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IP MULTIMEDIA SUBSYSTEM

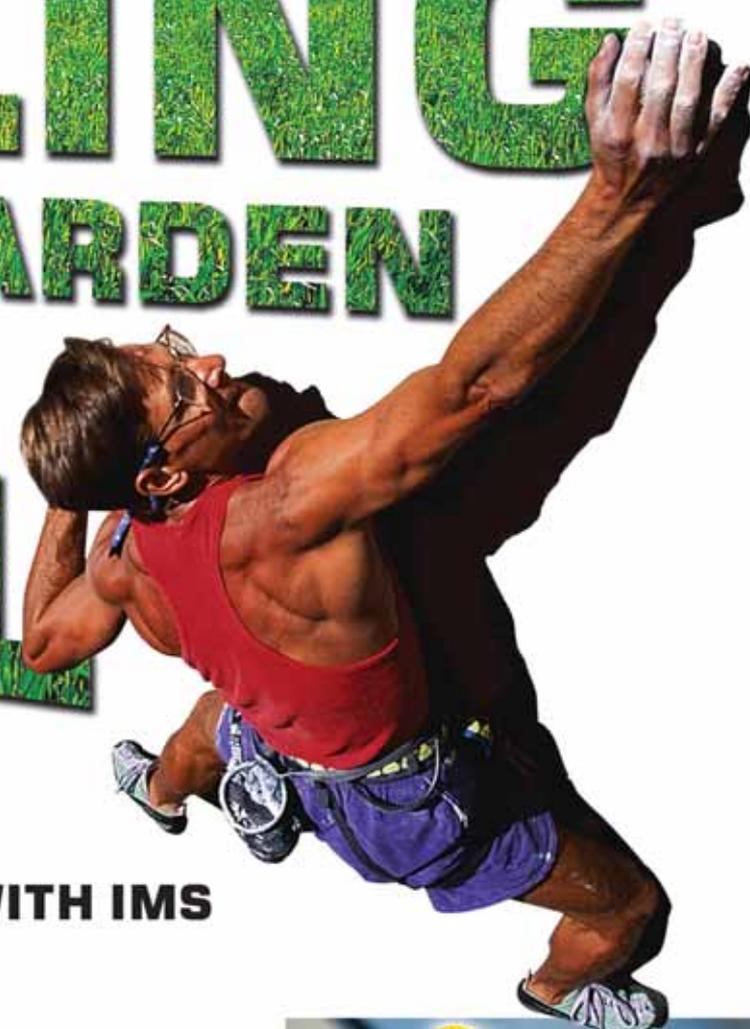
VOLUME 1/NUMBER 4 AUGUST 2006

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IMS and the Stupid Network

Advances to IMS? No? or Yes?

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editor's note

The Good Thing About Standards...

by Greg Galitzine



...is that there are so many to choose from.

Verizon Wireless ([news](#) - [alert](#)) has teamed up with a number of equipment manufacturers in an effort to enhance the existing 3GPP IP Multimedia Subsystem (IMS) specification. According to Executive Vice President and Chief Technical Officer Dick Lynch, the company has been working for nearly a year with a task force of the industry's "best and brightest" from Cisco, Lucent, Motorola, Nortel, and Qualcomm.

Together these companies are proposing extensions to the IMS spec (they're calling it A-IMS, for Advances to IMS) they're that will cover the following: increased support of SIP ([define](#) - [news](#) - [alert](#)) and non-SIP devices and services; end-to-end security; and wireless VoIP QoS.

So are we seeing a major carrier change horses in midstream?

As Robert Liu writes in the upcoming September issue of *Internet Telephony* magazine, "Lynch and his team were quick to emphasize that the goal of A-IMS isn't to splinter the IMS architecture, which has already been accepted by the 3GPP wireless governing body in its Release 5 and 6 specifications."

Quoting Lynch, Liu reports that, "There is nothing here that is intended to in any way [degrade] or dismiss any of the work that has been done to this point in IMS."

Indeed Lynch said, "We applaud the visionaries who have done a great job developing IMS over the last few years."

Still it is altogether possible that competitors would interpret this initiative as a threat, despite assurances from Verizon et al that A-IMS will be open and public.

As Liu says in his analysis, "...for A-IMS to become an actual standard, the work will likely need the support of market leading TEMs such as Ericsson and Nokia, which is in the midst of merging with Siemens. For those dominant players to take advantage of the joint development, a vendor like Ericsson may have to reveal trade secrets like its proprietary security schema — a move that it might be reluctant to make."

I guess the ramifications of the announcement remain to be seen. Verizon and company plan to take this proposal around to standards bodies including the IETF, 3GPP, 3GPP2, CableLabs and others to gauge their level of buy-in.

Joe McGarvey, Principal Analyst at Current Analysis agrees that time will tell. "At this point, it's too early to say how this will turn out. If Verizon Wireless is sincere about moving this proposal through the traditional standards body and is open for some parts of it being rejected, it could have a positive impact on the overall IMS market. Even if that scenario is adopted, A-IMS will still have the effect of introducing delays and adding to the already complex IMS standards situation. However, I think modest delays and confusion would be acceptable if the end result is an improvement in the IMS standard."

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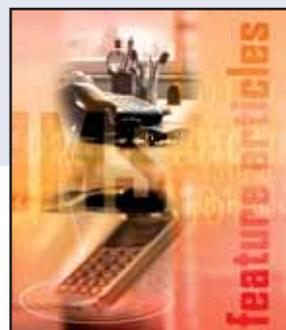
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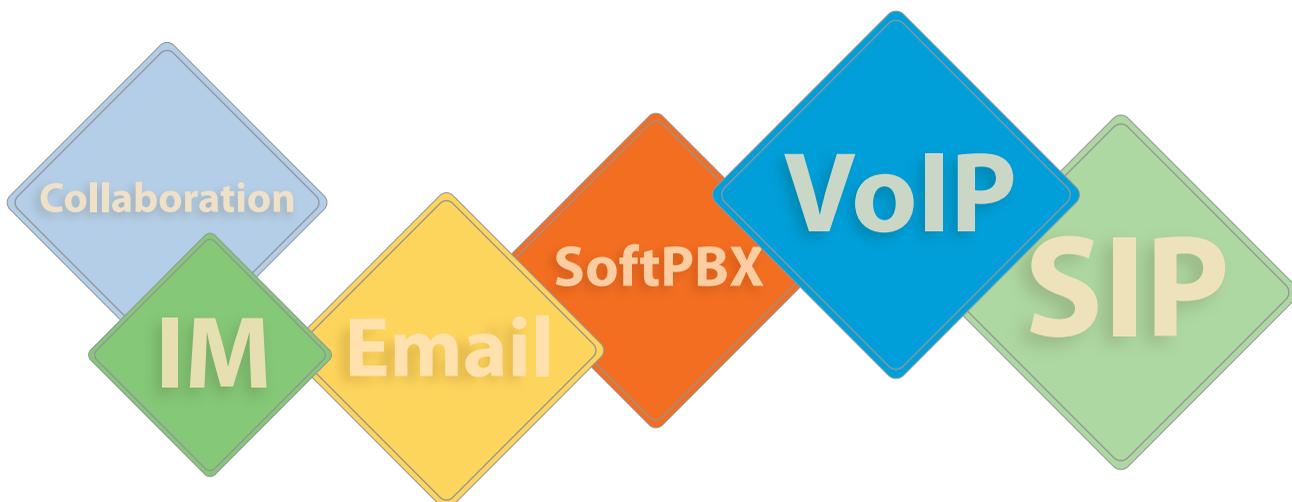




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The IMS Forum is a global, non-profit industry association dedicated to IP Multimedia Subsystem (IMS) services and solutions. Our mission is to accelerate the adoption of IMS by providing an environment for discussion and resolution of real-world implementation issues relating to interoperability, best practices, and standards-based architectures in the application layer.

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- Receive current market and technology information through newsletters, reports and conferences
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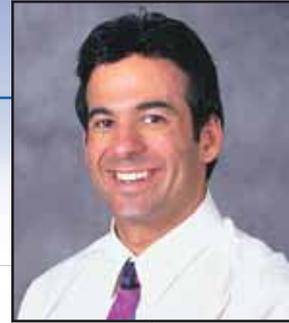
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IMS 2.0 is Almost Here



by Rich Tehrani

This is something to keep an eye on, as it could be a very important interim step in seeing IMS advance as the next generation service provider architecture.

In studying the various documents on A-IMS, the reason for this new architecture is that when IMS standards were implemented they didn't work in practice as well as they did in theory.

For example, when a subscriber transitions from a CDMA-1x network to an EV-DO Rev A. network, the transition was not necessarily seamless. Since subscribers aren't generally aware of what network they are using, it becomes necessary to ensure this challenge is solved.

One of the goals of A-IMS, in fact, is to ensure that services can be provided in a network agnostic fashion. The task force who are putting A-IMS forward will soon have concept documents and will be approaching the IETF, 3GPP, 3GPP2, CableLabs and other standards bodies. The group is careful to point out that IMS is all well and good, and that they are just fine-tuning the architectural principles a bit.

I am impressed also by the humility in which they seem to be proposing A-IMS. It seems the group is eager to put egos aside and work with existing vendors to make A-IMS a reality.

Here are some of the architectural principles of the A-IMS standard:

Transitioning services across SIP ([define](#) - [news](#) - [alert](#)) and non-SIP endpoints through a Policy Manager, which allows a service provider to manage both types of network resources.

Comprehensive security, allowing all components of the network (down to the device level) to be aware of security and to respond to anomalies as needed.

Dual Anchoring, which allows two IP addresses to be associated with a mobile device so that certain applications that are latency sensitive can use the visited IP address if needed.

Three-Layer Peering: When connecting to roaming partners, peering occurs at three layers: security peering, used for access authentication, IP peering, used for transport of bearer traffic, and policy peering, used for control of bearer services. Policy server peering involves the usage of a policy server in both the home and visited networks. Usage of two allows for the home provider policies to apply even while roaming, yet allows them to be tempered by visited network policies on usage of the network.

For some commentary regarding this new initiative, check out the sidebar on the following page. I am getting ready now to look over some of the exciting things happening at TMC's IMS EXPO this October 11-13, 2006 at the San Diego Convention Center. This is the world's first IMS Expo and if you are interested in IP Multimedia Subsystem solutions, you will definitely want to be there. Check out <http://www.imsexpo.com> for details. I hope to see you at the show.

In the ever-changing world of telecom it is not surprising that shortly after IMS becoming the ever-popular holy grail of telecom, it turns out that a group of individuals have come up with a newer flavor of this universally accepted architecture. It turns out that, when implementing IMS in the real world, companies came up against a number of hurdles that needed to be overcome. While overcoming these obstacles it seemed to make sense to term the new advances being made as A-IMS which stands for Advances to IMS.

