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Good afternoon, ladies and gentlemen, our hosts, and honoured guests.

It's always a pleasure to visit Paris, and it's my great pleasure to speak to you today. I want to tell you about several matters I think members of the International Chamber of Commerce will find of interest and, possibly, of concern.

Introduction

When the root server system was attacked in February of this year, the sky did not fall. A huge burst of traffic, the equivalent of 1.5 million emails every two minutes, was sustained over several hours. And this was just one of several attacks on the Internet's systems that have been on the rise over the past five years or so.

Because of this increase in the number and volume of attacks in recent years, the root server operators were ready. Cooperation and preparation enabled them to work together quickly to effectively redistribute and thus absorb the attack load across the root server system. For several root server

operators, the attack meant an interrupted night's sleep. For most users, the attack went unnoticed. And that's by design.

Just as the infrastructure of the Internet is designed as a network of networks, so is the Internet community. The organisations concerned with how the Internet is run work collaboratively with those concerned with what runs on the Internet. All these stakeholders have a voice and a role in the security, stability, and interoperability of the global Internet.

Since the inception of the domain name system in the early 1980s, cooperation and consensus building through a multi-stakeholder model has proved successful in guiding the growth and vitality of the Internet. The resiliency of that model is becoming more and more critical as the range of services we demand continues to grow. We are no longer content with mere email and Web browsing. We do most of our research on the Internet and thus take search engines for granted. We have come to rely on the Internet to deliver music, video, and image files; social networks and blogs; and conferencing and telephony services. And we want wireless connectivity, satellite delivery, and access via mobile devices whether we're at home, in the office, or on the run.

But, the more we rely on the Internet to communicate, transact business, transfer and store data, and gather together in virtual communities — the fatter the pipe, so to speak — the fatter the pickings for cyber criminals. And the more attractive malicious attacks on the Internet's systems become to their perpetrators. Attacks on the Internet's systems and cyber crime are on the increase — and in the case of domain and address theft the increase is exponential.

It requires the continuing efforts of all stakeholders, from governments, the business and private sectors, academia, and civil society to

preserve and strengthen this model, and by doing so to ensure the resiliency and longevity of the Internet.

What ICANN does and is doing

May I remind you of ICANN's mission and its four closely linked goals?

ICANN — the Internet Corporation for Assigned Names and Numbers — is the international multi-stakeholder organisation responsible for the technical management and oversight of the coordination of the Internet's domain name system and its unique identifiers.

It is an internationally organised public benefit, non-profit entity responsible for coordinating the Internet's —

- Internet Protocol address space allocation;
- protocol identifier assignment;
- generic and country code top-level domain name system management; and
- Root server system management functions.

In fulfilling its mission, ICANN is guided by four founding principles —

- To preserve the operational stability and security of the Internet, particularly the domain name system;
- To promote competition and choice for registrants, especially in the generic top level domain arena;

- To achieve broad representation of global Internet communities;
- And, to develop policy appropriate to its mission through bottom-up, consensus-based processes.

So the perspectives I share with you today will be within that framework.

I think we all agree that the Internet is unique from all other media. It is unique in the way it operates; that is, it is the only globally interoperable technology — and it has led to innovations in commerce and communication, and in our social lives.

It is also unique in the way it has operated since its inception. From the pioneering days of the ARPANET in 1969, the technologists, funders and business people who built the Internet have operated according to a set of common values. Some of these values include a commitment to:

- Ensuring a single, end-to-end interoperable Internet;
- Bottom-up technical policy making and decision making;
- Cooperation, coordination, and consultation among participants and groups pushing forward initiatives;
- Global efficiency in the allocation of resources such as IP addresses;
- Encouraging innovation, particularly at the edge of the network;
- And building on the many layers of protocols to ensure the stability of the whole construct.

These values continue to be essential to the successful and rapid development of the Internet. In the late 1990s, a new network was choosing to link to the Internet every seven hours. Today's Internet is a vast collaboration of many components built on many layers by many combinations of business and technical skills.

Today, over 200,000 private networks make up the global Internet. The coordination, collaboration, and cooperation of many entities are vital to the Internet's successful operation, and have been integral to its design since the earliest research network.

ICANN itself is a unique model of governance. It is governed by an international Board of Directors, and its policy development process originates in three supporting organisations. Advisory committees composed of representatives from individual user organisations and technical communities work with the supporting organisations to create policy. In addition, over 120 governments and government institutions closely advise the Board via a Governmental Advisory Committee.

This approach, which involves cooperation among multiple technical, business, civil society and government stakeholders, has supported explosive growth in the use of the naming and addressing system.

