSphere to CICS



## **CICS Tools**

Optimise Management of CICS Transform and Reuse CICS Applications CICS Governance and Compliance





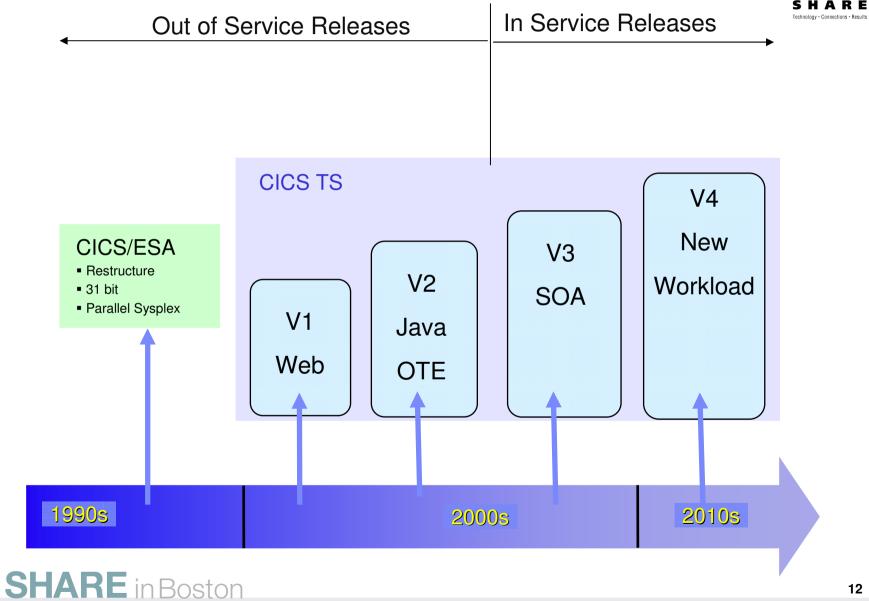
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# **CICS** Transaction Server





