

BUSINESS CHALLENGE

IT organizations are looking for solutions which maximize their business opportunities. They want to distribute their applications across platforms, operating systems, and Internet with a minimum of programming and maintenance. New requirements from the business are often related to existing business applications in terms of core functionality. The focus may be on a change of delivery channel, user base, or organizational structure.

By enabling such systems to be extended to a Service Oriented Architecture (SOA) through Web services, existing mission-critical functionality can be integrated with other systems and act as strategic assets with proven business logic, accessible however and whenever required.

Xcentrinity Business Information Server (BIS) offers application developers an opportunity to build Service Oriented Architecture (SOA) applications incorporating legacy business data and logic freely mixed with the latest web languages and tools.

PRODUCT OVERVIEW

The Xcentrinity Business Information Server is a web server environment that manages application sessions and makes them available via any web browser or other web user agent that is granted access to the BIS server. BIS offers application developers a real opportunity to build state-of-the-art Service Oriented Architecture ("SOA") applications incorporating legacy business data and logic freely mixed with the latest web languages and tools.

With BIS, remote users can access data, perform application functions, and execute service programs on one or multiple servers located anywhere in the world. For example, a sales force can check order status for customers during the day and enter new orders in the evening as they travel. Emergency room doctors can read patient histories on primary care physician files in another state and primary care physicians can

see insurance claims' status. Bank customers can see account status, pay bills, transfer funds, and make investments, all from the comfort of their own homes. Taxpayers can have access to public records from anywhere.

With BIS, any modern application architecture, function, and appearance is now possible.

KEY BENEFITS

- Improved Time to Market through rapid development enabled by reusing existing business processes in a standard SOA infrastructure
- Native COBOL environment for building and deploying Web Services
- Integration with standard Application Servers
- Enhanced XML features in COBOL
- Business application developers using RM/COBOL® with XML Extensions and BIS do not have to become experts in XML, HTTP, HTML, and Web Services to effectively and efficiently provide leading edge e-business functionality to their customers

DETAILED FEATURE OVERVIEW

The tools provided by Xcentrinity permit a wide range of Web application architectures to be used while still retaining and reusing most of the core COBOL code.

XCENTRINITY BUSINESS INFORMATION SERVER (BIS)

Build on the power of XML as the foundation of connectivity, Business Information Server (BIS), is a COBOL-specific Web Application Server. Together with industry standard Web servers such as Microsoft IIS and Apache, BIS offers application developers a unique opportunity to build state-of-the-art browser-based Web Applications or SOAP-based Web Services comprising RM/COBOL programs and COBOL data files and databases.

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BIS has two major components:

- A Request Handler, a web server extension that integrates either with Microsoft Internet Information Server (IIS) or the widely-used Apache web server.
- The Service Engine, which executes COBOL code under the control of the Request Handler.

EASE OF USE

Business application developers using RM/COBOL with XML Extensions and BIS do not have to become experts in XML, HTTP, HTML, and Web Services to effectively and efficiently provide leading edge e-business functionality to their customers. Business rules are brought to the new environment of the Web, but left intact.

XML EXTENSIONS

At the core of Xcentrinity is eXtensible Markup Language (XML). XML Extensions for RM/COBOL, a facility that allows RM/COBOL applications to interoperate freely and easily with other applications that use the XML standard. XML Extensions provide the ability to import and export XML documents to and from COBOL working storage in a natural and intuitive way to the COBOL programmer.

XML Extensions is a facility that allows RM/COBOL applications to access eXtensible Markup Language (XML) documents. XML is the universal format for structured documents and data on the Web. Adding structure to documents facilitates searching, sorting, or any one of a variety of operations that can be performed on an electronic document.

XML Extensions consists of the following two main components:

- The cobtoxml utility which runs as a post-compile step. This program creates a set of XML documents called model files, which describe a selected COBOL data structure as a set of XML documents.

- The xmlif library which is a COBOL-callable runtime library used to implement a series of COBOL statements that are available to the developer for directing the importing and exporting of COBOL data as XML.L,

XML Extensions has many capabilities.

ABILITY TO IMPORT AND EXPORT XML DOCUMENTS

The major features support the ability to import and export XML documents to and from COBOL working storage. Specifically, XML Extensions allows data to be imported from an XML document by converting data elements (as necessary) and storing the results into a matching COBOL data structure. Similarly, data is exported from a COBOL data structure by converting the COBOL data elements (as necessary) and storing the results in an XML document.

UTF-8 DATA ENCODING SUPPORT

Support has been added to both the UNIX and Windows implementations of XML Extensions to allow the in-memory representation of element content to use UTF-8 encoding. UTF-8 is a format for representing Unicode. This may be useful for COBOL applications that wish to pass UTF-8 encoded data to other processes. XML documents are normally encoded using Unicode.

XML Extensions for RM/COBOL always generates UTF-8 data.

EASY INTEGRATION WITH COBOL

By allowing standard COBOL data structures to be imported from and exported to XML documents, XML Extensions enables the direct processing and manipulation of XML-based electronic documents by the RM/COBOL application programmer. Furthermore, XML Extensions does this without requiring the application programmer to become thoroughly familiar with the numerous XML-related specifications and the time-consuming process required to emit and consume well-formed XML.

OTHER KEY FEATURES

- **Backward compatibility:** Business Information Server v12 is backward-compatible with all previous releases.

PRODUCT SPECIFICATIONS & SYSTEM REQUIREMENTS

On Windows®:

Windows XP, Windows Vista, Windows 7, Windows 8, Windows Server 2012, Windows Server 2008, or Windows Server™ 2003.

- Microsoft Internet Information Server (IIS) must be installed. BIS cannot be installed unless IIS is already present.

On UNIX, BIS requires a host machine running one of the operating systems below:

- A host machine running the Linux operating system.

BIS has been tested on Red Hat versions 7.3 and 9, Red Hat Enterprise Linux, Fedora Core 4 and 5, SUSE 10.0, and Debian 3.1r1. It should work on any recent Linux release that can support the appropriate version of Apache.

- A host machine running the AIX operating system version 4.3.3 and above..
- A host machine running SCO OpenServer 5 or OpenServer 6 or UnixWare 7.
- A host machine running Sun Solaris SPARC (2.6, 7, 8 and 9).
- The Apache 2.0 or 2.2 web server must be installed.

For additional information please visit: www.microfocus.com