Internet Corporation for Assigned Names and Numbers

ICANN

About

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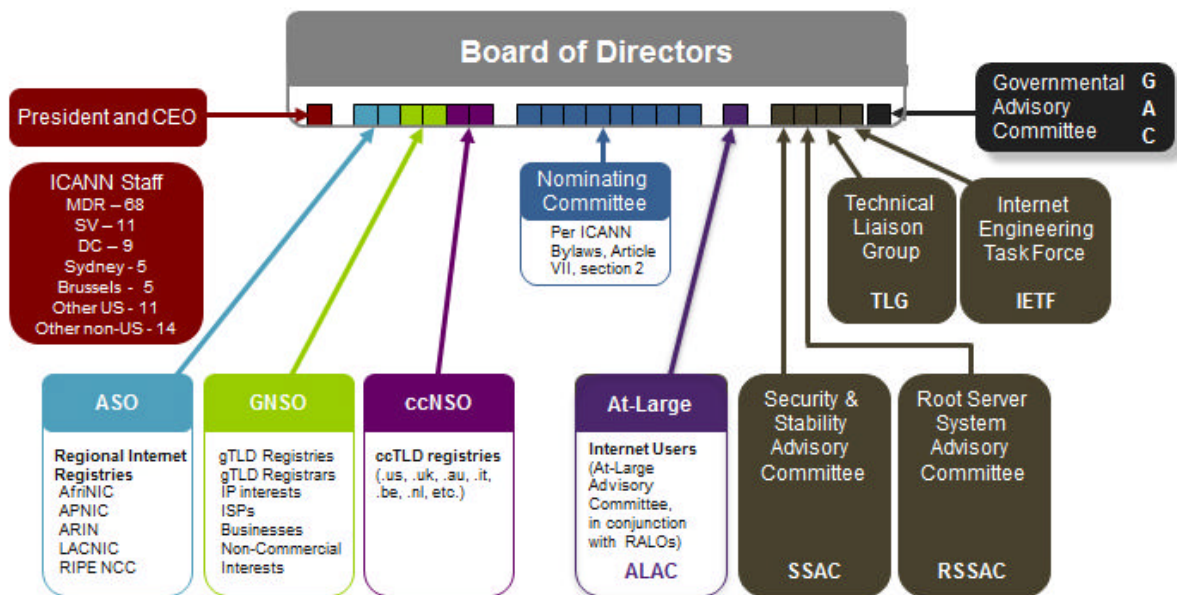
ICANN was formed in 1998. It is a not-for-profit public-benefit corporation with participants from all over the world dedicated to keeping the Internet secure, stable and interoperable. It promotes competition and develops policy on the Internet's unique identifiers.

ICANN doesn't control content on the Internet. It cannot stop spam and it doesn't deal with access to the Internet. But through its coordination role of the Internet's naming system, it does have an important impact on the expansion and evolution of the Internet.

Organization Structure

Structure

ICANN Multi-Stakeholder Model

Board of Directors

President and CEO

ICANN Staff
MDR – 68
SV – 11
DC – 9
Sydney - 5
Brussels - 5
Other US - 11
Other non-US - 14

Governmental Advisory Committee — GAC

Nominating Committee
Per ICANN Bylaws, Article VII, section 2

Technical Liaison Group — TLG

Internet Engineering Task Force — IETF

ASO
Regional Internet Registries
AfriNIC
APNIC
ARIN
LACNIC
RIPE NCC

GNSO
gTLD Registries
gTLD Registrars
IP interests
ISPs
Businesses
Non-Commercial Interests

ccNSO
ccTLD registries
(.us, .uk, .au, .it, .be, .nl, etc.)

At-Large
Internet Users
(At-Large Advisory Committee, in conjunction with RALOs)
ALAC

Security & Stability Advisory Committee
SSAC

Root Server System Advisory Committee
RSSAC

What Does ICANN Do?

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What is the domain name system?

The domain name system, or DNS, is a system designed to make the Internet accessible to human beings. The main way computers that make up the Internet find one another is through a series of numbers, with each number (called an "IP address") correlating to a different device. However it is difficult for the human mind to remember long lists of numbers so the DNS uses letters rather than numbers, and then links a precise series of letters with a precise series of numbers.

