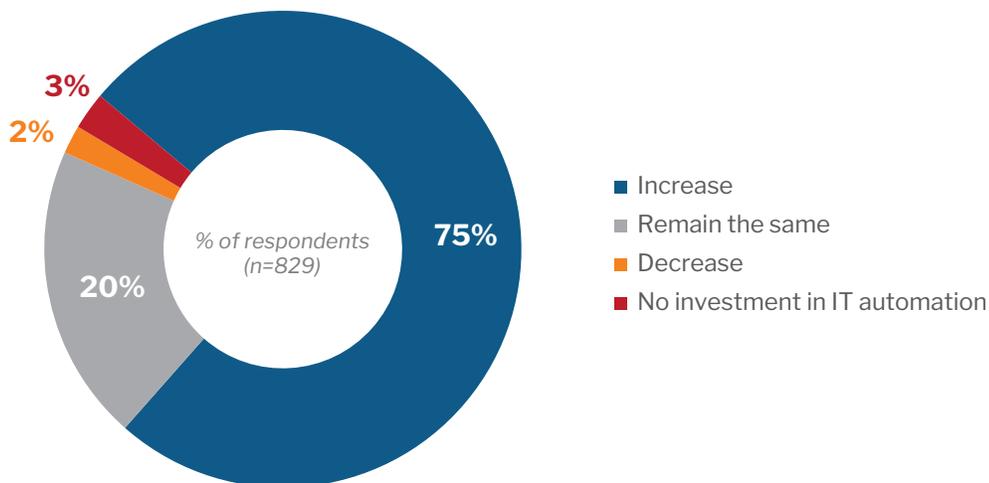# Overcoming IT Challenges With Automation: Tackle Complexity, the Skills Gap and Overburdened Workloads

The 451 Take

With emerging technologies like hybrid cloud and containers, IT teams are better able to deliver support for important business goals, including faster innovation, reduced costs and more reliable services. However, these new tools and environments also create new challenges for IT professionals, who tell us they are taking on more work while their teams are not growing. In addition, they're struggling to keep up with the skills required to manage the new technologies. To help relieve these pressures, we're seeing IT organizations increasingly embrace automation in an effort to both close the skills gap and lighten the workload. These organizations often also realize other benefits to automation, including improved service reliability and even reduced costs.

Expected Changes in IT Automation Investment: Next 12 Months
Source: 451 Research's Voice of the Enterprise: Digital Pulse, Budgets and Outlook 2018

- ■ Increase
- ■ Remain the same
- ■ Decrease
- ■ No investment in IT automation

% of respondents (n=829)

75%
20%
2%
3%

Automation has emerged as a key approach for overworked IT teams as they face new challenges from evolving technology and complex infrastructure environments. In a recent 451 Research survey, we found that a remarkable 75% of IT decision-makers expect to invest more in automation in the coming year. Only 20% of respondents said their automation investment would remain static, with only 2% expecting to shrink budgets. So, with nearly all (95%) surveyed organizations planning to retain or grow their automation investments, there is obviously strong enthusiasm for automation's potential in solving some of the most pressing problems that IT teams face.

Business Impact

Businesses are adopting a wide range of new technologies and processes in order to meet the increasing demands of customers and remain competitive. In addition to technologies like hybrid cloud, multi-cloud and containers, businesses are shifting to new organizational models such as agile development and DevOps, and are implementing development practices including continuous integration, delivery and deployment. While these technologies and practices serve to enable a range of business goals, they also create new challenges such as the following:

- **SKILLS SHORTAGES:** Our research indicates that IT organizations struggle to find the skills they need to operate the array of new technologies they adopt. The skills shortage runs the gamut, ranging from system admins of all kinds to cloud platform expertise and complex data analysis.

- **GROWING WORKLOADS:** In part due to the adoption of new, complex technologies, IT professionals tell us they're being asked to do more than ever before while facing new challenges presented by this emerging tech. However, while their daily workloads are growing, our research indicates that their teams aren't.

Automation can help lighten the workload and accommodate for the skills gap, and as such we're seeing it being adopted across a number of functions in IT. For instance, employing automation to manage IT infrastructure – including compute, storage and networking resources – can eliminate or reduce work that requires considerable time for skilled workers. Automation can also support security policies, ensuring they are accurately enforced. In addition, automation can be applied throughout the incident response process to determine the correct response to performance problems and speed the process of solving them.

In short, IT organizations, particularly those with many modern technologies in place, that don't harness automation techniques are unlikely to be able to serve the innovation demands of the business, including the high performance, speed and quality of services expected by internal and external customers.

Looking Ahead

While it's clear that automation is a requirement in modern organizations, it isn't enabled simply by buying and turning on a new tool. Choosing a tool that guides users through the process of setting up automations will encourage broader adoption across functions performed by IT teams. In addition, to serve today's complex environments, IT teams should look for automation tools that can span the breadth of the IT ecosystem to avoid the compounded management complexity that may result from using too many point tools. Also, a phased approach to adopting automation can ensure that users are comfortable with it. Start by automating simple, repetitive tasks. We also see many businesses initially insert a human element into the process, requiring a team member to authorize actions proposed via automation. Once successful with these initial deployments, they can expand into more complex automations that impact mission-critical systems and ultimately rely on them without human intervention.

We see the embrace of automation leading to impactful changes. Once IT professionals no longer have to perform routine, rote tasks, they are free to focus on more meaningful work. For instance, application performance and security postures may improve as a result of automated incident response. IT teams may free up time to dedicate to important projects that support key business goals, including delivering new, innovative services for internal or external customers that harness the power of new technology innovations. Beyond this, team members are often more satisfied with their jobs, leading to additional benefits including better productivity and stronger retention.