White Paper

Five Steps to Choosing an Enterprise-Class Cloud Service Provider

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EXECUTIVE SUMMARY

For many IT leaders, the potential benefits of procuring cloud services from service providers are obvious: Move from a capex to an opex model, enhance efficiencies, provide IT on demand, and accelerate time to market—all on a flat budget. The question is how to transform the cloud promise into real results. NetApp's IT team is comprised of early adopters of cloud services who learned to utilize those services to drive positive business outcomes. Initial service provider selection and planning are critical to obtaining ROI from an outsourced model. In five easy steps, NetApp IT experts share here the internal process that guides our team in selecting enterprise-class cloud service providers that can meet robust service-level agreements, safeguard information assets, and help you achieve cost savings and business acceleration objectives.

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1 INTRODUCTION TO SELECTING A CLOUD SERVICE PROVIDER

In May 2011, when NetApp acquired Engenio, the storage division of LSI, collaborating with the right public cloud service provider enabled NetApp to achieve a positive ROI from a single project. Within five days of the acquisition, NetApp IT used cloud services to provision, test, and launch a Web site containing all of the information Engenio employees needed to integrate with NetApp, including internal HR resources, company information, and links to important internal resources. Such a project would previously have taken at least four weeks to build, plan, and execute with traditional IT. In addition to saving thousands of dollars in resources and systems labor, NetApp accelerated the on-boarding and integration of 5,000 new employees, enabling them to become productive weeks faster.

Augmenting traditional IT with public, private, or hybrid cloud services can make your business more agile. NetApp's ability to execute and take advantage of an unexpected opportunity was a direct result of having an excellent long-term working relationship with our cloud service provider partner. Although the integration of Engenio employees is one ideal example, we believe that most enterprises can reap the value of procured cloud services by leveraging them for cost savings at scale: across an entire organization with many users and for multiple projects, over time. In both types of situations, the best service providers are good strategic partners for an enterprise. Both sides are increasingly ready for these relationships.

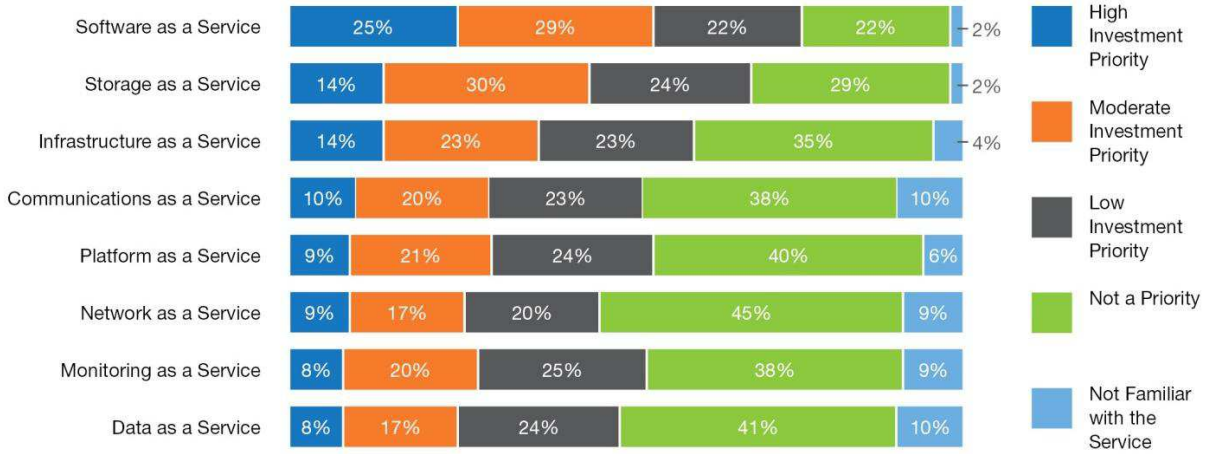
CURRENT STATE AND FUTURE EVOLUTION OF THE CLOUD IN THE ENTERPRISE

Over the past few years, enterprise cloud technology has begun to mature, and procuring cloud services from a service provider has become an increasingly popular enterprise IT strategy. Many IT leaders seek the benefits of cloud services, such as the ability to:

- Accelerate time to market
- Pay as you go and enjoy lower total cost of ownership
- Replace capital investments with operating expenses
- Dynamically scale resources on demand
- Free up operational resources and staff by relying on built-in support from vendors

In the short term, much of the emphasis is on the private cloud, with the adoption of the public cloud for certain workloads, such as development and test environments, Web applications, and datastores. Figure 1 summarizes one study of enterprise IT leaders' cloud investment priorities.

