



# COMPUTERWORLD

## WiMax's struggle with in-building wireless is a boon to MobileAccess

*Companies find more uses for WiMax, but indoor transmissions may be trouble spots*

October 3, 2008  
By Matt Hamblen

Even as WiMax promises faster average network speeds than other wireless networks, one company is banking on making money off one of WiMax's downsides: difficulty in penetrating the walls of large buildings.

Cathy Zatloukal, CEO of MobileAccess Networks in Vienna, Va., said WiMax wireless transmissions will have just as many, if not more, problems as other cellular signals in passing through walls and specially coated windows in large buildings, such as hospitals, hotels and factories.

That's good for MobileAccess, which has been filtering and amplifying cellular signals since 1998 for thousands of customers who need better indoor wireless connections, Zatloukal said.

In an interview at her booth at WiMax World here this week, Zatloukal said her company has already heard from businesses that would like to use WiMax for outdoor high-speed transmissions between building sites and want to know how they can boost signals indoors. MobileAccess, a partner of Sprint Nextel Corp., has worked with the wireless carrier to connect its amplification and filtering gear to Sprint's cellular base stations inside of buildings.

Inside a building, probably in the basement, MobileAccess would connect a controller box to a WiMax base station, sending data from there over a fiber-optic cable to various switches throughout the building. In each switching closet, often located on every floor, the fiber would connect to a MobileAccess hub, where the WiMax signal would be carried over coaxial cable to special antennas in the ceilings.

A prime candidate for WiMax inside a business is video surveillance of parking lots, hallways and rooms. High-quality video surveillance may require 4Mbit/sec. uplink transmission speeds, which WiMax can support, Zatloukal said. But once inside, that wireless signal could be degraded as it passes through concrete walls or the metal coating on windows used to reflect away sunlight in hot climates. With the amplification that MobileAccess provides, the surveillance data over WiMax could make its way to a

security command center and could be forwarded to a security guard in another part of the facility, she said.

Machine-to-machine commands over wireless will also be a prime candidate for WiMax, as builders seek ways to control heating and cooling and other systems.

“We see a growing market,” Zatloukal said, noting that ABI Research Inc. has estimated that in-building amplification of wireless could be a \$15 billion market in five years. ABI said MobileAccess competes with ADC Telecommunications Inc. in Minneapolis; InnerWireless Inc. in Richardson, Texas; and CommScope Inc. in Hickory, N.C.