Michael Khalilian is the Chairman of the IMS Forum. Here's what he had to say about A-IMS:

"IMS is the way of answering to the consumer demands and expectations for new applications and service offerings with multimedia content and mobility. All Service Providers are expected to use IMS network optimization, service creations, creative product and marketing offerings sooner or later, and later means loss of opportunities and revenue. We at the IMS Forum launched the Service Provider and Integrator Board with upcoming events to provide a Forum for vendors and Service Providers to interact and become more informed about Technology and Deployment Strategies and to work closely on product marketing for IMS architectures and applications. In addition, the IMS Forum is launching Applications Interoperability and PlugFest as part of the IMS Forum initiatives." For more info, see <http://www.IMSForum.org>.

Brian Partridge, senior analyst at Yankee Group, told TMCnet's Robert Liu that the most newsworthy part of the A-IMS announcement is "the conspicuous absence of GSM."

Here are some of his further comments.

"While Verizon and its partners have promoted this as access-agnostic, the ability to successfully drive this through the standards bodies is going to hinge on getting the GSM parties on board."

"It's hard to buy into the access-agnostic view given the fact that there's only a CDMA player and they're working on a CDMA network."

"I don't have any issue with the challenges they've brought to the table. My view is more around the industry challenges in going about it the way they have."



www.imsexpo.com

October 11-13, 2006
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NWT and Lucent Technologies Join Hands in Entering the New Era of FMC

New World Telecommunications (NWT) ([news](#) - [alert](#)) and Lucent Technologies ([quote](#) - [news](#) - [alert](#)) announced that Lucent will provide its leading IMS platform to NWT, enabling the telco to create and deliver simple, seamless, secure, portable, personal multimedia services for their subscribers over its optical IP network to different types of end user devices. Lucent's IMS platform allows NWT to easily implement new and innovative services over an internationally recognized standard. NWT is Hong Kong's first fixed-line operator to deploy an IMS platform.

York Mok, COO of NWT said, "The global telecommunications industry has entered the new era of transforming traditional network to pure IP network, which is the cornerstone in the emergency of fixed/mobile convergence services. We endeavour to create unparalleled value to our customers. Deploying Lucent's IMS platform helps us leap ahead in strengthening our flexibility to develop innovative multimedia messaging and collaboration services, over a single platform, seamlessly over different devices like telephones, PDAs, notebooks and mobile phones. This will allow NWT to leapfrog in the direction of FMC services and allow our customers to experience a more enjoyable, enriched communications in the future."

<http://www.newworldtel.com>
<http://www.lucent.com>

HOT Telecom to Use Nortel IMS-Ready Solution for Voice, Instant Messaging

HOT Telecom, ([news](#) - [alert](#)) a consortium of cable service providers Golden Channels, Matav and Tevel, has selected a next-generation carrier solution from Nortel for the next stage of its cable telephony network upgrade. Nortel will be the lead systems integrator for this upgrade, which will position HOT Telecom to deliver new revenue-generating services like managed VoIP, instant messaging, and presence awareness to business and residential customers across Israel.

HOT Telecom plans to deploy a Nortel IMS-ready, carrier-grade IP-based solution using network engineering, integration, operation and maintenance services from Nortel's Global Services portfolio. The network upgrade is expected to be fully deployed by the end of 2006.

"HOT selected Nortel ([quote](#) - [news](#) - [alert](#)) because its technology will enable us to respond to our significant growth in telephony subscribers and will let us introduce new services to enhance our customer services portfolio," said David Borochofsky, director of communications, Engineering Division, HOT Telecom.

The HOT Telecom upgrade will include the Nortel Communication Server 2000-Compact, a carrier-grade softswitch that supports industry standard VoIP protocols and enhances revenue opportunities by making it simpler for carriers to reach new regions. The upgrade will also include the Nortel Media Gateway 15000 Trunk Gateway, which provides a highly scalable and high voice quality solution to integrate traditional and next generation networks, and the Nortel Border Control Policy 7200, which provides an advanced media proxy designed to support VoIP services.

HOT Telecom also has an advanced converged IP telephony network at its Yakum Headquarters that uses Nortel softswitch technology. The network provides approximately 1,400 HOT Telecom employees with anywhere, anytime access to communication services such as voice, e-mail and multimedia collaboration regardless of device - telephone, computer or PDA.

<http://www.hottelecom.com>
<http://www.nortel.com>

Ericsson's New IPTV Platform Paves the Way for the Home Entertainment Network

By Patrick Barnard

Banking on the notion that consumers will come to adopt IPTV in droves and that it will become the new "cash cow" for service providers, Ericsson has developed a new end-to-end IPTV solution. The solution will deliver a range of digital video services, including broadcast TV (both standard and high definition), video on-demand, network personal video recording, and electronic programming guides.

But Ericsson's ([news - alert](#)) new IPTV platform will ultimately do much more than just deliver digital video to consumers: It will link together all of the devices in the home - the computer, the TV, the phone, and even mobile devices, including PDAs and iPods - in such a way that they can all "talk" to each other and share data. This seamless interoperability between devices is what will usher in a new age in home entertainment.

Ericsson's solution also includes guidelines for integration with IP Multimedia Subsystem (IMS) functions, such as charging and end-user authentication. Ericsson's entire vision of IPTV, in fact, is based on open standards, including the combination of Digital Living Network Alliance (DLNA) technologies, for digital entertainment, with the IMS standard for delivering enriched communications services. Ericsson is committed to working with appropriate standardization bodies to achieve economies of scale and interoperability in IPTV reference architecture and interfaces.

"IPTV is much more than traditional TV broadcast over the IP network - it is about integrating media with communications services to deliver personalized, interactive television no matter where the viewer is," said Claes Ödman, vice president, multimedia solutions, Ericsson. "Based on our broadband experience, our standardization efforts and our global IMS leadership, Ericsson has a long-term vision for TV and a migration path to help operators meet the challenge."

<http://www.ericsson.com>



AudioCodes to Acquire Netrake Corporation

By Johanne Torres

Voice over packet technology provider AudioCodes ([news - alert](#)) announced it will acquire Netrake Corporation, ([news - alert](#)) a provider of session border controllers (SBC) and security gateways.

"This agreement with Netrake provides AudioCodes with more products to help service providers and network equipment providers (NEPs) in enabling connectivity between disparate VoIP networks and deploying fixed/mobile convergence, as well as IMS networks in the future," said AudioCodes' chairman, president, and CEO Shabtai Adlersberg.

"We believe that Netrake has built a strong team that has delivered field-proven Session Border Controllers and Security Gateways that fit well with AudioCodes vision of enabling IMS networks," stated Bruce Hill, CEO of Netrake.

The companies plan to complete the acquisition in the third quarter of 2006. The transaction has been approved by the boards of directors of both companies and by the stockholders of Netrake.

<http://www.audiocodes.com>
<http://www.netrake.com>



Telenity Adds Video to Converged Services

By David Sims

Telenity, ([news - alert](#)) a vendor of converged services platforms and applications for communications networks, has announced the addition of video services designed for subscribers of video-enabled devices to its Canvas Converged Value Added Services Solution.

The Telenity product includes "enhanced multimedia content, integrated messaging, and location-based services; and provides enhanced personalization capabilities across various networks and mobile devices," according to company officials.

Telenity has recently proven its Canvas product in a Tier 1 customer trial in Europe, where its new video-enabled services including video call services along with other Canvas service delivery products were tested in an IP network environment targeted for 3G and IMS.

Nitin Patel, Vice President of Strategic Marketing at Telenity, said that Telenity's Canvas product is "IMS compatible, supporting next generation SIP standard architecture," which is adding video "as it brings a new breadth to content, messaging, and location-based services, allowing for rich user experience, personalization, and, as a result, increased revenues to our customers."

<http://www.telenity.com>

LongBoard Inros Roaming

LongBoard, ([news - alert](#)) a provider of carrier-grade software that enables personalized IMS services, introduced MediaRoam, a new software product line that provides telecommunications carriers with the ability to deliver differentiated IMS-enabled multimedia services across fixed and mobile networks with service and revenue assurance.

Faced with plummeting voice revenues, carriers and service providers are focused on delivering revenue-generating IMS multimedia services, like Mobile TV, VOD, video sharing, and other streaming media. However, to boost adoption of new bandwidth-intensive multimedia services, carriers must ensure quality experiences for mobile users with these new applications. This includes ensuring that performance of multimedia sessions won't be comprised or dropped as mobile users move across networks.

MediaRoam delivers network-based policy and enforcement capabilities that ensure quality user experiences for multimedia services. MediaRoam enables carriers to ensure that mobile users are always connected to the most optimal fixed or mobile network available - the network that is best able to provide users with the services they want. This capability is known as Service Quality Assurance.

In addition, MediaRoam further enhances the mobile user experience by adapting streaming multimedia services in real time as users move across networks. For example, MediaRoam adapts a streaming video to a higher quality stream as mobile users move from a GSM network to a WiFi network.

<http://www.longboard.com>



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Number of IMS Projects at Major Operators Tripled in the Past Year

In the 12 months that inCode ([news - alert](#)) has been tracking worldwide adoption of IMS architecture, the number of publicly announced projects has more than tripled. Today's version of its IMS Global Deployment Matrix lists 36 operator trials or deployments in addition to three non-commercial projects initiated by industry trade groups. Three operators -AT&T, BT, and Sprint Nextel - have announced more than one deployment. A year ago, only 11 service providers had announced trials or commercial deployments.

"Wireless, wireline, and broadband operators are ultimately headed toward IMS," said PK Prasanna, IMS/Convergence Lead for inCode. "The questions for many operators are how will they get there and when will it happen."

At least seven operators have adopted Fixed/Mobile Convergence solutions that provide packaged voice services as a potential precursor to blended IMS services. FMC solutions come in several variants, from soft clients that reside on laptops to offerings that utilize true dual mode handsets. This flexibility helps operators test and offer "pre-IMS" converged services without potentially costly alterations to existing network architecture and back-office systems.

"Several vendors are now offering products and platforms that provide operators with a more stepwise approach than a headlong leap into IMS," Prasanna continued. "This is a more cautious approach, since some IMS standards and customer preferences have not been completely firmed up."

IMS provides a common transport and control infrastructure for delivering voice, video and data within and across different wireless and wireline networks. Since it offers a unifying infrastructure, IMS is particularly appealing to consolidated carriers. The architecture enables the next generation of converged services.

<http://www.incodewireless.com>



Fully Compliant IMS SIP Toolkit from RADVISION

RADVISION ([news - alert](#)) has released its latest toolkit, an IMS SIP Toolkit for real-time communication applications. Based on RADVISION's SIP toolkit, the IMS SIP Toolkit is a powerful and versatile set of tools that facilitates the development of IMS SIP applications while reducing development time and costs. The IMS SIP toolkit is suitable for both clients and servers.

