Understanding Internet Governance: Acting Locally

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Non-Profit Technology Conference

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#19NTCdemystify

Internet Governance, History & Principles

1. Internet Governance Definition
2. History of Internet Governance
3. Various organizations ISOC / IAB / IETF ITU / W3C / IGF UN / I&J / ICANN
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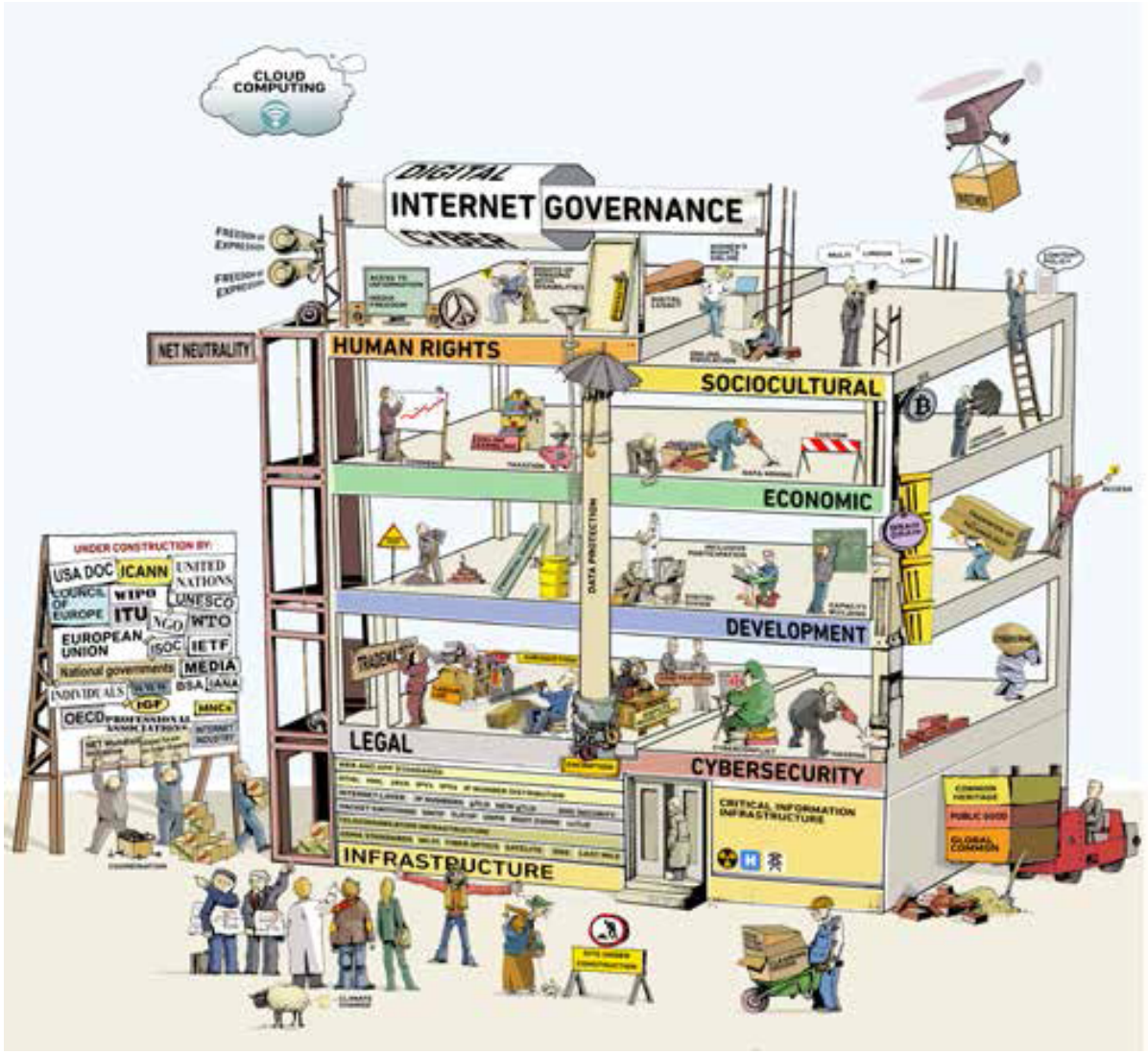
Internet Governance Definition

