

What design principles and technologies are likely to most influence future options? Typically, IP design does affect the deployment of applications. Transition mechanisms need to be adequate. Migration from IPv4 to IPv6 will potentially happen with new protocols to come. However, DNS function will most likely continue existing.

The future Internet must be capable of delivering content of any size. Increased functionalities in IP – if IP remains – multiply complexity including aspects dealing with security. ICAN has adopted a multi-stakeholder private sector model, which reduced US dominance but with no impact on security. ISOC emphasizes its focus on identity and trust development rather than on cyber-security issues.

Specifications on green ICT are necessary to reduce power consumption in high-speed networks. Optical networks consume relatively low energy. Interfaces using electricity should be migrated into optical interfaces. Switching functionalities are to be performed as much as possible at optical level. Any overprovision and oversize of network capacities could waste energy.

Any network of the future should also provide mechanisms that benefit every participant as much as he/she contributes. Collaborative networks should take into account social interest around consumers, social expression based on information and social relations among communities. They should also offer equal opportunity, democracy, diversity and guaranteed access for public services. Users are also creators. Corporations' control on users' freedom should be diminished – more justice and democracy in social networks should be claimed.

ISOC's principles around the Internet are that it should be open, freely accessible, global, inclusive, transparent, multi-stakeholder-oriented for technology and policy development, globally distributed. ISOC also favours an open development model to empower users to create their own futures freely. Globally harmonized policy frameworks should ensure competition and inclusiveness.