

CA Workload Automation



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

Business value

Using CA Workload Automation, businesses can help:

- Reduce costly in-house development of automation tools
- Get visibility into workload processing for the enterprise
- Control the execution and management of workloads
- Respond to real time enterprise events
- Meet service-level objectives of mission-critical workloads
- Use a single enterprise job scheduler to manage jobs across platforms
- Take advantage of virtualization and cloud computing for the agile data center

Overview

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. For more than a decade, CA Technologies has been providing solutions for managing high volumes of complex, business-critical workloads across the enterprise. Built on a service-oriented architecture, CA Workload Automation lets you expose workload functions and job flows as services to business applications. Advanced functions for workload prioritization and load balancing help you align workloads and resources to meet real-time business demands. Life cycle services and education facilitate IT and business alignment and help decrease time to value, improve staff productivity and increase ROI.

Challenge

Automate to reduce outages and help avoid costly interventions

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 events.

From scheduling tasks to streamlining complex workflow

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

Job scheduling must likewise evolve into workload automation, to become a critical component of service-driven initiatives.

Increasing value without increasing budgets—service-oriented automation

IT operational performance is constantly scrutinized. The pressure to increase value and process greater volumes without increasing budgets remains high. One result is the emergence of service-oriented architecture (SOA). Taking hold as a way to move beyond the restrictions of traditional application “silos,” service-oriented computing allows you to reuse core functionality in countless ways. The benefit comes in faster and more cost-effective response to business changes. This is precisely what IT is challenged to deliver in critical business processing—and it’s driving the need for service-oriented automation.

Lack of visibility and control compromise business process delivery

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 the ability of IT to deliver business process.

Solution

CA Workload Automation offers a comprehensive, proven approach, which helps you optimize the aspects of business workflow management.

End-to-end, multi-platform administration, control and visualization capabilities

Business transactions typically span emerging and legacy applications. CA Workload Automation simplifies the coordination of job streams across mainframe and distributed systems from a single point of control. Production workflows are graphically represented end-to-end, enabling alignment of workloads with the business processes they support. Automatic notification of exceptions allows the appropriate urgency in responding to potential failures or delays. Many responses can be automated, further reducing the time to resolve problems.

Event-based, service-oriented architecture

CA Workload Automation 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 offers 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 Workload Automation 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.

Ease of use

The intuitive user interface for CA Workload Automation makes designing and deploying complex workflows simple. It's tailored to facilitate administration, monitoring and control of business processes—as well as integration with third-party applications and event management systems. Click-through navigation and control are at your fingertips. It's easy to access end-to-end visualization of production workflows and troubleshooting information as you assess downstream impacts across complex environments.

Role-based administration and reporting

To improve controls and facilitate regulatory compliance, CA Workload Automation 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 Workload Automation provides the appropriate access. In this way, problems can be quickly and efficiently diagnosed and corrected.

CA Workload Automation is built on a foundation of components designed to accelerate and improve delivery of critical business services enterprise-wide. Combined with CA Workload Automation agents and other supporting products, the components highlighted here support your ability to respond efficiently, reliably and securely to real-time business demands.

Features

Multi-platform scheduling

Manage and visualize a business process end-to-end across platforms from a central point of control. CA Workload Automation 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.

A single point of control

From its single interface, you can define, monitor, control, manage and integrate workloads regardless of the processing platform. This helps to simplify management and reduce operational costs. You can also view and monitor the workload as a logical business process rather than a series of unrelated processes and jobs on multiple platforms. Simple customization allows you to set up your business monitoring practices according to your needs.

Dynamic job control

By combining business-driven and ad hoc events with powerful calendaring, your job schedules are flexible and responsive to the ebb and flow of business and operational events. CA Workload Automation supports interdependent processing and complex branching logic. Related tasks may be grouped into job streams and managed and monitored as one unit of work, simplifying operations.

Flexible job automation

Provides comprehensive automation based on processing logic, downloads, predefined job dependencies, calendar events or file arrival. Job starting conditions based on a calendar event (basic time and day or custom calendars) and/or file status, including file size and file existence.

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 Workload Automation allows major business applications to be managed with reliability and flexibility and to be executed in sync with workflows running in the rest of the enterprise.

Support for SAP, Peoplesoft and Oracle applications

By using CA Workload Automation to drive embedded Enterprise Resource Planning (ERP) schedulers and their processes, you gain 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.

Additional job types and Web Services interface

CA Workload Automation Application Services Agent and CA Workload Automation Web Services Agent allow organizations to extend service-oriented design into the development and implementation of other applications. These 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.

Fault tolerance and recovery

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.

High availability

The CA Workload Automation High Availability provides for jobs to run on time in the event of a machine failure and enables jobs to continue processing without interruption.

Automated error recovery

Error recognition, logging, notification and handling are vital components of the CA Workload Automation environment. Control over error handling, including full checkpoint/rollback capabilities, recording and notification are provided.

Critical path analysis and forecasting

With workload grouped according to business processes across the enterprise, CA Workload Automation 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 Workload Automation can take other types of actions, such as bypassing less critical jobs.

Resource optimization

CA Workload Automation has an advanced Resource Manager that coordinates workload based on available resources. For example, threshold resources can emulate processing windows, depletable resources can facilitate more orderly shutdown procedures, and renewable resources allow you to more efficiently process workload that shares resources.

Alert and resolve

CA Workload Automation enables real-time monitoring and alerts on the progress of enterprise-wide business process. Exceptions in processing can initiate automatic notification via email, pagers, problem management tickets, etc. Troubleshooting information can be automatically retrieved upon impact and provided to staff to view, analyze and resolve the situation, thereby minimizing the potential impact.

Extreme scalability without running multiple instances

CA Workload Automation is extremely efficient even at exceptionally high job and process volumes with a single scheduling server instance. In order to provide similar production scalability, older systems often require multiple server instances, undermining their ability to centrally monitor and control workload across the enterprise.

Audit support to better meet regulatory compliance requirements

Auditing of changes to the schedule is maintained to provide that no unauthorized changes occur. CA Workload Automation allows users to define access permissions at any level, and if there are problems, view what was changed by whom and when.

Benefits

CA Workload Automation 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 running on multiple platforms.

Increased productivity and performance

Provides a centralized way for you to manage complex application dependencies at the enterprise, server and application level—and 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 Workload Automation enables business responsiveness, replacing error-prone scripting and associated support requirements.

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 Workload Automation 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 Workload Automation 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.

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 Workload Automation 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.

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CS0862_0311