# CICS V4.1 - Rock Solid SOA Application Infrastructure

Control

Compe

CICS TS



Announced: April 09

Generally Available: June 09

#### **Customer References:**

• John Lewis, BCX, DATEV, SEB

#### **ISV** support:

•http://www.ibm.com/software/htp/cics/partners.html

#### **CICS Explorer**

Enhanced CICSPlex SM workload management

New SPI commands for managing the CSD

Performance Improvements

MQ Group Attach

Discovery Library Adapter

IPV6

Large file hosting

**IPIC Transaction Routing** 

**Application Bundles** 

Improvements to XML parsing

Service Component Architecture

Web Services Addressing

### **Business events**

#### **Atom feeds**

Web Services Addressing

WebSphere Registry & Repository Support

Support for distributed identities

Resource signatures

Comply



#### **Atom feeds**

RESTful interfaces

Service Component Architecture

Java 6



# **ILOG BRMS System z Options**



## Many existing CICS applications embed rules logic

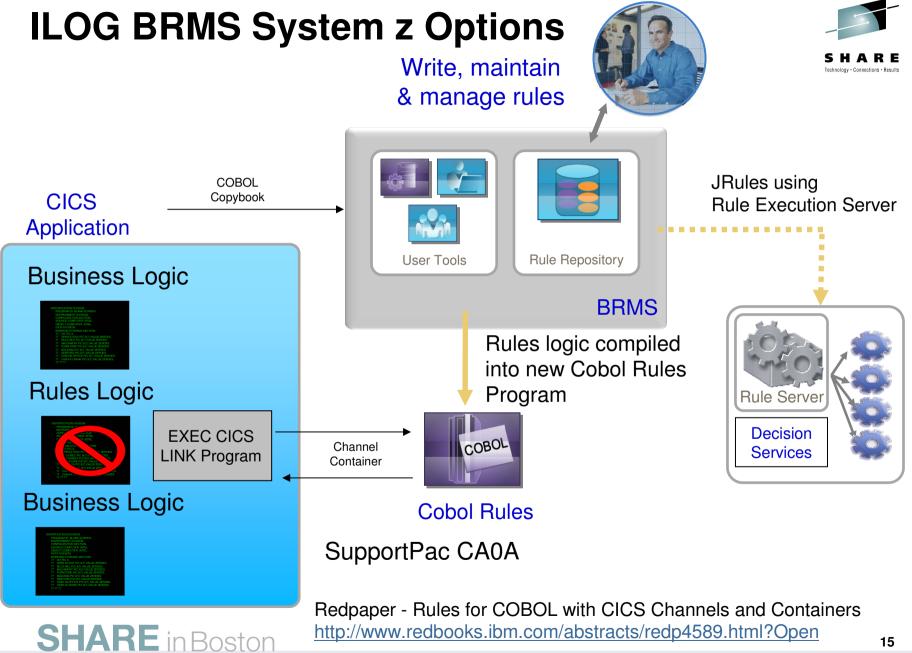
CICS Application

Business Logic

Very entered in the control of the

#### Issues

- Rules are hidden in code or isolated within the organization
- Changes are hard to track and maintain over time
- Rules used by systems have to be programmed and require IT resources
- Duplication and multiple versions of the same rules
- Lack of auditability, traceability
- Decision changes cannot be easily tested or simulated



# Transform Insight into Action with CICS Events and WebSphere Business Events

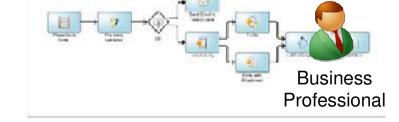




Key Business information can be externalized from critical Applications as execution occurs to

- Immediately update business views
- Trigger other business behaviours

#### NO APPLICATION CHANGE REQUIRED

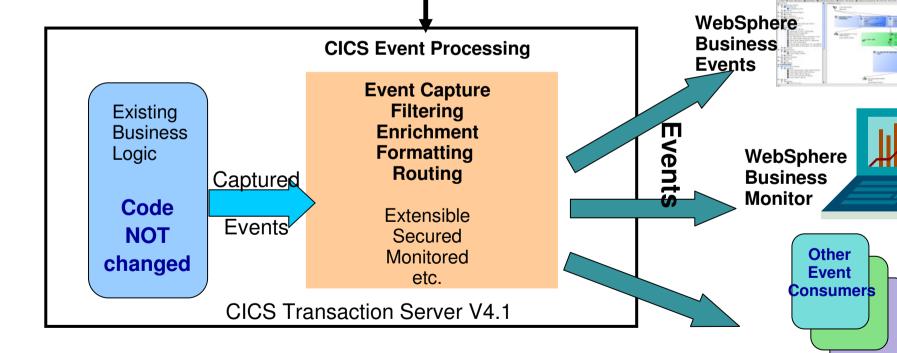




# **CICS and Event Processing**



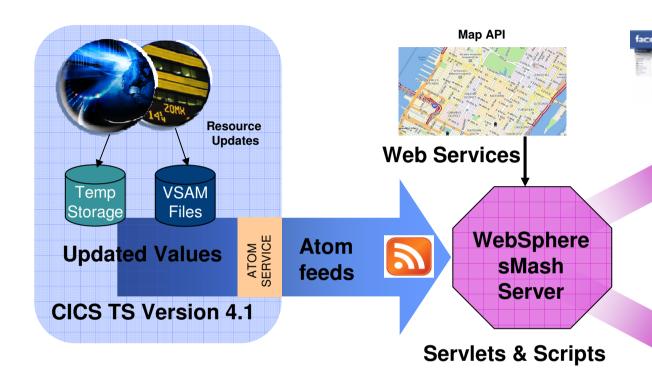




# **CICS Web 2.0 ATOM Feed**







Business Professional

Rick Web Client Devices

Web Browsers



Consumers

CICS File and TS resources made available as RSS feed

- •Rapidly included as a standard information source
- Naturally integrated with other live data sources
- Available in standard web developer tool kits

#### NO APPLICATION CHANGE REQUIRED

•In CICS V3, use SupportPac CA8K to generate ATOM feeds

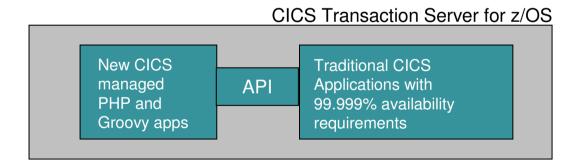


# **CICS Dynamic Scripting**



## Announce April 30th 2010, GA June 25th 2010

- Increase the agility and productivity of CICS Application and System developers
  - Enabling them to respond in days, rather than weeks or months
  - Without compromising the integrity of the core business systems
- New Dynamic Scripting Feature Pack for CICS
  - that embeds and integrates Project Zero technology into CICS TS
  - providing a CICS based runtime for PHP and Groovy applications.

