prosimo

APPLICATION EXPERIENCE INFRASTRUCTURE STUDY: WINTER 2021

The Era of Autonomous Multi-Cloud Has Arrived

The state of enterprise multi-cloud infrastructure
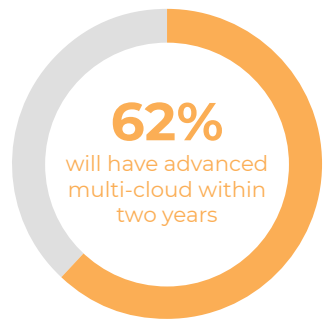
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Introduction

In 2021, enterprises have embraced multi-cloud as a key business strategy. Driven by the need to deliver better customer experiences, build platforms for innovation and agility, and generate new competitive advantages, enterprises in every industry are on a multi-cloud journey.

62%
will have advanced multi-cloud within two years

For our second Application eXperience Infrastructure Study (AXIS), Prosimo commissioned Sapio Research, an independent research company, to survey 400+ cloud experts in companies of over 1,000 employees across key verticals in the UK and the US. We combined this with our own Prosimo transit performance data collected from PoP (points of presence) available within each of the largest cloud service providers (CSPs): Amazon (AWS), Microsoft (Azure) and Google (GCP) and from global customer deployments that provide unique application insights. Together, these two data sources offer a unique perspectives into enterprises' multi-cloud journey and the challenges customers are facing to progress their journey.

The winter release of AXIS uncovers clear results: within two years, the large majority (62%) of enterprises will have advanced multi-cloud capabilities. They will have a presence across multiple cloud service providers (CSPs), in numerous regions, with capabilities at the edge. Yet, the primary multi-cloud pain point for enterprises remains managing the complexity brought with legacy approaches.

By the numbers

46%
say balancing application performance and security is the top performance challenge

46%
of user-application transit routes see performance improvements using multi-cloud

62%
of ITDMs state that finding a consistent network approach across CSPs is the top cloud networking challenge

85%
of enterprises support cloud applications used by both internal and external users

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Indeed, enterprises' multi-cloud goals are tempered by persistent challenges. The way that enterprises approach multi-cloud remains defined by four key pillars: cloud networking, application performance, security, and observability. Our research finds that enterprises are struggling to find a balance between in these key areas. Cloud networking is often in tension with security, which itself is seen as the biggest barrier to application performance. Overall, enterprises face the persistent challenge of achieving simplification and consistency across clouds.

In general, enterprises are at different stages of their multi-cloud journey — from those with a presence in a single cloud, to multi-cloud, multi-region power users. While enterprises are immediately on solving these pillars as discrete silos, this approach will continue to create complexity and inconsistency as cloud adoption increases.

Our research points to the need for enterprises to adopt holistic, Day-2 operations strategies that unify these pillars — cloud networking, application performance, security, and observability — in a simplified, self-correcting, autonomous way at every stage of the cloud journey. Indeed, an autonomous approach to multi-cloud networking simplifies the process for cloud architects and operations teams, while offering a consistent way for Cloud architects and DevOps teams to build, test and deploy applications quickly and securely in line with SLAs. Solving these pillars holistically remains the single largest challenge for enterprises. No matter the stage of the multi-cloud journey, for enterprises to be successful, simplicity must be the outcome.
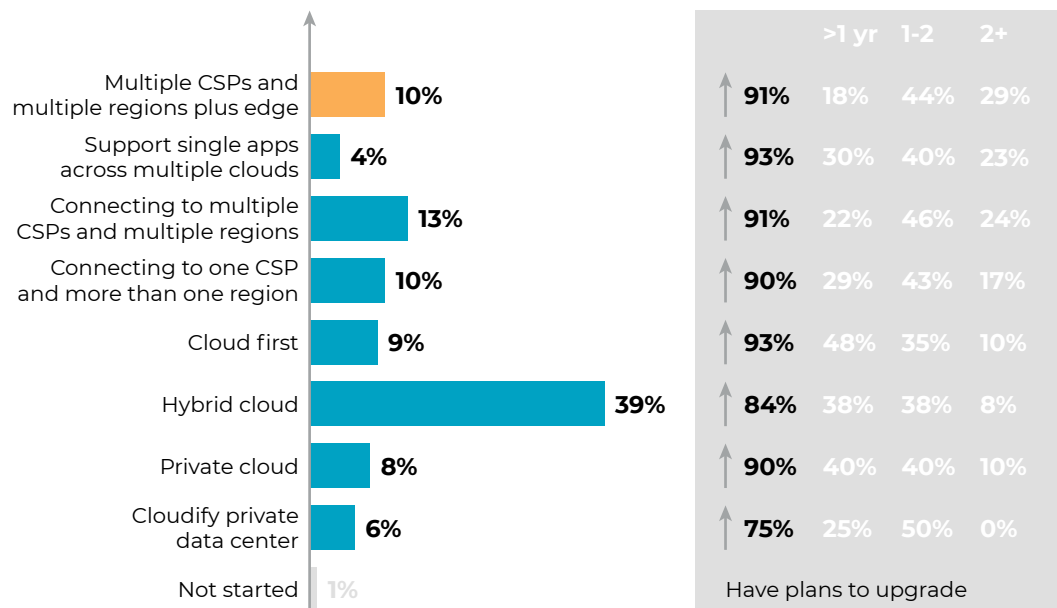
45%
want advanced multi-cloud today

The Multi-Cloud Journey Has Begun in Earnest

Enterprises are now embracing the multi-cloud journey, at varying stages of maturity and adoption. For many enterprises, the timeline of their cloud journey is aggressive: just 13% of enterprises support multiple CSPs in multiple clouds, in multiple regions, and the edge.

Accordingly, budgets for cloud operations are also increasing: the vast majority (73%) of enterprises anticipate increasing their cloud spend over the next 12 months, by an average increase of 21.5%. This shows that enterprises are not only conceptualizing multi-cloud journeys, but investing heavily to realize their strategic goals.
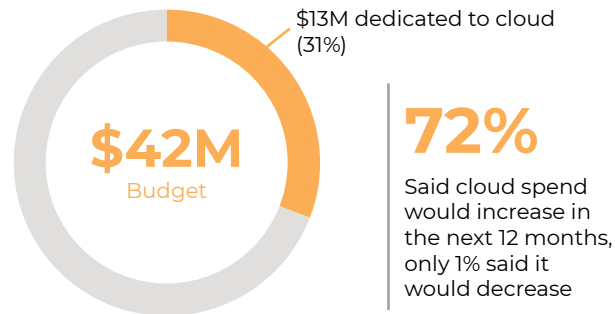

		Have plans to upgrade	>1 yr	1-2	2+
Multiple CSPs and multiple regions plus edge	10%	91%	18%	44%	29%
Support single apps across multiple clouds	4%	93%	30%	40%	23%
Connecting to multiple CSPs and multiple regions	13%	91%	22%	46%	24%
Connecting to one CSP and more than one region	10%	90%	29%	43%	17%
Cloud first	9%	93%	48%	35%	10%
Hybrid cloud	39%	84%	38%	38%	8%
Private cloud	8%	90%	40%	40%	10%
Cloudify private data center	6%	75%	25%	50%	0%
Not started	1%				

91%

In the next 12 months, 91% of enterprises will support multiple clouds

Figure 1 Which stage of the cloud journey is your company in today? And when is your organization likely to reach the following stages? Base: all respondents [n=414]
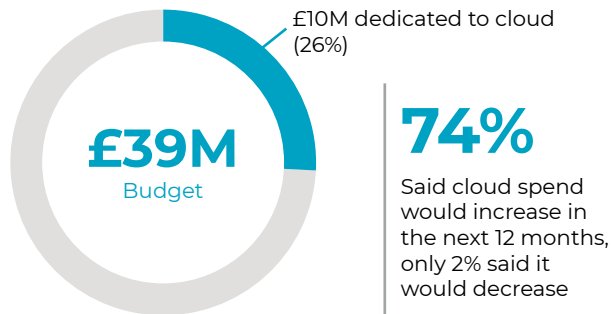
12-month cloud spending forecast: US vs. UK.

