

OVERVIEW OF KEY REGULATORY ISSUES

Presentation to

Chairman Julius Genachowski

CTIA – The Wireless Association®

October 2, 2009

CTIA Wireless Priorities – *FCC Action is Needed*

- **Tower Siting – Grant of CTIA’s “Shot Clock” Petition**
 - CTIA is asking for a tower siting policy which would establish a timeframe for zoning authorities to act on applications (45 days for collocation; 75 days for other facilities).
 - Currently, there is no timeframe. Of the 3,300 tower and antenna applications pending in the spring of 2008 for 7 wireless carriers, 760 were pending for more than one year. 180 were pending for more than three years. 135 of the 180 applications pending for more than three years are collocation applications where towers have already been approved.

- **Pole Attachments – Access for Wireless Attachments**

- **Focus on Interference Concerns**
 - Clearing of Auctioned 700 MHz Spectrum: Wireless Microphones
 - Repeaters

- **USF Reform – Repurpose to Match Consumer Demand for Mobile Broadband Services**

CTIA Wireless Priorities – *FCC Support is Needed*

- Access to additional licensed mobile spectrum – a crisis is brewing: the applications, speed, devices and other innovations of the wireless industry – all could be in jeopardy unless we get more spectrum.
 - CTIA is asking policymakers to pass S. 649 and H.R. 3125 – Radio Spectrum Inventory Act which would tell us who's using what spectrum and where there's available spectrum.
 - Beyond the spectrum inventory, CTIA has called on U.S. policymakers to identify and reallocate an additional 800 MHz of spectrum for licensed commercial wireless use. In addition, policymakers should pair and allocate readily-available spectrum in the 1755-1780 and 2155-2180 bands for licensed commercial use.
- Clearing of AWS Spectrum

Widespread Voice/Text/Data Usage

- U.S. is #1 for:
 - Lowest revenue per minute of OECD countries
 - Average revenue per minute is 60% lower than the average of the other 25 countries.
 - Average revenue per minute is nearly 65% lower than the average European country.
 - Most minutes of use (MOUs) – 830 MOUs per month in Q1 2009.
 - ~2x MOUs of the next highest ranked OECD country (Canada).
 - >3x MOUs of the highest ranked European country (France).
 - ~3x MOUs for the highest ranked Asian country (Korea).
 - Largest mobile data market.
 - More mobile Internet users than any other country.
 - Least concentrated market.
 - Largest number of diverse handsets.

Value of Voice/Text/Data

- 2008
 - >84% of handsets were Web-capable.
 - >89% of handsets were data-capable.
 - 1 trillion text messages were sent and received.
 - 2.2 trillion MOUs
 - 14.9 billion MMS were sent and received, up from 6.1 billion in 2007.
- Text messaging traffic grew 1,200% from 2005-2008.
- The FCC's Wireless Competition Report released in January 2009 found an average monthly Minutes of Use (MOUs) of 769 per subscriber, resulting in an average cost per minute of \$.06, down from \$.07 in 2007 and \$.10 in 2003. This is a significantly cheaper per minute price than Western Europe and Japan.

Consumer Satisfaction

- American Customer Satisfaction Index (ACSI) and Consumer Reports have noted that the wireless industry has high consumer satisfaction.
 - In 2008, 60% of the nearly 52,000 Consumer Reports readers said they were “completely or very satisfied with their service.” This was primarily a result of carriers:
 1. Increasing call quality.
 2. Reducing connectivity issues.
 3. Ending the policy to extend contract when subscribers make changes to their plans.
 4. Prorating Early Termination Fees (ETFs).
 - ACSI found a record high 69% of wireless users were satisfied in the first quarter of 2009.
- The four top carriers have policies that allow consumers to either bring or take their wireless device from carrier to carrier.

Consumer Satisfaction Cont'd

- More than 30 carriers, including the largest providers, have voluntarily adopted CTIA's "Consumer Code." This code mandates that carriers will:
 - Disclose Rates and Terms of Service to Consumers.
 - Make Available Maps Showing Where Service is Generally Available.
 - Provide Contract Terms to Customers and Confirm Changes in Service.
 - Allow a Trial Period for New Service.
 - Provide Specific Disclosure in Advertising.
 - Separately Identify Carrier Charges from Taxes on Billing Statements.
 - Provide Customers the Right to Terminate Service for Changes to Contract Terms.
 - Provide Ready Access to Customer Service.
 - Promptly Respond to Consumer Inquires and Complaints Received from Government Agencies.
 - Abide by Policies for Protection of Customer Privacy.

