IBM CICS Transaction Server for z/OS, V5.2 takes service agility, operational efficiency, and cloud enablement to a new level

At a glance

IBM® CICS® Transaction Server (CICS TS) V5.2 builds on the many advances in service agility, operational efficiency, and cloud capabilities delivered in CICS TS V5.1. These include the following significant enhancements:

Service agility

- Portability of web applications into CICS has been enhanced by extending the support for WebSphere® Application Server Liberty Profile, V8.5.5 to include additional security, JDBC, and transaction recovery features.
- Simple integration with mobile devices and mobile-optimized gateways, such as IBM Worklight® Server, by integrating the JavaScript™ Object Notation (JSON) and Representational State Transfer (REST) support from the CICS TS Feature Pack for Mobile Extensions into CICS TS V5.2. This extends SOA support in CICS.
- Data mapping for SOAP and JSON now supports UTF-16 data types, as well as additional COBOL data clauses.
- IP interconnectivity (IPIC) is extended to support more high availability scenarios.

Operational efficiency

- Safeguard critical runtime resources by defining service level agreement (SLA) policies against a broader range of policy thresholds.
- Simplify the integration of CICS applications with distributed security standards, by integrating the SAML support, introduced in the CICS TS Feature Pack for Security Extensions into CICS TS V5.2, and introducing support for Kerberos security tokens and stronger cryptographic ciphers. SAML support is provided for both inbound and outbound use of SAML tokens.
- A transaction channel allows applications to be able to make use of containers throughout the transaction, without the need to restructure COMMAREA-based programs.
- Performance enhancements include a reduction in 31-bit storage usage for web services and an increase in threadsafe support.

Cloud enablement

- Enhance application lifecycle management by allowing different versions of a multi-program application to run concurrently. This simplifies deployment of application updates or allows for easy rollback to an earlier version if required.
• Application versioning assists with the consolidation of applications onto fewer CICS regions.
• Platforms are enhanced to define and create new ‘top down’ topologies, and to add and remove regions from installed platforms.
• Twice as many traditional CICS resources can be defined and managed in CICS bundles, compared to previous CICS TS releases.

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

Overview

CICS TS for z/OS®, V5.2 builds on the many advances in service agility, operational efficiency, and cloud capabilities delivered in CICS TS V5.1 and includes the following significant enhancements:

Service agility

CICS TS V5.2 significantly enhances the portability of web applications into CICS, by upgrading WebSphere Application Server Liberty Profile to Version 8.5.5 and supporting a broader set of its features. Java™ database connectivity, transactionality, and security infrastructure are all functionally enhanced. This makes applications written in Java even more capable.

Service-oriented architecture (SOA) support is extended by integrating the JSON and REST capabilities, introduced in the CICS TS Feature Pack for Mobile Extensions, into CICS TS V5.2. This makes it easier to interact with mobile devices and mobile-optimized gateways, such as Worklight Server.

The service enablement capabilities of CICS TS are enhanced. Data mapping for SOAP and JSON now supports UTF-16 data types, as well as additional COBOL data clauses. IP interconnectivity (IPIC) is extended to support more high availability scenarios.

Operational efficiency

For operational efficiency, the number of supported policy thresholds is expanded to cover an increased number of threshold types, safeguarding critical runtime resources. This enables a wider range of service-level agreement thresholds to trigger automatic actions.

The integration of CICS applications with distributed security standards has been simplified by incorporating the Security Assertion Markup Language (SAML) support, introduced in the CICS TS Feature Pack for Security Extensions, into CICS TS V5.2. Also introduced is support for Kerberos security tokens and stronger cryptographic ciphers. SAML support is provided for both inbound and outbound use of SAML tokens, and SAML tokens can now be augmented by adding new attributes.

The operational efficiency capabilities of CICS TS are enhanced. A transaction channel allows applications to be able to use containers throughout the transaction without the need to restructure COMMAREA-based programs. Performance enhancements include a reduction in 31-bit storage usage for web services and an increase in threadsafe support.

Cloud enablement

Major advances are made in CICS TS V5.2 in the area of cloud enablement, to enhance application lifecycle management by allowing different versions of a multi-program application to run concurrently, and simplify deployment of application updates or to easily rollback to an earlier version if required.

Application versioning assists with the consolidation of applications onto fewer CICS regions.
Platforms are enhanced to define and create new 'top down' topologies, and to add and remove regions from installed platforms.

Twice as many traditional CICS resources can be defined and managed in CICS bundles, compared to previous CICS TS releases.

**CICS Explorer®**

CICS Explorer V5.2 is updated to add support for the new and enhanced capabilities of CICS TS V5.2.

Additionally, if you use CICSPlex® System Manager (SM) workload management (WLM) can use CICS Explorer to define and manage workloads.

**CICS TS open beta program**

A CICS TS V5.2 open beta program is available to provide the opportunity to participate in a limited time trial of the latest developments in CICS TS, with no charge or financial commitment.

By joining the CICS TS V5.2 open beta program the potential of new CICS capability can be explored, its value to the business can be assessed, and planning can begin for its adoption at the earliest opportunity. The CICS TS V5.2 open beta offering is an Early Release version of CICS TS that shows how new workloads, such as those driven by mobile devices, can be quickly and efficiently incorporated into existing CICS systems. Participants in the open beta program may also get direct access to CICS development resources, with the opportunity to provide early feedback and are well-positioned to gain the advantage of being one of the first to try the new beta offering.

The CICS TS V5.2 open beta offering is available for download, direct from IBM, by visiting


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.

**CICS TS Developer Trial**

CICS TS Developer Trial V5.2, a try-before-you-buy edition of CICS TS V5.2, has a zero-cost license charge and does not initiate any single version charging (SVC) period. If you want to assess the value that could be gained from a CICS TS upgrade, before making an upgrade decision, you should order this product. The CICS TS Developer Trial V5.2 is now fully supported and can be upgraded to CICS TS V5.2 or CICS TS VUE V5.2 without the need for a full reinstallation. For more information, visit


**CICS TS Value Unit Edition**

CICS TS Value Unit Edition (VUE) V5.2 offers a one-time-charge (OTC) price metric for eligible workloads that are deployed in qualified System z® New Application License Charge (zNALC) logical partitions (LPARs).

The term Eligible Workload is defined as net new Java workload that executes within the CICS TS VUE Java Virtual Machine (JVM) server environment, on condition that the workload is qualified and approved through the zNALC qualification process.

The OTC price metric provides an alternative pricing model for new CICS Java applications and new CICS Java-based, service enablement workloads.

CICS TS VUE V5.2 is available through the normal ordering channels for IBM z/OS software. For more information, an IBM representative should be contacted.
Key prerequisites

The minimum required level of operating system for CICS TS V5.2 is IBM z/OS V1.13 (5694-A01).

The minimum required level of Java is IBM 64-bit SDK for z/OS, Java Technology Edition, V7 SR1.

For additional information, refer to the Technical information section.

Planned availability date

June 13, 2014

- CICS TS V5.2
- CICS TS Developer Trial V5.2
- CICS TS VUE V5.2

Description

CICS TS V5.2 gives existing CICS TS clients, and those new to CICS products, the opportunity to participate in a no-charge trial of the latest developments in CICS TS, without any financial commitment.

Version 5.2 builds on the many advances in service agility and operational efficiency delivered in CICS TS V5.1 and includes significant enhancements in cloud enablement, while also satisfying many client requirements.

Service agility

CICS TS V5.2 includes the latest WebSphere Application Server Liberty Profile, V8.5.5. This can help to make Java Platform, Enterprise Edition (JEE) web applications even more portable, and can benefit from CICS support for a much broader set of additional Liberty features.

CICS TS V5.2 delivers enhanced capabilities in the Liberty JVM server web container. These include Java API for XML Web Services (JAX-WS), Java Naming and Directory Interface (JNDI), JDBC type 2 data sources, and Java Transaction API (JTA). This new support provides the ability to deploy Java-based, web service provider or requester applications into a Liberty JVM server, along with transactional support for applications to use the JDBC DataSource API to access relational data stored in either a local DB2® database, managed by CICS, or a remote database using a type 4 JDBC driver.

Additionally, the full range of WebSphere Liberty Profile application security functions are now integrated with the CICS Liberty security feature. This includes an extended range of authentication options, including HTTP basic authentication, single sign-on using LTPA cookies, form login, Trust Association Interceptors, and SSL client certificate mapping. Authorization options include both JEE role authorization and CICS transaction and resource security, based on the authenticated SAF userid. In addition, the Secure Sockets Layer (SSL) support in the Liberty JVM server HTTP listener is extended to support certificates stored in both System Authorization Facility (SAF) keyrings and Java keystores.

The JSON and REST support, that was introduced in the CICS TS Feature Pack for Mobile Extensions, is integrated into CICS TS V5.2, to make it easier than ever to interact with mobile devices and mobile-optimized gateways, such as IBM Worklight Server.
Support is added for Unicode in the CICS mapping service for SOAP and JSON web services and the TRANSFORM API. Unicode characters are mapped to UTF-16 data types in COBOL, C, C++ and PL/I. Unicode is the widely adopted standard for handling most of the characters in use today and can be used as a basis for globalization of CICS applications. In addition, to further enhance the scenarios when existing CICS applications can be service-enabled, the COBOL data clauses OCCURS DEPENDING ON (when the depending field is last in the structure) and OCCURS INDEXED BY are now supported.

IPIC is extended to support recommended high availability scenarios. Groups of regions from CICS TS V5.2 can be clustered together and accessed through shared, TCP/IP end point from other client regions of CICS TS V5.2. This support enables individual CICS regions to be removed as a single point of failure, while permitting planned or unplanned outages of individual components. It provides a migration path for VTAM® generic resource support when moving from SNA to an IP network.

**Operational efficiency**

For operational efficiency enhancements, CICS TS V5.2 includes a major expansion of the number of policy types, support for key distributed, security standards, and further performance and scalability improvements.

CICS TS V5.2 delivers more policy conditions to trigger automatic actions for user tasks. This can enforce a broader range of service-level agreement thresholds. These include the total elapsed time for a task, the number of START requests, the number of SYNCPOINT requests, the number of temporary data and temporary storage queue requests, and the number of bytes to be written to the temporary storage queue. All these policies are for a task.

