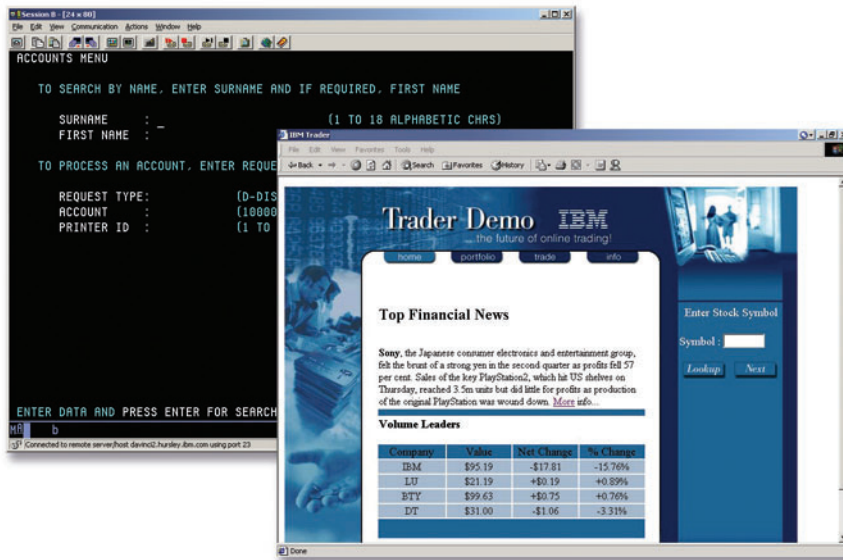*Deliver efficient and reliable access from any application server to your business-critical CICS applications.*

IBM CICS Transaction Gateway, Version 4.0.1

Today, conducting business intelligently means extending core business processes and applications to the Web. Offering the right products to your customers at the right time. You need to build easy-to-use, convenient applications to target self-service Internet consumers. And you must create applications that work for less technically knowledgeable users.

You don't want to start from the ground up. You already have business-critical processes in place — representing a substantial financial and technological investment. The challenge is to make existing business systems accessible in new ways.

IBM CICS® Transaction Gateway, Version 4.0.1 offers a solution. Integrate your Web site with your back-end business application systems running on CICS servers. Get simple, efficient and scalable connectivity for most applications running on CICS servers.

Highlights

- **Supports J2EE for connectivity between the IBM WebSphere software platform for e-business and IBM CICS applications**

- **Offers a comprehensive security-rich environment for optimal authentication and authorization**

- **Allows you to choose application server programming models for deployment across most major execution platforms**

- **Delivers best-of-breed performance and scalability by using memory-based access to optimize connection to CICS applications**

- **Provides implementation of the J2EE Connector Architecture**

business software

Industry-leading J2EE support

As an e-business connector within the IBM Framework for e-business, CICS Transaction Gateway allows you to build, deploy and run applications that work with IBM WebSphere® Application Server or any Web server running on Microsoft® Windows NT®, Sun Solaris operating environment, IBM AIX®, IBM OS/390®, HP-UX and Linux® for OS/390. And with today's focus on building e-business applications based on open standards, Java™ 2 Platform Enterprise Edition (J2EE) specification offers an industry-leading blueprint for end-to-end solutions. CICS Transaction Gateway implements the J2EE Connector Architecture (JCA), enabling it to operate with any compliant application server, including WebSphere Application Server.

CICS Transaction Gateway implements the Common Client Interface (CCI) defined by JCA, allowing you to create applications with tools—such as IBM VisualAge® for Java—to provide adapters for CICS COMMAREA applications or 3270 transactions. The service provider interface (SPI), defined by JCA, accesses pooling, transaction management and security services provided by the Web application servers, so that you can create truly integrated solutions.
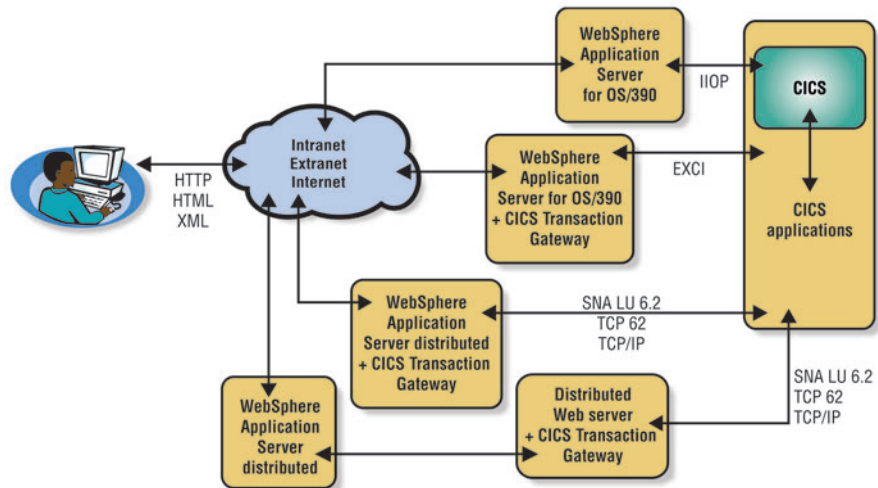
Deployment choices