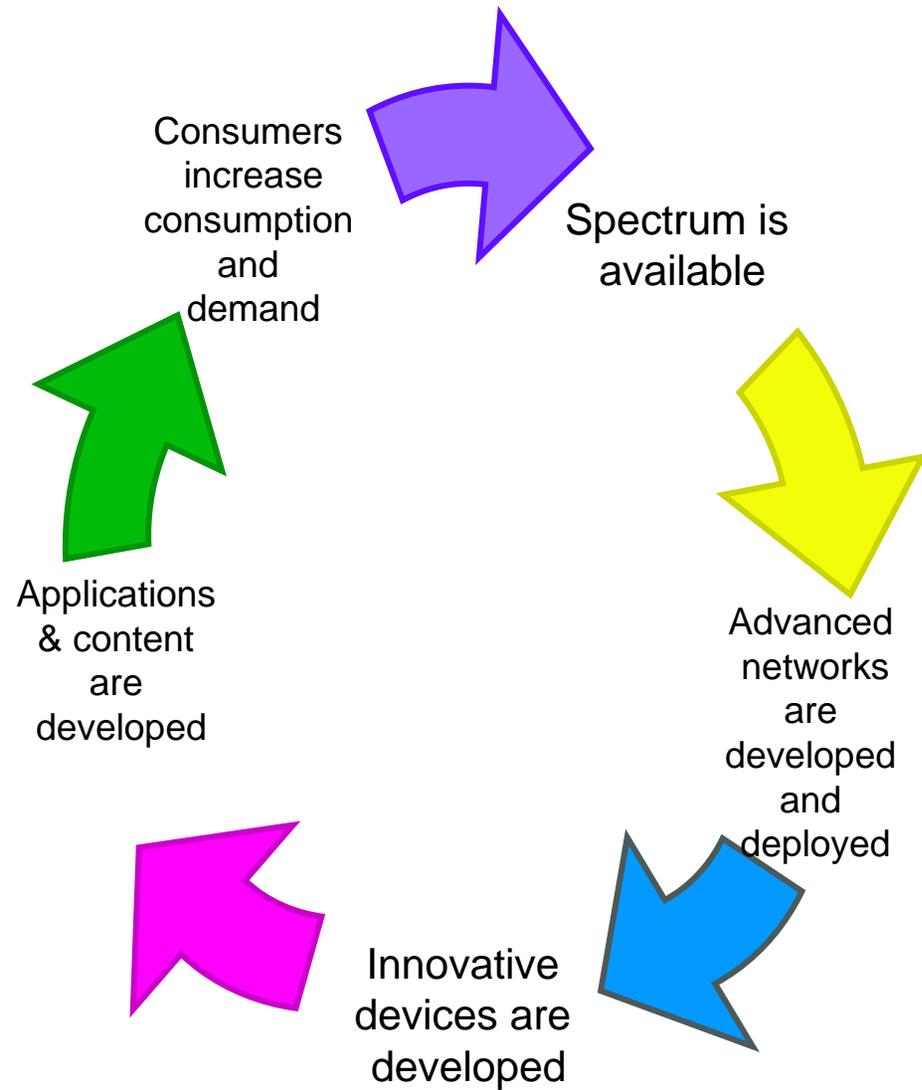
Infrastructure Investment

- Wireless economic contributions have grown faster (16%) than the rest of the economy (3%).
- Wireless capital expenditures totaled \$217 billion from 1998-2008 (not including the cost of spectrum) in improving infrastructure -- ranging from adding new cell towers to R&D.
- Carriers reported an average combined investment of \$22.8 billion per year from 2001-2008 to upgrade their networks.
- Wireless services provided \$100 billion in “value added” contributions to the U.S. GDP in 2007.
- Wireless carriers deployed 240,000 cell sites (as of Dec. 2008).

The Evolving Wireless Ecosystem

- Carriers
- Infrastructure Suppliers
- Device Manufacturers
- Operating System Providers
- Applications Developers

“Virtuous Cycle”



Innovation – Carriers

- Carriers
 - Over 150 licensees
- >95% of the U.S. population can choose from at least 3 competing carriers.
- >65% of the U.S. population can choose from 5 or more providers.
- The top four U.S. carriers represent 86% of the market, making it the most competitive market of the 26 OECD countries.
- In 23 of the 26 OECD countries the top four carriers own 100% of the market.
- U.S. has the lowest HHI (measurement of market concentration) of OECD markets.

Innovation – Infrastructure

- Battle for 3rd and 4th generation contracts.
 - Sprint / Ericsson Relationship
- High-Speed Packet Access (HSPA)
 - 3rd generation GSM technology.
 - #1 - AT&T
 - #12 – T-Mobile
 - U.S. = 32 million subscribers out of 131 million total.
 - Means U.S. had 23% of all HSPA subscribers in the world.
- Evolution-Data Optimized (EVDO)
 - 3rd generation CDMA technology.
 - Verizon Wireless, Sprint and other carriers.
 - U.S. = 63.1 million subscribers in Q1 2009 out of 106.78 million total.
 - Means U.S. had 59% of EVDO subscribers in the world.
- 4th Generation Development
 - LTE and WiMAX testing and deployment.

Innovation – Handsets

- 630 different handsets and devices are manufactured for the U.S. market
 - In UK, 147 handsets are available
- 32 companies manufacture devices for the U.S.
- Significant evolution in the last 3 years.
- New entrants: HTC, Apple, Dell, etc.
- 23% of wireless handsets sold in the U.S. in Q4 2008 were smartphones.
- Some of the most advanced handsets have been launched in the U.S. – Apple iPhone 3G, Apple iPhone 3GS, Google's G1, MyTouch, LG Voyager, Blackberry Storm, Blackberry Bold, Blackberry Pearl, Blackberry Curve 8900, Samsung Instinct and Palm Pre.

Innovation – Operating Systems

- > 9 wireless operating systems:
 - Android (Open Handset Alliance)
 - Blackberry OS (Research in Motion)
 - BREW (Qualcomm)
 - Java (Sun Microsystems)
 - LiMo (Open Source Linux for Mobile)
 - OS X iPhone (Apple)
 - Palm OS (Palm)
 - Symbian (Nokia)
 - WebOS (Palm)
 - Windows Mobile (Microsoft)

Innovation – Applications

- “App” stores
 - iTunes App Store first launched in July 2008
 - In 14 months, more than 100,000 applications are available from 6 stores on 6 different platforms. Platforms are:
 - Apple’s iTunes App Store
 - Google’s Android Market
 - Nokia’s Symbian Ovi
 - Palm’s PalmOS Software Store
 - Palm’s WebOS App Catalog
 - Research in Motion’s BlackBerry App World
 - Another app store (Windows Mobile Marketplace) is expected to open soon.