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## TIPS FOR CHOOSING A CLOUD SERVICE PROVIDER

An Executive Brief  
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## TIPS FOR CHOOSING A CLOUD SERVICE PROVIDER

### INTRODUCTION

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One of the most intriguing aspects of the cloud is the freedom it brings. The lack of term or volume commitments, the pay as you go pricing, and the ease of entry and exit appear to grant a license to behave impulsively. Like a 60’s commune, that image of the cloud invites dabbling, even flirting, in a free-spirited, “no commitments” sort of way.

But is that any way to make a critical IT decision? Of course not. Tempting as it may be to sample your way through the cloud, IT leaders know that their businesses—and their jobs—depend on thoughtful planning. Once the decision has been made to pursue cloud solutions, the company needs to research the options in the marketplace.

### CLOUD SERVICE PROVIDER: ONE OR MANY?

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The biggest myth in technology is the existence of ‘the cloud’. In truth, there are many clouds, each developed and maintained by its own provider, who establishes the definitions and parameters for its cloud offers.

With such a tantalizing assortment of clouds to choose from—and the low barrier to entry—enterprises may consider trying them all, placing different workloads with different providers. But enterprises that go this route soon discover that the strategy creates more problems than it solves. Managing multiple vendors and multiple environments—via multiple consoles and with different pricing schemes, performance parameters, and service level agreements—adds a tremendous management burden to enterprise IT. Furthermore, working with multiple vendors will likely limit the ability to seamlessly perform critical ‘inter-cloud’ functions, such as bursting or backup and recovery. And without the ability to apply security profiles consistently across workloads, the multi-vendor environment can potentially expose the company to risk.

But if every provider offers different characteristics for their cloud offers, how is it possible to select just one provider to cover all the different workloads and applications that an enterprise may want to place in the cloud? The key is to find a provider whose cloud portfolio is as flexible and varied as the workloads it may handle—today and into the future.

## WHAT TO LOOK FOR IN A CLOUD SERVICE PROVIDER

Because cloud is still a new and evolving business model, it can be argued that the decision to select a cloud service provider should be approached with even greater diligence than other IT decisions. Many providers use the same term to define very different services (“hybrid cloud” is one example), making it difficult to compare offers. In addition, the flood of new entrants into the market means that many providers have little to no experience in hosting or application delivery, thus raising concerns not only about today’s service performance but also the ability to evolve their services to meet future needs.

The following list will help enterprises evaluate their options in two critical areas: the cloud service portfolio and the service provider itself.

### Evaluating the Provider’s Cloud Service Portfolio

IT needs are as varied as the workloads a business supports. Some workloads are relatively static in their computing resource needs; others fluctuate by time of day, month, or year; and still others are simply unpredictable. Some workloads involve data that is proprietary or regulated by industry or government, while others pose limited risk in case of a data breach. Some workloads are highly interactive, exchanging data with multiple internal or external sources, while others are largely standalone. During the evaluation phase of the cloud project, enterprises (either alone, or more likely with a partner) can determine the best environment for each workload; that is, the cloud environment that provides the right degree of performance, security, and resilience at the right price.

The challenge for the enterprise is to identify a provider with a portfolio that includes the full range of environments for its workloads. More importantly, the portfolio should extend beyond today’s vision and offer a foundation for your future cloud strategy. Specifically, look for the following characteristics:

**Interoperability** – This is a charged word, so it’s important to understand exactly how your provider defines it. To maximize the value of their cloud services, enterprises should select a provider that enables workloads to span multiple environments. This concept, sometimes described as a ‘hybrid cloud’, offers maximum flexibility for managing workloads efficiently. For example: enterprises should be able to place an application in a public cloud environment, but the associated database in a secure, on-premises cloud. Similarly, a workload in a private cloud environment may be configured to burst into an on-demand public cloud during unexpected traffic peaks. For greatest interoperability value, look for a provider that offers a common infrastructure platform for public and private hosted clouds, as well as your on-premises private cloud.

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**Flexibility** – Just as different workloads are suitable for different environments, they also require different configuration and delivery parameters. As such, the cloud provider should offer a menu or range of options related to performance, security, and resiliency, enabling the enterprise to select—and pay for—just the settings it requires for each workload.

**Service Level Agreements** – Be sure to read the fine print, and ask questions about the provider's service level agreements (SLAs). Reports of cloud outages often include statements from outraged clients who were shocked—*shocked*—to learn that a prolonged outage was actually permissible under the terms of the provider's 'annual average' availability metric. If a half-day outage will be detrimental to your business, then discuss this potential outcome with your provider upfront. Remember, it's not about getting the "best" SLAs; it's about getting the terms that are most meaningful to you and your business.

