



An Oracle White Paper
May 2012

Ten Questions to Ask Your Cloud Vendor Before Entering the Cloud

Introduction

As the first decade of the twenty-first century drew to a close, the hype surrounding software as a service (SaaS) and cloud computing had become almost deafening. But although it's great for exposure and recognition, hype can also be a detriment to successful adoption of a solution or a technology—paired as it often is with inflated expectations, misunderstandings, and even disillusionment. This white paper provides a guide for engaging with cloud computing providers in a way that separates propaganda from reality—focusing instead on the things that are key to the successful deployment of cloud-based services.

Containing 10 tips based on best practices gleaned from industry analysis and direct experience with thousands of cloud deployments, this paper draws on conversations with CIOs, program and project managers, IT directors, engineers, developers, administrators, and more—across all industries and in organizations of every size.

Finding the Right Solution for the Business

Despite the “utility” promise of cloud computing, IT departments haven’t really changed their approach to selecting cloud services and solutions. This is because CIOs and IT organizations, at the end of the day, still need to focus on finding the right solution for their business. This means starting with a comprehensive understanding of business requirements and then moving on to solid comprehension of the appropriate enterprise architecture. You will need to decide whether to go with a commercial solution or to build one in-house. And you’ll have to determine whether a best-of-breed or a monolithic solution strategy is right for your organization. If your selection criteria lead you to a cloud-based solution, the 10 questions that make up the bulk of this white paper can help you get a head start on your analysis—helping you answer these critical underlying questions:

- Is this cloud solution the *best* solution—both functionally and economically?
- Will this cloud vendor be easy to do business with, and are its long-term prospects as a business good?
- Does this cloud solution reduce technology complexity?
- Will this cloud solution enable us to effectively manage operational, security, and compliance risks?

By asking prospective cloud vendors the following questions, you can determine whether their solutions will live up to their hype.

1. Can You Demonstrate Successful Similar Deployments?

Most vendor solutions look good on paper, but the proof is in the pudding. When you’re trying to manage deployment risk, there’s nothing more comforting than knowing you’re not the first organization to have implemented the specific configuration you’re planning. Look for relevant examples of functional proof points as well as ROI and business value proof points. Also look for third-party confirmation through awards and anecdotes. The vendor should be able to tell you how other customers have used its solution to solve the same business challenges you’re looking to address.

Ask the cloud vendor for customer references, and try to obtain additional references through your own network. Most business leaders today are being asked to do more with less, so understanding how a cloud vendor’s current customers are doing this can be helpful.

2. Do You Have a “Try Before You Buy” Program?

One the unique aspect of cloud computing is that you can enlist the vendor to help you convince management that the ROI/business value potential is there. By testing the concept first, you can help allay fears and hesitation before signing a contract. Specifically, ask about the ability to pilot the solution. You may still need to pay for implementation services associated with the pilot, but in the new world of cloud computing, look for proof points and results *before* you make a large investment.

3. Do You Offer Contractual Flexibility and Price Protection?

Many of the bad licensing practices that have occurred in the on-premises enterprise software world have now found their way into the cloud. For example, “shelfware” remains a significant problem, because clients are forced to buy more up-front than they need—even though a cloud computing environment should provide for rapid elasticity. Although the massive scale of a cloud computing provider should help smooth out financial unpredictability, organizations are also forced to commit to interminable contracts to get any sort of pricing predictability. Cloud computing subscriptions are supposed to eliminate the vendor lock-in associated with perpetual licensing, but long-term contracts are increasingly being deployed for cloud services. Thus, there are at least three key questions you should ask about contractual flexibility and price protection:

- Do you provide a standard annual termination for convenience?
- Do you allow for annual usage-level alignment (up or down) based on business needs, and can I apply monthly “rollover” usage to address seasonal peaks?
- Do you provide long-term price protection?

Cloud computing promises to change the way software is consumed and acquired. Indeed, much of the hype about cloud computing focuses on the increased alignment between service providers and clients (driven by the subscription model and the speed of innovation). Make sure your cloud vendor isn’t diluting that promise by living in the perpetual-license past.

4. Do You Have Service-Level Agreements and a Strong History of Service-Level Performance?

Service-level agreements (SLAs) provide another great way to create alignment between service provider and client. Although you don’t want to depend exclusively on the SLA for alignment or performance, it serves as a necessary backstop. Thus, putting thought and effort into getting your SLA right is important. A mature and professional cloud computing provider should give you what you need out-of-the-box. There are five things you should keep in mind as you evaluate cloud provider SLAs:

- Are the SLAs relevant to the areas that need alignment, such as availability, transaction time, storage, and performance?
- Are the SLAs relevant to what they’re supposed to accomplish? The cloud typically relies on the subscription model of service licensing: you don’t buy a perpetual license but, rather, the right to use the software for a specified period of time. Because their business model depends on your renewal, most cloud computing providers have built-in incentives that align with customer satisfaction and success. This is one of the advantages of working with cloud providers: they put their subscription revenue at risk, not just their maintenance and support revenue. Because of the broad alignment the subscription model creates, the SLA can be focused on a few key high-risk areas.

