

WebSphere Community Edition Ports

Pro (IBM) WebSphere Application Server 7 Internals covers the internal architecture and implementation of the WebSphere Application Server (WAS) version 7 product set and how other IBM products extend it. It presents information to enable administrators, developers, and architects to learn about the aspects of WAS that apply to them: Administrators will come to understand how the WAS7 environment functions to best optimize it for their environment, and what to do when things go wrong. Developers will learn to extend the functionality in the base WAS product. Architects will see how the WAS product underpins the IBM offerings to fit in an enterprise.

This IBM® Redpaper™ publication describes how to get started using WebSphere® Adapter for SAP Software with WebSphere Message Broker. These products enable processes and components to be integrated to include the exchange of information with an SAP server, without special coding. This paper shows how to use an adapter, an application component, to send requests to the SAP server or to receive events from the server. The adapter creates a standard interface to the applications and data on the SAP server so that the developer of the application component does not have to understand the lower level details (the implementation of the application or the data structures) on the SAP server.

From the Internet's infrastructure to operating systems like GNU/Linux, the open source movement comprises some of the greatest accomplishments in computing over the past quarter century. Its story embraces technological advances, unprecedented global collaboration, and remarkable tools for facilitating distributed development. The evolution of the Internet enabled an enormous expansion of open development, allowing developers to exchange information and ideas without regard to constraints of space, time, or national boundary. The movement has had widespread impact on education and government, as well as historic cultural and commercial repercussions. Part I discusses key open source applications, platforms, and technologies used in open development. Part II explores social issues ranging from demographics and psychology to legal and economic matters. Part III discusses the Free Software Foundation, open source in the public sector (government and education), and future prospects.

As world activities become more integrated, the rate of data growth has been increasing exponentially. And as a result of this data explosion, current data management methods can become inadequate. People are using the term big data (sometimes referred to as Big Data) to describe this latest industry trend. IBM® is preparing the next generation of technology to meet these data management challenges. To provide the capability of incorporating big data sources and analytics of these sources, IBM developed a stream-computing product that is based on the open source computing framework Apache Hadoop. Each product in the framework provides unique capabilities to the data management environment, and further enhances the value of your data warehouse investment. In this IBM Redbooks® publication, we describe the need for big data in an organization. We then introduce IBM InfoSphere® BigInsights™ and explain how it differs from standard Hadoop. BigInsights provides a packaged Hadoop distribution, a greatly simplified installation of Hadoop and corresponding open source tools for application development, data movement, and cluster management. BigInsights also brings more options for data security, and as a component of the IBM big data platform, it provides potential integration points with the other components of the platform. A new chapter has been added to this edition. Chapter 11 describes IBM Platform Symphony®, which is a new scheduling product that works with IBM Insights, bringing low-latency scheduling and multi-tenancy to IBM InfoSphere BigInsights. The book is designed for clients, consultants, and other technical professionals.

MQ Telemetry Transport (MQTT) is a messaging protocol that is lightweight enough to be

supported by the smallest devices, yet robust enough to ensure that important messages get to their destinations every time. With MQTT devices such as smart energy meters, cars, trains, satellite receivers, and personal health care devices can communicate with each other and with other systems or applications. This IBM® Redbooks® publication introduces MQTT and takes a scenario-based approach to demonstrate its capabilities. It provides a quick guide to getting started and then shows how to grow to an enterprise scale MQTT server using IBM WebSphere® MQ Telemetry. Scenarios demonstrate how to integrate MQTT with other IBM products, including WebSphere Message Broker. This book also provides typical usage patterns and guidance on scaling a solution. The intended audience for this book ranges from new users of MQTT and telemetry to those readers who are looking for in-depth knowledge and advanced topics.

