

Open Inter-networking

Getting the fundamentals right: access, choice, and transparency

The modern Internet features increasing complexity of uses and demand for bandwidth. The Internet Society believes that an Internet access environment characterized by choice and transparency, allows users to remain in control of their Internet experience, thus empowering them to benefit from and participate in the open Internet.

Introduction

The Internet has become an indispensable tool for users around the globe and a fundamental enabler of innovation and growth. Passing standardized packets of information around without regard for their content or whether they require any special handling allows for more general-purpose networking and economies of scale in network deployment and management. Consequently, an inter-network (network of networks) as large and sophisticated as the Internet is possible. The 'best effort'¹ transmission of traffic within and between networks is an essential component of the Internet's power and success. The Internet's open architecture enables the delivery of diverse applications over the heterogeneous networks of which it is comprised. The open architecture allows for growth and coordination without central control and it is central to the Internet's utility and expansion.

Demand for Internet connections with greater bandwidth is increasing and unlikely to abate. The availability and subsequent use of high bandwidth access networks are putting more and more pressure on network capacity, resulting in greater deployment and use of congestion management and traffic shaping techniques by network operators. That network operators are technically able to use network traffic management tools to treat packets differently, possibly charging users accordingly, has raised public concerns that the open architecture guiding the Internet's development might be in jeopardy. As a result, some believe that policy and regulatory measures are necessary to preserve the open Internet and to ensure that it remains an engine for innovation, free expression, and economic growth.

¹ An assurance of good-faith effort to achieve best results under prevailing circumstances (http://en.wiktionary.org/wiki/best_efforts)

In this context, the concept of “network neutrality” has come to the foreground of policy and regulatory discussions about the Internet. Network neutrality is a broad and ill-defined term that encompasses a range of policy objectives including free expression, user choice, and discrimination as well as business issues including network traffic management, pricing and overall business models. The Internet Society believes that the proper focus in this discussion is on the desired outcome: continued open inter-networking.

Current debate centres on whether or how IP packets can be treated impartially when they travel across the network, regardless of content, source, or destination. In this paper, the Internet Society articulates key principles based on the nature of the Internet that must be taken into account in policy discussions about open inter-networking, without prejudice to the range of commercial and business decisions that have given rise to the debate.

Key Principle: Openness

The Internet Society believes that openness is the overarching principle that has ensured the success and growth of the Internet to date. Internet standards, development, and governance are open to all to participate, contribute, create, shape and build. This openness is reflected in key characteristics of the Internet, including:

- Shared global ownership – no central control
- Open technical standards
- Collaborative engagement models – researchers, business, civil society, government
- Freely accessible processes for technology and policy development
- Transparent and collaborative governance

Key Enablers: Access, Choice, and Transparency

Openness underpins and enables user access, choice, and transparency. The Internet Society believes user access, choice and transparency to be so critical to the success of the Internet that they must be incorporated as central features of current and future policy frameworks for the Internet, and, therefore, considered as underlying policy principles.

Access to Internet services, applications, sites and content enhances users’ experience and the Internet’s potential to drive innovation, creativity, and economic development;

Choice and control by users over their online activities, including providers, services, and applications—recognizing that there are legal and technical limitations, and;

Transparency, including providing accurate information about bandwidth and network management policies, enables users to make informed choices about their Internet services.

Policy considerations

Policy and regulatory approaches should take into account the overarching principle of openness, as well as the enabling characteristics of access, choice, and transparency. In practical terms, this means encouraging:

- Effective competition at the network and services level;
- A diversity of competitive service offerings that are transparent and enable the user to make an informed choice of provider and level of service;
- Unimpeded access to a diversity of services, applications, and content offered on a non-discriminatory basis;
- Comprehensible and readily-available information as to service limitations, network and traffic restrictions that the subscriber is subject to, and;
- Reasonable network management that is neither anti-competitive nor prejudicial.

None of the above excludes the opportunity for reasonable network management; there is a clear role for network management in maintaining a smooth-running network and in delivering high-quality, innovative services to users. Indeed, regulatory approaches that affect the sustainability of the global open Internet must take into account the technical reality of how networks are operated and managed. The Internet Society believes, however, that policies ought to consider the environment in which network management takes place. An Internet access environment characterized by choice and transparency allows users to remain in control of their Internet experience, thus empowering them to benefit from and participate in the open Internet.

Conclusion

This paper proposes a set of policy considerations derived from the need to preserve access, choice and transparency as key to the Internet as a platform for innovation and economic development. The complex policy debate over handling of Internet traffic needs to keep a sharp focus on the fundamentals that have contributed to the Internet's growth and its potential for innovation. Indeed, these same characteristics should guide any current or future policy discussion of the Internet, whether it is about open-internetworking or other areas of regulatory concern.

About the Internet Society

The Internet Society is a non-profit organization founded in 1992 to provide leadership in Internet related standards, education, and policy. With offices in Washington, D.C., and Geneva, Switzerland, it is dedicated to ensuring the open development, evolution, and use of the Internet for the benefit of people throughout the world. More information is available at: <http://InternetSociety.org>