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ca technologies

Time to change your workload automation solution?

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Executive Summary

Most organizations invest in a scheduling solution to drive delivery of services to the business and contain the costs of operation. These solutions are typically in place for long periods of time but are rarely reviewed to see if they are still fit for purpose.

The world of automation has undergone significant advancement in the last five years, and not all vendors have advanced their offerings to the same level. The result is that many organizations are missing key capabilities for automating their business. This can create competitive disadvantage, a lack of agility to support the business imperatives, inability to deliver new technology and/or significant operational cost increases.

Historically, the reason for staying with a certain scheduling solution was the complexity and cost of change, but this trend is shifting in the market. Now it is often easier to move to a new vendor than to upgrade to the latest version of the existing vendor's solution.

Typically, at the time of purchase the incumbent solution would have been right for the business—but as technology and work practices change, often these solutions do not evolve. Continued use of a solution that has not evolved with the industry can hold the entire business back. Often this has meant that companies have purchased additional niche solutions for specific automation use cases.

Having multiple fragmented automation solutions means multiple maintenance bills. It also means operations staff need to be skilled in using each tool. Errors and delays can occur when handing off IT workloads between schedulers, which impacts performance and IT service delivery. When consolidating to an enterprise-wide automation solution, organizations can:

- Reduce capital expenditure and operational costs
- Accelerate throughput—creating extra time, every day, to get more work done
- Assure on-time delivery of up-to-date reports to management every day
- Increase productivity with fewer incidents and staff spending less time fixing problems
- Gain end-to-end visibility and control of their IT and business processes
- Seamlessly incorporate the latest IT trends and solutions into the business
- Easily comply with IT audits and avoid crippling penalty payments

This white paper identifies many of the challenges and opportunities organizations may face when managing the automation of their IT operations—a contradiction in itself. It also elaborates on how CA Technologies has partnered with more than 2,700 clients—many of whom replaced existing legacy tools—in establishing an enterprise-wide automation platform that is integral to driving their business operations.

SECTION 1

Introduction

The pace of change both in technology and business practices is still advancing dramatically, but not all the automation toolsets that IT uses to support the business have evolved at the same speed. This has meant some products that have been in use for many years are no longer fit for purpose.

However, as workload automation is so embedded into the operational controls for IT, the solutions are rarely reviewed. Typically, if the existing solution cannot expand to a new technology or practice, then an additional niche solution is included in the portfolio.

The world of automation has undertaken dramatic change in recent years. This change has been to enable companies to easily adopt new technologies and expand the world of automation to lines of business—a development that has significantly increased the value IT provides to the enterprise. Nonetheless, not all providers of workload automation solutions have invested the same, and a divide has been created in the world of automation.

Today, many data centers are paying for multiple scheduling tools to automate their IT operations. This cost is not just in maintenance bills but also an increase in the cost of operation to support the business, and, to a larger degree, an inability to provide added value for users. Often a portfolio of schedulers is developed in each organization as new applications and IT systems are implemented to support business operations. Extra automation technology that is introduced as a result of company mergers and acquisitions or outsourcing further complicates the picture.

Islands of automation have emerged. Setting up jobs using an operating systems scheduler is very different from setting up ERP background processing. Time fencing jobs scheduled to run in disparate systems are a common cause for IT departments failing to meet service level objectives.

IT departments must review their automation strategy to make sure they can survive today's immense economic pressures. Strategies that save operational costs today provide new agility tomorrow. This is essential to automate processing and control infrastructure in more complex environments containing on-premises and public cloud workloads.

While vendors will recommend migration to their new platform, their customers remain unconvinced. They are challenging the service they receive in terms of commercial relationship, the product itself and value to the business.

