White Paper

Converged Network-IT Services

Part 1: A Service Portfolio Production Strategy To Increase Service Provider Competitiveness

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Part 1: A Service Portfolio Production Strategy To Increase Service Provider Competitiveness

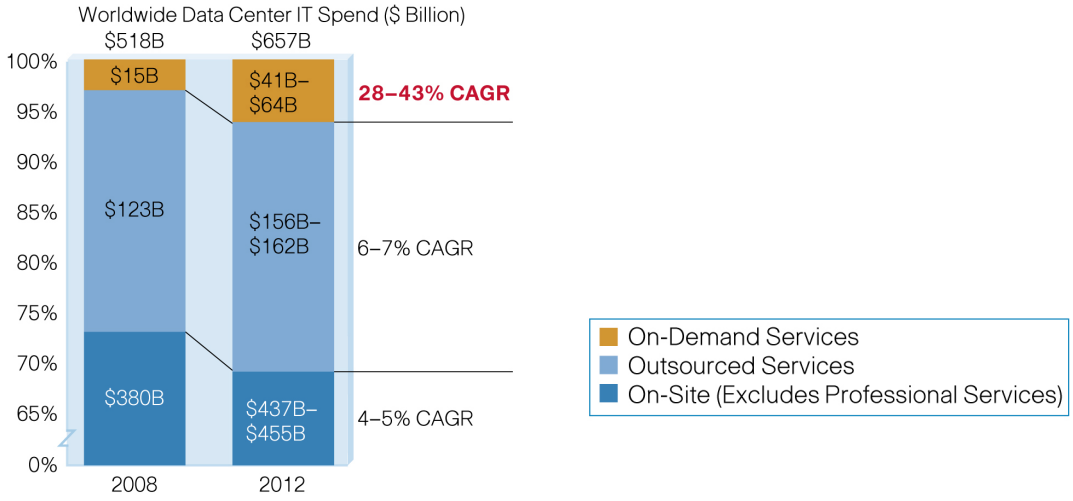
Converged network-IT services is a broad topic. To help service providers understand how to increase competitiveness by developing a network-IT service portfolio production strategy, Cisco IBSG has created two white papers. Part 1 (this paper) describes the nature of the market opportunity, the ideal solutions portfolio, service production mechanisms, and how service providers should respond today. Part 2 defines eight rules that service providers should follow to address key issues in the emerging market for network-IT services.

Introduction

Service providers are facing increasing financial pressure due to lower revenues from legacy services such as voice, messaging, and data. To offset this decline, service providers are developing new IT and media applications, including unified communications, telepresence, Connected Life,[1] and IPTV, to further penetrate the rapidly growing markets for these offerings.

All of these services require strong network and IT components for delivery to end users. Moreover, the IT aspect of these services is increasingly being delivered on an on-demand basis (see Figure 1). Although the market for on-demand services is forecast to grow rapidly, many companies still have concerns about the reliability, security, and performance of services delivered over on-demand platforms.

Figure 1. The Importance of On-Demand IT Services Is Increasing Rapidly



Note: The bars for 2008 and 2012 are the same height (100%) because the chart compares ratios rather than absolute values.
Source: Cisco IBSG, 2009

Given this situation, the Cisco Internet Business Solutions Group (IBSG) believes service providers must carefully orchestrate their network and IT delivery capabilities to be successful. By doing so, they can differentiate network and IT services (including on-demand) by delivering superior availability, performance, and security at the application level, and by enabling premium communications.

To test this hypothesis, Cisco IBSG interviewed 15 executives from leading service providers primarily located in Europe and the United States. The research focused on the underlying operating models and production strategies that service providers need to create services that will deliver a sustainable competitive advantage. Overall, the research indicated that service providers have a ways to go before they can offer a full breadth of converged network-IT services with appropriate delivery models.

Service Delivery Trends and Challenges

Shifting Revenue Streams

As revenue shifts to next-generation IP services, service providers are integrating elements from the data center and network to deliver these services. Unsurprisingly, there is strong competition for this new opportunity from over-the-top (OTT) companies, systems integrators, and hardware vendors. Given this situation, service providers should ask, "How can I overcome the strengths of these players to gain market share and increase revenues?"

Successful delivery of next-generation services requires the orchestration of both network components and IT-based elements that reside in the data center. For example, video on demand (VoD) requires that headend and content storage are located in the data center, while delivery of the service needs to occur over a high-quality network in order to provide a superior customer experience.

