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CLOUD-NATIVE DEVELOPMENT:

READY OR NOT?

What IT Executives and Developers Say

ANALYSTS EXPECT MORE THAN 90% OF APPS TO BE DEVELOPED USING CLOUD-NATIVE TECHNOLOGIES BY 2025, BUT COMPANIES STILL DON'T KNOW MUCH ABOUT IT.

Cloud-native application development is one of the fastest-growing trends in tech today, with **Gartner** and **IDC** forecasting that 90-95% of apps will be cloud-native by 2025. Thriving companies born in the cloud – such as Netflix, Uber, and Airbnb – prove why this growth is warranted. The approach allows for massive scale at rapid speeds, always-on and always-updated environments, and frees organizations from the inflexibility of legacy systems. Analysts recognize that these cloud-native benefits are possible for any business, not just the tech elite.

But, there's a disconnect — companies are expecting to adopt a technology they don't know enough about. "Cloud-native" is being tossed around like a buzzword, creating confusion and muddying the understanding of its benefits and business impact. While analysts expect a sharp rise in cloud-native development globally, more than half (53%) of IT leaders and developers still don't know much about it. This raises important questions: Is the forecasted growth hype or are we entering a phase of high-speed adoption?

And are IT leaders prepared with the knowledge, tools, and talent they need to face their cloud-native future?

Starting with the basics, cloud-native refers to applications designed from the ground up to take advantage of the benefits of a cloud computing infrastructure: ***flexibility, scale, resilience, and elasticity***. Addressing these challenges is essential, as companies struggle with growing software backlogs, continuous application changes, wasted development time, and developer talent shortages. Cloud-native applications enable new and enhanced customer experiences, significantly increased development speed, and ease the management of constant change.

Despite the expectation that companies are building their cloud-native futures, there is a lot of progress to be made. To help understand organizations' cloud-native perceptions, concerns, and adoption plans, OutSystems worked with research technology company **Lucid** (A Cint Group Company) to survey more than 500 IT executives and developers globally.

KEY FINDINGS

The resulting research uncovers surprising and important insights from cloud-native **leaders** – respondents who are using cloud-native today – and **laggards** – those who have yet to adopt the technology.

Important findings reveal:

- **IT'S TIME TO GET TO KNOW CLOUD-NATIVE.** While 72% of respondents expect that the majority of their apps will be created using cloud-native development by 2023, only 47% of them know a lot about it.
- **REAL CHALLENGES. REAL CONFUSION.** Cloud-native laggards may not be ready for the challenges ahead, as "selecting the right tools/ platforms" and "architectural complexity" rank low on their list of expected challenges, but high among those already using the technology.
- **TALENT IS KEY. MORE EVERYTHING.** Companies readying for cloud-native growth feel the need to increase engineering talent across more than 10 different roles – at a time when available talent is ultra tight.
- **GETTING A LIFT FROM LOW-CODE.** Leaders agree that low-code platforms reduce the challenges of cloud-native development, with most using low-code already and rating low-code platforms as "very good" or "excellent" tools for getting started.

72%

of respondents expect that the majority of their apps will be created using cloud-native development by 2023

53%
are only "somewhat" (or less) familiar with it

65%
of cloud-native laggards haven't seriously looked into the technology

76%
say low-code platforms are good to excellent tools for implementing cloud-native

72%
are using low-code technologies already

IT'S TIME TO GET TO KNOW CLOUD-NATIVE

While more than half (58%) of cloud-native leaders know a lot about the technology, only 1% of laggards say the same.

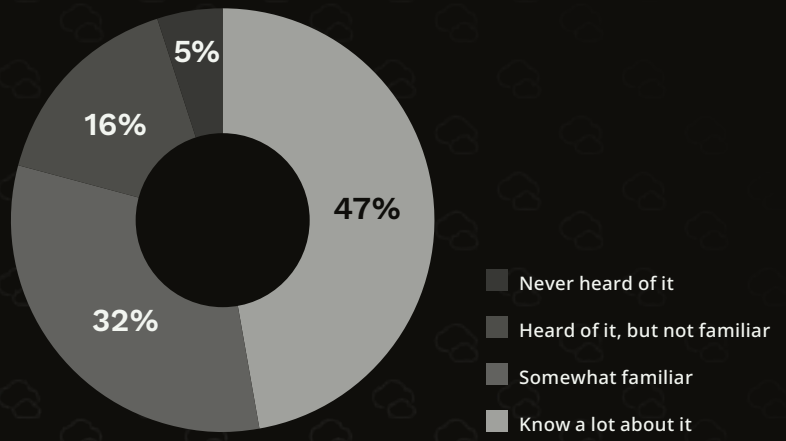
For companies already leveraging cloud-native, the commitment is strong – and growing. Leaders report that more than 68% of their apps are supported with cloud-native technology, and close to three-quarters of respondents (72%) believe that by the end of 2023 the majority of their apps will be built that way.

