# Modernize to Digitize
## Mitigate Risk and Future-Proof Operations

An ENTERPRISE MANAGEMENT ASSOCIATES® (EMA™) White Paper
Prepared for Redwood
By Dan Twing
July 2019

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## EXECUTIVE SUMMARY

This white paper draws on new Enterprise Management Associates® (EMA™) research on workload automation software. Digitization of business processes is table stakes in the modern economy. IT infrastructure must be modernized to support agile development and the transparency and speed that digitized organizations demand. Workload automation (WLA) is a key IT operations tool. Modern WLA software can do wonders for the development process, speeding digitization efforts and supporting digitized processes. While some businesses may dread migrating to new WLA software, those migrating within the past four years found the process easier than expected when assisted by good conversion tools included in modern solutions. Given how essential good WLA software can be to the digitization process, EMA believes the risk of staying on the wrong WLA product may outweigh the risks of migrating.

## DIGITIZATION IS TABLE STAKES IN THE MODERN ECONOMY

In 2019, the conversation in the C-suite of most enterprises moved well past discussing whether to modernize applications and create new digital capabilities. No industry shows this better than the banking industry. In a recent Forbes article, "10 Major Trends Driving Banking in 2019: Banking's Evolution Accelerates," 8 of the 10 trends noted relate to modernization and digitization of IT. Digitization is now table stakes in the modern economy. The stragglers are debating what to modernize and digitize, while most have made those choices and are racing to get them implemented. Speed and agility are the traits of the successful. However, companies focusing only on mobile apps and other customer and trading partner facing processes may be setting themselves up for failure, or at least for future frustrations and rework. The IT tooling used to develop applications and manage the IT infrastructure must also be modernized to successfully digitize.
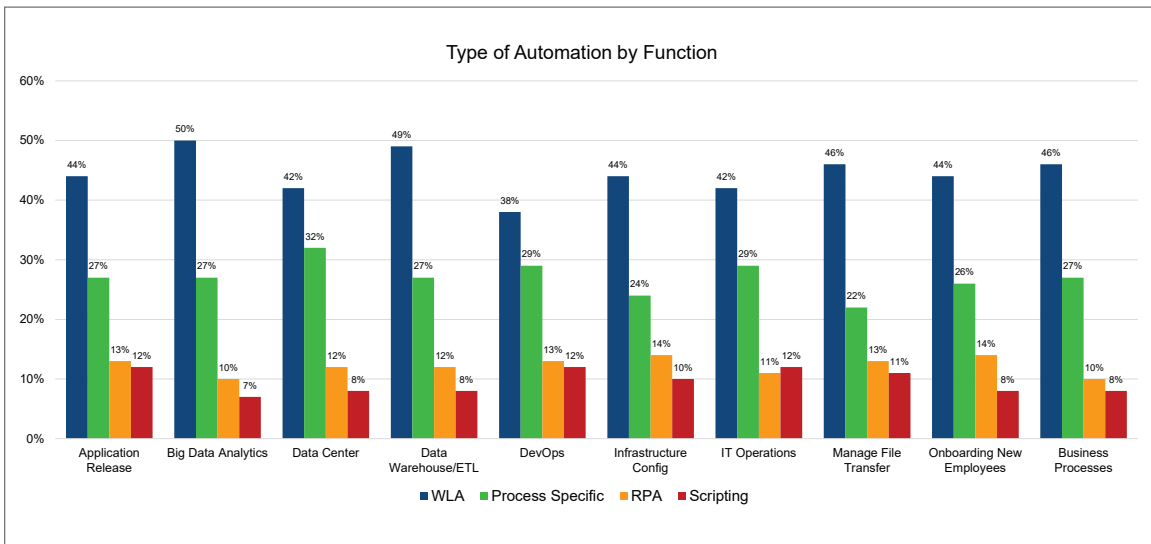
## AUTOMATION IS KEY TO DIGITIZATION

Digitized processes allow employees, customers, and trading partners to be more self-sufficient through increased transparency and self-service. The entire organization must be ready to respond and react quickly since problems and delays are more exposed to digitized stakeholders. Automating everything end-to-end is necessary to maintain the pace and deliver the desired experience.