Figure 1) Cloud services investment priorities.



Source: 2010 IDG Enterprise Cloud-based Computing Research, November 2010

Going forward, as service providers become more capable and prove their ability to run enterprise-class clouds, more enterprises will trust these providers with strategically important workloads.

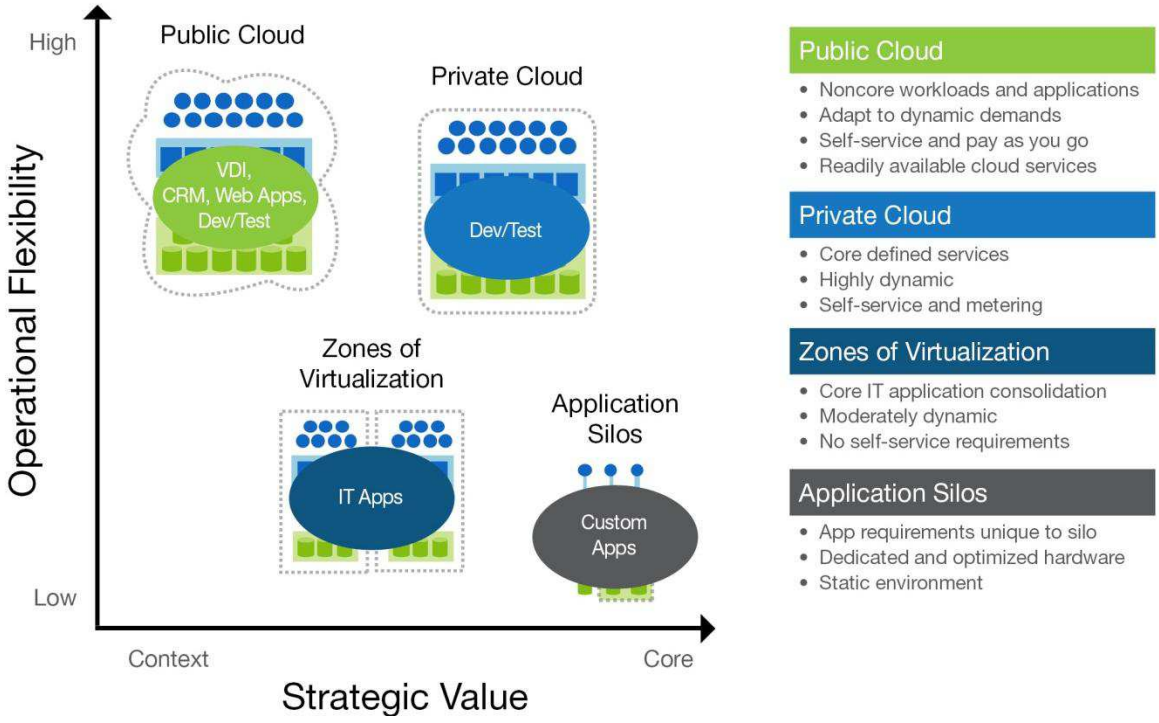
For those IT leaders with an interest in procuring enterprise-class cloud services for public, private, or hybrid clouds, NetApp IT experts here share their process for selecting the right service provider for your business.

2 STEP 1: PLAN FOR SUCCESS AND DETERMINE YOUR REQUIREMENTS

LET YOUR BUSINESS NEEDS DETERMINE YOUR CLOUD STRATEGY

First, assess which workloads would benefit from being moved to the cloud. Figure 2 provides a guide for determining which workloads might benefit the company by being moved to the cloud and which type of cloud is likely to be suitable. Workloads or applications that are customized to the needs of the business and central to competitive advantage are considered core and tend to remain on site. In contrast, those that are unrelated to a company's core business can be considered context. In general, context workloads that benefit from more flexibility are good candidates for the public cloud. By outsourcing these workloads, companies can benefit from the accelerated time to market, added flexibility, and economies of scale that a service provider offers.

