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5 Essential Infrastructure Partner Requirements for High-growth Service Providers

Analyzing Why Users Choose or Abandon Service Providers and How the Right Infrastructure Providers Can Ensure Success

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Contents

Introduction

To support subscribers, today's high-growth service providers (i.e., hyperscalers) need to be able to expand and scale their resources as fast and as efficiently as possible. Especially in regard to compute resources, the pace of that infrastructure scaling will have a direct effect on the velocity of subscribers' IT and business initiatives. In other words, fast and effective scaling of compute resources by the service provider ensures that developers at its client organizations won't be held back from innovating.

Issues related to scaling represent the top reason why organizations switch cloud providers.[1] Therefore, taking scalability into consideration should be a priority for infrastructure- and software-as-a-service (IaaS and SaaS) providers. If they wish to remain competitive, they need to ensure that they have the right infrastructure components in place to support rapid scalability for their user base, while ensuring an optimal experience for them as well.

Naturally, the effort requires working with infrastructure partners that offer the best technology. But those partners also must have the right support systems—related to security, easy management, supply chain reliability, capital structure, energy efficiency, and sustainability in general—to optimize power and cooling, facilitate deployments, and ensure that ongoing service is provided dependably.

In general, success for both the service provider and its clients requires providing service-delivery consistency and predictability—at scale—and that requires finding partners that offer more than just high-quality infrastructure technology.

Why Organizations Choose and Abandon Service Providers

TechTarget's Enterprise Strategy Group conducted research into how organizations select and abandon service providers as a way to shed light on the importance of working with the right infrastructure partner. This research into hybrid cloud workload placement investigated what businesses want from their service providers (in terms of both infrastructure and SaaS) and what makes them sometimes alter course later.

Businesses Measure the Success of Service Providers Based on Scale and Experience Metrics

Figure 1 illustrates how organizations say they are measuring the value and effectiveness of their cloud service provider environments. Their major considerations encompass:
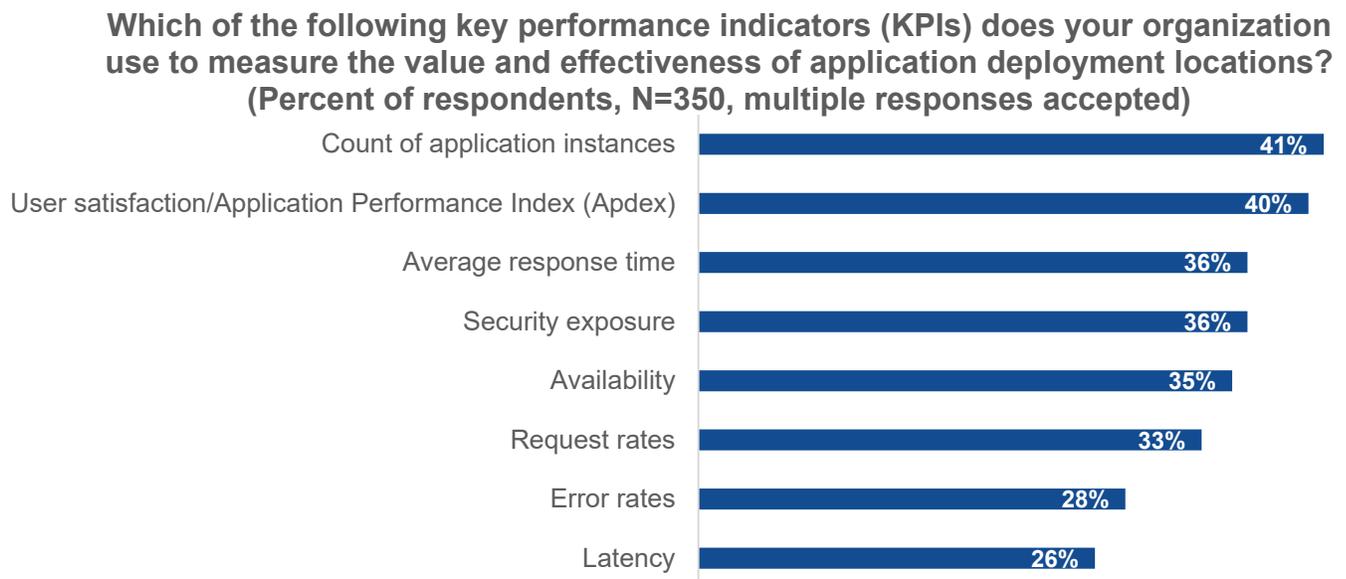
- **Scale**—specifically, the count of application instances.
- **Experience**—measured in user satisfaction/experience metrics, response time, availability, and latency.
- **Security**—measured in terms of whether their exposure level is within parameters.