Changing Customer Requirements

Customer requirements for network and IT services are rapidly changing. Despite the attraction to on-demand services, many companies have concerns about the implementation of these services within their organizations:

- Availability: To date, on-demand service platforms have suffered from widely publicized failures, forcing some OTT companies to consider offering service-level agreements (SLAs) that guarantee uptime and performance as needed by their customers. Providing all-encompassing SLAs is difficult when utilizing best-effort networks.
- Security: Often, it is not clear where company data and processes reside. Moreover, data is often transferred over public networks, making it vulnerable to attack and misuse. Companies with security and data privacy requirements are often hesitant to migrate to the current set of converged network-IT services.
- Performance: Although customers can provision large amounts of IT resources such as computing power and storage to run applications, networks are generally provisioned on a best-effort basis. This means the quality of service to customers' premises is not guaranteed.

Customers are looking for lower costs as well as faster and easier service deployment. For services that are not mission-critical, customers are sometimes willing to compromise on reliability, security, and performance. In many instances, however, customers will strive to decrease costs and increase agility while maintaining security and quality of service (QoS).

Strong Competition

Despite strong competition to win customers in the converged services market, service providers have unique strengths, including an understanding of both the network and IT environments, brand equity linked to reliability, and long-term relationships with enterprise customers. The key question is whether service providers can use these strengths to form the basis of a sustainable competitive advantage.

The strongest competition for service providers in the battle to win customers in the converged services market is from Internet companies, server vendors, and systems integrators.

Internet Companies: By managing popular online applications, OTT providers such as Google, Amazon, and Microsoft have obtained huge scale and advanced capabilities in IT management. And unlike service providers, OTTs enjoy global brand recognition and service reach. Internet companies are agile and often have a massive global footprint, working around the limitations of best-effort network connectivity delivered by service providers.[2] Cisco IBSG estimates that Google, for example, invests more than $1.5 billion annually in IT assets. That figure is an order of magnitude above typical IT investments of network service providers or traditional hosting companies.[3]

Another OTT provider, Amazon, was the first company to give outside developers the benefit of the company's low-cost IT assets by launching Amazon Web Services (AWS) in 2002. Amazon offers online disk space and processing power at prices that are significantly lower than the total cost of ownership (TCO) for a typical enterprise.[4]

The benefits of scale are obvious. By having Amazon.com as a customer, for example, AWS can achieve full scale as soon as a new service is launched. This enables AWS to operate at IT cost levels that service providers may be unlikely to match or undercut. Cisco IBSG estimates that AWS cloud computing revenues exceeded $500 million in 2007.[5] Google followed suit by launching Google App Engine in 2008.

For its part, Microsoft outlined plans for a fifteen-fold increase in the number of servers running in its worldwide data centers over the next five years. This effort is intended to boost the Microsoft Windows Azure platform by offering utility computing resources for enterprise software.[6]

These low-cost cloud computing solutions in the hosting space create challenges for service providers. It is to be expected that price-based competition for best-effort, cloud-based services will be at the expense of service providers' market share. AWS indicates the majority of its revenue already comes from enterprises in the financial services and pharmaceutical industries.[7]

OTT companies, however, are also trying to compensate for their intrinsic weakness in customer proximity, service, and local presence. Cisco IBSG has increasingly noticed that OTTs are targeting enterprises by offering SLAs, content delivery service contracts, and support for enterprise-ready operating systems, databases, and development environments.

Besides offering SLAs, partnerships help improve credibility. In May 2008, Google and IBM announced they would join forces to offer Enterprise Cloud Computing,[8] directly targeting service providers that are hosting enterprise IT infrastructure.

> "We believe there is undercapacity in cloud computing. We know that Google and Amazon have very large data centers, but our customers tell us they are simply not ready to migrate their applications to those platforms."
>
> Cisco IBSG Survey Respondent