This IBM® Redbooks® publication provides system administrators and developers with the knowledge to configure an IBM WebSphere® Application Server Version 8 runtime environment, to package and deploy applications, and to perform ongoing management of the WebSphere environment. As one in a series of IBM Redbooks publications and IBM Redpapers publications for V8, the entire series is designed to give you in-depth information about key WebSphere Application Server features. In this book, we provide a detailed exploration of the WebSphere Application Server V8 runtime administration process. This book includes configuration and administration information for WebSphere Application Server V8 and WebSphere Application Server Network Deployment V8 on distributed platforms and WebSphere Application Server for z/OS® V8. The following publications are prerequisites for this book: WebSphere Application Server V8.0 Technical Overview, REDP-4756 IBM WebSphere Application Server V8 Concepts, Planning, and Design Guide, SG24-7957 InfoWorld is targeted to Senior IT professionals. Content is segmented into Channels and Topic Centers. InfoWorld also celebrates people, companies, and projects.

Cloud computing provides companies with many capabilities to meet their business needs but can also mean that a hybrid architecture is created that includes on-premise systems and the cloud. Integration is needed to bridge the gap between the on-premise existing systems and the new cloud applications, platform, and infrastructure. IBM® WebSphere® Cast Iron® meets the challenge of integrating cloud applications with on-premise systems, cloud applications-to-cloud applications, and on-premise to on-premise applications. It contains a graphical development environment that provides built-in connectivity to many cloud and on-premise applications and reusable solution templates that can be downloaded from a solution repository. The integration solutions that are created can then run on either an on-premise integration appliance or the multi-tenant WebSphere Cast Iron Live cloud service. This IBM Redbooks® publication is intended for application integrators, integration designers, and administrators evaluating or already using IBM WebSphere Cast Iron. Executives, leaders, and architects who are looking for a way to integrate cloud applications with their on-premise applications are also shown how WebSphere Cast Iron can help to resolve their integration challenges. The book helps you gain an understanding of Cast Iron and explains how to integrate cloud and on-premise applications quickly and simply. It gives a detailed introduction to the development tool and the administration interfaces and how they are used. It also discusses security, high availability, and re-usability. The book also includes three detailed scenarios covering real-world implementations of a Cast Iron Integration Solution.

This text provides Java developers with in-depth coverage of Web Services technology. It includes contributions from recognised Web Services experts and architects, including the Web Services team at IBM.

In a traditional deployment model, software is installed on a physical server, and it is configured for the particular data center environment. The cloud deployment model

requires that the dependency on a specific hardware configuration is severed. This IBM® Redbooks® publication guides you through the transition from the traditional application deployment model to the cloud-friendly deployment model. It explains how to achieve these goals by packaging the software stacks into industry standard virtual appliances. A key part of this transition involves using the IBM Image Construction and Composition Tool. This tool is the IBM tool for creating virtualized workloads that target several private cloud deployment platforms, including platforms from IBM and not from IBM. In fact, this tool is unique in its ability to support such a wide range of cloud offerings. It is also the only tool in the marketplace that can create virtual appliances for both x86 and IBM Power hardware architectures. This book provides an in-depth look at the capabilities and internal workings of Image Construction and Composition Tool. It focuses on the capabilities of this tool, which target the virtualization and cloud offerings of IBM Systems and Technology Group. These offerings include IBM Systems Director VMControl™, IBM SmartCloud® Entry, and IBM PureFlex™ System with IBM Flex System Manager™ appliance. The Image Construction and Composition Tool also has a much richer set of capabilities. Specifically, it supports IBM Workload Deployer, IBM PureApplication™ Systems, and IBM SmartCloud Provisioning. This publication targets software architects, cloud solutions architects, and cloud administrators. Its goal is to provide you with the expert-level skills required to package the existing and newly created applications into self-configurable, smart virtual appliances. Related publication: Smart Virtual Appliances Made Easy with IBM Image Construction and Composition Tool, TIPS1037

IBM WebSphere Application Server 8.0 Administration Guide is a highly practical, example-driven tutorial. You will be introduced to WebSphere Application Server 8.0, and guided through configuration, deployment, and tuning for optimum performance. If you are an administrator who wants to get up and running with IBM WebSphere Application Server 8.0, then this book is not to be missed. Experience with WebSphere and Java would be an advantage, but is not essential.