SECTION 2

IT Operations Challenges and Opportunities

Regardless of which job scheduling and workload automation products they're using, most organizations face the following IT operations challenges:

Enhancing IT service delivery

- Reducing incidents and problem resolution times
- Gaining extra IT agility to improve ROI on existing IT assets and leveraging cloud
- Integrating enterprise applications to achieve business/IT alignment
- Accelerating throughput of IT workload to reduce the batch window

- Increasing availability and making sure end users benefit from working with up-to-date, accurate management information

Enabling innovation and supporting business growth

- Dynamic provisioning in the cloud to optimize application delivery
- Improving delivery of new services to enable the business to gain competitive advantage
- Complying with IT audit across the enterprise to avoid crippling fines
- Extending the scope of automation to do more at no extra cost
- Growing without feeling the pain of punitive software license fees

Reducing IT capital and operational expenditure

- Rationalizing the number of scheduling tools, which can mean one annual license fee and daily savings in staff time
- Increasing staff productivity, ensuring hours aren't wasted each day switching between systems, checking jobs or firefighting problems
- Managing ownership costs with lower administrative and maintenance overheads

Major improvements and efficiencies can be achieved in each of these areas through the adoption of modern automation strategies.

Enhance IT Service Delivery

Reducing incidents and problem resolution times

Too often, the first IT operations hears about a problem is when a user calls. In-house schedulers and legacy tools either provide no alerting or require additional products to manage problems. Switching to a solution that proactively monitors workload will not only ensure IT is first to know when issues arise; it will also reduce incidents by remedial actions being taken as soon as known problems occur. A significant reduction in support calls means increased staff productivity, while fewer errors ensure a greatly improved service to the end user.

Gaining extra IT agility

Confined to managing job submissions, most tools are unable to route workload away from busy servers or take advantage of spare capacity. Automation policies with hardwired physical resource definitions will not be able to offer the agility required to manage workload running virtualized or in the cloud. Both real-time monitoring and orchestration of IT workload in a hybrid environment are critical when optimizing use of available computing resources without impacting service levels.

Integrating enterprise applications

With significant batch workload running inside enterprise applications, such as SAP CCMS and Oracle EBS Concurrent Manager, incumbent schedulers struggle to provide the integration or visibility for end-to-end management and control of critical IT processes. Upgrading to an automation tool that connects with strategic applications and offers in-depth insight into IT workload across the enterprise enables alignment between business and IT.

Accelerating throughput of IT workload

Clocks and calendars used by legacy schedulers are becoming increasingly irrelevant in a world where business is open all hours in all time zones. Ensuring IT workload is event-driven allows jobs to run at

exactly the right time, which can result in a 30 percent reduction of an organization's batch window each night. With IT automation that can be driven by business events, end users get the reports they need to do their jobs on time with up-to-date, accurate information.

Increasing availability

Most scheduling tools need a little downtime each day to load up the new day calendar, and a maintenance window to support updating the software. This was acceptable in the old days, when typically we were controlling overnight batch workload, but in today's 24/7, always-on world, this impacts business. Automation is now relied upon to run the business, and any impact to this, even for ten minutes, means the business is not running efficiently. A solution is needed where automation is as available as the business—every second of every day.

Enable Innovation and Growth

Dynamic cloud consumption

As a consumer and regulator of cloud resources, automation has a vital role to play in provisioning and managing capacity to execute IT workload. Being able to communicate with providers using SOAP, REST and other open APIs is mandatory to ensure IT gets the best value-for-money and meets its SLAs. Organizations need technology that can combine real-time performance data with predictive forecasting in deciding how and where to route IT processing.

Improving delivery of new services

As DevOps teams strive to break down the barriers between application development and IT operations teams, they need rapid deployment capabilities for new customizations and updates destined for end users. Instead of relying on manual scripts, automating application rollouts with a solution that is scalable, predictable and resilient enables the business to gain competitive advantage from using latest IT innovations when serving customers.

