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ICANN GOVERNANCE

HEARING

BEFORE THE

SUBCOMMITTEE ON SCIENCE, TECHNOLOGY, AND SPACE

OF THE

COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION
UNITED STATES SENATE

ONE HUNDRED SEVENTH CONGRESS

SECOND SESSION

JUNE 12, 2002

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ONE HUNDRED SEVENTH CONGRESS

SECOND SESSION

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ICANN GOVERNANCE

WEDNESDAY, JUNE 12, 2002

U.S. SENATE,
SUBCOMMITTEE ON SCIENCE, TECHNOLOGY, AND SPACE,
COMMITTEE ON COMMERCE, SCIENCE AND TRANSPORTATION,
Washington, DC.

The Subcommittee met, pursuant to notice, at 2:30 p.m. in room SR–253, Russell Senate Office Building, Hon. Ron Wyden, Chairman of the Subcommittee, presiding.

OPENING STATEMENT OF HON. RON WYDEN, U.S. SENATOR FROM OREGON

Senator WYDEN. The Committee will come to order. Over the last year the Subcommittee on Science, Technology, and Space has focused on a number of important issues relating to the Internet. In particular, we have focused on questions of cyber security in the context of e-commerce, especially as it relates to terrorist threats.

In fact, just recently the full Committee reported out several bills that this Subcommittee zeroed in on: In particular, the Net Guard legislation which will mobilize for the first time leaders in science and technology to deal with the threats that the country faces in the terrorist area and also the Cyber Security Research and Development Act, both of these bills.

I particularly want to commend Senator Allen. He and I have worked on a bipartisan basis on each of these important bills. And I thank him for his efforts and particularly, the focus to try to address technology in a bipartisan way.

Today we are going to take on a different challenge and that is to examine issues relating to ICANN, the Internet Corporation for Assigned Names and Numbers. It is the non-profit corporation that manages the system of Internet domain names and addresses.

Suffice it to say, ICANN is not exactly a household word in this country. It would be fair to say most Americans know little about what ICANN is or what it does. But virtually all Americans want an Internet that functions smoothly, uses easy to remember addresses, and enables users to consistently and reliably find the websites they need.

We also want a fair and reasonably priced system for registering Internet addresses. In short, management of the domain name system may be a technical subject but is crucially important to the continued success of the Internet. The question of how best to perform this important function is still unsolved. The Internet has become such a daily fact of life, it is easy to forget just how new it is. It was not that long ago that the Internet's addressing system

was managed largely by a single individual and key decisions could be made on a consensus basis by a small handful of interested parties.

As the Net transcends its academic roots—communications both in the United States and worldwide, management of the domain name system has become—ICANN, began in 1998, was then something of an experiment. And as the recent state of ICANN reform proposals suggest, there is a widespread feeling that changes are needed.

I am anxious to hear the views of today's witnesses. But a few matters do seem clear. First, I have the view that ICANN needs a more clearly defined mission. Second, it is going to have to have sufficient resources to carry out that mission. Third, it's going to have to have an organizational structure that ensures input from a wide range of forces. And finally, it has to have processes—fair ones, so as to earn trust and confidence for all in the internet community.

We thank our witnesses. I also especially want to thank Senator Burns who has had a continuing concern and interest in this issue. He is, of course, one of the most knowledgeable voices in Congress on technology and the Internet. We are very glad that he is here today.

I think, given the fact that there is a vote on the floor, what we ought to do is recognize first Senator Allen, the ranking minority member and then Senator Burns. And I think after the opening statements, we will take a quick break. We'll have the vote and then proceed with our witnesses' statements at that time.

So, we are happy to have Senator Allen here and we'll proceed with your statement.

STATEMENT OF HON. GEORGE ALLEN,
U.S. SENATOR FROM VIRGINIA

Senator ALLEN. Thank you, Mr. Chairman, thanks for your leadership and I appreciate our witnesses being here today. I will try to abbreviate my statement because I am, once again, in agreement with you. I've actually said to some of my fellow Republican colleagues that Senator Wyden and I, on areas of common interests and shared goals, have worked very well together. I appreciate very much your leadership on a variety of issues that have to deal with technology and security and as things transpire more and more, it seems like we will continue to work together—so that's good. That's good for our country.

Let me just make a few opening remarks on this subject, because hearings are to listen and maybe ask some questions to determine where we are.

Obviously, the explosive growth of the Internet, both in terms of use and functionality, has permanently embedded its application into our way of life, into our consumer way of life, as well as our business part of our society. The Internet and the dot.com—there is no doubt of our economy's reliance and in other respects, its dependency on this medium.

The Internet has substantially increased, it will continue to increase in this country and as more and more countries have the ability to access the internet by wire or by wireless methods or by

satellites, it will become even more important to us domestically and internationally. Now, the actual operation of the Internet is often taken for granted. It's just one of those wonderments. Most people don't pay regular attention to it. They click around and it works.

It is still a very complex technical matter that is built upon the protocol, a very important protocol of addresses, domain names, and root servers, which are absolutely essential to the Internet's successful operation. ICANN is another important component to the Internet's successful collaboration. It's a private, non-profit corporation responsible for coordinating and managing the day-to-day technical functions of the Internet.

I think most of us can agree that ICANN has made successful progress at increasing competition in the generic top-level domain name logic market. Now, there are some concerns about the mission, as were expressed by Chairman Wyden. And some progress was made since 1998.

There has been concerns expressed to me and maybe they will be developed and addressed during this hearing this afternoon. As a private corporation ICANN is attempting to become the Internet's governing body or global regulator. There have been concerns expressed about how the selection process of those formed in the new generic top-level domains as far as the—well, I'm not going to get into all of the details. But, nevertheless, there are concerns about the country code top-level domains and that some are in and some are out. And that has to get negotiated because some become at a competitive disadvantage or unlevel playing field if some are in agreement with ICANN and some are compelled to be in, but others are not.

There is also a concern that I hope our panel will address about ICANN's increased role as operator of two registries, the .arpa and .int, as well as one of the Internet's 13 root servers. That should be addressed. I think it will come up during this hearing.

I do want to say this, I understand that the president of ICANN will be on the first panel and will discuss proposed plans to reform their board Trustees, and standing committees. One of the purposes of this hearing is to find out how these reform plans will affect ICANN's mission—what that mission will be in the future—and last, the overall management of the Internet.

I have some other views, but I know we have to vote and I also want to hear from Senator Burns. Thank you, Mr. Chairman.

Senator WYDEN. OK. Senator Burns.

STATEMENT OF HON. CONRAD BURNS, U.S. SENATOR FROM MONTANA

Senator BURNS. Well, thank you Mr. Chairman. I want to thank you and the full Committee chairman for honoring my request to hold this hearing today. Again, we have worked on—technology doesn't know politics. It is in its development and we have all taken an approach to that and it has been very good for me for the issue at hand.

Congress does have a critical oversight role to play in these issues of Internet infrastructure and governance. The Internet has become so important to our Nation's well-being that we in Congress

need to become better informed about its operations. It is particularly true in domains such as name systems, which is highly technical in nature.

The critical issue which concerns us at this Committee is the deregulation of control over domain name systems from the Department of Commerce to ICANN. The formation of ICANN originated with so-called Green and White Papers under the Clinton administration back in 1998. It proposed the privatization of the domain name system. White Paper called for the creation of a "new not-for-profit corporation formed by the private sector of Internet stakeholders to administer policy for Internet Name and Address System," and declared that the U.S. Government "should end its role in the Internet Number and Name Address System."

Soon thereafter, ICANN was created and the Commerce Department began to delegate certain functions of the Internet Domain Name system to it. The eyes of many critics, and this delegation of authority have happened far too swift. ICANN is supposed to function by a consensus of the Internet community, its operations have all be controversial and they have been shrouded in mystery.

Nearly a year and a half ago, when I convened a hearing on ICANN governance in my former role as Chairman of the Communications Subcommittee, we heard from numerous witnesses about serious and troubling concerns about the very legitimacy of ICANN. However, many of these criticisms were tempered with the qualification that ICANN was still an experiment. We are now nearly 4 years into the experiment, however, we must make some hard judgments right now on where we stand.

After last year's hearing, given my numerous concerns about ICANN, I requested a comprehensive GAO report on the organization's legitimacy and also on its performance. I was particularly troubled that while ICANN was initially created to address purely technical concerns associated with maintaining the domain name system, it had transformed into a policymaking body. However, it had no due process requirements placed on agencies given policymaking power.

After examining the GAO's testimony, I'm convinced—ICANN is an experiment that has to succeed. And if it is to succeed, serious structural reform must be undertaken. To accomplish this aim, I am seriously considering legislation that will condition the extension of the Memorandum of Understanding between the Department of Commerce and ICANN on reform efforts. For ICANN to function effectively in the future, it must narrow its mission to administrative, rather than regulatory matters and implement transparency and new policies in its operations. The status quo simply is not acceptable. Nor is it sustainable. Simply put, ICANN was never meant to be a super national regulatory body.

Now, the issues are complicated, but the stakes are high. We tune in and click in to the Internet and it works. We want to make sure it continues to do that around the world.

Thank you, Mr. Chairman. And let's go vote and save the nation.

[Laughter.]

[Recess.]

Senator WYDEN. The hearing will come to order and our apologies to our witnesses and our guests. The first panel will be the

Honorable Nancy Victory, the Assistant Secretary of Commerce for Communications and Information; Peter Guerrero, Director of the Physical Infrastructure Group, the General Accounting Office; and Mr. Stuart Lynn, President of ICANN. So, welcome.

We would like to ask each of you to make your prepared remarks in 5 minutes. We have a long hearing ahead of us and a hectic afternoon. We are going to make your prepared statements a part of the hearing record in there entirety. I know that there is almost a biological compulsion to just read every single word that is on the paper in front of you.

[Laughter.]

It will be made a formal part of the record and if you will, stick to 5 minutes. Let's begin with you, Ms. Victory.

STATEMENT OF HON. NANCY J. VICTORY, ASSISTANT SECRETARY FOR COMMUNICATIONS AND INFORMATION, DEPARTMENT OF COMMERCE

Ms. VICTORY. Thank you, Mr. Chairman. I would like to thank you and the Members of the Subcommittee for inviting me here today to testify on this important issue.

The Internet and its role in our society has seen tremendous growth over the last several years. It has become a significant and important means of doing research, communicating with each other and conducting business, particularly here in the United States.

Recently released figures indicate that e-commerce sales by retail establishments reached $9.8 billion during the first quarter of 2002, a 70 percent increase over the first quarter of 2000. Given the Internet's importance in the many facets of our lives and in the country's general economic well-being, the Department of Commerce regards the stability and security of the Internet and its underlying domain name management system as one of its primary Departmental charges.

While the Department continues to serve as the steward of critical elements of the domain name system during the transition to private sector management, ICANN is the private sector organization responsible for its day-to-day management. Recently, there have been calls for ICANN to review its mission, structure, and processes to assess their efficacy and appropriateness in light of the needs of today's Internet.

ICANN, itself, has initiated its own process of reform. The Department believes these discussions are healthy and essential to ensuring the best path for stable and secure Internet management in the future. On behalf of the Department, I am pleased to participate today to assist in further discourse on this important issue. Additionally, I welcome GAO's report on Internet management and appreciate its comments and recommendations. I look forward to continuing to work with GAO and the Congress in this reform process.

Since its inception less than 4 years ago, ICANN has achieved significant successes—the launch of seven new top-level domains, the development of a uniform dispute resolution procedure for trademark holders, and a reduction in the average price of domain name registrations from $50 to $10 per year. These accomplish-

ments have encouraged progress in the development of a more competitive Internet environment.

Yet substantial criticism has also been levied against ICANN. Its process for selecting new gTLDs was considered controversial and there is growing concern that corporate governance issues, including a perceived lack of financial and personnel resources, have undermined ICANN's effectiveness and legitimacy. Given this, the Department believes that the current re-examination of ICANN's structure, process, role, and mission is very appropriate.

But, we also believe such a review is an inevitable consequence of this first experiment in private sector management of the DNS. It should not be surprising that in hindsight, some things should have been done differently. In addition, the Internet has changed dramatically in scope and usage since ICANN was first conceived. Governance and decisionmaking processes that might have made sense several years ago may no longer make sense today. Accordingly, the Department views the current reform process as a timely and necessary step.

The Department of Commerce, through an informal interagency working group, has been closely studying each development in the ICANN reform process. The Department has also consulted with private sector stakeholders, including trade associations, businesses, academics, and public interest groups. The great diversity of these stakeholders—and their different vision of DNS management—highlights the challenges in ICANN reform.

Moreover, the Department engaged in discussions with our international counterparts through ICANN's Governmental Advisory Committee and on a bilateral basis. And, of course, we have listened carefully to the views of Congress on this matter and have had an opportunity to consult with Congressional staff. We've shared our views with ICANN management and look forward to working with them on the organization's reform effort.

Based upon these consultations and the Department's own independent analysis, the Department continues to support the goal of private sector management of the DNS. Indeed, private sector management seems to be the preference of virtually all of the Internet stakeholders with whom we have consulted. The Department strongly believes this approach is a much more effective vehicle than having such functions performed by an intergovernmental body, such as the International Telecommunications Union.

We believe an intergovernmental body would be less responsive in managing an essentially private infrastructure. Such intergovernmental management would also be inconsistent with U.S. efforts to privatize other global commercially driven communication services.

While some stakeholders have urged abandonment of ICANN in favor of a new private sector entity, the Department considers this approach premature. ICANN is attempting to reform itself and the preliminary efforts of the Committee on Evolution and Reform show great promise. Starting over with a new entity would likely raise many of the same systemic problems that ICANN is currently tackling, as well as some issues that the organization may have already successfully addressed.

If ICANN is going to be effective, it must instill confidence and legitimacy in its operations and focus solely on the business of DNS management. The September termination date of the Memorandum of Understanding between ICANN and the Department will be a key time for the Department to determine whether ICANN is on track for doing so. We will be looking to see whether ICANN is on a path to being professionally run and managed, in a stable manner, for the long term. In particular, the Department will be looking for progress in the following areas:

First, ICANN's mission and responsibilities must be clarified. The Department believes ICANN's efforts should be focused on coordination of the core technical functions and directly related policy areas detailed in the Department's 1998 White Paper.

Second, ICANN's processes must be revised to provide greater transparency and accountability for decisionmaking.

Third, ICANN's processes must be designed to ensure all stakeholders have the opportunity to be heard and considered.

Fourth, ICANN's structure and processes should provide an effective advisory and narrowly tailored role for governments through an effective Governmental Advisory Committee.

And fifth, ICANN must have a mechanism for generating adequate financial and personnel resources to carry out its mission.

In sum, the Department continues to be supportive of the ICANN model. However, the Department is of the view that ICANN must make certain reforms to assure the Department and the Internet community that it is able to carry out its important mission—effectively and in a stable manner—into the future.

We look forward to working with this Committee, ICANN and the Internet community. Thank you and I would be happy to answer any questions.

[The prepared statement of Ms. Victory follows:]

PREPARED STATEMENT OF HON. NANCY J. VICTORY, ASSISTANT SECRETARY FOR COMMUNICATIONS AND INFORMATION, DEPARTMENT OF COMMERCE

Thank you, Mr. Chairman. I would like to thank you and the Members of the Subcommittee for inviting me here today to testify on this important issue. I am Nancy J. Victory, Assistant Secretary for Communications and Information and Administrator of the National Telecommunications and Information Administration.

There is no question that the Internet has seen tremendous growth over the last several years. What started as a small-scale system of links among U.S. academic institutions is now a gigantic global network connecting any American with a computer hook-up to individuals, companies and institutions around the world. The Internet has not merely grown in size. Its role in society has also expanded exponentially, particularly here in America. The Internet has become a significant and important means of doing research, communicating with each other, and conducting business. In fact, e-commerce sales by retail establishments reached $9.8 billion during the first quarter of 2002—a 70 percent increase over first quarter 2000. Given the Internet's importance in all of these facets of daily life and the country's general economic well-being, it is essential that the Internet—and its underlying domain name management system—remain stable and secure. This is the primary concern of the Department of Commerce.

While the Department continues to serve as the steward of critical elements of the domain name system during the transition to private sector management, the Internet Corporation of Assigned Names and Numbers (ICANN) is the private sector organization responsible for its day-to-day management. Recently, there have been calls for ICANN to review its mission, structure and processes for their efficacy and appropriateness in light of the needs of today's Internet. ICANN itself has initiated its own process of reform. The Department believes these discussions are healthy and essential to ensuring the best path for stable and secure Internet man-

agement in the future. On behalf of the Department, I am pleased to participate here today to assist in further discourse on this important issue.

In my testimony today, I would like to briefly outline the Department's relationship with ICANN, the Department's activities during this reform effort, and the Department's views on the priority areas for ICANN reform.

The Department's Relationship with ICANN

ICANN was created out of an effort to bring more coordination and sustainability to the domain name management process, as the Internet grew into a large-scale global network. In June 1998, the Department issued the *Statement of Policy on the Privatization of the Internet Domain Name System (DNS)*, known as the *DNS White Paper*. This document articulated four primary functions for global DNS coordination and management:

1) To set policy for and direct the allocation of IP number blocks;
2) To oversee the operation of the Internet root server system;
3) To oversee policy for determining the circumstances under which new top level domains (TLDs) would be added to the root server system; and
4) To coordinate the assignment of other technical protocol parameters as needed to maintain universal connectivity on the Internet.

The White Paper concluded that these functions were relevant to the state of the DNS and should be primarily performed through private sector management. To this end, the Department stated that it was prepared to enter into agreement with a new not-for-profit corporation formed by private sector Internet stakeholders to administer policy for the Internet name and address system. ICANN was formed by private sector interests for this purpose, and, in the fall of 1998, the Department of Commerce entered into a memorandum of understanding (MOU) with ICANN to carry out these functions.

The MOU did not simply turn over management of the domain name system to ICANN. Rather, the purpose of this agreement was to give ICANN certain responsibilities during a transition period to allow the Department to ensure that ICANN possessed the capabilities to assume technical management of the DNS before it was transferred from the Federal government. Under the MOU, the domain name system management functions to be undertaken by ICANN included:

1) establishment of policy for and direction of the allocation of Internet Protocol number blocks;
2) oversight of the operation of the authoritative root server system;
3) oversight of the policy for determining the circumstances under which new top-level domains would be added to the root system;
4) coordination of the assignment of other Internet technical parameters as needed to maintain universal connectivity on the Internet; and
5) other activities necessary to coordinate the specified DNS management functions, as agreed by the parties.

The relationship between the Department and ICANN is defined by legal agreements, and is not one of regulator and regulated. The Department plays no role in the internal governance or day-to-day operations of the organization. However, under the terms of the MOU, the Department may provide oversight to ensure that ICANN performs the MOU tasks and may offer expertise and advice on certain discrete issues, such as private sector functions related to technical management of the DNS and processes for making the management of the root server system more robust and secure. The Department's real ability to influence ICANN's activities is tied to renewal of the MOU. The MOU is set to expire on September 30, 2002, at which time the Department will have to decide whether to extend the agreement, modify the agreement, or allow it to expire.

Re-Examination of ICANN Is Appropriate

Since its inception less than four years ago, ICANN has had some significant successes and made progress in the development of a more competitive Internet environment. For example:

1) Since ICANN's inception, the average price of domain name registrations to consumers has decreased from $50 per year to $10 per year.
2) ICANN has increased competition in the generic top level domain market by successfully selecting and implementing seven new gTLDs—.pro, .aero, .museum, .biz, .info, .coop, and .name.

3) Further, ICANN launched its Uniform Dispute Resolution Procedure (UDRP), which introduced a process for the quick, low cost resolution of disputes involving trademark "cybersquatting." The UDRP has dampened interest in this formerly lucrative Internet activity.

Yet, there has also been substantial criticism of some of ICANN's decisions or lack thereof. For example:

1) Many have considered the selection of new gTLDs arbitrary and the roll-out of new gTLDs too slow.
2) There has been a growing concern in the community of ICANN stakeholders that its structure, processes, and inability to make progress on other key DNS issues has undermined its effectiveness and legitimacy.
3) Further, ICANN is perceived by many to lack the financial and personnel resources to carry-out its mission—a limited role from which many believe ICANN has departed.

Yet, separate and apart from these important stakeholder concerns, the Department believes that the current re-examination of ICANN's structure, process, role and mission is not only appropriate, but also inevitable. After all, ICANN is really the first experiment with having a private sector entity manage a huge, complex resource with multi-national implications. There was no precedent or model for ICANN to follow. It should not be surprising, then, that in hindsight some things should have been done differently. Moreover, the Internet has changed dramatically in scope and usage since ICANN was first conceived. Governance and decision-making processes that might have made sense several years ago may no longer make sense today. Accordingly, the Department views the current reform process as a timely and necessary step.

Reforming ICANN, however, will not be easy. One of the great strengths of the Internet—its diversity of stakeholders—is also one of ICANN's challenges. These stakeholders run the gamut from commercial carriers and businesses to public interest organizations and private citizens, not to mention technocrats, governments and assorted others. These different constituencies have different interests and priorities—and very different visions of DNS management. It will be difficult, if not impossible, for any reform effort to satisfy all of these different parties. Yet, while they may have different perspectives, these stakeholders should all share a common goal in maintaining a safe and stable Internet. The task before ICANN is to ensure that these interests stay focused on their common goal so that they all can benefit together.

DOC/NTIA Role in Exploring ICANN Reform

As I mentioned earlier, the Department believes that an examination of the ICANN experiment is a particularly appropriate undertaking at this time. Given the gravity of the Department's charge to ensure the stable and sound management of the Internet domain name system, we were especially heartened by ICANN's own call for reform and self-examination. Recently, Stuart Lynn, the Chief Executive Officer of ICANN, published a paper outlining his views on the organization's problems, as well as steps for reform. The ICANN board responded to Mr. Lynn's call for reform by establishing a Committee on Evolution and Reform, charged with constructing a plan to address these problems. In accomplishing this task, the Committee invited public participation and considered reform proposals from the ICANN community.

As part of the reform efforts, NTIA and other Departmental agencies engaged other U.S. Government agencies including, the Department of State, the Federal Trade Commission, the Federal Communications Commission, and other Commerce agencies including the Technology Administration, the International Trade Administration, and the U.S. Patent and Trademark Office to develop an interagency consensus on acceptable parameters for the ICANN reform process.

The Department further consulted private sector stakeholders including trade associations, businesses, academia, and public interest groups to gather a wide range of views on ICANN reform issues. Recognizing the global nature of the DNS, the Department also consulted international counterparts through ICANN's Governmental Advisory Committee and on a bilateral basis. And of course we have listened carefully to the views of Congress on this matter and have had the opportunity to consult with Congressional staff on the topic several times both prior to and during the ICANN reform process. We have shared these views with ICANN management and look forward to working with them on the organization's reform effort.

Summary of DOC/NTIA's Views Regarding Reform

As a result of these consultations and the Department's own independent analysis, the Department continues to support the goal of private sector management of the DNS. Indeed, private sector management seems to be the preference of virtually all of the Internet stakeholders with whom we have consulted. The Department strongly believes this approach is a much more effective vehicle than having such functions performed by an intergovernmental body, such as the International Telecommunications Union (ITU). We believe an intergovernmental body would be less responsive in managing an essentially private infrastructure. Further, such intergovernmental management would be inconsistent with U.S. efforts to privatize other global commercially driven communication services, such as Intelsat. Governmental input into ICANN is more appropriately provided through an effective Government Advisory Committee.

While generally supportive of private sector management, some stakeholders have urged abandonment of ICANN in favor of a new private sector entity. At this time, the Department considers this approach premature. ICANN is attempting to reform itself and the preliminary efforts of the Committee on Evolution and Reform show some promise. Starting over with a new entity would likely raise many of the same systemic problems that ICANN is currently in the process of tackling, as well as some issues ICANN may already have successfully addressed. Accordingly, the Department believes allowing time for the ICANN reform process is warranted.

Nevertheless, it is critical for ICANN reform to take place in a timely manner. If it is going to be effective, ICANN must instill confidence and legitimacy in its operations and focus solely on the business of DNS management. The September termination date of the MOU will be a key time for the Department to determine whether ICANN is on track for doing so. What will we be looking for in making this analysis? In general, we need to see that ICANN is on track to be professionally run and managed, in a stable manner, for the long term. In particular, the Department feels that progress needs to be made in several areas:

1) **Clarifying its mission and responsibilities.** First, ICANN's mission and responsibilities need to be clarified. Understanding its core functions, and formulating its structure and process accordingly, is key to any organization's success. Further, especially for a new, experimental organization, a limited, rather than an expansive, view of its functions is prudent. The Department believes ICANN's efforts should be focused around coordination of the core technical and directly related policy areas initially set forth in the Department's 1998 Statement of Policy. We agree with the majority of stakeholders that ICANN's mission must "stay narrow." ICANN is not, and should not become, the "government of the Internet."
2) **Ensuring transparency and accountability.** Second, ICANN's processes must be revised to provide transparency and accountability for decision-making. As an entity charged with managing a global resource, ICANN's operating procedures need to be open and transparent to all interested parties. At a minimum, ICANN should establish clearly written policy development procedures, with reasonable time frames for the development of recommendations, the posting and public consideration of those recommendations, and allotted time for revision of proposed policies.
3) **Responding to Internet stakeholders.** Third, ICANN's processes must be designed to ensure all Internet stakeholders have the opportunity to get a fair hearing. As I highlighted earlier, the Internet community consists of a variety of interests. It is critical that ICANN develop mechanisms that allow for the opinions of all stakeholders to be heard and considered. It is highly unlikely that ICANN, or any similar organization, will be able to completely satisfy all interested parties, but every effort should be made to meaningfully consider constituency concerns.
4) **Developing an effective advisory role for governments.** Fourth, ICANN's structure and processes should provide an effective advisory role for governments through an effective Governmental Advisory Committee. Given the multi-national nature of the Internet and the international ramifications of ICANN's decisions, it is appropriate to provide a mechanism for meaningful government input into ICANN. Since ICANN is a private sector entity, the governmental role, while important, must be advisory and narrowly tailored.
5) **Ensuring adequate financial and personnel resources.** Fifth, ICANN must have a mechanism for generating adequate financial and personnel resources to carry out its mission. As part of the reform process, ICANN must

> ensure that it has enough staffing to execute effectively its decision making processes and its operational responsibilities, including facilitating policy development by its supporting organizations, management of the technical functions, and support for the work of the Root Server System Advisory Committee. ICANN, and its stakeholders, must place priority effort on securing a stable funding base for the organization's operations.

In sum, the Department continues to be supportive of the ICANN model. However, the Department does believe that ICANN needs to make certain reforms to assure the Department and the Internet community that it is able to carry out its important missions—effectively and in a stable manner—into the future. I have outlined above the types of reforms the Department will be looking for in making a determination in September as to whether to renew, extend or modify the MOU with ICANN. We look forward to working with this Committee, ICANN and the Internet community to see that these reforms are achieved.

Thank you and I would be happy to answer any questions that you may have.

Senator WYDEN. Thank you, Ms. Victory. Mr. Guerrero.

STATEMENT OF PETER GUERRERO, DIRECTOR, PHYSICAL INFRASTRUCTURE GROUP, GENERAL ACCOUNTING OFFICE

Mr. GUERRERO. Thank you, Mr. Chairman. With me today is James Sweetman, our Analyst-in-charge for this assignment.

We appreciate the opportunity to testify on the progress being made on privatizing the management of the Internet domain name system. As you know, in 1997 the Department of Commerce was charged by the President with transitioning the responsibility for the management of this domain system to the private sector. The Department subsequently issued a policy statement that defined four guiding principles for this effort:

First, The U.S. Government should end its role in a manner that ensures the stability of the Internet.

Second, market mechanisms that support competition should drive the management of the Internet.

Third, the private sector structure for managing the domain system should reflect the functional and geographic diversity of the Internet and its users.

And finally, where coordinated management is needed, responsible private-sector action is preferable to government control.

After reviewing several proposals from private sector organizations, in 1998 the Department chose ICANN to carry out this transition. As stated in the transition process, the Department is responsible for gaining assurance that ICANN has the capacity and resources to manage the domain name system. To do this, the Department and ICANN entered into an agreement in the form of a Memorandum of Understanding, or MOU, that defined a set of transition tasks.

It was originally expected these tasks would be completed by September of 2000. However, this timeframe was not met and the MOU is now currently scheduled to expire in September of this year. During this period ICANN has made some important progress as you have heard. Progress has been slow in other key areas, however.

One of the transition tasks involved enhancing the stability and security of the domain name system servers. The root servers, 13 computers that are at the heart of this system, now operate on a volunteer basis by government, non-profit, and for-profit entities here and abroad. In June 1999, ICANN and the Department en-

tered into a cooperative research and development agreement to guide this effort. The final report was expected by September of 2000. Although this deadline was later extended to December of last year, the report has not yet been issued.

ICANN is also having difficulty formalizing the traditionally informal relationships among the parties involved in running the domain name system. Perhaps most notably, progress has been slow in creating a process within ICANN to represent the functional and geographic diversity of the Internet, and to make effective use of private, bottom-up coordination. ICANN struggled with this task, especially in establishing a policymaking Board of Directors that balances the interests of various Internet constituencies, such as Internet service providers, domain name managers, technical bodies, and Internet users.

ICANN developed a plan for moving from its initial board composed of the president and 9 appointed members to a 19 member board. Nine of the members of this larger board were to be selected by ICANN supporting organizations and nine were to be selected by the general Internet community through global on-line elections. This plan was never fully implemented and the issue of the board structure and selection process remains unresolved today.

For all of these reasons, Mr. Chairman, GAO has concluded that the timing and outcome of the transition remains highly uncertain. Earlier this year, ICANN's president also concluded that ICANN was on the wrong track and could not achieve its mission without a new and reformed structured. He noted that ICANN is still not fully organized and was not yet capable of carrying out the global management and coordination of the domain name system.

As you know, ICANN is currently engaged in a process of identifying what reforms are needed. Both the timing and outcome of this reform effort are uncertain at this time, although some suggest the reforms are to be discussed later this month at the ICANN meeting in Bucharest, Romania.

I would like to return now to the role of the Department of Commerce which is responsible for gaining assurance that ICANN has the resources and capability to manage the domain name system. However, the Department does not regulate ICANN or involve itself in ICANN's internal governance or day-to-day operations. Its relationship with ICANN is limited to determining whether ICANN is carrying out the terms of its agreements with the Department, such as the MOU.

The Department's public assessment of the progress being made on this transition has been limited. Department officials tell us that they carry out their oversight of ICANN's MOU-related transition tasks mainly through on-going informal discussions, of which there is no formal record. The Department has chosen only once to provide ICANN with a formal written assessment of the corporation's progress on the transition. This occurred in June 1999 and was made publicly available by ICANN. When we asked a Department official to characterize ICANN's overall progress this past February, shortly before ICANN's president concluded that the organization would come to a halt without reform, they replied that substantial progress had been made on the project. But, they would

not speculate ICANN's ability to complete its task by September of this year.

Instead of overall progress assessments, the Department has chosen to evaluate ICANN's progress on individual transition tasks. Yet, this approach is not always provide a clear understanding of why certain tasks are considered complete and others incomplete. For example, tasks involving representation were removed from the MOU when it was amended 2 years ago, even though ICANN has not tested and implemented its plan to represent the various interests of the stakeholders on its Board of Directors. Although no explanation for this decision was provided at the time, Department officials told us that they agreed to remove these tasks because ICANN had a process in place to complete them. As I mentioned earlier, however, this plan was never fully implemented and representation as an issue remains unresolved and highly contentious today.

Mr. Chairman, in view of the Department's important role as the responsible steward for this transition, as well as the current unsettled state of the transition, we are recommending the Secretary of Commerce issue a status report detailing the Department's assessment of the progress that has been made on the tasks, the work that remains to be done, and estimated timeframe for completing this transition. In addition, the status report should discuss any changes to the transition tasks or the Department's relationship with ICANN that may result from the ongoing reform initiatives. Subsequent status reports may also be required.

This concludes my statement, Mr. Chairman. Thank you.

