



**DEVOPS AND THE PUBLIC CLOUD:**

# The Rise of the Alternative Cloud

**Q1 • 2022**

COMMISSIONED BY



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## Executive Summary

**MARKET NOISE** over the past few years has crystalized into a clear message: cloud and multiclouds from trusted providers have become an important foundational technology for DevOps teams. A Techstrong global survey of 531 development professionals, managers and senior managers across 20 industries shows that, like DevOps itself, multicloud is more than just a passing fad and has become fully industrialized. Our research found:

**1 Cloud and multicloud in DevOps has arrived and is growing fast.** Respondents are heavily engaged with cloud and cloud-native technologies. Roughly 75% say their infrastructure will be cloud-based by the end of this year, up double digits from our 2021 study. Nearly 70% of firms polled are using more than one cloud service provider (CSP), up 20% in a year. Biggest multicloud drivers: adding optionality, reducing costs. The growth of cloud technology in DevOps mirrors the larger, ongoing tectonic shift of enterprise infrastructure — including servers, virtual machines, storage, networking, etc. — beyond on-premises to distributed, open, and heterogenous environments.

***The combined market share for the top alternative cloud service vendors is fourth in the category, just behind Microsoft and Google.***

**2 Many are trying and buying “alternative” cloud providers.** The largest three hyperscalers (Amazon Web Services, Microsoft Azure, Google Cloud Compute) are used by 93% of respondents. Yet many DevOps buyers are re-thinking a reflex default to these hyperscalers. Two-thirds of companies surveyed would consider bringing in an “alternative” CSP; almost 22% have already done so. In fact, the combined market share for the top alternative vendors is fourth in the category, just behind Microsoft and Google. Interest and adoption is highest in small and medium organizations (fewer than 10,000 employees). Main reasons for bringing in a new vendor include reducing reliance on a single provider, improving price performance and ease of use, and better data protection.



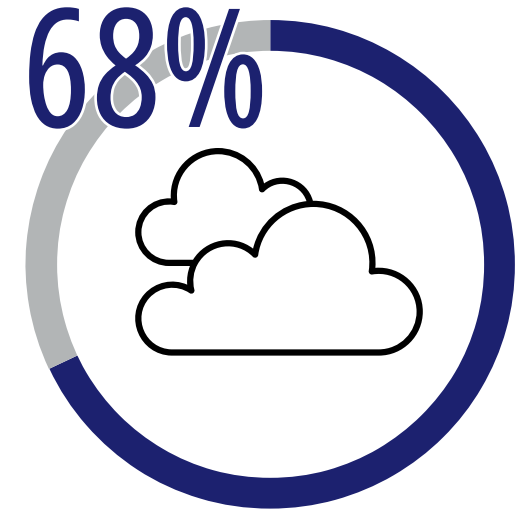
The growing embrace of alternative vendors signals healthy concern in several areas, including about overprovisioning with expensive and complex global cloud services, and the desire to avoid indirectly underwriting expensive R+D for technologies (i.e., quantum computing) their organizations do not need. Combined with widespread fears about giant CSP's pilfering customer core businesses (see below), more DevOps buyers are turning to trusted smaller firms that offer pure-play cloud infrastructure "purpose-sized for me."

**3 Buyers are worried about IP theft and competition from major providers.** More than 50% of DevOps professionals and leaders surveyed say their CSP is already a competitor to their B2B or B2C business or is expected to become one. Fear of IP loss and rapid market displacement is also evidenced in respondent's strong stated desire to work with a trustworthy, capable provider who shares their company values.

The new central role of multicloud and cloud in DevOps means wise planning, selection, and management of Infrastructure as a Service (IaaS) will become increasingly more important in ensuring that organizations can quickly, reliably, and safely produce at scale the quality software demanded by today's users.