US

$13M dedicated to cloud (31%)

$42M
Budget

72%
Said cloud spend would increase in the next 12 months, only 1% said it would decrease

On average budgets to increase by 24% to $16M

UK

£10M dedicated to cloud (26%)

£39M
Budget

74%
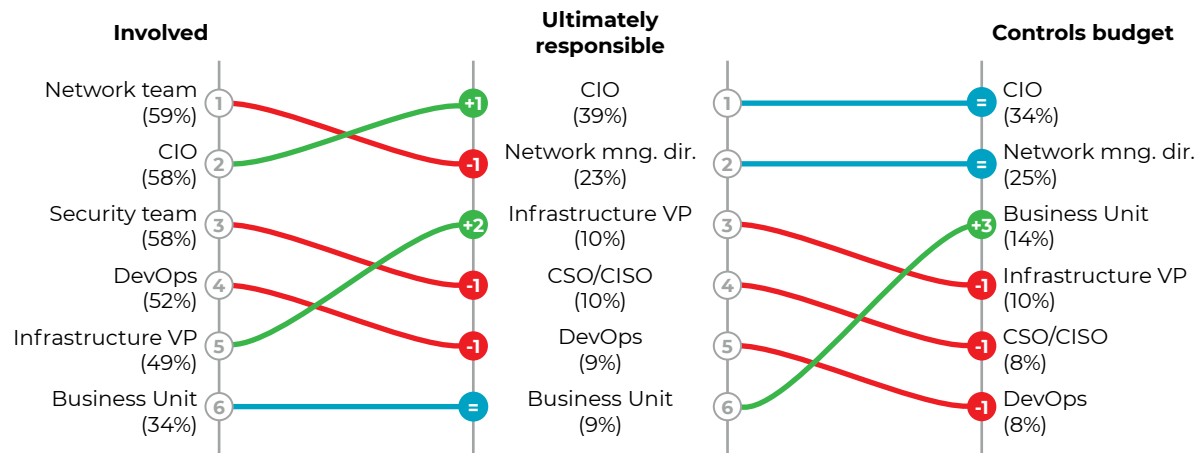Said cloud spend would increase in the next 12 months, only 2% said it would decrease

On average budgets to increase by 19% to £12M

70%+
Increase in cloud spend over the next 12 months in US and UK.

Figure 2 Approximately what is your company's annual budget for IT? Select one. And what proportion of your IT budget for the current fiscal year is dedicated to cloud? Select one. How will your cloud spend change over the next 12 months? Select one. And by how much is your budget for cloud likely to increase/decrease next fiscal year? Select one. Base: US respondents [n=253] UK respondents [n=161]

Involved	Ultimately responsible	Controls budget
Network team (59%) ① +1	CIO (39%) ① =	CIO (34%) ① =
CIO (58%) ② -1	Network mng. dir. (23%) ② =	Network mng. dir. (25%) ② =
Security team (58%) ③ +2	Infrastructure VP (10%) ③	Business Unit (14%) ③ +3
DevOps (52%) ④ -1	CSO/CISO (10%) ④	Infrastructure VP (10%) ④ -1
Infrastructure VP (49%) ⑤ -1	DevOps (9%) ⑤	CSO/CISO (8%) ⑤ -1
Business Unit (34%) ⑥ =	Business Unit (9%) ⑥	DevOps (8%) ⑥ -1

59%
of the time, Network team are involved in cloud initatives

Figure 3 While many stakeholders are heavily involved in the multi-cloud journey — network teams, CIO, security teams, DevOps, infrastructure VP — ultimate responsibility and budgetary control most often rests with the CIO.

Goal is to Improve Customer Experiences

Enterprise adoption of multi-cloud today is largely driven by the desire to create a foundation for the future modernizing the organization for future growth and improving customer experiences through greater innovation.

Indeed, the top business goals for adopting multi-cloud are driving digital transformation initiatives that improve customer experience (58%), improving operational efficiencies (58%), and increasing infrastructure flexibility and modernization (56%). Moreover, what is most important to enterprises today is the desire to ensure consistent application experiences across all users and location (55%), ensure seamless multi-cloud networking (54%), and modernize applications for the current era (51%). The primary through line, for enterprises, is the desire to approach these challenges holistically — creating a simpler, more cohesive foundation upon which to innovate and grow.
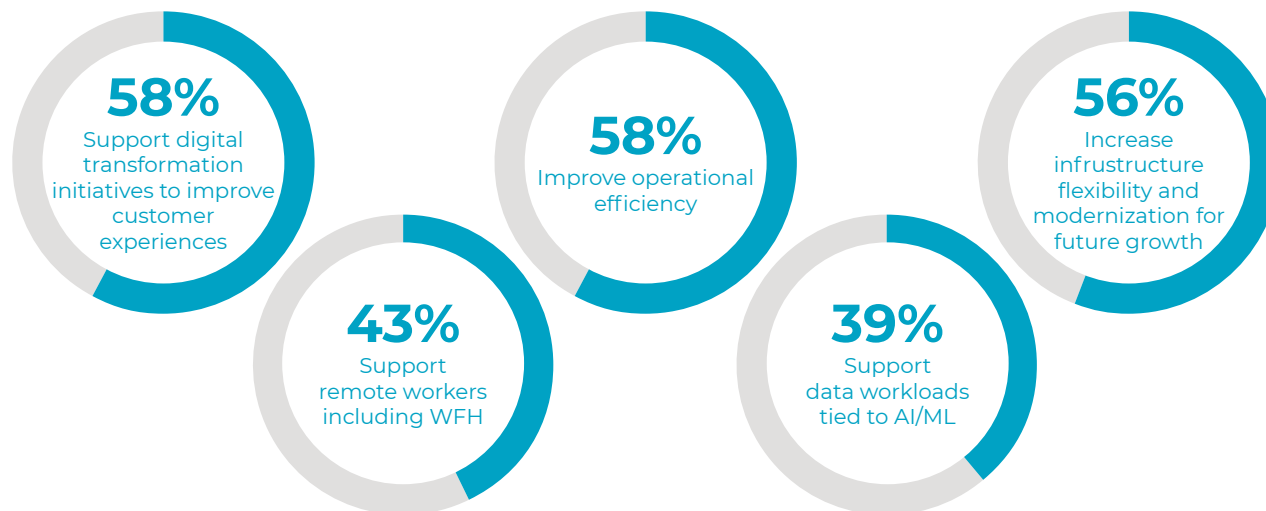
55% Ensuring consistent application experience across all users and locations

