MultiService Forum takes NGN Interoperability demo global

The MultiService Forum (MSF) has finalized the carrier, government and academic laboratory line-up for its Global MSF Interoperability (GMI) program, slated for late October this year.

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Now we’re getting to the good stuff, where the telecom rubber hits the road: real-world interoperability performance and QoS testing for next-generation networks. The MultiService Forum (MSF) has basically finalized the carrier, government and academic laboratory line-up for its Global MSF Interoperability (GMI) program, slated for late October this year.

As with previous GMI events in 2002, 2004, and 2006, the idea is to interconnect multiple services, vendors and carriers with a global reach. Other forums like the IMS Plugfest have run similar tests at recurring events, but GMI offers a wider geographic scope, and carries test traffic over “live” networks, not a separate test-bed system. In addition, this year’s model features additional test laboratories, enhanced test scenarios and a greater number of service capabilities than previous events.

By adding new member China Mobile to the Forum, GMI 2008 is set to test critical NGN elements across 3 continents — Asia, Europe and North America on five interconnected host sites. The goal is to validate key service concepts that leverage an IMS/NGN architecture and a range of access technologies, according to a recent MSF presentation. Host “sites,” or networks, include BT, Vodafone, Verizon, the University of New Hampshire’s InterOperability Lab, China Mobile and the National Communications System branch of the Department of Homeland Security.

As one measure of the demo’s scope, consider these stats: GMI 2006 incorporated 200 + test engineers, five major test scenarios, 200 networked devices tested and 150 test cases/350 test runs. While GMI 2008 will run over the same number of host sites (five), its reach will be greater, extending to Asia.

The testing will center on QoS for each service, many of them IMS-based, as well as location management, IPTV, and service-oriented architecture (SOA). Breaking down this list a bit, the Forum will evaluate hybrid IMS/Web Services, both IMS and non-IMS delivery IPTV, and QoS for both fixed and mobile clients. As with previous GMI events, GMI 2008 is based on the MSF R4 architectural framework, which incorporates an IMS network layer as well as call agents, softswitches and other next-gen network elements.

Interoperability will be validated by testing six key scenarios: end-to-end QoS control across all supported access networks; the same end-to-end QoS testing, but extended to the core architecture; IPTV as a “highly-demanding” IMS application (an industry testing first); location-based services that generates
Tispan Network Attachment Subsystem-based precise location information to integrate with emergency calls, location-based routing and prioritized call queuing; a Service Oriented Architecture service layer that interoperates with a SIP/IMS core (this would enable fast service creation for third-party developers, including applications such as third-party call control, presence, and multimedia messaging); and the performance management of IPTV services and remote management of IPTV CPPE devices.

What do the new GMI members hope to achieve with this demo? For China Mobile, it’s real-world validation of QoS across multiple networks, as well as service layers.

“The most important difference between telecommunications networks and the Internet is the guaranteed QoS, said Zhang Hao of China Mobile. “The end-to-end QoS test scenario in GMI is the best way to validate the QoS solution within an IMS core network, especially under the condition of roaming environments.”

As for the NCS, its participation goals are to help MSF members understand the priority communications requirements for next-gen networks, and architect their networks accordingly. To that end, it provides information on the Emergency Telecommunications Services scheme to architecture and implementation agreements that define features and interfaces for carriers and vendors alike. The NCS is especially interested in interoperability of priority communications under congested, heavy-usage conditions; this year’s test will be an extension of the GMI2006 demo, in which NCS successfully demonstrated priority voice and video sessions in an IMS core network.