Figure 2) Strategy starts with workloads and applications.



Examples of Context vs. Core Workloads	Example of Low- vs. High-Flexibility Workloads
• Most organizations consider Customer Relationship Management (CRM) a context application and a good public cloud candidate. • A financial services company that gains an advantage by processing data milliseconds faster than the competition will tend to consider its finance system to be core and prefer to keep it in house. In contrast, other types of companies might consider their finance system to be context and a good candidate for outsourcing.	• Applications or workflows that are deeply integrated with other applications, work in tandem with other applications, feed data to other business-critical processes, or act as a node in a larger ecosystem tend to be poor candidates for the public cloud, due to their complexity and dependencies. • Performance testing is a workload that can benefit from a dynamic infrastructure but needs to be done as locally as possible in order to imitate a production environment, and so would be best served by a private cloud.

Once you have a list of workloads that are good candidates for public or private cloud services, it's time to select and prioritize the workloads for your initial and future projects and break projects into manageable chunks that work for your business.

THINK BIG, BUT TAKE AN INCREMENTAL APPROACH TO ACHIEVE SUCCESS

The promise of cloud services is strong and IT leaders may be under pressure to transfer workloads to the cloud as quickly as possible. However, since a successful relationship with your service provider involves mutual trust and joint learning, we advocate for a gradual, incremental approach.

An incremental approach not only allows you to build trust by evaluating the performance of your service provider over time, but also enables your touch points and integration points to mature in preparation for larger projects. As you experience incremental success and become more comfortable with your provider's capabilities, you can select larger, more complex, and strategically important workloads to move to cloud services.

For best results and a smooth migration to cloud services, NetApp IT advises starting with less complex or less critical projects such as pilot programs and planning to grow your cloud footprint gradually over time. However, some people are happy outsourcing large applications such as e-mail right from the start. Whichever approach works for you, the two strategies that follow will enable you to break complex projects into steps and tasks with an appropriate scope for deploying cloud services incrementally.

Example of a Strategy for Outsourcing Multiple Projects

An IT leader may begin working with a service provider to outsource small, less critical projects, such as departmental tools or Web applications. Later, he or she can expand the agreement to include internal IT workloads and dev/test environments. If these projects are a success, the leader can consider outsourcing core workloads and critical applications such as corporate e-mail.

Example of a Strategy for Outsourcing a Large Project

Many IT shops have outsourced or are considering outsourcing large and potentially complex applications such as CRM or corporate e-mail. An IT leader who wants to outsource e-mail can reduce the risk by breaking the outsourcing into planned phases. The leader can start by outsourcing limited capabilities such as archives, mail distribution lists, or simple failover to the cloud. After experiencing success and feeling comfortable with the service provider's capabilities, he or she can decide whether to outsource more critical functionality. Two common approaches at this stage are selecting a SaaS implementation, in which the entire e-mail application moves to the cloud, or taking a component-based approach, in which the mail engine moves to the cloud while core services or functions remain on site. Account services (for example, LDAP or Active Directory®) is one function that may be deeply integrated with other applications and may remain in house when you take a component-based approach.

Once you have prioritized your list of projects, it's time to define your requirements.

DEFINE YOUR REQUIREMENTS FOR TODAY AND FOR THE FUTURE

In order to maximize the ROI for your procured cloud services, NetApp IT recommends choosing a service provider that can be your strategic partner—one that can not only help you achieve your objectives today, but also provide savings and efficiency across your future cloud service road map. Begin by listing your requirements for all projects in the next three to five years. Reviewing the capabilities of reputable service providers can give you additional ideas to expand this list.

Example

An enterprise that needs a private cloud for testing today may want to consider other proven, widely available cloud services such as SharePoint® server farms or databases in the future. Requirements for these potential projects should be on the initial list that will be used to select a cloud service provider.

Enterprises that do not select a service provider that can meet their future road map risk increased cost and decreased ROI from their cloud projects. They may need to re-engineer internal systems to integrate with their cloud provider, retain internal staff to handle the job, or contract with an additional service provider to get the services they need.