54% Seamless multi-cloud networking

51% Application modernization
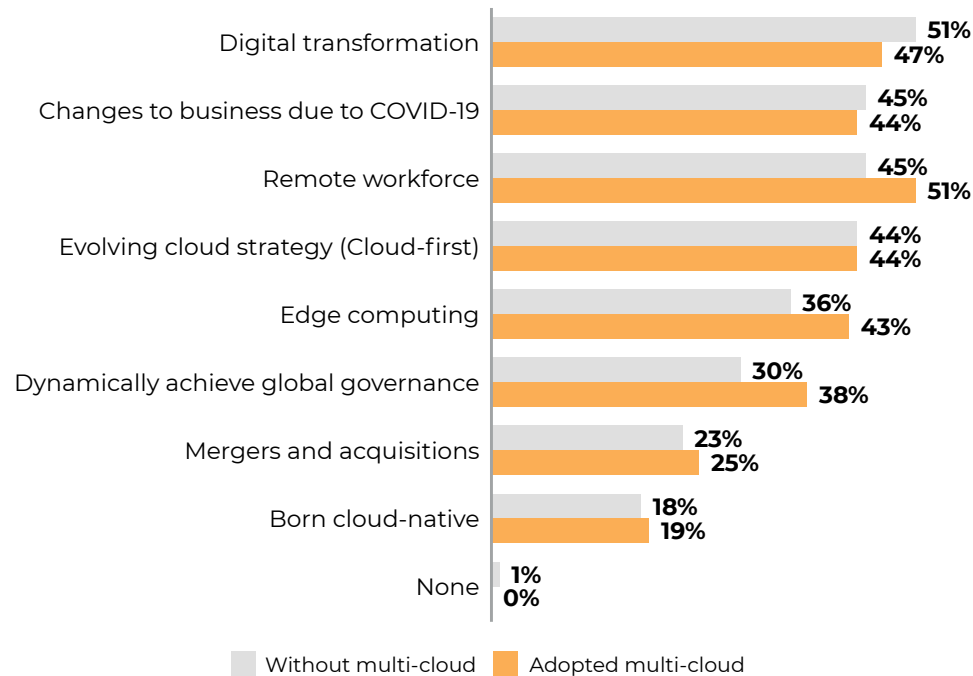
50% Scalable cost control

47% Zero Trust network access

Figure 5 Which of the following are most important to your organization today? Select up to three Base: all respondents [n=414]

58% Support digital transformation initiatives to improve customer experiences

43% Support remote workers including WFH

58% Improve operational efficiency

39% Support data workloads tied to AI/ML

56% Increase infrustructure flexibility and modernization for future growth

Figure 4 What are your top business goals for moving to multi-cloud? Select up to three Base: all respondents [n=414]

54%

Over half of IT leaders want seamless multi-cloud networking to prepare for the future

7

Meanwhile, the main initiatives driving enterprises to adopt multi-cloud include digital transformation, changes to the business following the COVID-19 pandemic, and remote workforce. Among enterprise who have already started their multi-cloud journey, remote workforce is the single largest driver.

	Without multi-cloud	Adopted multi-cloud
Digital transformation	51%	47%
Changes to business due to COVID-19	45%	44%
Remote workforce	45%	51%
Evolving cloud strategy (Cloud-first)	44%	44%
Edge computing	36%	43%
Dynamically achieve global governance	30%	38%
Mergers and acquisitions	23%	25%
Born cloud-native	18%	19%
None	1%	0%

51%

of enterprises already in the cloud, supporting their remote workforce

Figure 6 What initiatives are driving/drove your organization to consider/adopt multi-cloud. Base respondents without multi-cloud [260], respondents that adopted multi-cloud [154]

What does multi-cloud success look like for enterprises today?

In line with these drivers, most enterprises define multi-cloud success as ensuring consistent security measures across users, devices, and apps (63%), as having helped achieve specific business goals (55%), ensuring consistent application experiences for all users and locations (54%), and achieving a unified management layer for all cloud and on-premises networking (53%). As to how enterprises measure the effectiveness of their multi-cloud efforts, the following qualities are the most important: highly secure (55%), highly responsive (54%), highly scalable (44%), cost effective (41%), and highly programmable or automated (40%).

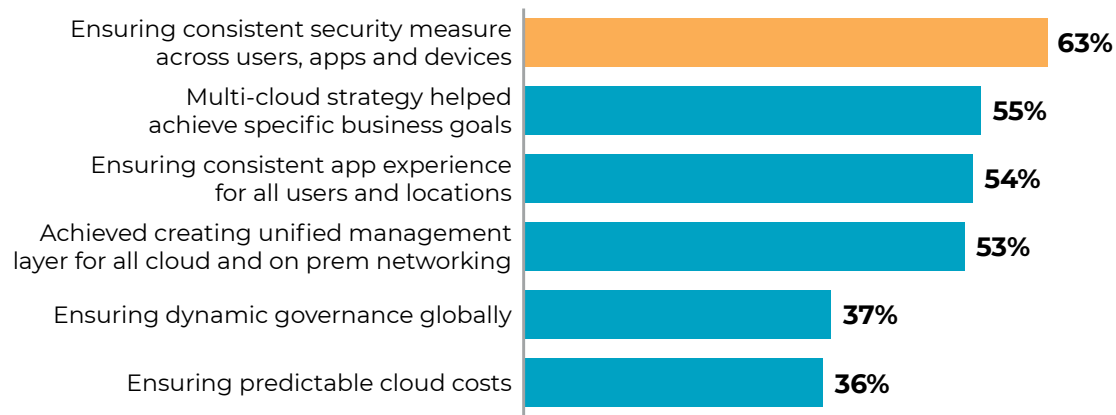|	
Ensuring consistent security measure across users, apps and devices	63%
Multi-cloud strategy helped achieve specific business goals	55%
Ensuring consistent app experience for all users and locations	54%
Achieved creating unified management layer for all cloud and on prem networking	53%
Ensuring dynamic governance globally	37%
Ensuring predictable cloud costs	36%

Figure 7 How are you defining multi-cloud success? Select all that apply. Base: all respondents [n=414]

63%

defines consistent experiences as multi-cloud success

55% Highly secure

54% Highly responsive

44% Highly scalable

41% Cost effective

40% Highly programmable/ automated
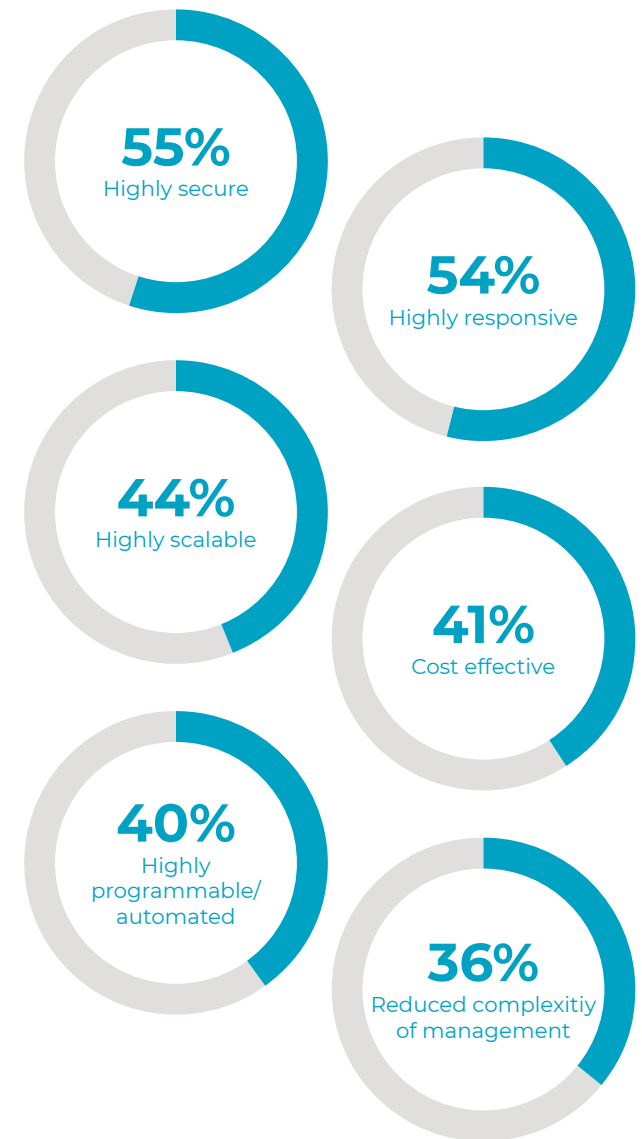
36% Reduced complexitiy of management