Today, there are more than 1 billion users of the Internet.

The root system that ICANN helps coordinate supports more than 30 billion resolutions per day, nearly 10 times the number of phone calls in all of North America each day. VeriSign, one of the largest registrars, is investing in added capacity in order to handle the 4 trillion resolutions it expects each day by the year 2010. And that's just for the dot-com and dot-net top level domain names.

This rapid growth in use also supports a continued increase in e-commerce, Internet businesses, and new markets. Today the users of the Internet conduct some 2.4 trillion US dollars worth of e-commerce every year.

When ICANN introduced competition in the generic top-level domain marketplace, the expectation was to benefit consumers by offering more choices among registrars and by driving down the price of registration.

I'm happy to report a certain amount of success on this front. There are about 865 registrars worldwide and more than 120 million registered domain names. And the price of a domain name has dropped from an average of 50 US dollars in 1998 to about 10 dollars today.

Registrars now have a market and a business. Advertising on the Internet has become linked to domain name sales and per-per-click revenue generation. This robust domain name marketplace is even driving how we search — contextually as well as topically — and the scale of sites that can be searched. In fact, for online ads alone, revenues for 2007 are projected to be $19.5 billion US dollars.

ICANN's policy development role

How has all this come about? Through a well-defined multi-stakeholder policy development process. This policy-making and decision-making model —

- Safeguards an open, fair, and equitable policy development process;
- Is receptive to all stakeholders, both public and private;

- Is responsive to stakeholders who provide input and communicate the next steps toward a desired conclusion;

- Communicates timely and useful information about the issue and the policy process to interested stakeholders.

Let me talk about some of those policy issues in greater depth, along with my observations about what's happening and what's likely to happen. I'd also like to discuss some issues that are outside ICANN's narrow remit. However, they are of concern to the Internet community and thus are of concern to us. Increasingly, ICANN finds itself one of the few forums in which these issues can be raised so that solutions can be found elsewhere within the Internet community.

New generic top-level domain timetable

ICANN's Generic Names Supporting Organisation, or GNSO, is currently guiding policy development as it affects the deployment of new generic top-level domains. The payoff to the business world will be a well-defined process that streamlines the turnaround time between submittal of an application, accreditation by ICANN, and deployment of a new top-level domain in the domain name system.

Where does this process stand now? The process has picked up considerable momentum. The next GNSO working group report will be presented at ICANN's international meeting in Lisbon next week. The policy development process may be concluded and a final report issued at ICANN's meeting in Puerto Rico this coming July. It just remains for the new policy to be implemented, which could take place almost immediately thereafter. And the next round of new generic top-level domain applications could conceivably start early in 2008.

What does this mean to the business world? Consider the benefits of unique, so-called sponsored top-level domains — for example, a financial services TLD. Within certain limits, the domain's sponsors would be able to define the domain community, services, system operators, access and security protocols, among many other features.

Whois data

ICANN's GNSO is also guiding a related issue through the policy development process — this one concerns Whois data, or the information domain name owners must provide to the registrar from whom they purchase a domain. This information is essential to conduct business, but is often viewed as private or at least highly sensitive.

And so recurring questions arise — Who should have access? How much data should they able to access? How should they use that sensitive information? What about inaccurate Whois data? And how can we reconcile the data that is contractually required with regional or national privacy laws.

On the one hand, the banking and financial services industry, among others, has made it clear that it requires access to as much information as possible. They see such access as one of several effective investigative tools to combat phishing and other fraudulent behaviour. They feel having access to Whois data is in the best interests of their customers.

On the other hand, many privacy advocates, including the privacy commissioners of the European Union, wish to protect the Whois data and allow only limited access, or access under special circumstances.

And there is still the question of ensuring that Whois data is accurate and up-to-date.

This ongoing discussion has not yet achieved consensus. But the important point, I believe, is that all the parties to the discussion are able to voice their opinions through ICANN's bottom-up consensus-building policy-development model. And all these stakeholders' opinions have equal value and are given equal consideration.

After much research and several periods of open public comment, those opinions are now codified in a draft final report about to be published by the GNSO. This report contains several recommendations for resolving this multilayered issue. Those recommendations will undergo careful scrutiny by ICANN's Board of Directors later this year.

Multilingualism and internationalised domain names

If the Internet is to be truly global, it only makes sense that people in all regions and from all cultural and linguistic backgrounds be able to access the Internet in their local language scripts.

However, the term "multilingualism" in the context of the Internet relates primarily to two areas: multilingual online content, and access to such content by the use of domain names that include non-ASCII characters — called internationalised domain names, or IDNs.