There are a number of performance and scalability enhancements. Enhancements for web services include reductions in 31-bit storage usage for web services, and a reduction in TCB switching when invoking transactions defined with DYNAMIC(NO), by optimizing when the routing program is called. More system programming interface commands are made threadsafe, and additional dispatcher and transaction manager metrics are collected to aid understanding of threadsafe application usage.

There are also improvements to the efficiency of sysplex enqueues with optimization of retry processing, and improved efficiency of Java applications when using the default trace settings.

The SAML support, that was introduced in the CICS TS Feature Pack for Security Extensions, is enhanced and integrated into CICS TS V5.2. This allows web services and client-written applications to consume inbound SAML tokens and requester pipelines to insert SAML tokens in outbound web service requests. SAML support also provides the capability to augment SAML tokens by adding new attributes.

New support for stronger cryptographic ciphers is delivered to meet guidelines in the National Institute of Standards and Technology (NIST) Special Publication 800-131A, which includes support for Transport Layer Security (TLS) 1.2. The definition of cipher lists was simplified to allow separation of the definition of allowed ciphers from resources which use them. These security improvements, together with new support for Kerberos security tokens, enable CICS services to integrate more easily and securely with distributed partners.

Channels and containers are enhanced to introduce transaction containers that are created in the DFHTRANSACTION channel. This channel does not go out of scope when the link level changes; it is always accessible in the transaction. This allows all applications to use containers, including those applications that use COMMAREAs in program links.

**Cloud enablement**

CICS TS V5.2 enables a platform to host multiple versions of the same application, and multiple applications at the same time. New versions of an application can be deployed to the platform without the need to disable or remove the previous version, and be made available to users without service interruption. This can improve service agility and reduce the business risk of deploying applications as
users can be progressively switched to the new version to gain confidence in it, or switched to an older version if there are any issues.

The type of resources that can be defined in CICS bundles and managed as part of a platform is broadened to include files, JVM servers, pipelines, TCP/IP services, and web services. In addition, library and program resources that are defined in CICS bundles as part of an application are made private to that version of the application. This facility avoids resource name clashes between applications and application versions, and is particularly useful for server consolidation.

Applications can now have two application contexts. The initial context that is used to monitor each application and application operation resource usage across tasks and CICS regions, and a new current context. The current application context changes each time the task passes through an application entry point and is used for workload management, and is queried through programming interfaces. URIMAP resources can be set as application entry points in addition to PROGRAM resources.

First-class platforms provide the ability to define and create new topologies, and to add and remove regions from installed platforms.

CICS Explorer

CICS Explorer, the strategic management interface for CICS TS, is upgraded to CICS Explorer V5.2. This is a major update to support the latest CICS TS and CICS Tools capabilities.

CICS Explorer V5.2 is updated to include support for the new and enhanced capabilities of this CICS TS deliverable, such as:

- Enhanced support for CICSPlex SM WLM
- Improvements in support for modification of associated CICSPlex SM workload definitions, using a new sophisticated editor
- Intuitive access to information about the state of running workloads

For more information, visit

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

Core foundational CICS tools

Five core foundational CICS Tools are updated to exploit and augment the latest operational efficiency and service agility enhancements made in CICS TS V5.2.

CICS Configuration Manager for z/OS (CICS CM) V5.2 improves DevOps collaboration with new plug-in support for migration schemes and deployment analysis. New support to manage CICSPlex SM topology and workload management definitions allows dynamic mobile workloads to be quickly reconfigured.

CICS Deployment Assistant for z/OS (CICS DA) V5.2 introduces a new RESTful API that allows the deep insight captured in the discovered model to be shared with other management tools, or viewed from mobile devices and browsers. New cloning options deliver value to a wider range of client environments. A new compare option highlights key differences in region configuration and helps to ensure standards conformance and system reliability.

CICS Interdependency Analyzer for z/OS (CICS IA®) V5.2 collects more information about applications and platforms, to help clients create a more dynamic CICS cloud environment. The new Command Flow visualization provides yet more insight into program behavior. A new variable sampling technique is introduced to help reduce the CPU overhead by up to 75% whilst collecting data. This technique can be applied to production regions to balance the impact of collection, the fidelity of the data collected, and production throughput.

CICS Performance Analyzer for z/OS (CICS PA) V5.2 supports the CICS cloud with new performance summary reports for platforms and applications, while multi-
version application support enables fine-grained analysis of ever-changing mobile applications. New, simply configured, batch reporting of CICS TS and CICS TG statistics provides a wealth of valuable diagnostic and planning information. Plug-in enhancements, which include new performance alerts, and more advanced visualization and analysis, help development and systems staff to identify and resolve performance issues quickly.

CICS VSAM Recovery for z/OS (CICS VR) V5.2 adds new support for extended address volumes (EAVs), and delivers usability, installation, coexistence, and customization enhancements. CICS VR provides disaster recovery support for online data and operation support for batch to minimize the batch window. Both CICS TS and CICS VR support the replication of VSAM data for IBM GDPS® Active-Active continuous availability, enabling cross-site workload balancing and continuous availability, and disaster recovery.

For information on core foundational CICS Tools, refer to Software Announcement 214-153, dated April 7, 2014.

Accessibility by people with disabilities

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


The following features support use by people with disabilities:

- Operation by keyboard alone
- Optional font enlargement and high-contrast display settings
- Ability to run with screen readers and screen magnifiers for use by people with visual impairment
- Optional display of audio alerts for people with hearing impairment
- Communication of all information independently of color
- Ability for the user to request more time to complete timed responses

Online product documentation is hosted in the IBM Knowledge Center service. To request the accessibility status for the IBM Knowledge Center service, visit the IBM Product accessibility information web page, at

https://www-03.ibm.com/research/accessibility/requests/accvpat.nsf/bidxjs?OpenForm

Select IBM Knowledge Center - Hosted Edition.

An Information Center copy of the online product documentation is available for download from the IBM Publications Center. The Information Center is accessible to people with visual, physical, or hearing impairment. All functions can be performed without a mouse. Instead of viewing diagrams, users can choose to read text descriptions. Command syntax diagrams can be displayed in a format which is designed for visually-impaired users.

Some product documentation is provided in PDF format for download from the IBM Publications Center, and clients can create bespoke PDFs from the IBM Knowledge Center. PDF format is accessible using Adobe™ Acrobat Reader 8.0 or later.
Section 508 of the US Rehabilitation Act

CICS TS V5.2 is capable, as of June 13, 2014, 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. A US Section 508 Voluntary Product Accessibility Template (VPAT) can be requested, at


Product positioning

CICS TS is the premier, enterprise grade, mixed language, application server. For over 40 years, CICS consistently delivered innovative solutions that companies have used to differentiate themselves by creating, extending, and evolving mission-critical applications.

CICS TS is designed to enable clients to create and maintain a competitive advantage by building custom, differentiated CICS applications. For these clients this is the fastest and most effective ways to maintain and extend the leadership position they have earned.

IBM creates innovative and essential CICS TS technologies that enable clients to deliver on their business imperatives. CICS TS is continuously enhanced to help clients add value to their core CICS assets, first by extending them to the Internet, then by embracing Java workloads, and more recently by building comprehensive service-oriented architectures (SOAs) from existing systems.

CICS TS V5.2 satisfies over 100 client requirements that help solve the 2 most pressing challenges companies face today that drive operational efficiencies, while increasing service agility.

New and enhanced capabilities in CICS TS V5.2 are delivered in a way that positions CICS users for the next transformational era in technology to move them towards a service delivery platform for cloud computing.

CICS TS Developer Trial

CICS TS Developer Trial V5.2 is also available as a try-before-you-buy edition of CICS TS V5.2. 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.

CICS TS Developer Trial contains the complete set of CICS TS features and functions. However, there are a number of imposed restrictions, in performance and capacity, licensing terms, and a fixed expiry date, that make CICS TS Developer Trial suitable only for use in non-production environments.

Clients can now obtain support from IBM for CICS TS Developer Trial. Furthermore, if clients order a full product version of CICS TS V5.2 or CICS TS VUE V5.2, then they can upgrade from the CICS TS Developer Trial without the need to reinstall the product.

CICS TS Developer Trial V5.2 is available through ShopzSeries as a standard offering. In countries where ShopzSeries is not yet available, contact your IBM representative (or IBM Business Partner) to handle their order using the traditional IBM ordering process. For more information, visit

http://www.ibm.com/software/htp/cics/cicsdt/

CICS TS Developer Trial is complemented by the continuing availability of IBM Rational® Development and Test Environment for System z, which provides a low-
cost, System z environment for developing and testing mainframe applications on Intel™ and Intel-compatible platforms. For more details on the features and benefits of Rational Development and Test Environment for System z, visit


**CICS TS Developer Trial V5.1 withdrawal and replacement**

At general availability, CICS TS Developer Trial V5.1 is replaced by CICS TS Developer Trial V5.2 and will no longer be available to order. Furthermore, after October 31, 2014, CICS TS Developer Trial V5.1 will expire and will no longer initialize. To continue to use CICS TS Developer Trial, your clients will need to order and install the latest release. For more information visit

http://www.ibm.com/software/htp/cics/cicsdt/

Alternatively, contact your IBM representative (or IBM Business Partner).

**CICS TS VUE**

CICS TS VUE V5.2 offers an OTC price metric for eligible workloads that are deployed in qualified zNALC LPARs.

The term Eligible Workload is defined as net new Java workload that executes within the CICS TS VUE JVM server environment, on condition that the workload is qualified and approved through the zNALC qualification process.

The OTC price metric provides an alternative pricing model for new CICS Java applications and new CICS Java-based, service enablement workloads.

Support for the zNALC metric offers a reduced price for the z/OS operating system on LPARs that run a qualified application.

CICS TS VUE V5.2 can connect to other supported versions of CICS TS for z/OS (whether in zNALC or non-zNALC environments) for the purpose of workload federation and systems management.

CICS TS VUE is a separately licensed program and does not initiate any Single Version Charging (SVC) period for monthly license charge (MLC) versions of CICS TS. This means that new CICS TS VUE applications can federate with existing CICS TS V3, CICS TS V4, and CICS TS V5 workloads, without mandating an upgrade of those systems.

**CICS seminars**

IBM offers free, customized CICS seminars that are delivered by CICS technical experts, at your clients' location and with the opportunity to choose the topics and time. Given to a mixture of personnel involving operations, development, and strategy, this can provide an effective discussion on how CICS can deliver real value to your clients' business. For more details, contact an IBM representative by email, at cicssem@uk.ibm.com.