Figure 8 What are the most important characteristics to measure the effectiveness of your multi-cloud strategy? Base: respondents that adopted multi-cloud [154]

9

The rise of cloud native

Enterprises are rapidly adopting cloud-native approaches in their push to adopt multi-cloud. For example, 62% of organizations have adopted cloud-native strategies to networking, policy, and security. And while only 6% of enterprises are "born" cloud-native, 23% have fully transitioned to cloud-native strategies — and over half say that maturity depends on the team or business unit.
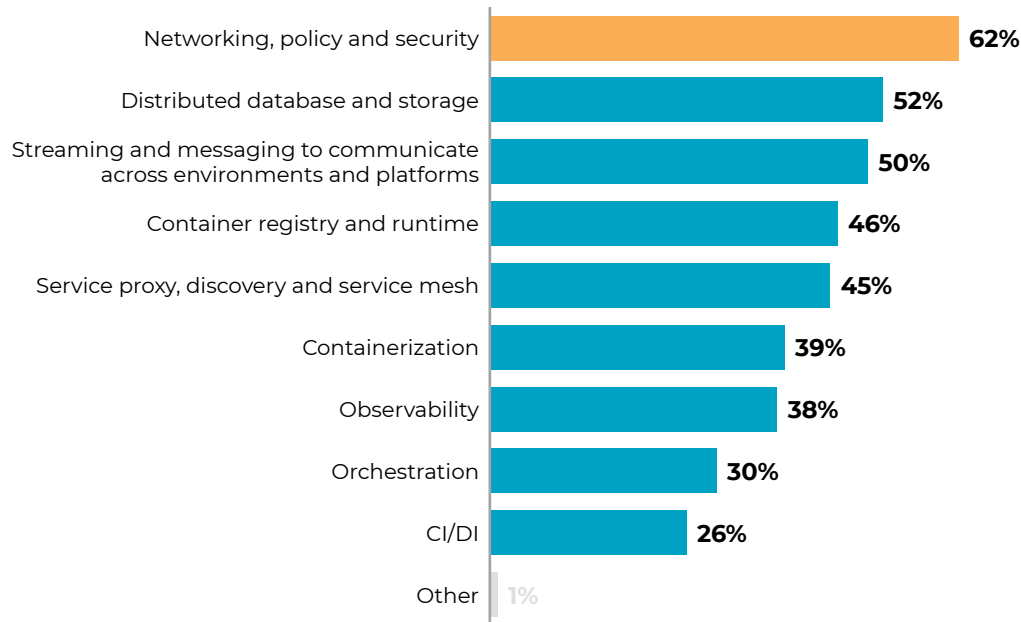
Born cloud-native **6%**
Fully transitioned to cloud-native **23%**
Maturity depends on team/business unit **51%**
Single workload **8%**
Have plans, but haven't started **10%** **3% Financial Services vs 21% Retail**
No plans **1%**

Figure 10 What stage is your organization in adopting a cloud-native architecture? Select one. Base: all respondents [n=414]

Networking, policy and security **62%**
Distributed database and storage **52%**
Streaming and messaging to communicate across environments and platforms **50%**
Container registry and runtime **46%**
Service proxy, discovery and service mesh **45%**
Containerization **39%**
Observability **38%**
Orchestration **30%**
CI/DI **26%**
Other **1%**

Figure 9 Which cloud-native steps has your organization taken? Select all that apply. Base: respondents that adopted cloud native [367]

62%
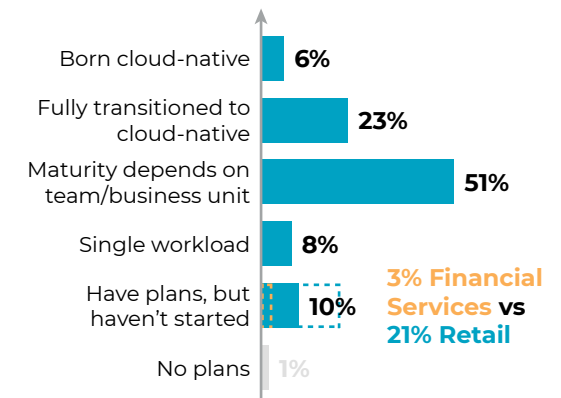of enterprises are adopting cloud native strategies

The growth of cloud applications

In keeping with these trends, the volume of applications deployed in the cloud will continue to rise rapidly: while only 29% of enterprises today host at least 75% their applications in the cloud, that number will grow to 46% will within 12 months, at which point nearly one-fifth of organizations will deploy the entirety of their applications in the cloud. Today, the variety of applications that enterprises host in the cloud is wide, with CRM being the most common.
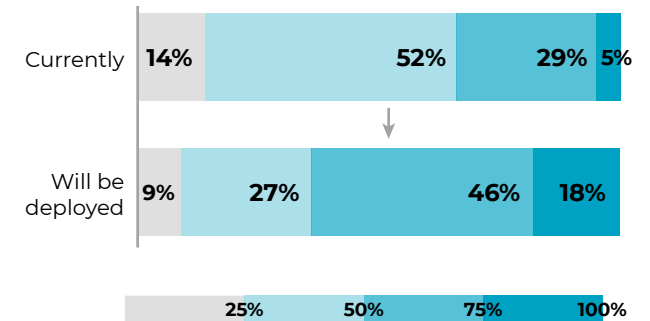
Figure 12 What percentage of your organization's overall applications are a) currently and b) will be deployed in the cloud in the next 12 months? Base: all respondents [n=414]

Figure 11 What type of applications are you supporting in the cloud today? Select all that apply. Base: All respondents [414]

46%

of enterprises will have at least 75% of their applications in the public cloud in 12 months

The Multi-Cloud Performance Boost

Enterprises are driven to multi-cloud, in part, by its ability to consistently improve performance. Our research finds that, overall, multi-cloud transit is able to improve latency performance across 50% of routes for user-to-application traffic flows, by up to 55% per route, compared to direct connectivity. This is in keeping with our Summer 2021 AXI Study, which also found up to 55% improvements per route.

By comparison, single cloud connectivity offers latency improvements on only 28% of routes. When it comes to app-to-app traffic flow for cloud applications, multi-cloud again offers improvements over direct connectivity — on 47% of routes, with up to 45% improvements in latency performance. The upshot, for enterprises, is that multi-cloud transit — rather than any single cloud provider — is necessary to gain the greatest and most consistent performance improvements to overall application connectivity and experience.

Multi-cloud transit impact for user to application traffic

46%
of user-application transit routes
see performance improvements
using multi-cloud

Figure 13 Key routes that can be improved by multi-cloud for user-to-app.Data is required to determine which routes can be optimized

Click on buttons to toggle

Key Challenges

Despite the pace at which enterprises are progressing on the multi-cloud journey, challenges remain. In particular, 4 key areas — cloud networking, application performance, security and observability — continue to pose significant challenges for enterprises. Qualitatively, the biggest challenge for enterprises is finding a balance between security and cloud networking.

