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Cloud/SaaS
COMMUNITY



Cloud Computing Business Models for the Channel

A WHITE PAPER DEFINING THE SALES CYCLE, STAGES OF DEVELOPMENT, AND CHANNEL ROLES IN CLOUD COMPUTING.



A CompTIA Cloud/SaaS Community Resource

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Executive Summary

Cloud computing is a transformative technology delivery model that is changing the way vendors, distributors, resellers, and consumers think about, approach, and implement IT systems. While it is opening many new opportunities for the channel, it is also creating the potential for the disruption of existing business models and go-to-market strategies. This white paper will identify and define basic cloud business models and outline the orientation and relationship of cloud computing models to businesses operating in and around the channel.

Situation Assessment

Cloud computing—the delivery of software applications, platforms, and infrastructures as a service—is one of the most expansive and disruptive business and technology trends to hit the IT marketplace since the Internet. The confluence of affordable and persistent high-speed bandwidth, compute power approaching the limits of Moore's Law, the maturation of virtualization, and economic pressure to reduce costs has conspired to create an amorphous transformation known as “the cloud.” The growth of the cloud computing market segment is nothing short of explosive. According to research firm Gartner, cloud computing will expand from \$46.4 billion in sales in 2008 to more than \$150 billion by 2013. By 2015, many analysts expect cloud computing, in aggregate, to generate \$200 billion to \$250 billion in economic activity. In context, that would make cloud computing roughly one-fifth of total global IT spending.

What makes cloud computing so appealing is also what makes it disruptive to the conventional delivery and economics of hardware and software technologies. Delivered as a remotely managed service or automated self-service, it changes both the supply and consumption sides of the business equation. It is an aggregation and centralization of computing resources that decreases costs and is sold in fractions to discrete users. Cloud computing is especially disruptive to the traditional channel community since, by definition, it reduces or removes much of the complexity in IT systems, making it easier for cloud service providers to sell their offerings directly to consumers.

The disruptive nature of cloud computing, along with a rapid pace of change, has many in the IT community questioning their roles and wondering where to find their opportunity in this new era. The CompTIA Cloud/SaaS Community recognizes the dilemma and the problems it is creating for the adoption and advancement of cloud computing in the channel. Without a clearer definition of cloud computing, a sharper delineation of channel roles in the cloud computing equation, and a better understanding of the value proposition that each business entity in the supply chain brings to customers, many in the channel community will miss out on this rich and profitable opportunity.

In this paper, we will define the basic business models that drive cloud computing, the various actors involved, and how cloud computing offers opportunities for everyone—ranging from large IT vendors to small value-added resellers (VARs).

The Cloud Supply Chain

By and large, cloud computing is not changing the types of companies that currently exist in the IT marketplace. Hardware manufacturers, software vendors, distributors, systems integrators, application developers, and VARs will remain viable business entities in the cloud computing era. Likewise, the ultimate consumer is not changing—SMBs to enterprises are purchasing cloud services just as they bought on-premise IT solutions in the past. However, cloud computing is adding new types of providers and resellers to the supply chain. For instance, a new class of cloud-only solution providers is emerging that is unencumbered by legacy IT hardware and software products.

In the paper “Outlining Cloud Computing for the Channel,” the CompTIA Cloud/SaaS Community defined the roles of the various actors in the cloud channel. They are vendors, service providers, distributors and aggregators, systems integrators, VARs, and new managed service providers (MSPs) focused solely on cloud. In simple terms, vendors supply the cloud services, service providers provide the connectivity mechanisms, distributors and aggregators act as intermediaries for consolidating solutions, systems integrators build cloud infrastructures (IaaS—Infrastructure as a Service), VARs broker and manage the cloud customer relationships, and solution providers implement cloud applications (SaaS—Software as a Service and PaaS—Platform as a Service).

For this paper, we recast the cloud computing channel supply chain into groupings that reflect their relative roles and functions:

Cloud Vendors

Includes businesses that are the source of cloud computing services that are responsible for both developing and delivering resources to the consumer. This group includes traditional IT hardware and software vendors, as well as a new breed of cloud-only vendors. Cloud providers may include independent software vendors that contribute applications to clouds, but only if they are independently hosting applications. Cloud vendors do not include companies that are reselling or white labeling cloud services.