Currently, only about 35 percent of all Internet users are native English speakers, although English websites continue to dominate, with approximately 68 percent of all sites readable only in English. About two-thirds of English-language sites are devoted to e-commerce, and fully half of those still originate in North America. Once much higher, these numbers have gone through a natural realignment as Internet use continues to expand geographically. Thus, multilingual content is critical to the Internet's continued evolution and use by people from all linguistic backgrounds.

Naturally, people are more comfortable reading the languages and writing the scripts they find most familiar. It follows that the promise of content on the Internet in a preferred language generates increased local interest and use. A multilingual Internet will enhance the local Internet experience in large regions of the world by enabling people to share and access information or use services offered in their own languages.

A modern Internet will also be the impetus behind the growth of translation services and instant translators such as the ones provided by Google. These facilities are essential to preventing a multilingual Internet from becoming the infrastructure of a modern Tower of Babel.

Before people around the world can enjoy this experience, however, many political, policy, cost, and technology issues remain to be resolved through collaboration among Internet stakeholders in all these realms.

There is an array of political and policy challenges surrounding the concept of multilingual Internet content. National laws and cultural norms differ on what is considered acceptable, and this directly impacts the kinds of content that can be generated for the Internet. While some regions offer little governmental intervention, others have much more restrictive policies governing both content and access to such content.

A nation may wish to raise awareness of the importance of generating information in local languages in order to encourage greater multilingual Internet content and use. For example, the government of India recently launched a countrywide campaign to encourage its more than one billion citizens to generate Internet content in many of its 22 official languages. It is providing CDs free of charge that contain instructions for generating content. UNESCO has also launched similar initiatives in many countries, as is seeing considerable success.

Driven by the geographic increase in the use of the Internet, the need to deploy internationalised top level names has emerged in tandem with other internationalisation efforts. At present, we are witnessing a push-pull dynamic between politics and technology in the implementation of IDNs.

The governments of many countries continue to push towards the deployment of internationalised top level names to ensure continued global interoperability of the Internet's unique identifier system in certain regions. Technology developers are taking a more deliberate approach that involves rigorous testing at each level of the system to ensure operational stability and to guard against fragmentation of the Internet.

The challenge facing both of these drivers — political momentum and technological feasibility — is to ensure that the implementation of IDNs takes place in a manner that does not jeopardise the Internet's continued stable, secure, and global interoperability. An unstable Internet serves no region's interests and could conceivably lead to fragmentation of the Internet.

While ICANN has the advantage of a world view of these undertakings, we are restricted by our agreement with the U.S. Department of Commerce in what we can actually do.

Among ICANN's core values are preserving and enhancing the operational stability, reliability, security, and global interoperability of the Internet while respecting the creativity, innovation, and flow of information made possible by the Internet. These goals can only be met by limiting ICANN's activities to those matters within its mission requiring or significantly benefiting from global coordination.

Thus, while ICANN's narrow mandate does not cover the content space or online content, we applaud efforts like those of the government of India and by UNESCO to promote the development of content on a world scale.

We also welcome regional and national efforts to expand access to that content through the implementation of IDNs as well as through improved connectivity. That access in the developing world is more than likely to come through mobile devices and through increasing reliance on wi-fi and satellite delivery rather than on telephone cables.

ICANN is committed to the implementation of IDNs in a manner that does not place the global interoperability of the Internet's unique identifier system at risk. We are convinced that before IDNs can be implemented in the root, there are many issues such as stability, intellectual property, and others that must be resolved before we can take advantage of this advance in Internet accessibility.

ICANN's current testing efforts are designed to reveal any negative impact that the insertion of internationalised top-level domain names may have on the root server system. The initial feasibility testing of the design of the laboratory setup was conducted in December 2006, and showed positive results. The root zone tests to follow are expected to show equal success.

Alongside these technical initiatives, ICANN's supporting organisations and advisory committees, including the Generic Names Supporting Organisation, the Country Code Names Supporting Organisation, and the Governmental Advisory Committee are working together to develop policies for the introduction of IDNs. The strict policy development protocols these organisations follow are aimed at enabling

ICANN to streamline the process for receiving proposals from applicants wishing to introduce new internationalised top level domains.

IPv6 transition road map

Of course, the addition of potentially millions of new internationalised domain names to the 120 million or more domains that are registered today has helped fuel the rumour that the Internet is about to run out of addresses. First, let me assure you that it is just a rumour — for now. Second, let me say that a contingency plan is already in place and operating smoothly.

The Internet Protocol version 4 — or IPv4 — system for naming computers and other devices linked to the Internet has stood us in good stead for many years, and will continue to do so. The next address system, IPv6, is designed as an overlay to IPv4 and assumes any additional load as service providers become able to accommodate its enhancements.

