

Workload management automation software optimizes business processes and workflows in support of enterprise digital strategies. This IDC Vendor Spotlight examines the role of Hitachi's JP1 Automation solutions in achieving these initiatives.

Workload Management Automation Optimizes Digital Business Speed, Scale, and Agility

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Introduction

Digital business initiatives and digital applications have become essential for success in today's highly competitive corporate climate. Customers and end users expect fast response time and always-on availability. Enterprises are extending the reach of digital applications with public cloud, private cloud, hybrid cloud, and multcloud deployments. Operational environments must support increasing transaction volumes from both new and legacy applications. The scope, complexity, and scale of these initiatives demand extended capabilities from workload management automation software to successfully support growing business demands with efficient and timely service delivery. This IDC Vendor Spotlight examines the role of workload management automation software in supporting both legacy and modern applications to achieve successful digital business outcomes.

Benefits

Successful operation of established business processes requires that jobs, data, and workflows be coordinated and executed according to complex factors that can include time and calendar work schedules, data availability, completion of job or process steps, and occurrence of triggering events. Workload management automation solutions can support accelerated demand and business growth by enabling rapid, efficient execution of business processes that can scale as needed.

As use cases grow and traditional workloads expand, workload management automation gains importance. However, as business organizations seek to grow by implementing new applications or by extending existing applications to support new use cases, greater operational complexity is often the result. Workload management automation solutions can provide capabilities that enable successful operations and business outcomes in these growing environments.

Rising business demand and new digital applications drive the growth of transaction volumes. Digital business applications are often built to connect customers using handheld or mobile devices to large centrally managed databases. Growth in these kinds of digital applications is helping drive up transaction volumes and often generates

AT A GLANCE

WHAT'S IMPORTANT

Workload management automation software plays an essential role in enabling and optimizing digital applications and business processes across hybrid and multcloud environments, allowing IT organizations to keep pace with rapidly growing demands from new and traditional workloads to deliver business services at scale.

high peak volumes. Workload management automation solutions can help support high transaction volumes with efficient workflows and effective event-driven scheduling.

The modernization of user interfaces for workload management automation simplifies operations and provides access for business and DevOps users. Legacy workload automation solutions are being streamlined and simplified with graphical and web-based interfaces and customizable dashboards, opening up use case-specific opportunities for application developers and business application owners. The modernization of workload management automation enables IT organizations to successfully use these solutions with new or lesser-skilled operations staff.

Workload management automation also grows with integrations through APIs, enabling developers to embed scheduling logic into new applications. Developers can take advantage of these integrations to support a wide range of workload management functions, including monitoring and scheduling operations.

To support agility and increasing business relevance, workload management automation solutions are extending to hybrid cloud and multicloud environments. Solution capabilities are being expanded to ensure that jobs will be executed consistently across private cloud, public cloud, hybrid cloud, and multicloud environments.

Trends in Workload Management Automation

Workload management automation will continue to be essential for critical business applications due to its ability to drive efficient IT operations and process execution across large, complex environments. Key use cases include large-scale, data-intensive workloads and complex business applications and processes.

- » Ease-of-use features such as graphical user interfaces and simplified dashboards will enable the automation of complex scheduling processes and workflows. IT organizations should expect to see further progress in simplifying use of workload management automation to support wider use cases and an increasingly nonspecialist workforce — both IT operations and application developers.
- » Transaction volumes will increase with growth in digital business applications, big data workloads, and DevOps. Growth in transaction volumes will be driven by business growth and new applications as well as by augmenting existing applications and data sources with access by handheld and mobile devices.
- » Support for applications and processes spanning hybrid cloud and multicloud environments will become a mandatory workload management automation capability needed to support business agility.

