SOLUTION BRIEF

CA Workload Automation

how can I improve customer experience by reducing the cost and complexity of managing crossenterprise workloads and accelerating the path to dynamic service delivery?

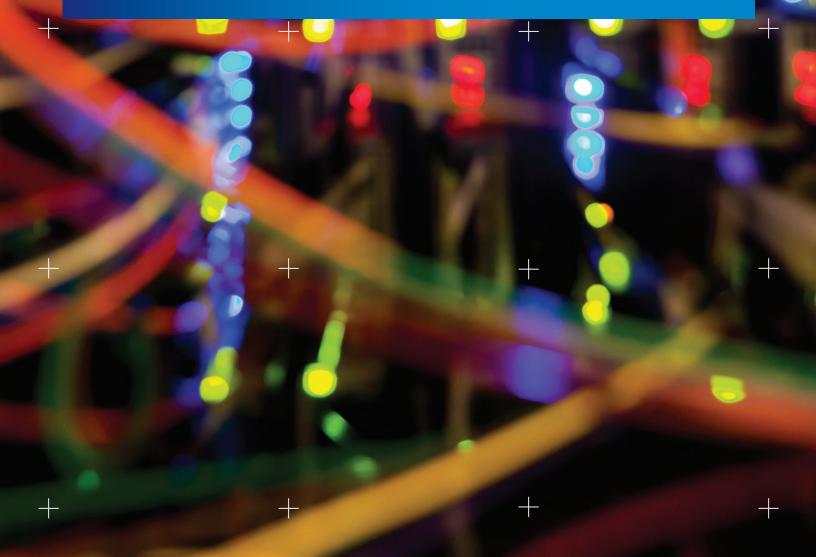
> agility made possible™



Improve the availability of critical cross-enterprise IT workload processes and schedules enterprise-wide by leveraging real-time IT automation, embedded workflow, Web services and dynamic critical path management capabilities.

CA Workload Automation is being used by leading companies around the globe

- ■10 of 11 top banks
- 7 of 8 top telecom companies
- 10 of 11 top pharmaceutical companies
- 7 of 8 top aerospace and defense companies
- 7 of 8 top consumer products companies
- 3 of 4 top US retailers





## executive summary

### Challenge

Workload processing and job scheduling once represented a leading-edge way to manage critical data center functions. However, business has evolved such that scheduling simple tasks on a single platform at a specific time and date is not enough. Rather, your enterprise needs a way to manage:

- Thousands of users
- Thousands of requests for cross-platform processing
- Stringent SLAs
- Intricate interdependencies
- Compliance requirements
- Across an infrastructure assembled from legacy and emerging technologies
- Virtualized pool of resources
- Resource pools in cloud-enabled application infrastructure

Therefore, current strategies for workload processing and job scheduling must evolve into workload automation, to become a critical component of service-driven initiatives.

### Opportunity

For more than a decade, CA Technologies has been providing solutions for managing high volumes of complex, business-critical workloads across the enterprise. CA Workload Automation is distinguished by its breadth of platform coverage, event-based architecture, intelligent resource management, flexible configuration, extent of automation offered, and ease of use. It allows you to reduce the complexity and cost of managing application workloads across physical, virtual and cloud resources and accelerate the path to dynamic service delivery.



#### Section 1: Challenge

# Re-envisioning the workload automation experience

Customers, partners and employees put demands on business systems that must be met in a timely and reliable way. Most of these transactions traverse multiple systems and collect data from multiple sources. Yet most businesses are not prepared to manage these and other interdependencies at an enterprise level, making it difficult to coordinate business processes end-to-end. Root-cause analysis and resolution can be very difficult and time-consuming. Some IT resources are at capacity, while others are underutilized—and the result is a higher total cost of ownership (TCO) and lower ROI. To compete, IT must rethink how it manages processes and jobs and move toward real-time automation of business workloads to efficiently respond to real-world business challenges:

