The rapid growth of Short Message Service (SMS) in the late 1990s caught mobile operators by surprise. MTN South Africa (MTNSA) suddenly found its traditional SMSC, which featured the standard store-and-forward architecture of that era, inadequate for the explosive increase in SMS volume it was experiencing along with customer expectations that messages would be delivered quickly.

**MTNSA Chooses Attempted Immediate Delivery over Store-and-Forward**

Instead of “throwing hardware” at the SMS delivery problem, MTNSA made a smart decision and decided to supplement its vendor solution with custom-developed components from Pharos Avantgard. To speed up delivery time and free resources on the SMSC, MTNSA implemented a First Delivery Attempt system called Pharos Avantgard’s Early Delivery Intercept Platform (EDIP). The EDIP intercepted incoming Mobile Originated (MO) SMS messages and attempted immediate delivery rather than using the traditional store-and-forward method. Any failed delivery attempts were passed on to the SMSC for normal store and forward.

**New System Handles More Than 80% of MO SMS Traffic**

The results of using the new EDIP system were impressive. “The EDIP successfully delivered more than 80% of our MO SMS traffic,” reports Yusuf Kaka, Manager of VAS Messaging and SE Service Delivery at MTNSA. “This excellent performance took much of the load off our struggling SMSC, and revenue increased 30% as a result of its reliability and robust traffic handling. We experienced faster than average delivery times, while reducing SMSC licensing fees and eliminating the need to make substantial investments in an increased hardware footprint. Although First Delivery Attempt has since become a standard feature on many SMSCs, we were years ahead of the competition thanks to Pharos Avantgard’s EDIP.”

**High Capacity and Reliability Delivered with Ease**

Because of its success with Pharos Avantgard technology, MTNSA decided to purchase another custom component, the Messaging Service Platform (MSP), to replace its aging SMSC. “The combination of EDIP and MSP has successfully served as our SMSC for the last 5 years,” according to Kaka, “delivering all the capacity and reliability we needed with zero downtime and an average delivery of less than seven seconds.” Recently MTNSA has added an application suite, which includes functions such as variable traffic services, fraud detection, user group, and advertising management. Now called the Pharos Avantgard SMS System V, this high-volume SMS solution is built on Dialogic® Distributed Signaling Interface Components, including high-density signaling boards and signaling stacks.

**SMS System V Handles More Than 50 Million Messages Per Day**

Today MTNSA is the second largest mobile network operator in South Africa with a subscriber base of approximately 20 million in 2011. “We handle 50 million messages per day now, with more than 1600 requests per second during peak hours with SMS System V,” says Kaka. “We are also basing a lot of our product offerings on System V, including our Callback/CallMe service, which we first introduced in 2002, anti-spoofing detection for MO SMS, and our MTN Zone for SMS, which provides location and utilization based billing. We’ve lowered our operational costs while increasing revenue.”
About Pharos Avantgard

Pharos Avantgard is a specialist telco-grade telecommunications software company that is in the business of optimizing service provider capabilities, capacity, and efficiencies, which, in turn, allows its clients to improve their customers’ experience and, ultimately, satisfaction. Pharos Avantgard’s software solutions span ready-for-market offerings as well as tailored services that are designed to complement existing infrastructure, deliver real-time efficiencies, and enhance the clients’ ability to generate revenue. More than ten years in the industry and satisfied multinational clients are testament to the efficacy of Pharos Avantgard’s solutions and practices.

Pharos Avantgard SMS System V is a high volume SMS solution for person-to-person (P2P), application-to-person (A2P) and person-to-application (P2A) short message service with integrated support for subscriber billing.

For more information, visit www.pharos-avantgard.com.

About Dialogic Inc.

Dialogic develops products and technologies that enable reliable, seamless, and efficient communications across countless devices on any network. Dialogic streamlines the delivery of high-demand mobile, VoIP, and traditional services. Dialogic also focuses on any-to-any connectivity and IP-enabling its traditional media products to smooth the move from TDM to an all-IP environment.

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