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Partnership Among State, Business Community
and Civil Society in Ensuring Information Security
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Director Sherstyuk,

Distinguished guests,

Ladies and Gentlemen.

The Internet is growing — and as it grows it offers more functionality, more social, cultural and educational resources, and more business opportunities. All these new features present more challenges — challenges that range from global participation in Internet technology and policy development to information security and cybersecurity.

Through its multi-stakeholder consensus-building model the ICANN community and the global Internet community are developing policies that influence the way the Internet works. These policies also affect the way the Internet's domain name space and marketplace work. And they affect how

we protect valuable information stored or transmitted on the Internet — and the Internet infrastructure itself — from attack and predation.

Participation by the entire Internet community — governments, the business community, the academic community, the technology community, the private sector, and civil society alike — will ensure that all the benefits achieved by the Internet community accrue to us all.

So I'd like to focus on these inter-related topics this morning — bringing you up to date on activities of past months and how we think they will influence the future of the Internet. They are —

- Multi-stakeholder participation through ICANN's bottom-up consensus-building model in creating and maintaining the technologies and policies that ensure a single, globally interoperable Internet;
- Collaboration by the global Internet community in ensuring the stability and security of the Internet's infrastructure as well as the information stored or transmitted on the Internet.

First, let me take a minute to remind you of ICANN's mission, which is —

- To coordinate, overall, the global Internet's system of unique identifiers, and to ensure stable and secure operation of the Internet's unique identifier systems. In particular, ICANN coordinates:
 1. Allocation and assignment of the three sets of unique identifiers for the Internet:

- Domain names (a system called the DNS)
 - Internet protocol (IP) addresses and autonomous system (AS) numbers
 - Protocol port and parameter numbers
2. Operation and evolution of the DNS root name server system
 3. Policy development reasonably and appropriately related to these technical functions

In fulfilling its mission, ICANN is guided by four founding principles. They encompass the following —

1. Contribute to stability and security of the Internet
2. Promote competition and choice for registrants and other users
3. Forum for multi-stakeholder, consensus-based bottom-up development of related policy
4. Ensure an opportunity for participation by all interested parties on a global basis

It is within that framework that I wish to speak to you this morning. Because many of the issues I will touch on are quite complicated, I intend to lay the foundation for further discussions that are scheduled during the rest of this forum.

Multi-stakeholder participation through ICANN's bottom-up consensus-building model

Internet users around the world have come to rely increasingly on the Internet's global system of unique identifiers, including the domain name space, to communicate, transact business, share information, and gather together in virtual communities.

This Internet will become even more dynamic with the deployment of top level Internationalized Domain Names — or IDNs — and the transition from IPv4 to IPv6. These and other initiatives that are intended to improve openness, accessibility, diversity and security demonstrate that the Internet stakeholders — including the stakeholders here — are working hard to make the Internet truly global. IDNs alone will bring about the most significant change to the Internet since its inception nearly 40 years ago.

Since the domain name system's beginnings in the early 1980s, cooperation and consensus-building through a multi-stakeholder model have successfully guided the Internet's rapid evolution and innovation while maintaining its global interoperability, security and stability.

A continuation of this global approach would, in my opinion, deliver the most satisfactory results for the interests of all users of the Internet.

As an internationally organized, multi-stakeholder non-profit organization, ICANN seeks to reflect the values of coordination, cooperation and collaboration.

As you may know, ICANN recently underwent a mid-term review of its Joint Project Agreement — or JPA for short — with the U.S. Department of Commerce. It found that ICANN has made significant progress so far. But there is still much that can be done.

The work we have to do will focus on long-term stability, accountability, responsiveness, continued private sector leadership, stakeholder participation, increased contractual compliance, and enhanced competition.

Completing this JPA will enable ICANN to take the next steps in transitioning coordination of the Internet's unique identifiers to the private sector. This private sector-led multi-stakeholder model was the goal envisioned by the global Internet community nearly ten years ago — and is the reason ICANN was formed.

We believe that this private sector-led multi-stakeholder model will see greater overall participation by the Internet community. And it will encourage more governments to participate in ICANN's activities and processes through its Governmental Advisory Committee.

Indeed, Russia's public and private sectors have been constructively engaged with the global Internet community through the Internet Governance Forum and the World Summit on the Information Society for the past several years.

In addition, Russia's technology community has been actively involved in Internet policy development for some time now. ICANN has exchanged letters with the dot-ru Coordination Center, which recently joined ICANN's Country-Code Names Supporting Organization. For the past two years, ICANN representatives have participated in events organized by the Russian Internet Forums, the Russian Association of Networks and Services, and the Institute for Information Security Issues. Importantly, the issues related to implementation of Cyrillic script in top-level domains were recently discussed between Presidents Parvnov of Bulgaria and Putin and Medvedev of Russia.

Collaboration by the global Internet community in ensuring the stability and security of the Internet infrastructure

All this work together demonstrates that in mutual cooperation there are mutual benefits. We are now building on that collaboration to make sure those benefits flow down to the Russian Internet community — and, equally importantly — to the security, stability and interoperability of the global Internet.

IISI MOU

In the next plenary session today, ICANN and the Lomonosov Moscow State University Institute of Information Security Issues will sign a memorandum of understanding.