**Security** – When an enterprise enters the cloud, it is entrusting its information assets to a third-party provider. To earn that trust, the provider must take great steps to protect those assets. Look for a provider that makes security a priority. Choose an expert that thinks beyond the physical security of the facility or even firewalls. Ensure the provider builds its cloud architecture for optimal protection, including measures to isolate enterprise workloads on physical servers, protections against Internet-borne attacks, and clear administrative access controls.

### **Evaluating the Provider**

As noted, the cloud demands high levels of trust between the enterprise and the provider. The ability to earn the trust of customers is what differentiates providers, and what keeps even the simplest of cloud infrastructure services from becoming a commodity. In evaluating cloud service providers, look for the following:

**Cohesive, forward-looking cloud strategy** – Is the provider's cloud a hastily-launched effort to latch onto current momentum, or a carefully built foundation for future services? Cloud is a nascent technology and business model, one that is still evolving. Providers that are committed to the transformational potential of the cloud will be able to articulate a clear vision of the future, and will invest development resources to ensure they are leading—not following—the trends.

**Experience** – While the cloud is relatively new, the problems it solves are old. Look for a cloud provider with a track record in managing enterprise data centers, providing secure hosting, and delivering mission-critical applications.

**Access to technical expertise** – Thanks to automation tools and self-service Web portals, the cloud is largely a do-it-yourself effort—and many providers save costs by limiting their customer service support. But enterprises rely on such support, especially since they do not have the time and expert staff to optimize their use of the new cloud

technology. Be sure your provider offers the levels of customer service you are accustomed to, with access to expert technicians (either on-staff or through a certified partner network). For additional levels of support, find a provider that offers a range of managed and professional services to help you develop a cloud strategy, migrate to the cloud, and maintain optimal cloud performance.

## WHY IBM SMARTCLOUD?

In selecting a cloud service provider, enterprises would do well to consider IBM and its expanding IBM SmartCloud family. IBM delivers on all the recommended criteria for a solid cloud partner.

IBM SmartCloud is a fully integrated portfolio of services that covers the entire range of cloud-based needs. IBM SmartCloud consists of three families of offerings:

- **SmartCloud Foundation** comprises IBM hardware and software that enterprises can use to deploy on-premises private clouds, connect their private clouds with hosted clouds in a hybrid configuration, or both.
- **SmartCloud Services** includes the SmartCloud Enterprise public (shared) offering, a secure, virtual machine-based infrastructure service, as well as SmartCloud Enterprise+, a hosted, managed cloud service with shared or dedicated capacity. In addition, SmartCloud Application Services extend the infrastructure services with integrated platform functionality, which includes tools for development, deployment, integration, and management of applications. Of great value to enterprise IT: SmartCloud Application Services offer a unique level of support for specific commercial business applications, starting with SAP and expanding to others in the future.
- **SmartCloud Solutions** includes SaaS-based services from IBM's enterprise software portfolio.

Built from the ground up as an integrated family of services, the IBM SmartCloud portfolio can future-proof enterprises' cloud investments by enabling them to start at any of the three entry points and grow from there. For example, a business that is challenged to quickly bring new applications to market without infrastructure investment may get started in the cloud by deploying IBM SmartCloud Enterprise. Or, the enterprise may solve the problem of high costs and complexity in the premises-based data center by optimizing the infrastructure into a private cloud using the SmartCloud Foundation. In either case, the business may later decide to leverage the scalability of IBM SmartCloud Enterprise and the interoperability of the IBM SmartCloud family by configuring a hybrid cloud—one that enables bursting across the portfolio. Furthermore, the company may opt to adopt the SmartCloud Application Services platform, enabling development and integration of applications across the portfolio.

Regardless of their goals, enterprises can be confident that IBM and the SmartCloud portfolio will grow with their business, accommodating future as well as current IT needs.

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## Stratecast *The Last Word*

For many enterprises, the cloud is no longer a curiosity, but an opportunity to transform IT. As they think beyond one or two isolated workloads, their criteria in selecting a cloud provider become more stringent. To meet business goals for efficiency, cost-reduction, and simplification of processes, enterprises must look for a cloud provider that offers a range of services that meet today's needs and can grow with the business. The provider must also deliver secure, highly resilient services that interoperate across multiple cloud environments (premises-based and hosted, public, private, and hybrid). And the provider must deliver enterprise-class service and support.

IBM and the IBM SmartCloud portfolio deliver on all counts. IBM has a long history of helping enterprises manage their business processes and data centers. The company's network of certified cloud partners extends IBM expertise in the market, ensuring personalized service delivery for each customer. Furthermore, the cohesive, integrated cloud strategy behind IBM SmartCloud—one of the most comprehensive in the industry—offers the assurance enterprises need that IBM is a partner they can trust for the long haul.

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