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IBM WebSphere MQ File Transfer Edition, Version 7.0

Highlights

- *Multipurpose transport for both messages and files*

- *Reliable file transfer leveraging the proven WebSphere MQ transport*

- *Audi logging of transfers at source and destination for audit purposes*

- *File transfer automation with scheduling and triggering*

- *Visibility of transfer status and progress with graphical tooling*

- *Automatic file conversion between platform character sets*

- *Bulk transfer of files, regardless of size*

- *Support for a range of platforms*

Figure 1. WebSphere MQ File Transfer Edition V7.0 delivers a managed file transfer solution with auditability, visibility and reliability

Many organizations devote valuable IT resources to building and maintaining systems in-house for moving files between applications. Most of these solutions are based on FTP because of its simplicity and freely available mechanism. While FTP is well suited for file sharing, where several applications access an occasionally updated, centrally managed source file, some enterprises are seeking alternatives for files that are moved between applications as part of business transactions. As volumes of transfers rapidly grow, and with increased consequences for errors in business data being incorrectly transferred, having a reliable, flexible, cost-effective solution for managed file transfer is increasingly critical for organizations of all sizes.

IBM WebSphere® MQ File Transfer Edition, Version 7.0 delivers an SOA-ready managed file transfer solution that can replace home-grown and FTP-based approaches to file movement (see Figure 1). It delivers a managed file transfer solution for moving files -- regardless of size -- with auditability, visibility, and reliability. WebSphere MQ File Transfer Edition, the newest member of the WebSphere MQ family of messaging products, is available both for distributed platforms and for z/OS on the IBM System z® platform.
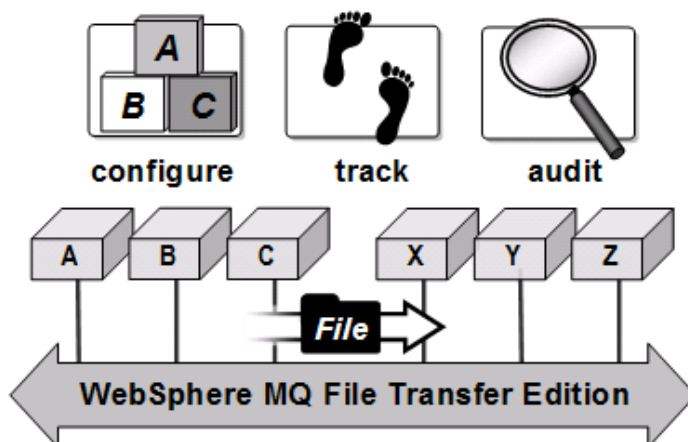
WebSphere MQ File Transfer Edition leverages WebSphere MQ messaging as its reliable transport mechanism for moving files. It enables files to be moved that are larger than maximum individual WebSphere MQ message sizes. An audit log of file

movements enables organizations to demonstrate that business data in files is transferred with integrity from source to target file system. Graphical configuration tooling, integrated with WebSphere MQ Explorer, enables quick and easy definition of transfers without the need for programming.

Replacing FTP

Today, many organizations rely on home-grown solutions based on File Transfer Protocol (FTP). While easy-to-use, basic FTP does not offer the levels of security, reliably, auditability and scalability demanded by the transfer of business critical files.

WebSphere MQ File Transfer Edition V7.0 delivers an SOA-ready managed file transfer solution that can replace home-grown and FTP-based approaches to file movement.

There are many reasons why organizations want to move away from FTP-based approaches to moving files.

Increased regulatory compliance and government legislation obliges businesses to demonstrate the accuracy and timeliness of financial reporting or show sensitive information is being handled appropriately. A key to meeting these obligations is being able to demonstrate how sensitive and financial data in files and documents move throughout their departments. Examples include Sarbanes-Oxley (SOX),

Markets in Financial Instruments Directive (MiFID), or industry-specific directives such as Health Insurance Portability and Accountability Act (HIPAA). Many organizations cannot address the audit and security implications of these regulations with their existing FTP-based solutions.

Another factor is globalization, requiring competitive organizations to reduce the batch window needed to collect or synchronize information between locations. Global organizations need to ensure that an up-to-date view of the business is always accessible or to cope with the increasing volume of data that must be processed overnight. Many organizations existing FTP-based solution are not be able to automate and recover transfers sufficiently and quickly enough to reduce batch transfer windows.

