Cloud Acquisition FAQs

Here are some of the frequently asked questions when it comes to cloud acquisition, and the answers to these common questions.

1 Should I procure a single supplier or is it better to use a multi-cloud procurement solution?

Evaluation of a CSP should be led by an objective evaluation based on the:

- Variety of services available
- Flexibility and scalability with which they can be used (and paid for)
- Security and availability of the cloud infrastructure itself

In practice, this can result in customers using more than one CSP to fulfil different business objectives. CSPs should ensure however, that their customers are able to switch between providers at low, or ideally, no cost. The ability to quickly switch to, or away from, a CSP should factor in the objective evaluation of that CSP.

Our experience also suggests that working with a single CSP is usually cheaper. CSPs offer volume discounts, and so if you spread your workloads amongst several CSPs, you are losing buying power in terms of these discounts. While larger organizations are likely to have the scale to realize volume discounts, our recommendation is that smaller organizations should consider selecting a single CSP in order to secure best value.

2 What should I think about when drafting my cloud requirements?

Customers should embrace standardized, decoupled services to procure in a cloud-native fashion. The main benefits of a hyper-scale cloud platform are the variety of its services and the elasticity with which they can be consumed. Both of these benefits are made possible by the standardization of the services delivered by the CSP.

Reflecting this principle, a cloud services procurement should seek to achieve an organization's policy and operational objectives wherever possible by using standardized resources rather than custom components.

3 How should I assess the wide variety of CSP pricing and commercial offers in a procurement?

Permit CSPs to submit pricing in their own format. Allowing CSPs and their partners to submit pricing in their own format (as long as it is transparent and publicly available) allows buyers to access the:

- Greatest variety of commercial offers
- Widest benefits of the cloud

We suggest that public procurement organizations facilitate dynamic pricing in their cloud framework models, which could include pricing information on a supplier's website. This would allow buyers always to have access to the latest pricing.

Customers should consider the use of a dynamic pricing model for cloud. If, however, a "not to exceed" pricing model is needed, it should require CSPs to provide pricing that will not exceed their publicly published rates online. This will allow flexibility on the part of the CSP to use their standard, publicly available pricing. It will also ensure the customer knows they are always accessing the most beneficial pricing and not being overcharged.

4 How does AWS provide programmatic access to prices for AWS services?

AWS provides The Price List Service API (AKA the Query API) and AWS Price List API (AKA the Bulk API). These APIs allow customers to query prices of AWS services using either JSON (with the Price List Service API) or HTML (with the AWS Price List API). Customers can also subscribe to Amazon Simple Notification Service (Amazon SNS) notifications to get alerts when prices for the services change. AWS prices change periodically, such as when AWS cuts prices, when new instance types are launched, or when new services are introduced.

This information can be used in several ways. Some potential customers are evaluating the feasibility and cost-effectiveness of moving their on-premises workloads to the cloud and want to "do the math." Current customers and partners would like to make sure that their budgeting, forecasting, and analytics tools are able to analyze AWS prices without having to scrape the AWS website.

Cloud Acquisition FAQs

5 CSP terms and conditions look very similar, why can't we just have one standard set for our cloud procurement?

The fundamental aspects of cloud computing are already largely standardized across the cloud industry and have been embodied within the contract terms of most major CSPs. For example, in general hyper-scale CSPs offer self-service online ordering mechanisms, flexible no-commitment terms, and give customers control over their security and their data. Cloud technology innovates at a rapid pace. With service descriptions and pricing accessible online so that customers get immediate access to (and benefit from) new features and pricing decreases as soon as they are available. Security of the cloud platform is a key consideration for CSPs. Therefore, CSPs will typically incorporate some form of "acceptable use policy" and mandate privacy and audit rules across their entire user-base to ensure the integrity of their services.

Whilst there are certain aspects of cloud contracts that are common amongst CSPs, each provider will also have unique elements based around their individual services. Each CSP will deliver their services in a way that is unique to their organization and represent the USP for that provider. These will be reflected in specific terms that address the individual characteristics of that service.

