DuploCloud

The State of No-code/Low-code Cloud Automation

BY DUPLOCLOUD

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EXECUTIVE SUMMARY

In June of 2022, DuploCloud surveyed 300 senior leaders in software development, IT, and engineering to better understand the appetite for No-code/Low-code cloud infrastructure automation and compliance platforms, and what the future holds for the category at large.

The data reveals that the vast majority of respondents had already adopted these tools as part of their company's core workflows — and that adoption among respondents would reach **92%** within two years. The data also suggests that adoption of these platforms is widespread across teams regardless of organizational maturity and size, with the lowest implementation rate (which was among seed-stage companies) still at **59%**.

Additional findings include:

- Survey responses indicate adoption of No-code/Low-code cloud automation solutions could climb 21% over the next two years to **92%**.
- **44%** of companies said these platforms reduced their cloud operating costs by at least **10%** — and **10%** said they reduced costs by over **50%**.
- No-code/Low-code cloud automation platforms are most used by early-stage growth companies, with **79%** already incorporating them into their development pipelines.
- The vast majority of companies that use No-code/Low-code cloud automation platforms said it has significantly enhanced multiple key performance indicators, including:
  - Their ability to meet compliance requirements during the development process (**76%**).
  - Incorporate necessary security controls into their applications during the development process (**71%**).
  - Deploy applications quickly (**72%**).
- **42%** of companies that have not adopted these platforms said it was because they already had dedicated in-house resources — the number one reason by far.
- Training is perceived as the number one challenge (**54%**) when driving organizational adoption of No-code/Low-code cloud automation platforms by those yet to adopt them

WHY CLOUD-NATIVE DEVELOPERS NEED STREAMLINED AUTOMATION SOLUTIONS

From meeting rigorous compliance requirements to navigating the skill-demand gap, numerous challenges stand in the way of modern enterprises working with cloud infrastructures. Combined, these factors have created tremendous friction in the cloud-native application development pipeline, making it difficult to efficiently bring tech products to market at sufficiently competitive speeds.

Unfortunately for IT departments, these challenges have come hand-in-hand with one of the fastest-moving markets in tech history. To stay competitive, these teams have to do more than ever in less time than ever.

These pressures have pushed innovative teams to look for new ways of accelerating development while meeting stringent legal requirements. Streamlining the entire cloud application development process, No-code/Low-code cloud automation platforms are one of the most exciting among these emerging approaches.

WHAT IS NO-CODE/LOW-CODE CLOUD AUTOMATION?

No-code/Low-code cloud automation platforms are tech solutions that minimize the manual work required to build, deploy, and maintain cloud-native applications by transforming high-level application specifications into detailed and fully managed cloud configurations.

Developing secure, compliant, and bug-free cloud applications has traditionally demanded enormous resources from IT departments (and the organization as a whole). The process has required a small army of DevOps specialists to spin up cloud-based resources, write reams of code, run appropriate testing protocols, comprehensively assess issues, and make all the necessary modifications in order to deploy compliant applications.

But advances in automation technology now allow teams to offload workflows, security requirements, compliance standards, infrastructure provisioning, and other DevOps tasks to a No-code/Low-code platform — significantly accelerating this complex process.

METHODOLOGY

300
Software development professionals surveyed

100%
Of respondents are senior executives

95%
Have at least one dedicated DevOps professional

To explore the adoption of No-code/Low-code cloud automation platforms, DuploCloud surveyed 300 IT executives from the software and information services industry from June 8 to June 11. The respondents were selected randomly via RDE and asked 20+ questions concerning their organization, its current DevOps team, its usage of No-code/Low-code platforms, and more. The companies surveyed represent a range of growth stages (from pre-seed to enterprise), annual earnings (from pre-revenue to $500M+), and DevOps team sizes (from 0 to 21+ engineers).