Build a Next-Generation Enterprise Digital Platform with Portals and UXPA Complete Guide to Portals and User Experience Platforms provides in-depth coverage of portal technologies and user experience platforms (UXPs), which form the key pillars of a modern digital platform. Drawing on his experience in various roles in numerous portal engagements,

The differences between well-designed security and poorly designed security are not always readily apparent. Poorly designed systems give the appearance of being secure but can over-authorize users or allow access to non-users in subtle ways. The problem is that poorly designed security gives a false sense of confidence. In some ways, it is better to knowingly have no security than to have inadequate security believing it to be stronger than it actually is. But how do you tell the difference? Although it is not rocket science, designing and implementing strong security requires strong foundational skills, some examples to build on, and the capacity to devise new solutions in response to novel challenges. This IBM® Redbooks® publication addresses itself to the first two of these requirements. This book is intended primarily for security specialists and IBM WebSphere® MQ administrators that are responsible for securing WebSphere MQ networks but other stakeholders should find the information useful as well. Chapters 1 through 6 provide a foundational background for WebSphere MQ security. These

chapters take a holistic approach positioning WebSphere MQ in the context of a larger system of security controls including those of adjacent platforms' technologies as well as human processes. This approach seeks to eliminate the simplistic model of security as an island, replacing it instead with the model of security as an interconnected and living system. The intended audience for these chapters includes all stakeholders in the messaging system from architects and designers to developers and operations. Chapters 7 and 8 provide technical background to assist in preparing and configuring the scenarios and chapters 9 through 14 are the scenarios themselves. These chapters provide fully realized example configurations. One of the requirements for any scenario to be included was that it must first be successfully implemented in the team's lab environment. In addition, the advice provided is the cumulative result of years of participation in the online community by the authors and reflect real-world practices adapted for the latest security features in WebSphere MQ V7.1 and WebSphere MQ V7.5. Although these chapters are written with WebSphere MQ administrators in mind, developers, project leaders, operations staff, and architects are all stakeholders who will find the configurations and topologies described here useful. The third requirement mentioned in the opening paragraph was the capacity to devise new solutions in response to novel challenges. The only constant in the security field is that the technology is always changing. Although this book provides some configurations in a checklist format, these should be considered a snapshot at a point in time. It will be up to you as the security designer and implementor to stay current with security news for the products you work with and integrate fixes, patches, or new solutions as the state of the art evolves.

This IBM Redbooks publication describes and demonstrates common, prescriptive scenarios for setting up disaster recovery for common workloads using IBM WebSphere Application Server, IBM DB2, and WebSphere MQ between two IBM PureApplication System racks using the features in PureApplication System V2. The intended audience for this book is pattern developers and operations team members who are setting up production systems using software patterns from IBM that must be highly available or able to recover from a disaster (defined as the complete loss of a data center).

This IBM® Redbooks® publication describes how IBM has enhanced its managed file transfer portfolio consisting of MQ File Transfer Edition with the Sterling Business Integration Suite. The Sterling Business Integration Suite consists of Sterling File Gateway and Sterling Connect:Direct. Sterling Commerce, an IBM company, transforms and optimizes your business collaboration network by improving business agility, efficiency, and performance. These managed file transfer components from Sterling Commerce, an IBM company, partnered with MQ File Transfer Edition deliver proven value by protecting privacy and integrity of data in transit with governance, eliminate operations cell center traffic regarding file transfer exceptions, show a faster time to revenue, and bring a six-sigma level performance to key business processes. The integration and combination of these products allows for organizations to switch between protocols internally, allowing for diversity across business needs while still positioning the organization to easily move files outside their secured intra-enterprise network through an edge server to the external trading partner regardless of what protocol the external trading partner is using. This book is intended for organizations

that find themselves wanting to trade data in a secure, reliable, and auditable way across both intra-enterprise and multi-enterprise protocols.

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.

Build a comprehensive web portal for your company with the coverage of full development life cycle with this book and ebook.

