

View Point



The IP Multimedia Subsystem Catalyst –Enabling Communication Service Providers to Win in the Flat World

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Innovation has become an imperative for CSPs (Communication Service Providers) in the Flat World¹. Lying as it does at the cusp of telecom, Internet and mobile telephony, the communication services industry must address competition from all quarters. Convergence enables carriers to offer diverse services and open new revenue streams. Consequently, innovation has become the tipping point in the CSP industry. Leading companies have to accelerate innovation to retain existing consumers and attract new ones. To realize innovation in the Flat World, companies need to look beyond their enterprise and develop an open innovation network to meet the needs of consumers.

What Customers Want: Fulfilling Experiences

CSPs must cater to rising consumer expectations. With the changing demographics of consumers, companies must deliver compelling services to a generation for whom Web 2.0² is the new standard in user-experience.

The Flat World has created hyper-informed “global consumers”. Good customer service is no longer enough to retain them. As Web 2.0 offers consumers the opportunity to transact with each other and exchange data, products and services, they now look forward to seamlessly connect, communicate and exchange multi-media content with each other anytime, anywhere.

Consumers have become more demanding, and expect a high degree of customization and more fulfilling experiences. The challenge for CSPs is to anticipate consumer needs and be agile enough to respond with compelling user-experiences. The business focus has shifted from the supply side to the demand side. The target is to achieve numerical advantage in terms of the number of innovative services delivered, rather than the number of consumers. Retaining consumers involves understanding their needs and developing new services to increase the lifetime value of consumers.

CSPs must transform from mere service providers to become “experience providers”. Rather than just provide the network infrastructure or bit-pipes, companies must deliver a bouquet of multimedia services that engages consumers and increases user-stickiness. In order to do so they should concentrate on innovation rather than just focusing on network.

An Open Innovation Network for the Next Killer Application

CSPs must innovate faster to provide users with a rich, connected experience. Infosys believes that open innovation networks offer the fastest route to new products and services. When companies collaborate with partners and tap into a global talent pool, they access several types of domain expertise. This model helps reduce costs, mitigate risks and accelerate innovation. An open innovation ecosystem is essential for companies to innovate faster, as products now become obsolete faster than it takes to develop them in-house.

Second Life³, the multi-dimensional online community destination, illustrates how providing a platform for people to interact unleashes creativity and innovation. It has created a culture conducive for residents to engage and collaborate based on mutual interests. By opening itself to third-party software, services and applications, Second Life serves as a model for CSPs to incubate ideas and realize innovation. According to the Harvard Business Review, “The first companies to thoughtfully exploit the potential of product creation in games will find themselves rewarded with lower costs for market entry and, ideally, enhanced customer relationships.”

CSPs must take a cue from the evolution of Second Life into a globally networked environment, enabling individuals and companies to collaborate on projects and introduce innovative products and services. Second Life has emerged as a fertile ground for companies to engage partners and customers, and realize innovation quickly and economically. Vivox⁴, a service provider of online games and virtual worlds, explored new product development by enabling residents of Second Life to make real-world VoIP calls from virtual phone booths. Starwood⁵, the hotel and leisure company, tested a virtual prototype of a hotel to get feedback for its real-world hotel. General Motors⁶ developed a virtual car continent and promoted a customized version of its Pontiac Solstice model on Secondlife.com.

CSPs can become co-creators of customer experiences by providing a favorable environment for innovators to flourish. Adopting a global network of innovation requires CSPs to relinquish control of parts of the traditional services value chain to external third-party partners having expertise in end services. These services will “mash up” common capabilities, such as presence, exposed by the CSP to rapidly launch new services. The dynamics of product development in such an elastic organization, far from diluting a CSP’s relationship with end-consumers, will hasten delivery of new services and enhance customer loyalty. This collaborative environment creates revenue sharing opportunities for partners as new service concepts are monetized.

² Web 2.0 refers to the second generation of web-based communities that collaborates and shares content using blogs, social networking websites, wikis, podcasts, and RSS feeds.

³ www.secondlife.com

⁴ www.vivox.com

⁵ www.starwoodhotels.com

⁶ www.gm.com

The open network of innovation lends itself to an Open Garden approach. While traditional CSPs manage services as independent silos within their network, an Open Garden bridges the network internally and with external third-party applications. It liberates the network from its rigid legacy systems and with IMS (IP Multimedia Subsystem) provides CSPs a flexible architecture to create, integrate and deliver innovative services to consumers. While IMS is an elegant technical architecture, the Open Innovation Network is a business construct which requires CSPs to rethink product innovation and co-creation, ensuring it takes place outside and within their organizations.

The Liberating Effect of IMS

The biggest advantage of IMS is that it lends itself to a network of innovation. The architecture of IMS offers CSPs the opportunity to deliver genuine converged services. Companies are realizing the potential of IMS to introduce innovative services. AT&T leveraged the IMS platform to introduce Video Share, an application that enables users to share live video over a mobile phone during a call. Orange has unified fixed and mobile services to offer Unik, a single telephone number for consumers at home and on the move. Deployed intelligently, IMS acts as an agent of change in the same way as mash-ups are reinventing web services and providing novel forms of reuse.

As an open standard, IMS offers an optimal architecture for different elements of the network to interoperate for the creation and delivery of a range of applications. It enables services such as IPTV, push to talk, mobile instant messaging, and video sharing. Significantly, IMS helps CSPs deploy applications quickly and at a far lower cost than introducing services independent of each other. While traditional CSPs need to invest considerable time and effort to launch a service, IMS encourages R&D and testing, enabling rollout at reduced capex and opex and withdrawal of services that are unprofitable.

