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"CICS Transaction Server V5.1 open beta"

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IBM – United States

http://www.ibm.com/software/cics/openbeta/

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. WebSphere Business Monitor
. WebSphere platform

The IBM® CICS® Transaction Server for z/OS® (CICS TS) V5.1 open beta introduces cloud-style CICS development, deployment, and operations.

This is achieved by delivering new Platform as a Service (PaaS) capabilities that can be used to host Software as a Service (SaaS)-based CICS applications. Foundational advancements in both capability and scalability will allow CICS applications to do more, more easily.

Cloud computing is transforming the way people think about information technology. CICS TS V5.1 open beta now introduces cloud-style development, deployment, and operations to the CICS platform, giving you the opportunity to evaluate these capabilities, determine their relevance to your enterprise, and provide feedback to IBM on the concept and implementation.

. The combination of new Application, Platform, and Policy definitions will greatly simplify the assembly, deployment, and life-cycle management of CICS applications, delivering many of the characteristics found in private-cloud systems. CICS TS V5.1 open beta gives you the opportunity to explore the concept of a cloud-style CICS deployment in your own environment.

. Support has been added for a fast and lightweight Java web container, built on WebSphere Application Server Liberty profile technology, which implements the Java Servlet and JavaServer Pages (JSP) specifications, enabling you to co-locate your web and business applications.

. A wide range of foundational improvements have been added, including support for Java 7 and further 64 bit exploitation. Event processing is expanded by new WRITE OPERATOR and message capture points, and a new capability to emit a single event to multiple adapters.

. The CICS-WebSphere MQ dynamic program link (DPL) bridge has been enhanced to pass data using containers, increasing the amount of data that can be passed and broadening the solutions in which it can be used.

CICS TS V5.1 open beta also introduces a number of enhancements to make operations easier and more transparent:

. Statistics and monitoring records are enhanced to provide more information that relates to the load, capacity, and performance of the system.

. Better defaults for startup parameters and new messages that audit online configuration changes.

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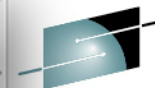Or call us at: 877-426-3774
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Learn more
Demo - Creating a CICS Application for a Cloud Environment (00:05:57)
Demo - Creating a CICS Platform for a Cloud Environment (00:15:18)
→ Announcement Letter
Data Sheet (210KB)
CICS TS V5.1 Open Beta Podcast (MP3, 00:06:51, 4.7MB)

Downloads
→ CICS TS V5.1 open beta download site

Communities
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Agenda

"CICS TS V5.1 open beta" overview

The new CICS information center and future directions

Platform as a Service (PaaS) Demo

Feedback

Matthew Webster

"CICS TS V5.1 open beta" overview

Highlights

- Platform as a Service (PaaS)
- Scalability
- Foundation

Platform

- What is a CICS Platform?
    - A grouping of selected CICSPlex SM managed regions
        - Consists of different region types
            - *e.g. TOR, AOR, FOR*
        - Deploy, manage and control the platform as a single entity
            - *CPSM System Group (CSYSGRP) typically consists of a single region type*
- What is a CICS Region Type?
    - A grouping of like regions where an application can be deployed
        - Part of the Platform Definition

Application Packaging

- Create & deploy the application
  - Use the CICS Explorer to define the resources, dependencies and application code for a CICS application
  - Create an Application Bundle Project that describes the application
    - Application name, description and version
    - References to CICS bundles
  - Allows you to manage the application as a single entity
  - Bundle resource definitions
  - Import resource dependencies

Application Life-cycle

- ## INSTALL & ENABLE the application
  - Additional resources that can now be defined in a BUNDLE
    - *PROGRAM*
    - *URIMAP*
    - *LIBRARY*
    - *TRANSACTION*

  - ## Measured application usage
    - *Define entry points for applications operations*
      - *CICS will associate tasks with those entry points to the operation*
    - *Application context data recorded in the CICS monitoring records*

  - ## Policies for Applications
    - Allows thresholds to be set for resource consumption and actions to be taken when the threshold is exceeded
    - Scope is an application or operations within an application

