National Communications System Participates

in the Global MultiService Forum Interoperability Event

Personnel assigned to the National Communications System successfully demonstrated national security and emergency preparedness (NS/EP) priority communications during the Global MultiService Forum (MSF) Interoperability 2006 (GMI 2006) event held October 16-27. The event spanned three continents, 26 communication companies and over 200 network devices, with network hubs hosted in North America by Verizon and the University of New Hampshire's Interoperability Lab, in Japan by NTT, in Korea by Korea Telecom, and in the United Kingdom by British Telecom/Vodafone. NCS participated in this event at the site hosted by Verizon Labs in Waltham, MA.

During the 12-day event, NCS personnel successfully demonstrated National Security and Emergency Preparedness (NS/EP) priority communications in a multi-vendor SIP-based IP Multimedia Subsystem (IMS) network with interconnection with the traditional public switched telephone network (PSTN).

The primary GMI2006 objectives of NCS were to demonstrate NS/EP features of end-to-end priority voice and priority video sessions in a Next Generation Network environment, according to Mr. Frank Suraci, NCS GETS/WPS Technical Director. These features included: priority marking and treatment, authentication, caller identification suppression, priority capabilities while roaming, and interworking between the NGN and the circuit-switched PSTN. These capabilities would enable the origination of NS/EP priority sessions in either network with termination to either network.

The NCS also demonstrated the use of a Telcordia Technologies Parlay gateway/Parlay application server to implement an authentication feature, and the use of a Sonus Networks media/signaling gateway to process the NS/EP priority features to ensure priority access to the network for priority calls over non-priority calls. When the test network was placed in a congested condition, the NCS demonstrated the admission control mechanisms to ensure priority access to the network for NS/EP calls.

The NCS demonstration was a cooperative effort with several other vendors in addition to Telcordia Technologies and Sonus Networks: Leapstone Systems provided the service broker; RadiSys provided the Convedia media server; Acme Packet and Nextone provided the session border controller; and Polycom provided video teleconferencing equipment. In addition, Siemens provided the multimedia session controller and the home subscriber server; Operax provided the bandwidth manager; Starent provided the proxy call and session control function; and Spirent Communications and Empirix provided traffic generators that originated and terminated the PSTN legs of priority calls.

By leveraging the work the NCS had previously accomplished in NS/EP-enabling Parlay application programming interfaces, NCS was able to demonstrate application level control of priority calling and user authentication. Priority capabilities were

implemented based on industry standards and without requiring any custom software in any specific network element.

The NCS considers this global interoperability event an important step and a proof-of-concept in the development of priority services in a next-generation network (NGN) environment for NS/EP users.

About the NCS:

The National Communications System is responsible for coordinating restoration and maintaining emergency communications services to all levels of government in the event of a regional or national emergency. The NCS offers a wide range of NS/EP communications services that support Federal, State and local government, industry, and other authorized users in performing their NS/EP missions. These NS/EP communications services provide emergency access and priority processing in the local and long distance segments of the public switched wireline and wireless networks. The NS/EP priority schemes are used in emergency or crisis situations during which the probability of completing a call over normal or other alternate telecommunication means has significantly decreased.

About GMI 2006:

GMI 2006 brought together dozens of carriers and vendors to test the interoperability of IMS-based infrastructure components in a real-world setting. Providing a test-bed for the full spectrum of hardware, processes and services needed to assemble an effective next-generation delivery platform, GMI2006 was designed 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.

Five of the world's top carriers – BT, KT, NTT, Verizon and Vodafone and a world class test facility UNH-IOL – hosted the event to provide world-class networked test facilities spanning three continents. Comprising a massive 'real network' trial of the MSF IMS-compatible (IP Multimedia System) Release 3 architecture, this event was critically important to any carrier or vendor committed to building or implementing infrastructure elements compatible with IMS.

About the MSF:

The MultiService Forum is a global association of service providers and system suppliers committed to developing and promoting open architecture, multi-service networks. 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/.