

6 June 2011

The Honorable Julius Genachowski  
Chairman, Federal Communications Commission; and  
The Honorable Commissioners Michael Copps, Robert McDowell,  
Mignon Clyburn, and Meredith Attwell Baker  
445 12th Street SW  
Washington, DC 20554

**SUBJECT:** Technical Advisory Council Chairman's Report dated April 22, 2011:  
Identifying important areas of innovation and recommendations.

Dear Mr. Chairman and Commissioners:

As President of an organization whose membership includes leaders in communications technology, I want to thank you for convening FCC's 5<sup>th</sup> Technical Advisory Council (TAC). Seeking advice and guidance from experts in these technologies provides the FCC with deeper meaning to its regulatory tasks and policy development.

Referring to the April 22, 2011 report issued by Tom Wheeler, TAC Chairman, we are pleased with the direction the group has taken in identifying topics for investigation. Specifically, items 4, 6, and 8 correlate well with positions that IEEE-USA has taken.

#### **Best Practices/Technology Outreach to State and Local Governments [#4]**

An IEEE-USA white paper on networks notes that "governments, corporations, municipalities and universities have by now built their own gigabit networks to serve their end users. A good example of a municipal initiative is the Utah Telecommunication Open Infrastructure Agency (UTOPIA) of 14 Utah cities, working with DynamicCity as consultants, to bring at least 100 Mb/s to homes and 1 Gb/s to businesses through fiber. They have obtained \$85 million initial financing through revenue bonds and are progressing rapidly in deployment (UTOPIA, 2005)."<sup>1</sup>

The white paper includes the following recommendations:

- Give municipalities that deploy gigabit networks broader access to such programs as the Rural Utility Service and the Universal Service Fund

- Ensure the greatest possible regulatory flexibility, to allow for unpredictable future service needs, market developments and technological innovation
- Reduce barriers to competition and deployment of user-owned networks, to facilitate continuing market restructuring in the public interest
- Eliminate anticompetitive legal and regulatory challenges to the deployment of end-user owned networks.

IEEE-USA's support for this TAC recommendation also includes a position that encourages competition among providers and suggests rescinding legislative and regulatory restrictions on deployment of end-user owned wired and wireless networks by municipalities and other communities.

### **New Metrics to Measure Broadband Network Quality [#6]**

As contained in the IEEE-USA position statement<sup>2</sup> and white paper<sup>3</sup>, we believe that performance measures constitute the basis of network traffic management. "Performance measures — in the form of metrics for bandwidth, packet loss, latency, jitter and availability — form the foundation for fair and transparent network traffic management." Further, we encourage benchmark testing of broadband performance.

### **Promote Small Cell Deployment [#8]**

IEEE-USA advocates initiatives to encourage broadband investment and use. In our 2009 position on broadband access<sup>4</sup>, we recommend that the FCC should designate ample licensed and unlicensed spectrum bands for high-speed wireless networks, ultimately aiming at access for all. In 2010, in a letter<sup>5</sup> to you supporting the National Broadband Plan, we suggest that opening up significant spectrum will be a key enabler for the exponentially expanding mobile market and the resulting economic opportunities. Small cell deployment greatly increases spectral efficiency in mobile network deployment.

We encourage you and the TAC to take early and lasting action on the TAC's recommendations.

IEEE-USA advances the public good and promotes the careers and public policy interests of 210,000 engineering, computing and technology professionals who are U.S. members of IEEE. For more information, please contact Deborah Rudolph at (202) 530-8332, or at [d.rudolph@ieee.org](mailto:d.rudolph@ieee.org).

Sincerely,



Ronald G. Jensen  
IEEE-USA President

cc: Tom Wheeler, Chairman, Technical Advisory Council

## References

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<http://www.ieeeusa.org/policy/whitepapers/IEEEUSAWP-Gigabit2005.pdf>
2. Network Traffic Management, IEEE-USA Position Statement (19 Nov. 2010):  
<http://ieeeusa.org/policy/positions/NetworkTrafficManagementNov10.pdf>
3. Network Traffic Management and the Evolving Internet, IEEE-USA White Paper (2 Nov. 2010)  
<http://ieeeusa.org/policy/whitepapers/IEEEUSAWP-NTM2010.pdf>
4. Nationwide High-Speed Broadband Data Services, IEEE-USA Position Statement (15 January 2009)  
<http://www.ieeeusa.org/policy/positions/broadband.pdf>
5. Letter to Chairman Genachowski, IEEE-USA (16 March 2010)  
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