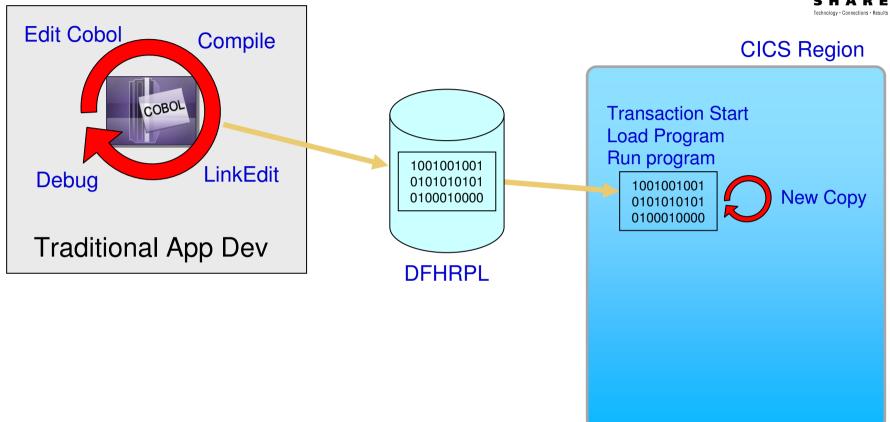




# **CICS Dynamic Scripting Feature Pack V1.0**



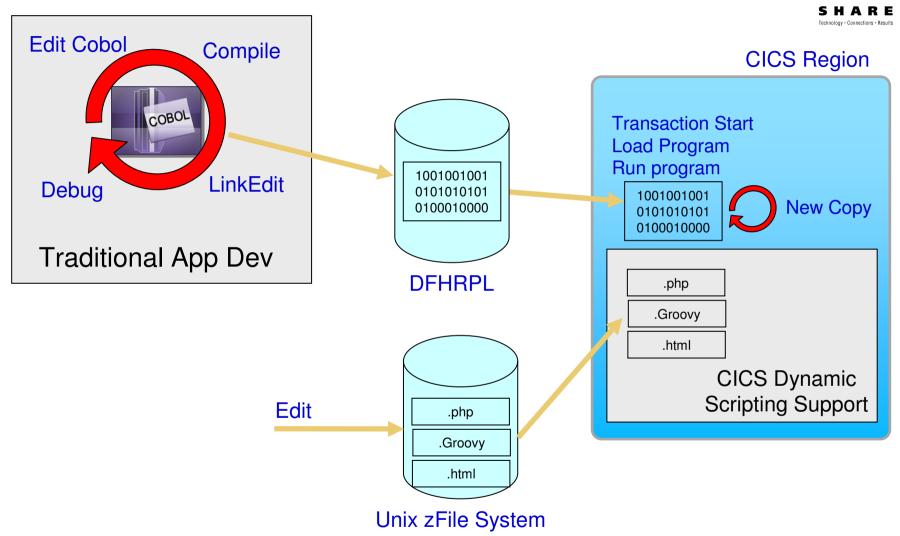






# **CICS Dynamic Scripting Feature Pack V1.0**









# Lab Performance of Dynamic Scripting in CICS

- 3 hour test using HTTP and HTTPS.
  - 250 HTTPS clients & 100 HTTP clients.
  - The HTTPS clients read 12,150 MB of data, and wrote 1,121MB & The HTTP clients read 3,417 MB of data, and wrote 301MB.
- One CICS region, MXT=500, JVMSERVER Threads set to 50.
  - At the end of the test, we had 4.2 million tasks, a transaction rate of 326.59 per second.



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# TXSeries for Multiplatforms V7.1

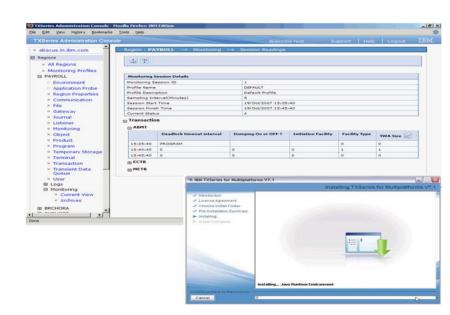


#### **Key Characteristics:**

- •An application deployment platform for C, C++, Java, COBOL and PL/I applications
- Supports a wide subset of CICS API
- Integrated inside RDz as part of a local application development environment