However, while the growth in cloud-native development is universally expected, 53% of all respondents still claim to be, at best, "somewhat familiar" with the topic. This lack of knowledge is likely behind the lack of action.

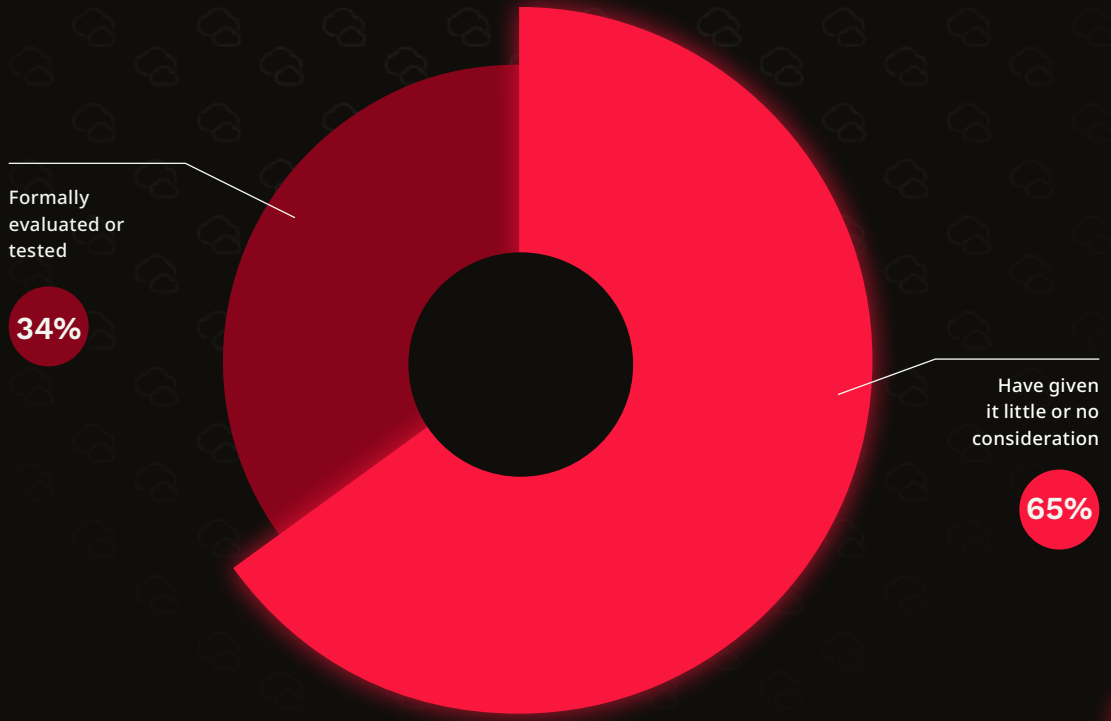
When looking at cloud-native laggards, just over one in three (34%) have formally evaluated the technology. Half (50%) have engaged only in informal analysis, and 15% of laggards have given it no consideration at all.

HOW FAMILIAR ARE YOU WITH CLOUD-NATIVE DEVELOPMENT?

53%
only know little/somewhat about it



LAGGARDS: HOW MUCH, IF AT ALL, HAS YOUR ORGANIZATION CONSIDERED CLOUD-NATIVE DEVELOPMENT?



REAL CHALLENGES.
REAL CONFUSION.

