# ICANN 48 NEWCOMER SESSION





# This Is YOUR Day

- WELCOME!
- Newcomer Experience
- ICANN and the Internet Eco-System
- ICANN and the Multi-Stakeholder Model

## LUNCH BREAK 1200-1315

- ICANN's Work
- ICANN Meeting Week
- Staying Engaged!





# Welcome from ICANN CEO Fadi Chehade





# Newcomer Day Goals

- Enable fast and effective engagement at 1st meeting
- Help to understand ICANN, its structure, processes and community
- Provide mentorship, guidance, and networking opportunities
- Send you off in a better place than when you arrived!



# Am I The Only One?



- Strange Language
- Closed Doors
- Everybody knows everybody





# 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



# Components of Internet Ecosystem



- + Organizations, individuals and processes that shape the coordination and management of the global Internet
- + Highly interdependent parts which require significant coordination
- + ICANN is one of these organizations
- ICANN is responsible for coordination of the global internet's unique identifiers; ensure secure and stable operation of these systems



# How does ICANN do what they do?

#### WHAT DOES ICANN DO?

To reach another person on the Internet you have to type an address into your device—a name or a number. That address must be unique, so computers will know where to find each other. ICANN maintains and administers these unique identifiers across the world. Without ICANN's management of this system, known as the Domain Name System (DNS), we wouldn't have a global, scalable Internet where we can find each other.

COORDINATION

COMPLIANCE



**OPERATIONS** 

UNIQUE IDENTIFIERS



# Multi-stakeholder Model





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# **ICANN's Operations**

- ICANN is structured to manage DNS, ensuring growth and stability of Internet
  - + Internet Assigned Numbers Authority (IANA)
- + Supporting Organizations (SOs)
  - + Address Supporting Organization
  - + Country Code Names Supporting Organization
  - + Generic Names Supporting Organization
- + Board of Directors' Advisory Committees (ACs)
  - + Governmental Advisory Committee
  - + At-Large Advisory Committee
  - + DNS Root Server System Advisory Committee
  - + Security & Stability Advisory Committee
- + Technical Advisory Bodies
  - Technical Liaison Group, made up of the European Telecommunications Standards Institute (ETSI), the ITU-T, the World Wide Web Consortium (W3C), and the Internet Architecture Board (IAB).
  - + Internet Engineering Task Force





## Private sector and civil society organizations in the Internet Ecosystem of ICANN

- Generic Name Supporting Organization (GNSO) is the group that develops policies and makes recommendations related to gTLDs to ICANN's Board
- + Four broad Stakeholder Groups represent the variety of groups and individuals of the ICANN community
  - + Commercial Stakeholders Group
  - + Non-Commercial Stakeholders Group
  - + Registrars Stakeholder Group
  - + Registries Stakeholder Group
- + 23 member GNSO Council governs policy development
- + Sends 2 voting members to ICANN's Board





# Governments and the Internet Ecosystem of ICANN

- + Governmental Advisory Council provides advice to the Board and other SOs/ACs on issues of public policy and possible interaction between ICANN's activities or policies and national laws or international agreements
- + Membership is open to all national governments and distinct economies.
- + Multinational governmental organisations and treaty organisations may join as observers.
- + Over 125 governments have identified representatives.
- + Sends a non-voting representative to the Board
- + Advice has a special status





# Individuals and the Internet Ecosystem of ICANN

- + At-Large Advisory Committee is the ICANN home for individual Internet users
- + Ground-up, tiered structure
- + 150 At-Large Structures at grassroots level
- + Sends a voting member to ICANN's Board
- + Increased quantity and quality of public policy statements



# Multi-stakeholder Model

#### WHAT DOES ICANN DO? To reach another person on the Internet you have to type an address into your device-a name or a number. That address must be unique, so computers will know where to find each other. ICANN maintains and administers these unique LICY-MAKING identifiers across the world. Without COORDINATION ICANN's management of this system, known as the Domain Name System (DNS), we wouldn't have a global, scalable Internet where we can find each other. **OPERATIONS** COMPLIANCE **Multi-stakeholder Model:** Civil Society & Internet Users, the Private Sector, National & International Organizations, Governments, Research, Academic and Technical

Communities are all represented.





