



Become a cloud service broker

Seven success factors when transforming IT into a cloud service broker





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Executive summary

Competition is fierce in every industry and market. The businesses you serve are under greater pressure to develop, test, and launch new products in ever shorter cycles. That requires you to deliver IT services with greater speed and agility. But for many organizations this is a problem: IT can't always deliver what the business wants, when the business needs it. Transforming your organization to function as a broker of IT services will enable you to keep up with today's accelerated business- and product-development cycles. It will allow you to deliver more responsive, flexible and scalable IT services. And adopting a hybrid IT service model is the first step when transforming IT into a broker of cloud services. In this paper, we'll explain what it means to be a broker of cloud services. And we will outline the seven success factors necessary when building a hybrid IT model comprised of traditional and the cloud-based services.

Introduction: The constraints of legacy IT

The pressure on IT to respond quickly to business demand has never been greater. Whatever your industry, your business users want access to new services in minutes. And they want reassurances that you can deliver more capacity at a moment's notice. But legacy IT was not designed to work this way.

Most IT leaders working in a legacy IT model would probably buy technology to build or customize applications and services to support the business. This might include servers, storage, networking equipment, middleware, and applications. While this approach has served businesses well, it also comes with challenges. For example, IT organizations typically spend between 60 and 80 percent of their time and resources maintaining existing IT services, which leaves little time to work on high-value, innovative services. Owning your technology in a legacy IT model also impedes your ability to quickly respond to changing market conditions.

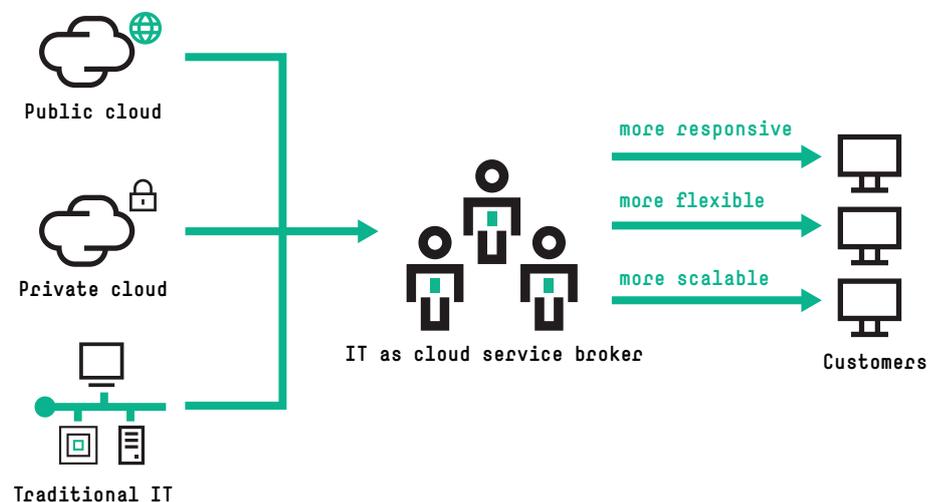


Figure 1. How a hybrid cloud delivery model transforms IT

Hybrid cloud delivery: from legacy IT to cloud service broker

Shifting to a hybrid cloud delivery model using traditional IT, public cloud, and private cloud resources allows you to respond to service requests quickly and more effectively. A hybrid cloud delivery model lets you operate as a broker of IT services, giving you more flexibility to source and provision the services that best match your business's needs. And it allows you to deliver the service when the business needs it. A hybrid cloud delivery model also lays the groundwork for an IT self-service capability, which improves IT efficiency by allowing

business customers to order and provision applications, platform, and infrastructure services on their own through a Web-based service catalog.

But being a cloud service broker requires more than simply deploying an IT self-service platform for your business customers. Rather, it hinges on how well you complement your legacy IT environment with private and public cloud platforms. Your role expands from that of a traditional builder of services, to a builder and broker of services. Your success will depend on how consistently you manage and deliver a range of services—whether they're infrastructure as a service (IaaS), platform as a service (PaaS), or software as a service (SaaS).