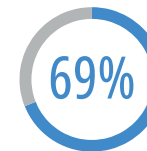
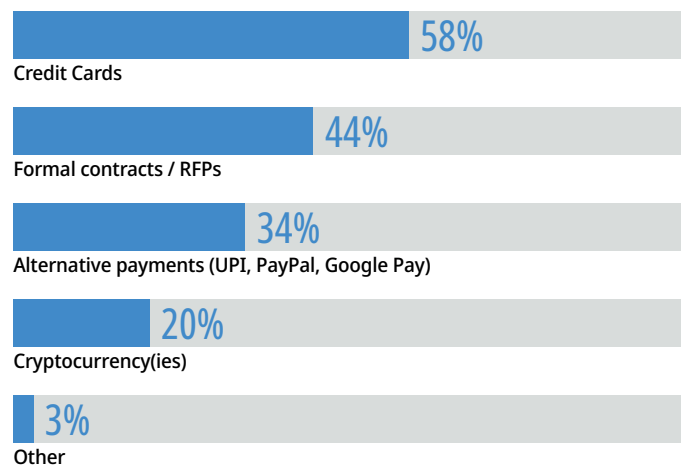
# Cloud and Multicloud are mainstream in DevOps ... and growing fast

The accelerating, decade-long adoption of cloud technology as a key enabler of enterprise modernization and transformation has taken firm root in development and operations groups. DevOps teams have deeply embraced scalable, cloud-native infrastructure, moving from pilots and single workloads projects to full-scale production. Adoption of multicloud has reached critical mass: Nearly 70% of respondents are using more than one cloud provider, a big jump from 2021. An interesting evolution — more than one-third of respondents use alternatives like UPI and cryptocurrencies as payment for cloud services.

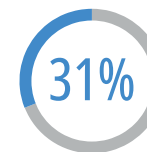


**68%**  
of organizations surveyed are using more than one cloud provider, up sharply from last year

## How do you pay for cloud services?

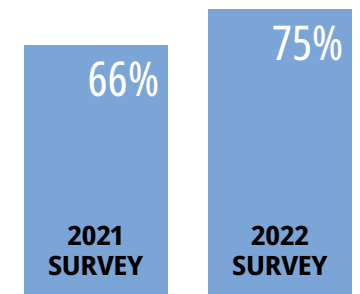


69%  
purchase cloud services directly from the cloud provider



31%  
purchase cloud services as part of an engagement with a managed services provider/ IT services

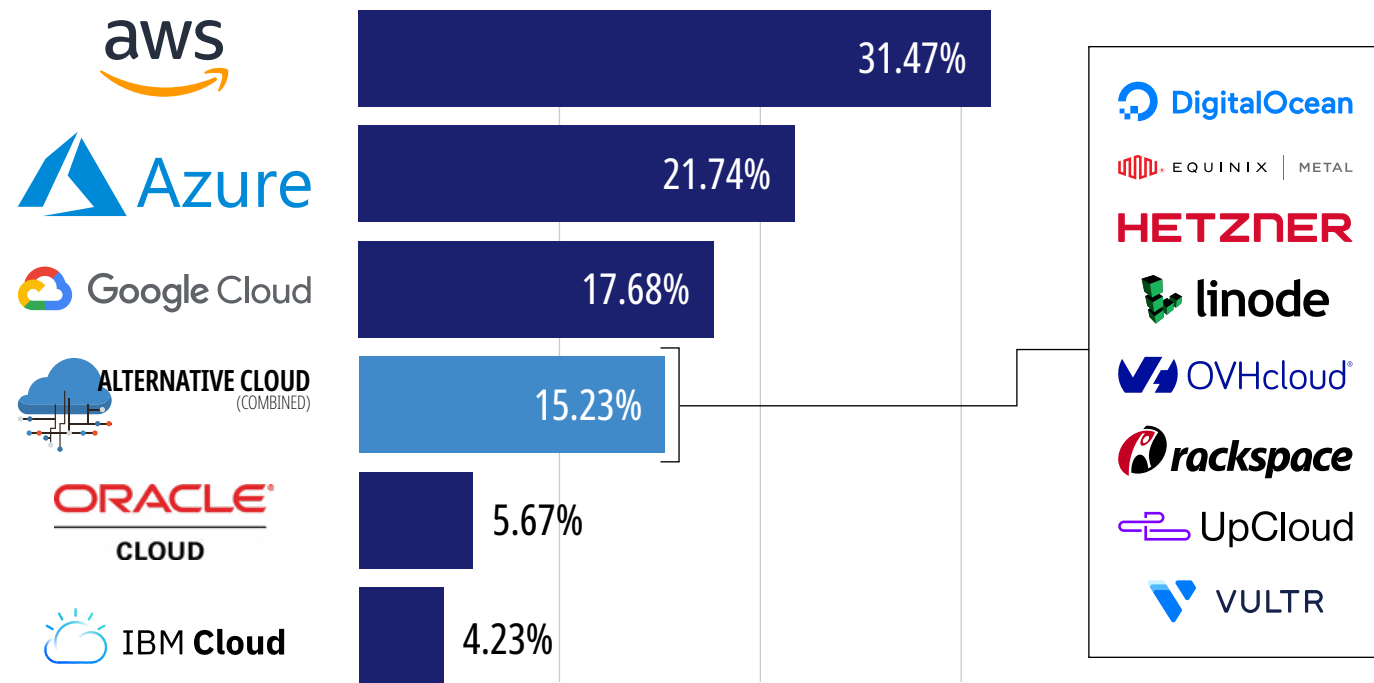
## What percentage of your IT infrastructure will be cloud-based one year from now?



