

# ICANN Public Meetings, Domain Names, and the Domain Name System (DNS)

Fahd Batayneh

Stakeholder Engagement Sr. Manager, Middle East, ICANN

Sunday 5 September 2021



# Agenda

---

ICANN Public  
Meetings

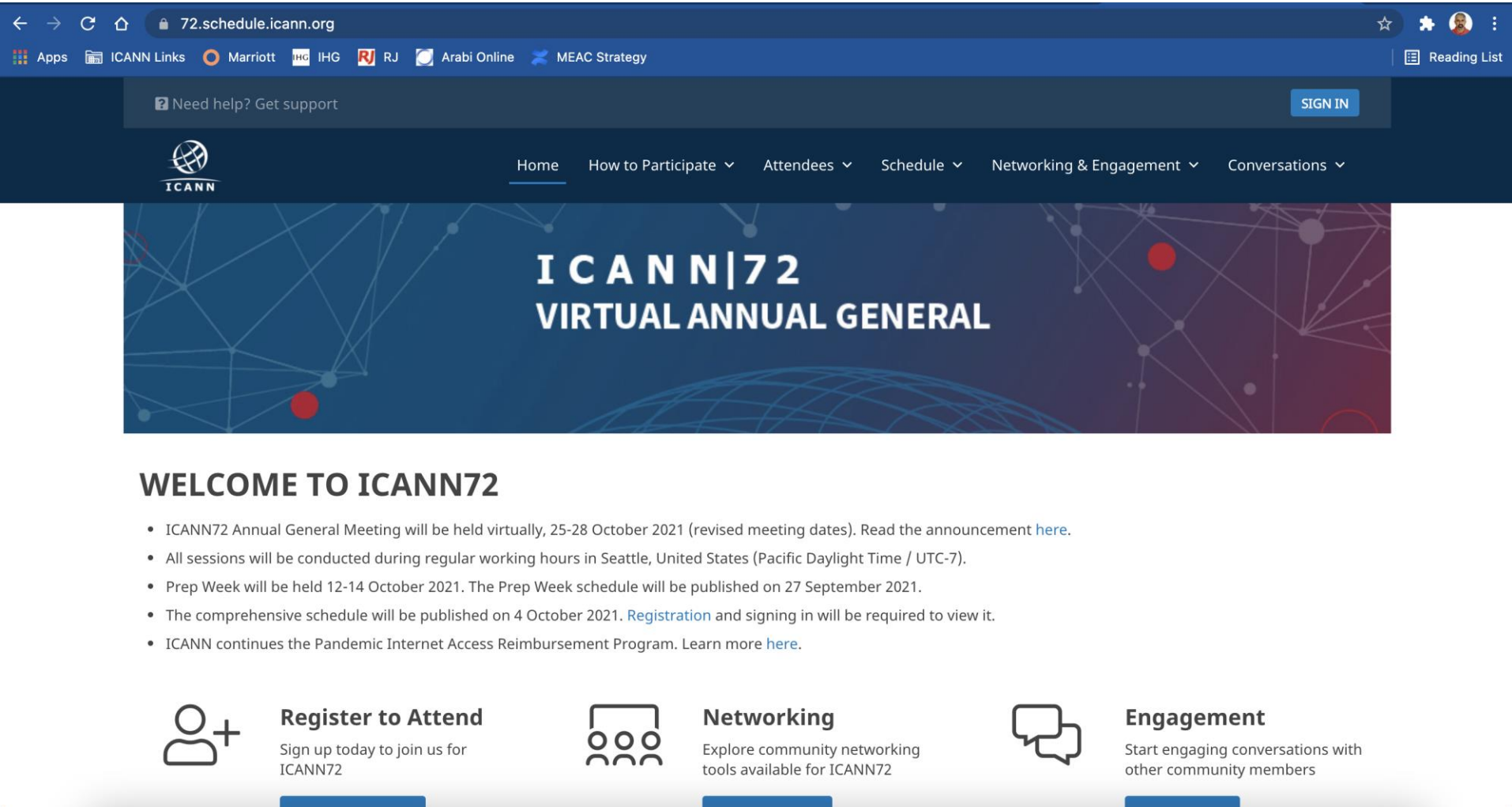
Domain Names  
and the DNS

# ICANN Meetings

# ICANN Meetings

The screenshot shows the ICANN Public Meetings website. At the top, there is a navigation bar with links for Home, About, Calendar & Archives, Data Reports, Host a Meeting, Newcomers, Participation Tools, Regions, Sponsor, and Standards of Behavior. Below this is a secondary navigation bar with links for ICANN72 Virtual Annual General, Register, and a language selector set to English. The main content area is divided into two columns. The left column, titled 'Up Next', features a large red-bordered box containing the text 'ICANN 72 VIRTUAL ANNUAL GENERAL'. The right column, titled 'Recent Announcements:', contains three news items: 'Revised Dates for ICANN72 Virtual Annual General Meeting', 'ICANN72 to be Virtual Annual General Meeting, ICANN73 Planning Update', and 'More Meetings Announcements >', 'Information for Journalists >', and 'ICANN Expected Standards of Behavior >'.

# ICANN Meetings Schedule



72.schedule.icann.org

Apps ICANN Links Marriott IHG IHG RJ RJ Arabi Online MEAC Strategy Reading List