Just creating and supporting these new applications requires fast and effective software development and IT operations. Automated operations are necessary to monitor the infrastructure and head off small problems before they become big problems. The importance of automation in IT to support both agile development and smooth operations is increasing. EMA research reveals the need for automation is growing rapidly. In the Q4 2018 study "The Shifting Role of Workload Automation: WLA Expansion Creates a Foundation for Broader Business Process Automation and Digital Transformation," 427 IT and business professionals in North America and Europe were asked about their need and use of automation. Seventy-six percent agree or strongly agree that their need for automation is growing rapidly, while 78% agree or strongly agree that their use of automation is growing rapidly.

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### Our need for automation is growing rapidly

Mean
Agreement
**4.07**
5 – Strongly Agree

### Our use of automation is growing rapidly

Mean
Agreement
**4.05**
5 – Strongly Agree

Sample Size = 427
Source: EMA Research "The Shifting Role of Workload Automation: WLA Expansion Creates a Foundation for Broader Business Process Automation and Digital Transformation" Q4 2018
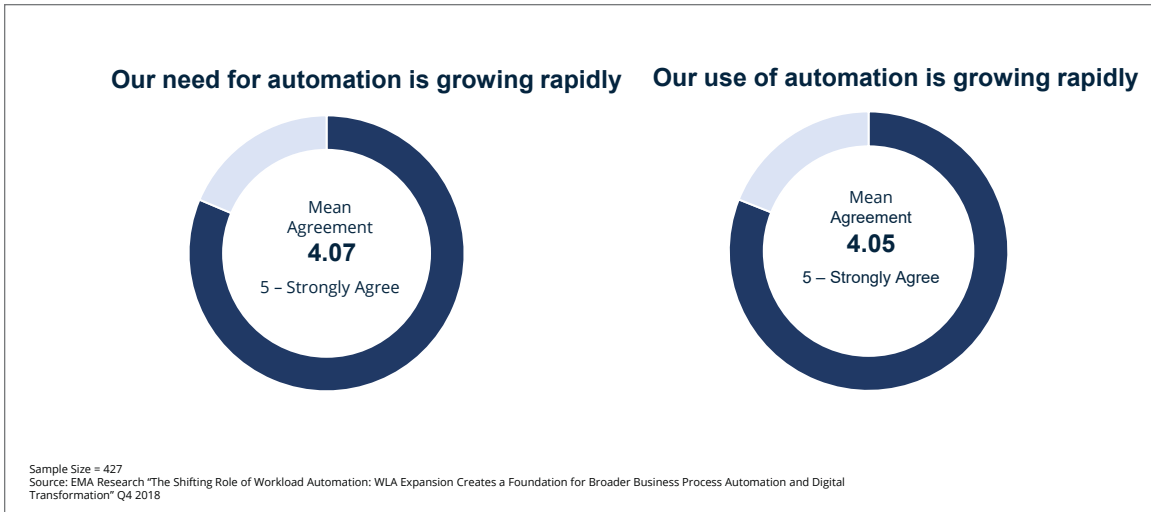
Exploring the kinds of tasks being automated and the forms of automation used, EMA found that workload automation (WLA) is the most used form of automation. Such a broadly used tool is a critical component in supporting a broader digitization effort. The average age of products in the WLA market is 24 years, with the oldest products having been first created over 30 years ago. While these products have been updated and expanded in capabilities over the years, many carry significant technical debt in the form of accumulated "quick fixes" and aging underlying architectures in need of significant refactoring and updating. For many organizations, this is a key tool to modernize in support of broader digitization efforts.
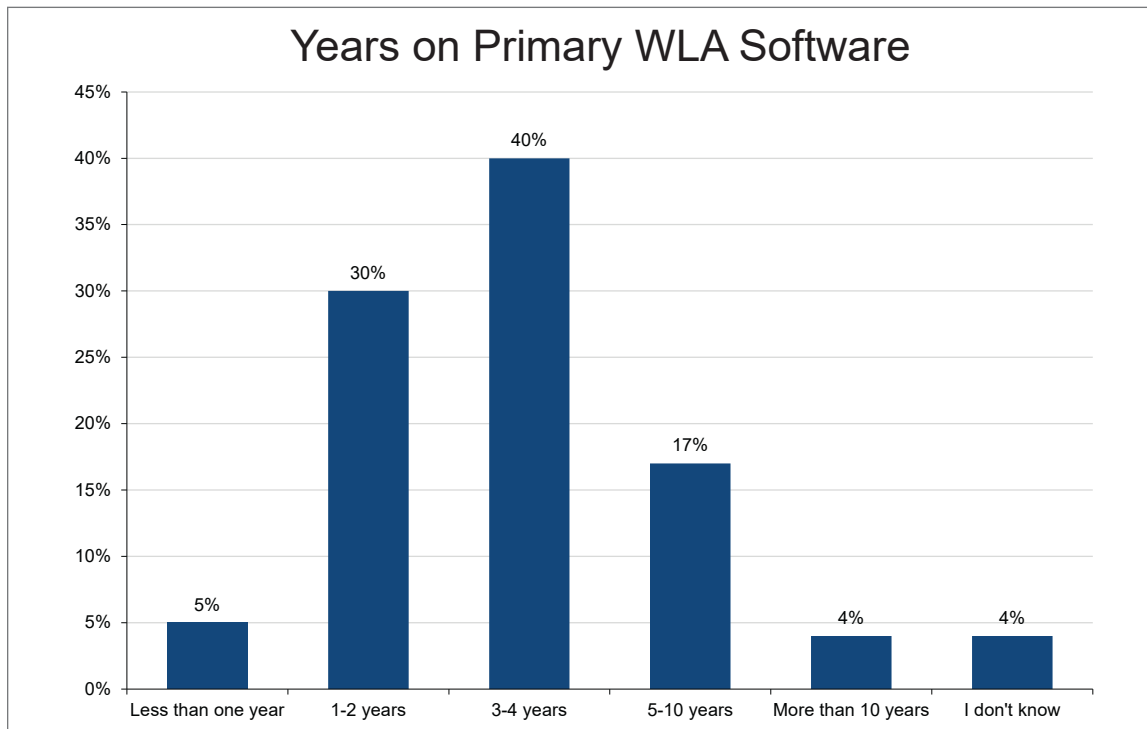
**Type of Automation by Function**