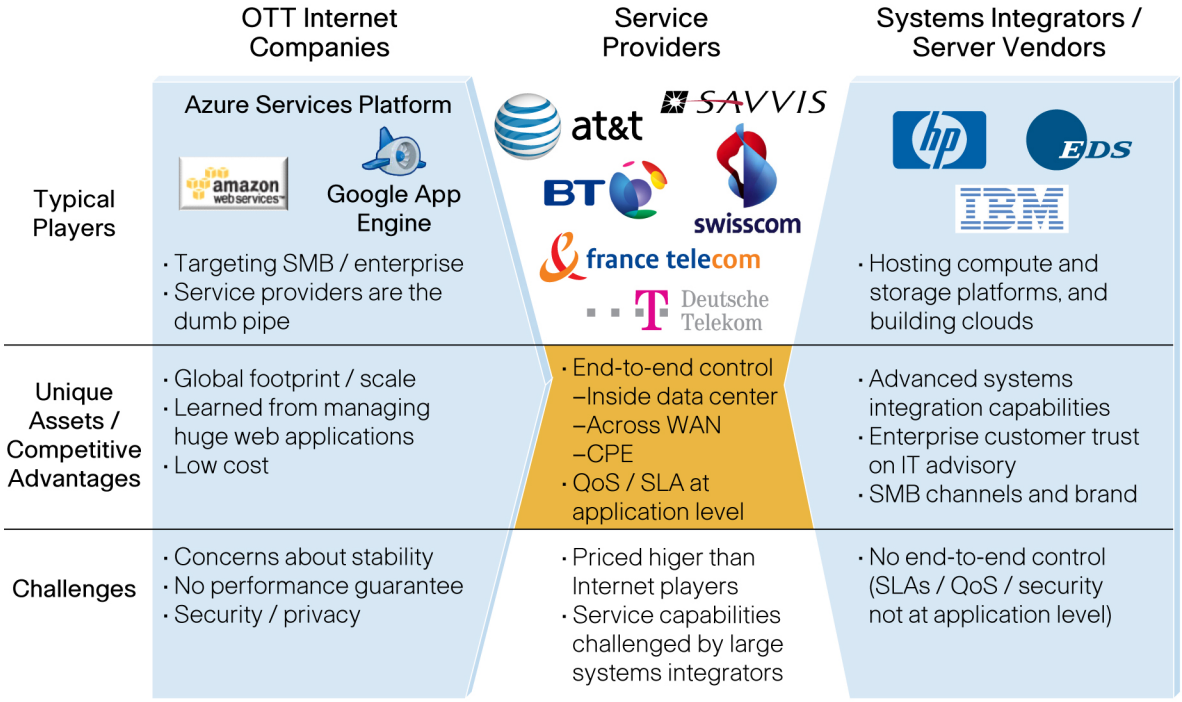
Server Vendors and Systems Integrators: Server vendors and systems integrators already have extensive hosting and storage platforms, and they continue to develop even more capacity in these areas. IBM, for example, is building large data centers around the world to deliver computing and storage hosting services.[9] After Hewlett-Packard's acquisition of EDS, the company is now launching a variety of hosted and virtual IT data center service offerings for EDS customers.[10]

These players have a lot of strength in terms of IT management and systems integration, and are trusted names with enterprise IT customers. Yet, in general, they do not have end-to-end control over the IT environment and wide-area network (WAN). This makes it difficult for these companies to deliver SLAs, QoS, or security at the application level.

Opportunity for Service Providers To Deliver Converged Network-IT Services

Service providers control the IT environment, WAN, and often customer premises equipment (CPE). By controlling the end-to-end infrastructure, service providers can guarantee the availability, security, and performance of services and applications. To create this competitive advantage, service providers need to understand which customer segments are willing to pay a premium for end-to-end control. Figure 2 summarizes the competitive challenges faced by service providers and the opportunities they have for differentiation.

Figure 2. Traditional Service Providers Have Unique Assets To Compete in IT-Based Services



Source: Cisco IBSG, 2009

A Service Portfolio Production Strategy

As service providers approach the opportunity for converged network-IT services, they should consider the nature of the services they plan to deliver. Cisco IBSG believes there are two dimensions to delivering services that are of interest to service providers: 1) IT complexity and 2) interdependence between network and IT domains.

IT Complexity

Cisco IBSG considers services to have low IT complexity if they have a high level of standardization and can run on a commodity infrastructure. With increasing IT complexity, services become customized and interlinked with business processes that are variable in nature. In addition, these types of applications often reside on complex legacy platforms that are not supported by current on-demand IT offerings.

Interdependence Between Network and IT Domains

At the low end, where network and IT domains are independent, services can satisfy customer needs with best-effort connectivity. With increasing interdependency, the inherent nature of services and applications demands increased guarantees from the network regarding availability, security, and performance.

With these two dimensions in mind, service providers should consider four different delivery models to address a wide spectrum of services. In addition, service providers should assess which services are best provided by each delivery model.

