

SAP S/4HANA modernization begins with automation

A strategic guide for IT executives



"A more productive business is a more competitive business. We have been able to dedicate the equivalent of 18 months of one employee's work to more rewarding, strategic projects within the IT department."

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Automation Manager,
Department of Exploitation
and Operation, Cepsa

**Watch and learn
how CEPESA used IT
automation to achieve
operational efficiency**

Introduction

Cepsa, a global energy and chemical company, recognized the need for automation to reduce manual work and help managers focus on high value tasks.

To expand its organization-wide SAP migration, Cepsa adopted Red Hat® Ansible® Automation Platform and turned to Red Hat Consulting for expert guidance on how to maximize the platform's value.

Working with Red Hat experts, Cepsa completed its SAP S/4HANA® migration in just a few months. Within a year, the company has automated more than 400 IT operations processes and:

- ▶ Saved **6,000** work hours with a central automation approach.
- ▶ Increased IT productivity by **35%**.
- ▶ Responded **10–15%** faster to IT services.

Like many companies with complex IT environments and critical business operations, Cepsa recognized the importance of adopting automation early in their SAP modernization journey. They understood that automation could simplify and streamline their SAP deployments, reduce costs, accelerate time to market, freeing up their teams to focus on innovation and strategic initiatives.

This guide provides best practices to IT leaders adopting automation for their SAP S/4HANA migration to help them scale, reduce costs, and gain better operational efficiency.

Best practices for SAP S/4HANA success

If the end of maintenance support for SAP ERP Central Component (ECC) in 2027 is accelerating your adoption of SAP S/4HANA, you're not alone. For many organizations, the looming deadline creates an additional opportunity to realize better economics by shifting SAP workloads to a cloud environment and a need to reduce downtime, optimize, and safeguard enterprise infrastructure.

However, the path to modernization can be difficult. In 2020, Boston Consulting Group reported that the majority of digital transformations fail.¹

**"70% of digital
transformations fail"**

BCG

¹ ["Flipping the Odds of Digital Transformation Success"](#) Boston Consulting Group, October 2020.

Some organizations are making technology investments and getting limited results because they aren't prepared to change their behaviors. They fail to bring about the performance and innovation gains they expect because they did not adequately address the systemic changes—aligning people and processes with technology.

Migrating to SAP S/4HANA is complicated, requiring thoughtful planning and careful decision-making. This project requires collaboration across teams and will likely involve every team in the organization at some point.

We recommend taking practical steps that will speed up your modernization efforts and help you keep your project on track.

Build enthusiasm and support

IT leaders can build enthusiasm by introducing new tools and solutions, encouraging behaviors from the top down, and rewarding collaboration across teams. As the face of the IT organization, it's also critical to make sure your executive stakeholders understand how technology investments like SAP support your company's larger business objectives.

Prepare for a disruption in time, resources, and attention

Migrating to SAP S/4 HANA can take several months or longer for most companies, which can distract busy IT teams from competing priorities and postpone other projects.

Inventory your customizations

SAP S/4HANA is a new product and legacy custom code may not be compatible with the platform. If current customizations are not compatible with SAP S/4HANA, this will delay their migration process.

Adopt Linux

SAP S/4HANA requires Linux® for its processing speed, flexibility, security capabilities, and reliability. The platform's processing requires that the underlying operating system (OS) be both customizable and stable. Companies may need to either migrate or upgrade to a recent Linux release or commit to supporting redundant workloads.

Build Linux and SAP-specific skills

Given SAP's long history with UNIX and Windows Server, IT administrators may lack the expertise to support SAP requirements for Linux. In addition, the IT industry is experiencing a skills and technical resource shortage, and teams often need training and additional support.

Across industries, organizations are turning to automation to overcome SAP deployment and management challenges.

The case for automation

Your organization relies on SAP S/4HANA for critical business operations.

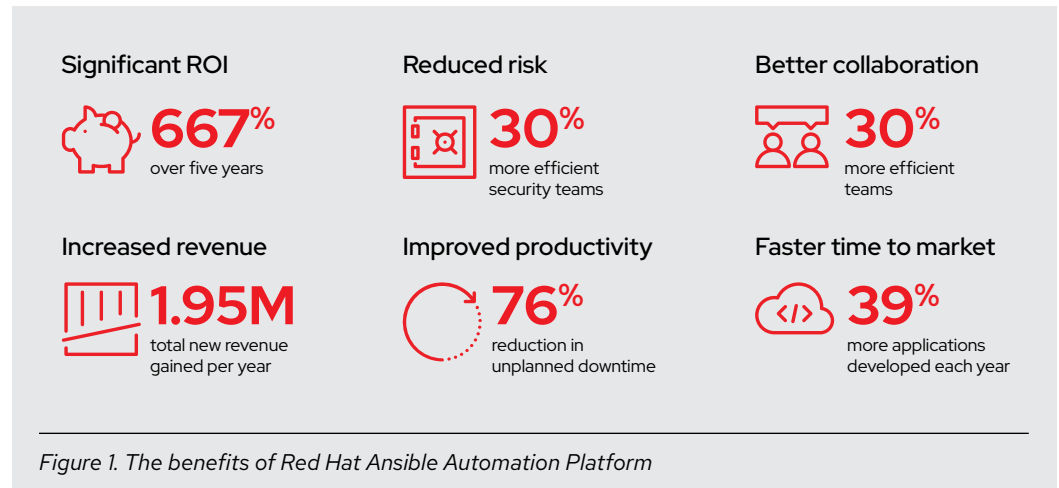
Manually managing an SAP environment is complex, time-consuming, and error-prone, which can lead to service degradation, increased security exposure, and even outages. Automation can help by:

- ▶ Streamlining repetitive SAP management tasks.

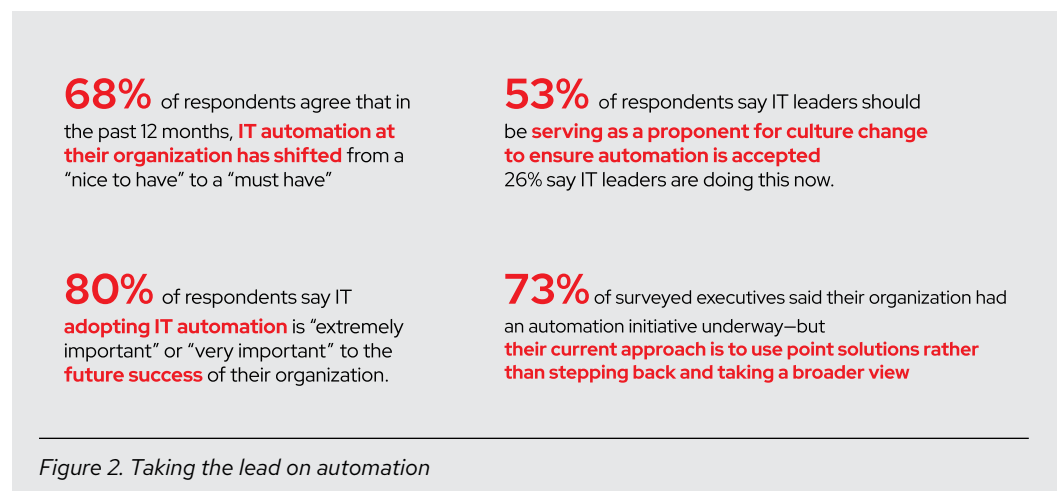
Benefits of migrating to SAP S/4HANA include:

- ▶ Better support for business strategy and future innovation.
 - ▶ Increased flexibility and agility, leading to competitive differentiation.
 - ▶ Integrated business processes to align functions such as procurement, accounting, fulfillment, and more.
 - ▶ More efficient delivery of applications and services that can enhance customer experience.
 - ▶ Reduced hardware and software maintenance tasks when migrating to a cloud environment.
 - ▶ Lowered overall costs and an increased return on investment (ROI).
- ▶ Increasing speed and reliability.
 - ▶ Ensuring consistent configuration across systems.
 - ▶ Reducing deployment timelines and unplanned downtime.
 - ▶ Focusing on innovation to gain a competitive advantage.
 - ▶ Attracting and retaining top-tier IT support teams.

The business value of Ansible Automation Platform²



IT automation is a top priority for IT leaders²



² IDC analyst material. "The Business Value of Red Hat Ansible Automation Platform," 21 Oct. 2021.

³ Business Review Pulse Survey, sponsored by Red Hat. "[Taking the lead on IT automation, IT leaders and evangelists for the automation strategies](#)," 25 Jan. 2022.

5 essential questions to assess your automation readiness

Understanding your organization's automation maturity will help you develop concrete goals and begin the transformation process. These questions aim to help you evaluate the state of your automation strategy.

1. What SAP S/4HANA processes can be automated to deliver more value?
2. What other repetitive processes can be automated first to demonstrate and deliver measurable results?
3. Which current automation solutions will be difficult to manage if a subject matter expert becomes unavailable or moves on?
4. Are there competing automation solutions or tool-specific automation capabilities used by different teams that need integrated process automation?
5. Can automation be used to relieve overloaded teams or to combine disparate functions?

