IBM CICS Transaction Server for z/OS V5.1 open beta introduces cloud-style applications and cloud-style infrastructure

Table of contents

At a glance

CICS® Transaction Server for z/OS® (CICS TS) V5.1 open beta delivers cloud-like applications, platform management, and an enhanced transaction serving foundation. Specific areas of delivery are:

- New PaaS capabilities that can be used to host SaaS-based CICS applications.
- Foundational advancements in both capability and scalability enable CICS applications to do more, more easily.

CICS TS V5.1 open beta is available for download, direct from IBM® from the date of availability onwards, by visiting

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

For ordering, contact your IBM representative, an IBM Business Partner, or IBM Americas Call Centers at 800-IBM-CALL (Reference: LE001).

Overview

CICS Transaction Server for z/OS (CICS TS) V5.1 open beta introduces cloud-style CICS development, deployment, and operations, 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 that allow CICS applications to do more, more easily.

The combination of these two sets of capability areas will greatly simplify the assembly, deployment, and lifecycle management of CICS applications, delivering many of the characteristics found in private-cloud computing 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.

CICS TS V5.1 open beta is available for download, direct from IBM from the date of availability onwards, by visiting

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

New PaaS capabilities

Applications

The large set of disparate but interrelated resources that make up a business application within CICS can now be logically defined as a single entity and deployed to CICS as a single resource. An application that is defined in this way can then be managed as a single entity throughout its lifecycle, making CICS application management faster, easier, and less prone to error.

Platforms

To facilitate the deployment of the new application level resource, CICS TS V5.1 open beta introduces platform resources that deliver a simple layer of abstraction to decouple applications from the underlying region topology. This new deployment resource consists of a single platform, which contains one or more region types, each of which contains one or more regions.

Policies

In support of both applications and platforms, a new, dynamic policy-based management capability is introduced. The behavior of applications and platforms can be controlled during run time, based on predefined policies. These policies are enacted when tasks that are running exceeds certain predefined thresholds.

Capability and scalability advancements

CICS TS V5.1 open beta delivers significant vertical and horizontal scaling capabilities.

Support has been added for a fast and lightweight Java™ web container built on WebSphere® Application Server Liberty profile that implements the Java Servlet and JavaServer Pages (JSP) specifications.

Event processing is expanded by new WRITE OPERATOR and message capture points, and a new capability to emit an event to many adapters.

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

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 operations have been improved with better defaults for startup parameters and new messages that audit online configuration changes.

The IBM CICS Explorer® V5.1 open beta, included with the CICS TS V5.1 open beta, has been updated to include support for the new and enhanced capabilities of this CICS TS deliverable.

Key prerequisites

CICS TS V5.1 open beta runs on any IBM System z® machine that supports the required z/OS operating system.

Planned availability date

July 13, 2012

Description

A public open beta program is provided for CICS TS to introduce cloud-style CICS applications and platform management, built on top of a more scalable and capable transaction serving foundation.

New PaaS capabilities

Applications

The large set of disparate but interrelated resources that make up a business application within CICS can now be logically defined as a single entity and deployed to CICS as a single resource. An application that is defined in this way can then be managed as a single entity throughout its lifecycle.

- Dependency management is handled by CICS, and multiple applications can share individual resources.
- Applications can be monitored as a logical whole, helping users to manage resource usage and process internal charge-back billings.
- The ability to drill down to the resource consumption of individual resources is simplified.
- Problem determination can be undertaken in the same manner, starting with the overall application and drilling down to individual tasks and resources.

After an application is no longer required, it can be deprovisioned in its entirety by uninstalling a single application resource. Shared resources that are required by other applications are not affected.

Platforms

To facilitate the deployment of a new application level resource, CICS introduces the concept of a platform. Platforms are new CICS resources that deliver a simple layer of abstraction to decouple applications from the underlying region topology. This new deployment resource consists of a single platform, which contains one or more region types, each of which contains one or more regions. Newly created and existing regions with similar or identical properties can be grouped together as region types within a platform. Artifacts and resources within an application can be both dynamically deployed to the relevant region types within a platform and removed again when no longer needed. Regions within a platform can be

initialized or shut down as necessary to meet fluctuations in capacity requirements. An application can take advantage of these changes without requiring further configuration, and without interruption to the application.

Policies

A new, dynamic policy-based management capability is introduced in support of both applications and platforms. Policies enable the behavior of applications and platforms to be managed by determining whether tasks running as part of a platform, as an application, or as types of operation within an application, exceed certain predefined thresholds. After a threshold is exceeded, CICS can issue a message, or abend the task with a specific abend. Additionally, policies can be defined to trigger one or more CICS events, which can in turn initiate other actions.

