Introduction to ICANN

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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 Katoh (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>
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>
For Further Information:

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http://www.icann.org