Formalizing our relationship with this MOU will help both organizations reach out to the broader Russian Internet community and build increased awareness about issues like Internationalized Domain Names, IPv6 uptake, cybersecurity and domain name development.

I am convinced that this MOU will be mutually beneficial because it will ensure that both ICANN and the IISI are directly connected to what is happening with the global Internet — especially in critical areas such as Internet governance, IP addresses, and the domain name system.

To accomplish this goal, the IISI and ICANN will work to —

- Promote the exchange of information about Internet policy and security;

- Promote the exchange of publications and documentation on current activities of each organization;
- Support the organization or workshops and conferences about Internet governance, policy, and security;
- And investigate the possibility of organizing joint seminars and projects for furthering outreach about these important topics.

DNS Security, Cybersecurity

Now I'd like to briefly discuss Internet security, which is of concern to everyone. Like the rest of the Internet, security has many aspects. And it continues to change as attackers and predators continue to find new ways to attack the Internet at all levels. I want to highlight just a few security issues and advances that are fairly recent developments. These issues will be discussed in greater detail in sessions throughout this forum.

Fast-flux

ICANN's Security and Stability Advisory Committee just published an advisory on a clever new technique cyber predators are using to evade law enforcement.

Fast flux hosting is used by phishers, identity thieves and other e-criminals to frustrate the efforts of incident response teams and law enforcement agencies to track down — and take down — illegal web sites.

The fast flux technique closely resembles a shell game called three-card Monte in many countries. In this scam, a "tosser" lays three folded

playing cards on a table, and the victim is lured into betting on his ability to follow the red queen. The British call this scam “Find the Lady.” The tosser moves all three cards at blinding speed while simultaneously distracting the victim with conversation, clever quips, and sleights of hand. Victims stand little chance of winning.

Fast flux, however, is a high-stakes technological trick and has become a worrisome and omnipresent attack technique. In fast flux hosting, the tosser rapidly changes the addresses that point to illegal web sites. Of particular concern to ICANN is a variant called “double flux,” where the attacker not only changes addresses that point to illegal web sites, but also changes the addresses of the DNS name servers attackers use for the user-friendly names they embed in phishing emails.

In both fast flux and double flux, the changes occur very quickly — on the order of every three minutes or less — leaving virtually no time for investigators to respond. ICANN’s SSAC is working closely with brand defenders and law enforcement as well as registries and registrars to identify countermeasures, focusing on measures that take the domain name system out of the fast flux equation.

If you wish to read the SSAC Advisory, it is posted on ICANN’s website at <http://www.icann.org/committees/security/sac025.pdf>.

Other security concerns

In light of the pending implementation of new gTLDs and IDN TLDs, ICANN is also investigating the possible scale and barriers to scale of new generic and country-code TLDs, the IPv6 landscape and progress, DNSSEC

analysis and plans, and understanding the technical limitations of the new TLD strings.

Myth of 13 root servers

Now for some good news. There is widespread misapprehension about the root servers that underpin the Internet which has reached mythic proportions. It is most often used to point out the vulnerability of the Internet. It states that there are only 13 root zone servers in the entire world, and that most of them are located in the United States. This myth may be reinforced by the 13 alphabet letters — A through M — used to designate the original servers.

Rest assured — those original 13 servers have reinforcements. And they are located all around the world. There are even two in Russia and two here in Germany. This redundancy — together with advances such as Anycast technology — are helping to make the Internet infrastructure increasingly resilient and resistant to attack. Anycast enables DNS server operators to distribute query loads, and hence aids in managing distributed denial of service attacks.

One of ICANN's key projects last year in line with its ongoing efforts to improve the resiliency and performance of the L-root servers, was to bring additional systems online in Florida.

With these new systems, which are a copy of the original large cluster operating in Los Angeles, the L-root's capacity doubles. In addition to this increased capacity, the Florida location brings opportunity for direct peering with many Internet service providers in Latin America and the Caribbean, thereby directly improving service to those regions.

This L-root redundancy enabled ICANN to take the Los Angeles server offline for maintenance a few weeks ago and run entirely on the Miami server for several hours — without disrupting operations.

Ladies and Gentlemen

The Internet is the most powerful and pervasive means of empowering individuals in recent human history. It requires the continuing efforts of all stakeholders, from governments, the private sector, civil society, academia, and the technical community to preserve and strengthen this model. By doing so, we can ensure the resiliency and utility of the Internet — and guarantee the rapid and successful development of a secure, stable and globally interoperable Internet.

I would like to conclude with my strong recognition and continued welcoming of the participation of all of you in the work of ICANN and its processes. I am confident that your effective participation will greatly and positively contribute to the Internet as a whole, bringing valuable and novel views to the dialogue from which the global community can benefit.

It's always a pleasure to meet with colleagues from around the world to discuss the evolution of the Internet. And it has been my great pleasure to speak to you today. In that vein, I'd like to extend special gratitude to our all our hosts and to the many people whose efforts brought about this important forum.

Finally, allow me once again to express my personal delight at being here with you. I'm looking forward to the results of your discussions and wish you all the success in your deliberations.

Thank you...