Service Providers

Includes the carriers, Internet service providers, telecommunications companies, and large business process outsourcers that provide either the media (Internet connections) or infrastructure (hosted data centers) that enable consumers to access cloud services. Service providers may also include systems integrators that build and support data centers hosting private clouds.

Distribution

Includes traditional distributors, cloud computing aggregation services, and enablement organizations that act as an integration point for the distribution and customization of cloud computing offerings. Distribution provides the channel with its traditional role of enablement, training, support, financing, and prepackaged integration. Distributors may also provide hosting services on behalf of resellers, but that does not make them a cloud or service provider since they do not own the applications or the customer relationship.

Solution Providers

Includes VARs, MSPs, and professional services companies that resell, deliver, and support the offerings of cloud providers. While solution providers may only resell cloud services, they will typically provide other services in a hybrid model such as selling and support of Customer Premise Equipment (CPE) solutions and enhancement services to cloud applications. Some solution providers provide their own hosted services, but they are not cloud providers unless they both independently develop the application and are capable of scaling delivery and support. Other solution providers focus primarily on cloud application deployment and integration services.

Cloud Brokers

Includes technology consultants, business professional service organizations, registered brokers and agents, and influencers that help guide consumers in the selection of cloud computing solutions. Unlike cloud vendors and solution providers, brokers are typically not involved in the migration or implementation of cloud solutions. Their role is simply to make introductions and, perhaps, close a service engagement. Once its role is fulfilled, the broker hands off the customer relationship to the cloud or service provider.

Broadly speaking, every entity in the cloud computing supply chain is a cloud service provider. The generic designation is Cloud Service Provider (CSP) or Multiple Service Provider (XSP), designations that cover just about every aspect of cloud computing at the various stages of the development and delivery model.

The Underlying Cloud Business Model

Cloud computing is not a standalone technology. It's a business and delivery model enabled by existing technologies modified for remote, on-demand, and fractional consumption as defined by the National Institute for Standards and Technologies.

4 <http://csrc.nist.gov/groups/SNS/cloud-computing/>

Three Basic Cloud Computing Service Models

Software as a Service (SaaS)

Applications running on a cloud infrastructure via a thin client or browser. SaaS includes such services as managed email (Microsoft Exchange), CRM (Salesforce.com), and office productivity applications (Google Apps). Vendors providing such services are reselling their offerings through solution providers who can add deployment, migration, training, and support services on top of the core offering.

Platform as a Service (PaaS)

A platform or environment upon which users can develop and deploy services for consumption. PaaS providers include Microsoft Azure, Salesforce.com's Force.com, and Google's App Engine. The channel can either use PaaS to develop its own unique offerings or resell capacity and support to organizations that require PaaS services. For the channel, PaaS is about exercising expertise to both leverage platforms and support cloud-based platforms.

Infrastructure as a Service (IaaS)

Different from conventional hosting services, IaaS comprises the sharing of infrastructure resources for running software in the cloud that would ordinarily be deployed and operated on-premise. IaaS provides consumers with the processing, storage, networks, and other fundamental computing resources required for running applications. The channel is both a provider and broker of IaaS by building and delivering cloud-based infrastructures, reselling infrastructure services, and supporting organizations in their use and operations of the services.

Illustration 1: The Layers Within A Cloud

Cloud 'Stack'	Target Customer
SaaS	End Users
PaaS	Developers
IaaS	Operators/IT

Reference: www.thecloudcomputingresource.com

The economics of its underlying sales model are what separates cloud computing from the conventional, on-premise technology model. Since cloud computing is essentially a subscription-based service, it is sold and billed as a recurring operational expense (as opposed to a one-time or limited capital expense). Cloud computing economics creates new opportunities and value propositions for different entities in the supply chain:

For the Consumer

Cloud computing decreases and rationalizes technology expenditures and investments. As a service, it spreads costs into even, predictable increments. In some cases, cloud consumers may spend more for technology over time, but they balance those cumulative costs against short-term savings and predictability in expenses. Consumers also gain access to technology with lower management and maintenance costs than CPE solutions.

