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Strategies for Successful Migration to Public Clouds

Lessons Learned from Industry Leaders

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Navigating this InfoBrief

Click on titles or page numbers to navigate to each section.

What can organizations that have successfully migrated existing on-premises VMs to public clouds tell us about benefits and strategies for successful execution?

78% realize **payback** in one year or less.

Benefits go beyond cost savings to include increased business innovation and application performance

Detailed planning and dependency assessments **increase success**

Partnering with public cloud service providers **helps avoid speed bumps**

Consistent operational controls across on-premises and public cloud infrastructure **maximize staff productivity** and end-to-end service levels

Methodology

Who are these experts in migrating to public cloud?

IDC surveyed 204 US-based enterprise senior IT and DevOps decision makers with experience in successfully migrating existing on-premises VMs to public clouds.

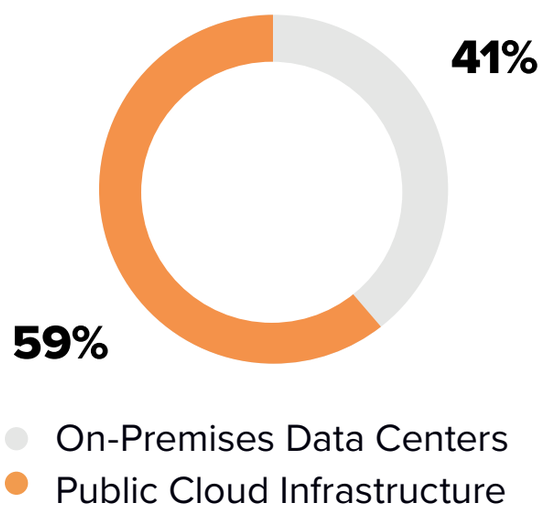
Typical environment for survey participants:

- Selected for experience in implementing (79%) or evaluating (21%) migration of existing on-premises VMs to public clouds
- On average, these organizations currently run more than 1,000 simultaneous VMs across both on-premises and cloud platforms
- By 2023, they expect that 65% of VMs will be deployed in public clouds

Survey conducted September 2021. All participants represent organizations with 1,000 or more employees.

Survey Participant Profile

Average Distribution of Existing VMs Across On-Premises and Public Cloud



n = 204, Source: IDC *Migration to Public Cloud Thought Leadership Survey,* September 2021

Survey Highlights

What did the survey tell us about best practices for migrating existing on-premises VMs to public clouds?

Goals | include increased business agility, resiliency, and ability to modernize applications as typically the most important drivers.

Benefits | spanning improved business resiliency, application modernization, speed, and flexible, on-demand scale.

Planning | is essential to assess workload requirements, dependencies, and skills readiness.

Partnering | with public cloud service providers provides access to proven best practices that reduce time and risk.

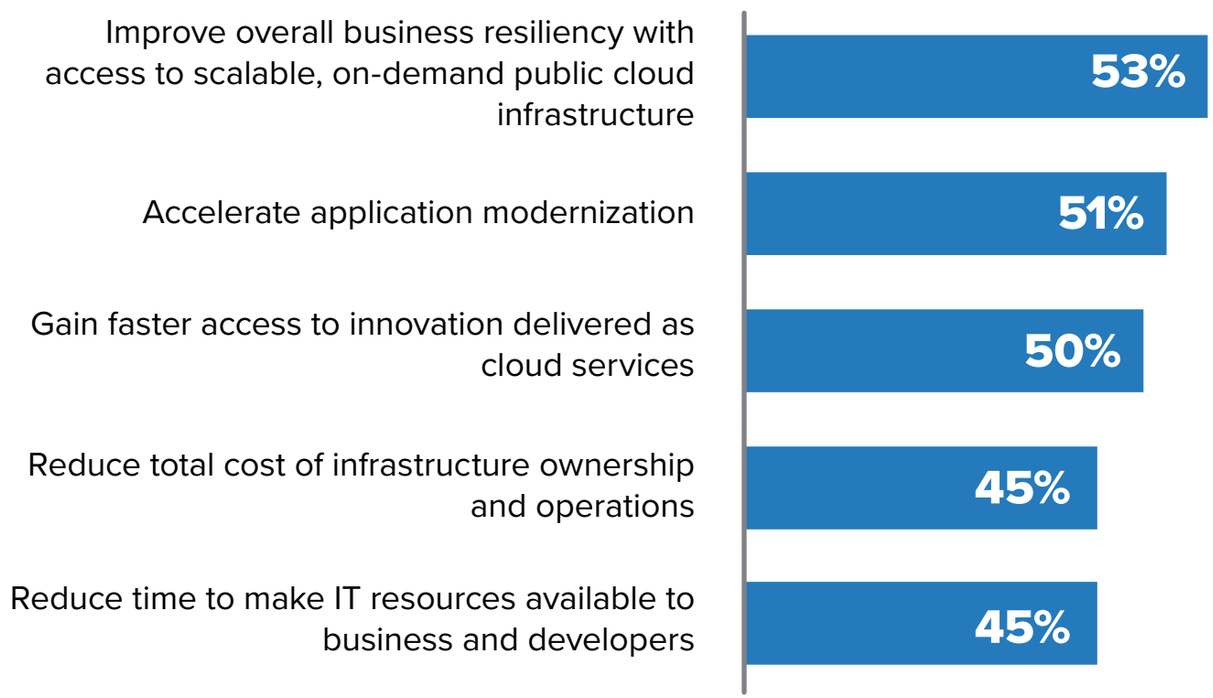
Consistent operations | to maximize runtime performance and efficiency across hybrid environments.