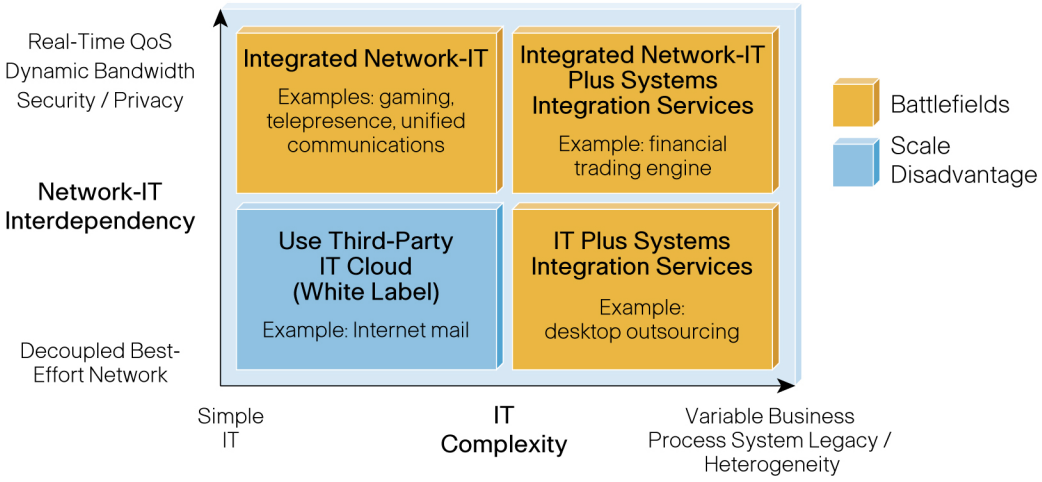
"We spend a lot of time trying to understand where we want to play, when we should pursue partnerships, and when we should go it alone. The differentiation the network can bring is a key component to answering these questions."

Cisco IBSG Survey Respondent

Delivery Models

To address the wide variety of opportunities available, services providers must have a portfolio of IT and network capabilities, spanning both internal and external sources. These delivery capabilities can be structured along the axes of IT complexity and network-IT interdependency, giving service providers a guide to relevant segmentation. As shown in Figure 3, four types of delivery models are available to service providers.

Figure 3. Four Delivery Models Address Varying Complexity Tradeoffs Between Network and IT Capabilities



Source: Cisco IBSG, 2009

Delivery Model 1: Use Third-Party IT Cloud: Where interdependency between network and IT domains is limited, as in the case of simple web hosting for consumers, best-effort connectivity will suffice. Where IT complexity is simple and constrained to one application or a single desktop PC, today's OTT players have a strong position. This is because they can use their strengths, including a low-cost base, global market reach, brand recognition, and disruptive, unconstrained (in terms of legacy protection) innovation capabilities. In addition, OTTs are not constrained by their intrinsic weaknesses in this segment.

Cisco IBSG considers this a difficult domain in which to compete due to "scale disadvantage." In other words, service providers don't have the scale or capabilities needed to be competitive in this space for anything other than network capacity. Instead, service providers should seek partnerships and rely on external IT and data center resources while maintaining customer relationships and delivering standard network services.

"We may push the IT element of web video streaming into the cloud while maintaining control of our customer relationships and content delivery services."

Cisco IBSG Survey Respondent

Delivery Model 2: IT Plus Systems Integration Services: Given increasing IT complexity, enterprise customers require an automated IT solution, as well as the transformational capability to "get there." Enterprise applications, for example, often run on a variety of server architectures and middleware environments. Migrating these types of solutions to an on-demand platform requires complex application integration and migration services.

Some customers may want to transition to on-demand services quickly, while others, due to finances or legacy requirements, may decide to take a slower approach. At some point, however, all customers will require a certain level of professional services in the areas of solutions development and application and data migration. Where interdependence between network and IT domains is limited, the professional services element will be a primary requirement for customers. Service providers can expect this segment to be a true battlefield featuring rugged competition against large companies focused on professional IT services.

"When we approach a deal with a professional services company, it often ends with them providing the IT infrastructure and services element. For us, only network connectivity remains."

Cisco IBSG Survey Respondent

Delivery Model 3: Integrated Network-IT: When interdependence between network and IT domains increases, and IT complexity stays relatively low, service providers can utilize their network infrastructure to differentiate themselves—provided they have the ability to orchestrate and scale service offerings, such as media streaming and unified communications, across their network and IT assets. In this domain, the competitive battle with cloud computing players will also be intense.

