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Internet Applications Don't Need To Sacrifice Performance For Security

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Situation

Superior Digital Customer Experience Relies On Speed Without Sacrificing Security

In an increasingly competitive market, firms are pressed to both maintain customer trust that data is secure and deliver lightning-fast performance. The delivery of customer experiences across digital applications continues to grow only more complex. In response, firms need to implement foundational technology that can deliver both security and performance without compromise.

In May 2019, Cloudflare commissioned Forrester Consulting to conduct a global study of 172 IT and security decision makers to understand how next generation applications will be successfully developed, deployed, and delivered.

Key Findings



Enterprises are adopting cloud solutions as part of their digital transformation journey, resulting in more complex infrastructure and technical environments than ever before.



Rather than taking a holistic, strategic view, many organizations face a trade-off between performance and security, introducing technical inefficiencies when adding new features or functionality.



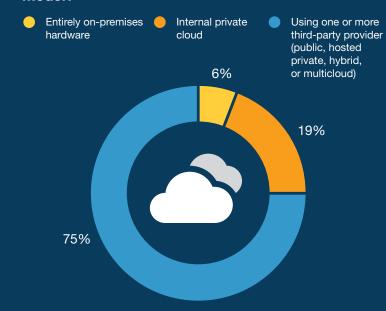
As firms increase investment in both security and performance products and services, global cloud platforms that deliver security and performance in tandem are the new mandate.

Organizations Have Increasingly Complex Infrastructure

As enterprises adopt cloud solutions, their infrastructure complexity increases. Seventy-five percent of companies use at least one third-party cloud provider, and more than half of companies are using multiple cloud providers.

The main driver of using multiple cloud environments is to enable specific features and improve flexibility. Nearly 80% of IT decision makers agree that hybrid cloud strategies enable organizations to mix-and-match components and applications according to their needs.

"Which of the following reflects your organization's current cloud platform deployment model?"



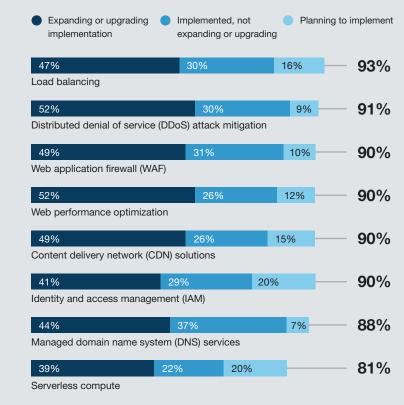
75% of companies use at least one third-party provider. More than half are using more than one (**54%** have hybrid or multicloud environments).

Firms Are Increasing Investment In **Performance And Security**

Companies continue to invest in critical security and performance technology: 77% of firms expect to increase spending on security and performance solutions over the next three years.

Investment is growing across the board for emerging and established technologies. Over the next twelve months, 59% intend to implement/upgrade web application firewall solutions — a mature technology that only one in five firms have not yet adopted. Likewise, 59% of firms intend to either implement/upgrade serverless capabilities over the same period. Serverless is a relatively young technology that close to 40% of companies have not yet adopted. Early use cases for serverless architecture indicate that its flexibility provides improved performance; long term, this foundation will support new global transactional and security applications.1

"What are your organization's plans to adopt the following products or services in the next twelve months?"



Base: 172 enterprise IT and security decision makers (director level and above) working for enterprises in NA,

Source: A commissioned study conducted by Forrester Consulting on behalf of Cloudflare, May 2019

Firms Face Tough TradeOffs Between Adding Features And Streamlining Technology

As firms add more components to their performance and security technology stack, many are forced to make trade-offs, and not all firms handle these trade-offs strategically. Only 11% of IT decision makers find it easy to build and maintain security infrastructure that does not compromise performance for web or application end users, suggesting that organizations are favoring one or the other. The resulting choice is either compromised security or compromised user experience.

When asked how trade-offs between different cloud providers are managed, a majority of IT executives (60%) indicate that they focus on platform benefits, rather than taking a holistic view of technical debt from multiple providers. Only one third (35%) take a more streamlined approach, focusing on strategically selecting fewer providers.