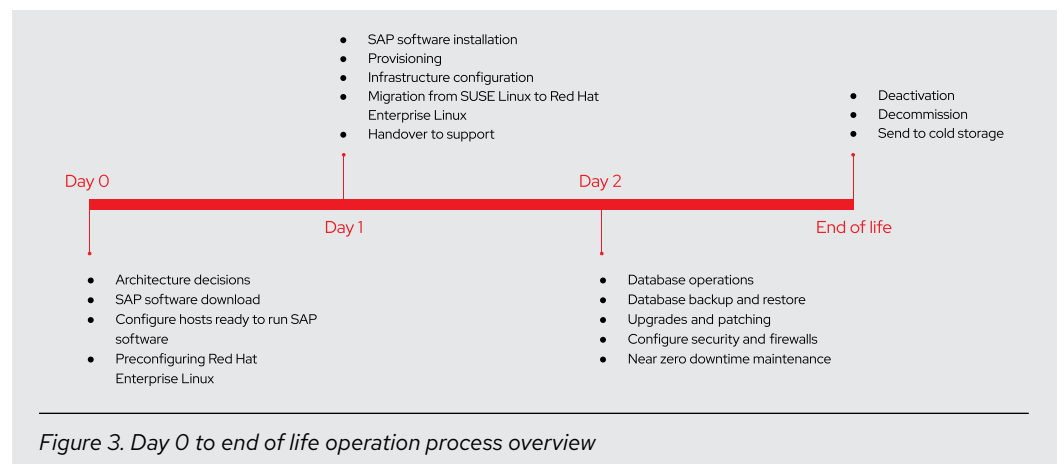
Understanding automation from Day 0 through Day 2

Red Hat focuses on three stages of operations.

- ▶ **Day 0:** The design stage. Planning what resources and requirements are needed to get SAP S/4HANA up and running happens at this stage.
- ▶ **Day 1:** The deployment stage. The actual installation, set up, and configuration of SAP S/4HANA happens at this stage.
- ▶ **Day 2:** The maintenance stage. The Day 2 stage involves ongoing repetitive tasks to keep your system running smoothly. Manual tasks that used to take days, if not weeks, can be reduced to just hours with automation.

Automation pays dividends in Day 2

Day 2 operations include ongoing, repetitive tasks such as database patching, backup and restoration, and system copies. This is where automation really begins to deliver the efficiency, speed, and precision that organizations expect from their investment.



Simplifying SAP S/4HANA using system roles

System roles provide a stable, consistent configuration interface to automate and manage your systems. This collection of Ansible modules acts as a predictable, repeatable template for deploying and maintaining platforms such as Red Hat Enterprise Linux, SAP S/4HANA, SQL Server, and others.

Because Red Hat Ansible Automation Platform is the underlying technology for system roles, it's at the center of any SAP modernization effort. From set up and installation to ongoing maintenance and optimization, Ansible Automation Platform supports the entire life cycle of SAP S/4HANA.

With system roles, you can:

- ▶ Provision and configure infrastructure and network components, OS, and applications—according to SAP HANA and SAP S/4HANA requirements.
- ▶ Manage configurations for Red Hat Enterprise Linux, SAP, and any other system that integrates with your SAP deployment.
- ▶ Standardize infrastructure provisioning and configuration processes across your environment.
- ▶ Automate error-prone manual tasks to improve accuracy and reliability.
- ▶ Patch and perform other security-related operations.

Deploying SAP workloads in Microsoft Azure

Just as automation speeds and simplifies SAP S/4HANA implementation, automation is essential to deploying SAP workloads on Microsoft Azure. Automation provides consistent configuration across systems and reduces deployment project timelines.

Microsoft has created a center of excellence in Microsoft Azure that helps guide teams through best practices and reference architectures to deploy SAP S/4HANA with a stronger, more efficient focus on security.

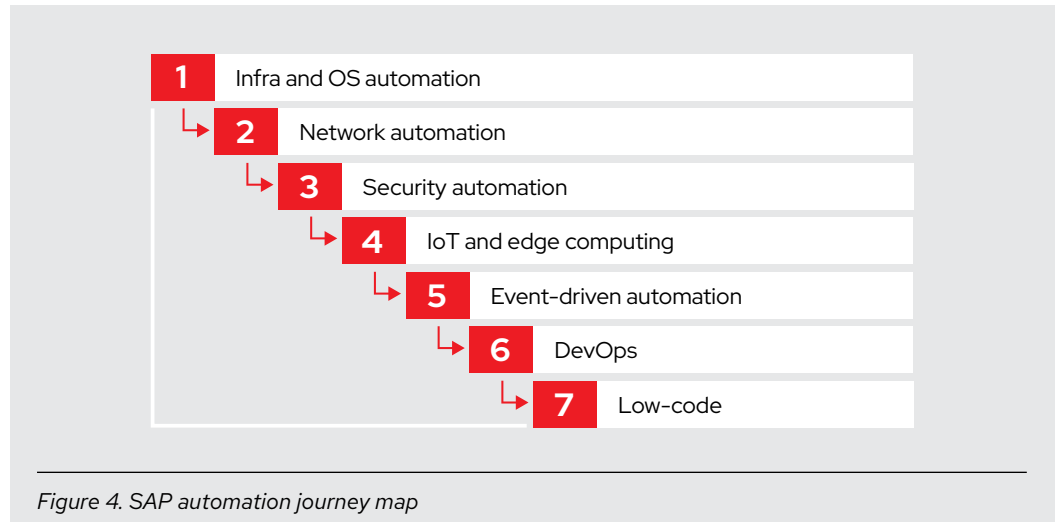
Watch: [The value automation brings to SAP](#)

