November 8, 2014

c/o Marlene H. Dortch, Secretary
Federal Communications Commission
445 Twelfth Street, SW
Washington, DC 20554

Written ***Ex Parte*** Filing in the Matters of:

Open Internet, GN Docket No. 14-28; *National Broadband Plan*, GN Docket No. 09-51; *Framework for Broadband Internet*, GN Docket No. 10-127; *Broadband Industry Practices*, GN Docket No. 09-191; *Technology Transitions*, GN Docket No. 13-5; *Broadband Industry Practices*, WC Docket No. 07-52

Dear Commissioners:

In the following open letter, filed ex parte in the FCC's Open Internet proceeding and addressed to the global Internet community, we address the issue of network neutrality in relation to the international Information Society project.

By addressing this relationship, we hope to amplify our call for the FCC to support the policy environment that originally gave us the open and neutral Internet. This was the policy environment that existed in the US until just prior to the Information Society project.

Our chief concerns are for elements of the Information Society project's underlying design which support vertically integrated telecommunications environments, without clearly providing for policy environments that support open and competitive access by independent providers at the physical layer, and for the project's effects on the universal general purpose interoperability of the Internet as we know it.

The Internet's design to support general purpose interoperability among autonomous networks in the network of networks is the original basis for the neutrality of the Internet, and competitive access at the physical layer is the policy environment that originally established the network of independent and interoperating networks that gave us the open Internet.

The FCC's overall approach to telecommunications policy over the last decade based on vertical integration, and recent FCC initiatives such as the IP transition, reflect these areas of concern in the Information Society project, and US State Department initiatives also intersect with the Information Society project's system of international decisions enacted within the UN system and other international agencies.

Network Neutrality and Vertical Integration

In his recent viral commentary, John Oliver describes network neutrality as the reason why the Internet is "a weirdly level playing field." This result may be produced in a couple of different ways, based on two conceptions of network neutrality.

Network neutrality can denote either 1) the application of a rule requiring networks to treat packets equally within themselves; or 2) the technical principle whereby interoperability among autonomous networks is enabled by transmitting packets between them without regard for application.

Renewed concerns for network neutrality in the first sense have arisen in the US and globally in response to the FCC's plan to make provisions for fast lanes in its Open Internet policy, and in the wake of Comcast's and Verizon's recent moves to initiate interconnection deals directly with the edge application provider Netflix rather than accepting the data their users request from Netflix via backbone intermediaries. We note that these developments reflect the circumstances of the present policy approach in the United States, which is characterized by a few incumbent network providers who have been allowed to treat physical infrastructure as assets nearly solely under their private control (i.e., the physical infrastructure is "vertically integrated," treated as a supply that has been acquired as part of a private production process). In this environment, network neutrality cannot help but be approached in the first sense, as a rule addressing paid prioritization, to be imposed within the networks of a few dominant providers that exercise a controlling role in the telecommunications space, rather than in the second sense, as the kind of policy relevant to a network of autonomous, competing networks.

In point of fact, however, the Internet was originally unleashed in the United States under a policy approach that assured competition at the physical layer, creating an environment that enabled thousands of independent network providers to readily enter the network of networks and interoperate among themselves, in accordance with network neutrality in the second sense. The Internet was designed to solve the problem that arose in this context, of how to interoperate among numerous autonomous networks, and this was the original basis of the openness of the Internet. The policy approach that enabled this dynamic to arise was the official position of the US at least until 2000, when the FCC recommended open access as the policy that would best support the Internet in Europe (see FCC Press Release, United States Urges EU to Continue Progress in Opening Communications Market To Competition, 2000 FCC LEXIS 1383 (2000), available at: http://www.fcc.gov/Bureaus/International/News_Releases/2000/nrin0005.doc).

However, roughly concurrently with the beginning of the Information Society project – which might be designated by the 2003 Geneva and 2005 Tunis World Summit for the Information Society (WSIS) events – the FCC has implemented a federal telecommunications policy that not only deregulates Internet information services, but also the physical infrastructure carrying telecommunications data. This enables the incumbents to treat the infrastructure as one would a private asset in any other type of market, and thereby neutralizes the legal foundations of the Communications Act in public franchise law and common carrier obligations, which up until then had assured competitive access to right of way infrastructure by independent Internet providers.