You need a solution that provides flexible and reliable access to your valuable business-critical CICS applications. A solution with a wide range of options. Whether you plan to implement simple Web sites based on HTML or to develop more sophisticated solutions using Java technology or C++, CICS Transaction Gateway gives you that flexibility. Develop your business solutions to allow Web browsers or Internet-enabled consumer devices to interact with your CICS applications.

If you need simple rendering of CICS 3270 application screens into HTML for display on standard Web browsers, CICS Transaction Gateway provides the terminal servlet. It automatically translates 3270 data streams from existing CICS applications into HTML and transmits these to a browser using HTTP. To present information from CICS applications using HTML forms, you can then create your own HTML templates and Java servlets.

When you want to develop and deploy integration applications using Java servlets, Enterprise JavaBeans (EJB) components or COM objects that form part of a three-tier solution, CICS Transaction Gateway integrates these objects with your business-critical CICS server applications, using the proven IBM external call interface (ECI) and external presentation interface (EPI). These provide access to CICS COMMAREA applications and 3270 transactions and are available in Java, C++, C and Microsoft Visual Basic.

Typical configuration of an IBM CICS Transaction Gateway in a two- or three-tier environment.

Choosing the best deployment platform for your gateway is equally important. CICS Transaction Gateway provides consistent implementation that can be deployed across an increasing number of runtime environments, from Windows® to popular UNIX® platforms, to both Linux and OS/390 operating environments on mainframe systems.

You also have a comprehensive range of networking options for connecting to your CICS systems, including native TCP/IP, TCP62 (which uses SNA upper layer protocols over a TCP/IP transport layer), SNA LU6.2 and memory-based protocols when operating in the OS/390 environment. TCP62 is now available on all supported platforms other than OS/390, providing an option for connecting to IBM CICS Transaction Server, minimizing dependence on SNA networks.

Performance and scalability

Although you may be starting with a simple system today, over time your needs may grow. Be prepared with a solution that can scale to match your needs and handle the demanding workloads that e-business applications can generate. Coping with unpredictable peaks, handling thousands of transactions per second and achieving system availability better than 99.9 percent are all essential for today's successful e-businesses. CICS Transaction Gateway delivers.

CICS Transaction Gateway uses multithreaded daemons to handle communication with front-end application servers and back-end CICS systems. Deployment code is optimized, enabling support for large numbers of concurrent requests and sub-second response times to end users. CICS Transaction Gateway can also transparently exploit the hardware architecture of both symmetric multiprocessor (SMP) and clustered server systems.

In the OS/390 environment, dramatic improvements in performance mean that CICS Transaction Gateway can support workloads in excess of 1,000 transactions per second using multiple gateway images and efficient reuse of memory-based EXCI pipes for access to CICS Transaction Server. Sophisticated load balancing and failover facilities enable transactional workload to be distributed across a number of CICS regions or CICS servers as appropriate.

A comprehensive, security-rich environment

You want to provide access to your business-critical applications — in a security-rich environment. CICS Transaction Gateway provides comprehensive security features through support for Secure Sockets Layer (SSL) and HTTP over SSL (HTTP-S), offering data flow encryption between the application server and the gateway up to 128 bits.

CICS Transaction Gateway provides secure authentication with support for X.509 client certificates. These certificates are mapped to RACF® user IDs and passwords to further enhance authentication checks performed by CICS security mechanisms. To facilitate the management of user IDs and passwords, the external security interface (ESI) enables appropriate customer applications to verify user passwords, as well as to process expired passwords. Finally, CICS Transaction Gateway allows the standard CICS server authorization mechanisms to operate, enabling fine-grained control over end-user access to both transactions and data.