Application Context

- Measure Application Use
  - Associate CICS tasks with an application
    - Define application entry point on a BUNDLE program definition
    - Define application entry point with SET PROGRAM OPERATION
      - *Only sets the OPERATION attribute*
  - Application can comprise one or more tasks in different regions
    - Application context will flow between regions
      - *MRO and IPIC connected regions*
  - Application context data will be included in monitoring data
    - Application name, Platform, Version, Operation

Policy

- Control application resource consumption
  - Define rules that apply to Platforms and Applications
  - Rule task consists of a:
    - Threshold
      - *Database (SQL)*
      - *File*
      - *Program (LINK)*
      - *Storage amount or number of requests*
      - *Time (CPU)*
    - Action to be taken when threshold is exceeded
      - *Issue message*
      - *Emit an event*
      - *Abend the task*

Policy

- Control application resource consumption
  - Scope of policies
    - Application scope
      - *Policy packaged in application bundle deployed to the platform*
      - *Applies to all user tasks that match platform, application and version*
      - *Operation scope*
        - *Applies to user tasks that match the operation*
  - Deployment
    - Packaged in an application bundle and deployed to the platform
    - Packed in a CICS bundle and installed in a region

Scalability

- Transient Data made threadsafe
    - EXEC CICS READQ   TD
    - EXEC CICS WRITEQ   TD
    - EXEC CICS DELETEQ TD
- Global User Exits must be threadsafe
    - XTDEREQ, XTDEREQC
    - XTDIN, XTDOUT
    - XTDREQ
- Function shipping over IPIC will use an Open TCB

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Scalability…

- 64 bit Support
  - New commands to obtain and release 64 bit storage
    - EXEC CICS GETMAIN64
    - EXEC CICS FREEMAIN64
  - Channel commands to utilize 64 bit storage
    - EXEC CICS GET64 CONTAINER
    - EXEC CICS PUT64 CONTAINER
  - Execution Diagnostic Facility (CEDF)
    - Supports AMODE(64) non LE assembler code
  - Command Level Interpreter (CECI)

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Scalability…

- 24 bit Virtual Storage Constraint Relief
  - Control blocks, modules and stack storage moved above the line
    - Transient Data
    - Journal Control
    - CEDF and CECI processing
    - DLI remote processing
    - CWTO, CIEP, CSNC, CSXM and the Mirror transactions
  - Mirror
    - Supplied mirror defined with TASKDATALOC(ANY)
      - *Will use 31 bit storage*
      - *AEZA or AZEC abend will occur if you DPL to a AMODE(24) program*
        - *Define your own mirror with TASKDATALOC(BELOW)*
        - *Change the application to be AMODE(31)*
  - User Exit Global Work Area
    - New GALOCATION parameter on the ENABLE PROGRAM command
      - *LOC24: GWA is in 24 bit storage (default)*
      - *LOC31: GWA is in 31 bit storage*
        - *DB2, MQ and DBCTL attaches now use LOC31*
    - GWA now aligned on a quadword boundary

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Foundation

- Security
  - SPI commands now audited to the CICS log for better accountability of configuration changes
    - SET, PERFORM, ENABLE, DISABLE, RESYNC
  - Logging on with VERIFY command can now use full RACF verification at least once a day
    - Ensures user IDs are always ready for audit, recorded as being used, and retained in your system
  - Distributed identities are now propagated for START command
    - Auditors can use the distributed identity associated with started tasks to find the identity of the user
  - SSL certificates and environment can be refresh online for improve 24x7 operation
    - New PERFORM SSL REBUILD command
  - SSL ciphers used are now recorded in SMF 110 records for better performance analysis

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Foundation …

- Communications
  - CICS-WebSphere MQ DPL bridge can use CONATAINERs – flexible, not restricted to 32 KB
  - Support execution diagnostic facility (EDF) over an IPIC connnection
  - New sample programs for autoinstall of IPIC connection resources for easier configuration
  - Batch programs can now call CICS regions in different XCFGROUPs dynamically
    - Enables moving CICS regions to their own XCFGROUP without re-coding batch programs

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Foundation – WAS Liberty Profile

- Support for WebSphere Application Server Liberty Profile

  - Lightweight WAS – configuration defines which features to load

  - WAS V8.5, released in April 2012

  - Runs in a JVM Server in CICS

  - Supplied and installed with CICS at no charge, with the restriction that it only runs dynamic web applications

    - Java Server Pages (JSP) and Servlets

  - Access to CICS functionality via JCICS API

  - Application lifecycle controlled via CICS Bundle support

  - Sample dynamic web applications supplied

Foundation – WAS Liberty Profile

- Development requirements

  - Download and install Eclipse IDE

    - **Help > Install New Software > Work with: All Available Sites**

  - Select Web, XML, Java EE and OSGi Enterprise Development and follow the wizard to install them.