What business and IT goals are motivating decisions to migrate existing on-premises VMs to public clouds?

Top five goals driving migrating of VMs to public cloud

Q: You indicated you have completed or are actively considering migration of existing on-premises VM workloads to public cloud infrastructure. What are/were the most important goals driving this effort?

(% of respondents)



Migration programs are typically motivated by much more than simple infrastructure cost savings.

Top business goals:

- Overall resiliency
- Faster application modernization
- Scalability
- Access to innovative cloud services

n = 204, Source: IDC *Migration to Public Cloud Thought Leadership Survey,* September 2021

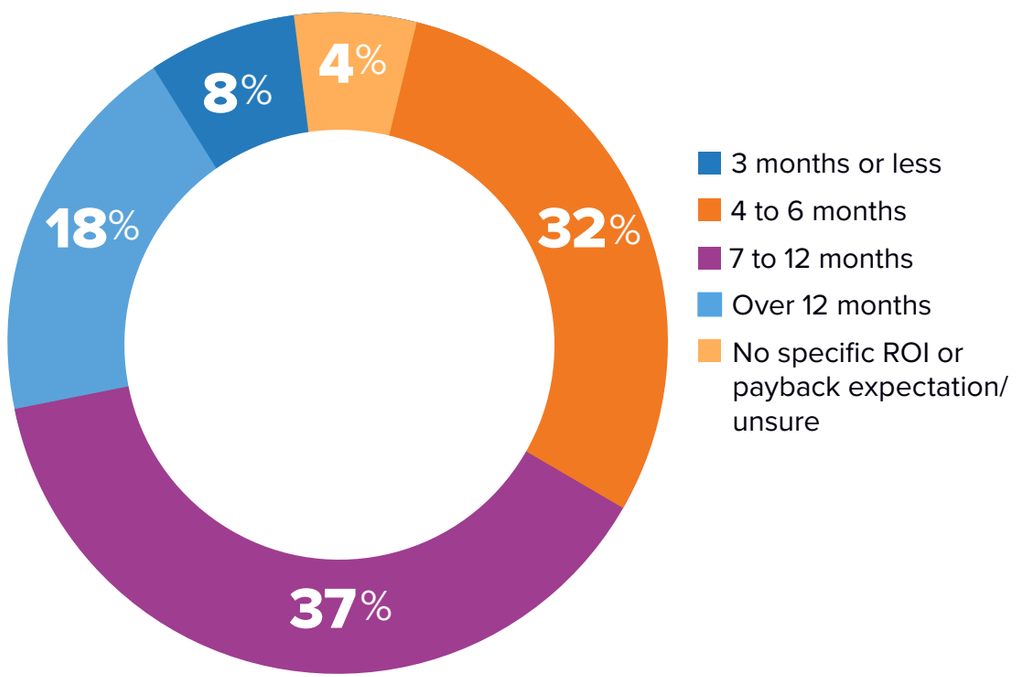
Benefits

78% of organizations realize migration payback in 12 months or less.

Payback timeframes for migrating existing VMs to the public cloud

Q: How would you characterize the type of financial benefits your organization has experienced or hopes to experience from migrating on-premises VMs to public clouds?