- How transparent is the cloud vendor in sharing SLA performance (daily, weekly, or monthly)? You need broad visibility into situations that may result in breaches of the SLA.
- Are the SLAs results-oriented? You're in the business of creating value for your customers; the SLAs should help.
- If the vendor drops the ball and misses SLA performance objectives, will it compensate you financially?

SLAs are not intended to replace trust. Although the subscription model creates a strong general incentive for performance, the SLA exists to define the *minimum* acceptable levels of performance and to ensure that appropriate action is taken if those levels are not met. Think of the entire value chain in your business, and then make a list of the critical metrics your SLA needs to reflect. No provider is perfect, but the provider you choose should be able to provide systemic fixes for any issues that arise. SLAs can be useful in achieving that goal. You want to make sure your cloud provider is accountable in situations in which objectives are *not* met.

5. Do You Provide Operational Transparency?

Although it may seem strange, cloud companies sometimes forget about the *service* part of the equation. You get functionality. You get professional services. You get some access to support. But when it comes to mission-critical software, you need more. If the services you're getting are a black box and an issue arises, it can be difficult to determine the problem's source—particularly in integrated systems. Many cloud providers will give you visibility into whether their overall service is up or down, but that's significantly less "service" than you'd have if you were running the solution onsite. Look for visibility into the following services, at a minimum:

- Monitoring and operational management
- Performance management
- Change management
- Capacity and license planning, and usage management
- Problem management
- Service-level management
- Service-level data integration

Although you're unlikely to get *approval rights* for a cloud computing provider's change management or capacity management processes, the provider should be willing to provide *visibility* into these services. The provider is, after all, performing the services on your behalf, and a portion of your business is running on its platform. Transparency not only builds trust but it also provides a powerful incentive for the provider to maintain excellence in its operations. Make sure your cloud vendor is committed to both excellence and transparency.

6. Do You Offer Multitenancy?

Multitenancy is simply the ability to run multiple customers across a shared infrastructure environment. You can achieve multitenancy in a variety of ways, but there's no real reason to get religious about any one approach, because in the world of technology, something new and better tends to come along as soon as you've aligned your organization with a particular technology. The point of multitenancy is to squeeze as much efficiency as possible out of the hardware (and, to a lesser extent, any platform licensing costs). Multitenancy enables the provider to run a highly homogeneous infrastructure, creating several operational and cost advantages. Find out if the multitenancy approach the provider employs achieves this goal. Many application service providers (ASPs) of the past went out of business because they were unable to deliver the type of efficiencies (or to reduce systemic risk) that today's cloud vendors do.

Multitenancy drives cloud economics. The more efficient the multitenant model, the better your pricing should be. Of course, you need to weigh this against the risk of your environment's not being protected. There are better and worse approaches to multitenancy when it comes to efficiency. And there are better and worse approaches when it comes to risk management. Both issues are worth exploring as part of your evaluation.

7. Do You Have a Comprehensive Disaster Recovery Plan?

When it comes to disaster recovery, there are three essential questions you should ask any prospective cloud vendor:

- Do you have a disaster recovery plan?
- Do you test your disaster recovery plan on a regular basis?
- Does your disaster recovery plan actually work?

Many companies regularly test their disaster recovery plans—and regularly see those plans fail. They then follow through on their remediation plans—and watch those plans fail again. Thus, asking, “Does the DR plan do what it is supposed to do?” is a perfectly acceptable question. A cloud computing provider should be a specialist in the service it's offering.

In the case of disaster, your recovery point objective (RPO) should be real time or near real time. In contrast, your recovery time objective (RTO) will vary, depending on the needs of your business and the likelihood of an actual disaster. Although the resilience of your cloud computing provider's core infrastructure is more important than its disaster recovery capabilities, both are important. Loss of a particular system is likely and should have zero impact; loss of a data center should be rare.

8. Do You Meet Critical Security and Compliance Requirements?

Security and compliance are key priorities in evaluating cloud vendors. Your organization remains accountable to regulators, business partners, customers, and employees. Thus, you shouldn't consider using a particular cloud computing vendor unless it has adopted a comprehensive and technically sound approach to a "defense in depth" security program. Make an effort to map your needs for security controls (such as accountability, privacy, confidentiality, integrity, and availability) to the vendor's capabilities. A good way to do that is by asking the following questions:

- What are the vendor's capabilities and policies for protecting your data (both physically and procedurally)?
- How is the application itself protected, and how is that protection maintained over time?
- How does the vendor meet general and industry-specific security and compliance standards such as those established by the Payment Card Industry (PCI) Security Standards Council or the National Institute of Standards and Technology (NIST)? Does the cloud solution comply with the Statement on Auditing Standards No. 70 (SAS70), the Health Insurance Portability and Accountability Act (HIPAA), or the Department of Defense Information Assurance Certification and Accreditation Process (DIACAP)?
- How does the vendor meet the unique security requirements of your industry?

