IMS – ready for prime time?

GMI 2006 conclusions confound the critics

Hong Kong, December 1st, 2006 – There were many useful lessons learnt from GMI 2006, according to the MSF (MultiService Forum) White Paper “GMI 2006” published today – and the least expected of those conclusions is that IMS (IP Multimedia System) is a lot further down the road than anyone had anticipated. GMI 2006, the Global MSF Interoperability event that concluded on October 27th with 12 days of intensive testing of some 200 devices in a total of 8 increasingly demanding scenarios, represented the culmination of 2 years planning and preparation for a massive ‘real network’ trial of the MSF IMS-compatible Release 3 architecture.

"We began GMI2006 with an open mind," said Roger Ward, Office of the CTO, BT Group and President of the MSF, "expecting that not all current IMS implementations would fully interoperate in the networking configurations we had specified and that there would be many learning opportunities that would influence future developments. Now we have completed the analysis of the GMI test results, we are surprised that many more tests had been completed successfully than even our more optimistic members had expected. In the IMS space itself it was almost ‘plug and play’ – very little configuration delay – with most problems being concerned with the integration with the non-IMS-specific end-to-end network components."

The conclusion of the White Paper focuses on the main lessons learnt, and the way forward.

Six key issues emerged:

1. The “Pre-conditions” mechanism for end-to-end QoS is not being consistently implemented by the industry. Current mechanisms, based on RFC 3312, exist but are not being widely embraced. The MSF will create a White Paper on this problem as input to the relevant standards bodies.

2. No P-CSCF tested had implemented an H.248 interface to directly control the D-SBG-NE. Some vendors assumed the presence of an intermediary function such as the SPDF of the ETSI TISPAN R1 architecture, whilst many Session Border Gateways (SBGs) combined both the S-SBG and D-SBG functions in a single element. The MSF will re-assess industry trends in this area and may revise the architecture and appropriate IAs (Implementation Agreements) accordingly.

3. There was a disappointing shortage of true IMS terminals, and much of the testing was done on SIP end points. Some of the IMS terminals might still be in the prototype stage, but the MSF considers that the industry missed a useful opportunity to put them to the trial.

4. Authentication proved a jungle – there are so many options available that time was wasted and future users cannot be expected to find their way through such a proliferation of options without guidance. The MSF is looking for a way to sort this,
and is evaluating the possibility of developing a new IA addressing authentication/authorisation profiles.

5. The SBGs tested tended to focus on the UNI, or on the NNI in the interconnect scenarios. When deployed at the NNI to support roaming, the SBGs exhibited some attributes of a UNI, and some of an NNI. As a result, problems were encountered in the roaming scenarios, and the MSF has launched a work program to address this by developing a new IA.

6. No vendor supported the GMI roaming scenarios designed to provide testing of optimal routing of media. In all cases tested, the media followed the SIP signaling path back through the home networks, with a resulting QoS degradation. The MSF will liaise with appropriate industry bodies to address this issue.

However, the report’s final conclusion is the one that will make the biggest impact. To quote: "Reality is closer than we thought. Most of the equipment worked straight away, almost out of the box. This makes it clear that it is appropriate for the MSF to take interworking to the next stage of rigour and explore implementing an industry wide certification program."

The response to GMI 2006 has been immediate, starting with the event’s sponsors: "We were not surprised that GMI confirmed our view that IMS is more advanced than some in the market claim," says Sita Lowman, IMS business leader, Nortel. "Nortel sponsored GMI because it provided another opportunity on top of our operator IMS and IMS ready deployments to demonstrate commitment to a truly open, standards-based solution that is essential for network convergence."

Naseem Khan, principal member of technical staff in Verizon’s Technology organization also commented: "The GMI results prove that the industry must implement comprehensive resource and QoS management schemes for the efficient use of the access transport in the multiservice environment."

Dan Warren, Senior Core Network Architect, Vodafone added: "The value of the experience gained and lessons learnt from GMI 2006 will only be fully appreciated when we deploy IMS and can avoid some of the problems that the event directly addressed. The fact that IMS technologies and interfaces – key to our long term strategy – were proven to work together in a live traffic environment begins to show that these technologies are reaching a level of maturity that will allow them to be deployed and interconnected in the near future."

And a final observation from Matt Bross, CTO, BT Group: “Essential to unleashing value in NGNs is the successful interoperability across heterogeneous infrastructures. That challenge had not yet, to any great degree, been taken on. Well, the GMI 2006 took it head on… (going) beyond a referential framework for 3GPPR, or whatever, into a set of practical implementations that will allow us to move from the least common denominator of a service experience across infrastructures to one that is a rich experience – whether in your personal life, your professional life, or about the future state of your business.”

**About GMI 2006**

GMI 2006 – the Global MSF Interoperability event – was the culmination of some 12 months preparation by the MSF. It was conducted over 12 days, from 16 – 27 October 2006, at major carrier & independent labs around the globe, networked together for this event. Three months or more were typically required to prepare a host site to carry out the extensive test program mandated by the MSF. Five of the world’s top carriers – BT, KT, NTT, Verizon and Vodafone and a world class test facility UNH-IOL – collaborated to provide host sites. During the event, engineers at each site typically worked an average of 14 hours a day, although longer days were not unusual. The event provided world-class networked test facilities spanning 3 continents and bringing together dozens of carriers and vendors in a massive ‘real network’ trial to validate MSF Release 3 Implementation Agreements covering a wide range of topics including roaming across multiple network types (including cellular and WiFi), QoS issues (including session border control and bandwidth management), and interoperability with 3GPP release 4.
About MSF
The MultiService Forum (MSF) is a global association of service providers and system suppliers committed to developing and promoting open-architecture, multiservice switching systems. Founded in 1998, the MSF is an open-membership organization comprised of the world’s leading telecommunications companies. The MSF’s activities include developing Implementation Agreements, promoting worldwide compatibility and interoperability, and encouraging input to appropriate national and international standards bodies. For more information about the MSF and its members, visit the MSF web site at http://www.msforum.org/.

Additional Press Resources
More information relating to this announcement is also available on: www.zonicgroup.com/press_resources/msf/