(% of respondents)

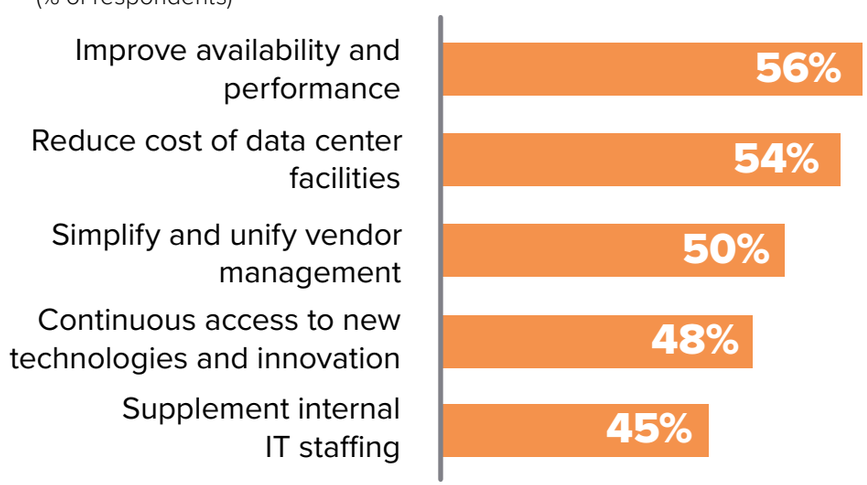


ROI calculations should consider application and infrastructure performance, cost, innovation, and operations.

Greatest impact on financial payback or ROI calculations

Q: Which of the following have the most impact on your financial payback or ROI calculations?

(% of respondents)



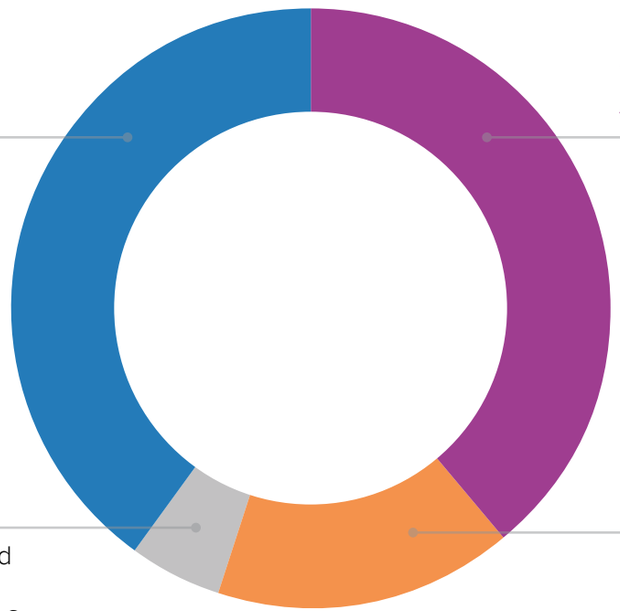
n = 204, Source: IDC *Migration to Public Cloud Thought Leadership Survey,* September 2021

Migration planning needs to start by understanding application modernization roadmaps.

Over next two years VM migration strategies will vary based on workload requirements

Q: Which statement best defines your organization's preferred approach to VM migration to public cloud over the next two years?

(% of respondents)



40%

One-time planned lift-and-shift projects moving on premises VMs to public cloud platforms without refactoring for containers

39%

Frequent, bi-directional migration of existing VMs between public clouds and on-premises infrastructure using vMotion or other automation platforms

5%

VMs that will be decommissioned because the application is being moved to a third-party SaaS application/other

16%

One-time planned lift and shift projects that refactor VM workloads to run in containers and Kubernetes

Some workloads will be refactored for cloud-native container platforms while others will not.

Planning efforts need to recognize that each workload has unique requirements.

One-time lift-and-shift projects move existing workloads from on-premises to public cloud.

Ongoing bi-directional movement across on-premises and public cloud to support scale, performance, and cost optimization.

n = 204, Source: IDC *Migration to Public Cloud Thought Leadership Survey,* September 2021

