



INTEGRATING FILE TRANSFER WITH WORKLOAD AUTOMATION: SIX CHARACTERISTICS OF AN EFFECTIVE SOLUTION

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Imagine this: Your invoicing system receives frequent updates on currency exchange rates via file transfers from an outside provider. The system uses that data to bill customers around the world for their purchases. Unfortunately, the file transfer mechanism that delivers the updates failed. The failure went undetected for several days. Every invoice issued during that period was based on obsolete exchange rates. It was an IT nightmare.

Here's another one: Your company books airline travel worldwide. When a flight takes off heading to the United States, your company submits a passenger list via file transfer to the U.S. government. No plane can land in the United States until the appropriate U.S. government agency receives the list. Imagine the chaos that would occur if a file transfer failed and the passenger lists from a major European airport never reached the United States.

Fiction? Not at all. These stories are real-world events that cost their respective companies dearly in terms of money, time, and reputation.

Information exchanges are critical elements of today's business processes. As enterprises increase their reliance on technology to orchestrate and automate business processes, more and more information exchanges are accomplished using electronic file transfers.

According to industry estimates, anywhere from 50 to 70 percent of all data processing is batch. In

almost all cases, file transfers are vital to batch workloads. Consequently, it's essential to ensure the reliable and timely transfer of files among batch processes.

IT organizations have made considerable progress in automating batch processes using workload automation solutions. The problem is that most of these organizations are managing file transfers separately using a collection of file transfer tools that are isolated from the workload automation solutions. There is no integration and, therefore, the scheduler is not aware of the true status of file transfers. The result is a fragmented approach that involves time-consuming and error-prone manual procedures spread across several siloed groups. This fragmentation may be exposing your enterprise to serious risks associated with file transfer delays, errors, or failures, some of which may go unnoticed until serious damage is done.

To address the problem, IT needs to transition to a unified workload automation solution that enables

staff to create, automate, monitor, and manage end-to-end batch processes, including file transfers.

File Transfer, the Logistics of Business Processes

A batch workload is analogous to a manufacturing operation. Manufacturers input packages of raw materials and subassemblies, process and combine these packages into finished products, and deliver the products to customers. Typically, some of the packages are provided by third parties, and the processing and assembly operations may be scattered across multiple sites.

Logistics is an essential component in manufacturing and encompasses the movement of packages among stations. Missed shipments, delays, and errors can have disastrous business consequences.

Similar to a manufacturing operation, a batch workload inputs packages of data (data files), some of which may be provided by third parties. The workload processes and combines those packages to perform a business service and delivers the results of that service to customers. The workload processes may be scattered across disparate, geographically dispersed platforms.



As enterprises increase their reliance on technology to orchestrate and automate business processes, more and more information exchanges are accomplished using electronic file transfers.

The transfer of data files from one process to the next is an essential component of batch workloads. In essence, file transfers are the logistics of batch workloads. As in manufacturing, missed transfers, delays, and errors can have disastrous consequences. Unlike manufacturers, however, IT organizations typically manage

file transfers outside the context of the overall batch workloads. Moreover, they employ a patchwork of manual processes and multiple tools. Some tools are commercially available and others are homegrown.

As a result, a workload scheduler may need multiple tools just to schedule a single business process involving only a single file transfer. That means swiveling among multiple consoles. What's more, because different tools require different skill sets, it may take several people to schedule, monitor, and manage a single workload. To make matters worse, each tool console probably displays only a partial view of the process. As a result, it's difficult to understand not only the overall process, but also its business impact. This fragmented approach impedes efficiency and drives up costs. It also exposes the company to considerable risk.

Characteristics of an Effective Solution

Unifying your fragmented approach with an effective workload automation solution can deliver huge gains in terms of productivity, cost savings, and reduction of risk. But just what is an *effective* solution? An effective workload automation solution has six major characteristics, described here.

As you examine various solutions, keep these characteristics in mind. They can guide your evaluation and help you choose the workload management solution that best meets the needs of your environment.

1. A UNIFIED, ENTERPRISE VIEW

The IT staff needs a single, enterprise view of business processes. This view must include file transfers and should depict not only the end-to-end business processes, but also the interdependence of processes and transfers.