Part of that challenge is that, to operationalize their multi-cloud journey, most enterprises are using a combination of strategies, from multi-cloud networking [MCN] vendors, legacy networking, mid-mile security solutions, to homegrown solutions. Integration of these tools between teams is not simple — and in fact, there is often finger-pointing among networking, security, operations, and other teams when problems arise especially when it comes resolving performance issues. Enterprises will have to think differently about their multi-cloud strategy to achieve a truly frictionless journey.

" The complexity of managing multi-cloud environments is increasing across organizations as footprints expand. Combined with demands from customers, organizations must adapt. "

**CLOUD
NETWORKING**   **APP
PERFORMANCE**   **SECURE
ACCESS**   **OBSERVABILITY**

Cloud Networking

For enterprises, it is vital to ensure seamless multi-cloud networking — indeed, it is among the "most important" priorities for organizations today. As much as seamless cloud networking is a multi-cloud driver, however, it is also a top barrier: the single largest cloud networking challenge for enterprises today is finding a consistent approach to manage networking across cloud provider environments.

This is perhaps unsurprising, given the variety of tools, vendors, and strategies that enterprises are using to support cloud networking — including legacy networking, SD WAN, open source, Zero Trust/SASE, homegrown solutions, manual efforts, and more. This fact not only adds significant management complexity and overhead for enterprises, but the problem becomes more challenging at scale.

One of the top ways that enterprises measure multi-cloud success is creating a unified management layer for all cloud and on-premises networking (53%). At the same time, enterprises also face cloud networking challenges in other areas. For instances, enterprises are struggling to transition their infrastructure to a more application-centric model for modern networking and connectivity — which aligns with another "most important" priority of ensuring a consistent application experience to all users, in all locations.

Finally, as the interest in using cloud provider infrastructure continues to grow, enterprises face challenges in leveraging cloud provider backbones as a primary ways to connect users and applications and acting as the new 'enterprise backbone'. This final challenge will be essential to solve for enterprises to operationalize multi-cloud in a truly frictionless, autonomous way.

62%

say a consistent network approach across CSPs is the biggest cloud networking challenge
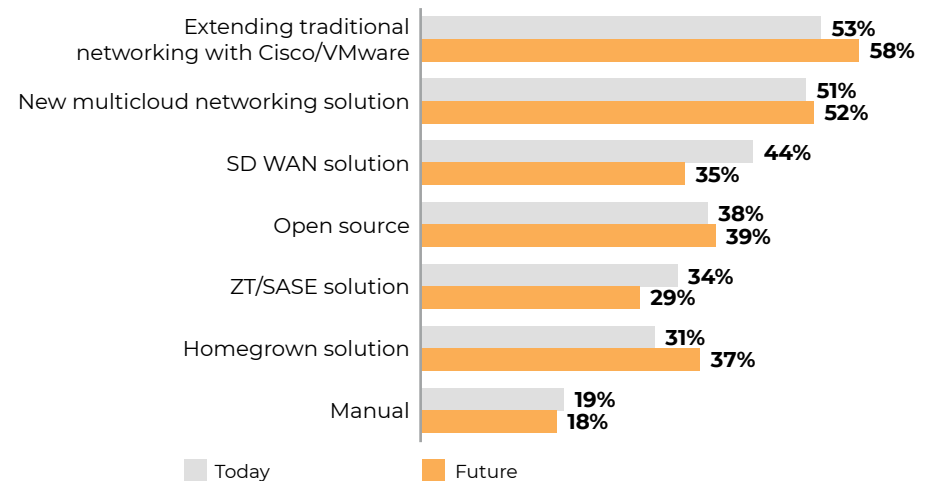
Figure 14 How are you addressing multi-cloud networking today? Select all that apply. How do you anticipate addressing multi-cloud networking? Select all that apply. 'None'=2% Base: respondents without multi-cloud [260], respondents that adopted multi-cloud [154]
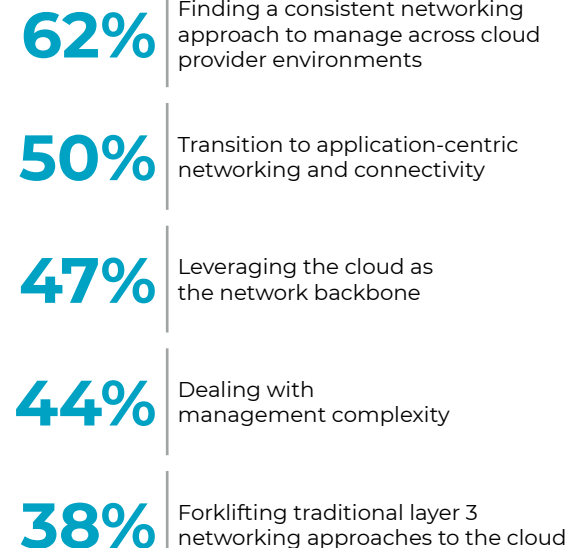
62% Finding a consistent networking approach to manage across cloud provider environments

50% Transition to application-centric networking and connectivity

47% Leveraging the cloud as the network backbone

44% Dealing with management complexity

38% Forklifting traditional layer 3 networking approaches to the cloud

Figure 15 What do you see the biggest cloud networking challenge, when it comes to multi-cloud? Select up to three. Base: all respondents [n=414]

Application Performance

Applications have become the lifeblood of enterprises. Modernizing applications, as well as delivering a consistent application experience to every user, in every location, are top goals. Yet, enterprises still face challenges in ensuring application performance — and balancing those requirements with other multi-cloud factors. For instance, enterprises see security, critical for every multi-cloud operation, as a roadblock to application performance. In fact, this is the single largest performance challenge for enterprises, followed by the challenge of delivering a consistent experience for every user, in every location, and gaining comprehensive visibility or observability for applications across cloud environments. As is the case with cloud networking, the primary goals and drivers of enterprises are often their most significant challenges.
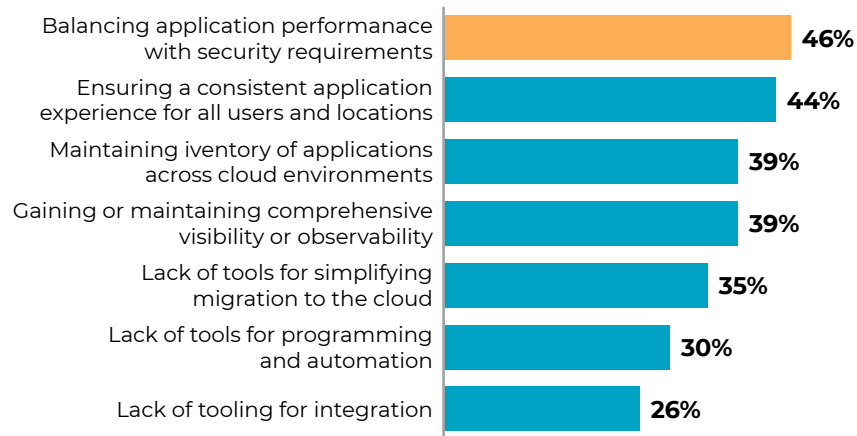
Challenge	Percent
Balancing application performanace with security requirements	46%
Ensuring a consistent application experience for all users and locations	44%
Maintaining iventory of applications across cloud environments	39%
Gaining or maintaining comprehensive visibility or observability	39%
Lack of tools for simplifying migration to the cloud	35%
Lack of tools for programming and automation	30%
Lack of tooling for integration	26%

Figure 16 What do you see as the biggest performance challenges, when it comes to multi-cloud? Select up to three. Base: all respondents [n=414]

46%

state balancing application performance and security is the top security challenge