TRADE-OFFS FOR SINGLE- AND MULTI-PROVIDER STRATEGIES

Requirements can be fulfilled by contracting with multiple service providers. However, this approach is most likely to be cost effective if it is planned for up front. Having multiple service providers compete enables you to get the best service. However, having too many service providers raises costs and complexity and lowers the ROI for your outsourced cloud.

DON'T FORGET INTEGRATION REQUIREMENTS

Neglecting integration requirements up front can lead to unexpected costs for your cloud service. List any requirements pertaining to cloud services that will access internal resources, including integration capabilities and technology standards that you've chosen for your business.

Example

If you're procuring cloud services for a Web site that will allow users to log in and access an internal database via your internal single-sign-on that uses SAML 2.0, add requirements for a service provider that has this capability.

If you're considering a multi-provider strategy, you may want to consider adding common cloud standards to your requirements list. By enabling common platforms or interfaces, these standards can mitigate future risks of incompatibility between different service providers.

Example

Cloud standards such as OpenStack or SNIA CDMI can allow data and application portability between service providers.

Careful up-front planning for data portability, integration, and other current and future requirements reduces unexpected costs and risks by reducing the chance of selecting a service provider with unexpected limitations in critical areas.

3 STEP 2: IDENTIFY AND SCREEN PROMISING SERVICE PROVIDERS

Now that you have your requirements, it's time to identify promising service providers with the right portfolio of services to meet your needs and do some preliminary screening to identify those likely to be a good fit for your business. Your process may include a broad search of Web information, looking at service provider Web sites, requesting information from analysts, and contacting service providers directly.

During your search, look for some hard evidence that shows you whether each service provider has experience serving enterprises like yours. Good pieces of evidence to look for at this stage include sample customer lists, reputation, track record, and existing customer base. Service providers with experience in your industry or similar customers are likely to have a good understanding of your business and technology needs.

Example

A hospital may want to look for a service provider with a good reputation and investment in the medical industry. A track record serving other major hospitals shows that a provider will be likely to understand your business challenges and have expertise managing similar workloads and environments.

If you have many candidates, you may want to prioritize those whose strengths are in areas that matter for your business. Ask your service provider about what differentiates the company from the competition and what he or she considers to be the company's industry focus and greatest asset or offering. One provider may focus on providing great service while another may emphasize reliable and affordable infrastructure or predictable infrastructure costs.

At this time, you should also consider which technology stacks best meet your needs and are likely to win in the marketplace. If your enterprise infrastructure and application stack use a lot of Microsoft® technology, you may want to prioritize those service providers that also have these strengths. Alignment between your road map and your service provider's technology stack and strengths reduces risk of future incompatibility. Your applications will have a better chance of working well together and you may even experience some performance benefits. Selecting a winning technology stack also provides the benefit of an expanding ecosystem with more vendors developing applications or offering support in the future.

Once you have refined your list to include only the most promising providers, it's time to prepare for a longer evaluation process. Repeat your scan of promising providers' Web sites and other third-party information. This time look for a few key indicators of enterprise-class service. For example, a true enterprise-class provider not only promises to meet SLAs, but also offers the quality of service, processes, and support that are commensurate with these SLAs.

Example

Twenty-four/seven support, mature operational or change control processes with well-defined parameters, and rapid or guaranteed response times for incident management are key differentiators that distinguish enterprise-class service providers. A multihour weekly maintenance window is unacceptable for a high-availability SLA. Anything less than 24x7 support indicates that the provider is not truly enterprise class.

This preliminary screening should help you eliminate unqualified providers immediately or at least identify red flags to follow up on during your longer evaluation. You are now ready to put your top candidates through a rigorous evaluation process to determine whether they can truly meet the standards for operating in an enterprise environment.

4 STEP 3: ARE THESE SERVICE PROVIDERS TRULY ENTERPRISE CLASS?

Many firms offer affordable cloud services, but not all provide the security, service levels, and support that enterprises require. Taking chances with a service provider that can't provide up-front evidence that the company can meet your requirements can eventually lead to poor business results and unhappy users. Even if your pilot project succeeds, you may still end up with a service provider that can't meet demanding service-level agreements for more mission-critical projects in the future.

NetApp IT recommends a tailored two-phase evaluation process that begins with defining your SLA needs and enables you to quickly narrow your list of promising candidates to only those that offer the enterprise-class service that meets your business needs.