#### **New with TXSeries V7.1**

- Simplified Interoperability with CICS and CTG over TCP/IP
- Support for Channels and Containers
- Enhanced TXSeries Admin Console
- Improved system resilience and debugging
  - Memory isolation
  - Task history logging
  - Performance Probe



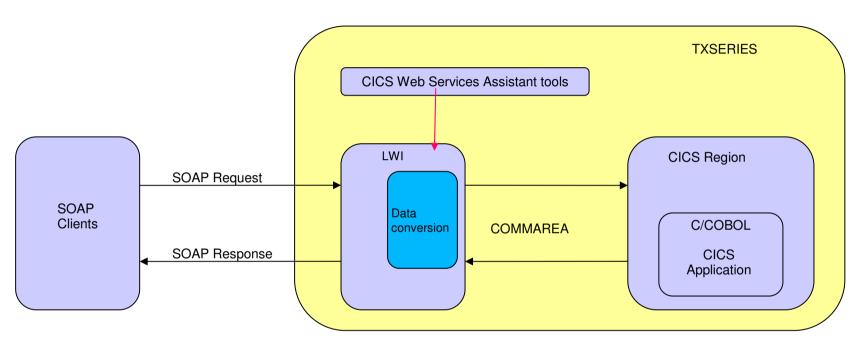
Free Evaluation trial available



## TXSeries In-bound SOAP supportPac

Available November 2009





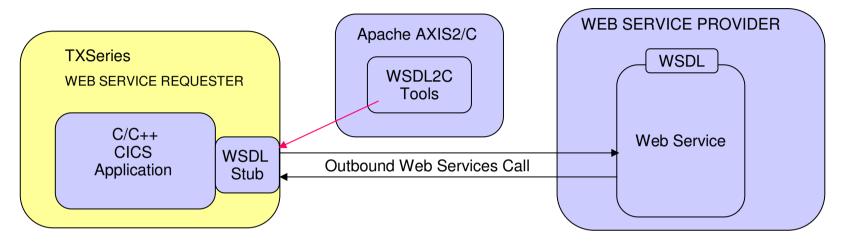
- CICS Web Services Assistant Tools generate WSDL & WSBind files from the C structure or COBOL copybook.
- •LWI (Light Weight Infrastructure) uses the WSBind file for generating COMMAREA from SOAP request and vice-versa.



# TXSeries Out-bound SOAP support

Developer Works Article Available





- WSDL2C Tools provided by the Apache AXIS2/C are used to generate stub files from a WSDL.
- C/C++ CICS applications calls these stub API functions to invoke Web service.
- •Development methodology explained in the dW article.

#### Notes:

- COBOL CICS applications cannot be used to invoke Web services since AXIS2/C does not support COBOL programming language.
- AXIS2/C does not support on AIX platform.
- COMMAREA Data conversion is applications responsibility. No explicit support for this.
- No EXEC CICS style APIs. So the coding has to be more on C style
- No Transaction support.



## **TXSeries for Multiplatforms**

#### Recent SupportPac Enhancements

# SHARE Technology · Connections · Results

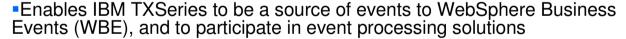
#### IBM Migration Assistant for Oracle Tuxedo – CE01

Released: 6Jul10

- Enables Oracle Tuxedo applications to be seamlessly migrated to IBM TXSeries for Multiplatforms
- No Application changes required
- •Minimal changes required to the application's build process.

#### TXSeries Business Events SupportPac – CB01

Released: 15Jun10



- Small changes required to your TXSeries application code
- Similar to Event Processing supportpac for CICS TS V3









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# CICS Transaction Gateway V8.0

Extending Access to CICS Transactions

## Announced April 27th 2010, GA May 21st 2010

### Enable your CICS Investment for SOA through CICS TG

- Scalable Adapter/Connector that enables modernization of CICS Applications for both J2EE and .NET environments
- High performance, high scalability, and maximum system availability
- Available on z/OS, AIX, Windows, Linux, Solaris & HPUX
- Industry proven in over 1,500 customer installations

"We tested the new CTG V8.0 High Availability exit where you can now, dynamically, modify the list of CICS Servers a CTG can target, without the need to recycle the Gateway.