[The prepared statement of Mr. Guerrero follows:]

PREPARED STATEMENT OF PETER GUERRERO, DIRECTOR, PHYSICAL INFRASTRUCTURE GROUP, GENERAL ACCOUNTING OFFICE

Mr. Chairman and Members of the Subcommittee:

We appreciate the opportunity to provide testimony today on the important issue of privatizing the management of the Internet domain name system. This system is a vital aspect of the Internet that works like an automated telephone directory, allowing users to reach Web sites using easy-to-understand domain names like www.senate.gov, instead of the string of numbers that computers use when communicating with each other. As you know, the U.S. government supported the development of the domain name system and, in 1997, the President charged the Department of Commerce with transitioning it to private management. The Department subsequently issued a policy statement, called the "White Paper," that defined the following four guiding principles for the privatization effort:

- **Stability:** The U.S. government should end its role in the domain name system in a manner that ensures the stability of the Internet. During the transition, the stability of the Internet should be the first priority and a comprehensive security strategy should be developed.
- **Competition:** Where possible, market mechanisms that support competition and consumer choice should drive the management of the Internet because they will lower costs, promote innovation, encourage diversity, and enhance user choice and satisfaction.
- **Representation:** The development of sound, fair, and widely accepted policies for the management of the domain name system will depend on input from the broad and growing community of Internet users. Management structures should reflect the functional and geographic diversity of the Internet and its users.
- **Private, bottom-up coordination:** Where coordinated management is needed, responsible private-sector action is preferable to government control. The private process should, as far as possible, reflect the bottomup governance that has characterized development of the Internet to date.

After reviewing several proposals from private sector organizations, the Department chose the Internet Corporation for Assigned Names and Numbers (ICANN), a not-for-profit corporation, to carry out the transition. In November 1998, the Department entered into an agreement with ICANN in the form of a Memorandum of Understanding (MOU) under which the two parties agreed to collaborate on a joint transition project. The Department emphasized that the MOU was an essential means for the Department to ensure the continuity and stability of the domain name management functions that were then being performed by, or on the behalf of, the U.S. government. The MOU states that before making a transition to private sector management, the Department requires assurances that the private sector has the capability and resources to manage the domain name system. To gain these assurances, the Department and ICANN agreed in the MOU to complete a set of transition tasks. The Department's tasks mainly relate to providing advice, coordination with foreign governments, and general oversight of the transition. ICANN agreed to undertake tasks that call for it to design, develop, and test procedures that could be used to manage the domain name system. Collectively, ICANN's tasks address all four of the transition's guiding principles.

Progress on and completion of each task is assessed by the Department on a case-by-case basis, with input from ICANN. Any amendments to the MOU, such as removing tasks, must be approved by both parties. However, the Department retains responsibility for determining when management of the domain name system will be transitioned to ICANN, using the procedures tested during the transition. The original MOU was scheduled to expire on September 2000. Because work on the transition was not completed within the original transition time frame, the MOU was amended several times, and its time frame extended twice. The amended MOU is currently due to expire in September 2002.

My testimony today responds to Senator Burns' request that we review (1) ICANN's progress in carrying out the transition, and (2) the Department's assessment of the transition. To address these issues, we spoke with officials from the Department of Commerce and ICANN, as well as members of ICANN's Board of Directors and outside experts. We also reviewed relevant documents and attended public meetings of ICANN. We conducted our work from June 2001 through May 2002 in accordance with generally accepted government auditing standards.

In summary, we found that the timing and eventual outcome of the transition remains highly uncertain. ICANN has made significant progress in carrying out MOU tasks related to one of the guiding principles of the transition effort—increasing competition—but progress has been much slower in the areas of increasing the stability and security of the Internet; ensuring representation of the Internet community in domain name policymaking; and using private, bottom-up coordination. For example, despite years of debate, ICANN has not yet decided on a way to represent the globally and functionally diverse group of Internet stakeholders within its decision-making processes. Earlier this year, ICANN's president concluded that ICANN faced serious problems in accomplishing the transition and would not succeed in accomplishing its assigned mission without fundamental reform. Several of his proposed reforms were directed at increasing participation in ICANN by national governments, business interests, and other Internet stakeholders; revamping the composition of ICANN's Board and the process for selecting Board members; and establishing broader funding for ICANN's operations. In response, ICANN's Board established an internal committee to recommend options for reform. The Committee's May 31, 2002, report built on several of the president's proposals and made recommendations involving, among other things, changes to ICANN's organizational structure. The Board plans to discuss the Committee's recommendations at ICANN's upcoming meeting in Bucharest in late June 2002.

Although the transition is well behind schedule, the Department's public assessment of the progress being made on the transition has been limited for several reasons. First, the Department carries out its oversight of ICANN's MOU-related activities mainly through informal discussions with ICANN officials. As a result, little information is made publicly available. Second, although the transition is past its original September 2000 completion date, the Department has not provided a written assessment of ICANN's progress since mid–1999. The MOU required only a final joint project report. Just prior to the ICANN president's announcement of ICANN's serious problems, Department officials told us that substantial progress had been made on the project, though they would not speculate on ICANN's ability to complete the transition tasks before September 2002, when the current MOU is set to expire. Third, although the Department stated that it welcomed the call for the reform of ICANN, they have not yet taken a public position on reforms being proposed. They noted that the Department is following ICANN's reform effort closely, and is consulting with U.S. business and public interest groups and foreign govern-

ments to gather their views on this effort. Because the Department is responsible for gaining assurance, as the steward of the transition process, that ICANN has the resources and capability to manage the domain name system, we are recommending that the Secretary of Commerce issue a status report assessing the transition's progress, the work that remains to be done, and the estimated timeframe for completing it. In addition, the report should discuss any changes to the transition tasks or the Department's relationship with ICANN that result from ICANN's reform initiative.

We discussed our characterization of ICANN's progress and the Department's assessment of the transition with officials from the Department, who stated that they generally agree with GAO's characterization of the Department's relationship with ICANN and indicated that it would take our recommendation with respect to an interim report under consideration.

Background

From its origins as a research project sponsored by the U.S. government, the Internet has grown increasingly important to American businesses and consumers, serving as the host for hundreds of billions of dollars of commerce each year.[1] It is also a critical resource supporting vital services, such as power distribution, health care, law enforcement, and national defense. Similar growth has taken place in other parts of the world.

The Internet relies upon a set of functions, called the domain name system, to ensure the uniqueness of each e-mail and Web site address. The rules that govern the domain name system determine which top-level domains (the string of text following the right-most period, such as .gov) are recognized by most computers connected to the Internet. The heart of this system is a set of 13 computers called "root servers," which are responsible for coordinating the translation of domain names into Internet addresses. Appendix I provides more background on how this system works.

The U.S. government supported the implementation of the domain name system for nearly a decade, largely through a Department of Defense contract. Following a 1997 presidential directive, the Department of Commerce began a process for transitioning the technical responsibility for the domain name system to the private sector. After requesting and reviewing public comments on how to implement this goal, in June 1998 the Department issued a general statement of policy, known as the "White Paper." In this document, the Department stated that because the Internet was rapidly becoming an international medium for commerce, education, and communication, the traditional means of managing its technical functions needed to evolve as well. Moreover, the White Paper stated the U.S. government was committed to a transition that would allow the private sector to take leadership for the management of the domain name system. Accordingly the Department stated that the U.S. government was prepared to enter into an agreement to transition the Internet's name and number process to a new not-for-profit organization. At the same time, the White Paper said that it would be irresponsible for the U.S. government to withdraw from its existing management role without taking steps to ensure the stability of the Internet during the transition. According to Department officials, the Department sees its role as the responsible steward of the transition process. Subsequently, the Department entered into an MOU with ICANN to guide the transition.

ICANN Has Increased Competition, But Progress Has Been Much Slower on Other Key Issues

ICANN has made significant progress in carrying out MOU tasks related to one of the guiding principles of the transition effort—increasing competition. However, progress has been much slower on activities designed to address the other guiding principles: increasing the stability and security of the Internet; ensuring representation of the Internet community in domain name policy-making; and using private, bottom-up coordination. Earlier this year, ICANN's president concluded that ICANN faced serious problems in accomplishing the transition and needed fundamental reform. In response, ICANN's Board established an internal committee to recommend options for reform.

[1] For example, a March 2001 report by the Census Bureau estimated that online business accounted for $485 billion in shipments for manufacturers and $134 billion in sales for wholesalers in the United States in 1999. The Census data include transactions conducted over the Internet and private data networks. For more details, see http://www.census.gov/estats/.

ICANN Has Increased Domain Name Competition

ICANN made important progress on several of its assigned tasks related to promoting competition. At the time the transition began, only one company, Network Solutions, was authorized to register names under the three publicly available top-level domains (.com, .net, and .org). In response to an MOU task calling for increased competition, ICANN successfully developed and implemented procedures under which other companies, known as registrars, could carry out this function. As a result, by early 2001, more than 180 registrars were certified by ICANN. The cost of securing these names has now dropped from $50 to $10 or less per year. Another MOU task called on ICANN to expand the pool of available domain names through the selection of new top-level domains. To test the feasibility of this idea, ICANN's Board selected seven new top-level domains from 44 applications; by March 2002, it had approved agreements with all seven of the organizations chosen to manage the new domains. At a February 2001 hearing before a Subcommittee of the U.S. House of Representatives, witnesses presented differing views on whether the selection process was transparent and based on clear criteria.[2] ICANN's internal evaluation of this test was still ongoing when we finished our audit work in May 2002.

Efforts to Improve Stability and Security Are Behind Schedule

Several efforts to address the White Paper's guiding principle for improving the security and stability of the Internet are behind schedule. These include developing operational requirements and security policies to enhance the stability and security of the domain name system root servers, and formalizing relationships with other entities involved in running the domain name system.

Recent reports by federally sponsored organizations have highlighted the importance of the domain name system to the stability and security of the entire Internet. A presidential advisory committee reported in 1999 that the domain name system is the only aspect of the Internet where a single vulnerability could be exploited to disrupt the entire Internet.[3] More recently, the federal National Infrastructure Protection Center issued several warnings in 2001 stating that multiple vulnerabilities in commonly used domain name software present a serious threat to the Internet infrastructure. In recognition of the critical role that the domain name system plays for the Internet, the White Paper designated the stability and security of the Internet as the top priority of the transition.

The MOU tasked ICANN and the Department with developing operational requirements and security policies to enhance the stability and security of the root servers—the computers at the heart of the domain name system. In June 1999, ICANN and the Department entered into a cooperative research and development agreement to guide the development of these enhancements, with a final report expected by September 2000. This deadline was subsequently extended to December 2001 and the MOU between ICANN and the Department was amended to require the development of a proposed enhanced architecture (or system design) for root server security, as well as a transition plan, procedures, and implementation schedule. An ICANN advisory committee, made up of the operators of the 13 root servers and representatives of the Department, is coordinating research on this topic. Although the chairman of the committee stated at ICANN's November 2001 meeting that it would finish its report by February or March 2002, it had not completed the report as of May 2002.

To further enhance the stability of the Internet, the White Paper identified the need to formalize the traditionally informal relationships among the parties involved in running the domain name system. The White Paper pointed out that many commercial interests, staking their future on the successful growth of the Internet, were calling for a more formal and robust management structure. In response, the MOU and its amendments included several tasks that called on ICANN to enter into formal agreements with the parties that traditionally supported the domain name system through voluntary efforts. However, as of May 2002, few such agreements had been signed. ICANN's Board has approved a model agreement to formalize the relationship between the root server operators and ICANN, but no agreements had been reached with any of the operators as of May 2002. Similarly, there are roughly 240 country-code domains (2-letter top-level domains reserved mainly for national governments), such as .us for the United States. As with the root servers, responsibility for these domains was originally given by the Internet's devel-

[2] The hearing took place before the House Committee on Energy and Commerce, Subcommittee on Telecommunications and the Internet, on February 8, 2001.

[3] President's National Security Telecommunications Advisory Committee, *Network Group Internet Report: An Examination of the NS/EP Implications of Internet Technologies,* (Washington, D.C.: June 1999).

opers to individuals who served as volunteers. Although the amended MOU tasked ICANN with reaching contractual agreements with these operators, it has reached agreements with only 2 domain operators as of May 2002.[4] Finally, the amended MOU tasked ICANN with reaching formal agreements with the Regional Internet Registries, each of which is responsible for allocating Internet protocol numbers to users in one of three regions of the world.[5] The registries reported that progress was being made on these agreements, though none had been reached as of May 2002.

Slow Progress for Creating Processes to Ensure Representation and Bottom-up Coordination

Progress has also been slow regarding the other two guiding principles outlined in the White Paper, which call for the creation of processes to represent the functional and geographic diversity of the Internet, and for the use of private, bottom-up coordination in preference to government control. In order for the private sector organization to derive legitimacy from the participation of key Internet stakeholders, the White Paper suggested the idea of a board of directors that would balance the interests of various Internet constituencies, such as Internet service providers, domain name managers, technical bodies, and individual Internet users. The White Paper also suggested the use of councils to develop, recommend, and review policies related to their areas of expertise, but added that the board should have the final authority for making policy decisions. The Department reinforced the importance of a representative board in a 1998 letter responding to ICANN's initial proposal. The Department's letter cited public comments suggesting that without an open membership structure, ICANN would be unlikely to fulfill its goals of private, bottom-up coordination and representation. ICANN's Board responded to the Department by amending its bylaws to make it clear that the Board has an "unconditional mandate" to create a membership structure that would elect at-large directors on the basis of nominations from Internet users and other participants.

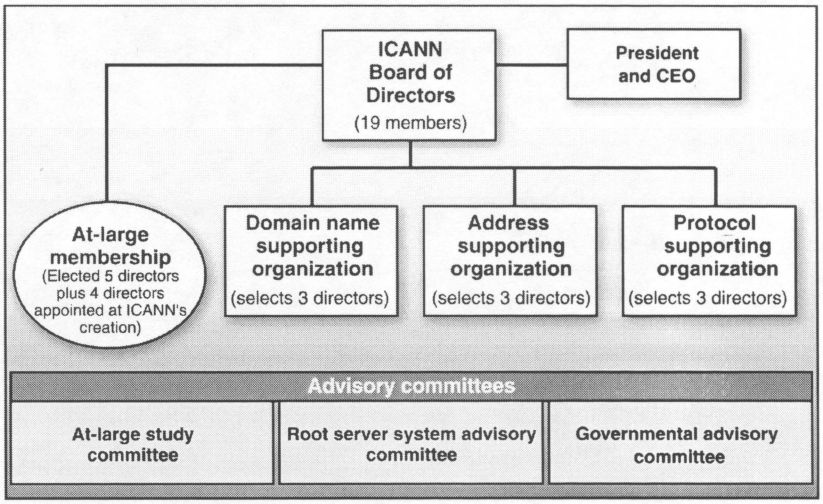
To implement these White Paper principles, the MOU between ICANN and the Department includes two tasks: one relating to developing mechanisms that ensure representation of the global and functional diversity of the Internet and its users, and one relating to allowing affected parties to participate in the formation of ICANN's policies and procedures through a bottom-up coordination process. In response to these two tasks, ICANN adopted the overall structure suggested by the White Paper. First, ICANN created a policy-making Board of Directors. The initial Board consisted of ICANN's president and 9 at-large members who were appointed at ICANN's creation. ICANN planned to replace the appointed at-large Board members with 9 members elected by an open membership to reflect the diverse, worldwide Internet community. Second, ICANN organized a set of three supporting organizations to advise its Board on policies related to their areas of expertise. One supporting organization was created to address Internet numbering issues, one was created to address protocol development issues, and one was created to address domain name issues.[6] Together these three supporting organizations selected 9 additional members of ICANN's Board-3 from each organization. Thus, ICANN's Board was initially designed to reflect the balance of interests described in the White Paper. Figure 1 illustrates the relationships among ICANN's supporting organizations and its Board of Directors, as well as several advisory committees ICANN also created to provide input without formal representation on its Board.

[4] ICANN signed agreements with the operators responsible for the .au (Australia) and .jp (Japan) country-code domains and their respective governments.

[5] The areas of responsibility for the three Regional Internet Address Registries are: the Western Hemisphere and southern Africa, Europe and northern Africa, and Asia.

[6] In the context of ICANN's responsibilities, protocols are the technical rules that allow communications among networks.

Figure 1: Structure of Board of Directors Approved in May 2000



Source: Information provided by ICANN.

Despite considerable debate, ICANN has not resolved the question of how to fully implement this structure, especially the at-large Board members. Specifically, in March 2000, ICANN's Board noted that extensive discussions had not produced a consensus regarding the appropriate method to select at-large representatives. The Board therefore approved a compromise under which 5 at-large members would be elected through regional, online elections. In October 2000, roughly 34,000 Internet users around the world voted in the at-large election. The 5 successful candidates joined ICANN's Board in November 2000, replacing interim Board members. Four of the appointed interim Board members first nominated in ICANN's initial proposal continue to serve on the Board.

Parallel with the elections, the Board also initiated an internal study to evaluate options for selecting at-large Board members. In its November 2001 report, the committee formed to conduct this study recommended the creation of a new at-large supporting organization, which would select 6 Board members through regional elections. Overall, the number of atlarge seats would be reduced from 9 to 6, and the seats designated for other supporting organizations would increase from 9 to 12.[7] A competing, outside study by a committee made up of academic and nonprofit interests recommended continuing the initial policy of directly electing at-large Board members equal to the number selected by the supporting organizations. This Committee also recommended strengthening the atlarge participation mechanisms through staff support and a membership council similar to those used by the existing supporting organizations.[8] Because of ongoing disagreement among Internet stakeholders about how individuals should participate in ICANN's efforts, ICANN's Board referred the question to a new Committee on ICANN Evolution and Reform. Under the current bylaws, the 9 current at-large Board seats will cease to exist after ICANN's 2002 annual meeting, to be held later this year.

Although the MOU calls on ICANN to design, develop, and test its procedures, the two tasks involving the adoption of the at-large membership process were removed from the MOU when it was amended in August 2000. However, as we have noted, this process was not fully implemented at the time of the amendment because the election did not take place until October 2000, and the evaluation committee did not release its final report until November 2001. When we discussed this amendment with Department officials, they said that they agreed to the removal of the tasks in August 2000 because ICANN had a process in place to complete them.

[7] See http://www.atlargestudy.org/final—report.shtml
[8] See http://www.naisproject.org/report/final/

Nearly 2 years later, however, the issue of how to structure ICANN's Board to achieve broad representation continues to be unresolved and has been a highly contentious issue at ICANN's recent public meetings.

In addition, the amended MOU tasked ICANN with developing and testing an independent review process to address claims by members of the Internet community who were adversely affected by ICANN Board decisions that conflicted with ICANN's bylaws. However, ICANN was unable to find qualified individuals to serve on a committee charged with implementing this policy. In March 2002, ICANN's Board referred this unresolved matter to the Committee on ICANN Evolution and Reform for further consideration.

ICANN's President Calls for Major Reform of the Corporation

In the summer of 2001, ICANN's current president was generally optimistic about the corporation's prospects for successfully completing the remaining transition tasks. However, in the face of continued slow progress on key aspects of the transition, such as reaching formal agreements with the root server and country-code domain operators, his assessment changed. In February 2002, he reported to ICANN's Board that the corporation could not accomplish its assigned mission on its present course and needed a new and reformed structure. The president's proposal for reform, which was presented to ICANN's Board in February, focused on problems he perceived in three areas: (1) too little participation in ICANN by critical entities, such as national governments, business interests, and entities that share responsibility for the operation of the domain name system (such as root server operators and countrycode domain operators); (2) too much focus on process and representation and not enough focus on achieving ICANN's core mission; and (3) too little funding for ICANN to hire adequate staff and cover other expenditures. He added that in his opinion, there was little time left to make necessary reforms before the ICANN experiment came to "a grinding halt."

Several of his proposed reforms challenged some of the basic approaches for carrying out the transition. For example, the president concluded that a totally private sector management model had proved to be unworkable. He proposed instead a "well-balanced public-private partnership" that involved an increased role for national governments in ICANN, including having several voting members of ICANN's Board selected by national governments. The president also proposed changes that would eliminate global elections of at-large Board members by the Internet community, reduce the number of Board members selected by ICANN's supporting organizations, and have about a third of the board members selected through a nominating committee composed of Board members and others selected by the Board. He also proposed that ICANN's funding sources be broadened to include national governments, as well as entities that had agreements with ICANN or received services from ICANN.

In response, ICANN's Board instructed an internal Committee on ICANN Evolution and Reform (made up of four ICANN Board members) to consider the president's proposals, along with reactions and suggestions from the Internet community, and develop recommendations for the Board's consideration on how ICANN could be reformed. The Committee reported back on May 31, 2002, with recommendations reflecting their views on how the reform should be implemented. For example, the committee built on the ICANN president's earlier proposal to change the composition of the Board and have some members be selected through a nominating committee process, and to create an ombudsman to review complaints and criticisms about ICANN and report the results of these reviews to the Board. In other cases, the committee agreed with conclusions reached by the president (such as the need for increasing the involvement of national governments in ICANN and improving its funding), but did not offer specific recommendations for addressing these areas. The committee's report, which is posted on ICANN's public Web site, invited further comment on the issues and recommendations raised in preparation for ICANN's June 2002 meeting in Bucharest, Romania. The committee recommended that the Board act in Bucharest to adopt a reform plan that would establish the broad outline of a reformed ICANN, so that the focus could be shifted to the details of implementation. The committee believed that this outline should be then be filled in as much as possible between the Bucharest meeting and ICANN's meeting in Shanghai in late October 2002.

The Department's Public Assessment of the Transition's Progress Has Been Limited

As mentioned previously, the Department is responsible for general oversight of work done under the MOU, as well as the responsibility for determining when ICANN, the private sector entity chosen by the Department to carry out the transi-

tion, has demonstrated that it has the resources and capability to manage the domain name system. However, the Department's public assessment of the status of the transition process has been limited in that its oversight of ICANN has been informal, it has not issued status reports, and it has not publicly commented on specific reform proposals being considered by ICANN.

According to Department officials, the Department's relationship with ICANN is limited to its agreements with the corporation, and its oversight is limited to determining whether the terms of these agreements are being met.[9] They added that the Department does not involve itself in the internal governance of ICANN, is not involved in ICANN's day-to-day operations, and would not intervene in ICANN's activities unless the corporation's actions were inconsistent with the terms of its agreements with the Department. Department officials emphasized that because the MOU defines a joint project, decisions regarding changes to the MOU are reached by mutual agreement between the Department and ICANN. In the event of a serious disagreement with ICANN, the Department would have recourse under the MOU to terminate the agreement.[10] Department officials characterized its limited involvement in ICANN's activities as being appropriate and consistent with the purpose of the project: to test ICANN's ability to develop the resources and capability to manage the domain name system with minimal involvement of the U.S. government.

Department officials said that they carry out their oversight of ICANN's MOU-related activities mainly through ongoing informal discussions with ICANN officials. They told us that there is no formal record of these discussions. The Department has also retained authority to approve certain activities under its agreements with ICANN, such as reviewing and approving certain documents related to root server operations. This would include, for example, agreements between ICANN and the root server operators. In addition, the Department retains policy control over the root zone file, the "master file" of top-level domains shared among the 13 root servers. Changes to this file, such as implementing a new top-level domain, must first be authorized by the Department.

In addition, the Department sends officials to attend ICANN's public forums and open Board of Directors meetings, as do other countries and Internet interest groups. According to the Department, it does not participate in ICANN decision-making at these meetings but merely acts as an observer. The Department also represents the United States on ICANN's Governmental Advisory Committee, which is made up of representatives of about 70 national governments and intergovernmental bodies, such as treaty organizations. The Committee's purpose is to provide ICANN with nonbinding advice on ICANN activities that may relate to concerns of governments, particularly where there may be an interaction between ICANN's policies and national laws or international agreements.

The Department made a considerable effort at the beginning of the transition to create an open process that solicited and incorporated input from the public in formulating the guiding principles of the 1998 White Paper. However, since the original MOU, the Department's public comments on the progress of the transition have been general in nature and infrequent, even though the transition is taking much longer than anticipated. The only report specifically called for under the MOU is a final joint project report to document the outcome of ICANN's test of the policies and procedures designed and developed under the MOU. This approach was established at a time when it was expected that the project would be completed by September 2000.

So far, there has been only one instance when the Department provided ICANN with a formal written assessment of the corporation's progress on specific transition tasks. This occurred in June 1999, after ICANN took the initiative to provide the Department and the general public with a status report characterizing its progress on MOU activities. In a letter to ICANN, the Department stated that while ICANN had made progress, there was still important work to be done. For, example, the Department stated that ICANN's "top priority" must be to complete the work nec-

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[9] In a July 2000 report prepared in response to a congressional mandate, we reviewed questions and issues related to the legal basis and authority for the Department's relationship with ICANN. U.S. General Accounting Office, *Department of Commerce: Relationship with the Internet Corporation for Assigned Names and Numbers,* GAO/OCG–00–33R (Washington, D.C.: July 7, 2000). This report discusses the development of the MOU, as well as other agreements related to the ongoing technical operation of the domain name system. We list the various agreements between ICANN and the Department in appendix II, which also lists significant events in the history of the domain name system.

[10] If the Department withdraws its recognition of ICANN by terminating the MOU, ICANN has agreed to assign to the Department any rights that ICANN has in all existing contracts with registrars and registries.

essary to put in place an elected Board of Directors on a timely basis, adding that the process of electing at-large directors should be complete by June 2000. ICANN made the Department's letter, as well as its positive response, available to the Internet community on its public Web site.

Although ICANN issued additional status reports in the summers of 2000 and 2001, the Department stated that it did not provide written views and recommendations regarding them, as it did in July 1999, because it agreed with ICANN's belief that additional time was needed to complete the MOU tasks. Department officials added that they have been reluctant to comment on ICANN's progress due to sensitivity to international concerns that the United States might be seen as directing ICANN's actions. The officials stated that they did not plan to issue a status report at this time even though the transition is well behind schedule, but will revisit this decision as the September 2002 termination date for the MOU approaches.

When we met with Department officials in February 2002, they told us that substantial progress had been made on the project, but they would not speculate on ICANN's ability to complete its tasks by September 2002. The following week, ICANN's president released his report stating that ICANN could not succeed without fundamental reform. In response, Department officials said that they welcomed the call for the reform of ICANN and would follow ICANN's reform activities and process closely. When we asked for their views on the reform effort, Department officials stated that they did not wish to comment on specifics that could change as the reform process proceeds. To develop the Department's position on the effort, they said that they are gathering the views of U.S. business and public interest groups, as well as other executive branch agencies, such as the Department of State; the Office of Management and Budget; the Federal Communications Commission; and components of the Department of Commerce, such as the Patent and Trademark Office. They also said that they have consulted other members of ICANN's Governmental Advisory Committee to discuss with other governments how best to support the reform process. They noted that the Department is free to adjust its relationship with ICANN in view of any new mission statement or restructuring that might result from the reform effort. Department officials said that they would assess the necessity for such adjustments, or for any legislative or executive action, depending on the results of the reform process.

Conclusion

In conclusion, Mr. Chairman, the effort to privatize the domain name system has reached a critical juncture, as evidenced by slow progress on key tasks and ICANN's current initiative to reevaluate its mission and consider options for reforming its structure and operations. Until these issues are resolved, the timing and eventual outcome of the transition effort remain highly uncertain, and ICANN's legitimacy and effectiveness as the private sector manager of the domain name system remain in question. In September 2002, the current MOU between the Department and ICANN will expire. The Department will be faced with deciding whether the MOU should be extended for a third time, and if so, what amendments to the MOU are needed, or whether some new arrangement with ICANN or some other organization is necessary. The Department sees itself as the responsible steward of the transition, and is responsible for gaining assurance that ICANN has the resources and capability to assume technical management of the Internet domain name system. Given the limited progress made so far and the unsettled state of ICANN, Internet stakeholders have a need to understand the Department's position on the transition and the prospects for a successful outcome.

Recommendation

In view of the critical importance of a stable and secure Internet domain name system to governments, business, and other interests, we recommend that the Secretary of Commerce issue a status report detailing the Department's assessment of the progress that has been made on transition tasks, the work that remains to be done on the joint project, and the estimated timeframe for completing the transition. In addition, the status report should discuss any changes to the transition tasks or the Department's relationship with ICANN that result from ICANN's reform initiative. Subsequent status reports should be issued periodically by the Department until the transition is completed and the final project report is issued.

This concludes my statement, Mr. Chairman. I will be pleased to answer any questions that you and other Members of the Subcommittee may have.

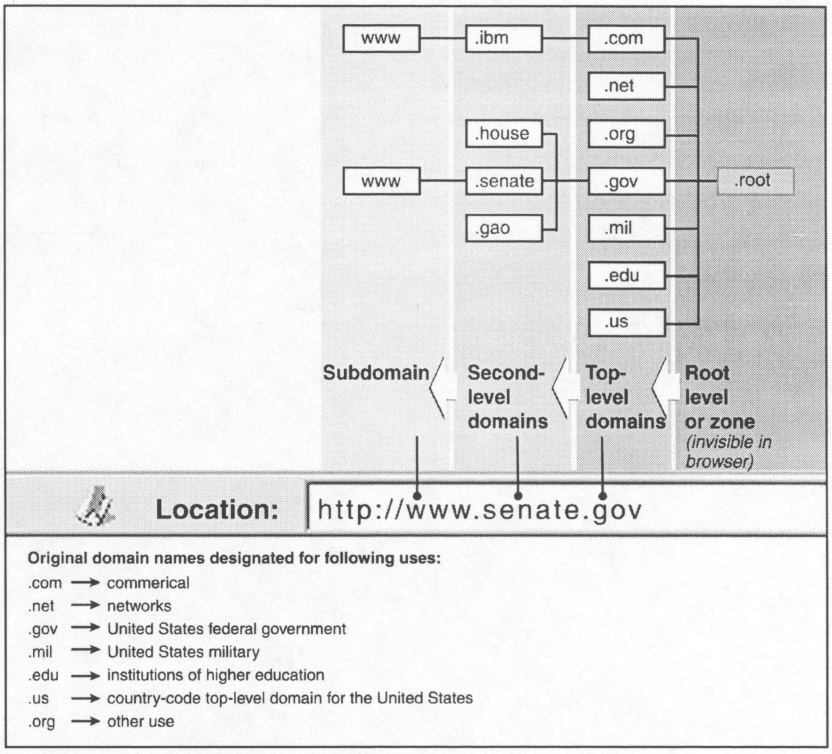
APPENDIX I: OVERVIEW OF THE DOMAIN NAME SYSTEM

Although the U.S. government supported the development of the Internet, no single entity controls the entire Internet. In fact, the Internet is not a single network

at all. Rather, it is a collection of networks located around the world that communicate via standardized rules called protocols. These rules can be considered voluntary because there is no formal institutional or governmental mechanism for enforcing them. However, if any computer deviates from accepted standards, it risks losing the ability to communicate with other computers that follow the standards. Thus, the rules are essentially self-enforcing.

One critical set of rules, collectively known as the domain name system, links names like www.senate.gov with the underlying numerical addresses that computers use to communicate with each other. Among other things, the rules describe what can appear at the end of a domain name. The letters that appear at the far right of a domain name are called top-level domains (TLDs) and include a small number of generic names such as .com and .gov, as well as country-codes such as .us and .jp (for Japan). The next string of text to the left ("senate" in the www.senate.gov example) is called a second-level domain and is a subset of the top-level domain. Each top-level domain has a designated administrator, called a registry, which is the entity responsible for managing and setting policy for that domain. Figure 2 illustrates the hierarchical organization of domain names with examples, including a number of the original top-level domains and the country-code domain for the United States.

Figure 2: The Hierarchical Organization of Internet Domain Names

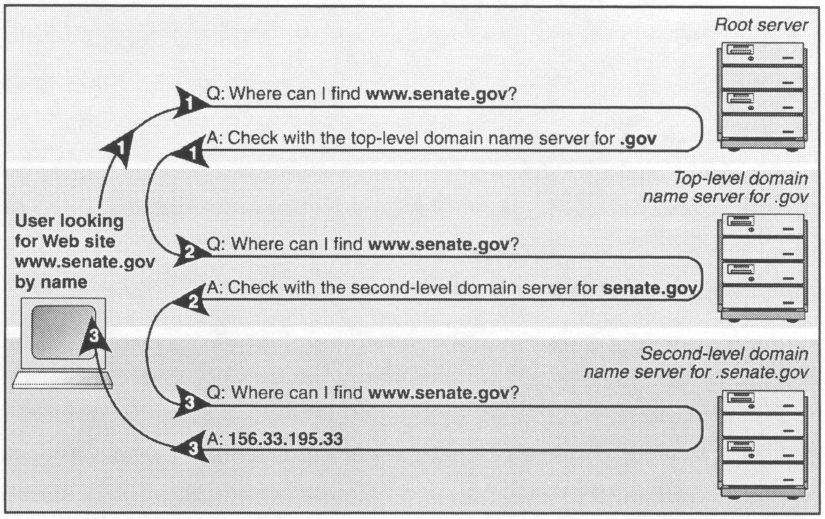


Source: GAO.