"With the release of IMS-SIP toolkit, RADVISION is pioneering the deployment of next generation networks. This represents a major milestone in the migration toward IMS," said Adi Paz, Senior Director of Product Management and Marketing for RADVISION's Technology Business Unit. "The market has been waiting for the general availability of IMS products, and we are pleased to maintain our leadership role by being the first to market with our IMS Toolkit."

The IMS SIP toolkit is part of an entire family of products specifically designed for IMS networks. Additional products include the SIP Server, Java SIP, MEGACO, RTP Toolkits and the ProLab IMS Testing & Analysis suite.

Coded in ANSI C and cross-platform compatible, the IMS SIP Toolkit is available for all common operating systems. It features an open, object-oriented architecture, which makes it programmer-friendly and highly flexible. It provides multiple API layers and is inherently designed to offer both extensive functionality and complete flexibility. SIP extensions include support for IMS registration, MD5-AKA, RFC 3329 security agreement, IPsec with ESP transport mode and manual keying.

<http://www.radvision.com>

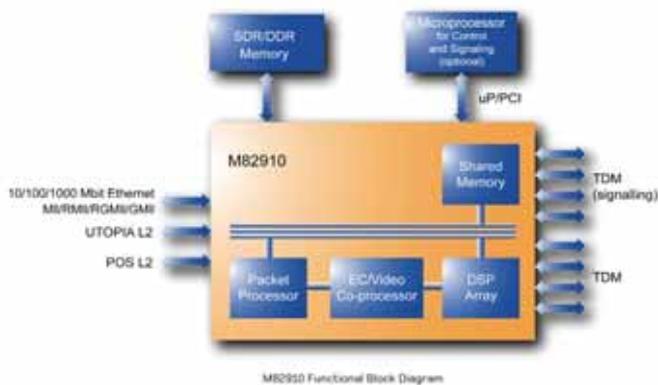
Mindspeed Announces High-Density Concerto VoIP Processor for IMS Networks

Mindspeed Technologies ([news - alert](#)) has announced its seventh-generation Concerto VoIP processor, optimized for emerging IMS networking applications. The Concerto 900 series processor is designed to enable service providers to solve the increasingly difficult challenge of transcoding wireless and wireline protocols in order to transport voice and video between legacy circuit-switched and next-generation packet-based networks.

The processor is optimized for the company's recently announced wireless software suite and proven wireless Codec portfolio, as well as its widely deployed wireline VoIP over cable software suite. Together, the Concerto hardware and software combination delivers all necessary media stream processing and transport layer building blocks for transmitting highly secure, carrier-class-quality voice and video across both wireless and wireline networks.

When combined with the company's various software suites, the processor delivers what is claimed to be the industry's first complete IMS solution. Applications include class 4 and class 5 switches, mobile switching centers, radio network controllers, basestation controllers, access gateways, IP-DSLAMs and digital loop carriers (DLC).

<http://www.mindspeed.com>



T-Mobile Selects Comverse and Huawei to Supply IMS

Comverse ([news - alert](#)) and Huawei ([news - alert](#)) were selected to supply IMS network infrastructure and applications for Magyar Telekom's T-Mobile and T-Com business lines in Hungary. In this project, Huawei and Comverse will provide IMS network infrastructure, converged services, and a range of IP multimedia applications, such as IM and Presence.

The companies said the IMS networks for T-Mobile and T-Com will be among the first of their kind deployed in Europe. The new IMS networks will enable Magyar Telekom to quickly deploy new services for both consumers and enterprise segments, including voice and video calls over IP, fixed-mobile convergence (FMC) services, presence-enabled applications, rich video, and multimedia messaging services, personalized content services, and converged billing solutions.

"IMS will enable us to deliver converged, rich content of telephony, high speed Internet, cable television, and mobile services over a single converged network, assuring that our subscribers receive maximum value from our quadruple-play offering," said Mr. Peter Janeck, Chief Technical Officer at Magyar Telekom.

<http://www.comverse.com>
<http://www.huawei.com>





Antepo Unveils New Availability-Based Communication Platform

Antepo ([news](#) - [alert](#)) has announced the Beta release of Rivoli, the newest upgrade of its award-winning platform, the OPN System. This release enables real-time business collaboration by bringing together Presence awareness, Instant Messaging and VoIP - essentially creating a new "dial tone" - while meeting critical business requirements for integration, control, security, compliance, and scalability.

"What the enterprise lacks today is an effective way to synchronize its people, its information, and its services. As communications modes converge over IP networks, the traditional dial tone is giving way to a new, more intelligent one in the form of Presence," said Maxime Segueineau, Chairman and CEO of Antepo. "This presence-aware dial tone drives efficient business collaboration, allowing employees to make communication decisions based on their colleagues' availability, whether they are using Instant Messaging, VoIP, or sharing desktops."

OPN seamlessly integrates Presence awareness with corporate directories and popular desktop productivity tools such as Microsoft Office, allowing users to quickly find colleagues and synchronize their availability for conversations and meetings. OPN System Rivoli also provides an integration path to tie Presence awareness and collaboration to IP telephony infrastructures through standards-based SIP (Session Initiation Protocol) and IMS (IP Multimedia Subsystem) signaling interfaces. As such, it paves the way for true convergence between desktop and voice communication.

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Spirent Acquires Scientific Software Engineering

Spirent Communications ([news](#) - [alert](#)) has acquired Scientific Software Engineering, U.S.-based developer of the growing Landslide product, a software-based system for testing the performance and functionality of 2.5 and 3G wireless network infrastructure. Spirent is paying an initial consideration of \$10.0 million, payable in cash on completion with up to a further \$6.0 million payable depending on the satisfaction of certain technical milestones and the retention of key employees.

SSE, based in Dallas, Texas and employing 24 people, will be incorporated within Spirent's Performance Analysis division. Spirent has been re-selling the Landslide product since November 2003 and customers include leading global network equipment manufacturers and wireless operators.

The acquisition will allow Spirent to integrate the business and the technology to deliver enhanced applications for the wireless infrastructure, IMS, and fixed/mobile convergence test markets, which have been identified as key growth areas.

Said Spirent CEO Anders Gustafsson: "The acquisition is in line with our strategy to expand our communications business, drive profitable growth and deliver shareholder value. We believe that the Landslide product is a market-leading solution for wireless network infrastructure testing and will also enhance our IMS portfolio."

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IMS Enables New Revenue Streams for Wireline Carriers

by Mikael Stromquist



It's true, wireline carriers are under massive competitive pressure. They are experiencing increased revenue threats from non-traditional broadband access operators and mobile operators who, unfettered by high overhead and expensive legacy equipment issues, are able to win customers with lower rates and better QoS. But wireline carriers are not daunted, as they have the customer base, revenue stream, and ability to take advantage of recent technology changes that will let them leap beyond the non-traditional entrants. In conjunction with the roll-out to much faster broadband access technologies, the wireline carriers are moving to an IP-based network architecture for voice, multimedia services, and content delivery in order to surpass the mobile and broadband players. The wireline carriers will open up new revenue streams through IP multimedia capable networks.

Wireline carriers have recently announced their intentions to aggressively roll out high-speed broadband access, such as Fiber to the Home, DSL2+, and VDSL products. This broadband deployment will allow them to expand into entirely new service areas. Over these broadband networks, they will be able to offer a rich palette of video (IPTV), voice plus, and interactive content services that will completely change the industry's perception of communications and entertainment.

IMS ([define](#) - [news](#) - [alert](#)) is the key to the success of this strategy. IMS gives operators a framework for: integrating services and features across multiple access technologies; efficient, innovative, multimedia service delivery; and better QoS. It provides a clear path for wireline carriers to move forward. In short, IMS opens the door to the new services and revenue streams supported by the wireline carrier's new broadband networks.

IMS Gives Wireline Operators the Tools to Evolve

Although demand for traditional PSTN services will likely continue for many years, there is little disputing that IP-based telephony services are the future. Deployment of IP voice services and solutions is already underway. IP networks now offer telecom grade performance, rather than best-effort performance. Further, it is clear that, despite technical challenges, a growing proportion of telephony traffic will be carried over IP. As a result, the evolving network of today must by necessity combine the characteristics of the traditional PSTN with services typically associated with broadband to navigate the changing telecommunications market and compete. IMS is the optimal platform for controlling IP services, integrating legacy networks and services, and managing this transition for a number of reasons.

When Mark Twain quipped, "reports of my death have been greatly exaggerated," he could have been speaking for the wireline industry. A few years ago, some in the industry began sounding a death knell for these traditional players. It seemed just too dated, too inflexible, and too wired to keep up with the booming demand for untethered mobile and broadband access to enhanced telephony, bandwidth-rich information, and multimedia services. The reality is far different.

First, IMS provides the promise of global reach. It gives operators the ability to provide consumers access to reliable Internet services no matter where they may be. Additionally, because it is an open systems environment, the operator isn't locked into any one application vendor's limited product or service line. Rather, operators can integrate best-in-class solutions from various vendors and service providers to offer consumers the best possible user experience.

Second, IMS solutions offer a wide range of SIP-based multimedia services capabilities that give operators the opportunity to get a quicker return on their broadband investments. It enables standardized service delivery and provides a future-proof architecture. It also simplifies and speeds up the service creation and provisioning process.

Third, IMS enables legacy network integration and interoperability. This is a significant advantage for established operators who have made major investments in their networks and customer bases. These operators must be able to deliver the full panoply of telephony services over an IP network. A telephony softswitch solution, utilizing IMS, allows them to do so and to upgrade and modernize their networks at a reduced cost.

Telephony softswitch solutions achieve substantial cost reductions in the PSTN — whether in local, transit, or international gateway applications. The CAPEX required is lower than for traditional circuit-switched equipment because the distributed switching architecture enables efficient node consolidation. In fact, a significant amount of legacy equipment can be reused, especially in the access network. So, when the telephony softswitch solution is introduced, access equipment can be repurposed and gradually moved from the circuit-switched nodes to the media gateways. Further, ongoing operating OPEX of a telephony softswitch solution is lower due to a simplified network structure. These factors amount to substantial cost savings for carriers.

Moreover, operators can simultaneously modernize their PSTN networks to reduce costs and introduce new IP multimedia services to earn new revenues. This is where IMS solutions play a particularly important role. Beyond voice services, IP-based networks open up opportunities for integrated voice applications and services — such as video telephony and presence aware telephony — that

would be impossible (or prohibitively expensive) using traditional time-division multiplexed (TDM) technology. Through IMS, carriers can combine the characteristics of modern IP-based networks and the traditional PSTN to support services associated with each. Thus, IMS mitigates any stranded investment concerns.

