DATA SHEET
MICRO FOCUS SOA EXPRESS

Business Challenge
Delivering new business initiatives from mainframe systems has been a quest of many enterprise organizations for years. Many existing solutions are geared toward technical architecture and ironically, end up creating more complexity.

Solutions such as message bus systems, extract and transform (ETL) based migrations, and re-writing to new technologies have, at the end of the day, left business units stranded.

The challenge for large organizations is to find a way to simply combine and expose existing mainframe transactions to reuse those transactions in a way that enables business.

Several decades of investment reside in mainframe systems. These systems deliver not only the core functional areas of the business but also the competitive advantage of many organizations. By addressing new requirements through the extension of existing systems, all of the distinctive competence and intellectual property is retained. Efforts can be focused on new initiatives, optimizing the time-to-market while controlling costs and reducing risks.

Product Overview and Key Benefits
Micro Focus SOA Express is an elegantly simple solution that bridges the gap between existing business transactions and new business initiatives.

Micro Focus SOA Express is a platform solution that makes the mainframe relevant to initiatives like self service kiosks, portals, Web 2.0, and customer service solutions.

Micro Focus SOA Express evolves the mainframe for new users and channels by offering a new modern interface rendered through a browser based environment. Micro Focus SOA Express automatically builds Microsoft based or Java based front ends and interfaces.

- Integrates with other key systems regardless of platform or technology base
- Strategically enables IT assets for use in B2B transactions
- Allows reorganization and consolidation systems following a merger or acquisition
- Speeds the learning curve for non-mainframe developers such as Web developers.
- Brings support for Web 2.0 technologies to core applications
- Web-enables and integrates host systems to work better with customers, partners and suppliers
- Improves existing user interaction and reduces training time by creating new composite Web-based applications
- Reduces the cost and risk of developing new applications and services by reusing existing business data and logic

Detailed Feature Overview
IDE of choice
Using Micro Focus SOA Express, there is no need for developers or business units to learn another tool to use enabled services. Micro Focus SOA Express automatically generates .NET or Java client interfaces. The generated interfaces can be edited and extended using the IDE of choice such as .NET Visual Studio designer or Eclipse. This flexibility ensures that all business units, both highly technical and non-technical, can take advantage of previously locked up mainframe transactions.

Application Server of choice
SOA Express provides automatic service deployment to the application server of choice including:

- Oracle (BEA) WebLogic Server (Windows)
- IBM WebSphere Application Server (Linux, zLinux IFL, UNIX, Windows or z/OS)
- Microsoft IIS (Windows .NET)
- Oracle Application Server (Linux, Linux for System z, UNIX, Windows or z/OS)
Customizable XML Mapper

Once the data residing on the mainframe is unlocked with Micro Focus SOA Express, it can be presented in various ways and in various formats using the built in XML mapper. Vertically standardized and pre-formatted XML Schemas and Document Type Definitions (DTDs) can be imported to allow for further transformation of the data.

Direct SOA Deployment with CICS Web Services

As an alternative to deployment through J2EE or .NET, Micro Focus SOA Express allows Web services to be deployed directly into IBM CICS TS 3.1 on the mainframe. This provides a streamlined, 2-tier deployment model that enables simplified SOA rollout as CICS Web services, leveraging existing infrastructure.

Detailed Workflow creation

Micro Focus SOA Express encapsulates host transactions in a way that can be combined and composed to create a new composite service that meets the needs of the business. Micro Focus SOA Express uses unmatched analysis capabilities to examine the structure of an application as well as screen layouts. This analysis, combined with the Workflow Capture facility enables users to visually understand, create, and deploy new business services.

Broad mainframe interface support

Micro Focus SOA Express supports a variety of interfaces into mainframe applications to deliver the most appropriate extension for each application without the need to change the underlying code. Supported interfaces include:

- 3270 Workflow
- CICS COMMAREA
- CICS BMS Screens
- IMS via OTMA Screens
- Mainframe Data directly (DB2, VSAM, IMS DB)

CICS and IMS applications can continue to perform their original function unchanged, while the interface into those applications is mapped, narrowed, tailored and utilized to extend the application usage.

Build industry-standard Web services

Once an interface has been enabled, Micro Focus SOA Express generates industry standard Web services including the appropriate support files for deployment into the application server environment of choice. Existing business processes can be delivered without change to the mainframe applications. The deployed Web services are then consumed by Web developers and business units without any knowledge or understanding of the back end mainframe infrastructure and technology.