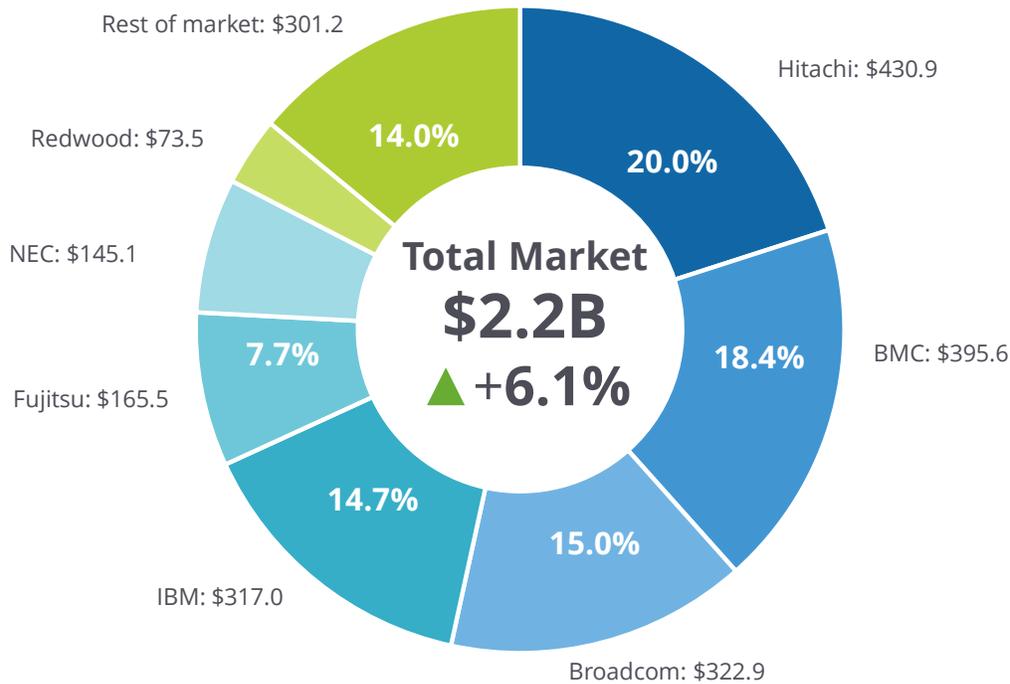
The movement to migrate existing applications to the cloud will drive the need for workload management automation to ensure consistent process execution across cloud environments. Management of hybrid environments encompassing private, public, and multiple clouds will become table stakes.

Considering Hitachi

Hitachi is a long-standing major vendor of datacenter management automation software based on the Hitachi JP1 solution. Hitachi JP1/Automatic Job Management System 3 (JP1/AJS3) is focused on the automation and the optimization of business operations to reduce costs and deliver a highly consistent and reliable product line. It automates tasks that are scheduled for a specific date and time, or at a fixed interval, and has a sophisticated task management capability. Tasks are also automatically triggered by the varieties of events, such as a REST API call.

Hitachi was ranked number 1 by software revenue in IDC's *Worldwide Workload Management Software Market Shares, 2018: Year of Market Growth* (IDC #US45447919, August 2019). Figure 1 shows worldwide market shares for the leading workload management software vendors in 2018.

FIGURE 1: **Worldwide Workload Management Software 2018 Share Snapshot**



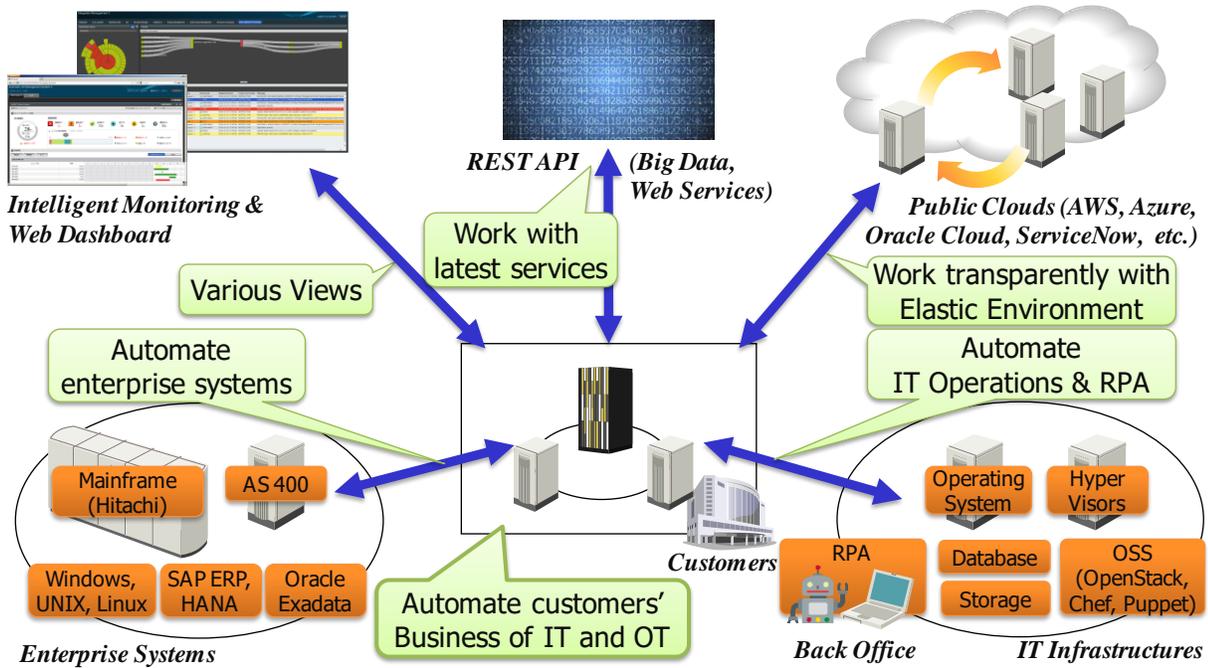
Note: 2018 share (%) and revenue (\$M)