Internet Governance Definition

- *Internet governance is the development and application by Governments, the private sector and civil society, in their respective roles, of shared principles, norms, rules, decision-making procedures, and programs that shape the evolution and use of the Internet*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DIGITAL
INTERNET GOVERNANCE
NET NEUTRALITY
HUMAN RIGHTS
SOCIOCULTURAL
ECONOMIC
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LEGAL
CYBERSECURITY
INFRASTRUCTURE
DATA PROTECTION
CRITICAL INFORMATION INFRASTRUCTURE
UNDER CONSTRUCTION BY:
USA DOC
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WIPO
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EUROPEAN UNION
ISOC
IETF
National governments
MEDIA
INDIVIDUALS
BSA
IANA
IGF
MNC's
OECD
PUBLIC GOOD
GLOBAL COMMONS

History of Internet Governance

- First reference to Internet Governance was at the 1998 Plenipotentiary Conference held in Minneapolis.
- It is at this conference that other countries pushed to have the ITU recognize the needs to adopt resolutions on governance of the Internet
- The Conference adopted Resolution 73 creating a World Summit on the Information Society
- On 21 December 2001, the United Nations General Assembly approved Resolution 56/183 endorsing the holding of the World Summit on the Information Society (WSIS) to discuss on information society opportunities and challenges

Creation of WSIS

- The World Summit on the Information Society (WSIS) was a two-phase United Nations-sponsored summit that took place in 2003 in Geneva and in 2005 in Tunis.
  - One of its chief aims was to bridge the global digital divide separating rich countries from poor countries by spreading access to the Internet in the developing world.
- Delegates from 175 countries took part in the first phase of WSIS where they adopted a Declaration of Principles.
- The Geneva summit left unresolved more controversial issues, including the question of Internet governance and funding.

WGIG

- After the 2003 summit failed to agree on the future of Internet governance it created a Working Group on Internet Governance (WGIG) and tasked it to work on these issues and report back to the main body.
- The WGIG had 40 members drawn from Governments, private sector, and civil society, who all participated on an equal footing and in their personal capacity.
- They had three objectives
  - Develop a working definition of Internet Governance;
  - Identify the public policy issues that are relevant to Internet Governance;
  - Develop a common understanding of the respective roles and responsibilities of governments, existing international organizations and other forums as well as the private sector and civil society from both developing and developed countries

WGIG Continued

- **The WGIG held four meetings in Geneva: 23-25 Nov. 2004; 14-18 Feb. 2005; 18-20 Apr. 2005; and 14-17 June 2005.**
- **While there was a common understanding of the Internet, there was not a shared view of Internet governance, hence the mandate from the WSIS for the WGIG to develop a working definition of Internet governance.**
- **The WGIG considered five criteria in crafting a definition**
  - ***adequate*, *generalizable*, *descriptive*, *concise* and *process-oriented*.**
- **The group looked at a wide range of governance mechanisms both public-sector, private-sector and multi-stakeholder that currently exist.**
- **Finally, the WGIG assessed a number of alternative definitions proposed by various parties in the course of the WSIS process and related international discussions.**

Internet Governance Definition

- ***Definition: Internet governance is the development and application by Governments, the private sector and civil society, in their respective roles, of shared principles, norms, rules, decision-making procedures, and programs that shape the evolution and use of the Internet*.**
  - **This definition reinforces the concept of inclusiveness of Governments, the private sector and civil society in the mechanisms of Internet governance.**
  - **It also acknowledges that with respect to specific issues of Internet governance each group will have different interests, roles and participation, which in some cases will overlap.**
  - **Internet governance includes more than Internet names and addresses, it also includes other significant public policy issues, such as critical Internet resources, the security and safety of the Internet, and developmental aspects and issues pertaining to the use of the Internet.**

Problems with Definition

- Early on controversy arose over the term ‘governance’ and its various interpretations.
- Many languages do not have a translation for the word “governance” and in many cases governance is synonymous with government.
- In the early WSIS process, many national delegations thought that Internet Governance should be the business of governments and consequently addressed at intergovernmental level with the limited participation of other, mainly non-state actors.
- These interpretations clashed with a broader meaning of the term ‘governance’, which includes the governance of affairs of any institution, including non-government ones. This was the meaning accepted by the Internet community.

