Rocket software

What Keeps IT Leaders Up at Night?

Rocket Software
Survey Report 2023

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Executive Summary

IT leaders know they need to modernize their organization to keep pace with competition – but how to go about doing that when there are so many new technologies and trends can be overwhelming. To gain a better understanding of what IT leaders are focused on when it comes to modernization – and what keeps them up at night – Rocket Software, a global technology leader that develops enterprise software for some of the world's largest companies, conducted a survey of **275 U.S.-based IT directors and vice presidents in companies with more than 1,000 employees.**

Respondents were asked about their current IT stressors, their approach to modernizing their IT infrastructure, and how they plan to become more efficient and optimized in the years ahead.

What was uncovered was IT leaders focus on reducing risk, increasing efficiency, and optimizing their resources with hybrid cloud solutions.
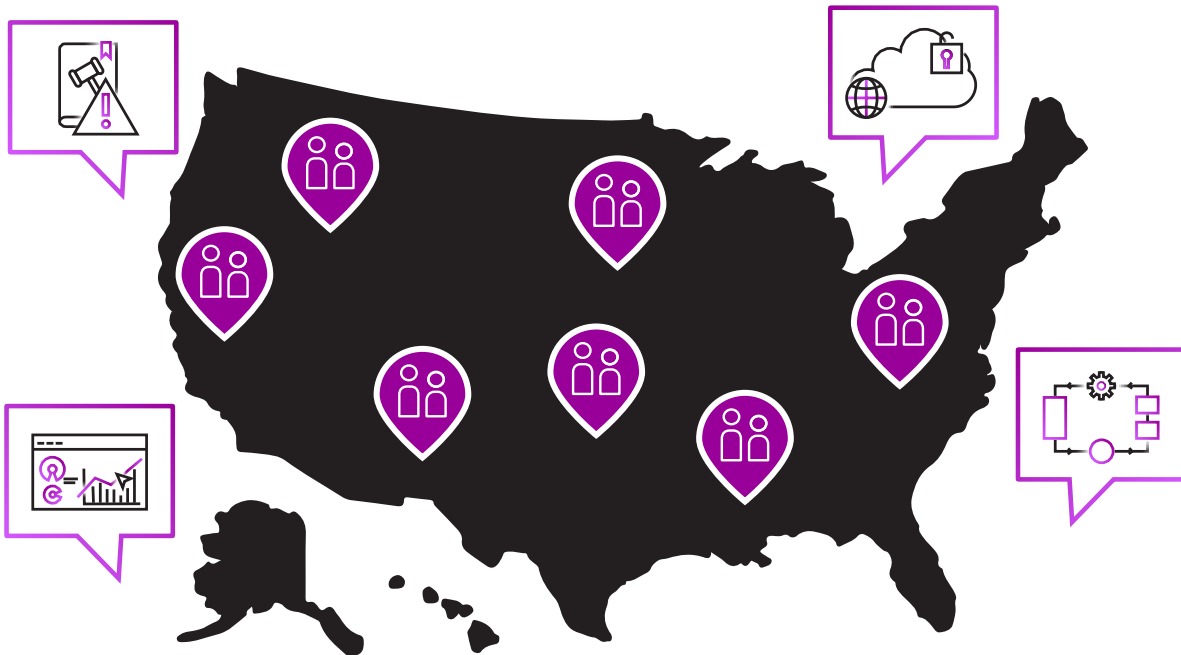
Introduction

It has been a tumultuous few years for all organizations – from the remote work frenzy to an economic crisis to a renewed focus on how technology will reshape our lives. Each shift in the economy or introduction of a new technology brings increased pressure to one group in particular – IT leaders. IT professionals are under constant demand from various stakeholders within their organization to do more with less resources. They are often tasked with implementing digital transformation and modernization initiatives to drive efficiencies and productivity, all while reducing costs and improving the customer and employee experience.

With so many established and emerging approaches to modernization – from the cloud to DevOps to automation and more – it can be difficult to decide what to implement into an organization's tech stack. According to one report, large enterprises have an average of 664 applications in their technology stack, illustrating just how much an IT leader is responsible for overseeing. To modernize effectively and without disruptions, technology professionals need to strategically select the platforms, technologies, and practices that will help streamline work, reduce inefficiencies, and mitigate risk.

