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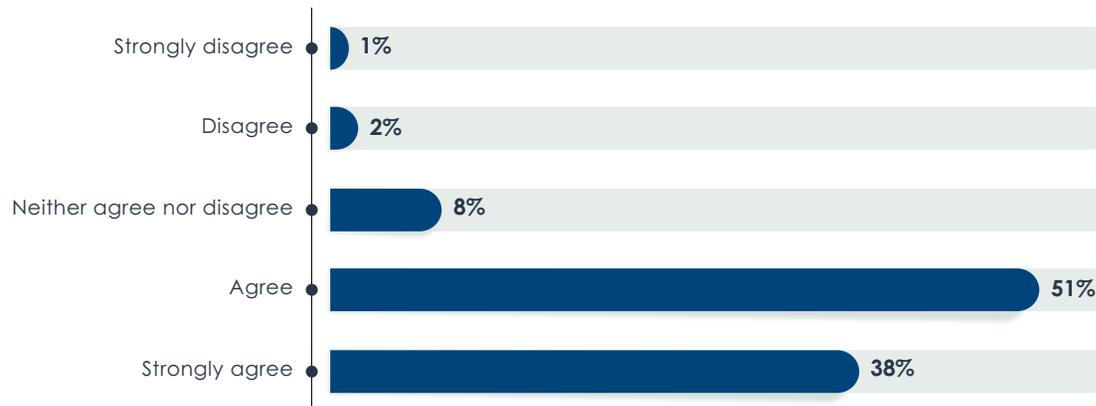
# Leveraging Workload Automation to Expand Enterprise Automation

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# Increasing Importance of Automation

Enterprises are relying on Information Technology (IT) more than ever before. It is commonly said that today every company is an IT company. Customers, trading partners, and employees all expect to interact with the enterprise and each other digitally. Digital transformation brings IT closer to end customers and creates a greater need and more opportunities to automate. Automation done right frees employees from repetitive tasks, allowing more time for higher value work. Automation brings consistency, which results in fewer errors and improved compliance with business processes. Automation also provides self-service opportunities and better information and interaction with the enterprise. All the new digital services and digital forms of interaction are contributing to the ongoing data revolution. The sources and volume of data is continuously expanding. While all the new data sources are creating opportunities for high value on-demand analytics, managing data pipelines increases the need for automation. EMA research shows that 89% of IT and business managers have a goal set by their management to expand the use of automation in the coming year. Business growth and business success require successful automation.

## Expanding use of automation is important to my management and one of my goals for next year.



# Workload Automation Supports Broader Enterprise Automation Strategy

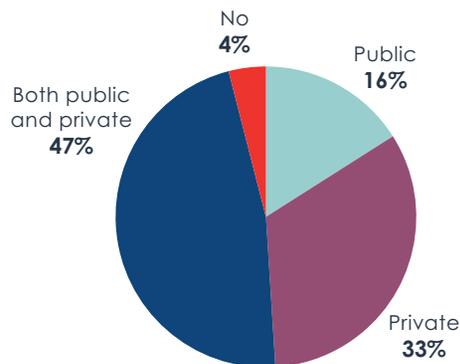
As enterprises strive to increase automation across both IT and business processes, many automation tools and custom applications are used to achieve the desired automation goals. One of the earliest used forms of automation, workload automation (WLA), came into existence early in the use of IT to automate business processes. Workload automation initially handled the scheduling of batch processes, most often overnight, to close out activities at the end of each business day and prepare for the next business day. Workload automation tools have matured and grown significantly since their origin, and modern workload automation is a critical part of every enterprise IT operation. Workload automation supports online applications throughout the business day, often integrated with applications to move data and handle other common functions triggered not just by a set time of day, but by events such as the arrival of files or the arrival of an email. These micro-batches run throughout the day to help keep everything in the background running smoothly. Workload automation is also used to configure both on-premises and cloud infrastructure, and this is increasing with the growth of software-defined infrastructures. Many enterprises will use WLA to support DevOps in defining the infrastructure needs of applications in development, then to automate the move and ensure consistent infrastructure configuration in test, and then for the move to production. This ensures consistency and can automate many steps during the release cycle.

With greater integration and API support, WLA is fulfilling a growing role in the orchestration of many other forms of IT and business process automation. It is very common to have integration with service desk and workflow management tools. These integrations can provide status to support staff or allow them to take actions defined within WLA software to resolve common issues. Other common integrations include chat applications, email, and collaboration software. A relatively new role for WLA is to provide orchestration for Robotic Process Automation (RPA) software. RPA is a growing form of automation that provides a low code/no code way for non-developers to automate repetitive tasks. This is a very popular form of automation that can provide a lot of value for a small amount of effort. However, RPA does not include much of the governance, audit trails, security, and other controls that are native to WLA and that have been matured over many years of use. Some WLA products can provide orchestration for RPA to augment this newer form of automation with necessary controls.

