

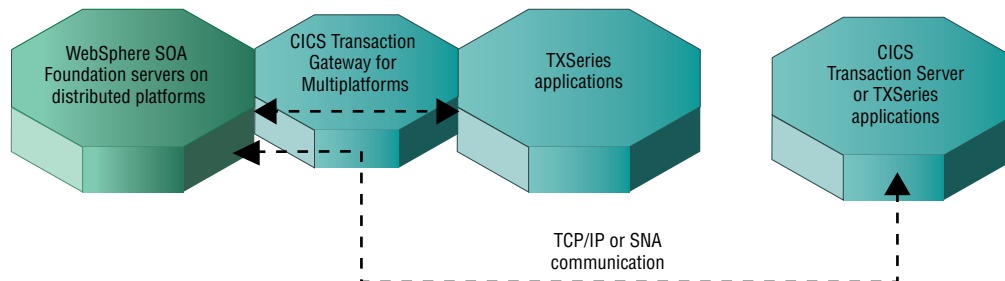
IBM CICS Transaction Gateway for Multiplatforms, Version 7.0

Highlights

- **Connects WebSphere SOA Foundation server products across multiple platforms to CICS Transaction Server and TXSeries applications**
- **Provides J2EE standards-based connectivity that can use the JCA, Version 1.5 specification to manage connections, transactions and security**
- **Enables rapid deployment of existing CICS applications into an SOA – while keeping your business logic intact**
- **Introduces real-time monitoring of CICS Transaction Gateway systems, providing the ability to analyze system-utilization metrics and perform online problem determination**
- **Extends networking capabilities to include support for IPv6 connections, a wider range of SNA support and an option to reduce network overheads**
- **Advances security capabilities to include TLS, Version 1.0 support, enabling more-stringent encryption capabilities and better interoperation with a variety of secure clients**

Service oriented architecture (SOA) is a business-centric IT architectural approach that supports integrating your business as linked, repeatable business tasks, or services. Because much of the world's data is processed using the qualities of service of proven transaction servers such as IBM CICS® Transaction Server and IBM TXSeries® for Multiplatforms, delivering access to these CICS applications using standards-based interfaces is a vital and core step in the journey to SOA.

IBM CICS Transaction Gateway has been proven over many years to provide highly flexible, security-rich and scalable access to CICS applications, requiring minimal changes to CICS systems and usually no changes to existing CICS



CICS Transaction Gateway for Multiplatforms, Version 7.0 provides standards-based connectivity from WebSphere SOA Foundation server products on distributed platforms to CICS Transaction Server and TXSeries systems and applications.

applications. With IBM CICS Transaction Gateway for Multiplatforms, Version 7.0, you can use your CICS communications area (COMMAREA)-based and 3270-terminal-based applications in comprehensive and sophisticated Java™ and Web services solutions hosted on IBM WebSphere® SOA Foundation server products such as IBM WebSphere Application Server, IBM WebSphere Enterprise Service Bus (WebSphere ESB) and IBM WebSphere Process Server. Reusing these applications in mixed CICS and WebSphere workloads delivers real business value by supporting reuse, which gives your organization flexibility and helps reduce cost.

Highly flexible, secure and scalable connectivity

CICS Transaction Gateway uses a high-performance, multithreading capability to handle high-performance communication with front-end application servers and back-end CICS systems. The multithreaded Gateway daemon code is also optimized, enabling support for large numbers of concurrent requests and subsecond response times to users. The strategic SOA interface within the

CICS Transaction Gateway is the Java 2 Platform, Enterprise Edition (J2EE) Connector Architecture (JCA) interface. For maximum flexibility, programming interfaces are also provided in non-managed Java (Java Base Classes), C, C++, COM (for Microsoft® Visual Basic or Visual Basic Script support) and COBOL.

Remote communication can be either Internet Protocol (IP)-based or Systems Network Architecture (SNA)-based, providing a considerable amount of flexibility in deployment options. To maintain security across options-based networks, CICS Transaction Gateway provides comprehensive security features for IP-based communication, including support for Java Secure Socket Extension (JSSE), Secure Sockets Layer (SSL) and now Transport Layer Security (TLS) encryption between the WebSphere SOA Foundation server and CICS Transaction Gateway. An external configuration option that allows you to specify the SSL cipher suite enables you to define the level of security at the application level, and provides the capability to take advantage of new levels of encryption as they emerge.

J2EE platform, standards-based composite applications

CICS Transaction Gateway supports the standard JCA, Version 1.5 specification as its strategic interface. As a component of the J2EE specification, alongside other standard services, the JCA provides a standard programming interface to all enterprise information systems (EISs). Using JCA offers two significant development advantages. First, it enables J2EE developers to program to a standard interface that is widely supported in education materials and software tooling from IBM and non-IBM vendors. Second, JCA provides delegated management of connection pooling, transactional scope and security control, so that J2EE developers don't have to develop these capabilities within the application. Together, these benefits mean better applications can be developed faster and more easily.