Legend: ■ WLA  ■ Process Specific  ■ RPA  ■ Scripting

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## THE GREAT WLA MIGRATION

EMA has been tracking a trend over the past six years in enterprise IT operations to switch to new WLA software. In 2016, EMA research revealed that 52% of organizations using enterprise-class WLA software were considering switching to a different WLA product. By 2018, this dropped to 44% of WLA users because many organizations had already migrated to a new solution.

| Top 5 Reasons for Changing WLA Software | |
|---|---|
| More efficient change management | 27% |
| Simpler root cause analysis | 26% |
| Better high-availability capabilities | 25% |
| Lower annual operations costs | 25% |
| Easier workflow design | 25% |

EMA's 2018 research also revealed a significant movement to enterprise-class WLA software by organizations that previously had not been using such software. As a result, 75% of WLA users have been using their primary WLA solution less than five years. The migration of existing users and new adoption by others continues.

### Years on Primary WLA Software

| Category | Percentage |
|---|---|
| Less than one year | 5% |
| 1-2 years | 30% |
| 3-4 years | 40% |
| 5-10 years | 17% |
| More than 10 years | 4% |
| I don't know | 4% |

While many have adopted a new WLA solution, some still have the old solution in use, too. Others have accumulated several WLA tools over the years as a result of acquisitions or different divisions making their own product selections without an overall effort to standardize. The result is that 60% of organizations have more than one WLA product in use. Running multiple WLA products can create challenges when end-to-end processes span different schedulers. Of those with multiple WLA products, 77% have cross-platform dependencies. The challenges of multiple products are well tolerated by 49%, cause regular problems for 12%, and are managed using an integrated analytics solution providing a consolidated view by 16%. Even though 23% do not have cross-platform dependencies, 88% of those running multiple WLA products plan to consolidate onto one WLA product.

| Top 5 Reasons for Multiple WLA Products | |
| --- | --- |
| Different groups require different scheduling tools | 40% |
| Legacy systems | 37% |
| Knowledge gap between different WLA solutions | 36% |
| Functionality limitations | 35% |
| In the middle of converting from one to another | 35% |

Whether a company is switching to a different WLA product or consolidating from multiple products, WLA migrations can seem daunting. However, modern WLA products include workload conversion capabilities to automate the move. In fact, 83% of those migrating take advantage of workflow conversion tools, with 34% converting all jobs using the conversion tools, while 49% redesigned some jobs and relied on conversion tools for others.