  - Download and install the CICS Explorer SDK

  - Build and test the Servlet examples

The new CICS information center and future directions

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Introduction of a new information center structure

– The information center has been updated to use content types to structure how the information is displayed:

- The information center content types are generally task-oriented, for example; upgrading, configuring, and installing. Other content types include reference, scenario, and tutorial-based information. This structure means that there is no duplication in the navigation.

- The PDF library has not changed. A list of PDFs and a mapping of each PDF publication to where the content now sits in the top level navigation in a topic called "The CICS Transaction Server library: PDF and collections". Each PDF preface also includes this mapping.

- "Related resources" links have been added to top level and important topics

Example content type: Product overview

PDF and collections page

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Information Center home
- CICS Transaction Server for z/OS, Version 5.1 open beta
  - Product overview
  - What's new
  - Scenarios
  - Getting started
  - Installing
  - Upgrading
  - Configuring
  - Administering
  - Samples
  - Tutorials and demos
  - Developing applications
  - Developing system programs
  - Debugging
  - Deploying
  - Monitoring
  - Improving performance
  - Securing
  - Troubleshooting and support
  - Reference
  - Glossary
  - The CICS Transaction Server library: PDF and collections
- Discovery Library Adapter for CICS
- CICS Transaction Gateway for Multiplatforms V8.1
- CICS Transaction Gateway for z/OS V8.1
- CICS Service Flow Runtime
- CICS Batch Application Control for z/OS V1.1.1
- CICS Configuration Manager for z/OS V2.1
- CICS Interdependency Analyzer V3.2
- CICS Online Transmission Time Optimizer for z/OS
- CICS Performance Analyzer V3.2
- CICS VSAM Recovery for z/OS V4.3
- CICS VSAM Transparency for z/OS V2.1
- IBM Session Manager for z/OS V3.1
- REXX for CICS Transaction Server for VSE/ESA
- CICS Deployment Assistant for z/OS, V1.1

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CICS Transaction Server for z/OS, Version 5.1 open beta >

The CICS® Transaction Server library: PDF and collections

The CICS Information Center includes Portable Document Format (PDF) files and collections of information in the CICS library. You can view, print, and download either the collections in HTML format, or the PDFs as files.

See Working with PDF files for instructions on how to view, print, and download PDF files.

The topics that are contained in the PDFs and collections can also be found in the information center navigation.

Table 1. PDF publications in alphabetical order, with location of associated topics in the information center

Link to PDF publication or collection	Alternative location of information in the information center navigation
Application Programming Guide	• Developing applications • Debugging • Deploying
Application Programming Reference	Application development reference
Business Transaction Services	• Overview of BTS • Developing applications • Administering • Troubleshooting and support • System programming reference
C++ OO Class Libraries	• Hello World • Using the CICS foundation classes • Application development reference
CICS management client interface (CMCI) collection	• Configuring • Application development reference

Future direction: Preparing the way for IBM Knowledge Center

The proliferation of web content and integrated IBM solutions means that our clients:

– Spend too much time searching

– Spend too much time evaluating results

– Spend too much time determining if the information is relevant to their IT environments

– Have no way to filter information for their specific products and versions.

But what if you could…?

✓ Search and see all infocenter content, Redbooks, Tech Notes, demos, education, etc *all in one place*.

✓ Create and save a custom view of only the products and content you want.

✓ Log in to see saved views and recommendations.

✓ Create custom documents; download or share them.

✓ Subscribe to updates to information you care about.

✓ Rate and comment on information from IBM and other customers.

✓ Connect with experts.