IMS Benefits Other Operators As Well

Wireline carriers are not the only beneficiaries of IMS technology. As the industry moves toward a converged network, IMS allows operators of all types to use a common architecture for both fixed and mobile services to deliver telephony, data, and multimedia services. IMS enables operators' evolution to a modern telephony network, capable of delivering IP multimedia services utilizing a converged architecture that also handles PSTN services. Thus, IMS supports a sustainable business model for the future.

Although wireline operators are expected to be the first to move to an all IP voice, voice plus, and content services network, mobile telephony operators will likely not be far behind. IMS-enabled IP services will permit mobile telephone operators to offer enhanced voice services, such as voice plus video streaming and location-based services. In addition, IMS facilitates migration to pure VoIP. Wireless operators will also rely on IMS to support circuit switched voice and packet data capabilities simultaneously. With the future deployment of HSPA and EVDO Rev A technologies, which deliver IP voice quality that matches today's QoS, IMS will enable these operators to likewise migrate to all VoIP.

In sum, wireline carriers are not anywhere near dead. They are not even ailing. On the contrary, wireline carriers who deploy broadband networks with IMS today are well positioned for the evolution to an all IP network. Through IMS, wireline carriers are assured a smooth migration from traditional PSTN services to IP-based telephony. With this plan, perhaps wireline operators can finally end the speculation that their death is imminent and usher in the new era of communications and competition awaiting us all. ■

Mikael Stromquist is executive vice president, Strategy, for Ericsson North America. (news - alert) For more information, please visit the company online at <http://www.ericsson.com>.

New Business Models

by Grant F. Lenahan



It should be no surprise that the traditional business model of our telecoms industry — built on voice, private lines, and most recently high-speed data, will change. Voice is under intense competition, which will exert downward pressure on voice/VoIP revenues and profits. And most IP/data services, while certainly contributing much needed revenues, are, in fact, of the dumb-pipe variety and, therefore, they, too, will commoditize rather quickly, and begin to suffer the same revenue and margin squeeze.

Some experts feel this is the natural end-point for telecom operators: they must become highly efficient operators of high quality, but dumb, pipes, leaving all services to third parties and creation “at the edge.” In this scenario, the winners become media companies, “new era” operators (think: Google) and other “over the top” service providers. Certainly, this is possible, but not particularly desirable for today’s operators.

A second possibility is that operators innovate — creating (mostly on their own) rich portfolios of multimedia services; operating vast walled gardens of content; and offering services and bundles that stay one step ahead of commoditization. This, too, is possible, and we see evidence of creative bundling, FMC, integration between TV and phone and other capabilities intended to improve loyalty and maintain sustainable margins.

There is a third scenario that could prove more successful and lucrative but is far from certain — teaming operators with third-party service and content firms to create a value chain that delivers more services, more innovation, and more third-party content than any single operator could possibly deliver on its own. Many popular concepts and business models foreshadow this — such as the collaborative approach of “Web 2.0” or the cleaner division of value between “Virtual Network Operators” (e.g., MVNOs) and their underlying host networks. Whatever we decide to call it, this business model is time proven, based on a traditional value-chain business model like those that exist almost everywhere in our modern economy. In what other business is everything from the bricks-and-mortar, through the consumer product and extending to the retail channel, controlled by a single firm? Very few, if any.

In this third path, operators do what they do well — they carry traffic, maintain facilities, perform session control, charge and bill, and offer a host of technical components that increase the value of third-party services, such as location information, presence information, policy enforcement, group lists, and centralized address books. The key is that the operator does not “go it alone,” but rather becomes part of a larger value chain and multiparty ecosystem. It is difficult to predict whether or not this third-party ecosystem model will eventually triumph but we can make highly educated guesses about the technical and business characteristics that would encourage its use and encourage partnering between network operators and third-party service and content providers.

First, let’s look at the “value added service enablers” that are most viable and attractive to third parties. Those that are intrinsic to the network, like QoS or network (HLR/HSS) presence, or those that are more valuable when SHARED across many services. Good examples of the latter are shared address books; authentication and authorization, personalized delivery policies; and parental/content protection and limits.

In the April issue, I argued that VoIP alone was insufficient to justify IMS — or any next-generation service framework for that matter. If it was, we’d all be better off buying integrated softswitches and media gateways and getting on with business. The very name of IMS — IP Multimedia Subsystem — says it all. IMS only reaches its potential when it supports true multimedia — voice/VoIP, messaging, music, video, gaming, and the entire spectrum of new services enabled by IP networking.

Second, let's look at how these reusable service components should be provided. At its simplest, they must be easy to access, easy to understand, sufficiently useful, and supportive of a viable business model. That's easy to say, yet hard to do. Yet the Web is showing the industry a model based on reusable service components, revealed through Web services (SOAP, Parlay-X).

Some refer to this as "Web 2.0". Others refer to "component assembly models" of service creation. Both refer to a paradigm in which operators think through useful service components, make them easy to use, document them, reveal them, and provide a sufficient authorization and charging framework to govern their use. Such a paradigm empowers the greatest possible number of developers — partners, corporate IT departments, the service providers' own IT department, and Web-based entrepreneurs. Moreover it could allow unique business relationships with all — from off-the-shelf Web agreements, to tight relationships with a few large and close partners.

The only fly in this ointment is not a fly at all. Web services have long had a reputation for simple operation at the cost of low functionality. This is historically true, but need not be so. That's the key. Fine-grained development of powerful service components must still take place. They must be well suited to the needs of third parties. And then that complexity must be shielded from them, so that creative types, not necessarily network protocol experts, are freed to become the customers and partners of our communications industry.

At the end of the day this may be a tall order, and is far from certain. But as a vision, it can only help us do a better job of thinking through the business value of our networks and the IMS black boxes it will contain. If we do this, and make rich functionality easy to use, does it matter who ultimately writes the services? Either way, the industry will be more successful and we'll have avoided the dreaded "dumb pipe" syndrome. ■

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The Quest for the Ultimate "Killer App"

by Ronald Gruia



Perhaps Cabral's accidental finding best epitomizes the current quest for the ultimate "killer app," a goal that has been relentlessly pursued by service providers for quite some time. Many IMS proponents argue that the technology will enable operators to finally be able to deliver some of those killer apps that they have been seeking for so long. Some of these experts claim that the telecom world is attempting to follow the route to the promised land of "horizontal," easy-to-deploy, and open standard applications. Previous attempts including the much-glorified AIN (Advanced Intelligent Network) have failed, but the IMS (IP Multimedia Subsystem) approach is certainly winning more minds and capturing more attention these days. So will IMS take carriers to the nirvana that AIN promised, but never managed to deliver?

The early indications about the potential of IMS and FMC (Fixed Mobile Convergence) seem to be fairly positive, given the number of new trials by various carriers around the world and the ongoing technological progress being made. Much of this optimism comes from the development of new wireless technologies (3G/WiFi/VoIP), the launch of high-quality multi-mode devices, and the advent of well-defined convergence technology specifications such as UMA (Unlicensed Mobile Access) and IMS.

As carriers ranging from fixed incumbents and mobile operators to cable companies and VoIP and WiFi providers battle for share of consumer wallets, voice services are becoming more and more commoditized. Therefore, operators have to leverage their core capabilities to benefit from increasing convergence of their products. FMC is a vital component in the strategy of these telecom carriers, as it plays a key role for each service provider type.

An increasing proportion of wireline usage is being lost to wireless operators whenever end-users "cut the cord." Moreover, the wireline carriers have also been facing a margin squeeze from new VoIP ([define](#) - [news](#) - [alert](#)) providers, whose low-cost model is enabling them to be more aggressive against the ILECs. Therefore, for the incumbent fixed line carriers, FMC is the perfect mechanism to stop the loss of telephone traffic and revenues to wireless operators and to deliver the best service bundle to their subscribers. In addition, FMC solutions can enhance the uptake of broadband and VoIP applications, thereby lowering the pace of revenue loss and softening margin squeeze.

As they transition to 3G, the mobile carriers have been searching for the simplest and most cost effective way to implement a new breed of value-added multimedia applications. Furthermore, wireless operators are also faced with near-saturation levels in some regions such as Europe, margin erosion from VoIP and the introduction of WiFi as a replacement for some wireless calls. Therefore, the most crucial aspect of their operation is how to increase ARPU with compelling next-gen "killer applications." IMS can be a great way to deliver these new services, or to help

Most history books show that on April 22 of 1500, after a voyage that lasted nearly a couple of months, Portuguese navigator Pedro Álvares Cabral discovered Brazil, opening a gateway to the "New World." But it was a purely accidental discovery, since the commander was trying to retrace Vasco da Gama's route to India (discovered earlier in 1497), but in the end sailed so far west of the coast of Africa that he accidentally crossed the Atlantic and instead found Brazilian land.

operators to quickly create and identify some of these killer apps that can cater to specific subscriber segments. For mobile operators, the delivery of a full range of multimedia and converged service offering entails a greater capacity and bandwidth than what their networks currently offer. Hence, for many wireless service providers, IMS deployment will be tightly coupled with either EV-DO Rev A or UMTS HSDPA rollouts, only slated to occur during the 2006–2007 timeframe.

Finally, even the new entrants (cable and standalone VoIP operators) will require a few extra capabilities once they reach a more critical mass in order to fight the competitive threat of new bundle offerings from the incumbent carriers. Cost arbitrage alone will not be enough in order for them to win their battle against the wireline service providers, as they will also need to offer more value-added applications to entice new subscribers. The next release of the PacketCable standard (2.0) will have more SIP in the core as well as for end-user devices or clients, and is expected to support enhanced and video telephony services across several platforms. It will also allow for presence and availability, cellular integration, and ENUM/peering.

2005 was a year that perhaps started with inflated expectations about FMC, as IMS was the most-often mentioned buzzword at shows such as 3GSM, CTIA, and Globalcomm. However, towards the end of the year, there was a flurry of announcements about IMS trials and deployments, and some of the early optimism all of a sudden did not seem that farfetched. Ericsson (Telefónica, TIM, TDC), Siemens (O2, KPN), Nokia (Saunalahti, Telia Sonera trial) and Lucent (Cingular, BellSouth) grabbed most of the contract announcement headlines.

Lucent's announcement of its win at Cingular in October of 2005 offers some quick brushstrokes as how IMS could eventually become a "game changing" technology with the potential to shift the competitive landscape in telecom equipment. The vendor's solution will enable Cingular to offer its 3G network customers an easy-to-use broad range of new and personalized voice, video, data, and multimedia services that they will be able to access anytime, from almost anywhere, with almost any device.

