



Clouds on the Horizon

Guidelines for Cloud Vendor Selection
CIO Advisory

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Introduction

Rapid advancement in consumer-focused services from emerging “born in the cloud” start-ups and leading technology organizations have successfully demonstrated how a cloud-enabled business can be disruptive in the market place. Cloud offers the opportunity to reduce time to value while increasing business agility to react to ever-increasing consumer demands for instant gratification. It is a game changer.

For most organizations, however, CIOs attempting to deploy successful Cloud services face an arduous challenge to keep up with the new competition. Common themes are now starting to emerge for senior executives seeking clarity for their Cloud sourcing strategy:

1. How do we successfully adopt services at scale and demonstrate innovation/business value?
2. How do we migrate/integrate/manage services alongside existing/legacy core IT platforms?
3. How do we ensure compliance and provide data confidentiality, integrity and availability?
4. How do we exit/recover from Cloud and avoid vendor lock-in?

Successful Cloud deployment challenges traditional IT thinking and requires changes across the entire organization – from people, processes and technology. It is easy to be enamored by technology advancements but focus should remain on developing consistent strategic principles for Cloud adoption driven by business value. The journey for successful Cloud deployment can be challenging, but the rewards can be lucrative.

KPMG member firms have had the privilege of working with many large organizations to sort through the complexity of cloud adoption and migration employing leading practices that CIOs can use to guide them through the decision process. In the following research we propose some guidelines for planning and selecting a Cloud Service Provider (CSP).



Guidelines for cloud service provider selection

The rapid transformations occurring within the vendor landscape for cloud service providers has increased uncertainty in the sourcing and investment decisions for senior executives.

Emerging start-up entrants are able to quickly demonstrate innovation value and in-turn displace larger incumbent provider market share. The challenge for the CIO is how to clarify and manage the uncertainty of the suppliers delivering new market disruptive technology and determine their long-term viability.

In this uncertain environment, using traditional criteria such as the number of years providing services to clients and position in research firm quadrants do not consistently function effectively as a method of evaluation. Nevertheless, the financial stability of the vendor as well as their performance and experience in providing solutions to similar sized organizations, with validated with customer references, may still be considered for benchmarks.

When deciding which CSP is the best fit for your organization, it is advisable to use a consistent approach to evaluating potential vendors, preferably by deriving an overall score for each vendor response based on an objective, quantitative and qualitative assessment of important decision elements.

To provide guidance in this, KPMG has developed a CSP evaluation framework consisting of eighteen representative criteria organized into three categories including (1) innovation and value; (2) operational capabilities; and (3) security and compliance. Each of the criteria can be scored using a numeric scale based on how well the CSP's offering meets client requirements or to what degree it excels relative to competitors. If certain decision criteria are more important than others, the scorecard can be further customized through a weighting system. The decision criteria are explained in more detail below.





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Innovation and value

Prevalence of consumption based pricing models and increased adoption of business partnership risk/reward mentality from suppliers has driven evolution in traditional contract negotiations. The first category consists of decision criteria that evaluate the CSP in terms of cost and how well its proposed solution meets or exceeds the business requirements documented in the RFP.

Representative innovation and value decision criteria

Decision Criteria	Considerations
Business Strategy Alignment	<ul style="list-style-type: none">• How do the CSP solutions improve service agility or generate new go-to-market capabilities?• What incentive structures exist that drive suppliers continuous innovation aligned with your business roadmap?
Benchmark Price Comparison	<ul style="list-style-type: none">• How does it compare to the current/trend cost of providing the service internally?• How does the service provider pricing compare to its competitors/benchmarks?• What flexibility is there in the pricing models and is there potential for volume discounts with the supplier?
One-off Transition Costs	<ul style="list-style-type: none">• What are the expected one-time costs to make the transition from on premise to the cloud?• How will legacy platforms be treated as part of migration? (write-off or let depreciation run off)
Degree to which the solution meets the requirements specified in the procurement solicitation documentation	<ul style="list-style-type: none">• Can the provider meet all of the requirements in the RFP? If not, how many of the requirements can they meet? How important are the ones they are unable to meet?
Validated Delivery Capability	<ul style="list-style-type: none">• Can the vendor provide customer references? How similar are the referenced solutions to your requirements? Are the references in the same industry, geography?



