

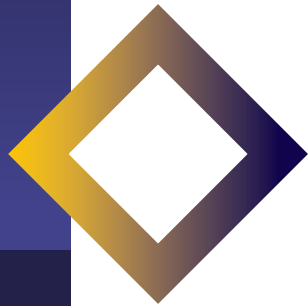


DEVOPS AND THE PUBLIC CLOUD:
New Ways to Pay for
the Public Cloud

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COMMISSIONED BY  **linode**

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CONTENTS

EXECUTIVE SUMMARY	3
HYPERSCALERS DOMINATE, BUT ALTERNATIVE PROVIDERS ARE GAINING GROUND	5
DEVOPS TEAMS CONTINUE TRYING AND BUYING ALTERNATIVE CLOUD PROVIDERS	6
WHY ADD A NEW CLOUD PROVIDER?	7
PAYING FOR CLOUD: CREDIT CARDS AND FORMAL CONTRACTS RULE — FOR NOW	9
SMALL, VERY LARGE BUSINESSES ENTHUSIASTIC ABOUT ALTERNATIVE PAYMENTS	10
YOUNGER DEVOPS WORKERS ARE THE MOST EAGER FOR MORE PAYMENT CHOICES	12
ALTERNATIVE CLOUDS AND ALTERNATIVE PAYMENTS GO HAND-IN-HAND	13
VENDORS: BUSINESS AS USUAL, BUT PAYMENT ALTERNATIVES GAIN A TOEHOLD	14
THE TECHSTRONG RESEARCH VIEW	16
SURVEY DEMOGRAPHICS	18
ABOUT TECHSTRONG RESEARCH	19



Executive Summary

DEVOPS TEAMS worldwide continue to embrace a widening array of public cloud vendors and payment options. Techstrong Research's latest quarterly survey of 458 development professionals, managers and senior leaders across 20 industries shows growing interest in both trusted alternative cloud providers as well as in new ways to pay for cloud infrastructure, including Google Pay, PayPal, Venmo and cryptocurrencies. Our research and analysis found:

Multi-cloud and alternative providers continue to gain DevOps attention — and business. Nearly 75% of respondents say their infrastructure will be cloud-based by the end of this year, a double-digit increase from our 2021 study. A similar percentage of firms polled is using more than one cloud provider, up 20% in a year. Some 43% are considering adding one or more new suppliers over the next 12 months; 29% are unsure. The biggest drivers are to increase vendor choices, reduce costs and complexity, and minimize outages. The largest cloud providers — Amazon Web Services, Microsoft Azure, Google Cloud Compute — are ubiquitous, used by 93% of respondents.

Nearly half of all respondents are concerned about large, diversified cloud providers competing in their company's own B2B or B2C markets

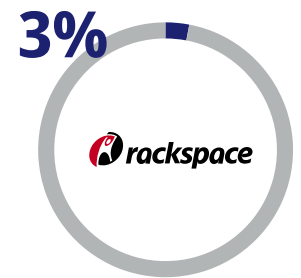
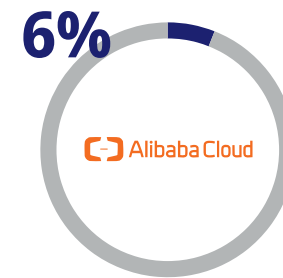
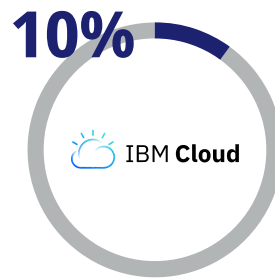
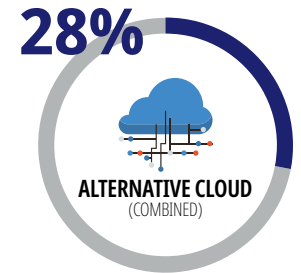
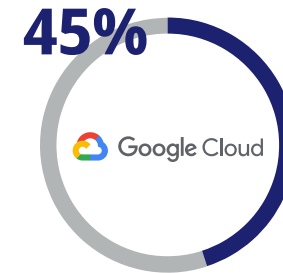
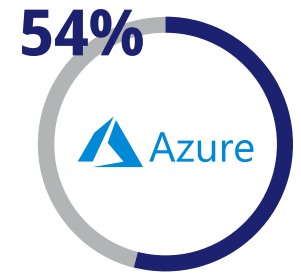
At the same time, nearly two-thirds of DevOps respondents are considering, evaluating or are ready to buy from a trusted alternative cloud vendor; 20% have already done so. Primary reasons include reducing reliance on a single provider and improving price, performance, ease of use and data protection on a more open infrastructure. Shockingly, nearly half of respondents voice concerns about large, diversified cloud providers competing in their company's own B2B or B2C markets.