For the Cloud Provider

Providers of cloud services—vendors, carriers, and service providers—gain greater awareness of customer behavior with cloud computing than with on-premise solutions. Cloud providers deal directly with consumers as automation increases and solution complexity decreases. This means that providers not only know the technology consumption habits and needs, but are also able to standardize consumers on their platforms and applications. Cloud computing provides the potential of giving providers greater control over the customer experience, and that may lead to greater influence over IT spending. From a development and support perspective, cloud computing can change a vendor's business model by providing more rapid and integrated innovation cycles as vendors need develop only once on the cloud rather than many times for many platforms, thereby eliminating the ongoing burden of version support in a fragmented environment.

For the Channel

For the channel, cloud computing is a double-edge sword. Like the managed services model, it provides solution providers with a recurring revenue stream. As a reseller or support service for cloud solutions, solution providers receive a share of recurring service payments. However, since many infrastructure offerings are automated and self-service by definition, cloud computing has actually reduced value-add opportunities for traditional infrastructure firms. On the application side, however, the richness and interoperability of packaged SaaS applications and the ability to develop business applications in PaaS environments increase the opportunity to offer clients a greater variety of value-added solutions at a lower cost, with greater efficiency, and a faster time to market. Overall, the channel plays a vital role as the planners and implementers of cloud technologies, thus preserving its traditional professional services role.

It is important for the channel community to understand the underlying roles that suppliers and consumers play in the overarching cloud value equation. The cloud supplier community provides function or access to shared tools and resources for consumers. Cloud consumers seek only those tools and resources that will decrease costs and increase productivity. As we'll discuss in the next section, the gap between these two ends are where the channel will find most of its opportunities.

Executing Cloud Computing in the Channel

How many possible cloud computing business models are there? Given that each business in the channel supply chain can develop a unique value proposition, the possibilities are infinite. Rather than focusing on discrete business models or how different channel entities can engage in cloud computing, we focused this paper on the differences between direct and indirect sales models and the possible roles channel entities might play in sales and service delivery.

With their automated, self-service, and on-demand features, cloud-based solutions are, by nature, less complex and easier to deploy than their on-premise counterparts. The point of cloud computing is to simplify technology and make it more accessible, thereby opening greater potential for rapid customer delivery and direct sales. But the reality is that cloud computing follows the same maturation and commoditization curve as on-premise technologies. The less complex a technology is, the more likely it can be sold directly. Conversely, the more complex the

technology, the more likely it is to be sold through a channel that can assume the burden of working through the complexities on the consumer's behalf.

As cloud computing is not monolithic, these complexity and commoditization assumptions do have exceptions. In general, however, the divergent characteristics of SaaS, PaaS, and IaaS solutions necessitate that the role a channel entity plays in delivering solutions will differ depending on the cloud implementation.

This complexity and commoditization paradigm is best expressed by the comparison of the characteristics of cloud services sold directly or indirectly to consumers:

Illustration 2: Comparison of Cloud Services Through Direct and Indirect Sales Models

This complexity and commoditization paradigm is best expressed by the comparison of the characteristics of cloud services sold directly or indirectly to consumers:

DIRECT	INDIRECT
Standardized	Customizable
Simple	Robust
Catalog Sale	Consultative Sale
Transactional	Comprehensive
Functional	Productive
Limited Capabilities	Dynamic Capabilities
Low Integration	Extensible Integration
Well Understood	Not Easily Adopted

Whether through a direct or indirect model, the delivery cycle of cloud services has seven essential roles or stages. No cloud computing service—whether in a large enterprise or a small business—can be implemented without going through each one:

1. Advise

At the outset of the process, an advisor assesses the organization's cloud computing readiness and its ability to adopt cloud infrastructure and application solutions. The advisor develops an initial strategy and provides a menu of cloud computing options as well as guidance on how to get started in selecting a solution. Anyone in the cloud computing chain—even the consumer—can perform this role.

