

# ICANN and Internet Governance



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18 March 2020

# Key Internet Moments 1969-2004

# History of the Internet Part I

1969



ARPANET, first network run on packet switching technology, created

1974



Transmission Control Protocol/Internet Protocol (TCP/IP) designed by Vint Cerf and Bob Kahn

1989

HTTP://

Tim Berners-Lee invents World Wide Web and HTTP

1993



Mosaic Browser released, popularized the WWW

# History of the Internet Part II

1998



ICANN incorporated  
in California

1998



Google founded

2001



Wikipedia launched

2004

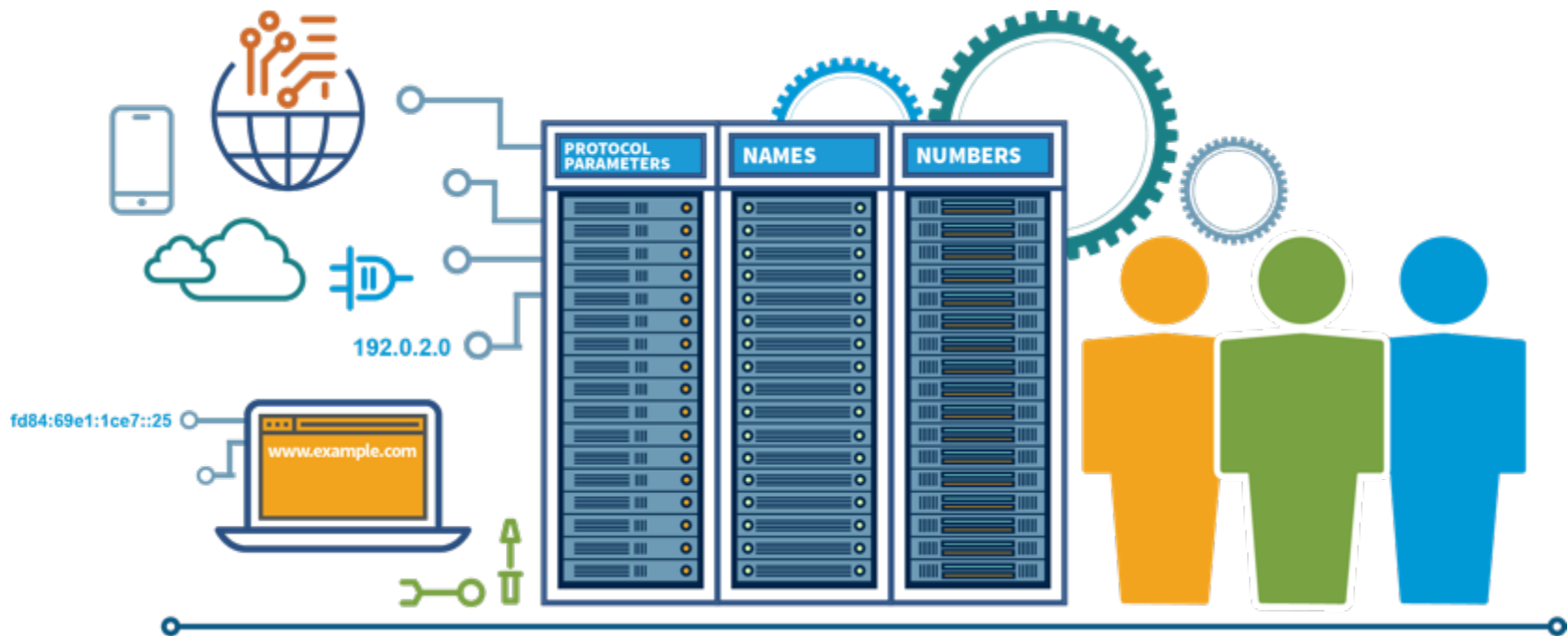


Mark Zuckerberg  
launches Facebook  
in Cambridge, MA

# ICANN and the Broader Internet Ecosystem

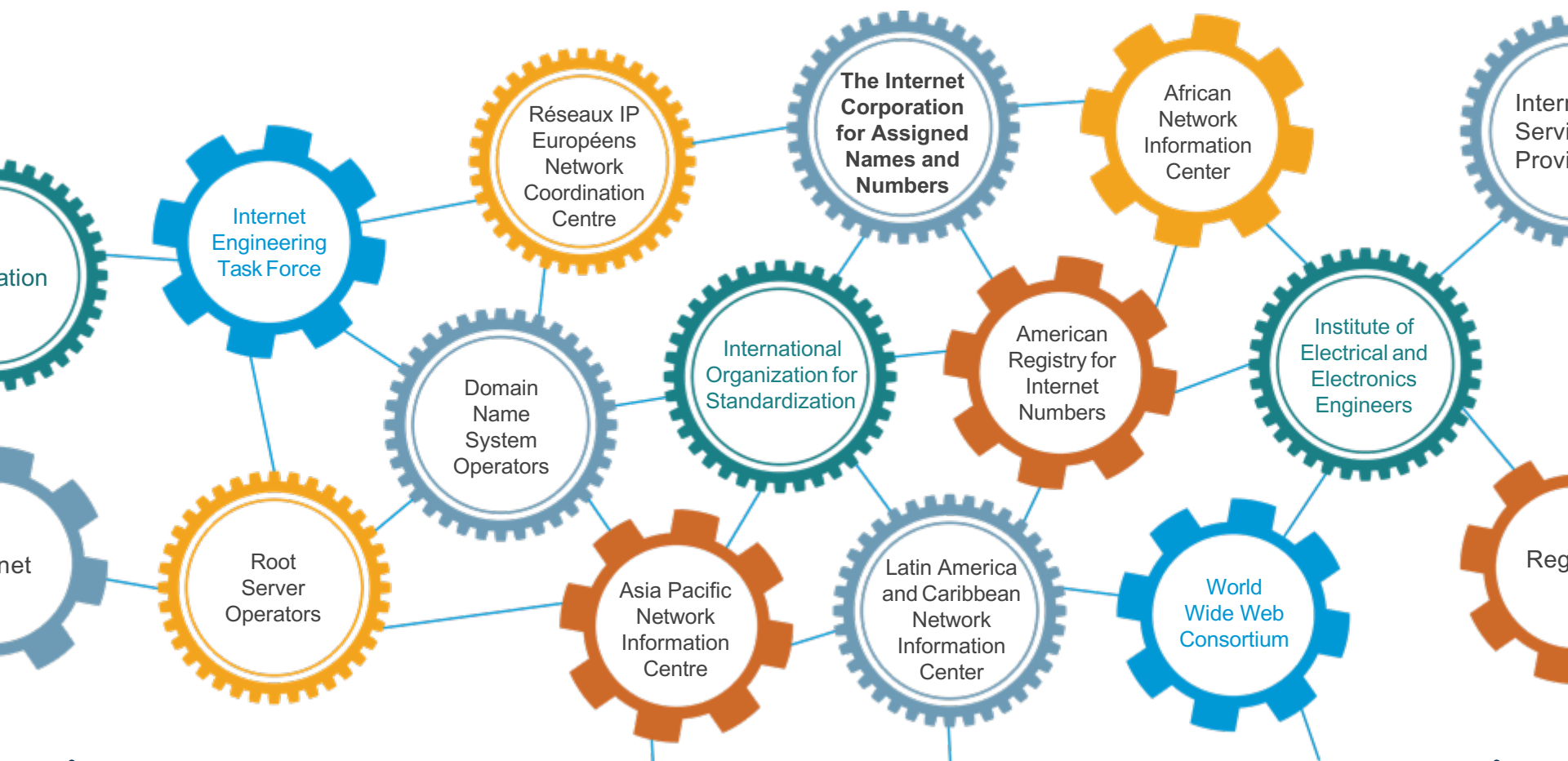
# Overview

Coordinating with our partners,  
we help make the Internet work.



