Ibm Cics Performance Series Cics Ts V5 3 Benchmark On Ibm Z13

IBM® CICS® is a mixed language application server that runs on IBM Z®. Over the 50 years since CICS was introduced in 1969, enterprises have used the qualities of service (QoSs) that CICS provides to allow them to create high throughput and secure transactional applications that have powered their business. As the IT landscape has evolved, so has CICS to allow these applications to integrate with new platforms and still provide value to the rest of the business. Because of this capability, many businesses still rely on CICS to power their core applications. This IBM Redpaper publication focuses on modernizing these CICS applications, allowing them to integrate with cloud-native applications. This modernization can be achieved either by constructing application programming interfaces (APIs) that allow new cloud-native applications to connect to your existing assets, rewriting parts of your application in newer languages and hosting them back on CICS, or by using CICS capabilities to extend your applications to provide new capabilities and functions. The paper takes a traditional example application and shows you how it works. Then, the paper extends the example, rewrites portions of its functions, and enables its APIs. It also explains how CICS applications can use continuous integration (CI) and continuous delivery (CD) to deliver, test, and deploy code into CICS easily and with quality.

The IBM® CICS® Transaction Server for z/VSE® (CICS TS for z/VSE) 2.1 provides functions to improve application programming, system programming, system management, and data security and availability. With CICS TS for z/VSE 2.1, you can use the extended functionality of Basic Security Manager. CICS TS for z/VSE 2.1 can be administrated by the IBM CICS Explorer® function on a workstation, which allows CICS management in a convenient way. This IBM Redbooks® publication provides information to help you install, tailor, and configure the CICS TS for z/VSE 2.1 product. The book is intended for IBM z/VSE customers and IBM technical personnel who are responsible for planning and migrating to IBM z/VSE 6.1 and CICS TS for z/VSE 2.1. The book also provides information to help you understand the affect of migrating to CICS TS for z/VSE 2.1. It provides detailed guidance and samples for installing and configuring CICS TS for z/VSE 2.1. Also included in the book is a description of the CICS TS for z/VSE 2.1 features and capabilities and the affect of removing obsolete functions. The book also covers security and performance issues and provides samples for first level problem determination through the use of memory dumps or the use of trace tools.

Build robust, scalable, end-to-end business solutions with J2EE(TM) Web Services. This is the definitive practitioner's guide to building enterprise-class J2EE Web Services that integrate with any B2B application and interoperate with any legacy system. Sun senior architect Ray Lai introduces 25 vendor-independent architectural patterns and best practices for designing Web Services that deliver outstanding performance, scalability, and reliability. Lai takes you to the frontiers of emerging Web Services technologies, showing how to make the most of today's leading-edge tools, from Java Web Services Developer Pack to Apache Axis. Coverage includes: Web Services: making the business case, and overcoming the technical and business challenges Real-life examples and scenarios, and a start-to-finish application case study Expert guidance on reducing risk and avoiding implementation pitfalls Building complete business solutions with rich messaging and workflow collaboration Mainframe interoperability and B2B integration within and beyond the enterprise Framework and methodology to develop your Web Services patterns and best practices Up-to-the-minute coverage of Web Services security New applications: service consolidation, wireless, and more An extensive library of links to Web resources, reference material, and vendors Whether you're an architect, designer, project leader, or developer, these are the best practices, patterns, and techniques you need to succeed with Web services in your enterprise environment. Enterprises seeking to leverage Web Services to revolutionize the ways they deliver services to customers, partners, and employees will find the answers they need in this book. "Ray Lai's J2EETM Platform Web Services is a comprehensive look at J2EE platform architecture and should be a must read for any serious Web Services developer." --Larry Tabb, Senior Strategic Advisor, Tower Group "This is a book for true practitioners. It's for those interested in designing and implementing Web Services now-and preparing for new opportunities on the horizon." --Jonathan Schwartz, Executive Vice President, Sun Microsystems