- Improve availability of critical business services: Organizations need to effectively manage large volumes of complex, business-critical workloads across multiple applications and platforms. In such complex environments, a single failure can have a significant impact on an organization's capability to deliver goods and services.
- Respond to real time business events: Today's on-demand business world requires real-time information processing. There is little room for error or delays when it comes to processing data and business transactions. To compete, IT must rethink how it manages processes and jobs and move towards real-time automation of workloads to efficiently respond to business events.
- Increase cross- enterprise visibility and control: Business policies and SLAs should drive workload priorities. But without a central point of visibility and control, you can't be certain that production workloads are managed accordingly. It's difficult to manage multi-platform and application dependencies. You can't see potential failure points. You're unable to document regulatory compliance. All of which compromise IT's ability to deliver business services
- Improve staff productivity: IT spends significant time on redundant or mundane administrative tasks and desires to improve the efficiency of their staff so that they can focus on more value creating activities such new application development.
- Optimize infrastructure utilization: IT needs to improve the efficiency and ROI of the IT hardware
  and software assets deployed in the data center. This means that you not only need to improve
  existing server utilization for mainframes and distributed systems but also explore newer options
  for processing enterprise workloads such as public and private clouds.

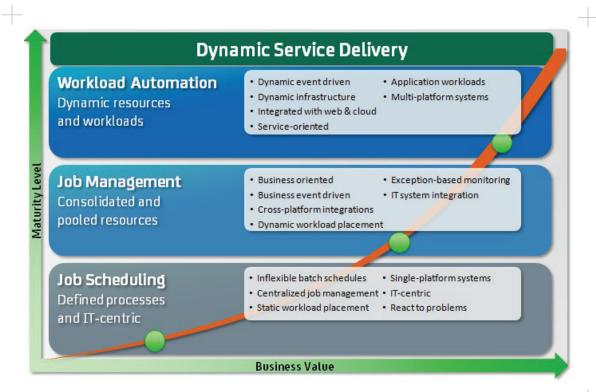


#### Section 2: Opportunity

## Accelerate delivery of dynamic business services

Over the years we have seen enterprise workload automation evolve from the mainframe to distributed servers like Unix and Windows, then to include ERP platforms as well as other operating systems. Newer application delivery models such as Cloud and IT-As-Service are further disrupting the space and adding complexity to the underlying infrastructure. Moving from job scheduling methodologies to advanced workload automation, IT must closely examine the exact requirements of the complete workload automation solution as depicted in Figure A below..

**Figure A.**Workload Automation maturity levels



CA Workload Automation (CA WA) offers a comprehensive, holistic proven approach, which helps you optimize the aspects of business workflow management. It is built on a foundation of technology innovations designed to accelerate and improve delivery of dynamic business services across the enterprise.



#### **Key features**

#### Multi-platform scheduling

Manage and visualize a business process end-to-end across platforms from a central point of control. CA WA supports Mainframe, UNIX, Windows and Linux client/server-based architecture, supports virtually any networking protocol, and can reside on any supported platform. Sophisticated agent technology extends job scheduling capabilities to remote platforms.

#### Event-based, service-oriented architecture

CA WA choreographs workload processing in real time across applications and server platforms based on business policies, changing priorities and triggers that can be as granular as a message, file or database value change. This event-based architecture is designed to offer greater flexibility, capability and reliability than traditional scripting, which is difficult to scale as business needs and IT environments increase in scope and complexity.

#### Intelligent resource management

By identifying and understanding the IT resources required to execute workloads, CA WA provides intelligent resource management. It evaluates available resources and provisions workloads to enable greater compliance with a defined SLA. This approach improves resource utilization and allows for multiple workloads to be processed and completed while helping to avoid impact to other processes or business services.

#### Role-based administration and reporting

To improve controls and facilitate regulatory compliance, CA WA provides role-based administration and reporting. For example, rather than requiring you to wait for an authorized person to log on to a secured production server, CA WA provides the appropriate access. In this way, problems can be more quickly and efficiently diagnosed and corrected.

#### Single definition for entire business workload

From its single interface, users in either Application Development or Data Center Operations can define, monitor, control, manage and integrate workloads regardless of the processing platform, which simplifies management and reduces operational costs. Intuitive dependency features allow you to define one single business process, regardless of run frequencies or variations in processing from day to day.

#### Easy to install, learn and use

CA WA helps your organization reduce the time-to-market for new applications by enabling automation from the initial design of the application, through the testing and execution of the production application. Skills can be easily extended to enable staff to absorb new workload types by simply knowing WHAT to run, WHEN to run it, and WHERE to run it. By service-enabling legacy applications, it dynamically creates new business functionality in minimal time for low-cost, rapid time-to-market of new offerings creating a significant business advantage.