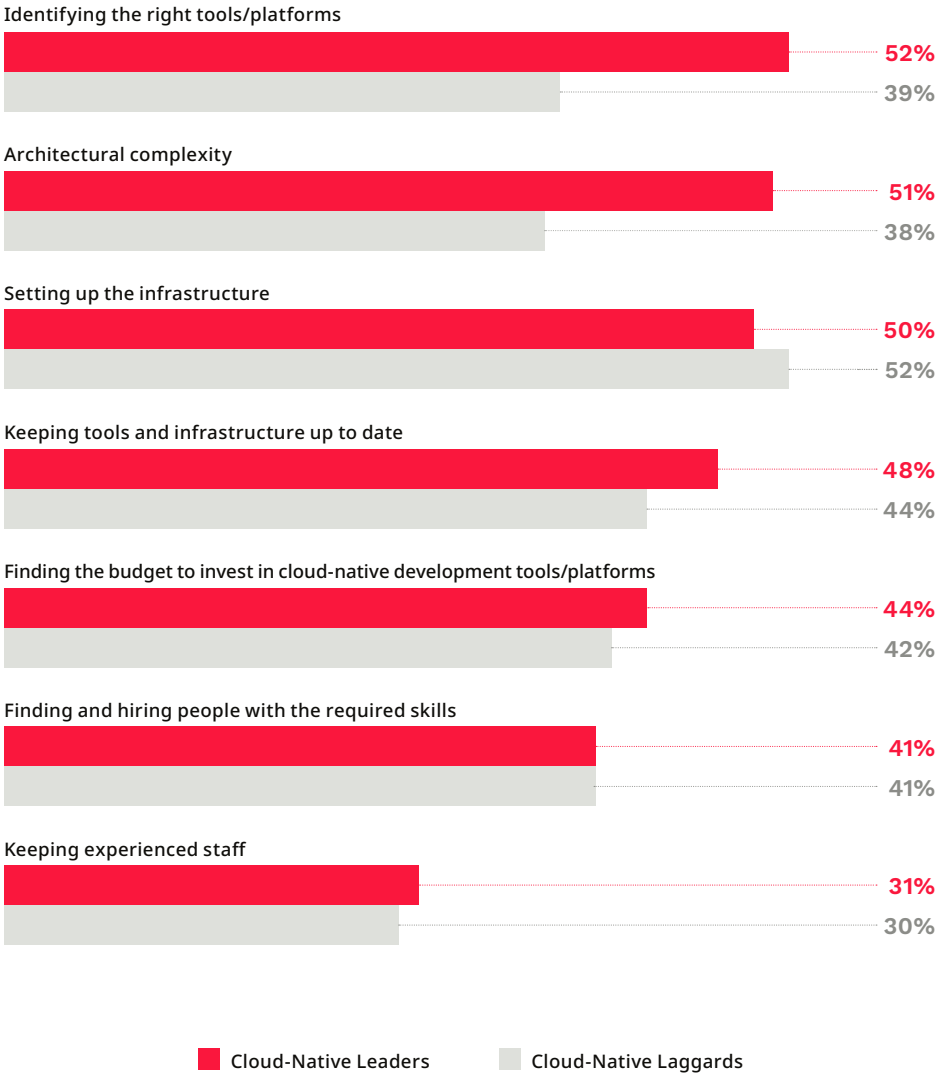
Cloud-native leaders say that identifying the right tools/platforms (52%), and architectural complexity (51%) are the top two challenges of cloud-native, whereby laggards ranked nearly every other category higher on the challenge list (39% and 38% for these two challenges, respectively).

The two groups are more aligned on the other challenges facing those moving to cloud-native development. Setting up the infrastructure, keeping tools up-to-date, and finding budget and talent are the other top challenges recognized by both groups, and directly map to the following core study findings.

BIGGEST CHALLENGE

- Identifying the right tools/platforms
- Architectural complexity

WHETHER OR NOT YOUR ORGANIZATION IS USING CLOUD-NATIVE DEVELOPMENT PLATFORMS, WHAT DO YOU SEE AS ITS CHALLENGES?



TALENT IS KEY.
MORE EVERYTHING.

Not surprisingly, IT leaders feel a need for more – and more specialized – talent to see their cloud-native strategies through. Both leaders and laggards agree that engineering team growth is both required and a struggle. Respondents share the need for talent across 13 different roles, from back-end, full-stack, and mobile developers to enterprise architects and designers, with cloud architects standing out as a critical role to fill.

The good news is that at a time when most companies are struggling to hire and retain technical talent, cloud-native leaders see the technology as a potential benefit for staff engagement. 44% of leaders confirm that cloud-native development creates "interesting" work that emphasizes innovation over tedium.