2. Plan and Design

At this stage, the consumer has identified the type of cloud infrastructure (public, private, or hybrid) or cloud application (SaaS/PaaS) and may even have selected a cloud provider. Assets, integration, migration and implementation needs are assessed. From here, an implementation plan is designed for the consumer to either adopt or migrate existing systems, applications, or user data to the cloud.

3. Deliver

In some cases, cloud computing is the implementation of custom systems that reside on a cloud-based platform such as those provided by Microsoft Azure, Amazon Web Services, Google's App Engine, or Salesforce.com's Force.com. Before the service is

implemented, it must be constructed on a platform for delivery to the consumer. In more conventional offerings, delivery is a service that exists and simply requires account activation and provisioning.

4. Implement

Implementation includes migrating data and accounts to the cloud platform, integrating CPE applications with cloud resources, deploying add-on services and applications to the cloud service, and customizing the application to the unique requirements of the consumer.

5. Operate/Manage

By now, the cloud service is fully operational. The providers and account managers watch over quality of service and service expectations at this stage. Operations include ensuring systems and resources are available and functioning nominally. Maintenance includes transparently applying updates, patches, and configuration changes as required.

6. Support

The support stage provides ongoing helpdesk, systems administration, and training support for end users. It differs from the Operate/Manage stage in that it is more about ensuring a positive customer experience than the operation of the service.

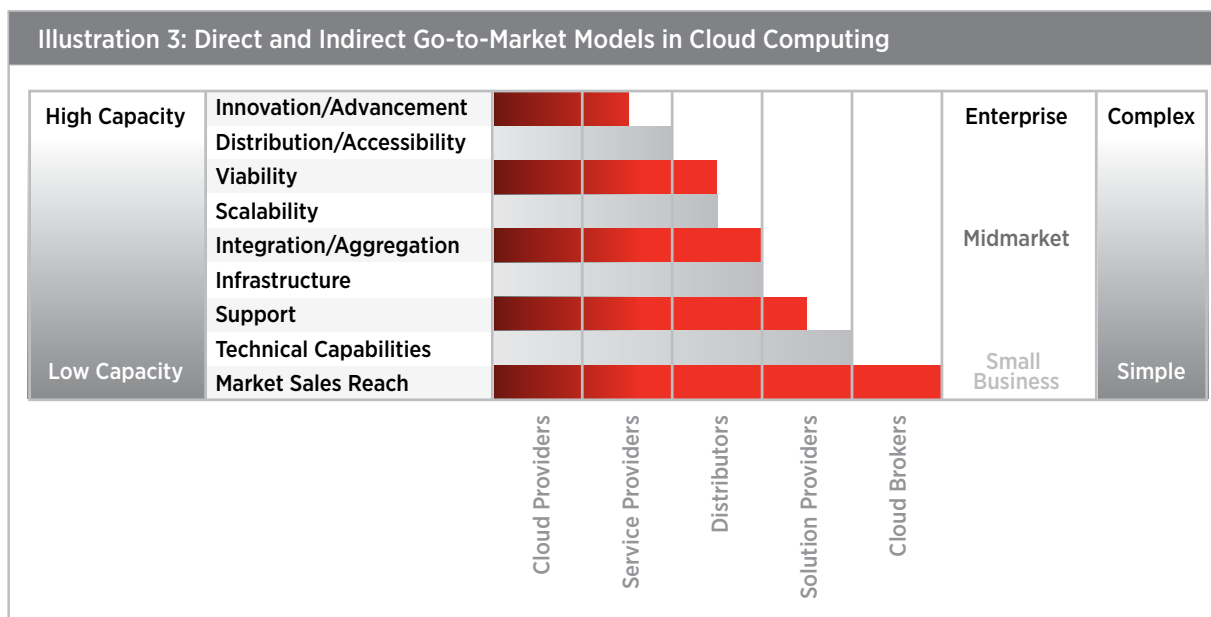
7. Account Management

Account Management is more an ongoing function than a discrete stage in the delivery cycle. Because of its advisory aspects, it periodically brings the entire process back to stage one. The Cloud Service Provider (CSP) that owns the account advises consumers on optimizing the use of the services and identifies additional resources available. The manager analyzes utilization reports to identify areas where the consumer can improve operations and achieve cost savings through the adoption of additional cloud services. Account management is a critical role for both cloud providers and resellers since it can help ensure that the consumer remains a customer and signs up for additional services.