Q1 2022

# Hyperscalers dominate, but many companies choose alternative CSPs

As the CSP market continues to mature and expand, DevOps teams face many more choices of vendors to handle new and expanded enterprise workloads and multiclouds. While more than 90% of respondents use cloud services from Amazon, Microsoft or Google, choosing a hyperscaler by default is no longer a “no-brainer.” Our research found significant and growing numbers of companies continuing to opt for smaller, “alternative” providers. The aggregated market share of these top eight cloud service and infrastructure vendors slightly trails Google.

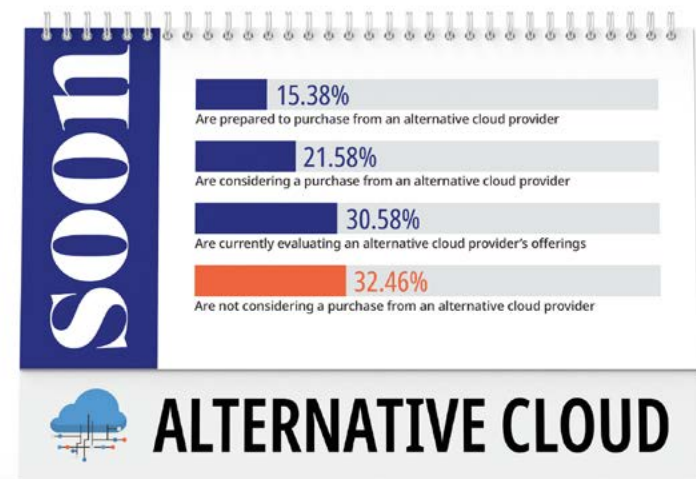
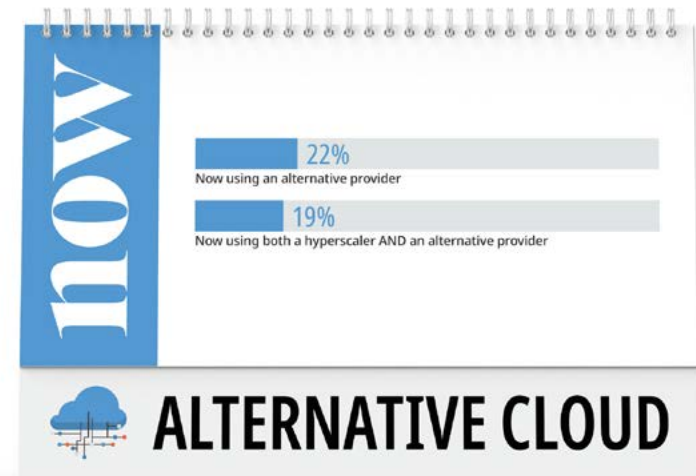


# More DevOps teams are trying — and buying — alternative providers

Growing market share has helped further establish “alternative” cloud providers as highly capable, viable alternatives to hyperscale giants. Two-thirds of respondents are evaluating, considering or ready to buy; nearly one-fourth are already doing so. Interest is strongest in small (up to 500 employees) and medium (up to 10,000 employees) companies — proportionally the highest consumers of cloud services.

Alternatives may be especially attractive to 50% of organizations surveyed who say they do not need expansive global reach, such as regional banks, for example. The same is true for the 48.5% companies who say that a CSP offering Core Infrastructure Primitives — accomplish 90% of their common workloads.

Choosing an alternative is not an either-or decision: Our research found nearly one-fifth of organizations choosing an alternative carrier also continue to use services from a hyperscaler, a sensible diversification sure to continue.