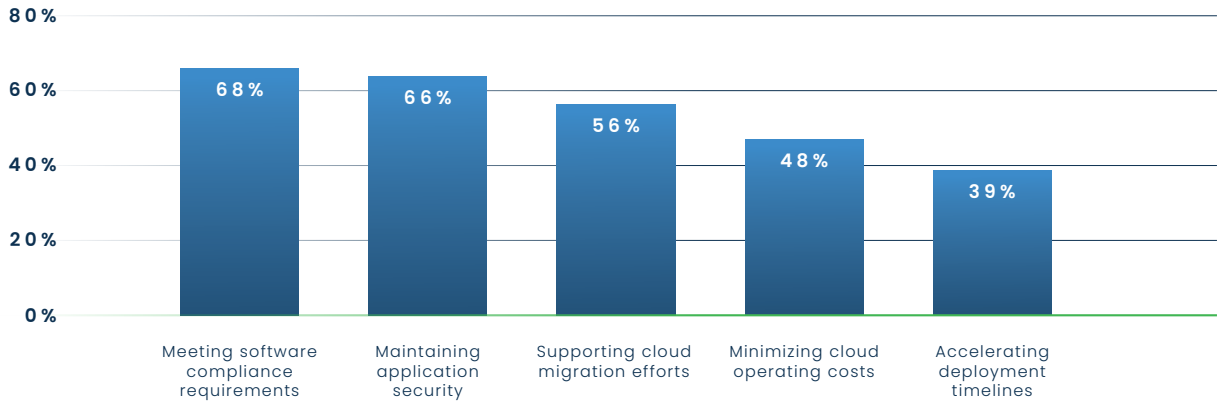
The data in the following report is descriptive, meaning that it represents the beliefs, opinions, and practices of the organizations surveyed. The precise correspondence of our findings to trends across the greater IT landscape is, therefore, beyond the scope of this report. Readers are encouraged to understand our conclusions through that lens.

WHAT'S IN THIS REPORT

Derived from an in-depth analysis of this survey, this report explores No-code/Low-code cloud automation platform adoption figures, unpacks the value development teams are finding in the approach, analyzes the main barriers to adoption, and explains how you can begin your implementation journey.

UNDERSTANDING MODERN CLOUD DEVELOPMENT CHALLENGES

As outlined above, modern IT departments must straddle numerous complex challenges to meet the expectations of senior management and successfully ship products in an increasingly competitive tech market. To see how their responsibilities have evolved, we asked our respondents to rate the challenges they face by how fast they have grown over the last two years.



While the top concern varies by growth stage, compliance and security were consistently mentioned as the fastest-growing challenges developers face. **68%** of our respondents said that meeting compliance requirements had become increasingly difficult in the past 24 months, and 66% noted that maintaining application security had become even more critical for them over the same period. Navigating cloud migration (**56%**), cutting cloud operating costs (**48%**), and speeding up the pace of deployment (**39%**) were also highlighted by many of the IT executives surveyed.

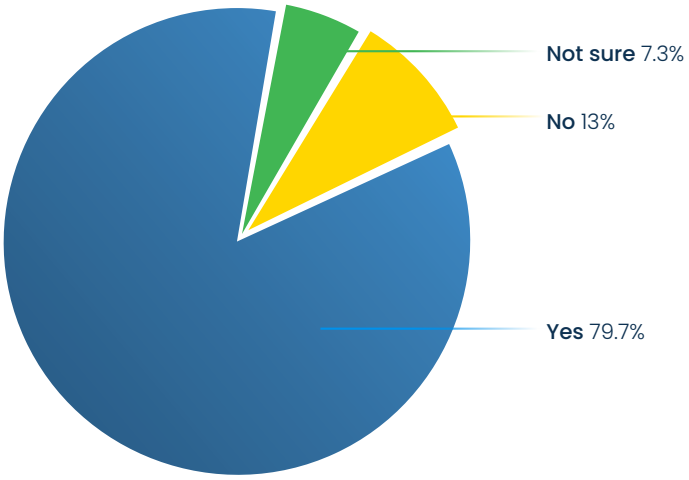
CHALLENGES BY GROWTH STAGE

MOST COMMON DEVOPS CHALLENGES BY GROWTH STAGE	
Pre-Seed	Meeting software compliance requirements **(68%)**
Seed	Maintaining application security **(62%)**
Early Growth	Meeting software compliance requirements + Maintaining application security **(59%)**
Late-Growth	Maintaining application security **(52%)**
Enterprise	Meeting software compliance requirements **(54%)**

When broken down by growth stage, the data reveals that compliance and security take turns vying for the IT team's attention. Compliance is the fastest-growing issue for **68%** of respondents from pre-seed companies — as well as **54%** of enterprises. Security took the top spot for respondents from seed (**62%**) and late growth stage (**52%**) companies. And IT leaders from early growth stage firms perceive the two challenges as equally salient.