The types of thresholds that can be defined include those based on the amount of above-the-line storage used by a task and the number of times a task accesses IBM DB2® or a file. A policy can be applied to any combination of applications and platforms. Additionally, policies can also be deployed into a single region, independently of defining a platform. Policies are applied dynamically during production operations.

Capability and scalability advancements

CICS TS V5.1 open beta delivers significant vertical and horizontal scaling capabilities that enable more efficient and robust handling of larger workloads, and provides opportunity to 'right size' and simplify CICS topologies. This includes greater use of 64-bit storage, an increase in the maximum number of concurrent user tasks to 2000, and thread safe access to CICS Transient Data Queues (TDQs).

CICS TS V5.1 open beta offers a fast and lightweight Java web container, providing developers with the rich features of Java Servlet and JavaServer Pages (JSP) specifications, and fast local access to your existing CICS applications and data. Built on WebSphere Application Server Liberty profile technology, this web container runs in the CICS JVM server environment. A wide range of Java development tools can be used to develop web applications, such as WebSphere Application Server Developer Tools for Eclipse (WDT), and Rational® Developer for System z.

The JVM server makes use of the IBM 64-bit SDK for z/OS, Java Technology Edition, V7.0.0, that brings many enhancements to the Java language. When using JDBC to access DB2, Java programs will perform better due to reduced TCB switching.

CICS event processing is expanded to enable the filtering and capturing of WRITE OPERATOR commands, encompass the majority of CICS messages, and include pre-defined information specified in the capture specification. You can emit an event to several event consumers using the new event processing adapter sets.

The CICS-WebSphere MQ dynamic program link (DPL) bridge provides a convenient mechanism to automatically invoke a CICS program to process a WebSphere MQ message. Today this mechanism uses a COMMAREA interface that is restricted to 32 KB in size. CICS TS V5.1 open beta introduces an alternate DPL bridge that uses a container that does not have a size restriction and therefore broadens the solutions in which the DPL bridge can be used.

CICS statistics and monitoring provide vital information about the health of the system and the workloads. CICS TS V5.1 open beta statistics now include more data about the load, capacity, and performance of the system. The data provided by monitoring can help you to assess performance more accurately, including potential bottlenecks. Together these enhancements enable you to make more informed decisions about hardware and software upgrades, and application deployments.

CICS TS V5.1 open beta introduces a number of enhancements to make operations easier and more transparent. For example, the default values for several CICS startup parameters are changed to adopt best practice, or are removed altogether where CICS is now able to automatically make adjustments at run time. Also, CICS can issue messages to audit configuration changes made by operational staff or

automation procedures that use the SET, PERFORM, ENABLE, DISABLE and RESYNC SPI commands.

CICS support for Secure Sockets Layer (SSL) is enhanced, with a new PERFORM SSL REBUILD command to refresh certificates used for SSL handshakes without performing a restart, and SSL cipher codes negotiated at run time are now recorded in SMF 110 performance records. It is possible to specify that a full verification request takes place at least once a day when users log on to the system, to ensure that IDs are always ready for audit, recorded as being used, and retained.

The IBM CICS Explorer V5.1 open beta, included with the CICS TS V5.1 open beta, has been updated to include support for the new and enhanced capabilities of this CICS TS deliverable.

Accessibility by people with disabilities

A US Section 508 Voluntary Product Accessibility Template (VPAT) containing details on accessibility compliance can be requested at

http://www.ibm.com/able/product_accessibility/index.html

Section 508 of the US Rehabilitation Act

CICS TS V5.1 open beta is capable, as of July 13 2012, when used in accordance with associated IBM documentation, of satisfying the applicable requirements of Section 508 of the Rehabilitation Act, provided that any assistive technology used with the product properly interoperates with it.

Product positioning

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

CICS TS V4.2 is the latest production ready release of CICS TS, delivering significant enhancements over CICS TS V4.1 in these primary focus areas:

- Events
- Java
- Connectivity
- Management
- Scalability

All clients who are not yet running CICS TS V4.2 should make plans to upgrade to this release as soon as possible.

CICS TS Developer Trial V4.2 is also available, as a try-before-you-buy edition of CICS TS V4.2. It has a zero-cost license charge and does not initiate any single version charging (SVC) period. Clients who want to assess the value that could be gained from a CICS TS upgrade, before making an upgrade decision, should order this product.

Hardware and software support services

SmoothStart/installation services

IBM SmoothStart Services and Installation Services are not provided.

Reference information

For information on CICS TS V4.2, delivered in June 2011, refer to Software
Announcement 211-080, dated April 05, 2011.

For information on CICS TS Developer Trial V4.2, delivered in January 2012, refer to
Software Announcement 212-010, dated January 24, 2012.