Supply-chain integration concerns intensify the need for reliable, auditable exchange between organizations to ensure partner agreements are kept and errors can be minimized. FTP-based transfers can be prone to failures, especially where networks are poor quality are files are very large.

Pressures to increase IT department efficiencies to devote more time to innovations that drive the unique advantage for the business by reducing time spent building and maintaining FTP-based solutions.

Reliable File Transfer

Reliable File Transfer can help reduce business disruption by helping preserve integrity of file data. The basic FTP protocol lacks capability need to ensure data is delivered. Basic FTP offers no integrity checking on the receiver side and no way of verifying whether files received are complete or not.

WebSphere MQ File Transfer Edition provides a reliable file transfer backbone that leverages the proven WebSphere MQ transport to guarantee the delivery of files and ensure that files are not duplicated during transmission. The underlying WebSphere MQ transport automatically manages its reliable messaging by using receipts to confirm delivery and resends file data automatically as needed so that these operations are invisible to users. Using queues to store file data assures reliable delivery even when the availability of the network, hardware, and receiving applications are disrupted.

Flexible File Transfer

WebSphere MQ File Transfer Edition will provide a file transfer backbone that can help simplify configuration, administration and auditing. Source and target systems do not need to be directly connected to transfer files. File transfer destinations can be configured that are not directly connected to the configuration tooling and the source of the file. WebSphere MQ uses its

resolution of remote queue managers to determine the appropriate path for the file data to take. Within WebSphere MQ File Transfer Edition, appropriate names can be configured for destinations that are understandable by non-WebSphere MQ skilled users e.g. "Head Office". The Backbone determines the path across network between Source and Target destinations. WebSphere MQ File Transfer Edition utilizes this built-in characteristic of WebSphere MQ transport enabling files to be transferred from any point on the Backbone to any other point. This characteristic enables files to be moved and tracked over multiple-hops across Backbone – as opposed to coordinating or auditing a series of single-hops. It enables control and monitoring from any point – even via intermediate points in the Backbone. Audit logs of transfers are captured at the actual, logical Source and Target rather than having to piece audit trail together from a series of disconnected transfers. A backbone provides opportunity to intelligently route file traffic depending on availability, performance, or other such parameters.

Auditable File Transfers

WebSphere MQ File Transfer Edition V7.0 provides a log of file movements that enables organizations to demonstrate that business data in files in being transferred with integrity from source to target file

system. The audit log can be subscribed to by multiple queue managers and hence stored in multiple places. The audit log can be viewed remotely using plug-ins supplied for WebSphere MQ Explorer. It will also be possible to register one or more applications as subscribers to the audit logs, which can in turn take the log records data and persist this to a destination of choice – for example loading the audit log into a SQL database.

Overcoming Network Outages

WebSphere MQ File Transfer Edition enables time-independent transfers, using the asynchronous characteristic of the WebSphere MQ transport to enable transfers to complete regardless of when solution components are free or available. This can help improve the productivity of applications that produce and consume files and enables file transfer to take place regardless of when solution components are free or available. The Backbone

handles network interruptions & recovers transfer as soon as the network resumes. File transfers can occur without the need for source and target systems, applications, and network being available simultaneously.

Centralized Management

WebSphere MQ File Transfer Edition provides Eclipse plug-ins that extend the WebSphere MQ Explorer tooling (see Figure 2). This graphical tooling enables remote, centralized configuration of transfers. Centralized configuration enables remote management of the whole file transfer backbone, simplifying operations and increasing visibility.

Transfers are deployed automatically to the participating machines wherever these are deployed in the WebSphere MQ network using publish/subscribe technology eliminating the need to provision transfer scripts.
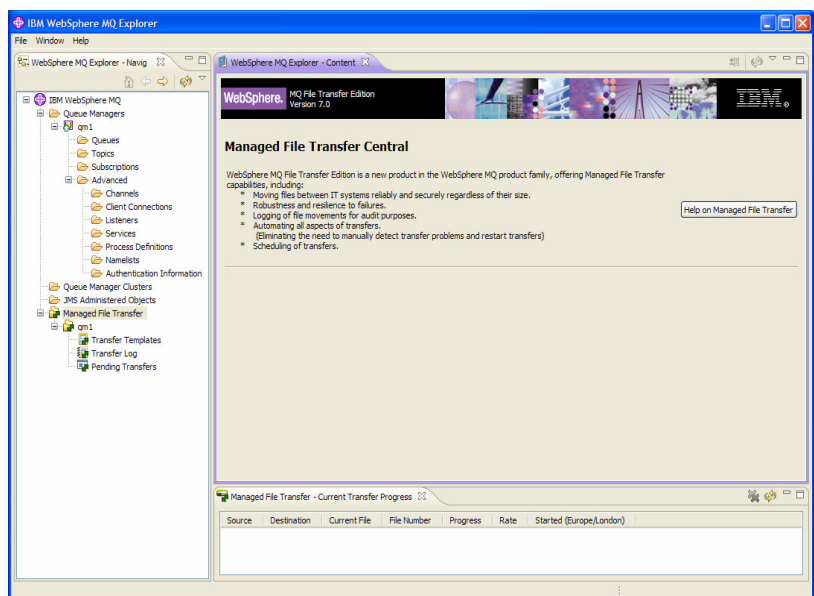