With a comprehensive view, the IT staff can determine, at a glance, the business relevance and priority of all file transfers. The staff can then take actions based on business priority, maximizing efficiency. Easily viewed dependencies provide valuable insight that speeds troubleshooting.

2. TIGHT INTEGRATION

If your workload automation solution cannot distinguish between the success or failure of a file transfer, the result can have a huge negative impact on your business. This situation can occur if you are using homegrown scripts or even a vendor-supplied solution that is not integrated with your workload automation solution.

Of course, if you manage file transfer as a completely separate process, your staff may have to switch from one tool to another or perform manual tasks, which hamper productivity and increase the risk of failures. Instead, you should be able to manage file transfers from the same console and with the same tool as other business processes — and with the same capabilities.

An effective workload automation solution includes tight integration of file transfers right out of the box. This integration permits you to create, schedule, monitor, and manage file transfers and insert them into the business process flow. Moreover, you should be able to perform service level agreement (SLA) specification, forecasting, auditing, and reporting seamlessly with the file transfer mechanism. The solution should also allow you to define automatic triggering of local and remote procedures without having to transfer “dummy” files.

3. SUPPORT FOR POPULAR, STANDARDS-BASED FILE TRANSFER PROTOCOLS

Some traditional file transfer management tools require an agent on both the sending and receiving platforms. Choose one of these solutions and you’ll be burdened with deploying and maintaining hundreds, perhaps thousands, of agents. An agent-based solution may not even be viable if you transfer files from third parties. That’s because many third parties prohibit the deployment of agents on their IT resources.

With this in mind, look for a solution that supports standards-based protocols, such as FTP and SFTP. These solutions enable you to monitor and manage file transfers from company-owned and third-party resources without the need for agents.

4. SUPPORT FOR ALL PLATFORMS USED BY THE ORGANIZATION

Today’s IT infrastructures are highly diverse. They include distributed servers, mainframes, and a variety of operating systems. Often, this diversity has forced IT organizations to employ multiple file transfer management tools, all of which are isolated from each other. The gross inefficiencies that result inhibit collaboration. It’s important, therefore, to choose a workload automation solution that offers flexibility in managing file transfers across all popular platforms.

5. EASE OF USE

Traditional file transfer management tools are difficult to use and often require programming or scripting.

Consequently, IT must maintain a cadre of highly specialized skill sets, which drives up costs.

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To reduce costs, look for a solution that provides out-of-the-box templates that implement best-practice processes. Customization of templates should be fast and easy, using straightforward configurations. This ensures that administrators can easily define, monitor, and manage file transfers. In no case should programming or scripting be required.

6. PRIVACY AND SECURITY

Because of their critical nature, file transfers must occur reliably and securely. To ensure reliability, IT needs a solution that can detect and report problems — and recover quickly from them. The ability to automatically restart from the point of transmission failure, for example, is essential. The restart should be flexible enough so that it can occur at the point of failure within a file or from the failed file when multiple files are transferred by a single job.

File transfer security requires support for popular encryption standards, such as PGP. Strong security with respect to account access is also important. For example, the solution should permit administrators to manage account access credentials, but should not expose these credentials to administrators during an administrative process, such as the building of a job.

Benefits of Unification

The integration of file transfers into workload automation unifies the business process management environment to deliver significant business benefits. If you already have a workload automation solution that has the characteristics presented in this article, you are well along the path to unification. If not, now

may be the time to consider replacing your current patchwork of workload automation and file transfer tools with a holistic solution.

Either way, you'll reap rewards. Administration and monitoring staff will gain the extended visibility and span of control they need to work more productively. They'll no longer need to swivel from one console to another, nor will they need to struggle with multiple tools that require multiple skill sets. They'll no longer be burdened by manual procedures or scripting and programming. Recovery times will shrink when problems do occur. As a result, service quality will rise and costs will drop.

Most importantly, you'll minimize the risk of serious disruptions to your business caused by file transfer problems. You'll no longer have to worry about a file transfer horror story becoming a reality for your organization.

For more information, visit www.bmc.com/control-m.

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