



Global MSF Interoperability 2006:

IMS Vendors and Carriers Need to Get on the GMI 2006 Bus

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► Summary

On October 13, 2005, the MultiService Forum (MSF) announced plans to conduct a global interoperability test of its IP Multimedia System (IMS)-compatible Release2 architecture. The Global MSF Interoperability (GMI) event, to be concluded in fall 2006, is designed to provide a test bed for the multitude of equipment, processes, and services that carriers will need to assemble to build a working and cost-efficient next-generation service delivery platform. As IMS gains momentum, critics see the technology as simply a means for carriers to extend their current hegemony over telephony subscribers to the Internet domain. These same critics see IMS as an artificial overlay to the current Internet that will add unnecessary bandwidth controls and charging mechanism to a pure and open service delivery model, enabling carriers to retain control of last mile connections and charge for IP services that can now be accessed for free or at a minimal cost. At some level, all of these criticisms are valid. In light of this, what is the significance of the event? Why is it important for systems suppliers to actively participate in it? And how will it further the development of services based on IMS infrastructures?

Analytical Summary

This massive interoperability experiment is a must-do event for any vendor or carrier that has committed resources to building or implementing infrastructure gear based on the IMS architecture. IMS is nothing short of a massive overhaul of the service delivery and creation infrastructures of incumbent carriers and service providers. Though the architectural framework has received near universal support from vendors, carriers, and standards groups, the costs and complexities associated with this network transition are staggering. Interoperability events of the scale and magnitude of those conducted by the MSF provide vendors and carriers with the opportunity to put IMS and its related trappings through a sort of test drive before undertaking the required and massive upheaval of their networks and product portfolios. Any opportunity to test drive IMS should not be squandered, as vendors and carriers alike have a great deal riding on its successful implementation.

IMS does indeed represent the best – and perhaps the last – chance for incumbent service providers to avoid becoming dumb pipe operators by only selling access services, a business model that is not conducive to their survival. For this reason, the long-term fortunes of incumbent carriers are tied directly to the successful implementation of an IMS-based infrastructure. Participation in exercises such as the GMI 2006 event is important for both carriers and equipment vendors because it gives them advanced insight on whether or not IMS can be implemented in a manner that will allow them to reduce operating expenses and at the same time deliver services beyond basic access that subscribers will find valuable beyond what is available in the Internet at large.

► Perspective

One way to think of the proposed Global MSF Interoperability 2006 (GMI 2006) event is as a dress rehearsal for the opening night of what may be the next-generation multivendor service delivery

platform. The event brings together dozens of carriers and equipment makers to stage a dry run of how an IMS-based infrastructure might fit together in a real-world setting. The 2004 version – and most recent – of the interoperability events spanned several continents, included multiple Tier 1 carriers, and had a strong representation of influential equipment vendors. Those same players and additional ones have already signed on for GMI 2006, which is built around the concept of moving the technology behind the IMS standard from a theoretical realm to a physical realm.

The interoperability exercise, which is ramping up now and concludes in the fall of 2006, offers numerous benefits for both equipment makers and carriers. Looking at the equipment vendor benefits first, GMI 2006 opens up the opportunity for equipment makers of all sizes to work closely with some of the biggest carriers in the world, such as BT and KT. In addition to getting first-hand knowledge of how these carriers run their networks and select equipment, participating in the MSF event enables equipment makers to show off their technology to major Tier 1 carriers. It's not coincidental that many of the companies that were named to the short list of preferred suppliers earlier this year for the BT 21st Century Network project participated in the GMI 2004 event. The interoperability event also gives equipment makers the opportunity to work closely with makers of complementary infrastructure gear. Procuring complementary or even competitive equipment for interoperability testing in private labs is an expensive process and often beyond the means of smaller equipment makers. The MSF event provides vendors with an open lab and the opportunity to test their equipment in an end-to-end IMS-based architecture.

The benefits of the GMI 2006 for carriers may be even more substantial than the benefits for equipment makers. The GMI 2006 test is an excellent forum for validating the commercial viability of the next generation network. Though a sense of inevitability surrounds the IMS architecture, carrier adoption is not a sure thing. IMS is nothing short of a complete overhaul of the existing carrier network. Never mind that it means the complete embracing of IP technology by a group of service providers that have spent the past decade deriding the Internet as an unreliable and unworthy transit mechanism for real-time traffic. Incumbent service providers have already conceded the religious war. No, the biggest obstacle to IMS adoption is no longer philosophical but physical. IMS is a complicated and all encompassing architecture. Before service providers completely commit to this new infrastructure architecture, they need to see if IMS will be able to deliver what it promises: a horizontally layered service delivery environment that operates more cost-efficiently than the existing model and makes it possible to rapidly roll out applications that run on any access connection.