These selection criteria hold true for both large-scale providers and smaller, regional service providers. In fact, the requirements that organizations place on providers are even more pronounced in regard to the smaller service providers, due to a relative lack of brand recognition and familiarity versus larger cloud providers.

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[1] Source: Enterprise Strategy Group Research Report, *Multi-cloud Application Deployment and Delivery Decision Making*, June 2023. All Enterprise Strategy Group research references and charts in this white paper have been taken from this research report.

Figure 1. How Organizations Measure the Effectiveness of Service Providers

Which of the following key performance indicators (KPIs) does your organization use to measure the value and effectiveness of application deployment locations? (Percent of respondents, N=350, multiple responses accepted)

KPI	Percent
Count of application instances	41%
User satisfaction/Application Performance Index (Apdex)	40%
Average response time	36%
Security exposure	36%
Availability	35%
Request rates	33%
Error rates	28%
Latency	26%

Source: Enterprise Strategy Group, a division of TechTarget, Inc.

Clearly, if a service provider wishes to be considered "high value," it has to invest in bolstering its ability to scale at a pace that exceeds that of its users' needs, while always delivering an optimal experience to all developers and other users leveraging the platform.

Why Users Abandon Cloud Service Providers…and the Reputational Costs That Result

Several factors cause organizations to stop using a cloud service provider altogether. Of course, the cost of application and data migrations across clouds is often significant enough to encourage organizations to stay with their current providers, but sometimes issues become so problematic that the organizations have to switch.
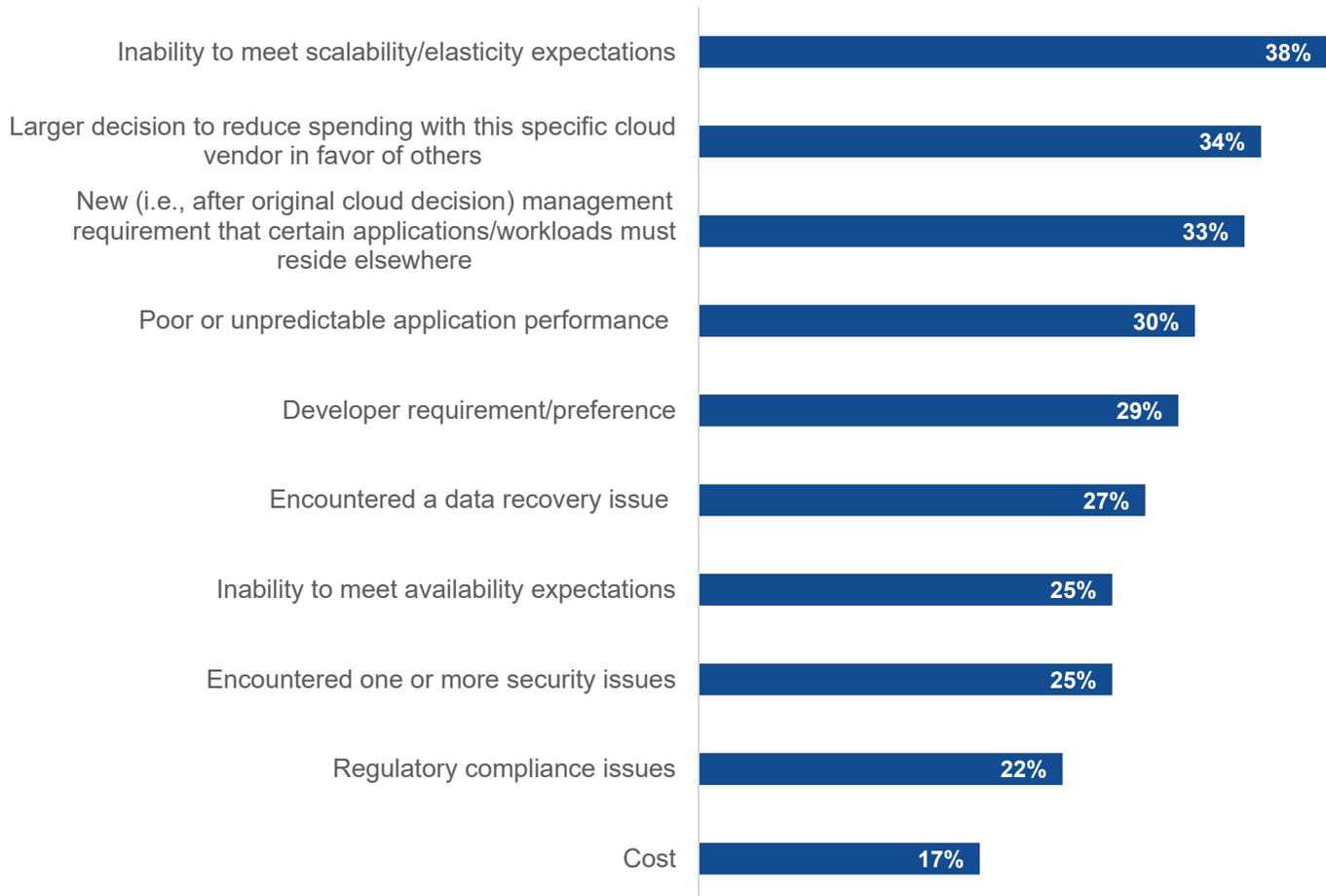
In fact, when Enterprise Strategy Group asked respondent organizations if they had ever switched a cloud-resident application to another provider, 89% of them said yes, with 38% of these respondents saying it happens often. That percentage increased to 52% among digital firms (those investing 15% or more of their revenue into R&D for digital products and services). The takeaway is that the more "digital" a service provider's customer base is, the more likely those customers are to abandon that provider if they encounter problems.