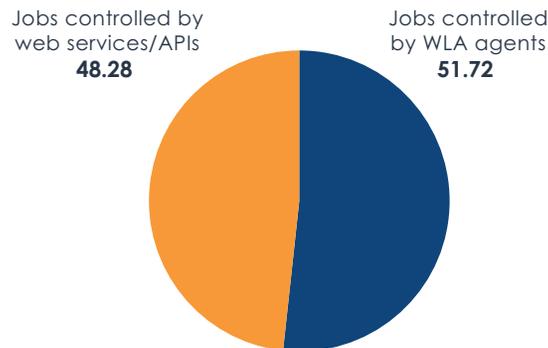
# New Challenges for WLA

The expanded use of WLA to support broader enterprise automation has expanded the use cases for WLA as already discussed. The impact goes beyond the types of activities coordinated by WLA software. The expanded use cases for WLA have also meant an expansion in the types of users interacting with WLA. Of course, the core users of WLA remain IT operations staff tasked with overseeing WLA to support traditional batch-scheduled jobs and the newer job types driven by event triggers or integrations with other applications. However, many other IT roles including those in development, test, networking, security, storage, change management, and IT service management now regularly interact with WLA software. IT and business managers can track status of jobs important to them using dashboards and mobile access. The environments where WLA and the jobs WLA oversees are run have also expanded. As IT operations has fully embraced multi-cloud environments, WLA has adapted to run in the cloud as PaaS or SaaS and can control jobs across all cloud environments. EMA research has found that 96% of enterprises are running production jobs in the cloud. WLA includes a core central application and a means to monitor and control applications running on remote environments. This is traditionally accomplished using a small control application, called an agent, which is placed on the servers where the jobs are run. The agent allows the WLA software to control execution and monitor status of applications in whatever environments are required. With the growth in web services and APIs, many WLA products have added agentless capabilities which allow the core WLA module to interact directly with remote applications. EMA research has found that 52% of jobs are controlled by agents while 48% are controlled through web services/APIs. The trend is for jobs controlled by agents to continue to decline as the newer methods are lighter touch and more efficient.

**Is your organization currently taking advantage of any private or public cloud resources to run scheduled jobs?**



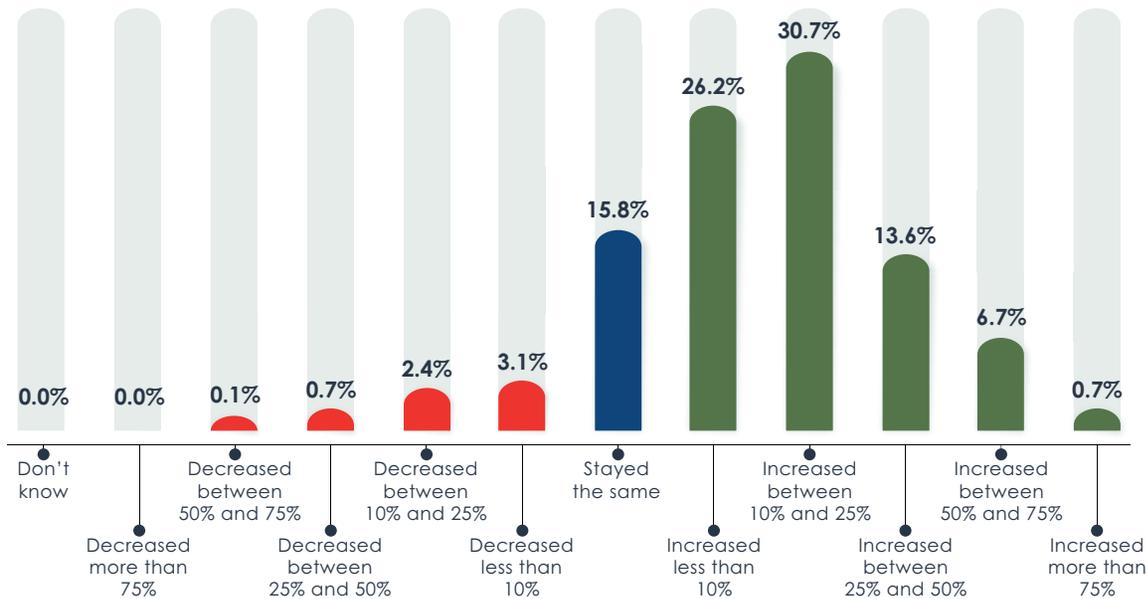
**What percentage of jobs in production is controlled using WLA agents versus web services/APIs?**