At this year's 3GSM in Barcelona, Vodafone announced the winners of its IMS RFP — Nokia and Ericsson. This means that if any of Vodafone's subsidiaries elects to embrace IMS, it will have to pick between Nokia and

Ericsson as its IMS supplier. More importantly, this deployment also indicates that mobile operators will consider IMS when evolving their core wireless network infrastructure, for three basic reasons. First, the need for additional bandwidth in order to support next-generation multimedia services, as highlighted before. Second, since IMS represents an overlay infrastructure, it is natural to add it when the core network is changed. Finally, the actual core IMS infrastructure CAPEX (excluding applications) only represents about 20 percent of the overall expenditure necessary to upgrade a wireless network.

However, at this juncture, it is too soon to declare any leaders, as the IMS market is just beginning to unfold. Most industry participants and observers agree that FMC services will take time to develop and are unlikely to gain significant traction until 2007. But given that 2005 was largely the year of the trial and 2006 is shaping up to be the year in which many of the announced wins in '05 will start being deployed, the IMS optimism is still prevalent.

IMS is also changing the business model from the traditional large, monolithic, hardware-based infrastructure sale to a more annuity-like, software sales driven model. IMS is far more software intensive than VoIP or other legacy technologies. The ability to rapidly mix a few existing applications in order to create a new "combinational service" is a key ingredient for the future success of most service providers.

So where does that leave the quest for that ultimate new service that will change the landscape of the telecom industry? Perhaps the quest for the "killer app" might not lead to the killer app itself, much like Cabral's search for the route to India did not lead him there. However, as in the Portuguese explorer's case, sometimes the best discoveries happen purely by accident. IMS will enable carriers to experiment with different applications and find the right combination for a certain customer segment. And maybe these more focused services that exclusively target parts of their clientele will turn out to be just as appealing as the ultimate killer apps... 

Ronald Gruia is Program Leader and Senior Strategic Analyst at Frost & Sullivan (<http://www.frost.com>) ([news - alert](#)) covering Emerging Communications Solutions.

Scaling the Garden Wall

Using IMS to Eliminate Common Obstacles to Revenue Generation

by Mike McHugh



Beyond reducing expenses, SPs are aiming to carve a niche themselves by offering value-added services through IMS — all in the quest of driving higher revenues and higher Average Revenue per User (ARPU). The real question is as follows: How can SPs make money from IMS and IMS-based services while protecting their traditional markets?

It is well understood that mobile service providers in particular have been sensitive to the loss of revenues, and thus favored a “walled garden” approach. However, such a model is no longer sustainable. Instead, SPs are dropping those walls and reinventing themselves, adding value to transactions in a variety of ways to help both themselves and their business partners. Only by adding new value will SPs continue to grow revenue and profits.

IMS has a unique ability to open up the value chain while simultaneously allowing the SPs to retain control of their subscribers. By transforming its network into a platform capable of delivering highly-personalized services, they will no longer be merely a provider of network access and a small range of technology-specific services. Successful Communications Service Providers (CSPs) will become trust and security providers, aggregators of content, integrators of the subscriber’s increasingly rich and varied communications options, and reliable managers of the end-to-end communications fabric that underlies an always-on and on-demand communications capability.

However, SPs have their work cut out for them to achieve this reality. There has been such an intense focus on the anticipated rewards of IMS, like transaction monetization, that the realities of implementing IMS are only beginning to set in. Industry focus is finally shifting to delivering innovative applications that will use the NGN as a foundation to create and drive new services that attract subscribers, driving up ARPU.

But who’s in the driver’s seat? It is not entirely clear if SPs see themselves as the main driver of new services or a channel partner for third-party service providers. Historically, new services development has not been a large or consistent part of the CSP’s core business. So some big questions remain:

IMS and IMS-based services continue to gain traction among service provider (SPs). The IMS architecture provides a compelling solution that allows them to quickly meet growing customer expectations for rich, innovative, and highly-personalized services across any IP network and location while reducing capital and operating expenses.



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- Where will the new applications come from?
- Where are service providers in developing the business models, processes, and the enterprise infrastructure that are needed to get third-party providers on-board?
- Where are CSPs in the process of ramping up their ability to do in-house development and rapid roll-out of new services?

Currently SPs see infrastructure vendors, along with professional services and consulting groups, as one of their primary sources for new applications. However, this is a relatively small community that needs to be expanded to drive true innovation. As that group expands, this will enable OSS/BSS technology providers to play a larger role in the delivery of IMS-enabled applications. By creating an abstraction layer between applications and networks, SPs are better enabled to use any commercial software firm and OSS/BSS technology provider that can write mainstream Java-based software to deliver new services — all through a service development model including both a rich J2EE and SIP ([define](#) - [news](#) - [alert](#)) Servlet-based platform and an easy-to-use, secure Web services exposure and integration layer.

The requirement for an abstraction layer enables SPs to make internal network capabilities and system resources broadly available to OSS/BSS technology providers and application developers. At the same time, it is paramount for them to be able to protect its

infrastructure from third parties in a secure and controlled manner. Having a platform that abstracts and simplifies access to the SP's infrastructure attracts developers since the effort to develop, deploy, maintain and operate their applications is minimized. This enables them to have full control and protection of their network. The end result is reduced time to market for new services, lower cost of development, and higher revenue per subscriber.

As discussed, IMS technology transforms a service provider network into a platform capable of delivering highly personalized multimedia services that blend voice, text, video and content seamlessly while providing a rich, yet simple user experience. However, in the end, SPs must look to their subscribers to answer the question of how to make money. We know that the consumer actually wants an integrated experience — one identity, one mailbox, one source to access all the applications and services they need. Consumers want common applications, which is why

GoogleTalk Blackberry and GoogleTalk PC, for example, are such a powerful pair. But do they want these applications all from one provider? Only if it's better, cheaper, and faster than what they can get separately. 

Mike McHugh is vice president and general manager, BEA WebLogic Communications Platform, at BEA Systems. ([news](#) - [alert](#)) For more information, please visit the company online at <http://www.bea.com>.

“How can service providers make money from IMS and IMS-based services while protecting their traditional markets?”

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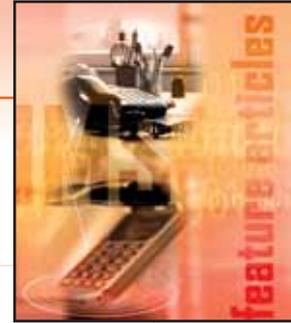


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IMS Shows Us the Money

by Daphna Steinmetz



A lot of technologies over the years have promised but failed to deliver huge returns on investment. Can IMS show us the money?

While the industry may be more cautious when it comes to investing in new technology than it used to, emerging technologies and fierce competition in the telecom marketplace are changing the playing field. Success or failure increasingly depends on how quickly a service provider can adjust its business model to take advantage of new opportunities to deliver them to customers.

There is no longer a single killer application that will justify an operator's investment in a technology like IMS... there are thousands.

IMS in a Nutshell

Although the IMS standards initiative has been around for years, IMS has just recently become one of the hottest buzz words in the industry.

IMS provides a flexible IP network architecture that enables the delivery and execution of real-time voice, video, and multimedia services across all types of networks and terminals. IMS empowers the network so that users can communicate with whomever they want, whenever they want, using the services they want, without concern for what device or network they or their contacts are using.

With IMS, all network services — from call control, voice, data, and video — are done over IP, enabling operators to provide, deploy, and maintain an enhanced array of services, quickly and cost-effectively.

IMS Drives Value Added Services Success

Over the service execution environment facilitated by IMS, value added services will open the door to an infinite number of compelling revenue generating applications. Its framework nature and standard interfaces allow for deployment of services in a shorter time to market and with less effort. Because IMS connects different networks (PLMN, PSTN, DSL, WiFi, Cable, etc.), operators can provide services that operate over multiple networks and terminals in a seamless manner to better serve users based on their preferences and circumstances.

For example, IMS will be able to manage calls coming in to a wireline or IP phone from their mobile handset. The ubiquitous access to services enabled by IMS allows subscribers to use their selected service on their mobile phone, their TV, Skype terminal, or other preferred access device. Likewise, subscribers can use their "push to show" video service on their mobile phone, over WiFi on a PDA, over TV, or a PC.

The telecoms industry has long sought the holy grail of converged services over multiple networks (fixed and mobile, broadband and narrow band) with multiple terminals. Operators' plans to increase revenues from new opportunities, drives a need for an environment with personalized, rightly-sized services to every individual, to create a new comprehensive lifestyle using VAS in all aspects of life. IP Multimedia Subsystem (IMS) is an architecture that will take operators to the edge of convergence in coming years, increasing the type and quantity of services and multimedia applications available to consumers.

IMS networks support powerful service enablers such as presence, location, community, and rich media. These enhance the communication experience in many ways. For example, subscribers may check the presence status of colleagues and then decide the best way to make contact. Not only does IMS enable new types of real-time personalized communication services, network capabilities enable operators to provide information, entertainment, shopping, education, and other services, satisfying more of their subscribers' needs.

IMS architecture generates a horizontal services architecture, sharing of network resources, and providing more efficient resources usage and maintenance. The standards-based and open interface of IMS also greatly reduces operating costs and shortens time to market, while potentially reducing deployment costs through standards-based components procurement. IMS enables network owners to obtain additional network value, one that simultaneously supports multiple services.

With an IMS network the potential exists to offer new and exciting services to users, dramatically increasing average revenue per user (ARPU). A range of new multimedia services will be available to users, yet the key is to not simply provide new services but to use personalization (e.g., using presence, location, and user profile data) to provide subscribers with right-sized services that match user needs and the context of each communication situation.

Right-sized communication can better meet subscribers' social, entertainment, and information needs, enriching their quality of life. For example, presence information improves the socializing potential for a subscriber who looks for company when away from home. The subscriber can look at their mobile phone and see which

friends or colleagues are available, and know whether it is best to contact them using silent text communication or if it is acceptable to call the individual and talk. Location information can also help meet subscribers' socializing needs. For example, a subscriber who is downtown on business can see if any of their friends are in the area and set up an appointment to meet for dinner after a meeting.

The IMS operator can provide subscribers with more personalized and timely information, thus the provided services become an important factor in the user's daily routine. For

example, perhaps the network tracks that a subscriber enjoys sushi and the user is roaming in a different country, the user can receive notifications about nearby sushi restaurants. The real-time and personalized capabilities of IMS will also support new marketing channels, such as a subscriber that frequents a shoe store can receive a

mobile coupon when within a specified radius of a local branch. By providing real-time promotions and marketing information, this opens up a new opportunity for carriers to extend partnerships with brands looking to reach a specific consumer demographic.

The operator is able to address more areas of the subscribers' lifestyle with timely, relevant, right-sized services. The highly personalized services enable the operator to build relationships with each subscriber, increasing the subscriber's dependence on — and loyalty to — the network. For subscribers, IMS provides increased convenience and usability, positively influencing their quality of life.