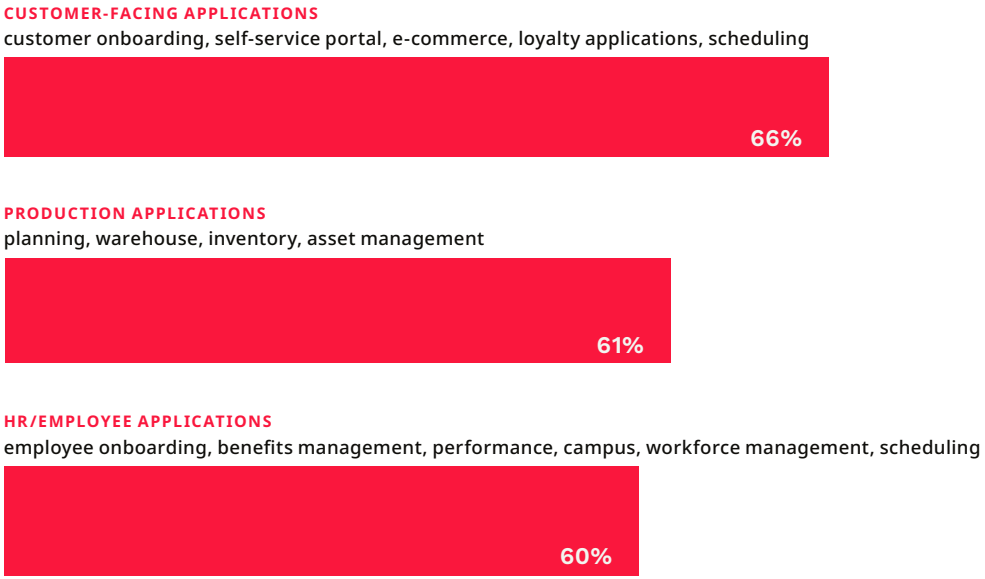
As more laggards begin to evaluate and select the right tools/platforms – noted as the top challenge by their leader peers – they should look for solutions that abstract away the complexities of cloud-native development and allow for automation and flexibility that will motivate their teams.

IN WHAT ROLES DOES YOUR COMPANY NEED TO HIRE NEW STAFF TO EFFECTIVELY IMPLEMENT CLOUD-NATIVE DEVELOPMENT?

CLOUD-NATIVE APPS FOR BUSINESS-CRITICAL NEEDS

If the past two years have taught us anything, it's that companies must be agile to be competitive. Businesses are grappling with new pressures, from anticipating customer demands and supply chain shortages, to finding and retaining the best talent, and providing the best employee experience.

LEADERS: WHAT TYPES OF APPLICATIONS/USE CASES DO YOU BELIEVE ARE A GOOD PLAN TO INCREASE?



CLOUD-NATIVE LEADERS AND LAGGARDS AGREE THAT THE TECHNOLOGY HAS THE POTENTIAL TO HELP BUSINESSES ADDRESS THEIR MOST CRITICAL USE CASES:

1 **Customer-facing applications**, which are critical to meeting consumer demand for exceptional app experiences, from customer onboarding to self-service and e-commerce applications.

2 **Operations, production, and inventory management apps**, which are more important than ever due to global supply chain issues and the need for development flexibility and speed.

3 **HR and employee applications**, which help companies with employee onboarding and workplace management experiences, are particularly important with the "Great Resignation" and competition for talent.

LOW-CODE LIFTS CLOUD-NATIVE SUCCESS

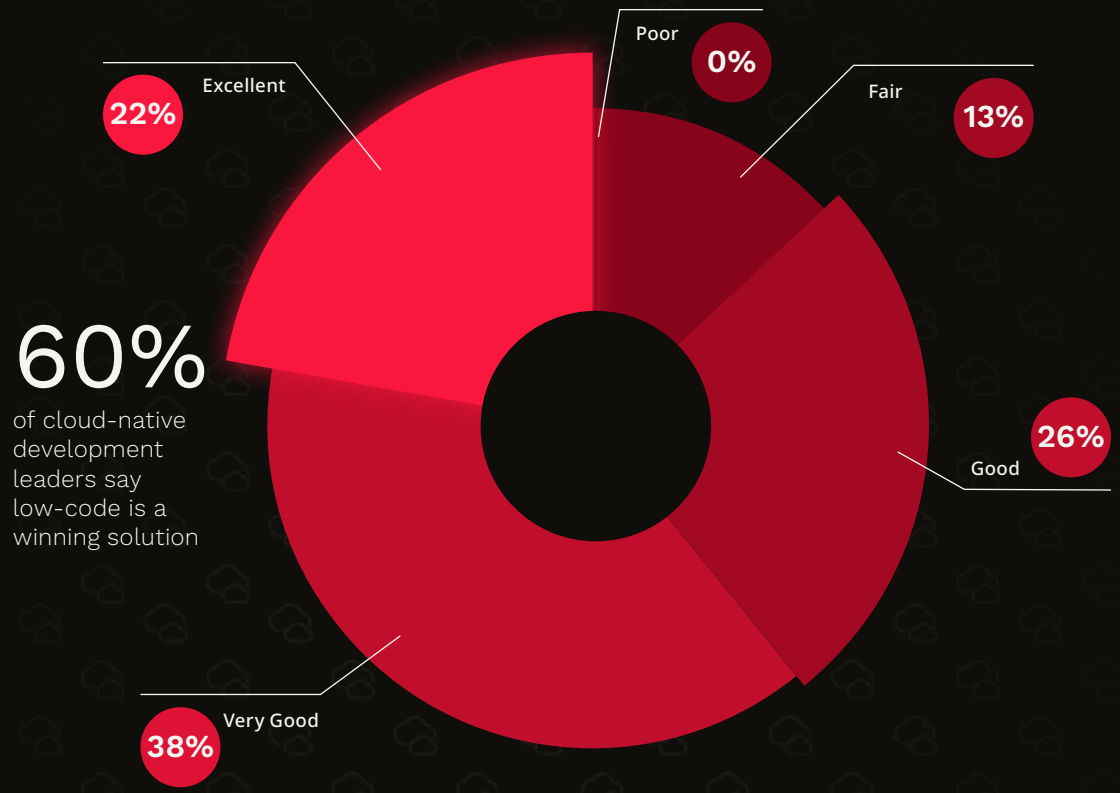
Cloud-native leaders see low-code platforms as winning partners in their cloud-native journeys, with 60% saying low-code platforms are “very good” or “excellent” tools for cloud-native implementation. Not surprisingly, more than seven in ten (72%) leaders work with low-code platforms already. Not all low-code is built the same, however, so high-performance low-code platforms built for the cloud should be a checkbox in the evaluation.