PHASE 1—DEFINE YOUR SLA NEEDS

Define your SLA needs by considering your end users' underlying business drivers and expectations for your initial pilot and future projects. You need to consider the business implications in the event that your application or cloud service is unavailable. Critical workloads for strategically important projects such as corporate e-mail systems require higher availability than less critical workloads such as CRM systems for which 99% or 99.9% availability with non-24x7 support is acceptable.

Also, consider where your end users are located and what they expect. An IT shop will have different expectations than those of end users or customers. If your operations are global, you will most likely need a global service provider to meet availability SLAs.

PHASE 2—EVALUATE THE QUALITY OF YOUR SERVICE PROVIDER

Depending on the results of your phase-1 evaluation, you may find you need only enterprise-class service in some areas. However, even if your pilot project does not require all of these items, you'll eventually want to consider outsourcing more important workloads, so remember to look for evidence that these companies can meet your rigorous standards going forward.

Following are selection criteria and evidence you should ask for in three areas that are critical for most enterprises: security compliance, ability to meet service-level agreements, and reporting and monitoring.

SECURITY AND COMPLIANCE

If your business has industry-specific requirements for compliance with regulatory standards such as PCI and HIPAA, ask your service provider if the company can provide that support. If the answer is yes, ask for past audit results, documentation, and environmental reviews (for example, ISO) of management standards. At a minimum, review the service provider's SAS70 controls and last audit. You may also want to perform your own audit as part of your due diligence or in order to satisfy some regulatory requirement. Ultimately, your provider should be able to show that necessary physical and logical controls are in place to meet your needs. If you need more information on cloud or cloud security, CloudAudit.org and the Cloud Security Alliance Web site are two reputable sites that offer good cloud security advice.

In addition to getting audit results, look for a service provider that is either the primary tenant or owner of a large data center. In order to keep your information assets safe, a service provider must have a significant infrastructure footprint and investment in the segment the company serves. We don't recommend service providers that share significant space with other providers or that just own a few rows in a collocated data center. Smaller providers that don't have the majority footprint in a leased data center could be pushed out if larger tenants need more space, potentially impacting your business's cloud resources and capacity.

MEETING YOUR SERVICE-LEVEL AGREEMENTS (SLAS)

Meeting rigorous SLAs is what truly makes a service provider enterprise class. In general, most enterprises need to choose service providers with some guarantees of performance, high availability, backup, and disaster recovery services. Here are a few items to request from your service provider for you to evaluate.

- **Responsiveness**—Enterprise-class service providers have policies to define the level of support you will receive in your SLAs. Ask for definitions of support windows and incident priorities as well as response times. Understand up front the definition of priority 1 versus 2 or 3 and the expected response and fix time for each of these incident levels to determine whether the quality of response you'll receive meets your needs.
- **Historical Metrics**—The best service providers offer reporting to help customers monitor SLA metrics. They will be able to show you historical reports on performance, utilization, availability, accessibility, disaster recovery, RPO, RTO, and service response time. Their transparent approach saves time, increases customer trust, and is evidence of their confidence in their offering. Pay close attention to response times for each tier of support and historical metrics concerning past outages to determine if they meet your needs.
- **Peer References**—All service providers should be able to provide you with peer references from other enterprises that resemble your organization. Ask these references whether the service provider has delivered on the company's SLAs, whether the people are difficult or easy to work with, and whether they have been responsive and delivered on what was promised.

- **Change Controls**—If you are considering outsourcing mission-critical applications, you need to consider how a service provider handles change. Enterprise-class service providers have clear and robust change processes that they can communicate to you.

  Example

  A mission-critical e-mail application requires robust change control processes. Unexpected changes in the user interface or operation of a corporate e-mail program will result in angry users.

  In contrast, a public cloud user sandbox with a tightly controlled set of resources for guest programs and no ties to internal systems may require little to no integration or formal change control. Informal user interface changes are acceptable because users expect change in an environment that is meant for prototype projects.

  Note: Sandbox environments provide temporary capacity without capital or depreciation costs, making them ideal for proof-of-concept projects that precede formal application development requested by business users.

- **Compensation**—Enterprise-class service providers provide compensation if SLAs are not met. Determine that your service provider has a clear compensation policy that reveals what the company will do for you if it fails to meet an SLA. Common contract clauses include a refund, rebate, or discounting of the price of the service or SLA the service provider fails to meet.