For whatever reason, the underlying premises of the Information Society project currently reflect this change in the policy environment which we have seen in the US. The ITU's definitions for the performance measures used to measure the progress of the Information Society draw no distinction between individual networks that may implement specialized services through more specialized

treatment of packets within themselves, and open Internet connectivity, constituted of a network of autonomous network providers interoperating among themselves. The measures are based on telecommunications industry categories as defined in the International Standard Industrial Classification (ISIC), Rev. 4, which reference the Internet solely in relation to a vertically integrated context ("provision of Internet access by the operator of the wired infrastructure") and not in relation to shared physical infrastructure ("purchasing access and network capacity from owners and operators of networks and providing telecommunications services using this capacity").

Current FCC Commissioner Tom Wheeler appears to advocate an approach to policy consistent with vertical integration, and with the framework articulated by Joseph Farrell and Philip J. Weiser in 2003, wherein the efficiency advantage of a vertically integrated network platform is weighed against impacts that the platform provider's practices may have on application markets dependent on their platform. In Ensuring an Open Internet Now and for the Future, Wheeler states that there are likely to be a few broadband networks serving to support essential services for society, and that this condition means they are likely to exercise market power. He characterizes net neutrality in terms of balancing concerns of producers and consumers within this type of context, such as that network operators may make moves that undermine the value of the network, or that regulation by the FCC might cause economic harm to network operators or inhibit their ability to offer improved service.

Network Neutrality and Universal General Purpose Interoperability

Conformance and Interoperability:

The neutrality of the Internet's design is based on the way it supports a maximally flexible platform between and across independent networks. Its neutrality is sustained by the need to interoperate across autonomous networks and to connect end users in whatever they may be doing. With its Conformance and Interoperability program, the US and the Information Society project are effectively pursuing a conception of interoperability that may supplant this notion of universal general purpose interoperability – which the Internet is already designed to support – replacing it with a notion of interoperability as conformance with policy.

This program is a key part of the intergovernmentally-endorsed program of action issued by the ITU at the 2010 Plenipotentiary Conference, now being updated at the 2014 Conference, and is geared to support the WTO's Technical Barriers to Trade Agreement (TBTA).

The TBTA aims at ensuring that technical regulations, standards and conformity assessment procedures do not create unnecessary obstacles to international trade. It encourages Member States to base these matters on international standards and develop conformity assessment procedures to generate confidence that products conform with applicable technical regulations or standards.

Among our concerns here is the fact that Conformance and Interoperability testing might become a basis for enabling government or privileged providers to promote new types of networks by appealing to intergovernmental standards, without distinguishing them from the way the Internet operates or recognizing the tradeoffs these types of networks bring as compared to open internetworking between independent networks.

We see the Conformance and Interoperability program represented in the US's submission to the WTDC for a Study Question on Conformance Testing, and as part of its program for the Plenipotentiary Conference.

WTSA Resolution 76, issued at the 2012 World Telecommunications/ICTs Standards Assembly (WTSA), articulates the relationship of conformity assessment to the Technical Barriers to Trade

Agreement, ITU-T Recommendations X.290-X.296, on ISO conformance testing, Plenipotentiary Resolution 177 and WTDC Resolution 47, on Conformance and Interoperability, and WTSA Resolutions 17 and 44 and Plenipotentiary Resolution 123, on bridging the standardization gap.

As already noted in connection with vertical integration, the indicators by which the Information Society project's progress is being measured are based on the same ISIC definitions that underly the Technical Barriers to Trade Agreement, linking them to both vertically integrated networks and a new conception of interoperability.

Identifiers Infrastructure:

ITU processes have also issued numerous resolutions articulating pieces of an inter-governmentally endorsed technical infrastructure for identifiers that may support the validation or enforcement of various kinds of policy.