PERCEIVED VALUE OF NO-CODE/LOW-CODE CLOUD AUTOMATION

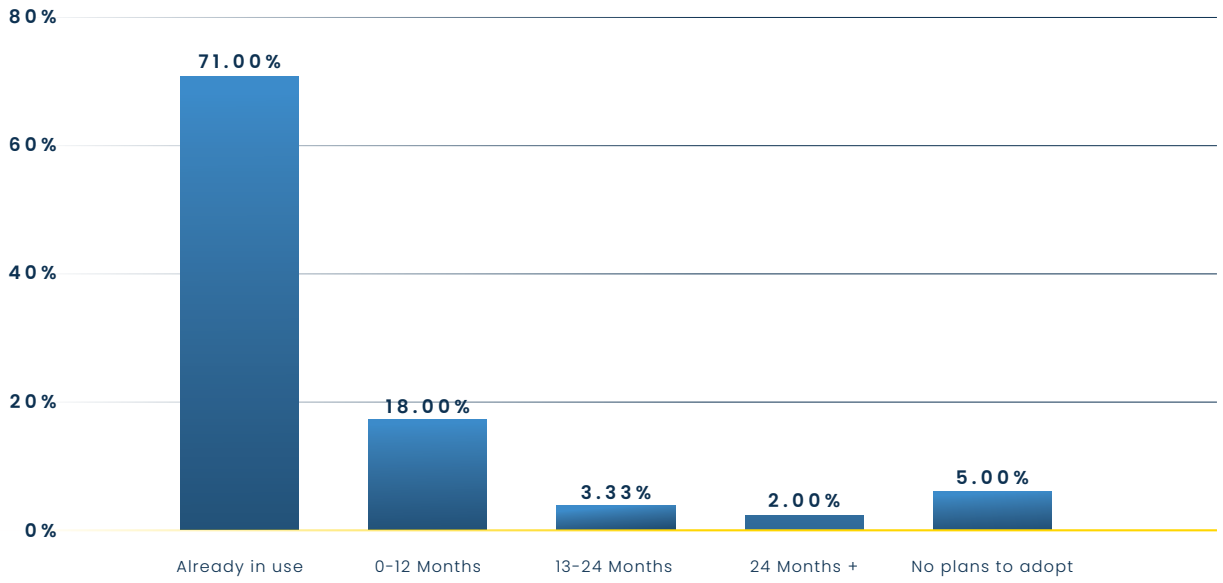
Do NLCCA platforms provide value to modern development teams?



Although priorities might shift depending on a company's maturity, the answer our respondents' gave to these challenges was nearly unanimous: Nearly **80%** of respondents believe that No-code/ Low-code platforms can help address these challenges.