"Which of the following describes how your organization handles trade-offs between different cloud providers?"



Focus on platform benefits rather than technical debt from multiple providers



Many organizations rack up technical debt as they seek to add new features, rather than take a holistic, strategic view of their technology stack.

Firms Avoid Vendor Lock-in With Hybrid And Multi-Cloud Deployment

IT decision makers expect hybrid and multi-cloud strategies to deliver a number of benefits, including better cost management, greater flexibility, and improved data management. Flexibility is also a critical risk mitigation strategy, as cloud applications are particularly vulnerable to vendor lock-in.² Seventy-five percent of survey respondents agreed or strongly agreed that their organization is moving to the cloud and wants to avoid cloud vendor lock-in; their future is multi-cloud — while 49% said they have achieved/expect to achieve improved security and compliance.



75% of firms agree their organization wants to avoid being locked in to a single vendor.

"Which of the following benefits have you already achieved, or do you expect to achieve from the use of a hybrid cloud/multicloud environment?"

Better IT cost management overall	55%
Improved IT infrastructure management and flexibility	51%
Improved data management	50%
Improved security and compliance	49%
Lower compute costs overall	49%
Improved application or infrastructure performance	45%
Lower storage costs overall	45%

Situation

Global Cloud Platforms Must Deliver Reliability, Security, And Performance

When it comes to investing in an application technology stack, decision makers have clear priorities:

- Reliability. In an always-on world where applications deliver core business operations and differentiating digital experiences, customers will not tolerate unreliable applications.
- Threat prevention. When cybercriminals deploy an arsenal of ever-changing tactics to steal or destroy data, detecting and preventing threats is critical to building and retaining customer trust.
- Performance without sacrificing security. Both threat
 defense and high performance are prerequisites to customer
 experience. Security threats can cripple web applications, and
 most customers simply will not wait for sluggish performance.³

"When considering an investment in application performance or security technology, which of the following considerations are most important to you?"



Impact on customer experience

8% 11% 10% Flexibility to scale

8% 6% 1%

Server locations/geographical considerations

6% **11%** 8%

Available features and functionality

Bass: 172 enterprise IT and security decision makers (director level and above) working for enterprises in NA, EMEA, and Asia Pacific who have hybrid cloud environments Source: A commissioned study conducted by Forrester Consulting on behalf of Cloudflare, May 2019 Situation

Conclusion

The next generation of digital applications will rely on maintaining security without sacrificing end user performance. Our study showed:

- Most organizations invest in cloud opportunistically instead of strategically, which can increase cost inefficiency, vulnerabilities to operational risk, or exposure to bad actors.
- A hybrid cloud strategy will be essential to optimizing the right cloud for the right workload. Benefits that firms expect to achieve include better cost management, greater flexibility, and improved data management, but organizations will need to take a more strategic approach to realize these benefits.
- An integrated solution, such as a security-plus-performance global cloud platform with a single UI to manage multiple products, services, and consistent security policies across multi-cloud environments can enable the future of edgeenabled applications and experiences.

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Contributing Research:

Forrester's Application Development and Delivery Research Group

Methodology

This Opportunity Snapshot was commissioned by Cloudflare. To create this profile Forrester Consulting supplemented this research with existing application development and infrastructure research. The custom survey began and was completed in May 2019.

ENDNOTES

- ¹ Source: "Demystifying Serverless Computing," Forrester Research, Inc., January 25, 2018.
- ² Source: "The Coming Consolidation Of Cloud," Forrester Research, Inc., August 2, 2017.
- ³ Source: "Optimize Performance For Global And Mobile eCommerce." Forrester Research, Inc., March 30, 2016.

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Demographics

GEOGRAPHY

RAPHY COM

North America: 21%

Latin America: 12%

Europe: **33**%

Asia Pacific: 33%

COMPANY SIZE (EMPLOYEES)

Small (100 - 999): **14%**

Midsize (1,000 - 4,999): 40%

Large (5,000 - 19,999): 26%

Very large (20,000+): 20%

RESPONSIBILITY

C-level executive: 19%

Vice president: 27%

Director: 54%

INDUSTRY

Cross-industry