The domain name system translates names into addresses and back again in a process transparent to the end user. This process relies on a system of servers, called domain name servers, which store data linking names with numbers. Each domain name server stores a limited set of names and numbers. They are linked by a series of 13 root servers, which coordinate the data and allow users to find the server that identifies the site they want to reach. They are referred to as root servers because they operate at the root level (also called the root zone), as depicted in

figure 2. Domain name servers are organized into a hierarchy that parallels the organization of the domain names. For example, when someone wants to reach the Web site at www.senate.gov, his or her computer will ask one of the root servers for help.[11] The root server will direct the query to a server that knows the location of names ending in the .gov top-level domain. If the address includes a sub-domain, the second server refers the query to a third server—in this case, one that knows the address for all names ending in senate.gov. This server will then respond to the request with an numerical address, which the original requester uses to establish a direct connection with the www.senate.gov site. Figure 3 illustrates this example.

Figure 3: How the Domain Name System Translates a Web Site Name Into an Address



Source: GAO.

Within the root zone, one of the servers is designated the authoritative root (or the "A root" server). The authoritative root server maintains the master copy of the file that identifies all top-level domains, called the "root zone file," and redistributes it to the other 12 servers. Currently, the authoritative root server is located in Herndon, Virginia. In total, 10 of the 13 root servers are located in the United States, including 3 operated by agencies of the U.S. government. ICANN does not fund the operation of the root servers. Instead, they are supported by the efforts of individual administrators and their sponsoring organizations. Table 1 lists the operator and location of each root server.

[11] This example assumes that the required domain name information is not available on the user's local network.

Table 1. Operators and Locations of the 13 Internet Root Servers

Affiliation of volunteer root server operator	Location of server
VeriSign (designated authoritative root server)	Herndon, VA
Information Sciences Institute, University of Southern California	Marina del Rey, CA
PSI net	Herndon, VA
University of Maryland	College Park, MD
National Air and Space Administration	Mountain View, CA
Internet Software Consortium	Palo Alto, CA
Defense Information Systems Agency, U.S. Department of Defense	Vienna, VA
Army Research Laboratory, U.S. Department of Defense	Aberdeen, MD
NORDUnet	Stockholm, Sweden
VeriSign	Herndon, VA
RIPE (the Regional Internet Registry for Europe and North Africa)	London, UK
ICANN	Marina del Rey, CA
WIDE (an Internet research consortium)	Tokyo, Japan

Source: ICANN's Root Server System Advisory Committee.

Because much of the early research on internetworking was funded by the Department of Defense (DOD), many of the rules for connecting networks were developed and implemented under DOD sponsorship. For example, DOD funding supported the efforts of the late Dr. Jon Postel, an Internet pioneer working at the University of Southern California, to develop and coordinate the domain name system. Dr. Postel originally tracked the names and numbers assigned to each computer. He also oversaw the operation of the root servers, and edited and published the documents that tracked changes in Internet protocols. Collectively, these functions became known as the Internet Assigned Numbers Authority, commonly referred to as IANA. Federal support for the development of the Internet was also provided through the National Science Foundation, which funded a network designed for academic institutions.

Two developments helped the Internet evolve from a small, text-based research network into the interactive medium we know today. First, in 1990, the development of the World Wide Web and associated programs called browsers made it easier to view text and graphics together, sparking interest of users outside of academia. Then, in 1992, the Congress enacted legislation for the National Science Foundation to allow commercial traffic on its network. Following these developments, the number of computers connected to the Internet grew dramatically. In response to the growth of commercial sites on the Internet, the National Science Foundation entered into a 5-year cooperative agreement in January 1993 with Network Solutions, Inc., to take over the jobs of registering new, nonmilitary domain names, including those ending in .com, .net, and .org, and running the authoritative root server.[12] At first, the Foundation provided the funding to support these functions. As demand for domain names grew, the Foundation allowed Network Solutions to charge an annual fee of $50 for each name registered. Controversy surrounding this fee was one of the reasons the United States government began its efforts to privatize the management of the domain name system.

Appendix II: Important Events in the History of the Domain Name System

Nov. 1983	Working under funding provided by the Department of Defense, a group led by Drs. Paul Mockapetris and Jon Postel creates the domain name system for locating networked computers by name instead of by number.
Oct. 1984	Dr. Postel publishes specifications for the first six generic top-level domains (.com, .org, .edu, .mil, .gov, and .arpa). By July 1985, the .net domain was added.
Nov. 1992	President Bush signs into law an act requiring the National Science Foundation to allow commercial activity on the network that became the Internet.
Jan. 1993	Network Solutions, Inc., signs a 5-year cooperative agreement with the National Science Foundation to manage public registration of

[12] Network Solutions later merged with VeriSign. The new company currently uses the VeriSign name. Under its original agreement with the National Science Foundation, Network Solutions was also responsible for registering second-level domain names in the restricted .gov and .edu top-level domains.

	new, nonmilitary domain names, including those ending in .com, .net, or .org.
July 1997	President Clinton issues a presidential directive on electronic commerce, making the Department of Commerce the agency responsible for managing the U.S. government's role in the domain name system.
Jan. 1998	The Department of Commerce issues the "Green Paper," which is a proposal to improve technical management of Internet names and addresses through privatization. Specifically, the Green Paper proposes a variety of issues for discussion, including the creation of a new nonprofit corporation to manage the domain name system.
June 1998	In response to comments on the Green Paper, the Department of Commerce issues a policy statement known as the "White Paper," which states that the U.S. government is prepared to transition domain name system management to a private, nonprofit corporation. The paper includes the four guiding principles of privatization: stability; competition; representation; and private, bottom-up coordination.
Nov. 1998	The Internet Corporation for Assigned Names and Numbers (ICANN) incorporates in California. ICANN's by-laws call for a 19-member Board with 9 members elected "at-large."
Nov. 1998	The Department of Commerce and ICANN enter into an MOU that states the parties will jointly design, develop, and test the methods and procedures necessary to transfer domain name system management to ICANN. The MOU is set to expire in September 2000.
June 1999	ICANN issues its first status report, which lists ICANN's progress to date and states that there are important issues that still must be addressed.
June 1999	ICANN and the Department of Commerce enter into a cooperative research and development agreement to study root server stability and security. The study is intended to result in a final report by September 2000.
Nov. 1999	ICANN and the Department of Commerce approve MOU amendment 1 to reflect the roles of ICANN and Network Solutions, Inc.
Feb. 2000	The Department of Commerce contracts with ICANN to perform certain technical management functions related to the domain name system, such as address allocation and root zone coordination.
Mar. 2000	At a meeting in Cairo, Egypt, ICANN adopts a process for external review of its decisions that utilizes outside experts, who will be selected at an unspecified later date. ICANN also approves a compromise whereby 5 atlarge Board members will be chosen in regional online elections.
June 2000	ICANN issues its second Status Report, which states that several of the tasks have been completed, but work on other tasks was still under way.
July 2000	At a meeting in Yokahama, Japan, ICANN's Board approves a policy for the introduction of new top-level domains.
Aug. 2000	The Department of Commerce and ICANN approve MOU amendment 2, which deleted tasks related to membership mechanisms, public information, and registry competition and extended the MOU until September 2001. They also agree to extend the cooperative research and development agreement on root server stability and security through September 2001.
Oct. 2000	ICANN holds worldwide elections to replace 5 of the 9 interim Board members appointed at ICANN's creation.
Nov. 2000	At a meeting in California, ICANN selects 7 new top-level domain names: .biz (for use by businesses), .info (for general use), .pro (for use by professionals), .name (for use by individuals), .aero (for use by the air transport industry), .coop (for use by cooperatives), and .museum (for use by museums).
Mar. 2001	The Department of Commerce enters into a second contract with ICANN regarding technical functions of the domain name system.

May 2001	ICANN and the Department of Commerce approve MOU amendment 3, which conforms the MOU with the Department's new agreement with VeriSign (formerly Network Solutions.)
July 2001	ICANN issues its third Status Report, which states that most of the tasks in the MOU are either complete or well on their way to completion.
Aug. 2001	ICANN's At-Large Membership Study Committee issues a preliminary report that recommends creating a new at-large supporting organization. The new organization would be open to anyone with a domain name and would elect 6 members of ICANN's Board of Directors.
Sep. 2001	The Department of Commerce and ICANN agree to extend the MOU through September 2002 and the cooperative research and development agreement through June 2002 (amendment 4).
Nov. 2001	Following the September 11 terrorist attacks, ICANN devotes the bulk of its annual meeting to security issues. The At-large Membership Study Committee releases its final report, which retains the Board reorganization first proposed in August 2001.
Feb. 2002	ICANN president Dr. M. Stuart Lynn releases a proposal for the reform of ICANN.
Mar. 2002	At a Board meeting in Ghana, ICANN's Board refers Dr. Lynn's proposal and questions about at-large representation and outside review to an internal Committee on ICANN Evolution and Reform.
Apr. 2002	The Department of Commerce exercises an option in its contract with ICANN regarding the technical functions of the domain name system, extending it through September 2002.
May 2002	ICANN's Committee on Evolution and Reform reports its recommendations to ICANN's Board.
June 2002	ICANN's Board is scheduled to meet in Bucharest, Romania.
Oct. 2002	ICANN's Board is scheduled to meet in Shanghai, China

Senator WYDEN. Thank you. Mr. Lynn.

STATEMENT OF M. STUART LYNN, PRESIDENT, INTERNET CORPORATION FOR ASSIGNED NAMES AND NUMBERS

Mr. LYNN. Thank you, Mr. Chairman, and Members of the Subcommittee. I appreciate the opportunity to appear here today to discuss the ongoing process of reform and restructuring of what really is a household name, ICANN——

[Laughter.]

—which I have served as President and Chief Executive Officer since March of last year. ICANN was launched in 1998. It was a new venture as we pointed out. It had not been tried before, global coordination of a significant Internet resource, namely the Internet's naming and address allocation systems.

What was really new at that time, was that ICANN was and is private, a private not for profit corporation. Private, but acting in a global public interest. Now, when you think about where it started, I would suggest that ICANN has, in fact, made remarkable progress. At its birth, ICANN had no funding, no agreements, no staff, no organization, nothing. What it did have was broad support from the United States and other governments around the world and from significant sectors of the global Internet community. Along with that support, it has enjoyed the dedication of countless volunteers and the tireless efforts of the small staff that now numbers 17.

Following its mandate from the Department of Commerce and the community, ICANN has achieved many of those accomplish-

ments that the previous witnesses have mentioned. It stands as a functioning organization. It is open, transparent and participatory. It introduced competition in a market for dot.com and other domain name services, where before there were none. It initiated competition at the registry level with the launch of several new global top-level domains over this past year. It successfully introduced the global Domain Name Dispute Resolution Policy, reshaped our approach to security, and above all, of that which we are most proud, has maintained the stability of the critical Internet functions that ICANN coordinates,. And it has done this without one dollar of government funding.

Now, is everything perfect? Of course not. That is why a couple of months ago I strongly advocated a fundamental reform effort, including a review of ICANN's vision in my report to the ICANN Board of Directors this past February. ICANN's achievements have been significant, but I pointed out that ICANN must change if it is to accomplish its mission and to become the fully effective and accountable organization that ICANN needs to be.

Now, I'm pleased to tell you that these reform efforts alone—the board will consider a blueprint for reform at its meeting in 2 weeks. The basic form of this blueprint has already been placed before the community for comment. And I have been pleased as I think the Board of Directors has, to see so much engagement by so many stakeholders in this reform effort.

ICANN's mission is narrow and is well-defined. ICANN ensures that central technical tests are effectively performed. But, ICANN's charge from the United State's Government requires it to undertake those policy tasks and only those policy tasks that are necessary to the execution of its technical responsibilities. One cannot, for example, add a new top-level domain without asking what name; who operates it; for how long; under what conditions, and so forth. Someone has to address those policy questions and if not ICANN, then who?

Now, what the typical view of ICANN is—is it half full or half empty. Whether you choose to emphasize ICANN's many accomplishments or emphasize what it has not done. Now, I am afraid to say, I am an unabashed, half-full optimist. But, I recognize it is easy to focus on the half-empty. No organization can lay claim to perfection. There is no doubt that ICANN has serious problems to address. It would be truly amazing had the founders of ICANN got everything right in 1998. As ICANN works through its reforms, we welcome your advice and your suggestions and we welcome the continued oversight of the Department of Commerce which throughout ICANN's history has been a constructive and understanding, yet demanding and forthright department. I was not there at the beginning of ICANN, and I will retire next March. But before I move on, I am committed to leaving behind a restructured and reformed ICANN. An ICANN that is well-poised to take on the challenges and opportunities of the future, an ICANN that deserves our core values of transparency, openness and accountability, yet and ICANN that is effective and efficient in fulfilling the mission that has been placed before it.

Thank you very much for allowing me to make these remarks, and I, of course, would welcome any questions from the Senators.

[The prepared statement of Mr. Lynn follows:]

PREPARED STATEMENT OF M. STUART LYNN, PRESIDENT, INTERNET CORPORATION FOR ASSIGNED NAMES AND NUMBERS

Mr. Chairman and Members of the Subcommittee, I appreciate the opportunity to appear here today to discuss the ongoing process of reform and restructuring of the Internet Corporation for Assigned Names and Numbers (ICANN), which I have served as President and Chief Executive Officer since March of last year.

The timing of this hearing is opportune, because reform and restructuring are front and center of ICANN's agenda at its next round of meetings in late June, and thus I welcome input from you and other interested legislators. If ICANN is to succeed as a private-sector coordinating body, its structure and operation must deserve the strong support not only of the Administration, but of the U.S. Congress as well. I welcome today's hearing as a significant step in that dialogue.

The Debate Over ICANN

ICANN embodies a complex idea: an open and participatory non-governmental entity that seeks to balance widely diverse interests. Thus, ICANN is intended to be a lightning rod for loud and noisy debates, and considerable contention. In fact, in a very real sense that is a principal reason ICANN was created—to establish a single forum in which all these varied interests, from around the globe, could come together and, where possible, arrive at consensus solutions to complex technical and policy issues essential to the continued stable operation of the Internet.

An observer in the Wall Street Journal recently noted that, to the uninitiated outsider, the intensity and obscurity of ICANN debates evoke the image of die-hard Star Trek fans arguing whether Captain Kirk could defeat Captain Picard. There is more than a grain of truth to that. But this fact—that ICANN is intended to be a forum for discussion and debate, sometimes quite vigorous—does not mean that ICANN should not or cannot operate effectively. ICANN's core values are fundamental to its character and legitimacy—core values such as open participation (ensuring that all interested parties have their say) and consensus (seeking wherever possible to arrive at commonly-agreed solutions). Taken to extremes, however, these can result—and, in my view, have too often resulted—in near-paralysis on important issues.

A central theme for my testimony today is the need for fundamental reform of ICANN's processes and procedures. A bottom-up policy development process like ICANN's must be fair, open, and transparent, but the procedures themselves cannot be allowed to prevent reaching decisions when consensus proves elusive or impossible. It is an unfortunate fact of life that consensus-based procedures can be abused to prevent effective and timely action by ICANN. To carry out its mission, ICANN must not become prisoner to the lowest common denominator of special interests but must seek out the technical or policy solution that best serves the global Internet community.

Finding the correct balance between these sometimes conflicting objectives is what the current reform and evolution process is all about. The debate was begun by the publication of my report to the ICANN Board in February of this year. That report, entitled "ICANN—The Case For Reform," is attached to this testimony, and was the result of my evaluation of ICANN, its operations and processes during the first year of my tenure. It concluded that, despite considerable accomplishments to date, ICANN must continue to evolve in both structure and operation if it is to meet the more complex tasks facing it in the foreseeable future. I believe that deep, meaningful reforms are needed if ICANN is to continue to be as successful in the future as it has been to date.

I am very pleased that the call for a public debate on these issues has been embraced by virtually all ICANN participants, including the United States and other governments. Over the past few months we have seen a very productive dialogue develop in the ICANN community on exactly how best to address the problems that I identified (and which almost all the community agreed were indeed the key problems of ICANN). That dialogue is still ongoing, but it is beginning to coalesce around some essential concepts that I will discuss later in this testimony.

As is to be expected in a community of very different and opposing perspectives and interests, when presented with the opportunity for reform, some segments of the community retreat to the periphery to defend or advance their unique interests, offering appealing (but generally misguided) sound-bite arguments to water their own turf. You have heard or undoubtedly will hear many of these arguments, and will judge them appropriately.

But ICANN's job is to seek a common higher ground that melds these private interests with the greater interests of the global (including the United States) Internet community as a whole. I am proud that so many of our constituent bodies recognize this need. With your and their support, I am quite sure ICANN will evolve to where it can act effectively to further the stability and security of the Internet's naming and address allocation systems, while reflecting the patchwork quilt of so many participants in the process.

ICANN's Mission—Technical and Policy

Much of the debate has centered around ICANN's mission. What exactly is ICANN supposed to achieve? Simply put, it is ICANN's role to ensure that certain essential technical tasks are effectively performed for the benefit of the global Internet. But these technical functions cannot be performed in a policy vacuum. As was discussed in a recent working paper on "ICANN Mission and Core Values" (posted on the ICANN website and attached to this testimony), it is impossible to enter a new top level domain (TLD) into the root without answering serious policy questions: what name, who gets to operate it, for how long, under what conditions, and so forth. And how to reflect public interest concerns such as fair competition, privacy, intellectual property, and diversity? The answers to these questions have serious consequences. Simple "first come, first served" formulas are not solutions. Instead, what is needed is thoughtful, reasoned human judgment, bounded by clear, predictable and transparent rules, and informed by broad public consultation and input.

In short, ICANN must, as it was always intended to do and has done from its creation, address a limited set of policy issues directly related to its core mission—because they are inextricably intertwined with the technical tasks required by that mission. Indeed, everyone interested in this debate should ask themselves, "If not ICANN—rooted in community consensus as that term can best be defined—then who would perform these policy functions?" The policy issues will not go away; they will not disappear simply because they are not "technical" by someone's definition. And policy issues that affect a global resource are not easily managed by any one national government.

Global interoperability requires global cooperation; this is not a luxury but a necessity. The fact that the Internet is a global resource is what drove the creation of ICANN in the first place. Tellingly, those who object to ICANN's policy role have offered little in the way of credible alternatives to deal with these inevitable policy issues, other than (1) the bureaucratic international treaty organization alternative rejected in favor of the private sector model that became ICANN, or (2) alternatives that essentially lead to chaotic free-for-alls and the eventual destruction of globally unique naming.

To be blunt about it, some want ICANN to perform only those policy functions that hamstring their competitors but free them to do as they wish. It's understandable, but misguided. In a similar vein, you may hear words like "thick" and "thin" bandied around without real definition to describe various versions of ICANN. I do not find those terms particularly useful—you will generally find that a given interest wants ICANN to be "thin" where it wishes to avoid any oversight of its actions, and "thick" where it wants ICANN to enforce rules against someone else. In my view, ICANN should be as thin as possible, but thick enough to do its job.

ICANN: Private in the Public Interest

ICANN is, by deliberate choice of the United States and other world governments, and of the vast majority of private entities who expressed views on this subject, a private sector organization. The United States government, reflecting the very strong views of virtually everyone who participated in the debate that generated ICANN in 1998, concluded that the Internet's naming and addressing functions must be managed on a global basis, but quite consciously decided that handing this task over to an existing or new multinational governmental bureaucracy was not the right solution. And so it called for the creation of what became ICANN. In the view of most stakeholders, this decision was clearly correct; ICANN's growing pains pale beside the likely difficulties generated by giving some global multi-governmental organization the responsibility for management of such a dynamic resource.

ICANN is an organization rooted in the private sector and, in the view of most stakeholders, must remain that way. But the Internet has become too critical to the economies and social progress of the community of nations to ignore the important role that governments must play in ensuring that ICANN acts in the public interest as it addresses unavoidable but often divisive policy issues. That, indeed, is why you are holding these hearings today. You are rightly concerned about the public interests of the United States and its citizens, and the relationship of those public inter-

ests to those of the rest of the world community. Some may wish to ignore governments' role in furthering the public interest, bury it under six feet of bureaucratic jargon, or replace the vital role of governments with some kind of unworkable global "democracy" elected by and captive to a tiny minority of Internet users. I prefer that the key role of governments is fully seen in the light of day, and that we collectively and openly determine what kind of public/private partnership can ensure that a private ICANN executes its core mission while respecting governmental concerns for the public interest.

During my tenure and before, ICANN has had a particularly constructive working relationship with the U.S. Department of Commerce. That agency has been sensitive to its unique role in this area, and we continue to work closely with the DOC and other representatives of national governments as we move forward toward an improved public/private partnership.

This notion of an improved public/private partnership was a critical part of my original "Case for Reform" document, and I proposed one possible way to accomplish this goal. But, as is often the case with ICANN, much better ways are being suggested as the dialogue progresses and the broader outlines of a restructured ICANN are taking shape.

ICANN's Reform on Track

Under these circumstances, this hearing is particularly timely. I came out of retirement to take on this responsibility, and agreed to do so for a two-year term that expires in March of 2003. I view the completion of the development of ICANN as my primary remaining task before I retire for the second time. I am committed to seeing this evolution essentially completed by the time my term ends, so that my successor can focus on the basic mission of ICANN. I believe this is well within our grasp. Reaching global consensus on this, like most other issues, requires patience and serious discussion, but we are well on our way to a satisfactory result.

I will not spell out in great detail the ongoing reform debate and the various proposals that are arising from it, since it is a work in process—much of which, like making sausage, is not always pretty. I am attaching three working papers that detail ideas published for community comment by the ICANN Committee on Evolution and Reform, appointed by the ICANN Board of Directors to coordinate the reform process, along with a useful introduction to ICANN's actual day-to-day responsibilities, called "What ICANN Does.". The important point is that the work is moving forward on a fast track, in full public view and with detailed input from the broad Internet community, including governments, non-governmental organizations, those directly and actively involved in ICANN, and the general public. We expect that the Board will adopt a blueprint for reform at its meeting at the end of June that will chart the main outlines of ICANN restructuring.

What will that blueprint look like? The Evolution and Reform Committee's most recent documents, "ICANN Mission and Core Values" and "Recommendations for the Evolution and Reform of ICANN," capture much of the best thinking from the community. In broad terms, it would retain the bottom-up consensus development model that has been a core value of ICANN from the beginning. It would retain the fair, open and transparent character of ICANN processes. It would retain the geographic, functional and cultural diversity that has been a hallmark of ICANN since its creation. And it would retain the private sector model that sets ICANN apart from any other entity responsible for oversight of a critical global resource. But to enhance the effectiveness of ICANN, it would:

- fundamentally restructure the ICANN Board and supporting organizations to make them more effective and responsive;
- create more structured decision paths and better defined procedures that ensure open opportunities for input, and firm and predictable deadlines;
- create a system for continuing to populate the ICANN Board and our supporting organizations with people who can lead with credibility, effectively represent the broad public interest, *and* take proper account of the multiple interests of both providers and users of the Internet
- better integrate representatives of national governments into the ICANN policy development process as an important voice of the public interest; and
- strengthening confidence in the fairness of ICANN decision-making through (a) creating a workable mechanism for speedy independent review of ICANN Board actions by experienced arbitrators; (b) establishing an ombudsman function accountable directly to the Board; and (c) creating a full-time manager of public participation with the charge to ensure that those interested in providing input to ICANN's policy development process have the necessary information and mechanisms to provide that input.

While ICANN's structure and procedures are obviously important, two other major issues must also be addressed. ICANN must have a proper framework of agreements with all the key participants in the DNS infrastructure—those who operate the name root servers, those who allocate IP addresses, and the operators of the more than 250 TLD registries, including those who are responsible for the so-called "country code" or "ccTLD" registries. And ICANN must, of course, have a funding structure that is adequate to support its mission. As we come closer to consensus on ICANN structure and process, we must not lose sight of these critical building blocks to a successful ICANN.

ICANN Has Been Successful

I have devoted full time over the last year to learning what ICANN did well and where it needed to improve, talking and listening to understand the wide range of perspectives on these issues. And we should be clear: before my tenure (I emphasize this to be clear about my objectivity), ICANN has had some truly important accomplishments.

It successfully introduced competition into the name registration market; the result is more choice, better service, and lower prices—much lower prices—for consumers. Of course, opening a market to competition also opens it to sharp marketing practices, potential fraud, and all the other warts of a free marketplace. With adequate resources, ICANN can certainly do a better job of policing its agreements with accredited registrars, but for consumers who can now get for $10 or less in all sorts of varied packages something that used to have a single price ($70) for a single product (a two year registration), registrar competition—warts and all—looks pretty good.

ICANN successfully introduced the first global dispute resolution system for domain names (the Uniform Dispute Resolution Policy), which has demonstrated the value of innovative global solutions for this global medium. Imagine, if you will, the difficulty of pursuing and prosecuting cybersquatters in every nation on the planet, and compare that to a UDRP proceeding that costs very little, takes little time, and can provide a globally effective resolution. Of course, like any such system, an individual UDRP panelist will occasionally produce a decision that seems to make little sense, and this lack of perfection has caused some to criticize the entire system. But no system manned by imperfect human beings will ever be flawless. Indeed, no more than a handful of UDRP decisions have provoked sustained criticism, which is remarkable given that over 4,000 decisions have been rendered. The UDRP can surely be improved, but it stands as a truly major accomplishment for which ICANN deserves great credit.

Another major accomplishment for ICANN has been the introduction of the first new global Top Level Domains since the creation of the DNS. Seven new TLDs have now become operational over this past year: .biz, .info, .name, .pro, .museum, .coop, and .aero. This was a major undertaking. When ICANN was created, there was, for all intents and purposes, a monopoly provider of domain names to the public. In most of the world, including the United States, the .com top level domain or TLD (and, for some, .net and .org, operated by the same registry) was the only perceived domain name option. And there was something less than consensus about how, and how fast, and even whether to change this situation.

ICANN served as the forum for debating these issues, pulling together those who wanted to allow anyone to operate as many TLDs as they desired (paying little attention to the many technical or other potential difficulties) and those who saw the addition of any new TLDs as unnecessary and undesirable, not serving any true public purpose and simply creating more burdens on business and risks of various kinds. The ICANN process eventually introduced these seven new and highly varied TLDs as a "proof of concept," with the notion that after evaluating the results the community would turn to the issue of whether and how and how many other new TLDs should be introduced. That process took longer than hoped, and the subsequent evaluation has been slowed by ICANN's ever-present resource limitations, but it is already obvious that any consideration of the introduction of more new TLDs will need to carefully address an number of issues, ranging from the proper role of ICANN to the realistic business prospects of new TLD registries. Still, these questions should not obscure the very real accomplishment of ICANN in producing for the public the first real global alternatives to the .com monopoly.

ICANN has had other accomplishments as well. There is no doubt that not all has been perfect, but it should hardly be a surprise that a new idea like this, staffed largely by volunteers—supported by a very small full-time staff—from around the globe with different perspectives, cultures and operating styles, would have some growing pains. ICANN is still an infant, not yet an adolescent, and certainly not

an adult, and it still has some growing to do. The ongoing reform effort will speed ICANN's maturation.

Conclusion

This blend of accomplishment and unfinished development is what makes my job so interesting, and is why so many people of good will are still committed to making ICANN succeed. I came to this job with no baggage; I was not present at ICANN's creation, or even involved at all. I had no prior conceptions, and no need to defend the *status quo.* I will leave this job next March, so I have no ambition to build an empire. In other words, I am a free agent, able to offer ideas and thoughts based on their merit and the practical realities of what is needed to run an entity like ICANN.

But this freedom brings with it a real responsibility. I do not plan to end my short tenure at ICANN having failed to position ICANN so that it can move forward with confidence and stability into the future. I am committed to seeing this evolution through to a successful conclusion. I thank the members of the Subcommittee for your time and interest in ICANN. Your input and support will help us achieve an effective private sector ICANN that truly serves the interests of the global Internet community.

Attachments *:

APPENDIX A—President's Report: ICANN—The Case for Reform
<http://www.icann.org/general/lynn-reform-proposal-24feb02.htm>

APPENDIX B—What ICANN Does
<http://www.icann.org/general/toward-mission-statement-07mar02.htm>

APPENDIX C—Working Paper: ICANN Mission and Core Values
<http://www.icann.org/committees/evol-reform/working-paper-mission-06may02.htm>

APPENDIX D—Recommendations for the Evolution and Reform of ICANN
<http://www.icann.org/committees/evol-reform/recommendations-31may02.htm>

Senator WYDEN. Very good. I thank all of you for being brief. We will make your statements a part of the record. Each of us will take 5 minutes and see how much progress we can make on the first round panel.

To begin with, I would like each one of you to describe what you think the essential tasks are that ICANN should perform, and what are the tasks that they really ought to set aside, that they should get out of? Let's see if we can begin that. Why don't we begin with you, Ms. Victory. What are the things you want ICANN to do? Stay away from your mission statements and more general stuff, but get into tasks they ought to be doing and things they ought to be out of.

Ms. VICTORY. Just to clarify, do you want tasks or the overall reform process or just overall tasks that they should be doing.

Senator WYDEN. Yes, that this organization ought to be doing. What should they be doing? What should they not be doing?

Ms. VICTORY. Well, I think that the statement of policy, the White Paper, sets out four areas. Those are the four areas that they should be concentrating on, and those four areas are: to set policy for and direct the allocation of IP number blocks, to oversee the operation of the Internet root server system, to oversee policy for determining the circumstances under which new top-level domains should be added to the root server system, and to coordinate the assignment of other technical protocol parameters as needed to maintain universal connectivity on the Internet.

Senator WYDEN. You are comfortable in White Paper, in terms of what they ought to be doing?

* The information referred to has been retained in Committee files.

Ms. VICTORY. At this point, yes. We've not done a broad inquiry into whether not the White Paper should be revised.

Senator WYDEN. Are there areas that they ought to be out of, or do you think that is not anything we need to be looking at right now?

Ms. VICTORY. We think that they should be sticking to these four missions in terms of what they should be doing, because at this point, ICANN has a limited amount of resources. They should apply those resources to these four functions and focus in.

Senator WYDEN. Mr. Guerrero, what should they be doing there? What should they be getting out of?

Mr. GUERRERO. Mr. Chairman, I generally agree with the answer you just heard. I would add to that that one of the important roles of ICANN was to increase competition, and as you have heard from all of us up here in our prepared statements, they have done that. That is, in fact, acknowledged as one of the more successful efforts.

The core mission and the core responsibilities for ICANN do stem from the White Paper—ensuring stability and security of the domain system, the root servers. It's keeping track of the assigned numbers. It seems to be—and testing top-level domain names and increasing competition and the registration of domain names. And I think that's probably the essence of it.

Senator WYDEN. So, you are comfortable with the White Paper as well, both in terms of what they ought to be doing and as of now, that there is nothing that they should be getting out of?

Mr. GUERRERO. I would observe that there is a growing consensus that ICANN needs to refocus its efforts here, and it needs to work with the stakeholder community to make sure that its mission statement, as it currently being defined here, satisfies its key stakeholders that that is, indeed, its important role. That's specifically the operational functions of ICANN. So, it's hard for us to say what should be in and what should be out. So, I think we can give you some general sense of that.

Senator WYDEN. Well, I'll ask about that in the second area I'm going to touch on before I recognize my colleagues. I think it's fair to say, it certainly seems to me, that the organization needs to do a better job of listening to all of the voices out there and expertise in this area, and that is the asserted position. I'll ask about that in a second.

Mr. Lynn, your views on the essential tasks in your organization and anything that you think, maybe, you can live without doing?

Mr. LYNN. I think that what's being said is absolutely right. The White Paper spells it out. And that's what we've been working under, the White Paper and what's been spelled out in the memorandum of understanding with the Department at Commerce.

I would only add that besides promoting competition, it is maintaining competition. And the danger is that we make sure that we don't overstep our bounds in that area, but on the other hand, that we fulfill what's been asked of us to do.

As for other things that we should get out of, unfortunately, the global answer is everything else, because there is a whole world of things out there that certainly people wanted us to do, such as regulating content and also getting into issues of consumer protection,

which was simply not chartered and we don't have the resources to do.

Senator WYDEN. This is for the whole panel starting with Mr. Guerrero. What else can be done to ensure that ICANN does a better job of listening to all of those who are interested and use the Internet? What role national governments should play? What changes would you support here, Ms. Victory?

