Dynamic Coalition on Core Internet Values (DC-CIV)

Paper on the work of the IGF Dynamic Coalition on Core Internet Values

The Dynamic Coalition on Core Internet Values (DC-CIV) was conceived during an Internet Governance Forum (IGF) workshop titled "Workshop on Fundamentals: Core Internet Values" (Workshop No. 319) at IGF 2009 in Sharm el Sheikh, Egypt. With then-president of the Internet Society (ISOC), Lynn St. Amour, acting as chair, the workshop examined the following questions: What is the Internet? What makes it what it is? What are its architectural principles? What are its core values? What is happening to the core values in the process of its evolution? What is it that needs to be preserved? What changes are inevitable? What does the Internet community say as to what cannot be changed? How could changes and improvements be brought about without compromising the core values? And how would the different positions between stakeholders be reconciled to commit to the core Internet values?

After IGF 2009, the DC-CIV was formed and annual meetings have been held since 2010 at every global IGF. Additionally, topics related to this theme were discussed at regional IGF workshops in New Delhi and Macau as well as during ISOC chapter meetings, specifically at a gathering hosted by ISOC Chennai.

Rough summary of deliberations and recommendations from DC-CIV

Core Internet values are a set of values that should guide stakeholders and reinforce the foundations of Internet governance. The core values arose out of the Internet's design as intended by its inventors and its pioneer operators and contributors. Such values have also naturally arisen over the course of the Internet's evolution beyond their intent. For instance, the Internet is **interoperable** and not confined to a single type of device, a particular operating system, or a specific web application. On the contrary, it allows multiple types of devices, such as desktop computers, tablet PCs, smartphones, ATMs, and myriad other Internet-connected devices, with different operating systems, and countless Web, mobile, or device applications. As a network of networks, the Internet does not rely on a singular type of technology or medium, thus it is compatible with any type of wired or wireless access. The Internet is intended to be a **"dumb" network** where decisions are left to the edge, often summarized as "dumb network - smart edge'. The Internet was designed with **end-to-end architecture** in order to ensure that what originates from one end reaches the other end and does so without

interference. The Internet has a **layered architecture**. Its use means there are common transport and Internet layers for packet transmission of data (TCP-IP) and no need for control of the other layers, thus supporting any application on any type of physical medium (fiber optics, copper, wireless, etc.). By trusting lower layers, it is possible to build any type of service on the top of them. The Internet by design is **open** because any device or indeed any network that complies with the standards for interoperability can be connected to the network without prior permission or authorization. Internet standards are **open** in that they are freely available in open, non-proprietary formats, without intellectual property rights restricting access to the standards themselves; and the standards-development process is **open** to all participants, physically present or online. The Internet is designed to be built and operated in a decentralized fashion and thus is kept **free** of interference by centralized decision making. An exception and base for the decentralization are a set of identifiers which are globally coordinated but otherwise also decentralized.

The alternate point of view is that it is inevitable that at least some values are not absolute, as the Internet continues to develop and the multistakeholder process evolves. For this Dynamic Coalition, the evolution of values should be accounted for as high in the layered architecture as possible and not interfere with the core architectural principles expressed above. For example, end-to-end principle remains an overall guiding principle, but the community sometimes recognizes concerns about extreme content or abusive traffic such as spam or malicious actions. Moreover, it does not consider that spam from one end must be allowed to flow to the other end without filters, but believes that the filters should be at the ends not in the center. The end-to-end principle does not preclude network and traffic management; a large portion of early Internet standards are related to this. The end-to-end principle tells you to make decisions in the layer you need to and as close to the edge of the network as possible.

While there are varying stakeholder positions on some of these values that may require ideological and political conflicts to be reconciled through continued deliberations, the DC-CIV articulates and emphasizes these values that arose out of the Internet's original design and the values arising out of the Internet's evolution.

There are threats of fragmentation of the global Internet into geographically controlled information zones by governments and other entities seeking to raise geographic borders as well as artificial borders by "walled gardens"[1] and services that could cause

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[1] Walled gardens denote a closed ecosystem where an Internet service provider (ISP), operating system, software platform, or application software has control over applications or content, usually for restrictive ends. They often result in control over users and/or what content users can access.

fragmentation. Such threats need to be properly addressed so as to redirect innovations to adhere to the core Internet values, and we should strive to foster a commitment to the core Internet values across stakeholder groups as well as seek to define core Internet values as a reference standard for Internet policy. In this context, it is pertinent to highlight the distinction between "Internet," which denotes the global Internet, represented with a capital "I," and "internet" with a small "i," which could refer to wide area networks, even on a national or global scale, where the core Internet values are interfered with or modified.

The IGF in its ongoing discussion of the 2015 horizontal theme of "[Policy](#) [Options](#) [for](#) [Connecting](#) [the](#) [Next](#) [Billion](#)" should debate and emphasize that stakeholders around the world formulate Internet policy without hurting the core Internet values. Additionally, the Policy Options for Connecting the Next Billion should evolve without hurting the core Internet values and be guided by the core values, including the Internet being:

> **Global** – The Internet is a global medium open to all, regardless of geography or nationality.
> **Interoperable** – The Internet does not rely on a single type of underlying technology, whether at the physical or application level.
> **Open** – As a network of networks, any service, application, or type of data (video, audio, text, etc.) is allowed on the Internet, and the Internet's core architecture is based on open standards.
> **Free** – The Internet is free of any centralized control.
> **End-to-end** – Application-specific features reside in the communicating end nodes of the network rather than in intermediary nodes, such as gateways, that exist to establish the network.
> **User-centric** – End users maintain full control over the type of information, application and service they want to share and access.
> **Robust and reliable** – While respecting best-effort scenarios for traffic management, the interconnected nature of the Internet and its dense mesh of networks peering with each other have made it robust and reliable.

The underlying technical values result in larger social benefits. For instance, the technical values of openness and interoperability result in the social benefit of the Internet being a global network of networks and as a network of networks that require few or no architectural changes when a new network joins the Internet. Such was the case even when there were unforeseen technological developments and intricate challenges associated with the development of mobile networks, notably with the introduction of and transition to Internet Protocol version 6 (IPv6) or when the

opportunity arose to connect countless devices to the Internet of Things (IoT). As a result of the open design, which was meant for anybody to connect, the Internet has become global since the design and its robustness and scalability allows the Internet to be for Everyone. Taken together, the core Internet values should be accepted as concrete and fundamental to Internet policy and governance.

This Dynamic Coalition proposes that a defined and agreed-upon list of core Internet values be the reference standard for global Internet policy. We also call upon the organizations responsible for the various components of Internet governance, the Internet technical community, civil society, governments, intergovernmental organizations, academics, researchers, private sector corporations, policymakers, and others to formulate Internet policy in a manner that does not distance the Internet from the established core Internet values. The existing and evolving Internet ecosystem and its multistakeholder governance framework should eventually and gradually examine how these values should be respected and integrated.