Enterprise Strategy Group identified the top factors tied to why organizations decide to abandon a service provider (see Figure 2). Again, it appears that smaller service providers are offered less leeway than their larger counterparts. The top factors for abandonment are:

- Inability to scale fast enough (cited by 38%).
- Executive decision. Leadership may opt to spend less (cited by 34%), or they may decide that workloads must reside somewhere else (33%). A decision of that type may be more likely to affect smaller providers that do not have the brand recognition, reinforcing the need for them to excel in offering positive-experience metrics.
- Poor and/or unpredictable performance (30%).
- Inability to serve developers' needs (29%).

Figure 2. Top Reasons Why Organizations Abandon One Service Provider for Another

You indicated your organization switched the location of a cloud-resident workload from one public cloud provider to another in the last 24 months. What factors influenced this decision? (Percent of respondents, N=309, multiple responses accepted)
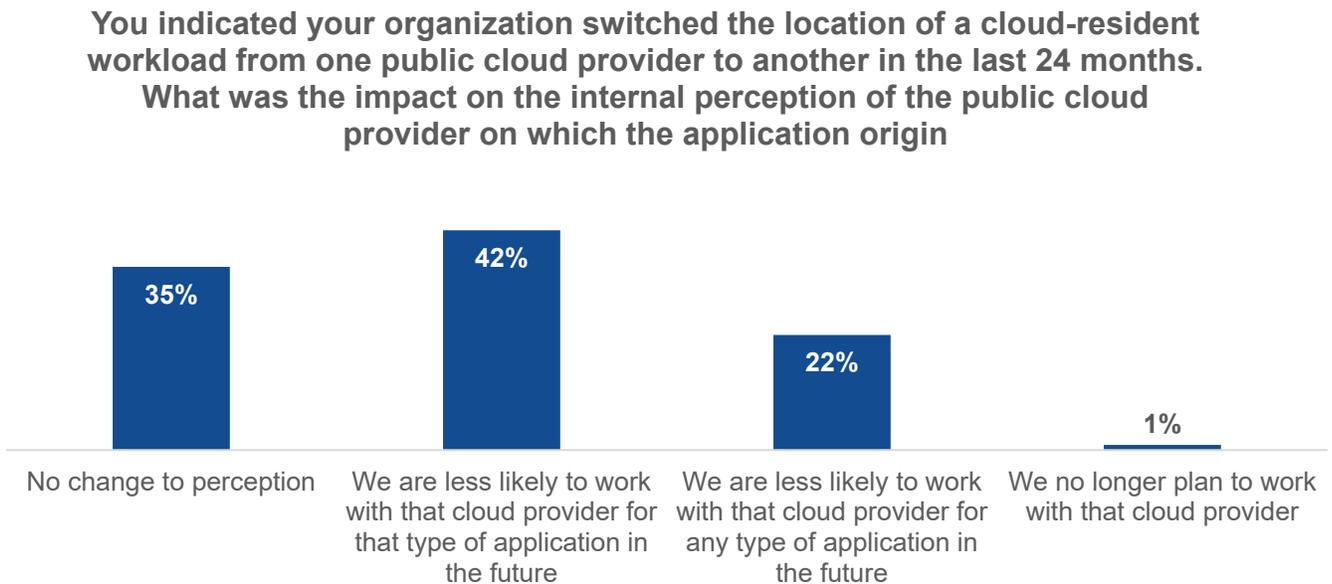
Reason	Percent
Inability to meet scalability/elasticity expectations	38%
Larger decision to reduce spending with this specific cloud vendor in favor of others	34%
New (i.e., after original cloud decision) management requirement that certain applications/workloads must reside elsewhere	33%
Poor or unpredictable application performance	30%
Developer requirement/preference	29%
Encountered a data recovery issue	27%
Inability to meet availability expectations	25%
Encountered one or more security issues	25%
Regulatory compliance issues	22%
Cost	17%

Source: Enterprise Strategy Group, a division of TechTarget, Inc.

All of the reasons mentioned by the respondents reinforce how important they feel it is for them to partner with the right infrastructure provider. In particular, the two responses related to management decisions are strong reminders to smaller service providers that, often, executive pressure is behind the move to a larger, better-known provider when user experience wanes.

Cost of Service Issues for the Provider

