

# ANTENNA

## SYSTEMS & TECHNOLOGY

### Advanced Antenna Technology Helps Nortel Complete Industry's First Call Over Ultra Mobile Broadband Network

Nortel has achieved the industry's first live call over an Ultra Mobile Broadband (UMB) network delivering high-definition video and VoIP. With this demonstration, Nortel is the first in the industry to complete live calls using MIMO advanced antenna technology in each of the major 4G technologies - WiMAX, Long Term Evolution (LTE) and UMB.

The UMB call demonstrates Nortel's ability to deliver a personal wireless broadband experience anywhere, anytime over 4G networks with high-quality services such as video-conferencing, live video-streaming and VoIP. Using Nortel's IP Multimedia Subsystem (IMS) and UMB technologies, crisp and clear voice conversations can be delivered with other high bandwidth applications running simultaneously on the network. Voice calls can also be maintained across multiple networks, meaning users can roam from UMB coverage to 2G without interruptions in their conversations using Nortel's VoiceCall Continuity (VCC) based handover.

Nortel's development of 4G technologies is progressing with great momentum as we continually add new achievements in WiMAX, UMB, IMS and LTE to our long history of innovation, said Richard Lowe, president, Carrier Networks, Nortel. With the emerging consumer demand for highly mobile broadband devices, we're focused on preparing our cus-

tomers for a hyperconnected world. Whether they are moving at a measured pace to evolve their legacy network, or stepping boldly on stage with a disruptive 4G vision, Nortel has the solutions, services, and partners in place to help them succeed.

Nortel's 4G strategy is anchored by innovations in two key access technologies (OFDM and MIMO), and the development of an all IP core technology (IMS, OFDM and MIMO) are the underlying technologies for WiMAX, LTE and UMB. Nortel has dedicated more than eight years to developing these technologies and holds intellectual property rights in OFDM and MIMO application in 4G.

MIMO is an advanced antenna technology that uses the OFDM modulation technique to carry heavy traffic across a wireless network even in surroundings where there are physical obstacles barring the way of the wireless signal, such as the clusters of tall buildings or mountainous terrain. These technologies can deliver fixed and mobile broadband services with minimal infrastructure.

[www.Nortel.com](http://www.Nortel.com)