The most powerful driver of IMS is its ability to liberate the applications layer from the network. It enables CSPs to experiment, create and introduce services by using open, Internet-based standards over a shared infrastructure.

CSPs must integrate new applications and content partners into the IMS environment to hasten innovation and transform the user-experience. The evolution from a closed, vendor-specific application development environment to the “best of both worlds” will leverage existing applications, both SIP and non-SIP. As Figure 1 demonstrates, IMS enables a standardized set of service APIs for the integration of applications with third-party content, games and applications. This open innovation approach is driving rapid innovation on Web 2.0, and can transform the way services are created and rolled out.

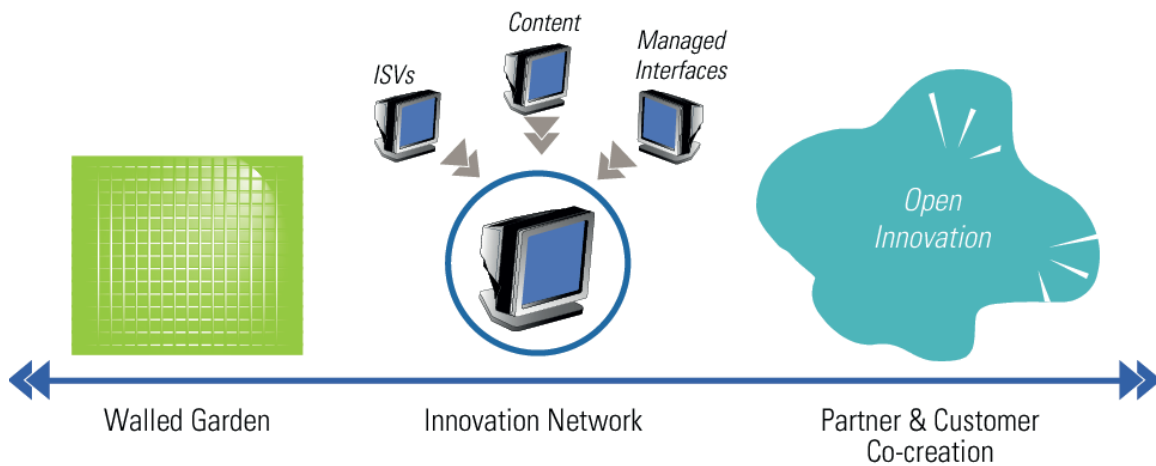


Figure 1: Open Innovation Networks Driving Rapid Service Rollout

The Role of an Independent IMS Integrator

An open innovation network is the most cost-effective route to expedite the launch of innovative services for CSPs. However, there are operational constraints that hamper seamless collaboration between the content provider and the service provider. From an applications perspective, the issues to be addressed relate to user interface, platform and portability. In addition, partners of the extended enterprise need to evaluate investments of time, cost and resources.

Infosys believes that an independent IMS integrator should be an integral part of the open innovation ecosystem to address operational issues and bridge the divide. Such an enabling partner will be a catalyst in the journey towards convergent services. The IMS integrator will be responsible for developing a harmonious IMS ecosystem and partnering model

IMS deployments fail when unrealistic expectations are set. While an IMS infrastructure partner can provide the platform for innovation, mobile and fixed communication equipment providers must focus on driving rapid service innovation through acquisition and integration of partners. Applications can originate from infrastructure partners, the CSP itself, or from Web 2.0 and other ISVs. The IMS infrastructure partner must provide APIs that enable execution without major infrastructure changes or business enabling systems.

Similarly, systems vendors — enterprise hardware and software platform providers — may have the capabilities for an integrated and scalable approach to platform development and maintenance. However, liberating applications from the underlying access and platform infrastructure must be weighed against the need for a managed platform.

In the long term, service roadmap independence is required to safeguard the integrity of convergence programs and preserve the open approach to service integration. Decisions related to applications and services must be independent of the underlying constraints, which is one of the primary goals of IMS deployment.

The role of independent IMS integrators is to partner with CSPs to help create open innovation networks based on open IMS architectures. Independent IMS integrators help CSPs find answers to the business challenges of convergence. It is imperative to build a common ground across services, departments and organizations on the road to convergent architecture. IMS integrators can look across products — fixed and mobile, wireless and IPTV — to create a converged, cross-divisional product roadmap and a shared execution model across the network, IT and marketing stakeholders.

Finally, IMS integrators can help CSPs develop an open innovation network. It may require catalytic, community-based applications and portals. A new partner engagement model designed to accelerate concept-to-market must be implemented. In addition, a large number of third-party applications must be analyzed, ported if necessary, integrated, and set up with the appropriate provisioning and charging models.

Conclusion

In the Flat World, hyper-informed consumers seek compelling services. To meet their needs, CSPs need to transform themselves into “experience providers”. CSPs must migrate from a network-oriented approach to a service-driven strategy and offer diverse services for user-stickiness. To accelerate the launch of services, companies must partner with third-parties in an open network of innovation. IMS provides a flexible architecture for CSPs to create and integrate services in an open innovation ecosystem. An independent IMS integrator can perform the role of an enabling partner to liberate the service provider and the content provider from operational constraints and ensure a smooth roll-out of innovative services.

About the Author:

[Deepak Swamy](#), Associate Vice President and Head, CSP Solutions Consulting at Infosys Ltd., is responsible for strategic leadership of Infosys’ business solutions for Communication Service Providers (CSPs) throughout the United States and EMEA. He is an acknowledged industry expert on the converging communications market, leads strategic consulting engagements, and is a regular speaker at industry conferences on “quadruple play” and IMS strategies for cable MSOs and wireline and wireless CSPs. Deepak has 16 years of experience in the telecommunications industry, both as a management consultant and as an executive at several communications-related entrepreneurial ventures.



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