The trend among enterprises to adopt hybrid cloud delivery models is clear. Research conducted by Hewlett Packard Enterprise reveals that 75 percent of IT executives¹ plan to pursue a hybrid cloud delivery model. However, the path to becoming a cloud service broker is not always clear. Based on our extensive knowledge of transformational IT change, built from a broad range of customer engagements, we've identified seven success factors you should be aware of when becoming a cloud service broker.

Seven success factors to becoming a cloud service broker



1. Start with a strategic plan

Most enterprise IT organizations operate according to a long-term strategy. Just as cloud IT services should not replace traditional IT, your hybrid cloud delivery model should not supplant your existing IT initiatives. The best approach is to blend your cloud plans with your current IT strategy over a three- to five-year horizon.

Align to business requirements. Don't let cloud technology dictate your cloud strategy. Instead, align key phases of your cloud journey to business requirements. Take a practical view of how IT can evolve to serve the business, and understand that there's no one-size-fits-all approach. Your cloud strategy should align with overall IT objectives, while addressing areas such as business service management, security intelligence, and risk management.

Map out operational requirements. Carefully consider your environment's specific requirements—the platforms you use now and in the future, and the integrations your strategy will demand. Make sure you include your business stakeholders when deciding which services will be cloud based, and whether you use a public, private, or hybrid cloud. Depending on the performance and quality your business requires, you may need multiple instances of each type of cloud service. And it's very likely you'll need to blend public cloud services with internal services and manage them against your performance and quality SLAs.

Start small and scale one step at a time. A clear cloud strategy should allow you to move gradually, at a pace that the business can support. This will help you avoid hidden or unnecessarily high up-front costs. Start small with a foundation that lets you to scale over time, towards a bigger vision.

2. Plan for all types of services

Not all your services will go to the cloud, so you'll need to determine which services to move there and the timeframe for doing so. You may initially rely on just one type of cloud service, such as public or private infrastructure as a service (IaaS). But as your business needs change, you'll likely want to take advantage of others, too.

¹ Coleman Parkes Research, December 2012

Map services to business requirements. Many companies start with IaaS, which typically involves virtual machines used in development or test environments. But some enterprise IT organizations are delivering databases, disaster recovery, and middleware as cloud services. While not every application or service calls for cloud hosting, every type of cloud service can provide value to the IT organization. It's important to first align your applications with the right type of cloud. This requires a detailed review or audit of your applications, an understanding of how they are used by the business, and their performance and availability requirements. Remember that you will likely deal with multiple types of cloud services and the different scope of work they address.

Plan for different types of cloud services. Your plan should include IaaS, platform as a service (PaaS), and software as a service (SaaS) and the ability to manage a range of environments. Start with IaaS to develop, test, and deploy some initial production applications. Extend your cloud footprint by utilizing a mix of traditional IT, private cloud, and public cloud services. And make sure you pair your applications with the right cloud environment based on business requirements. For instance, you can use PaaS to develop new, cloud-enabled applications that run on clouds from different service providers, taking advantage of cloud scale and elasticity. Or you can use SaaS to reduce the cost of installing, running, and managing applications.

3. Automate common processes

Standardizing and automating your IT processes is an essential part of being a broker of cloud services. One such process is your business users' ability to order and provision IT services through a self-service portal. However, a self-service portal is just an abstraction layer. It's on the back end where the "magic" actually happens—where services are provisioned, applications set up, and changes automatically made. And with automation, you can automatically shut down a service when the business user no longer needs it, which lowers your costs by ensuring resources aren't allocated to unused services.

To fully realize the benefits of cloud services, standardize and automate related tasks and processes. Start by following these steps:

Automate tasks. Manually managing routine tasks such as provisioning network ports, servers, and storage will inhibit your ability to scale cloud services. Start by setting up task-based automation and a self-service portal. It's essential that lifecycle management is performed in a highly repeatable and consistent fashion.

Automate IT processes. Move up the stack and build in end-to-end automation by collecting tasks into automated process workflows. Remediation, compliance, change management, and application deployment are typically good targets for automation. By automating these processes your administrators will only need to monitor them, which frees them up for higher-value work.