# How do the Regional Staff fit into this model?

- Stimulate multi-stakeholder engagement
- Work with our partners (ISOC, RIRs, DIPLO etc) to maintain bottom-up approaches on IG issues - which leads to the IGOs....
- Regional Strategies developed and implemented





### ONE WORLD. ONE INTERNET.

#### WHAT DOES ICANN DO?

To reach another person on the Internet you have to type an address into your device – a name or a number. That address must be unique, so computers will know where to find each other. ICANN maintains and administers these unique identifiers across the world. Without ICANN's management of this system, known as the Domain Name System or DNS, we wouldn't have a global, scalable Internet where we can find each other.

#### Community-Driven Policy

To keep pace with dynamic technologies and rapid innovation, ICANN enables consensus-driven, multistakeholder policy development, with broad representation from the global Internet community.

COMMUNITY-DRIVEN

MAKING

#### Multistakeholder Model:

Civil Society & Internet Users, the Private Sector, National & International Organizations, Governments, Research, Academic and Technical Communities are all represented.

#### HOW DO I PARTICIPATE?

- Sign up for updates at myicann.org
- Join one of the many Public Comment Forums
   on ICANN's website
- Attend ICANN's Public Meetings in person or online to provide input at a Public Forum
- Join one of ICANN's Supporting Organizations or Advisory Committees

#### Competition & Choice

From accrediting over 1000 registrars, to introducing new Top Level Domains (TLDs), ICANN works to expand consumer choice by fostering competition and innovation in the domain name marketolace.

COORDINATION

CONTRACTUAL

COMPLIANCE

CANN CONTRACTED PARTIES

#### WHICH FUNCTIONS DOES ICANN COORDINATE?

- Domain Name System (DNS)
- Internet Protocol (IP) address allocation
- Protocol-Parameter Registry
- Root Server Systems
- Generic Top-Level Domain name (gTLD) system management
- Country Code Top-Level Domain name (ccTLD) DNS
- Time zone database management

#### Security & Stability

ICANN supports DNS security through technical training and engagement, coordinating and collaborating with the community in the implementation of standards such as DNSSEC.

#### Interoperability

ICANN's work enables new technologies to flourish while maintaining interoperability across the global Internet. For example, management of the unique protocol identifiers allows communication using secure connections between users.

#### **Contractual Compliance**

OPERATIONS

UNIQUE IDENTIFIERS

ICANN oversees the contracts it maintains and enforces the consensus policies developed through the community-driven process. ICANN's Contractual Compliance function seeks to ensure compliance with the agreements and the consensus policies.

#### WHO'S INVOLVED?

Registrar Registry

A number of groups, each of which represents a different interest on the Internet. All of them come together with the Board of Directors to shape ICANN decisions.

ts	Supporting	Advisory	Technical Advisory	Board of
n	Organizations	Committees	Bodies	Directors
	<ul> <li>Addressing</li> <li>Country Code Names</li> <li>Generic Names</li> </ul>	<ul> <li>At-Large</li> <li>Governmental</li> <li>Root Server System</li> <li>Security &amp; Stability</li> </ul>	<ul> <li>Technical Liaison Group</li> <li>Internet Engineering Task Force</li> </ul>	

For more information or to get involved, please visit www.ICANN.org

# **ICANN's Work**

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DNS ECOSYSTEM

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#### Get involved:

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- Forums on ICANN's website Attend ICANN's Public Meetings in
- person or online to provide input at a Public Forum
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#### Compliance

ICANN Oversees the contracts it maintains and enforces policies developed through the community-driven process. ICANN's compliance function seeks to address and correct non-conforming practices.

#### Interoperability

OPERATIONS

UNIQUE IDENTIFIERS

ICANN's work enables new technologies to flourish while maintaining interoperability across the global Internet. For example, management of the unique protocol identifiers allows communication using secure connections between users.