REPORTING AND MONITORING

A service provider that demonstrates detailed reporting and real-time monitoring abilities can enable you to maximize the efficiency of your cloud service. Detailed analytics and trend reports can show you resource consumption, utilization over time, and overall costs. By using this information to adjust resource levels, you can achieve better capacity and performance management and manage growth efficiently. Some providers even offer reports on individual virtual machines. Look for service providers that can provide this level of reporting and monitoring.

5 STEP 4: PREDICTING ROI—ASSESSING RETURNS AND HIDDEN COSTS

ESTIMATING EXPECTED RETURNS

Most service providers have tools to enable you to calculate ROI. Service providers have economies of scale that work in favor of the customer. IT leaders should evaluate several key areas including savings in infrastructure spending and opportunity cost savings. Savings on infrastructure paid for by operating expense will likely be significant when compared to the option of large capital investments. Additionally, models should consider the opportunity cost of making better use of staff and resources. You will be able to free up engineering resources previously used to provision and support lower-priority projects and dedicate them to more important strategic initiatives. The value of risk mitigation from business continuity, off-site disk-based backup, and/or disaster recovery services should be considered along with the value of increased agility and accelerated time to market.

ASSESSING AND COMPARING TRUE COSTS

The key to choosing a service provider that can optimize your ROI is to carefully examine the company's pricing model to and fully anticipate your future costs. A quick and easy way to do this is to rank service providers on the clarity and simplicity of their pricing and then establish common cost criteria that enable you to compare pricing across multiple service providers.

RANK BY SIMPLICITY

Although pricing may not be your most important factor for service provider selection, your selection process should weight the scales in favor of those with simple, rather than complex, pricing models. Rank your service providers from 1 to 5 according to the simplicity of their pricing models.

A simple, transparent pricing structure makes budgeting and management easier. On the other hand, if the pricing structure is overly complex, you may need to add additional resources to manage the relationship or monitor service provider costs on an ongoing basis.

Example

A simple service catalog with 10 items is easy to manage, communicate to end users, and pass through to your own accounting department. In contrast, a complex service catalog with 140–150 a la carte items to monitor and manage will probably require a dedicated account manager to do the same.

Once you've ranked your service providers, we recommend creating a common cost criteria that allows you to compare pricing across service providers.

COMPARING COSTS ACROSS SERVICE PROVIDERS

Due to the variety of pricing and packaging models used by different service providers, obtaining comparable pricing for equivalent bundles of services may be difficult. By creating a set of common cost criteria, you can build your own model to compare costs across multiple service providers and keep from overpaying for extra services you don't need.

Build a common cost criteria by defining a virtual bundle for the minimum level of services that meets your requirements. To the extent that you can, deconstruct each service provider's bundles and a la carte packages. Then build your own model for each provider by mapping that provider's offerings onto your common cost criteria. You can then calculate true list pricing per resource consumed (CPU, RAM, storage, network bandwidth) for a bundle that contains the minimum level of services that meets your requirements. Perform this calculation for each service provider.

UNDERSTANDING HIDDEN COSTS

At this time, also look for hidden costs, benefits, and pricing details such as contract features, flexibility, and timing for the functionality and services you need. Be sure to add these to your cost criteria and price mapping. Although a la carte pricing may look temptingly affordable at first, desired add-ons can become cost prohibitive. For instance, are critical features like intrusion detection considered extras? Do VPN costs increase with additional bandwidth use? These are the types of costs that might be overlooked at first but that can make a material difference to the cost of your service. Convenient packaged pricing with the right security features and no cost to scale up is preferred.

INTERNAL INTEGRATION AND FUTURE MANAGEMENT COSTS

After you pare down to a common cost criteria and understand hidden costs, consider integration and future management costs associated with your specific requirements. These may include internal resources and staff for initial deployment, installation, and testing for any cloud services you plan to tie to internal systems.

Example
A cloud service that utilizes a single-sign-on system, virtual private network, or configuration management database will need to be integrated with these internal systems. Now is the time to estimate the integration costs required to complete the project. Integration costs for a single project may vary across different service providers depending on the capabilities and pricing structure each offers.