Ms. VICTORY. Well, I think one of the things that we suggested to ICANN, looking at this process, and I think they probably have heard from some of the stakeholders, is they need some written policy development procedures. That's for policies that are directly related to the types of technical administration that they are doing. And not only that, but an opportunity then to get stakeholder views, such as the posting and public consideration of what the proposal is and adequate time to receive comments from the stakeholder community. We think that is very necessary.

I think one of the criticisms that came out of the selection of the seven new top-level domains—and there was one criticism that it was too small a sampling that was chosen, but there was also criticism that people didn't understand why the ones that were chosen were the ones chosen. And I think some sort of a written statement as to why a decision is made would also be very, very helpful.

Senator WYDEN. Mr. Guerrero and then Mr. Lynn.

Mr. GUERRERO. Yes. I want to start first with an observation, then a specific suggestion. The observation in answering the first question, which is what should be in and what should be out of ICANN, is very much related to the second question of how should ICANN be governed, because, to some extent, that issue, the first question, is resolved if ICANN's governing structure is widely recognized as legitimate. If it is and the key stakeholders agree that this is the right organizational structure and the right people represented in the right structured way, then ICANN is legitimate. If they don't, as is the case today, then ICANN—it doesn't matter what they do. There will be questions raised about the legitimacy of ICANN.

Specifically, I would actually on this point suggest that the Department of Commerce consider doing something that has been done overseas. Here the Department of Commerce told us that in helping them respond to ICANN's reform initiatives, they have informally consulted with stakeholders, government agencies, business and so forth, the standard setting organizations et cetera. In the UK for example, also in Australia, the government has decided to put on-line a questionnaire for anyone who has a stake or interest here to answer some very basic questions about ICANN governance, organization, representation, mission, scope and so forth. I think that would be a useful exercise to consider doing here.

Senator WYDEN. Mr. Lynn.

Mr. LYNN. Yes, I think we can always improve. I think it is important to point out that there is a balancing act that goes on here. We are a small private corporation, and yet we behave in a way like very large government organizations do in many ways. We are criticized for not being fast enough in what we do. And yet we are criticized for not having enough process along the way in order to

get it done. It's a very difficult balancing act, particularly when you are working with such limited resources.

My idea would be to allow a much greater participation. I think the work that is being done by the Committee on evolution reform, in developing better processes, in developing better procedures, in opening up the process, we have also to support organizations like—and so forth will help that immeasurably. But, I think we have to recognize there is a great difficulty in maintaining appropriate balance.

Senator WYDEN. I think that's always correct. I just want to convey the depth of frustration out there in the Internet community on this point. People really don't feel that they are being listened to. They want to be heard. I think they understand this question of balance. Certainly, broad policy questions ought to be looked at different than very narrow, technical kinds of questions.

I will just say as one member of the U.S. Senate, I think you need to recognize the level of unhappiness on this point. There are a lot of people, typical Internet users, who get no chance to really be heard on these kinds of questions, and that's what I hope your work will change.

Senator ALLEN.

Senator ALLEN. Thank you, Mr. Chairman. My question somewhat follows up with yours as to what ICANN ought to be doing or not doing and I would like to address it to Mr. Lynn. You have a very difficult job. You are trying to make a lot of progress and it is good to be optimistic and positive in sticking to the mission statement. I addressed it very briefly in my opening statement, and that has to do with a fact about ICANN—and then again, you can address it, you can refute it. You don't have to agree with my statement.

I just want to understand how your mission seems to be beyond being a coordinator and manager of the Internet and when you see the fact—and I'll ask you to comment on or describe to me the history of why or how ICANN operates the .arpa and the .int, so you don't think that's—dot a-r-p-a and dot i-n-t registries, as well as the J Root server. It seems to me that my initial reaction to this is that's outside of your mission. Why can't that be done by some other profit organization?

Mr. LYNN. Senator, we agree. We don't feel it's within our mission either. However, there are—evolving away from that, we inherited those activities. We didn't claim them. Evolving away from that is——

Senator ALLEN. Inherited them from who?

Mr. LYNN. From the previous operation as to when ICANN started.

Senator ALLEN. From Network Solutions?

Mr. LYNN. No, not from Network Solutions, but I believe—this goes before my history with ICANN—that they were operated by ISI and John Postell when he was doing this work.

Senator ALLEN. OK.

Mr. LYNN. Transitioning is more complex, however. A root server has hard-coded Internet addresses. It is spread all over the network. Changing that takes a long time and is not easy. We haven't focused on it because it hasn't become a priority because of the lim-

ited resources. But, it isn't just a question of switching it off and switching it on. It's more complex.

We also agree about .int and .arpa and as soon as we can, we want to transition away from them; .int, however for legacy reasons is not purely dealing with international treaty organizations. It also deals with a lot of technical support functions for the INTA. As soon as we work those out, we are anxious to transition them.

So, the short answer is, we agree. We don't think they are in our mission and we have no reason to hold on to them whatsoever.

Senator ALLEN. Well, with your staff of so few, of 17, it would seem to me that that does divert you from your core mission. The J root server, you may have an argument that it is beyond my capabilities of understanding some of that. But so far as the .int and the .arpa, it would seem to me that fairly quickly, you all could be moving to have that handled by VeriSign or Neustar or whomever wants to bid to do that work.

I assume that you would be making that transition there.

Mr. LYNN. You are talking about the .arpa and the .int?

Senator ALLEN. Yes——

Mr. LYNN.—we are right now in the process of trying to address the issue of transition of the .org registry. That stated, that is consuming all of the resources that we can consider in that kind of transition function, right now. As soon as that is over, I expect we will be paying greater attention to .int and .arpa.

Senator ALLEN. Do you have a scenario or a timetable? I'm not saying that you have got to be done on October 31. But is it 6 months away? A year?

Mr. LYNN. Well, I think it's more than that. We are talking about a matter of a year or two, not a matter of months.

Senator ALLEN. Before you start?

Mr. LYNN. No, before we see it happening. The root server is a very complex transition at this point——

Senator ALLEN. Understood. One other issue of concern to this Committee, the Chairman, and myself is the security of the Internet. The Federal National Infrastructure Protection Center has issued several warnings in 2001 of multiple vulnerabilities and commonly identified domain name software as a serious threat to the Internet. What steps has ICANN taken to ensure the domain name system is secure?

Mr. LYNN. I think there are a few points I'd like to make here. The first is understanding the ICANN role is a coordinating role. It is not an operational role. It is, therefore, very limited.

Second, given that we take security very, very seriously, it is nothing new in the Internet. Security has been built in from its very inception. Indeed, it is part of every standard set.

The IETF—what ICANN has done is this. We devoted a whole a major conference to security in November to bring together all of the components of the community so we could understand work done in the community and about what the vulnerabilities were. Since then, we have appointed a very high level security committee, composed of individuals who are very knowledgeable in these areas and they are working to really understand what the vulnerabilities are and to coordinate with the communities to understand what should be done.

There is no such thing as 100 percent secure system. The Internet community involved with domain name systems takes security very seriously and is always willing to improve. I think you will see that will happen as time moves forward.

Senator ALLEN. Thank you, Mr. Lynn. My time is up and Mr. Guerrero and Ms. Victory can live in this—they were up here yesterday, so——

[Laughter.]

Senator WYDEN. Senator Burns.

Senator BURNS. Thank you very much and I want to thank the witnesses for coming today. And as we work our way through this, there is a lot of areas.

You spoke of a report, Mr. Lynn, that was supposed to have been done by the board and submitted to the Department of Commerce. I think the first report was due on 2001. Then you wanted a report by February or March of 2002. And those reports are not forthcoming. Could you tell us what the status of those reports are and what we can expect?

Mr. LYNN. Thank you, Senator Burns. This has been one of those difficult things for ICANN to address. It's been of concern to us.

The problem that we have relates to a deeper problem that the GAO has pointed out in their report, is that we don't have agreements, in this case, with the group server operators that allow us to say then that this is a condition that they have fulfill. We have been trying to cooperate with them for the use of necessary information. These are volunteers. There are many who feel that that is an unfortunate—and many who feel that that's right. I don't want to comment on that so much as to say, that makes it difficult for us to produce that report.

Senator BURNS. Since the MOU expires September the 30th of this year, in your opinion, should that MOU be renewed? That's for all three of you.

Ms. VICTORY. We will be making that determination over the next couple of months, as I indicated in my testimony. We feel that by that date we do need to make a decision as to whether or not ICANN is on the right path to a successful transition. So, these next couple of months will be crucial. At this point, I can't prejudge whether we will renew, modify, or terminate the MOU.

Senator BURNS. Mr. Guerrero.

Mr. GUERRERO. Yes. In actual response to Senator Allen, I hope I won't be taking up residence here.

[Laughter.]

Senator ALLEN. Senator Burns, you can vote now.

[Laughter.]

Mr. GUERRERO. I think it is actually premature at this point, given the reform issue that is underway to suggest it should or should not be extended, but it's precisely because we feel the Department hasn't been as forthcoming as they need to publicly in terms of describing the status of the project and what's happening, and what needs to be done, and when it needs to be done. And that's a really important step, and were the Department to issue that type of progress report, I think we would have a better sense of the timeframes for making that kind of decision.

Senator BURNS. Mr. Lynn.

Mr. LYNN. We have to defer, of course, to the Department of Commerce and the U.S. Government on this. We believe that we have a good story to tell and that we will be able to prove that as we move through the reform process. We would also be interested, from our own perspective, as to whether the MOU, itself, needs to be modified to better reflect what we think we should and can do.

Mr. BURNS. Well, I'd be interested in that dialog, by the way and what you want to see done. I think, again, Congress does have a role to play in oversight. I would—I guess what concerns most of us that follow the workings of the Internet, and especially ICANN, is that they have the inability to organize their own board and get them sort of pulling in the same direction. In other words, committees, assigned committees, areas of jurisdiction, or areas of interest, I should put rather than jurisdiction.

Under the current form, who do you represent? How do you answer that questions when people ask you who do you represent? How do you respond to that?

Mr. LYNN. Senator, that is certainly one of the questions that I've raised in my report on reform. I think it's a question that has to be addressed. I think in terms—to the Board, they could say less we represent interest X and interest Y, as so much as a Board that is a whole, could say it represents the public interest in a domain name system. So, it's representative of the community as a whole.

Now, that's a very broad statement, and doing that in detail is the hard work that is going on in the reform committee right. now.

Senator BURNS. Are we choosing the wrong vehicle or the wrong method of selecting the board?

Mr. LYNN. What is being proposed is a different kind of vehicle, which is the use of a nominating committee which, itself, is representative, but when it is selecting members of the Board, pays attention to the characteristics, diversity, expertise, functional understanding, community, public interest and so forth to try and avoid a Board which cannot make decisions because it is too representative, 20 different, if you look, political parties, that is a Board that can act in a more effective, stable, and mature manner.

Now, I want to say one thing. I think we have had a very effective and very good Board over the years. And I don't want to pretend that what's being proposed by the Committee and myself in moving forward, I don't want to detract from that in anyway. But, moving forward as we look to the future, I think above all, we need a Board that is going to be supported by the community, is stable, effective, credible, and makes mature and reasonable judgments and decisions.

Senator BURNS. Well, I just think that this may be the basis of some of the problems that you are experiencing. And, we would like to hear what you have, maybe we can do that in a private conversation. Maybe that's the best place to do this. But, it just seems to me that the process in which the selection is made for Board members might have to be looked at in order to give you an effective board that understands the challenges of the day. The electoral process in which ICANN has in filling the five seats on this Board of Directors—is it effective or is it ineffective?

I think we have to ask us that question. I might ask you that question now. Is it effective or should we dive into another direction?

Mr. LYNN. Well, I think as it stands now, we would be happy to brief you on our feeling—on the recommendations of the Committee at your disposal. The Board concluded in its meeting—and this is no reflection on the particular directors, themselves. The modality used to select them, trying to do global on-line elections, was—beyond the reach of ICANN to solve all the problems that—and I should mention that of those five directors elected that way, only one voted against that particular motion. Three of the others voted in favor of it and one abstained. So they, themselves, are not recognizing there are flaws in the process.

The Board thinks the public interest needs to be represented and reflected. It doesn't feel that at this time that is the way to do it.

Senator BURNS. Well, I've got another thing here. We never get enough time anyway. I would certainly like to sit down with you and some of your Board members and kind of walk our way through this and I'd like to devote a little more time than what we would have here.

My feelings right now are that the MOU should be extended, maybe with a discussion between your Board and the Department of Commerce. Ms. Victory has done an excellent job in trying to bring us up to date and trying to gear up the Department because I think there has been some discussion—it just didn't make it on anybody's radar screen. And when it does, everybody gets all excited and probably make statements that they shouldn't make, I being one of those. But I think there are just some things that we have to iron out as far as Board selection—who you represent, and what you represent. Again, maybe reiterate the mission statement of your working paper, which you have noted in your statement today. I think that can be accomplished.

And so our mission is—as this thing grows, the mission becomes more difficult. It's just like it was wonderful. I just got home a couple of weeks ago from Korea and Japan, by the way we talked about this issue just lightly, but we were mostly there in agriculture and other telecommunications issues. I get back and I e-mail all the folks that had—and thank all of the folks that had been so kind to us and their hospitality. It was almost immediate because of the response from them. That's how important that this method of communicating has become. And I think our mission is very, very important and should not be taken lightly, because I would certainly hate to see this thing crash.

The recommendations that the GAO has made, we are going to have come together and the Chairman of this Subcommittee and the full Chairman of the Committee have given their support that something has to be done. We want to do the right thing for you and the Internet and what's right for this country. I thank you very much for coming today.

Senator WYDEN. I thank my colleagues and I just have a couple of followup questions. I think on the extension of the MOU, Ms. Victory, what has concerned people is that it has been extended twice now. I think the first time was a modification. But, I think what people really want to know is first, the Commerce Depart-

ment thinks it is a big issue. That's important. I think that may be one of the reasons people are frustrated, and I think people want to know what are the specific factors that are going into your decision that is coming up in September, rather than just, "its being extended again." What are the factors that are going into making this decision?

Ms. VICTORY. Well, clearly, the Department does consider this an important issue, given the importance of the Internet to our economy. In terms of the factors that are going to go into our decision, in my testimony I outlined a number of areas where we need to see reforms by ICANN. But what they really add up to is that we need to see that ICANN is a stable and professionally run organization into the future, that its Board selection process and decisionmaking process are designed to be stable, and that it is designed to receive recognition and respect so that this organization can operate stably.

Now, we don't expect that in the next 3 months.—between now and the end of September, that all of that is going to be achieved. But we have hopes that, out of this reform process, there will be a path outlined as to how we get to that point. And those will be the things coming into our decision. We appreciate GAO's suggestion about a public statement of what we are concerned about, where we think things stand, and what goes into our decision. That is certainly something that we will make sure that the public is very much aware of—how we have made our decision and why we have made our decision.

Senator WYDEN. One last question for you, Mr. Lynn. It deals with a security issue. What is being done now to secure the root servers? Senator Burns asked about the report and certainly that's significant, but tell me now, consistent with not giving up something that could threaten the security of the system, what is being down now to secure the root servers?

Mr. LYNN. Senator Wyden, as you correctly—we would be pleased to brief you and any of the other senators who wish a private briefing on exactly what is being done from the people who are experts in this area. Broadly speaking, the biggest security factor of the root service is its distribution and redundancy, 13 copies of the same data distributed to 13 root servers—10 in the United States and 3 outside of the United States. If 9 of those were attacked and somehow physically destroyed, you wouldn't even notice on the Internet. That redundancy is an extremely important factor.

Now, I don't say that about our security, because no system is 100 percent secure. I mention that only to say that continuing attention, improvements are being made. Many of those were demonstrated at the meeting we held last November to improve the security of our root service system. With all due respect, sir, I would prefer to arrange for a private briefing if that would be acceptable.

Senator WYDEN. It's very important that you note that. We'll wrap up with Senator Allen and Senator Burns.

Senator ALLEN. Mr. Guerrero, let me ask you a question. In your prepared remarks, you pointed out the issue of international sensitivity—a great oversight of the ICANN process. You asked the government is there a way to improve U.S. Government oversight of ICANN while still being sensitive to foreign concerns.

Mr. GUERRERO. Yes, and I think it's increasing the transparency of the role the Department of Commerce is playing here. I believe that it's premature, specifically, to talk about the structure of the organization until this reform issue plays itself out. And we agree with Commerce in that regard. But, what we have recommended to Commerce is that they need to more clearly articulate what progress has been made, what needs to be done, and over what timeframe. So, that's the role for the U.S. Government at this point and I think it's a wider role, and that's one of providing greater transparency and information to each community to each stakeholder as to what is going on. And what exactly will this include—what will be the criteria basis for making a decision that these issues have been resolved to everyone's satisfaction.

Senator ALLEN. Thank you. I have nothing further.

Senator WYDEN. Senator Burns.

Senator BURNS. I have no further questions.

Senator WYDEN. All right. We thank you all. We'll be working closely with you in the days ahead. The next panel, Karl Auerbach, Member of the ICANN Board, San Jose, California; Mr. Roger Cochetti, Senior Vice President of VeriSign in Washington D.C., Mr. Alan Davidson, Associate Director, Center for Democracy and Technology, in Washington DC.; and Mr. Cameron Powell, Vice President and General Counsel of SnapNames in Portland, Oregon.

All right. We thank all of your for your patience and because the floor schedule is hectic today, we are going to have to hold everybody to 5 minutes for prepared remarks. We appreciate everybody coming and we always appreciate having witnesses from Portland, Oregon and I think as a result, we'll begin with you, Mr. Powell. Everybody keep to 5 minutes and time for questions.

STATEMENT OF CAMERON POWELL, VICE PRESIDENT AND GENERAL COUNSEL, SNAPNAMES

Mr. POWELL. Thank you. I want to thank the Chairman, Senator Allen, and Senator Burns for inviting SnapNames to testify today. ICANN and its consensus process has been a unique experiment in global resource management. We have no position on whether reform of ICANN should continue to invite community consensus on certain narrow matters of technical policy.

But today I do want to discuss SnapNames' firsthand experiences with the use and abuse of ICANN's consensus process in the market place, what constituencies of unaccountable and unrepresentative entities can inappropriately slow innovations and can substitute their own judgment for Congress' and courts' in the market, and where our own competitors are actually empowered to decide whether we will innovate and reach consumers. I also make a few recommendations on ICANN reform.

Our company was founded by successful entrepreneurs who saw a critical need to help normal individuals and businesses fairly compete to register domain names. Why? Because today 97.6 percent of all valuable domain names are registered through means not practically available to the general public for whom the Internet was created. 97.6 percent of domain names and related e-mail addresses go to domain professionals, speculators, cyber-squatters.

We've spent significant time and resources to come up with the technology to fix part of this broken system. We filed a patent on it. We secured a licensing agreement with VeriSign Registry to distribute domain resources in a way that is fair, equal, open to all, and transparent. We perhaps naively relied on the principle that the best consumer product, like the best free speech, will triumph in a free market. We hired dozens of new employees in one of the worst unemployment environments in the country. We've been ready to go to the market for months. But our technology has been hijacked by the equivalent of a prior restraint on free speech, a technological gag order.

Our technology still has not been launched. We have lost unrecoverable revenue. And nine million domain names have been deleted without real consumers having access to them. And not because the consumers don't want it. Consumers here haven't even been given a chance to vote with their wallets as the free market demands.

Instead, since September 9th, 2001, our technology has been subjected to endless only nominally public discussions among our competitors, the uninformed, and everyone but the consumers voting through the market. The World Trade Centers have fallen and the site has been cleaned up since our competitors began abusing the consensus process to oppose and delay our superior technology.

This is not part of either the White or the Green Papers, Senator Wyden, or even the MOU. And even if it were, we think it would be legally unsupportable. The deficiencies of trying to apply a consensus to a marketplace are almost too numerous to count.

First, ICANN's consensus process is not even defined. So, it lacks any semblance of due process. A consensus is only required to oppose a change of the sort that we are proposing here, not to introduce one. ICANN, though, has turned this around in a presumption against change and innovation, rather than a presumption for it.

Second, consensus is not market driven and it is political. So, it's captive to misinformation. It's what Mr. Lynn called subject to capture and fraud and to politics unrelated to the public interest or consumer demand.

All you need in this industry to block a market innovation or reform is an opinion. There is no requirement that the opinion have any merit. There is no requirement that it be tested by the law or the market, the courts or the consumers.

Third, consensus can lead to paralysis. Those who wish to block reform or innovation that is in the public interest may do so merely by refusing to give their consent. Top-level domains like .com and .net can only fall behind the less intrusively regulated competitors like the 243 registries of country codes.

Fourth, consensus improperly empowers entrenched competitors against new market entrants and competitors. Consensus is, therefore, custom-built for collusion and antitrust. It is an open invitation to tortious interference with contract—contracts with our partners, like VeriSign Registry.

Finally, ICANN's consensus participants are attempting to speak on matters of policy and law where Congress has already spoken, and to decide what consumers want instead of letting the market do so.

So, here is my question for those concerned with ICANN reform. Why have our competitors been handed the power to veto our superior technology or, at least, to not let the consumers decide if it's superior? With ICANN having just conceded that VeriSign's years as the only monopoly registry are behind them, why is such a misconceived consensus process still substituting its judgment for the market's? Why is ICANN even considering legal and policy arguments, such as our competitors' antitrust claims on our licensee, VeriSign, as a basis for a decision on our technology, or whether it will or will not launch in the next few weeks?

Congress has already spoken on antitrust policy. We have existing laws, and courts to interpret them. Bodies like ICANN are meant to make sure that all the railroad tracks use the same width and gauge and the trains run on time. They are not there to make legal and economic policy, certainly not in your place.

Like most complex industries, the domain industry does need some oversight of its free market, whether by a body like ICANN, or a body of laws or a body of enforcement contracts directly between the over 250 registries and the hundreds or thousands of their registered retailers. But it should stay out of matters already handled and best-handled by the preexisting laws and the market, except possibly when compelling need requires involvement in technical matters, and it should stay out of any futile attempt to represent the public interest itself. The market will do that. Existing laws will do that.

And selected policies that are in the public interest, like WhoIs matters, should be located in entities that do have the incentive and accountability—whether it's economic accountability, elective or otherwise—and have the funds to act as enforcers.

Finally, regardless of the role given businesses or individuals in technical policy matters in consensus making, consensus should be silent when market forces and policy bodies can speak for themselves. I elaborate further on some of these matters in my written testimony. I want to thank the Subcommittee.

[The prepared statement of Mr. Powell follows:]

PREPARED STATEMENT OF CAMERON POWELL, VICE PRESIDENT AND GENERAL COUNSEL, SNAPNAMES

I want to thank the Chairman, Senator Allen, and Members of the Subcommittee for inviting our testimony on ICANN governance. Because my company constantly strives to provide innovative solutions for the domain industry, we've seen firsthand how the domain industry—driven by politics rather than the market—is currently structured less to foster innovation than to thwart it.

Let me start by saying that we are not a disinterested party. We have interests at stake in this industry. On the other hand, because our business model is most successful when the greatest good is given to the greatest number, and because we are focused on the long-term rather than on short-term gain, I would submit that our bias is also your bias.

Our company was founded by successful entrepreneurs who saw a critical need to help real individuals and businesses fairly compete to register domain names against domain name professionals. Today, 97.6 percent of all valuable domain names are registered through means not practically available to the general public.

We expended massive time and resources to come up with a technology to fix part of this broken system. We filed a patent on it. We secured a licensing agreement with VeriSign Registry to distribute our superior service to the public.

In reliance on the principle that the best consumer product, like the best free speech, will triumph in a free market, we hired dozens of new employees in the worst unemployment environment in the country. In any other industry, we would

have already launched our technology long ago. **In this industry, our superior technological innovation has been hijacked by the equivalent of a prior restraint on free speech, a technological gag order.** In a form of economic censorship without parallel in any other industry, ICANN's misguided consensus process has enabled both the uninformed and our competitors to replace the market's judgment with their own, to block our superior technology, and to force the lay-off of 20 percent of our employees.

Although this delay has been frustrating, SnapNames remains conditionally supportive of ICANN restructuring and recognizes that but for the introduction of competition into the domain name market place our business would not exist.

So there are three issues I want to discuss:

- The shortcomings of a bureaucratic consensus process in a marketplace requiring innovation;
- SnapNames' first-hand experiences with the anti-competitive consequences;
- Some recommendations on ICANN reform.

I. Current Structure and Process: ICANN and its Supporting Organizations Collectively are Neither a Meritocracy, a Democracy, or a Marketplace, Nor a Real Deliberative Body

ICANN was a unique experiment in global resource management that was conceived in the so-called Green and White Papers and put into practice in the Fall of 1998. Although ICANN was able to achieve some success shortly after its conception, with the introduction of competition at the registrar level and the Uniform Dispute Resolution Procedure (UDRP), the consensus process has since paralyzed it over the last two years and left it unable to build upon its early successes.

ICANN is composed of three main supporting organizations: the Address Supporting Organization (ASO); the Protocol Supporting Organization (PSO); and the Domain Name Supporting Organization (DNSO). The supporting organization with which we are most familiar and which has proven to be the most contentious since ICANN's formation is the DNSO. The DNSO is composed of seven constituencies representing the following interest groups: registrars, generic top-level domain name registries (such as VeriSign, Neulevel); country code registries (such as operators of .TV or .DE); businesses, intellectual property; non-commercial interests, and Internet service providers. Each of these constituencies has three representatives that serve on the so-called "Names Council."

In theory, each of the seven constituencies is designed to represent the collective views of each interest group. However, in reality most constituencies represent only a fraction of their intended constituents, and some of even these limited representational groups are effectively run by one or two individuals. Those who attempt to apply to a constituency may be denied membership without explanation of the membership criteria, which are apparently a moving target. For example, we are a business; we applied to the Business Constituency; our application has been permanently shelved without explanation. There are no membership qualifications to be on ICANN's DNSO committees: no background or qualifications, no credibility or familiarity with policy, no argument or even logic, no need to consider the public interest or to effect it even if considered, and no accountability to anyone, whether the voters or the market. These shortcomings lead to potential capture of those organizations that are so critical in ICANN's bottom-up consensus process. In fact, it is this potential for capture that has shadowed the debate about direct elections in ICANN.

In other words, in today's ICANN DNSO, the public interest is not addressed by any of the traditional safeguards. Today, the domain name industry is a bureaucracy run by committees of disparate and even conflicting interests, none of which is representative or accountable. The committees have no rules or procedure, though they do, perversely, have a lot of *process* of a sort best definable by what they block and fail to accomplish. Although the DNSO is supposed to be governed by rules and policies, the reality is that rules are often changed as the process moves along.

II. Unintended Process Consequences of the Consensus "Process"

Consensus Does Not Consider Public or Consumer Interest. In ICANN's consensus process, the self-interested, often trade associations, vote on their own interests, their own regulations, and even on their own competitors' ability to launch new products—all without any need to consider the public interest or market demand. As one member put it in a recent conference call, "Our revenue streams come first, consumers' interests are second."

Consensus Dampens Market Innovation and Consumer Value in the U.S. Another unintended consequence of relevance to this Senate Subcommittee is that

ICANN's unrepresentative and unaccountable subcommittee members—from inside and outside the United States—have an effective veto power over the business of American businesses, and can delay or prevent use and reform of Internet resources needed by Americans and their businesses.

Consensus also dampens market innovation. It has never worked in a marketplace. It is sometimes appropriate for small groups like town meetings. It is an inappropriate substitute for decisions by the market because it is slow, inefficient, unresponsive, bureaucratic, and of course not driven by customer demand. To sit in on any futile meeting or conference call of ICANN's subcommittees (with the possible exception of the Intellectual Property Constituency, which understands procedure) is to feel deeply why communitarian processes were finally and unequivocally defeated by the innovation and speed and alignment of incentives that is capitalism.

Consensus: Equal Resources to All Businesses Means Windfall Subsidies to the Less Accomplished. For example, in an inexplicable breach of principles of market demand, the stalemate of consensus has often meant that registry resources are allocated equally to each registrar, regardless of the volume or legitimacy of their customer demand. The result is that registrars with few customers at all may use this windfall of resources to treat only a handful of customers to their services, which means exclusion and disadvantaging of mainstream customers. Thus, a market-driven system is blocked by a consensus process in which those who receive a windfall of resources may block reform intended to correct it.

Consensus is Captive to Misinformation and Politics Unrelated to the Market or Public Interest. Because the consensus process is not market-driven, it is also political, so that anyone who has a vague armchair misunderstanding of consumer demand, antitrust principles, or trademark or copyright law can not only avoid any testing of their opinions by the law or market but can also prevent reform or innovation. All you need in this industry to block an innovation or reform is an opinion. There is no requirement that the opinion have any merit. There is no requirement that it be based on any evidence. There is no requirement that the public interest be considered. Finally, because it is consensus rather than the market that drives decisions, there is no requirement that any opinion be tested by the most objective normative tests we have in our society, the law or the market.

Here's who is NOT involved in the consensus policy: consumers. The Non-Commercial Constituency has been drowned out by the other constituencies, and is now in the not-surprising crisis of being unable to pay its dues. In any event, the current structure lets the regulated participants vote on behalf of the consumers, and consumers are unable to vote with their wallets. In other words, ICANN's consensus is the exact opposite of either a democracy or a market, which both provide mechanisms to ensure the public good. Instead, ICANN's consensus policy combines all the wonders of the committees behind the former Soviet Union's failed Five-Year Plans.

The best representative of the consumer is not an unrepresentative and unaccountable group of intermediaries; in fact, that is one of the worst. The best representative of the consumer is a properly regulated market.

III. Substantive Consequences of Anti-Market Consensus

A. No New Policy, Bad Old Policy

The domain name industry is left to police itself through a paralyzing so-called consensus process. Small wonder that no reform or policy of any kind has yet made it through the black hole that is ICANN's consensus process. Even the word "process" in "consensus process" is a misnomer. "Process" implies movement. The futility of consensus self-regulation in what should be an innovative, capitalist industry is illustrated in the fact that ICANN's consensus process has, so far, and by ICANN's own statement, arrived at no innovation, no reform, not even a policy. Here is a partial list of the problems consensus has failed to resolve in several years' time, and which are in dire need of more than ineffectual discussion by subcommittees:

- Whois Accuracy—a problem since the inception of ICANN. Despite ICANN's contractual mandates on registrars to keep accurate registration data, the whois database remains inaccurate. (The whois database has all the elements of a title report, a telephone directory, a driver's license (a privilege, not a right) and a trademark file.) Without accurate data, private and public law enforcement cannot properly do their jobs.
- Whois escrow—a problem since the inception of ICANN. Despite ICANN's contractual mandates on registrars to escrow registration data against catastrophic loss—which would take down the websites of every constituent in your states—the whois database and associated e-commerce websites remain vulnerable.
- Transfers between registrars—a problem for over a year. There has been no resolution.

- Blatant preferential treatment of speculators and cybersquatters—a problem since the beginning of the registry, but one that has returned and even grown worse in the exclusion of mainstream customers from access to the 800,000 newly available names each month.

B. Distrust, Illegitimacy

The consequences of today's consensus process are familiar to everyone in the industry. First and foremost, the industry has lost the trust of the consumers. It has very little legitimacy in their eyes and very little credibility, and customers are often very confused.

ICANN's parties to consensus trade votes behind closed doors without transparency or accountability. Whether secret processes *in business* are in the public interest can often be checked and tested by the market; in a *regulatory body* secret processes are disaster. The public rightly has no trust in this system. Our customer support line reports rampant mistrust of the entire industry, of virtually all the companies in it, and of ICANN, and we hear of terrible confusion and disgust.

Too few in the industry appear to realize that the following comment from an attorney is increasingly typical:

> I have clients who spend thousands of dollars—still—having to track down crooks and thieves and honestly, I tell them that the current system is set up to encourage thieves to spend $20 registering a domain name that they can not own and forcing companies to spend thousands on lawyers going after them while registrars hide the ball. Why is the internet going the wrong way? Why are many big companies cutting way back?
>
> It's not because the internet is too heavily regulated, it's because of the crooks and thieves—clients question how much effort is it worth to and *do I really need much of a presence*. That's a shame but the internet community has done it to themselves . . .
>
> The answer is, ok, you're right, *it's not a viable commercial vehicle*, it's a place for crooks and those selling porno.

The industry has more Tragedies of the Commons than one can count—those resources or policies that require cooperation for them to have any meaning are in the saddest shape of all. We have Races to the Bottom not seen since the pre-environmental law days. This is partly because the industry is under-regulated by either a governing body or a transparent market. And it is partly because an industry that implements insufficient consumer safeguards can avoid having to charge for them, so that the industry's services are under-priced; the result is that the lowest denominator of quality and service prevails.