Need help? Get support [SIGN IN](#)

Home How to Participate Attendees Schedule Networking & Engagement Conversations

## ICANN72 VIRTUAL ANNUAL GENERAL


### WELCOME TO ICANN72

- ICANN72 Annual General Meeting will be held virtually, 25-28 October 2021 (revised meeting dates). Read the announcement [here](#).
- All sessions will be conducted during regular working hours in Seattle, United States (Pacific Daylight Time / UTC-7).
- Prep Week will be held 12-14 October 2021. The Prep Week schedule will be published on 27 September 2021.
- The comprehensive schedule will be published on 4 October 2021. [Registration](#) and signing in will be required to view it.
- ICANN continues the Pandemic Internet Access Reimbursement Program. Learn more [here](#).




#### Register to Attend

Sign up today to join us for ICANN72



#### Networking

Explore community networking tools available for ICANN72



#### Engagement

Start engaging conversations with other community members

# Tools at ICANN Meetings

---

- In-person and remote options
- Interpretation for many sessions in 6 UN languages + Portuguese
- Live transcripts and Scribes
- User-friendly schedule platform
- Mobile Application
- Much innovation when ICANN meetings were entirely online (due to COVID-19)

# Domain Names and the DNS

# Why Domain Names?

---

- Which is easier to memorize?