As Figure 3 shows, a cloud provider with service problems can suffer a heavy reputational cost. Among respondent organizations, 65% identified that they perceived the original provider less positively when they had to move an app from that provider to another. While only 1% said that they would never work with that provider again, a far larger percentage—42%—were less likely to look to that provider to support that specific application type going forward, and 22% were less likely to work with that cloud provider in regard to any app in the future.

Figure 3. Cost in Perception When an Application Switch Occurs

You indicated your organization switched the location of a cloud-resident workload from one public cloud provider to another in the last 24 months. What was the impact on the internal perception of the public cloud provider on which the application origin

| No change to perception | We are less likely to work with that cloud provider for that type of application in the future | We are less likely to work with that cloud provider for any type of application in the future | We no longer plan to work with that cloud provider |
| 35% | 42% | 22% | 1% |

Source: Enterprise Strategy Group, a division of TechTarget, Inc.

For the service providers, the inevitable result is a loss of revenue from those organizations for the foreseeable future.

The Role of Compute Infrastructure Providers in Ensuring the Best Experience at Scale

The increasing competitive pressure to deliver the best experience at scale requires service providers to leverage the maximum amount of compute resources within their budget.

Service providers should scrutinize the price and performance of their infrastructure providers' servers, but price and performance are not the only concerns. They also must expand their evaluation criteria to these five factors:

1. **Supply chain.** Keeping pace with scale demands the right infrastructure be deployed at the right time. With supply chain concerns increasing, service providers need to ensure that they have suitable equipment on the floor for when they need it.

2. **Capital structure.** The financial viability of infrastructure partners is essential to their ability to deliver expected levels of portfolio breadth, continuous innovation, and dependable support.