# Our Technical Partners

Coordinating with our technical partners,  
we help make the Internet work.



# Our Other Partners

We all work together in different ways to help make the Internet work.





# Mission, Values, and Role

# Unique Names and Numbers

Anything connected to the Internet – including computers, mobile phones and other devices – has a unique number called its IP address. IP stands for Internet Protocol.



This address is like a postal address. It allows messages, videos and other packets of data to be sent from anywhere on the Internet to the device that has been uniquely identified by its IP address.






IP addresses can be difficult to remember, so instead of numbers, the Internet's domain name system uses letters, numbers and hyphens, to form a name that is easier to remember.



# ICANN's Mission

The mission of the Internet Corporation for Assigned Names and Numbers (ICANN) is to **ensure the stable and secure operation of the Internet's unique identifier systems**


**Specifically, ICANN:**


-  Coordinates the allocation and assignment of names in the root zone of the Domain Name System
-  Coordinates the development and implementation of policies concerning the registration of second-level domain names in generic top-level domains (gTLDs)
-  Facilitates the coordination of the operation and evolution of the DNS root name server system
-  Coordinates the allocation and assignment at the top-most level of Internet Protocol numbers and Autonomous System numbers
-  Collaborates with other bodies as appropriate to provide registries needed for the functioning of the Internet as specified by Internet protocol standards development organizations


# ICANN's Mission

In performing its Mission, ICANN will act in a manner that complies with and reflects ICANN's Commitments and respects ICANN's Core Values

These Commitments and Core Values include:

- 

Preserving and enhancing **stability, security, resiliency, and openness** of the DNS and the Internet
- 

Employing **open, transparent and bottom-up**, multistakeholder policy development processes that are led by the private sector
- 

Operating with **efficiency and excellence**, in a fiscally responsible and accountable manner



Learn more ►

[www.icann.org](http://www.icann.org)

# Some of What ICANN Organization Does



## Domain Name System

The domain name system provides addressing for the Internet so people can find websites, send email, and other tasks. The ICANN organization also supports the stability of the DNS through its work, and also its contracts and accreditations.



## Policy Development

The ICANN organization supports inclusive, open and transparent multi-stakeholder bottom-up consensus based policy development mechanisms.



## L-Root

The ICANN organization hosts and supports one of the 13 L-Root infrastructures. At over 160 locations worldwide, L-Root is critical to infrastructure that helps reduce latency and improves performance of the DNS.



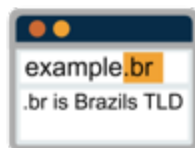
## Support and Grow the Community

The ICANN organization engages, nurtures and supports interested stakeholders for active and meaningful participation in ICANN. ICANN connects with stakeholders through outreach and engagement, and meeting & event support.



## Generic Top-Level Domains

The ICANN organization manages the domain name system's top-level domains. ICANN helps promotes competition and choice in the gTLD marketplace.



## Country Code Top-Level Domains

The ICANN organization delegates top-level domains identified with a country code. Management is done by national ccTLD operators.



## Protocol Parameters

The ICANN organization, in coordination with the Internet Engineering Task Force, manages protocol parameters by maintaining many of the codes and numbers used in Internet protocols.



## Internet Protocol Addresses

By serving as the central repository for IP addresses, the ICANN organization helps coordinate how IP addresses are supplied – preventing repetition and conflicts.



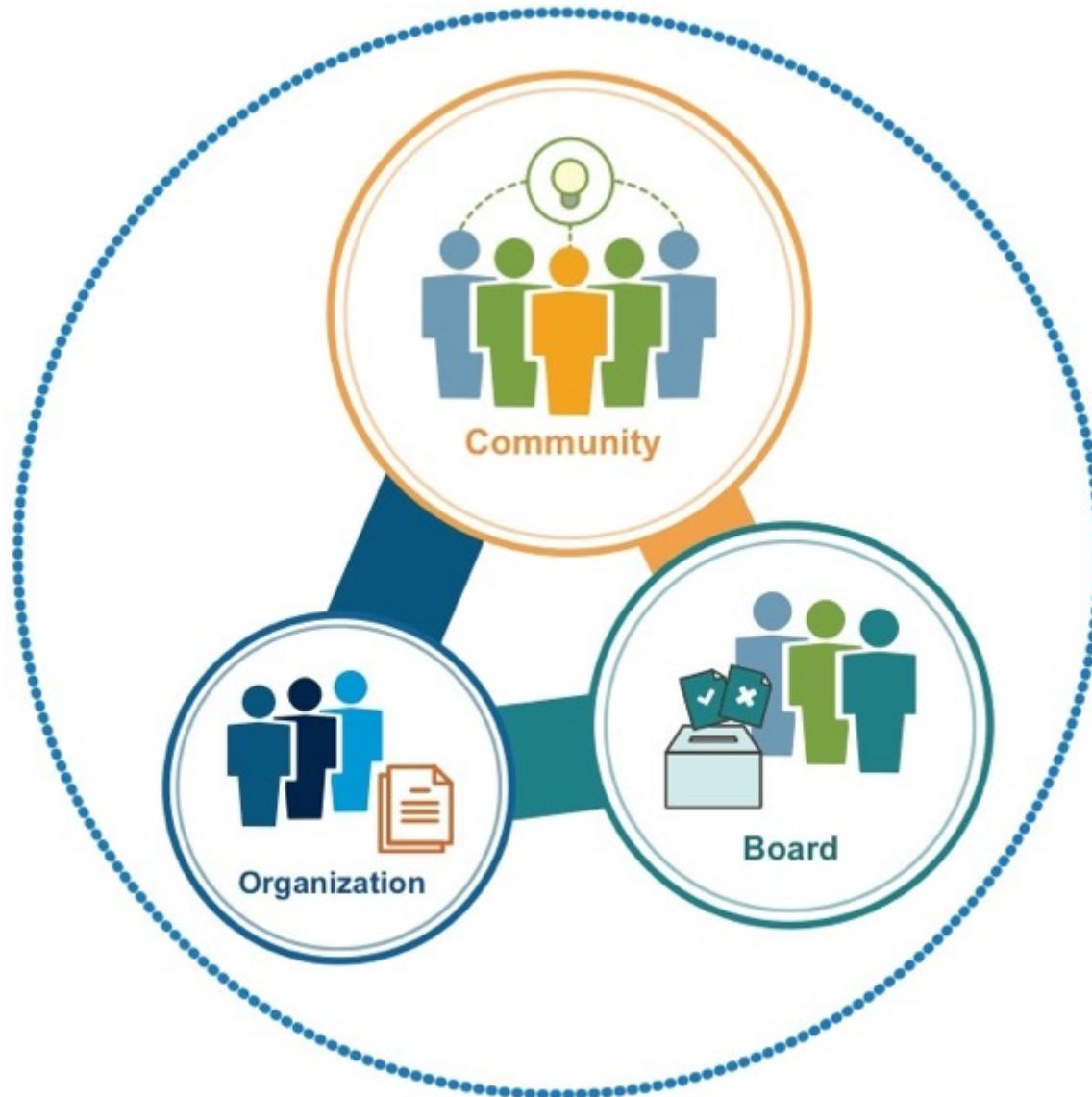
## Root Zone Management

The ICANN organization helps manage the root zone through the IANA functions, which involves assigning the operators of top-level domains, such as .bank and .com, and maintaining the technical and administrative details.

