

ICANN Update and Internet Governance Overview

NANOG on the Road

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The Internet Ecosystem

- The Internet is successful in large part due to its unique model of development and deployment:
- •Open technical standards •Freely accessible processes for technology and policy development •Transparent and collaborative governance

ICANN's Role

- Dual role – technical coordination and convening role for dialog and policy development
- ICANN is responsible for coordination of the global Internet's unique identifiers; to ensure secure and stable operation of these systems
- ICANN staff does not create policy; we support and resource the worldwide community, who determine Internet policy in “bottom up” manner
- ICANN mandate is to make competition and choice available in a safe, secure operating environment. (IDN's and new gTLDs are examples)

The IANA functions at-a-glance

Draft for Discussion



IANA FUNCTIONS: THE BASICS



When you want to visit a website, you type or paste the site's domain name into your browser, or click on an html link.

That domain name is sent to a server which translates the name into a series of numbers – the Internet Protocol or IP Address - which the server uses to direct your request to the website's physical location. *This all happens in the blink of an eye.*

Those names and numbers are called "unique identifiers" and are aligned with a standard set of protocol parameters that ensure computers can talk to and understand each other.

These are part of the IANA functions, which are managed by ICANN, the Internet Corporation for Assigned Names and Numbers.

These functions aren't just limited to browsing the Internet - they also enable you to send an email or backup photos to the cloud, amongst other tasks.

1

THE HISTORY

Internet Assigned Numbers Authority

The acronym was developed when Jon Postel was administering the ARPANET, a U.S.-government-funded Department of Defense network. It was originally called The IANA, as it was just one person performing the functions.

Since then, the Internet has grown tremendously. The IANA functions are no longer managed by just one person. Instead, they are managed by ICANN.

2

THE IANA FUNCTIONS ONLINE

Coordinating the unique identifiers that make the Internet run is an important IANA function.

When a computer or device comes online, it needs to know how to talk to the other devices that are online. It is able to do so because there are standards set in place, and each device has a unique identifier.



3

NAMES AND NUMBERS

The Internet is designed to be user-friendly and simple to navigate. In performing the IANA functions, ICANN coordinates Domain Names, like www.icann.org. Each Domain Name points to a specific IP address.

icann.org } DOMAIN NAME
192.0.32.7 } IP ADDRESS

4

THE INTERNET ECOSYSTEM

The IANA functions are a major part of the Internet ecosystem, but they are just one part. Other actors play a vital role in the operation of the Internet.

ICANN, in performing the IANA functions, coordinates the unique identifiers.

ICANN performs these functions under a contract with the NTIA.

Verisign edits and publishes the authoritative root zone file.

NUMBER RESOURCES

A key IANA function is the global coordination of the Internet Protocol addressing systems, commonly known as IP Addresses. There are two types of IP addresses in active use:

IPv4

192.0.2.53

IPv6

2001:db8:582::ae33

The allocation of blocks of AS numbers to Regional Internet Registries (RIRs) is another part of this function. AS numbers are used to identify the networks that control their own routing by connecting to multiple networks controlled by other organizations.

The allocation of IP addresses and AS numbers to RIRs are made according to global policies. The five RIRs, each of which serves a continental region, establish consensus-based global policies.



Regional Internet Registries (RIRs)
Non-profit corporations that administer and register IP address space numbers within a defined region.

PROTOCOL ASSIGNMENTS

Protocol	Parameter
IANA	IANA
IANA	IANA
IANA	IANA
IANA	IANA
IANA	IANA
IANA	IANA
IANA	IANA
IANA	IANA
IANA	IANA
IANA	IANA

The Protocol Parameters management function involves maintaining many of the codes and numbers used in Internet protocols. This is done in coordination with the IETF.

Draft for Discussion

ACRONYM CHEAT SHEET

IANA: Internet Assigned Numbers Authority
ICANN: Internet Corporation for Assigned Names and Numbers
IETF: Internet Engineering Task Force
NTIA: National Telecommunications and Information Administration
DNS: Domain Name System
DNSSEC: Domain Name System Security Extensions
AS number: Autonomous System Number
TLD: Top-Level Domain

DOMAIN NAMES



Maintaining the Root Zone Database is a key IANA function. It contains the authoritative record of all the TLDs.



Part of that function is processing routine updates for TLD operators, as well as adding new TLDs into the root of the DNS.



The Root DNS Key Signing Key allows people to verify DNS answers from the root zone. DNSSEC is critical to the security of the Internet.

WHAT IS DNSSEC?

