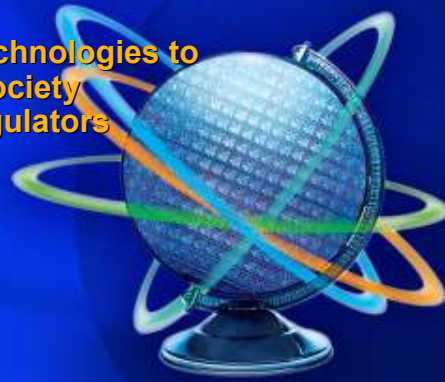


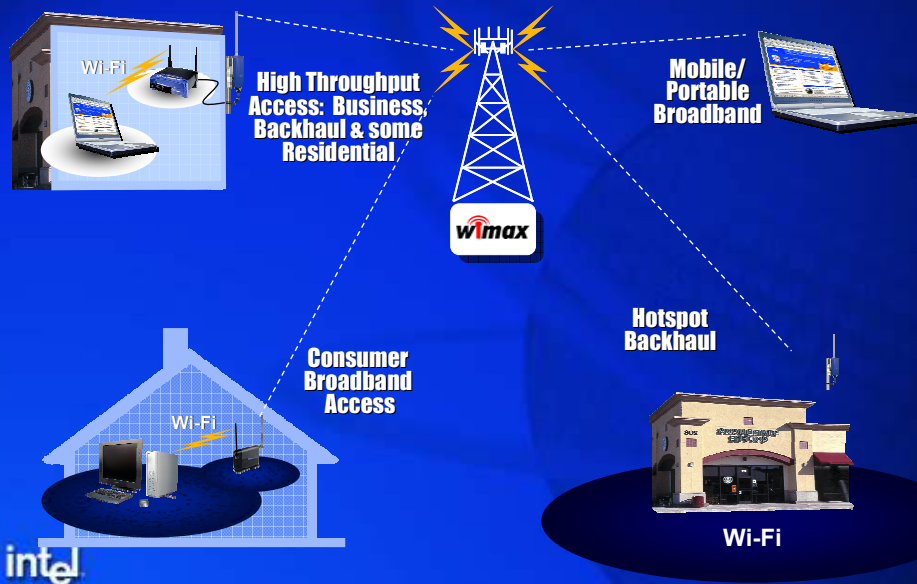
WiMAX & Developing Countries

Harnessing Broadband Technologies to Achieve the Information Society
Global Symposium for Regulators
Session I
November 13, 2005

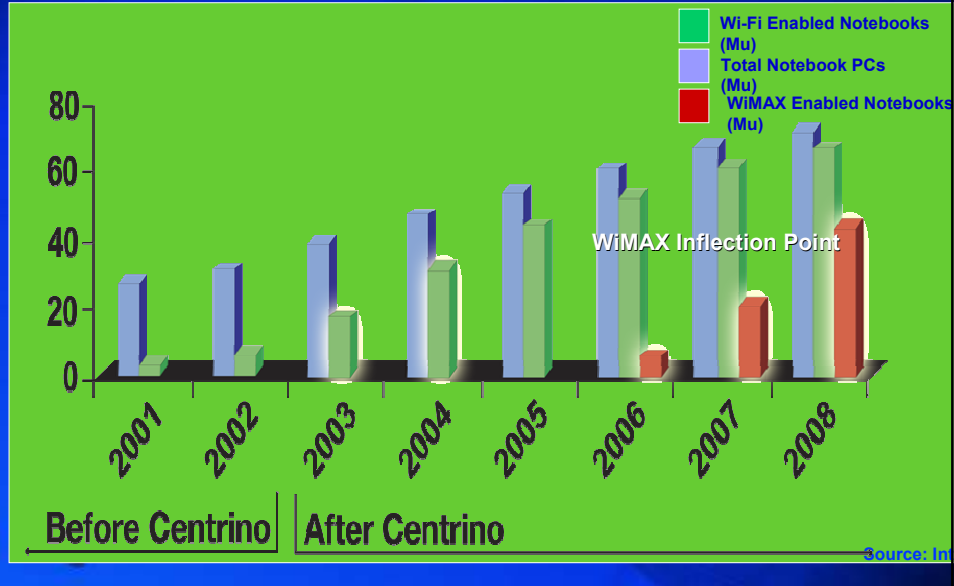
Peter Pitsch
Director, Communications Policy
Intel



