37th Annual PURC Conference

Carl Povelites
AVP – Public Policy, Mobility
The Changing Face of Wireless

Penetration nearing **100% in the U.S.**

*270+ million U.S. wireless customers EOY 2008*

Hyper Competition + Massive Growth = Innovation

Huge Value – M2M, N/W, LD, Rollover, etc.

Source: CTIA
MOU vs. Revenue Per Minute

Source: FCC 13th CMRS Report

© 2008 AT&T Knowledge Ventures. All rights reserved.
U.S. – Lower rates than OECD

Source: Bank of America / Merrill Lynch Global Wireless Matrix4
U.S. Subscriber Use Wireless More

The US has more than three times the MOUs of the highest ranked European country -- and nearly double the MOUs of the next highest ranked OECD country listed.

Source: Bank of America / Merrill Lynch Global Wireless Matrix
Wireless Data Growth at AT&T

4932% growth over 12 quarters
What got us here faster than expected?

The Game Changer
THE iPhone

- Raised the bar for the entire industry – Changed forever!
- App Store
  2 Billion+ Downloads
- Showed us what is possible
- iPhone 3G - Fastest Growing Smartphone of all time
Proliferation of App Stores
Emerging Devices - The Opportunity

To wirelessly enable “everything” …

The Definition of Emerging Devices:

Take out the traditional handset & SmartPhone …
Any other device you can stick a SIM card in...
Connect to the web or to other devices....
And create value by adding mobility.
Opportunity: New Generation of Connected Devices

Netbooks & MIDs
- Mini Computing
- Customer Experience
- Instant On/All Day Battery

PNDs
- Real Time Traffic
- Points of Interest
- Web Search

Cameras
- Backup Photos to Internet
- Limitless Memory Card
- Send Photos to Digital Photo Frame

Picture Frame
- Push photos to Grandma
- No setup required
- Sync with Digital Camera

eReader
- Simple out of the box experience
- Subscription Opportunities/Rev

Media Player
- Movie Player
- Photos
- Music

Monitoring/Tracking
- Medical Applications
- Security
- Home/Business monitoring
- Child Track/Find Fido

Cars and Telematics
- Diagnostics & Safety
- Real Time Traffic
- Web Content
- Rear Entertainment

Gaming Devices
- Multiplayer Games
- Game Downloads
- Social Networking
- Browsing

AT&T Network
- Hotspots
- GSM/HSPA
- HSI
- International

AT&T Network Hotspots
- International

Netbooks & MIDs
- Mini Computing
- Customer Experience
- Instant On/All Day Battery

PNDs
- Real Time Traffic
- Points of Interest
- Web Search

Cameras
- Backup Photos to Internet
- Limitless Memory Card
- Send Photos to Digital Photo Frame

Picture Frame
- Push photos to Grandma
- No setup required
- Sync with Digital Camera

eReader
- Simple out of the box experience
- Subscription Opportunities/Rev

Media Player
- Movie Player
- Photos
- Music

Monitoring/Tracking
- Medical Applications
- Security
- Home/Business monitoring
- Child Track/Find Fido

Cars and Telematics
- Diagnostics & Safety
- Real Time Traffic
- Web Content
- Rear Entertainment

Gaming Devices
- Multiplayer Games
- Game Downloads
- Social Networking
- Browsing

© 2008 AT&T Knowledge Ventures. All rights reserved.
Spectrum Implications

The Federal Government has recognized that more spectrum is needed...in the words of FCC Chairman Genachowski

“I believe that that the biggest threat to the future of mobile in America is the looming spectrum crisis. “

In addition to the CMRS industry, others are seeking additional spectrum

- Public Safety
- Utilities
- Unlicensed and White Space

And, of course, those who have spectrum want to keep it
What’s on the table

700 MHz D Block – paired 2 x 5 MHz (10 MHz) block adjacent to Public safety’s 700 MHz 2 x 5 MHz (10 MHz) broadband block.

AWS 3 – an unpaired 20 MHz block (2155-2175 MHz) adjacent to AWS 1

AWS 2 – Two 2 x 5 MHz (10 MHz) blocks
  • H Block – adjacent to Sprint’s nationwide PCS G block.
  • J Block – an orphan 2 x 5 MHz block

Other Suggestions by some parties
  • TV Broadcast Spectrum
  • Government Spectrum
  • MSS, SDARS, 3.4 GHz
Spectrum Allocation Principles

Large Band Size to accommodate multiple competitors

Large Block Size for the provision of wireless broadband – 2 x 10 MHz blocks minimum

Contiguous Blocks provides for efficiencies in RAN and devices

Internationally Harmonized to the greatest extent possible

Auctioned without restrictions
Other Activities Impacting Spectrum Policy

**Broadband Plan**
- Reallocation of additional spectrum
- Unlicensed use
- Service in rural areas

**Network Neutrality**
- Congestion and network management

**Competition and Innovation proceedings**
- Reallocation of additional spectrum
- Spectrum sharing (easements, overlays, underlays)
- Optimize efficient use

**Spectrum Inventory Bills in Congress**
Connect people to their world, everywhere they live and work, and do it better than anyone else.