6 Can I include custom clauses in standardized frameworks?

Even within standardized frameworks, a barrier to effective cloud contracting is the expectation of some customers that cloud providers can accommodate ad-hoc custom clauses that are unique to them. This may have been true for legacy IT procurements, however CSPs service offerings are highly automated and designed to operate on a one-to-many model.

Customers should refrain from using custom clauses and enter into a cloud engagement without an expectation that they can ask CSPs to vary their offerings significantly. Asking a CSP to tailor their global operating model to accommodate a unique requirement will be hard for a CSP to accommodate.

7 What is the best type of contract vehicle to buy cloud?

Customers should develop a wider range of contract vehicles so that buyers and CSPs have a broader range of options. For example, 'AWS Marketplace' enables SMEs and smaller ISVs to build SaaS applications and deploy them on AWS for their customers using a 3-party contracting model. The standard 2-party direct contract approach does not fit that model, nor is it likely that any future standardized T&Cs could accommodate both a 2-party and a 3-party model within a single framework. Enabling a vehicle for AWS Marketplace (and for other CSPs with similar offerings) in addition to other contract models would:

- Increase SME's access to the market
- Expand the offerings available to buyers

Cloud Acquisition FAQs

8 What are the benefits of moving to the cloud in terms of security?

The cloud presents an opportunity for organizations to dramatically reduce the time, effort, and cost of security in their IT estate. An inherent advantage of cloud is the clear demarcation of responsibility. That is, between security OF the cloud (i.e. physical infrastructure) being the responsibility of the CSP, and security IN the cloud, which is the responsibility of the customer.
By consuming software and infrastructure as a service, rather than making investments in physical infrastructure, customers can:

- Eliminate the cost and risk of managing security
- Benefit from the variety of global and regional security standards with which the larger CSPs comply

Put simply, the cloud represents better security, for lower cost and effort, at a lower risk.

9 How should I promote better re-use and drive consistency and speed of cloud adoption?

Customers can establish and spread architectural best practice, and drive consistency and speed by using configuration templates. With AWS, such templates are created using our CloudFormation service. Standard templates are available from AWS, or customers can create their own, based on successful architectures of their own design. Using templates:

- Drives the adoption of best practice
- Makes maintenance easier and quicker
- Allows you to secure and govern your stack by asserting centrally maintained security and access policies

A template is a declaration of the AWS resources that make up a stack. The template is stored as a text file with format that complies with the JSON (JavaScript Object Notation) or YAML (YAML Ain'tMarkup Language) standard. Because they are text files, you can create and edit them in any text editor and manage them in your source control system with the rest of your source code.

10 How do I avoid vendor lock-in?

Whilst lock-in is a risk with many technology procurements, it can be minimized for cloud procurements in comparison with many other technologies through a number of mechanisms. Cloud providers should:

- Not have required minimum commitments or required long-term contracts.
- Provide a range of licensing options for customers (e.g. a marketplace with a curated digital catalogue that helps reduce costs by not over-purchasing with an in-perpetuity license).
- Provide portability tools and services that enable customers to move data as needed on and off CSP storage at any time.
- Ensure applications are built or migrated to be as flexible and loosely coupled as possible.
- Be able to demonstrate a proven history of innovation and service availability to provide customers with reassurance that they intend to keep winning their business.
- Be able to demonstrate a history of ensuring that operational efficiencies flow down to customers in the form of price reductions.

11 Is cloud cheaper than running my own data center?

The data centers from which CSP services are delivered will typically be significantly larger than those traditionally used to support even the biggest customers, and will contain many tens of thousands of physical computers.