The end result is that ICANN's website can be found at "icann.org" rather than "192.0.34.163" – which is how computers on the network know it. One advantage to this system – apart from making the network much easier to use for people – is that a particular domain name does not have to be tied to one particular computer because the link between a particular domain and a particular IP address can be changed quickly and easily. This change will then be recognised by the entire Internet within 48 hours thanks to the constantly updating DNS infrastructure. The result is an extremely flexible system.

A domain name itself comprises two elements: before and after "the dot". The part to the right of the dot, such as "com", "net", "org" and so on, is known as a "top-level domain" or TLD. One company in each case (called a registry), is in charge of all domains ending with that particular TLD and has access to a full list of domains directly under that name, as well as the IP addresses with which those names are associated. The part before the dot is the domain name that you register and which is then used to provide online systems such as websites, email and so on. These domains are sold by a large number of "registrars", free to charge whatever they wish, although in each case they pay a set per-domain fee to the particular registry under whose name the domain is being registered.

ICANN draws up contracts with each registry*. It also runs an accreditation system for registrars. It is these contracts that provide a consistent and stable environment for the domain name system, and hence the Internet.

In summary then, the DNS provides an addressing system for the Internet so people can find particular websites. It is also the basis for email and many other online uses.

What does ICANN have to do with IP addresses?

ICANN plays a similar administrative role with the IP addresses used by computers as it does with the domain names used by humans. In the same way that you cannot have two domain names the same (otherwise you never know where you would end up), for the same reason it is also not possible for there to be two IP addresses the same.

Again, ICANN does not run the system, but it does help co-ordinate how IP addresses are supplied to avoid repetition or clashes. ICANN is also the central repository for IP addresses, from which ranges are supplied to regional registries who in turn distribute them to network providers.

What about root servers?

Root servers are a different case again. There are 13 root servers – or, more accurately, there are 13 IP addresses on the Internet where root servers can be found (the servers that have one of the 13 IP addresses can be in dozens of different physical locations). These servers all store a copy of the same file which acts as the main index to the Internet's address books. It lists an address for each top-level domain (.com, .de, etc) where that registry's own address book can be found.

In reality, the root servers are consulted fairly infrequently (considering the size of the Internet) because once computers on the network know the address of a particular top-level domain they retain it, checking back only occasionally to make sure the address hasn't changed. Nonetheless, the root servers remain vital for the Internet's smooth functioning.

The operators of the root servers remain largely autonomous, but at the same time work with one another and with ICANN to make sure the system stays up-to-date with the Internet's advances and changes.

What is ICANN's role?

As mentioned earlier, ICANN's role is to oversee the huge and complex interconnected network of unique identifiers that allow computers on the Internet to find one another.

This is commonly termed "universal resolvability" and means that wherever you are on the network – and hence the world – that you receive the same predictable results when you access the network. Without this, you could end up with an Internet that worked entirely differently depending on your location on the globe.

How is ICANN structured?

ICANN is made up of a number of different groups, each of which represent a different interest on the Internet and all of which contribute to any final decisions that ICANN's makes.

There are three "supporting organisations" that represent:

- The organisations that deal with IP addresses

- The organisations that deal with domain names

- The managers of country code top-level domains (a special exception as explained at the bottom).

Then there are four "advisory committees" that provide ICANN with advice and recommendations. These represent:

- Governments and international treaty organisations

- Root server operators

- Those concerned with the Internet's security

- The "at large" community, meaning average Internet users.

And finally, there is a Technical Liaison Group, which works with the organisations that devise the basic protocols for Internet technologies.

ICANN's final decisions are made by a Board of Directors. The Board is made up of 21 members: 15 of which have voting rights and six are non-voting liaisons. The majority of the voting members (eight of them) are chosen by an independent Nominating Committee and the remainder are nominated members from supporting organisations.

ICANN then has a President and CEO who is also a Board member and who directs the work of ICANN staff, who are based across the globe and help co-ordinate, manage and finally implement all the different discussions and decisions made by the supporting organisations and advisory committees. An ICANN Ombudsman acts as an independent reviewer of the work of the ICANN staff and Board.

How does ICANN make decisions?