For this goal to be realized, carriers need to take a wrench to existing back office systems, including the introduction of a charging mechanism that will enable service providers to track premium services or transactions that involve third-party content providers. Carriers also need to know that the IMS specification provides for a proper degree of interoperability between elements, enabling service providers to leverage the financial benefits of a multivendor environment. While the GMI 2006 event from the MSF is not going to provide these assurances on its own, the exercise will give service providers excellent feedback on whether or not IMS is a viable solution and one that they should continue to invest in. The interoperability test also acts as a feedback source to the various standards bodies that are working on the IMS specification. Implementation difficulties that come up during the testing are documented and fed back into the appropriate standard bodies. Several elements of the IMS architecture remain unresolved, such as the way to handle bandwidth

management, QoS, and session border control issues. The participants in the GMI 2006 events will be tinkering away on these and other issues during the testing period and feeding back these findings to respective standards groups.

Another reason participation in the GMI 2006 event is important to vendors and carriers is that a tremendous amount is riding on the success of IMS for both groups. If carriers cannot make a go out of IMS-based service delivery platforms, equipment makers will witness the eventual decline of their most lucrative customer base. In recent months, the inevitable backlash and opposition to IMS adoption has emerged in the industry. A growing segment of Internet purists see IMS as a vehicle for the continued dominance of incumbent carriers, an unnecessary technical overlay intended to recast the open nature of the Internet into the closed system that RBOCs, PTTs, and other carriers have wielded over captive subscribers for the past century. That those advocating an Internet-oriented approach to service delivery have decried IMS as just another tool of repression is not surprising. That it has taken this long for the objections to emerge is surprising. At its core, IMS is, as critics charge, a mechanism for enabling facilities-based network operators to become something other than a dump pipe provider. At its most nefarious, critics would say, IMS will enable service providers to own the subscriber, acting as a single source for all the subscriber's Internet, communications, and entertainment needs – and charging them for each bit they deliver and even more for those they deliver with some level of quality assurance.

Whether or not you believe that network operators will go this route out of innate corporate selfishness or simply because they have no other option if they are to survive as a profitable business, IMS is going to be the mechanism that makes it happen. This means that the adoption of IMS is tied directly to the future fortunes of large service providers, and, by turn, the future fortunes of telecommunications equipment makers. In other words, carriers and their suppliers have a mutual interest in seeing that IMS is implemented in a manner that allows service providers to be successful. If IMS adoption renders service providers unable to deliver compelling services at a reasonable price, it will be a failure. On the other hand, if IMS ushers in an era in which consumers and enterprise customers see value in the capabilities a converged network can deliver, the architecture will be a success. Through events like the MSF's interoperability testing, carriers and vendors can help to ensure that the latter scenario has a better chance of succeeding than the former.

► **Recommended Actions**

Vendor Actions

- All equipment makers that have the means and are pursuing IMS in their product roadmaps should participate in the MSF interoperability event. The first-hand knowledge acquired through interaction with service providers and makers of related equipment is more valuable than the membership fee to the MSF or the cost of competing in the exercise.
- Equipment makers, including softswitch, media gateway, SBC, and application server suppliers, need to leverage the opportunity to establish relationships with participating carriers. At the very least, equipment makers will get a first hand taste of the practices and procurement procedures of several major carriers.
- Telecommunication equipment makers of all sizes should forge relationships with makers of

complementary equipment. Small vendors with standalone solutions should partner with similar suppliers, creating a turnkey solution that they can offer as hybrid that combines the benefit of a single-vendor solution with the benefits of a best of breed approach.

- All equipment makers building IMS-based equipment need to adopt a mentality of mutual interest with their customers. IMS vendors need to understand that if carriers are not successful in transforming to an IMS-based service delivery model they will see the general decline of their most lucrative customer base. Accordingly, equipment vendors need to build and market solutions that embrace practices, such as multivendor interoperability, that will help insure the success of IMS.
- Equipment makers should take an active role in contributing to the Implementation Agreements (IAs) that result from the interoperability testing. Those that are involved closely in the creation of these documents will have a direct source to the latest information on preferred deployment approaches.
- In many cases, the participants of the GMI 2006 event will have vital information about still-unresolved IMS issues, such as the handling of bandwidth management, QoS assurance, and session border control. Equipment makers with access to these findings will have a competitive advantage, at least for a short time frame, over competitors that do not participate in the event.

► Target Markets

User Actions

- Carriers contemplating a move to IMS should participate in GMI 2006 to gain an initial sense of the viability of an IMS service delivery platform. This preliminary information will enable carriers to get practical information about IMS adoption before completely overhauling their networks.
- Carriers should pay special attention during the interoperability event to back office integration and the implementation of charging components in the IMS architecture. Though overlooked by the media and most vendors, these two areas are among the most crucial for carriers. The bottom line reality is that if carriers can't charge for new services, the new services will be meaningless.
- Carriers and service providers participating in the event should consider it as an advanced scouting mission for potential equipment suppliers. Carriers should take special note of equipment and suppliers that look like a good fit for an actual IMS implementation.
- Carrier participants in the interoperability event should do considerable advanced work in order to make the most effective use out of the actual test. Carriers need to come to the event with a realistic test plan for their own networks and then closely observe the progress of the network construction and behavior of the test network to see how well their expectations match the actual results of the test.
- Similar to participating equipment makers, carriers need to contribute to the drafting of IAs that will emerge from the test. In addition, carriers need to stay in the loop between the MSF and the respective standards groups working on the IMS specification (i.e., 3GPP and TISPAN).