IANA functions

# What is ICANN?

# ICANN Ecosystem

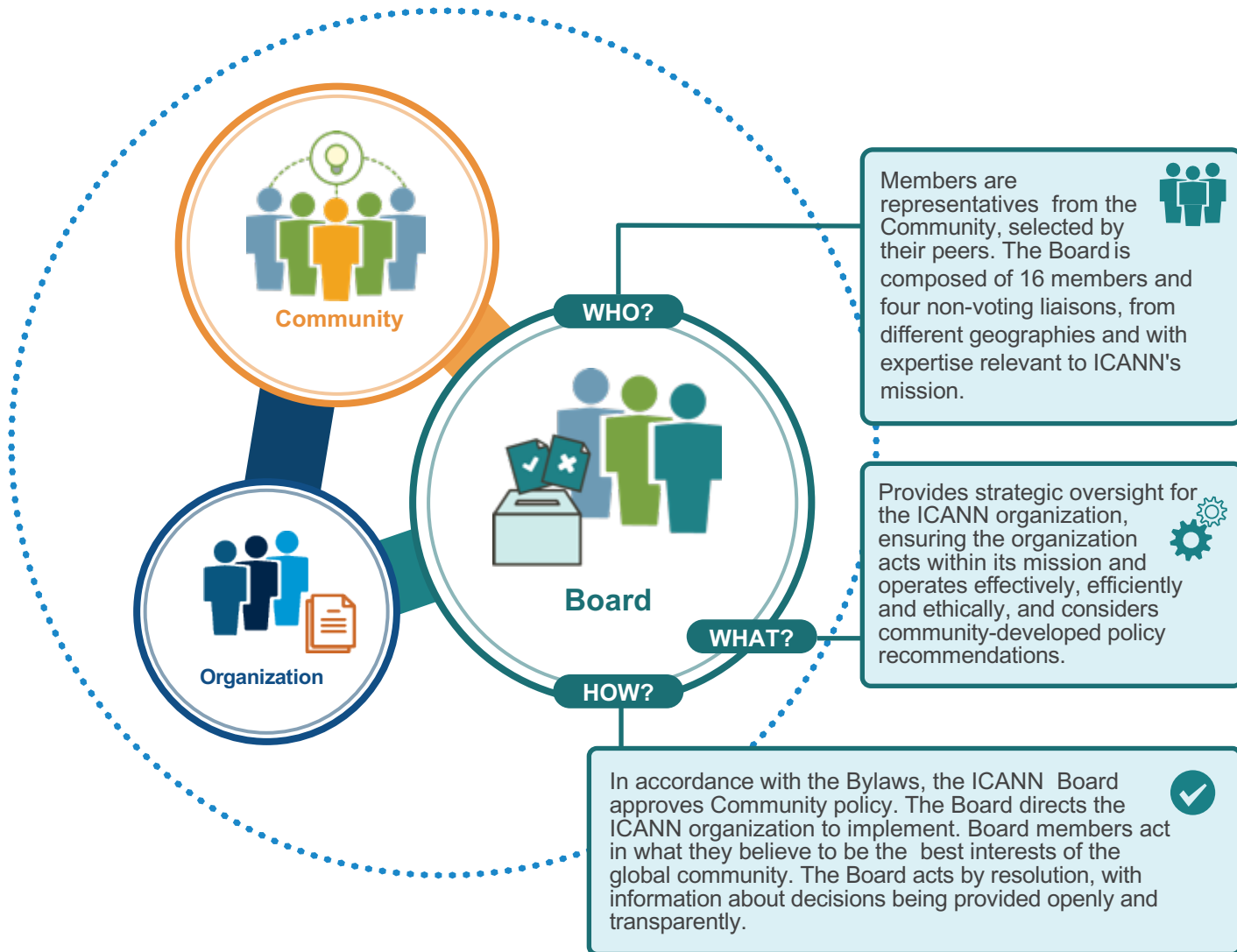


# The ICANN Community



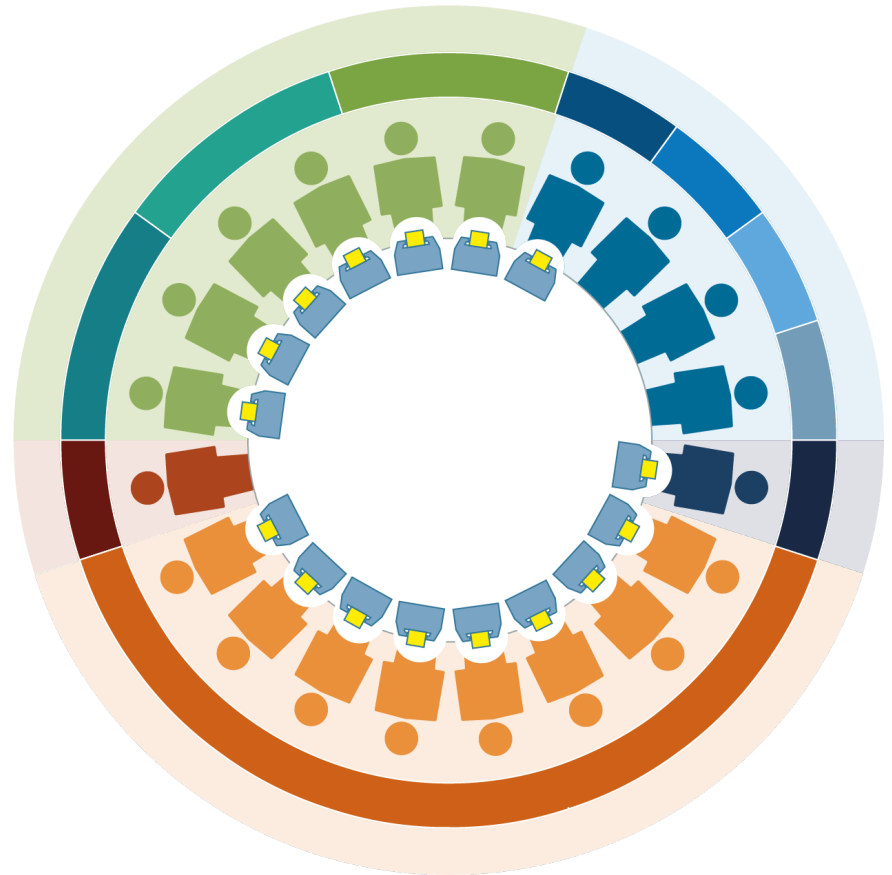


# The ICANN Board



# What is the ICANN Board and What Does It Do?

The ICANN Board is a group of representatives from the ICANN community. The Board provides the ICANN organization's strategic oversight, ensuring that it acts within its mission and operates effectively, efficiently, and ethically. The Board also oversees and considers community-developed policy recommendations.



# Who Makes Up the ICANN Board?

Members are representatives from the community, selected in a bottom-up approach by their peers. The Board is composed of 16 directors and 4 non-voting liaisons, from different geographies and with expertise relevant to ICANN's mission.