**Statement of direction**

IBM makes the following statements of general direction:

- IBM intends to deliver IBM WebSphere Liberty z/OS Connect (z/OS Connect) as a common program component of WebSphere Application Server for z/OS, IMS™ Enterprise Suite for z/OS, CICS Transaction Server for z/OS, and CICS Transaction Gateway. z/OS Connect is intended to provide a simplified, secure, and scalable gateway functionality to route web, cloud, and mobile application traffic that accesses applications provided by the aforementioned z/OS products, as well as z/OS Batch and z/OS UNIX™ System Services applications. z/OS
Connect intends to offer: (i) a fast on-ramp interface to z/OS applications by providing a common access mechanism based on RESTful services; (ii) tooling to allow a cloud or mobile developer to define secure enterprise connectivity without the need for extensive code development or knowledge of System z.

- IBM intends to provide new capability in CICS Transaction Gateway (CICS TG) for the mobile enablement of existing CICS Transaction Server (CICS TS) family products and TXSeries™ for Multiplatforms deployments, with minimal or no change to existing business logic. This new capability is intended to complement and extend CICS TS support for mobile applications.

Consistent with other integration solutions for System z, IBM intends CICS TG to support existing investments in enterprise data and transactions by providing business services for mobile applications.

- IBM intends to update to the latest release each CICS product that comprises the CICS Modernization Solution Pack for z/OS: CICS Deployment Assistant for z/OS; CICS Interdependency Analyzer for z/OS; and CICS Transaction Gateway for z/OS.

IBM’s statements regarding its plans, directions, and intent are subject to change or withdrawal without notice at IBM's sole discretion. Information regarding potential future products is intended to outline our general product direction and it should not be relied on in making a purchasing decision. The information mentioned regarding potential future products is not a commitment, promise, or legal obligation to deliver any material, code, or functionality. Information about potential future products may not be incorporated into any contract. The development, release, and timing of any future features or functionality described for our products remain at our sole discretion.

### Hardware and software support services

#### SmoothStart/installation services

IBM Services has the breadth, depth, and reach to manage your services needs. You can leverage the deep technical skills of our WebSphere lab-based services and the business consulting, project management, and infrastructure expertise of our IBM Global Services team. Also, IBM Services extends our reach through IBM Business Partners to provide an unmatched portfolio of capabilities. Together, IBM provides the global reach, intellectual capital, industry insight, and technology leadership to support any critical-business need.

For information on IBM IT Services, visit

http://www.ibm.com/services

To learn more about IBM Software Services, visit

http://www.ibm.com/developerWorks/websphere/services/

To locate an IBM Business Partner, visit

http://www.ibm.com/partnerworld/wps/blocator/landing

For services for CICS, refer to

http://www.ibm.com/software/ts/cics/service/

#### 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).

The following software announcements are relevant to CICS TS V5.2:

For information on CICS CM, V5.2, refer to Software Announcement 214-153, dated April 7, 2014.


For information on CICS IA, V5.2, refer to Software Announcement 214-153, dated April 7, 2014.

For more information on CICS Optimization Solution Pack for z/OS, V5.1, refer to Software Announcement 213-487, dated October 22, 2013.

For information on CICS Online Transmission Time Optimizer for z/OS (CICS OTTO), V1.2, refer to Software Announcement 206-187, dated August 1, 2006.

For more information on CICS Modernization Solution Pack for z/OS, V5.1, refer to Software Announcement 213-487, dated October 22, 2013.

For information on CICS PA, V5.2, refer to Software Announcement 214-153, dated April 7, 2014.


For information on CICS TG, V9.1 open beta, refer to Software Announcement 214-105, dated April 7, 2014.

For information on CICS TS, V5.1, refer to Software Announcement 212-325, dated October 3, 2012.


For information on CICS TS Feature Pack for Mobile Extensions, V1.0, refer to Software Announcement 213-177, dated April 23, 2013.

For information on CICS TS Feature Pack for Modern Batch, V1.0, refer to Software Announcement 213-177, dated April 23, 2013.


For information on CICS VR, V5.2, refer to Software Announcement 214-153, dated April 7, 2014.

For information on CICS VT, V2.1, refer to Software Announcement 211-355, dated October 4, 2011.


For information on IBM Application Performance Analyzer for z/OS, V12.1, refer to Software Announcement 212-119, dated April 24, 2012.
For information on IBM Communications Server for Data Center Deployment, V7.0, refer to Software Announcement 212-338, dated October 3, 2012.

For information on IBM DB2 11 for z/OS, refer to Software Announcement 212-364, dated October 3, 2012.

For information on IBM Debug Tool for z/OS, V12.1, refer to Software Announcement 212-119, dated April 24, 2012.

For information on IBM Explorer for z/OS, V2.1, refer to Software Announcement 213-141, dated April 23, 2013.

For information on IBM Fault Analyzer for z/OS, V12.1, refer to Software Announcement 212-119, dated April 24, 2012.

For information on IBM File Manager for z/OS, V12.1, refer to Software Announcement 212-119, dated April 24, 2012.

For information on IBM z/VSE®, V5.1, refer to Software Announcement 212-070, dated April 3, 2012.

For information on IMS 13 Transaction and Database Servers, refer to Software Announcement 212-373, dated October 3, 2012.

For information on Rational Developer for System z, V8.5, refer to Software Announcement 212-186, dated May 29, 2012.


For information on TXSeries for Multiplatforms, V8.1, refer to Software Announcement 213-462, dated October 8, 2013.

For information on WebSphere Application Server, V8.5, refer to Software Announcement 212-109, dated April 24, 2012.

For information on WebSphere eXtended Transaction Runtime, V2.1, refer to Software Announcement 212-125, dated April 24, 2012.

For information on WebSphere ILOG® Rules for COBOL, V7.1, refer to Software Announcement 212-109, dated April 24, 2012.

CICS web pages

For up-to-date information on CICS, refer to


For the latest information on CICS TS V5.2, refer to


The CICS support web page can be used to search for terms, phrases, error codes, and APAR numbers

http://www.ibm.com/support/entry/portal/Overview/Software/Other_Software/CICS_Transaction_Server

CICS SupportPacs

CICS SupportPacs that extend and complement CICS TS are available free of charge. Visit

Program number

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Additional information

Support for IBM GDPS Active-Active continuous availability

CICS TS V5 and CICS VR V5 provide support for the replication of VSAM data for IBM GDPS Active-Active continuous availability. The Active-Active Sites concept is two data center sites, separated by unlimited distances, running the same applications and having the same data to provide cross-site workload balancing and continuous availability and disaster recovery. This is a fundamental paradigm shift from a failover model to a continuous availability model. This concept is designed to achieve unlimited distances between data center sites AND to achieve the recovery time objectives of one minute or less previously available only in a metro area solution. The previously available active-standby configuration supported replication of DB2 and IMS data. This is now expanded to include VSAM data. Additionally, with a new Active-Query configuration, it is possible to use the capacity in the secondary site and take advantage of an additional workload balancing capability.

VSAM datasets requiring replication can be defined with new replication attributes. CICS TS produces replication log records capturing the updates made to the VSAM files by online transactions. CICS VR provides the same replication logging support when the VSAM datasets are offline and being updated by batch. The replication log records are used by InfoSphere® Data Replication for VSAM for z/OS which provides the cross site replication capability. IBM Multi-site Workload Lifeline provides routing services while IBM GDPS Active-Active, IBM System Automation for z/OS, and IBM Tivoli® NetView® Monitoring for GDPS provides the automation platform, as well as the monitoring and visualization of key performance and availability metrics.

CICS Tools

Updates of five core foundational CICS Tools exploit and augment the latest operational efficiency and service agility enhancements made in CICS TS V5.2.

- CICS CM V5.2
- CICS DA V5.2
- CICS IA V5.2
- CICS PA V5.2
- CICS VR V5.2

For more information refer to Software Announcement 214-153, dated April 7, 2014.

Also visit

http://www.ibm.com/cics/tools
The CICS TG V9.1 open beta offering

The CICS TG V9.1 open beta offering for z/OS enables simple and rapid, mobile integration of an enterprise CICS TS environment. It can be used to help build on existing, proven architecture to quickly provide mobile connectivity to back-end systems by using JavaScript Object Notation (JSON) web services. Mobile enablement can be achieved alongside traditional CICS TG for z/OS workloads without modification to existing environments. This minimizes both risk and cost, while retaining the benefits of the proven high availability and scalability of CICS TG for z/OS.

IBM Problem Determination Tools

IBM Problem Determination Tools Studio V12 delivers an Eclipse-based, rich client platform, which is pre-loaded with plug-ins for the following IBM Problem Determination Tools:

- Application Performance Analyzer for z/OS
- Debug Tool for z/OS
- Fault Analyzer for z/OS
- File Manager for z/OS
- Workload Simulator for z/OS and OS/390®

Problem Determination Tools Studio V12 is built on the z/OS Explorer and provides users with a consistent experience, regardless of the platform. CICS users can quickly extend Problem Determination Tools Studio with the CICS Explorer SDK and CICS tools plug-ins to produce a powerful, multi-functional CICS workbench for all technical roles. To download Problem Determination Tools Studio z/OS, V12.1, visit http://www.ibm.com/software/awdtools/deployment/pdtplugins/

IBM HourGlass

IBM HourGlass V7.1 provides support for time simulation in z/OS. With HourGlass, any date and time that can be represented by the underlying computer hardware can be simulated, such as past, present, or future, without changing application code or modifying the MVS™ system clock.

Administrators of CICS systems can test for differing dates or time zone offsets at the region, user, transaction, or terminal ID level, without requiring separate CICS regions or test systems. With allowances for performance differences, HourGlass can be used in production operations to eliminate the need for separate LPARs or regions that are based on time differences.

