F5 – Technical Session I: Wireless and Wireline Convergence

End-to-end QoS in IMS Enabled Next Generation Networks

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ABSTRACT

It is widely acknowledged that the convergence is the way to evolve the existing wireline and wireless networks towards Next Generation Networks. IP Multimedia Subsystem (IMS) stemming from the Third Generation Partnership Project (3GPP) is presently deemed as being instrumental to support wireline and wireless convergence (also referred to as Fixed Mobile Convergence (FMC)). However, even though the notion of IMS is access agnostic, lots of open issues still need to be investigated for integrating various access technologies into IMS framework, one of significant concern is the framework and mechanisms to support end-to-end QoS in the IMS and NGNs.

This talk will discuss the challenges and requirements of resource and admission control for supporting end-to-end QoS in the converged NGNs. It will address the architecture and key mechanisms to perform policy control, call admission control and resource management etc in IMS enabled NGNs over various wireless and wireline access networks, e.g. UMTS/CDMA, DSL and cable network etc. Finally the related IMS/NGN standard activities in ITU-T, TISPAN and 3GPP will be introduced.

BIOGRAPHY

Dr. Dong Sun is a Member of Technical Staff in Networking Technologies and Performance Department at Bell Labs, Lucent Technologies in Holmdel, New Jersey. He holds a B.S. degree from the University of Electronic Science and Technology of China, an M.S. degree from Communications Telemetry and Telecontrol Research Institute, China, and a Ph. D. degree from Stevens Institute of Technology in Hoboken, New Jersey, all in electrical engineering. His current work focuses on network architecture, solutions and QoS etc aspects in the IMS/NGN, VoIP technology, ATM and IP/MPLS data network planning, design and optimization, and 3G wireless network architecture, modeling and cost analysis. His research interests include all aspects of wireline and wireless architecture, service and network convergence, and network design, optimization, and engineering. He is a senior member of the IEEE.