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

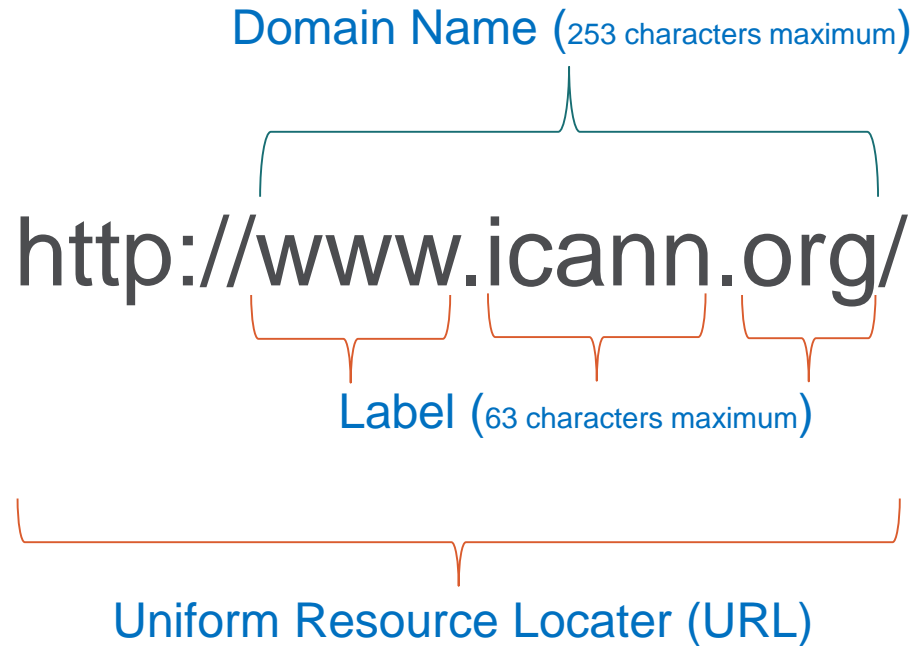
or

192.0.32.7



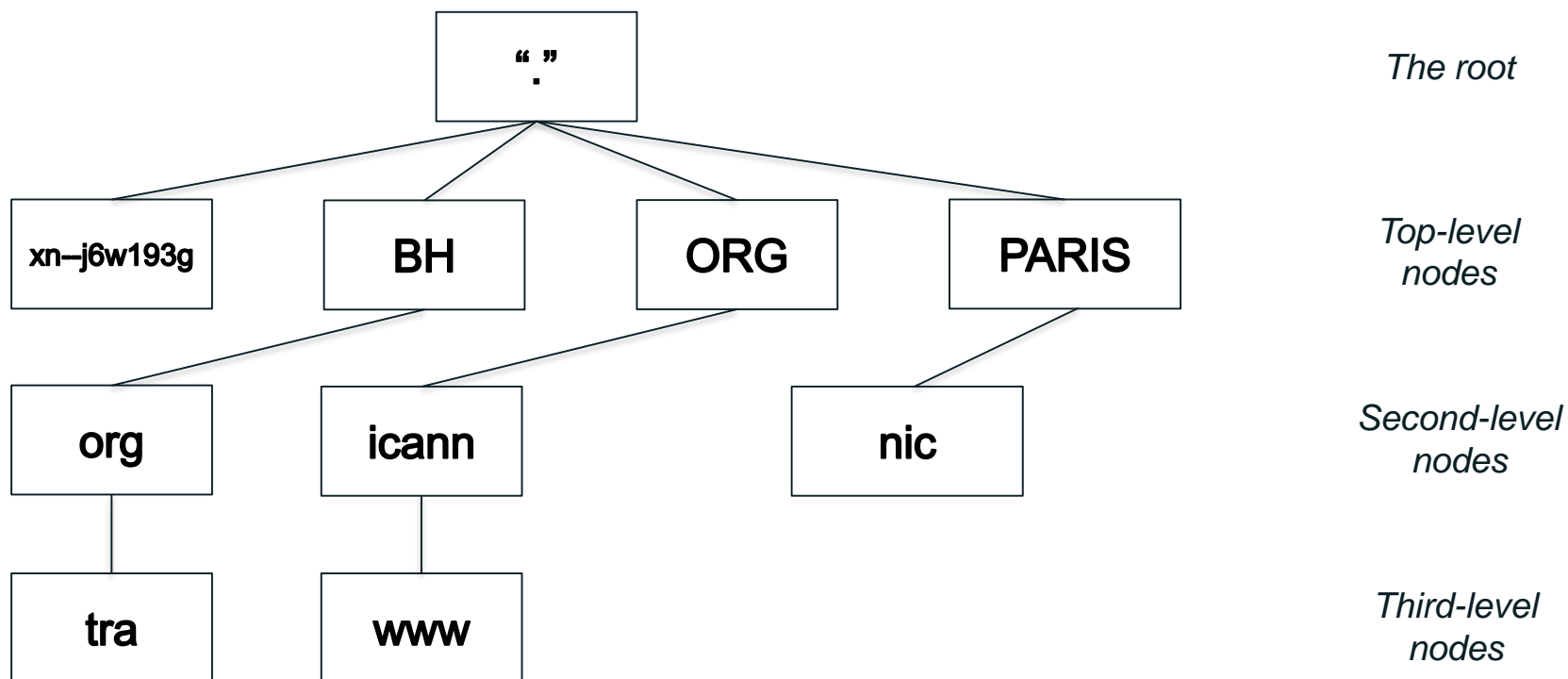
# Names Terminology

---



# The Name Space

- DNS database structure is an inverted tree called the *name space*
- Each node has a label
- The root node (and only the root node) has a null label

