Web Enabling System/390 Applications Using WebSphere for OS/390, Java, and MQSeries

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Abstract

This paper describes a technique for making existing computer applications available to users from a standard Web browser, over the Internet or a private intranet. It describes an infrastructure for Web serving based on WebSphere for OS/390, Java for OS/390, and MQSeries for OS/390. It also describes the design and implementation of programs to connect the Web browser user to any application, regardless of where the application resides. Finally, the paper describes the advantages of implementing such an infrastructure on OS/390.

The techniques described in this paper have been successfully implemented as a proof of concept at a large Australian company.

Pre-requisite Knowledge

This paper is designed for readers who are broadly familiar with the following topics:

- [1] The architecture and purpose of System/390 and OS/390
- [2] The architecture and purpose of OS/390 UNIX System Services
- [3] The architecture and purpose of CICS Transaction Server for OS/390.
- [4] The architecture and purpose of MQSeries for OS/390
- [5] The architecture and purpose of Java

Specifically, the paper will be useful for OS/390 System Programmers, Technical Managers, Application Designers and Programmers, and System Architects.

Purpose of this Paper

Organizations that use System/390 and OS/390 "mainframe" computers typically have large collections of application software that:

- Have been developed over many years (in some cases, over a period of 30 years).
- Continue to fulfill the needs of the organization.
- May run on OS/390 or other computing systems/platforms.
- Could be effectively made available to new users (such as customers, business partners, and others) using Internet technologies.

Integrating Java With Existing Data And Applications On Os 390

Judith M. Myerson

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Integrating Java with Existing Data and Applications on OS/390 .1998 DB2 for z/OS and WebSphere Integration for Enterprise Java Applications Paolo Bruni, Zhen Hua Dong, Josef Klitsch, Maggie Lin, Rajesh Ramachandran, Bart Steegmans, Andreas Thiele, IBM Redbooks, 2013-08-07 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 **Designing and Programming CICS Applications** John Horswill, Members of the CICS Development Team at IBM Hursley, 2000-07-31 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

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