

# Introduction to ICANN

## LACNIC Open Meeting

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Andrew McLaughlin

Chief Policy Officer and CFO



# ICANN: The Basic Idea

**ICANN =**

An Experiment in  
Technical Self-Management  
by the global Internet  
community

# ICANN: The Basic Bargain

**ICANN =**

Internationalization  
of Policy Functions for DNS and IP  
Addressing systems

+

Private Sector  
(non-governmental) Management

# What does ICANN do?

Coordinates policies relating to the unique assignment of:

- Internet domain names
- Numerical IP Address
- Protocol Port and Parameter Numbers

Coordinates the DNS Root Server System

- through Root Server System Advisory Committee

# Says *The Economist*:

- “ICANN is in many ways a completely new institutional animal.”
- “It is a hybrid between an online community and a real-world governance structure, an untested combination.”
- “It is also a new type of international organisation: an industry trying to regulate part of itself, across the globe, with little or no input from national governments.”

*(10 June 2000)*

# Domain names & IP addresses

- **Domain names** are the familiar, easy-to-remember names for computers on the Internet
  - e.g., amazon.com, icann.org, nic.or.kr
- Domain names correlate to **Internet Protocol numbers** (IP numbers) (e.g., 98.37.241.130) that serve as routing addresses on the Internet
- The **domain name system** (DNS) translates domain names into IP numbers needed for routing packets of information over the Internet

# Categories of Internet Domains

- **Generic Top Level Domains (gTLDs)**
  - .com, .net, .org, .gov, .mil, .edu, .int, .arpa
  - .com, .net, .org open for registration by all persons and entities on a global basis
  - Proposals to add many more gTLDs (.shop, .arts, .union, etc.)
- **Country Code Top Level Domains (ccTLDs)**
  - .kr., .uk, .fr, .us, .mx, .ca, .de, etc.
  - Registration requirements vary by domain (many require domicile within the territory or other connection with the territory)
  - Derived from ISO 3166-1 list

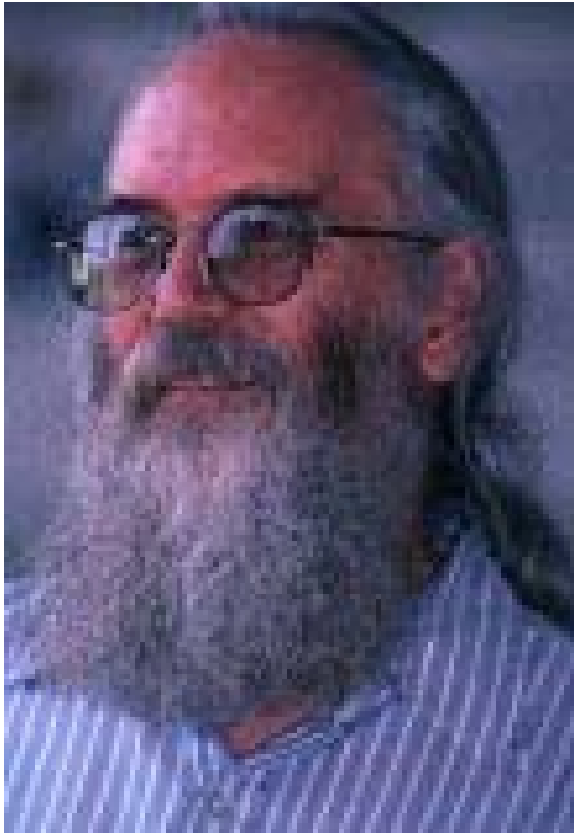
# Status Quo Ante ICANN

Most Internet DNS and IP Address coordination functions performed by, or on behalf of, the US government:

- **Defense Advanced Research Projects Agency (DARPA)**
  - Stanford Research Institute (SRI)
  - Information Sciences Institute (ISI) of University of Southern California
- **National Science Foundation (NSF)**
  - IBM, MCI, and Merit
  - AT&T, General Atomics, Network Solutions, Inc. (NSI)
- **National Aeronautics and Space Administration (NASA)**
- **US Department of Energy**



# IANA



*Internet Assigned  
Numbers Authority*

*Jon Postel  
1943-1998*

# Need for Change

- ◆ Globalization of Internet
- ◆ Commercialization of Internet
- ◆ Need for accountability
- ◆ Need for more formalized management structure
- ◆ Dissatisfaction with lack of competition
- ◆ Trademark/domain name conflicts

# White Paper Principles

White Paper: new policy/management structure must promote 4 goals:

- ◆ Stability
- ◆ Competition
- ◆ Private, bottom-up coordination
- ◆ Representation

