



I D C V E N D O R S P O T L I G H T

Workload Management Automation Drives Digital Business and Multicloud Expansion

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Adapted from *Worldwide Workload Management Software Market Shares, 2016: Market Growth Returns* by Mary Johnston Turner IDC #US42776017

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Growth in worldwide demand for business services is being driven by a rapidly changing application environment. Enterprises are rushing to implement digital business initiatives, extend the reach of applications with public and multicloud deployments, and modernize IT infrastructure to support increasing transaction volumes from both new and legacy applications. The scope, complexity, and scale of these initiatives require extended capabilities from workload management automation software to successfully support constantly increasing business demands with efficient and timely service delivery. This Vendor Spotlight examines the role of workload management automation software in supporting both legacy and modern applications to achieve successful digital business outcomes. The paper also considers the role of Hitachi's JP1 Automation solutions in supporting IT organizations working to achieve these initiatives.

Workload Management Automation Accelerates Key Business Processes and Supports Digital Business Growth

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 with increasing demands.

Workload management automation gains importance as use cases grow and traditional workloads expand. As business organizations seek to grow by implementing new applications or by extending existing applications to support new use cases, one result is often increased operational complexity. 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 increased 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 high peak volumes. Workload management automation solutions can help support high transaction volumes with efficient workflows and effective event-driven scheduling.

Modernization of user interfaces for workload management automation simplifies operations and provides access for business and DevOps users. Legacy workload management 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. Modernization of workload management automation enables IT organizations to successfully use these solutions with new or lesser-skilled operations staff.

Workload management automation 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.

Workload management automation solutions are extending coverage for hybrid and multicloud environments supporting agility and increasing business relevance. Workload management automation capabilities are being expanded to ensure that jobs will be executed consistently across private, public, hybrid, and multicloud environments

Benefits of Adopting Workload Management Automation

Workload management automation will continue to be essential for critical business applications by driving 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. Other benefits are as follows:

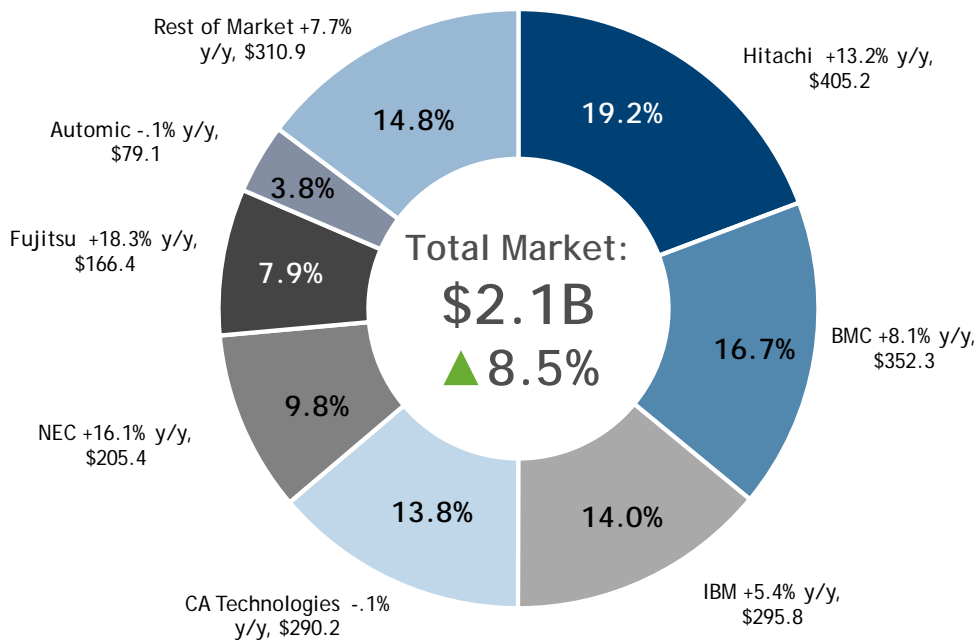
- Ease-of-use features such as graphical user interfaces and simplified dashboards will enable more visibility into complex scheduling processes and workflows, increasing user understanding and driving operational and business efficiency.
- Progress in simplifying the use of workload management automation will support wider use cases and an increasingly nonspecialist workforce in IT operations and among application developers.
- Transaction volumes will increase with growth in digital business applications, big data workloads, and new applications and with increased access from handheld and mobile devices. Workload management automation will enable IT and business organizations to meet the challenges of increased transaction volume and scale.
- Support for applications and processes spanning hybrid 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.

Considering Hitachi JP1

Hitachi is a long-established major vendor of workload management automation software based on the Hitachi JP1 solution. Hitachi JP1 was ranked number 1 by revenue for 2016 in IDC's *Worldwide Workload Management Software Vendor Shares, 2016: Market Growth Returns*. Figure 1 shows 2016 worldwide market shares for the leading workload management software vendors.

