IBM Workload Automation

Leverage enterprise-wide workload automation for schedule-driven and event-driven workloads

Highlights

Schedule driven or event-based triggered workloads

CI/CD automation and observability of workloads

Out-of-the-box integrations with third-party applications

Embedded predictive analytics (AI)

IBM® Workload Automation (IWA) creates an enterprise automation platform that integrates IT, operational and business workflows to orchestrate unattended processes in hybrid environments. IWA allows enterprises to plan, automate and control the processing of an enterprise's entire unattended workload. IWA is available for distributed systems, for IBM zSystems™ and as a software-as-a-service (SaaS) offering.

IBM Workload Automation and IBM Workload Scheduler offer the same functional product. The only difference in the two is the licensing metric.

– IBM Workload Automation is based on a per job licensing metric
– IBM Workload Scheduler is based on a PVU metric

IBM Workload Automation provides a single point of control to centrally manage cross-enterprise, heterogeneous workloads to support business goals and service levels by driving workloads according to business policies. The intuitive interface helps users model, manage and monitor their workloads with enhanced graphical views, embedded analytics and customizable dashboards. Workload Automation provides a robust, ready-to-use, hybrid deployment model that is flexible and cost efficient to provide optimized workload management. This technology is available as full on-premises deployment, cloud hosting and as a SaaS solution.

IBM Workload Automation and IBM Workload Scheduler deliver systematic enterprise-wide workload orchestration for both schedule-driven and event-driven workloads, in real time, across applications and platforms. This enterprise application platform helps simplify systems management across distributed environments by integrating all systems management functions. Workload Scheduler plans, automates and controls the processing of enterprise production workloads. All Workload Automation components are available on containers and are certified for Red Hat® OpenShift® and multiple other cloud providers' Kubernetes platforms. The Workload Automation solution is current with two important IT technological trends: Employing AI to empower product operators and provide observability; and using open standard formats in the process of collecting Workload Automation logs, metrics and traces.

Schedule-driven or event-based triggered workloads

The dynamic workload console provides a robust, web-based graphical user interface (GUI) to create rich visual representations of a job stream and job elements, both on the plan and on the model. A graphical layout depicts job streams, job dependency nets or even entire portions of the plan into interactive views. The console allows single sign-on and authentication for one or many schedulers and provides real-time workload monitoring, management and reporting.

This solution helps users conduct trials and forecast planning to fine-tune workloads and resource usage. It also helps you manage workloads by exception, based on user-set parameters. In addition, the console allows the operations team to easily create production reports and generate alerts based on workload, application or system events. By seeing the actual distribution of workloads, users can resolve complex service delivery problems quickly.

CI/CD automation and observability of workloads

Enterprises can develop their job streams and job definitions before checking them into a centralized, source code repository. As part of their CI/CD DevOps pipeline, users can run tests and deploy job stream definitions to the various staging environments leading to production. Managing job streams and job definitions using a centralized, code repository provides both version management and an audit trail for governance.

Workload Automation exposes workload automation data for metrics and logs based on standards such as OpenMetrics and the provision of JSON logs. This instrumentation enables Workload Automation to integrate with the main observability tools currently being used in the industry and to be part of the IBM ecosystem that creates events for consumption by IBM Cloud Pak® for Watson AIOps and IBM Instana® Observability. Events and alerts created from IBM Workload Automation drive into the event capabilities in the IBM Cloud Pak for Watson AIOps. Metrics are collected through open-source tools that are part of the IBM ecosystem and supported by Instana. Traces and logs data is integrated in Instana through tools such as Splunk or Elasticsearch, Logstash and Kibana (ELK).

IBM Workload Automation and IBM Workload Scheduler provide high scalability, robust fault tolerance and efficient performance to help minimize idle time, improve throughput and makes sure mission-critical workloads are processed efficiently and reliably.

Out of the box integrations with third-party applications
Automation Hub is a marketplace where users can find software components that enable enterprises to integrate third-party processes into the Dynamic Workload Console. This allows enterprises to expand their automation capabilities to new domains—a great solution to automate business workflows and manage all the processes from a single point of control. Examples include third-party applications such as SAP, Instana, Oracle, IBM DataStage®, cloud services and many other products to provide a complete picture of the enterprise IT infrastructure.

Embedded predictive analytics (AI)
IBM Workload Automation provides embedded predictive analytics that are used to measure and forecast the duration of jobs along a critical path. It's used to predict if critical jobs are at risk to miss a service level agreement and includes sophisticated what-if analysis.

AI Data Advisor from IBM is the recently-introduced AI engine that leverages historical workload data to provide anomaly detection for the overall workload or for selected jobs. The AI engine uses big data, machine learning and analytics to enable early detection of potential issues. It provides alerts for anomaly detection and a UI for historical data analysis of both jobs and workstations.

Conclusion
IBM Workload Automation and IBM Workload Scheduler provide high scalability, robust fault tolerance and efficient performance to help minimize idle time, improve throughput and makes sure mission-critical workloads are processed efficiently and reliably. By using IBM Workload Automation in conjunction with other products in the IBM IT Automation portfolio, users can expand their workload management capabilities to observe workloads with IBM Instana and IBM Cloud Pak for Watson AIOps.

Why IBM?
IBM has proven application and software leadership and experience. IBM provides a comprehensive set of cloud native modern solutions with a vision for hybrid cloud that enables our clients to accelerate business outcomes. We help clients build, deploy and manage applications and services using advances in both AI and automation.

For more information
To learn more about IBM Workload Automation please contact your IBM representative or IBM Business Partner, or visit ibm.com/products/workload-automation.

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Produced in the
United States of America
February 2023