2 Alternative cloud payment methods are gaining traction. Already, more than one-third of respondents report using a payment mechanism other than a contract/RFP. Among customers of alternative cloud providers, that more than doubles to 67%, including one-quarter using cryptocurrencies to pay. Interest is highest in small and very large companies, including many in the tech industry, and among younger workers. This significant and nascent shift reflects the desire of many DevOps teams for quick and easy ways to acquire cloud services. Nearly three-quarters of respondents buy directly from an infrastructure provider; the rest through managed services firms or other providers.

Cloud hyperscalers dominate the market, but alternative providers are gaining ground

As the market continues to mature and expand, DevOps teams now have more cloud providers to choose from to handle new and expanded enterprise workloads and multi-clouds. More than 90% of respondents use cloud services from Amazon, Microsoft or Google. Our research also found significant and growing numbers of companies continuing to opt for smaller, alternative providers. In many cases, these new, smaller vendors are not replacing but augmenting hyperscalers. The aggregated marketshare of the top seven cloud service and infrastructure vendors is fourth-largest in our



DevOps teams continue trying and buying alternative cloud providers

Growing marketshare has helped further establish the credibility of alternative cloud providers as highly capable, trusted, viable alternatives to giant cloud providers. Techstrong Research found that nearly two-thirds of respondents are evaluating, considering or ready to buy from a new vendor; 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 biggest consumers of cloud services.

Alternatives may be especially attractive to the 50% of organizations surveyed, such as regional health care systems, who say they don't need expansive global reach. The same is true for the 41.5% of companies who believe that a cloud provider offering core infrastructure primitives could handle 90% of their usual workloads.

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

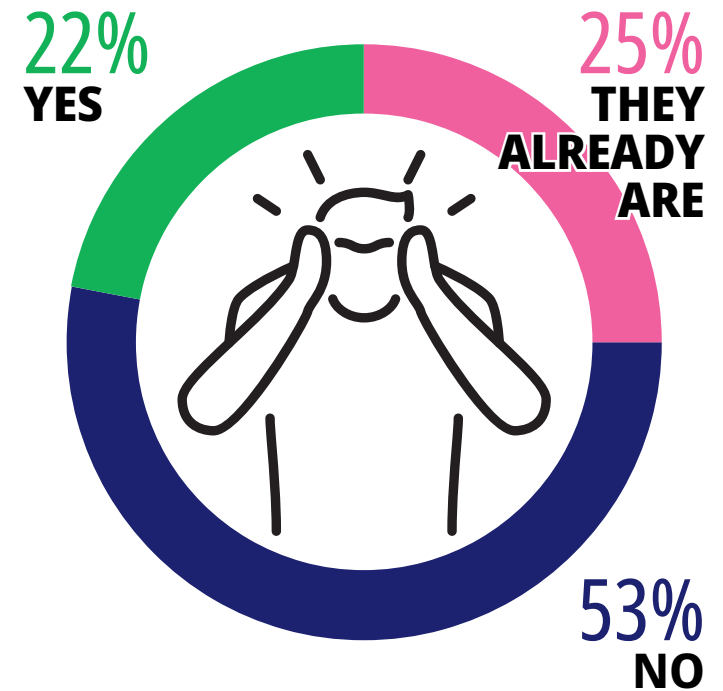


Why add a new cloud provider? Optionality, costs, uptime, ethics top the list

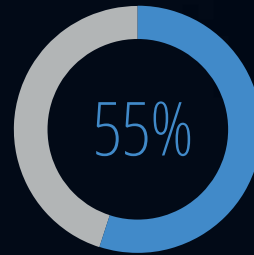
Many DevOps teams are concluding that spreading operations across cloud providers is a smart hedge against high costs and complexity, disruptive outages and lock-in that makes it difficult and costly to hire a mega-vendor's certified DevOps professionals.