The world has changed. With the new cloud options, enterprises no longer must rely on only their IT organization to meet their computing needs. Business units now have options that were not available just a few years ago. They can get some of their needs met by traditional IT processes, and reach out to a cloud provider to meet other needs. The concern is that if you, working in a traditional IT organization, do not meet these needs, someone else will. This IBM® Redbooks® publication helps you to understand the benefits of becoming your own cloud service provider. It describes a simple approach that allows you to be successful. The main focus of the book is lessons learned from the implementation by an IBM client, Walmart Stores, Inc.®, that achieved impressive results in their efforts to become their own cloud service provider to their developer community. In this way, Walmart successfully made z Systems a relevant part of their Hybrid Cloud strategy. Walmart embarked on this journey to help their application developers achieve results that were previously time-consuming and difficult to deliver. In the process, they realized that they had everything that they needed to become a services provider to their developer community. This book describes the choices that Walmart made, and explains the steps they took to be successful. The goal of the book is not to imply that the only way to achieve success is by following Walmart's process exactly. Rather, this book allows you to use the same basic constructs, but choose implementation details that fit your environment so that you can achieve success on your own terms. With IBM CICS® Transaction Server (TS) for z/OS®, you also have the resources for a successful transition to becoming your own cloud service provider. IBM Design Thinking is a methodology that is used by designers to solve complex problems by focusing on individual user roles. This book is organized from the viewpoint of these roles in the IT organization. It provides guidance in the following areas: What does the line of business expect from a cloud service?

What topology and high availability characteristics does the system programmer need? What unique facilities does IBM CICS provide to the service developer? How does a developer discover and consume services in an application? How does the operations team manage the service in production? One of the services that Walmart built and how the decisions made by each job role affected the overall outcome of the service are used as an example throughout this book. It shares the experience of the team that created this and other business critical cloud services that are all hosted in CICS. Comments from Walmart IT leaders that were captured during the authoring process are presented to emphasize why the company adopted cloud and how cloud has helped Walmart to achieve success. Developers understand the risk protection that IT groups provide. They also understand that waiting to move applications to production, or for a service to be provisioned, compromises the agile environment required by today's businesses. This book is intended for enterprise service providers looking to enable their developers to increase the speed at which functionality is delivered to the business. For more information about creating IBM z/OS cloud services, see Creating IBM z/OS Cloud Services, SG24-8324

Threadsafe Considerations for CICS

Customer Information Control System CICS/MVS : Version 2:1 : Performance Guide

CICS TS for Z/OS V5 Performance Report

Proceedings of the Fifth Annual Z User Meeting, Oxford, 17–18 December 1990

CICS/ESA Primer

FiTeq is an IBM® Business Partner that specializes in fraud prevention technologies for the payments industry. This IBM RedpaperTM publication records the methodologies and results of a performance benchmark using the FiTeq Authenticator, which is a component of FiTeq's family of Secure Transaction Solutions. The FiTeq Authenticator is an IBM CICS® enabled application that was run under CICS Transaction Server for z/OS® V5.1 in this benchmark. The performance benchmark was conducted as a joint venture between IBM and FiTeq in January 2014. In summary, the following FiTeq Authenticator application performance characteristics were demonstrated: A scalable solution: CPU usage scales linearly as the number of transactions per second increases. Cost-effective: Approximately only 500 microseconds of CPU per transaction were used for the single configuration. Efficient: Average response times below 20 milliseconds per transaction were maintained at a transaction rate exceeding 8,000 per second. These benchmark test results confirmed and validated that the FiTeq Authenticator is, in conjunction with the performance, reliability, and scalability provided by IBM z/OS and CICS architectures and associated hardware, fully capable of satisfying the requirements of all top financial institutes. As a by-product of the FiTeq Authenticator performance test, the IBM World-Wide Solutions-Cross ISV Sizing team developed a FiTeq Authenticator Sizing Tool to forecast system requirements based on the transactions per second (TPS) and other system requirements of any future FiTeq client. As a result, the IBM pre-sale team and the FiTeq marketing team will be able to recommend the best fit and most cost-effective IBM software and hardware solution for a particular FiTeq client. Performance is based on measurements and projections using standard IBM benchmarks in a controlled environment. The actual throughput or performance that any user will experience will vary depending upon many factors, including considerations, such as the amount of multiprogramming in the user's job stream, the I/O configuration, the storage configuration, and the workload processed. Therefore, no assurance can be given that an individual user will achieve results similar to those stated here.