## SUPPORTING ORGANIZATION (SO) APPOINTEES:

Each of the three SOs nominates two directors:

The Address Supporting Organization (**ASO**)

The Country Code Names  
Supporting Organization (**ccNSO**)

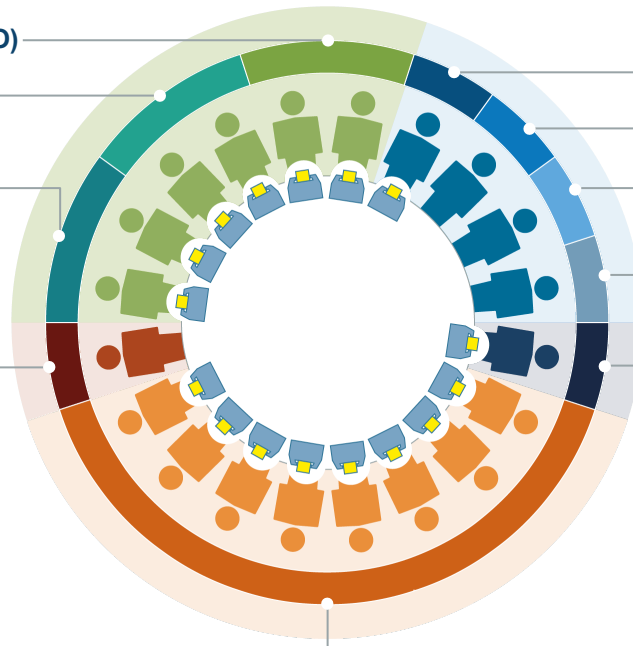
The Generic Names Supporting  
Organizations (**GNSO**)

## INTERNET ENGINEERING TASK FORCE (IETF) APPOINTEE:

The IETF nominates one  
non-voting liaison.



VOTING MEMBERS



## NOMINATING COMMITTEE APPOINTEES:

The Nominating Committee appoints eight seats.

## ADVISORY COMMITTEE (AC) APPOINTEES:

Each of the four ACs nominates one member,  
although only the ALAC director can vote:

The At-Large Advisory Committee (**ALAC**)

The Governmental Advisory Committee (**GAC**)

The Root Server System Advisory  
Committee (**RSSAC**)

The Security and Stability  
Advisory Committee (**SSAC**)

ICANN PRESIDENT AND CEO



Learn More ►

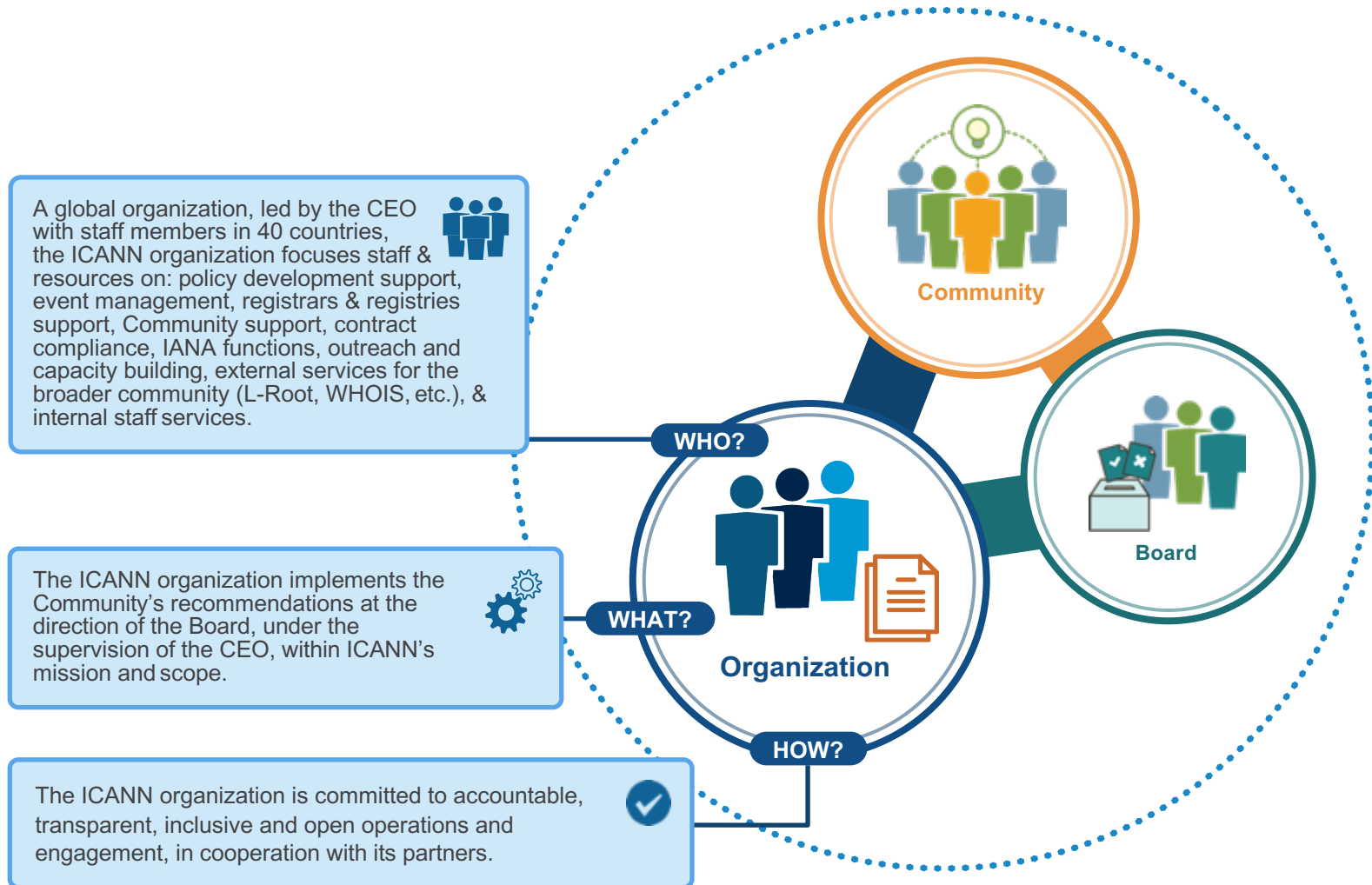
[go.icann.org/board](https://go.icann.org/board)



Learn More ►

[go.icann.org/boardbylaw](https://go.icann.org/boardbylaw)

# The ICANN Organization



# ICANN's Global Presence

# ICANN's Global Presence

Call one of our regional offices or submit a question online



Contact us ►

[www.icann.org/contact](http://www.icann.org/contact)

## **Regional Offices:**

Los Angeles, U.S.A  
(Headquarters)  
Brussels, Belgium  
Istanbul, Turkey  
Montevideo, Uruguay  
Singapore

## **Engagement Centers:**

Beijing, China  
Geneva, Switzerland  
Nairobi, Kenya  
Washington, D.C., U.S.A.

## **Partnership Centers:**

Asunción, Paraguay  
Cairo, Egypt  
Seoul, Republic of Korea

# Multistakeholder Model

# The ICANN Multistakeholder Community

ICANN follows a bottom-up, multistakeholder model in which individuals, non-commercial stakeholder groups, industry, and governments play important roles in its community-based, consensus-driven, policymaking approach.



Learn More ►

<https://www.icann.org/community>



# The ICANN Multistakeholder Community

## MAKING POLICY:

**Three Supporting Organizations (SOs)** in the ICANN community are responsible for developing policy recommendations in the areas they represent: IP addresses; generic top-level domains (gTLDs); and country code top-level domains (ccTLDs).