The benefits of using HourGlass in a CICS environment include:

- Support for SVC 11 system time requests, PC Time system service, and MVS STCKSYNC system service time requests on the z/OS operating system
- Ability to set the HourGlass date and time for a CICS region by using the HourGlass CICS Batch Time Management process
- Command-level CICS applications that are enabled to receive an altered date and time for EXEC CICS ASKTIME (including ASKTIME ABSTIME) commands; LE/370 date and time functions; COBOL ACCEPTs; and DB2 date, time, and timestamp SQL accesses

HourGlass also provides global-level and user-level control in a CICS system environment:

- Global Level or CICS Control causes a single date or time specification to be applied only to groups of users, terminals, or transactions within the CICS region.
- User Control provides each individual user with the ability to specify an HourGlass date or time that is unique to the user's session. Dates and times entered with User Control always take precedence over Global Control settings.
HourGlass provides support for altered time in EXEC CICS START TRANSID(name) TIME(hhmmss), by using the TIME(hhmmss) specification on the DELAY, POST, or START TRANSID CICS API commands. This support can be implemented in a CICS region on the CICS XICEREQ user-exit point. When implemented, this program is given control by CICS at the onset of the CICS time-interval processing. If certain conditions are satisfied, the AGGICGX program applies the current HourGlass time offset value to the TIME(hhmmss) specification on the subject DELAY, POST, or START TRANSID CICS API command.

HourGlass provides a CICS transaction to dynamically modify the date or time setting. The modified date or time setting is passed into HourGlass through a sequential dataset, as defined in CICS as a transient data queue.

For more details on HourGlass V7.1, refer to Software Announcement 213-428, dated October 1, 2013.

Stabilization of support and discontinued functions

CICS TS ApplicationHandler Java interface
The CICS TS ApplicationHandler Java interface, which can be used to write SOAP web services provider pipeline application handlers in an Axis2 JVM server, is deprecated. Clients who want to write SOAP web services for CICS TS in Java, or to customize pipeline processing in Java, are encouraged to use Java API for XML Web Services (JAX-WS) facilities in the Liberty JVM server web container, built on WebSphere Application Server Liberty profile technology.

CICS Distributed Data Management (DDM)
From the release of CICS TS V2.1, in March 2001, CICS Distributed Data Management (DDM) provides Parallel Sysplex® support for VSAM data sharing, Sysplex-wide logging and journal management, and CICS temporary storage data sharing for CICS TS. CICS DDM is no longer available from IBM and support was discontinued, as of December 31, 2003. CICS DDM is no longer available in CICS TS from Version 5.2 onwards.

Support for defaulting cyphers weak and medium
In CICS TS V5.2, support for defaulting ciphers WEAK and MEDIUM has been withdrawn. Instead, CICS TS V5.2 now supports stronger cryptographic ciphers, as defined in NIST Special Publication 800-131A.

CICS use of Partitioned Data Set (PDS)
In CICS TS V5.2, Partition Data Sets (PDS) can be used for libraries which contain CICS modules, such as hlq.SDFHLOAD or hlq.SEYULOAD (where hlq denotes high level qualifier). However, use of Partitioned Data Set Extended (PDSE) has many benefits, and has been available on z/OS for over 20 years. Some of the CICS libraries already use PDSE; for example, hlq.SDFJAUTH. CICS TS also makes use of Generalized Object File Format (GOFF) for CICS modules.

Use of PDSE and GOFF in CICS TS may, in some cases, require review of utilities which manage the CICS library data sets. Most PDSE interfaces are indistinguishable from PDS interfaces and can be used in place of nearly all PDSs. For more information visit

http://www.ibm.com/support/docview.wss?uid=tss1prs4280&aid=1

Note that the use of PDSE over PDS would not affect user load libraries used for application programs.
**CICS TS Feature Pack for Dynamic Scripting**

Clients are reminded that:

- CICS TS Feature Pack for Dynamic Scripting V1.0 runs on CICS TS V4.1 only.
- CICS TS Feature Pack for Dynamic Scripting V1.1 runs on CICS TS V4.2 only.
- CICS TS Feature Pack for Dynamic Scripting V2.0 runs on CICS TS V5.1 and CICS TS V5.2 only.

**Education support**

IBM training provides education to support many IBM offerings.

Call IBM training at 800-IBM-TEACH (426-8322) for catalogs, schedules, and enrollments.

The core training offerings for CICS are listed below. Versions of these courses will be available for CICS TS V5.2. Refer to your country's IBM education delivery organization for specific course codes and class schedules.

- **CICS Fundamentals.** This course teaches the major CICS concepts and facilities that are applicable to the CICS family of products. It focuses on the tasks involved in designing, programming, and managing applications.
- **CICS Basic Tailoring.** This course is intended for systems programmers who will be installing and tailoring CICS TS.
- **CICS Advanced System Programming Topics.** This course is designed to teach experienced CICS system programmers the more advanced resource definition and tailoring skills needed to fully leverage the many features available in today's CICS environments. Topics include troubleshooting, configuration and tailoring, planning for recovery, and tailoring CICS support for web services.
- **CICSPlex System Manager Introduction.** This course teaches students the concepts and facilities of CICSPlex System Manager.
- **CICSPlex System Manager Administration.** This course builds upon the foundation established in the introduction to CICSPlex System Manager and teaches students how to install, configure, and manage a CICSPlex environment using CICSPlex System Manager.
- **CICS Command Level Coding.** This course teaches students to design, code, and debug CICS Command Level application programs.
- **CICS Application Development for SOA and Web Services.** This course teaches students how to design, code, and debug CICS application programs that utilize CICS web support and web services facilities.

For additional information, or to check for the latest updates, visit the IBM Education web page at


Select your country to view the available offerings. This site has links to descriptions for all classroom and self-study courses available in each country. The web page also contains information on course schedules and enrollment procedures.
Technical information

Specified operating environment

Hardware requirements

Processor

CICS TS V5.2 runs on any IBM System z machine that supports the required z/OS operating system.

Parallel Sysplex support

A Parallel Sysplex environment is not required for CICS TS V5.2 but can be exploited by each of the following data-sharing facilities supported by CICS, and by the usage of the MVS system logger's log stream merging facility:

- IMS databases
- DB2 databases
- VSAM data sets
- CICS temporary storage
- Coupling facility data tables
- Named counter server

System z cryptographic hardware

Appropriate System z cryptographic hardware is required if clients need to exploit signature verification functions with WS-Security. For System z 800 and 900, this hardware is the Cryptographic Coprocessor Feature and the PCI Cryptographic Coprocessor. For System z 890, 990, z9® and z10™, it is the CP Assist for Cryptographic Functions and the Crypto Express® 2 Coprocessor. For System z196 it is CP Assist for Cryptographic Functions and the Crypto Express 3 Coprocessor. For zEnterprise® EC12, it is the CP Assist for Cryptographic Functions and the Crypto Express4S.

Katakana terminal devices

CICS TS has to issue certain messages in mixed-case, and is therefore not supported with displays or terminal emulators that are restricted to the non-extended single-byte character set (SBCS) Katakana part of code page 930.

Operating environment

z/OS V1.13 or later is required. CICS TS V5.2 will not initialize in an environment with a lower level of operating system installed.

Java Runtime Environment

The IBM 64-bit SDK for z/OS, Java Technology Edition, V7 SR1 or later, or V7.1, is required if using Java application programs, SAML support, JSON web services, the CICS Web Services Assistant, or the CICS XML Assistant. The IBM SDK for z/OS is available, without charge, on tape or by download. Visit http://www.ibm.com/servers/eserver/zseries/software/java/

CICS to IMS connection, by using TCP/IP

For CICS TS V5.2, connection to IMS Transaction Manager (TM) using TCP/IP requires IMS 13, which supports the CICS IP interconnectivity (IPIC) protocol.
**CICS Explorer**

CICS Explorer V5.2 requires CICS TS V5.2 in order to make use of the latest functionality provided. Details of other system requirements for both the CICS Explorer and CICS Explorer SDK are available at


Details relating to service and support for CICS Explorer are available at


For additional information on software requirements, refer to the relevant Program Directory. For online information, click on *Detailed system requirements for CICS TS for z/OS V5.2* from document *Detailed System Requirements for CICS Transaction Server*. Visit


**Compatibility**

**Product documentation**

Details are provided in the *Product documentation* section.

**Application programming summary**

The high-level programming languages and compilers that are in service on z/OS and have CICS translator support are detailed in the "High-level language support" topic in the CICS TS V5.2 product documentation.

**Performance considerations**

At general availability, performance information is available in both the online product documentation for CICS TS V5.2 and downloadable in the *Performance Guide* (SC32-7286).

**User requirements**

The following Request for Enhancements (RFEs) have been satisfied or partially satisfied in CICS TS V5.2:

<table>
<thead>
<tr>
<th>Requirement number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>14725</td>
<td>Support concatenation of WS Bind file directories on WSDIR Pipeline Definition</td>
</tr>
<tr>
<td>15291</td>
<td>CICS Web Services should support Unicode (UTF-16)</td>
</tr>
<tr>
<td>17382</td>
<td>Signature-Validation of a incoming SAML-Bearer-Token</td>
</tr>
<tr>
<td>17383</td>
<td>Parsing of a incoming SAML-Bearer-Token</td>
</tr>
<tr>
<td>17384</td>
<td>Signing of a pre-built SAML-Bearer-Token</td>
</tr>
<tr>
<td>17385</td>
<td>Creation of a SAML-Bearer-Token</td>
</tr>
<tr>
<td>17614</td>
<td>Easier Migration path for CICS TS Developer Trial v4.2 to full product</td>
</tr>
<tr>
<td>17642</td>
<td>CEMT Set WebService command with NEWcopy or PHasein option</td>
</tr>
<tr>
<td>17896</td>
<td>Update IBM provided RDO PPT for DFHPGADX to specify &quot;threadsafe&quot;</td>
</tr>
<tr>
<td>18047</td>
<td>Support multiple WSBind directories on WSDIR PIPELINE definition (SHARE requirement SSCIC511011)</td>
</tr>
<tr>
<td>18120</td>
<td>DFHLS2WS improvements to avoid manual edit and DFHWS2LS usage.</td>
</tr>
<tr>
<td>19324</td>
<td>CICS Explorer - lacking DUMP Views</td>
</tr>
<tr>
<td>20195</td>
<td>Correct CMAS Status on WUI picklist when assigning CMAS to a CICSpex.</td>
</tr>
</tbody>
</table>
Include TCB CPU/Disp Ratio for QR TCB in DFHPDxxx 'DS' output
Provide Upgrade Plan from CICS Developer Trial to production
SHA-2 SSL support for CICS
Transaction Server 4.2 Support for TLS 1.1 +
CICS Explorer - CPSM Admin Function Priorities
CICS Explorer - Rational Developer for System Z Relationship
DFHDH0300 & DFHPA1909 could be more user friendly.
Access TCB Fields
Integrated compilation support for EXCI batch program
The sysplex_enqueue_waiter value needs to be adjustable
Produce in any case a systemdump for U0999 abends without the need for the user to add the code into the SRT
Make SPI INQUIRE SYSTEM, PROGRAM, TRANSACTION THREADSAFE (SHARE requirement SSCICS07004)
Allow CEMT, CECI & EXEC CICS INQUIRE display residency status of programs
Additional Short On Storage message needed
NQEA Freechain storage is not freed until CICS is recycled.
Issue a warning message when total number of DB2 threads is greater than the TCBLIMIT on the DB2CONN definition.
CICS IPIC port sharing for high availability purposes
Reduce minimum delay for interval control wait.
CICS Statistics Reporting enhancement
Support Kerberos authentication with CICS
Improve error messages in WS-assistant
Enhance WebServices for COBOL Occurs Depending On clause (SHARE requirement SSCICS08005)
Method for determining the state of the SIT MSGCASE parameter
Provide INQUIRE SYSTEM SMFID and INQUIRE SYSTEM MVSSYSID (GSE Requirement GGCIC07014)
CICS Information Center search results should reveal area/topic/manual
Allow a Specific Library name to be specified on a PPT definition (SHARE requirement SSCICS08024)
Complete DFHDOU203I message with important informations (GSE requirement GGCIC09003)
DFHWS2LS requires an exclusive lock on the partitioned data set to which it writes.
Enhancement to DFHWS2LS: add additional parameters to control URIMAP settings and wsdl/wsbind file permissions
CICS unable to identify which Web Service will be installed during the startup
CICS Channel/Container : new API option to extend the life of the CONTAINER
Improvements to CICS SSL processing to be able to support FIPS 140-2
Extend EXEC CICS API to provide 'Link Level' number
CICS unable to process Webservice Requests after Warm Start
The CICS Web services Assistants only support applications with EBCDIC interfaces.
CICS DFHEIENT R13 as CODEREG
CPSM WUI server should fail to initialize if WUIPARAM DEFAULTWARNCNT is zero
Allow a WUI server to start without CICS auxiliary trace on (GSE requirement GGCIC09001)
Resource TSMODEL, attribute EXPRYINT with values less 1h (intervals in minutes or seconds).
Allow more than one transaction - add for WUI TRANGRP (SHARE requirement SSCICS07001)
record the time when peak/MXT happens in statistic
Enhance DFHOSTAT for TSPOOL reporting
CICS Explorer - Add Ability to View GLUES and TRUES (SHARE requirement SSCICS12001) requirement
inactivate TSQ deletion interval less than one hour
Ability to control the usage of TS resource.
allow DUMPCODE on CEMT PERFORM DUMP
AD2S documentation
Remove comma from CPSM Resource Table Object:
"CICSPLEX" Attribute: "TRANSITCNT" Field:
"DESCRIPTION"
Display CPSM Message EYUWM0423I on z/OS Console
remove shared TSQ in CF automatically
Update DFHWB0732 explanation
CICS TS retries zFS errors that are temporary
DFHLS2WS and modification of Xshareclasses name parameter.
Change DFHDBFK to use LSR rather than NSR,
Shared TSQs in CICS Explorer
Filter Attributes in Editor
Add elapsed time limit to CICS Transaction Server policies
CICS SAMl support - scenario 1 - validate SAMl
CICS SAMl support - scenario 2 - propagation of SAMl
CICS SAMl support - scenario 3 - create a SAMl assertion
CICS SAMl support - scenario 4 - extend a SAMl assertion
CICS SAMl support - scenario 5 - resign a modified assertion
CSFE Status
CICS ENQ - adjustable delay time for re-checking resource available
Provide additional information for E.C.FORMATTIME
SHA-2 support in CICS TS for z/OS
EYU9XLOP is called regardless of DYNAMIC(YES) specification
Extend the EXPIRYINT attribute for TSQ servers
Support more than one programs with same name load from different library in one CICS region
Support of the CICS V5.1 Trial Product and future ones
Expose the application context
JRIO OPDATA Tracking for DFHLS2WS
existing DB2Tran gets deleted when changing an other DB2Entry
support timeout base on elapsed time of task
Program Load Date and Time
Custom logic within the Liberty authentication process.
DB2 Datasource Connection in Liberty
RFE for eclipse EFS OSGI bundle exporter
Supply CICS API for verification of Kerberos tokens
Improve error message for AC2249 system dump
key product after using CICS trial
Cics DB2 Type 4 Support from Java
Must have SEYUAUTH in STEPLIB if CPSM and Explorer not used
SAF key ring support in CICS/Liberty
ALLOW more flexible BUNDLE definitions
Support of SHA-256 hashing algorithm by CICS TS SSL
Support of JAX-WS in CICS/Liberty
DFPHP1009 diagnostic enhancements
Ability to extend evaluation period of the Developer Trial version of CICS TS without reinstalling
Require full APAR support for the Developer Trial versions of CICS TS

Requirements for CICS TS can be created, viewed, and voted for, in the IBM Request For Enhancement (RFE) community. Visit
http://www.ibm.com/developerworks/rfe/
Planning information

Elements included in CICS TS V5.2
The base CICS element of CICS TS V5.2 is CICS V6.9.

The CICSPlex SM element is CICSPlex SM V5.2.

Other elements of CICS TS V5.2, that were previously available as separate IBM products, are:

- CICS REXX Runtime Facility
- CICS REXX Development System
- CICS REXX Common for z/OS

CICS TS V5.2 is shipped with CICS Service Flow Runtime, which allows the deployment of CICS business services (or service flows) created by the Service Flow Modeler component of Rational Developer for System z, V7.6 or later. The service flow runtime capability of CICS TS V5.2 is fully compatible with CICS Service Flow Feature V3.2. For clients upgrading to CICS TS V5.2, the integrated support for business services in this latest release of CICS TS can be used as a direct replacement for CICS Service Flow Feature V3.2.

CICS Application Migration Aid (5695-061) V1.1 is no longer provided as a separate element of CICS TS V5.2.

Physical delivery
The following hardcopy documents and CD-ROM are shipped, together with the basic machine-readable material for the product:

- Licensed Program Specifications CD-ROM (for CICS TS V5.2 only) (GC34-2939)
- License Information CD-ROM (for CICS TS Developer Trial V5.2 only) (GC34-2974)
- License Information CD-ROM (for CICS TS VUE V5.2 only)(GC34-2975)
- Memo to Licensees (GI13-3349)
- CICS Optimization Solution Pack Datasheet (GI13-3345)
- CICS Product Documentation Flyer (GI13-3348)
- CICS Technical Services Flyer (GI13-3350)

Certain other items, such as specification sheets of related IBM products, might be included.

Electronic delivery
The following CICS Information Centers are available for download from the IBM Publications Center:

- CICS Information Center for AIX® (SK4T-2706)
- CICS Information Center for Linux™ Intel (SK4T-2707)
- CICS Information Center for Microsoft™ Windows™ (SK4T-2708)
- CICS Information Center for z/OS (SK4T-2709)

PDF versions of CICS product documentation are also available for download from the IBM Publications Center. See the section on Product Documentation for details.

Visit the IBM Publications Center at

http://www.ibm.com/shop/publications/order
At general availability of CICS TS V5.2, clients can also download and use CICS Explorer V5.2. This release of CICS Explorer can be used with each supported release of CICS TS and is available as a no-charge optional feature. Further information is available at


**Security, auditability, and control**

Information about security is available in both the online product documentation for CICS TS V5.2 and the *RACF® Security Guide* (SC32-7288).

CICS TS V5.2 uses the security and auditability features of the operating system under which it is running.

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

**Ordering information**

**Ordering z/OS through the Internet**

ShopzSeries provides an easy way to plan and order your z/OS ServerPac or CBPDO. It will analyze your current installation, determine the correct product migration, and present your new configuration based on z/OS. Additional products can also be added to your order (including determination of whether all product requisites are satisfied). ShopzSeries is available in the US, Canada, and several countries in Europe. In countries where ShopzSeries is not available yet, contact your IBM representative (or IBM Business Partner) to handle your order via the traditional IBM ordering process. For more details and availability, visit the ShopzSeries website at


*To simplify the ordering process for CICS TS Developer Trial V5.2, the "evaluation" order option in ShopzSeries should not be selected.*

**New licensees**

Orders for new licenses can be placed now.

Registered clients can access IBMLink for ordering information and charges.

Shipment will not occur before the availability date.

Unless a later date is specified, orders entered before the planned availability date will be assigned a schedule date of one week following availability.

New users of CICS TS should specify:

Type: 5655  Model: Y04

**Parallel Sysplex License Charge (PSLC) basic license**

To order a basic license, specify the program number and quantity of MSU.

If there is more than one program copy in a Parallel Sysplex, the charge for all copies is associated to one license by specifying the applicable PSLC license options and quantity represented by the sum of the Service Units in Millions (MSUs) in your Parallel Sysplex. For all other program copies, specify the System Usage Registration No-Charge (SYSUSGREG NC) Identifier on the licenses.
Program name: CICS TS V5.2
Program ID: 5655-Y04

Entitlement identifier Description License option/Pricing metric
S0172DF CICS TS V5.2 Basic MLC, PSLC below 3 MSU
                                Basic MLC, PSLC AD
                                SYSUSGREG NC, PSLC AD

**Advanced Workload License Charge (AWLC) basic license**

To order a basic license, specify the program number and quantity of MSUs. If there is more than one program copy in a Parallel Sysplex, the charge for all copies is associated to one license by specifying the applicable AWLC license options and quantity represented by the sum of the Service Units in Millions (MSUs) in your Parallel Sysplex. For all other program copies, specify the System Usage Registration No-Charge (SYSUSGREG NC) Identifier on the licenses.

Program name: CICS TS V5.2
Program ID: 5655-Y04

Entitlement identifier Description License option/Pricing metric
S0172DF CICS TS V5.2 Basic MLC, AWLC

**Advanced Entry Workload License Charge (AEWLC) basic license**

To order a basic license, specify the program number and quantity of MSUs.