When it comes to making technical changes to the Internet, here is a simplified rundown of the process:

Any issue of concern or suggested changes to the existing network is typically raised within one of the supporting organisations (often following a report by one of the advisory committees), where it is discussed and a report produced which is then put out for public review. If the suggested changes impact on any other group within ICANN's system, that group also reviews the suggested changes and makes its views known. The result is then put out for public review a second time.

At the end of that process, the ICANN Board is provided with a report outlining all the previous discussions and with a list of recommendations. The Board then discusses the matter and either approves the changes, approves some and rejects others, rejects all of them, or sends the issue

back down to one of the supporting organisations to review, often with an explanation as to what the problems are that need to be resolved before it can be approved.

The process is then rerun until all the different parts of ICANN can agree a compromise or the Board of Directors make a decision on a report it is presented with.

How is ICANN held accountable?

ICANN has external as well as internal accountabilities.

Externally, ICANN is an organisation incorporated under the law of the State of California in the United States. That means ICANN must abide by the laws of the United States and can be called to account by the judicial system i.e. ICANN can be taken to court.

ICANN is also a non-profit public benefit corporation and its directors are legally responsible for upholding their duties under corporation law.

Internally, ICANN is accountable to the community through:

- Its bylaws

- The representative composition of the ICANN Board from across the globe

- An independent Nominating Committee that selects a majority of the voting Board members

- Senior staff who must be elected annually by the Board

- Three different dispute resolution procedures (Board reconsideration committee; Independent Review Panel; Ombudsman)

The full range of ICANN's accountability and transparency frameworks and principles are available online [http://www.icann.org/en/accountability/frameworks-principles/contents-overview.htm].

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* There is an important exception to this in the form of "country code top-level domains" (ccTLDs) such as .de for Germany or .uk for the United Kingdom. There are over 250 ccTLDs, some of which have a contract with ICANN; others of which have signed working agreements with ICANN; and some of which have yet to enter any formal agreement with ICANN. ICANN however does carry out what is known as the "IANA function" in which every ccTLD's main address is listed so the rest of the Internet can find it. ICANN is also in the position where it can add new TLDs to the wider system, as it did in 2000 and 2004 when seven and six new TLDs respectively were "added to the root".

What's the effect of ICANN's role and work on the Internet?

ICANN plays a unique role in the infrastructure of the Internet. Through its contracts with registries (such as dot-com or dot-info) and registrars (companies that sell domains names to individuals and organisations), ICANN helps define how the domain name system functions and expands.

Registrars

ICANN created the registrar market (together with an accreditation system) in order to introduce greater competition on the Internet. The result has been several hundred companies able to sell domains which itself led to a dramatic reduction in the cost of domains - an 80 percent fall. There is now a diverse and vibrant market in the supply of the Internet's basic building block.

That accreditation process is currently undergoing reform in order to keep in up-to-date with a rapidly changing domain name market.

Dispute resolution

ICANN helped design and implement a low-cost system for resolving disputes over domain name ownership. The Uniform Domain Name Dispute Resolution Policy (UDRP) has been used tens of thousands of times to resolve ownership disputes, avoiding the need for costly and complex recourse to the courts.

New top-level domains

ICANN approves the introduction of new "generic top-level domains" to the Internet - a process that expands the online space available. So far, ICANN has introduced 13 new top-level domains to the Internet, ranging from dot-asia to dot-travel, accounting for over six million domains. ICANN has also developed a refined process to introduce further TLDs that is being finalised with applications expected in early 2010.

Internationalized domain names

Through its decision-making processes, ICANN has adopted guidelines for the introduction of internationalised domain names (IDNs), opening the way for domain registrations in hundreds of the world's languages - something that will expand the use and the influence of the Internet globally to new heights.

What's Going on Now?

At any given time, ICANN is likely to be reviewing a number of different elements of the Internet's system. On top of that, due to the ever-changing nature of the Internet itself, ICANN is frequently changing and reviewing its structure and processes in order to keep it up to speed.

One of the easiest ways to review what is going on at this very moment is to check out what is currently undergoing a public comment period. All substantial policy changes - including drafts

of documents - are put out for public comment, where any interested observer can make their views known. These public comments period can all be viewed at one webpage found at http://www.icann.org/en/public-comment/.