Planning

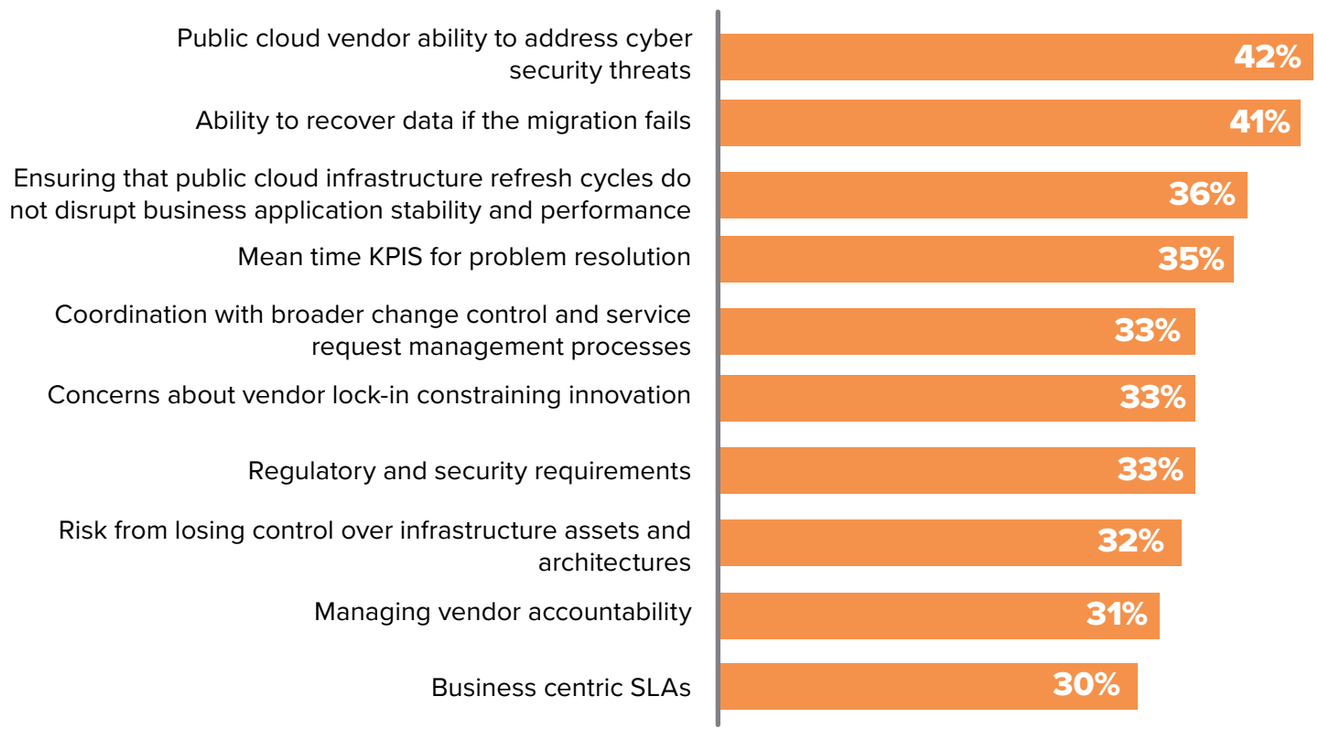
Engage early and often with business and DevOps stakeholders to fully understand and address their concerns.

Engaging the full range of business, DevOps, and IT stakeholders throughout the process speeds migrations while protecting the business.

Finance teams may slow approvals if questions linger about business and security

Q: Which of the following concerns about business risk management and change control have the most impact on your overall decision-making process about migrating existing on-premises VMs to public cloud?

(% of respondents)



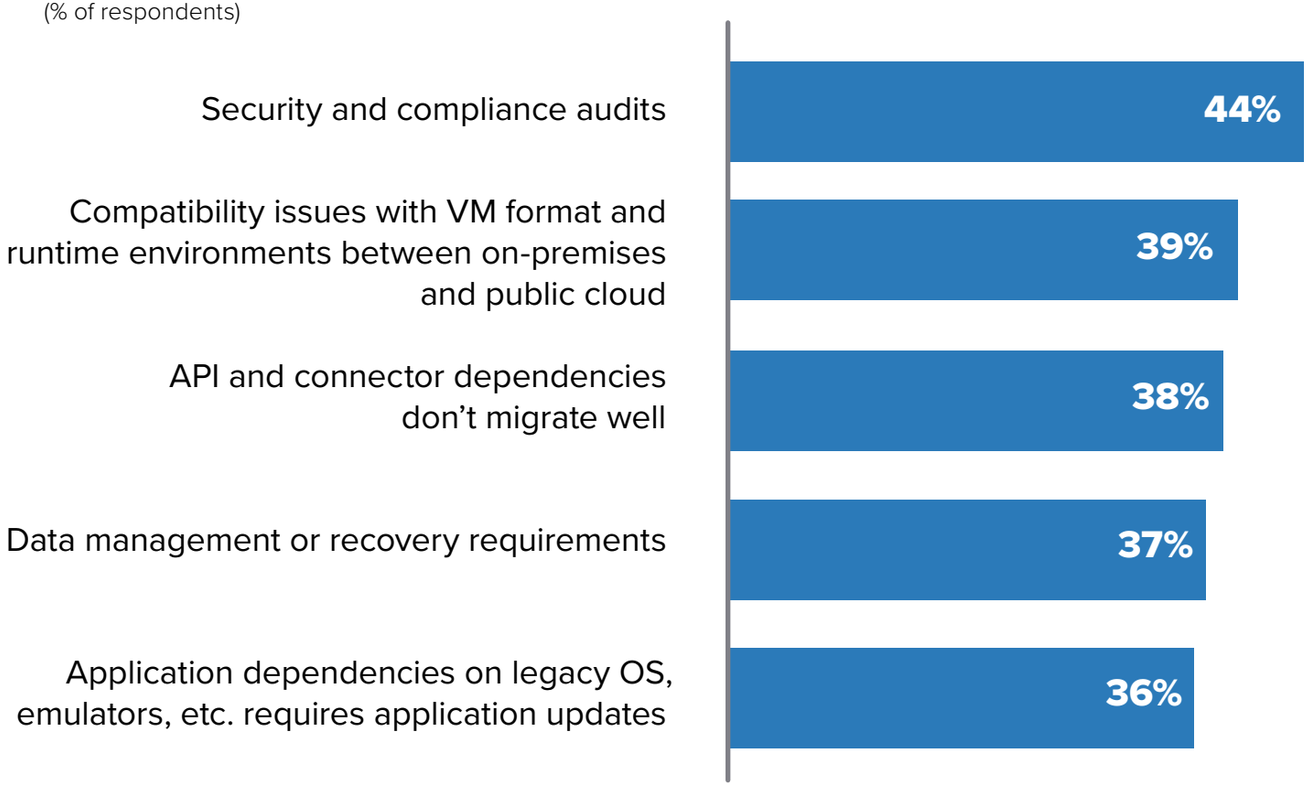
n = 204, Source: IDC *Migration to Public Cloud Thought Leadership Survey,* September 2021