## PROVIDING ADVICE:

**Four Advisory Committees (ACs)** give advice and make recommendations on ICANN topics. The ACs are made up of representatives from: governments and international treaty organizations; root server operators; Internet security experts; and Internet end users.



# Supporting Organizations (SOs)



## ASO

The ASO Address Council is composed of 15 volunteers — 3 from each of the Regional Internet Registries (RIRs)— who work on global Internet Protocol (IP) Address Policy.



## ccNSO

The ccNSO (Council and members) works on global policies relating to country code top-level domain name (ccTLD) policies (e.g., .br, .uk).



## GNSO

The GNSO Council is composed of 21 members — divided into 2 houses (contracted and non-contracted parties) — who work on generic top-level domain name (gTLD) policies (e.g., .com, new gTLDs).

## Supporting Organizations (SOs)

Three SOs in the ICANN community are responsible for developing policy recommendations in the areas they represent.

Address Supporting Organization (ASO)

Country Code Names Supporting Organization (ccNSO)

Generic Names Supporting Organization (GNSO)

# Advisory Committees (ACs)

## Advisory Committees (ACs)

Four ACs give advice and make recommendations on ICANN topics.

At-Large Advisory Committee (ALAC)

Governmental Advisory Committee (GAC)

Root Server System Advisory Committee (RSSAC)

Security and Stability Advisory Committee (SSAC)



### ALAC

The ALAC voices the interests of the individual Internet user and is composed of 15 members- 2 from each of the five Regional At-Large Organizations (RALOs) and 5 appointed by the ICANN Nominating Committee. It is supported by over 200 At-Large Structures (ALSes) and volunteers.



### GAC

The GAC provides advice on public policy issues, particularly on interactions with policies and national laws or international agreements.



### RSSAC

The RSSAC advises the ICANN community and Board on the operation, administration, security, and integrity of the Internet's Root Server System.



### SSAC

The SSAC advises on matters related to the security and integrity of the Internet's naming and address allocation systems.

# Address Supporting Organization (ASO)



## ASO

The ASO Address Council is composed of 15 volunteers — 3 from each of the Regional Internet Registries (RIRs)— who work on global Internet Protocol (IP) Address Policy.

**ICANN | ASO**

Address Supporting Organization



Learn More ▶

<https://aso.icann.org>

African Network Information Center (AFRINIC) the RIR for Africa

American Registry for Internet Numbers (ARIN) the RIR for Canada, parts of the Caribbean and North Atlantic islands, and the U.S.

Réseaux IP Européens Network Coordination Centre (RIPE NCC) the RIR for Europe, the Middle East and parts of Central Asia

Asia-Pacific Network Information Centre (APNIC) the RIR for Asia and Pacific Region

Latin America and Caribbean Network Information Centre (LACNIC) the RIR for Latin America and parts of the Caribbean

# Country Code Names Supporting Organization (ccNSO)



## ccNSO

The ccNSO (Council and members) works on global policies relating to country code top-level domain name (ccTLD) policies (e.g., .br, .uk).

The ccNSO provides a forum for country code Top Level Domain (ccTLD) managers to meet and discuss topical issues of concern to ccTLDs from a global perspective.

**ICANN | ccNSO**

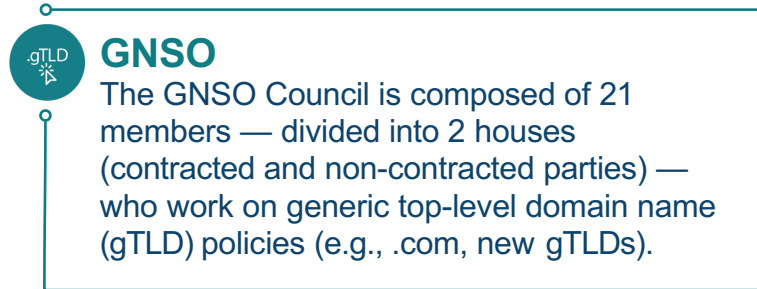
Country Code Names Supporting Organization



Learn More ►

<https://ccnso.icann.org>

# Generic Names Supporting Organization (GNSO)



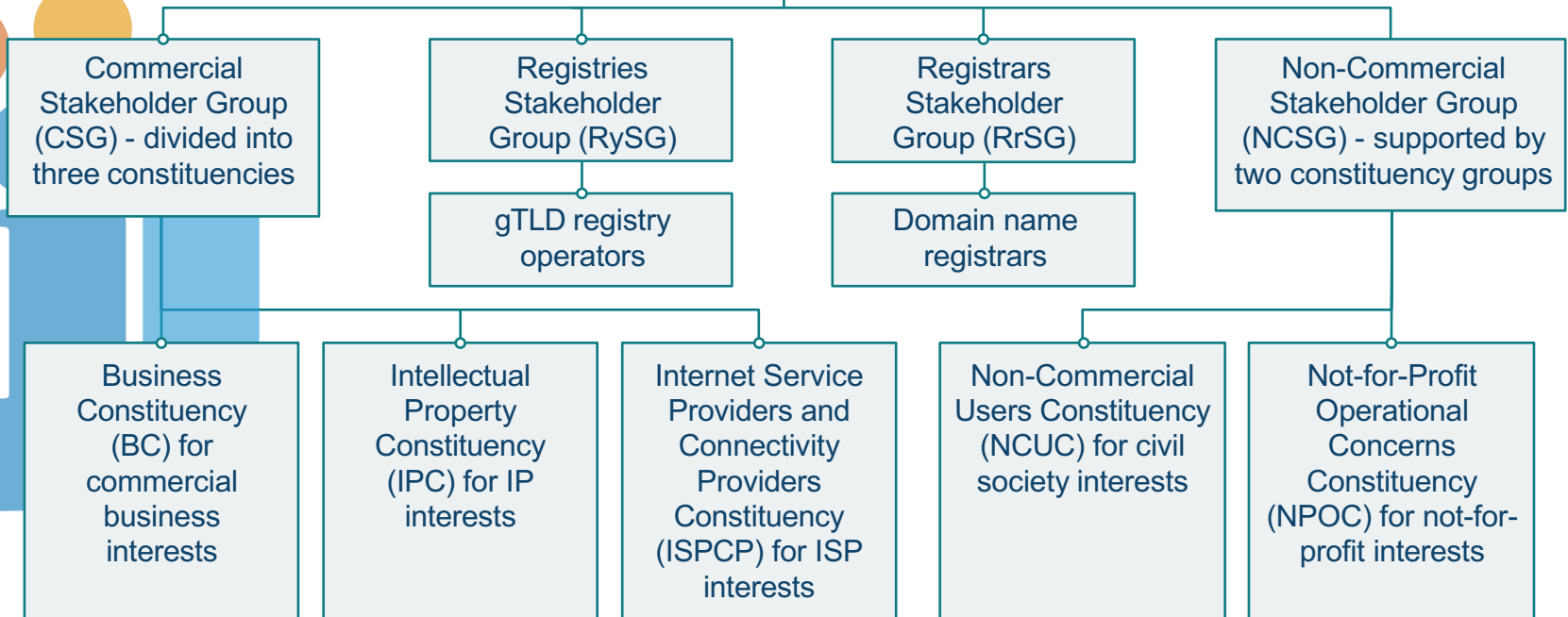
**ICANN | GNSO**

Generic Names Supporting Organization



Learn More ▶

<https://gnso.icann.org>



# At-Large Advisory Committee (ALAC)



## ALAC

The ALAC voices the interests of the individual Internet user and is composed of 15 members- 2 from each of the five Regional At-Large Organizations (RALOs) and 5 appointed by the ICANN Nominating Committee. It is supported by over 200 At-Large Structures (ALSes) and volunteers.