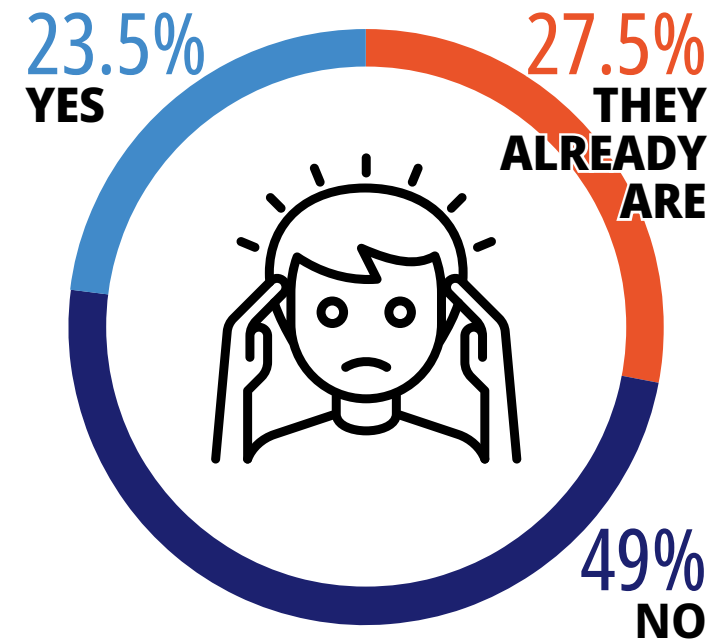
## Lack of options, high costs, mistrust drive search for additional CSPs

When choosing infrastructure, DevOps teams must carefully balance economy, reliability and security. Like other parts of the business, they've learned that doing so is much harder with complicated and expensive cloud service plans that can quickly get out of hand. Many have also concluded that spreading operations across cloud providers is a smart hedge against disruptive outages and vendor lock-in that, among other challenges, makes it difficult and costly to hire a mega-vendor's certified DevOps professionals.

### Widespread fear about IP theft and competition from big CSPs

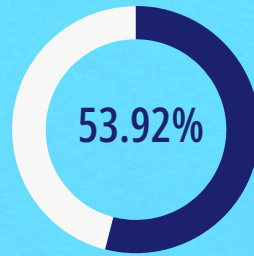
Beyond ever-present concerns about data security, a shockingly high percentage of respondents — more than half — expressed deep ethical and moral concerns about their current cloud providers(s). Many say worry that a CSP would steal intellectual property and/or become a competitor in retail, pharmacy, home automation, driverless cars or others. Unfavorable sentiment even extends to a CSP's customers, another sign of deep mistrust. Taken together, these negatives seem highly likely to keep DevOps buyers branching out beyond diversified cloud giants.

Are you afraid that your cloud services provider will become a competitor?

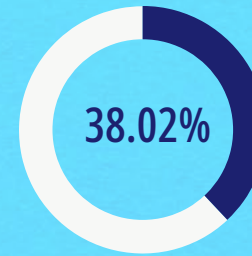




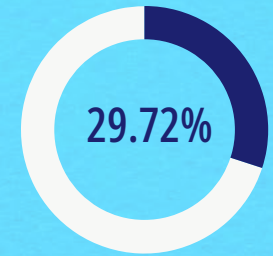
## Why add a cloud infrastructure provider?



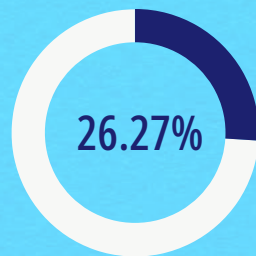
We need to be less reliant on a one or two cloud providers (we need a multicloud strategy)



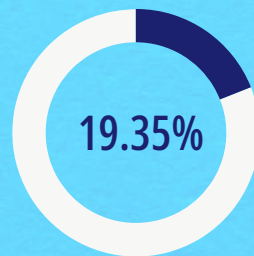
Costs have become too expensive/too complex



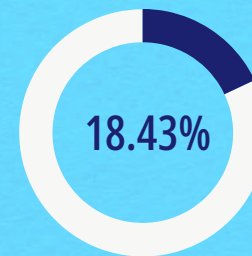
Recent cloud service provider outages



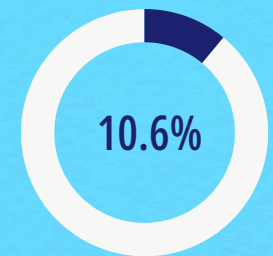
Our cloud provider(s) is becoming or has become a competitor