This IBM Redbooks publication reviews the overall Tivoli Enterprise Security Architecture. It focuses on the integration of audit and compliance, access control, identity management, and federation throughout extensive e-business enterprise implementations. The available security product diversity in the marketplace challenges everyone in charge of designing single secure solutions or an overall enterprise security architecture. With Access Manager, Identity Manager, Federated Identity Manager, Security Compliance Manager, Security Operations Manager, Directory Server, and Directory Integrator, Tivoli offers a complete set of products designed to address these challenges. This book describes the major logical and physical components of each of the Tivoli products. It also depicts several e-business scenarios with different security challenges and requirements. By matching the desired Tivoli security product criteria, this publication describes the appropriate security implementations that meet the targeted requirements. This book is a valuable resource for security officers, administrators, and architects who want to understand and implement enterprise security following architectural guidelines.

Manage and administer your WebSphere application server to create a reliable, secure, and scalable environment for running your applications with this book and eBook.

Expert Guide to Deploying, Using, and Managing DataPower SOA Appliances IBM® WebSphere® DataPower® appliances can simplify SOA deployment, strengthen SOA security, enhance SOA performance, and dramatically improve SOA return on investment. In this book, a team of IBM's leading experts show how to make the most of DataPower SOA appliances in any IT environment. The authors present IBM DataPower information and insights that are available nowhere else. Writing for working architects, administrators, and security specialists, they draw extensively on their deep experience helping IBM customers use DataPower technologies to solve challenging system integration problems. IBM WebSphere DataPower SOA Appliance Handbook begins by introducing the rationale for SOA appliances and explaining how DataPower appliances work from network, security, and Enterprise Service Bus perspectives. Next, the authors walk through DataPower installation and configuration; then they present deep detail on DataPower's role and use as a network device. Using many real-world examples, the authors systematically introduce the services available on DataPower devices, especially the "big three": XML Firewall, Web Service Proxy, and Multi-Protocol

Gateway. They also present thorough and practical guidance on day-to-day DataPower management, including, monitoring, configuration build and deploy techniques. Coverage includes

- Configuring DataPower's network interfaces for common scenarios
- Implementing DataPower deployment patterns for security gateway, ESB, and Web service management applications
- Proxying Web applications with DataPower
- Systematically addressing the security vulnerabilities associated with Web services and XML
- Integrating security with WebSphere Application Server
- Mastering DataPower XSLT custom programming
- Troubleshooting using both built-in and external tools

A Complete, Practical Guide to Building and Hosting Cloud Services That Deliver Exceptional Business Value In this unique title, key developers of the IBM SmartCloud Enterprise share indispensable insights for developing and operating cloud-based solutions on any cloud platform. Drawing on their unsurpassed in-the-trenches experience, the authors help you develop the new mindset and skills needed to succeed in cloud environments, where development, business, and system operations are linked more tightly than ever. Using examples based on IBM SmartCloud Enterprise, the authors cover a wide variety of cloud "use cases," while also introducing general principles for automating and optimizing IT infrastructure in any cloud environment. They begin by presenting an authoritative, accessible review of cloud computing and Infrastructure as a Service (IaaS) cloud concepts. Next, they demonstrate how to use cloud tools, develop basic cloud applications, and utilize standards to establish interoperability between clouds. Finally, drawing on deep personal experience, they offer best-practice solutions for all facets of cloud hosting, including security, monitoring, performance, availability, and business support. Throughout, they emphasize real-world problem solving, offering numerous code examples and practical demonstrations of real-world tools and utilities. Coverage includes

- Understanding each cloud deployment model: private, community, public, and hybrid
- Reviewing key cloud computing use cases, including those based on virtualization and collaboration
- Developing for the cloud with the LAMP stack, Windows, J2EE, WebSphere, and other technologies
- Building apps for the IBM SmartCloud Enterprise public infrastructure
- Using the command line toolkit, Java, and REST APIs to manage IBM SmartCloud Enterprise resources
- Exploring cloud computing standards and open source projects that promote interoperability among clouds
- Building cloud applications to customize images, deliver network services, install/manage software, and provide remote desktops
- Using IBM's powerful self-service and delegated administration models and best-of-breed VM images
- Leveraging open source projects for cloud service management and virtualization
- Understanding cloud service security: trusted certificates, identity/access management, SSH, HTTPS, IPSec, application hardening, and much more
- Monitoring and optimizing performance and availability through the entire system lifecycle
- Managing, scaling, and automating cloud applications to meet business needs