Goals of the Working Group on Internet Governance

- One of the main aims of the WGIG was to foster full participation in Internet governance arrangements by developing countries.
- The WGIG placed this aim in the context of one of the priorities it had identified in the course of its work, namely, capacity-building in developing countries.
- This is what lead to the creation of the Internet Governance Forum (IGF)
- The IGF's Mandate comes from Paragraph 72 of the Tunis Agenda

Internet Governance Forum

- The Internet Governance Forum (IGF) serves to bring people together from various stakeholder groups as equals, in discussions on public policy issues relating to the Internet.
- While there is no negotiated outcome, the IGF informs and inspires those with policy-making power in both the public and private sectors.
- At their annual meeting, delegates discuss, exchange information and share good practices with each other.
- The IGF facilitates a common understanding of how to maximize Internet opportunities and address risks and challenges that arise.

IGF

- **The first IGF was in Athens Greece. It was truly multistakeholder. All players – states, businesses, academic and technical communities, and civil society – participated on an equal footing.**
- **Since then there have been 12 other IGFs**
  - **2007-Rio de Janeiro**
  - **2008-Hyderabad**
  - **2009- Sharm El Sheikh**
  - **2010- Vilnius**
  - **2011- Nairobi**
  - **2012-Baku**
  - **2013-Bali**
  - **2014-Istanbul**
  - **2015-Joao Pessoa**
  - **2016-Jalisco**
  - **2017- Geneva**
  - **2018- Paris**

Map of the National- Regional Initiatives

National & Regional Initiatives of the IGF

- National and Regional IGF initiatives (NRIs) are independent groups of people that have come together to discuss issues pertaining to Internet Governance from the perspective of their respective communities
- A shared objective for all NRIs is adhering to the core values of the IGF, and contributing to Internet Governance related matters, nationally, regionally, and globally.
- Youth IGFs are specifically organized forums that discuss the issues pertaining to the Internet arena from the youth point of view.
- All NRIs are required to support the main IGF criteria and principles to be listed on the IGF website.

Multi-stakeholder Form of Governance

- **Multi-stakeholderism is a type of governance structure that brings together all stakeholders to participate in the dialogue, decision making, and implementation of solutions to common problems or goals.**
- **A stakeholder refers to an individual, group, or organization that has a direct or indirect interest or stake in a particular organization, these may be businesses, civil society, governments, research institutions, and non-government organizations.**
- **The principle behind this is that if enough input is provided by all actors involved in a question, the eventual consensual decision will gain more legitimacy, and therefore better reflects a set of perspectives rather than a single source of validation.**

Stakeholders in Internet Governance

- **Stakeholders involved in Internet Governance**
  - **Technical Groups: I* Organizations ISOC, IANA, IETF, W3C, IEEE, ICANN, IAB, RIRs, ASOs/NROs**
  - **Governments & International Organizations such as the UN, ITU, UNESCO, UNCTAD- CSTD, OECD, Council of Europe,**
  - **Private Sector & Associations: ICC, WEF, CCIA, companies like Apple, Google, Amazon, etc**
  - **Civil Society, APC, Public Knowledge, Access Now, Article 19, EFF, IGC, Best Bits, AT Large, NCSG**
  - **Academia**
  - **Individual Consumer groups.**

What is ICANN ?

Internet Corporation for Assigned Names and Numbers (ICANN) is a non for profit organization, multi-stakeholder and global organization for coordinating the Internet resources maintenance in the public interest

ICANN coordinates the first level of the Internet's unique identifier system through global, multi-stakeholder, bottom-up consensus-based policy processes, the results of which are implemented by the IANA functions

Definitions - ICANN

- Founded in 1998
- Not-for-profit public-benefit corporation with participants from all over the world dedicated to keeping the Internet secure, stable and interoperable. It promotes competition and develops policy on the Internet's unique identifiers:
  - Domain Names
  - IP Addresses
- Took over these functions from the US Government
- Composed of three Supporting Organizations (SOs) and four Advisory Committees (ACs)
  - Address SO, Country-code & Names SO, and Generic Names SO
    - Registry SG, new GTLD registry SG, Commercial SG & Non-Commercial SG (NPOC and NCUC)
  - Government Advisory Committee
  - At Large Advisory Committee
  - 2 Technical Advisory Committees (RSAC & SSAC)
- Governed by a Board of Directors appointed by this community