Nervous my cloud provider might steal my IP



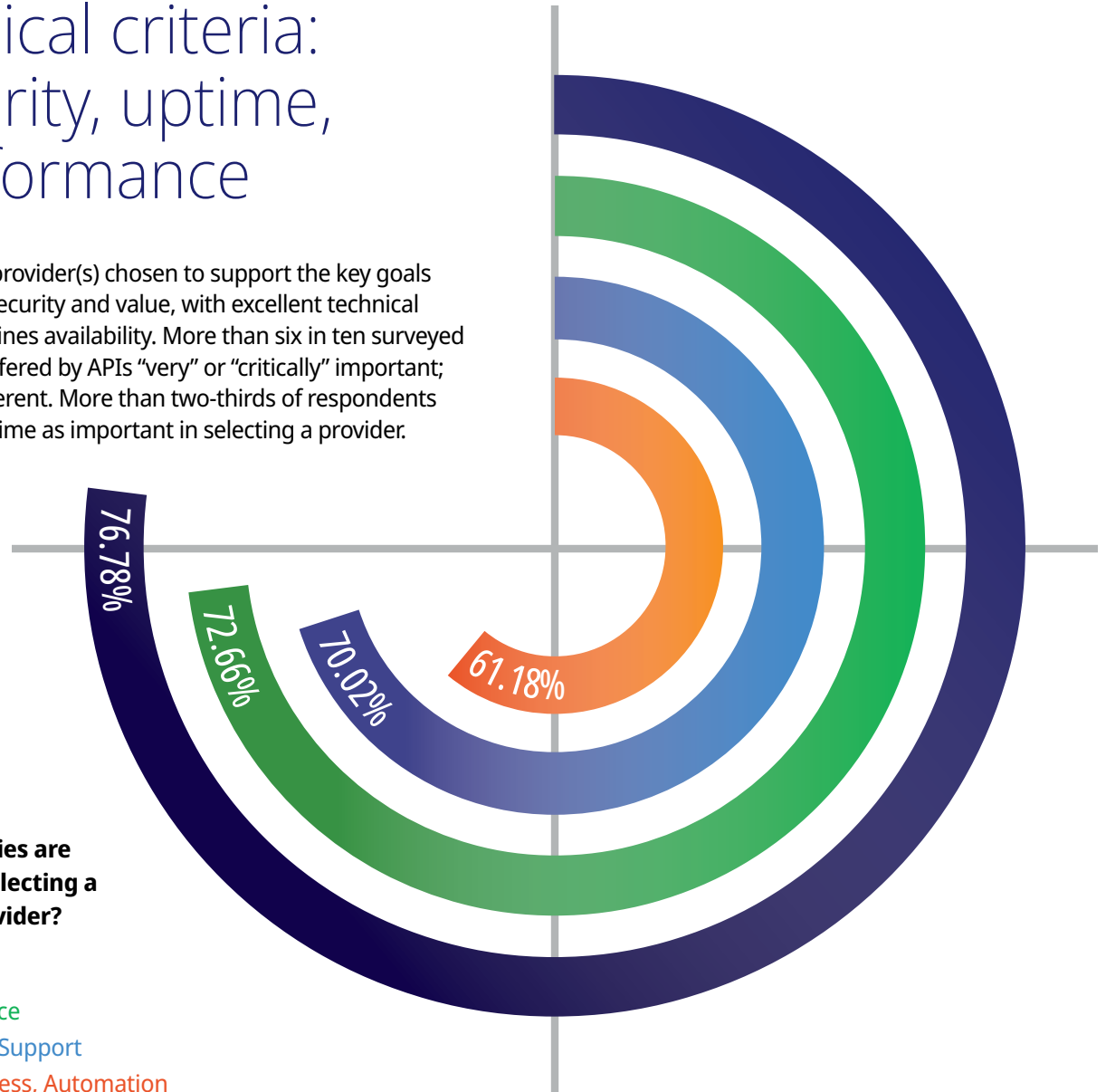
Our cloud provider's customers have morals/business models I disagree with



We can't find or afford certified DevOps professionals for our current cloud providers

## Top technical criteria: Data security, uptime, price-performance

DevOps teams expect the provider(s) chosen to support the key goals of delivering strong data security and value, with excellent technical support and at least four-nines availability. More than six in ten surveyed considered the flexibility offered by APIs “very” or “critically” important; others were strongly indifferent. More than two-thirds of respondents cited minimum 99.99% uptime as important in selecting a provider.