Program name: CICS TS V5.2
Program ID: 5655-Y04

Entitlement identifier Description License option/Pricing metric
S0172DF CICS TS V5.2 Basic MLC, AEWLC

**Workload License Charge (WLC) basic license**

If there is more than one program copy in a Parallel Sysplex, the charge for all copies is associated to one license by specifying the applicable WLC license options and quantity represented by the sum of the Service Units in Millions (MSUs) in your Parallel Sysplex. For all other program copies, specify the Workload Registration Variable WLC Identifier on the licenses.

Entitlement identifier Description License option/Pricing metric
S0172DF CICS TS V5.2 Basic MLC, Variable WLC
                                Workload Registration, Variable WLC

**Entry Workload License Charge (EWLC) basic license**

To order a basic license, specify the program number and the quantity of MSUs.

Entitlement identifier Description License option/Pricing metric
S0172DF CICS TS V5.2 Basic MLC, Entry WLC
**System z usage license charge basic license**

Specify the applicable System z usage license charge option.

Charges will be based upon the Peak MSUs. Usage reported between thresholds of features 1, 2, or 3, will be rounded up to the next MSU level. Above 1.0 MSU, usage will be rounded to the nearest whole MSU. For example, 2.4 MSUs would round to 2.0 MSUs for pricing, and 2.5 MSUs would round to 3.0 MSUs for pricing.

The client pricing will be determined by selecting either:

**Program name:** CICS TS V5.2  
**Program ID:** 5655-Y04

<table>
<thead>
<tr>
<th>Entitlement identifier</th>
<th>Description</th>
<th>License option/Pricing metric</th>
</tr>
</thead>
<tbody>
<tr>
<td>S0172DF</td>
<td>CICS TS V5.2</td>
<td>0 to 0.25 MSU Base</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.26 to 0.5 MSU Base</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.51 to 1.0 MSU Base</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Level A Chg/MSU (2 to 11 MSUs)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Level B Chg/MSU (12 to 44 MSUs)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Level C Chg/MSU (45 to 78 MSUs)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Level D Chg/MSU (Above 78 MSUs), per 50 MSUs</td>
</tr>
</tbody>
</table>

**Examples for ordering**

A client with a measured usage (from the IBM Measured Usage report) of 0.3 MSU would order quantity 1 of the 0.26 to 0.5 MSU base feature.

A client with 6.6 MSUs (from the IBM Usage report) would:

- Be rounded up to 7.0 MSUs
- Order quantity 1 of the "0.51 to 1.0 MSU" base feature
- Order quantity 6 of the Level A 1 MSU feature

A client with 15 MSUs (from the IBM Usage report) would:

- Order quantity 1 of the "0.51 to 1.0 MSU" base feature
- Order quantity 10 of the Level A 1 MSU feature
- Order quantity 4 of the Level B 1 MSU feature
- Order quantity 4 of the Level B 1 MSU feature

A client with 50 MSUs (from the IBM Usage report) would:

- Order quantity 1 of the "0.51 to 1.0 MSU" base feature
- Order quantity 10 of the Level A 1 MSU feature
- Order quantity 33 of the Level B 1 MSU feature
- Order quantity 6 of the Level C 1 MSU feature

A client with 85 MSUs (from the IBM Usage report) would:

- Order quantity 1 of the "0.51 to 1.0 MSU" base feature
- Order quantity 10 of the Level A 1 MSU feature
- Order quantity 33 of the Level B 1 MSU feature
- Order quantity 34 of the Level C 1 MSU feature
- Order quantity 7 of the Level D 1 MSU feature
**System z Entry License Charge (zELC)**

To order zELC software, specify the program number and z800 model.

Specify the zELC monthly license option.

Program name: CICS TS V5.2
Program ID: 5655-Y04

Entitlement identifier  Description  License option/Pricing metric
S0172DF  CICS TS V5.2  Basic MLC, zELC

**Single version charging**

To elect single version charging, the client must notify and identify to IBM the prior program and replacement program and the designated machine the programs are operating on.

**Charge metric (for CICS TS Developer Trial V5.2)**

<table>
<thead>
<tr>
<th>Program name</th>
<th>PID number</th>
<th>Charge metric</th>
</tr>
</thead>
<tbody>
<tr>
<td>CICS TS Developer Trial V5.2</td>
<td>S655-Y30</td>
<td>No charge</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Unlimited installs</td>
</tr>
</tbody>
</table>

**Basic license (for CICS TS Developer Trial V5.2)**

CICS TS Developer Trial V5.2

Basic license: No charge. Unlimited installs

Feature description

Program Package 0001

To order, specify the program product number and the appropriate license or charge option. Also, specify the desired distribution medium. To suppress shipment of media, select the license-only option in CFSW.

Program name: CICS TS Developer Trial V5.2
Program ID: S655-Y30

Entitlement identifier  Description  License option/Pricing metric
S0172F9  CICS TS Developer Trial V5.2  No charge
Unlimited installs

Orderable supply ID  Language  Distribution medium
S0172F8  Multilingual  3590 tape

Subscription and Support PID: S655-Y15

Entitlement identifier  Description  License option/Pricing metric
S016Z0T  CICS TS Developer Trial V5.2  No charge
Unlimited installs
SW S&S Reg, No Charge
Orderable
Supply ID Description
S016228 CICS TS Developer Trial S&S Hardcopy

**Charge metric (for CICS TS VUE V5.2)**

<table>
<thead>
<tr>
<th>Program name</th>
<th>PID number</th>
<th>Charge metric</th>
</tr>
</thead>
<tbody>
<tr>
<td>CICS TS VUE V5.2</td>
<td>5722-DFJ</td>
<td>Value Unit</td>
</tr>
</tbody>
</table>

The programs in this announcement all have Value Unit-based pricing.

<table>
<thead>
<tr>
<th>Program number</th>
<th>Program name</th>
<th>Value Unit exhibit</th>
</tr>
</thead>
<tbody>
<tr>
<td>5722-DFJ</td>
<td>CICS TS VUE V5.2</td>
<td>VUE007</td>
</tr>
</tbody>
</table>

For each System z IPLA program with Value Unit pricing, the quantity of that program needed to satisfy applicable IBM terms and conditions is referred to as the **required license capacity**. Your required license capacity is based upon the following factors:

- The System z IPLA program you select
- The applicable Value Unit Exhibit
- The applicable terms
- Whether your current mainframes are full capacity or sub-capacity

**Value Unit exhibit VUE007**

<table>
<thead>
<tr>
<th>MSUs</th>
<th>MSUs</th>
<th>Value Units/MSU</th>
</tr>
</thead>
<tbody>
<tr>
<td>minimum</td>
<td>maximum</td>
<td></td>
</tr>
<tr>
<td>Base</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Tier A</td>
<td>4</td>
<td>45</td>
</tr>
<tr>
<td>Tier B</td>
<td>46</td>
<td>175</td>
</tr>
<tr>
<td>Tier C</td>
<td>176</td>
<td>315</td>
</tr>
<tr>
<td>Tier D</td>
<td>316</td>
<td>+</td>
</tr>
</tbody>
</table>

Value Units for mainframes without MSU ratings:

<table>
<thead>
<tr>
<th>Hardware</th>
<th>Value Units/machine</th>
</tr>
</thead>
<tbody>
<tr>
<td>MP3000 H30</td>
<td>6</td>
</tr>
<tr>
<td>MP3000 H50</td>
<td>8</td>
</tr>
<tr>
<td>MP3000 H70</td>
<td>12</td>
</tr>
<tr>
<td>ESL models</td>
<td>2</td>
</tr>
</tbody>
</table>

**Ordering example**

The total number of Value Units is calculated according to the following example.

If your required license capacity is 1,500 MSUs for your selected System z IPLA product, the applicable Value Units would be:

**Translation from MSUs to Value Units**

<table>
<thead>
<tr>
<th>MSUs</th>
<th>Value Units/MSU</th>
<th>Value Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base</td>
<td>3</td>
<td>1.00        = 3.00</td>
</tr>
<tr>
<td>Tier A</td>
<td>42</td>
<td>.45         = 18.90</td>
</tr>
<tr>
<td>Tier B</td>
<td>130</td>
<td>.36         = 46.80</td>
</tr>
<tr>
<td>Tier C</td>
<td>140</td>
<td>.27         = 37.80</td>
</tr>
<tr>
<td>Tier D</td>
<td>1,185</td>
<td>.20         = 237.00</td>
</tr>
<tr>
<td>Total</td>
<td>1,500</td>
<td></td>
</tr>
</tbody>
</table>
When calculating the total number of Value Units, the sum is to be rounded up to the next integer.

*Basic license (for CICS TS VUE V5.2)*

**On/Off CoD**

CICS TS VUE V5.2 is eligible for On/Off CoD with a temporary use charge calculated based on MSUs per-day usage.

Program name: CICS TS VUE V5.2  
Program ID: 5722-DFJ

<table>
<thead>
<tr>
<th>Entitlement identifier</th>
<th>Description</th>
<th>License option/Pricing metric</th>
</tr>
</thead>
<tbody>
<tr>
<td>S01770R</td>
<td>CICS TS VUE V5.2</td>
<td>Basic OTC, Per MSU-day TUC</td>
</tr>
</tbody>
</table>

Program name: CICS TS VUE V5.2  
Program ID: 5722-DFJ

<table>
<thead>
<tr>
<th>Entitlement identifier</th>
<th>Description</th>
<th>License option/Pricing metric</th>
</tr>
</thead>
<tbody>
<tr>
<td>S01770R</td>
<td>CICS TS VUE V5.2</td>
<td>Basic OTC, per Value Unit</td>
</tr>
</tbody>
</table>

**Orderable supply ID**  
Language  
Distribution medium

S01770P  
Multilingual  
3590 Tape

Subscription and Support PID: 5722-DFK

<table>
<thead>
<tr>
<th>Entitlement identifier</th>
<th>Description</th>
<th>License option/Pricing metric</th>
</tr>
</thead>
</table>
| S01770Z                | CICS TS VUE V5.2  | Basic ASC, per Value Unit SW S&S  
No charge, decline SW S&S  
Per MSU SW S&S registration |

**Orderable supply ID**  
Language  
Distribution medium

S01770X  
Multilingual  
Hardcopy pub

**Subscription and Support (for CICS TS VUE V5.2)**

To receive voice technical support via telephone and future releases and versions at no additional charge, Subscription and Support must be ordered. The capacity of Subscription and Support (Value Units) must be the same as the capacity ordered for the product licenses.