Virtual Storage Access Method (VSAM) is one of the access methods used to process data. Many of us have used VSAM and work with VSAM data sets daily, but exactly how it works and why we use it instead of another access method is a mystery. This book helps to demystify VSAM and gives you the information necessary to understand, evaluate, and use VSAM properly. This book also builds upon the subject of Record Level Sharing and DFSMStvs. It clarifies VSAM functions for application programmers who work with VSAM. The practical, straightforward approach should dispel much of the complexity associated with VSAM. Wherever possible an example is used to reinforce a description of a VSAM function. This IBM® Redbooks® publication is intended as a supplement to existing product manuals. It is intended to be used as an initial point of reference for VSAM functions.

This IBM® Redbooks® publication describes how the IBM WebSphere® ILOG JRules product can be used in association with other IBM middleware products to deliver better solutions. This book can help architects position a business rule management system (BRMS) in their existing infrastructures to deliver the value propositions that the business needs. This book can also help developers design and integrate JRules with those middleware products (focussing on WebSphere Process Server, WebSphere Message Broker and IBM CICS®) and help to illustrate common integration patterns and practices for these products.

This IBM® Redbooks® publication covers the background and implementation of the IBM CICS® asynchronous API, which is a simple, accessible API that is designed to enable CICS application developers to create efficient asynchronous programs in all CICS-supported

languages. Using the API, application developers can eliminate the overhead that is involved in coding and managing homegrown asynchronous solutions, instead using a set of CICS-supported API commands to underpin CICS applications, which are more responsive and robust than ever. Initially, the book reviews the history and motivations of asynchronous processing in computing and the benefits involved when calling external services. It then introduces the asynchronous API itself and its commands. It also provides a range of scenarios, including sample code, that cover everything from the basics of making an asynchronous request to updating existing synchronous program calls, with the goal of illustrating how to harness the CICS asynchronous API to solve real business problems. Later chapters take a deeper dive into the capabilities of the asynchronous API for advanced use cases. Beyond application development, CICS provides a complete solution for system programmers to manage and monitor asynchronous business logic. Thus, the final chapters of this book cover enhancements to CICS monitoring, statistics, trace, and dumps. Using supporting CICS tooling, system programmers have greater insight than ever, with improved transaction tracking capabilities and CICS policies to provide maximum control and optimization of asynchronous processing in CICS environments.

Implementation Guide

IBM CICS Performance Series

The WebSphere Connector for CICS

IBM CICS Performance Series: FiTeq Authenticator Benchmark

VSAM Demystified

IBM CICS Performance Series: CICS TS for z/OS V5 Performance ReportIBM Redbooks

This Second Edition includes all relevant information regarding IBM's latest major update releases of CICS. Using a step-by-step tutorial, it shows how to develop and maintain CICS code for maximum system effectiveness. Coverage includes all commands, support functions, and VS COBOL II; detailed information on using the first microcomputer (OS/2) version of CICS; and table setup and system utilities for applications programmers developing software on personal computers. By providing a wealth of real-world examples, teaches readers a practical, streamlined approach to problem solving using the latest CICS coding techniques.

The only CICS book that covers all IBM platforms, including the newly announced CICS/6000 and CICS for OS/400. Crownhart explains how to exploit CICS facilities, make informed and effective choices when designing "real-world" applications, and utilize client/server functionality within a CICS application. He also covers distributed and cooperative processing.