"We were particularly impressed by the ease of use and speed of deployment of CA Workload Automation. Usability was particularly important as we were keen to make the system available to users outside of the IT team to improve transparency of information. Today. CA Workload Automation is used by our Business Intelligence unit to assist them with business

Laurent Caroujat, Head of IS Planning, Devanlay

analysis".



#### Seamless application integration

Implementing applications in new or existing client/server infrastructures is a significant undertaking and a substantial investment in terms of resources and capital. Integration with CA WA allows major business applications to be managed with greater reliability and flexibility and to be executed in sync with workflows running in the rest of the enterprise.

#### SLA-based management

CA WA helps organizations to pro-actively monitor and manage their service level agreements before they cause business disruption. Monitoring capabilities of users are enhanced by a consolidated dashboard and graphical views that enable each user to focus on the SLAs relevant to them.

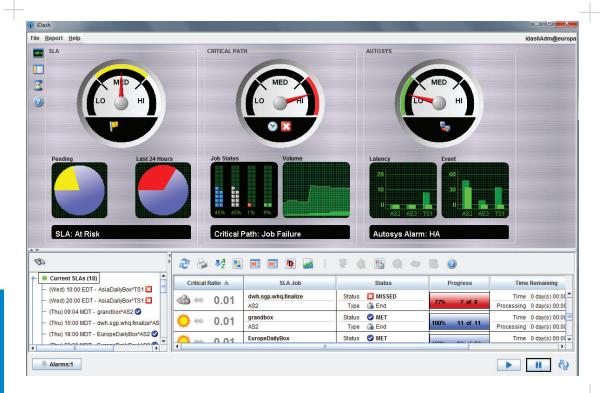
Figure B.

CA Workload Automation intuitive dashboard display:

At-a-glance information about the current health of upcoming SLAs and the Critical Path jobs for all SLAs



Morten Pors Simonsen, Manager of Server Enterprise Global Services at Danfoss



#### Support for SAP, Peoplesoft and Oracle applications

By using CA WA to drive embedded Enterprise Resource Planning (ERP) schedulers and their processes, you gain greater compatibility and consistency across workflows and more granular integration across applications. Managing ERP associated workload from a central point also helps to reduce operating costs and improve visibility.



#### Extensive job types and web services interface

CA WA allows organizations to extend service-oriented design into the development and implementation of other applications. CA WA Agents allow you to define and run the following job types: Web Service HTTP JMX, POJO, JMS Publish, Session Bean, Entity Bean, JMS Subscribe and RMI. The Web Services interface enables your programmers to program any software application that is configured to work with Web services to trigger and control workload.

#### Critical path analysis and forecasting

With workload grouped according to business processes across the enterprise, CA WA can automatically calculate due times for a business process, based on historical run-time averages. The critical path is displayed in the graphical flowchart with the estimated end time for workload objects. This visual framework provides you with the unique ability to identify and understand the business impact of a job within a job stream. Notification can be provided for overdue jobs, or CA WA can take other types of actions, such as bypassing less critical jobs.

#### Cloud bursting

CA WA enables customers to quickly move and process workloads in different cloud environments when demand for processing spikes. This is made possible through dynamic workload placement, enabling customers to quickly provision and process workloads from a physical infrastructure to a virtualized private cloud or to a public cloud such as Amazon EC2.

#### Throughput optimization

CA WA minimizes delays in processing workload throughout the enterprise, which speeds processing of business data. Architecturally CA WA can process workload end-to-end much faster than competitive tools because of its advanced architecture.

#### Fault tolerance and recovery

CA WA provides reliability and fault tolerance at both the job and system level. You can verify that job processing occurred as expected and react to problems before they impact business operations. Reliable, lights-out operations can be achieved with intelligent, automated recovery. This facilitates availability of business systems by enabling jobs to be completed accurately and on time.

#### Self-service for workload management

CA WA extends its self-service interface and gives end-users the ability to request and execute workload processing controlled by workload policy and governance processes. End-users no longer need to depend on administrators to make changes as they are now empowered to manage their own workload processing and related SLA's. This helps provide higher levels of efficiency and control, while giving the business more control over their own services.