On that page, you will see all open comment forums, those recently closed, upcoming forums and an archive of forums. An explanation of each forum is given, together with relevant links to other resources. All comments sent to ICANN are published and a summary/analysis of the comments carried out at the end of the period.

Supporting Organisations

On either side of the public comment forums are ICANN's supporting organisations and advisory committees, who are responsible for originating ideas and proposals, as well as commenting on others', and ultimately seeing policies through to their conclusion - approval by the ICANN Board. Each constituency has its own website, which details what it is currently reviewing, as well as what is coming up, and what was recently decided upon (the full structure is here [http://www.icann.org/en/structure/]).

Blog

For timely events and other issues that crop up by which is unlikely to form part of a formal decision-making process, ICANN also has a blog [http://blog.icann.org/]. Staff and key individuals in the ICANN community post news, reviews and simply interesting information on the blog, which is open to all and which welcomes comments from across the Internet.

Public Participation Site

There is also a public participation site [http://meetings.icann.org/], where the Internet community is encouraged to post comments, concerns and ideas on what is going on within and surrounding the Internet's infrastructure. The participation is free and open, and anyone that signs up is provided with full posting rights to the site's multitude of pages, forums and chatrooms.

ICANN Board

The ICANN Board is the body ultimately responsible for making decisions. The Board typically meets once a month, with details of upcoming meetings and their agenda (when available) all available on a single webpage. That page also provide lengthy minutes of past meetings and transcripts in the case of public Board meetings.

Announcements and Meetings

All formal announcements made by the organisation are put on its own Announcements webpage, with a news alert service sending out automated emails every time there is a new piece of news. And finally, there are ICANN public meetings, which take place over a week and see the ICANN community come together at locations across the world in order to discuss issues face-to-face.

How do I participate?

In answer to the question: What is going on now?, a number of resources including the public comment webpage, ICANN blog, public participation site and meetings sites were listed.

Each of these pages also allow for direct and immediate interaction into ICANN's processes. Each public comment box provide a clickable email address where your comments will be sent straight through the public comment forum. All comments made will be reviewed by ICANN staff and included in a summary/analysis at the close of the forum. That summary will then be provided to the body in question and that body will be asked to explicitly refer to it during subsequent discussions.

The blog allows any individual to make their point in response to a posting direct to the author and the organisation - and in most cases receive a quick response. So if you wish to make a point or draw ICANN's attention to something you think it may have missed this is a direct route into the process. Likewise, the public participation site aims to provides a similar service within the wider community. Staff review the site and any questions or concerns are swiftly dealt with.

If you would prefer to make your point in the real world, then the ICANN meetings are free and open to all. At each ICANN meeting, there are two public forums on the first and penultimate day that are specifically set aside for anyone that wishes to raise a point to walk up to the microphone and talk directly to Board members. The vast majority of the other meetings are also open, and often welcome new and interested members.

If you wish to attend an ICANN meeting but funding is an issue, ICANN runs a Fellowship programme that covers the cost of approximately 25 individuals each meeting. For more details on this programme and how to apply, go here [http://www.icann.org/en/fellowships/].

You needn't even physically be at a meeting in order to have your voice heard. Each meeting has its own interactive website that provides a separate webpage for each meeting during the week. That page is updated with people's presentations, a chatroom, plus - if available - live audio and video. In most of the main meetings, comments placed online are reviewed by someone in the room and are read out to the meeting as a whole.

There is also an online question box that receives questions for the staff and Board one month out from an international public meeting. Recently ICANN has been using video conferencing software that lets you see and hear events live, plus see presentations and ask questions online.

Supporting organisations and advisory committees

If you wish to get more deeply involved in drawing up documents, rather than commenting on the results of others' work, the solution is to join one of ICANN's supporting organisations or advisory committees.

There are a number of organisations and committees (the full structure is here [http://www.icann.org/en/structure/]), and you can join whichever most relates to your input -

whether as an ISP, a non-commerical company, or just a member of the public. Other members will help explain how ICANN works and how to make the most of your input.