Figure 2. WebSphere MQ File Transfer Edition provides centralized management of remote file transfers via an Eclipse-based Explorer

Zero Coding Solution

A zero coding approach can help accelerate solution deployment and reduce skills requirements enabling infrastructure to be leveraged across more departments. WebSphere MQ File Transfer Edition provides graphical configuration tooling, based on WebSphere MQ Explorer, will enable quick and easy definition of transfers without the need for programming. There is no need to program and no need to use messaging APIs such as Java Message Service to transfer file data. This enables users who are not familiar with the concepts of messaging software to make use of it for file transfer. It provides a zero coding solution with initiative graphical tooling that only requires understanding of file transfers -- not the underlying WebSphere MQ network -- helps accelerate solution deployment and reduces skills requirements.

Command Line Interface

For advanced users a Command Line Interface is provided that is consistent across all supported platforms. Transfer commands can be invoked from the supported Operating Systems shell environment from anywhere across the file transfer network i.e. a command could be run from a Windows command prompt to initiate transfers between z/OS and Unix machines even if that Windows user does not have permission to sign on those machines directly. WebSphere MQ File Transfer manages permissions to create transfers. Developers can use any native command line language on the OS that can invoke these commands e.g. shell, bat, cmd. Application Programs can submit a file transfer request by sending properly formatted XML messages using published interfaces.

Monitoring File Transfers

WebSphere MQ File Transfer Edition captures file transfer status and displays current status in a dashboard remotely via its graphical tooling. Transfer status and progress messages can be subscribed to by applications enabling bespoke progress monitors to be written, or for specific reaction to events such a stalled transfer to be developed by the client.

Ad Hoc Transfers

WebSphere MQ File Transfer Edition V7.0 will enable ad hoc transfers to be driven by Users from its Eclipse graphical tooling or automated such as being scheduled to occur at predetermined times, or triggered by a range of file system events such as when a new file is created in a directory. In addition to the Eclipse-based graphical tooling, it will be possible to create and initiate all types of transfer through programmatic and scriptable interfaces.

Industry Standard Security

WebSphere MQ File Transfer Edition V7.0 enables file data to be secured in transit using industry standard Secure Sockets Layer (SSL).

Incrementally Expand WebSphere MQ Solutions

WebSphere MQ File Transfer Edition provides file transfer services that can augment or extend WebSphere MQ networks incrementally.

Trade-up licenses are available for existing customers who want to upgrade machines running WebSphere MQ to WebSphere MQ File Transfer Edition. Customers who upgrade can continue to use the full messaging capabilities of the limited license copy of WebSphere MQ that is supplied with WebSphere MQ File Transfer Edition. Machines running WebSphere MQ File Transfer Edition provide a multipurpose connectivity solution for files and messages.

Organizations that are running separate mechanisms for file and message traffic can consolidate on a single reliable transport capable of handling both file and message traffic. Using a single reliable backbone can help achieve these operational efficiencies by reducing the need to deploy and manage separate parallel networks for messages and files.

For more information

To learn more about how IBM WebSphere MQ File Transfer Edition Version 7.0 provides managed file transfer for SOA, contact your IBM representative or IBM Business Partner, or visit:

ibm.com/webspheremq/filetransfer

IBM WebSphere MQ File Transfer Edition Version 7.0 at a glance

WebSphere MQ File Transfer Edition, Version 7.0 is supported on a range of platforms including Linux® on x86, IBM AIX®, Sun Solaris, Hewlett Packard HP-UX, Microsoft® Windows®,.

IBM WebSphere MQ File Transfer Edition for z/OS® provides support on IBM z/OS®.

For the latest information about supported platforms, visit:

ibm.com/webspheremq/ filetransfer/requirements