Program number

```
BT05

5655-Y04   CICS Transaction Server for z/OS V5.1 open beta

CC #1   CICS TS for z/OS

PSLC(ABCD) ULC(ABCD) V-WLC zELC EWLC AWLC AEWLC NEW ( ALP185V7 )

Media deliverable

Program          Program
number     VRM   name

5655-Y04   5.1.0  CICS Transaction Server for z/OS V5.1 open beta
```

Business Partner information

If you are a Direct Reseller - System Reseller acquiring products from IBM,
you may link directly to Business Partner information for this announcement. A
PartnerWorld® ID and password are required (use IBM ID).

   https://www.ibm.com/partnerworld/mem/sla.jsp?num=212-165

Technical information

Specified operating environment

Hardware requirements

CICS TS V5.1 open beta runs on any IBM System z machine that supports the
required z/OS operating system.

Limitations

CICS TS V5.1 open beta does not include support for session beans using Enterprise
Java Beans (EJB), or the JVM pool infrastructure. You are encouraged to migrate
Java applications to the JVM server infrastructure, and to migrate EJB applications
to Java SE components and make them available through web services or the JEE
Connector architecture (JCA). CICS TS continues to support Java as a first class
application programming language for CICS applications, including enhancements to
the CICS interfaces, the deployment infrastructure, and Java runtime environment.

CICS TS V5.1 open beta can be used during the test period at no charge, for
Authorized Use as specified in the accompanying International License Agreement
for Early Release of Programs, solely for the purposes of testing, prior to it being
made commercially available, and to provide feedback to IBM.

CICS TS V5.1 open beta may not be used for productive purposes or otherwise
used, copied, modified, or distributed except as expressly permitted in the
accompanying license agreement.

IBM does not warrant that any version of CICS TS that is formally released or made commercially available (if any) will be similar to, or compatible with, Early Release versions, such as CICS TS V5.1 open beta.

Security, auditability, and control

CICS TS V5.1 open beta uses the security and auditability features of the operating system under which it is running.

The customer is responsible for evaluation, selection, and implementation of security features, administrative procedures, and appropriate controls in application systems and communication facilities.

Ordering information

5655-Y04 CICS Transaction Server for z/OS V5.1 open beta

CC #1 CICS TS for z/OS

PSLC(ABCD) ULC(ABCD) V-WLC zELC EWLC AWLC AEWLC NEW (ALP185V7)

Media deliverable

CICS TS V5.1 open beta is available for download, direct from IBM from the date of availability onwards, by visiting

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

For further information about CICS TS V5.1 open beta, contact the CICS Early Programs coordinator at

   cicsep@uk.ibm.com

Business partners and Independent software vendors (ISVs) who require additional support may apply to join a CICS Early Test Program, by contacting the program coordinator at

   cicsetp@uk.ibm.com

Terms and conditions

The terms and conditions for CICS TS V5.1 open beta are described in the International License Agreement for Early Release of Programs (L-ACRR-8SJGFC) that accompanies the product.

CICS TS V5.1 open beta is available for download, direct from IBM from the date of availability onwards, by visiting

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

You can get further assistance from your local IBM representative.

To identify your local IBM representative, call 800-IBM-4YOU (426-4968). For more information, contact the Americas Call Centers.

Order now

To order, contact the Americas Call Centers or your local IBM representative, or your IBM Business Partner.

To identify your local IBM representative or IBM Business Partner, call 800-IBM-4YOU (426-4968).

```
Phone:      800-IBM-CALL (426-2255)
Fax:        800-2IBM-FAX (242-6329)
Internet:   callserv@ca.ibm.com
Mail:       IBM Teleweb Customer Support
            ibm.com® Sales Execution Center, Americas North
            3500 Steeles Ave. East, Tower 3/4
            Markham, Ontario
            Canada
            L3R 2Z1
```

Reference: LE001

The Americas Call Centers, our national direct marketing organization, can add your name to the mailing list for catalogs of IBM products.

Note: Shipments will begin after the planned availability date.

Trademarks

CICS, z/OS, IBM, WebSphere, CICS Explorer, System z, DB2, Rational, PartnerWorld and ibm.com are registered trademarks of IBM Corporation in the United States, other countries, or both.

Other company, product, and service names may be trademarks or service marks of others.

Terms of use

IBM products and services which are announced and available in your country can be ordered under the applicable standard agreements, terms, conditions, and prices in effect at the time. IBM reserves the right to modify or withdraw this announcement at any time without notice. This announcement is provided for your information only. Additional terms of use are located at:

http://www.ibm.com/legal/us/en/

For the most current information regarding IBM products, consult your IBM representative or reseller, or visit the IBM worldwide contacts page

http://www.ibm.com/planetwide/us/