# Community-Driven Policy - How?



## Multi-Stakeholder

Bottom-Up

Open

Transparent





# Policy Participants - Who?



## ICANN Supporting Organizations (SO)

- GNSO Generic Names Supporting Organization
- ccNSO Country-Code Names Supporting Organization
- ASO Address Supporting Organization

## ICANN Advisory Committees (AC)

- ALAC At-Large Advisory Committee
- GAC Governmental Advisory Committee
- SSAC Security & Stability Advisory Committee
- RSSAC Root Server System Advisory Committee





# Policy Processes - What?







# **ICANN Policy Staff**





# Community-Driven Policy Support Why?

## Help The Community

- Create policies and guidelines that are:
  - Implementable and effective
  - Developed through a highly participative, fair, and balanced process in a timely and efficient way

## Support The Community

- Engage and support the participation of all necessary stakeholders
- Inform and educate stakeholders

Manage Processes

- Manage the policy process efficiently and effectively to benefit the global Internet community
- ...frequently as important as outcomes





# How to Stay Updated

## Monthly Policy Update

- Published mid-month
- Read online at: http://www.icann.org/en/topics/policy/
- Subscribe at: <u>http://www.icann.org/en/topics/policy/</u>
- Available in Arabic, Chinese, English, French, Russian, and Spanish





# **Functions That ICANN Coordinates**

- Domain Name System
- Generic Top-Level Domains (gTLDs)
- 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)









Internet Assigned Numbers Authority



## **Domain Name Services**

- + Responsible for the operation and maintenance of a number of key aspects of the DNS, including the root zone, and the .INT and .ARPA domains.
- + Coordinator of the DNS root. The root is the upper-most part of the DNS hierarchy, and involves delegating administrative responsibility of "top-level domains", which are the last segment of a domain name, such as .COM, .UK and .NZ. Part of this task includes evaluating requests to change the operators of country code domains, as well as day-to-day maintenance of the details of the existing operators.



Internet Assigned Numbers Authority

### **Number Resources**



Responsible for coordinating Internet Protocol addressing systems, as well as the Autonomous System Numbers used for routing Internet traffic.

There are 2 types of Internet Protocol (IP) addresses in use: **IP version 4** (**IPv4**) and **IP version 6** (**IPv6**). IPv4 dates from 1983 and is still the most commonly used version. IPv4 addresses are 32-bit numbers often expressed as 4 octets in "dotted decimal" notation (for example, 192.0.2.53). Deployment of the IPv6 protocol began in 1999. IPv6 addresses are 128-bit numbers and are conventionally expressed using hexadecimal strings (for example, 2001:0db8:582:ae33::29). Both are generally assigned in a hierarchical manner. Users get them from ISPs, ISPs from other ISPs, a National Internet Registry or a Regional Internet Registry







Internet Assigned Numbers Authority

## **Protocol Parameter Registries**

IANA is responsible for maintaining many of the codes and numbers contained in a variety of Internet protocols, enumerated below. We provide this service in coordination with the Internet Engineering Task Force (IETF).

We publish over 2,000 protocol parameter registries.





#### DOMAINS NUMBERS PROTOCOLS ABOUT IANA

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#### Protocol Registries

#### **Protocol Registries**

Time Zone Database IANA's Performance IETF Draft Status

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For more information on how to create registries, please see RFC 5226, Section 4. This document also covers the requirements for IANA Considerations in RFCs.

To view the various protocol registries, just click on their titles. To apply to modify a registry, use the relevant form. The qualifications for changing a protocol vary depending on the governing standards documents.