Communication and collaboration across the organization are required to anticipate the full scope of application performance dependencies.

Top application performance dependencies to consider

Q: When actually migrating existing on-premises VMs to public clouds, what factors related to application performance dependencies are most likely to slow or prevent implementation?

(% of respondents)



Avoid unexpected delays with **collaborative** planning across the organization:

- IT Ops
- Cloud SREs
- DevOps
- LOB Analysts
- Security
- Compliance

n = 204, Source: IDC *Migration to Public Cloud Thought Leadership Survey,* September 2021

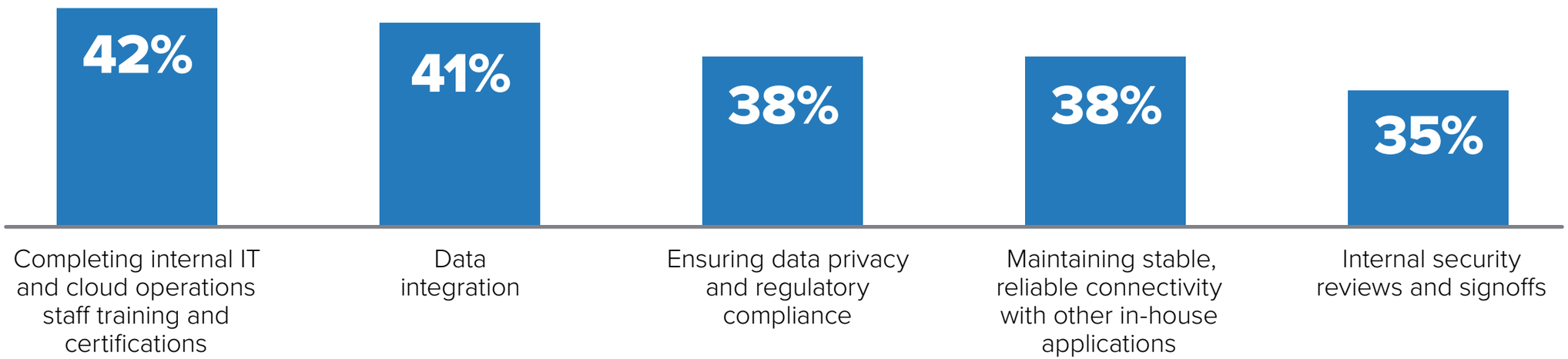
Planning

Maximize time to value by planning ahead for staff training, data integration, security, compliance, and connectivity requirements.

Top five factors impacting VM migrations timeline

Q: What specific factors have the greatest impact on the time it takes to implement existing on-premises VM workload migrations to public clouds?