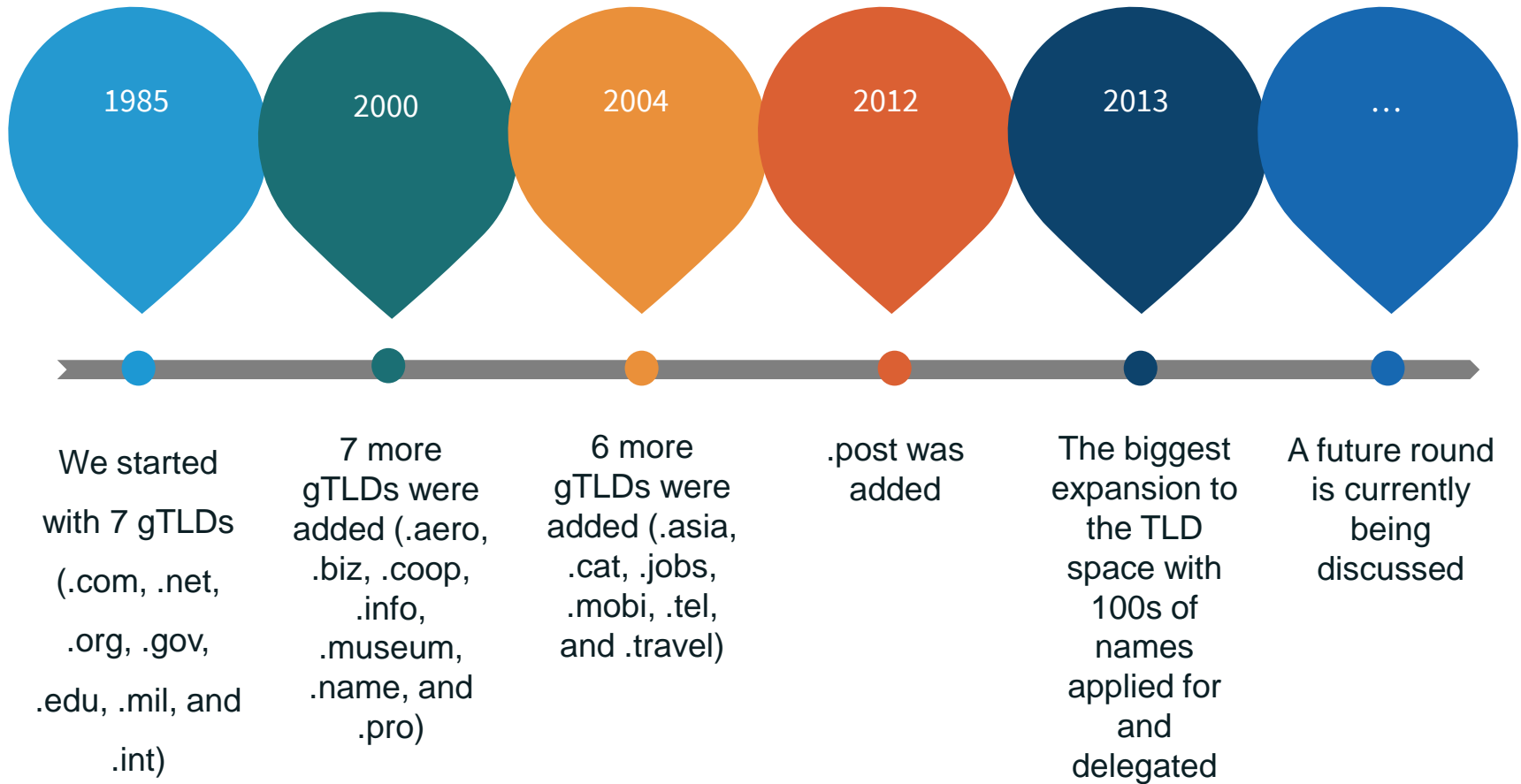


# Top Level Domains (TLDs)

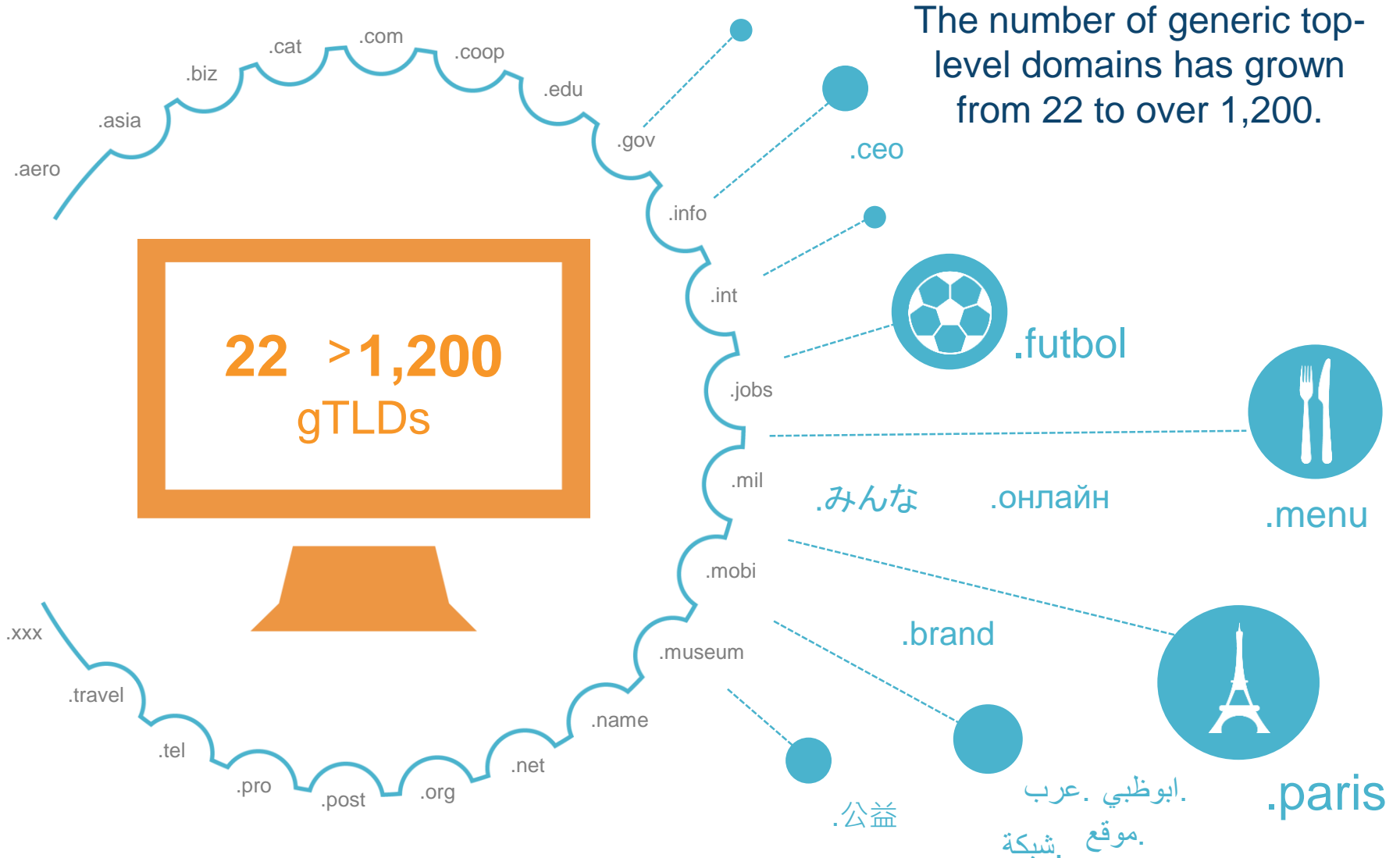
---

- Exists at the highest level of the DNS hierarchy
- It is the entry installed into the root-zone
- Consists of various groups:
  - **ccTLDs** (.pk, .tn, .jo, .eg, .lb, .uk)
  - **gTLDs**
    - Legacy (.com, .net, ... etc)
    - New (.xyz, .apps, موقع ... etc)
  - **IDN TLDs** (عرب, بازار, فلسطين)

# Generic TLDs (GTLDs)



# Expansion of gTLDs



# New gTLDs

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 been introduced into the Internet over the past few years.

# Internationalized Domain Names (IDNs)

**IDNs are domain names with non-Latin characters or Latin characters beyond letters (a to z) digits (0 to 9) and hyphens (-), as allowed by relevant protocols.**

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.