Addressing IT audit compliance across the enterprise

IT departments can expect to submit themselves for regular audit. Material failure is not an option when Sarbanes-Oxley (SOX) compliance is a mandatory company requirement. Detailed tracking and reporting of IT workload and the ability to document business processes are critical to begin to address audit criteria. Upgrading to an enterprise automation platform that can record and report on all activity means a better chance of IT passing audits, and the business avoiding crippling fines.

Extending the scope of automation

While traditional schedulers have been used to sequence batch jobs and manage dependencies, new scenarios are emerging where automation can bring value. Automating the extraction of ERP transaction data for business intelligence reporting or scheduling database archiving, either of which could improve end-user response times, are just two examples. Additional value can be realized from an automation solution that incorporates and enacts policy definitions that come with the explosion in new IT systems and applications.

Reduce IT Costs

Rationalizing the number of scheduling tools

Many organizations use more than one job scheduling product—each one accounts for a separate annual license payment. Each tool is different, meaning staff need to be trained and have experience of

working with multiple tools when configuring, managing and monitoring IT workload. Switching to a single enterprise automation solution means one manageable annual maintenance fee and daily savings in staff time.

Increasing staff productivity

Relying on multiple management tools to schedule and monitor IT workload is inefficient and time-consuming. Instead of cloning existing definitions to create new jobs, creating reusable objects improves productivity and simplifies maintenance. Centralizing to one interface that gives enterprise-wide visibility means staff don't waste hours each day switching between systems checking jobs or firefighting problems.

Managing ownership costs

Legacy schedulers can mean specialized, dedicated resources needed to perform configuration and administrative tasks. Cumbersome procedures when moving workload from development to production or applying patches to each server add to maintenance costs. Setting up job plans can be complex, requiring external consultant skills that don't come cheap. Operational costs can be significantly lower when using an innovative enterprise automation solution that is self-maintaining and intuitive.

SECTION 3

Consolidating to an Enterprise Automation Solution

Without too much effort, significant cost savings and operational efficiencies can be realized by revisiting automation. However, while multiple options are available, choices have to be made in deciding which path to follow and how far to go. These can become limited as legacy tools approach the end of their lifespan or a vendor indicates it will end support for a product or an operating system.

Choosing the right path and maximizing benefits to the business is now possible. CA Technologies offers an enterprise-wide automation platform that organizations can upgrade to from their legacy products and in-house tools. The software offers powerful, rich features that tick all the boxes.

CA Automic Workload Automation provides the ability to:

Reduce IT Costs	Enhance IT Service Delivery	Enable Innovation & Growth
• Rationalize the number of scheduling tools • Reduce the scheduler footprint • Increase staff productivity • Manage ownership costs	• Reduce incidents and problem resolution times • Gain extra IT agility • Integrate enterprise applications • Accelerate throughput of IT workload • Increase availability	• Dynamic provisioning in the cloud • Improve service delivery • Address IT audit compliance across the enterprise • Extend scope of automation • Grow without feeling the pain

Automation Upgrade Project

CA has a proven track record in helping organizations upgrade from their array of legacy third-party and/or in-house automation tools. In these situations, it is essential that all aspects of any conversion are covered. To make business sense, the project has to overcome all major obstacles by establishing an enterprise automation platform that both improves on the services delivered today and enables future innovation and growth.

Environmental Analysis

Key individuals responsible for automation architecture, infrastructure, applications and deployment will

benefit from initial training. This will provide the knowledge to support the many decisions that will need to be made in project planning, such as defining project scope and deciding whether or not to take a phased approach.

The following outlines an example of the multiple steps of an upgrade:

Automation Strategy and Architecture

Prior to product deployment, there needs to be agreement on the architectural design of the automation landscape. Consideration needs to be given to what constitutes best practice, as well as how norms and standards can be applied throughout the implementation.

Topics that need covering include:

- Security requirements
- Naming conventions
- Lifecycle management
- Integration with applications and infrastructure tools
- Problem escalation procedures
- Automated recovery plans
- Disaster recovery and business continuity

At this stage, it is also imperative to identify any issues that might cause delays or where extra resources may be required. A detailed plan—upon which the rest of the implementation will be based—is built by working through each of these topics and anticipating any factors that might add project risk.