Regional Internet Registries

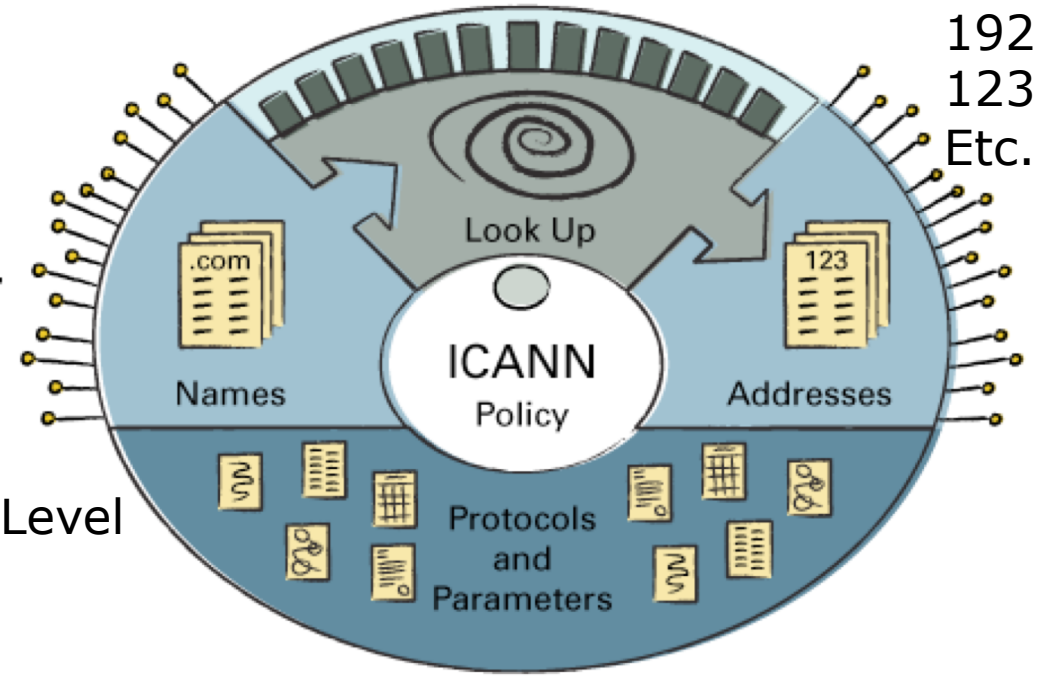
- RIRs oversee the allocation and registration of Internet number resources within a particular region of the world. (the famous IP addresses!)
- All the RIRs together form the Number Resource Organization (NRO)
  - African Network Information Centre (AfriNIC)
  - Asia Pacific Network Information Centre (APNIC)
  - American Registry for Internet Numbers (ARIN)
  - Latin American and Caribbean Internet Addresses Registry (LACNIC)
  - Réseaux IP Européens Network Coordination Centre RIPE NCC
    - http://www.nro.net/

ICANN functions

Generic Top Level Domains
- .COM
- .ORG
- .NET

New Generic TLD
- .museum
- .plumber
- etc

100's of BNs per day



192.168.100.102
123.123.123.123
Etc.