Protocol/Registry	Defining Document/Comments	
	А	
Access Network Control Protoc	ol (ANCP)	
ANCP Capability Types	RFC 6320 Standards Action	
ANCP Command Codes	RFC 6320 Standards Action	
ANCP Message Types	RFC 6320 Standards Action	ICANN 48 · 17-21 N

#### ABCDEFGHIJKLMNOPQRSTUVWXY

## **Access Node Control Protocol**

## ANCP Capability Types

Registration Procedure(s) Standards Action Reference [RFC6320] Alternative Formats

E CSV

Value 🔳	Name 🔟	Tech Type 🕱	Capability Data? 🔳	Reference 🔳
0	Reserved			[RFC6320]
1	DSL Topology Discovery	5	No	[RFC6320]
2	DSL Line Configuration	5	No	[RFC6320]
3	Reserved			[RFC6320]
4	DSL Line Testing	5	No	[RFC6320]
5-255	Unassigned			





# COMPETITION AND CHOICE; OPERATING THE DOMAIN NAME SYSTEM



# **Current Landscape**





# What is a Registry?



A "Registry" is the authoritative, master database of all domain names registered in each Top-Level Domain. The registry operator keeps the master database and also generates the "zone file" which allows computers to route Internet traffic to and from top-level domains anywhere in the world.



# More than Database & software

A Registry includes:

Must be designed and managed with security, stability, and robustness in mind

- Network infrastructure firewalls, load balancers, routers, packet shapers
- Protocol and application servers
- DNS and WHOIS servers
- Billing systems
- Monitoring systems
- Security and intrusion detection systems



# What is a Registrar?

- Contracted with ICANN and Registries
- Business Models:
  - Traditional Retail
  - Reseller-Focused
  - Low Cost / Limited Service
  - Brand Protection
  - Niche Markets
  - Single TLD
  - Private



# **Domain Name Life Cycle**



Contractual Compliance ensures that ICANN's contracted parties comply with their agreements and the consensus policies during the life cycle.




## Basics: New Generic Top-Level Domains (new gTLDs)

 Introduction of unlimited generic top-level domain names (in both ASCII & IDN) into the domain name space; Received 1930 applications for new gTLDs



 View all current applications and the status of each: <u>https://gtldresult.icann.org/application-result/applicationstatus</u>

Buenos A



# Basics: Internationalized Domain Names (IDNs)

- + Internationalized Domain Names are domain names represented by local language characters.
- + Allowed us to go from: 中国互联网络信息中心.cn/
  - to: <u>中国互联网络信息中心.中国/</u>
- + The first IDN ccTLDs delegated in the root zone 05 May 2010:

United Arab Emirates	Egypt	Saudi Arabia	Russia	
امارات	مصر	السعودية	рф	ICANN 48 + 17-21 Nov 2013

## Security & Stability / Interoperability

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Community-Driven Policy

Internet community.

Who's Involved:

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A number of groups: supporting

organizations, advisory committees,

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Multi-stakeholder Model: Civil Society & Internet Users, the Private Sector, National & International Organizations, Governments, Research, Academic and Technical Communities are all represented.

### **Competition & Choice**

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COORDINATION

### Security & Stability

ICANN supports DNS security through technical training and engagement, coordinating and collaborating with the community in the implementation of standards such as DNSSEC.

COMPLIANCE

OPERATIONS

UNIQUE IDENTIFIERS

### Interoperability

ICANN's work enables new technologies to flourish while maintaining interoperability across the global Internet. For example, management of the unique protocol identifiers allows communication using secure connections between users.



The Security learn is regularly invited to speak with community stakeholder groups, and facilitates activity with IGANIV's Supporting Organizations and Advisory Committees. Team members represent ICANN at various conferences and events worldwide, speaking on cybersecurity and governance, the internet's unique identifiers and ICANN.

The Security team provides thought

leadership in the form of while papers, blog

posts and the annual Security, Stability & Resiliency Framework for ICANN. The team contributes to scenarios for global cyber exercises, provides advice on operational practices such as with the rool server community and DNS technical community. The learn regularly provides input into policy development processes, comments on protocols and open standards managed by others in the internet eccesystem.