Software Deployment

Automated installers ensure product deployment is swift. This is advantageous when first implementing the software but also crucial when it is needed to upgrade the automation solution in a production scenario.

Applications and Infrastructure Integration

Workload execution within key business applications needs to be identified, along with system administration and monitoring tools used to manage IT infrastructure. For leading enterprise applications, out-of-the-box connectors are available. Centralizing configuration and control of all application workload accelerates implementation and enhances end-to-end visibility of IT processes. Adapters that integrate with common IT supervision tools enable drill-down investigation and analysis when resolving problems.

Custom code, scripts and in-house-developed tools used to control IT processing will require analysis. In many cases, the purpose they serve may become redundant with the upgrade or can be accomplished by a feature of CA Automic Workload Automation. Obviously, this exercise can determine any functionality that does need to be transferred onto the new automation platform.

Migration of Job Definitions

In most organizations, the job definitions, job plans, process flows and dependency mappings contained within a scheduler map critical business processes. Hence, they can represent a significant corporate asset. Tools are used to extract these resource definitions from legacy job scheduling systems to be converted and imported as CA-equivalent definitions.

Regarding whether to take a phased approach, the following outlines an example of the multiple steps of an upgrade. While this exercise can provide a 1:1 image of the current scheduling rules, it can also be used to refine schedules. For instance, multiple jobs performing basically the same function are rationalized down to a single reusable object, reducing future maintenance and administrative overheads.

Testing and Verification

This critical stage in the process will typically be broken down into manageable repeatable units. A pilot application may be identified as an initial target, and once this exercise is successfully completed, the process can then be repeated for other applications, business units or job flows.

After initial review and fine-tuning of converted objects, it is possible to deploy job definitions and process flows with CA for simulation and unit testing. This enables sequencing and scheduling of jobs to be confirmed prior to submitting workload for rigorous acceptance testing in a QA environment. Once validation is complete, the new objects are ready to go live, while at the same time, existing legacy scheduling procedures are disabled.

This phase of the process is usually handled by CA and client teams working together. Quite often there will be a knowledge transfer exercise, with CA staff sharing best practices on how to structure test plans and creating template examples, and with client staff becoming increasingly independent as skills develop.

Production Support

To provide complete assurance on the success of each upgrade, CA consultants can remain on-site during the first few cycles. This can be advantageous in supporting IT operations through the transition period as staff get familiar with the new tools. Of course, this helps to drastically reduce any perceived risk when transitioning to a new automation platform.

SECTION 4

Summary

Often companies continue to operate their purchased solution for too long. As soon as your existing vendor fails to provide solutions supporting your current and future automation needs, it's time for a review. The historic issues of migration no longer apply; that aspect of automation has been resolved, and it is often easier to migrate to a new vendor than apply the upgrade from your existing provider.

The world of automation has dramatically changed in the past five years. If you have not reviewed the value of automation to the business and compared it with what you receive from your existing solution, it is time to do so. It costs nothing to look at what is on offer.

Companies no longer have to surrender to the pressure to migrate to a replacement scheduler that often comes at a major price premium and leaves them at the mercy of an inflexible vendor. With CA, there is now a smarter alternative for workload automation.

Consolidating to CA Automic Workload Automation enables organizations to reduce costs, both in terms of software license fees and operational overheads. It can also enhance quality of service by optimizing IT processing to ensure end users get the information they need to do their jobs, consistently at the right time. Automation of IT processes is set to fulfill an integral role as organizations explore cloud, hybrid computing and other IT service delivery models.

Establishing a unified workload automation solution at the heart of an IT operations environment will yield immediate returns by creating agility for the business, reducing costs and broadening automation policies deeper into the business. Longer term, it can become the foundation on which major innovations within and beyond the data center are built.

For more information, please visit **ca.com/automation**

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