Take advantage of years of IBM e-business experience and technological innovation. Get started quickly with consulting and technical support services from IBM. And because CICS Transaction Gateway is a fully integrated product, you get the benefit of a graphical configuration utility and the support of extensive documentation, such as IBM Redbooks®.

For more information
To learn more about how IBM CICS Transaction Gateway can help you bring your business-critical applications to the Web, visit:

ibm.com/software/ts/cics/platforms/ desktop

IBM CICS Transaction Gateway, Version 4.0.1 at a glance

Supported integrated gateway products

- Web browsers attached through Java servlets and JSP components
- Language bindings for Java, Version 1.3, C++, C and Visual Basic, as well as the functional capabilities of CICS client programming interfaces
- External call interface
- External presentation interface
- External security interface
- Support for J2EE Connector Architecture and IBM Common Connector Framework
- Terminal servlet providing 3270 emulation and attached browsers
- Workload manager

Supported operating systems

- Microsoft Windows NT Workstation, Version 4.0 with SP6a
- Windows NT Server, Version 4.0 with SP6a
- Windows 2000, Profession Edition, with SP1
- Windows 2000 Server with SP1 (with Windows 2000 Terminal Services feature)
- IBM AIX, Version 4.3.3 with SP25
- Sun Solaris, Version 7 and Version 8 (32-bit mode and 64-bit mode)
- HP-UX, Version 11.0
- Linux for IBM S/390 (SuSE, Version 7.0, kernel level 2.2.16 and TurboLinux, Version 6)
- IBM OS/390, Version 2 Release 8 or higher

Supported network protocols

- TCP/IP
- TCP62
- SNA LU6.2
- MRO/EXCI

Packaging and availability

- Available on CD-ROM as a separately priced runtime product
- Available on CD-ROM as part of IBM VisualAge for Java, Version 3.5.3 for development use
- NLS- and DBCS-enabled with support for 13 languages
- Online documentation in PDF format

IBM CICS Transaction Gateway, Version 4.0.1 at a glance continued

Supported Java Development Kit (JDK) levels

- IBM SDK, Level 1.3, Service Release 6 or higher (Windows, Windows NT and AIX)
- Sun Java SDK, Level 1.3 (Sun Solaris)
- HP Java SDK, Level 1.3 (HP-UX)
- IBM Java SDK, Level 1.2.2 (Linux for S/390®)
- IBM Java SDK, Level 1.3 (OS/390)

Supported application servers

- IBM WebSphere Application Server, Version 3.5.3, Enterprise Edition and Advanced Edition (Windows NT, Windows 2000, AIX, Linux and Sun Solaris)
- WebSphere Application Server, Version 4.0, Enterprise Edition (OS/390)
- WebSphere Application Server, Version 3.5, Standard Edition (OS/390, Windows NT, Windows 2000, AIX, Linux and Solaris)

Supported Web servers

- Lotus® Domino™ Go Webserver, Version 4.6.2 (Windows NT, Windows 2000, AIX and Solaris)
- IBM HTTP Server, Version 1.3 (OS/390, Windows NT, Windows 2000, AIX and Sun Solaris)
- Microsoft Internet Information Server, Version 5.0 (Windows 2000 and Windows NT)
- Apache HTTP Server, Version 1.3.12 (SuSE, Version 7.0 and TurboLinux, Version 6)

Supported CICS servers

- CICS/ESA®, Version 4, Release 1 with APAR PQ30167 (communications through SNA)
- CICS Transaction Server for OS/390, Version 1, Release 2 with APAR PQ30168 (through SNA and TCP62)
- CICS Transaction Server for OS/390, Version 1, Release 3 with sign-on capable fix PQ30168 (through SNA and TCP62)
- CICS/VSE, Version 2.3 with APAR PQ30169 for sign-on capable terminals
- CICS Transaction Server for VSE/ESA, Version 1.1.0 with APAR PQ30170 for sign-on capable terminals
- CICS Transaction Server in VSE/ESA, Version 1.1.1
- CICS for IBM OS/400®, Version 4.4
- IBM TXSeries™, Version 4.2 (HP-UX) and Version 4.3 (Windows NT, AIX, Sun Solaris with PTF 4)
- CICS Transaction Server for IBM OS/2®, Version 4.1 with CSD 3
- VisualAge CICS Enterprise Application Development for OS/2 and Windows NT (AD only), Version 3.1 with CSD 3

IBM.®