This title will be valuable to every enterprise developer, architect, and IT manager seeking the full benefits of cloud-based services; all ISVs building value-add services on public clouds; and everyone building applications that rely heavily on IaaS, Platform as a Service (PaaS), Software as a Service (SaaS), or Business as a Service (BaaS).

There are hundreds--if not thousands--of techniques used to compromise both Windows and Unix-based systems. Malicious code and new exploit scripts are released on a daily basis, and each evolution becomes more and more sophisticated. Keeping up with the myriad of systems used by hackers in the wild is a formidable task, and scrambling to patch each potential vulnerability or address each new attack one-by-one is a bit like emptying the Atlantic with paper cup. If you're a network administrator, the pressure is on you to defend your systems from attack. But short of devoting your life to becoming a security expert, what can you do to ensure the safety of your mission critical systems? Where do you start? Using the steps laid out by professional security analysts and consultants to identify and assess risks, *Network Security Assessment* offers an efficient testing model that an administrator can adopt, refine, and reuse

to create proactive defensive strategies to protect their systems from the threats that are out there, as well as those still being developed. This thorough and insightful guide covers offensive technologies by grouping and analyzing them at a higher level--from both an offensive and defensive standpoint--helping administrators design and deploy networks that are immune to offensive exploits, tools, and scripts. Network administrators who need to develop and implement a security assessment program will find everything they're looking for--a proven, expert-tested methodology on which to base their own comprehensive program--in this time-saving new book.

IBM® WebSphere® Application Server V8.5 includes a Liberty profile, which is a highly composable, dynamic application server profile. It is designed for two specific use cases: Developers with a smaller production runtime, and production environments. For developers, it focuses on the tasks that a developer does most frequently, and makes it possible for the developer to complete those tasks as quickly and as simply as possible. For production environments, it provides a dynamic, small footprint runtime to be able to maximize system resources. This IBM Redbooks® publication targets administrators of Liberty environments. It provides the information needed to create, configure, and manage Liberty servers. It includes information about managing multiple servers in an installation, including the use of the new administrative capabilities introduced in WebSphere Application Server V8.5.5.7. The following publications are companion publications for this book: WebSphere Application Server: New Features in V8.5.5, REDP-4870 WebSphere Application Server V8.5.5 Technical Overview, REDP-4855 IBM WebSphere Application Server V8.5 Concepts, Planning, and Design Guide, SG24-8022 WebSphere Application Server Liberty Profile Guide for Developers, SG24-8076 Service-oriented architectures are of vital importance to enterprises maintaining order and service reputation with stakeholders, and by utilizing the latest technologies, advantage can be gained and time and effort saved. Enhancing Enterprise and Service-Oriented Architectures with Advanced Web Portal Technologies offers the latest research and development within the field, filled with case studies, research, methodologies, and frameworks from contributors around the world. In order to stay abreast of the cutting-edge research in the field, it is vital for academics and practitioners to stay involved and studied with the latest publications. This volume contains a wide range of subject matters, levels of technical expertise and development, and new technological advances within the field, and will serve as an excellent resource both as a handbook and a research manual.

This is Volume V of the long-awaited second edition of the 'bible' and expert guide to deploying, using, and managing IBM DataPower Gateway Appliances. DataPower appliances can simplify deployment, strengthen security, enhance performance, and dramatically improve return on investment for many use cases, such as mobile, Web, API, legacy, cloud, and SOA/Web Services. In this book, a team of leading experts show how to make the most of DataPower appliances in any IT environment. The authors present DataPower information and insights that are available nowhere else. Writing for working architects, administrators, developers, and security specialists, they draw extensively on their deep experience, helping IBM customers use DataPower technologies to solve challenging system integration problems. This volume focuses on security hardening your DataPower appliances from both an administrative and messaging perspective. It is based on military specifications designed by the United States Department of Defense. Subsequent volumes dive deep into areas including intro & setup (Vol I), network configuration (Vol II), development (Vol III), B2B and file transfer (Vol III).