DNSSEC is a technology that digitally "signs" DNS answers so you can know they are valid. To be sure of an answer's validity, a digital signature is needed at each stage in the hierarchy from the root zone to the final domain name (e.g., www.icann.org). DNSSEC does not encrypt DNS queries or answers. It lets you know whether a DNS answer is valid.

NTIA

Protocol	Parameter
IANA	IANA
IANA	IANA
IANA	IANA
IANA	IANA
IANA	IANA
IANA	IANA
IANA	IANA
IANA	IANA
IANA	IANA
IANA	IANA

ICANN currently performs the IANA functions on behalf of the global Internet community under a contract from the United States' Department of Commerce.

NTIA, an agency of the Department of Commerce, performs a process check before authorizing changes to the DNS's authoritative root zone file.

For more information, visit www.icann.org



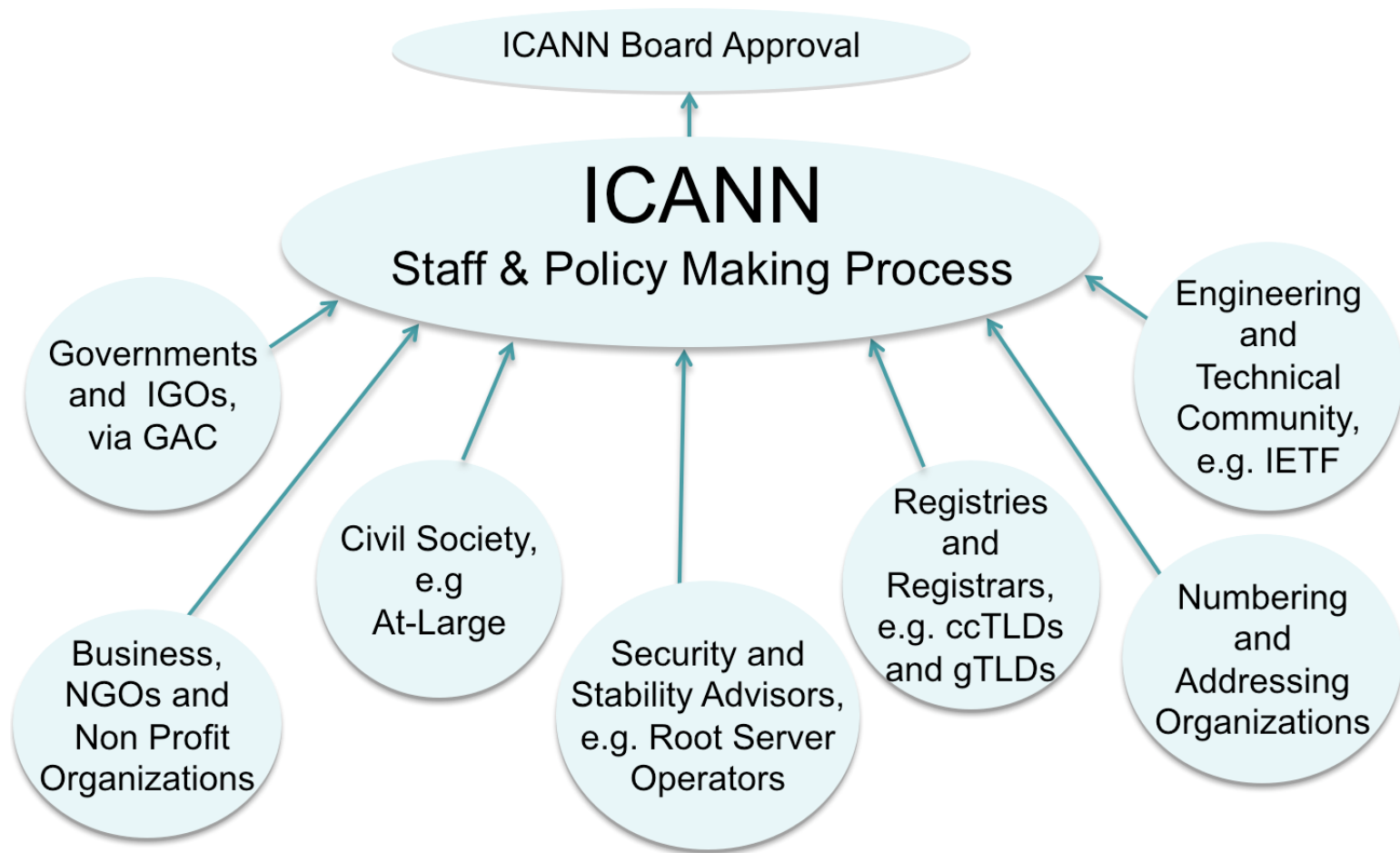
Functions That ICANN Coordinates

- Domain Name System
- Country Code Top-Level Domains (ccTLDs)
- Root Zone and other Infrastructure domains
- Internet Protocol (IP) Address Allocation
- Protocol Parameter Registries
- Other minor functions (e.g. Time Zone Database)

How does ICANN work?