EXPLORING NO-CODE/LOW-CODE CLOUD AUTOMATION ADOPTION RATES

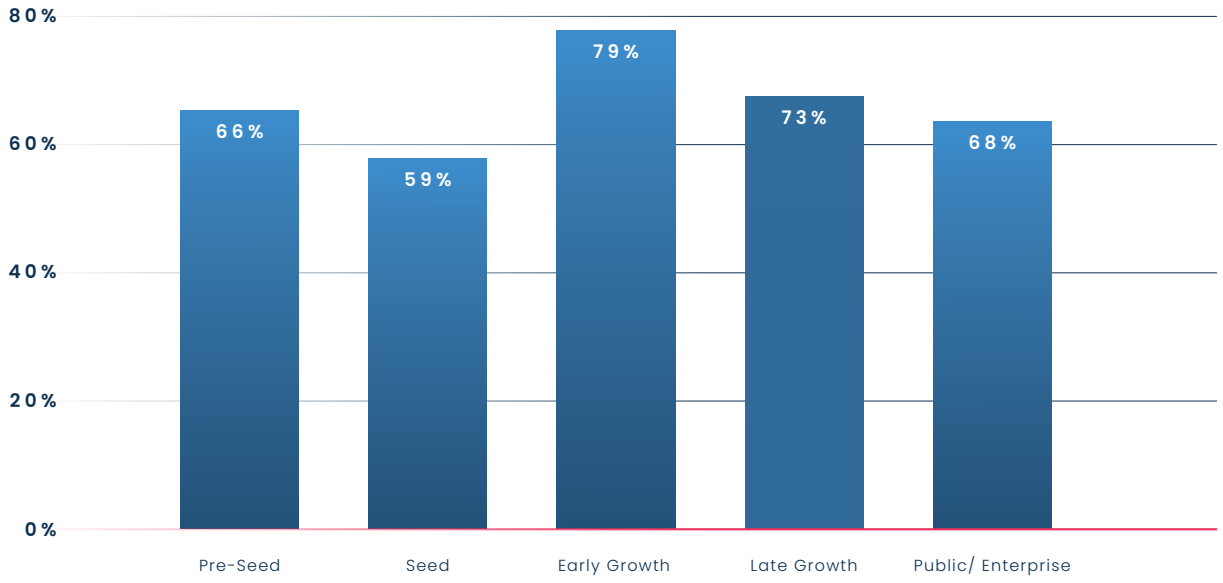
Now that we've examined the challenges facing IT departments, let's delve into how these teams are adopting No-code/Low-code cloud automation solutions.



71% of IT executives we surveyed said their organization had already incorporated No-code/Low-code cloud automation platforms into their development pipelines; **18%** said adoption was a year out or less; and another **3%** reported it was on their company's two-year roadmap. If these plans are executed, the adoption of No-code/Low-code cloud automation solutions will increase by **21%** over the next two years — becoming near-universal (**92%**) among our respondents.

NO-CODE/LOW-CODE CLOUD ADOPTION BY ORGANIZATIONAL MATURITY

The survey also suggested that companies at every growth stage have embraced the usage of No-code/Low-code cloud automation platforms.

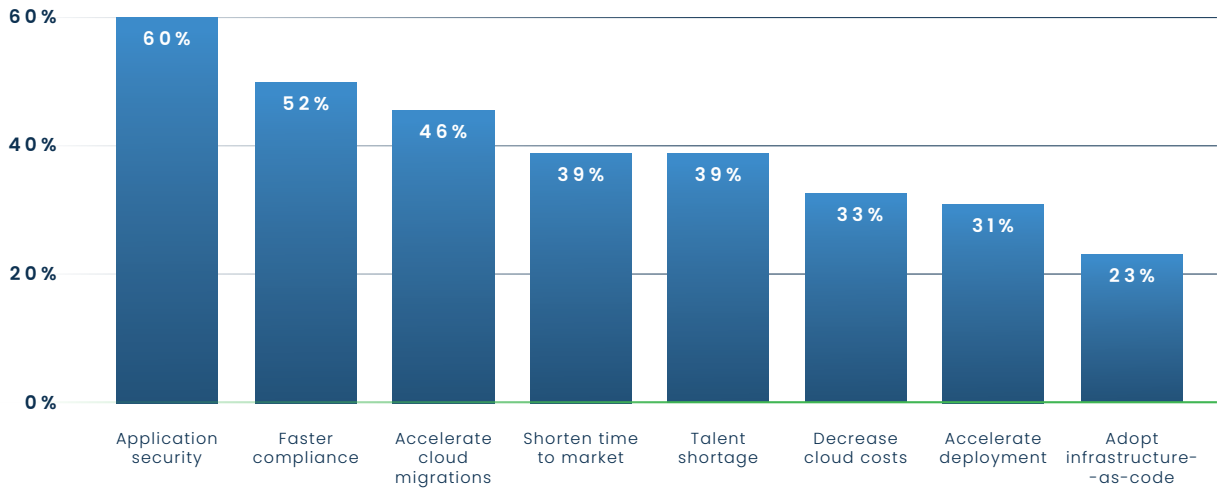


Early-stage growth companies have adopted No-code/Low-code cloud automation platforms at the highest rate: **79%**. This circumstance may be because early-stage companies tend to be more agile, while legacy systems and processes can hamper innovation at enterprise-level organizations. That said, adoption had still reached **68%** at the public companies and **73%** at the late-growth stage companies we surveyed.

