

Converged Services and a New Generation of Networking

... your Comments please! ...

Dr. Bhumip Khasnabish
Distinguished Lecturer, IEEE Communications Society (ComSoc)

B.Khasnabish@IEEE.Org

IEEE India DLT, July 2010



Outline

- Research Topics in Converged Services and NGN
- New Generation of Revenue Models



Research Topics in Conv. Services & NGN

- Privacy and Security
- End-to-End Quality of Services
- Simplification and Uniform user Experience
- Ubiquitous Affordable Broadband
- Virtualization
 - Cross-Layer, Server, Storage, interface, etc.
- New Generation of Carrier Interconnectivity
- Rapid Development and Adaptivity/Agility to support Globalization
- Saving Capital and Expense Costs (Cloud-based systems and services)
- Awareness of the Environment



Revenue Models and Options

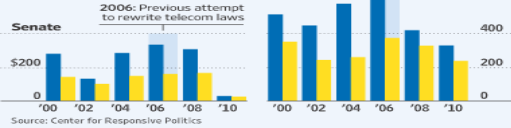
- **Why Traditional Revenue Models are Inadequate**
 - *Pressure to Support Grand-Separation for Pay-Per-Use Service*
 - **Separation** among access, transport, application, services, networked-resources (CPU, storage, etc.), networked-contents (generated and managed by anyone), security services, content subscription and exchange, transaction capability, etc. **using** well-defined **open interfaces**
 - Drive users and developers alike to **continuously build and market innovative services** to improve the lifestyle of human beings for both work and play
- **Emerging Options**
 - Direct **Sharing** of all of the Cost and Expenses
 - Divide Profits (Domestic and International) *Proportionately*
 - Fixed Payment Option
 - Each Unit Stays Focused in Core Competency Area with an Objective to Innovate and Invest, and Pays Other Units a Fixed Amount of Fees (renewed monthly or annually)
- **Legal and Regulatory Norms and Changes/Issues**
 - May Vary in Every Regions



Who Influence the Regulators ?

Direct Line

Political contributions by AT&T and Verizon to members of the Senate and House commerce committees, in thousands



Source: Center for Responsive Politics

- Regulated Industries like Phone and Cable companies spend heavily on lobbying and political contributions
- 2009:** Telecom industry spent a combined **\$43 million on lobbying** (AT&T's share was ~ \$15 million)
- 2006** (the Year of Telecom deregulation): Phone and Cable companies spent ~ **\$59 million on lobbying**

Source: Technology Section of WSJ (www.wsj.com), 28-May-2010



Latest update on Net Neutrality from Connected Planet Online

Net neutrality opponents (telcos) have big pockets, spending freely

by Joan Engbreton
July 16, 2010



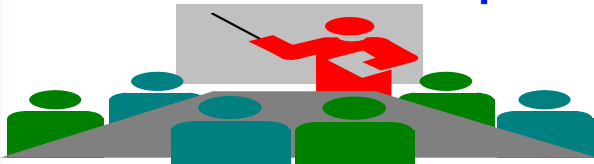
This spring, we half-jokingly wondered whether "Net neutrality opponents" needed a better name (http://connectedplanetonline.com/residential_services/news/net-neutrality-opponents-need-a-name-04/1/). How about "big spenders." Unsurprisingly, given the corporate giants involved, those lobbying against Net neutrality spent \$19.7 million versus \$4.7 million by those lobbying for new regulations, according to a report by Sunlight Foundation (<http://blog.sunlightfoundation.com/2010/06/29/opponents-of-net-neutrality-attend-in-congressional-telecom-meetings-spend-more-on-lobbying/>).

This is one scorecard that isn't hard to follow, though ReadWriteWeb took a moment to tally the opposing sides (http://message.cnet.com/owa/readr.asp?i=30a2083a30941f8d00e41c0e7a4f501url=mm%3a%2f%2fwww.readwriteweb.com%2farchives%2fnet-neutrality-opponents-outspending-proponents_mo.php).

According to Sunlight, organizations supporting Neutrality at the latest Congressional hearings included "Google, Microsoft, Amazon.com and two service providers breaking with their industry, DISH Network and Sprint. Opponents included AT&T, Verizon, National Cable & Telecommunications Association, Communications Workers of America and the US Telecom Association."



Thanks for Your Kind Attention and Participation!



Bhumip Khasnabish, PhD
Tel: +1-781-752-8003
Multimedia Comm. Networks, ISBN: 0890069360
Implementing Voice over IP, ISBN: 0471216666
B.Khasnabish@IEEE.Org