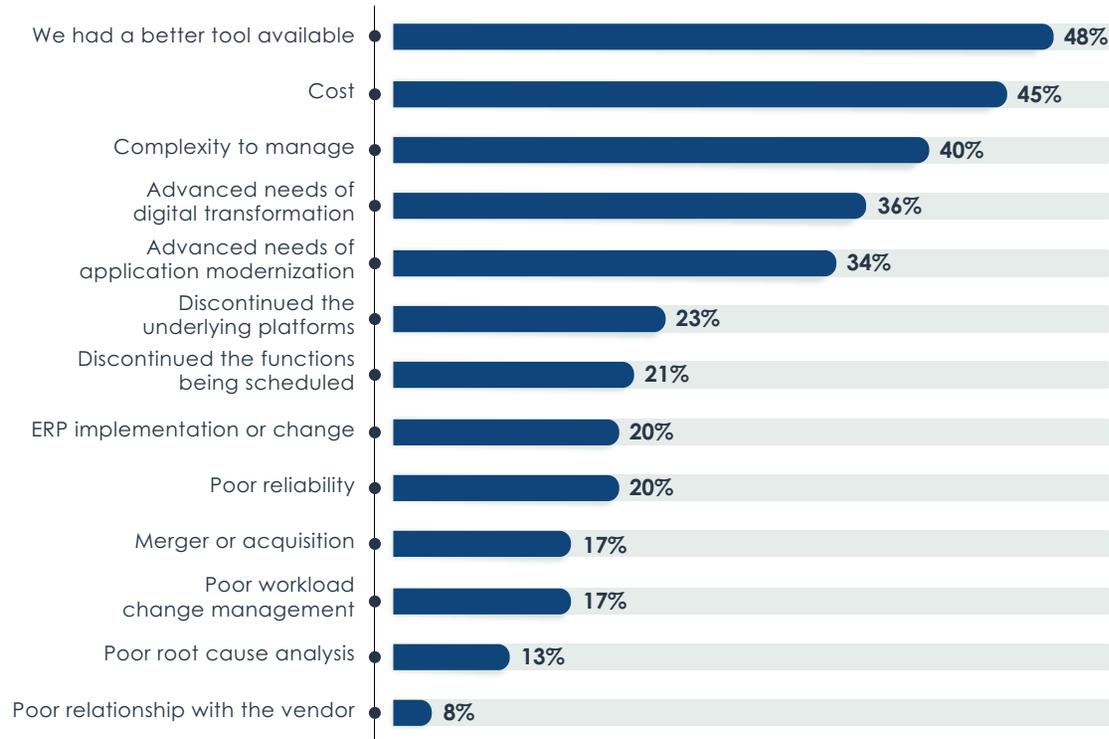
Sample Size = 412

WLA software, as a category of IT operations management software, has adapted well to current needs and requirements. These changes have not come without challenges. EMA research shows that 77% of enterprises are experiencing an increasing number of jobs run each month. This has presented scalability problems for many enterprises. The increasing volume of jobs can lead to increasing licensing costs for users of many WLA products. The rapid pace of change and the new features demanded of WLA software has meant the frequency of upgrades has also increased. IT organizations are burdened with more change management and the cost and stress that entails. Cost and upgrades are the two pain points most mentioned by WLA users. The stress and costs that come with the increasing importance and role of WLA in broader enterprise automation has caused many organizations to change WLA software to gain new features and minimize other challenges. EMA research finds that 45% of those changing to a new WLA software are motivated by the cost of their current solution. This is particularly true for those with a high volume of jobs.

**How has the number of jobs run in production each month changed over the past year for each workload software you use? / All Products**



### Why did you discontinue use of the following scheduler(s)?



## Hitachi's JP1/AJS3

Hitachi's JP1/AJS3 is a robust WLA solution with a large and loyal installed base. In fact, EMA research has found JP1 to be the most installed WLA product globally, with almost 80% of client organizations having used the product for more than 3 years and almost 30% more than 6 years. One reason for this customer loyalty is the long support lifespan for JP1/AJS3. Hitachi ensures backward compatibility for 3 versions of the product, which allows customers to manage their upgrade schedule to balance their need for new features with other IT priorities and planned changes. JP1/AJS3 licensing is CPU Core-based and does not increase with growth in job volumes. This allows users to take full advantage of features in support of broader enterprise automation without increasing the licensing costs. Upgrade flexibility and licensing costs that are not driven by volume mitigate two of the most-stated pain points for WLA users.

Sample Size = 412, Valid Cases = 206,  
Total Mentions = 708

JP1 includes templates to optimize processes that connect IT services and systems. Starting with these powerful templates reduces startup time and allows enterprises to get value more quickly from the software. Enterprises can optimize processes quickly with minimal effort. JP1 can integrate with many environments including Windows, Unix, Mainframe, and Series i (originally AS/400). Integration support is also in place for popular ERP applications. Templates reduce startup time and allow enterprises to get value more quickly from the software.