(% of respondents)



Prioritize enabling investments:

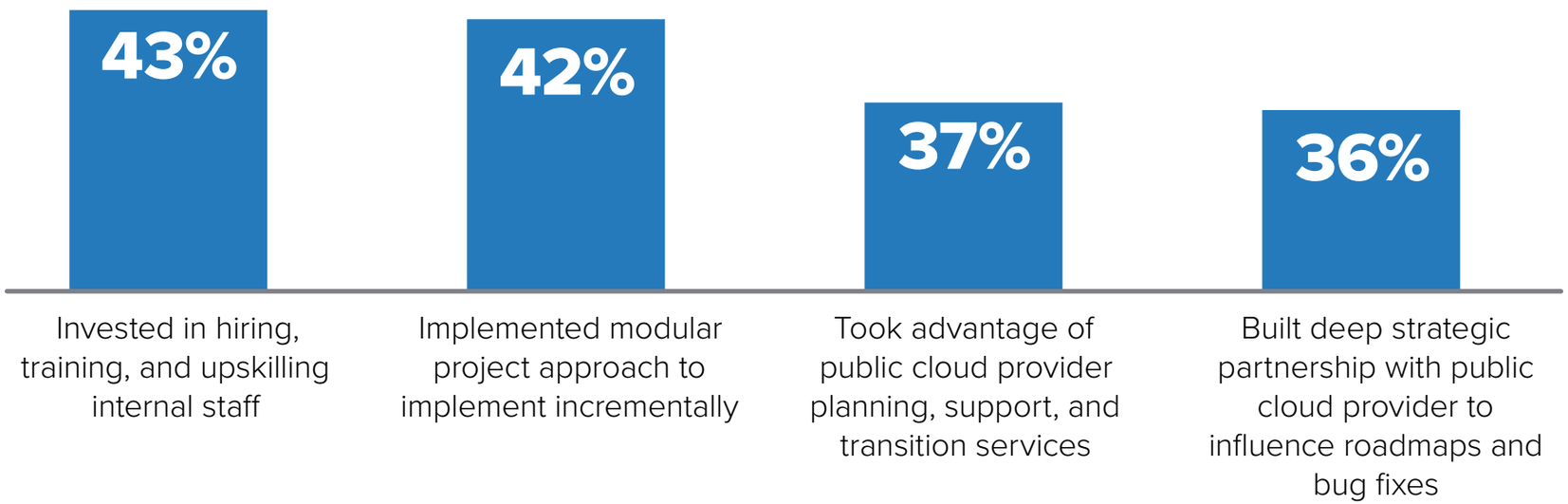
- Training
- Data integration
- Data privacy and security
- Stable connections with other existing workloads

n = 204, Source: IDC *Migration to Public Cloud Thought Leadership Survey,* September 2021

Partnering with public cloud service providers helps to ensure success.

Top strategies for overcoming VM migration challenges

Q: How has your organization overcome challenges that slowed or potentially prevented migration?
(% of respondents)



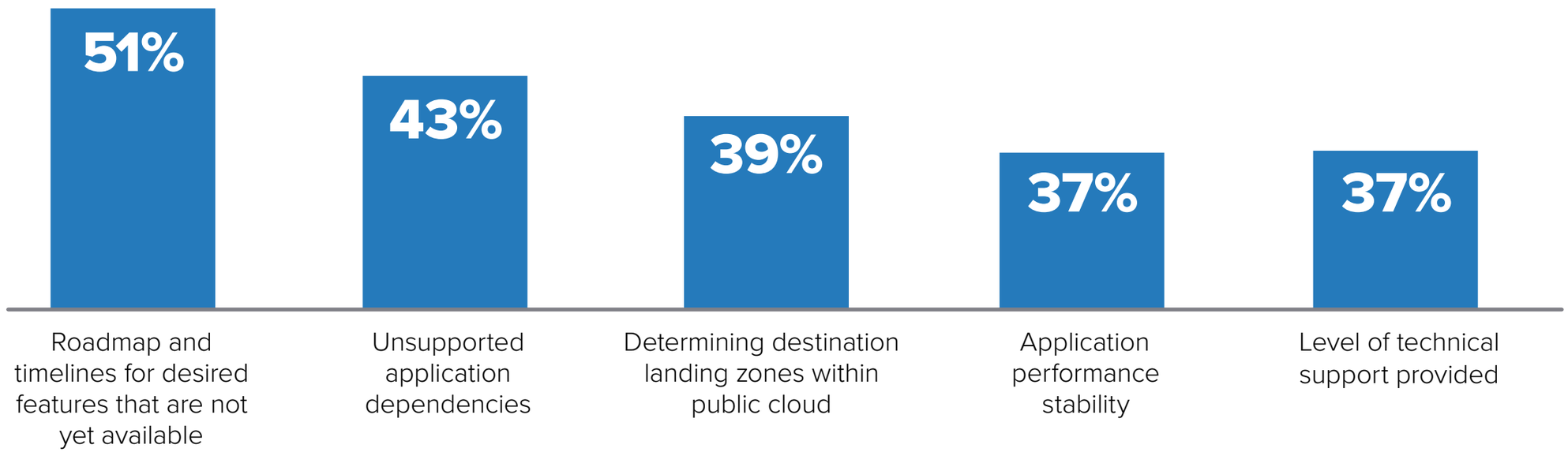
n = 204, Source: IDC *Migration to Public Cloud Thought Leadership Survey,* September 2021

Key questions to ask your public cloud providers:

Top public cloud dependencies to consider

Q: When actually migrating existing on-premises VMs to public clouds, what factors related to your public cloud provider's capabilities are most important to assess?