Automate service delivery. Automate your service provisioning by abstracting the service-delivery environment and providing an intuitive experience for the end user. Do this by creating a service catalog, and expose the services through a self-service portal that business users can access. But recognize that implementing automation takes time. Make sure that your strategic plan incorporates a roadmap to enable self-service IT. And make use of your back-end task and process automation to provision and manage services.

4. Manage service SLAs

When shifting to a cloud service broker model, make sure that both your traditional and cloud services meet your business requirements, especially standards for performance and availability. You'll need to assess whether your roster of service providers meet the standards established by the business.

However, with cloud environments changing rapidly, this is challenging and complex. You need mechanisms in place to manage the many SLAs for all your cloud service providers and portfolio of services.

Start by carefully examining and monitoring the contractual terms and conditions that govern your cloud services. Understanding this information enables a building-block approach, with which you can assemble and architect new services for the business. It also helps you understand when and how you need to augment services for a more-complete cloud architecture.

To meet SLAs across internally and externally sourced services, you need to do three things well:

Provide visibility into your cloud services. In order to meet your SLAs, it's critical that you can measure the performance and availability of your cloud services. But measuring a cloud service is much more complex than a traditional IT service. Depending on demand, a cloud service may start or stop at any time. You therefore need performance measurement tools that work in dynamic environments.

Ensure the health of your services. Once you can measure your cloud services, you need the ability to compare a service's actual status against its SLA. This allows you to see if you are meeting, exceeding or falling short of your SLA.

Manage resources. In the event that you fail to meet your SLAs, you need the ability to make policy-based decisions on how to change your environment. Such changes may include adding more resources, such as CPUs, memory, servers, or storage. Or you may be required to change configurations. In either case, you need the flexibility to shift resources to meet your SLAs.

5. Protect service offerings

There are a number of unique security implications to consider when comparing private and public cloud services. If you don't have one already, it's smart to develop a risk-based security strategy. No single technology will sufficiently protect a dynamic cloud environment. And the fact that cloud technologies are often isolated and managed by siloed operations teams only compounds the problem. A risk-based security strategy can secure each layer of your architecture, but you should integrate them as part of a comprehensive cloud-management platform.

Access policy as a control point. A policy for access rights to a service is important and should be part of your security strategy. Access rights allow you to restrict which business users and IT roles can access and modify a cloud service. One way to enforce an access rights policy is to make sure your cloud management platform clearly defines user and administrator roles through the existing enterprise directory and Lightweight Directory Access Protocol Distinguished Name (LDAPDN) structure. This approach can help simplify how you authorize new users and control access to the platform.

Take ownership of cloud security. The most important thing to remember about cloud security is this: Whether you're using traditional IT, private cloud, or public cloud services, your organization needs to take responsibility for security across your hybrid IT service environment. Securing a cloud service should be viewed as a shared responsibility. Public cloud service providers may deliver some capabilities, such as perimeter security or antivirus protection, but there's no guarantee. Ultimately it's IT's responsibility to work with the resources available to achieve the security the business requires.

You can address security in four categories:

- **Trust**—Verify that the service provider implements appropriate security measures
- **Visibility**—Verify that you can see who is accessing your applications and data

- **Compliance**—Confirm that required compliance standards such as PCI or HIPAA are supported
- **Business risk**—Create backup and recovery plans to overcome cloud service failures

6. Monitor your bottom line

IT projects should help you save money and help you make money. Accepting fiscal responsibility as a cloud service broker requires that you first understand how much each cloud service costs to operate. You need a complete view into your IT asset utilization, including servers, storage networks, and applications. Visibility into software license compliance is important, too. Although the asset management cost of a cloud service is technically an operating expenditure, you need to manage the service as if you own the assets. Any time you turn on a service, the meter is running.

Having complete fiscal visibility into your internal cloud services allows you to run them as efficiently as possible, and it allows you to compare their costs with external cloud service providers. This lets you better evaluate all your options for external cloud services, such as purchasing services on-demand versus reserving instances in advance, and realizing the cost benefits of purchasing services at different scales.