JP1/AJS3 includes some of the key modern features demanded by IT organizations. JP1/AJS3 supports cloud-based jobs with a web services connection via http, allowing jobs to live anywhere in the cloud. Hitachi JP1 was one of the first WLA products to support orchestration for RPA. Hitachi has integration and support for Automation Anywhere, and provides documentation to integrate UiPath and WinActor RPA tools.

**Automate operations that are executed in a hybrid cloud environment**

Define, as a single job, services that are executed in a cloud environment. This allows you to execute and monitor the job in the same way as other jobs.

**Automate operations that are executed in a SAP ERP system**

Defined SAP ERP jobs can be executed and monitored in JP1 by copying the jobs that were defined previously in the SAP ERP systems.

**Did you know?**

- JP1 V12 supports backwards compatibility with V11, V10, V9.

**• We support a minimum of 10 years of support services\*.**

\* Product support is generally guaranteed for 10 years whereas support period for some prerequisite products varies.

## A long-term JP1/ASJ3 Customer Highlight

One long-term customer of JP1/AJS3 is a leading manufacturer in printing and scanning solutions. We'll call them LCEM for purposes of this case study. LCEM has operations in Singapore and has around 80,000 employees globally. Like any manufacturing company, LCEM depends on IT and uses SAP for their enterprise resource planning needs including such day-to-day activities as accounting, supply chain management, production and regional distribution. These and other IT activities demand predictable and dependable scheduling of supporting IT processes and functions. JP1 helps them with data integration with surrounding ERPs for other core businesses, local applications, report generation, and other scheduled activities for risk management and compliance. LCEM has relied on JP1/ASJ3 for over 19 years to keep everything running smoothly.

LCEM organizes their WLA team as a central group of 7 people who handle all above scheduling activities for the rest of the IT organization. They appreciate the upgrade policies that allow them backward compatibility for 3 releases and let them decide when they will upgrade to new releases. The WLA team at LCEM is anxious for upcoming features that will add dashboards and other means to share job status with the IT and business stakeholders supported by JP1/ASJ3. LCEM does not currently use the RPA integration capabilities but are beginning to consider future use of those features. LCEM has no plans to change to a different WLA product as the stability and scalability of JP1/AJS3 are key to their continued success and they are content to bring on new capabilities in their own timeline as they are offered with each new release.

## EMA Perspective

Automation tools of all types are vital to modern IT operations. Workload automation software is essential to running daily processes. In fact, many organizations rely on multiple, siloed WLA tools, but many people working in IT operations want fewer, more broadly functioning tools to unify and simplify their work. Historically, WLA has not been a hot topic when strategically planning for IT. It should be. Workload automation should be a larger part of the conversation and the strategy of the CIO.

EMA research shows that WLA is involved in 40%-45% of IT work. This includes managing file transfers, running, monitoring, and ensuring completion of key workloads, and moving new code and required system configurations through development, test, and production. Expanding the use of WLA should be considered a cornerstone to digital transformation. WLA should be included among the top ten technologies every CIO considers for operational orchestration of successful digital transformation.

Hitachi JP1/AJS3 is used by more organizations than any other WLA tool, and most users are long-time users. EMA believes this is because Hitachi addresses two of the biggest pain points of WLA users: 1) Upgrades, and 2) Cost. Because Hitachi licenses JP1/AJS3 in a way that is not tied to number of jobs defined or run, costs are not directly driven by additional workloads. Along with a guarantee of backward compatibility with 3 prior releases, JP1/AJS3 users can expand use of the product and know they can control when their upgrades occur. The result is a large and loyal customer base.

## About Hitachi

At Hitachi, with our Mission of contributing to society through the development of superior, original technology and products in mind, we engage in Social Innovation Business on a global basis. By combining advanced IT with OT (operational technologies) and products/systems, we provide to create a future where people can live safer and richer lives. Moving forward, we will take our Social Innovation Business to a more advanced phase with enhanced digital technologies to accelerate “collaborative creation,” tackling shared issues and crafting solutions together with our customers and partners.



**25**  
YEARS

#### About Enterprise Management Associates, Inc.

Founded in 1996, Enterprise Management Associates (EMA) is a leading industry analyst firm that provides deep insight across the full spectrum of IT and data management technologies. EMA analysts leverage a unique combination of practical experience, insight into industry best practices, and in-depth knowledge of current and planned vendor solutions to help EMA's clients achieve their goals. Learn more about EMA research, analysis, and consulting services for enterprise line of business users, IT professionals, and IT vendors at [www.enterprisemanagement.com](http://www.enterprisemanagement.com) You can also follow EMA on [Twitter](#) or [LinkedIn](#)

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