Since all actors in the supply chain, including providers and consumers, can fulfill virtually any of the roles in the cloud computing lifecycle, which ones are best for the channel?

The balance between direct and indirect cloud computing sales is a matter of scale and capability. As products become simpler to implement via the cloud, they are more likely to be sold directly by the cloud provider. Conversely, more complex cloud offerings and systems requiring extensive integration and ongoing support are more likely to flow through the channel.

The necessity for using intermediaries is demonstrated in the figure below. While cloud providers may have the ability to fulfill each stage of the cloud lifecycle, it is not always advantageous for them to do so. Depending on the complexity of the service and the target market, it often makes sense to relegate certain functions to channel partners that have greater capabilities and capacities in certain segments. For instance, a cloud provider could sell its office productivity application services directly to the end customer, but, unlike solution providers or cloud brokers, they may not have the sales capabilities to reach an SMB target or the services ability to implement for large enterprises. Likewise, solution providers may be able to host and deliver a customer relationship management (CRM) application via



the cloud, but it's highly unlikely that they would have the sales and service capacity to reach the enterprise market. The figure below illustrates the balance between scale and complexity in justifying direct and indirect go-to-market models.

The exception to this paradigm is when cloud providers are able to fully remove complexity from a service and make it an entirely self-service offering. In this case, the provider can bypass the channel since it requires neither an indirect or direct sales team. In most cases, though, value-add and market reach will determine the size of the source organization in go-to-market strategies.

Conclusion

Cloud computing is disruptive in both a good and bad sense. It is opening the door to applications, tools, and development resources previously unavailable to organizations. It's making applications and infrastructure more affordable for enterprises and small businesses, and making the implementation of innovative technologies easier and faster. In the eyes of the consumer, it is vastly improving the technology innovation and cost/benefit equation.

For the IT industry, cloud computing is an opportunity to transform business models and delivery systems. The cloud is making it easier and more cost effective to deliver applications, platforms, and infrastructure to consumer organizations. It's making the revenue derived from technology sales more even and predictable. And it's enabling a faster and more efficient means for supporting and maintaining technologies through the centralized management of hosted systems.

While the cloud can and will be disruptive to the conventional reseller channel model, plenty of room remains for intermediaries in the cloud go-to-market model. Complexity of systems and integration, customization of applications and services, integrating on-premise infrastructure and applications with the cloud, advising on cloud solutions, and managing provider relationships are all areas where the channel will continue to play a vital role in the

customer relationship equation. The new laws of the cloud channel boil down to simplicity verses complexity. Where cloud systems are simple and automated, there is less need for the channel. However, complex systems—and there will always be complex systems—will almost always require third-party assistance for both the cloud provider and consumer to find the success they seek.



About Us

CompTIA Cloud/SaaS Community

The CompTIA Cloud/SaaS Community is a collaborative group of technology suppliers and cloud computing vendors, distributors, service providers, and resellers dedicated to advancing cloud computing in the global technology marketplace. Our community is dedicated to defining cloud computing technologies, business models, and best practices; building cloud tools and resources; creating and administering professional credentials; and deliberating and resolving issues related to evolving cloud computing challenges and opportunities. Our community is resolved to promote industry and regulatory standards that ensure the openness, performance, and integrity of cloud computing platforms, applications, and businesses. Our underlying goal is nothing less than ensuring high quality and performance in cloud computing among all marketplace constituents.

For more information about the CompTIA Cloud/SaaS Community or to get involved in our community's activities, please contact communities@comptia.org.

CompTIA

CompTIA is the voice of the world's information technology (IT) industry. Its members are the companies at the forefront of innovation and the professionals responsible for maximizing the benefits organizations receive from their investments in technology. CompTIA is dedicated to advancing industry growth through its educational programs, market research, networking events, professional certifications, and public policy advocacy. For more information visit www.comptia.org or follow CompTIA on Twitter at <http://www.Twitter.com/comptia>.

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