Most people do not like the work of planning and executing a software migration. It is not done for the effort, but for the outcome. The benefits of the new software must outweigh the issues of the old. EMA research shows that 46% of those migrating to a new WLA software found it easier than expected, or a nonevent. Another 45% found their migration to be more difficult than expected or disruptive, but worth the effort, with just 9% saying the migration was disruptive and not worth the effort.

## ASSESSING THE RISKS OF MIGRATING

The real test as to whether the migration paid off is how users feel the new software delivers on the promised benefits. Of those migrating to new WLA software in the past four years, 54% found the benefits were as expected or way better than expected. Another 22% said it was too early to tell, but so far so good. Only 18% were disappointed after the migration, with 11% finding some benefits, but not in line with the effort to migrate. Seven percent felt they traded one set of problems for a different set of problems. EMA finds these results to be quite positive. For organizations that need a WLA supportive of digitization, EMA believes the risks of staying on the current product may be higher than the risks of migrating. Certainly, the research data shows that the perceived risks are higher than the actual risks.

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## Benefits to Migrating Realized?

| Category | Percentage |
|---|---|
| No way to measure | 6% |
| No, we traded one set of problems for a different set of problems | 7% |
| Some benefits, but not in line with the effort to migrate | 11% |
| Too early to tell, but so far so good | 22% |
| Yes, the benefits are as we expected | 36% |
| Way better than expected | 18% |
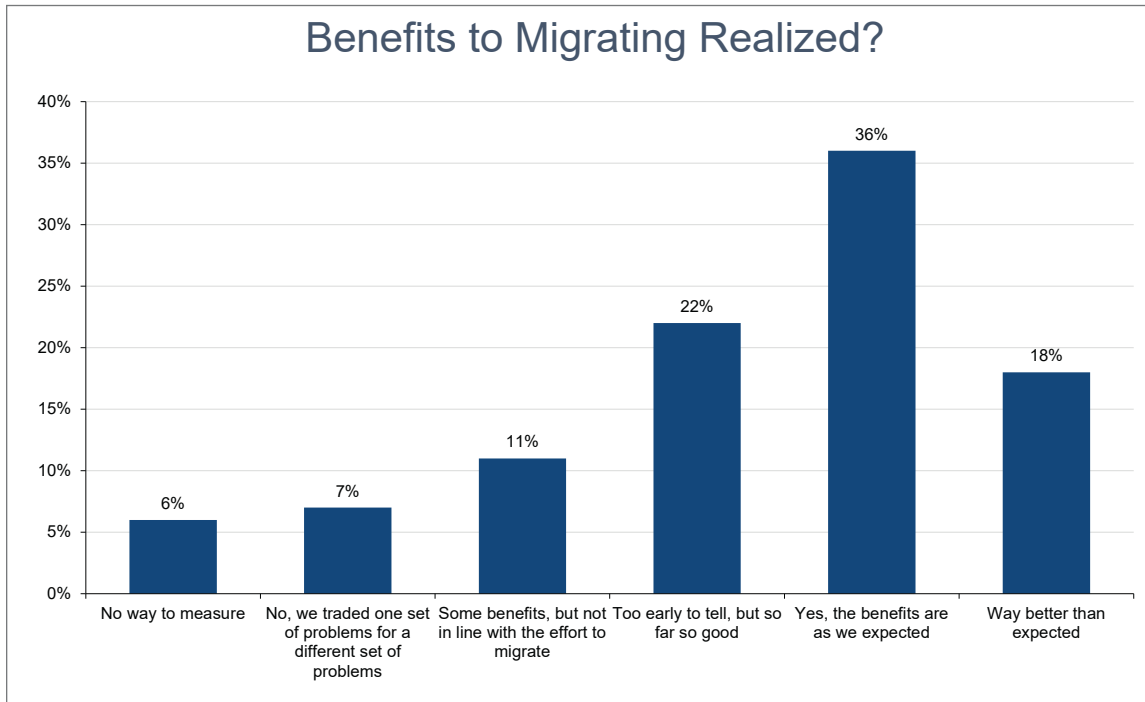
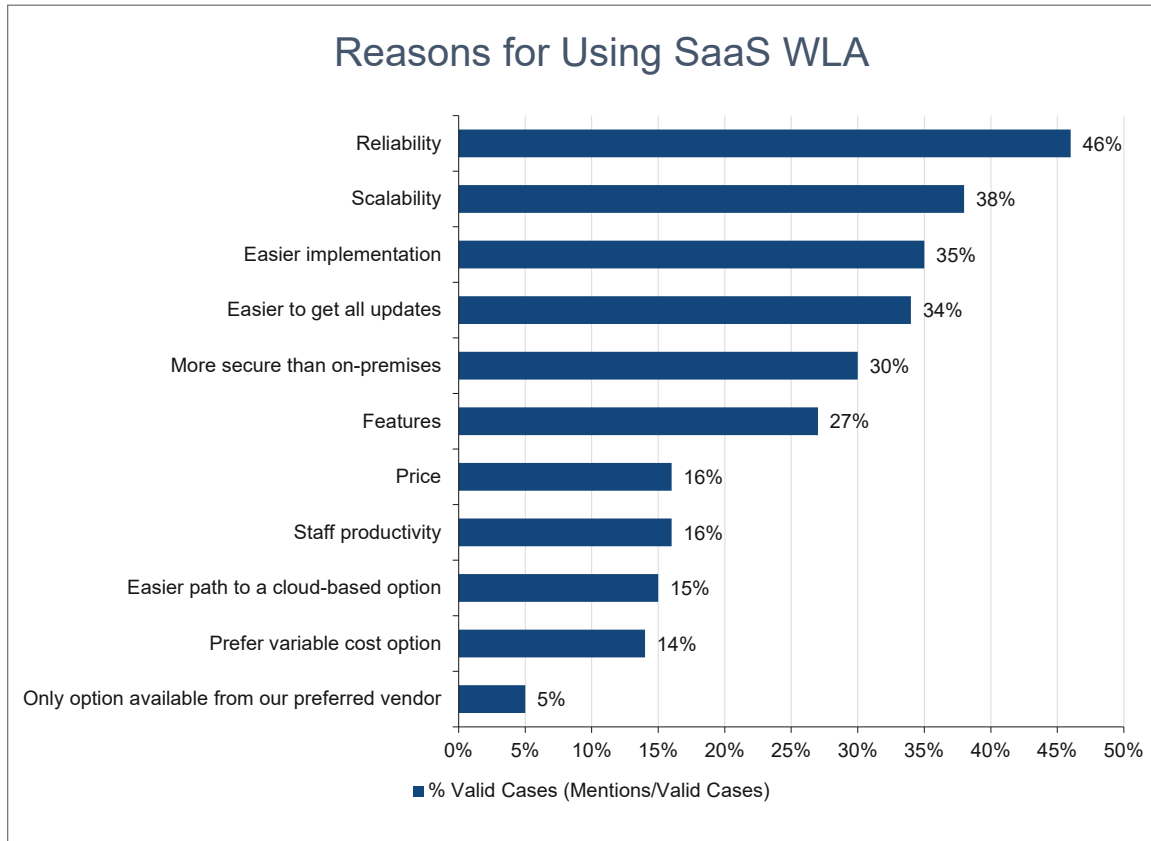## SUCCESSFUL MIGRATION WITH REDWOOD'S MIGRATION FACTORY