(% of respondents)



n = 204, Source: IDC *Migration to Public Cloud Thought Leadership Survey,* September 2021

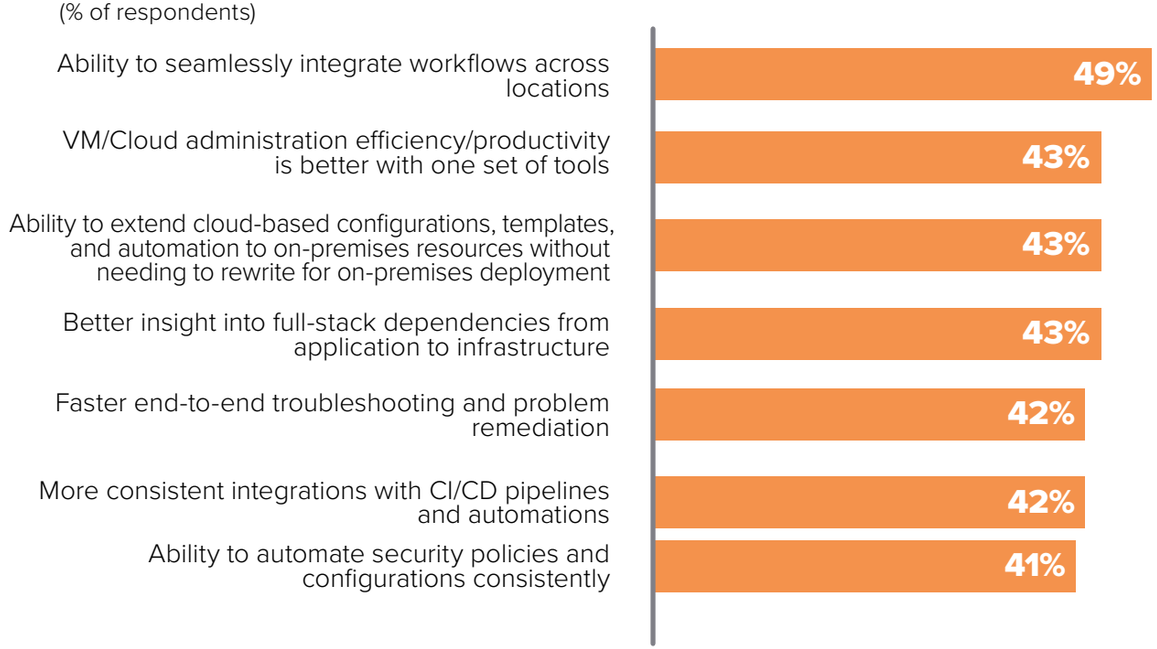
Consistent Operations Delivers Continuous Value

Once migration is completed, day-to-day performance and management consistency across on-premises and public cloud resources are needed to deliver continuous business value.

Benefits of unified management control plane across all VMs in public clouds and in on premises data centers

Q: Why is it very important or mission critical to have one unified management control plane across all VMs, regardless of whether they run in public clouds or on-premises data centers?

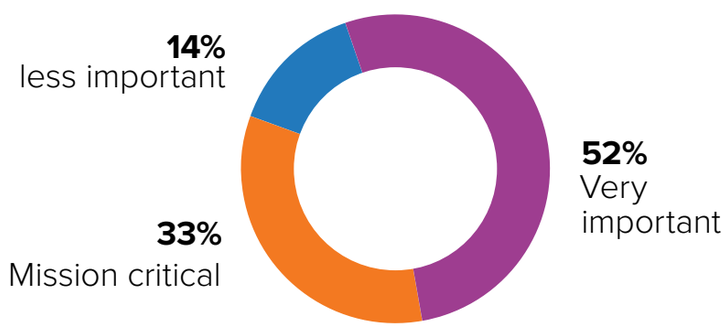
(% of respondents)



Importance of unified management control plane across on-premises and cloud based VMs

Q: In terms of your overall migration strategy, how important is the availability of one unified management control plane across all VMs, regardless of whether they run in public clouds or on-premises data centers?