What IT Leaders are Focused on

As mentioned, technology professionals are under increased pressure to deliver results. Modernizing IT infrastructure means increased pressure to cut costs and improve the customer and employee experience, all while maintaining data integrity and security.

So, what modernization imperatives are causing IT leaders to lose sleep at night? The need to improve overall IT performance (60%) tops the list, followed by data security (50%), process risk and compliance (46%), and the need to improve agility (41%).

With many technology professionals looking to improve overall IT performance, they were asked to rank the biggest threats to their business. Respondents noted:

Security of IT infrastructure

Security of data

**IT compliance**

Ability to keep up with competition

**The current economic environment**

Before breaking down exactly what it means to increase efficiency, optimize resources, and reduce risk, it's important to understand the initiatives IT leaders are prioritizing in the coming year in order to meet these desired success metrics.

With so much to consider, measuring IT success is critical. Respondents noted that they measure success within their IT organization by:
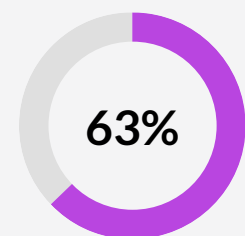
Increased efficiency

71%
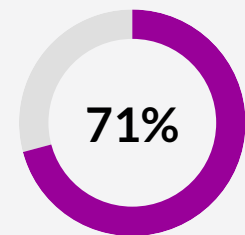
Optimized resources

67%

Reduced risk
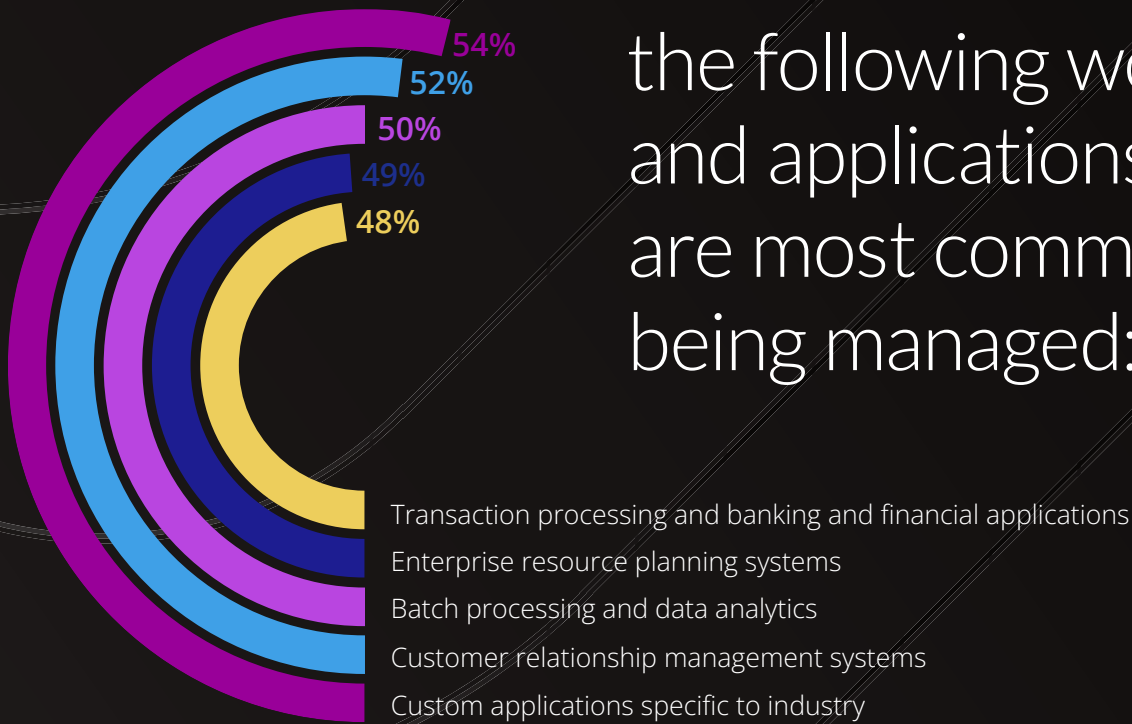
63%
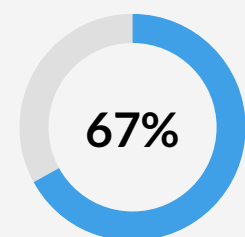
The Future is Hybrid Cloud

All the technologies, techniques, and approaches to modernization can leave someone feeling lost on what direction to go – but technology professionals have a clear focus on their IT priorities in 2023. Sixty five percent of respondents cited implementing a hybrid cloud strategy as a top priority. Other focus areas include data and content management (60%), DevOps (58%), infrastructure and application modernization (58%), automation (57%), and enterprise storage (35%).