A number of complementary tools with the IBM software-development platform support CICS Transaction Gateway and JCA. Together these products can deliver a complete end-to-end IBM solution that can help minimize cost, risk and time to market of new applications.

Rapidly and easily add SOA capabilities to existing CICS applications

CICS Transaction Gateway for Multiplatforms is designed to enable rapid and easy deployment by using industry-standard InstallShield Multiplatforms (ISMP), which greatly simplifies the process of installing, upgrading and applying maintenance. A command-based systems-administration tool enables you to manage, control and monitor your CICS Transaction Gateway for Multiplatforms environment. Along with providing an operator interface to the program, CICS Transaction Gateway for Multiplatforms also provides for the management of historical log data through the ability to specify a particular destination for both informational messages, as well as warning or error messages. The ability to configure the number and size of log files to be retained also helps to reduce the time and effort involved with manual log management.

An External Call Interface (ECI) JCA resource adapter and an External Presentation Interface (EPI) JCA resource adapter enables COMAREA-based and 3270-terminal-based CICS applications to interoperate effectively with WebSphere applications. Using Java servlet or Enterprise JavaBeans (EJB) components, CICS Transaction

Gateway allows high-performing access to existing CICS transactions, while requiring minimal changes to CICS and usually no changes to existing CICS applications.

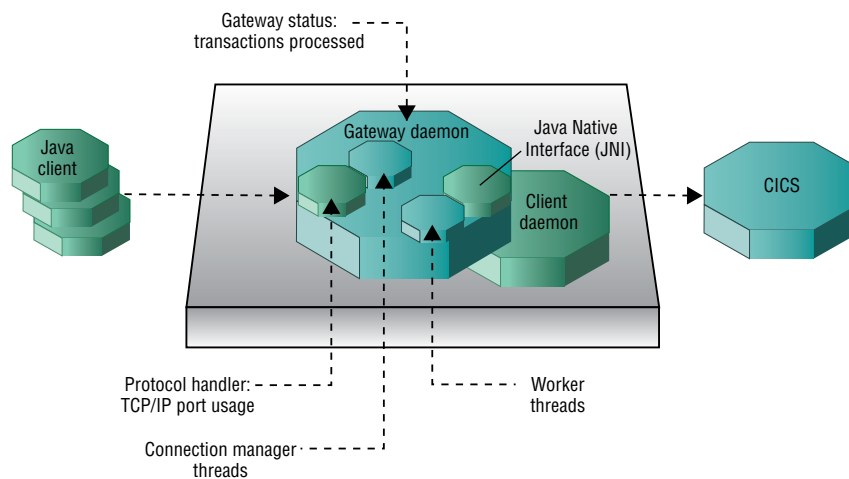
Significant enhancements in CICS Transaction Gateway for Multiplatforms, Version 7.0

CICS Transaction Gateway for Multiplatforms, Version 7.0 delivers significant enhancements over previous releases, in three key value areas:

- *Systems-monitoring capability*
- *Extended networking support*
- *Advanced security enablement*

Systems-monitoring capability

CICS Transaction Gateway for Multiplatforms, Version 7.0 can perform real-time monitoring of gateway systems. This important capability delivers a window into CICS Transaction Gateway, enabling its activity to be monitored proactively. This capability enables CICS Transaction Gateway to detect and resolve abnormal occurrences before they cause a problem to production operations. Systems administrators and capacity planners can analyze system-utilization metrics, and perform online problem determination of these CICS Transaction Gateway system functions.



With this release, CICS Transaction Gateway for Multiplatforms now enables you to monitor gateway systems proactively.

CICS Transaction Gateway provides statistics concerning a number of important metrics, including configurable system limits, internal thread usage and processed transaction requests. You can also access critical information about connection management and transaction throughput, and obtain information about the proximity of the workload to the levels set in the configurable limits. If necessary, you can take action to reduce the need for planned outages or prevent the occurrence of unplanned downtime.

These statistics are made available through two methods. First, you can access monitoring statistics through the extended command-based administration interface. You can also choose to use the new external C language application programming interface (API). Using this API enables custom-built solutions or monitoring applications to use the system-monitoring statistics and take advantage of the API's value within integrated monitoring applications.

Extended networking support

With this release, CICS Transaction Gateway includes the ability to process Internet Protocol, Version 6 (IPv6) connections from remote Java clients, providing for the better routing, enhanced security and global scalability delivered in this latest version of the IP standard. TCP/IP, SSL and TLS connections into the Gateway daemon from remote Java clients can use IPv6 connections along with IPv4 connections. Using IPv6 delivers improved interoperability with CICS applications and enables the enhanced routing and autoconfiguration capabilities of IPv6 networks to be used within the enterprise.