Security is a hot topic—particularly when it comes to cloud computing. The approach and technologies used by cloud computing providers to secure their clouds are likely to be similar to those employed by IT organizations to secure their internal systems. It may not be the technology or procedures you need to question but rather the *way* you will consume the security approach (that is, as a service).

9. Can I Configure the Solution to Meet My Needs?

Enterprise software applications often require significant implementation services or projects to meet the unique needs of particular businesses. Cloud-based solutions are typically able to provide these capabilities through configuration rather than custom code development. In fact, one of the advantages of working with cloud providers is that their economic model works best when they're able to provide a solution or a service that fits the needs of the majority of their customers. Because creating this capability is typically a focus of engineering, look to make the system specific to your company through configuration rather than customization. This means looking for system features that can be configured by *business technologists*—that is, tech-savvy individuals who are not programmers but understand systems and can use built-in business design tools to configure your implementation.

If the vendor wants to write a bunch of code to build your screens, workflow, and reports, its solution is likely either a bad fit for your business or inherently immature. Although total configuration isn't always possible, you should be on the lookout for approaches such as drag-and-drop capabilities. Some cloud providers will hold you over a barrel and act like traditional software companies by offering expensive customization instead of easy-to-understand configuration.

10. Do You Offer Robust Integration?

There's nothing you can do with on-premises software that you can't do with cloud computing. The potential gap lies in what integration services are available to you, in that less mature providers may not yet have built out these more advanced integration capabilities.

For this reason, it's important to understand not just the integration capabilities offered by a cloud application but also the economics behind them. Sometimes the integration offering will have its own pay-per-use model, so be aware of the economic nuances of cloud integration and any limits they might impose. It's also important to ask cloud vendors whether their integration offerings cover the breadth of capabilities you need, both near- and long-term. Often, the initial focus of data integration is to ensure that information stored in back-office systems can be exchanged with the cloud service. However, if your goal is to consolidate the cloud solution into your master record management strategy, you may need ongoing synchronization rather than just initial data seeding. Likewise, if your objectives extend to automating the interaction workflow and visual component in the presentation layer of the cloud offering, you need to determine whether the presentation layer also includes the extensible integration options that align with your objectives. This area often gets overlooked initially, because data integration is the primary focus. In the long run, however, it is in the costs associated with providing a stellar user experience that the greatest efficiencies are often found.

The integration and implementation resources available to cloud vendors (including third-party technology partners that have implemented turnkey solutions via the standard integration models) represent a final key aspect of integration. Although open, standards-based integration technology is crucial, you also need to know that the vendor has a skilled pool of integration resources to call upon when needed. Thus, you should find out what systems integrator partner resources the vendor offers.

Conclusion

As the need to balance greater customer expectations with shrinking budgets intensifies, more companies are looking to technology for help. As a result, cloud computing adoption rates are increasing. However, many cloud vendors won't be able to meet your high demands, so make sure every cloud vendor you consider can answer affirmatively to the 10 questions presented here.



Ten Questions to Ask Your Cloud Vendor
Before Entering the Cloud

May 2012

Author: Laef Olson

Oracle Corporation
World Headquarters
500 Oracle Parkway
Redwood Shores, CA 94065
U.S.A.

Worldwide Inquiries:
Phone: +1.650.506.7000
Fax: +1.650.506.7200

oracle.com



Oracle is committed to developing practices and products that help protect the environment

Copyright © 2012, Oracle and/or its affiliates. All rights reserved. This document is provided for information purposes only and the contents hereof are subject to change without notice. This document is not warranted to be error-free, nor subject to any other warranties or conditions, whether expressed orally or implied in law, including implied warranties and conditions of merchantability or fitness for a particular purpose. We specifically disclaim any liability with respect to this document and no contractual obligations are formed either directly or indirectly by this document. This document may not be reproduced or transmitted in any form or by any means, electronic or mechanical, for any purpose, without our prior written permission.

Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

Intel and Intel Xeon are trademarks or registered trademarks of Intel Corporation. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. AMD, Opteron, the AMD logo, and the AMD Opteron logo are trademarks or registered trademarks of Advanced Micro Devices. UNIX is a registered trademark licensed through X/Open Company, Ltd. 0512

Hardware and Software, Engineered to Work Together