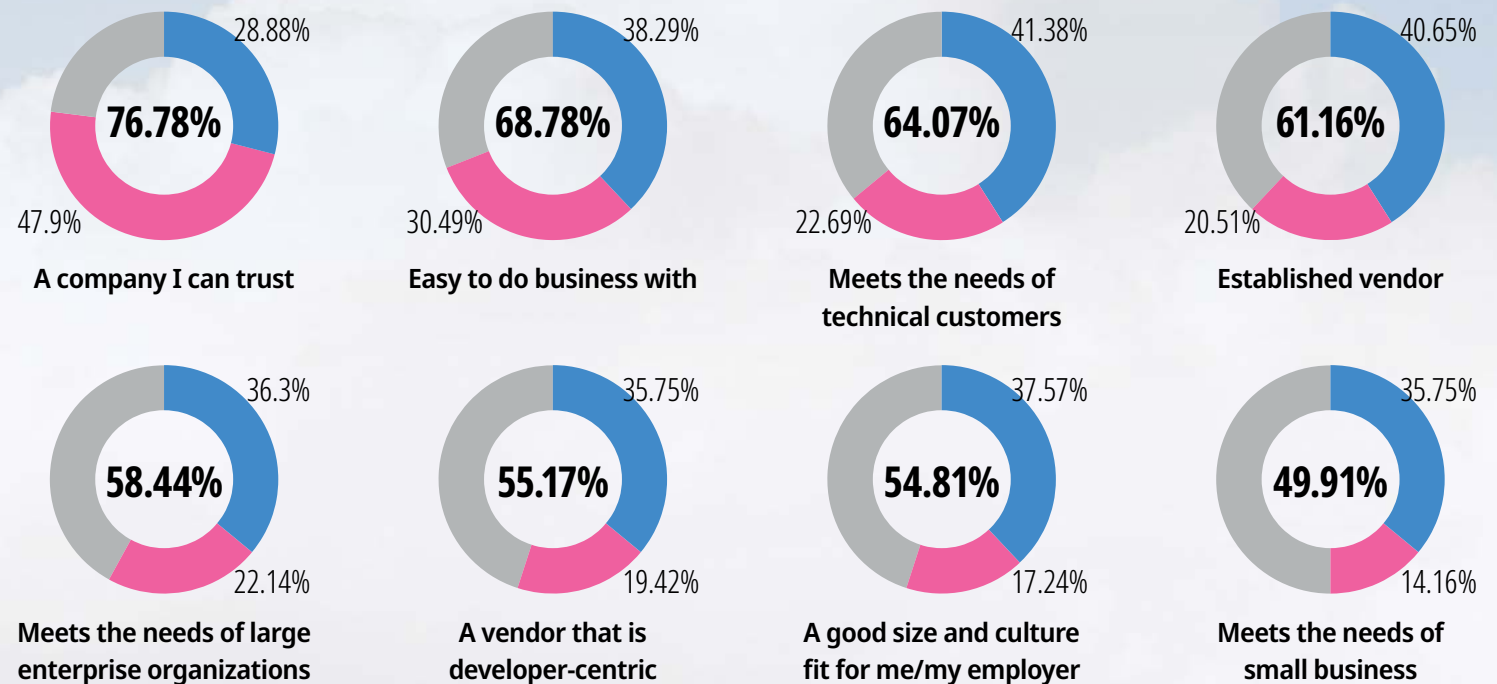
**What technical capabilities are most important when selecting a cloud infrastructure provider?**

- High Data Security
- Better Price/Performance
- Technical Know-how of Support
- API - Programmatic Access, Automation

# Top business criteria: Trustworthy, easy to work with, tech know-how

Assuming a CSP can deliver the technological goods at a good price is only half of the selection criteria. Deep concern about provider ethics and positive customer experience are evident in the attributes companies seek in a cloud vendor. Respondents say they want a trusted CSP that's easy to do business with, understands developers and technical customers and developers, meets the needs of an organization their size, and is a good cultural fit. Many of these characteristics play to the strengths of alternative providers, boding well for their continued growth and market strength. Bottom line: Trust and a range of fit factors are now of paramount importance for successful partnerships between cloud providers and DevOps teams.