The largest operator of hotels and restaurants in the UK, Whitbread PLC, was struggling with an infrastructure that evolved from 20 years of layered technology. They were facing the end of life of their managed file transfer (MFT) software and aging workload automation tools: CA AutoSys and SAP RemoteWare. Whitbread wanted to replace both with a single, modern solution that could also integrate with their new incident management system from ServiceNow. Whitbread had a short timeframe to migrate the 42,000 daily file transfers and the 1,200 jobs supporting core stock ordering, financial, HR, and logistics applications. With 800 servers, 785 hotels, 400 restaurants, and 2,000 coffee shops, Whitbread needed to centralize and simplify the software, and improve visibility and monitoring to better respond to business needs.

Whitbread selected Redwood RunMyJobs® (RMJ) scheduling for its cloud service delivery, proactive monitoring alerting, and ease of use. Redwood's team and the Migration Factory delivered a fast and responsive implementation to transition the jobs without disruption while allowing for business user acceptance testing. The result was building, testing, and migrating about 1,900 jobs deployed over 11 phased migrations with zero disruptions. A templated build process created a repeatable workflow automation. Documented entity relationship diagrams improved the documentation around six different application groups. The increased visibility improved process coordination and efficiency across the entire enterprise. Whitbread estimates the managed file transfer improvements alone saved two FTEs, and the broader documentation and visibility improved the management of outsourced resources.