Which of the following IT priorities are a focus area for your organization in 2023?

Priority	%
Hybrid cloud	65%
Data and content management	60%
DevOps	58%
Infrastructure and application modernization	58%
Automation	57%
Performance management	41%
Enterprise storage	35%
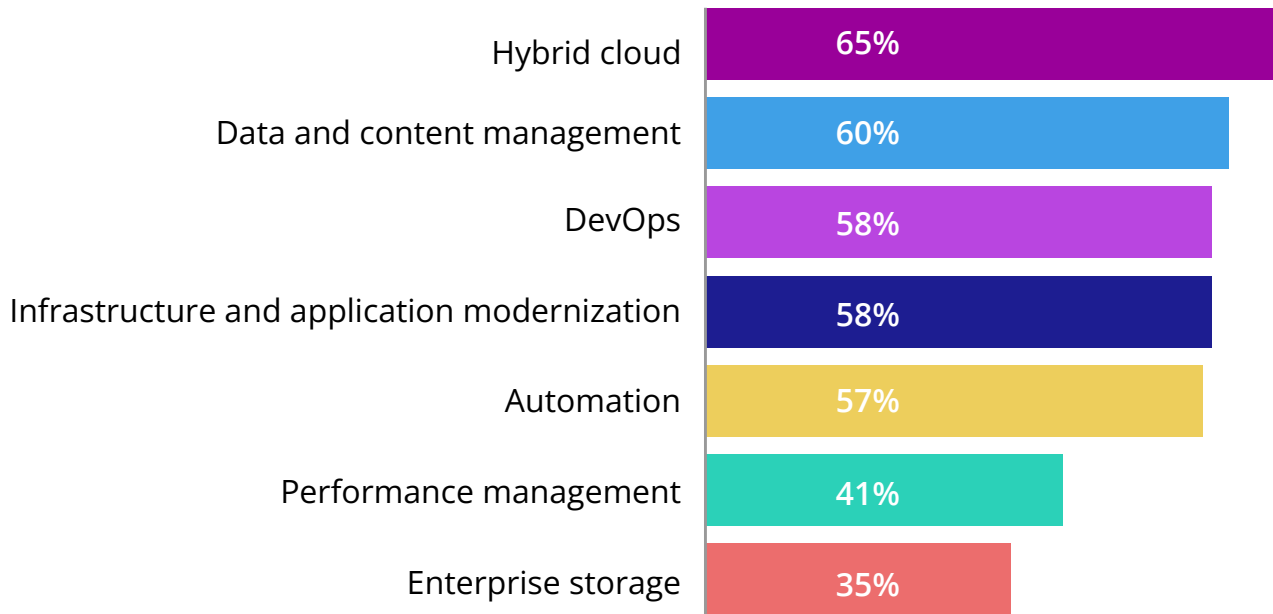
When considering digital transformation and modernization, the cloud is often the first thing that comes to mind. Many businesses have, in some form or another, been migrating their operations to the cloud for years now. But that doesn't mean traditional systems – like the mainframe – are not as critical as ever. With hybrid cloud solutions in place, the mainframe no longer needs to be the sole home for all a business' data needs. This is important when you consider that not all data is created equal. Some data can be more effectively utilized in the cloud while other data is best secured on the mainframe.

On the mainframe, the following workloads and applications are most commonly being managed:

54%
52%
50%
49%
48%

Transaction processing and banking and financial applications
Enterprise resource planning systems
Batch processing and data analytics
Customer relationship management systems
Custom applications specific to industry

In the cloud, the following workloads are most commonly being managed:

63%   54%
53%
50%
49%
35%

API first, serverless solutions
Hybrid cloud, multi-cloud infrastructure
Cloud-native, kubernetes, and microservices based apps
AI, big data, or machine learning workloads
Software-as-a-service
Data management, storage, DR, backup
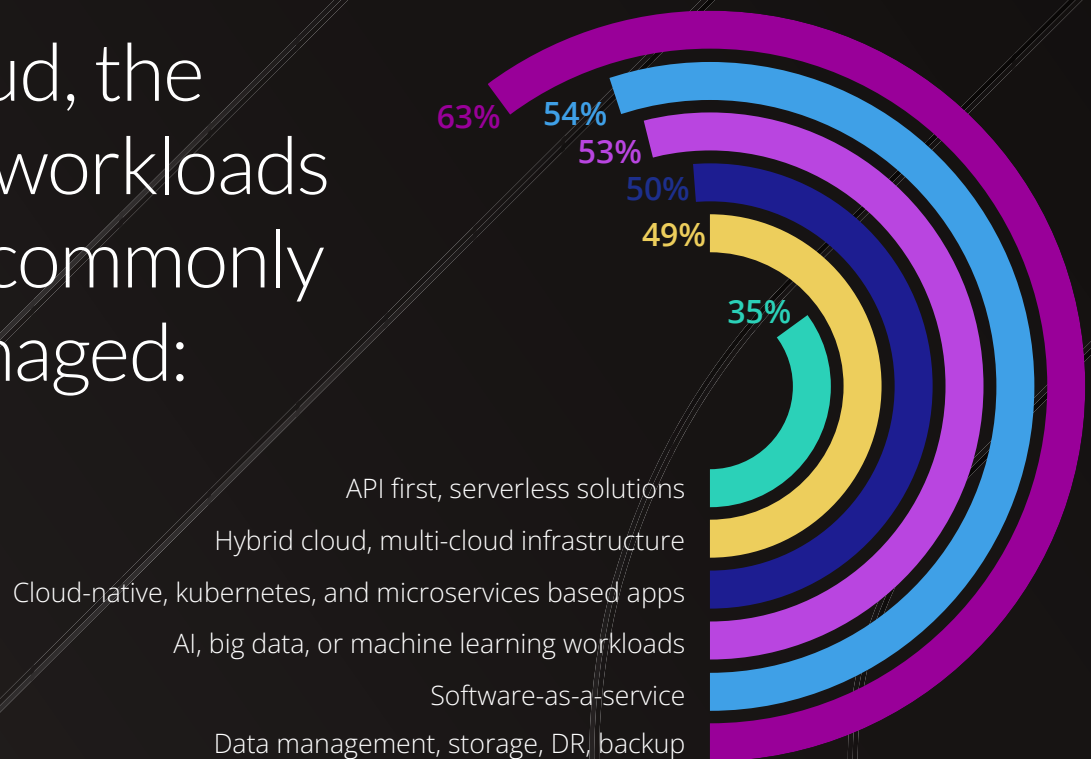
Hybrid cloud is truly emerging as the standout solution to modernization, with 93% of respondents strongly agreeing with the sentence, "I believe my organization needs to embrace a hybrid infrastructure model that spans from mainframe to cloud."

Integrating legacy and distributed systems into an organization's digital and cloud strategies can maximize the potential and value of a business' most critical applications and data. Organizations can save money and resources by connecting mission-critical content across mainframe, distributed, and cloud technologies with a hybrid approach that accelerates modernization in place efforts, as to not disrupt day-to-day operations. The key is using tools and vendors that work across all systems to get the most value from an organization's entire IT ecosystem.

When asked where their greatest need for tools is to help modernize their IT infrastructure, respondents cited:

Cloud application access to mainframe data and workloads — 25%

Automation (robotic process automation, business process management) with legacy applications — 22%