A new "server idle time out" configuration option is provided by CICS Transaction Gateway, which enables TCP/IP or SNA network connections from the Client daemon to CICS servers to be timed out during periods of inactivity. This capability helps network administrators to reduce overheads when managing large networks of attached clients.

Extensions to SNA compatibility enable support for IBM Communications Server for Linux® on IBM POWER® and Linux on Intel®, and for SNAP-IX, Version 7 for Sun Solaris Operating Environment. These enhancements help provide SNA connectivity to CICS Transaction Server for companies that need to maintain their SNA infrastructure or that need to move away from TCP62 environments.

Advanced security enablement

Support for the TLS, Version 1.0 protocol now enables more-stringent encryption capabilities and better interoperation with a variety of secure clients. Along with the existing support for SSL, Version 3.0, support is added for the TLS 1.0 protocol for security-rich connections into the Gateway daemon.

For more information

CICS Transaction Gateway for Multiplatforms is a highly flexible, security-rich and scalable method of SOA access to CICS Transaction Server. It delivers J2EE standards-based access to CICS applications, while requiring minimal changes to CICS and usually no changes to existing CICS applications. To learn more about IBM CICS Transaction Gateway, contact your IBM representative or IBM Business Partner, or visit:

ibm.com/cics/ctg

IBM CICS Transaction Gateway for Multiplatforms, Version 7.0 at a glance

Hardware requirements

Any of the following hardware supported by an operating system listed in the software requirements:

- IBM System z™ machine supported by Linux
- 32-bit or 64-bit IBM System p™ machine supported by IBM AIX® or Linux
- 32-bit or 64-bit Sun SPARC system supported by Sun Solaris Operating Environment
- 32-bit or 64-bit HP PA-RISC, Version 1.1 or 2.0 system supported by HP-UX
- Intel® Pentium®, AMD Opteron or Intel EM64T supported by Microsoft Windows® or Linux (32-bit kernel support only)

Software requirements

One of the following operating systems:

- AIX, Version 5.2 or 5.3 (with 32-bit and 64-bit kernels)
- Linux on System z
 - Red Hat Enterprise Linux (RHEL), Version 3 (with 31-bit kernel) or Version 4 (with 64-bit kernels)
 - SUSE Linux Enterprise Server (SLES), Version 9 or 10 (with 64-bit kernels)
- Linux on Intel
 - RHEL, Version 3 or 4 (with 32-bit kernels)
 - SLES, Version 9 or 10 (with 32-bit kernels)
- Linux on POWER
 - RHEL, Version 3 or 4 (with 64-bit kernels)
 - SLES, Version 9 or 10 (with 64-bit kernels)
- Sun Solaris Operating Environment, Version 9 or 10 (with 32-bit or 64-bit kernels)
- HP-UX11i, Version 2 (with 32-bit or 64-bit kernels)
- Windows 2000, Windows XP or Windows 2003 (with 32-bit kernels)

Note: CICS Transaction Gateway, Version 7.0 requires use of the 32-bit IBM Java Software Development Kit (SDK), Java 2 Technology Edition, Version 5.

Other supported software

- IBM CICS Transaction Server for z/OS®, Version 2.2, 2.3 or 3.1
- IBM CICS Transaction Server for VSE, Version 1.1
- IBM CICS/VSE, Version 2.3
- IBM CICS Transaction Server for iSeries, Version 5.2 or 5.3
- IBM CICS Transaction Server for i5/OS, Version 5.4
- IBM TXSeries for Multiplatforms, Version 5.1, 6.0 or 6.1
- IBM WebSphere Application Server, Version 6.0 or 6.1
- IBM WebSphere Application Server, Version 5.1 (supported if deployed with the downloadable JCA, Version 1.0 resource adapter.)
- BEA Weblogic Application Server, Version 8.1 SP5*

Notes:

WebSphere ESB and WebSphere Process Server are built on WebSphere Application Server. You can use CICS Transaction Gateway with WebSphere SOA Foundation servers that are built on a supported version of WebSphere Application Server. The JCA adapter programming interactions will vary between WebSphere SOA Foundation server models.

*Supported in remote mode on the Windows and Solaris platforms only. The downloadable JCA, Version 1.0 resource adapter is required. Some functionality, such as two-phase commit, and Java 2 security is not available in this configuration.

CICS Transaction Gateway, Version 7.0 also supports a selection of SNA servers, compilers and application-development tools. For detailed and up-to-date hardware and software requirements, visit ibm.com/cics/ctg/reqs



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11-06
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