Scalable, high-quality solutions that integrate end-to-end network and IT functions, however, are hard for OTT players to deliver. Online, interactive gamers, for example, appreciate the benefits that low latency can bring to the gaming experience. Control over IT and the network, including the last mile, can improve the quality of interactive gaming.

On-demand infrastructure services such as Infrastructure as a Service that are confined to the data center have limited control over the availability, security, and performance of the applications running on the infrastructure. If WAN and CPE elements can be added to the on-demand offering, only service providers can deliver guarantees at both the data center and network levels, and therefore at the application level.

Delivery Model 4: Integrated Network-IT Plus Systems Integration Services: Where network requirements become interdependent with IT, and IT complexity is high, service providers can find a "safe haven" from the competition. This is because OTT players and IT services companies find it hard to compete in this area.

As an example, financial trading engines rely on both complex, mission-critical IT environments as well as controlled, low-latency networks. To work properly, these types of applications require an end-to-end network and IT service, as well as a number of systems integration services.

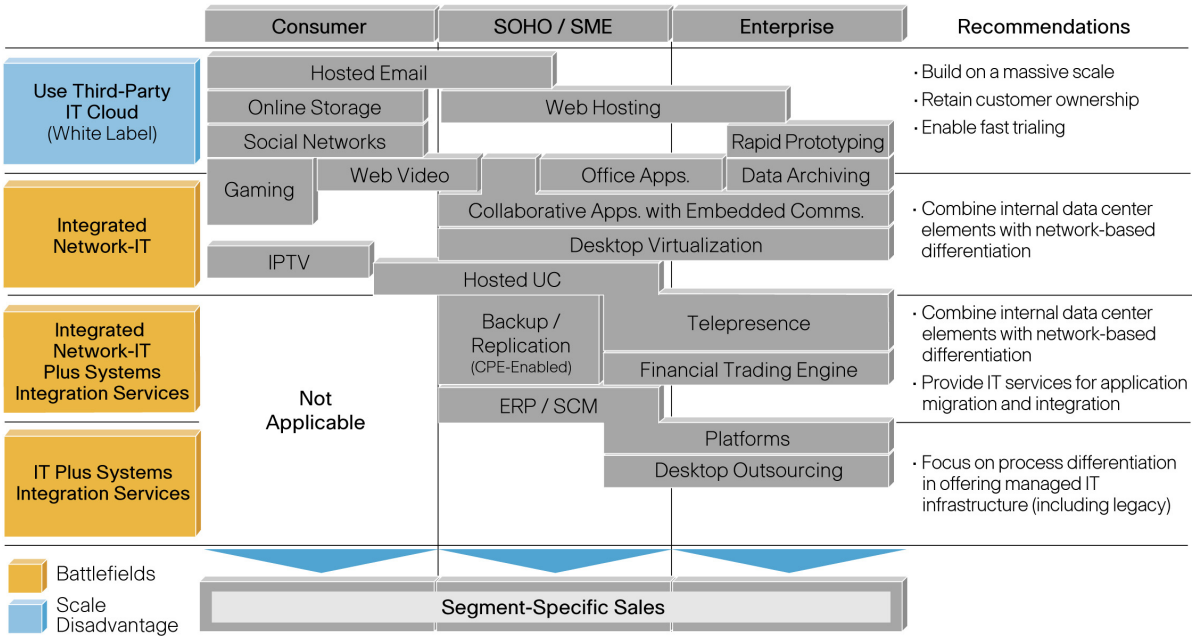
Still, service providers need to consider if the headcount-intensive model implied by the professional services and systems integration quadrants, as shown in Figure 3, is suitable since their business models are often based on rapid scaling and low- to zero-touch provisioning. Despite being more competitive, the top-left quadrant—Integrated Network-IT—may be better suited to service providers' core capabilities.

Services

Figure 4 applies the delivery model framework to various customer types. The diagram also accounts for the service requirements of each customer. Some customer and service segments will have different requirements in terms of QoS, availability, performance, and service integration. The complexity of the service and its level of integration with other applications and business processes will determine the best approach for deploying the service with a sustainable business model.

It is evident that individual customer types may require different delivery models, depending on the service. It is also clear that this scenario will differ among service providers, depending on their scale and core capabilities.