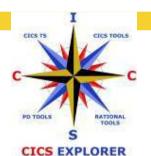
We also tested the complement of **related commands** to list and reset the CICS Server array and to control the level of message logging performed by the gateway.

We are **very impressed** with this new functionality. It has provided, precisely, what we were looking for, in terms of dynamic control of our CTG to CICS routing."

David Jones, Aetna

"We tested the **new exits** which give an out of the box capability for high availability / failover and request validation and an easy template to customise these for further requirements. "We tested the CICS TG **explorer plugin** which offers a quickly implemented alternative to running a full monitoring solution for CTG / ZOS and CTG / AIX"

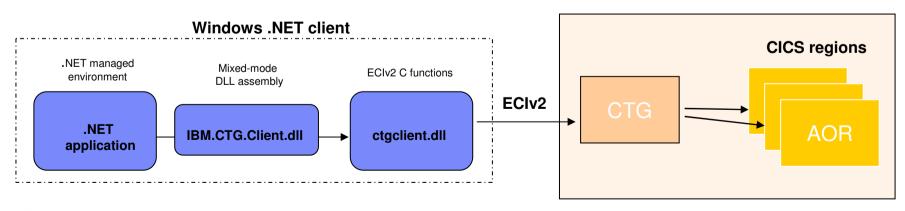
**US Healthcare Provider** 



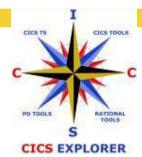
# **CICS TG V8.0 .NET Application Support**



- ECI v2 .NET API
  - .NET API for ECI calls to CICS
  - Allows CTG ECI v2 APIs to be used in .NET managed runtime for C#, C++ or VB.NET applications
- .NET Tutorial
  - Demonstrates how to use CTG/CUC ECI v1 APIs usage in .NET managed runtime
  - Category2 SupportPac

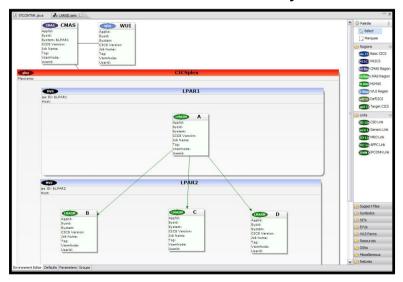


# CICS TG V8.0 Explorer and Embedded



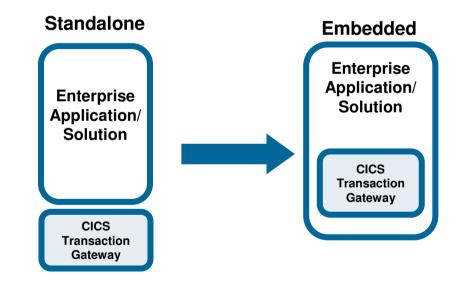
# CICS Explorer Support

Enhanced integration with CICS
 Explorer for easier management of CICS Transaction Gateway resources



# **Embeddable Version**

 Embedded version available for CICS Transaction Gateway V7.2 and V8.0



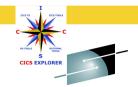




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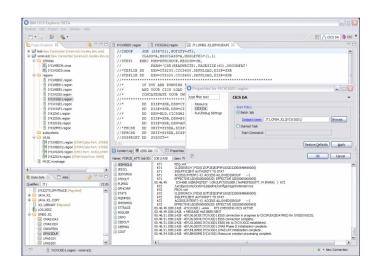


## IBM CICS Explorer - The New Face of CICS

- Modern Eclipse based Tool (Windows and Linux)
  - Free entitlement with CICS TS V3 and V4
  - Delivers revolutionary integration of development, administrative, and operations tools
  - Aimed at CICS system programmers to provide a Systems Management alternative to the 'Green Screen'
  - Designed for both new and experienced CICS users
  - Improves the overall effectiveness of CICS System Programmers
  - Reduces the cost of ownership for key CICS applications
- Experience gets Richer when used later versions of CICS Products

#### Coming soon in CICS Explorer V1.0.1

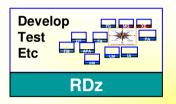
- System z perspective and APIs
  - View/edit zOS datasets and zFS files
  - View/edit/submit JCL
  - View completed JES spool output
  - View completed job log
  - Hyperlink quickly from DD statements to named datasets
- Connection import/export