Many respondents express deep ethical and moral concerns about their current provider and its customers. A shockingly high percentage — nearly half — worry that that their provider has or might become a competitor to their own business. Nearly one-fifth cited the morals / business models of their cloud provider's other customers as a reason to add a trusted alternative vendor. Coupled with the hoped-for benefits of adding a new provider, these negatives seem sure to keep DevOps buyers branching out beyond increasingly diversified cloud giants.

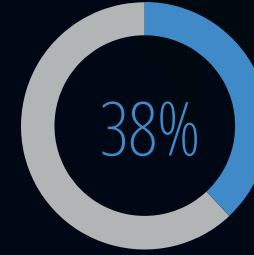
Are you afraid that your cloud services provider will become a competitor?



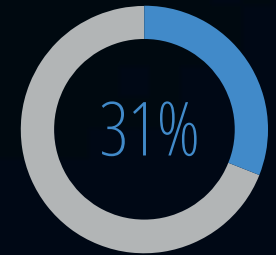
Top reasons why **four in ten** respondents are considering adding a cloud infrastructure provider



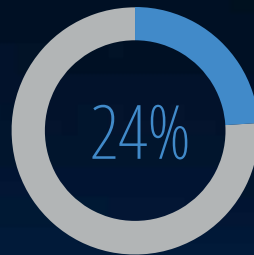
We need to be less reliant on one or two cloud providers (we need a multi-cloud strategy)



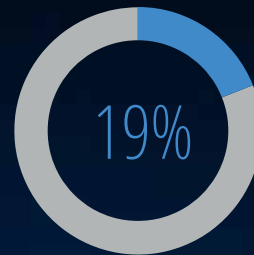
Costs have become too expensive/too complex



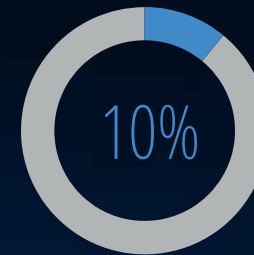
Recent cloud service provider outages



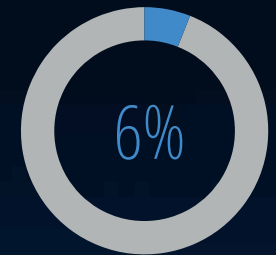
Our cloud provider(s) is becoming or has become a competitor



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



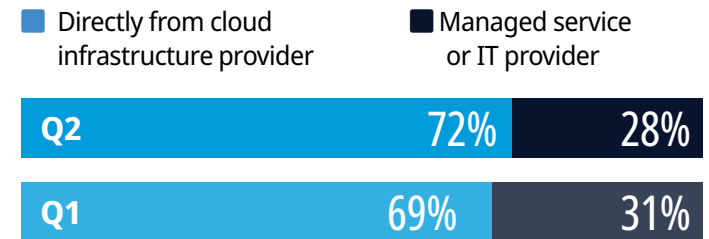
Other

Paying for Cloud:

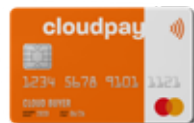
Credit cards and formal contracts rule — for now

More than half of DevOps respondents use credit cards to pay for cloud services, followed closely by formal contracts and RFPs. Alternative payments and cryptocurrencies account for a surprising 33.5%. Respondents voice a clear desire to increase their use of these non-traditional payment mechanisms, at the expense of credit cards and, to a lesser degree, of formal contracts. Our 2Q survey found a small shift toward buying directly from cloud infrastructure and service providers.

How do you buy cloud services?