IBM's vision of the future of computing and how its evolving technologies, product lines, and services fit into that future are the subject of this broad look at the world's largest computer company. Discussing IBM's e-business strategy to leverage Internet technology, its new emphasis on IBM Global Services, and its fast-growing consulting business this overview.

profiles of IBM's new eServer xSeries, pSeries, iSeries, and zSeries, showing how each fits into an e-business context. A companion web site accessible only to buyers of this book provides the latest news and additional resources related to IBM technology and product lines. This IBM® Redbooks® publication provides information about the concepts, planning, and design of IBM WebSphere® Application Server V8.5 environments. The target audience of this book is IT architects and consultants who want more information about the planning and design of application-serving environments, from small to large, and complex implementations. This book addresses the packaging and features in WebSphere Application Server, and highlights the most common implementation topologies. It provides information about planning for specific tasks and components that conform to the WebSphere Application Server environment. Also in this book are planning guidelines for Websphere Application Server and Websphere Application Server Network Deployment on distributed platforms. It also includes guidelines for WebSphere Application Server for IBM z/OS®. This book contains information about migration considerations when moving from previous releases. This book has been updated with the new features introduced with WebSphere Application Server V8.5.5. This easy-to-understand book discusses applications of current technologies and the foundations for their extension into emerging areas in the future. It includes research presented at two conferences: 5th International IBM Cloud Academy Conference, 2017, held in Wroc?aw, Poland. 5th Asia?Pacific Conference on Computer Assisted and System Engineering, 2017, held in Guilin, China. These conferences focused on system and application engineering, including achievements in the interdisciplinary topics of cloud computing, big data, IoT and mobile communications. Featuring 19 chapters, the book has the potential to influence current and future research and applications combining the best attributes of computing, mathematics, artificial intelligence, biometrics and software engineering to create a comprehensive research application domain.

Implementing IBM InfoSphere BigInsights on IBM System xIBM Redbooks

This IBM® Redbooks® publication provides information about the concepts, planning, and design of IBM WebSphere® Application Server V8 environments. The target audience of this book is IT architects and consultants who want more information about the planning and designing of application-serving environments, from small to large, and complex implementations. This book addresses the packaging and features in WebSphere Application Server V8 and highlights the most common implementation topologies. It provides information about planning for specific tasks and components that conform to the WebSphere Application Server environment. Also in this book are planning guidelines for WebSphere Application Server V8 and WebSphere Application Server Network Deployment V8 on distributed platforms and for WebSphere Application Server for z/OS® V8. This book contains information about migration considerations when moving from previous releases.

The IBM Lotus Sametime 8.5.2 Administration Guide uses a practical, no-nonsense approach to give you the essential information you need. Using realistic scenarios, you learn how to configure and maintain your environment to meet your needs and take advantage of the flexibility offered in Sametime 8.5.2. If you are responsible for installing and administering Sametime 8.5.2, then this book is for you. If you're completely new to Sametime administration, this book will serve as your roadmap. If you're making the jump from a prior version of Sametime, then you'll see how Sametime 8.5.2 differs and how you work with the new configuration. Even if you already have Sametime 8.5.2 up and running, this guide will answer those questions you may still have of why and how the various server components work.