Future management costs refer to the ongoing investment required to maintain and manage the environment. These may include account management and staff who will be responsible for supporting the tools that enable your users to access the cloud technology. A good service provider provides you with a key contact to deal with these issues and minimize your time investments in this area.

After ranking your promising candidates for simplicity and building your own cost models, you may be in a position to disqualify expensive or complex offerings. However, unless you have many promising candidates we recommend that you set this information aside for further consideration after a real trial or RFP, discussed in step 5.

6 STEP 5: MAKING A DECISION AND MOVING FORWARD

After the research, discussion, and examination of references you did in steps 1 through 4, you should have a list of top service provider candidates that have successfully served enterprises like yours and provide enterprise-class service appropriate for your business at an easy-to-understand and affordable price.

It's now time to obtain the final information you need to make a decision. One way to do this is to put out a blind RFP to many organizations, including your top candidates. You can list your top 30 to 50 requirements and use cases and select your service provider based on the responses you receive. However, if your top providers offer a free trial or an evaluation period, this can be a very effective way to determine what the service is really like and what to expect when doing business with the provider. If you decide to hold a trial, follow the guidelines below to put your top candidates through a real proof-of-concept test that can validate your analysis to date.

PROOF OF CONCEPT

Many service providers offer a free trial or an evaluation period, lasting 30 to 90 days. You can take advantage of this by simulating a long-term customer experience with these providers. Connect to their systems, use their capabilities, receive support during real and simulated downtimes, and evaluate performance metrics, usage, and bills.

To optimize your trial period, prepare a set of use cases and select a noncritical workload for a trial project. Your goal when designing your use cases is to put together simple tests for all the features, SLAs, and services you prioritized during steps 1 through 4 of this paper. This is also a good time to evaluate fit, the potential working relationship, and the communication quality between your two organizations.

SAMPLE USE CASES FOR FUNCTIONALITY REQUIREMENTS AND FUTURE ROAD MAP

Good use cases mimic what is needed for your internal processes and technology lifecycles and what your IT staff and end users will do with these systems. You want these capabilities to be robust and easy to use. Any trouble experienced with your most common capabilities will be multiplied over many users daily. It may also reveal a less than stellar provider. Here are some sample use cases to test.

- For those who don't require LDAP and SSO integration, account management should be very simple and robust. Check to see that you can easily assign permissions against data groups or create a

multi-tenant environment and grant tenants limited access to certain features and resources. Look for an enterprise-class user interface that is stable and easy to use.

- If you are evaluating an infrastructure provider, try building and provisioning machines, bringing them up, shutting them down, and generally putting the trial systems through their paces.
- If your service provider supports an API such as CDMI, write programmatic use cases to test this functionality. You may want to test the features you use frequently, such as provisioning, billing, management / monitoring, and anomaly remediation.
- Try out any self-service workflows designated for power users even if you don't plan to provide these capabilities immediately. An engineering group may want to control their own storage, scale up or down in real time if necessary, and spawn a snapshot test image. Domain architects or administrators within your business units may want to provision temporary sandboxes.

Example

NetApp IT performed trials with multiple service providers to see if they could deliver on their promises. The problems and bugs apparent immediately after logging in to one provider's systems enabled the IT team to disqualify the provider immediately and conclude that the provider's capabilities were not mature enough to meet NetApp's needs.

SUGGESTED USE CASES FOR ENTERPRISE-CLASS AND PRICING CONDITIONS

- **Security**—As noted above, have your security team perform an audit or a compliance review.
- **Change Controls**—Check weekly or monthly for any unexpected changes within the user interface and platform. Unexpected, uncommunicated changes are easy-to-spot evidence of immature change controls and communication processes. A provider that cannot pass these tests will likely be incapable of delivering the stability users need in their mission-critical workloads and applications.
- **High Availability and Reliability**—Test capabilities required to support the SLA, including backup, disaster recovery, failover, or other functionality. Vulnerabilities in these areas may reveal a service provider whose HA capabilities are not truly baked in.
- **Performance**—Two providers may be enterprise class but differ significantly in their ability to provide performance to different types of enterprises simply because of their differing locations or underlying systems configurations. In order to test which provider is the best fit for your enterprise, your use cases should include a combination of checks for underlying capabilities such as network connectivity or latency and responsive access and nimble usability.