How do you primarily pay for cloud services? (multiple answers allowed)



Credit Card(s)

52% now
48% want to



Formal Contracts/
RFPs

46.5% now
47.58% want to



Alt. Payments
(UPI, PayPal, Venmo, etc)

25% now
36% want to



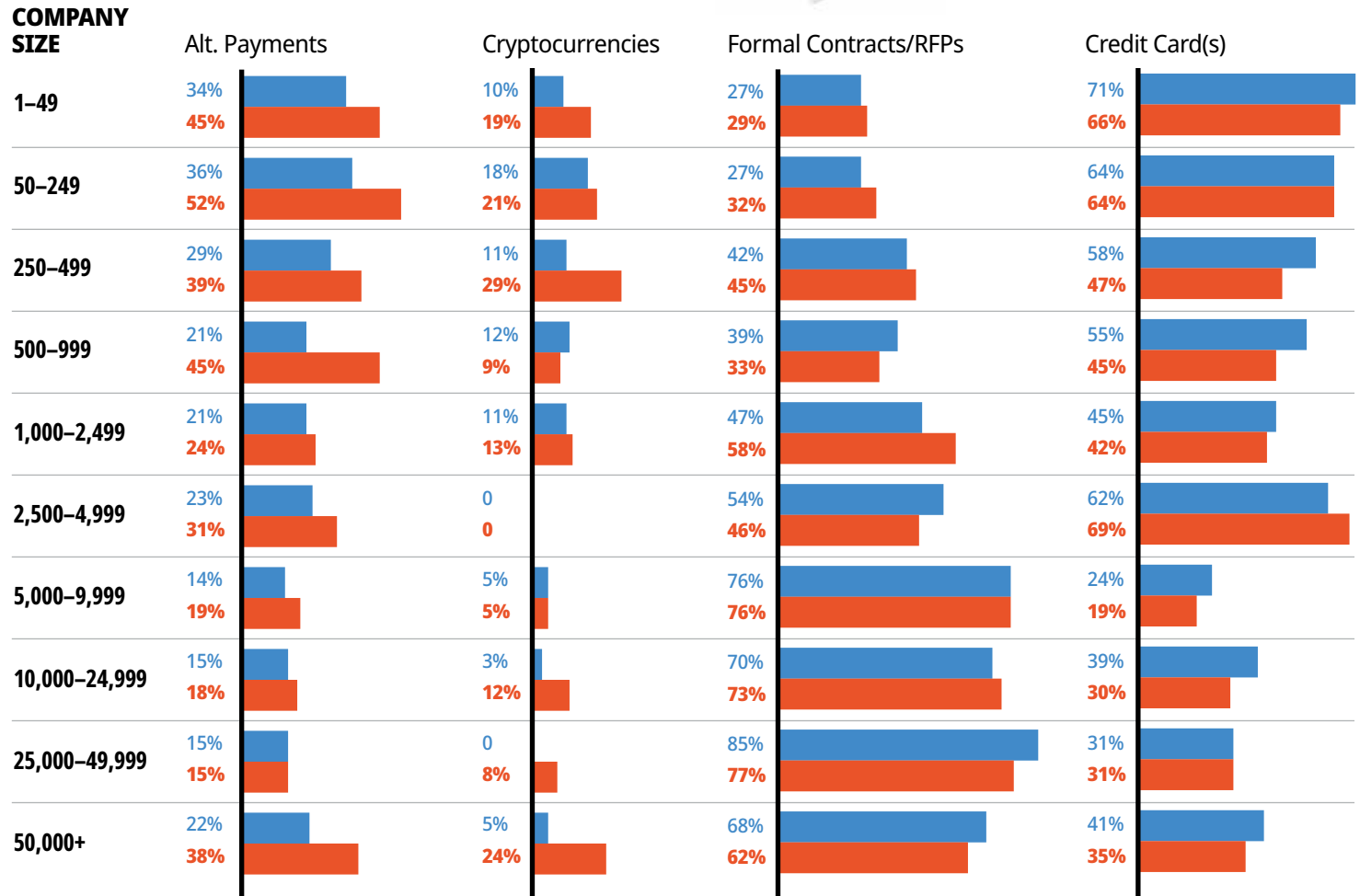
Cryptocurrencies

9% now
16% want to

Small and very large businesses are most enthusiastic about alternative payments

Going forward, more DevOps organizations - especially small firms and those in the tech and telecoms industry - say they'd like to expand their use of cryptocurrencies, alternative payments and credit cards. It makes sense; many smaller companies are no longer distributing credit cards. As businesses get larger, they typically make greater use of formal contracts and RFPs to buy cloud services. But interestingly, very large organizations (50,000+ employees) also expressed strong interest in alternative payments and crypto. It's likely these giants have multiple, independent business and buyers who want to access cloud resources without bureaucratic red tape and credit card costs.