Learn More ►

<https://atlarge.icann.org>

Asian, Australasian and  
Pacific Islands Regional  
At-Large Organization  
(APRALO)

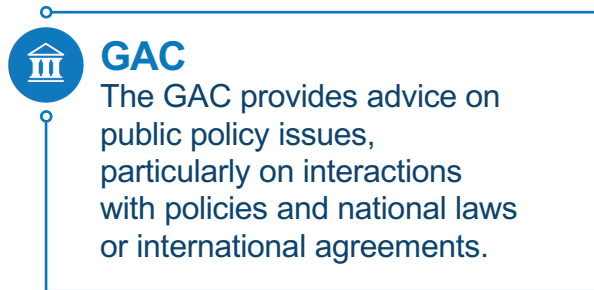
Latin American and  
Caribbean Islands  
Regional At-Large  
Organization (LACRALO)

African Regional  
At-Large  
Organization  
(AFRALO)

European  
Regional At-Large  
Organization  
(EURALO)

North American  
Regional At-Large  
Organization  
(NARALO)

# Governmental Advisory Committee (GAC)



ICANN | GAC

Governmental Advisory Committee

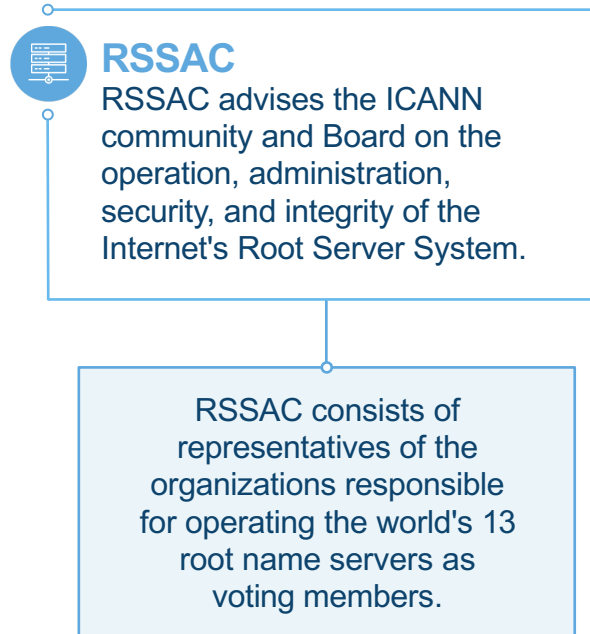


Learn More ►

<https://gacweb.icann.org>



# Root Server System Advisory Committee (RSSAC)



**ICANN | RSSAC**


Root Server System Advisory Committee

 **Learn More** ▶

<https://www.icann.org/groups/rssac>

# Security and Stability Advisory Committee (SSAC)



 **SSAC**  
The SSAC advises on matters related to the security and integrity of the Internet's naming and address allocation systems.

The SSAC consists of technical expert individuals appointed by the ICANN Board.

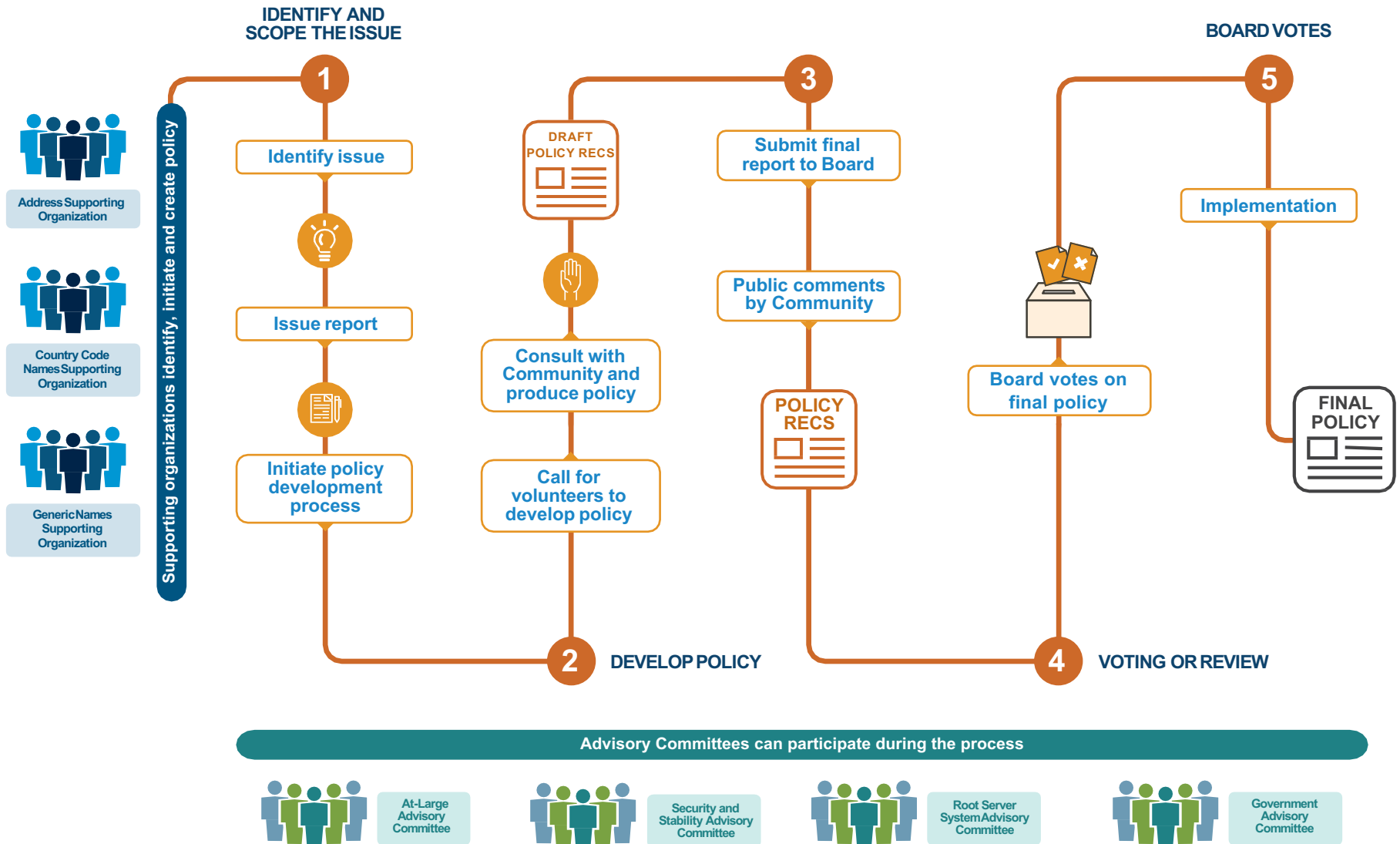
**ICANN | SSAC**

Security and Stability Advisory Committee



<https://www.icann.org/groups/ssac>

# How Does the Community Develop Policy?



# New gTLD Program

# What is the New gTLD Program?

The goal of the New gTLD Program is to foster competition, innovation and choice in the domain name industry.



- ⦿ This is an Internet community-driven initiative that is enabling the largest expansion of the domain name system, ever.
- ⦿ The New gTLD Program is managed by ICANN, which means it has taken shape through the multistakeholder model.
- ⦿ Over **1,200** new generic top-level domains have now been introduced into the Internet over the next few years.

