

Security, Privacy, and E-Commerce Concerns Impact Customer Choice in Broadband



presented by data foundry

The lack of “last mile” broadband internet access competition mandates network neutrality.

There are no viable competitive alternatives to DSL and cable-based high speed internet connections.

- Mobile Wireless service is not as reliable, latency is higher, and bandwidth is limited.
- Fixed wireless data services are not yet widespread, and still has a choke point due to reliance on local Telco backhaul.
- Broadband over power lines is promising but issues remain such as RF interference.
- Telco and Cableco duopoly control over 90% of broadband internet access market.

An uncompetitive internet market allows providers to manipulate service

... and they are.

- Acceptable Use Policies hobble internet users' employment of broadband's full potential.
- Existing AUPs interfere with ecommerce applications such as VPNs, telecommuting, and file sharing.
- Users are sold "unlimited service" without really knowing that their throughput is limited at will.

Examples of “last mile” abuse.

Here are just a few ways a non-neutral network will affect everyone.

- Working from home via a virtual private network is currently prohibited by AUPs.
- Users are restricted from sharing content they create.
- Potential for restriction of expression on topics of political, religious, and associational concern.
- Lack of symmetry between upload and download bandwidth disadvantages US customers and businesses in comparison to those in other countries.

“Whitacre Tiering” implementation raises significant security and privacy issues.

Tiering requires every packet of traffic to be inspected, thereby compromising privacy.

- Unencrypted information will be monitored, stored, and used for any purpose provider desires.
- Encrypted information will be consigned to lower tier or blocked, absent additional payment to provider.
- There are no checks or balances to prevent the providers from doing whatever they want with your private information.

Lack of neutrality compromises both commerce and public organizations.

Privacy and security concerns affect commerce and other areas where security is a chief concern.

- Every business and governmental entity transmits confidential information over the internet.
- Doctors, lawyers, banks, insurance companies, pharmacies, hospitals, the FTC.
- Non-disclosure agreements and statutorily mandated confidentiality obligations e.g., attorney/client, doctor/patient, HIPAA, Sarbanes-Oxley, and Gramm-Leach-Bliley are compromised.

A lack of net neutrality is actually dictating how we use the internet today.

Current violations of net neutrality

- AT&T, Comcast, Cox, and Time Warner prohibit “open” WiFi access points.
- Comcast, Cox and Time Warner expressly or effectively proscribe use of broadband to access corporate or private networks which interferes with telecommuting and work at home and may outlaw the use of Telnet and FTP, both of which preceded the Web and are still widely used today.
- AT&T, Comcast, Cox and Time Warner ban file sharing and peer to peer and any other application that acts as a software “server.”
- Comcast and Cox restrict Network Address Translation (NAT) devices such as routers.
- AUP, TOS links provided in supplement.

IP Multimedia Systems is the system that will be used to implement tiering.

- IMS uses “deep packet inspection” to intrusively capture, track, and store the content of communications, to determine which services, applications, and devices are being used.
- It then provides the rules on how to treat and bill for customers’ specific uses of broadband services. It will allocate or deny resources based on these and other provider selected criteria, most of which do not involve QOS.

More about IP Multimedia Systems.

“Bits is bits.” One use of bandwidth is no more or less of a burden to the broadband provider than any other. In the end, it’s all bandwidth.

- Applications used today without charge will now incur a fee. IMS is the tool that telcos and cable companies will use to bill customers based on the subjective quality of the bit, rather than the quantity. This is not QOS.
- Such discrimination arises because customers have only two broadband internet options, at best.

Conclusion: The duopoly is holding our childrens' future hostage.

The duopoly has created artificial scarcity where the technology exists for abundance. They now propose to ration this scarcity unless we give them total dominance of the internet.

- If we capitulate, we'll still have scarcity and higher prices.
- The rest of the world is laughing at us including their younger generation already innovating by enjoying "broad-er band" Internet access, which will condemn the next American generation to second-class status.