Interestingly, the lowest adoption rate by stage was among seed-stage companies. But even in this case, the majority (**59%**) had implemented a No-code/Low-code cloud automation solution.

REASONS FOR ADOPTION

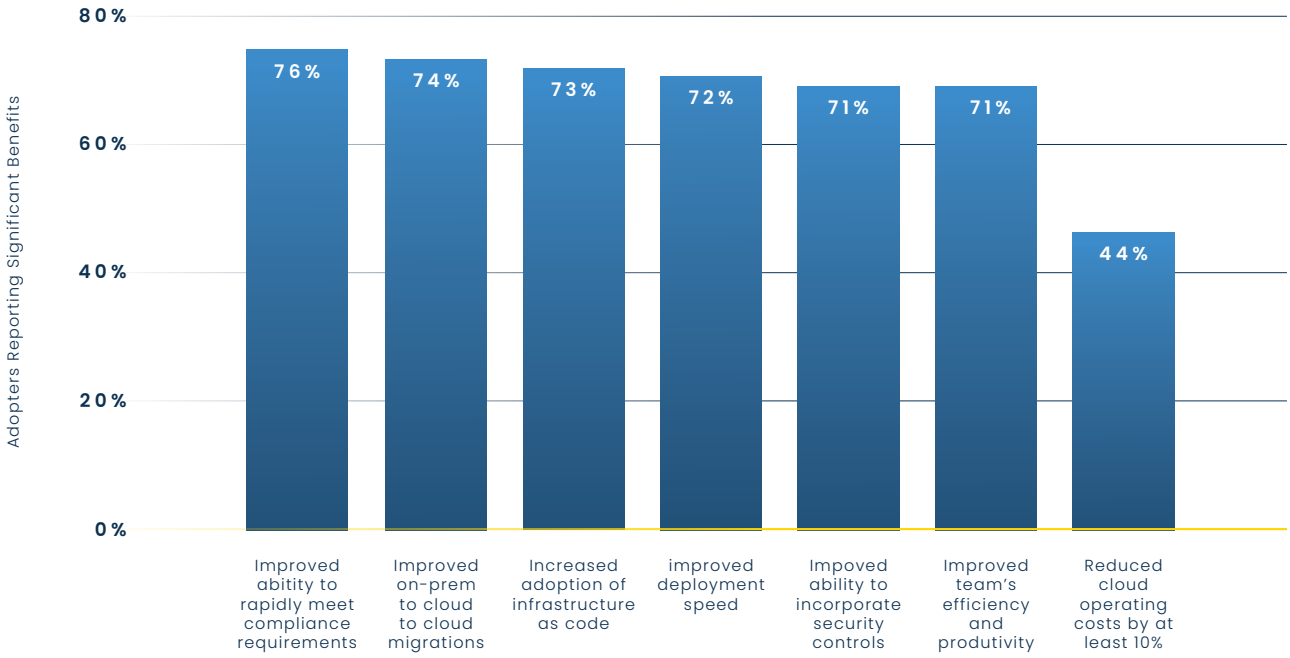
As for the motivations driving adoption, our survey revealed that respondents implemented No-code/Low-code cloud automation platforms to address their most pressing cloud development challenges.



The number one reason given for No-code/Low-code cloud automation adoption was to improve application security (**60%**), with speeding up compliance (**52%**) a close second and accelerating cloud migration (**46%**) in third. These top three motivations overlap directly with what our respondents ranked as the top three fastest-growing cloud development challenges.

NO-CODE/LOW-CODE CLOUD AUTOMATION: BENEFITS AND REAL-WORLD IMPACT

Given that most of the organizations surveyed already use No-code/Low-code cloud automation in their development pipeline, our research provides significant insight into the real-world benefits these platforms provide. Overall, the data strongly indicates companies that invest in No-code/Low-code cloud automation don't regret it. In fact, adoption has helped them realize a range of performance goals:



At least **70%** of respondents said that No-code/Low-code cloud automation solutions had significantly improved their ability to meet compliance requirements, manage cloud migrations, implement security controls, quickly deploy applications, cultivate the adoption of infrastructure as code (IaC), and operate efficiently.