Implications for Rating, Charging, Billing

While network owners and end users may quickly understand the value of implementing an IMS platform,

IMS will revolutionize the world of value-added services by providing a wide range of applications that match the needs of all subscriber segments, encompass all aspects of their day-to-day lives, and enrich their quality of life.

in order to gain a significant ROI, efficient billing processes must be in place. While end users will likely want to leverage new services supported by IMS, carriers must now consider how to bill for new real-time applications in order to generate the greatest amount of revenue.

IMS includes both on-line and off-line charging methods and mechanisms to give operators the greatest flexibility for their future billing needs. On-line billing enables services to be billed in real-time and can affect the services that are provided. With off-line billing, services are not affected by the charging information.

Not only does IMS allow operators to charge differently for different types of media (e.g., voice, text, pictures, video...), it also allows them to charge differently for the same type of media in different services. For example, video content in a Video on Demand service will cost more than video content in a message. Operators can also charge according to Quality of Service, or charge more for a video stream in a Push to Show session, than a video stream in a game.

While most billing models today include buckets of minutes or service baskets for flat monthly fees, IMS opens the door for usage-based billing and other competitive billing plans.

The standards for charging are still being further developed. IMS Rel-6 introduces common charging architecture, interfaces, and applications for all 3GPP charging. With all the IMS players' interests at heart, the charging standards will surely evolve to support operator interests.

Operator Deployment Strategies

Most operators are investigating the IMS framework and dozens if not hundreds are running pilots, conducting lab trials, and benchmark testing. However operators are varying their approaches to deploying IMS. The main approaches include:

First to Market: These operators firmly believe in IMS and want to be first to offer new services and benefit from the cost-savings of IMS. Operators who have announced IMS purchases, plans, and customer trials include mmO2, Telecom Italia Mobile (TIM), Telia Sonera, France Telecom, Telefonica, Oi in Brazil, and Sprint. Services being

deployed first include fixed-mobile convergence, video sharing, and PoC (push-to-talk over cellular).

Gradual Starts: These operators realize that IMS is the way of the future, but they are waiting for interoperability testing and standards to become more mature before starting to deploy. Operators that fall in this category include Vodafone Japan who announced they would begin deploying IMS in 2006.

Fence Sitters: Many operators are investigating IMS networks, but have set no time frame for deployment. They will wait for solutions that address all their concerns. Nevertheless, even these operators are showing interest and running lab tests.

A Step Towards the Future

IMS has clearly captivated the telecom world as a result of its ability to facilitate an expanded variety of powerful, ubiquitous, and cost-effective services.

IMS will revolutionize the world of value-added services by providing a wide range of applications that match the needs of all subscriber segments, encompass all aspects of their day-to-day lives, and enrich their quality of life.

For operators, IMS will provide an environment for fast and efficient service launches and enable increased revenues from services beyond communication and increased subscriber loyalty, as subscribers become progressively more dependent on their provider for personalized "right-sized" services.

To shorten return on investment it is crucial that operators begin planning IMS service deployments and IMS service enablers from the day they start planning their IMS network.

While there are still details and challenges remaining to be worked out and overcome, the IMS revolution seems to be well underway. 

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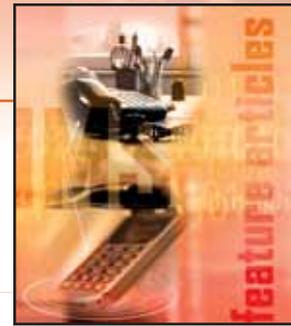
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Strengthening IMS: Implementing Hybrid Networks

by Jim Grams



It is becoming apparent that one access network cannot meet all the needs of operators and customers — 3G networks are expensive and have in-building coverage problems; fixed networks don't provide mobility; and WiFi and WiMAX networks can't match the broad reach of cellular. This leads to a desire by service providers and customers to utilize multiple access networks to remain “always best connected” to their data and services. Multiple access networks can be utilized by devices sporting multiple radio technologies and connected to service providers that embrace a hybrid access network approach. The new business urgency for different access networks has triggered a crop of companies claiming to offer fixed/mobile convergence in the past six months and numerous approaches have complicated the FMC market — so what really works?

The IP Multimedia Subsystem (IMS) architecture, first proposed for use in mobile networks and now being adopted for use in fixed and cable networks as well, promotes a flexible service oriented network architecture that promises everything from improved service development flexibility to exciting new broadband multimedia services, and provides an important technology advance for networking providers today. However, the combination of an IMS enabled core network, with a hybrid access network approach gives a network service provider unprecedented flexibility and reach.

Today's Market Challenges

Fixed and mobile operators today face many daunting challenges. Voice revenues, the “bread and butter” of most operators, are crumbling. Competition has appeared from a variety of sources, including cable providers and pure VoIP companies such as Skype and Vonage. In addition, content providers such as Google, MSN, and Yahoo! now offer the ability for consumers to create a “personal portal” that includes voice among their other services.

At the same time, consumer attitudes are shifting. Many are realizing the personal computer experience isn't so “personal” i.e., PCs remain hard to use, heavy, slow, and prone to viruses and other problems. Consumers today want their information, when they want it, wherever they are. Their needs can be summed up as, “always on, fast, simple, and convenient.” They are frequently multiplexing — playing games, checking e-mail, and IM'ing their buddies. Mobile devices are clearly better suited to these consumers' needs than stationary or even laptop computers.

Integrating IP Access to Offer Mobile Broadband Services

Operators and service providers are realizing they are in a new business. In the future, networks will focus on what users want, rather than what the network infrastructure allows the operator to offer. Rather than providing discrete voice phone service or cable TV service, these providers understand they must provide consumers with a complete broadband service package that

The success of the iPod and Blackberry, the rollout of Mobile TV and the proliferation of mobile multimedia devices demonstrates that anytime, anywhere access to information is rapidly becoming a reality. Mobile operators, fixed operators, and other service providers are eager to offer subscribers a new generation of mobile broadband services to improve customer loyalty and increase revenues.

meets the needs of the “me” generation. And, in addition to simply providing voice service over a handset or cable TV through a box, providers realize they must make voice, data and multimedia available over a wide range of devices. And, providers must make these services available with “always on” mobility.

However, no single access network today can combine mobility, high bandwidth, and low cost in an economically feasible solution. The cost and time required to implement a pure 3G solution are prohibitive. In addition, mobile data usage patterns tend to differ somewhat from traditional mobile voice usage. Data usage occurs indoors more frequently, and tend to cluster around centers of business or entertainment venues. Mobile data capacity requirements can compete with voice capacity, and while networks that combine voice and data services can be more spectrally efficient, capacity management is more difficult.

To meet these significant challenges, fixed operators, mobile operators, and service providers are increasingly turning to a combination of cellular and IP-based services — hybrid networks. Each technology brings distinct advantages. Cellular networks provide mobility, IP-based fixed networks enables a low-cost solution that also provides improved coverage in-building. Users enjoy the best of both worlds — Mobility and IP network bandwidth.

Advantages of Hybrid Networks

Hybrid networks enable operators to offer 3G services to mobile users outdoors, while WiFi provides high-speed, low-cost, in-building coverage. Hybrid networks address three significant operator challenges.

They enable operators to:

- Reduce CAPEX by lowering the cost of 3G deployment;
- Increase revenues by offering the mobile broadband services consumers demand; and
- Increase customer loyalty by providing a consistently better service.

Hybrid networks seamlessly integrate any voice access technology (such as GSM, UMTS and UMA) with all data access technologies (WiFi or fixed IP today, WiMAX and beyond tomorrow). Once a hybrid network approach is adopted, service providers can easily add additional

technologies as they arise by connecting them to their core network as additional access nodes. The services rendered, including those provided with the new IMS architecture, become available to devices regardless of access network used.

An important benefit of hybrid networks is the ability to integrate the IMS architecture for managing new applications. IMS architecture will allow operators to manage a wide range of new IP-based services delivered over any network. “Management” of these services means integrating the control components of each application — policy enforcement, QoS, service authorization, billing, and others.

Users also enjoy many benefits from a hybrid networks approach: they can quickly and easily sign up for new services, tailor the functionality of a new service for their specific needs, and receive a single invoice for all of their voice, data, and multimedia services.

Hybrid Networks Facilitate the Evolution to IMS

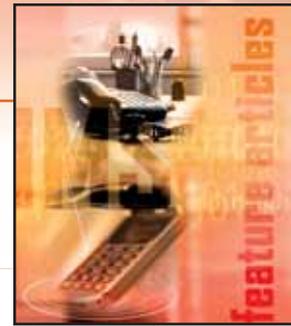
Operators have historically been cautious in deploying new services, knowing that the “if you build it, they will come” mentality does not apply to mobile broadband services. Adoption of IMS will follow a similar evolutionary versus revolutionary pattern. Hybrid networks enable operators to pursue this evolutionary approach — helping operators avoid an “all or nothing” scenario of deploying new network architecture before gauging user interest, or doing nothing and risking missing an opportunity to leapfrog competitive operators.

Hybrid networks represent an important evolutionary step for operators as they move to become providers of comprehensive mobile broadband services. By definition, hybrid networks enable operators to integrate a variety of different services and provide a common approach for QoS, AAA, and other control services. IMS is based on the same premise of creating an architecture onto which operators can add, modify and delete new services quickly and easily. ■

Jim Grams is the Chief Technology Officer for Azaire Networks. (news - alert) For more information, please visit the company online at <http://www.azairenet.com>.

IMS & The Stupid Network

by Martyn Davies



A key IMS goal is to offer the same services to customers regardless of the way that they accessed the network. Because IMS came out of the 3GPP committee, initial focus was on access by cellular phones. However, as time went on, telcos could see the applicability to fixed networks, and so this came under the same umbrella. If you talk to British Telecom today they will tell you about their 21st century network, 21CN for short, which is an ambitious plan to tear apart the digital network core and replace it completely with IP by 2010. The success of technologies like WiFi and broadband has resulted in these systems joining the IMS umbrella. Mobile computing is a strong driving force, with PDAs evolving phone functions, and at the same time phones becoming smartphones with added e-mail and Web browsing, and with WiFi and Bluetooth. Devices like Blackberry and PocketPC are no longer for geeks, but for serious business use.

So with users logging on whichever way, this should result in a wider user-base for services, and so more revenue, and a faster return on investment. With current mobile phone networks, the creation of new services has been a headache for service providers, and many talk about a new service costing \$1 million and service rollout taking one year. Part of this is due to the walled garden nature of today's phone services, where largely the services you can have as an operator depend on what the core equipment vendors can provide.