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## THE POWER OF SAAS FOR WLA

One way to simplify the migration to new WLA software is to consider a software as a service (SaaS) solution. Migration resources can focus on moving the job streams, installing agents on target systems, and other configuration details, but are freed from installing and operating the core server software. SaaS WLA can deliver improved security, availability, and scalability. Let the experts on the software operate the core system for you and let your team focus on what is important to your operation.

### Reasons for Using SaaS WLA

| Reason | % Valid Cases |
|---|---|
| Reliability | 46% |
| Scalability | 38% |
| Easier implementation | 35% |
| Easier to get all updates | 34% |
| More secure than on-premises | 30% |
| Features | 27% |
| Price | 16% |
| Staff productivity | 16% |
| Easier path to a cloud-based option | 15% |
| Prefer variable cost option | 14% |
| Only option available from our preferred vendor | 5% |

■ % Valid Cases (Mentions/Valid Cases)

SaaS software was initially popular for business applications, but not for core IT operations software. SaaS for operations software started with basic enterprise productivity tools, like Microsoft Office 365. However, many organizations are now realizing the benefits of SaaS software for IT service management software, such as ticketing systems, release management, and other operations management software categories. ERP platforms are even moving toward SaaS. Operations in many enterprises are realizing the benefits of utility computing as an answer to required infrastructure components.

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## SAAS WLA FITS THE BILL FOR SAP® ERP

A medical device manufacturer based in the U.S. with global operations (called MDM for the purpose of this case study) decided to deploy SAP ERP. With 40 different systems to support, MDM quickly found that the scheduler they initially deployed with SAP was expensive to operate, difficult to administer on all their disparate systems, and short of key features. In running SAP, MDM found that most processes were difficult to coordinate. The time dependencies and cross-environment dependencies were significant. They experienced reliability issues, as many jobs were failing. MDM started looking for a more robust enterprise workload automation solution and they found it in Redwood RunMyJobs scheduling (RMJ). MDM was not interested in administering a scheduling system, so RMJ in a SaaS deployment was selected. RMJ is heavily integrated with SAP. MDM found that RMJ was much cheaper to operate in the SaaS model and they could cover the entire landscape of all their other systems, too. MDM currently runs SAP ECC on-premises, but is planning to move it to the cloud in the future. Deploying RMJ as SaaS meant one less system to migrate in the future. RMJ alerts changed the game and are delivered without another module. The automation proved beneficial because MDM gained control of their new SAP environment and found they could do more without new hires. While RMJ was initially deployed specifically to manage the SAP environment, other IT groups around the company started asking to use the workload software. Now, the SAP team supports the others' scheduling needs. If this trend continues, there are plans to define a central workload automation function since the benefits are becoming more widely known throughout the MDM IT organization. Pay-as-you-go pricing makes this an easy product to expand coverage beyond the ERP team.