# **IBM CICS Explorer**™





CICS, IMS, DB2, & z/OS Abend Reporting & Diagnosis

CICS, IMS, DB2, & z/OS Application Debugging CICS, IMS, DB2, & z/OS Observation Requests & Reporting Configuration Status Control, Test MQ

Daemon &
Connection
Status & Test



CRUD/Install Control, Filter Topology Events, ATOM

Deployment
Discovery,
Visualization,
Automation & Control
DA

Status Situations Topology XE

> Threadsafe, File, CPU, Response Time analysis Graphical and Sheet views

> > PA

CRUD/Install History, Audit Backout Search, Compare Execution Tree Dependencies Queries Command Flow

IA

Servers Agents

CICS TS



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# **CICS Deployment Assistant?**





SHARE

Announced: 22 July '10 GA: 24 Sep '10

New IBM tool for CICS TS V3 and V4

- Host Components
- CICS Explorer Plug-in

Discover and create offline model for CICS configurations

- Start-up Options
- Connectivity relationships
- Sub-system dependencies

Visualize and Update CICS Systems

- Compare model to 'live' CICS system
- Clone existing systems or start new CICS regions

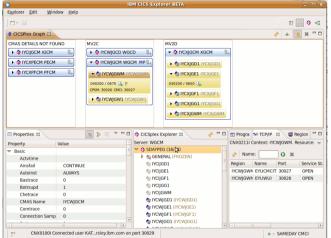
Exploits CICS Explorer V1.01 enhancements

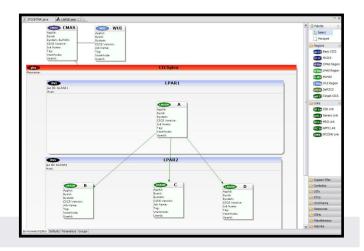
- View and work with JCL, Spool Files and Host Datasets
- Issue MVS Commands

More info at <a href="http://ibm.com/cics/da">http://ibm.com/cics/da</a>











## **Intended Capabilities -**

## Discovery Creation of model from customer's running system. CICS Artifacts and bindings to other systems and resources

# Policy Expert Apply IBM and customer

policies for best practice.

Compliance checking and enforcement.

## Deployment

Deployment of resources as specified in a model according to chosen policies.

## Mode (CICS specific)

Applications, Systems, Topologies, Policies,

**Annotations** 

### Foundation

Visualization, comparison, editing, versioning, sharing, server support ...







# **Summary**





# **Reference Material**

- CICS Communities
- CICS Development Services
- CICS On Demand Seminars

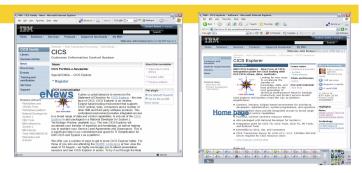


#### **CICS Communities**

- CICS home page
  - Remember this link <a href="www.ibm.com/cics">www.ibm.com/cics</a>
- CICS eNews
  - Subscribe for news about CICS and related products
- Twitter
  - Subscribe to the <a href="IBM System z channel">IBM System z channel</a> to get CICS Explorer news flashes
- CICS Blog
  - Comment and opinion at TheMasterTerminal.com
- YouTube channels
  - <u>CICS Explorer</u> Videc stuff
  - CICSFluff Other CIC
- CICS Facebook











## **CICS Development Technical Services**

Helping to solve Business Problems and exploiting new Business Opportunities



Engage the IBM Hursley CICS development team to ensure that you get the maximum value from your CICS investments.

Consultants are now available via a funded services engagement directly from CICS development providing a complete range of CICS services - no one has more experience!

• For more information please contact: CICSDTS@uk.ibm.com



## **CICS On Demand Seminars**

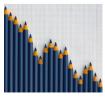
Free customised technical agenda of CICS TS and CICS tools products

· Web Services, Events, Web 2.0, version upgrades, tooling etc.