Measuring performance and scaling your automation

Planning, measuring, and tracking performance is important, but sometimes overlooked when creating an automation strategy. Measuring performance through analytics includes prioritizing and tracking projects based on their expected ROI. Evaluating how your teams use automation can help you identify areas where automation improves existing processes and team collaboration.

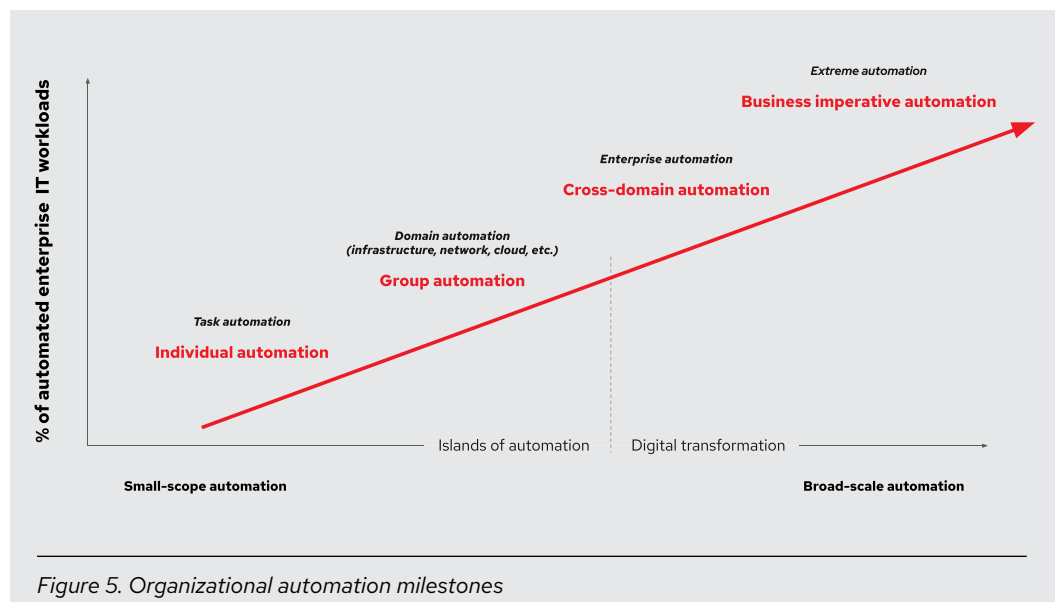
Modernizing your SAP automation journey

Once your SAP modernization is underway, you can expand your automation strategy to: a cloud environment, network security, Microsoft Windows, SQL Server, the network edge, and beyond.



There are organizational milestones that will help with your transition from a standalone automation mindset to an enterprise-wide, automation-first mindset. When your organization takes this approach, you will see substantial ROI and increased productivity—a state we call “extreme automation.”

Delivering strategic business value



[Moving from standalone automation to extreme automation](#) requires prioritizing best practices, including:

- ▶ Becoming a champion of automation, rather than a sponsor.
- ▶ Shifting to an automation-first culture.
- ▶ Aligning with business objectives.
- ▶ Supporting change, collaboration, and accountability.
- ▶ Investing in developing in-house automation skills.

Red Hat consultants are guided by these tenets and work with our customers to identify knowledge gaps and cultural changes necessary for successful implementation of automation initiatives. In addition, Red Hat offers online workshops designed to help teams better understand what's possible and develop their own organizational model for automation.

Want to learn more about automation for SAP S/4HANA?

Review: [Adopt SAP HANA & SAP S/4HANA](#)

Research: [The Business Value of Ansible Automation Platform](#)

Read this Red Hat Customer Success Story: [Tomago Aluminum](#)



About Red Hat

Red Hat is the world's leading provider of enterprise open source software solutions, using a community-powered approach to deliver reliable and high-performing Linux, hybrid cloud, container, and Kubernetes technologies. Red Hat helps customers develop cloud-native applications, integrate existing and new IT applications, and automate and manage complex environments. [A trusted adviser to the Fortune 500](#), Red Hat provides [award-winning](#) support, training, and consulting services that bring the benefits of open innovation to any industry. Red Hat is a connective hub in a global network of enterprises, partners, and communities, helping organizations grow, transform, and prepare for the digital future.

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