Intel WiMAX Vision



Integration Drives Adoption



WiMAX - Disruptive Potential

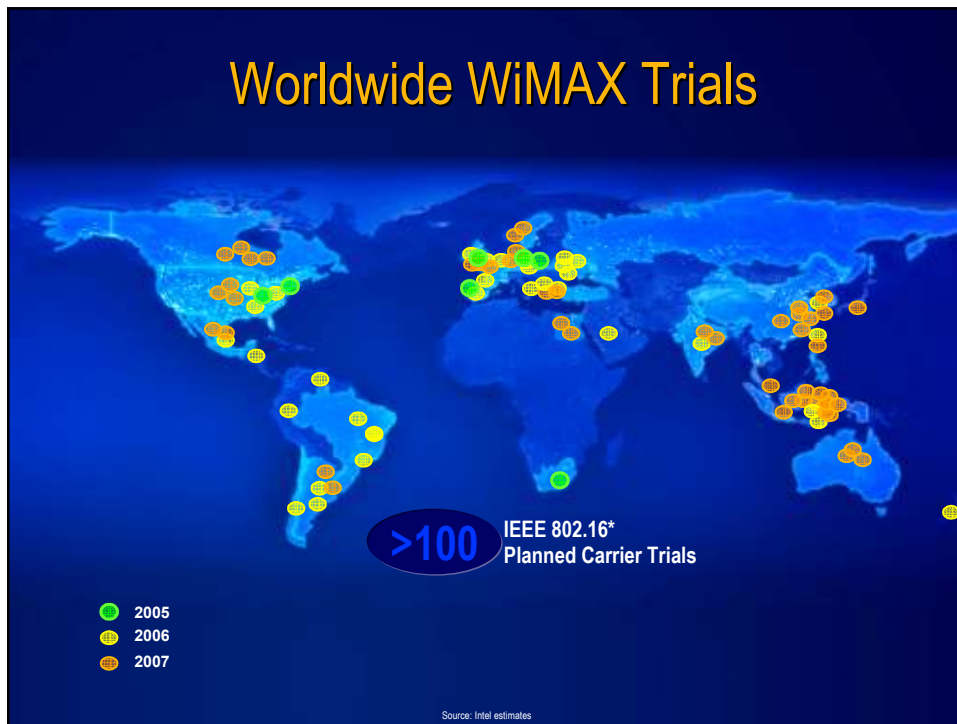


- Low CapEx
 - Open Standards
 - Less concentrated IPR
- Lower Operating Expense
 - All IP Network
 - WiMAX Backhaul
- Customer Acquisition
 - WiFi-like Distribution
- OFDM Performance

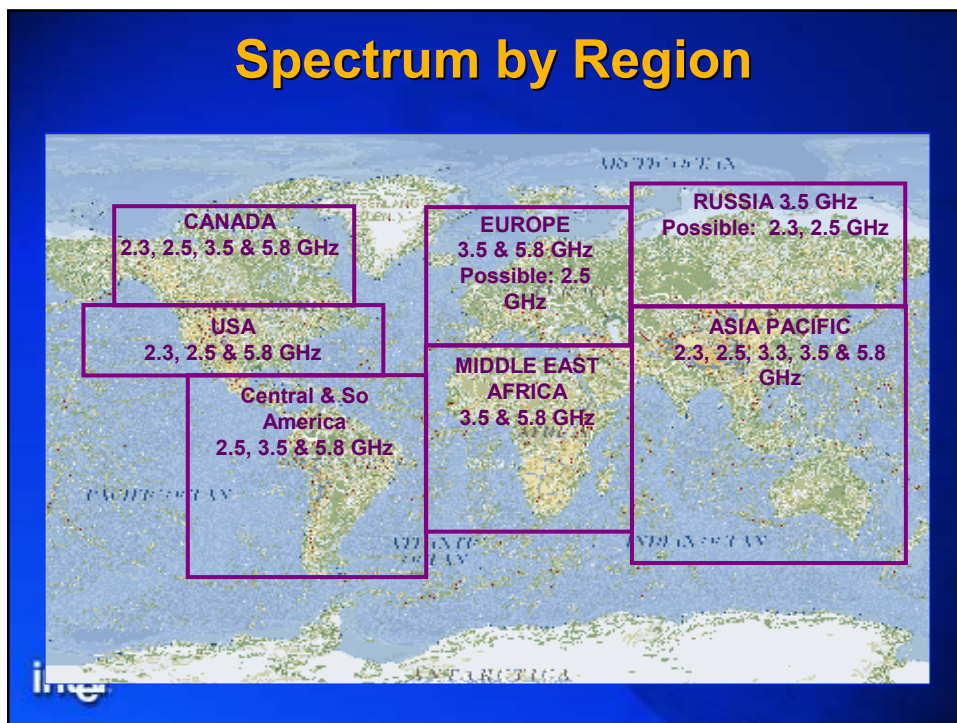
Technology	Effective Data Rate (combined uplink & downlink)
1X-EVDO (Rev A) 2.5 MHz	1.5 Mbps (shared)
HSUPA 10 MHz	4 Mbps (shared)
WiMAX (2x2 MIMO) 10 MHz	20 Mbps (shared)

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Worldwide WiMAX Trials



Spectrum by Region



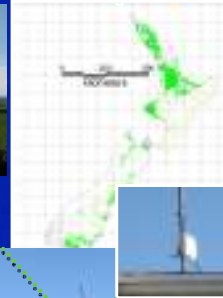
BCL, New Zealand

- Broadcast Communications Limited (BCL) Wholesale Wireless Access Network.
- Nationwide deployment from 74 Base Stations Sites
- Network designed for 30,000 connections initially;
 - Expansion to 100,000 planned.
- Network covers around 100,000 sq km
- 5.8 GHz spectrum
- Providing High Speed links – longest distance of 50 km!
- Data & Voice
 - Each CPE delivers 2Mbit/s Asymmetric DSL
 - Up to four 64 kbps TDM voice lines
- Courtesy of Airspan Networks, 2004

Base Station



Wireless DSL Coverage



Range: 50 km



CPE

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Call To Action for Regulators

- 3.5 GHz Band – fixed & nomadic services
 - Explicitly allow Nomadic use in Fixed Wireless spectrum to support indoor modems and laptops
 - Larger block sizes for new allocations
 - Access to 3.3-3.4 & 3.6-3.8 GHz bands where 3.4-3.6 GHz has limited availability
- 2.5 GHz Band – mobile services
 - Technologies – such as 802.16 -- which fulfill the services model and adhere to the regulation should be allowed
- 5.8 GHz Band – fixed outdoor for Wireless ISPs
 - Power output @ 4W EIRP (or 200 mW/MHz)
 - Greater access across Europe in a reasonable timeframe
- <1 GHz Band-
 - Work to re-claim spectrum from digital transition
 - Highly desirable for developing nations

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Adopt Technology Neutrality - Support at ITU WP8F

Suburban