In rough figures, IPv6 has 340 trillion trillion trillion address spaces available — enough to see the Internet and its users well into the future.

Contingency plan

Along with the Internet, ICANN and its constituencies are maturing, adopting best practice business initiatives and planning strategically for the future. One outcome has been the Joint Project Agreement which ICANN signed last September with the U.S. Department of Commerce. In doing so, ICANN took a significant step forward towards full management of the Internet's system of centrally coordinated identifiers through ICANN's multi-stakeholder consultative model.

This Joint Project Agreement reflects the Department of Commerce endorsement of the ICANN model and affirms ICANN's capacity to take

full responsibility for the management of the technical aspects of the Internet on an ongoing basis. It also means that ICANN has greater autonomy.

The Department of Commerce has reaffirmed its commitment to an autonomous multi-stakeholder model of management of the Internet's system of unique. The major gains in this agreement are:

- ICANN and its community now determine what to work on – within its narrowly defined scope of responsibilities.
- ICANN now provides an annual report targeted to the global Internet community rather than to a single oversight body.
- ICANN now meets from time to time with the Department of Commerce and reports more to its constituencies and community on its activities rather than submitting regular reports of activities to a single oversight body.

In 2005, the ICANN community began a process of strategic planning intended to encompass and then realise projects of significance to the Internet community. Among those projects are measures to ensure that ICANN continues to manage its operations and execute its responsibilities in overseeing the technical aspects of the domain name system in a natural disaster or other physical event and to manage business failure or insolvency. An Executive Stability Committee has been formed to establish those measures and to present them to the Board for approval. This contingency plan will then become a part of ICANN's management operating principles.

Internet governance and control/regulation

Throughout the Internet's brief but stable history, it has been coordinated, not managed. The private sector has driven its growth in almost every aspect. Nothing about its development and operation has been decided by a command-and-control dynamic.

The Internet's phenomenal growth has led to debates at meetings of the U.N. World Summit on the Information Society (WSIS) in 2003 and 2005. These debates have refined international understanding about how best to support Internet growth while maintaining its stability and interoperability. And we now have greater clarity about who does what.

But the debate rages on. For example, Iran and Brazil have made a formal request to return the issue of Internet governance to the table at the next U.N. Secretary General's Internet Governance Forum in Rio de Janeiro in October of this year. The governments of both countries feel very strongly that a U.N. body should coordinate all Internet activity, including the addressing and routing system.

Consider for a moment the effect of oversight or regulation by one government or one body. Compare that scenario with some other infrastructure you are familiar with — telephone services, for example. Or air travel. I believe you would conclude that too few stakeholders were allowed to contribute to or influence the Internet's infrastructure, capabilities, services, or operability. All stakeholders, whether in the public or private sector, would be required to wait on, and pay the price of, the governing body's agenda.

Now, let's re-examine private-sector leadership. As I said before, it has proved successful since the early days of the Internet. Multiple

stakeholders from all Internet communities and constituencies are assured of a say in Internet infrastructure, stability, security, interoperability. In short, everyone has the opportunity to have a seat at the table. Truly, Internet governance is a global regulatory issue.

I'd like to issue a call to action at this point. We need business leaders around the world to stand up for the key principles of private-sector leadership in Internet governance. We would like you to help us sell this message and coordinate the voice of the private-sector beneficiaries of the Internet as we have it now.

In addition, the world's business leaders can —

- Become partners in managing these risks.
- Understand how your interests are affected by ICANN's policy work.
- Get involved in creating the policy that sets how the Internet connects you to your customers.
- Understand the opportunity the upcoming liberalising of gTLDs offers the business world.

Conclusion

The Internet is the most powerful and pervasive means of empowering individuals in human history. It is becoming part of the glue that ensures a rapid unleashing of humanity's knowledge and possibilities for all persons no matter what age, sex, creed, class, ethnicity and — at least in some degree — wealth. And it is radically reducing transaction costs and barriers to markets across a globalised economy.

There is still much work to be done as the Internet evolves, at the technical level and in resolving the regulatory, commercial, cultural, national, and social implications surrounding every innovation. The Internet's many stakeholders must work together to bridge the digital divide so that the billions of potential users now hampered by technical, practical, political, or cost considerations are assured access to the content that interests them at the highest speeds technically feasible.

ICANN considers it important that these broader issues receive the attention they deserve in forums suited to address them. ICANN will do its part in the areas of its competence, but resolving the issues I've discussed here today will require the involvement of governments, the business and private sectors, academia, and civil society.