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## **Convergence: IMS and Beyond**

By Tim Young, Editor-in-Chief

Perspective is a fascinating thing.

If you drive a little ways out of Chicago, where I live, you'll find yourself in the middle of the pancake-flat rural Midwest. The wide expanses of farmland are cut by roads that are very often perfectly straight for miles.

As your eye follows the road off into the distance, the sides of the road, of course, seem to move closer and closer together until they eventually join- Until they converge.

Convergence: a coming-together. Convergence continues to be a favorite rallying cry for CSPs and OSS/BSS vendors alike. It has lost its effectiveness as a buzzword due to sheer overuse (just as Journey's classic song "Don't Stop Believin" has become less enjoyable for me after hearing it butchered at countless karaoke bars). Still, convergence is a valid goal and an apt descriptor for a number of sub-goals within the telecom space (just as, to continue the Journey metaphor, I still get chills when Steve Perry hits the high notes, no matter how unavoidable the song is at sports bars and frat houses.)



For a long time now, the key architectural framework mentioned in any discussion of convergence has been IMS. When the 3GPP began to envision a world beyond GSM, with newer mobile devices

requiring and receiving faster and more diverse and complex services, IMS was created. As the network in question moved from GPRS to other wireless and wireline networks, the potential usefulness of IMS grew.

Over time, there have been ebbs and flows in IMS uptakes. AT&T moved away from the architecture, and then came back to it, viewing it as an incomplete, but promising, framework. More recently, as the economic lean times have continued to lower revenue, AT&T and Verizon have both revved up IMS plans. AT&T's VoIP service for its U-verse customers leverages IMS, and the framework promises to grow to encompass more elements of the giant's network as further innovations seem farther and farther off.

And there are plenty of others who underscore the importance of IMS. "IMS will play and already is playing a very significant, huge role in convergence," said Vadim Rosenberg, Global Director, Telecommunications for CA Inc. "This is mostly driven by the need for CSPs to close the gap they are facing due to the decline in legacy service revenue, especially voice." Indeed, CSPs looking to derive new and different revenue from existing customers, and to ultimately attract new ones, can benefit from IMS. New services are increasingly IP-based. They're web-based applications, very often. They need an architecture than can handle their IP nature. "IMS provides that architecture," Rosenberg said.

However, there are alternatives to IMS. The growth of IMS has been an ambitious and time consuming project and, to paraphrase John Lennon, life has happened while folks were busy making other plans. Overlapping or alternate technologies have come about as IMS has been hanging out in an incubator, and many of these technologies are less complex, and therefore easier to implement, than IMS. (New soft-switches and naked SIP come to mind, but there are many other examples). Furthermore, IMS lacks certain attributes that would make it exceptionally useful in the telecom space.



Thomas Nolle of Network World pointed out last year that "these days, it's as important to understand how a new service or feature integrates with OSS/BSS as it is to understand how the service or feature works with its users. IMS doesn't provide that."

And, ultimately, gaps like that are significant for a framework that is already quite ambitious and expensive. Like many other projects in the telecom space, IMS, to me, is not unlike Esperanto, the

"constructed international auxiliary language" created by L.L. Zamenhof in 1887. Esperanto was created to be a universal language intended to unite all people on earth under a common language. However, there were gaping holes in the plan, including the fact that it is an exceedingly European language and, therefore, as difficult to learn for native Mandarin or Hindi speakers as English or Italian.

Still, Esperanto trudged forth for years and years until eventually fading into obscurity. Meanwhile, other languages (principally English) have grown to the point of unprecedented acceptance and use as a second language.

In short, IMS must continue to grow, correcting gaps and growing in overall uptake. In the meantime, however, new solutions will be posited, either as workarounds and/or practical complements for IMS, or as new architectures that may require their own ground-up expansion as IMS has. Either way, the ebb and flow of IMS can't last forever.

More importantly, however, we must keep in mind the overall goals of convergence. It isn't about IMS. Not exclusively. IMS is just a tool. Convergence is an overarching term that encompasses so many things. Device convergence (which is happening more and more), FMC has taken on a slightly different form than some originally expected, but it's still taking place in one way or another), business and technology convergence, OSS/BSS/IT convergence, etc.

On that last bit (OSS/BSS/IT convergence), Rosenberg has a great deal of positivity on the present and future for IMS, focusing on the scalability of IMS. "Advances in IP technology make it possible to run a service out of your garage," said Rosenberg. "IMS is one of the key building blocks, because you can build an IMS architecture on a small scale. You could do it in your living room."

And, ultimately, IMS is built on an underlying principle of the importance of IP. And that's something that's unmistakably crucial in any discussion of the future of telecom.

Looking at the future of convergent infrastructure, Rosenberg said that it is "definitely IP based," though he concedes that it's "hard to tell whether it will be IMS or not. IMS has not picked up as strongly as expected a few years ago." The reasons for this are many, but perhaps the most important is that big telcos rarely rip out and replace anything that's working well. And why should they? Many technologies that IMS promises already exist elsewhere within the network, and even if IMS could do it better, it's not worth the cost to find out for sure. Therefore, as Rosenberg said, "It will probably be an evolution rather than a revolution."

And that's the truth on the future of convergence. Nothing is going to happen overnight, but as enduser needs grow and change, cost-structures rise and fall, and new technologies come about as old technologies are phased out, the future will come about.

Let's go back to those long, straight, Midwestern roads I mentioned at the beginning of this column. Standing still, in the middle of the road, the edges do, indeed, seem to converge. However, barreling down those same roads at 70 miles per hour, it becomes clear that that point of convergence is always just out of reach. Over time, we'll see if convergence is a definable end goal, or just another business-mirage, promising an endpoint that is always just out of reach.

It's a matter of perspective.