Google

Testimony of Vinton Cerf
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Chairman Walden, Ranking Member Eshoo, and members of the Subcommittee.

Thank you for inviting me to testify today. My name is Vint Cerf and I serve currently as Vice President and Chief Internet Evangelist at Google Inc. I also serve as a Fellow of the Institute for Electrical and Electronics Engineers (IEEE), the Association for Computing Machinery (ACM), which last week elected me as its president, the American Association for the Advancement of Science (AAAS), the American Academy of Arts and Sciences, and the American Philosophical Society, and as a member of the National Academy of Engineering.

I have held positions at MCI, the Corporation for National Research Initiatives, Stanford University, UCLA, and IBM. Until late 2007, I served as chairman of the board of the Internet Corporation for Assigned Names and Numbers (ICANN) and I was the founding president of the Internet Society.

As one of the "fathers of the Internet" and as a computer scientist, I care deeply about issues relating to the Internet's infrastructure. This is why I am grateful for the opportunity to testify before your Subcommittee on the critically important issue of international Internet governance and regulation.

The Internet and the World Wide Web have generated an unprecedented explosion in commerce and creativity. According to a May 2011 study by the McKinsey Global Institute ("Internet Matters: The net's sweeping impact on growth, jobs, and prosperity"), nearly $8 trillion exchange hands each year through e-commerce. The same report states that the Internet accounts for 21 percent of gross domestic product growth in the last five years in mature countries, and that the benefits are not reserved for Internet companies – in fact, 75 percent of Internet economic impact benefits companies that are not pure Internet players.

And a March 2012 report by the Boston Consulting Group – entitled "The Internet Economy in the G-20: The $4.2 Trillion Growth Opportunity" – provides policy makers more data about the impact of the Internet on economic growth and job creation. According to the report, Internet-savvy small- and medium-sized enterprises (SME) across eleven of the G-20 countries have experienced 22 percent higher revenue growth over the last three years than comparable businesses with no Internet usage. The report also found that SMEs that have an Internet presence generate more jobs. In Germany, for example, 93 percent of companies that were heavy users of the Internet and web services increased employment over the past three years, compared with only 50 percent of their offline competitors.

But today, despite the significant positive impact of the Internet on the world's economy, this amazing technology stands at a crossroads. The Internet's success has generated a worrying desire by some countries' governments to create new international rules that would jeopardize the network's innovative evolution and its multi-faceted success.

This effort is manifesting itself in the UN General Assembly and at the International Telecommunication Union – the ITU – a United Nations organization that counts 193 countries as its members, each holding one vote. The ITU currently is conducting a review of the international agreements governing telecommunications and it aims to expand its regulatory authority to include the Internet at a treaty summit scheduled for December of this year in Dubai.

Such a move holds profound – and I believe potentially hazardous – implications for the future of the Internet and all of its users. If all of us do not pay attention to what is going on, users worldwide will be at risk of losing the open and free Internet that has brought so much to so many.

In my testimony this morning I will address this effort at the ITU and make three broad observations and recommendations:

- First, I believe that the multi-stakeholder approach to Internet governance and technical management has been, and will continue to be, the best way to address the technical and policy issues facing the Internet globally.

- Second, it is critically important for the United States Government to engage in the ITU process and encourage like-minded countries – those that believe in the social and economic benefits of a free and open Internet – to do so as well. We need a global coalition to ensure transparency, openness, and an outcome that preserves the features of the Internet and its operation that have been so productive over the past 30 years.

- Finally, the very real concerns about the damage that ITU regulation could do to the Internet should not minimize the existing concerns that developing nations have as they try to keep up with the 21st century economy. We can and should solve problems of access and education without compromising the Internet's essential open and decentralized character.

The Internet and the ITU

After its inception as a U.S. Government project, the Internet has been decentralized to maximize the effectiveness of the open, bottom-up, multi-stakeholder approach that has enabled unprecedented growth and innovation. This system was formally recognized in 2005 at the UN World Summit on the Information Society, and I believe it remains the right approach.

Many others agree. As the Organization for Economic Cooperation and Development noted in its December 2011 Recommendation on Principles for Internet Policy Making, the multi-stakeholder model provides "the flexibility and global scalability needed to address Internet policy challenges."

Many multi-stakeholder organizations have played a fundamental role in Internet governance and evolution. These include the non-profit ICANN, that oversees the handling of domain names, the Internet numeric address space, and the unique parameters needed for Internet standards; the Internet Architecture Board; and the Internet Engineering Task Force under the auspices of the Internet Society (ISOC), that develops and promotes technical standards via a series of volunteer-led working groups.

A recent and important adjunct to the multi-stakeholder institutions already associated with the Internet's governance is the UN's Internet Governance Forum (IGF). Created in Tunis in 2005, the IGF includes representatives from academia, civil society, governments, and the private sector. It is a highly democratic forum that enables the open expression of interests and discussion of concerns regarding the Internet, which can then be addressed by the appropriate expert body.