# What is the New gTLD Program?

**Largest-ever expansion  
of the Domain Name System**

**Innovation**

**Introduction of  
Internationalized Domain  
Names**

**Global restructuring**

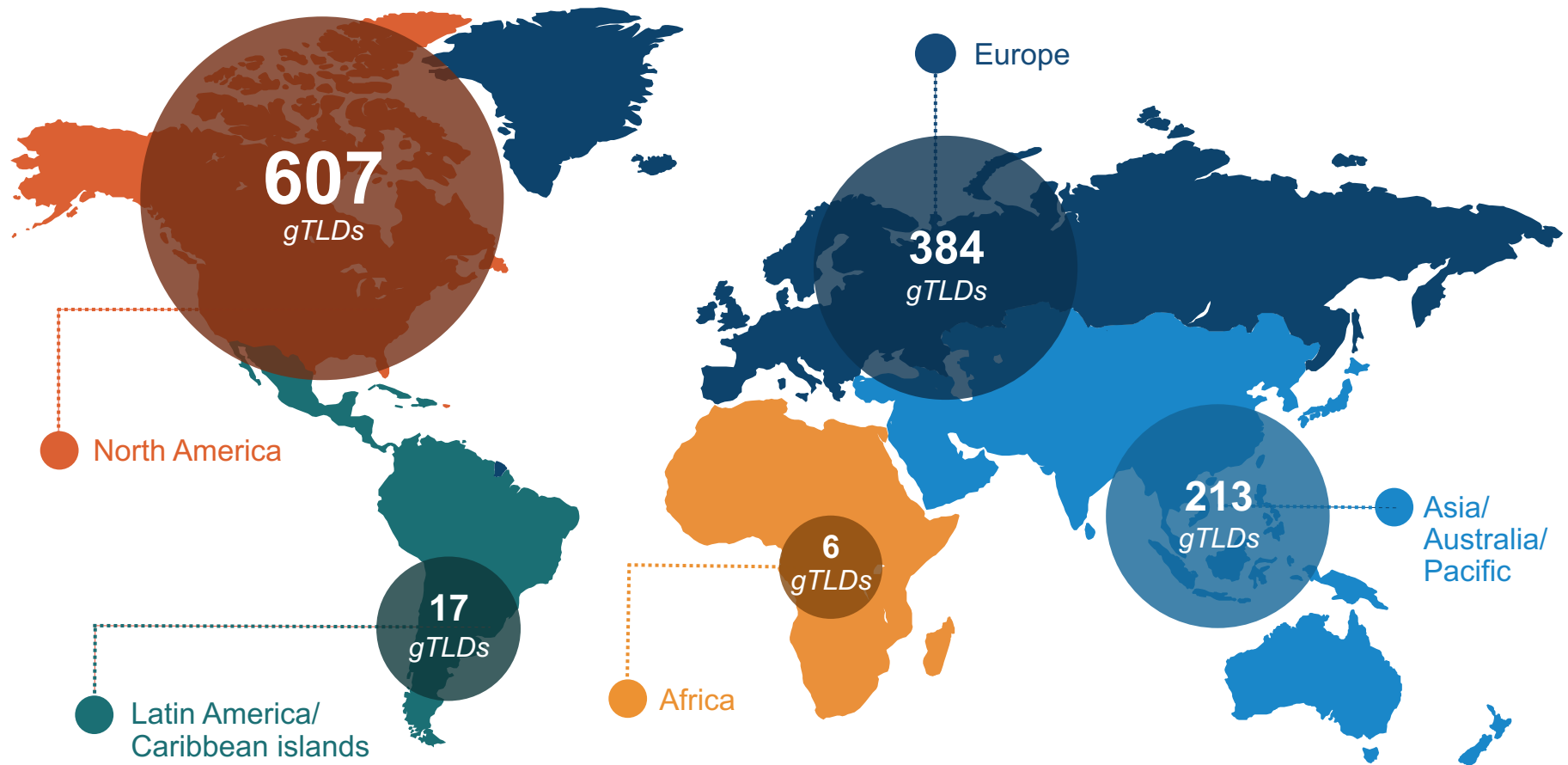
**Managed by ICANN =  
Multistakeholder input**

**Security & stability**

# 2012 Round Delegated gTLDs by ICANN Region

**1227 Delegations** as of July 2017

Region based on [Registry Public Contact](#)



# Internationalized Domain Names



# What are IDNs?

**An Internationalized Domain Name (IDN) uses a particular encoding and format to allow a wider range of scripts to represent domain names.**

Until late 2009, Top-Level Domains were restricted to only the Latin letters a to z without accents or symbols. After 2009, IDN TLDs were introduced in other scripts including Arabic, Chinese and Cyrillic scripts.

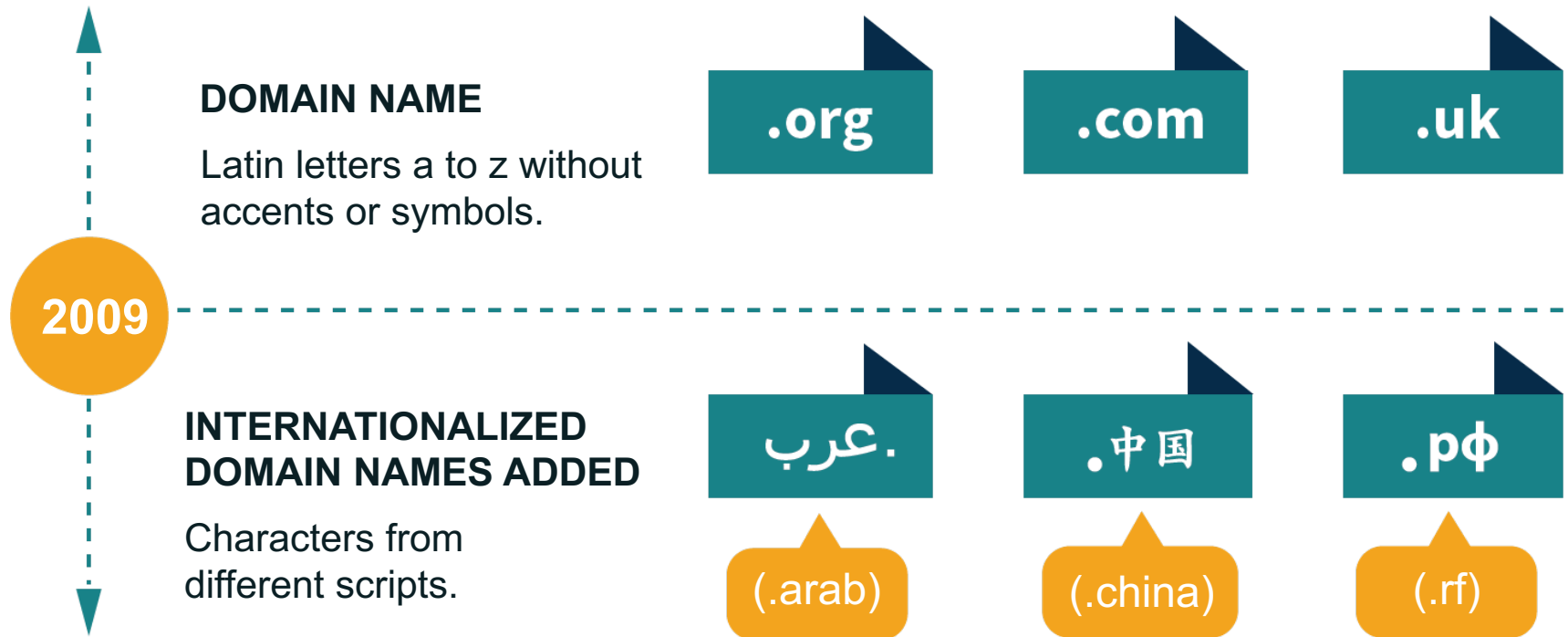
**IDN TLDs can be either ccTLDs or gTLDs.**

## Internationalized Domain Names

Domain names with non-Latin characters or Latin characters beyond letters (a to z) digits (0 to 9) and hyphen (-), as allowed by relevant protocols.