This IBM® Redbooks® publication discusses practical uses of the IBM CICS asynchronous API capability. It describes the methodology, design and thought process used by a large client, Walmart, and the considerations of the choices made. The Redbooks publication provides real life examples and application patterns that benefit from the performance and scalability offered by the new API. The book discusses the homegrown methodology used by Walmart before the API was available and compares it with the design using the new API. A discussion of the process used to migrate older applications to begin using the new API is included so the reader will understand the ease of implementing the new API. A description of real world usage patterns describes the current production application Walmart has deployed as well as other patterns to give the reader a sense of what's possible applying creative thinking with technology improvements. Finally, a section is included on the areas to be considered as you begin to plan and implement asynchronous API capabilities. This book should be read by: Enterprise Architects searching for faster ways to service strategic applications across the enterprise. Solution Architects who want to better understand implementation possibilities for improved response times and better performance for CICS applications. CICS programmers looking to modernize and provide improved response times. This book is meant to be used in tandem with IBM Redbooks publication IBM CICS Asynchronous API: Concurrent Processing Made Simple, SG24-8411, which will provide the background and implementation instructions and commands for the API itself.

Patterns: Integrating WebSphere ILOG JRules with IBM Software

Z User Workshop, Oxford 1990

Liberty in IBM CICS: Deploying and Managing Java EE Applications

CICS Performance Monitor

This handbook is for systems programmers tasked with maintaining high performance while adding more terminals, programs, transactions and files. Topics include introduction to CICS performance tuning, operation system tuning, network considerations in a CICS environment, guidelines to VSAM optimization and design, and customizing CICS tables.

This IBM® Redbooks® publication focuses on developing Web service applications in IBM CICS®. It takes the broad view of developing and modernizing CICS applications for XML, Web services, SOAP, and SOA support, and lays out a reference architecture for developing these kinds of applications. We start by discussing Web services in general, then review how CICS implements Web services. We offer an overview of different development approaches: bottom-up, top-down, and meet-in-the-middle. We then look at how you would go about exposing a CICS application as a Web service provider, again looking at the different approaches. The book then steps through the process of creating a CICS Web service requester. We follow this by looking at CICS application

aggregation (including 3270 applications) with IBM Rational® Application Developer for IBM System z® and how to implement CICS Web Services using CICS Cloud technology. The first part is concluded with hints and tips to help you when implementing this technology. Part two of this publication provides performance figures for a basic Web service. We investigate some common variables and examine their effects on the performance of CICS as both a requester and provider of Web services.

In this IBM® Redbooks® publication, you will gain an appreciation of the IBM CICS® Transaction Gateway (CICS TG) product suite, based on key criteria, such as capabilities, scalability, platform, CICS server support, application language support, and licensing model. Matching the requirements to available infrastructure and hardware choices requires an appreciation of the choices available. In this book, you will gain an understanding of those choices, and will be capable of choosing the appropriate CICS connection protocol, APIs for the applications, and security options. You will understand the services available to the application developer when using a chosen protocol. You will then learn about how to implement CICS TG solutions, taking advantage of the latest capabilities, such as IPIC connectivity, high availability, and Dynamic Server Selection. Specific scenarios illustrate the usage of CICS TG for IBM z/OS®, and CICS TG for Multiplatforms, with CICS Transaction Server for z/OS and IBM WebSphere® Application Server, including connections in CICS, configuring simple end-to-end connectivity (all platforms) with verification for remote and local mode applications, and adding security, XA support, and high availability.

DB2, announced in 1983, has quickly replaced IMS as IBM's premier database product. This book covers key DB2 concepts from the perspective of DB2 Version 2, the most recent release of DB2, and provides a sample database that can be created on DB2 systems.