Significant pieces of this framework were issued as resolutions by the 2012 WTSA. They were characterized there as "merely technical" and thereby appropriately within the scope of the WTSA and ITU's Standardization Sector (ITU-T). However, they have been supplemented this year with more substantive enactments issued by the recent WTDC under ITU's Development Sector (ITU-D), and like the Conformance and Interoperability program, these WTSA and WTDC resolutions fulfill directives from the 2010 ITU Plenipotentiary Conference, and therefore enjoy an intergovernmentally endorsed status.

If we do not examine how well the framework enacted by the ITU's Plenipotentiary Resolutions actually represents the nature of the Internet, governments, including the US, will easily appeal to this framework as representing basic functions to be treated as a foundation for international connectivity, and they may thereby make it difficult to reclaim the original sense of interoperability of the Internet as they claim their new conception under the name of Internet Governance.

Depending on how they are applied, these resolutions providing technical support for identifiers may affect not only open, general purpose technical interoperability, but also the free flow of information, the flexibility of the platform, and its support for interactive and collaborative uses of information published online.

Our concern here is that before these provisions should be treated as components built into the design of international connectivity, their presence and the implications they may have for the nature of the Internet, as they may be used to build support for policy into networks, should be noted and given full opportunity for review prior to being treated as established elements of international networks.

In the US, we see work underway on identifiers policy at the FCC, presented as the technology behind the IP Transition, currently articulated largely in relation to policies applicable to phone numbers. In the US Congress, bills such as the anti-spoofing bills HR 3670 and S 2787 may well serve as a part of a national implementation to support this international system of identifiers.

The most direct provisions for identifiers are in WTSA outputs. WTSA 20, on allocating and managing of international numbering, naming, addressing and identification resources (NNAI), references the integrity and misuse of numbering resources, procedures for allocating and managing international NNAI articulated in ITU-T E-, F-, Q- and X-series Recommendations, and a call to assure Member State sovereignty in relation to country code NNAI plans and ITU-T E.164 (ENUM). Resolutions on alternate calling procedures such as WTSA Resolution 29, WTDC Resolution 22, and Plenipotentiary Resolution 21 address concerns for origin identification and misuse of resources.

WTSA Resolutions 47, 48, 49 and 64 deal with addressing-related concerns (ccTLDs, IDNs, ENUM and IPv6). Along with WTDC Resolution 63, on IPv6 and address allocation, these resolutions reference Plenipotentiary Resolutions 102, on ITU's role in international Internet-related public policy, including management of Internet resources such as domain names and addresses, 133, on the role of Member States in IDNs, and 180, on the transition to IPv6. These resolutions are also referenced as technical supports for the Internet via Plenipotentiary Resolution 178 and WTSA Resolution 75.

Resolutions on Cybersecurity reference ITU-T Study Group 17's work on public key infrastructures, identity management, and digital signatures, including WTSA 50 and WTDC 45. These references reflect ITU-T work on discovery of identity management information in ITU-T Recommendation X.1255. The theme of confidence and security in ICTs, as voiced in these resolutions and Plenipotentiary Resolutions 130, 174 and 181, may also implicitly reference the use of identifiers, and the facilities for validation and enforcement that may be built around them.

Finally, in the context of Conformance and Interoperability, the reference in Plenipotentiary Resolution 177 to concerns in developing countries regarding counterfeit equipment may also designate a function that may be served, in connection with the TBTA, through validation and enforcement based on identifiers.

In Conclusion

We urge the FCC to reestablish the policy environment that gave us the Internet and to reconsider the decisions made at the outset of the Information Society project which have led to a thoroughly misguided domestic telecommunications policy environment. An international policy framework designed to support the type of network environment presently projected in the Information Society project's enactments is not consistent with the policies that assured that independent networks could readily enter the network of networks in the United States and freely interoperate among themselves.

We are not calling you to enact a sweeping redefinition of broadband, as the American Legislative Exchange Council (ALEC) might call it; we are asking that you reaffirm the policy framework that originally gave us the Internet. And we are asking that you not allow a commitment to the international Information Society project as it is presently articulated to mislead the US into recasting the very bases of the US telecommunications tradition to which we owe the rise of the open Internet.

Sincerely,

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