Figure 4. A Service Portfolio Delivery Strategy



Source: Cisco IBSG, 2009

Typically, enterprise customers rely on a portfolio of services and more than one production strategy. For example, corporate customers may choose to outsource the cost-efficient migration of their enterprise resource planning (ERP) portfolio, while using an external "no frills" cloud to support peak demand and / or prototyping. Service providers may choose to use the "IT Plus Services" delivery model for desktop outsourcing and evolve it into a cost-efficient "bring-your-own-computer" virtual desktop arrangement. This approach creates a more sustainable position in terms of customer satisfaction and return on investment (ROI) when based on strong network SLAs and data center capabilities.

For small office, home office (SOHO) and small- to medium-sized enterprise (SME) customers, fewer applications with stringent security and high performance levels are required. In this lower-price-point environment, customers may not be willing to pay for private infrastructure or higher availability guarantees. Still, there is an opportunity to target these segments with a hosted model that provides similar performance levels, but comes with less customization than is required for corporate applications.

Hosted unified communications, for example, can be offered to SOHO and SME customers using a combined network and data center approach. In addition, a backup solution driven by a CPE device that schedules and executes backups to the cloud lends itself to differentiation from the classical systems integrator approach, while providing higher scalability and lower process complexity.

For consumers, service providers can best differentiate themselves from the competition by taking advantage of opportunities from multimedia services such as IPTV and emerging forms of consumer telepresence. Already, service providers have integrated and white-labeled third-party OTT services such as email for the "best-effort, low-complexity" segment to retain customer ownership at a competitive price.

Since the examples mentioned in this paper are illustrative, service providers will need to define their own differentiated portfolio of services depending on their business goals. In all cases, however, the framework in Figure 4 will help service providers understand how offerings need to be delivered to address new customer segments while maintaining or increasing ROI.

In addition, the notion of complexity shown in Figure 3 is dynamic. Technical progress will likely push more of today's applications into the left column and, potentially, into the lower-left corner of the diagram. At the same time, new applications with high network and IT requirements will emerge to create new demand in the top and right areas of the chart. Service providers will be able to "future-proof" their strategy only by commanding the full production strategy portfolio in combination with an ongoing strategic review process.

If the analysis of relative strengths is correct, then OTT players will strive to increase the size of the bottom-left quadrant, fueled by the ever more pervasive rollout of broadband services. Service providers, on the other hand, must innovate—alone or with partners—to protect and expand the top and right sectors.

Emerging Responses from Service Providers

Service providers are beginning to take advantage of the opportunity to deliver converged services that will differentiate them from the competition. Cisco IBSG believes, however, that service providers should increase the rigor and speed being applied to the service development process.

In the hosting space, many service providers indicate that the relationship they have with their customers, combined with the proximity to their location, is enough to defend the enterprise space from lower-cost competitors. In addition, low-cost competitors may not always have an in-depth understanding of standard hosting applications. These factors, however, should not deter service providers from acting with a sense of urgency. In fact, the interviews conducted by Cisco IBSG indicate the competitive nature of OTT services has not yet fully penetrated service providers' strategic thinking.

> "We agree with the opportunity [to develop new services] and the competitive threat [to our traditional revenue streams]. But in our country, this is still a few years away."
>
> Cisco IBSG Survey Respondent

Product and Service Responses

Enterprise Hosting: During the survey, one executive commented that in response to the utility and on-demand computing threat, his company would increase the breadth of its traditional IT outsourcing portfolio as a means of differentiation. In this case, we did not encounter a clear roadmap to lower costs and increased agility through virtualization and automation.

> "Our customers want to come into the data center to see and touch 'their' server. They also want a local partner, not a global player."
>
> Cisco IBSG Survey Respondent

Other responses from more advanced service providers have been focused on automation, specific use cases to facilitate inter-data-center payload allocation, and improved customer experience and control. As these leading use cases translate into tangible service offerings, service providers are beginning to truly develop converged network-IT services. Some operators, in fact, already advertise integrated SLAs; this trend, however, has been limited to date. Cisco IBSG's research indicates that organizational and process complexities are the main reasons for the lack of end-to-end SLAs.

Dedicated Solutions with Systems Integrators: Service providers often complement their portfolio by acquiring systems integrators in order to offer professional services. The key benefit of this approach is the ability to provide an end-to-end evolution of IT offerings since customers expect a portfolio of capabilities and a clear migration path to "cloud services."

