FIVE REASONS YOU NEED A STEP-BY-STEP APPROACH TO WORKFLOW ORCHESTRATION FOR BIG DATA

your organization struggling to keep up with the demands of Big Data and under pressure to prove quick results? If so, you're not alone. According to analysts, up to 60% of Big Data projects are failing because they can't scale at the enterprise level. Fortunately, taking a step-by-step approach to application workflow orchestration can help you succeed. It begins with assessing the various technologies for supporting multiple Big Data projects that relate to these four steps:

- Ingesting data
- Storing the data
- Processing it
- Making data available for analytics

The approach also requires having a reliable application workflow orchestration tool that simplifies the complexity of Big Data workflows, avoids automation silos, connects processes, and manages workflows from a single point. This allows you end to end automation, integration and orchestration of your Big Data processes, ensuring that everything is running successfully, meeting all SLAs, and delivering insights to business users on time.

Cobbling together disparate automation and orchestration tools that don't scale, may cause delays and put the entire project at risk. Here are some of the benefits of beginning your Big Data project with application workflow orchestration in mind and using a tool that supports these steps:

1. Improve quality, speed, and time to market

Many Big Data projects drag on or fail. If developers don't have the tools to properly scale their efforts, they may either write numerous, hard-to-manage scripts or rely on limited functionality tools for scheduling. Their tools may not integrate well with other processes, such as file transfers. With a workload orchestration solution, you can implement Big Data projects quickly to help retain your customer base and maintain a competitive edge.

2. Reduce complexity in all environments – on premises, hybrid, and multi-cloud

A Big Data workflow usually consists of various steps with multiple technologies and many moving parts. You need to simplify workflows to deliver big data project successfully on time, especially in the cloud, which is the platform of choice for most Big Data projects. The cloud, however, adds to the complexity, so your orchestration solution needs to be platform agnostic, supporting both on-premises and multi-cloud environments.

An orchestration tool that can automate, schedule, and manage processes successfully across the different components in a Big Data project reduces this complexity. It can manage the main steps of data ingestion, storing the data, processing the data, and finally the whole analytics part. It should also provide a holistic view of the different components and technologies they use to orchestrate those workflows.

3. Ensure scalability and reduce risk

As I mentioned earlier, Big Data projects must be able to scale, especially when you start moving from the pilot phase to production. Processes for developing and deploying Big Data jobs need to

be automated and repeatable. Once the pilot runs successfully, other parts of the business will look into taking advantage of Big Data projects as well. Your workload orchestration solution should make it easy scale and support the growing business demands.

4. Achieve better Integration

Big Data automation open source solutions have generally limited capabilities and lack essential management features. More than that, they tend to be limited to a specific environment (ie Hadoop) but keep in mind that Big Data is not an island. It often needs to integrate with other parts of the business. So, your Big Data projects should be connected with upstream and downstream applications, platforms and data sources (ie ERP systems, EDW etc) our big data orchestration solution should provide this capability.

5. Improve reliability

It's important to run Big Data workflows successfully to minimize service interruptions. Using a patchwork of tools and processes makes it hard to identify issues and understand root cause, putting SLAs at risk. If you can manage your entire Big Data workflow from A to Z, then if something goes wrong in the process, you'll see it immediately and know where it happened and what happened. Using the same solution orchestrating your entire processes and managing them from one single plane of glass, simplifies managing your services and assuring they run successfully.

Looking ahead

Taking a step-by-step approach to application workflow orchestration simplifies the complexity of your Big Data workflows. It avoids automation silos and helps assure you meet SLAs and deliver insights to business users on time. Discover how Control-M provides all of the capabilities to enable your organization to follow this approach and how it easily integrates with your existing technologies to support Big Data projects.