182m+

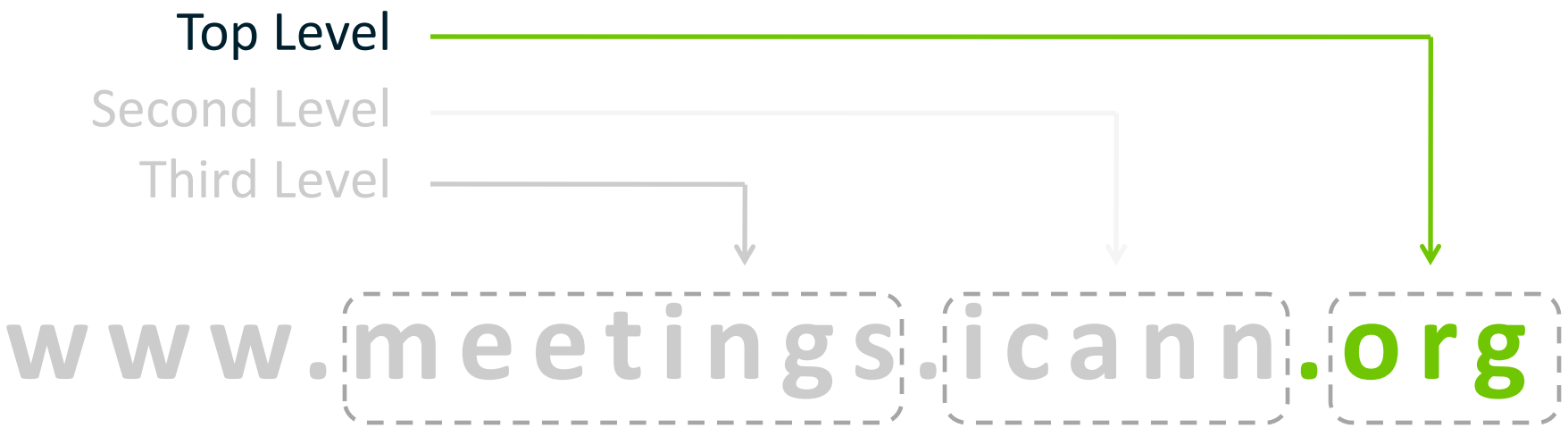
1b+

Country Code Top Level Domains
- .DE
- .UK
- .CN
- .EG
- Etc.

1k

Source: http://www.icann.org/presentations/igf-internet-ecosystem-beckstrom-15nov09-en.ppt

Anatomy of a Domain Name



Anatomy of a Domain (Continued)

- In the early days, the characters available for registering domain names were limited to a subset of ASCII characters (letters a-z, digits 0-9 and the hyphen “-“).
- In 1985, the number and characteristics of domain names have expanded.
- Today, the majority of Internet users are non- English speakers, but the dominant language used on the Internet is English.
- In 2003, the IETF released standards that provided technical guidelines for the deployment of **Internationalized Domain Names (IDN)** through a translation mechanism to support non-ASCII characters of domain names in geographically diverse local scripts
- ICANN later created a new subset of top level domain names that could be longer than 3 characters and could be in scripts other than English

Anatomy of a Domain (Continued)

- This allows website owners to create online identities that better match their requirements.
  - Examples include generic domains such as .photography and .blog; industry domains such as .bank and .insurance; geographical domains based on cities or regions, such as .london, .berlin; and brand domains, such as .bmw, .google and .apple.
- The process for registering and managing gTLDs and IDNs is the same as for traditional gTLDs.
  - It involves three key parties – registries, registrars and registrants – in addition to ICANN.
    - An Internet registry manages the administration of a domain
    - The registry certifies registrars to allocate names within a domain to registrants.
    - A registrant can be an organization or an individual who registers a domain name with online service such as websites and email.

Universal Acceptance

- These new domain names are not always universally accepted by all software, limiting the benefits from their introduction.
- Universal Acceptance (UA) refers to the process by which software and applications are updated to accept, validate, store, process, and display the new domain names correctly and consistently by all Internet-enabled applications, devices and systems.
- Today, however, organizations choosing a domain name larger than 3 characters may not be accepted by other organizations, because of a software glitch in that the other firm's website that has not been updated to accept domain names longer than 3 characters.

Universal Acceptance continued

- Many applications and services are not being updated to manage new TLDs.
- Although meaningful progress towards the implementation of UA amongst application owners has occurred, there is still several applications that do not accept the new domains.
- One of the key impediments to UA is awareness of the issue, rather than the cost of implementation.
- Often when a case is flagged the other firm works to fix it, but this takes time and months could go by where a domain will still not work until a software fix is made.
- Software and applications typically run a check to ensure that the entered domain name or email address is valid. This is to make sure that the email address is usable, and partly for security reasons, to prevent attacks being initiated by inputting harmful code instead of an email address.