Workload automation and orchestration — 17%

Application development and access to APIs — 14%

Performance management — 13%

DevOps — 9%
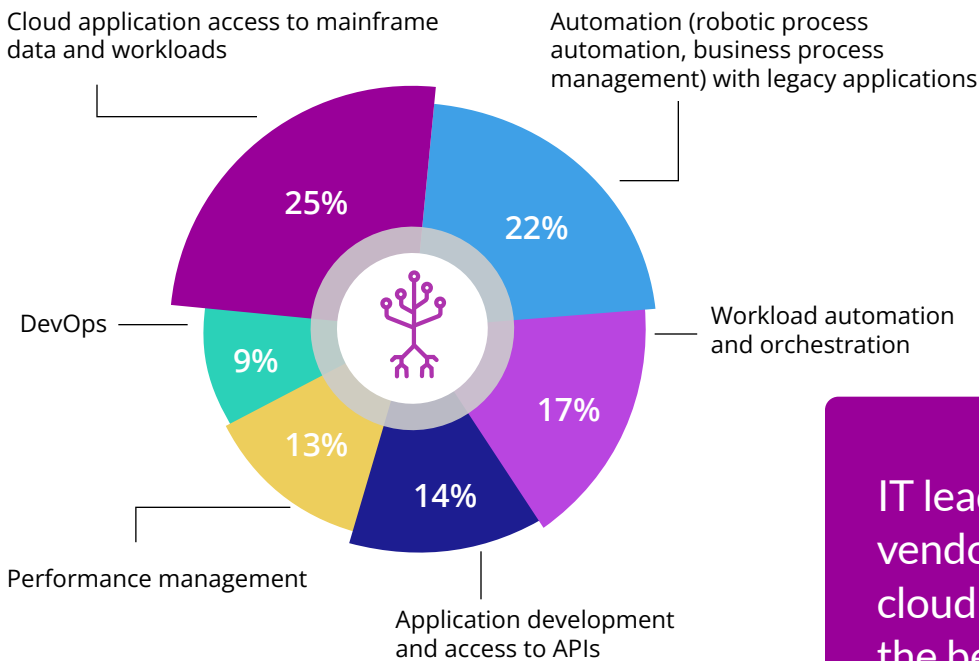
An astounding 93% of respondents strongly agree with the sentence, "I believe my organization needs to embrace a hybrid infrastructure model that spans from mainframe to cloud."

IT leaders should look to vendors that support a hybrid cloud strategy to leverage the benefits of both the mainframe and the cloud.

The Importance of Reducing Risk

According to PurpleSec, enterprises experience 130 security breaches per year, on average. The same report estimated that, worldwide, cybercrimes will cost $10.5 trillion annually by 2025. The financial implications of a cyber breach are clear, but organizations also face a damaged reputation, customer loss, and lack of trust among their stakeholders when a breach occurs. Risk management is a critical focus for technology professionals. Nearly half of respondents (42%) noted that they either think about IT risk daily (31%) or even multiple times a day (11%). When it comes to IT leaders' organization's risk management tools and processes:

33%
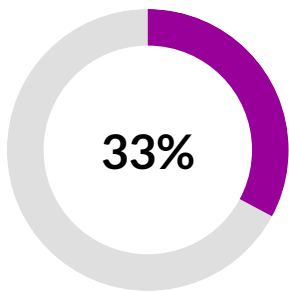
Only 33% of respondents are extremely confident that they have the right technology/software in place to execute an effective approach to IT risk management.

34%
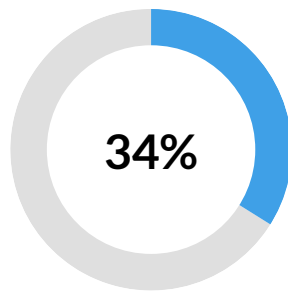
Only 34% of respondents are extremely confident they have the right processes in place to execute an effective approach to IT risk management.
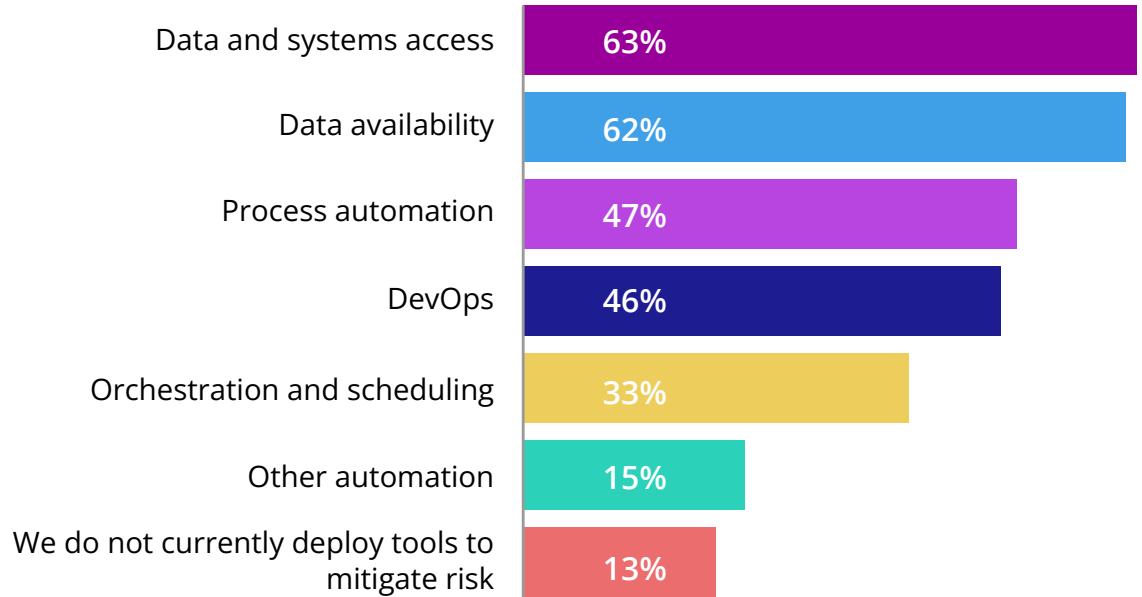
28%
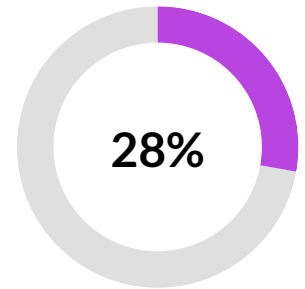
Only 28% of respondents are extremely confident they have the right people in place to execute an effective approach to IT risk management.

