

# Q&A: MFT Manages More Than You Think, and Governs Too

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**Gartner clients frequently ask how they should better manage and govern file transfers. We provide answers for architects, audit officers and security administrators considering managed file transfer software.**

## ANALYSIS

Organizations make file transfers between, for example, trading partners via e-mail and FTP, and internally, between servers. However, the lack of central visibility, management and governance often means that organizations have poor visibility into these file transfers, and managing them is resource-intensive. This can severely inhibit strategic business initiatives. Managed file transfer (MFT) software and services offer a solution because they provide the ability to manage and monitor file transfers within and between organizations.

## What's Wrong With Traditional Methods of File Transfer?

Organizations continue to make wide use of FTP to move files; however, FTP does not have security features to encrypt or ensure data integrity, or to confirm the identity of the target or sending system. IT departments often address the security issue by using Secure File Transfer Protocol (SFTP) or FTP over Secure Sockets Layer (FTPS). These approaches are costly, require constant monitoring and action is taken after the fact. Other issues include:

- FTP offers no integration and execution of batch files, either internally and/or in B2B environments.
- There is no content validation before and after file transfer.
- FTP will only be a point-to-point solution, as it lacks capabilities to automatically route files based on policy or content.
- FTP requires third-party tools or manual operations to allow transformation of files.
- FTP offers no centralized reporting functionality for error reporting or status of file transfers. It requires manual intervention to determine where errors occurred, and applications and file transfer solutions need to undergo testing to locate the cause.

## What Key Factors Drive Organizations to Adopt MFT?

The proliferation of file transfer and repositories presents new challenges for governance and compliance. At the same time, organizations are seeking to lower the cost of staffing and administration around file transfers. MFT aids governance efforts by enabling file transfers to be monitored and managed. Traditional file transfer solutions lack visibility features, and don't have integrated solutions for internal and external file transfer requirements.

MFT provides a single solution that can integrate with internal systems and external partners, and allows the movement of files from a single centralized location. It enables and enhances:

- **Management and security of file movement for collaborative purposes:** Many organizations use e-mail as a means of exchanging large files with internal and external partners. However, companies often limit the size and type of attachment for security reasons, and to protect the performance of e-mail systems. MFT enables encryption and secure alternative delivery mechanisms for e-mail. Organizations can use plug-ins to integrate MFT with applications that require files to be moved on and off these systems, to provide full governance of file transfers.
- **Internal connectivity between various operating systems and hardware:** MFT can secure internal file transfer from application to application (A2A) and from operating system (OS) to OS. It can replace unsecured and unmanaged HTTP, FTP or physical media transfer, such as backup tapes. MFT enables management of all internal connections, makes workflows visible and helps business process management (BPM) efforts. An example of this could be as files are received, rules would ensure the file is routed to the correct server for processing, then testing is undertaken to ensure that the file is ready for the next stage. This can be done without human intervention, as checkpoints exist between transfers to ensure that any errors are identified, both at a file transfer level and within the file.
- **Connectivity with external partners:** Here, MFT generally replaces FTP and e-mail transfers. It offers templates for rapid onboarding and self-service for partners. It comes with reporting and group administration features to manage large groups of users. MFT provides service-level-agreement (SLA) reporting for the business and its partners. This automates the process and enhances the customer experience.
- **Centralized reporting and analytics:** MFT can monitor internal and external file transfers, and provide a centralized report. This allows quick identification and resolution of any issues during transfer. It also helps businesses to comply with any regulations that apply to their industries.

### How Is the Role of MFT in Companies Changing?

Gartner sees a shift from stand-alone file transfer (FTP) and MFT point solutions to MFT suites or “embedded” MFT functionality. Organizations want more management and visibility capabilities to better manage customer experience and expectations (SLAs). In B2B, trading partners demand better visibility and capabilities that not only contain management, but also solutions that enable file transfers to be monitored and ensure that files are secured with their partners.

### How Does MFT Fit With Other Integration Middleware and Integration as a Service?

MFT is one category of integration products and services, including enterprise service buses for back-end integration, B2B gateway software and integration as a service. These integration products and services are used to securely and reliably exchange transactions, files, messages, and transactions between application systems, external business partners, and cloud services with the same level of governance and compliance as MFT. What differentiates MFT from other forms of IaaS is (1) its unique focus on particularly large files, and the scheduling and management of moving of very large numbers of files and bulk data between applications and businesses, and (2) the movement of files and data in usage scenarios not typically addressed by many integration solutions, such as enhancing the performance of file attachments in e-mail. Note, however, that all integration solutions are rapidly converging such that, for example, MFT solutions continue to incorporate more-general-purpose integration capabilities, such as enterprise service buses or IaaS, and vice versa.