Targeted at AD, System Programmers and Architects 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

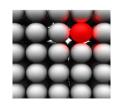
For more information please contact: cicssem@uk.ibm.com













#### **CICS Development Technical Services**

#### Upgrade Services

• Efficiently update your CICS environment to the latest version to exploit new CICS features such as: Web services, IP connectivity, CICS Explorer, Event Processing, Web 2.0, Atom Feeds and PHP scripting in CICS

#### System Health Check

• Ensures that your CICS environment is functioning optimally. Our Best Practice Review will check your CICS configuration parameters and values and provide a report with recommendations to improve the running of your CICS business systems

#### Security and Governance

This services helps you assess and ensure the security and compliance of your CICS assets. We provide a security and vulnerability
 Risk Assessment and make recommendations of how best to secure your CICS assets

#### Performance Optimization

 Get the most out of your environment, improved performance equals lower cost. We review CICS performance data from SMF records and/or CICS tooling to provide tuning recommendations and Capacity Planning advice

#### Web Services Enablement

Unlock and re-use your CICS business assets in the connected world of SOA. We provide education and implementation for CICS
Web services support including Rational Developer for z tooling. We can help with identifying assets for re-use in an application and
legacy modernization project

#### Integration and Connectivity

We provide consultancy for migration from SNA to IP connectivity as well as using connection technologies such as the CICS
 Transaction Gateway and Web services to provide the availability of your CICS business assets to a wider audience in an SOA

#### Systems Management

• Our Systems Management offering is aimed at ensuring that your CICS environment is being managed to Best Practice standards. The engagement may range from a short analysis of the CICS Systems Management tools techniques used in your enterprise, to a full implementation of CICSPlex SM, CICS Explorer and other IBM CICS Systems Management products

#### **Customized Workshops**

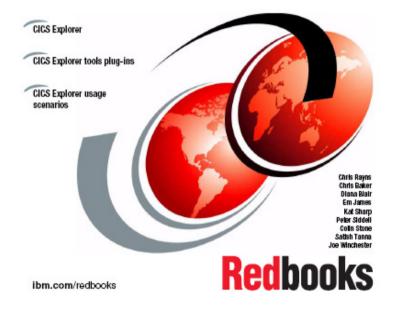
• We offer Customized Workshops to meet your education needs for the CICS Family of products. These workshops are staffed by senior CICS developers and can be run either at your location, or at an IBM location that meets with your preference.

## New CICS Explorer Redbook - SG24-7778-00



- This Redbook® focuses on the new CICS Explorer
- The first part of the Redbook overviews the CICS Explorer, along with all the CICS Tools plug-ins
- The second part of the Redbook focuses on different scenarios in which the CICS Explorer can be used, along with the CICS Tools plug-ins to resolve different problems
- http://www.redbooks.ibm.com/redpiec es/abstracts/sg247778.html

# CICS Explorer



"RedBooks are very good, this one is just **Excelsissimus**!

I can't wait for the final!"

customer feedback on public review draft



# **New CICS Tools analyst white paper**

- Branham Group interviewed CICS Tools customers, with
  - •CICS Interdependency Analyzer
  - CICS Performance Analyzer
  - CICS Configuration Manager
- Common business value propositions emerged, including the following examples of achievable cost savings:
  - 75% time savings for the identification, coding, and testing of CPSM rules, in some cases equating to the recovery of a whole month in time savings for a major affinity.
  - •90+% time savings to identify and validate typical performance issue related changes.
  - 66% less time on average to administer CICS Service Definition changes, which happen on a daily basis.
  - 2%-15% CPU cycles recovered through the designation of CICS applications as threadsafe

IBM CICS Tools: Unrealized Productivity Gains and True Cost Savings

June 2009



http://www-01.ibm.com/software/sw-library/en\_US/detail/W673317J82076R27.html



# **Strengthening CICS User Communities**



- Worldwide User Groups and Events <u>www.ibm.com/cics/events</u>
  - USA,
    - Impact, SHARE
  - Europe,
    - CICS User Groups, Transaction and Messaging conference, GSE Nordic
  - Japan,
    - IBM Z World
  - Korea, China, Brazil, India
    - CICS User Groups
- CICS Home Page <u>www.ibm.com/cics</u>
  - First place to look for CICS information
  - Product details and announcements



- CICS Electronic News <u>www.ibm.com/cics/enews</u>
- Subscribe for news about CICS and related products



## **Modern Customer Interaction**



- Twitter News feed and updates http://twitter.com/IBM\_System\_z
- CICS Blog Comment and Answers http://themasterterminal.com
- YouTube channels Videos,demos http://www.youtube.com/user/CICSExplorer http://www.youtube.com/CICSfluff
- CICS Facebook
  - http://www.facebook.com/group.php?gid= 4907254593
- CICS Hub at the Rational Cobol Café
- http://www.ibm.com/software/rational/caf e/community/cobol/cics







# Thank You