Worse, given that the main participants in the consensus process do not (and could not be expected to) consider the public interest, consensus is akin to putting foxes in charge of agreeing to security policies for the public interest henhouse.

IV. Case Study: How an Innovative Attempt to Answer Market Demand from Mainstream Consumers is Being Thwarted Not By Superior Competition or Technology but by Special Interests and Petty Politics

Here is a real-life example of how politics, concerted action of dubious legality by trade associations, and unsupported opinion can actually stifle innovation that would prevail under actual market conditions. I alluded above to the fact that all of your constituents have no reasonable access to the nearly one million newly available names each month. We developed a superior solution and applied for a patent on our innovative and complex technology. In setting forth criteria for a decision on our Wait-Listing Service, or WLS, ICANN's General Counsel, Louis Touton, accurately pointed out to the ICANN Board of Directors that:

> [R]equiring a consensus-development process for every new registry service could stifle innovation. Registry operators should be encouraged to introduce new services to the marketplace *where no legitimate interests of others* are being materially harmed. [1]

Why is the innovation of a wait-listing service necessary and of benefit to consumers?

A. Background of a Market Innovation Now Subject to Prior Restraint: The Unacceptable Status Quo of a Totally Unregulated Market

When the domain name system was set up, it was designed to create an initial registration of a domain name. Very little thought was given to what should happen

[1] *http://www.icann.org/bucharest/wls-topic.htm*

when a registration expired, and the registrar deleted the domain name from the registrar's records, and the registry honored the deletion by making the name available for re-registration. Accordingly, while the various ICANN and VeriSign Registry agreements discuss the timing of delete commands and the like, nothing ensures that customers' access to the re-registration of the name will be as fair, equal, transparent, and reasonable as their access to initial registration services.

However, neither do the agreements appear to prohibit registrars from providing access that is not fairly distributed, or equal, or access that is far from transparent or reasonably understandable. The ensuing loophole has allowed many registrars to rent out their resources for re-registrations to one or a few customers each, and to dub the resulting sweetheart deals their "business models."

And that has led to what one commentator recently referred to as "today's registration-loophole carnival of horrors."

Thus, due to a lack of planning by the domain name industry, we have a more fractured system to *re-register* valuable deleting names than to do *initial* registrations. Like the service for initial registrations, which is centralized at the registry level, the re-registration service should also be centralized. If the market were allowed to speak in its own inimitable voice, the service would have been available to real people in January.

Instead, today's patchwork system for re-registering the most valuable domain names—the 800,000 per month that expire and are deleted by VeriSign Registry—is confusing, uncertain, complex, and, most critically, even harms and excludes all mainstream customers. What this Subcommittee probably does not know is that its constituents are harmed every day by a re-registration system custom-built for and often by speculators and cybersquatters.

Many registrars' so-called "services" arm only a few customers in this battle to reach the Registry first, to the detriment of mainstream and business users, unsophisticated individuals and intellectual property owners. We ask you: How do you think the names of all those churches and schools and non-profits, now redirected to porn sites, are registered during the millisecond they are available? Wonder no more. As one knowledgeable speculator put it:

> Currently *many registrars are running their own programs* to catch dropped names and then auction them or *give [them] to their people* or charge monthly for [the] facility. Which is not [what] their primary purpose was. For a genuine domain/website owner that's a nightmare.

Since January, when we first proposed an immediate launch of the more fair system, the cream of the crop of over 3 million domain names have continued to go almost exclusively to registrars who exclusively serve speculators. On May 31, 2002, we examined a random sample of 1101 domain names out of the 160,000 that deleted and became available again in the last five days of May 2002. These 1101 domain names were by definition highly valuable, because they were all registered literally within milliseconds of their return to availability.

Of those 1101 names, we discovered that:

- 2.5 percent or 27—had been registered by mainstream consumers on registrars' *publicly available websites*. Attorneys, corporations, the masses of unsophisticated users: this is your share.
- 21.8 percent or 240—had been registered by registrars through means theoretically available to all consumers, but in reality the means were confusing or required a high degree of sophistication about the Registry's complex deletion process and a substantial investment of time in research and on the registrar's site.
- 75.8 percent or 834—were registered by registrars through back-door means on behalf of a few dozen customers, and these registrars do not offer their services equally to all customers, or even mention the services on a website, where the services would be accessible, or at least transparent, to mainstream consumers and intellectual property owners.

In sum, 97.6 percent of all valuable domain names are registered through means not practically available to the general public. This is a broken system.

B. Market Demand Begging for a Market Response

Left in the cold are the people the Internet was made for: educational and governmental institutions, organizations for worship and charitable organizations, corporations, actual users of domain names rather than those who warehouse them for sale, and trademark owners desiring to put these expired names to good and legitimate use.

Any reasonable businessperson can see mainstream consumers demanding a re-registration service that provides businesses with more certainty about whether a name to delete in the future is one they might actually be able to plan on. Consumers want a service that is as fair, easy to understand, open, and transparent as the centralized registry's service for first-time registrations.

C. Responses to Market Demand Blocked in ICANN Quagmire

Unfortunately for the consumer, since September 9, 2001, in endless public discussions without form, shape, process, or any need for evidence or logic or consideration of the public interest, our innovative remedy for this corrupt system has been literally. Talked. To. Death. By a mis-conceived and frankly misguided process in which entities who have no business interfering with our business all have equal say, and apparently equal power to delay or veto.

In early January 2002, debate and discussion over the WLS began again. At the request of ICANN's General Counsel, a public comment period lasted from early January to early February. Based on the feedback from various special interests (few actual consumers participated), the WLS proposal was modified and resubmitted for a third round of comment. This third comment period lasted another month. On March 22, the WLS proposal was finally submitted to ICANN. A month later, ICANN called for . . . another public comment period. By April 22, still having taken no action, ICANN delegated the matter to an unrelated and egregiously uninformed body, the "Transfers Task Force." After doing little more than hold two conference calls inviting competitors to complain about the WLS, the Transfers Task Force, on June 4, issued a "report" riddled with factual errors. On June 28, in Bucharest, Romania, the ICANN Board of Directors will apparently decide whether our business will go forward and provide what no one has persuasively denied would be the best possible consumer service.

The entities who have a vote in blocking our innovations include:

- our competitors, if you can imagine that[2]
- professional domain buyers (speculators, cybersquatters, etc.) who believe our innovation will level the playing field and impact their reign of preferential inside access
- trade associations who know far less about both the current corrupt system and the WLS than I have just explained to you
- random individuals representing no one in particular, many of them in foreign countries
- the ICANN Board of Directors, who will apparently try to figure out in 45 minutes on June 28 a technological, policy, and business matter that has been in development for two years.
- and so on.

D. Consensus and its Cousin, Antitrust

Many critics are blocking our business because they have numerous, sometimes understandable axes to grind with VeriSign. Others, the country-club of special interests who compete with us, don't want the public to know how the WLS creates a transparent, fair, first-come, first-served system for all customers and not just a select few. Rather, they want to sow confusion and delay by creating red herring issues, such as:

a. WLS Reduces "Competition": the imaginary claim that the WLS would eliminate something that does not actually exist today, except to the extent that professional speculators compete with each other. Moreover, competition under the WLS would be the same as it is today for first-time registrations and renewals: registrars compete for customers, a central registry provides a reliable service. Finally, the Supreme Court has made clear that antitrust laws protect only just such competition; they do not protect competitors who believe an innovation will reduce their business.

b. Objections to the price of the service—not objections by actual consumers (who set prices, typically, and whom market research has shown already pay for inferior services the prices proposed for the WLS) but by competitors! These objections are taken seriously despite the clear antitrust implications

[2] And, what's worse in some ways, some of the biggest critics of our ability to launch our technology are barely even real competitors: they register a few names per year, and yet under the meaningless requirements for participation in the consensus system, their impact on the market is equal to that of the largest and most successful market competitors, such as Register.com and VeriSign.

of a group of competitors attempting to veto a competitive service, or a group of customers boycotting a vendor's service based on price.

Here is my question for those concerned with ICANN reform: Why is a consensus process substituting its judgment on what consumers want for the market's? Why is ICANN even entertaining our competitors' arguments of VeriSign's antitrust. Complex legal determinations are not in its charter or expertise; there are laws governing these concerns and ICANN should allow the laws to take their course, deferring the matter to the courts with the expertise rather than trying to consider everything itself.

Worse, why have our competitors been handed the power to veto our superior technology? Some in the industry actually think it's legal to engage in antitrust blockage of innovation so long as one of the entities they're opposing is, in their simplistic lay opinion, a monopoly (by which they mean our licensee, VeriSign). Consensus processes are therefore custom-built for collusion; they are an open invitation to antitrust. Businesses injured by this process should not have to resort to antitrust suits simply because their competitors were inexplicably given apparent license to collude and to block superior customer services.

(There are strong arguments that VeriSign Registry is not a monopoly (with over 250 top-level domains now in existence), but more dispositive is the fact that it is not illegal merely to *be* a monopoly in any event).

V. Toward a Model and Some Criteria for the Industry's Oversight Body

The consensus system can never be improved enough to make it work in what should be a market-driven space. More grass-roots representation by far-flung interests all over the globe will still suffer from all the same defects as less. True mediated representative democracies—that is, appointed or elected, but always representative of the appointers or electors and always accountable to them—are among politics' most difficult challenges. Experiments in mediated representation not only cannot work globally at this point in history and technology, but are arguably inappropriate constraints on an actual industry, which by definition should remain largely market-driven with appropriate regulation.

The first rule when considering whether to scrap ICANN is: Be careful what you wish for. One alternative to ICANN is a U.S. governmental agency, but it would need to take over ICANN's contracts in order to assume jurisdiction over foreign entities, and it would of course need to acquire technical and policy expertise it doesn't currently have. And foreign nations would likely not find sole U.S. oversight a suitable arrangement. Another alternative is a strictly technical non-governmental body to *try* to make only technical decisions, but such a body would still be unaccountable and would decide policy in the guise of deciding technical questions. Neither of these are clearly preferable alternatives, and they may be worse than the status quo.

Oversight needed, whether a body or a body of laws. Like most complex industries, the domain industry does need an oversight body, and a body of laws, after which the market should be allowed to run its course without hijacking by special interests and non-market-driven opinion. Whether that body should go by the name of ICANN, change its name, or be a different entity is a matter we don't feel strongly about. An ICANN by any other name is just as necessary. This is because the domain industry's technology, based on a single root server, is uniquely capable of making self-correcting market mechanisms irrelevant.

Find a model. There are existing governance models that appear to have worked in the past in sufficiently similar contexts, such as the Port Authority of New York and New Jersey ("the Port Authority"), which combines qualities of a private corporation with governmental power. The Port Authority runs critical infrastructure facilities in and around Manhattan Island and has some governmental powers, including eminent domain and the power to issue bonds.[3] While this Subcommittee would need a different panel of witnesses to adequately look into alternative governmental structures, in Appendix B I note a few facts about the Port Authority.

Criteria. While we are not experts in governance structures, we do have views on some criteria the oversight body or body of statutes should satisfy. Any oversight body or law:

[3] The Port Authority "was created as The Port of New York Authority on April 30, 1921, by compact between the two states, with the consent of Congress, to plan, develop and operate terminal, transportation and other facilities of commerce, and to promote and protect the commerce of the bistate port." *See* http://www.panynj.gov/ (all citations are taken from this official website).

- Should stay out of market matters and largely stay out of technical matters that do not by their nature require cooperation or agreement and that do not measurably implicate national security; and it should act—and, of equal importance—refrain from acting in ways that allow the market to regulate consumer choice (see, e.g., the FTC or FDA, DOT or SEC);
- Should nevertheless have more of the enforcement powers of a governmental body than of the undercapitalized business ICANN is; (see same agencies)
- Should provide, and mandate for the rest of the industry, equal treatment and open, equal access for all consumers to all registries' resources.
- Should not be hamstrung by any need to get consensus for market innovation from unrepresentative, non-market-driven interests.

Again, we thank the Subcommittee for its time and attention.

APPENDIX A

Following are additional details on policy recommendations to be enforced or newly effected by either Congress, or (more likely, given its broader jurisdiction) by ICANN or its equivalent.

Enforcement I

1. *Provide funds with which to enforce mandates.* Like federal agencies overseeing other industries, ICANN must have some means to obtain more financial resources to enforce the mandates that it already has, as well as those wished by Congress. Unenforceable policies are no policies at all. Many registrants have already signaled their willingness to support ICANN's need for financial resources by paying higher fees into ICANN's enforcement escrow account than they pay today. (There has been some opposition to any higher fees than those that exist today on grounds that an increase in those fees would constitute a "tax." I fail to discern the logic in an amount such as $.09 not being a tax and an amount such as, say, $.20, being deemed a "tax". In neither case would an enforcement escrow fee, in an industry run amok, be properly deemed a form of "taxation." The benefits of ICANN having such additional funds for critical policy enforcement would far outweigh the trivial burden of another $.25 or so per domain name.)
2. *Provide penalties or private causes of action for violations of ICANN contracts.* (This may require congressional legislative action rather than, or in addition to, ICANN action, depending on whether the violator is already subject to industry jurisdiction.)

Registrant *Civil* Sanctions for Bad-Faith Registrant Activities

3. *Create new and more effective sanctions against bad-faith registrants.* The recent U.S. bill criminalizing fraudulent provision of whois data will have little impact on parties' rights under U.S. civil laws, and no impact at all on foreign-based registrars, where much of the abuse and non-compliance take place. For real sanctions, bad-faith registrants should be fined or lose all *additional* names (for the loss of one $7 name alone is no disincentive at all), or both.

Enforcement II

4. *Create financial penalties for registrars who knowingly fail to comply with sanctions mandated upon them or bad-faith registrants by ICANN.*

Institutional Reform

5. *Do not make reform policies dependent on consensus among the regulated.*
6. *Prohibit at least certain critical ways in which registrars use their privileged resources to favor a minority of customers (non-end-users) over all other customers.*

APPENDIX B

Substituting only a few words into the Port Authority's mission statement, we get something not too dissimilar to what the DNS' governing body could look like:

> To identify and meet the critical transportation [*domain name*] infrastructure needs of the bistate region's businesses, residents, and visitors [*needs of domain name businesses, e-commerce website owners, and registrants*]: providing the highest quality, most efficient transportation and port commerce [*domain name*] facilities and services that move people and goods [services] within the region [*around the world*], provide access to the rest of the nation and to the world,

> and strengthen the economic competitiveness of the New York-New Jersey metropolitan region [*of the domain name industry and its businesses*].

Similarly:

> The Port Authority is a financially self-supporting public agency that receives no tax revenues from any state or local jurisdiction and has no power to tax. *It relies almost entirely on revenues generated by facilities users—tolls, fees, and rents.* [4]
>
> The *Governor of each state appoints* [5] six members to the Board of Commissioners, subject to state senate approval. Board Members serve as public officials without pay for overlapping six-year terms. The Governors retain the right to veto the actions of Commissioners from his or her own state. Board meetings are public.
>
> The Board of Commissioners appoints an Executive Director to carry out the agency's policies and manage the day-to-day operations.

(emphases added). And my favorite analogy with the domain industry (substitute "registrars" for "states" and otherwise update accordingly):

> The states quarreled throughout the 19th[*21st*] Century over their common harbor and waterways [/*their common resources*]. A dispute . . . once led state police to exchange shots in the middle of the river. Eventually, the states found a governmental model for port management in the Port of London, what was then the only public authority in the world.

Senator WYDEN. Mr. Powell, thank you. That was very helpful. Mr. Cochetti, welcome.

STATEMENT OF ROGER J. COCHETTI, SENIOR VICE PRESIDENT, POLICY AND CHIEF POLICY OFFICER, VERISIGN, INC.

Mr. COCHETTI. Thank you, Senator Wyden and may I began by saying for those in the room who are not familiar with Congressional Internet policy development, I am pleased to say that the three of you able to make it to today's hearing in my experience, in my judgment, actually constitute the core of the Senate's Internet brain trust. And I would say that if you can't figure out a solution for the problems that we are discussing today, then I'm not sure that there is anyone who can. So, thank you for inviting me and thank you to all three of——

Senator BURNS. We're in trouble.

[Laughter.]

Senator WYDEN. I saw a Burns sound bite coming.

[Laughter.]

Mr. COCHETTI. Thank you for your interest in Internet matters, in general, and for coming. VeriSign, I think as you know, is the company that makes the Internet work. More than any other single company, VeriSign lies at the infrastructure of the Internet and makes it operate today.

We are the largest provider of web merchant payment services in the world. We are the largest provider of digital signature services in the world. We are the largest provider of domain name registry services. And, we are among the largest providers of both commercial e-mail and web-hosting services.

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[4] In the DNS, the equivalent would be a domain name registration fee for use of the DNS facilities.

[5] In the DNS, an equivalent might be that the chief executives of certain countries appoint members. Accountability is the goal.

We more recently have extended into telecommunication support services. I think we are faithful to our mission and identity as a company that really makes the Internet and e-commerce work.

For that reason, in part, I testified early last year before a Subcommittee of the Commerce Committee on the same topic. At that time I described ICANN as an experiment for which it was too early to reach conclusions. With nearly 4 years of experience with ICANN now behind us, I don't think we can avoid reaching the conclusion any longer.

We should recognize, I think at the outset, Mr. Chairman, that ICANN was handed an enormously complex task. I think it is appropriate to begin by conveying our respect and gratitude to the staff and the volunteer directors of ICANN for the effort they demonstrated over the past 4 years. Having done so, I have some thoughts on the state of ICANN.

VeriSign is ICANN's largest and we think most enthusiastic supporter. We've contributed more to its budget than anyone else and done more to assist in supporting it than anyone else. We helped found ICANN and have an enormous stake in its success. We have studied its performance, however, and have concluded, as has its President, that at present course and speed, ICANN is failing and will continue to fail.

ICANN is in need of fundamental reform. Its original mission of technical coordination is extremely important and it has drifted into activities that have no basis in its MOU with the Commerce Department; most notably efforts to comprehensively regulate the prices and services of the domain name industry. While this issue is complicated, the solution is not: And the Commerce Department is already working to bring about needed ICANN reform. Doing so, we think we will have many simultaneous benefits.

A restructuring of ICANN's activities to ensure it does not turn from a coordinator into a regulator will improve ICANN itself. It will promote competition by creating a level playing field in the domain name market. It will relieve ICANN of the enormous expenses and demands for due process and endless controversies that are part and parcel of its efforts to regulate services and prices. It will considerably reduce the pressures that have grown for the public election of the ICANN Board. It will have no effect whatsoever on the ongoing regulation of the generic segment of the domain name industry by U.S. and foreign governments, and will permit ICANN to successfully conclude agreements with major segments of the Internet's technical community, including root server operators and county code service providers.

As Secretary Victory explained, in 1998 the Internet was a very different place than it is today. In early 1998, almost 90 percent of the domain name market was served by the three now famous generics called .com, .net, and .org. Slightly over 10 percent of the market was then served by what are called country code top-level domains, such as .uk or .de for Deutschland or Germany.

Today, according to ICANN's estimates, the country code segment of the industry serves about 35 percent of the market and .com serves less than half. Strong new competition from the likes of powerful country code service providers like ".us" and ".eu" is

now on the way; and will add further competition to the already competetive market.

ICANN estimated that the country code segment of the domain name industry grew about 50 percent over the past year, while .com grew less than 20 percent. At present course and speed, there is no doubt that the country code segment of the domain name industry will prevail over the generic segment sometime soon.

At the same time, there has been robust competition at the retail end of the market. In 1998, there was one registrar offering generic registrations. Today over 100 registrars offer generic registrations for such top-level domains as ".com" or ".net". And no registrar has more than one third of the market.

Although competition is fierce and has been growing in the domain name industry, ICANN has erected a costly and discriminatory set of comprehensive controls and regulations that apply only to the generic segment of the domain name industry. ICANN regulates nearly every aspect of the business life of only the generic segment in the industry, including prices, services, information activities, and others. This effort by ICANN to evolve from its authorized role of a coordinator of Internet technical functions into a regulator of prices and services has hindered competition and sapped ICANN's resources, which it needs to pursue its critically-important role of technical coordination.

ICANN's regulation of the generic segment of the industry has not caused a single government anywhere in the world to withdraw from regulation of that industry segment. If ICANN were to suspend or terminate its regulation of the generic segment of the industry today, governments everywhere would continue to regulate that segment just as they have done for both generic and the country code segment; and just as they do for every other e-commerce company from eBay to Amazon. As with most excessively-regulated industries, we have seen an unfortunate result for the domain name industry: persuading the right ICANN committee and convincing the right ICANN key staffer *has* replaced competition, innovation, and creativity in the marketplace.

Because ICANN is a small non-profit organization, it has neither the resources, nor the mandate to incorporate due process into its regulation of prices and services, and as a result, few of its—many of its regulatory decisions tend to be discriminatory and arbitrary and few, if any, incorporate due process. By attempting to evolve away from the narrow technical coordination functions that were authorized by the MOU, ICANN has placed on itself an enormous burden of public accountability and generated great pressure for public election of its Board. Citizens everywhere demand and properly argue for the same accountability from ICANN when it acts like a government regulatory agency as they do from a genuine government regulatory agency.

We believe ICANN is at a juncture in the road. One pathway will lead to continued controversy, continued arbitrary decision-making and a neverending struggle to gain adequate resources. Another pathway will lead to a tight focus on a set of coordination—not regulatory—functions that were assigned to it in 1998. We hope the Subcommittee will join with us in putting ICANN on a pathway of success.

[The prepared statement of Mr. Cochetti follows:]

PREPARED STATEMENT OF ROGER J. COCHETTI, SENIOR VICE PRESIDENT, POLICY AND CHIEF POLICY OFFICER, VERISIGN, INC.

Introduction

Mr. Chairman, Members of the Subcommittee,

Thank you for the opportunity to testify today and comment on the mission and organization of the Internet Corporation for Assigned Names and Numbers, ("ICANN"). I appreciate this opportunity, Mr. Chairman, both because I testified on behalf of Verisign on this topic before another Subcommittee of the Commerce Committee about a year and a half ago and much has happened since then, and because I have worked with ICANN since it was first developed. With almost four years of experience with ICANN now behind us, Mr. Chairman, it seems both appropriate and timely to review its performance and outlook.

It is also appropriate for us to testify because VeriSign has been among ICANN's major supporters. We have been the largest contributor of dues to ICANN and we have been among the largest—if not the largest—donor of voluntary contributions to the organization. In addition, few, if any, companies or organizations anywhere have provided more support to ICANN to both help it organize and operate. We consider ourselves among ICANN's most important and active supporters.

VeriSign has contributed to ICANN because we support it as an important experiment in international, private sector-based, coordination of Internet technical functions. These functions are important because they are, in part, what make the Internet work. When asked for my assessment of ICANN during the Subcommittee hearings early last year, I indicated that ICANN was an experiment, and it was at that time simply too early to conclude whether ICANN had been a failure, a success, or something in between. Sixteen months later, and with almost four years of experience with ICANN behind us, I don't think we can avoid some important conclusions. Most of these relate to the mission and functions of ICANN, for it is absolutely essential to have a focused idea of ICANN's, or any organization's, mission and functions before its optimal structure and funding can be addressed.

Before summarizing our conclusions, Mr. Chairman, let me preface them by explaining that ICANN has been among the most complex organizational experiments ever undertaken by anyone. It includes elements of at least a dozen organizational models ranging from industry standards bodies to civic organizations to international organizations to trade associations. It brings together technical, legal, diplomatic, commercial and civic interests along with just about every industrial segment from content to hardware. And as a brand new organization, ICANN has been asked by someone at some time to help them with just about every imaginable problem.

So, I should begin by giving credit where it is due: namely to the hardworking staff and volunteer directors and council members of ICANN. They have been at the center of a lot of pressure and, in the midst of it all, have built an organization from scratch. In doing so, they have had both successes and failures, which I would like to discuss.

Summary Conclusions

In February of this year, Mr. Chairman, ICANN's President issued an important report calling for a major reform of ICANN. Since that time, we have been carefully and thoroughly evaluating the ICANN experiment in light of its accomplishments, focus, mission, structure and organization. Perhaps the easiest way to describe our summary conclusions is to refer to the framework that I used last year. I described ICANN as a table that was planned to have four legs as its foundation. These legs—each consisting of a set of contracts with a different and important segment of the Internet—would together provide the structural foundation on which ICANN's programs and funding would rest. These four legs, or segments, are: (1) the generic Top Level Domain industry, called "gTLDs", consisting of the registries and registrars for such generic domains as ".com" or ".biz"; (2) the country code Top-Level Domain industry, called "ccTLDs", consisting of registries/registrars for the 243 country code Top-Level Domains, such as ".uk" (United Kingdom) or ".de" (Deutschland or, in English, Germany); (3) the operators of the Internet's thirteen Root Servers, the network of Internet servers that distributes the authoritative directory of who controls which Top-Level Domain to the entire Internet; and (4) the operators of the Internet Protocol, or "IP" Numbering Registries, the registries that distribute IP numbers to the many thousands of network operators who then assign these numbers to individual Internet users to give them an identity on the Internet. When we examined

the ICANN experiment last year, I reported that one of the four legs of the ICANN table was in place, but that the other three were then still being pursued. That situation has changed a little over the past sixteen months. While some progress has been made on one of these legs (the numbering registries) on two of them—the ccTLDs and the Root Server operators—ICANN seems little closer to entering into contracts with them today than they were early last year. Under these circumstances, it is important and timely that the U.S. government, and this Subcommittee, evaluate ICANN at this time.

Background

Before describing the conclusions that we have reached, Mr. Chairman, I would like to briefly review how we got to where we are today:

Prior to 1998, the management of the technical functions of the Internet, such as domain names and IP numbering addresses, was conducted under various contracts and cooperative agreements between and among the U.S. Government, the Information Sciences Institute of the University of Southern California, which acted under the program name Internet Assigned Numbering Authority ("IANA") and Network Solutions, Inc. ("NSI"), which was acquired by SAIC, later taken public, and then acquired in 2001 by VeriSign.

In June of 1998, the U.S Department of Commerce ("DOC"), acting through the National Telecommunications and Information Administration ("NTIA"), published in the Federal Register a statement of policy, called the "White Paper" regarding the privatization of the domain name system. In its White Paper, DOC envisioned the creation of a private sector entity to which DOC would someday delegate the authority to manage and perform "a specific set of functions related to coordination of the domain name system . . . " The four coordinated technical functions discussed in the Federal Register Notice/White Paper are: " (1) set policy for and direct allocation of IP number blocks . . . ; (2) oversee operation of the authoritative Internet root server system; (3) oversee policy for determining the circumstances under which new TLDs are added to the root system; and (4) coordinate the assignment of other Internet technical parameters as needed to maintain universal connectivity on the Internet." While the White Paper mentioned no other functions for the entity, it did not, perhaps mistakenly in retrospect, prohibit them either.

In November, 1998, DOC entered into a Memorandum of Understanding ("MOU") with a new, non-profit, California-based, corporation, ICANN, under which the U.S. Government agreed to experiment until September, 2000 with a limited recognition of ICANN as a coordinator of the four functions described in the White Paper. This MOU, and thus this experiment, has been extended several times, most recently in September 2001, and it expires on September 30, 2002.

The MOU's purpose is explained in the following way: "Before making a transition to private sector DNS, i.e., Domain Name System management, the DOC requires assurances that the private sector has the capability and resources to assume the important responsibilities related to the technical management of the DNS . . . the Parties will jointly design, develop and test the mechanisms, methods, and procedures that should be in place and the steps necessary to transition management responsibility for DNS functions now performed by, or on behalf of, the U.S. Government to a private-sector not-for-profit entity. Once testing is successfully completed, it is contemplated that management of the DNS will be transitioned to the mechanisms, methods, and procedures designed and developed in the DNS Project." The DOC and ICANN also agreed that "If the DOC withdraws its recognition of ICANN or any successor entity by terminating this MOU, ICANN agrees that it will assign to the DOC any rights that ICANN has in all existing contracts with the registries and registrars, including any data escrow agreement(s) . . . "

Thus, it is entirely appropriate, and even necessary, that the U.S. Government review ICANN's performance under the MOU and consider the most appropriate U.S. policy.

In this context, ICANN's President anticipated and opened the current discussion over the U.S. Government's review of its MOU with ICANN in a seminal report to the Internet community that was issued in February 2002. In this thirty six page report, ICANN's President makes many important points, the most important of which is captured by its title, *The Case For Reform* and the opening paragraph of its conclusion "For all of the reasons described above, if we stay on our current course the ICANN experiment is likely to fail. But properly reformed, I am convinced it can succeed."

VeriSign's Assessment

As a leading participant in, and supporter of, ICANN, VeriSign has studied closely ICANN's obligations under its MOU with the U.S. Government, its current struc-

ture and organization and its performance against its mission over the past three and a half years. We have participated in numerous group evaluations, both inside of the ICANN structure and outside of ICANN, and we have carefully evaluated changes to the environment within which ICANN has operated since the MOU was signed in 1998. We have reached five major conclusions, all of which have important implications for ICANN's future, its mission and structure, as well as the funding that it requires.

In brief, at present course and speed, we share the ICANN President's concerns for the viability of the experiment. Although we have entirely different ideas about the reforms that are needed, we share both his optimism for the future of the experiment if reforms are implemented and his dedication to the need for ICANN reform. Achieving success requires that we recognize the following, however:

The Internet, and most particularly, the domain name environment, has changed dramatically since 1998 and ICANN needs to change to reflect these environmental changes. When the DOC–ICANN MOU was negotiated and ICANN was designed at the beginning of 1998, the Internet was a very different place than it is today and the more time that passes, the more different it becomes. In the area of domain names, in early 1998, there were an estimated two and a half million domain names. Almost 90 percent of them were in the now-famous ".com", ".net" and ".org" TLDs and over 75 percent of the global market was served by ".com" alone. All of the ccTLDs combined were estimated to have served little over 10 percent of the worldwide market; and there were no gTLDs of consequence other than ".com", ".net" and ".org". NSI was the sole registry and registrar for all three of them.

Today, according to estimates provided by ICANN in its May 15, 2002 budget report, ".com" serves less than half of the global domain name market, while ".de" serves the second largest and ".uk" the third largest shares of the market worldwide. ccTLDs as a group serve around a third of the market and a half dozen new gTLDs, such as ".biz", ".info" and ".names" are active in the global markets and are serving growing shares of the market . More importantly, ICANN estimates that the thirty four largest ccTLDs grew over the past year at an average rate of almost 50 percent, while the rate of growth for all gTLDs was less than 20 percent, with ".com" growing at an even slower rate. While ICANN is not a market research firm, and its estimates were developed by them for budget planning, the trends cited by ICANN are exactly the same as those we see in the marketplace. Whether the ICANN estimates are accurate or not—and our market research suggests that they may underestimate both the decline in ".com"'s market share and the rise in the market share served by ccTLDs—no one doubts that ".com" currently serves less than half the market and that its share is declining; or that the ccTLD segment of the market is rapidly growing. Moreover, many ccTLDs, such as ".us", ".au" (Australia), ".cn" (China), ".eu" and others have recently been revitalized and can be expected to be even more aggressive in the market in the future than they have been in the past. At this estimated rate of growth, ccTLD registrations would exceed .com registrations sometime this year or next, soon after which, ccTLD registrations would exceed all gTLD registrations combined. Again, Mr. Chairman, whether or not these exact estimates are accurate, the trends are clear.

Even while the share of the domain name market served by ".com" has shrunk dramatically, the share of registrations within ".com" provided by the VeriSign Registrar (formerly the NSI Registrar) has itself also dropped dramatically. Whereas in 1998, 100 percent of all .com registrations were provided by the (NSI, now) VeriSign Registrar, today around one hundred registrars compete in the gTLD market and the VeriSign Registrar's share is less than 35 percent, with less than 20 percent of new registrations being served by VeriSign.

The net of these changes in the marketplace, Mr. Chairman, has been an enormous increase in competition in all segments and at all levels; and a natural and healthy increase in competitive pressures in such areas as pricing and new services. In this respect, however, ICANN's structure, focus, and programs have in many key areas hindered competition. Over the past four years, ICANN has developed an extensive set of contractually-based controls that it exercises over the gTLD segment of the market. These include ICANN's regulation of the gTLD segment's prices and services. In a manner reminiscent of the kind of controls exercised over the telephone or broadcast industries in the 1960's, virtually every aspect of the services of the gTLD segment of the domain name industry is either regulated or subject to the regulation by ICANN—from prices to value-added services. A very large portion of ICANN management's attention and resources is dedicated to the negotiation and enforcement of service agreements with gTLD registries that permit ICANN to control everything from their budgets to employee information sharing.