### How Does MFT Help With Governance and Compliance?

Governance technologies provide visibility, management, enforcement, measurement, provisioning and validation of file transfers. The foundation of “services” that enable management and governance include the evolving technology functions (i.e., some workflow, secure communication, provisioning, streaming input/output and transformation) that lie at the core to a MFT suite. These governance services are:

- **Visibility:** This enables businesses to track transactions, users and systems on a daily basis. It is a key first step in identifying the processes, systems and people affecting and being affected by messages, files and transactions.
- **Monitoring and management:** These enable companies to proactively and reactively track messages, files and transactions as they flow through systems and among people. This will help organizations to control the interactions among transactions, users and systems, by content filters and reporting capabilities.
- **Enforcement:** This provides the ability to address policies around performance, risk, identity, access and authentication issues. IT can ensure that all policies and underlying rules are enforced and carried out. Enforcement also provides the mechanism for providing feedback to the policy owners regarding the status of the enforcement of corporate policies.

- **Reporting and auditing:** These enable companies to compile and assemble data related to all aspects of messages, files and transactions specific to user needs. This provides quantitative data regarding all aspects of integration and collaboration, not only to IT, but also to the individual departments.
- **Provisioning:** This enables companies to rapidly onboard systems, companies (partners) and individuals, and to continually manage all aspects of change.
- **Validation:** This enables companies to design, test and execute processes associated with file transfer.

## How Can I Better Manage and Govern File Transfers Throughout My Organization?

### Stage One

You need to understand how files move, and how files are transferred in and out of the business. As such, the IT department needs to identify and understand what file transfers take place. Without this effort, MFT will not help manage governance issues related to file transfer.

### Stage Two

Once a clear understanding exists of what transactions take place internally and externally (such as HTTP calls, FTP transactions, message queue transactions, ad hoc e-mail and collaboration file transfers), IT can use this to build a foundation to improve visibility and governance, as risks surrounding file transfers are identified and define policy.

### Stage Three

Approach the governance of file transfers as an ongoing program. All file transfers should undergo a continuous mapping to ensure that they are visible, governed and part of existing MFT solutions to enforce policy based on risk. Consider MFT disciplines essential for your organization, and likely part of your centers of excellence (COEs) for integration, service-oriented architecture (SOA) or BPM. File mapping can take several months to complete; however, once you have the expertise, individuals will go on to manage file transfer governance on a continuous basis, which will reward reusability and reuse.

Look at the degree of control required to enforce governance of data movement throughout the organization. It is possible to integrate MFT into existing data transfer solutions, to ensure monitoring all file transfers and to enforce governance policies as part of the COE. Because organizations consistently need to enforce governance, regardless of technical physical domains, all attributes and policies should be available to an administrator, regardless of what type of and where file transfers are taking place. This is to provide administrators, process owners and policy owners with visibility and assurance that the proper policy was enforced.

## What Functions Do I Need in an MFT Solution?

Consider vendors that offer multiple features in their MFT suites. The suite must support integration and interoperability with application programming interface (API) development kits and interoperable service interfaces. Functions to consider include:

- **Secure multiprotocol communication:** FTPs, HTTPs, SSH-FTP and AS2
- **Provisioning:** Rapid deployment to meet the demands of your business and the marketplace
- **Transformation:** File/data transformation, and file management with versioning capabilities to prevent data duplication or data loss
- **Security technologies:** Encryption, certification and validation of data
- **Checkpoint and restart capabilities**
- **Workflow:** Rules that enable file movement from one job to the next, events that would trigger an action, metadata to ensure file integrity
- **Reporting and administration:** User activity, system utilization, scheduling, receipt monitoring, real-time notifications and routing
- **Active directory and LDAP integration**
- **Storage area network (SAN)/network-attached storage (NAS) support**
- **Multi-OS and A2A support:** Server to server or application to application
- **UDP or other high-optimized data delivery**
- **Ad hoc integration:** E-mail and collaboration capabilities
- **Mechanisms for securing FTP:** Existing and new connections
- **Content filtering:** Files containing sensitive information is blocked or reported

## What MFT Deployments Can I Consider?

Many vendors have largely focused on certain markets, such as retail, supply chain and banking, to solve transactional-based file transfer. They have not focused on large file transfers, (50 GB+), or UDP-based high-speed transfer of files, which are generally faster in transferring large data sets when there is high latency or packet loss on the network. These solutions are generally provided by best-of breed vendors. The various deployments include the following.

### Suites

There are a handful of vendors that would be able to scale to large deployments, integrate with existing file transfer solutions (layer on top of existing vendors to allow staggered deployment) and deliver capabilities in all areas of file transfer. In most cases, this would be on-premises software, which is beneficial to strategically manage larger partners or more-mission-critical data and processes. Frameworks and custom coding can be used to deploy and leverage a vendor's technology to meet specific business needs.

### Best of breed

Organizations looking to solve specific file transfer requirements (such as moving files to one production environment and executing processes as part of the file transfer, workflow, Mac integration and BPM capabilities) need to consider best-of-breed vendors. Some will have these functions built in or offer integration with other products to enable this functionality.

### Middleware Bolt-ons

Many companies can benefit from adding MFT capabilities to their integration or SOA infrastructure, whether on-premises integration middleware or IaaS. Here, best-of-breed MFT solutions with APIs to allow seamless interoperability with third-party integration and SOA infrastructure is a must.

### MFT as a Service (MFTaaS)

Organizations looking for ease of deployment and management can look to vendors to outsource the whole project (meaning the company does not have to worry about any aspect of a technology project), to manage SLAs, onboarding and security.