FIGURE 1

Worldwide Workload Management Software 2016 Share Snapshot



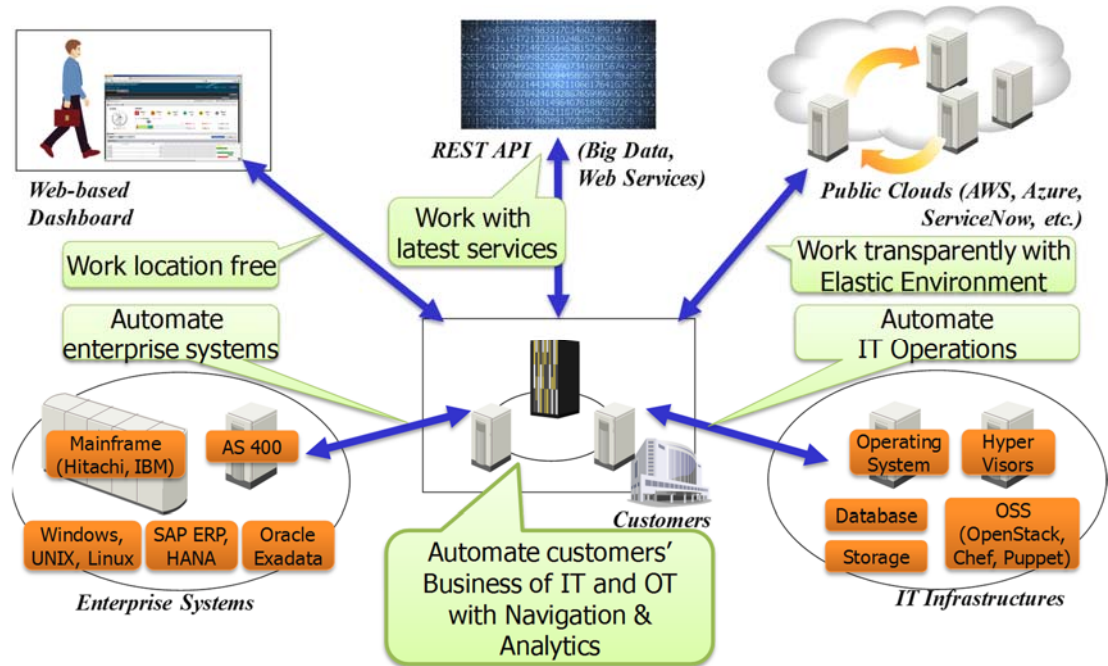
Note: 2016 share (%), growth (%), and revenue (\$M)

Source: IDC, 2017

JP1 is Hitachi's flagship workload management automation software. As shown in Figure 2, Hitachi's JP1 provides broad, enterprise-scale automation capabilities across enterprise systems, business and IT operations, IT infrastructures, and on-premise, hybrid, and public clouds, with support for multicloud environments. REST APIs enable integrations across the JP1 platform and integrations with clouds.

FIGURE 2

Hitachi JP1 Overview



Source: Hitachi, 2017

New releases of JP1 were launched in 2017. These new releases provide enhancements and new features designed to meet the needs of today's enterprise workloads and cloud strategies. Key enhancements and new features in JP1 V11.1 and JP1 V11.5 include:

- Performance improvements designed to support cloud and massive scale in the future (According to Hitachi, JP1 V11.5 is 10 times faster than JP1 V11.1. Hitachi has been enhancing the performance of JP1/Automatic Job Management System 3 [JP1/AJS3] in anticipation of changes in user needs, hardware, infrastructure, and operations environments, especially cloud-native new applications for digital business. This move also helps customers automate many smaller systems with Hitachi's newly launched JP1/AJS3 agent for smaller systems.)
- Greater visibility provided via web-based dashboards that increase ease of use and operational efficiency (Visibility for very large-scale environments is provided in a Gantt chart view. JP1/Operations Analytics, in conjunction with JP1/AJS3, provides visibility into configurations, virtual machine [VM] servers [on-premise and cloud], networks, storage, Oracle Database, SAP HANA, SAP NetWeaver, Zabbix, AWS, and Azure.)
- Flexible automation of cloud applications with newly added REST APIs for ad hoc operations (Hitachi has increased support for cloud automation by continually adding REST APIs for flexible automation.)

- Expanded clustering support for AWS environments including expanded multi-availability zone support that allows failover from one zone to another (Hitachi is also working with partners for clustering solutions to support user needs.)
- JP1/Operations Analytics support for JP1/AJS3, which provides enhanced issue detection and recovery with added middleware support to visually identify issues
- Enhanced autoscale support for AWS (In addition to ELB support in V11.0, multicast type request is also added. This enhancement is useful for preparation and cleanup of application and data on AWS.)

With these releases, Hitachi continues to support new and expanded technologies and use cases. The company has also expanded its support of partnerships, such as the previously announced integrations with ServiceNow.

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 evolving customer needs. Challenges include keeping up with rapidly changing technology environments, supporting rapidly increasing scale as digital business applications proliferate, providing expanded integrations with cloud-based environments, supporting DevOps processes, and meeting evolving 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 V11 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 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 data formats. Workload management software can also support modern use cases such as DevOps, cloud, and big data. Overall, workload management software will have an ongoing role in automating complex business processes and will continue to support efficient processes for managing increases in transaction volumes.

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Global Headquarters: 5 Speen Street Framingham, MA 01701 USA P.508.872.8200 F.508.935.4015 www.idc.com