Customization can be a headache. Another design goal of IMS is to allow the edge of the network to be opened so that services can be offered not just by the operator themselves, but also by service partners. In other words, this would be more like the highly successful i-Mode architecture in Japan, where the telcos provide an infrastructure, and access to customers, but the applications themselves are provided by separate businesses, with their own business goals, marketing and brand. This way, the telco and the application partner get to share the revenue, giving both an incentive to evolve more services in partnership.

One consortium hoping to build this application infrastructure is the Parlay Group, which is a vendor-independent group, creating standard APIs for applications that run on IMS networks. Parlay includes vendors in the software and services business, for example IBM and BEA; networking hardware companies, like Ericsson ([news - alert](#)) and Lucent ([quote - news - alert](#)); and also of course telcos like BT and Sprint. The standardization of a programming API allows for application portability, so that service providers that run successful services in conjunction with, say, Vodafone, would also then be able to market the same service with BT and Sprint, and roll out with a minimum of changes.

IP Multimedia Subsystem is championed as the way that telcos can quickly and cheaply bring new services to customers. There's much to commend the IMS vision, bringing Internet technologies and telephony together. However, much has changed since telcos rolled out the last big thing, the digital switching network. David Isenberg coined the term stupid network to describe a network where the intelligence is in the endpoints, leaving the network itself to be a dumb bitpipe. The Internet sees many new services being launched every week, so we are now seeing the promise of the stupid network, and how it can challenge aspects of IMS, but also invigorate it.

One particularly interesting API from Parlay is known as Parlay-X. Zygmunt Lozinski, President of the Parlay Group, described it like this: "What parlay-X is, is a set of Web services, so somebody that's used to writing Web services, because they're used to programming with .NET or one of the standard frameworks like that, can build applications that can make use of the enablers within a telco network."

Web services is a standard way of interacting with application servers using the Web as a transport interface, and specifying the API operations themselves in the form of XML. It is the basis of many of the so-called Web 2.0 APIs, such as those published by Google to their developer community. Large software companies using this approach to deliver large-scale IT applications include Oracle, IBM, Microsoft, and BEA.

Lozinski again: "[In the IMS network] you have a set of application servers, that can reside in the network, or they can reside outside of the network, that's a business decision by the operator."

In other words the applications that the end-user sees can be from entrepreneurial, independent companies that are using the telco services as a component.

But enough of IMS, what of the stupid network? An obvious starting point when talking about the stupid network is the Internet softphone, Skype. Skype is a free download, and after you register a unique name for yourself, you can immediately start calling other Skype users, free of charge. Skype needs no intelligent network core, only a bitpipe with enough bandwidth, so it can be used over broadband, over WiFi, even over business VPNs. The customers do not need special telco services with extra monthly fees, they just log on. This is the power of the stupid network, that by running different software at the edge of the network you can have any capabilities you like, as long as your friends and colleagues have the same software.

Shel Holtz and Neville Hobson are prolific PR Bloggers, and also run a bi-weekly podcast, For Immediate Release: The Hobson & Holtz Report, about the world of

business, technology, and PR. Enthusiastic users of stupid network services, they use Skype in order to make the show. With Holtz in Concord, CA and Hobson in Amsterdam, they need to connect up in order to record the show. As Holtz says: "We are on Skype something like six hours a week, sometimes more, and if we had to pay the cost of a transatlantic call from the San Francisco Bay Area to Holland, that would add up to some considerable charges." If they had to connect up using a traditional transatlantic call, he doubts whether their podcast would have been born. But another factor is actually quality "If it sounded like I was in my office and Neville was on the phone, I don't how many people would listen to that for 90 minutes twice a week."

This highlights another advantage of the edge approach: services like Skype are free to use wideband codecs to improve the voice quality, and not limited to traditional telco bandwidth. Furthermore, if Skype improves or adds more codecs, users can access these straight away simply by downloading a new client; they don't have to ask a telco for permission, or spend more money on it.

In many ways you can look at today's stupid network services and imagine that tomorrow's IMS services will have the same characteristics: They should innovate, evolve quickly, and it should be possible to try and reject ideas in a way that does not break

the bank. Stupid network services are often more cleverly marketed than their telco-based alternatives. Services like ICQ (now AOL Instant Messenger) and Google's G-mail became successful due to word-of-mouth, which quickly spread the message to the potential audience.

Holtz again: "I think Skype has been exclusively word-of-mouth. I'm not aware of any other advertising or marketing they have done, compared to Vonage, whose acquisition and marketing costs are huge, and haven't attracted anywhere near the user base that Skype have."

In the Internet world, the business model that IMS strives for is already well advanced: as Holtz says: "In this world, dare I say it, of Web 2.0, there are companies releasing the APIs to their application: for example

In many ways you can look at today's stupid network services and imagine that tomorrow's IMS services will have the same characteristics.

Googlemaps; the folks at Frappr have taken that API and mashed it up, and made it something that's useable." And we can already see the genesis of this approach in the IMS world.

Lozinski again "The [IMS] core network has scalability, robustness and accessibility to everyone, and this can combine with the interaction possibilities of the Internet."

Lozinski describes a Parlay-X application, which involves placing yellow arrows, each marked with a code and SMS number. By sending the code by text message, you can find out what information has been associated with the arrow, and that geographical spot. For example, you might attach these arrows to restaurants, and this would allow people to get the last five reviews that visitors had submitted for that restaurant. "That's combining the fact that telcos have SMS and that sort of position

information with Web 2.0-style community interaction, where all of the data around that point is of interest."

The IMS network provides unique value in terms of robust services, and information that cannot be got in other ways, for example location and user availability information from the mobile network. On the other hand, the power of services like Skype and Google is in the flexibility, coupled with efficient marketing techniques, and a reach of millions of customers. By exposing APIs to the outside world, and working with Internet partners outside the walled garden, IMS can enable the kind of Web 2.0-style co-operation, bringing the Internet buzz and telco customers together. Perhaps the IMS and stupid network approaches are not so far apart after all. ■

Martyn Davies is a principal consultant for Eicon Networks. ([news-alert](#)) For more information, please visit www.eicon.com.



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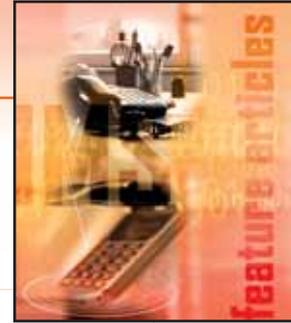


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“Convergent BSS – Ensuring Customer-Centric IMS”

by Fiona Fulton



Of equal importance is how IMS will revolutionize customer service and support. The market-facing side of IMS must be intertwined with “customer centricity,” a new approach to service that helps ensure differentiable value through customer empowerment. Though customers may never hear the term IMS, they will expect to see its value in the form of customer-focused benefits that include single sign-on for all services, one customer care point-of-contact, personalized price plans, and convenient payment methods.

To achieve customer centricity, IMS must work hand-in-glove with business support systems (BSS) and billing systems. The problem: BSS in place at many service providers were developed in the simpler era of ‘plain old telephone service’ (POTS), and are not up to the task of supporting IMS.

In order to realize the customer-focused model of IMS and deliver scalable support for complex service scenarios, operators must adopt an advanced, network-independent, convergent BSS that meets eight criteria:

- Service convergence and customer segmentation.
- Pricing and charging flexibility.
- Online charging capabilities.
- Turning services into revenue.
- Sophisticated partner management and settlement.
- Conditional settlement.
- Scalability and availability.
- Migration and implementation.

Service Convergence & Customer Segmentation

If IMS is to be a vehicle for service convergence, it can only properly be supported by truly convergent systems that are focused on enhancing the customer experience. At a fundamental level, the BSS and billing system must support all IMS services and provide a single view of a customer’s services, bills, and orders. With a ‘single view,’ operators can adopt a holistic approach to customer management, facilitating more opportunities to cross-sell, up-sell, and increase ARPU and loyalty. This approach enables operators to segment customers according to preferences, spending patterns, and identifiable behavior that can be addressed with targeted services. In other words, the customer should no longer be viewed as a household phone line or a SIM card, but as an individual who’s spending and experience needs careful management.

As IMS gains momentum in the marketplace, it is widely accepted that the strategic shift to a single unifying control network architecture will transform the way service providers develop and provide communications services. Despite the hype, Operators are rightly excited at the prospect of IMS-driven benefits ranging from new revenue streams to faster speed to market, higher average revenue per user (ARPU), and efficiency gains that reduce costs.

The session-based nature of IMS activities potentially opens the door for more sophisticated use of incentives and rewards. In a scenario where users can see who else from their circle of friends is active in a given session before talking, messaging, and or sharing video, for instance, usage patterns could be monitored and influenced.

Pricing and Charging Flexibility

An IMS-ready BSS and billing system must be able to support any basis of pricing. As operators introduce more sophisticated, content-rich services and session-based activities, so the need for extremely flexible pricing and charging capabilities is becomes paramount. Supporting IMS will thus require:

- A highly flexible rating or charging engine capable of handling all existing pricing criteria and support whatever services may emerge in the future, including value-based pricing models. For example, streamed music purchases, videoconferencing sessions, and interactive games could all be priced by different measures (e.g., by transaction, duration, and levels completed respectively).
- The ability to accommodate quality of service (QoS) factors in pricing models where appropriate. For example, where the quality of a real-time service, such as a streamed video or interactive game, is compromised by network problems, the operator might recompense the customer by authorizing a rebate, also in real time.
- Systems that enable the rapid introduction of new tariffs or the alteration of existing price structures in order to support new services or respond quickly to changing market conditions.
- Comprehensive and easy to apply discounting and bundling capabilities that can be used across products and services in order to provide incentives to subscribers and reward particular usage patterns.

Online Charging Capabilities

Flexibility in charging must also extend to the online environment. By their very nature, real-time, IP-based transactions such as music or video downloads create 'immediate' service expectations in the mind of the user.

Failure to meet such expectations may result not merely in a lost transaction, but in a lost customer and the loss of any future revenues this implies. It is imperative, then, that online charging systems combine:

- Very fast response times;
- High availability; and
- Advanced credit management facilities.

In addition to giving all users access to the full range of services (bridging the divide between prepaid and postpaid in mobile, for instance), online charging systems need to promote credit management across services. This is especially pertinent for IMS services, where the credit risks, or exposure, for the operator are potentially high due to the expansion in higher-value content services supplied via third-party providers. The operator has to pay the content provider even if the retail subscriber fails to pay for any reason.

The billing system should enable operators to turn services into revenue. On the one hand, this is enabled via full support for real-time transactions, including the ability to check credit balances, charges, discounts, loyalty points and provide authorization in real time before the service can be accessed.

Secondly, in addition to checking customer credit limits, operators will expect online charging systems to offer different parameters on how this credit is used. For example, funds could be reserved when the service is requested, with the actual charge only being made once the service has been delivered — similar to the procedure used in hotels, where guests' credit cards are "swiped" when checking in. Pre-advice of charge functionality, which allows customers to see the cost of a service before deciding to proceed, is also required.