To order, specify the Subscription and Support program number (PID) referenced above and the appropriate license or charge option.

IBM is also providing Subscription and Support for these products via a separately purchased offering under the terms of the IBM International Agreement for Acquisition of Software Maintenance. This offering:

- Includes and extends the support services provided in the base support to include technical support via telephone.
- Entitles you to future releases and versions, at no additional charge. Note that you are not entitled to new products.
When Subscription and Support is ordered, the charges will automatically renew annually unless cancelled by you.

The combined effect of the IPLA license and the Agreement for Acquisition of Software Maintenance gives you rights and support services comparable to those under the traditional ICA S/390® and System z license or its equivalent. To ensure that you continue to enjoy the level of support you are used to in the ICA business model, you must order **both** the license for the program **and** the support for the selected programs at the same Value Unit quantities.

**Customization options**

Select the appropriate feature numbers to customize your order to specify the delivery options desired. These features can be specified on the initial or MES orders.

Expedite shipments will be processed to receive 72-hour delivery from the time IBM Integrated Supply Chain (ISC) receives the order. ISC will then ship the order via overnight air transportation.

**Product documentation**

CICS TS V5.2 product documentation is provided in three ways:

- Online, through IBM Knowledge Center
- In a downloadable, Information Center
- In downloadable, PDF manuals

**Online information in IBM Knowledge Center**

Online documentation for CICS TS V5.2 is now hosted in IBM Knowledge Center. IBM Knowledge Center provides information for over 2,500 IBM products. The information that was previously provided in product Information Centers is in IBM Knowledge Center. IBM Knowledge Center provides integrated tools for finding, filtering, customizing, saving, and sharing information.

Benefits include:

- Consolidation: IBM Knowledge Center is one place to go to find information about all IBM products.
- Consistency: There were differences in the presentation and function of Information Centers between products. IBM Knowledge Center provides the same set of functions for all product information.
- Customization: Clients can use IBM Knowledge Center filtering capabilities to select the information that is most relevant to them, and build that information into customized collections for viewing online or in PDF. IBM updates to the information are automatically reflected in such collections.

For more information about the features of IBM Knowledge Center, see the welcome page, at

http://www.ibm.com/support/knowledgecenter/

For the CICS TS V5.2 product documentation in Knowledge Center, visit

http://www.ibm.com/support/knowledgecenter/SSGMCP_5.2.0

**Information Center**

Online documentation for CICS TS V5.2 is provided for download to a client’s environment in an Information Center. The CICS TS V5.2 Information Center consists of an IBM User Interface Help System, built on Eclipse, and information content as a set of document plug-ins. All documentation for CICS TS V5.2 is
provided in a single, downloadable, Information Center, making it simple to obtain. The following CICS Information Centers are available for download from the IBM Publications Center:

- CICS Information Center for AIX (SK4T-2706)
- CICS Information Center for Linux Intel (SK4T-2707)
- CICS Information Center for Microsoft Windows (SK4T-2708)
- CICS Information Center for z/OS (SK4T-2709)

To obtain a CICS TS V5.2 Information Center, visit the IBM Publications Center, at

http://www.ibm.com/shop/publications/order

**PDF manuals**

Documentation for CICS TS V5.2 is provided for download in PDF format. Clients can download individual manuals or a complete set, known as a Product Kit (PKIT). The PDF manuals are listed below and available for download from the IBM Publications Center. To download manuals or PKIT, visit the IBM Publications Center at

http://www.ibm.com/shop/publications/order

<table>
<thead>
<tr>
<th>Publication</th>
<th>Form number</th>
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<tr>
<td>CICS TS for z/OS V5.2 - base (Program Directory)</td>
<td>GI13-3326</td>
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<tr>
<td>CICS TS for z/OS V5.2 - activation module (Program Directory)</td>
<td>GI13-3352</td>
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<tr>
<td>CICS TS for z/OS Developer Trial V5.2 - activation module (Program Directory)</td>
<td>GI13-3353</td>
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<tr>
<td>CICS TS for z/OS Value Unit Edition V5.2 - activation module (Program Directory)</td>
<td>GI13-3354</td>
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<tr>
<td>Product Kit of all CICS TS 5.2 manuals</td>
<td>SK4T-2710</td>
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<tr>
<td>Application Programming Guide</td>
<td>SC34-7266</td>
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<td>Application Programming Reference</td>
<td>SC34-7267</td>
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<td>Business Transaction Services</td>
<td>SC34-7268</td>
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<tr>
<td>Customization Guide</td>
<td>SC34-7269</td>
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<tr>
<td>C++ OO Class Libraries</td>
<td>SC34-7270</td>
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<tr>
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<tr>
<td>CICS DB2 Guide</td>
<td>SC34-7272</td>
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<tr>
<td>Debugging Tools Interfaces Reference</td>
<td>GC34-7273</td>
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<tr>
<td>Diagnosis Reference</td>
<td>GC34-7274</td>
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<tr>
<td>Distributed Programming Reference</td>
<td>SC34-7275</td>
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<tr>
<td>CICS External Interfaces Guide</td>
<td>SC34-7276</td>
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<td>Front End Programming Interface Guide</td>
<td>SC34-7277</td>
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<tr>
<td>CICS IMS Database Control Guide</td>
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<td>Installation Guide</td>
<td>GC34-7279</td>
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<tr>
<td>CICS Intercommunication Guide</td>
<td>SC34-7280</td>
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<tr>
<td>Internet Guide</td>
<td>SC34-7281</td>
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<tr>
<td>Java Applications in CICS</td>
<td>SC34-7282</td>
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<td>CICS Messages and Codes Volume 1</td>
<td>GC34-7283</td>
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<tr>
<td>CICS Messages and Codes Volume 2</td>
<td>GC34-7284</td>
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<td>SC34-7285</td>
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<td>Performance Guide</td>
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<td>CICS Problem Determination Guide</td>
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<tr>
<td>RACF Security Guide</td>
<td>SC34-7288</td>
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<tr>
<td>Recovery and Restart Guide</td>
<td>SC34-7289</td>
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<tr>
<td>Resource Definition Guide</td>
<td>SC34-7290</td>
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<tr>
<td>CICS Shared Data Tables Guide</td>
<td>SC34-7291</td>
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<tr>
<td>CICS Supplied Transactions</td>
<td>SC34-7292</td>
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<tr>
<td>System Definition Guide</td>
<td>SC34-7293</td>
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<td>System Programming Reference</td>
<td>SC34-7294</td>
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<td>CICS Trace Entries</td>
<td>SC34-7295</td>
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<td>Upgrading from Version 3.1</td>
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<td>GC34-7299</td>
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<td>Upgrading from Version 5.1</td>
<td>GC34-7300</td>
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<tr>
<td>Web Services Guide</td>
<td>SC34-7301</td>
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<tr>
<td>What's New</td>
<td>GC34-7302</td>
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CICSp lex SM Administration                      SC34-7303
CICSp lex SM Application Programming Guide      SC34-7304
CICSp lex SM Application Programming Reference SC34-7305
CICSp lex SM Concepts and Planning               SC34-7306
CICSp lex SM Managing Business Applications     SC34-7307
CICSp lex SM Managing Resource Usage             SC34-7308
CICSp lex SM Managing Workloads                  SC34-7309
CICSp lex SM Messages and Codes                  GC34-7310
CICSp lex SM Monitor Views Reference             SC34-7311
CICSp lex SM Operations Views Reference          SC34-7312
CICSp lex SM Problem Determination Guide         GC34-7313
CICSp lex SM Resource Tables Reference Volume 1  SC34-7314
CICSp lex SM Resource Tables Reference Volume 2  SC34-7315
CICSp lex SM Web User Interface                  SC34-7316

National language versions

Translated PDF editions of the What’s New publication are available:

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<th>Title</th>
<th>Form number</th>
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<td>GC43-0289</td>
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<td>What’s New (Japanese)</td>
<td>GC43-0234</td>
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<tr>
<td>What’s New (Simplified Chinese)</td>
<td>GC43-0250</td>
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<td>What’s New (Spanish)</td>
<td>GC43-0422</td>
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Other translated PDF documentation is also available. For more information, visit the IBM Publications Center, at

http://www.ibm.com/shop/publications/order

Printed publications and CD-ROM

The following documentation is delivered printed or on CD-ROM with the product:

<table>
<thead>
<tr>
<th>Title</th>
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<tbody>
<tr>
<td>Licensed Program Specifications CD-ROM (for CICS TS</td>
<td>GC34-2939</td>
</tr>
<tr>
<td>V5.2 only)</td>
<td></td>
</tr>
<tr>
<td>License Information CD-ROM (for CICS TS Developer</td>
<td>GC34-2974</td>
</tr>
<tr>
<td>Trial V5.2 only)</td>
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</tr>
<tr>
<td>License Information CD-ROM (for CICS TS VUE V5.2 only)</td>
<td>GC34-2975</td>
</tr>
<tr>
<td>Memo to Licensees(printed copy only)</td>
<td>GI13-3349</td>
</tr>
<tr>
<td>CICS Optimization Solution Pack Datasheet (printed</td>
<td>GI13-3345</td>
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<tr>
<td>copy only)</td>
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<tr>
<td>CICS Product Documentation Flyer (printed copy only)</td>
<td>GI13-3348</td>
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<tr>
<td>CICS Technical Services Flyer (printed copy only)</td>
<td>GI13-3350</td>
</tr>
</tbody>
</table>

Other CICS publications

For information on IBM Redbooks®, visit

http://www.redbooks.ibm.com/

For information on IBM Redpapers™, visit


CICS workshops

Workshops are available from IBM education services to help clients make the most of CICS and related CICS products. Available courses include:

<table>
<thead>
<tr>
<th>Course name</th>
<th>Code</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>IBM CICS and Web services</td>
<td>WRR032</td>
<td>2.5 days</td>
</tr>
<tr>
<td>IBM CICS tools and CICSp lex SM</td>
<td>WRR033</td>
<td>3 days</td>
</tr>
<tr>
<td>IBM CICS Java development</td>
<td>WRR030</td>
<td>3 days</td>
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</tbody>
</table>
Integrating CICS applications in an SOA  WRB053  3 days
SOA application modernization on z/OS  WRB051  2 days
IBM Workload Manager: Controlling system performance WRB061  3 days
Analyzing and optimizing system performance for your installation  WRB058  5 days
Cross site data sharing  ITS748  2 days
IBM z/OS diagnostics and analysis  WRR034  2 days

For more information visit

http://www.ibm.com/training

Subsequent updates (technical newsletters or revisions between releases) to the publications shipped with the product will be distributed to the user of record for as long as a license for this software remains in effect. A separate publication order or subscription is not needed.