There are three Supporting Organizations and four Advisory Committees, each is explained below with links to their websites where you can find out more about how to join:

GENERIC NAMES SUPPORTING ORGANIZATION (GNSO)

The GNSO is the main policy-making body of ICANN and comprises of four main groups: registries (companies running generic top-level domains (gTLDs) such as VeriSign for dot-com or Afilias for dot-info); registrars (companies that sell registrations of particular domains e.g. icann.org); commercial users of the Internet; and non-commercial users of the Internet.

The GNSO is currently undergoing significant change following an extensive independent review process. As such the information presented below is liable to change and you should check the GNSO website for the latest information on which body is most suitable for you to join.

Commercial and Business Users Constituency (external site)

The business constituency is the voice of commercial Internet users within ICANN. You can find out more about how to join on the constituency's website, where you can also follow its work. Membership fees apply, ranging from €160 to €1,000 in 2009.

Non-Commercial Users Constituency (external site)

The non-commercial users constituency is the home for civil society organizations and individuals within ICANN. So long as you are a non-commercial user or organization ou can fill in an online application form to join. Membership fees for 2009 are $50 or $100 depending on the size of your organization; there is also a fee waiver or reduction option. The NCUC's work can be followed on its site.

gTLD Registries Constituency (external site)

The registries constituency represents those running gTLD registries. You have to be a registry under contract with ICANN to join and members meet bi-weekly.

Registrars Constituency (external site)

The registrars constituency represents companies that register domains for Internet users for a fee. You have to be an ICANN-accredited registrar to join. There is annual membership fee of $500 (as of August 2009). More details on how to join are on the constituency's website.

Intellectual Property Constituency (external site)

The IPC represents intellectual property interests within ICANN. To join you can be either an international or national intellectual property organization, a company with a demonstrated interest in intellectual property issues, or an individual with a demonstrated interest in the protection of intellectual property. Each group has its own application form and fees vary from $75 to $900 (as of August 2009) depending on which group you belong to.

Internet Service and Connection Providers Constituency (external site)

The ISPCP represents Internet service providers and connectivity providers and you must be an ISP or connectivity provider as well as agreement to participate regularly within the ISPCP. Applicants send the secretariat an email outlining their credentials. Statements, notes and meeting minutes can all be found on the ISPCP's website.

AT LARGE ADVISORY COMMITTEE (ALAC)

The ALAC is the body that represents the interests of individual Internet users within ICANN.

Global users are represented through small self-forming groups called At Large Structures (ALSes) who are themselves part of Regional At Large Organizations (RALOs).

Any group that supports individuals' ability to share their views on ICANN issues, and that meets a few criteria can register to be an At-Large Structure. Examples include: professional societies; academic and research organizations; community networking groups; consumer advocacy groups; Internet Society chapters; Computer user organizations and Internet civil society groups. There is no application or membership fee.

More information on the application process, including downloadable application forms can be found on the At Large website.

The RALOs also have their own regional websites (external sites):

Africa | Asia-Pacific | Europe | Latin America | North America

COUNTRY CODE NAMES SUPPORTING ORGANIZATION (ccNSO)

The ccNSO represents the managers of country-code top-level domains (ccTLDs) such as Britain's dot-uk registry or Germany's dot-de registry. You have to be a ccTLD manager to join. If you are, an online application form is available. Membership is free. You can follow the ccNSO's work through its website, for example through its Council minutes.

GOVERNMENTAL ADVISORY COMMITTEE (GAC)

The GAC represents governments and governmental organizations. You need to be a formally acknowledged representative of a government or interational organization to become a member. You can email the GAC's secretariat for more information.

ADDRESS SUPPORTING ORGANIZATION (ASO)

The ASO represents the Regional Internet Registries (RIRs) - companies that oversee the allocation of Internet number resources in particular geographic regions. You would need to be an RIR to join the ASO, however you can follow their work online through its mailing lists.

SECURITY AND STABILITY ADVISORY COMMITTEE (SSAC)

The SSAC advises the ICANN community and Board on matters relating to the security and integrity of the Internet's naming and address allocation systems. It is an invited-members-only organization. The SSAC produces reports and advisories [http://www.icann.org/en/committees/security/ssac-documents.htm] on technical aspects of the Internet's security and stability.

If you care about the Internet and how it evolves, your voice will only be heard if you get involved, so please do take advantage of the different ways there are to interact with ICANN. We look forward to seeing you.