## RUNMYJOBS SCHEDULING – A MODERN DESTINATION FOR AUTOMATION

Redwood Software's RunMyJobs scheduling (RMJ) is a modern WLA solution that provides a flexible, pay-as-you-go, cloud-based scheduling and workload automation as a service option for dynamic digital operations. Alternatively, it can be run in the client's cloud or on-premises environment. In the SaaS deployment model, RMJ is deployed on the industry's leading cloud infrastructure and operated by resources from the organization that built the software. This direct line of support and escalation to the skills and experience of the same development engineering team that built the software would be impossible to replicate in the customers' or service providers' environment. Redwood currently supports over 3,000 customers worldwide.
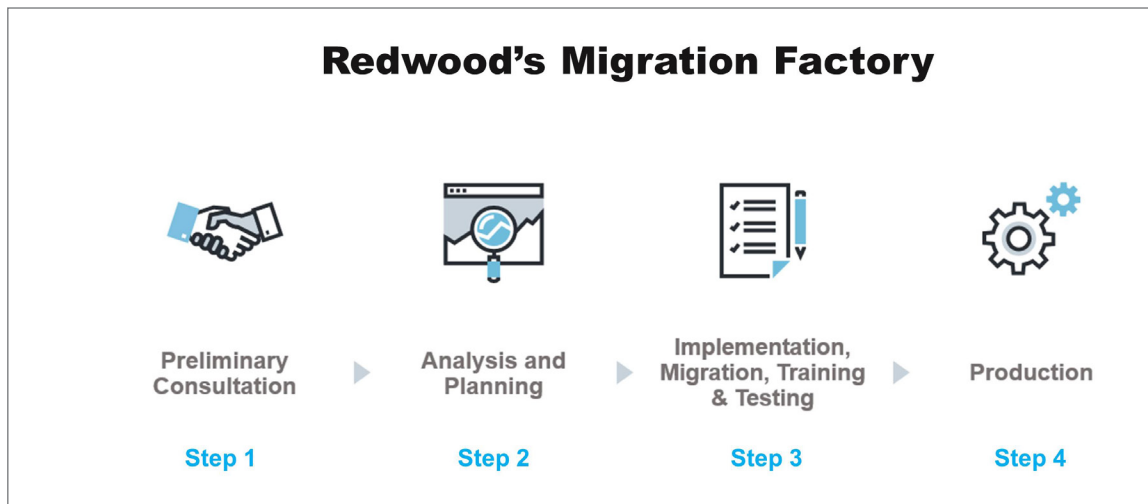
## THE MIGRATION FACTORY

Redwood's Migration Factory simplifies migration of job streams and other configuration data from legacy tools to a modern solution in four steps. First, the Redwood team works with the customer to create a clear overview of the existing WLA environment, noting current and potential future standards. After this, Redwood uses automated migration tools to provide an initial demonstration of the conversion process along with a presentation of a proposed implementation and migration plan based on customer goals.
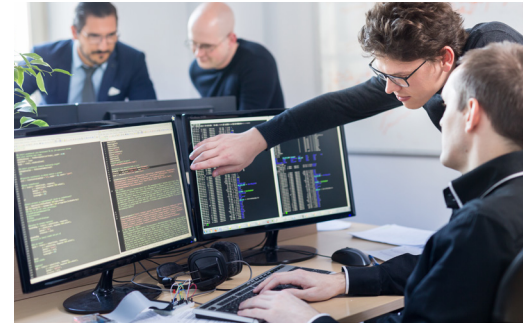
The combined Redwood-customer team then determines next steps and delivers the chosen solution to the customer's test environment. At this point, the software is implemented and the tuned migration process takes place. Testing, verification, and logic checks take place, followed by training and enablement.

Finally, the migrated software moves to the production environment through a go-live checklist, followed by a monitored first production period. Support is defined and the combined teams determine future plans. RunMyJobs is designed to deliver fast, simple, and easy to understand conversions. Its cloud-based SaaS option makes this process one that also eliminates the need for additional hardware or infrastructure considerations.



**Redwood's Migration Factory**

| Preliminary Consultation | Analysis and Planning | Implementation, Migration, Training & Testing | Production |
|---|---|---|---|
| Step 1 | Step 2 | Step 3 | Step 4 |

RMJ supports DevOps and digitization efforts with the key features needed to bring the scheduling function into the modern, cloud-oriented enterprise IT environment. The solution has no restrictions or additional costs based on the number of systems you connect and manage, and it includes unlimited connectors to applications, platforms, protocols, systems management, and middleware. Redwood's automation architecture combines the use of a single unit of automation instruction and a process definition, together with process context, along with a rich set of triggering, scheduling, and repetition options based on specific events, timing, or even repetition patterns.

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The technology provides clear process visibility with its process chain editor and automatically generates detailed audit trails of automated processes for rapid deployment and updating of new applications. It logs the changes made to any defined, automated object and makes this data accessible directly through a plug-in to its administration interface.

RMJ enables simplified management of the lifecycle of automation within the complex, modern enterprise. It's designed to provide essential control with just a few mouse clicks to easily control the promotion, reuse, and versioning of automated workloads. It features intelligent load balancing and error handling built in.

Redwood Software is solely dedicated to enterprise automation. In addition to workload automation, Redwood also offers a robust robotics solution designed for businesses to automate end-to-end back-office functions across finance, HR, and supply chain. Organizations looking to automate across both IT and business processes can benefit from coordinated and integrated automation software from a single vendor.

## 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 or blog.enterprisemanagement.com. You can also follow EMA on Twitter, Facebook, or LinkedIn.

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