While ICANN has done some useful things that support a competitive environment, such as the introduction of new gTLDs like ".biz" and ".info", this attempt

by ICANN to comprehensively regulate the gTLD segment has created an un-level playing field between the gTLD segment, which is subject to extensive ICANN contractual controls on its prices and services, and the fast-growing ccTLD segment, which is not. The effort to become a regulator has diverted significant resources that ICANN needs; discouraged innovation, particularly in the gTLD segment; replaced marketplace competition with competition among lobbyists to curry favor with ICANN; discouraged investment, particularly in the gTLD segment; and needlessly contributed to the growth of an alternate root movement, which proposes to offer an unregulated list of gTLDs that would in some respects compete with ICANN's heavily regulated list of gTLs. Unfortunately, the growth of ICANN's efforts to expand into service and price regulation of the gTLD segment has been at the expense of its ability to perform its core mission of technical coordination.

ICANN's experiment with mandatory regulation of the gTLD segment of the domain name industry has been partially successful in one area but unsuccessful in most others and needs to be dramatically reformed. Although its delivery and follow up has been notably uneven, ICANN has been partially successful in one important area of the gTLD segment: Operators in the gTLD segment are nominally required to adopt three useful procedures. None of the three has been fully pursued by ICANN, but all are important and, in some respects, working:

- Escrow, under which registries and registrars are required to escrow their registration data in the event that one of them fails. This is in place today for registries; and
- WHOIS, a pre-ICANN lookup service that often permits law enforcement and others with a legitimate need (and unfortunately some spammers without a legitimate need) to quickly find some information about the identity and location of a domain name registrant. Currently, some—but not all—registrars offer a WHOIS service; and
- UDRP (Uniform Dispute Resolution Procedure), a mandatory domain name dispute resolution procedure, designed by the UN's World Intellectual Property Organization, that is available to anyone who believes that a domain name registrant is using their trademark without a legitimate right to do so. Under it, so-called "cybersquatters" with no rights to use a domain name that is, or closely resembles, someone else's trademark, can have that domain name registration transferred or deleted.

The unfortunate facts about these three accomplishments, however, are that they have not been fully pursued and they apply only to one segment of the market. Nor are there any plans for them to apply to all market segments.

A fourth ICANN procedure is worth noting, because it may be constructive, although the particularly intrusive approach taken to it by ICANN tends to offset any benefits. ICANN requires that each gTLD registry offer equal access to all gTLD registrars accredited by ICANN. On the one hand, this requirement benefits competition and confidence in the marketplace, although on the other, since only ICANN can accredit registrars and ICANN has established exceptionally low financial criteria for registrar accreditation, it has resulted in a large number of financially weak registrars that must be serviced by every gTLD registry. It has also imposed ICANN regulations onto the lowest level of the gTLD segment: service arrangements between gTLD registrars and their millions of customers; which is several steps removed from ICANN's intended role as a technical coordinator at the network management level.

More importantly, Mr. Chairman, outside of some important, but limited, successes, ICANN's efforts to serve as a regulator of the services and prices of some, but not all, of the domain name industry has created enormous problems for the ICANN experiment. Among them:

In its regulation of the gTLD segment's services and prices, ICANN has failed to provide due process. As a non-profit organization, ICANN has neither the resources nor the mandate to employ due process in its efforts to exercise control over the services and prices of the gTLD segment of the domain name industry. Moreover, many ICANN procedures involve a review of services and prices of one service provider by its competitors, hardly a practice that is likely to lead to procedural or substantive fairness. Perhaps the worst consequence of the absence of due process, Mr. Chairman, is the frequency with which arbitrary or inconsistent regulatory decisions are made. For those who might be tempted to consider permitting ICANN to evolve into some form of supra-national regulator over the domain name industry, by the way, it is important to keep in mind that any effort to regulate domain name prices and services in a multinational environment with due process will require both government agreements and millions of dollars annually. In such areas as con-

sistency, transparency, and independence, ICANN's track record as a regulator of the gTLD segment has not been successful. With its inherent limitations, ICANN's approach to regulation is rarely transparent, frequently arbitrary, and never incorporates due process.

ICANN's efforts over the past few years to extend its role to the regulation of services and prices in the gTLD segment of the domain name industry have not resulted in any reduction whatsoever of national governmental regulation of the gTLD industry segment. We know of not a single governmental regulatory agency anywhere that has indicated that it lacks regulatory authority over the gTLD segment of the domain name industry because ICANN asserts regulatory authority over that industry segment. The result is perhaps the most perverse consequence of the regulatory aspects of the ICANN experiment: the gTLD segment of the domain name industry—uniquely among all of the industries involved in the Internet—has been subjected to two levels of regulation. First, governmental regulation, which under the best of circumstances is extremely complex in the global Internet environment; and second, ICANN regulation, which is in no way coordinated with the regulatory activities of government authorities. By singling out the gTLD segment of the domain name industry for two layers of regulation, ICANN has competitively disadvantaged the gTLD segment, compared with the fast-growing ccTLD segment, and created a confusing situation in which the gTLD segment is subjected to both national regulation and ICANN regulation.

By going beyond the technical coordination mission and functions originally set for it and attempting to expand its authority into regulation of the services and prices of the gTLD segment, ICANN has placed an enormous accountability burden on itself and generated great pressure for the public election of its Board. Citizens of all countries normally see themselves as having a right to participate in the regulatory proceeding of their governments. As a non-profit organization whose mission and functions are to provide coordination for the technical functions of the Internet, ICANN would attract relatively modest public and media interest and relatively little pressure for a publicly elected board. However, if ICANN were permitted to evolve into a supra-national, regulator over the domain name industry, then ICANN would, and should, attract enormous public pressure for a publicly elected board. As ICANN was originally envisioned—with a narrow set of coordination functions—it should probably always have some public participation in its governance; if for no other reason than to ensure accountability. But if ICANN is allowed to expand into service and price regulation, then its accountability to the public should not be appreciably less than that of government regulatory agencies; with all of the costs and complications that are involved.

ICANN's attempts to evolve toward the role of regulator of the services and rates of the gTLD segment was not planned or anticipated when the original MOU with the DOC was entered into. In fact, as I noted earlier, the MOU cites four fairly exact and narrow functions for ICANN. For the most part, ICANN's effort to expand its responsibilities into regulation was an accident of circumstances, including the unusual market conditions in 1998, the personal ambitions of key people involved with ICANN and the effort of some entrepreneurs to turn what was supposed to have been an experiment in technical coordination into an experiment in the supranational regulation of their competitors. Almost everyone involved in ICANN's effort to regulate the gTLD segment of the domain name industry —from those who support it because they think that they can manipulate the process for their own ends to those who oppose this ICANN mission creep—sees it as a failed aspect of the ICANN experiment. No one has put forward a realistic plan for how ICANN could be made into an effective, supra-national regulator of the entire domain name industry, equally and fairly regulating all segments of the industry, because it cannot be done without enormous expense and intergovernmental agreements.

The solution is not to eliminate ICANN. It is to simply recognize that ICANN was never created to be—nor should it attempt to be—a regulator of services or prices. ICANN has neither the authority nor the resources to regulate services, rates, competition, operators, end-users or anything else in the domain name industry; the ccTLD segment or the gTLD segment. Ideally, such regulation should be done by the marketplace, which causes the least political distortion and rewards value instead of lobbying. Where the markets do not work, regulation is the job of governments, which are accountable and have the authority and the resources to do the job using due process.

This conclusion, in our view, is not a criticism of ICANN. It is a reaffirmation of the importance and value of the ICANN that was envisioned and is still needed.

ICANN has un-intentionally slid into the role of a network service operator, which has both distracted it from its critical mission of coordination and further diverted scarce resources. When the DOC-ICANN MOU was negotiated, no one envisioned

that ICANN might itself become a significant operator of Web server machines, since ICANN was created to provide technical coordination mostly among major operators of network facilities. And yet by 2002, ICANN has found itself operating a variety of important server machines, including serving as the registry operator for the ".int" and the ".arpa" TLDs; the operator of the "Internic" website; the operator of reverse lookup services; and the operator of one of the Internet's 13, critically-important Root Zone Servers. Some assert that operating a variety of Internet server machines is a trivial task that consumes little of ICANN's time or resources. But anyone involved in the operations side of the Internet knows better. The Internet server machines operated by ICANN all provide critical functions for the entire Internet. Each of them needs to be operated in a reliable and secure environment with adequate support. Attempting to do so successfully diverts resources away from other technical coordination tasks. These Internet server machines should be operated and supported by organizations that are in the business of operating Internet servers. Any such organization, business or non-business, could easily integrate these machines into their large, on-going, secure infrastructures. These servers should not be operated by a small, non-profit organization whose mission is coordination. Based on our experience with other aspects of the Internet's infrastructure, we are confident that businesses like ours, that are involved in the large-scale operation of Internet servers, would be willing to manage and operate, under contractual controls, the servers currently operated by ICANN. This could easily be done at no charge to ICANN or the Internet community and with a significant increase in both security and quality of service. This would permit ICANN to focus its resources on its important, core mission of technical coordination.

After almost four years of attempting to do so, ICANN has made little progress in establishing relationships with the 243 country code domain name operators or the thirteen Internet Root Server Operators. First, ICANN cannot continue to regulate the services and prices of the gTLD segment of the domain name industry and not the ccTLD segment; and Second, creating a secure and predictable legal environment for the Internet's Root Servers is important for the security of the Internet. We do not believe that there is a viable plan in place for ICANN to do either. To become fully established, ICANN must establish contractual relationships with the ccTLD segment of the domain name industry and with the operators of the 13 Internet Root Zone Servers, and thereby add two of the missing legs to the ICANN table. According to the ICANN President's February report on ICANN reform, " . . . most of the root name server operators . . . and the majority of ccTLD registries—have not yet entered into agreements with ICANN . . . " The principal risk created by the ambiguous legal environment surrounding the Internet's Root Servers is not necessarily at the operational level. (e.g. VeriSign operates two Root Servers, for example, and we do so at what we think is the highest possible level of security and reliability.) However, there is currently no legal environment that defines the security or other practices of the Internet Root Server Operators. The risk of this ambiguous Root Server legal environment is in confidence and predictability. ICANN can and should play a role in the coordination of the Internet's Root Servers, but it is not likely that they will effectively do so at present course and speed. This may be an area where governments should take an increased interest.

As for ICANN's failure to establish contractual relations with most of the ccTLD segment of the domain name industry, this is critically important because, as I noted earlier, the ccTLD segment of the industry is large, rapidly growing today, and likely to grow more rapidly for the foreseeable future. So an ICANN that has contractual relationships with, and exercises extensive controls over a shrinking gTLD segment and that has no contractual relationships at all with the fast-growing ccTLD segment, is just not viable. In our view, Mr. Chairman, the principal cause of ICANN's failure to conclude agreements with the ccTLD segment of the industry lies in the same ICANN regulatory issue that I described earlier: By their own statements, leaders of the ccTLD segment are prepared to conclude agreements with ICANN that recognize a limited role for ICANN. Most of the operators in this fast-growing segment have asserted for four years, however, that they will not recognize ICANN as having regulatory authority over them. Most explain that, just like the gTLD segment, the ccTLD segment of the industry is already regulated by national governments and their local Internet communities. As best we can tell, ICANN has refused to accept a limited role of technical coordinator in its relationships with the ccTLD segment, giving rise to four years of marginally-productive negotiations between ICANN and the ccTLD segment. At present course and speed, we do not see any successful conclusion in sight. The successful conclusion of the ICANN negotiations with the ccTLDs could be within reach, however, but that turns on the same approach to ICANN regulation that I described earlier: the principal regulator of the domain name industry should be the marketplace, which is highly competitive today

and will be increasingly competitive in the future. Where the marketplace fails, governments already provide—and will continue to provide—effective regulation. Only if and when the marketplace and governments cannot adequately address an important need for Internet coordination should we turn to ICANN for that benefit. We have noted elsewhere that, for the gTLD segment, ICANN's role in three areas should be continued and one should be carefully considered. For the ccTLD segment, ICANN should develop parallel voluntary programs that address UDRP, escrow, WHOIS and, perhaps, equal access.

ICANN needs to have a carefully and tightly defined mission and a set of safeguards to ensure that the organization is not led away from that mission. Many of the problems that are discussed in this testimony stem from the fact that ICANN's mission, while it is often described as being "focused," is in fact vaguely defined with no effective safeguards to prevent mission creep. And the proof of this is that the various documents that make up ICANN's constitution, ranging from the MOU itself to ICANN's many contracts with registries and registrars, both permit vastly different interpretations of ICANN's fundamental function and generally do not prevent ICANN from extending its reach.

From the beginning, ICANN's purpose and function has been among the most important of any organization dealing with the Internet: provide a central depository for information about, and provide coordination among those who operate, the technical infrastructure of the Internet, most notably in the domain name system. While the DOC MOU was quite clear on what ICANN should do, it neither specified what ICANN could not do, nor did the MOU provide guidance to ICANN on how ICANN was to pursue its four authorized and narrow tasks. It's rededication to that mission and the establishment of safeguards will both place ICANN on a pathway toward success, and free it of the endless distractions, expenses, and controversies that have bogged it down so much during its first four years.

We firmly believe that after four years of struggle, ICANN sits at a crossroad between pursuit of a narrow set of achievable and important technical coordination objectives with ample resources to accomplish them on the one hand, and continued pursuit of unachievable and needless objectives that generate enormous expense, market distortions and endless systemic stress.

We hope that you will join us in placing ICANN on the pathway to success that is so important to the Internet's future.

Thank you.

Senator WYDEN. We thank you very much. I also understand your son is here. Could you just introduce him to the Subcommittee.

Mr. COCHETTI. I would be happy to introduce him to the Subcommittee: Andrew Cochetti, who decided he wanted to come and see how the U.S. Senate works for his class project, is in the audience.

Senator WYDEN. Very good. What school is he in?

Mr. COCHETTI. He goes to Blessed Sacrament School in Washington, D.C.

Senator WYDEN. We are very glad you are here. Thanks for coming.

Mr. A. Cochetti: Thank you.

Senator WYDEN. OK. Mr. Davidson, welcome. And we will put your prepared remarks in the record in their entirety and summarize in part——

STATEMENT OF ALAN B. DAVIDSON, ASSOCIATE DIRECTOR, CENTER FOR DEMOCRACY AND TECHNOLOGY

Mr. DAVIDSON. I can't top that, but——

[Laughter.]

Senator BURNS. It's hard to follow kids and an animal act.

[Laughter.]

Mr. DAVIDSON. Well, we will see. This may be the animal act.

[Laughter.]

Mr. DAVIDSON. Mr. Chairman, Senator Allen and Senator Burns, good afternoon. The Center for Democracy and Technology welcomes this opportunity to testify before your Subcommittee regarding the future of ICANN. Members of this Committee are no strangers to complex technical issues that are complicated, whether encryption or Internet taxation, but that actually are ultimately very important to the American people. This falls into that category.

We commend your leadership on Internet issues in general and we are particularly grateful for this hearing today. Because for many of us in the public interest and consumer community who have been following ICANN and who feel increasingly disenfranchised at ICANN, Congress and the Department of Commerce have become our forum of last resort.

CDT has participated in the last ten international ICANN meetings dating back to 1999. In our view—and I'm sure this is a great shock to you—all is not well at ICANN. It is, in fact, our view that this is a very important moment in ICANN's history. ICANN is headed down the wrong track and your help and oversight is needed if ICANN is to get back on the right track.

My testimony for the record focuses on several main points, which I will try to summarize. First and foremost, we still believe in the model behind ICANN set out in the White Paper in 1998, which is the model of a non-governmental, globally representative, bottom-up organization to coordinate these important technical resources. We echo the sentiments of other speakers who indicated that the governmental models are not appropriate at this time.

Second, we are concerned that in many fundamental areas, ICANN has not lived up to that initial vision. Today ICANN is becoming an unchecked global regulator of important Internet activities. And while we welcome the efforts and hard work that the ICANN board is putting into reform, we see three areas where further action is needed.

First and foremost, and most fundamentally, ICANN has not found ways to meaningfully define or put checks on its activities or its powers.

The fact is that the power to control how names and numbers are assigned on the Internet gives ICANN the potential to exercise a lot of control over Internet activities. Today the ICANN Board has very admirably disavowed any intention to expand its activities into these areas. The board knows that ICANN must not get involved in certain broad policy issues, but future boards of ICANN are going to face tremendous pressure to use their power, to create regulations on the Internet: to protect consumers, for example, or to deal with Internet taxation. Potentially these are very worthy goals, but goals that ICANN itself is not constituted to address.

While ICANN was originally conceived as a narrow minimalist policymaker, a minimalist technical coordination body, it has increasingly acted like a broader policymaker. It has demanded massive and detailed contracts with the registries. It makes subjective and at times arbitrary decisions. A great case in point is the selection process for the new gTLDs 2 years ago. All of this has reduced the community's trust in the idea that ICANN is, in fact, a very limited body.

At the same time, the voice of consumers and users is diminishing. The notion that half of ICANN's board is to be selected at-large from among the user community was a baseline guarantee that many of us looked to in our initial support for the organization, and for the original concept of the organization. ICANN's current reform process shockingly all but abandons this notion of direct user representation at the board. And while elections are controversial and there may be other mechanisms for providing user representation at ICANN, it is not sufficient to simply say "democracy doesn't work." Unless reforms are made we will soon have no user representation in this important organization.

Churchill said, "Democracy is the worst form of government, except for all the others." It is very hard to solve this problem, but ICANN needs to find a way to have more representation in its activities.

A third area where ICANN has really fallen short of the original White Paper conception, is in the area of bottom-up processes and consensus-oriented policy development. In fact, more and more decision making in the critical area of domain name policy at ICANN devolves to the board and not to the technical experts or the individuals and consumers who have an obvious stake in how policy is being developed.

It is our belief, then, that all of these things taken together amount to increasing power with less accountability for ICANN; more policymaking authority, but less representation from the affected user; less transparency in the process, but more authority in the hands of the board.

And therefore, we think it's time for the U.S. Government, in conjunction with global stakeholders and other governments to take a much more active role in ensuring that ICANN meets its requirements for limited powers, accountability and representation.

We think that these requirements should become part of any MOU that is signed with ICANN in this coming year. And we think that this Congress and this Committee should demand frequent reports from the Commerce Department both in September and throughout the year while it is progressing toward those goals. The time for action is now. In the next few months, ICANN will be making critical decisions about its future. It should do so with the knowledge that the U.S. Government and this Congress and other stakeholders are watching it carefully and that time is running out.

We look forward to working with you and with the ICANN staff and community to make ICANN a more accountable steward of this critical resource. And I thank you for your time.

[The prepared statement of Mr. Davidson follows:]

PREPARED STATEMENT OF ALAN B. DAVIDSON, ASSOCIATE DIRECTOR, CENTER FOR DEMOCRACY AND TECHNOLOGY

"Limited Powers, Improved Accountability: Saving the ICANN Experiment"

Summary

The Center for Democracy and Technology (CDT) welcomes this opportunity to testify before the Subcommittee regarding the future of the Internet Corporation for Assigned Names and Numbers (ICANN), an issue of great importance to the management of the Internet. CDT is a non-profit, public interest organization dedicated to promoting civil liberties and democratic values online. We have participated in

the last ten international ICANN meetings as advocates for mechanisms that protect the public voice in ICANN and that promote the decentralized, user-controlled vision of the Internet that has been so successful to date.

Today ICANN is at a crossroads, and in our view it is failing. Its authority over central naming and numbering functions gives it both a public trust and an enormous potential to exercise power over Internet activities. Its original conception is sound. Yet three years into its existence ICANN has not yet lived up to that original vision in key areas. Its current efforts appear likely to create a global Internet regulator with increasing powers, reduced public accountability, and a diminishing voice for the public's interests in its stewardship of public resources.

ICANN is in need of substantial reform if it is to succeed. We believe the current path to reform, while welcome, is not sufficient.

Our testimony focuses on these main points:

1. We still believe in the original concept of a non-governmental, globally representative, bottom-up technical coordination organization.

The U.S. government alone cannot forever maintain responsibility for coordination of global Internet resources. A private-sector body—but one that is narrowly focused, publicly accountable, and representative of affected interests—remains the approach most likely to reflect the needs of the Internet community.

2. ICANN has not yet lived up to that vision, and risks becoming an increasingly unaccountable global regulator of important Internet activity.

- While ICANN was originally conceived as a narrow technical manager, it has increasingly acted as a broader policy-maker, demanding massive and detailed contracts with registries, making subjective and at times arbitrary decisions, and reducing trust that there are meaningful limits on its powers.
- The bottom-up, consensus-oriented approach to policy development has failed to develop in key areas at ICANN, and the current reform proposal appear to retreat from that bottom-up approach.
- The voice of consumers and users is diminishing at ICANN, and the current reform process all but abandons the critical commitment to At-Large board seats as a mechanism for accountability and representation.

3. Most fundamentally, ICANN must find ways to limit its powers to promote trust.

Only a truly "thin" ICANN, with real checks on its powers that people can point to and understand, is likely to gain the trust of users and of the country registries and others who have been reluctant to enter into contracts with ICANN. Only a truly focused private body will be able to create the global accountability mechanisms needed to exercise power with the trust of the global Internet community.

4. There is a path to reforming ICANN.

The hard work of ICANN's Reform Committee makes good progress in some areas, but our testimony explains how ICANN must:

- *Limit its power and mission* through clear delimitation of its powers and a binding review process to ensure it does not overstep those bounds.
- *Increase accountability* through more transparent bottom-up processes.
- *Represent user and consumer interests* in its Board and structure. CDT has in the past supported elections from among stakeholders as one method of providing representation and accountability, and others are available as well. ICANN cannot reject this mechanism without providing an alternative public voice, and the reform process has been shockingly vague on this issue.

5. The time has come for the U.S. Government, in conjunction with other global stakeholders, to take a more active role in ensuring that ICANN meets these requirements for limited powers, accountability, and representation.

- These requirements, with meaningful benchmarks, should be made obligations in whatever Memorandum of Understanding is signed by the Commerce Department with ICANN this year.
- They should be conditions for continued support of ICANN by the U.S. and other governments.
- The Commerce Department should report back to Congress on progress toward these benchmarks this fall and regularly throughout the coming year.

The time for action is now. In the next few months, ICANN will make key decisions affecting its future structure and activities. It should do so with the knowledge

that the U.S. government and other global stakeholders are watching carefully, and that time is running out.

We commend the Subcommittee for holding this hearing. For many public interest groups and non-commercial participants who feel disenfranchised at ICANN, Congress and the Commerce Department have become a forum of last resort. We look forward to working with you and with the Internet community to make ICANN a more trusted and accountable steward of critical public resources.

The Center for Democracy and Technology is a 501(c)(3) non-profit, public interest organization dedicated to promoting civil liberties and democratic values on the Internet. CDT is a member of ICANN's Non-Commercial Constituency and has attended the last ten global ICANN meetings. CDT, with the support of Markle Foundation, co-authored two major studies of ICANN governance: *ICANN's Global Elections: On the Internet, For the Internet*, (March 2000); and *ICANN, Legitimacy, and the Public Voice: Making Global Participation Work* (September 2002), as part of the NGO and Academic ICANN Study (NAIS) collaboration of international researchers studying ICANN's governance structure.

Extended Statement for the Record

1. CDT still believes in the concept of a non-governmental, globally representative, bottom-up technical management organization.

The Internet's great promise to promote economic opportunity, civic discourse, and the free flow of information relies largely on its open, decentralized nature. Yet even such a decentralized network of networks relies heavily on and benefits greatly from centralized mechanisms to coordinate certain aspects of naming, addressing, and protocol assignment. The way these centralized systems are managed has potentially broad implications for consumers, companies, and communities around the world.

The Internet Corporation for Assigned Names and Numbers (ICANN), now three years old, is an unprecedented experiment in open management of these important global technical resources. Although ICANN in 2002 is in need of serious reform, CDT continues to support the concept behind ICANN and expressed by the Commerce Department in 1998.

While the U.S. government had a critical leadership role in building and maintaining many of these Internet coordination mechanisms, it alone cannot forever maintain responsibility for coordination of global Internet resources. As the Internet has grown in importance worldwide, it is to be expected that global stakeholders will appropriately demand a role in the management of these systems—and should accept their appropriate responsibilities to support those systems.

We believe a private-sector body remains the approach most likely to reflect the needs of the Internet community, so long as it is:

- Non-governmental—to benefit from more nimble private sector capabilities to handle fast-paced, complex Internet technical decisions, and more likely to reflect the diversity of user interests.
- Bottom-up and consensus oriented—making decisions in the best traditions of Internet bottom-up processes designed to account for broad interests.
- Narrowly focused—to create trust that it would not exercise undue power and to increase comfort in its non-governmental character.
- Globally representative—to ensure both public accountability and to include the interests of stakeholders affected by its decisions.

Alternative mechanisms remain unattractive. Multi-lateral government organizations like the ITU or UN are widely viewed as unlikely to move with the pace or technical sophistication needed, and are less reflective of diverse consumer perspectives. The Commerce Department alone is likely to be an unacceptable global coordinator in the long run. And no obvious private sector entity at this time exhibits the characteristics thought to be needed.

The Department of Commerce formative documents on naming and numbering management—the White Paper and Green Paper—reflected these principles: Stability, Competition; Private, bottom-up coordination; and Representation.[1] They also

[1] DNS Statement of Policy ("White Paper"), National Telecommunications and Information Administration, June 5, 1998. Available at <*http://www.ntia.doc.gov/ntiahome/domainname/6_5_98dns.htm*>.

included an early reflection of the notion that ICANN's mission should be as narrow as possible.[2]

It was under this stated framework that the Department of Commerce in 1998 ultimately selected ICANN.[3] These principles were part of a broad understanding of ICANN's mandate at its creation and were viewed by many, including CDT, as part of the conditions for their support of ICANN and the Commerce initiative. As such they continue to be important metrics in judging ICANN's performance since 1998.

2. ICANN has not lived up to that vision, and risks becoming an increasingly unaccountable global regulator of important Internet activity.

ICANN has made notable progress in several areas, arguably most evident in increasing competition, introducing a first set of new top-level domains (though more slowly and with greater problems then many would have liked), and developing trademark dispute-resolution procedures. In other essential areas, ICANN has failed to live up to the promise put forward at its conception. ICANN President Stuart Lynn acknowledged as much in February when he wrote, "many of those critical to global coordination are still not willing to participate fully and effectively in the ICANN process . . . [ICANN] has not become the effective steward of the global Internet's naming and address allocation systems as conceived by its founders. Perhaps even more importantly, the passage of time has not increased the confidence that it can meet its original expectations and hopes."[4]

Most critically, we believe the essential question facing ICANN, from which all else flows, is the exact scope of its authority and powers, today and over time.

ICANN lacks a clear community understanding of its mission and meaningful constraints on its power.

While ICANN was originally conceived as a narrow technical manager, it has increasingly acted as a broader policy-maker, demanding massive and detailed contracts with registries, making subjective and at times arbitrary decisions, and reducing trust that there are meaningful limits on its powers.

On the highly decentralized Internet, ICANN's emerging central authority over critical aspects of naming and numbering gives it the *potential* to exert tremendous control over Internet activity. Its contracts could give ICANN the potential to exert power directly over registries and registrars (and RIRs and root-server operators), and indirectly over end users by placing conditions on the use of domain names or IP numbers.

ICANN's current Board has admirably indicated its commitment to a "narrow" mission for ICANN. But many questions remain about the exact scope of ICANN's power. Moreover, future ICANN boards will face both external pressure and internal temptation to take on increasing activities and assume additional power—unless meaningful constraints are placed on their ability to do so.

Within the Internet community there are many different definitions of ICANN's appropriate mission and activities. The idea that ICANN's mission is "mere technical coordination" has been eroded by an understanding that ICANN's decisions have not been purely "technical" in nature, but rather have broader "policy" impacts. The idea that ICANN's mission is "narrow" and limited is being challenged by concerns about its expansion through "mission creep" to date and in the future.

Examples of ICANN actions that have raised questions about "mission creep" include:

- The size and scope of its massive contracts with new gTLD operators, including detailed limitations on business plans and marketing requirements.
- The selection of new gTLDs. ICANN's final selections were based on subjective and even arbitrary criteria, such as how strings sounded when pronounced, or the Directors' fondness for certain spellings. Decisions once taken were unappealable, and the Board never fully justified its decisions.

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[2] The White Paper stated that the new management body's policies and practices should be "no broader than necessary to promote the legitimate coordinating objectives of the new corporation." *Ibid.*

[3] Significant debate has arisen about whether Commerce's solicitation of a private body to manage these resources violated either the Administrative Procedures Act or the Constitution's nondelegation doctrine. *See* A. Michael Froomkin, *Wrong Turn in Cyberspace: Using ICANN to Route Around the APA and the Constitution*, 50 Duke L.J. 17 (2000).

[4] M. Stuart Lynn, "ICANN—The Case For Reform," February 24 2002. Available at *<http://www.icann.org/general/lynn-reform-proposal-24-feb02.htm>*.

Recent consideration of Internet "keywords" policies, where the Board ultimately took no action, but an area not obviously included in ICANN's list of name, number, and protocol responsibilities.

Without debating the merits of these actions—we likely agree with many of the motivations behind them—together they are indicative of why many question whether there is a common understanding of ICANN's mission that is either "narrow" or based on "technical coordination." Moreover, some have already called for ICANN to have a greater role promoting goals such as consumer protection online, assistance collecting Internet taxes, or regulation of content.

The mission problem is made worse by the absence of any mechanism to serve as a check on the Board. This past March, ICANN abandoned as unworkable the notion of an Independent Review Panel (IRP), one of the key accountability mechanisms in the Department of Commerce's MoU. In early June ICANN proposed replacing the IRP with a non-binding system of international arbitration—a proposal that has attractions but that many find lacking.

Even if ICANN manages to assemble a new IRP, its effectiveness will be limited unless ICANN establishes a meaningful community understanding of its powers and their limits. Our suggested reforms below outline how ICANN could more effectively do so.

Bottom-up, consensus-oriented policy development is failing in key areas at ICANN.

ICANN's founding conceptual documents, the Green and White Papers, called for "private bottom-up coordination" as the governance model for ICANN. Despite early attempts at consensus-based decision-making, authority in ICANN increasingly rests at the top, with the Corporation's nineteen-member Board of Directors.

Bottom-up processes have the benefit of placing policy development in the hands of those technical experts, companies, and individuals most expert and those most affected by policies. If done properly, it can also ensure that there are opportunities for the voices of affected stakeholders to be heard at the early stages of policy development.

This bottom-up approach has worked well in ICANN's Address and Protocol Supporting Organizations, which remain largely technical in nature. Increasingly, however, the process has not worked in the context of the Domain Name Supporting Organization, which has generated most of ICANN's controversial policy discussions. Today, policies are increasingly generated by staff and decided by the Board. As a result, the benefits and guarantees of fairness offered by a consensus-oriented process have not been realized.

The voice of consumers and users is not adequately represented at ICANN.

Even with a narrow mission, ICANN makes decisions of interest and importance to consumers, Internet users, and the non-commercial community. Yet these groups are largely underrepresented in ICANN's structure, and ICANN appears to have abandoned efforts to establish meaningful representation for users at the real locus of ICANN decision-making, the ICANN Board.

A single Non-Commercial Constituency serves all non-commercial interests at ICANN (individuals and user advocates have no formal constituency), and it is only one of seven groups making up one of the three supporting organizations. ICANN's meetings pursue the admirable goal of global inclusiveness by meeting all over the world, but few individuals or NGO's have the resources to attend. CDT's own experience has been that the ICANN community is receptive to thoughtful input, but that it requires an ongoing effort to be effective. In our case, that effort was only possible through the generous support of the Markle Foundation, and many are not so fortunate.

The main hope for a public voice and accountability in ICANN has been the promise that half the board would be selected "At-Large" by the user community—indeed, ICANN's initial bylaws explicitly provided for nine At-Large Directors on a nineteen-member Board.[5] To date there has been a great deal of debate about the selection mechanism for At-Large Directors, in which CDT has commented extensively. Five of the nine At-Large directors have been elected (the seats were otherwise filled with appointed directors), in a global election with many flaws but widely viewed as producing legitimately selected Board members.