XPLANATIONS" by XPLANE.COM



Coordinating allocation of Internet's unique identifiers ICANN's Technical Mission

Public information on these functions for the greater Internet community





## **Build Your Schedule**

Morning		Afternoon	
9:00	Session	14:30	Session
9:30	Session	15:30	Session
10:30	Session	16:00	Session
11:00	Session	17:30	Session
12:00	Session	19:00	Session
12:30	Session	20:00	Session
14:00	Session	22:00	Session





## Where To Find Meeting Info

### For any information on this meeting, venue, updated schedules, go to <u>http://buenosaires48.icann.org/</u>

For specific information on sessions before and after this Meeting, go to <u>http://buenosaires48.icann.org/sched-</u> <u>overview</u>

Transcripts, recordings, presentations





- □ Welcome Ceremony@830
- □ New gTLD Program Status Update@1030
- □ IPv6 in Latin America@1330
- □ Internet Governance @1330
- □ ICANN Strategy Panels@1515
- DNSSEC for Beginners@1700





## Tuesday

## Security and Stability Challenges in Latin America@830

CONSTITUENCY DAY

Supporting Organizations

Advisory Committees

Stakeholder Groups

Constituencies





## Wednesday

□ Q&A for new Business participants@830

- ICANN's role in Internet Governance Strategy panel@1145
- Public Responsibility Framework Strategy panel@1530
- □ ICANN Online Learning Platform@1645

□ IDN Variant @1645





## Thursday

- □ GSE Outreach Session@900
- Universities and ICANN building educational capacity@1100
- □ Public Forum@1330
- Board Meeting@1730





## I-CANN Network Having Fun...

- Monday At Large LACRALO Event
- Tuesday Music Night
- Wednesday Gala Event
- Thursday ICANN 48 Wrap Up
  - Cocktails
- Always....Networking at Coffee







## Tips and Tools

## ICANN Booth

- Open Saturday -Wednesday w/Registration from 0800-1700
- Meeting Guide: paper and electronic\*
- Schedules: electronic, mobile, monitors
- <u>http://buenosaires48.icann.org/en/schedule/lac</u> -participant-guide-13nov13-en.pdflCANN
- <u>ACRONYMS</u>



## Participation in ICANN

- + Share ICANN's mission and work at home, university, local internet events, other global conferences
- + Engage with ICANN's Regional Stakeholder Engagement teams
- + Join one of ICANN's Supporting Organizations, Advisory Committees or Stakeholder Groups
- + Participate in ICANNIabs and ICANN Learning Platform
- Participate in blogs and/or public comment forum on ICANN's web site
- + Attend ICANN's public meetings in person or participate remotely online



## LINKS

- <u>http://www.icann.org/en/groups</u> THE MULTI-STAKEHOLDER MODEL AND COMMUNITIES
- <u>http://www.icann.org/en/about/learning/begi</u> <u>nners-guides</u> - MULTIPLE BEGINNER GUIDEBOOKS
- <u>http://www.icann.org/en/about/participate/ne</u> wcomers - NEWCOMER PROGRAM
- <u>http://www.icann.org/en/about/participate/fel</u> <u>lowships</u> - FELLOWSHIP PROGRAM





## LINKS

- <u>https://www.myicann.org/</u> SIGN UP FOR PERSONAL FEEDS FROM THE ICANN WEBSITE
- <u>http://labs.icann.org/</u> JOIN TO HELP PROBLEM SOLVE AND HELP IMPROVE ICANN.ORG
- <u>http://learn.icann.org/</u> BUILDING COLLABORATIVE PLATFORMS TO TRAIN AND EDUCATE





- <u>https://community.icann.org/dashboard.a</u> <u>ction</u> - ICANN COMMUNITY WIKI
- <u>https://community.icann.org/display/projc</u> <u>ommoutreachws/Global+Stakeholder+E</u> <u>ngagement – REGIONAL STRATEGIES</u>
- <u>http://icannwiki.com/</u> ENGAGE WITH *icannwiki* COMMUNITY
- <u>http://gnso.icann.org/en/acronyms.html</u> -ICANN ACRONYMS



### Thank you Questions