3. **Power and cooling (sustainability).** Organizations should prioritize working with infrastructure partners that can minimize the power- and cooling-related impacts of the compute infrastructure. Energy-related inefficiencies not only increase operating costs but also result in opportunity costs by "taking that power away" from a future infrastructure deployment. This evaluation criterion becomes even more important if the service provider wishes to scale its graphics processing unit (GPU)-based offerings.

4. **Security and manageability.** Security issues are among the main reasons why subscribers abandon one service provider for another. Conversely, superior security and management capabilities reduce the burden on

everyone's internal resources, ultimately reducing operational costs and accelerating the creation and delivery of incremental services.

5. **Deployment and servicing.** Quick service response by the infrastructure provider is essential to ensuring that the maximum number of compute resources will be readily available to the subscriber base.

Dell, a key infrastructure provider in this space, can address all of these issues, in addition to delivering leading price performance for compute resources.

Dell Technologies PowerEdge Servers

Dell Technologies delivers key capabilities with PowerEdge servers, which are powered by fourth-generation Intel Xeon scalable processors, to address the needs of service providers that desire to ensure the best experience for their subscribers—at scale. Dell capabilities provide differentiation in several areas:

- **Supply chain.** Dell's global supply chain logistics provide predictability across multiple sites. Dell states that it takes a holistic approach to protecting its supply chain and delivering trustworthy solutions. This effort involves multiple layers of controls to mitigate threats to the supply chain and help establish supply chain security.

- **Capital structure.** Dell boasts assets of more than $86 billion and has some of the world's largest investment firms as its shareholders. It also carefully maintains its capital structure to create a position of strength, with ample liquidity to satisfy any short-term liabilities and operational expenses. This is a bellwether IT corporation that is not going away anytime soon.

- **Power and cooling/sustainability.** PowerEdge servers use state-of-the-art thermal technologies with intelligent control systems to ensure optimal cooling and sustained system performance. Dell's Smart Cooling offers its customers the option to use air or direct liquid cooling in their infrastructure, which gives PowerEdge servers highly efficient cooling capabilities. To support sustainability, Dell OpenManage Enterprise Power Manager provides automated policies that place power caps on racks, rows, and rooms of servers. It also enables IT teams to assess which servers are consuming the most power. Overall, Dell reduces the carbon footprint of a cloud data center by actively managing and adjusting power consumption on an "as needed" basis.

- **Security/manageability options.** For management and monitoring, including the ability to plug into top automation frameworks, Dell offers a suite of software options, including Dell Open Server Manager built on OpenBMC™. Dell PowerEdge servers use an immutable, silicon-based root of trust to cryptographically attest to the integrity of the platform and firmware. Security is integrated, and it conforms to the NIST security framework, which reduces risks to the infrastructure and accelerates deployments.

- **Deployment and servicing.** Dell Technologies Services maximizes the life and value of PowerEdge servers via consulting services, deployment services, ongoing infrastructure support (including predictive/proactive issue resolution), security services to monitor for threats and protect sensitive data, and onsite or remote residency services.

It is so important to find the right infrastructure partner—one that can help to reduce burdens on internal operations and further accelerate operations. Dell is an unquestioned leader in this space.

Conclusion

IT leaders are being pushed by their organizations to deliver more, faster—all with the same number of people. They need to accrue as much digital infrastructure capability as they can possibly manage in order to keep up with business demands. And they are being asked to invest in net-new workloads, such as generative AI applications. To accomplish these feats and gain the necessary agility, they need to work with hyperscalers that have cultivated

relationships with premier infrastructure partners. That combined support will help IT organizations modernize and scale everywhere—on premises and in the cloud.

Whether a company is scaling from one server to ten, or from one thousand servers to ten thousand, it's a lot of work. There are many details to consider, pertaining to everything from supply chain reliability, financing, and sustainability, to security, support, and more. Fortunately, Dell has been in the server business for 35 years, and in that time, it has refined its ability to support its customers—individual organizations and hyperscalers alike— at some of the largest scales possible.

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TechTarget's Enterprise Strategy Group provides focused and actionable market intelligence, demand-side research, analyst advisory services, GTM strategy guidance, solution validations, and custom content supporting enterprise technology buying and selling.

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