- Bottom-up consensus building model
 - Governments
 - Private sector
 - Technical community
 - Users
- Internationally diverse Board of Directors overseeing the policy development process
- President & CEO, staff

Multistakeholder model



ICANN's role in Internet Governance

- A critical phase for Internet Governance - Regionally and Globally
- ICANN has interests in several different “tracks”
- Let us divide it into three main avenues (wider than “tracks”)

The U.S. government's announcement

- + On 14 March 2014, the U.S. Government (USG) announced its intent to transition its stewardship of the IANA functions to the global multistakeholder community;
- + As the first step, it asked ICANN to convene global stakeholders to develop a proposal to transition the current role played by the USG;
- + ICANN was asked to serve as a convener based on its role as the IANA functions administrator (since 1998) and the global coordinator for the Internet's Domain Name System (DNS).
- + The multistakeholder community has set the policies implemented by ICANN for more than 15 years.

NetMundial Update - Participation

Outcome document was the result of:



- 188 submissions; 1300 on line comments
- 10 global hubs for remote participation in the conference
- Live streaming on YouTube
- meeting attended by 1,229 participants from 97 countries.
- 77 countries took delegations with ministerial representatives

Heavy Media and Social Media coverage:

- #netmundial2014 was trending topic on day 1 of the meeting
- “Internet Governance” had 1,026 mentions on the first day
- Global and regional, On-line and print media had NetMundial stories
- A quick snapshot of the global media highlights by the Monday after the event shows more than 80 articles in English; 47 in the LAC region in Spanish/ Portuguese, 47 in EMEA region, 36 in the APAC region

Three important upcoming IG events:

1. WSIS +10 Review (ITU)

- ITU will host the second WSIS+10 Review meeting from 9-13 June in Geneva; (the first review meeting was held by UNESCO in March 2013) ;

High Level Event will adopt a Background Document on Implementation of WSIS Action Lines and a Vision document for WSIS post 2015 - looking forward;

ICANN involved in the mutli-stakeholder Preparation Phase - 6 meetings – for documents that will be “adopted” at HLE;

Fadi Chehade invited to speak in HL Opening (10th June); ICANN will also run workshop on IG;

Output from meeting will be a contribution for expected UNGA Summitt / High Level Event in 2015;

Three important upcoming IG events :

2. IGF in Istanbul Sept 2-5

- High Level Ministerial will be held Monday 1 September before the IGF; IGF will be 2-5 September
- 8 possible sub-themes for the IGF were identified:
 1. policies enabling access;
 2. content creation, dissemination, and use;
 3. Internet as an engine for growth and development;
 4. IGF and the future of the Internet ecosystem;
 5. Enhancing digital trust;
 6. Internet and Human Rights;
 7. Critical Internet Resources;
 8. Emerging issues
- 221 proposed workshops submitted – final conference can only have between 80 and 100 workshops
- ICANN submitted two workshop proposals:
 - ICANN globalization in an evolving IG ecosystem
 - Global public interest of the Internet (on behalf of the public responsibility panel)
- ICANN will also organize an Open Forum; (discussion topics TBD)
- There will be a main session on the transition of the the USG stewardship of the IANA function; we are coordinating closely with other community members

Three important upcoming IG events :

3. ITU Plenipot 2014 in Busan; Korea

- PP-14 (four-yearly event) in Busan from 20 October to 7 November;
- Will feature elections for of SG; DSG and Director for ITU-T; and approval of Strategic Plan, budget and adoption of new or amended Resolutions
- Significant changes to Consitution (such as changing scope of work) currently seen as unlikely; IG discusion will focus on current Resolutions (from PP-10) such as 101, 102 and 130;
- PP-14 presents an opportunity for achieving a clear recognition of the Technical Community Role; downside risk of text mandating greater ITU role in IG issues;
- ICANN is examining participation via Korean host country exhibition and side events to show presence
- ICANN will be involved in regional engagement especially in Africa and Latin America to promote the outcome of the NetMundial and the upcoming HLP; there will be targeted activities with country officials to help in Busan
- ICANN will continue to implement our plan for strong engagement with the identified 20 middle countries worldwide

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Thank you!

Questions?