Once you know how much a cloud service costs, you can charge your business customer based on actual usage. Instituting chargeback and showback policies helps you control costs at the departmental or individual level, allowing users to better assess the value of a cloud service.

Instituting detailed billing, reconciliation, and reporting is also essential to effective IT financial management in a cloud service broker model. Reporting should be extended to the consumers of the services, so as to develop a complete understanding of the actual consumption of a service. This allows you to understand cloud service financial data within the context of the larger enterprise supply chain.

7. Avoid vendor lock-in

When transforming your operations for a cloud service broker model, it's critical to avoid vendor lock-in. Avoiding vendor lock-in helps you stay flexible and agile in order to meet changing business needs. This is particularly important considering that most businesses have not yet evolved their strategies for the cloud.

When operating in a cloud service broker model, you need the ability to mix and match services from any resource, internal or external. For enhanced agility, your cloud management platform should feature an open architecture that not only supports current and future technology standards, but also allows you to stitch internal and external cloud services into a cohesive, flexible whole using open APIs.

You can further mitigate the risk of vendor lock-in by using solutions based on industry-standards that use open-source technologies and support multiple operating systems and hypervisors. For example, the open-source cloud platform OpenStack uses abstraction layers, which makes it easier to replace technology components and vendors.

Keep in mind that the goal of any risk management strategy is not to completely eliminate risk, but to hold it to an acceptable level in the pursuit of other objectives, such as improved cost efficiencies or greater flexibility. The reality is, you will probably use different types of clouds from multiple vendors or service providers, choosing the cloud services that best meet your business needs.

Customize your IT lifecycle management, from acquisition of new IT, management of existing assets, and removal of unneeded equipment. hp.com/go/hpfinancialservices.

Learn how HPE's internal IT organization accelerated service delivery with a hybrid cloud model, reducing deployment times from 3 months to 15 minutes. [Read the case study.](#)

How HPE can help

HPE Hybrid Cloud Management offers the industry's most complete, end-to-end cloud management platform for building and enabling a hybrid cloud delivery model. It features an open, extensible, and scalable infrastructure that allows you to add and integrate different services as demand dictates. HPE Hybrid Cloud Management features a single toolset for simplified business and operational management, and the ability to deliver secure, compliant cloud services.

With HPE Hybrid Cloud Management solutions, you have:

- **Choice:** The best solutions supporting industry standards and heterogeneity across multiple types of clouds, multiple hypervisors, and infrastructure from multiple vendors. With easy integration, built-in orchestration, and open APIs, choice helps you avoid the risks of vendor lock-in.
- **Confidence:** The right tools to help IT organizations reduce management complexity while minimizing the number of management tools across traditional IT and cloud. Using fewer tools helps you leverage your administration expertise and simplify your vendor management with confidence.
- **Consistency:** A foundation for modular growth, offering complete, intelligent management for the hybrid cloud. Meet your business SLAs consistently with secure, compliant cloud services. Select tools that provide market leading cloud security, best-in-class performance management with advanced reporting and analytics.

Conclusion

Cloud technology is paving the way for a new type of IT organization. By enabling a more responsive, flexible, and efficient means for IT service delivery, cloud technology is influencing the role of IT organizations and how they serve the business. IT organizations can now function as a broker of cloud services.

Operating as a cloud service broker allows your organization to aggregate and integrate services from multiple sources and deliver them to internal and external customers—business units, employees, partners, and customers. By following this paper's seven success factors to becoming a cloud service broker, your IT organization can respond faster with more flexibility and ultimately deliver more value.

The best way to achieve success as a cloud service broker is to build a hybrid cloud delivery model based on a mix of traditional IT, private cloud, and public cloud services. Your hybrid cloud management platform should offer a single toolset for business and operational management. It should feature comprehensive automation and management capabilities. And it should be open and extensible, so that you're flexible during your cloud journey and able to tailor cloud services to changing business needs. The quality and features of each cloud management solution can vary, so don't settle until you've investigated all your options.

For more information about how HPE can help you design and build a hybrid cloud delivery model and transform IT into a broker of IT services, visit the HPE Hybrid Cloud Management.

Learn more at
hp.com/go/cloudmanagement



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