These figures jump even higher in several benefit areas once responses that include "some improvement" are factored in. For example, **91%** of organizations that had adopted No-code/Low-code cloud automation saw some improvement in time-to-compliance, and **90%** saw some improvement in their organization's ability to incorporate necessary security controls into their applications.

BENEFITS BY GROWTH STAGE

While these results alone are a ringing endorsement of No-code/Low-code cloud automation adoption, the data is even more compelling when broken down by growth stage and top concern. Our research indicates that No-code/Low-code cloud automation solutions deliver where it counts regardless of company maturity.

IMPACT OF NO-CODE/LOW-CODE CLOUD AUTOMATION BY GROWTH STAGE AND TOP CHALLENGE

Stage	Fastest-Growing Challenge	Impact of No-code/Low-code Cloud Automation Adoption
Pre-Seed	Meeting software compliance requirements	**96%** said adoption had significantly improved this area. **60%** reported massive improvements.
Seed	Maintaining application security	**53%** said adoption had significantly improved this area. **82%** reported at least some improvements.
Early Growth	Meeting compliance requirements and maintaining application security	**78%** said adoption had significantly improved software compliance. **72%** reported that it has significantly improved security.
Late-Stage	Maintaining application security	**55%** said adoption had significantly improved this area. **91%** reported at least some improvements.
Enterprise	Meeting software compliance requirements	**81%** said adoption had significantly improved this area. **38%** reported massive improvements.

RANKING NO-CODE/LOW-CODE CLOUD AUTOMATION'S CORE VALUE

Our survey also revealed what our respondents consider to be the primary value of No-code/Low-code cloud automation platforms.

TOP 8 NO-CODE/LOW-CODE CLOUD AUTOMATION BENEFITS	
1	Improving application security (**56%**)
2	Meeting compliance requirements faster (**54%**)
3	Compensating for talent shortage (**43%**)
4	Streamlining cloud migration (**39%**)
5	Shortening time to market (**38%**)
6	Accelerating deployment timelines (**35%**)
7	Decreasing cloud operating costs (**34%**)
8	Accelerating infrastructure-as-code adoption (**21%**)

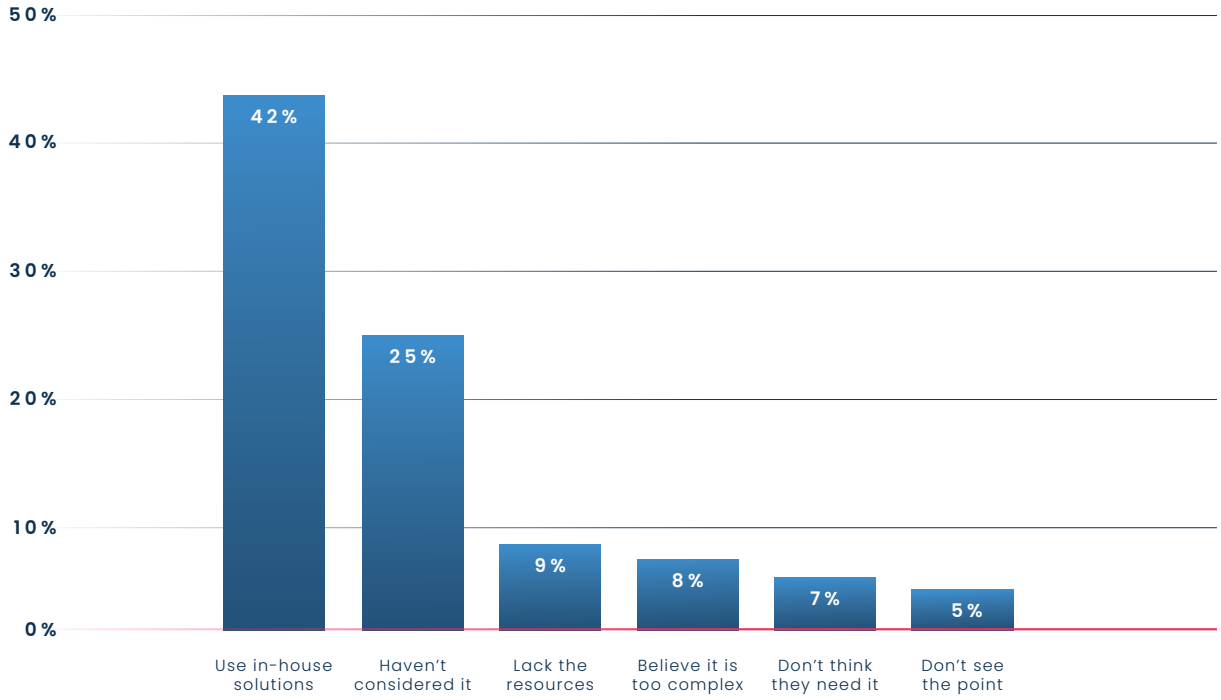
According to the real-world experience of the 239 IT executives that had implemented No-code/Low-code cloud automation at their organizations, enhanced application security is the number one benefit of the approach. Another core benefit of these solutions is their ability to help teams meet cloud compliance requirements, which earned just 2% fewer mentions from respondents than the top choice.