The second category consists of decision criteria that evaluate the CSP in terms of the initial transition from on premise to the cloud as well as the vendor's ability to provide support to ongoing operations.

Representative operational capabilities decision criteria

Decision Criteria	Considerations
Capabilities of resources proposed to support the contract and provide governance	<ul style="list-style-type: none">• How experienced are the vendor's staff that will be supporting the effort both during the initial transition and then as an ongoing operation?
Degree to which providers offshore support jobs such as helpdesk or application development and maintenance	<ul style="list-style-type: none">• Where are the support people located?• Are they onshore or offshore?• If offshore, will this create any issues around availability or communications due to time zone and language differences?
Adequacy of the transition plan	<ul style="list-style-type: none">• Is there a documented transition plan?• How detailed is the transition plan?• Does it include all of the required tasks?• Are the schedules realistic?• Does it commit enough resources?• What contingency plans are there?
Business continuity/disaster recovery capabilities and procedures within the proposed solution or available to your organization	<ul style="list-style-type: none">• Does the vendor offer business continuity/disaster recovery capabilities?• Do they meet the requirements for scope of coverage, recovery times, etc.?• Are they included as part of the basic contract or are they an extra cost?
Scalability	<ul style="list-style-type: none">• Are there any limitations on scalability? (Some vendors have built-in limits for resources but don't always disclose them. Auto scaling could shift workloads across geographic borders which could unwittingly violate privacy and data residency constraints.)
Established SLA / SLO frameworks that are aligned to customer needs related to Cloud, e.g., availability, security, change processes	<ul style="list-style-type: none">• Do the CSP's processes and performance metrics meet your requirements and your stakeholder's expectations?• What flexibility exists in the key performance indicators (KPI) used to measure the service? How do they compare to peers/internal measurements?• What service credit structures are available for failures to deliver against agreed levels• Do they have a demonstrable track record of meeting their contracted performance objectives with other customers?
Available automated processes to procure, adjust services and report on consumption	<ul style="list-style-type: none">• Does the CSP provide a management console and dashboard that provides automated capabilities for provisioning additional cloud resources, dynamically adjusting resources, and providing reports on cloud usage and costs?• Are they easy to use?• Can they be customized?
Available system management tools and processes capable of integrating with the customer as appropriate	<ul style="list-style-type: none">• Does the CSP provide system management tools and processes that are consistent with yours?• Can they be integrated with existing processes and tools?



Security and compliance

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Security and compliance issues have been one of the major concerns around cloud computing. The third category consists of five decision criteria that evaluate the CSP in terms of security and compliance related considerations (see Table 3 below).

Representative Security and Compliance Decision Criteria

Decision Criteria	Considerations
Compliance with non-disclosure agreement (NDA) and security requirements	<ul style="list-style-type: none">• Will the vendor comply with NDAs?• Does the vendor meet all security requirements?
Certification or intent to certify their cloud solution against identified standards, e.g., ISO27001/02	<ul style="list-style-type: none">• Are the vendor's cloud solutions certified against industry accepted standards?• If not, do they intend to obtain them, and if so in what timeframe?
Compliance with multi-tenancy restrictions	<ul style="list-style-type: none">• Does the vendor comply with any multi-tenancy restrictions you impose regarding security, data integrity, etc.?
Compliance with other technical restrictions	<ul style="list-style-type: none">• Does the vendor comply with any other technical restrictions contained in the RFP?
Capability to address jurisdictional restrictions on data storage that are appropriate for the customer's business	<ul style="list-style-type: none">• Does the cloud vendor have the ability to maintain compliance with cross-border data restrictions?