While elections remain a controversial—and we believe still poorly understood—method of including the user's voice, it is shocking how ICANN's current reform effort has abandoned them without putting a clear user representation mechanism in

[5] ICANN bylaws, adopted November 6, 1998. Available at *<http://www.icann.org/general/archive-bylaws/bylaws-06nov98.htm>*.

their place. ICANN's own At-Large Study Committee, chaired by no less an eminent figure then former Swedish Prime Minister Carl Bildt, recommended a modified election system for selection of directors-a substantial effort now abandoned by the Board.[6]

In March the ICANN President proposed that foreign governments select Directors. The most recent reform proposals would have the seats on ICANN's board once reserved for At-Large user selection be filled by a Nominating Committee selected by ICANN's Board. Such processes provide a pale shadow of the accountability and user representation expected from the At-Large process. While elections may be controversial, the onus remains on the ICANN Board to show how its new process will provide an adequate voice for users.

3. Major reforms are necessary if ICANN is to succeed.

The ICANN community has recognized the need for change, and a great deal of work has already gone into the reform process. The reform paper presented this winter by President Stuart Lynn, while controversial in many ways, deserves credit for its honest assessment of the challenges facing ICANN and its attempt to find new solutions. The hard-working Committee on ICANN Evolution and Reform has made good progress in some areas, and appears to have reaffirmed some of the basic principles of non-governmental, transparent structure that were hallmarks of ICANN's original conception.

In three main areas we believe the reform efforts should do more if ICANN is to succeed.

ICANN must find ways to limit its powers to promote trust.

ICANN needs a focused and narrow mission, clearly defined, with real checks on its powers that people can point to and understand. Without a narrow mission, ICANN will need a much broader—and likely unsustainable—policy-making mechanism to ensure its accountability to affected stakeholders and the public. Without a narrow mission, ICANN is unlikely to gain the trust of those it wishes to sign contracts with, such as the country code registries (ccTLDs), RIR address registries, or root server operators—all who may fear a future and overbearing ICANN.[7]

The current reform effort has taken steps to define ICANN's mission, producing two helpful papers describing what ICANN believes it does and should do. This work does not go far enough, nor has ICANN yet taken steps to put serious constraints on its powers. Two examples illustrate the difficulty faced:

- The "What Does ICANN Do" paper release this fall includes this straightforward item: ICANN "defin[es] the content of the root zone file, which means maintaining and updating the list of recognized TLDs and the name servers for each TLD."[8] But *how* does it do that? ICANN could select new TLDs based on relatively objective criteria, even using a lottery to select among similarly qualified candidates. Or ICANN could select new TLDs based on highly subjective criteria or those designed to promote goals like increasing competition, addressing the digital divide, or stopping piracy. Clearly the second model vests far more discretion—and far more power—in the hands of the Board than the first.
- The reform committee's paper on mission puts forward a helpful framework of "values" designed to limit ICANN's mission. Among them: "limit[s on] ICANN's activities to those matters within ICANN's mission requiring *or significantly benefiting from* global coordination."[9] Such wiggle room makes it very difficult to trust that a future board will be constrained from calling nearly any proposed activity that affects the DNS an activity "benefiting from global coordination."

Reforms to ICANN, then, should include both substantive limits on the powers granted to ICANN and procedural safeguards that govern the ways those powers are exercised. Substantive limits could include:

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[6] CDT also participated in an independent effort to review the 2000 election and suggest ICANN's course for the future. Known as the NGO and Academic ICANN Study (NAIS), the group encompassed researchers and experts from around the world. Its final report, *ICANN, Legitimacy, and the Public Voice: Making Global Participation and Representation Work*, is available at <*http://www.naisproject.org/report/final/*>.

[7] With a broad mission, ICANN will be increasingly forced to make decisions in areas where it has no competency—such as the economics of gTLD allocation, or consumer protection on the Internet, or who is qualified to be in .churches or .union.

[8] "What ICANN Does," March 10 2002. Available at <*http://www.icann.org/general/toward-mission-statement-07mar02.htm*>.

[9] "Working Paper on ICANN Mission and Core Values," May 6 2002. Available at <*http://www.icann.org/committees/evol-reform/working-paper-mission-06may02.htm#ICANNMissionStatement*>.

- *Enumeration of powers in the ICANN charter and bylaws*. The ICANN charter and bylaws should explicitly enumerate the powers it may exercise. We believe those core functions to be few in number, and could be limited to issues:
  - for which central and coordinated resolution is necessary to assure stable interoperability of the domain name and address system;
  - directly related to the safety and integrity of registration data;
  - directly related to the availability of accurate WHOIS data; and
  - directly related to the resolution of disputes regarding the registration of particular domain names (as opposed to the use of such domain names) by particular parties.
- *Explicit prohibition of certain activities*. If powers cannot be limited to a clear list, ICANN could adopt a formal declaration of activities in which ICANN may never engage. The reserved powers could, for example, generally guarantee individuals and companies around the world basic protections for their property, certain basic liberties, or their expectation to be treated fairly and with due process.
- *Directive of limited action.* The two examples above indicate the difficulty in creating a simple list of permitted activities; the way those activities are executed can make a big difference. ICANN should consider an overiding directive of limited action—that is, as a guiding principle it will act in as limited way and as objectively as possible, avoiding subjective policy-making unless they are narrowly tailored and there are no less objective alternatives.

The substantive limits on ICANN's powers described above must be bolstered by procedural safeguards to ensure their effectiveness:

- *Limits on amendment power*. Codified limitations and rights provide an incomplete guarantee without restrictions on their future amendment. ICANN has amended its bylaws eleven times, and changes to the ICANN charter and bylaws require a two-thirds vote of the Board. That standard should be raised to three-fourths where changes implicate the scope of ICANN's power or the rights of users, and such changes should not be commonplace.
- *Independent review and enforcement of limitations and rights.* The only institution responsible for reviewing the Board's activities is the Board itself. ICANN needs a check to give assurance that limitations will be enforced. (See below)

Reforms must increase ICANN's accountability and transparency in its activities.

- *A better Independent Review process*: ICANN has largely abandoned its critical accountability mechanism, the Independent Review Panel (IRP). ICANN's proposal that alleged bylaws violations be subjected to international arbitration has merit, but is non-binding and its costs may discourage many claims with merit. ICANN's complexity may make commercial arbitration a poor fit, better left to respected experts in the issues ICANN faces. Commercial services designed to weigh the interests of private companies against one another are unlikely to succeed at measuring the activities of ICANN (a private organization with public responsibilities) with the interests of the global Internet community.

  ICANN's latest MoU with the Department of Commerce still requires it to provide for external review of its decisions, and we urge Commerce to maintain this provision.
- *Fair administrative procedure and reporting*. ICANN should adopt procedures guaranteeing the openness and fairness of its activities. All decisions and meetings should be fairly noticed, input should be openly taken, documents should be made widely available, and stakeholders should be provided with detailed reasoning behind decisions made both by the ICANN Board and staff. We note that some progress has been made in this area by the reform committee, though more needs to be done.
- *Board and staff codes of conduct.* At present there is no adopted standard for measuring the performance of the Board and staff or providing a baseline of acceptable behavior. ICANN should adopt a code of conduct for all its Board members and staff.

The public's interests must be represented at ICANN.

At-Large representation of users was a critical part of its initial conception and was pointed to by ICANN's leaders in gaining political support for ICANN. For example, in a November 1998 letter to Department of Commerce representative J. Beckwith Burr, then-ICANN Chairwoman Esther Dyson wrote, "Some remain con-

cerned that the Initial Board could simply amend the bylaws and remove the membership provisions [establishing an At-Large Membership and election]. We commit that this will not happen." Tellingly, ICANN now is at the point of removing those same provisions from its bylaws, with no accountability for that action.

Elections are not the only method of ensuring that broad consumer, user, and public interests are represented in the Board's activities. Some of the alternatives—and their relative merits—are outlined in the NAIS September 2002 report, *ICANN, Legitimacy, and the Public Voice*. But a strong form of public representation was a key part of the original deal that led to the creation of ICANN, and ICANN made strong public commitments as an original matter to adhere to the deal. If ICANN rejects elections as a feasible means of implementing this principle, then the onus is on it to substitute another effective alternative. To date the reform process has not done so.

We note that ICANN has made a welcome recommitment to increasing user participation through a new At-Large supporting organization. But it faces an uphill battle to get individuals engaged in ICANN with few guarantees their voices will be heard or represented at the Board.

4. Congress and the Department of Commerce have important roles to play in putting ICANN back on the right track.

ICANN is at a crossroads, and the next six months will be critical to its future. The time has come for the U.S. Government, *in consultation with and in conjunction with other global stakeholders*, to take a more active role in ensuring that ICANN meets requirements for limited powers, accountability, and representation.

A large measure of ICANN's authority derives from its Memorandum of Understanding (MoU) with the Department of Commerce. The MoU includes such responsibilities as establishing an external review process for ICANN activities (still incomplete) and providing for the security of the root server system. Other responsibilities, such as establishing user participation in policy development, were originally in the MoU but were removed by Commerce in 2000. The removal of those responsibilities now appears premature.

The MoU is set for renewal in September. If it is renewed (and some have argued that it should not be), Congress and the Commerce Department should use this opportunity to exercise greater oversight over ICANN:

- Any renewal of the MoU should add new obligations regarding mission, accountability, and representation that explicitly require:
  - Enumeration of ICANN's powers and prohibition of certain activities;
  - Procedural reforms, including a directive of limited action;
  - Establishment of an independent mechanism to interpret and enforce the scope of ICANN's powers;
  - Representation of consumer and user interests at key levels of ICANN decision-making, including the Board; and
  - Effective mechanisms of user participation in the ICANN process.
- These requirements should be conditions for continued support of ICANN by the U.S. and other governments.
- The Commerce Department should take a more active oversight role, both in providing guidance to ICANN and information to the Congress and public. At a minimum, Commerce should report back to Congress on progress toward these benchmarks this September and regularly throughout the coming year.

We note that some have called on Commerce to "re-bid" the MoU and seek competitors to ICANN. A recent expression of this sentiment came on May 29, when fourteen non-profit organizations signed a letter asking Commerce to "re-compete" its three agreements with ICANN.[10] While CDT has not joined the call to replace ICANN—we do not feel comfortable doing so without a clear understanding that there is a better alternative—we share many of the concerns expressed in that letter.

5. Conclusion

The time for action is now. In the next few months, ICANN will make key decisions affecting its future structure and activities. It should do so with the knowledge that the U.S. government and other global stakeholders are watching carefully, and that time is running out.

Congress has an important role providing oversight and guidance to both ICANN and the Department of Commerce. This hearing sends an important signal that this

[10] Available at <*http://www.mediaaccess.org/filings/DoCrebidfinal.pdf*>.

Congress recognizes the issues at stake in ICANN. We look forward to working with you, the Commerce Department, the ICANN Board and staff, and the greater ICANN community to make ICANN a more trusted and accountable steward of the critical public resources it manages.

Senator WYDEN. Thank you. Mr. Auerbach.

STATEMENT OF KARL AUERBACH, MEMBER, ICANN BOARD OF DIRECTORS

Mr. AUERBACH. Good afternoon, Mr. Chairman and distinguished Senators. Thank you for giving me an opportunity to appear. Today I would like to speak on the topic of ICANN reform.

Everyone agrees that ICANN is in dire need of reform. The only argument is over the shape of that reform. I have been involved in the Internet since 1974. I was elected to the Board of Directors of ICANN in the year 2000. I am the only person on ICANN's Board of Directors who was elected by the Internet community of North America.

My seat on ICANN's Board of Directors and the seat of every other publicly elected Director will cease to exist on October 31st of this year. ICANN's plan is a repudiation of the concept of public participation and public accountability. ICANN replaces the voting and representation of the at-large membership with a group that will not vote. This replacement at-large group can best be described as a garden club. It will have no voice and no authority in ICANN's affairs.

For years, ICANN has promised the Congress and the public that there will be elections, accountability and transparent decision-making. ICANN has retracted those policies. There is no trace of elections, no accountability, no transparency in ICANN's proposals. ICANN will tell you about its public forums and public processes and its broad consultation with "stakeholders." As a Director, I can tell you from experience this are facades. Most of ICANN's decisions are made by its staff, often without consultation with the Board of Directors.

In light of this experience, I encourage you to view with deep skepticism what ICANN has said to you today about the nature of its processes. The key to salvaging ICANN lies in processes and accountability. ICANN will not be saved as ICANN proposes, by simply adding more layers of insulation and increasing its budgets and staff.

The following factors have contributed to ICANN's present troubles. Bias and favoritism are woven deeply into ICANN's form. ICANN's role has not been adequately identified and articulated. The Department of Commerce has routinely renewed or extended its agreements with ICANN, while ICANN disavowed and disregarded its promises to an institution accountable to the public and the public interest. ICANN resists public accountability and disregards public input.

The so-called evolution proposals created by ICANN are reforms only in the sense that they reshape ICANN at the surface. The reconstituted ICANN that they envision is one that exacerbates, rather than cures ICANN's flaws. Instead of increasing responsibility and accountability to the public, ICANN's proposals impose more impenetrable walls between ICANN's decisionmakers and the

public. Instead of creating a nourishing flow of new ideas into ICANN, ICANN's proposals create councils and nominating committees that will create an even more insular body. Instead of being a body of limited powers, ICANN's proposals would create a body with ever-increasing powers over the Internet, and an ever-growing bureaucracy to exercise those powers.

It is my suggestion that ICANN's charter be precisely defined with specific mandates of what it must do and specific barriers to prevent it from doing what it should not do. The concept of stakeholder should be abandoned. It should be clearly recognized that everyone is affected by the Internet. Everyone is a stakeholder.

Structural separation should be used to reinforce functional roles. In other words, ICANN should be split into several distinct entities. The Department of Commerce must exercise real oversight. ICANN must be made fully accountable to the public and the public must have full and meaningful means to participate in ICANN's decisionmaking processes.

All of this is occurring against a backdrop of concern about what might happen if ICANN were to just disappear or become non-functional. ICANN does not have its hands on any of the technical knobs or levers that control the Internet. Those are firmly in the hands of ISPs, VeriSign, the regional ISP registries and those who operate the DNS root servers. Were ICANN to vanish, the Internet would continue to run. Few would notice the absence.

There is an old joke about corporate life. It says when all else fails, it is time to reorganize. May I suggest in closing that all of ICANN's proposing is nothing more than hollow reorganization.

Thank you very much for this opportunity to speak. I would be happy to answer any questions you may have.

[The prepared statement of Mr. Auerbach follows:]

PREPARED STATEMENT OF KARL AUERBACH, MEMBER, ICANN BOARD OF DIRECTORS

Good afternoon.

My name is Karl Auerbach.

Today I would like to speak on the topic of ICANN reform.

I have been involved in the Internet since 1974.

I am a computer engineer. I am a principal of a new (and yet unnamed) start-up to create products that will make the Internet more reliable, secure, and efficient.

I am also an attorney. I graduated cum laude in 1978 from Loyola of Los Angeles specializing in commercial, international, and administrative law. Although I maintain my status as the member of the California Bar and the Intellectual Property Section of the California Bar, I am not engaged in active practice. I have been named a Yeun Fellow of Law and Technology at the California Institute of Technology (CalTech) and Loyola Law School of Los Angeles.

I have been a founder, principal, or first employee in several Internet related start-up companies. These have provided me with a broad base of experience in commerce and technology. I have direct experience with the needs and obligations of Internet related businesses.

I have been active in the core design and standardization body of the Internet, the Internet Engineering Task Force (IETF), since the mid 1980's. And I have been a member of the Internet Society (ISOC) since its formation.

I have been deeply involved during the last several years with the evolution and activities of what has become ICANN. I am a founding member of the Boston Working Group, one of the groups that submitted organizational proposals to NTIA in 1998 in response to the so-called "White Paper." I have recently been named to the Board of Directors of the Domain Name Rights Coalition.

I speak for myself; I am here at my own expense and on my own time.

ICANN

I am the only person on ICANN's Board of Directors who was elected by the Internet users of North America.

My seat on ICANN's Board of Directors, and the seat of every other publicly elected Director, will cease to exist on October 31 of this year. On that date real public representation within ICANN will end. After that date, ICANN will be effectively controlled by a small group of privileged "stakeholders".

Many commentators have noted ICANN's weaknesses. Among these are excessive secrecy, lack of public process, lack of accountability, insufficient oversight by the Board of Directors, and poor business practices.

As a Director it is my job to work to correct these weaknesses. ICANN has chosen to either ignore my input or resist my suggestions. For example, ICANN has ignored a paper I wrote shortly after September 11—*Protecting the Internet's Domain Name System*—online at *http://www.cavebear.com/rw/steps-to-protect-dns.htm.*

ICANN has even demanded that I relinquish my rights and obligations as a Director as a pre-condition of inspecting ICANN's financial and other records. I have been forced to assert my rights as a Director through a legal action that is presently before the California courts.

I spoke before this Subcommittee sixteen months ago—on February 14, 2001—my comments of that date are as apt today as they were then. One may review those comments online at *http://www.cavebear.com/cavebear/growl/issue—6.htm*

Reforming ICANN—The Need To Know History and Establish Principles

There is no doubt that ICANN is in need of reform.

I submitted my own suggestions to ICANN about how ICANN might be reformed. That paper is available online at *A Plan To Reform ICANN: A Functional Approach—http://www.cavebear.com/rw/apfi.htm*

It would be an error to blindly reform ICANN without knowing where we want to go and why. Without this the result could easily be as flawed as the ICANN of today.

So let me first state in short form what it is that has gone wrong with ICANN.

Then I will then discuss various principles that should guide the reform process and discuss why those principles are necessary.

What Has Gone Wrong With ICANN?

Sixteen months ago I said to this Subcommittee: "ICANN is ill designed, has been ill operated, has brought upon itself significant ill will within the Internet community, and has greatly exceeded its proper scope."

I believe that significant restructuring of ICANN is needed so that the corporation can fulfill its purposes and fulfill its obligations towards its stated beneficiaries.

Unfortunately the last sixteen months have brought no improvement.

The following factors have contributed to ICANN's present troubles:

- Bias and favoritism are woven deeply into ICANN's form. Certain groups have been given privileged status within ICANN. These favorites are known by the euphemism "stakeholders". That grant of favored status is mirrored by a nearly total exclusion of the public and of non-commercial and small businesses interests. These have been given only token voices.
- ICANN's role has not been adequately articulated—its charter is too vague and subject to extremely elastic interpretations. There are few explicit limitations. ICANN, like most organizations, tends to expand. And ICANN has few constraints that limit that expansion.
- The United States Department of Commerce has silently watched ICANN devolve. The Department of Commerce has routinely renewed or extended its agreements with ICANN, without a word of concern or protest, while ICANN disavowed and disregarded its promises to be an institution accountable to the public and the public interest.
- ICANN's management has not been fiscally responsible.
- ICANN resists public accountability. ICANN has worked ceaselessly since its formation to build walls between itself and the public.

The so-called "evolution" proposals created by ICANN are reforms only in the sense that they reshape ICANN. The reconstituted ICANN that they envision is one that exacerbates rather than cures ICANN's flaws. Instead of increasing responsibility and accountability to the public, ICANN's proposals impose more impenetrable walls between ICANN's decision-makers and the public. Instead of creating a nourishing flow of new ideas into ICANN, ICANN's proposals create councils and nominating committees that will create an even more insular body. Instead of being a

body of limited powers, ICANN's proposals would create a body with ever-increasing powers over the Internet, and an ever-growing bureaucracy to exercise those powers.

Defining ICANN's Charter

The most important aspect of any reform is to define the duties and limitations of the reformed body. Vague phrases such as "internet stability" are inadequate; they must be replaced with precise formulations.

ICANN's technical duties should be clearly enumerated and precisely defined. The phrase "technical duties" contains more than a hint of irony—ICANN has done little, if anything, during the nearly three and a half years of its existence that can be construed as "technical".

Why is the charter so important?

Phrases such as "stability of the internet" have been shown to be so elastic as to be virtually meaningless. In addition, ICANN has ignored clear mandates, such as the obligation written into its own By-Laws to operate in an open and transparent manner.

ICANN has grown into areas where its presence is not desirable—such as the regulation of business practices unrelated to the technical operation of the Internet—and away from areas where ICANN's presence is desirable.

Two examples may illustrate:

- ICANN has created a very intensive and intrusive regulatory system over domain name business practices.

  At the same time ICANN has been unwilling to address technical concerns that relate directly to the technical reliability of the Internet. ICANN lets the actual DNS root servers remain as they were a decade ago—run by an ad hoc collection of well meaning people and organizations who have no formal obligation to any performance standards and who may not have adequate resources or institutional commitments to weather any operational setbacks, such as a fire, natural disaster, or worse.

  In other words, ICANN takes a hands-off approach to the single most critical technical item on its plate, the consistent and reliable operation of its DNS root, and instead spends enormous efforts building a regulatory empire over the business practices of those who buy and sell domain names.

- In the IP address space arena—an area of considerably larger long-term impact than that of domain name policy—ICANN has simply abandoned its responsibilities to the public, leaving IP address policy to the regional IP address registries. In return, those registries make substantial money "contributions" to ICANN.

  Because the IP address allocation part of ICANN's job is arcane, it is not often discussed. However, IP addresses are the fuel upon which the Internet operates. The allocation of IP addresses can be a major factor in who survives and who dies on the Internet. Small ISPs (Internet Service Providers) are often unable to grow because they are starved for addresses. The allocation of addresses is a balance of many technical and non-technical concerns. The existing policies are not unreasonable. However because there is nearly no public involvement in the creation of address allocation policies the balances that are struck tend to be based more on the needs of larger ISPs than on the needs of smaller entities and consumers.

  The regional IP address registries (RIRs) have flourished and become powerful, but largely invisible, organs in their own right. ICANN provides an umbrella that protects the RIRs from public oversight. The RIRs and ICANN have entered into a tacit bargain—ICANN provides insulation from public oversight and the RIRs pay money to float ICANN's expanding bureaucracy. The public loses.

A clear charter for ICANN is imperative. This charter must not only make positive statements about what ICANN is to do but must also establish inviolable walls that constrain ICANN's authority, role, and scope.

Certain matters of heightened importance should require a supermajority vote of its Board of Directors. ICANN's Board of Directors should not have the unilateral power to resolve the meaning of any ambiguities that might arise.

The charter ought to require that extraordinary questions be placed before an "at-large" body of interested members of the public Internet community.

Prototype charters for ICANN have been suggested by a number of people. Nearly all of these call for a significantly smaller, more limited structure that is more publicly accountable and representative than the charter published by ICANN's staff.

These proposals include:

- Harald Alvestrand: ICANN Reform—a personal view at *http://www.alvestrand.no/icann/icann—reform.html*
- Preliminary Comments On ICANN Reform From The Asia-Pacific Top Level Domain Association at *http://forum.icann.org/reform-comments/general/msg00103.html*
- CENTR: ICANN 2 and the ccTLD Community at *http://www.centr.org/docs/presentations/ICANN-reform.pdf*
- David J. Farber, Peter G. Neumann, Lauren Weinstein: Overcoming ICANN: Forging Better Paths for the Internet at *http://www.pfir.org/statements/icann*
- Domain Name Rights Coalition: A Proposal for Reform at *http://www.domainnamerights.org/proposal51702.html*
- Alexander Svensson at *http://www.dnso.org/clubpublic/ga/Arc10/msg00202.html*
- Tucows: The Heathrow Declaration at *http://www.byte.org/heathrow/*
- Danny Younger at *http://www.icannworld.org/evolution.htm*
- Houlin Zhao, ITU, ISB at *http://www.itu.int/ITU-T/tsb-director/itut-icann/ICANN Reform.pdf*

Abandon The Word "Stakeholder"

The Internet is so pervasive today that everyone has an interest in the Internet.

ICANN has been crippled from its inception by the concept that there are "stakeholders" in the Internet and that only "stakeholders" should be allowed into the forums of Internet governance.

The "stakeholder" concept has limited ICANN's flexibility and forced ICANN into channels that are dictated by the "stakeholder" definitions. By denying people and organizations the ability to form fluid coalitions and relationships according to their self-perceived interests the "stakeholder" concept has made compromise within ICANN exceedingly difficult and rare.

The reform of ICANN must avoid placing people and entities into pre-defined classifications. Instead, the reformed ICANN must allow people and entities to work in concert (or in opposition) as the ebb and flow of their self-interests dictate.

Structural Separation—One Job Per Entity

The third principle of reform is to create structural boundaries that prevent mission creep and constrain ICANN to do only what it is intended to do.

ICANN's multiplicity of roles has created a situation in which it is difficult to ascertain responsibility for decision making. For example, ICANN has accepted a no-cost purchase order from the Department of Commerce to provide something known as the "IANA function". This "function" is not well defined, however, the "IANA" function is most frequently invoked by ICANN with respect to the actual creation of new top-level domains and the maintenance of country-code (ccTLD) top-level domains. Because of the multiplicity of roles, it is often impossible to tell whether a decision is made by ICANN acting as ICANN or ICANN acting as IANA. Accountability to the public disappears when it is impossible to determine who or what is making a decision or taking an action.

My suggestion is that ICANN be reorganized into several separate and independent entities that share neither personnel, nor office space, nor any other resources. This separation of functions is the core idea of my proposal *A Plan To Reform ICANN: A Functional Approach—http://www.cavebear.com/rw/apfi.htm*

It is not uncommon, or improper, for entities to split themselves into separate parts with minimal residual linkages—Hewlett Packard/Agilent, AT&T/Lucent, and Cabletron/Riverstone/Enterasys are but three examples of companies that have done this.

In my proposal I suggest that ICANN be divided into six entities—three operational entities, each having a clear task and minimal discretion about how to do that task, and three policy bodies, each focused on a single policy area.

The three operational entities would be:

- DNS Root Administrator
- IP Address Administrator
- Protocol Parameter Administrator

And the three policy entities would be:

- ccTLD Policy Organization
- gTLD Policy Organization
- IP Address Policy Organization

This may seem like an excessive number of entities. However, these functions do, in fact, exist within ICANN today but as a hodgepodge. By separating them into distinct bodies they may be more precisely defined and be more visible and thus more amenable to oversight and to be held to account for their actions.

The three operational entities encompass the core aspects of technical reliability of the Internet. These three entities could be quickly and inexpensively established. I believe that they could rapidly obtain wide acceptance and support.

The three policy entities encompass the difficult, value-laden debates over Internet policy that are so necessary but which have so burdened ICANN. The actual day-to-day operations of the Internet would be insulated from these debates by the clearly drawn lines that divide the operational entities from the policy entities.

The United States Department of Commerce Must Actively Oversee ICANN

This statement will cause a great outcry among those who live in other nations. That outcry is legitimate and must be heard.

However, as long as ICANN obtains its authority from agreements with the US Department of Commerce, the DoC ought to ensure that ICANN remains true to its promises.

The National Telecommunications and Information Administration (NTIA) has been extremely lax and has permitted ICANN to evade promises made to NTIA and to the public. A few examples will suffice:

- One of the goals set forth by NTIA for ICANN was to promote competition in the domain name space. When ICANN was formed, Network Solutions had a government-backed monopoly over most of the domain name space, including the largest and most lucrative top-level domain, .com. Slightly more than a year ago ICANN adopted a proposal privately brokered by ICANN's outside counsel, Joe Sims, to transfer the .com top-level domain to Network Solutions/Verisign in perpetuity. This act effectively terminated hopes of true competition in the domain name space, particularly given ICANN's dilatory efforts to add new top-level domains. NTIA acceded to ICANN's abandonment of one of the primary reasons for ICANN's existence.
- ICANN was created with the promise of public participation on ICANN's Board of Directors. NTIA sat by and made no comment when ICANN dragged its feet on these promises and also allowed interim members to repeatedly extend their terms of office. When ICANN finally did create a debased election process, NTIA accepted this watered-down substitute with neither comment nor protest.

There is a widely held perception that NTIA has been captured by ICANN.

Assistant Secretary Nancy Victory has recently taken the reins of NTIA. There is already evidence of a new and more open attitude. I have every hope that the problems of the past will not recur.

I recognize that the Department of Commerce has to walk a very fine line when dealing with the private corporation that is ICANN. However, the DoC should not use that fine line as an excuse for silence. In fact, if not in law, ICANN is a creation of the Department of Commerce. And ICANN receives its authority from the several legal agreements that exist between the Department of Commerce and ICANN.

Recently there have been several petitions to the Department of Commerce asking the DoC to consider something more than an automatic, unthinking renewal or extension of the various legal agreements between the DoC and ICANN. I wonder about the effectiveness of this approach unless the DoC clearly invites and considers competing proposals from others who might wish to assume one or more of ICANN's tasks.

Full and Meaningful Public Participation

No matter what form ICANN may take, it must include full and meaningful public participation.

The so-called "forums" that populate ICANN and its plans do not constitute "full and meaningful" public participation. In addition, ICANN's board and staff have frequently disregarded proposals and recommendations that have been promulgated by these forums, even when directly compliant with ICANN's bylaws.

As I have suggested previously, ICANN could be split into several pieces. This division would have the ancillary benefit of allowing the form of public participation to correspond to the degree of discretion of the particular ICANN-chunk in question. For those ICANN-chunks that have well defined administrative roles with little discretion, the obligation of public participation could be satisfied by a simple notice-and-comment mechanism. For those ICANN-chunks that are formed around more contentious policy-making tasks, full and meaningful public participation would re-

quire more—such as the ability of the public to fill a majority of the seats on a board of directors or board of trustees.

True Accountability To The Public

True accountability has several aspects:

- The public must be able to learn what ICANN is doing. This means that ICANN will have to reverse its proclivity for secrecy and confidentiality.
- The public must have effective means to change ICANN. This means that the public must be able to fill a majority of the seats on any governing organ, such as a board of directors or board of trustees.

Meaningful public participation and public accountability will bring a much-needed flow of new faces and ideas into ICANN. This will reduce ICANN's sense of "us versus them". And it will almost certainly indirectly result in the eventual hiring of replacement staff and supporting professionals and firms who have more capable financial, business, and legal skills and who comprehend that the role of staff is not to supplant the Board of Directors.

What Would Happen To The Internet If ICANN Were To Vanish?

Much of the debate over ICANN is colored by the fear of what might occur were there to be no ICANN.

ICANN does not have its hands on any of the technical knobs or levers that control the Internet. Those are firmly in the hands of ISPs, Network Solutions/Verisign, and those who operate the root DNS servers.

Were ICANN to vanish the Internet would continue to run. Few would notice the absence.

Were there no ICANN the DNS registration businesses would continue to accept money and register names. With the passage of time the already low standards of this business might erode further.

The UDRP (Uniform Dispute Resolution Policy) system runs largely by itself. The Federal ACPA (Anti Cybersquatting Consumer Protection Act) would remain in place.

ICANN has already established a glacial pace for the introduction of new top-level domains. ICANN's absence will not cause perceptible additional delay in the creation of new top-level domains.

ICANN has already abrogated the making of IP address allocation policy to the regional IP address registries; those registries will continue to do what they have always done with or without ICANN.

ICANN has no agreements with the root server operators; the root servers will continue to be operated as an ad hoc confederation, as has been the case for many years.

The only function that would be immediately affected would be the IANA function. IANA is an important clerical job, particularly with regard to the country-code top-level domains (ccTLDs.) IANA is not a big job, nor does it have real-time impact on the Internet. (In fact there is a credible body of evidence to suggest that ICANN delays certain clerical tasks on behalf of ccTLDs for months on end in an effort to coerce ccTLDs to sign contracts with ICANN.)

There are those who will try to divert outside reforms of ICANN by asserting that touching ICANN will cause the Internet to collapse or otherwise be damaged. The truth is quite the reverse—ICANN's ties to the technical and operational stability of the Internet are tenuous at best. A full inquiry into ICANN, a full reform of ICANN, or a complete rebid of the agreements under which ICANN operates would not damage the Internet.

Senator WYDEN. Thank you. There was remarkable diversity of opinion on this account.

[Laughter.]

Senator WYDEN. It helps us launch a discussion. I think many of you heard me ask the witnesses on the previous panel to list the tasks that are important for ICANN to perform—and each of the witnesses, essentially, went to the White Paper. It's almost as if the White Paper has now become the Holy Grail. I want to ask each of you to start a different way, including you, Mr. Powell. I am particularly struck by these comments that you've made that ICANN basically hammered your technology, and, of course, that's the crown jewel of technology companies. So, maybe you want to

get into that in your answer. Each of you state for us the one reform that you would like to see most at ICANN. If each of you is to waive your wand once and propose a reform by ICANN, what would yours be? Mr. Powell, and we'll just go right down the line.