Cloud-native leaders are making plans to expand their adoption of low-code platforms as they build for the cloud. More than one-quarter (28%) of low-code users say the majority of their applications are in the cloud this year, while more than three-quarters (76%) say their organization will use low-code to build the majority of their applications by 2024.

72%

of coud-native development leaders are using low-code platforms today

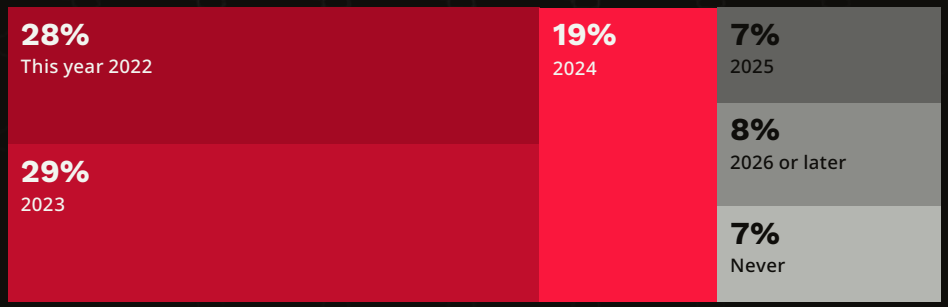
HOW WOULD YOU RATE LOW-CODE PLATFORMS AS A PLATFORM FOR IMPLEMENTING CLOUD-NATIVE DEVELOPMENT?



60%

of cloud-native development leaders say low-code is a winning solution

WHEN DO YOU THINK YOUR ORGANIZATION WILL DEVELOP THE MAJORITY OF YOUR APPLICATIONS USING LOW-CODE DEVELOPMENT PLATFORMS (INCLUDING MISSION-CRITICAL APPLICATIONS)?



CONCLUSION:
GET READY FOR CLOUD-NATIVE

As awareness and understanding of cloud-native development grows, companies will continue looking for ways to get started faster. This begins with up-leveling their knowledge, selecting the right tools/platforms, and finding and retaining engineering talent. Experienced companies agree that low-code platforms have the potential to dramatically improve the way businesses build applications now and ensure those apps perform, scale, and evolve to meet the demands of the future.

Companies of all sizes, across all industries, are applying cloud-native development to tackle their biggest challenges. By leveraging the cloud and leaning on low-code they can turn their biggest ideas into software and change the course of their business.

For more information on how to jumpstart your cloud-native journey, join us at the OutSystems **Cloud Innovation Summit** held virtually **June 7-8**

Join Now

STATEMENT OF METHODOLOGY

The findings of this report from OutSystems called "Cloud-Native Development: Ready or Not? What IT Executives and Developers Say" are based on a survey of 505 information technology decision-makers and developers spanning companies of varying sizes: enterprises (companies with more than $2.5 billion in annual revenue), commercial companies (with $500 million to $2.5 billion in revenue), and small-to-medium businesses (with $50 million to under $500 million in revenue).

In partnership with research company Lucid (A Cint Group Company), the online survey was conducted in February 2022 across the United States, Europe, Australia, Latin America, Canada, and Singapore. Respondents come from the following industries: finance, retail, healthcare, education, business services, government and public administration, farming, construction, manufacturing, entertainment, media and telecommunications, mining, utilities, travel, hotels and restaurants, and real estate.

505

information technology decision makers and developers