Cics and Vsam Record Level Sharing

DB2--concepts, Programming, and Design

IBM Tools

CICS Debugging, Dump Reading, Problem Determination

IBM CICS Asynchronous API: Concurrent Processing Made Simple

Packed with current data and the latest methods, this hands-on reference shows you how to use the two major mainframe interface products--MVS Time-Sharing Option (TSO) and Interactive System Productivity Facility (ISPF)--to create and store data, print documents, and perform data management functions.

This IBM Redbooks® publication gives a broad understanding of several important concepts that are used when describing IBM CICS Transaction Server (TS) for IBM z/OS (CICS TS) performance. This publication also describes many of the significant performance improvements that can be realized by upgrading your environment to the most recent release of CICS TS. This book targets the following audience: Systems Architects wanting to understand the performance characteristics and capabilities of a specific CICS TS release. Capacity Planners and Performance Analysts wanting to understand how an upgrade to the latest release of CICS TS affects their environment. Application Developers wanting to design and code highly optimized applications for deployment into a CICS TS environment. This book covers the following topics: A description of the factors that are involved in the interaction between IBM z® Systems hardware and a z/OS software environment. A definition of key terminology that is used when describing the results of CICS TS performance benchmarks. A presentation of how to collect the required data (and the methodology used) when applying Large Scale Performance Reference (LSPR) capacity information to a CICS workload in your environment. An outline of the techniques that are applied by the CICS TS performance team to achieve consistent and accurate performance benchmark results. High-level descriptions of several key workloads that are used to determine the performance characteristics of a CICS TS release. An introduction to the open transaction environment and task control block (TCB) management logic in CICS TS, including a reference that describes how several configuration attributes combine to affect the behavior of the CICS TS dispatcher. Detailed information that relates to changes in performance characteristics between successive CICS TS releases, covering comparisons that relate to CICS TS V4.2, V5.1, V5.2, V5.3, V5.4, and V5.5. The results of several small performance studies to determine the cost of using a specific CICS functional area.

In this IBM® Redbooks® publication, we discuss CICS®, which stands for Customer Information Control System. It is a general-purpose transaction processing subsystem for the z/OS® operating system. CICS provides services for running an application online where, users submit requests to run applications simultaneously. CICS manages sharing resources, the integrity of data, and prioritizes execution with fast response. CICS authorizes users, allocates resources (real storage and cycles), and passes on database requests by the application to the appropriate database manager, such as DB2®. We review the history of CICS and why it was created. We review the CICS architecture and discuss how to create an application in CICS. CICS provides a secure, transactional environment for applications that are written in several languages. We discuss the CICS-supported languages and each language's advantages in this Redbooks publication. We analyze situations from a system programmer's viewpoint, including how the systems programmer can use CICS facilities and services to customize the system, design CICS for recovery, and manage performance. CICS Data access and where the data is stored, including Temporary storage queues, VSAM RLS, DB2, IMSTM, and many others are also discussed.

IBM® CICS® Transaction Server (CICS TS) has been available in various guises for over 40 years, and continues to be one of the most widely used pieces of commercial software. This IBM Redbooks® publication helps application architects discover the value of CICS Transaction Server to their business. This book can help architects understand the value and capabilities of CICS Transaction Server and the CICS tools portfolio. The book also provides detailed guidance on the leading practices for designing and integrating CICS applications within an enterprise, and the patterns and techniques you can use to create CICS systems that provide the qualities of service that your business requires.