The next three benefits are all within 5% of each other, with many respondents noting No-code/Low-code cloud automation's ability to mitigate the impact of the talent shortage (**43%**), streamline cloud migration (**39%**), and shorten an application's time to market (**38%**).

When taken together, the lived experience of DevOps teams that have adopted No-code/Low-code cloud automation suggests that this innovative approach delivers significant value across the entire cloud development process, allowing them to ship products better, faster, and more cost-effectively than their competitors.

BARRIERS TO ADOPTION

While No-code/Low-code cloud automation has already seen widespread adoption among our respondents, some organizations have yet to implement these solutions. Given No-code/Low-code cloud automation's numerous benefits, what's stopped these teams from pulling the trigger? Our survey indicates that a few core blockers have stalled some companies.



The greatest adoption barrier, by far, was the use of in-house solutions that already perform some of the tasks that No-code/Low-code cloud automation platforms cover. **42%** of those who had yet to adopt listed that as a blocker, with lack of consideration being the next most mentioned reason (**25%**). The last four obstacles — resources (**9%**), complexity (**8%**), lack of need (**7%**), and lack of perceived value (**5%**) — were only mentioned by eight or fewer respondents out of the 300 surveyed.

When it comes to the driving organizational adoption of No-code/Low-code cloud automation, **54%** of this subgroup noted that training was the primary challenge. The other reported challenges were time limitations (**45%**), internal momentum (**38%**), cultural issues (**24%**), and lack of perceived benefit (**22%**).

It bears noting that while this entire subgroup accounted for **28%** of those surveyed, only **5%** had no plans to adopt No-code/Low-code cloud automation over the next few years. The remaining **23%** said their organizations would be implementing the approach soon. This feedback indicates that these barriers — while notable — do not keep the vast majority of organizations from moving forward with No-code/Low-code cloud automation.

HOW TO IMPLEMENT NO-CODE/LOW-CODE CLOUD AUTOMATION

Although the challenges facing development teams have only grown in recent years, our research indicates that recent innovations in automation technology have more than risen to meet them.

No-code/Low-code cloud automation platforms are helping organizations meet stringent compliance requirements, mitigate the impact of the skill-demand gap, successfully navigate cloud migrations, significantly cut cloud operation costs, embed comprehensive security controls at the beginning of the development process, and much more.

For those looking to realize these benefits, finding the right tech partner is the first step in the implementation process. Built by founding members of the Microsoft Azure team, DuploCloud is an No-code/Low-code cloud automation platform that addresses the main issues plaguing IT departments managing the development of cloud applications.

The DevOps Skill-Demand Gap

DuploCloud automates provisioning and orchestration across networks, computing, storage, containers, cloud-native services, continuous compliance, and developer guardrails.

Quickly Implementing Compliance and Security

DuploCloud accelerates time to compliance by natively integrating security controls into SecOps workflows from the start, including monitoring and alerting for PCI-DSS, HIPAA, SOC 2, FedRAMP and GDPR.

Managing Cloud Migrations

DuploCloud enables easy on-premises to cloud or cloud to cloud migration with seamless automation and unique data migration techniques to minimize downtime.

Contact our team today to start accelerating your cloud development process.