Security

Security, while top-of-mind for every enterprises, is also a persistent challenge. The top security challenge, as you might expect, is the ability to maintain consistent security policies across cloud environments. This is followed by the ability to extend Zero Trust Network Access (ZTNA) for cloud workloads across cloud service providers (CSPs). Similar to cloud networking, enterprises also face the challenge of managing numerous disparate security tools across on-premises and cloud environments. Indeed, the challenging of unifying tools and strategies with a consistent management plane and frictionless deployment is a through-line for most enterprises on the multi-cloud journey.
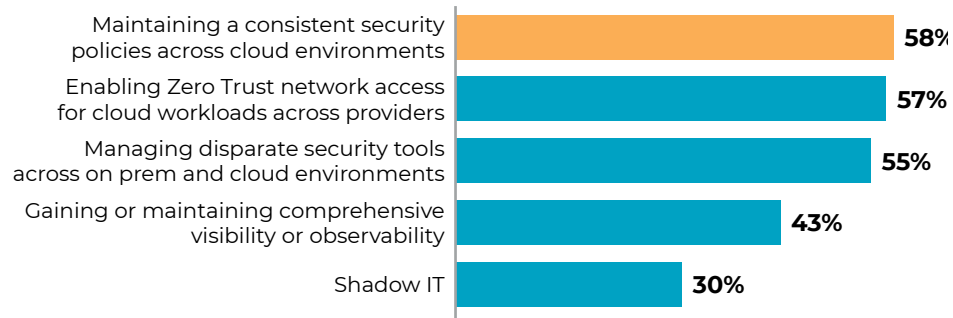

Challenge	Percentage
Maintaining a consistent security policies across cloud environments	58%
Enabling Zero Trust network access for cloud workloads across providers	57%
Managing disparate security tools across on prem and cloud environments	55%
Gaining or maintaining comprehensive visibility or observability	43%
Shadow IT	30%

Figure 17 What do you see as the biggest security challenges, when it comes to multi-cloud? Select up to three. Base: all respondents [n=414]

58%

of enterprises say implementing ZTNA for cloud workloads is a major hurdle

Observability

Finally, observability is the last essential pillar of the multi-cloud journey, as it enables enterprises to monitor their multi-cloud deployments, identify and remediate application and networking performance problems, and move towards a proactive state of operations. Yet, enterprises experience a persistent lack of observability.

According to our research, the struggle stems from the inability of enterprises to consistently understanding CSP network usage, map the true topology of their cloud networks, as well as track application usage and network connectivity status. Yet, each of these challenges is a requirement for delivering a consistent application experience to every user, optimize performance and cloud costs, and scale seamlessly. For enterprises to be successful in their multi-cloud operations, these observability gaps will be critical to fill.
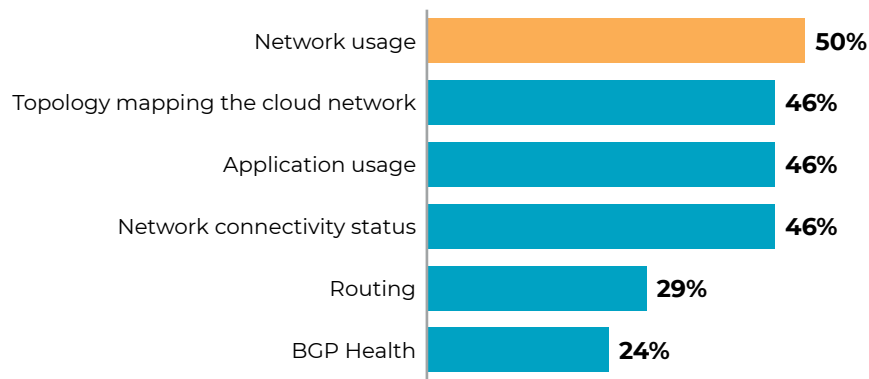
Network usage	50%
Topology mapping the cloud network	46%
Application usage	46%
Network connectivity status	46%
Routing	29%
BGP Health	24%

Figure 18 What is the biggest gap in visibility/observability that CSPs don't provide? Select up to three. Base: all respondents [n=414]

50%

of enterprises say understanding Network Usage is the top observability gap

The Latency Impact of Mid-Mile SaaS Security.

Many organizations choose to implement mid-mile SaaS security solutions for their multi-cloud environments. Yet, enterprises see security requirements as the single largest impediment to performance. Our research shows that mid-mile security products can increase latency as much as 36% to a single application, hosted on a single domain when compared to accessing the same applications via the Prosimo fabric, which avoids the need for mid-mile security.
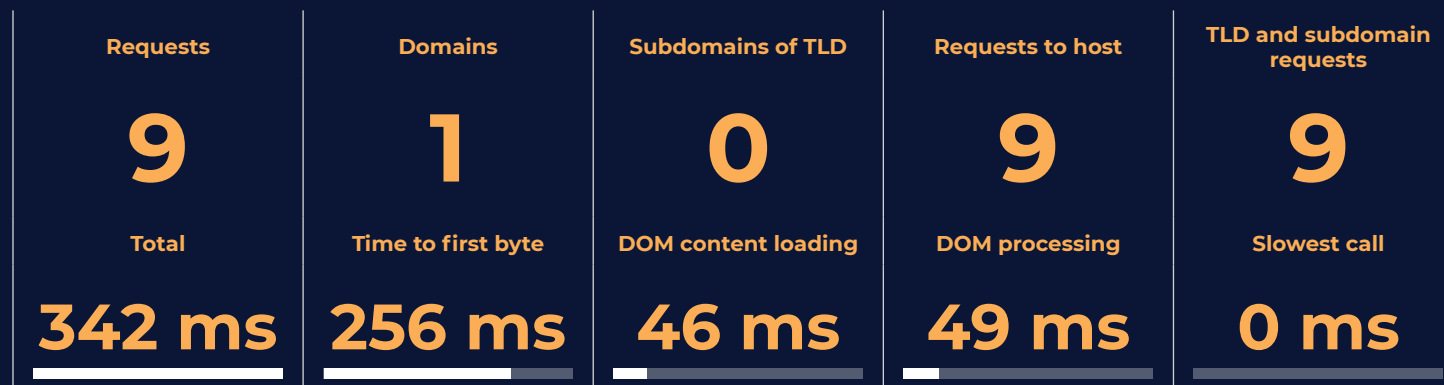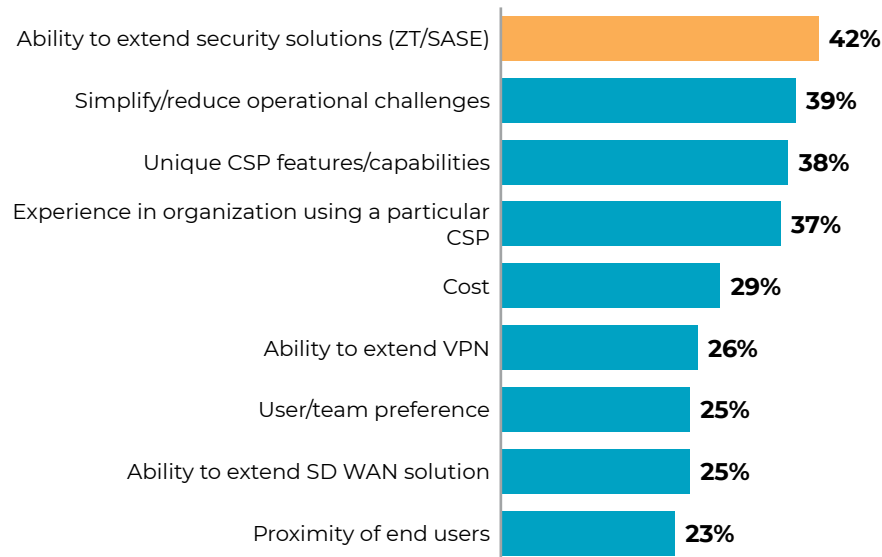
Requests	Domains	Subdomains of TLD	Requests to host	TLD and subdomain requests
9	**1**	**0**	**9**	**9**
Total	Time to first byte	DOM content loading	DOM processing	Slowest call
342 ms	**256 ms**	**46 ms**	**49 ms**	**0 ms**

Figure 19 Sample data of mid-mile insertion of security between application and user.