Mr. POWELL. I think it would be the original theory that you can't really have good substance without good process. And certainly, you shouldn't have broken processes. It's hard for me to move away from our personal interest in reducing ICANN's ability to throw up processes between the invention of the product and its launch to market without any clear legal basis, constitutional basis or any other reason to do so and really stifle innovation, rather than foster it.

And I think the creation of unnecessary, arbitrary, unwritten processes without signposts or guideposts is—it beggars description as you can clearly see—something that we had no idea about going in. And as I mentioned before, I suppose we were naive. But it is all so opaque to us, it has never been clearly explained to us why we are in the midst of this consensus process in which our competitors are invited to weigh-in on whether we should be allowed to defeat them in the marketplace or not. Let the customers decide.

Senator WYDEN. Mr. Cochetti, your one reform.

Mr. COCHETTI. Thank you, Senator. Since the three of you are legislators and understand the power of words and the consequences of poorly written legislation or poorly written laws, let me put it in the context which I think is quite relevant: the comparison.

The White Paper's language, in terms of what ICANN is authorized to do, is not vague. It's not expansive. The verbs used in very simple sentences which are quoted in my testimony are to "set policy", "oversee operation of", "oversee policy for", and "coordinate". There is nothing else. It is not: "and everything else you feel like doing". It's those four activities that ICANN is authorized to do.

As Secretary Victory indicated earlier, over the last 4 years ICANN has added to those four authorized activities that it should also engage in "related policy areas", or "policy areas related to" those four authorized activities. Under the authority implied by "policy areas related to" the four authorized activities, ICANN has engaged in every imaginable form of regulation of the generic segment of the industry: prices, services, terms of service, information, management and much more. I would say if there was one thing that needs to be done, it needs to be clarified that what is not specifically authorized to ICANN is prohibited. What ICANN is not authorized to do, it should not do, and that an expansive interpretation of a phrase like "policy areas related to these four" needs to be interpreted in a most narrow and specific form possible. That, I think, would solve almost all of the problems you've heard described in today's testimony and outside of today's testimony.

Senator WYDEN. Mr. Davidson.

Mr. DAVIDSON. He took mine, but I will agree. And to expand on that, I would say that this is probably the fundamental reform that needs to happen at ICANN. A very clear communicative understanding of a narrowly defined, focused mission and a charter of powers that has real checks on it. A mission statement can only be meaningful to people if people can point to specific ways in which

ICANN can't go beyond that, whether it's in a review process or some other way to be sure the narrowly enumerated powers can't be exceded.

Senator WYDEN. Mr. Auerbach.

Mr. AUERBACH. Sure. I consider ICANN a serious threat to technical innovation. So, I would constrain ICANN to matters that clearly and directly pertain to the reliable technical, and I underscore technical, operation of its DNS root and the allocation of IP addresses. They should stay away from legislating on matters. It is not a national legislature, on matters such as the UDR, and should stay away from regulating business practices, such as it is done with the DNS registries and registrars.

Senator WYDEN. Let me see if I can get one other quick one in. My light is on. I would really appreciate just a yes or no on this. I would be interested in whether each of you thinks that ICANN can reform itself or whether the Commerce Department has to step in and do it of its own initiative. Mr. Powell, can ICANN reform itself?

Mr. POWELL. Senator, I have to confess to not having an opinion on whether it can or——

Senator WYDEN. Mr. Cochetti.

Mr. COCHETTI. Senator, I don't know the answer to that question. I think we will have to wait and see. Certainly, if we are talking about meaningful reform of its functions, the answer is not yes. I'm sure of that.

[Laughter.]

I mean, ICANN a theoretically reform itself, but—it will not without external stimulation to do so. The answer is no.

Senator WYDEN. All Right. Mr. Auerbach.

Mr. AUERBACH. When the proposal is placed in front of me, I will make my best judgment as I see appropriate. However, hope springs eternal and I am hopeful.

Senator WYDEN. OK. Senator Allen.

Senator ALLEN. I want to ask Mr. Cochetti a question here. First, your son would never get away with an answer to you that's not yes.

[Laughter.]

Senator ALLEN. We understood that—I think your father would want a yes or no answer when he asks you a question.

[Laughter.]

Senator ALLEN. Mr. Cochetti and you, as well, Mr. Davidson, your view of the role of ICANN is very much similar to my view of the Constitution of the United States of the Bill of Rights. I hear your interpretation which is of what prerogatives do they have, and it's like the 10th Amendment which I consider very important in that those powers not specifically delegated for Federal Government are reserved to the people of the states. And in that lot, you might have been here when I was questioning Mr. Lynn, the President of ICANN, and so far as this issue of them actually managing and serving as the the registry operator for .int and .arpa.

In your written testimony, Mr. Cochetti, you go in some length—this is page 14, at least, in this draft that I have. It may be 13. But it's come in here, so I consider that a part of your testimony. How great a problem do you consider this to be as far as ICANN

accomplishing its core mission? And you heard the concerns on the root servers. To me, it was a reasonable explanation of why it will take them longer on the J root server to transfer that. But on the .int and the .arpa, it will be a year or several years off. What commentary can either you or Mr. Davidson share with us on that? And do you see their activities there to be exceeding the scope of their authority?

Mr. COCHETTI. Thank you, Senator. And as you point out, my written testimony addresses this in greater detail. There has been, in our view, sort of a disturbing trend on the part of ICANN to move into the direction of operating server machines—Internet core facilities.

This function has nothing to do with the "coordinate", "oversee", and "direct verbs" that I described as being authorized by the MOU. I think ICANN's drift into operations has three adverse consequences. One is that it's a waste of resources. It costs a small non-profit organization like ICANN many times what it would cost IBM or EDS or any large operating entity to operate the same server machines. And even when ICANN does it, there is no way it can provide the same level of reliability or security that a large operation or other entity could.

Second, it distracts ICANN's management from its core functions which are too important to be overlooked. If you are worried about server machines breaking down or hiring people to operate the server machines or whatnot, then you are not worried about the core tasks of technical coordination.

Third, it's a distraction of not just money, but of strategic focus from what ICANN should be doing. We believe that all of the servers ICANN now operates—I think there are probably about six—maybe even more—could be transitioned to operators in a relatively short period of time. There is no shortage of companies who could operate thes servers. And this is not an advertisement for VeriSign. It could well be Newstar, EDS—you name it. These activities should be transitioned to private sector operators who do this for a living. And it could be done relatively quickly. Some of these server machines are not that big or complicated. It doesn't mean that we should risk security or reliability; but these machines are not so big and complicated that one couldn't technically execute the transfer in a matter of weeks if one had the determination to do so. If there were a deadline, I'm quite sure that it could be met, as long as it were reasonable. But I think that none of these are transitions that would, for technical or operational reasons, take years. These are all transfers that are relatively easy to execute.

Senator ALLEN. Mr. Davidson.

Mr. DAVIDSON. Well, I think many people would probably say this is not the most important reform needed at ICANN. It's probably also not the key issue in its charter. However, it is important. It has, I think, in addition to things that were just mentioned, an effect over time. Imagine that the FCC was a broadcaster as wellas a regulator. To the extent that it was viewed as an objective policymaker, people would have to wonder whether it was an objective policymaker in the area where it also was an operator. I'm not say-

ing that this has happened yet at ICANN, but I think that's the thing that we worry about over time.

Senator ALLEN. Mr. Auerbach, I would like to ask you your view on it. I find it interesting. I would like you to share with us how you got on the Board of Directors and as a Board Member, what is your feeling as far as allowing the private sector to operate .int and .arpa, which may not be the most important, but a specific example of ICANN exceeding the scope of their authority?

Mr. AUERBACH. You've asked quite a few questions there.

Senator ALLEN. I know.

Mr. AUERBACH. First, to cover the simple ones. As far as .arpa, there really is only one useful subdomain, which is in—addr.arpa and that is run on a day-to-day basis by a group called Arin. ICANN virtually does nothing with regard to operating the .arpa. And so transferring it would just basically—it's already transferred.

As far as the election goes, it's like the same process by which you—I ran in an election against several other people, well-known names, presidents of universities and the like, And we had a campaign. We argued, went back and forth and we had an election and I won. Here I am.

ICANN has used the excuse that the election wasn't perfect to get rid of any further elections and it's largely as if, you know, we've had our problems before, the counting in the last Presidential election. It's almost as if the U.S. were to abolish congressional elections on the basis of that, which is not a valid response.

With respect to the separation of governments and private. I really believe that governments have a place and in these areas of very difficult public discourse. We've learned to create this very slow, painful system called government and include into it the concepts of due process and reconsideration of tensions between parties. That's what makes governments uncomfortable to many, it's because it is slow. And I think we need a lot of those processes within ICANN, because we have a lot of contention here, and it's not just within the U.S. We have a lot of world different points of view.

What I have learned within ICANN about the points of view of democracy is just astounding. Some people in many parts of the world are very suspicious of it for reasonable reasons. It's based on experience. We are very lucky to have democracy in this country. I think we really ought to err on thinking of ICANN as a governance body, because it truly does govern and it ought to have a lot of the aspects that typically go on with a governmental type body. And we shouldn't think of it merely as a private public benefit nonprofit corporation that it technically is.

Senator ALLEN. Thank you. This is obviously not a rubber-stamp board with you on it.

[Laughter.]

Senator ALLEN. Might I suggest my comments to Mr. Cochetti and Mr. Davidson, my general view of the government is to prevent people from injuring one another, but otherwise leave them free. The whole purpose of the government is to protect people's human rights. And then I'll, obviously, govern with the consent of the people. So, at least, on that phrase we are in agreement.

But, thank you all so much.

Senator WYDEN. Thank you. Senator Burns.

Senator BURNS. I want to explore with Mr. Cochetti the statement that a private company, EDS or IBM or whoever outside of any kind of a quasi government standardized organization could do as well. Are we ready to transition to that—are we ready to make the transition into the private sector?

Mr. COCHETTI. Thank you, Senator. Let me be clear. When I referred to companies that had large operational server files——

Senator BURNS. Well, I used them too. We may have been too loose in that, but we understand what we are talking about.

Mr. COCHETTI. But, I believe that the operation of those server machines could be done relatively easily and transferred relatively swiftly to any of a large number of well-qualified companies that do this worldwide. So, I think on the operation of server machines—such as the server machine that supports the Internic website or the server machine that supports the root server, the server machine that supports ".arpa" or ".int" could all be transferred to companies or a non-profit organization that do this for a living relatively easily and quickly, yes.

Senator BURNS. And, I guess on the election day—the great answer to how did you get elected? I said, well, I got more votes.

[Laughter.]

Senator BURNS. That's the only answer I've ever come up with. Really it's truthful and deserves no further investigation. But, I listened to you and I also listened to the plan of Mr. Powell and I'm wondering how we solve his problem, in other words, he should not be denied access and yet, was denied access. We have to take those things into consideration whenever we start, maybe, trying to reform. And you've already answered all the questions that I had.

Your recommendation on what our role should be in the oversight and—Department of Commerce and the reissuance or the extension of the MOU. I think they are going to be very, very important and so we appreciate your counsel. We appreciate your opinions, and Mr. Auerbach, we didn't have to buy you a cigar to get you to come today, but your recommendations on the Board, I think, should be looked at very seriously as we move into that direction.

I think that with negotiations of the extension, that they are going to have enquiry on a dialog. And I think we have an obligation to be a part of that dialog along with the Secretary and Ms. Victory, who are both very capable people.

One thing that does concern me is how do we reach out now to the international community if we are all together, understanding the great challenge that we have on protocol and on our ability of performing in a world where interoperative ability is very, very necessary? Do you want to comment on that, Mr. Auerbach?

Mr. AUERBACH. Yes, please. I deal quite frequently with people on an international basis. I sense a great deal of nervousness on the part of people who are not citizens of the United States. And my only answer to them, besides move here——

[Laughter.]

Mr. AUERBACH.—is that we need to constrain ICANN's powers so that it becomes a less fearful institution, so that they can, essen-

tially—we are going to have to say trust us. But, if we make it so that they only have to trust us a little bit, they will be a lot more comfortable.

Senator ALLEN. We go back to Mr. Raymond's trust with VeriSign.

[Laughter.]

Mr. DAVIDSON. If I might—I would say that actually should be a theme today. Your continual involvement and this Committee's continual involvement is an important part of making sure that that dialog happens. I think you especially, as Chair of the Internet Caucus, will have a chance to talk to a lot of Europeans and others about some of these issues in upcoming caucus events too.

This cannot happen in a vacuum. I think the Commerce Department is aware of that. I think, if anything, this Commerce Department, this Congress has erred a little too far, understandably perhaps, but a little too far on the side of deference to ICANN—but the time has come now to get back involved in this. Similary as lots of governments are going to need to be watching what happens in this reform process and giving it the Good Housekeeping Seal of Approval only if meets the checklist of criteria. So, it's a conversation with a lot of people around the world.

Mr. COCHETTI. Senator, if I may add briefly to that. I have had the opportunity to discuss the subject of ICANN with quite a few governments from other countries. And I think there is a remarkable sense of support for the simple proposition that what is not specifically authorized, is prohibited. I think the reason is that governments, not just the U.S. Government, not just——

Senator BURNS. Do we need another 10th Amendment? Is that right?

Mr. COCHETTI. That governments are concerned about mission, creep, self-redefinition and self-advancement; all of the concerns that I think you've heard echoed here. The concept is that what is specifically authorized is all that is authorized. If it's not specifically authorized, then it's prohibited and if ICANN wants to engage in an activity it must first obtain new authorization. I think that is not a complicated proposition and one that enjoys global government support.

Senator BURNS. Mr. Powell, do you want to comment on that or—we appreciate your testimony today and are sensitive to your situation.

Mr. POWELL. Well, I think I would agree with what Mr. Cochetti just said. There are long-standing legal principles that we can appeal to. We don't have to make up a lot of things as we go along. We don't have to reform something out of whole cloth, reinvent the wheel. We really can say there is an enormous volume of laws that take into account much of what ICANN thinks it needs to be doing. That there is a safety net where people who don't like certain things can go to the courts or can go to elected representatives and the go-to party is not ICANN. It doesn't have the staff, the expertise, the accountability and many other things. And this body has already spoken through legislation in so many instances of what we are talking about.

Senator BURNS. Well, we want to thank each of you witnesses. It has been very enlightening today and thank you for being very candid and——

Senator WYDEN. Let me——

Senator BURNS. Well, I want to wrap up. And I want to thank the Chairman for this hearing today, because it's been a very, very good hearing. I want to thank the representatives of ICANN, the Board of Directors and, of course, the Chairman of the Board who has sat through here—once you testify, everybody wants to run away. They don't stay and listen to the rest of the testimony. But, I'm certainly glad that we were able to do this. I thank each and every one of you. And thank you, Mr. Chairman, for holding this hearing.

Senator WYDEN. All right. I thank my colleague and thank you for all of your interest in this. You've been at it for a long time and it's been exceptionally helpful.

Let me be clear with this panel and those who care so much about this issue where we are going to go from here. First, these are, obviously, important issues. My state has the highest unemployment rate in the country and when a technology company like Mr. Powell's comes before the U.S. Senate and says an organization like ICANN is hammering his technology and causing layoffs and the like, that is going to be taken seriously. So, these are important issues.

First, this Subcommittee is going to monitor the developments with respect to ICANN very closely from this point on. Fortunately, we've had Senator Burns leading the effort to keep the Congress focused on it, and I haven't had the gavel in my hands for very long, but on my watch we are going to follow these issues very closely. That's No. 1.

Second, we are going to especially look at the factors that the Department of Commerce examines with respect to whether or not to continue this MOU. My own sense of this is, at this point, is that the Department of Commerce is going to have to push ICANN harder than they are doing today in order to get in place the necessary reforms.

I asked the question earlier of whether ICANN could reform itself or should the Department of Commerce step in. It's a clear consensus of people who are knowledgeable in this in field that it would be better for ICANN to do it of its own volition. But, if that's going to happen, my sense today in listening to the testimony for the last couple of hours, is if ICANN is going to reform itself, the Department of Commerce is going to have to push that organization harder than they have done in the past.

Obviously, there are specific issues that we are going to follow as well, like making sure that the mission of the organization is clearly and narrowly defined. That certainly comes to mind. And coming up with broader ways of more significant opportunities for the public to participate, given the level of dissatisfaction. The way ICANN decisions are made is important as well. So, there is plenty to do. You all have been very helpful and with that, the Subcommittee is adjourned.

[Whereupon, at 4:30 p.m., the hearing was adjourned.]

A P P E N D I X

INTERCOSMOS MEDIA GROUP, INC.
New Orleans, La, June 13, 2002

Hon. John Breaux,
U.S. Senator from Louisiana,
Commerce, Science, and Transportation Committee,
Washington, DC.

RE: SENATE SUBCOMMITTEE ON SCIENCE, TECHNOLOGY AND SPACE SUBCOMMITTEE HEARING ON ICANN GOVERNANCE

Dear Senator Breaux:

I am the Chief Executive Officer of Intercosmos Media Group, and I am writing in connection with the hearing scheduled for Wednesday, June 13, 2002, in the Senate Subcommittee on Science, Technology and Space concerning ICANN governance. I ask that you share my letter with the Chairman and Members of the Subcommittee and make this part of the record.

Intercosmos is located in New Orleans, Louisiana and provides a full-range of Internet domain name registrations, DNS hosting, and web design and hosting services. We currently have 54 full-time employees, whereas we only had 12 full-time employees before we began offering domain names. In fact, domain name services kept Intercosmos from going out of business when the Internet advertising market evaporated.

In 1998, our domain name registration services didn't exist, because there was a monopoly. There was only one provider for registration service of .com; .net; and .org domain names—Network Solutions, now owned and operated by VeriSign. Because of the introduction of competition in the registrar marketplace, through ICANN, over 100 ICANN accredited registrars are in business. My own company is pleased to be one of those accredited registrars.

I encourage you to support the efforts underway to constructively reform ICANN and provide it with the necessary staff and resources to ensure that competition and stability continues to exist at the registrar and registry level for the benefit of consumers and small businesses.

Sincerely,

SIGMUND J. SOLARES,
Chief Executive Officer.

PREPARED STATEMENT OF THE MARKLE FOUNDATION

A Pluralistic View of DNS Governance: Core Principles For ICANN Reform

I. Introduction and Summary

As of February 2002 more than 500 million people[1] worldwide are using the Internet regularly. They include adults and children of all ages and all backgrounds, small, medium and large businesses, governments, military services and policy makers. They use it for e-mail, to find information, to buy and sell products and services, to find a job, to vote, to browse the World Wide Web and for entertainment.

The success of the Internet, e-mail, and the World Wide Web has been in significant measure due to the user friendliness and flexibility of domain names. Internet domain names are particularly crucial because they are the primary means by which users and creators of information and services worldwide identify themselves and information.

Although the Internet has scaled dramatically over the past several years to become a critical global infrastructure and a massive business marketplace, the administration of Internet domain names and other identifiers has remained essen-

[1] See http://www.nua.ie/surveys/how—many—online/

tially an industry-led initiative within the context of the Internet Corporation for Assigned Names and Numbers (ICANN).

Along with the growth of the Internet has grown the frustration with ICANN among those who depend upon and are affected by the domain name system (DNS). ICANN was initially created to focus on the technical management of the DNS, but many of its "technical" decisions necessarily involve "public policy" choices. ICANN's decisions affect how people arrive at websites and what domain names they can have, how conflicts over trademarked domain names are resolved, how domains that expire are reallocated and how much data on users should be public. At a time when we all grapple with the security vulnerabilities that our increased interdependencies have generated, ICANN plays a critical role in maintaining and enhancing the stability and security of the entire Internet. Though no one disputes that the Internet's name and address system is functioning, ICANN has proved poorly equipped to handle these numerous policy matters.

For these reasons, the Markle Foundation has been involved in the evolution of ICANN with the aim to foster legitimate processes that serve the interests of the public and growing user community.

We believe, however, that ICANN, as it has developed, is seriously flawed as a global institution able to make decisions worthy of deference or to safeguard the public interest in an increasingly networked society.

We also believe that many of the problems and shortcomings ICANN faces highlight a need to look beyond specific proposals to "fix" ICANN and to reflect on the broader question of whether ICANN embodies the right concept and governance structure to implement its mission and separate functions, or whether there are alternatives, such as existing or new global institutions, that should play a key role in managing certain critical parts of the Internet's architecture. Separating out the question of what needs to be done, from which organization will do it, provides an opportunity to review whether ICANN or some other organization is best able to manage certain elements of the DNS.

If this review results in ICANN retaining authority for technical management of the DNS, then, at a minimum, the following reforms are necessary:

Multi-Sectoral Participation: ICANN's Board needs to be restructured in a pluralistic and multi-sectoral way, including governmental, private and non-commercial members to increase its legitimacy;

Accountability and Transparency: Board and staff need far greater oversight by politically accountable officials; and decisions must be more transparent, open and developed through a due process.

II. Further Comments on ICANN Reform Principles

• Ensure Multi-Sectoral Representation in ICANN

ICANN's credibility as a global manager of critical parts of the Internet's infrastructure depends on the Board's ability to ensure that the various private and public interests are represented in ICANN's activities. As most would agree, ICANN, although organized as a private, not for profit corporation has "public trust" functions. One of the priority, corrective actions that either a reformed ICANN or another organization must undertake is to address and eradicate the irony that ICANN, intended to serve a vital public trust for the entire global Internet community, has neither adequately defined nor institutionalized public interest representation. Global elections have not proven to be the means to provide adequate public interest representation. If ICANN is not to become a governmental entity, then it must implement a better alternative, and not abandon the goal of ensuring public representation.

We believe that effective governance, including DNS management, requires input from many stakeholders, who all fulfill various roles in the process: democratic governments provide public accountability and possess enforcement and oversight capabilities; the private sector offers technological expertise and a driving culture of innovation; non-profits provide public confidence in efficiency and integrity—less bureaucratic than governments, less profit-motivated than business. But no single institution or sector is equipped to handle the task on its own. Therefore, ICANN's board and major decision making authorities need to consist of government, private and non-commercial representatives.

The call for pluralistic governance structures for the Internet is backed-up by a major study the Markle Foundation conducted in 2001, entitled *Toward a Framework for Internet Accountability.* [2] Respondents said by a 2-to-1 margin that the gov-

[2] See Toward a Framework for Internet Accountability, Markle Foundation, July 2001 and available at *http://www.markle.org.* Greenberg Quinlan Rosner Research conducted the research, through a series of national telephone interviews, online surveys, conventional and on-

ernment should develop rules to protect people when they are on the Internet, even if it requires some regulation of the Internet. In addition, the public felt industry has a key role to play but 58 percent indicated they do not support industry self-regulation alone, and 70 percent felt non-profits should have a significant role in making rules for Internet. In sum, in looking for solutions, the American public appreciates the complexities of the Internet and wants to go beyond such black and white choices as "government regulation" or "industry self-regulation" to fashion instead multi-sectoral approaches involving government, industry, technical experts, non-profit organizations and the public itself.

• **Better Accountability and Transparency**

Steps to bolster ICANN's accountability will require improved public oversight by politically accountable officials. One of the key priorities in this area is the creation of a greater oversight role for governments regarding policy decisions. In addition, ICANN must set forth in writing clear procedures regarding the approval of matters within its delineated jurisdiction, and provide an impartial and due process enabling parties to appeal those decisions based on either procedural or substantive grounds.

Moreover, keeping staff and Board members accountable to a clear set of professional norms and standards established by ICANN's Board and overseen by outsiders is essential to making ICANN accountable to the Internet community. Board members and staff should be required to adhere to a code of conduct regarding minimum standards for completion of responsibilities, duties to the organization, conflicts of interest and other basic conduct standards.

III. Conclusion: a Pluralistic View of ICANN Governance

Establishing balanced and multi-sectoral Board representation for ICANN (or a successor organization) is key to having appropriate checks and balances that will foster effectiveness and preserve openness. In addition, ICANN requires development of due process principles and clear, publicly available procedures for the resolution of complaints, as well as a policy for holding open meetings and a process for systematically documenting the rationale for ICANN's policy decisions and actions. Given the inability of ICANN to adequately represent the broad public interest over the course of its initial four years, we believe that a narrowing of its mission and increased governmental oversight of its remaining policy activities must be established.

What ultimately is needed—as confirmed by our studies to date—is a pluralistic model for Internet governance, in which a range of public and private actors help to craft the norms and rules that guide DNS management—balancing each other and working together to earn the public's trust.

About the Markle Foundation

The Markle Foundation works to realize the potential of emerging communications media and information technology to improve people's lives. The Foundation's work focuses on three primary areas: *Policy for a Networked Society, Interactive Media for Children, and Information Technologies for Better Health.* Many of the *Policy for a Networked Society* activities help to build the capacity to include the public voice in the governance of the Internet. Markle pursues its goals through a range of activities including analysis, research, public information and the development of innovative media products and services. The Foundation creates and operates many of its own projects, using not only grants but also investments and strategic alliances with non-profits, governments and businesses. (See *http://www.markle.org* for more information.)

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SUPPLEMENTARY STATEMENT OF KARL AUERBACH, MEMBER, ICANN BOARD OF DIRECTORS

This document contains supplementary statements to my oral and written statements to the Subcommittee on June 12, 2002.

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line focus groups, and one-on-one interviews with the public and Internet experts. The study was designed to examine multiple aspects of the American public and experts' views regarding Internet governance, including whether the public believes more needs to be done to provide protections and give users greater control on-line. In turn, it examined whom they trust to make Internet policy.

.int and .arpa

A question was asked during the hearing about the difficulty of transferring the *.int* and *.arpa* top-level-domains (TLDs) away from ICANN.

It would be a trivial exercise to do this. Neither the *.int* nor the *.arpa* top-level-domains impose more than the most trivial of burdens upon ICANN.

At the present time, *.int* is a largely moribund top-level domain; keeping it up to date is essentially a trivial exercise and involves no matters of policy or discretionary decision-making.

The *.arpa* top-level domain is joined at the hip with the *in-addr* second level domain; they are essentially a single unit. Administration of *.in-addr.arpa* has long been delegated to the regional IP address registries (RIRs) such as ARIN, RIPE, and APNIC. The administrative burden of the *.arpa* piece alone is a trivial exercise and involves no matters of policy or discretionary decision making.

Thus the effort to transfer either *.int* or *.arpa* away from ICANN would involve an effort of almost vanishing small size and complexity.

Security of the Domain Name System

ICANN's response to the question of security of the Domain Name System has been inadequate.

DNS security is not merely a question of prevention; the larger portion is the question of recovery after a natural or human event.

ICANN has chartered a committee of experts in the field of computer and network security to look into the issue. This committee's skills are largely academic and focus on the technical aspects of network protocols and operating system security. The committee lacks expertise in matters of physical protection, personnel security, and other non-technical aspects of security. Similarly the committee lacks expertise that pertains to recovery and re-establishment of service after a security event. ICANN's committee has no experts in restorative measures or data repository techniques. The committee does not have expertise in matters such as finance (i.e. where will the cash come from when one needs to buy new computers and obtain new office space after a security event or natural disaster?) Nor does the committee have expertise concerning the gathering and protection of evidence (i.e. how will one investigate and prosecute the wrongdoers?)

At the same time, ICANN has quietly failed to recognize concrete and easy measures to protect DNS or enhance its recoverability that could have been taken immediately and at nearly no cost.

For example, ICANN has ignored a document presented to ICANN shortly after September 11 by this Director: *Protecting the Internet's Domain Name System—http://www.cavebear.com/rw/steps-to-protect-dns.htm.*

TRANS ATLANTIC CONSUMER DIALOGUE
April 29, 2002

RE:LETTER TO COMMITTEE ON ICANN EVOLUTION AND REFORM

Dear Members of the Committee on ICANN Evolution and Reform:

The Transatlantic Consumer Dialogue is a forum of U.S. and EU consumer organizations that develops and agrees joint consumer policy recommendations to the U.S. government and European Union to promote the consumer interest in EU and U.S. policy making. The TACD includes 45 European and 20 U.S. consumer organizations (http://www.tacd.org/about/participants.htm).

In February 2000, TACD adopted Ecom 14-00, which is on the web here:
http://www.tacd.org/docs/?id=43.

Among the TACD February 2000 recommendations were the following:

1. ICANN's mission should be limited so that it does not become a general purpose Internet governance organization.
2. The records of ICANN should be open to the public, including financial records, and all ICANN contracts. ICANN should be accountable to the public, and the public should be given an annual opportunity to review and comment on the ICANN budget.
3. Fees associated with domain registration should only be spent on activities essential to the management of the DNS system.
4. U.S. and the EU governments were asked to report on the legal mechanics that would limit ICANN's power to address broad Internet content issues, and insure public accountability.

TACD would like to make the following contributions to the discussion over ICANN evolution and reform:

Boundaries for ICANN Mission

1. At present, ICANN is dominated by business interests, and the ICANN board has blocked the election of board members from the general public. The ICANN Domain Name Supporting Organization (DNSO) is greatly biased toward business interests. Individual or non-commercial domain holders have only three of 21 votes in the DNSO governing body, and may lose voting rights to even those three votes in disputes over DNSO fees.
2. A broad range of civil society groups agree that ICANN should not become a general purpose Internet governance organization. To address the issue of mission creep, it is important to have a much clearer statement of what the ICANN mission is, and to have legal mechanisms that would restrain ICANN from inappropriate expansions of that mission.
3. There are many Internet issues that will require greater global cooperation, such as the coordination of efforts to control Internet spam, privacy, the protection of children, securities fraud, cross border marketing practices, and a variety of complex and sometimes controversial areas concerning intellectual property and speech. Many of these topics are more appropriately addressed by national governments or by treaties or agreements between countries. ICANN has neither the competence nor the mandate to address a wide range of issues. ICANN should only address narrow issues involving the assignment of Internet domain names and numbers, and even here, only those that require global coordination.
4. ICANN should not be empowered to use control over essential Internet name and numbering resources to address broader public policy issues.
5. The International Telecommunications Union has offered to play a role in defining the boundaries of ICANN policy making. The ITU should inform TACD how consumer interests will be able to participate in this process.

Decentralization

6. Even in the area of global cooperation, ICANN should not rely upon excessive centralization of decision-making. In the areas of the assignment of Internet names and numbers, ICANN should defer as much as is practical to regional or local decision-making.
7. The functions of the ICANN relating to domain names should be much more decentralized. ICANN can play a useful role in resolving disputes over uniqueness of the top-level domain (TLD) space, assuming it does not act to restrain entry by registries in order to protect incumbents, or prohibit the creation of new TLDs by non-commercial entities. In this respect, we express disappointment and indeed astonishment that ICANN did not approve the application by the World Health Organization to create the .health domain, following objections by the pharmaceutical industry, or that it did not permit the International Federation of Free Trade Unions to create the .union TLD.
8. ICANN should permit national governments to authorize the creation of new TLDs, subject to addressing minimum requirements for global coordination the uniqueness of the TLD name, and other minimum technical requirements that may be essential for Internet stability.

Consumer Protection for Domain Name Holders

9. ICANN should follow a two track strategy with respect to consumer protection that relates to persons who register domain names.
10. ICANN should adopt minimum standards for protection of domain name holders, on issues such as abusive registration practices or privacy, that all ICANN approved registrars should follow. The minimum standards for consumer protection should be developed by domain holders, subject to approval by the ICANN Government Advisory Committee (GAC).
11. National government should be free to supplement these minimum levels of protection, for example to provide additional protection in cases of abusive pricing or registration practices, to protect personal privacy, and to protect legitimate trademark concerns.

Representation of Consumer Interests

12. Consumer interests should have at least equal representation to provider interests in ICANN decision-making.

13. Consumer interests should not be required to fund ICANN's fixed costs or otherwise pay unreasonable fees to participate in ICANN meetings or decision making bodies. Users have already paid fees to registrars and registries, and should not be required to pay twice to have a voice in ICANN decision making.
14. The global DNSO should be reorganized to ensure that user interests have at least half the votes on the names council, and that individuals, small businesses, and non-commercial domain holders do not face difficult barriers to participate in the DNSO.

Transparency and Conflicts of Interest

15. The ICANN board should record all of its board meetings, and provide pubic access to MP3 files of its meetings.
16. The ICANN DNSO should not permit persons with employment or business relations with registrars or registries to vote in the user constituencies in the DNSO.
17. There should be a "cooling off" period after leaving ICANN staff, before representing an ICANN regulated registry or registrar.
18. ICANN board members should disclose on the ICANN web page any business interests with ICANN regulated registry or registrar interests.

Yours sincerely,

BEN WALLIS,
TACD Coordinator—On behalf of the TACD Steering Committee

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