## What business capabilities are most important when selecting a cloud infrastructure provider?



■ Very important ■ Critical

# The Techstrong Research View

**FASTER THAN MANY EXPECTED**, multicloud has pushed through the industry hype-cycle, becoming a credible cornerstone for modern DevOps efforts. Consuming services from multiple providers has become a mainstream staple for economically and securely producing, releasing, updating, and managing quality software across modern, distributed, heterogenous IT environments. Today's cloud services market offers a dizzying array of choices -- not just from Big 3 hyperscalers AWS, Microsoft and Google, but from legacy technology firms like IBM and Oracle, as well as from increasingly popular pure-play "alternative" CSP's that until now have been under the radar of many enterprise recommenders and buyers. This growing range of options makes now an ideal time to freshly assess strategies in this increasingly important area.

**DevOps buyers and recommenders.** Evaluate whether global cloud infrastructure hyperscaler amounts to a different and costly form of overprovisioning (i.e., buying a high-end Tesla SUV when a solid Hyundai will do great.) Do you really need all the bells and whistles and costs that underwrite next-gen and futuristic technologies? Take the opportunity to evaluate your current provider/s against key values like price-performance, ease of doing business, etc. Check with the appropriate IT and business leaders to make sure your organization is not locked in to a long-term and/or prohibitive agreement with your current cloud infrastructure provider. If not, be prepared to make a clear and concise business case to get them comfortable with a provider they likely are unfamiliar with. Finally, consider how adding another multicloud provider may add complexity and whether your teams are realistically ready to handle it.

**CSPs.** Firms that develop what DevOps buyers say they value most – good price-performance, strong security, (for many) a wealth of APIs, and a partner that's honest and easy to work with – will find an eager and growing market. How do your offerings measure up in these key areas? Does it make sense to lean more into the needs of DevOps and continue to tailor services to them? If you're a larger provider, how can you demonstrate to DevOps in small and midsized organizations that their business matters compared to your big, marquee global customers? One-third of DevOps buyers now pay for cloud infrastructure





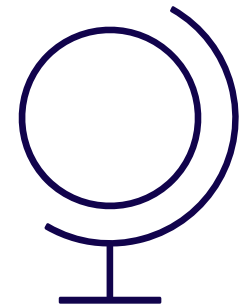
with “alternative” methods, including Google Pay, PayPal and cryptocurrency. Start assessing whether it’s worth it for you.

**Overall.** Diversification offers tremendous potential advantages in price-performance, flexibility and reliability, but organizations must be clear-eyed about the new challenges it brings. Adding additional cloud providers to test and development environments, by definition, increases strategic and operational complexity. What workloads are best placed where? Do regulations or existing contracts prohibit moving workloads and data? DevOps groups must learn new taxonomies, tools, systems and interfaces. Security, too, becomes more complicated and challenging, as teams must now master and manage additional new security stacks, firewalls, traffic monitoring in the face of huge spikes in malicious API traffic. Stepping back, how is the new, wider cloud landscape and sprawl virtual machines and bare metal and best managed?

