System building blocks enable the next wave of mobile phone personalization

By Norman Tyrrell

Since the birth of the consumer market for wireless communications, subscribers have wanted to express their individuality through their choice of wireless devices and services. The ability to choose personal handsets, ringtones, MMS services, and other items has provided towards this sense of individuality. The latest form of personal expression for wireless users is customized ringback tones.

Mobile operators worldwide are deploying customized ringback tone services. These services let subscribers select original recordings of popular music, sounds, and celebrity voices for callers to hear in place of the conventional ringback (ring...ring...) tone. NMS Communications is providing the system building blocks that are enabling carriers to market and build revenue with customized ringback tones. NMS' CompactPCI platforms provide a key foundation for services deployed by SK Telecom and China Mobile, for example, often with the help of application providers such as WiseSpot.

How it works

Ringback tone subscribers usually pay a small monthly fee for a limited selection of ringback tones, and additional fees to select from thousands of commercial sounds, voices, or melodies that reside on the carrier's network. They can choose tones for individual contacts, one tone for their spouse to hear, another for their boss, and so forth. They can even choose one tone for daytime and another for the evening. The ringback tone service has achieved

significant market adoption in a short period of time, with one carrier signing up more than a half million subscribers during the first month of service.

A service as complex, customercentric, and rapidly growing as ringback tones requires an infrastructure that is scalable, flexible, and operates flawlessly in today's heterogeneous network. Carriers have been able to achieve the level of performance and reliability necessary for ringback tone service by building on NMS' proven CompactPCI platforms, including the AG 4000, CG 6100, CG 6500, and TX 3220.

For developers of high-performance telecommunications systems, the Alliance Generation 4000 Series

...more than a half million subscribers during the first month of service... (AG 4000) is available. This proven and versatile family of Digital Signal Processing (DSP) and digital Public Switched Telephone Network (PSTN) interfaces are available both for PCI and CompactPCI platforms.

The Convergence Generation 6100 and 6500 Series (CG 6100C and CG 6500C) are carrier-grade CompactPCI platforms targeted at IP network deployments where scalability and reliability are



APPLICATION FEATURE: WIRELESS

absolute requirements. The CG 6100 series provides high-density digital trunk interfaces combined with DSP resources for signaling and echo cancellation on a CompactPCI board set (main board and rear transition board). The high-density of trunks saves valuable CompactPCI slots in the large, high-availability environments of service providers and carrier-class system applications such as media servers, switches, wireless infrastructures, and enhanced services platforms. The CG 6500 series' combination of up to 16 T1/E1 PSTN trunks with high-density DSP voice processing power and built-in IP capability provides even greater power for applications ranging from media servers and enhanced communications service platforms to IP gateways.

The TX 3220 provides a powerful hardware and software environment for a variety of Signaling System Number 7 (SS7) applications, including Voice over Internet Protocol (VoIP) gateway applications, wireless infrastructure, and a wide variety of Enhanced Services, including voice and fax messaging, one-number/follow-me, and pre-paid services.

What makes it work?

Using the power and versatility of NMS' complete line of CompactPCI system building blocks, application developers like WiseSpot are able to create service platforms that give telecom

operators the ability to offer network-based, handset- and deviceindependent services. Combined with a development environment that provides consistency across all operating systems, NMS will continue to reduce development time and cost, and decrease time to market for new waves of innovative solutions.



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