

IBM Software Demos

IBM SOA WebSphere MQ for System z

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Sometimes it can feel like your business is drowning! Platforms, applications, protocols, programming languages – a sea of information that can be hard to weather!

Here at JK Enterprises, we needed to get our head above water, so we invested in a System z mainframe. What a difference! But to really make headway against the flood of information, we needed IBM WebSphere MQ for z/OS.

Many of our key assets are held on our System z mainframe under the z/OS operating system. Its high availability, robustness, and security make it THE place for mission-critical business applications which use CICS, IMS, DB2 and WAS. We run WebSphere MQ on z/OS for its superior integrity, throughput, availability, security and ease of use.

MQ acts as the backbone through our SOA, providing messaging-based connectivity between applications running on CICS, IMS, WAS for z/OS, batch or TSO, while supporting 80 different computing platforms. This extends the reach of our mainframe applications to business data inside and outside of our enterprise.

MQ ensures reliable message delivery. This reliability is achieved by proven transactional techniques which ensure that message data is delivered once - and only once. In addition, in the CICS, IMS, WAS, and Batch environments on z/OS, WebSphere MQ provides full support for the transaction coordinators, to ensure that not only are MQ messages delivered according to transactional requirements, but transactions that involve WebSphere MQ and other resource managers such as DB2 can be run under two-phase commit providing full transactional integrity.

For example, a CICS transaction can read an MQ message and update a DB2 row as a complete atomic action in one Unit of Work.

Whatever we build today must be able to cope with the workloads of tomorrow. WebSphere MQ provides complementary methods to provide high availability of message data: Clustering and Sysplex shared queues. MQ clustering is a widely-used, platform-neutral technique for spreading messages seamlessly among multiple queue instances to support parallel processing. Cloned applications can each access their own "partition" of the message data. If the application or its execution environment fails, only the message data in that "partition" will be temporarily unavailable.

As our service level agreements require the highest availability and throughput possible, we use an MQ capability unique to the z/OS environment - Sysplex Shared queues. Message data can be accessed from ANY environment within a Parallel Sysplex, independent of application or LPAR failures - and MQ Peer Recovery provides automatic resolution of inflight message data failures.

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If you need your applications to use WebSphere MQ without application change, there's the MQ bridge technology. CICS and IMS transactions that are written to expect their input from terminals can be driven by message data without having to rewrite, recompile or re-link.

The Web is an important channel for us. We use MQ to provide reliability for our web services transactions and use Web 2.0 to deliver dynamic new applications. The MQ Bridge for HTTP lets developers use MQ as a "business quality of service" - - without having to know anything about MQ.

Security is a key concern when using distributed services. MQ provides Secure Sockets Layer support for secure message transmissions. And on z/OS, access control to MQ artifacts is provided through the System Authorization Facility, letting you control access through IBM Resource Access Control Facility or other z/OS security products. And if end-to-end message encryption is required, use WebSphere MQ Extended Security Edition.

If you need to connect applications in a secure, reliable, scalable, and highly available way, regardless of type of data, application, protocol and platform and reuse your z assets, WebSphere MQ for z/OS is the solution for you. And before you know it, you will be riding that wave of data to a bright new future. Get the message?

You've seen the demo, now click the link to learn more.