This need can be met only by relying on a seamless technology and business transformation offering. Yet, service providers find it difficult to capture potential synergies even in front-end sales and marketing teams, not to mention the delivery and production environment. In certain cases, this even leads to a trend reversal.[11]

> "Our customers all require a facilitated migration to the cloud. Some want the cloud now while others have decided to wait a few years. You [service providers] need to offer the portfolio."
>
> Cisco IBSG Survey Respondent

Web Hosting: Most service providers already offer dynamic web hosting. A pricing comparison between service providers and emerging OTT platforms, however, shows service provider market pricing for these services is often much higher.[12] Once disruptive OTT players have realized the arbitrage opportunity of offering commodity services at much lower prices, service providers' market share is destined to decrease. For these basic services that have low network interdependency, there is an increasing trend to partner with OTTs for external service production while keeping branding and service integration in-house.

> "We plan to externalize our data center facility since we cannot operate it cost-competitively."
>
> Cisco IBSG Survey Respondent

Software as a Service (SaaS): Service providers have targeted the SME market with hosted and rebranded SaaS offerings that are resold from companies like Microsoft and Salesforce.com. They often find a low-margin business, however, with limited upside potential, even at a large scale. Moreover, the service provider channel of value-added resellers is not convinced that pushing SaaS solutions to their SME customers is the right thing to do since they often want to protect recurring revenues in onsite IT services.

Media: In the media domain, service providers are progressively integrating value-added features like time-shifting and electronic program guides into their closed IPTV platforms because they believe this will differentiate their network-enabled services from Internet video. Furthermore, service providers believe there is an opportunity to blend the standard video experience with services like web-delivered video, gaming, and Internet browsing through smart CPE devices.

Production Environment Responses

For service providers, changing their service offerings as described above must result in a transformation of underlying service production capabilities. Aligning service production across network and IT domains may yield additional cost synergies.[13] Unsurprisingly, the transformation to a truly converged network-IT service production capability continues to be a great challenge.

Application Programming Interfaces (APIs): At the external "interface" of the service production capability, some service providers have already opened APIs into their networks that can be accessed by third-party software developers. Actual adoption of APIs by

developers, however, has been disappointing. This is because the limited geographic footprint and relative brand strength of service providers are significantly lower that those of OTT offerings that have global reach.

Another reason for the disappointing performance of APIs is that engineers lack the skills required to design and implement applications that use communication APIs to enable business processes. Service providers also seem divided in their opinions about the importance of open APIs to their future operations. In July 2008, British Telecom claimed that more than 9,000 developers had joined the BT Web21C SDK community.[14] That is a good start, but is only a small fraction of the developers that support Google or the Apple iPhone. Overall, the jury is still out on the potential of commercial success for network APIs.

At the service delivery level, all service providers feature IP multimedia subsystems (IMS) on their respective product offering roadmaps. At the same time, however, many respondents to the Cisco IBSG survey had doubts about the ability of IMS to align network and IT domains. As a result, the vision of integrated, IMS-based service delivery orchestrating different service offerings and technical domains remains vague.

"We put IMS as the central topic on all our external architecture strategy slides, but we don't expect that it will actually deliver what we need."

Cisco IBSG Survey Respondent

Common Operating Model: As service providers develop converged network-IT service delivery capabilities, they also need to evolve their operating models. The operating model defines how organizations, processes, and governance interact with the underlying technology. Closer collaboration in network and IT organizations is required, yet technical and commercial teams don't always share a common perspective with other groups.

"The architecture team has a different perspective from the commercial team—they don't work together well."

Cisco IBSG Survey Respondent

Already, some providers have implemented a common operating model. Cisco IBSG found that these service providers appear more adept at launching new services. They also mentioned cost synergies through the integration process by reducing duplication of development efforts and sharing operation resources. Changing to a common operating model took time, patience, and significant change management, but the benefits seem to be worth the effort.

IT and Network Management: Once organizational structures are aligned, the next challenge is to streamline the underlying legacy operational and business support systems (OSS / BSS), which are often fragmented, incompatible, and sometimes not even completely accounted for. Some of these systems also increase complexity since they provide customers with the ability to continue using their legacy applications. All of these systems,

however, slow down the innovation process and create a culture in which sustaining continuity is a higher priority than profitable innovation.

This situation is particularly challenging when looking across the domain of IT and network management. Fragmented, disparate systems also foil any approach to deliver, monitor, and manage an end-to-end network-IT service production capability. In Cisco IBSG's survey, service providers regularly mentioned prohibitive costs as the final stumbling block of migrating OSS and BSS systems.