# White Paper Implementation

- ◆ Internet community to form non-profit corporation meeting White Paper's 4 criteria
- ◆ US Government (through Commerce Department) to transition centralized coordination functions
- ◆ Amendment of Network Solutions agreement to require competitive registrars in gTLD registries
- ◆ Request to WIPO to study & recommend solutions for trademark/domain-name conflicts

# Status of Transition from USG

- ✓ 25 November, 1998 - ICANN recognized in MoU
- ✓ June, 1999 - Cooperative agreement among ICANN, US Government, root server operators
- ✓ 10 November, 1999
  - ICANN and Network Solutions sign gTLD registry and registrar agreements
  - DoC transfers root authority over gTLDs to ICANN
- ✓ 9 February, 2000
  - Contract with US Government to complete transfer of IANA functions

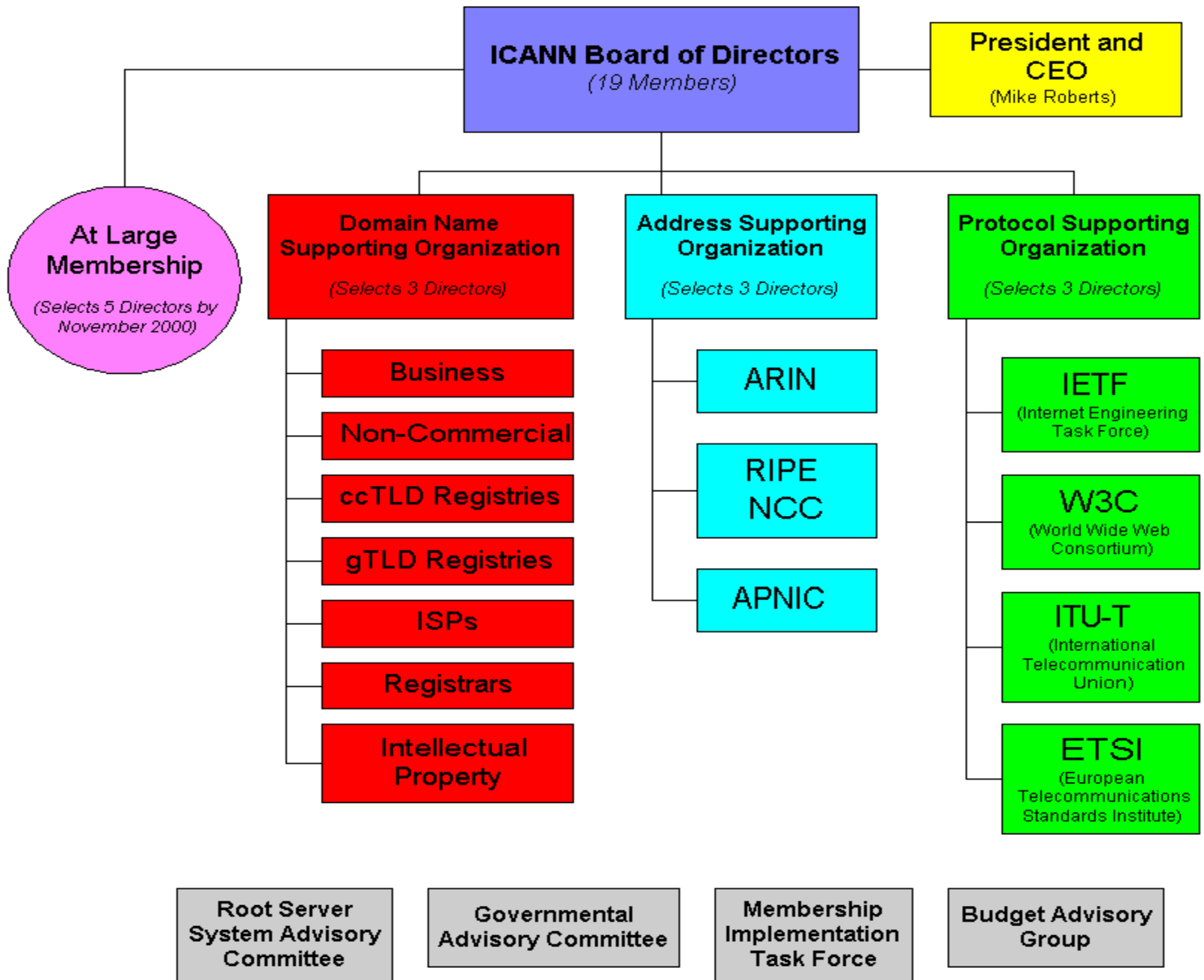
# Policy Objectives for Year 2000

- New Top-Level Domain agreements
  - .info, .biz, .name, .pro, .museum, .coop, .areo
- ccTLD registry agreements
- IP Address registry agreements
- Root server operator agreements