(% of respondents)



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Long-Term Success

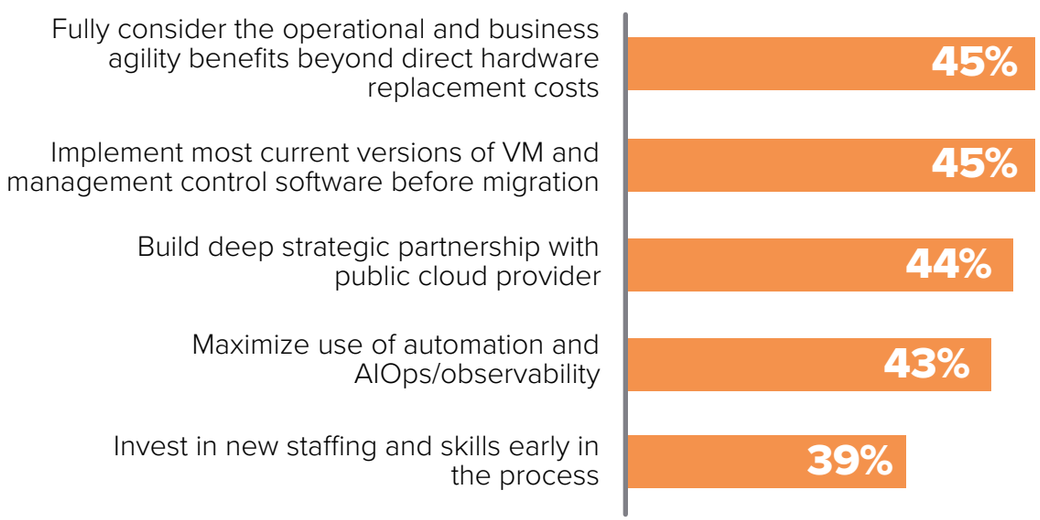
Business outcomes and KPIs will be used to judge long-term success.

Modernization | Agility | Sustainability | Speed

Most important things organizations can do to ensure the long-term success of their VM workload migration strategy

Q: What are the three most important things organizations such as yours can do to ensure the long-term success of your VM workload migration strategy?

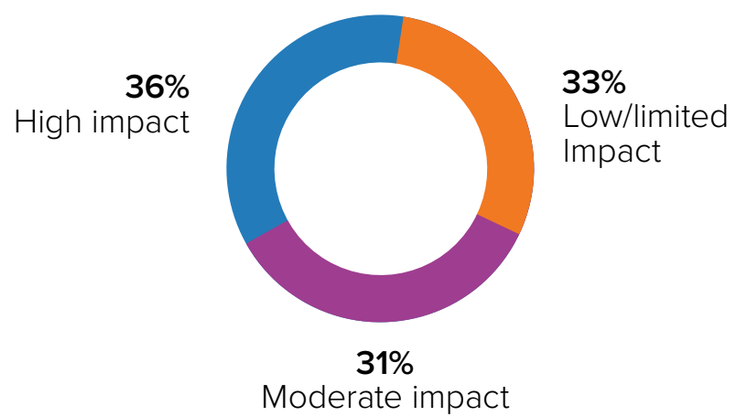
(% of respondents)



Consideration of corporate sustainability goals is becoming significant in building the business case

Q: To what extent do corporate sustainability goals impact your organization's decisions about VM workload migration?

(% of respondents)



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About Google Cloud VMware Engine

Google Cloud VMware Engine is the fast, easy path to a multi-cloud infrastructure. The solution empowers customers to provision VMware software-defined datacenter workloads and applications in Google Cloud within minutes. With the service, customers can quickly accelerate their cloud migration without changes to their applications, lowering their risk and at lower cost. Customers can also run production applications across VMware-based private, public, and hybrid cloud environments, with streamlined access to Google Cloud Platform services to modernize applications. Google Cloud VMware Engine is a Google-native solution sold by Google and its authorized partners.

To learn more about the Google Cloud VMware Engine visit:

https://cloud.google.com/vmware-engine

About the Analyst

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Mary Johnston Turner is Research Vice President, Future of Digital Infrastructure, part of IDC's Future Enterprise research team. She analyzes how Enterprise IT and business strategies are taking advantage of ubiquitous, autonomous cloud infrastructure solutions deployed across dedicated data center and shared public service environments.

Her practice emphasizes the voice of the Enterprise customer, based on surveys and in-depth analysis of best practices related to how Enterprises are changing the ways they source, secure, and optimize digital infrastructure solutions. Her research emphasizes consideration of how pay-as-you-go collaborative consumption-based subscriptions, cross-cloud control planes, and enterprise infrastructure governance models are enabling Enterprises to better align infrastructure investments with critical business outcomes and innovation priorities.

More about Mary Johnston Turner

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