

# **CTIA Presentation on Net Neutrality**

Presented to

Commissioner Michael J. Copps

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# Wireless is Different

- Wireless is mobile.
- Wireless devices are intelligent and are integral parts of the wireless network.
- Wireless is a shared medium – users and service share the same network capacity.
- Wireless is limited by its last mile spectrum – both in terms of the spectrum available and the physical limits of its capacity.
- Congress, through the Telecommunications Act recognizes that wireless is different – Title III.

# Wireless Networks are Different

- Application of the Commission’s wireline-centric net neutrality rules to the wireless ecosystem is inappropriate.
- The Commission has consistently acknowledged that wireless networks are different and as such should recognize the unique aspects of wireless that argues against applying wireline net neutrality rules to a wireless world.
- The underlying network infrastructure, including spectrum, as well as the integration of customer equipment, make wireless significantly different from wired broadband networks:
  - **The capacity of a wireless cell site is shared between all users in that cell.** The wireless user must share the available bandwidth with other users in their vicinity.
  - **The capacity of a cell is shared between all services running over the network.** Wireless voice and data use share the finite capacity of the cell.
  - **Wireless providers cannot “build their way out” of spectrum constraints.** Unlike wired services that can add capacity through greater buildout, constraints on expansion of network capacity are a reality for spectrum-based services. In the absence of significant additional spectrum allocations, wireless networks must be managed to maximize the consumer benefit from their network provider.

# The Proposed Rules Ignore the Realities of Wireless Network Management

- Because of these differences, spectrum-based services such as mobile broadband require careful management of scarce network resources.
  - The harm that wireless carriers seek to prevent is not harm to an inanimate network, rather, **carriers manage networks to the benefit of consumers.**
  - **Close cooperation between the network core and the innovative devices that comprise its edges**, including reasonable network management methods, ensure a robust, high-quality consumer experience for all users and enable the innovative service wireless consumers enjoy.
  
- Without the ability to adapt, evolve, and respond to the changing wireless environment through reasonable network management, one consumer's intensive network use can harm all other users in their vicinity:
  - When one consumer's use demands an inordinate amount of capacity, all of the other consumers on that cell are negatively affected.
  - Absent broadband network management, **as few as 5% of users can monopolize cell capacity**, dictating the terms on which the remaining 95% of users get access to broadband.
  - We are aware of one example where the use of BitTorrent, unknown to the consumer, almost brought an entire cell site down.