The importance of mainframe security cannot be overstated. Mainframes are responsible for storing businesses' most sensitive data and information – from financial records to trade secrets to customers' personal information. Ignoring or deprioritizing mainframe security can jeopardize an organization's entire digital transformation journey.

Organizations need the right tools, processes, and people in place to effectively manage risk both on the mainframe and in the cloud.

As hybrid cloud solutions become even more popular to achieve digital transformation, mainframe systems will need to be ready to protect data in an on-premises environment and beyond.

To help mitigate risk, the most popular processes and tools include:

Process/Tool	Percentage
Data and systems access	63%
Data availability	62%
Process automation	47%
DevOps	46%
Orchestration and scheduling	33%
Other automation	15%
We do not currently deploy tools to mitigate risk	13%

It's crucial that data lineage be recorded so organizations can have confidence in where their data came from and who has access to it. Controlling data and system access, and using tools that are completely auditable, will help organizations mitigate risk, remain compliant, and keep their reputations intact.

And when it comes to data management, 51% of respondents noted compliance as their organization's current primary focus while 17% of respondents cited business agility. Thirty-two percent of respondents said compliance and business agility are of equal importance.

Compliance around data privacy is of the utmost importance for organizations that want to remain competitive in today's market.

According to Forrester, since 2018, the year the European Union's General Data Protection Regulation (GDPR) went into effect, there has been a constant increase in regulation around data privacy. Organizations risk hefty fines and damaged reputations if they are not abiding by EU regulations.

> 51% of respondents noted compliance as their organization's current primary focus.

A Renewed Focus on Efficiency

For IT organizations of all sizes, it's important to be as efficient as possible. In today's environment, efficiency is a critical success factor. There's been headline after headline about a possible recession, and during 2022, more workers in tech were laid off than in 2020 and 2021 combined. The current economic landscape has impacted how much IT leaders prioritize efficiency within their IT organization, with 62% of respondents noting they have a much greater focus on efficiency today due to the economic landscape.

To curb the impact of a potential recession, organizations are also looking to become more efficient through retention of both customers and, in the case of financial institutions, deposits. By focusing on retention, companies can look to ride out the economic uncertainty and emerge from this period stronger, more efficient, and better suited to face future economic downturns.

> 62% of respondents said they have a much greater focus on efficiency today due to the economic landscape.

Pressure from the C-Suite to cut costs, optimize resources, and be more efficient is being felt by IT leaders across organizations, and they're looking for processes and tools to help increase efficiency. Respondents ranked faster DevOps processes, automated processes, and increasing overall output as the top three measures that would be most impactful to increasing efficiency. Ranked lower on the list are fewer workflows and labor productivity.

DevOps has emerged as a way for IT teams to evolve and improve products at a faster pace than organizations using traditional software development. A modern DevOps solution accounts for asynchronous schedules by confirming that every team member knows their responsibilities and deadlines before code is promoted. Web and mobile developers typically follow agile practices, and some focus on continuous integration and delivery (CI/CD). It is critical that DevOps supports these multiple ways of working in order to be the most efficient.