MVS TSO/ISPF

J2EE Platform Web Services

CICS Transaction Server from Start to Finish

IBM CICS and Liberty: What You Need to Know

Application Development for IBM CICS Web Services

This is an updated and expanded version of Murach's two best-selling CICS books. Now, in just one book, IBM mainframeprogrammers will learn everything they need to know fordeveloping interactive programs with CICS. In addition, theywill learn new design and implementation methods fordistributed CICS processing. These methods also make it ..... CICS is an application server that delivers industrial-strength, online transaction

management for critical enterprise applications. Proven in the market for over 30 years with many of the world's leading businesses, CICS enables today's customers to modernize and extend their applications to take advantage of the opportunities provided by e-business while maximizing the benefits of their existing investments.Designing and Programming CICS Applications will benefit a diverse audience. It introduces new users of IBM's mainframe (OS/390) to CICS features. It shows experienced users how to integrate existing mainframe systems with newer technologies, including the Web, CORBA, Java, CICS clients, and Visual Basic; as well as how to link MQSeries and CICS.Each part of Designing and Programming CICS Applications addresses the design requirements for specific components and gives a step-by-step approach to developing a simple application. The book reviews the basic concepts of a business application and the way CICS meets these requirements. It then covers a wide range of application development technologies, including VisualAge for Java, WebSphere Studio, and Visual Basic. Users learn not only how to design and write their programs but also how to deploy their applications.Designing and Programming CICS Applications shows how to: Develop and modify existing COBOL applications Become familiar with the CICS Java environment and write a simple Java wrapper for a COBOL application Develop a web front end using servlets, JSP and JavaBeans. Link the web front end to an existing COBOL application using CORBA Write a Visual Basic application to develop a customer GUI Link an existing COBOL application using a CICS Client ECI call Develop a Java application using Swing as an MQSeries Client Use the MQSeries-CICS bridge to access an existing COBOL application Whether for working with thousands of terminals or for a client/server environment with workstations and LANs exploiting modern technology such as graphical interfaces or multimedia, Designing and Programming CICS Applications delivers the power to create, modernize and extend CICS applications.

This IBM® Redbooks® publication is intended for IBM CICS® system programmers and IBM Z architects. It describes how to deploy and manage Java EE 7 web-based applications in an IBM CICS Liberty JVM server and access data on IBM Db2® for IBM z/OS® and IBM MQ for z/OS sub systems. In this book, we describe the key steps to create and install a Liberty JVM server within a CICS region. We then describe how to best use the different deployment techniques for Java EE applications and the specific considerations when deploying applications that use JDBC, JMS, and the new CICS link to Liberty API. Finally, we describe how to secure web applications in CICS Liberty, including transport-level security and request authentication and authorization by using IBM RACF® and LDAP registries. Information is also provided about how to build a high availability infrastructure and how to use the logging and monitoring functions that are available in the CICS Liberty environment. This book is based on IBM CICS Transaction Server (CICS TS) V5.4 that uses the embedded IBM WebSphere® Application Server Liberty technology. It is also applicable to CICS TS V5.3 with the fixes for the continuous delivery APAR PI77502 applied. Sample applications are used throughout this publication and are freely available for download from the IBM CICSDev GitHub organization along with detailed deployment instructions.

Confused about zSeries Mainframes? Need to understand the z/OS operating system - and in a hurry? Then you've just found the book you need.Avoiding technical jargon, this book gives you the basic facts in clear, light-hearted, entertaining English. You'll quickly learn what Mainframes are, what they do, what runs on them, and terms and terminology you need to speak Mainframe-ese.But it's not all technical. There's also invaluable information on the people that work on Mainframes, Mainframe management issues, new Mainframe trends, and other facts that don't seem to be written down anywhere else.Programmers, managers, recruitment consultants, and industry commentators will all find this book their new best friend when trying to understand the Mainframe world.

