

Digital Migration

Background

The growth of mobile and M2M communications continues at a staggering pace. Gartner predicts that: “By 2007, there will be between 100 million and 160 million machine-to-machine connections worldwide that use wireless mobile phone networks.” Forrester believes that: “Invisible mobile (mobile communication without human intervention) sessions will outnumber mobile sessions by a factor of more than 30 to one in 2020.”

This growth, coupled with the business and technological developments in the cellular industry, has motivated cellular carriers to adopt new digital strategies. The cellular carriers are migrating their existing analog customers to new digital networks, CDMA, TDMA and GSM operating in two different frequency bands, 800MHz and 1.9 GHz.

As cellular carriers convert their analog service markets to their digital solution of choice, they are guided by the 2003 FCC ruling that requires carriers to maintain a sufficient level and quality of AMPS (analog) service in their coverage areas until February 18, 2008. While industry experts believe that AMPS will likely remain available well beyond this date, its ubiquitous availability is likely to decline in some metropolitan areas of the US after February 2008.

Numerex, the leader in wireless M2M telemetry solutions, has historically offered a variety of both fixed and mobile wireless solutions that utilize AMPS on our patented Cellemetry Network. The Cellemetry Network provides seamless, nearly ubiquitous AMPS coverage in over 99.5% of the United States cellular areas and 100% of the cellular service areas in Canada and Mexico. The Cellemetry Network is the dominant, M2M network solution provider in the US. We have accomplished this by partnering with over forty domestic and international cellular carriers.

Our current M2M applications and products are based on AMPS radios from a variety of industry leading manufacturers. These radios are the core of each product. Each day our units transmit over 500,000 customer messages across the control channel of the existing AMPS cellular network to our Cellemetry gateway.

The Numerex Position

Numerex has always focused on providing our customers with industry benchmark solutions that go well beyond control channel transport of machine messages. From comprehensive network management and quality of service to an M2M industry-leading array of wireless, analog, digital, IP and Internet solutions, Numerex has led the way. And now, with digital network migration well under way, it is more important than ever to provide the market and our customers with a clear migration path from legacy analog networks and services to the new digital networks and IP platforms. Our new back-end IP delivery and web management tools are clear examples of how we are again leading the way in the industry.

Maintaining our ubiquitous and redundant network coverage, continuing to develop industry leading applications and partnering with the best-in-class solution providers are key customer advantages on the Cellemetry Network today and important markers in our digital migration strategy for tomorrow.



Digital Strategy

Prudent integration of new digital and web technology into the Numerex wireless businesses is an active and continuing process and the company is committed to taking full advantage of such new technology whenever and where-ever it makes sense for our customers.

The Cellemetry Gateway currently supports both TDMA and CDMA switch technologies. It is our opinion that the CDMA protocol will continue to expand domestically, and Numerex is finalizing efforts on the integration of a Cellemetry digital CDMA radio into our products. These Cellemetry digital radios will operate on both the CDMA and AMPS networks to ensure continued ubiquitous, reliable coverage along with legacy protection.

Digital Cellemetry will also offer a wireless solution by combining existing analog and digital technologies into multi-mode/multi-band radios, allowing for maximum coverage and obsolescence protection. Digital Cellemetry offers the potential of symmetrical data payloads with more data per transmission than AMPS. This added feature will allow for faster and expanded end unit control. This strategy will also provide our customers a high level of flexibility for deployment not restricted by location or application. Numerex offers this choice in a logical, flexible, and cost-effective migration plan that maintains our current functionality, protects ours and our customers' investment, embraces the technology evolution, and provides a rich new array of wireless solutions. Initial units for testing are targeted for delivery in Q'2, 2005 with commercial release of Cellemetry digital products proposed for Q'2, 2005.

In parallel with our CDMA development initiative Numerex is sharply focused on providing a multi-protocol SMS offering that provides even wider bandwidth payloads. This SMS Telemetry functionality opens up new markets for those applications requiring larger telemetry bandwidth. Other major advantages of this supplemental offering are that unlike other data transport methods, Numerex's SMS implementation operates seamlessly across all of the new technologies (CDMA, TDMA and GSM). Development of SMS capability via GSM is already underway and targeted for testing in Q'2 2005

The Numerex wireless M2M business has focused on network and application technologies that have a proven record of coverage and performance as well as a clear migration path to future offerings. We believe that our proprietary and patent-pending digital and SMS solutions, coupled with current and future digital cellular, IP and web technologies, will continue to provide the M2M market with a vibrant suite of Numerex M2M solutions for the future.