Interestingly, software development is polarizing for IT leaders. It was the aspect of the IT organization and management that the highest percentage of respondents selected as both the most and least efficient. This tells us that while some organizations have optimized their software development practice, it's still a hurdle for others. Respondents also cited helpdesk (13%) and technical documentation (12%) as the least efficient aspects of their IT organization. They cited security administration (18%) and software procurement (15%) as the most efficient.

Least efficient
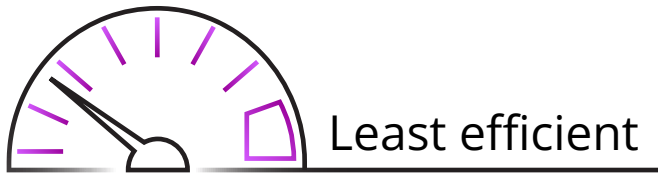
- **Helpdesk**
- **Technical documentation**

Most efficient

- **Security administration**
- **Software procurement**

Optimizing with Automation

Even in a world dominated by stories around automation and artificial intelligence, many IT professionals are still spending much of their time manually managing and analyzing data each week. Thirty percent of respondents said they spend 6-10 hours per week on manual data entry and analysis and an alarming 33% said they spend 11-15 hours per week on it.

Automation can be leveraged for data entry and analysis and free up IT professionals to focus on more creative and thought-provoking work that aids in achieving overall business goals. Automation is a tool to optimize resources within the organization. It's not just data entry that automation can be leveraged for, it can also improve the speed of transaction processing, increase customer satisfaction, and improve employee engagement thanks to its ability to streamline processes across the business without human intervention. Automation allows organizations to increase efficiency and agility while mitigating potential risks through a cloud or on-premises deployment.

Despite the clear benefits of automation, IT leaders identified several challenges to implementing automation within their organization, including:

Integrating with a variety of automation systems and a wide range of IT systems and environments
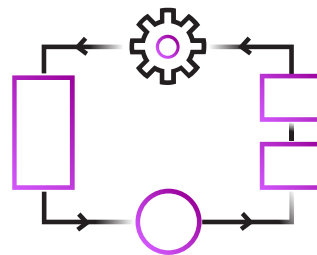
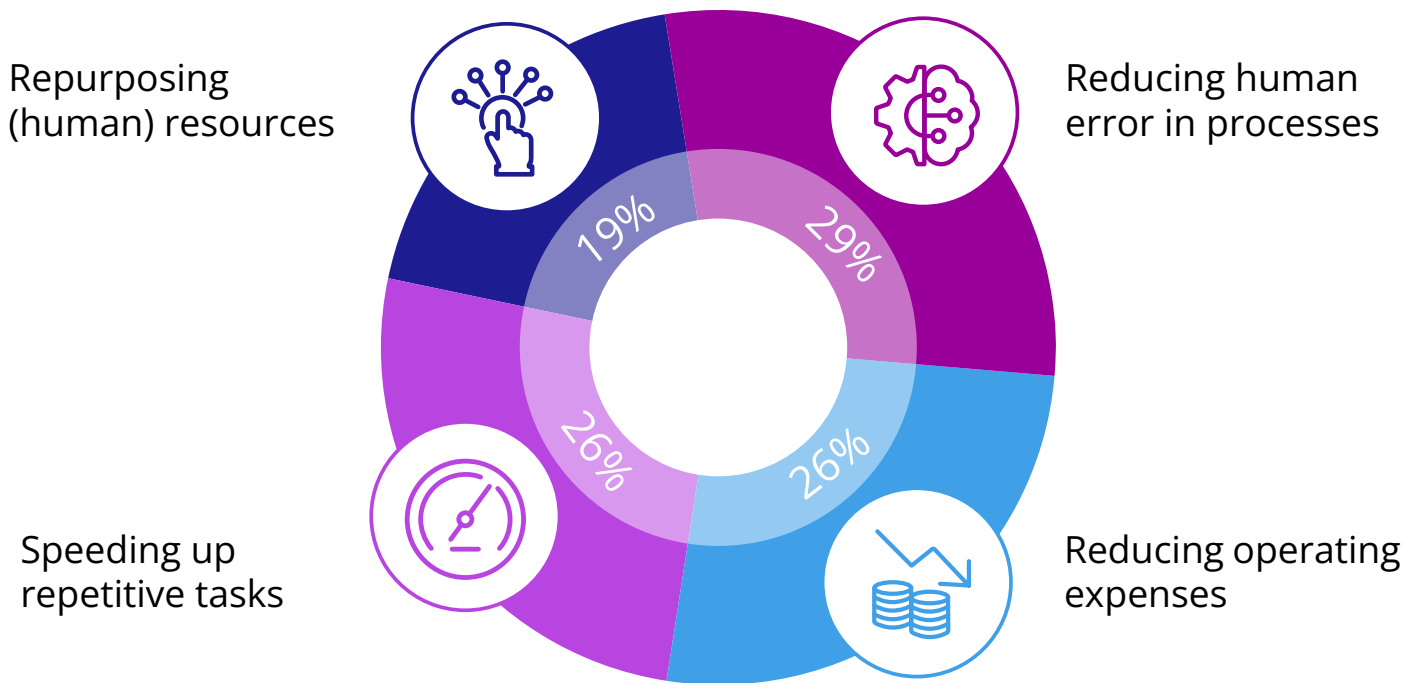Identifying and prioritizing business workflows and individual processes to automate