> "Integrated management and process automation are the greatest cost, implementation, and performance challenges [we have]. [To address this,] we are working on an integrated customer front-end."
>
> Cisco IBSG Survey Respondent

Some service providers have assessed these challenges by "going back to the drawing board" and designing an end-to-end "greenfield" service production capability. In times of financial uncertainty, however, these types of proposals don't easily achieve CXO sponsorship because the risks and costs are too high.

Conclusion

To be successful in the current market, service providers must carefully orchestrate their network and IT service delivery capabilities. Looking at service providers' current service portfolios and operating models, however, Cisco IBSG believes that a number of pain points still need to be addressed to regain a sustainable competitive advantage in the converged network-IT services market. These pain points include the emerging network-IT service portfolio, the underlying operating model, and, finally, the business transformation path to regain and sustain competitive leadership in addressing new opportunities for revenue growth.

As service providers' core businesses consolidate, they need clarity about how to build out their converged network-IT services portfolio delivery capabilities. And while the framework presented in this paper provides high-level guidance, tailoring to the specific needs of individual service providers is required to make the framework as effective as possible.

It is evident that service providers must define their own value propositions with regard to network-IT convergence by building on the four production strategies described in this paper. Once the fundamental priorities become clear, service providers must then plan and deploy the necessary changes by following a multiyear implementation roadmap. Cisco IBSG describes the critical success factors for completing this transformation in a separate white paper titled "Converged Network-IT Services, Part 2: Eight Rules To Build an Integrated, Future-Proof Network-IT Service Production Capability."

Endnotes

The term service provider, as used in this white paper, refers to telecom companies that manage end-to-end networks and information technology (IT) service delivery across fixed-line, mobile, and/or cable access networks to end users. Companies that deliver services over best-effort, Internet broadband connections are referred to as over-the-top (OTT) players.

1. Connected Life is an environment where near-pervasive broadband availability and a plethora of content and service options enable access to entertainment, information, social networks, and collaboration—from anywhere, at any time, on a broad array of devices.
2. In 2007, Google reported $2.4 billion in CapEx spending (source: Google, 2007). Cisco IBSG estimates that at least 60 percent of this amount is for IT assets. In the same year, CapEx spending by Savvis, an outsourcing provider of managed computing and network infrastructure for IT applications, and Rackspace, a worldwide leader in hosting services, reported $248 million and $227 million in CapEx spending, respectively. Sources: Savvis, 2008; Rackspace, 2008.
3. Sources: Cisco IBSG, 2009; IDC, Forrester Research, Gartner, Saugatuck Technology, and Merrill Lynch, 2008.
4. Comparison of Amazon prices with the TCO of a typical enterprise. Source: Cisco IBSG, 2009.
5. Announcement of 1H07 revenues of $500 million for Amazon Web Services. Source: Amazon, 2007.
6. Source: Microsoft Professional Developers Conference, October 2008.
7. Source: TechCrunch, April 2008, http://www.techcrunch.com/2008/04/21/who-are-the-biggest-users-of-amazon-web-services-its-not-startups
8. Source: IBM Business Partners Conference, May 2008 (video of Google CEO Eric Schmidt), http://www.datacenterknowledge.com/archives/2008/May/09/googles_schmidt_on_cloud_computing.html
9. In August 2008, IBM announced a $300 million investment to build 13 cloud computing data centers in 10 countries. Source: IBM, 2008.
10. Source: “Is HP Entering the Cloud with EDS?”, Capgemini, May 2008, http://www.capgemini.com/ctoblog/2008/05/is_hp_entering_the_cloud_with.php
11. Source: “Telstra Sets Off Telco IT Race (Sale of Kaz to Fujitsu),” Ovum Straight Talk, March 2009.
12. Price comparison of service provider web hosting versus Amazon. Source: Cisco IBSG, 2009.
13. For example, Swisscom, in its investor and analyst meeting on March 5, 2008, announced 330 million (CHF, or Swiss Francs) in cost savings by integrating network and IT into “NIT.” Source: Swisscom, 2008.
14. In July 2008, BT actually suspended its Web21C SDK platform in its current form. This was done to enable integration with the recently acquired Ribbit platform. Source: BT, 2008.

More Information

The Cisco Internet Business Solutions Group (IBSG), the global strategic consulting arm of Cisco, helps CXOs and public sector leaders transform their organizations—first by designing innovative business processes, and then by integrating advanced technologies into visionary roadmaps that address key CXO concerns.

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