IBM® CICS® Transaction Server Feature Pack for Dynamic Scripting embeds and integrates technology from WebSphere® sMash into the CICS TS V4.1 run time, helping to reduce the time and cost of CICS application development. The Feature Pack provides a robust, managed environment for a wide range of situational applications allowing PHP and Groovy developers

to create reports, dashboards, and widgets, and integrate CICS assets into mash-ups, and much more. The CICS Dynamic Scripting Feature Pack combines the benefits of scripted, Web 2.0 applications with easy and secure access to CICS application and data resources. The Feature Pack includes a PHP 5.2 run time implemented in Java™ and with Groovy language support, support for native Java code and access to many additional libraries and connectors to enhance the development and user experience of rich Internet applications. Access to CICS resources is achieved by using the JCICS APIs. In this IBM Redbooks® publication, we introduce the Dynamic Scripting Feature Pack, show how to install and customize it, and provide examples for using it.

This IBM® Redbooks® publication gives a broad understanding of IBM IMSTM integration and connectivity solutions to access applications and data stores across your enterprise architecture. As an application developer, architect, systems integrator, or systems programmer, there is important information that is available in this book that pertains to your responsibilities to continue to include the proven performance, data integrity, and workload distribution that is available from IMS in to selected projects that are related to your entire enterprise. This book updates and adds to the information in the following IBM Redbooks publications: IMS e-business Connectors: A Guide to IMS Connectivity, SG24-6514 IMS Connectivity in an On Demand Environment: A Practical Guide to IMS Connectivity, SG24-6794 Powering SOA Solutions with IMS, SG24-7662 IBM IMS Version 12 Technical Overview, SG24-7972 IMS 12: The IMS Catalog, REDP-4812 Rethink Your Mainframe Applications: Reasons and Approaches for Extension, Transformation, and Growth, REDP-4938

IBM DB2® for z/OS® is a high-performance database management system (DBMS) with a strong reputation in traditional high-volume transaction workloads that are based on relational technology. IBM WebSphere® Application Server is web application server software that runs on most platforms with a web server and is used to deploy, integrate, execute, and manage Java Platform, Enterprise Edition applications. In this IBM® Redbooks® publication, we describe the application architecture evolution focusing on the value of having DB2 for z/OS as the data server and IBM z/OS® as the platform for traditional and for modern applications. This book provides background technical information about DB2 and WebSphere features and demonstrates their applicability presenting a scenario about configuring WebSphere Version 8.5 on z/OS and type 2 and type 4 connectivity (including the XA transaction support) for accessing a DB2 for z/OS database server taking into account high-availability requirements. We also provide considerations about developing applications, monitoring performance, and documenting issues. DB2 database administrators, WebSphere specialists, and Java application developers will appreciate the holistic approach of this document.

IBM® Informix® is a low-administration, easy-to-use, and embeddable database that is ideal for application development. It supports a wide range of development platforms, such as Java™, .NET, PHP, and web services, enabling developers to build database applications in the language of their choice. Informix is designed to handle RDBMS data and XML without modification and can be extended easily to handle new data sets. This IBM Redbooks® publication provides fundamentals of Informix application development. It covers the Informix Client installation and configuration for application development environments. It discusses the skills and techniques for building Informix applications with Java, ESQL/C, OLE DB, .NET, PHP, Ruby on Rails, DataBlade®, and Hibernate. The book uses code examples to demonstrate how to develop an Informix

application with various drivers, APIs, and interfaces. It also provides application development troubleshooting and considerations for performance. This book is intended for developers who use IBM Informix for application development. Although some of the topics that we discuss are highly technical, the information in the book might also be helpful for managers or database administrators who are looking to better understand their Informix development environment.

This IBM® Red paper books® publication is divided into three parts: Part 1, "Introduction" on page1, provides an introduction to message-oriented middleware and the WebSphere® MQ product. We discuss the concept of messaging, explaining what is new in WebSphere MQ V7.0 and how it is implemented. An overview is provided on how it fits within the service-oriented architecture (SOA) framework. Part 2, "WebSphere MQ V7.0 enhancements and changes" on page 41, explains the new WebSphere MQ V7.0 features and enhancements in detail and includes compatibility and the migration considerations from the previous supported versions. Part 3, "Scenario" on page253, contains a scenario that demonstrates how the new features and enhancements work and how to use them. The sample programs and scripts used for this scenario are available for download by following the instructions in Appendix B, "Additional material" on page379.

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