CICS Application Design

CICS Command Level Programming

A Guide for Users and Developers

A Practical Guide to System Fine Tuning

System Programmer's Guide to Workload Manager

This IBM® Redbooks® publication describes IBM TXSeries® for Multiplatforms, which is the premier IBM distributed transaction processing software for business-critical applications. Before describing distributed transaction processing in general, we introduce the most recent version of TXSeries for Multiplatforms. We focus on the following areas: The technical value of TXSeries for Multiplatforms New features in TXSeries for Multiplatforms Core components of TXSeries Common TXSeries deployment scenarios Deployment, development, and administrative choices Technical considerations It also demonstrates enterprise integration with products, such as relational database management system (RDBMS), IBM WebSphere® MQ, and IBM WebSphere Application Server. In addition, it describes system customization, reviewing several features, such as capacity planning, backup and recovery, and high availability (HA). We describe troubleshooting

in TXSeries. We also provide details about migration from version to version for TXSeries. A migration checklist is included. We demonstrate a sample application that we created, called BigBlueBank, its installation, and the server-side and client-side programs. Other topics in this book include application development and system administration considerations. This book describes distributed IBM Customer Information Control System (IBM CICS®) solutions, and how best to develop distributed CICS applications.

This IBM® Redbooks® publication provides information about how you can connect mobile devices to IBM Customer Information Control System (CICS®) Transaction Server (CICS TS), using existing enterprise services already hosted on CICS, or to develop new services supporting new lines of business. This book describes the steps to develop, configure, and deploy a mobile application that connects either directly to CICS TS, or to CICS via IBM Worklight® Server. It also describes the advantages that your organization can realize by using Worklight Server with CICS. In addition, this Redbooks publication provides a broad understanding of the new CICS architecture that enables you to make new and existing mainframe applications available as web services using JavaScript Object Notation (JSON), and provides support for the transformation between JSON and application data. While doing so, we provide information about each resource definition, and its role when CICS handles or makes a request. We also describe how to move your CICS applications, and business, into the mobile space, and how to prepare your CICS environment for the following scenarios: Taking an existing CICS application and exposing it as a JSON web service Creating a new CICS application, based on a JSON schema Using CICS as a JSON client This Redbooks publication provides information about the installation and configuration steps for both Worklight Studio and Worklight Server. Worklight Studio is the Eclipse interface that a developer uses to implement a Worklight native or hybrid mobile application, and can be installed into an Eclipse instance. Worklight Server is where components developed for the server side (written in Worklight Studio), such as adapters and custom server-side authentication logic, run. CICS applications and their associated data constitute some of the most valuable assets owned by an enterprise. Therefore, the protection of these assets is an essential part of any CICS mobile project. This Redbooks publication, after a review of the main mobile security challenges, outlines the options for securing CICS JSON web services, and reviews how products, such as Worklight and IBM DataPower®, can help. It then shows examples of security configurations in CICS and Worklight.

Beginning with IBM® CICS® Version 2, applications can run on TCBs apart from the QR TCB, which has positive implications for improving system throughput and for implementing new technologies inside of CICS. Examples of implementing new technologies include using the IBM MVSTM Java virtual machine (JVM) inside CICS and enabling listener tasks written for other platforms to be imported to run under CICS. The newest release, CICS Transaction Server for z/OS® (CICS TS) V4.2, includes scalability enhancements so that you can perform more work more quickly in a single CICS system. The advantage of this enhancement is that you can increase vertical scaling and decrease the need to scale horizontally, reducing the number of regions that are required to run the production business applications. The scalability enhancements in CICS TS V4.2 fall into two broad areas, which are increased usage of open transaction environment (OTE) and of 64-bit storage. This IBM Redbooks® publication is a comprehensive guide to threadsafe concepts and implementation for IBM CICS. This book explains how systems programmers, applications developers, and architects can implement threadsafe applications in an environment. It describes the real-world experiences of users, and our own experiences, of migrating applications to be threadsafe. This book also highlights the two most critical aspects of threadsafe applications: system performance and integrity.