Plan for success

Choosing a CSP is not the end of the process - there are a number of other important factors to consider and pitfalls to avoid in order to attain success. By understanding and planning for these issues up-front, you can avoid pain, frustration and expense in the future, especially if the chosen CSP fails to live up to expectations or, worse, fails entirely. KPMG member firms have identified a number of potential issues that organizations' need to consider before making commitments to a CSP as part of the overall process of migrating to the cloud. These include:

- **Manage the migration.** This involves creating an overall plan and allocating resources to execute it. As part of the end to end process, organizations must clearly understand requirements, assign and enforce accountability, and develop and implement test and validation plans to ensure that the migration has been successful. The migration team must be composed of both technical and business users. A debrief process must be held post-migration to capture any lessons learned and to evaluate the overall success of the project.
- **Monitor and manage migration costs.** Depending on the scope, migration costs can represent a sizable chunk of the total costs involved. Underestimating these or losing control of them during the migration could invalidate the business case and significantly reduce or even eliminate any of the economic benefits of moving to the cloud.
- **Plan an exit strategy.** Understand your exit strategy upfront and incorporate migration costs into your initial business case for cloud. These costs should be defined in the original contract as they relate to termination assistance obligations for the incumbent CSP. This will help minimize the costs to your organization and allow you to understand not only the cost associated with moving to another CSP, but also the risks of moving to the cloud to begin with and help your organization evaluate the right cloud deployment model to pursue. Planning also helps in anticipating and mitigating expensive service downtime when migrating.
- **Consider open source.** Unless there are compelling reasons not to, strongly consider give preference to CSPs that use an open stack set of cloud standards over proprietary standards. Adopt data portability as a key consideration in the CSP certification process and use it to evaluate potential CSPs during tendering. This evaluation should be based on the criticality of the data and application that is being deployed, with an understanding that tools for different data types vary significantly in their level of openness. This will make it much easier to switch cloud vendors if the need arises.
- **Automate where possible.** Pursue automating as many of the migration processes as possible, especially when porting data to a CSP platform. Limiting the amount of manual intervention required reduces potential errors and lowers costs. Wherever possible build, document, and use a standard set of migration processes that can be re-used in subsequent migration efforts.
- **Optimize network performance.** One of the major reasons to shift to the cloud is to reduce or even eliminate the need to source and manage IT infrastructure. At the same time, however, with infrastructure now in the cloud there is an increased dependence on external networks for the delivery of computing services. Organizations will need to build internal teams or hire independent auditors to monitor the SLA metrics of external network providers.
- **Control growth.** After migrating to the cloud there is a real possibility for unexpected demand growth due to relatively small up-front costs, lower operating costs, and almost instantaneous procurement. The result can be uncontrolled growth where the number of logical and physical locations of data storage continuously proliferates past an acceptable level of control. Centralize purchasing decisions whenever possible so that various divisions don't run their own independent procurement and develop a cloud service reference document that clearly defines allowable services, roles and responsibilities, controls and measurement criteria. This can be used to pre-validate CSPs.
- **Software Licensing.** An area often omitted in planning that can significantly adjust the cost profile of adoption. Document licensing requirements for CSP instances; consider novation requirements and identify what opportunities exist to re-use on premise licensing with the provider if adopting IaaS environments.



How KPMG can help

KPMG firms recognize that today's CIOs face an increasing number of demands and complex tasks. We can help IT become the strategic technology partner that your business requires. KPMG member firms offer an experienced viewpoint and independent advice, and our Management Consulting – Technology practices can offer experience, lessons learned, tools and accelerators to help CIOs run the business of IT.

With extensive experience in cloud based transformation across industries and global complexities, KPMG member firms are uniquely positioned to understand your organization's needs. Our deep vertical industry knowledge (banking, insurance, manufacturing, ecommerce/retail, insurance, consumer products, pharma, healthcare as a limited set of examples) provides specific skillsets to address your distinct market challenges. Marrying deep industry knowledge with established IT strategy and cloud implementation experience can give clients a strategic advantage. Whether it's developing cloud strategy, building a business case, planning and executing a migration, selecting a Cloud Service Provider, or all of the above, KPMG member firms can help.





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