Example

When NetApp IT compared the performance of service providers with centrally organized and distributed operations at three of our locations—Sunnyvale, Amsterdam, and North Carolina—service providers with a geographically distributed footprint exhibited better performance than centrally located providers.

- **Responsiveness and Customer Support**—Providers will differ in the quality of the response you receive. Try to simulate multiple situations in which you might need different levels of support responses. You may need to deliberately cause a server outage or open an incident request and see how quickly the support team responds. Slow response, a support team that isn't knowledgeable, or support situations that require your own team to follow up are red flags that indicate poor customer support and may also reveal a provider that is not truly able to meet your high-availability SLA.
- **Reporting and Monitoring**—Examine reports for network bandwidth and system utilization and consumption for clarity and ease of use. Look for nice-to-have features such as dashboards, real-time trending, and the ability to make predictions when dynamically scaling over time.

  The easier it is to use what is revealed and the more meaningful the service provider's insights, the more transparent and high quality the service provider is. These capabilities will lead to better understanding and communication with your service provider in areas that will enable you to achieve maximum IT efficiency and flexibility over time.

- **Pricing and Billing**—Review your bill and invoice for simplicity and clarity. Compare the bundle pricing and price model ranking you performed in step 4 with your actual bill. Simplicity and clarity are predictors of the complexity of the process you will need to follow to manage this provider going forward. A good service provider will have a simple, easy-to-read bill with no more than 3 to 10 line items. A service provider that bills for multiple ad hoc, a la carte line items may be a poor fit for your organization unless that provider also gives you a dedicated and responsive account manager who proactively manages billing and takes ownership of driving issues to resolution. Such a representative can mitigate billing complexities by reducing the time you spend in this area.

DECIDING AND MANAGING THE RELATIONSHIP

Once you've finished your proof-of-concept tests and trial period, you should have the information you need to make your final decision. As you weigh and consider all the decision factors, remember to make a strategic choice. Choose a service provider that can handle the requirements of your future road map and handle key resources for you in the long term. To maximize your ROI, you will need to invest in cultivating a relationship with your provider just as your provider will work to get to know you.

A little upfront communication will go a long way to helping you get the most out of your relationship. Once you make your final selection, it's time to communicate about routine account management interactions. Discuss whether you will have a monthly call or meeting, and which metrics you would like to see regularly.

This is also the right time to decide how to handle outages or unmet SLAs and negotiate the terms for compensation. Communicating up front is much better than negotiating for compensation after you experience an outage. For example, you'll want to discuss expected timing for response and resolution and the refund, rebate, or discount you will receive in the event an SLA is not met. In addition, determine which processes should be put in place on both sides to identify and handle this situation.

By using the five steps just discussed, you'll be well on your way to selecting the appropriate service provider for your enterprise's specific business and technical needs—one that will not only manage your current projects, but also be able to take on additional projects as you grow.

7 NETAPP CLOUD SERVICE PROVIDER PARTNERS

If you are an IT leader interested in procuring cloud services, NetApp would like to be your trusted advisor.

To this end, NetApp has developed a global network of preselected service providers that offer enterprise-class cloud services consistent with the guidelines outlined in this paper. These providers offer a diverse set of cloud services for enterprise workloads at the lowest possible cost.

For a list of NetApp service provider partners and their NetApp based offerings, visit netapp.com/us/partners/become-a-partner/service-providers/all-service-providers.html. NetApp account managers are available to advise you about, and refer you to, cloud service providers that meet your needs.

8 OTHER CLOUD RESOURCES

- NetApp IT experts have created a Service Provider Selection Check List to help you get started implementing the five steps described earlier. Visit our Web site to obtain this free download. www.netapp.com/us/solutions/infrastructure/cloud/cloud-services
- For a list of NetApp service provider partners and their NetApp based services, visit www.netapp.com/us/partners/become-a-partner/service-providers/all-service-providers.html.
- Do you have an enterprise-wide cloud strategy?

www.netapp.com/us/library/white-papers/wp-cio-enterprise-wide-cloud-strategy.html

- For general cloud security and cloud advice, visit Cloud Security Alliance and CloudAudit:
  https://cloudsecurityalliance.org/
  http://cloudaudit.org/CloudAudit/Home.html

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