# Structure of ICANN







# ICANN Board of Directors

## At Large Directors:

- Karl Auerbach (USA)
- Ivan Moura Campos (Brazil)
- Frank Fitzsimmons (USA)
- Masanobu Kato (Japan)
- Hans Kraaijenbrink (Netherlands)
- Andy Mueller-Maguhn (Germany)
- Jun Murai (Japan)
- Nii Quaynor (Ghana)
- Linda S. Wilson (USA)

## ASO Directors:

- Rob Blokzijl (Netherlands)
- Ken Fockler (Canada)
- Sang-Hyon Kyong (South Korea)

## DNSO Directors:

- Amadeu Abril i Abril (Spain)
- Jonathan Cohen (Canada)
- Alejandro Pisanty (Mexico)

## PSO Directors:

- Helmut Schink (Germany)
- Vint Cerf (USA) - Chairman
- Phil Davidson (U.K.)

# ICANN Staff

New Model: Lightweight

(minimal staff = minimal bureaucracy)

Current Staff:

- ◆ President and CEO (Mike Roberts)
- ◆ Vice President/General Counsel (Louis Touton)
- ◆ Chief Policy Officer/CFO (Andrew McLaughlin)
- ◆ Registrar Liaison (Dan Halloran)
- ◆ IANA staff (Joyce Reynolds, Michelle Schipper, Bill Huang)
- ◆ Office Manager (Diane Schroeder)
- ◆ Network Administrator (Jim Villaruz)
- ◆ Technical Advisor (Suzanne Woolf)

# Regional Internet Registries (RIR)

- **ARIN**

- North America
- Latin America
- Caribbean Islands
- Sub-Saharan Africa

- **RIPE NCC**

- Europe
- Middle East
- North Africa
- Parts of Asia

- **APNIC**

- Most of Asia
- Australia/New Zealand
- Pacific Islands

# Brief History of RIRs

**1992** - IETF completes CIDR (Classless Inter-Domain Routing) standard, calls for creation of regional registry system

**1992** - RIPE NCC formed

– Now: 2400 members in 109 countries

**1993** - APNIC formed

– Now: 600 members in 36 countries/economies

**1997** - ARIN formed (from InterNIC)

– Now: 1200 members in 70 countries

# Emerging RIRs

**AfriNIC** - Africa

**LACNIC** - Latin America/Caribbean

Role of ICANN:

- Support process
- Evaluate application & regional consensus
- Final approval of new RIRs

# Key Documents

- *ASO Memorandum of Understanding*  
<<http://www.aso.icann.org/docs/aso-mou.html>>
- *ASO Emerging RIR Guidelines (Draft):*  
“Criteria for Establishment of New Regional Internet Registries”  
<[www.aso.icann.org/docs/other/emerging-rir-v1.html](http://www.aso.icann.org/docs/other/emerging-rir-v1.html)>

# ICANN = CyberGovernment?

- **Answer: NO.**
- ICANN has no inherent coercive power, only the ability to enter into contractual relationships through a process of consensus & consent
- ICANN is not a substitute for the powers of governments (i.e., courts and laws)

# Does ICANN regulate?

- **No: ICANN coordinates.**
- **But:** technical coordination of unique values sometimes requires accounting for non-technical policy interests:
  - Data privacy protection
    - (WHOIS database)
  - Intellectual property/trademark law
    - (UDRP)
  - Competition law
    - (Registrar accreditation for .com, .net, .org)



# What ICANN doesn't do

- Network security
- Spam
- Web Sites' Data Privacy Practices
- Censorship & speech restrictions
- Internet Content
  - Pornography
  - Hate speech
  - Copyright violations
  - Deceptive business practices / consumer protection
- Multi-jurisdictional commercial disputes
- Definition of technical standards
  - Network surveillance and traceability
- Internet gambling

# What ICANN is NOT

- Technical Standard-Setting Body
- Internet Police Force
- Consumer Protection Agency
- Economic Development Agency
- Legislature or Court

# Lessons from the Experiment?

- **Private-sector self-management is possible, if narrowly focused**
- **Global consensus on policy is difficult to define; even harder to achieve**
  - Consensus is a tradition in the technical community in which ICANN is rooted, because you can test solutions & refer to objective data
  - Consensus on policy questions can be elusive, because it depends upon subjective values



# Message to You:

(and to all Internet communities)

# GET INVOLVED!!!

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

# For Further Information:

Andrew McLaughlin  
<ajm@icann.org>

<http://www.icann.org>