Selecting a CSP

Choosing the right cloud service providers (CSPs) for the enterprise is a core piece of building an effective multi-cloud strategy. Our research shows that enterprises select cloud service provider (CSP) partners for many reasons. Among the top selection criteria is an ability for enterprises to extend their security strategies to the CSP — consistent with the theme of multi--cloud consistency — together with the ability to simplify or reduce operational challenge. Finally, a critical draw for any CSP is the unique features and capabilities that they can offer enterprise customers.

The Top 3 criteria for selecting a CSP is Security, Operations and Capabilities

Criteria	Percentage
Ability to extend security solutions (ZT/SASE)	**42%**
Simplify/reduce operational challenges	**39%**
Unique CSP features/capabilities	**38%**
Experience in organization using a particular CSP	**37%**
Cost	**29%**
Ability to extend VPN	**26%**
User/team preference	**25%**
Ability to extend SD WAN solution	**25%**
Proximity of end users	**23%**

Figure 20 What is your criteria for choosing a CSP? Select up to three. Base: all respondents [n=414]

The Impact of Application Variance on Performance.

Adding to the challenge of application performance, for enterprises, is the fact that different applications and their caching requirements can experience significantly different performance, even over the same transit routes. For instance, for an AWS user in Hong Kong accessing applications in AWS-US-East, the type of application impacts the performance with up to a 322% difference. This makes the decision for how to optimize connectivity for applications across multi-cloud even more challenging.

Yet, optimization for these routes is possible: when applying even the simplest optimization, there is a performance variation of 5-7% between different application with performance improvement by more than 7% per application. Note that, previously, any optimization would have been applied to all applications — not a single application type. When applying the optimization approaches that are curated for the specific application type, performance variations leap upwards of 83% — which range from 66% and to much as 89% improvements in performance.
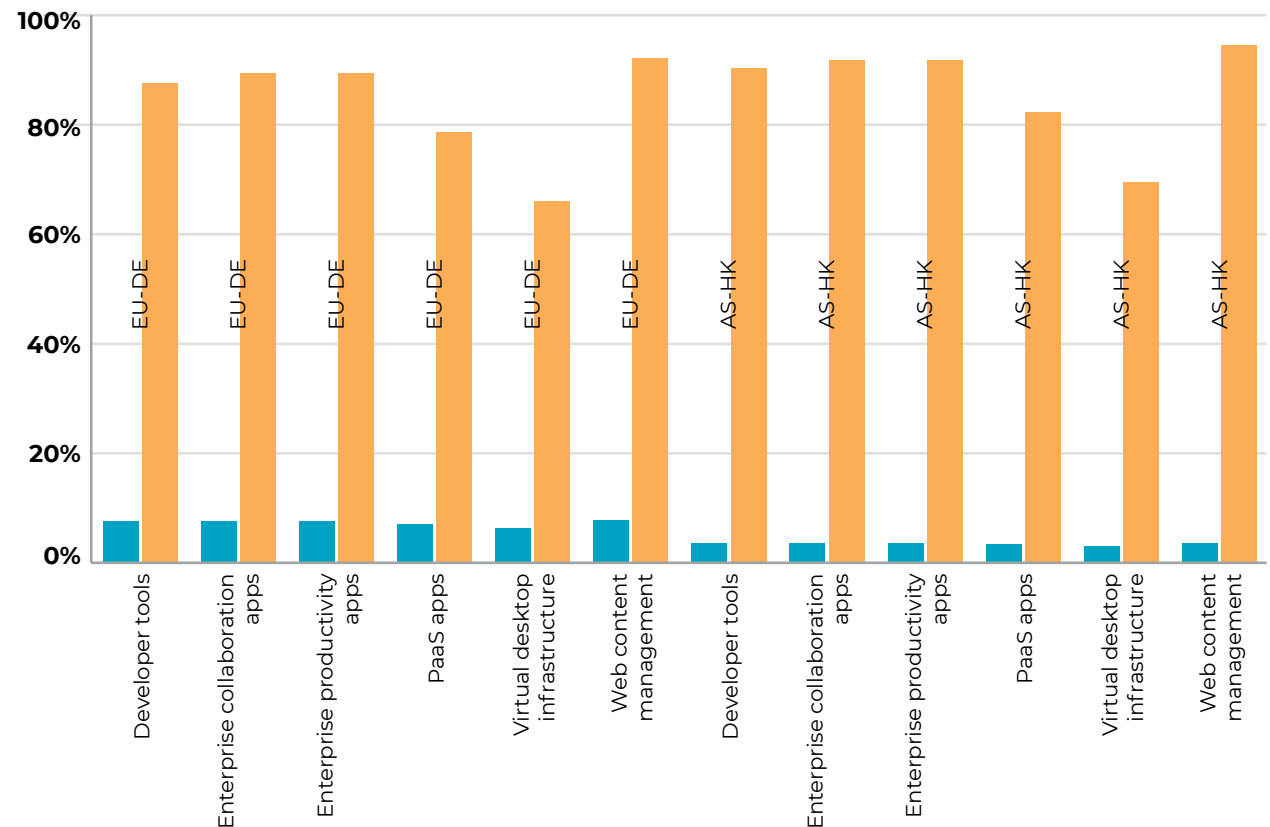

Figure 21 Performance improvements when transit has knowledge of application type and its components where application is located in AWS US East but user is EU DE or AS-HK.?

80%+

performance improvements when applying optimization per application type

Industry specific break down

Retail

The opportunity: Retailers are making a push to deliver better, more seamless omnichannel digital services to customers at any location — whether online, on mobile, in-store, at curbside, for at-home delivery, or for IoT. As such, extending retail networks across clouds and regions has become a vital way to accelerate digital services at scale. Unsurprisingly, retailers plan to see the most accelerated multi-cloud adoption of any vertical, particularly when it comes to the edge.

1-2 Year Multi-Cloud, Multi-Region Adoption:

9%   Today

41% 1-2 years

57% Plus edge

Financial services

The opportunity: For financial services organizations, providing seamless, secure, and reliable digital services — from real-time trading, to customer experience for banking — is now a baseline expectation for among customers business with customers. Therefore, multi-cloud has become an essential strategy to ensure consistency, reliability, and scalability for financial services applications, no matter where customers are located. In such a highly regulated sector, security is naturally top-of-mind.

1-2 Year Multi-Cloud, Multi-Region Adoption:

15% Today

49% 1-2 years

43% Plus edge

Manufacturing

Smart manufacturing and Industry 4.0 rely on the ability of manufacturers to deliver secure, reliability connectivity. Multi-cloud has become a core piece of enabling industry transformation at large — from IIoT for streamlining processes, to generating supply chain efficiencies, to video collaboration among manufacturing facilities for repairs.

1-2 Year Multi-Cloud, Multi-Region Adoption:

17% Today

41% 1-2 years

36% Plus edge

Healthcare

Given the demands of the COVID-19 pandemic, healthcare enterprises have had to rapidly adopt digital transformation strategies in order to deliver telehealth services and IoT patient monitoring, manage vaccination appointment applications, generate supply chain efficiencies, and more. As such, many healthcare organizations see multi-cloud as an essential strategy for delivery health services in any location. Giving the sensitivity and complexity of healthcare operations, simplified operations and data governance are critical.