# What has changed with Top-Level Domains?



# Why Internationalize Domain Names?



More and more people around the world, once unconnected, are online.

## Number of Internet Users Worldwide\*



2000

413M



2016

3.4B



2020

5B expected

More language communities join

## Top Three Countries by % of Total Global Internet Users\*

30%



U.S.

9%



JAPAN

6%



GERMANY

21%



CHINA

13%



INDIA

8%



U.S.

2000

2016

\*Source: Internet Live Stats ([www.InternetLiveStats.com](http://www.InternetLiveStats.com)) 2016



IDNs allow people around the world to access domain names in their local languages.

# Get Involved and Informed

# Get Involved and Informed



**Attend an ICANN Public Meeting.** Three times a year, ICANN holds free and open public meetings in different regions around the world. Visit [meetings.icann.org](https://meetings.icann.org) to learn more.



Visit [go.icann.org/journey](https://go.icann.org/journey) to learn how you can attend an ICANN Public Meeting as part of the NextGen@ICANN or ICANN Fellowship programs.



Take a free online course at [learn.icann.org](https://learn.icann.org).



Attend events in your region.



Find and participate in an ICANN community group by visiting [icann.org/community](https://icann.org/community).



Sign up for ICANN news alerts and regional newsletters.

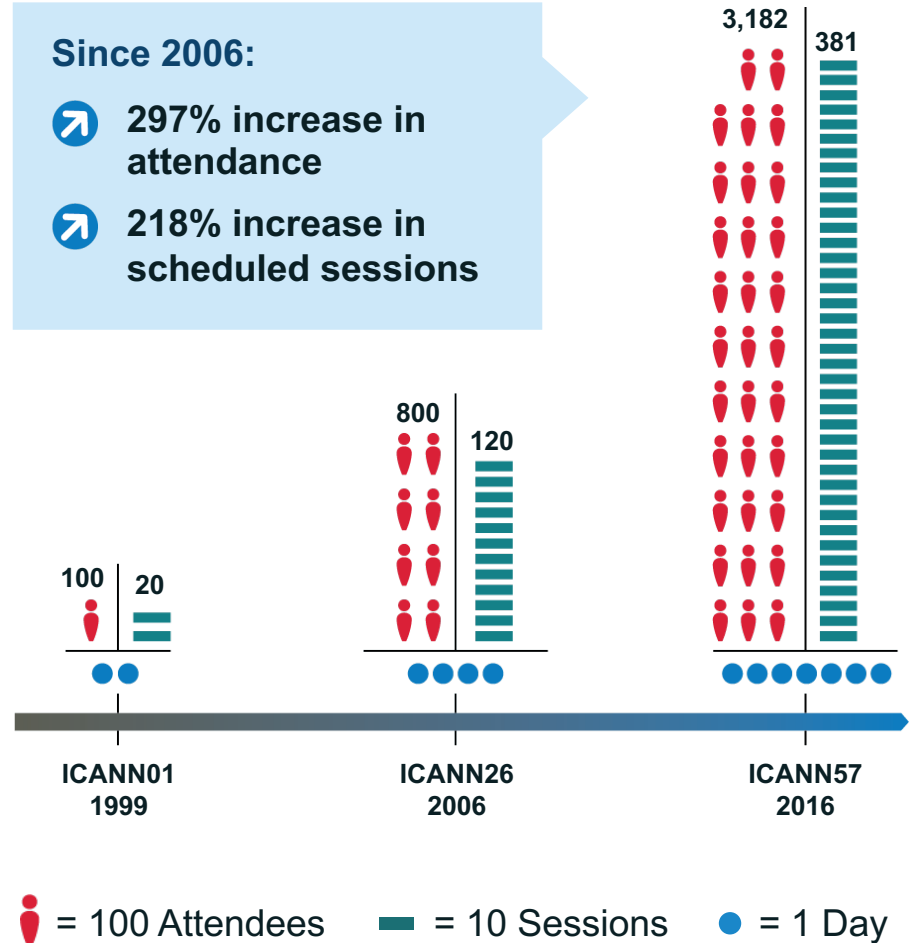
# ICANN Meetings

# ICANN Meetings Overviews

Three times a year, ICANN holds free and open public meetings in different regions around the world.

ICANN Public Meetings provide the opportunity for an internationally diverse group of individuals and organizations to come together to discuss and develop policies for the Internet's naming systems.

ICANN's international meetings have been a staple of ICANN's multistakeholder bottom-up consensus-building model since its formation in 1998.



# Upcoming Meetings



To find out how to participate, go to:  
<https://meetings.icann.org/en/about>



Meetings ▶

For a schedule of past and upcoming meetings, go to:

<http://meetings.icann.org/calendar>



Calendar ▶

If you belong to an organization that is interested in having an exhibit at a meeting or in sponsoring a meeting, please contact:

[meeting-sponsorship@icann.org](mailto:meeting-sponsorship@icann.org)



Email ▶



# Fellowship/NextGen/Newcomer Programs

# Programs Available



## Fellowship

Global Capacity Building Program to support ICANN's Multistakeholder community; online application process 3x year around an ICANN Meeting (1 Mtg for Alumni only)



## NextGen

Regionally based Program to create awareness and promote future discussions within universities and other regional forums; online application process 3x a year around an ICANN Meeting



## Newcomer

Those just entering the ICANN community can self-educate using the Newcomer webpage or participate in person or remotely at the ICANN Meeting Newcomer Sunday

**Watch Fellowship and NextGen video:**

[https://www.youtube.com/watch?v=nrV\\_ZkDEfIQ](https://www.youtube.com/watch?v=nrV_ZkDEfIQ)



**Watch Newcomer video:**

<https://www.youtube.com/watch?v=da1RQt9-e-g>



# How NextGen Differs From Fellowship



The **Fellowship program** focuses on capacity building and fast immersion into the ICANN Community, bringing approximately 60 fellows to (2) ICANN meetings and 40 to (1) Meeting, which is the 'Alumni only' Policy Forum Meeting. Fellowship candidates must be at least 21 years of age with no other age limit; priority is interest in continuing engagement as a volunteer in the Multistakeholder Model after meeting the other selection criteria



The **NextGen@ICANN program** focuses on education, awareness and future engagement. Applicants must be between the ages of 18 and 30, live and be enrolled in some type of higher learning curriculum within the region that the ICANN Meeting is being held. Approximately 20-30 eligible candidates selected per meeting to engage in customized, topical discussions

# How Program Funding Works



## Fellowship

Travel, accommodations and stipend provided to defer some costs associated with attending the Meeting



## NextGen

Travel, accommodations and stipend provided to defer some costs associated with attending the Meeting



## Newcomer

No funding offered but opens the door to communication and learning through [engagement@icann.org](mailto:engagement@icann.org) and ICANN Learn



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