Of course, there is still room for improvement. For example, although ICANN has representatives from all world regions on its board, more international voices could be added. Similarly, although the IGF is already an open forum, it could do more to encourage and facilitate diverse groups, especially in the developing world, to participate in debate.

But if there's one thing that we should not do, it is to centralize decision-making power. The greatest strength of the current system of Internet governance is its meritocratic democracy. Anyone who cares can voice ideas and opinions, but the ultimate decisions are governed by broad consensus. It might not always be the most convenient of systems, but it's the fairest, safest, and historically most effective way to ensure that good ideas win out and bad ideas die.

Despite the benefits, there is a strong effort to put in place a system that stands in sharp contrast to the multi-stakeholder process.

Today, the ITU focuses on telecommunication networks, radio frequency allocation, and infrastructure development. But some powerful member countries see an opportunity to create regulatory authority over the Internet. Last June, the Russian government stated its goal of establishing international control over the Internet through the ITU. Then, last September, the Shanghai Cooperation Organization – which counts China, Russia, Tajikistan, and Uzbekistan among its members – submitted a proposal to the UN General Assembly for an "international Code of Conduct for Information Security." The organization's stated goal was to establish government-led "international norms and rules standardizing the behavior of countries concerning information and cyberspace." Other proposals of a similar character have emerged from India and Brazil. And in an October 2010 meeting in Guadalajara, Mexico, the ITU itself adopted a specific proposal to "increase the role of ITU in Internet governance."

Several other proposals from member states would dramatically limit free expression on the web. Others would subject cyber security and data privacy to international control, and allow foreign phone companies to charge fees for international Internet traffic – perhaps on a "per-click" basis.

As a result of these efforts, there is a strong possibility that this December the ITU will significantly amend the International Telecommunication Regulations – a multilateral treaty last revised in 1988 – in a way that authorizes increased ITU and member state control over the Internet. These proposals, if implemented, would change the foundational structure of the Internet that has historically led to unprecedented worldwide innovation and economic growth.

Because the ITU answers only to its member states – rather than to citizens, civil society, academia, the tech industry, and the broader private sector – there's a great need to insert transparency and accountability into this process and to prevent expansion of ITU or UN authority over the operation of the Internet.

U.S. Engagement in Partnership with Other Nations

It is critically important that the United States Government engage in the ITU process and encourage like-minded countries, NGOs, private-sector actors, and technical and civil society organizations that believe in the social and economic benefits of a free and open Internet to do so as well. We need a global and united coalition to ensure openness and an outcome that preserves the features of Internet development, governance, and operation that have produced economic, scientific, educational, and societal benefits for three decades.

To be clear, I do not believe that this is a challenge that the U.S. can meet on its own, but it is one that cannot be overcome without the leadership and engagement of the U.S. Government on three specific fronts: (1) promoting existing multi-stakeholder structures as much preferable alternatives to the centralization proposal of the ITU, (2) demonstrating for participating countries the tremendous benefits of the Internet as we know it today without the restrictions of an ITU or UN sanctioned global Internet treaty, and (3) ensuring an open and accountable process at the ITU so that the world understands the motivations and consequences of the ITU process.

Fostering Strong Multi-stakeholder Alternatives

As part of its engagement with the ITU and other international organizations, the U.S. Government should emphasize that best way to address concerns from countries is to work through the system of transparent, democratic oversight organizations that is already in place for discussing and helping to resolve issues relating to the Internet.

As I've noted above, there are great benefits stemming from and tremendous support for multi-stakeholder structures like the Internet Governance Forum (IGF). Like the ITU, it is part of the UN structure. It is highly democratic and requires participation from academia, civil society, governments, and the private sector.

We also need to work together to create and refine voluntarily developed codes of conduct. A U.S.-based non-profit called the Global Network Initiative (GNI) is a great example. Google, along with a handful of other companies, human rights organizations, investors, and academics spent two years negotiating and creating a collaborative approach to protect freedom of expression and privacy in the ICT sector. The principles were published, and the GNI reports annually regarding how well its members uphold its standards.

There are few losers for these types of agreements. Companies and governments build public trust and gain insights from other stakeholders. Users get valuable information from the reports, and added protection from potential threats.

This is not to say that the current multi-stakeholder system is perfect or that it doesn't need reform. As I note above, there will always be room for improvement and it is up everyone within the Internet community to participate in these process to continue to make the process better. For example, although ICANN has representatives from all world regions on its board, more international voices could be added and they can continue to improve on their processes to make them more transparent, accountable, and open. Similarly, although the IGF is already an open forum, it could do more to encourage and facilitate diverse groups, especially in the developing world, to participate in the debate.