Universal Acceptance continued

- Once a software and application owner has been made aware that UA is an issue, it has been able to address the problem.
  - The fix is often treated as a “bug fix” and dealt with as part of the normal software debugging and update process.
  - However, this process can take 4-6 weeks for a quick recognizable fix to months for a longer more difficult fix which involves new coding
  - 4-6 weeks on the short end and months for other solutions is an extremely long time for a non-profit and one that is very costly to them in terms of their social media planning and presence
- A final complication in the implementation of UA is in software systems that interact with each other.
  - For example, when an airline customer makes a booking for a flight, he or she provides an email address, which may use a new domain. In some cases, the email address was not transferred because of limitations of the current intercarrier network based on standards

Universal Acceptance continued

- Very small local companies, such as restaurants, tradespeople, and small shops may use third-party software which have plug-ins that create online entry forms that can verify domain names.
- Mid-sized companies and Government agencies, especially those in industries that are not very technology- oriented, are just not aware of this issues and do not have the necessary software development resources to fix this issue.

Domain Related issues

- There are three key issues that Non Profits should focus on as concerns Internet Governance, specifically Domains.
- These are:
  - Administration
  - Social Media
  - Security and Stability

Administration of Domain

- Administration
- Registering your Domain
  - Who in your organization is in charge of this?
  - Are they using a generic email address for your firm or business or a business or personal one for the admin, technical and other official contact email addresses
  - Where is this information stored?
    - Is it secure? Or just on a public Google Doc or Post-It or Bulletin Board?
    - Who knows the User ID, Password, Registry (the company who you contracted with to purchase the domain), the hoster (company who hosts your website) for all of these firms
  - Do others know the Expiration, renewal dates or payments due for the Domain?
    - Renewal of Domain and payment of hosting services
    - Who receives these email notifications?

Social Media

- Social Media
  - Who is responsible for social media for your firm?
  - What platforms are used?
  - Where is this information such as user ID and passwords stored
  - Is this information stored in a secure location or is it on a public Google Doc or paper on a bulletin board for all to see.
  - Do others who take over this assignment know where the user names and passwords are stored
  - What happens if the person who had been in charge leaves?
    - Will others be able to continue the social media presence?

Security and Stability

- Is your website and email system secure?
  - What level of security do you pay for or provide?
  - Are you aware of the costs involved in ensuring that your website is secure and that the information on it is protected?
  - Is your website Encrypted?
    - If not, are you aware of Let's Encrypt.
    - Let's Encrypt is a free, automated, and open certificate authority (CA). It allows people and organizations around the world obtain, renew, and manage SSL/TLS certificates. Their certificates can be used by websites to enable secure HTTPS connections.
      - Does your provider offer this service?
      - Is your website e-commerce ready?
  - Who in your Organization is tasked with this information and what provisions are there if this person leaves?

Annual Strategy or Planning

- Does your firm go through an annual exercise or strategic plan
- Is this information included in the plan?
  - It is important that this type of information be included in your firm's Annual Strategy or plan and be assigned to a department or division so it will be tracked
  - The Key issue here is to ensure the viability of your domain, your firm's website and your firm's email address
  - Without a definite strategy to ensuring this your firm's most important assets and ability to achieve its mission and the issues could be in danger.

Conclusions

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Thanks
Questions, Comments, Suggestions

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Extra Slides

Internet Society

- Founded in 1992
- Non-profit organisation founded to provide leadership in Internet related standards, education, and policy.
- Tagline is the Internet is for everyone and the goals is to promote the open development, evolution, and use of the Internet for the benefit of all people throughout the world
- Acts as the legal home for the IETF and the IAB
- Has chapters and special interest groups around the world spreading its mission and goals

- Internet Architecture Board
  - Is chartered as a committee of the Internet Engineering Task Force and as an advisory body of the Internet Society
  - Its responsibilities include
    - architectural oversight of IETF activities,
    - Internet Standards Process oversight and appeal
    - appointment of the RFC Editor
  - Is responsible for the management of the IETF protocol parameter registries
  - http://www.iab.org/

- Internet Engineering Task Force
- Is a large, open, global community of
  - network designers
  - operators
  - vendors
  - researchers
- Concerned with
  - the evolution of the Internet architecture
  - the smooth operation of the Internet.
- It is open to any interested individual
  - http://www.ietf.org/

World Wide Web Consortium

- The World Wide Web Consortium (W3C) is an international community working together to develop Web standards
- W3C's mission is to lead the Web to its full potential
- Led by Web inventor Tim Berners-Lee and CEO Jeffrey Jaffe