Ensuring data compliance, security, and protection

Understandably, integrating automation with a wide range of IT systems and environments can be overwhelming for technology professionals. When the pandemic hit in 2020, many organizations needed to rapidly implement tools to allow employees to work remotely. Despite it being necessary at the time, it has led to redundant solutions, runaway IT spend, and a lack of understanding around the purpose of tools or how they fit into the organization's operations. IT leaders should look at where they can streamline their current IT operations and then layer in automation to gain the most value from their investments.

Similarly, respondents noted that when it comes to merely adopting or expanding automation use, complexity of implementing automation (18%), resistance to process change among workforce (18%), and lack of skillsets to implement automation (18%) are the roadblocks standing in respondents' way.

Despite the challenges that IT leaders feel when it comes to implementing automation, they do see the benefits. When asked what the most important benefits are, respondents cited:

Repurposing
(human) resources

Reducing human
error in processes

19%

29%

26%

26%

Speeding up
repetitive tasks

Reducing operating
expenses

Automation is a tool that can help businesses optimize their processes by reducing the time and effort spent on manual tasks. IT leaders should consider all of the value-add work that their teams can execute on if they're not bogged down by 10-plus hours of manual data entry each week.

The Path Forward for IT Leaders

More than ever, technology professionals have been tasked with increasing efficiency, optimizing their resources, and reducing potential risk throughout their organization. To do this effectively, IT organizations need to modernize their infrastructure without disruption.

There are two areas of particular focus among IT leaders – hybrid cloud and automation – to help achieve their goals and drive higher return on investment.

With hybrid cloud solutions, businesses gain the ability to connect their mainframe with the broader organization, enabling more people to utilize the businesses data to drive decision making. Coupling mainframe and cloud technologies with a hybrid approach allows for the best of both worlds, as organizations can reap the benefits of the highly secure mainframe and the analytics and artificial intelligence capabilities that the cloud offers.

Similarly, automation is making waves in the IT world as more and more businesses consider how they can free up resources and reduce the risk of human errors. Though there are certainly concerns around implementation, including integrating within a complicated tech stack, the benefits are clear. Organization's that hope to thrive in the coming years must consider increasing their use of automation.

Technology professionals are responsible for helping organizations run efficiently while also reducing potential risk. It can be daunting but with the right tools and technologies in place, IT leaders don't need to lose sleep over modernization efforts.

Methodology

Rocket Software partnered with independent research firm Researchscape to survey 275 U.S. IT directors and vice presidents in firms with more than 1,000 employees. The survey was conducted between March 28, 2023 and April 22, 2023, and focused on the opinions of IT professionals in the United States.

About Rocket Software

Rocket Software partners with the largest Fortune 1000 organizations to solve their most complex IT challenges across Applications, Data and Infrastructure. Rocket Software brings customers from where they are in their modernization journey to where they want to be by architecting innovative solutions that deliver next-generation experiences. Over 10 million global IT and business professionals trust Rocket Software to deliver solutions that improve responsiveness to change and optimize workloads. Rocket Software enables organizations to modernize in place with a hybrid cloud strategy to protect investment, decrease risk and reduce time to value. Rocket Software is a privately held U.S. corporation headquartered in the Boston area with centers of excellence strategically located throughout North America, Europe, Asia, and Australia. Rocket Software is a portfolio company of Bain Capital Private Equity. Follow Rocket Software on LinkedIn and Twitter.

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