How DevOps teams pay: Now and desired (by company size)



■ How you pay now ■ How you want to pay

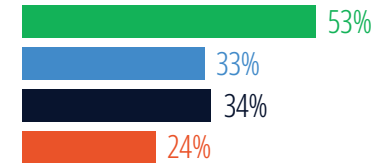
Younger DevOps workers are the most eager for more payment choices

More than half of DevOps respondents who self-identify as Gen Z want to pay for cloud services with PayPal, Venmo, Apple Pay, Google Pay and other alternatives.

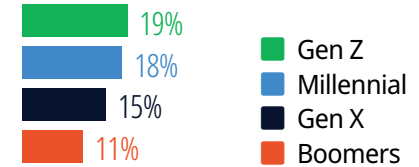
The numbers decline steadily with other age cohorts, bottoming out with fewer than half of Baby Boomers. That's not a huge surprise given the spending preferences of younger consumers. It's a clear reminder of where demographics are pushing things. Desire to pay with cryptocurrencies also is notable, though roughly half that of alternatives. Enthusiasm here follows a similar downward trajectory based on age. Interestingly, Gen Xers are most comfortable with formal contracts, Boomers the least.



Alt. Payments



Cryptocurrencies



Formal Contracts/RFPs



Credit Card(s)



Alternative clouds and alternative payments go hand-in-hand

The greatest use of non-traditional cloud payment mechanisms is by customers of alternative providers (some of whom overlap with the companies and younger buyers previously mentioned). A full 68% of respondents in this group report using alternative payments and/or cryptocurrencies versus 31% for the biggest three cloud providers. One likely reason is that alternative cloud providers can be more flexible in the payments they accept than hyperscalers with huge



ALTERNATIVE PAYMENTS

(UPI, PayPal, Venmo, GooglePay, ApplePay)

42% Alternative Cloud Providers (7 vendors)

24% AWS, MS Azure, GCP

CRYPTOCURRENCIES

26% Alternative Cloud Providers (7 vendors)

7% AWS, MS Azure, GCP

CREDIT CARDS

65% Alternative Cloud Providers (7 vendors)

53% AWS, MS Azure, GCP

FORMAL CONTRACT/RFP

35% Alternative Cloud Providers (7 vendors)

52% AWS, MS Azure, GCP

Vendors: Business as usual, but payment alternatives gain a foothold

Of course, talk about and desire for alternate payment methods and crypto isn't worth much if cloud providers don't accept them. The current landscape is what you might expect: Almost every vendor takes credit cards from the majors and some smaller issuers like UnionPay and Diners. Ditto for widespread ability to accept wire transfers. Many vendors offer various pre-paid and contractual models. Acceptable payment methods can vary by region.

Perhaps more surprisingly (or not), the only alternative payment that's somewhat widely accepted is the most established: PayPal. But not by the Big Three. Google Pay is a distant second. (Ironically, you can't use it to pay for Google Cloud Platform.) Of all the providers in our study, only Vultr, an alternative, offered a choice of alternative payments and cryptocurrencies in addition to credit cards.



Acceptable payment methods for cloud hyperscalers and alternative cloud providers



Alternative Payments:
No
Crypto: No
Credit Cards: Yes



Alternative Payments:
GooglePay, PayPal, ApplePay
Crypto: No
Credit Cards: Yes



Alternative Payments:
No
Crypto: No
Credit Cards: No



Alternative Payments:
PayPal (only as backup)
Crypto: No
Credit Cards: Yes



Alternative Payments:
PayPal
Crypto: No
Credit Cards: Yes



Alternative Payments:
GooglePay, PayPal
Crypto: No
Credit Cards: Yes



Alternative Payments:
No
Crypto: No
Credit Cards: Yes



Alternative Payments:
PayPal
Crypto: No
Credit Cards: Yes



Alternative Payments:
PayPal
Crypto: No
Credit Cards: Yes



Alternative Payments:
AliPay, PayPal
Crypto: BitPay (BTC, BCH, ETH, DOGE, PAX, BUSD, LTC, USDC, GUSD)
Credit Cards: Yes

Vendors offer support for a wide variety of credit cards including Visa, MasterCard, American Express, Discover, UnionPay, Diners Club, and JCB. All of the cloud vendors accept wire transfers and have various customized pre-paid and contractual models. Acceptable payment methods can vary by region. Current as of June 8, 2022.