The Tremendous Benefits of the Internet

I've referenced data indicating the significant economic benefits generated by the Internet. It's critical for the U.S. and other countries that have seen the positive impact of the Internet on their economies to highlight to ITU participants and other stakeholders the potential negative consequences of ITU regulation of the Internet on the world's economy.

Adding regulatory authority to the ITU – for example the ability to levy charges for international Internet traffic – could significantly hurt commerce. Small and medium U.S. businesses – indeed, small and medium businesses everywhere – are also important job creators, and we do not want to stifle their ability to grow by limiting the markets that they can reach.

Openness and Accountability in the ITU Process

One of the key concerns I have with the ITU's process is that it is neither transparent nor sufficiently open to non-governmental stakeholders – conditions that result in insufficient accountability.

Today, a number of civil society organizations from around the world are joining to ask the ITU for more transparency as it considers various proposals that would result in its power to regulate the Internet on a global basis.

Concerns about transparency stem not from theoretical concerns but from actual experience. The preparatory process for the ITU's meeting in Dubai has been opaque, with significant restrictions on access to documents and high barriers to ITU membership. In fact, most member states of the ITU have not even opened public dialogues with Internet stakeholders to guide the development of their national positions or to seek input on their proposals. Many proposals go beyond merely technical interoperability of telecommunications infrastructure and would impact free expression, security, and other important issues.

As a result, a number of leaders in the human rights and free expression communities from around the world have signed a letter to call into question the ITU's barriers to participation: "The continued success of the information society depends on the full, equal, and meaningful participation of civil society stakeholders (alongside the private sector, the academic and technical community, and governments) in . . . both technical and public policy issues."

Transparency and openness are critical issues and we raise them here because it is important for parties to fully understand a process that affects all Internet users. Nevertheless, transparency alone is not enough to transform the ITU into a true multi-stakeholder organization.

The Legitimate Concerns of Developing Nations

Only two billion of the world's seven billion people currently have access to the Internet. The UN in its Millennium Development Goals lists Internet penetration as a key metric in efforts to reduce poverty and encourage rational development, and expanding access need to be a priority. The data I outlined earlier regarding GDP growth and overall economic impact only highlight the importance of bringing access to those who do not yet have it.

Many countries believe that the ITU will help put policies in place that will promote development of broadband in developing countries. The ITU's Development program has done great work in developing countries to help promote broadband deployment, such as the Connect the World regional summits. Nevertheless, it is one thing for the ITU to suggest policy principles and assist in capacity building; it is quite another to adopt detailed regulations in this space. And the former can continue without the latter.

Rather, the ITU's development efforts ought to proceed in tandem with a vast number of national policies, public-private partnerships, and technical/non-profit community efforts to improve access and education in developing countries.

For example, ISOC has demonstrated the benefits of building Internet Exchange Points in Kenya and Nigeria. Google was involved in the Nigeria project, and it has supported the establishment and growth of Internet exchanges in the eastern Caribbean and the Middle East. We have also engaged in a number of other initiatives to increase access to the Internet in the developing world including building a proof-of-concept open access Wi-Fi network in Nairobi, Kenya. Google has been an active supporter of the

Network Startup Resources Center at the University of Oregon, providing equipment, funding and volunteer staff to assist in its capacity building efforts that span over two decades.

We believe that education is also an important component of the effort to get more of the developing world online. Over the past two years Google has worked with the market research firm Basis Research Ltd in six key African countries (Ghana, Kenya, Nigeria, Senegal, South Africa, and Uganda) to understand how and why consumers in those countries use the Internet, or conversely why they are not online. The most prevalent reason for not going online was lack of knowledge – everything from not knowing what the Internet has to offer to not knowing how or where to get online. Lack of access was a close second. The survey results are available for free to the public at www.insightsafrica.com.

There clearly is a significant need to educate consumers in regions like Sub-Saharan Africa about how to access the Internet and the benefits they would gain from getting online. Google is doing its part to educate consumers, and we're also supporting the training of network engineers through organizations such as the African Network Operators' Group and Middle East Network Operators Group.

ITU member countries may cite development benefits as they make proposals for greater centralized control, but new ITU regulations are the wrong solution. We can and should solve problems of access and education without compromising the Internet's essential open and decentralized character.

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Chairman Walden, Ranking Member Eshoo, and members of the Subcommittee, reforms can be constructive, but not if the result is a global bureaucracy that deadens innovation and departs from the multi-stakeholder model.

I encourage respectfully this Subcommittee to take action now by urging that the U.S. Government – in partnership with like-minded countries and their citizens – engage in this process to protect the current, bottom-up, pluralistic system of Internet governance and to insist that the debate at the ITU and all other international fora be open to all stakeholders. It is critically important for you to engage and help ensure that the world understands that the economic, social, and technical advances driven by the Internet are endangered by these efforts.

I thank you very much for the opportunity to testify on this important topic, and I look forward to working with the Committee and other stakeholders.