Virtualization (using software to partition one physical computer into a number of separate “virtual machines”) allows many customers to share one physical computer with no loss of security. As a result, CSPs are able to make better use of their physical computing hardware: a typical computer server dedicated to a single organization may only be between 12 and 15% utilized. A server used to support a cloud computing service would typically be around 65% utilized. These scale economies and efficiencies are passed to customers through CSP’s pricing models.

12 Is cloud more sustainable than dedicated hardware solutions?

The inherent efficiencies of cloud mean that a cloud computing solution is also usually more energy-efficient than a dedicated hardware solution for any given workload. Combined with the less carbon-intensive power mix used by hyper-scale cloud providers, this enables organizations using cloud to reduce their carbon emissions by up to 88%.

To reduce our climate impact, in September 2019 Amazon and Global Optimism co-founded The Climate Pledge, which sets goals for signatories to be net zero carbon across their businesses by 2040, a decade ahead of the Paris Accord’s goal of 2050. Amazon was the first signatory of this pledge. You can read more about Amazon’s Climate Pledge commitment here.

13 How does cloud make it easier to innovate?

Cloud has delivered a step-change in the cost of piloting and scaling new digital services. Because of cloud's "pay as you go" model, customers can experiment with the most sophisticated capabilities, including natural language interfaces, image recognition, and Machine Learning without committing to large up-front costs. If these experiments are successful, they can add the capacity to scale systems up to support operational workloads in minutes. If they do not wish to move these new systems into production, they can switch them off with no ongoing financial commitment, and without an unused capital asset.

14 How does AWS help small businesses and start-ups?

AWS supports small businesses and start-ups amongst our partner community in a range of ways. These include:

- **AWS Start Up Day:** Designed for start-up founders, we provide free full-day events to deliver education and networking opportunities. AWS Start Up Days help to enable and accelerate start-up innovation and growth, provide education on emerging trends, and inspire action through the experiences of start-up founders.

- **AWS Lofts:** A place where start-ups and developers can meet, work on their apps, attend educational sessions, and get in-person answers to AWS technical questions all at no cost.

- **AWS Activate:** A program designed to provide start-ups with the resources to test and grow their ideas. Start-ups can apply direct, or through a participating accelerator, incubator, seed or VC fund or other start-up enabling organizations. There are 3 tiers providing up to $100,000 of free platform credits, training, and technical support.

15 Should a CSP's social impact credentials be assessed?

Customers should consider the social impact that CSPs are making to the economy and communities where they operate. For example, AWS is investing heavily in a range of programs to help the local workforces to develop cloud skills, including the following:

- **AWS re/Start:** A 12-week program of re-training and employment for disadvantaged young people and members of the armed forces community.
- **AWS Educate:** Free cloud curriculum content and other support for recognized educational institutions.

16 What are the benefits of cloud training and certification?

Most CSPs can provide digital and classroom training in topics ranging from the technical aspects of their services through to general awareness for senior leaders. Customers need individuals with cloud skills to help transform their business. By taking advantage of the training offered by CSPs, customers can build and validate their staff's ability to get the most out of the cloud.

Some CSPs also offer cloud certifications across a range of competencies, which are attained on an individual (rather than organizational) basis. Providing the opportunity for IT staff to be recognized for their cloud expertise in this way can make cloud skills more desirable for staff, and therefore drive enthusiasm for cloud adoption.

17 What roles should undergo cloud training?

We suggest that training for cloud should not be limited to customer employees in technical roles, but should also include a wide range of other professions. A key contributor to successful cloud adoption is the involvement of all key stakeholders (procurement, legal, finance, security, and business leadership) at an early stage.

Our experience suggests that training to make these groups aware of the impact of cloud on their roles is vital. Such training can ensure that stakeholders understand how cloud adoption will influence existing practices. This training also provides an opportunity to reset expectations for budgeting for IT, risk management, security controls, and compliance. Promoting a culture of innovation and educating staff on the benefits of the cloud helps those with institutional knowledge understand how it can contribute to improvements in efficiency and effectiveness. It also helps to accelerate buy-in during the cloud adoption journey.