This IBM® Redbooks® publication describes the features and functions the latest member of the IBM Z® platform, the IBM z15TM (machine type 8561). It includes information about the IBM z15 processor design, I/O innovations, security features, and supported operating systems. The z15 is a state-of-the-art data and transaction system that delivers advanced capabilities, which are vital to any digital transformation. The z15 is designed for enhanced modularity, which is in an industry standard footprint. This system excels at the following tasks: Making use of multicloud integration services Securing data with pervasive encryption Accelerating digital transformation with agile service delivery Transforming a transactional platform into a data powerhouse Getting more out of the platform with IT Operational Analytics Accelerating digital transformation with agile service delivery Revolutionizing business processes Blending open source and Z technologies This book explains how this system uses new innovations and traditional Z strengths to satisfy growing demand for cloud, analytics, and open source technologies. With the z15 as the base, applications can run in a trusted, reliable, and secure environment that improves operations and lessens business risk.

Walmart and the CICS Asynchronous API: An Adoption Experience
A Guide to Performance Tuning
Murach's CICS for the COBOL Programmer
Integrating Existing Mainframe Applications with New Technologies
The Next Generation of Distributed IBM CICS

The smart programmer's introduction to CICS gets you off to a clean, clear, quick start If you're new to CICS programming, the last thing you need is a long-winded explanation of every nuance and detail of the system's operation. The first thing you need is the CICS/ESA Primer. It puts your hands on the keyboard quickly—even if you have no previous online experience—and provides loads of diagrams, screen shots, and code, as well as crisp, clear explanations of the basics of CICS programming. In practically no time, you'll learn everything you need to know about: CICS screen design Basic Mapping Support (BMS) Program function keys Debugging techniques File updating Creating a simple menu And that's not all! This is the only introduction that includes an entire section on CICS and client/server technology, the topic that has companies clamoring for CICS-trained programmers. But whether you're working on client/server or mainframe systems, this book helps you master the fundamentals and prepare for more advanced material.

This IBM® Redbooks® publication provides information about the new Java virtual machine (JVM) server technology in IBM CICS® Transaction Server for z/OS® V4.2. We begin by outlining the many advantages of its multi-threaded operation over the pooled JVM function of earlier releases. The Open Services Gateway initiative (OSGi) is described and we highlight the benefits OSGi brings to both development and deployment. Details are then provided about how to configure and use the new JVM server environment. Examples are included of the deployment process, which takes a Java application from the workstation Eclipse integrated development environment (IDE) with the IBM CICS Explorer® software development kit (SDK) plug-in, through the various stages up to execution in a stand-alone CICS region and an

IBM CICSPlex® environment. The book continues with a comparison between traditional CICS programming, and CICS programming from Java. As a result, the main functional areas of the Java class library for CICS (JCICS) application programming interface (API) are extensively reviewed. Further chapters are provided to demonstrate interaction with structured data such as copybooks, and how to access relational databases by using Java Database Connectivity (JDBC) and Structured Query Language for Java (SQLJ). Finally, we devote a chapter to the migration of applications from the pooled JVM model to the new JVM server run time.

This IBM® Redbooks® publication, intended for architects, application developers, and system programmers, describes how to design and implement Java web-based applications in an IBM CICS® Liberty JVM server. This book is based on IBM CICS Transaction Server V5.3 (CICS TS) using the embedded IBM WebSphere® Application Server Liberty V8.5.5 technology. Liberty is an asset to your organization, whether you intend to extend existing enterprise services hosted in CICS, or develop new web-based applications supporting new lines of business. Fundamentally, Liberty is a composable, dynamic profile of IBM WebSphere Application Server that enables you to provision Java EE technology on a feature-by-feature basis. Liberty can be provisioned with as little as the HTTP transport and a servlet web container, or with the entire Java EE 6 Web Profile feature set depending on your application requirements. This publication includes a Technology Essentials section for architects and application developers to help understand the underlying technology, an Up-and-Running section for system programmers implementing the Liberty JVM server for the first time, and a set of real-life application development scenarios.

CICS Transaction Gateway V5

Migration to CICS Transaction Server for z/VSE V2.1

Modernizing Applications with IBM CICS

Designing and Programming CICS Applications

IBM z15 (8561) Technical Guide