IDC
Analyze the Future

PRODUCT FLASH

Cisco Introduces Support for Next-Generation Service Delivery

Lucinda Borovick Eve Griliches
Lee Doyle

IN THIS PRODUCT FLASH

This IDC Flash discusses the announcement by Cisco of its strategy for linking its Datacenter 3.0 initiative with the capabilities of Cisco's IP Next-Generation Network (IP NGN) to create a more integral approach to service delivery for service providers.

SITUATION OVERVIEW

Telecom and cable operators are in the midst of significant changes and challenges. As these providers look to the future of their business, they are working to bring to market new services that will drive revenue and market share growth while at the same time creating an operational foundation that is cost effective and efficient. With the introduction of Cisco's Unified Service Delivery, Cisco is bringing to market its strategy for linking its Datacenter 3.0 initiative with the capabilities of Cisco's IP Next-Generation Network (IP NGN). The goal of Cisco's Unified Service Delivery is to create a more integral approach to service delivery for service providers. Service providers see a wealth of business opportunities that if harnessed correctly can create long-term revenue grow.

Cisco realizes that the role of the CIO is now to manage information not infrastructure, and that mobility devices have begun to blur the lines of what is inside the enterprise and what is outside, where trust contracts have to become two way to ensure secure communications for the enterprise as well as the mobile business user. With these changes, the role of the service provider has also been clouded (pun intended) and continues to blur, with software as a service (SaaS) and IT as a service becoming more interesting and viable economic alternatives for them to pursue.

Today, services traverse networked islands like the service provider head-end, point of presence (POP), central office, or cache sites, all which contain a mix of servers, storage, and networking equipment. Each of these provider sites is looking more and more like IT infrastructure, except they have yet to leverage the virtualization, consolidation, and modularity rapidly changing the datacenter.

Cisco is bringing the idea to market that the service provider datacenter can be built more efficiently. The largest impact and benefit of this type of migration is in the provisioning and re-provisioning of secure services for increased flexibility and economies of scale. Service delivery is currently limited to the hardware associated with that service, limiting its scalability as well as efficiency for delivering services. Typically, each service is established as a separate silo running across allocated equipment, and this is not an efficient infrastructure for the Web 2.0 services that are emerging today. Service providers are also internally organized and structured around these services, making it difficult to traverse what is a hardened network to evolve to become a more flexible applications provider.

The goal of Unified Service Delivery is to provide an end-to end-architecture that extends from the datacenter to the end customer. This integrated platform provides leverage across the entire service portfolio to help service providers:

- **Improve the time to market with new service and features.** The use of common compute, storage, and networking components enables providers to deliver new enhanced services in a more timely fashion. This common infrastructure facilitates integration between service offerings and more effective and efficient billing. Additionally, a common platform has the potential for services providers to shift workloads based on user demand enabling the infrastructure to scale appropriately.
- **Effectively balance capital and operating costs.** To increase market share, service providers must find the appropriate balance between investing for revenue growth and cost reduction. The use of virtualization clearly increases utilization rates of existing assets. Additionally, a common unified infrastructure improves operational disciplines by reducing training and staffing costs and can help reduce energy and consumption costs. Similarly, migration away from service silos facilitates compute, storage, and bandwidth to scale independently.
- **Ensure and secure the user experience.** To deliver new media content services to millions of users with 24 x 7 x 365 availability, the infrastructure deployed must provide carrier-class scale and resiliency while at the same time safeguard customer data in transit and in the datacenter. In addition to these operational concerns, the equipment needs to take an active role in managing service quality.

Global Headquarters: 5 Speen Street Framingham, MA 01701 USA P.508.872.8200 F.508.935.4015 www.idc.com

Filing Information: May 2009, IDC #218322, Volume: 1

Telecommunications Equipment: Product Flash

Ultimately, this also leads to reduced capital expenditures and unifies the infrastructure, providing a "greener" environment. It also reduces strained capacity in provider sites and allows the organizational and operational structures to migrate services to the new logical network on their own time. In other words, providers do not need to immediately change their internal organizations to achieve these efficiencies. This is another example where collaboration continues to flatten the network, and in this case enables virtualization of services to scale.

Cisco's product portfolio for Unified Service Delivery includes its Datacenter 3.0 portfolio of unified computing and its peering and Internet edge products. Cornerstone products include the following:

- **Cisco Carrier Routing System-1 (CRS-1) for Data Center.** Two new Cisco 10G modules and a Cisco 40G forwarding processor for the Cisco CRS-1 platform which are designed specifically to extend virtualization from the datacenter through the IP NGN core and address the needs of peering and interconnect applications for service provider datacenters
- **Cisco Nexus 7000 Series switch.** With shared common characteristics for management, works in conjunction with the CRS-1
- **The Cisco Unified Computing System.** Unites compute, network, storage access, and virtualization resources into a single system (For more information, see *Cisco Expands Datacenter Product Line: Announces Unified Computing System,* IDC #217430, March 2009.)

FUTURE OUTLOOK

If providers ultimately have control of their entire network, new paradigms open to offer value-added services where there was never an opportunity. Healthy partnerships can be struck between providers and service/application/content providers rather than the network just being used for bandwidth. A provider can now leverage the network for revenue-enhancing partnerships instead of bandwidth managing over-the-top vendors; they can partner and do business with them, transforming the services delivery model into new and exciting ways.

Streamlining the datacenter is an important step in transforming the ability of service providers to deliver new services in a rapid and cost-effective manner. As part of the broader service transformation, the provider must also work to better align the datacenter operations with the network operations. While both are moving toward more IT-like architectures, the unique structure of the network(s) must be positioned to efficiently connect to the applications running on the datacenter. In addition, providers must align both the network and the applications running in the datacenter to the specialized back-office operations (OSS and billing) to create secure, reliable, and billable application delivery to the end customer.

Cisco has chosen the right time to bring to market its Unified Service Delivery model. Effectively linking the network and datacenter assets will evolve over time, but Cisco is demonstrating how a new architecture can enable the service provider to optimally manage its infrastructure assets.