IBM KC Release 1: Early Access Program

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Search Results

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Topic

Scenario: Using CICS in a cloud envirc
CICS can participate in a cloud environme
Topic relates to: Other Software, Software, CICS T

Technical solution
You can connect to CICS TS for z/OS, Ve
CICS Transaction Gateway (CICS TG) or a
Topic relates to: Other Software, Software, CICS T

Planning the solution
Review the topics in this section to unders
reasons why a business might want to foll
solution proposed by the scenario.
Topic relates to: Other Software, Software, CICS T

Business overview
A company wants to use a cloud network for its business applications to take advantage of the
scalability and availability of computing resources in a cloud environment.
Topic relates to: Other Software, Software, CICS TRANSACTION SERVER 4.2.0, CICS TRANSACTION SERVER

Virtual application pattern components
A virtual application pattern can contain two different components: a cloud component and a
policy. A cloud component represents a middleware service that is required by the virtual
application instance. A policy represents how a middleware service is configured during
deployment, including how the qualities of service are defined.
Topic relates to: IBM Data Mart Pattern, WebSphere, Information Management, Software, IBM Web Application
Pattern, Enterprise Content Management, Workload Deployer Support Registration, IBM Transactional Database
Pattern

Existing CICS Transaction Gateway
An existing CICS Transaction Gateway (TG) component represents a connection to an existing

▼ Filter | No filters are applied.

Find a filter

- ☐ Sterling External Authentication Server 2.4.1
- ☐ Lotus Sametime Entry 8.5.0
- ☐ IBM Systems Director 6.2.0
- ☐ IBM Systems Director 6.3.0
- ☐ CICS Transaction Gateway for z/OS 8.0.0
- ☐ CICS Transaction Gateway for z/OS 8.1.0
- ⊞ ☐ CICS Transaction Gateway for Multiplatforms 8.0.0
- ☐ CICS Transaction Gateway for Multiplatforms 8.1.0
- ☐ CICS TRANSACTION SERVER 4.1.0
- ☑ CICS TRANSACTION SERVER 4.2.0
- ⊞ ☐ Rational
- ⊞ ☐ Security Systems
- ⊞ ☐ Tivoli
- ⊞ ☐ WebSphere
- ⊞ ☐ System software

- ☐ AIX 7.1
- ⊟ ☐ Apple
  - ☐ Mac OS X
  - ☐ iPhone OS
- ⊟ ☐ HP
  - ☐ HP NonStop Operating System
  - ☐ HP OpenVMS
  - ☐ HP-UX
- ⊞ ☐ IBM i
- ⊞ ☐ Linux
- ⊞ ☐ Mobile
- ☐ OS/390
- ☐ Solaris
- ⊞ ☐ Windows
- ⊞ ☑ z/OS

- ⊟ ☐ Task
  - ☐ Administer the product
  - ☐ Apply fixes
  - ☐ Backup
  - ⊞ ☑ Configure
  - ☐ Download
  - ⊞ ☐ Install
  - ☐ Learn about
  - ⊞ ☐ Migrate
  - ☐ Plan
  - ☐ Recover
  - ☐ Restore
  - ☐ Troubleshoot
  - ☐ Uninstall
  - ☐ Upgrade

CICS TRANSACTION
SERVER 4.2.0

March 30,
2012

Messages and error
codes, API ...

☆☆☆☆☆

Workload Deployer
Support Registration

February 29,
2012

topic

☆☆☆☆☆

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Future capability: see content from all IBM sources

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	Title	Found in ▲	Product and version	Date published ▲	Rating
dW	BPM integration with Webform, Part 1...	BPM integration with Webform Series	IBM System p V2.1	Today	★★★★☆
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dW	BPM integration with Webform, Part 3...	BPM integration with Webform Series	IBM System p V2.1	Today	★★★★☆
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	System p installation	Collection 1	IBM System p V2.1	Today	★★★★☆
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	Nunc sem elit	Collection 2	IBM System p V2.1	Aug. 4, 2010	★★★★☆
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Redbook	sit amet ipsum dolor	Collection 4	IBM System p V2.1	Today	★★★☆☆
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What next?

- Please give us any feedback on the new information center structure and on IBM Knowledge Center

- More information available from the CICS booth

- Email me directly if you are interested in providing input to the design and testing of IBM Knowledge Center (sophie.mcmonagle@uk.ibm.com)

- Thanks for your time!

Matthew Webster

Demo

Geoff Pirie

FEEDBACK