Customized offerings

Product deliverables are shipped only via CBPDO, ServerPac, SystemPac.

CBPDO and ServerPac are offered for Internet delivery in countries where ShopzSeries product ordering is available. Internet delivery reduces software delivery time and allows you to install software without the need to handle tapes. For more details on Internet delivery, refer to the ShopzSeries help information at

http://www.software.ibm.com/ShopzSeries

You choose the delivery method when you order the software. IBM recommends Internet delivery. In addition to Internet and DVD, the supported tape delivery options for CBPDO, ServerPac, SystemPac include:

- 3590
- 3592

Most products can be ordered in ServerPac and SystemPac the month following their availability on CBPDO. z/OS can be ordered via all three offerings at general availability. Production of software product orders will begin on the planned general availability date.

- CBPDO shipments will begin one week after general availability.
- ServerPac shipments will begin two weeks after general availability
- SystemPac shipments will begin four weeks after general availability due to additional customization, and data input verification.

Terms and conditions

The terms for CICS TS V5.1, as previously announced in Software Announcement 212-325, dated October 3, 2012, and licensed under the IBM Customer Agreement (ICA) are unaffected by this announcement.
**IBM Operational Support Services - SupportLine**

Yes

**Educational allowance available**

Applicable to CICS TS V5.2 VUE (5722-DFJ) only.

Yes. A 15% education allowance applies to qualified educational institution clients.

**Agreement for Acquisition of Software Maintenance (for CICS TS VUE V5.2)**

The following agreement applies for Software Subscription and Support (Software Maintenance) and does not require client signatures: IBM Agreement for Acquisition of Software Maintenance (Z125-6011)

This program is licensed under the IBM Program License Agreement (IPLA) and the associated Agreement for Acquisition of Software Maintenance, which provide for support with ongoing access to releases and versions of the program. This program has a one-time license charge for use of the program and an annual renewable charge for the enhanced support that includes telephone assistance (voice support for defects during normal business hours) as well as access to updates, releases, and versions of the program as long as support is in effect.

IBM System z Operational Support Services - SoftwareXcel is an option if you desire added services.

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**IBM Electronic Services**

Electronic Service Agent™ and the IBM Electronic Support web portal are dedicated to providing fast, exceptional support to IBM Systems clients. The IBM Electronic Service Agent tool is a no-additional-charge tool that proactively monitors and reports hardware events, such as system errors, performance issues, and inventory. The Electronic Service Agent tool can help you stay focused on your company’s strategic business initiatives, save time, and spend less effort managing day-to-day IT maintenance issues. Servers enabled with this tool can be monitored remotely around the clock by IBM Support, all at no additional cost to you.

Now integrated into the base operating system of AIX V5.3, AIX V6.1, and AIX V7.1, Electronic Service Agent is designed to automatically and electronically report system failures and utilization issues to IBM, which can result in faster problem resolution and increased availability. System configuration and inventory information collected by the Electronic Service Agent tool also can be viewed on the secure Electronic Support web portal, and used to improve problem determination and resolution by you and the IBM support team. To access the tool main menu, simply type smitty esa_main, and select Configure Electronic Service Agent. In addition, ESA now includes a powerful web user interface, giving the administrator easy access to status, tool settings, problem information, and filters. For more information and documentation on how to configure and use Electronic Service Agent, refer to

http://www.ibm.com/support/electronic

The IBM Electronic Support portal is a single Internet entry point that replaces the multiple entry points traditionally used to access IBM Internet services and support. This portal enables you to gain easier access to IBM resources for assistance in resolving technical problems. The My Systems and Premium Search functions make it even easier for Electronic Service Agent tool-enabled clients to track system inventory and find pertinent fixes.
Benefits

Increased uptime: The Electronic Service Agent tool is designed to enhance the Warranty or Maintenance Agreement by providing faster hardware error reporting and uploading system information to IBM Support. This can translate to less wasted time monitoring the symptoms, diagnosing the error, and manually calling IBM Support to open a problem record. Its 24x7 monitoring and reporting mean no more dependence on human intervention or off-hours client personnel when errors are encountered in the middle of the night.

Security: The Electronic Service Agent tool is designed to be secure in monitoring, reporting, and storing the data at IBM. The Electronic Service Agent tool securely transmits via either the Internet (HTTPS or VPN) or modem, and can be configured to communicate securely through gateways to provide you a single point of exit from your site. Communication is one way. Activating Electronic Service Agent does not enable IBM to call into a your system. System inventory information is stored in a secure database, which is protected behind IBM firewalls. It is viewable only by you and IBM. Your business applications or business data is never transmitted to IBM.

More accurate reporting: Because system information and error logs are automatically uploaded to the IBM Support Center in conjunction with the service request, you are not required to find and send system information, decreasing the risk of misreported or misdiagnosed errors. Once inside IBM, problem error data is run through a data knowledge management system and knowledge articles are appended to the problem record.

Customized support: Using the IBM ID entered during activation, you can view system and support information in the My Systems and Premium Search sections of the Electronic Support website at

http://www.ibm.com/support/electronic

My Systems provides valuable reports of installed hardware and software using information collected from the systems by Electronic Service Agent. Reports are available for any system associated with your IBM ID. Premium Search combines the function of search and the value of Electronic Service Agent information, providing advanced search of the technical support knowledgebase. Using Premium search and the Electronic Service Agent information that has been collected from your system, you are able to see search results that apply specifically to your systems.

For more information on how to utilize the power of IBM Electronic Services, contact your IBM Systems Services Representative, or visit

http://www.ibm.com/support/electronic

Prices

<table>
<thead>
<tr>
<th>Program number</th>
<th>5655-Y04</th>
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Program name: CICS TS V5.2
Program ID: 5655-Y04

<table>
<thead>
<tr>
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<th>Description</th>
<th>License option/Pricing metric</th>
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<tbody>
<tr>
<td>S0172DF</td>
<td>CICS TS V5.2</td>
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PSLC

Program name: CICS TS V5.2  
Program ID: 5655-Y04

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Program name: CICS TS V5.2  
Program ID: 5655-Y04

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Program name: CICS TS V5.2  
Program ID: 5655-Y04

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VWLC

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Sub-capacity charges for VWLC products

Sub-capacity charges for VWLC products are based on product LPAR utilization capacity. Product LPAR utilization capacity for a VWLC product is the highest number of MSUs utilized by the combined LPARs in which a VWLC product runs concurrently during a reporting period. The number of MSUs is based on the highest observed rolling 4-hour average utilization used by the combination of the relevant LPARs during the reporting period.

Sub-capacity charges terms and conditions

System z software charges at less than full machine capacity for eligible VWLC products apply when z/OS is running in z/Architecture® (64-bit) mode on an IBM System z 900, no other MVS-based operating system is licensed to that server, and the required information is provided by the client in accordance with the applicable terms.

Sub-capacity charges for a VWLC product is based on the utilization of the LPARs where/when the product executes. To obtain charges at less than full machine capacity for VWLC products, the client is required to:

- Sign and abide by the terms of the Attachment for IBM System z workload license charges - (Z125-6516).
- Obtain the latest version of the Sub-Capacity Reporting Tool.
• Install any VWLC product and IBM e(logo)server System z 900 Licensed Internal Code (LIC) service required for sub-capacity charging. Required service will be listed on the WLC website

http://www.ibm.com/zseries/swprice

• Collect SMF data as required by the Sub-Capacity Reporting Tool. Retain the collected SMF data for a period of not less than six months.

• Use the IBM provided Sub-Capacity Reporting Tool to process the collected SMF data. The Sub-Capacity Report produced by the tool is used to determine required license capacity for the VWLC products. Required license capacity is determined based on the largest MSU value of a VWLC product running concurrently in all LPARs during the reporting period. IBM reserves the right to request the system data that supports these product-defined capacity values for a period of up to six months after the data was collected.

• Provide an initial Sub-Capacity Report to begin to receive the benefits of less than full machine capacity charges. Sub-capacity charging will follow submission of a Sub-Capacity Report. There will be no retroactive application of sub-capacity charges.

• Submit Sub-Capacity Reports monthly.

• Submit Sub-Capacity Reports for all VWLC products with complete data for the entire reporting period to the email address and by the date specified in the current IBM System z workload license charges exhibit (Z125-6324) and on the System z Software Pricing Website

http://www.ibm.com/zseries/swprice

Sub-Capacity Reports that reflect a changed product defined capacity will be considered to be orders placed by the client without further action on the client's part, and IBM is authorized to make any resulting billing increase or decrease. To place an order for a new license or to discontinue licenses, move licenses between machines, report a hardware model upgrade, or enable or disable product features, the client must contact IBM or their IBM Business Partner.

• Configure the machine to send weekly Transmit System Availability Data (TSAD) to IBM via the IBM System z 900 Remote Support Facility (RSF). If the machine cannot connect via the RSF, provide this TSAD via an alternate means documented in the z/OS publication Planning for Workload License Charges at

http://www.ibm.com/zseries/swprice

EWLC

Program name: CICS TS V5.2
Program ID: 5655-Y04

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<td>Level C Chg/MSU (45 to 78 MSUs)</td>
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<td>Level D Chg/MSU (Above 78 MSUs), per 50 MSUs</td>
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Program name: CICS TS Developer Trial V5.2
Program ID: 5655-Y30

Entitlement identifier | Description | License option/Pricing metric
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S0172F9 | CICS TS Developer Trial V5.2 | No charge
Unlimited installs

Orderable supply ID | Language | Distribution medium
--- | --- | ---
S0172F8 | Multilingual | 3590 tape

Subscription and Support PID: 5655-Y15

Entitlement identifier | Description | License option/Pricing metric
--- | --- | ---
S016Z0T | CICS TS Developer Trial Subscription and Support | No charge
Unlimited installs

Orderable supply ID | Description
--- | ---
S016Z28 | CICS TS Developer Trial S&S Hardcopy

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Corrections

(Corrected on August 26, 2014)
The Additional information section is revised.