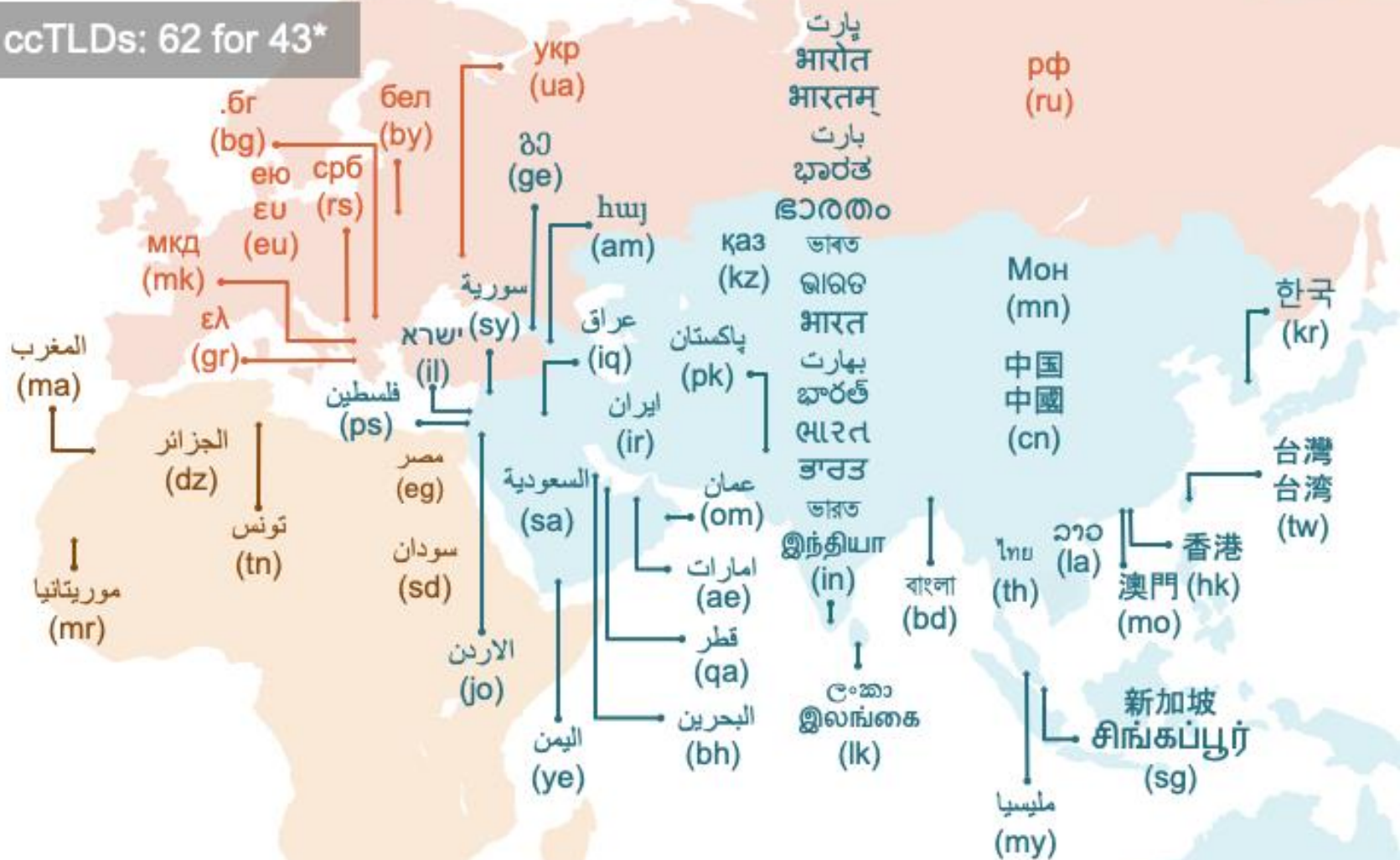
**IDN TLDs can be either ccTLDs or gTLDs.**

**IDNs use a particular encoding and format to allow a wider range of scripts to represent domain names.**



# IDN ccTLD Fast Track Program

ccTLDs: 62 for 43\*



\* Successfully evaluated IDN ccTLDs for total countries and territories (as of May 2020)



# Humans vs. Computers

---

This is what we see and understand (Unicode)

<http://الوكالة-الوطنية-لتقنين-المواصلات.المغرب/>

This is what machines deal with (ASCII)

<http://xn-----nzeabcaancne6mxa3pircddecvqfa4bhn4cg.xn--mgbc0a9azcg/>

# Root Servers

---

- Publish the root zone file to other DNS servers and clients on the Internet
- The root zone file describes where the authoritative servers for the DNS TLDs are located
- The root name server operators publish the root zone file as received from the IANA