1-2 Year Multi-Cloud, Multi-Region Adoption:

10% Today

47% 1-2 years

38% Plus edge

Click on buttons to toggle

Solving Multi-cloud Challenges: Industry Best Practices

As most enterprises progress rapidly along the multi-cloud journey, they are searching for new ways achieve ways to achieve their goals at scale. This includes solving for challenges in each of the four main multi-cloud pillars — cloud networking, application performance, security, and observability. Already, the industry is beginning to reach an emerging consensus about how enterprises can overcome those challenges — to reduce complexity and achieve simplified multi-cloud at scale.

Simplifying and accelerating the multi-cloud journey. Our research clearly indicates that, among the top multi-cloud pillars, the central challenge for enterprises resolves around achieving consistency — in networking approaches, security strategies, application performance for every user and location, and observability (for the network and applications), across cloud providers. At the same time, our research shows that enterprises are using a variety of tools and strategies to support multi-cloud, particularly for cloud networking and security.

1. Stop Reacting

Rather than solving reactively for immediate challenges in every silo — networking, performance, security, observability — enterprises will need to consider Day 2 operations and work to achieve long-term unity and simplicity across those disciplines.

2. Build a Multi-Cloud Transit

In many cases, this will mean that enterprises begin to build an actual multi-cloud transit and leverage the cloud providers as their primary backbone. Indeed, our data shows that multi-cloud networking can consistently improve latency performance for application connectivity across the board. But the challenge is more significant than that: for most enterprises, their current approaches will only exponentially more complexity at scale — a fact that is already reflected in their challenges today.

3. One Stack

Instead, enterprises can unify networking, security, application performance, and observability by focusing on a transit approach while building a much simpler, more dynamic multi-cloud system — self-learning, self-protecting, and self-driving.

4. Think Autonomous

An autonomous approach to multi-cloud networking will not only simplify operations for cloud architects and operations teams at scale, but it provides a way for enterprises to rapidly build, test and deploy applications in the cloud and ensure an outstanding experience for their customers.

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Conclusion

Within two years, the majority of enterprises will have advanced multi-cloud capabilities — with workloads in multiple CSPs, in multiple regions, often including the edge. For enterprises to be successful, they will need to unify their operations with a more frictionless, dynamic, autonomous approach to multi-cloud. In other words, enterprises will require a unified way to manage security, networking, application performance, and observability to deliver better application experiences, achieve their goals for business agility, and achieve a frictionless multi-cloud journey.

Methodology

1. Real-world performance data

To collect regional inter-cloud latency data, we measure latency between each (supported) cloud region using TCP ping. The data is collected on average every 10 to 15 minutes. Moreover, the cloud regions also ping various servers around the world to measure the public internet latency between cloud regions and geolocations. Using outlier detection techniques, this data is cleaned up to remove any erroneous latency measurements that may be caused by incorrect server locations or local link failures.

2. Survey

Survey Prosimo contracted Sapio Research, an independent research company, to survey 400 US-based IT experts working for businesses with more than 1,000 employees. The interviews were conducted online in Q4 2021. At an overall level, results are accurate to ± 4.9% at 95% confidence limits.
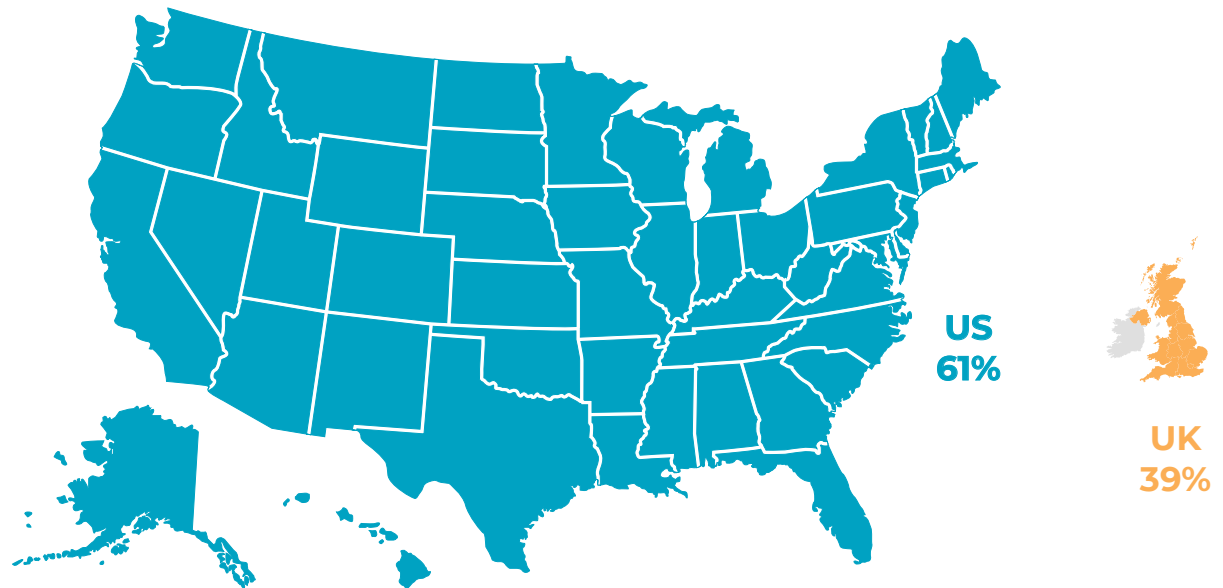

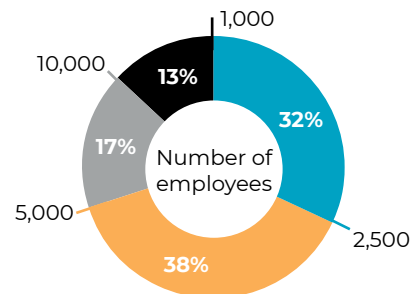**Figure 22** In what country are you based? Base: all respondents [n=414]

Figure 23 Counting all locations, how many people are employed by the organization you work for? Select one. Base: all respondents [n=414]
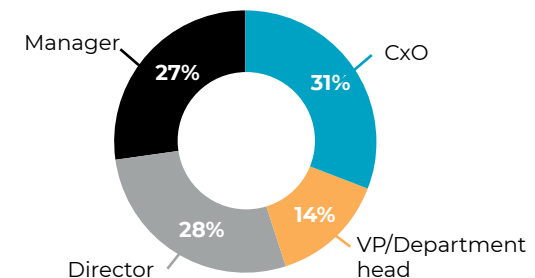

Figure 24 What level of seniority are you? Select one. Base: all respondents [n=414]

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Prosimo is a venture-backed company set to disrupt enterprise infrastructure. The company's new, re-imagined architecture provides users in multiple industries with fast and secure experiences for all enterprise applications across a range of environments—quickly, easily, and within a company's administrative control.

To allow customers to benefit from their multi-cloud investments while avoiding operational complexity, Prosimo AXIS provides customers with a single vertical stack that brings security closer to users and offers optimized access. Prosimo is built from the ground up with the best that CSPs have to offer. Our infrastructure stack dynamically expands and contracts using rich data insights, self-upgrades, and most importantly, evolves as the CSPs get better services. With Prosimo, customers can successfully scale and transform infrastructure for existing as well as new applications.

Prosimo is backed by General Catalyst and Celesta Capital. The company is headquartered in Santa Clara, California.

For more information, visit **prosimo.io**.

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