The Techstrong Research View

ALTERNATIVE CLOUD PROVIDERS have made the leap from niche to mainstream. Adoption is being driven by the need for DevOps buyers to create a secure, economical, cloud-native technology foundation with a trusted partner who won't become a competitor to them. In just over a year, Techstrong Research surveys have clearly traced rising interest by companies of all sizes, especially the smallest and largest, in pure-play cloud infrastructure providers. Not instead of, but in addition to Amazon, Google, Microsoft and other top providers, often as part of a multi-cloud strategy. Combined share of seven popular alternative vendors is now is the fourth-largest market segment in our surveys.

It's not surprising to see desire for new payment methods accompanying growing interest in alternative suppliers. New technology and market models inevitably inspire

financial innovation and growing adoption. A decade ago, the ability to purchase cloud services via credit card was revolutionary; it's now commonplace. Similarly, many people today already use alternative payments for work-related expenses like food and transportation. They naturally expect to do the same when buying cloud services. Using Venmo, or even Doge or Ethereum or other cryptocurrencies clearly appeals to a growing base of DevOps buyers – especially younger workers and leaders whose companies increasingly are also customers of alternative providers.

There's another important driver: Independent technology teams, those in very large enterprises and others may lack easy access to U.S. and European banking systems. And like many of their peers, these also want fast, easy ways to pay for cloud services without going through cumbersome procurement processes. Meeting these requirements may soon make non-traditional payment options a must, especially for multinational and global service providers.

Points to consider:

Buyers. DevOps teams must carefully balance economy, reliability and security. Like other parts of the business, they've learned that doing can so be much more difficult with complicated, expensive cloud service plans that can quickly get out of hand. For many, it's worth looking beyond



the “cool” factor and doing a cost/convenience/benefit analysis of employing alternative and crypto payments for cloud infrastructure and services. If there’s a legitimate business reason, start talking with your current or target vendor about their support of these new mechanisms.

Cloud providers. New providers may be able to create a marketing or even market advantage by offering well-chosen alternate payment mechanisms to eager DevOps buyers. Larger established cloud providers obviously face a bigger, more complex task. Yet it would be a lost opportunity to evolve your business without also considering moving beyond old payment technologies (installment plans date at least to the 1700s; credit cards, 1958; PayPal, 2000). If you’ve already studied the opportunity, ask: Where’s the tipping point?

Bottom lines. Whether you’re a skeptic or supporter, it’s clear: Alternative payments are gaining traction with DevOps in a wide variety of companies. Many seek the promise of greater convenience, security and savings from the direct and indirect costs of using credits cards and processing RFPs and POs.

The enthusiasm for alternate payments voiced by younger respondents may be passing, or at present lack the clout to broadly shift industry practices. But if, in fact, “demography is destiny” and providers are serious about listening to the voice of customers worldwide and improving their experience, alternative payments for cloud infrastructures and services are headed for wide acceptance.

Survey Demographics

Techstrong Research conducted a global study on the use of multi-cloud in DevOps environments. The survey was conducted during April and May of 2022. A total of 458 individual contributors, managers and executives involved with DevOps multi-cloud procurement, operations and strategy completed the survey.

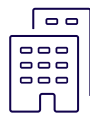
Respondents hold a variety of roles and come from a broad range of organizational sizes:



of respondents came from small organizations (<500 employees)



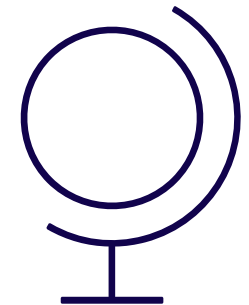
of respondents represent medium-sized organizations (>10,000 employees)



of respondents represent large enterprises (>10,000 employees)



self-identified as manager or leadership (manager/senior manager to CEO)




Survey responses came from a global cross-section of 60 countries and regions including **North America (39%), APAC (33%), EMEA (22%)** and **LATAM (6%)**.

Twenty industries were surveyed, including:

 **Technology**
38%

 **Financial Services**
15%

 **Education**
6%

About the author



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.