Sophisticated Partner Management Aand Settlement

As IMS evolves, much larger numbers of partners will become involved in the delivery of services to the end user. Operators will team with content providers and others to manage specific content and service

propositions. As these partnerships grow, so also will the need for support systems. The billing system, for instance, should be able to handle all aspects of service delivery and revenue settlement associated with partner activities.

Settlement and partner management involve more than simply managing revenue flows between parties. The complex value chains that are accompanying the growth of content services offer operators the opportunity to derive income from each transaction. For example, an operator may source content such as a video or an interactive game either directly from the content provider or through a broker. This content would be subsequently supplied to the customer and the revenue settled between all the parties.

Conditional Settlement

Operators also need a billing system that provides “conditional settlement” to manage the disparate retail billing and merchant settlement periods. Conditional settlement enables an operator to settle with merchants conditionally on receipt of consumer payment. When reconciling with merchants, operators can thus minimize cash exposure, or risk, and enhance cash flow by forwarding only those payments that have actually been received from the retail customer.

Scalability and Availability

Rising partner activity and growing service footprints increase the need for high scalability and availability. In the IMS model, rating and billing will be used by all applications. There is little value in investing in functionally-advanced systems if they cannot handle the increased volume of subscribers, higher number of transactions, and content/service provider partners that IMS will inevitably drive.

Scalability needs to be achieved in an operationally efficient and manageable way, including the option of using multiple smaller servers, rather than a huge single server, to reduce costs. Availability needs to be a top priority, as down-time is costly and potentially increases operators’ risk of credit exposure.

Migration and Implementation

Although a few operators have defined a relatively short window to migrate their customers to IMS from their

legacy network, the majority will probably need to run legacy and IP/IMS networks in parallel for 10 or more years and adopt a gradual customer migration strategy. The ability of IMS products and systems to co-exist with legacy systems could, therefore, be critical. On the implementation side, it is expected that IMS projects will be very different from previous network upgrades: they are likely to be more complex and involve multiple vendors, magnifying the challenge of managing the implementation. The need for open system architectures and products with published APIs and a proven integration strategy will also increase.

IMS Visions Rest on BSS Realities

The potential of IMS to drive new services, new revenue streams, enhance customer loyalty, and open the way for more cost-efficient support infrastructures is clear. For operators to realize this potential and carve a competitive edge in the emerging IMS environment, however, they need to focus on:

- Customer centricity – by embracing a new way of thinking, or business logic that puts the customer at the center of the operation.
- Capturing revenue – by investing in the support systems that can ‘operationalize’ this new logic.

Put bluntly, there is no point in evolving impressive IMS service delivery and management capabilities if the BSS cannot cope. Access to advanced, network independent, convergent BSS is a necessity. Without IMS-ready and future-proof solutions, operators will be unable to deliver scalable support for complex IMS service scenarios and risk becoming bit-pipe operators. IMS effectively throws down the gauntlet, challenging operators to invest now in order to succeed in the future. ■

Fiona Fulton is a Market Strategist works within the [Convergys \(news - alert\)](#) Product Management and Marketing organization as a Market Strategist. She is currently responsible for Convergys’ IMS strategy. Prior to this role, she worked in the marketing strategy and product development areas within Convergys. She has previously worked in strategic and engineering roles for T-Mobile (One2One) UK and Nortel Networks.. [\(news - alert\)](#) For more information, please visit the company online at <http://www.convergys.com>.



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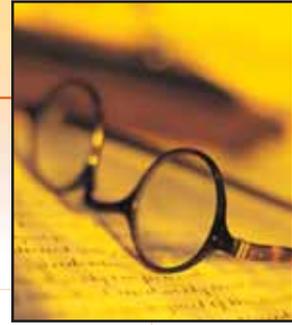
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Fixed/Mobile Convergence: Understanding the Trend

by Sanjay Jhawar



FMC marks an evolutionary step in the communication industry. To effectively compete, NEPs will need to reorganize from their traditional, vertically-integrated structure to a more horizontally-focused and globally-scaled business. Additionally, they will need to adapt to the emerging FMC ecosystem that relies on interoperability and partnerships with smaller start-ups that are actively forging innovative hardware, applications, and services for communications customers.

A corollary to the changes in the NEP industry is found in the series of transformations that the computing industry underwent over the last 20 years. Computing quickly moved from vertically integrated mainframe and minicomputer companies, to stand-alone PCs, and finally to a networked computing architecture. Over that period, many once-proud mainframe and PC companies ended up in the ash-bin of history. The new winners, such as [Microsoft \(quote - news - alert\)](#) and [Intel \(quote - news - alert\)](#), focused on select components of the computing solution, achieving global scale that supported the massive investment needed to push their product beyond capabilities of competitors, and actively establishing standards for interoperability between components and across networks.

In the past few years, these open computing standards and the Internet have impacted the NEP industry. Not only have NEPs' products started to resemble traditional computers, running on server technology, but also the NEPs themselves have started a similar horizontal industry transformation. Communications and computing are colliding, and NEPs are in the midst of reconstructive surgery that will leave them looking more like their computing cousins.

Ericsson/Marconi. Alcatel/Lucent. Nokia/Siemens. Mergers are sweeping through the Network Equipment Provider (NEP) industry because of three forces at work. The first two trends are familiar to any student of mergers and international trade. The first trend is the ongoing consolidation among the NEPs' customers — communication service providers. NEPs are simply responding to the fact that there are now fewer buyers with greater purchasing power for their products. Secondly, low-cost international competitors based in China have emerged and caused fierce price competition. However, it is Fixed/Mobile Convergence (FMC) which is driving the greatest transformation in the NEP sector — a force not well understood both outside and inside the industry.

Fixed/Mobile Convergence is accelerating that transformation. It is based on Internet protocols that seamlessly enable voice and data communications across home, mobile, and work. Within this new environment, different suppliers have deployed a mixture of equipment in the legacy fixed and mobile networks. FMC requires interoperability across all this equipment — from the handset, to a converged fixed-mobile core network, and on to the innovative applications that will change how customers think about communications. Additionally, since end-users will demand access to a wide variety of different devices and applications — provided both within the service providers' walled garden, and out in the innovative world of the open Internet — vertical integration can no longer be the dominant business model.

Instead, the NEP industry is merging and disaggregating to achieve horizontally-specific global scale. With interoperability, handset manufacturers no longer must be tied to the core network infrastructure developers. Once they have spun off their non-core assets, most NEPs will focus and invest in the key components of the emerging next-generation network architecture: IP Multimedia Subsystem (IMS). This segment is the control plane of the new core network (including HSS and CSCFs). The control plane is important because it determines which access networks, applications and devices can be brought together to form FMC services. Achieving dominance in the control plane, combined with the pre-existing radio access strategy to capitalize on IP delivery via WiMAX and 4G broadband wireless technologies, represents the long-term product strategy of NEPs.

Communications and computing are colliding, and NEPs are in the midst of reconstructive surgery that will leave them looking more like their computing cousins.

A focus on having sufficient scale to dominate the control plane and radio access parts of the network is driving the recent NEP mergers, and is resulting in the formation of a new horizontally layered industry model. In this model multi-vendor interoperability across the layers becomes a critical success factor. Industry groups such as MobileIGNITE are actively pursuing FMC interoperability. With 45+ innovative convergence companies representing FMC applications, devices and device software, convergence elements, media path, WLAN, security gateways, and interoperability testing organizations, MobileIGNITE provides a ready-made process for NEPs to quickly achieve the necessary interoperability

to make the new horizontally layered FMC industry structure be successful for them. NEPs simply have to nurture these groups and fashion a solution that represents best-in-class across that ecosystem. NEPs must negotiate partnerships with smaller application developers, and effectively market FMC's new value propositions to the communications service

providers and their customers.

Transformations can be painful, but in the near future, customers will be reaping the rewards of innovations spawned by FMC. The NEPs that will survive will move quickly to react not only to fewer buyers and international competitors, but also embrace and actively advance the new industry structure that is coming with Fixed Mobile Convergence. ■

Sanjay Jhavar is senior vice president of Marketing and Business Development at Bridgeport Networks. ([news](#) - [alert](#)) For more information, please visit the company online at <http://www.bridgeport-networks.com>.

From the Desk of Michael Khalilian

IMS Forum Update



First and foremost, I would like to welcome new Forum members, GlobalTouch Telecom ([news - alert](#)), IntelliNet Technologies ([news - alert](#)), and Juniper Networks ([news - alert](#)), returning Board members Jean-Marc Desaulniers, (Alcatel) ([news - alert](#)) and Steve Edwards (Sonus Networks) ([news - alert](#)), as well as new Board member Manuel Vexler (CopperCom) ([news - alert](#)), to the IMS Forum Board of Directors. Also, please join me in welcoming Service Provider and Integrator Board Co-Chair, Sanjeev Chawla ([BayPackets](#)). ([news - alert](#))

If the buzz surrounding IMS and the IMS Forum at Globalcomm 2006 is any indication as to potential growth, clearly, we are on the verge of breaking new ground as an industry. At our Annual Meeting, we updated our industry colleagues, Forum members and friends on our progress to-date, in addition to presenting a technical paper, entitled, IMS Technology Framework V2.0: Coordination of Multiple Services in an IMS Domain, which details the benefits of the Service Capability Interaction Manager (SCIM) function, as well as how to leverage this technology for managing interaction between multiple application servers in an IMS domain.

In addition, the IMS Forum, in conjunction with its member, Cantata, conducted a survey among Globalcomm conference attendees that addressed current awareness of IMS, value industry leaders presently place on IMS, in addition to other relevant topics. Of 32 surveyed, 21 carriers are actively planning IMS strategies, while seven are actively trialing and deploying. In addition, when queried as to specific timeframes on when the first phase of their respective IMS infrastructure will be in place, more than 40 percent of respondents acknowledged that they already have the appropriate infrastructure in place, or expect to in 2007.

What's most encouraging and important to note, is that recent analyst reports concur with our belief that with the continued market penetration of IP Communications and the transition toward IP multimedia convergence, IMS could very well serve as the catalyst for significant growth within the telecommunications industry. In fact, in a recently published independent study, ABI Research commented, "...IP Multimedia Subsystem (IMS) may act as a jet engine that would power telecom markets to a new level."

The IMS Forum has number of initiatives forthcoming on which we look forward to working with our industry colleagues, such as the IMS Forum PlugFest and Security. (We are planning to launch the first interop and evaluations late this Fall — additional information will become available as we move forward).

Thank you for your continued interest in and support of the IMS Forum. ■

I am pleased to update you on our continued progress in growing the IMS Forum, in addition to the leadership role we've taken in educating the industry as to the value and benefit of IMS.

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