Source: IDC, 2019

Hitachi JP1

JP1 is Hitachi's flagship workload automation solution. Figure 2 shows Hitachi's JP1 automation vision. The most recent release is JP1 V12, which provides enhancements and new features designed to meet the needs of today's enterprise workloads and cloud strategies.

FIGURE 2: **JP1 Automation Overview**



Source: Hitachi, 2019

Key JP1/AJS3 V12 enhancements and new features include the following:

- » **Extended support for clouds.** Hitachi improved the following features for cloud enablement: REST API, support for autoscale and multicloud, web dashboard, and security. These improved features are used for the production systems on cloud as well as for systems development and testing. Web dashboards can be used from iOS devices, such as the iPad.
- » **High availability for production systems on cloud.** In JP1/AJS3 V12, Hitachi has added support for redundant configurations on cloud for AWS and Azure, allowing JP1/AJS3 to act as the production system on cloud (in addition to acting as the development system and/or backup system). Support for Oracle Cloud has also been announced.
- » **Automated backup while systems are running.** JP1/AJS3 – Manager can use database as a service (DBaaS) in the cloud environment instead of an internal database. There is no need for manual backup operation or to stop systems for backup. Backups can be restored at any point (minimum five minutes ago).

- » **System and operations health reporting.** In JP1 V12, a reporting feature has been added to JP1/AJS3 to analyze the health of the system and visualize the results. The ability to understand and evaluate results such as numbers of jobs executed — and deal with any related problems — is important to the stable operation of jobs on JP1/AJS3 – Manager. The reporting feature for operations results makes it possible to determine the time zone where the work is concentrated and daily trends.
- » **Integration with new back-office operations automation.** JP1/Client Process Automation (JP1/CPA) is a new software product that automates jobs on client computers. JP1/AJS3 works with JP1/CPA so that the customer can uniformly manage enterprise system automation and back-office automation.

Challenges

Workload management software is a mature market. Vendors such as Hitachi must continue to invest in modernizing and updating workload management automation product offerings to meet the needs of the customer. Challenges include keeping up with fast-changing technology environments, supporting rapidly increasing scale as digital business applications proliferate, providing expanded integrations with cloud-based environments, maintaining DevOps processes, and meeting changing IT skills requirements.

Hitachi has shown commitment to ongoing development and improvement of JP1 as demonstrated by the new features and expanded capabilities in the JP1 V12 releases. To remain competitive in a stable, consolidating market, Hitachi will need to continue to invest in JP1 to address evolving customer needs such as self-service and support for DevOps processes.

Conclusion

IDC expects that workload management solutions will continue to provide important capabilities for large-scale, data-intensive workload automation requirements across organizations that need to manage files and data sets from a variety of sources and formats. Workload management software can also underpin modern use cases such as DevOps, cloud, and big data. This software will also have an ongoing role in automating complex business processes and supporting efficient processes for managing increases in transaction volumes.

About the Analyst



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Tim has over 20 years of experience in the software industry. His coverage includes software and SaaS solutions for managing systems, applications, and IT operations across a wide variety of deployment models including on-premises, private and public clouds. His background includes performance monitoring and analysis, modeling and simulation, resource utilization, and service-level management.

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