Automatically generate .NET or J2EE components

Micro Focus SOA Express enables mainframe transaction for use in .NET or J2EE components. Any required supporting components are automatically generated, allowing the consumption of these components without any specialist middleware expertise.

- Generates Web services automatically from mainframe screens and business logic
- Integrates with LDAP, JDBC and WS-encryption
- Works with existing application server platforms: IBM WebSphere, BEA WebLogic, Sun Application Server and JBoss
- Broad mainframe interface support: 3270 workflow, CICS COMMAREA, CICS BMS, IMS, DB2, VSAM, IMS DB
- Visual “no coding” design environment
- Offers optional application adapters to connect with enterprise applications

Product Specifications & System Requirements

Supported Operating Systems

- Windows XP Professional with SP2 or later
- Windows Vista
- Windows 7
- Windows Server 2003 and Windows Server 2003 R2
- Windows Server 2008 R2
- SOA Express will run as a 32 bit application when installed on a 64 bit operating system

Memory

- Must be at least the minimum recommendation for the operating system, 1 GB recommended, more memory will be required if hosting application servers locally for testing. Refer to the documentation for your application server

Processor

- Pentium III (or compatible) processor or later

Disk space

- 70Mb minimum for SOA Express.
This disk size includes the space needed to cache information locally so that you can modify the installation without the original source media.

Client Tier (Development Platform)

<table>
<thead>
<tr>
<th>Software</th>
<th>Version</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Java Development Kit</td>
<td>1.4 or 1.5</td>
<td>Use the version that comes with or is recommended by the application server you are using. For example, you need to use the same IBM JDK version that comes with WebSphere, especially if you are deploying EJBs.</td>
</tr>
<tr>
<td>IBM WebSphere MQ</td>
<td>5.3 or later</td>
<td></td>
</tr>
<tr>
<td>IBM CICS Transaction Gateway</td>
<td>5.0 or later</td>
<td></td>
</tr>
<tr>
<td>Apache Xerces2 Java Parser</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Microsoft .NET Framework</td>
<td>1.1 or later</td>
<td>Required for generation of .NET services (not required if Microsoft Visual Studio .NET 2003 or later is installed)</td>
</tr>
<tr>
<td>Microsoft Platform SDK</td>
<td></td>
<td>Required for generation of .NET services (not required if Microsoft Visual Studio .NET 2003 or later is installed)</td>
</tr>
<tr>
<td>Microsoft Visual J# redistributable</td>
<td>2.0</td>
<td>Required for generation of .NET services</td>
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</tbody>
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Supported Middle Tier Application Servers

<table>
<thead>
<tr>
<th>Software</th>
<th>Version</th>
<th>Comments</th>
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</thead>
<tbody>
<tr>
<td>IBM WebSphere Application Server</td>
<td>6.0, 7.0</td>
<td></td>
</tr>
<tr>
<td>Apache Tomcat</td>
<td>4.x or later</td>
<td></td>
</tr>
<tr>
<td>Oracle Application Server</td>
<td>10.1.2</td>
<td></td>
</tr>
<tr>
<td>Microsoft Internet Information Server</td>
<td>5.0 or later</td>
<td>IIS 6.0 is required for publication of .NET services to UDDI repository</td>
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</tbody>
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Application servers may also be run on client tier for testing.

Mainframe Tier

<table>
<thead>
<tr>
<th>Software</th>
<th>Version</th>
<th>Comments</th>
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</thead>
<tbody>
<tr>
<td>IBM OS/390 or IBM z/OS</td>
<td>OS/390 2.5 or later or any z/OS version</td>
<td></td>
</tr>
<tr>
<td>COBOL compiler</td>
<td>COBOL for MVS 1.2 or later</td>
<td>Applications must run with Language Environment (LE) Extensions</td>
</tr>
<tr>
<td>IBM Customer Information Control System (CICS)</td>
<td>1.3 or later for use with the IBM 3270 bridge 2.2 or later for use with the IBM Link3270 bridge 3.1 or later required for two-tier services</td>
<td>IBM 3270 bridge or IBM Link3270 bridge must be installed in order to extend CICS screen-based transactions</td>
</tr>
<tr>
<td>IBM Information Management System (IMS)</td>
<td>8.0 or later</td>
<td></td>
</tr>
<tr>
<td>Micro Focus MFA Server</td>
<td>3.1 or later</td>
<td>Required runtime component when extending IMS MPP applications</td>
</tr>
</tbody>
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