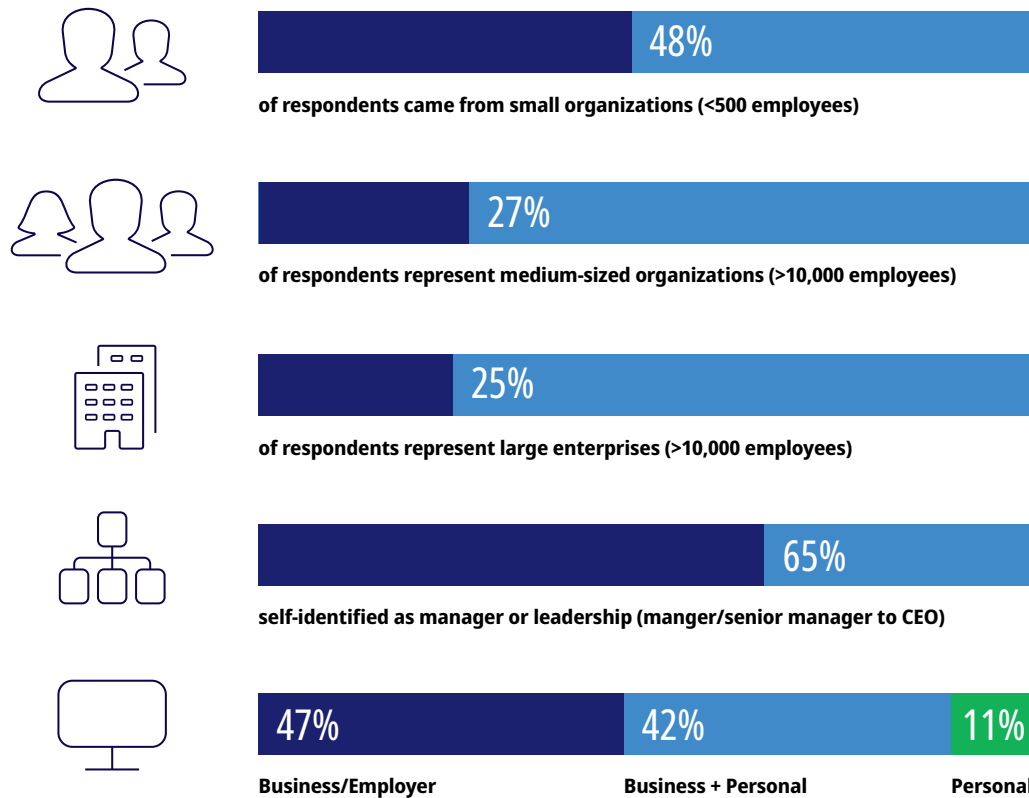
Multicloud remains a young work in progress. While it’s too early for best practices, enterprises should take the opportunity to begin or continue analysis of the roles of containers, automation, and Infrastructure as Code (IAC), to name a few. As always, the smartest teams are guided by the NorthStar of reliably and securely delivering quality software and services at the lowest cost.

# Survey Demographics

TechStrong Research conducted a global study on the use of multiclouds in DevOps environments. The survey was conducted during February and March of 2022. A total of 531 individual contributors, managers and executives involved with DevOps multicloud procurement, operations and strategy completed the survey.

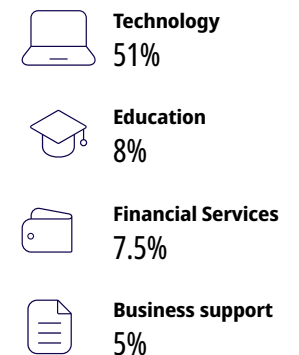


## Respondents hold a variety of roles and come from a broad range of organizational sizes:



Survey responses came from a global cross-section of 60 countries and regions including **North America (46%), APAC (34%), EMEA (15%)** and **LATAM (5%)**.

## Twenty industries were surveyed, including:



## About the authors



**DAN KIRSCH**, managing director and co-founder of Techstrong Research is a consultant, IT industry analyst and thought leader focused on how emerging technologies such as AI, machine learning and advanced analytics are impacting businesses. Dan is focused on how businesses use these emerging technologies to alter their approaches to information security, governance, risk and ethics. Dan provides advisory services directly to leadership at technology vendors that design and deliver security solutions to the market. Dan is a co-author of *Augmented Intelligence: The Business Power of Human-Machine Collaboration* (CRC Press, 2020), *Cloud for Dummies* (John Wiley & Sons 2020) and *Hybrid Cloud for Dummies* (John Wiley & Sons, 2012).

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## About Techstrong Research

**Techstrong Research** accelerates the adoption of disruptive technologies that drive business outcomes and provide actionable strategies in rapidly changing markets. We are the only organization serving the needs of IT leaders, practitioners and the industry ecosystem with research, analysis, content, events and education. We bring deep knowledge about today's leading technologies such as DevOps, cloud, data and AI/ML, security/governance initiatives and supporting infrastructure. We offer our customers a holistic business perspective essential to adapt and thrive in the digital economy. The Techstrong Research team has the knowledge, experience and credibility earned by working with hundreds of businesses across many industries to provide consulting, thought leadership and research services.

**Techstrong Research is relentlessly focused on the business outcomes of disruptive technologies.**

