Wireless Services and the Future of WiMax

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Agenda

- Myths, perceptions and pure conjecture
- WiMAX impact on broadband strategies
- The broader roadmap of mobility
- The opportunity in revenue, services and applications
- Future state, enterprise and consumer markets

"Telwares continues to provide industry leading service to its customers and is a benchmark of quality in the industry." – Gartner 4Q2006

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Myths and Perceptions

Education outside of the "inner circle" is critical to WiMAX success. Select anecdotal evidence from the enterprise realm clearly supports this notion...

- "Isn't this just faster / better / cheaper Wi-Fi?"
- "WiMAX is a replacement technology."
- "They'll never get the governance model in place"
- "This is just a Sprint thing, right?"
- "WiMAX is years and years away..."
- "There won't be any equipment to support it..."

The relative amount of misinformation is comparable to the days of cutting from analog to digital cellular.

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WiMAX Impact on Broadband Strategies

The capability to impact the personal experience, and the capacity to drive the required experience.

- Personal gains in capability, services, applications – consumers tend to be agnostic
- Provider gains in efficiency, cost of delivery and new revenue opportunity
  - Gaming, content, security, intelligent home, SOHO

Figure 2. Wi-Fi, WiMAX, 3G and 2G coverage. Source: WiMAX Forum

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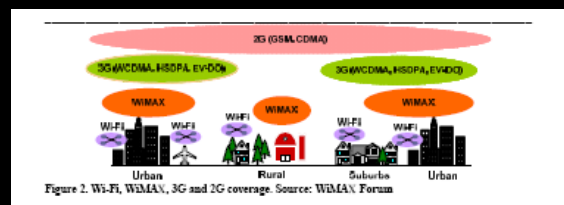
WiMAX in the Broader Roadmap

Carrier	Technology	Generation	2005	2006	2007	2008	2009	2010
ATT / CINGULAR	TDMA	1.75G	RAMP DOWN					
	GSM / GPRS	2.5G		DEPLOY				
	EDGE	2.75G		DEPLOY				
	UMTS	3G	TRIALS					
	HSDPA	3.5G	TRIALS					
VERIZON WIRELESS	CDMA 1xRTT	2.5G						
	EV-DO	3G						
	EV-DO Rev. A	3G	UNAVAILABLE					
SPRINT	CDMA 1xRTT	2.5G						
	EV-DO	3G	BUILD OUT					
	EV-DO Rev. A	3G	UNAVAILABLE					
	Wi-MAX	4G						
T-MOBILE	GSM / GPRS	2.5G	RAMP DOWN					
	EDGE	2.75G		DEP				
	Wi-Fi			DEP				
	UMTS	3G	AVAILABLE					
	HSDPA	3.5G	UNAVAILABLE					

WiMAX Buildout

- Complimentary, not replacement
- Dual purpose similar to others
- Capability is major difference
- Market consolidator

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The Enterprise Market Opportunity

Cost→   ←Merger and financial efficiency
Business Complexity→   ←Bundling and cross contributory agreements
Disparate Strategies→   ←Technical diversity

↓

- Pricing concession
- Contractual dynamics
- Usage versus expenditure
- Creating tactical and strategic leverage
- Changing the management dynamic
- Refocus on the business environment
- Long term mapping and short term due diligence
- Process and technology normalization
- Meaningful technology relationships

Opportunity Realization

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Opportunities in Revenue, Services, Applications

Spectrum of Opportunity

RAPID RETURN
MARKET
IPTV
VOIP
SMART HOME

MOBILITY
VOIP
BACKHAUL
MUNI
DATA CENTER
WHOLESALE
TELEMETRY

LEC
FTTH
CABLE
DSL
SATELLITE
BPL

INCUMBENT
LEGACY
SECURITY
INTERNALS
CULTURE
READINESS

Spectrum of Complexity

The Future State

The market and industry have been patient in acquiring technology that lends a credible efficiency and quality to service...

- WiMAX does not diminish existing technology or the roadmap that exists

- Capability is the big differentiator, and that will resonate throughout enterprise and consumer

- IP enablement in a broader sense is possible – over greater distances, for less money

- Telemetry takes on a whole new meaning

- Location services, personal automation

- Beware of the pushback – change management in terms of culture and politics

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Wireless Services and the Future of WiMax

THANK YOU!

Michael Voellinger
201.888.1925 (p)
201.336.9108 (f)
mvoellinger@telwares.com

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