

# Silicon Flatirons Center for Law, Technology and Entrepreneurship at the University of Colorado

## “Wireless Broadband: Markets Models and Spectrum”

Wolf Law Building, Wittemeyer Courtroom

Boulder, Colorado

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Conference Report

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The Silicon Flatirons Center held its first conference of the 2010 academic year on September 8<sup>th</sup> entitled “Wireless Broadband: Markets, Models and Spectrum.” This conference sought to examine some of the emerging issues in the wireless broadband marketplace, including an analysis of the opportunities for disruptive innovation, the nature of the changing business models, the issues associated with spectrum management and develop potential public policy responses.

Prior to the panel discussions, Silicon Flatirons’ Executive Director and former FCC Chief Engineer Dale Hatfield treated the conference participants to an hour-long tutorial on wireless broadband. Mr. Hatfield, a frequent speaker on spectrum policy and wireless issues, lectured on the technical mechanics of the broadband industry laying the foundation of telecommunications principles and set the pace for the three panel discussions that followed.

The first panel, “Disruptive Innovation and a Changing Technological Environment,” discussed the technological enablers and opportunities that will accompany wireless traffic growth including the major development and investment opportunities to be exploited, in wireless technology, wireless infrastructure and wireless services nationwide. The panelists for this discussion featured Dale Hatfield, Erwin Hudson, Chief Technical Officer of Wild Blue, Roger Marks, Vice President of Technology Standards from IEEE 802.16 Working Group and Mark McHenry, founder of Shared Spectrum Company, while Pierre de Vries, Senior Adjunct Fellow of Silicon Flatirons Center, served as the moderator. The panel’s focus was on the availability of spectrum and the rights that spectrum owners have in their allocated airwaves. Through their discussion, the panel seemed to come to a consensus that the increase in spectrum usage should make policy makers think more concretely about the technological implications that constrain their decisions and noted that exciting evolutions in communication technology will continue to develop and amaze.

“Changing Business Models and Emerging Opportunities” was the focus and title of the second panel. Moderated by Raymond Gifford, a partner of Wilkinson Barker Kauer LLP and former Chairman of the Colorado Public Utilities Commission, the panelists included Jeffrey Carlisle, Executive Vice President of LightSquared, Phil Kelley, Senior Vice President of Crown Caste International, Paul Mitchell, General Manager for Regulatory and Standards of Microsoft Inc. and Teresa Elder, President of Strategic Partnership and Wholesale of Clearwire. The panel tackled the issue of business implications of wireless demand and opportunities for new business models as well as their effects on current market trends. The resulting discussion from this panel analyzed the trend towards high valuation of end users and efficiency. Of particular note, one commentator suggested that the new broadband market would soon adjust to a model based on

the highest and best usage of spectrum instead of the current model based on ownership principles. Likewise, the panelists suggested that the current “platform wars” would become less about the nature of the platform itself, but more the platforms that enable end-users to condense their lives and data by allowing for less wired interactions. The panelists concluded their discussion by giving their prognostication of the telecommunications industry’s development that resulted in the commentators’ suggestion that there would be less thinking “silo-centric” market development and that customers would start to evaluate their wireless choices based on the network configurations than on available handsets.

The afternoon’s program concluded with the third panel entitled “Public Policy Implications.” Moderated by Associate Clinical Professor Brad Bernthal of the University of Colorado Law School and featured an animated panel consisting of Brett Glass, Founder and Chief Executive Officer of Lariat.net, Kathleen O’Brien Ham, Vice President of Federal Regulatory Affairs at T-Mobile, Joan Marsh, Vice President Federal Regulatory at AT&T, Jennifer Richter, Co-Chair of the Communications and Technology Practice at Patton Boggs LLP and Michael Senkowski, Partner and Chair of the Technology Practice at Wiley Rein LLP. Together the panelists addressed some of the issues related to the current state of regulatory aspects associated with wireless broadband including the National Broadband Plan.

A key item that the panel considered was the current inadequacies of current system’s allocation and usages. Ms. Marsh commented that one issue of concern is the fact that the current auction based system of spectrum allocation does not serve the public interest, “We can’t debate for a decade about how to structure an incentive auction or about how to repack the broadcast spectrum band to allow enough spectrum for the broadcasters to continue to provide their services.” Marsh’s suggestion to ameliorate this problem was a “shot clock” for spectrum implementation. Echoing on this point, Ms. O’Brien Ham added that in order to make better usage of the spectrum “you have to make some very hard choices like going after the broadcasters or the federal government.” However, even though all the panelists agreed that the current manner in which spectrum is allocated is need of reevaluation, the panelists did not agree about the timetable that should be used for redesigning the system.

For example in an exchange between Ms. Marsh and Mr. Glass, Mr. Glass expressed his long wish to own spectrum but noted that the FCC’s current system made that goal difficult to obtain because it emphasized the big market players with lobbyist in Washington who are allowed to sit on spectrum until moments before the implementation deadline. In contrast, Ms. Marsh noted that even though the current system is flawed it is still hard to predict what will constitute the best spectrum usage since companies continue to use unimplemented in their long-term business strategies.

Noting both these challenges, Mr. Senkowski best summed up the difficulties that the panelists were collectively expressing when he stated, “the real test is going to be when they [the FCC] have to make decisions about what the rules will be, as opposed to asking the questions.”