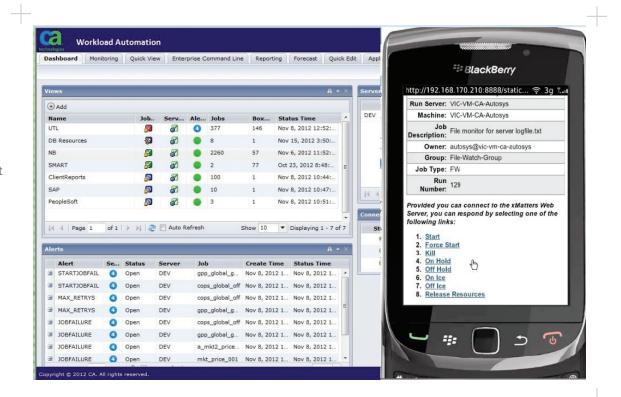
#### Mobile access

The CA WA solution enables you to minimize business disruption caused when a job processing error occurs by notifying and empowering the right people, at the right time, to take corrective action from any mobile device.



## Figure C. Mobile Access:

Receive alerts from CA Workload Automation in real time on any mobile device with just the information you want



"A large financial institution, was able to reduce the process of moving workloads from test and development environments into production from two weeks to just 20 minutes, by implementing workload lifecycle management."

#### Process automation power packs

CA WA provides Process Automation Power Packs for Workload that provide fast-start capabilities for automating routine IT tasks associated with workload management such as lifecycle management, automated incident remediation and health checks. These Power Packs help you to improve productivity and reduce human error through automation.

#### Section 3: Benefits

# Better control costs, increase agility and improve service delivery

CA WA helps IT to achieve greater levels of efficiency, improve service availability across critical business applications and IT processes, and better manage costs and risks by unifying and simplifying the management of complex workloads across the enterprise.



"The benefits reaped by using CA Workload Automation are considerable, with 600 operational tasks being eliminated and 40 operational hours being saved daily through automation"

Harish Shetty, Executive Vice President-IT at HDFC Bank

#### Increased productivity and performance

CA WA provides a centralized way for you to manage complex application dependencies at the enterprise, server and application level. The ability to orchestrate workload processes in real time contribute to greater productivity and performance of both people and systems across your business.

#### Greater business responsiveness

Frequently changing business processes don't just happen, they must be created. More than ever, that development needs to occur dynamically, and it must be rapid, low-cost and reliable. CA WA helps provide for rapid application delivery by replacing error-prone scripting and associated support requirements. It also allows you to enhance business responsiveness through real-time automation and dynamic workload placement across physical, virtual and cloud resources.

#### Manage it costs

Improvements in IT operational efficiency impact your ability to manage IT costs—design once and deploy; avoid trivial administrative tasks; reduce the need to find and fix errors to decrease mean-time-to-recovery. CA WA supports this and more to free resources, allowing you to focus on higher-value activities such as new application development.

#### Consistent, reliable service delivery

Increased workload volume can translate into greater competition for IT processing resources— a recipe for disaster, or at least cost overruns, if you don't have a way to execute processing based on SLA criteria or business policies. CA WA delivers with capabilities to manage and set priorities for interconnected jobs from a business-centric viewpoint. End-to-end visibility of production workloads and dependencies, event-based triggering, management by exception, real-time alerting and dynamic critical path management combine to enable timely resolution to the issues that can compromise service availability.

#### Section 4:

## The CA Technologies advantage

CA Technologies has 30 years of recognized expertise in robust, reliable, scalable, and secure enterprise-class IT management software. CA Technologies has made an unparalleled commitment to emerging technologies and IT delivery models such as automation, virtualization, Software-as-a-Service, and cloud. Additionally, CA Technologies solutions deliver forward-thinking best management technologies garnered through strategic acquisition and developed from within. CA WA helps to deliver on CA Technologies strategy by automating and controlling workloads in real-time across multi-platform environments. It is designed to help improve the delivery and availability of critical business services and streamline processes.

For more information on CA WA Please visit ca.com/workload-automation



CA Technologies (NASDAQ: CA) provides IT management solutions that help customers manage and secure complex IT environments to support agile business services. Organizations leverage CA Technologies software and SaaS solutions to accelerate innovation, transform infrastructure and secure data and identities, from the data center to the cloud. CA Technologies is committed to ensuring our customers achieve their desired outcomes and expected business value through the use of our technology. To learn more about our customer success programs, visit ca.com/customer-success. For more information about CA Technologies go to ca.com.

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