# Root Zone Administration

---

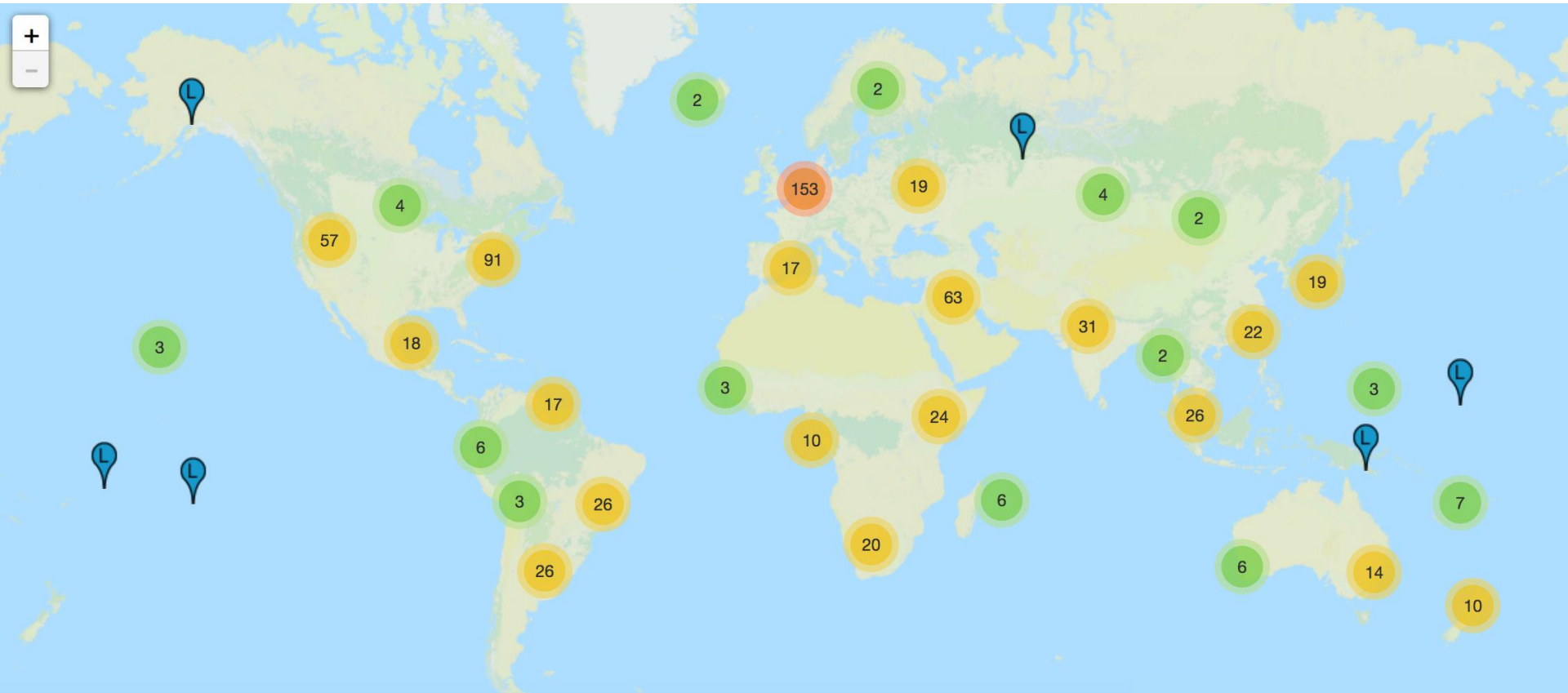
- ⊙ Administration of the root zone is complicated
- ⊙ Two organizations cooperate to administer the zone's contents
  - ICANN (IANA Functions Operator)
  - Verisign (Root Zone Maintainer)
- ⊙ Twelve organizations operate authoritative name servers for the root zone

# Root Server Operators

---

1. A - VeriSign Global Registry Services
2. B - University of Southern California - Information Sciences Institute
3. C - Cogent Communications
4. D - University of Maryland
5. E - NASA Ames Research Center
6. F - Internet Systems Consortium, Inc.
7. G - U.S. DOD Network Information Center
8. H - U.S. Army Research Lab
9. I - Autonomica/NORDUnet
10. J - VeriSign Global Registry Services
11. K - RIPE NCC
12. L – ICANN
13. M - WIDE Project

# Root Servers Around the World (1394)



Source at <http://root-servers.org/>



One World, One Internet

Visit us at [icann.org](https://icann.org)



[@icann](https://twitter.com/icann)



[linkedin/company/icann](https://linkedin/company/icann)



[facebook.com/icannorg](https://facebook.com/icannorg)



[slideshare/icannpresentations](https://slideshare/icannpresentations)



[youtube.com/icannnews](https://youtube.com/icannnews)



[soundcloud/icann](https://soundcloud/icann)



[flickr.com/icann](https://flickr.com/icann)



[instagram.com/icannorg](https://instagram.com/icannorg)