

INTERNET GOVERNANCE

Who makes the Rules?

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Chair

APTLD

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ORIGINS OF THE INTERNET

- United States Government (Department of Defence) funding through industry contractors.
- The Advanced Research Project Agency in the 1960's – ARPAnet.
- Alternative telecommunications in the event of wartime disruption.
- September 1969: Stanford, USCB, UU, and UCLA.
- 1972 – 35 sites, including University of Hawaii by satellite.

JON POSTEL

- Graduate research student at UCLA.
- Maintenance of hosts and addresses and “Requests for Comments”.
- Lists and RFCs made available by SRI International (DARPA contractor and DCA (now DISA)).
- Dr Postel moved from UCLA to the ISI at USC.
- Work under contracts with DARPA continues.
- The functions collectively become known as the Internet Assigned Numbers Authority (IANA).

THE FIRST “INTERNET”

National Science Foundation (NSF) awarded statutory authority by USG to support the scientific backbone of the internet.

- Funding to IBM, MSI and Merit which results in the NSF NET.
- 1992 Congress approves commercial activity on NSF NET.
- 7/1992 NSF signs Crada with Networks Solutions Inc. to manage “.com”.

INTERNET ADDRESSES

Every host computer on the internet has a numerical address:

- 202.49.154.176
- IANA allocates blocks of addresses to “volunteer” regional registries
- ARIN, RIPE, LACNIC and APNIC allocate addresses to ISPs on demand.
- African registry under development
- Addresses are the most crucial resource of the internet.

THE DOMAIN NAME SYSTEM

Domain names are a convenient, user-friendly mapping system.

- They are not a directory service.
- The internet was designed to and could work without them.
- The domain name appears to the right of “@”
- Each domain requires a single registry
- Some sub domains are run from different registries, eg .com.au

TOP LEVEL DOMAIN NAMES

There are two major divisions:

- Generic top level domains (“gTLDs”); and
- Country code top level domains (“ccTLDs”)
- gTLDs were: .mil, .gov, .edu, .int, .net, .org, and .com
- Now include: .aero, .museum, .pro, .coop, .biz, .info, .name
- applications being considered for more....asia, .tel. .travel....

TOP LEVEL DOMAIN NAMES

ccTLDs are based on a list of acceptable abbreviations for country names, prepared by the International Standards Organisation (ISO 3166).

- There are 243, including .nz.
- Management was arranged or confirmed by Jon Postel
- Postel arranged for .nz to be managed by John Houlker, at the University of Waikato.
- In 1996 the internet community in New Zealand formed Internet Society of New Zealand - InternetNZ.
- Postel “approved” transfer of the authority to manage .nz to InternetNZ.

THE ROOT SERVER SYSTEM

The root nameserver system is a database held on 13 computers.

- It points queries in the DNS to the nameservers of the Top Level Domains, which in turn, point to the nameservers of second level domains.
- The authoritative A root server is maintained by Verisign, under contract with the US DoC.
- Many of them are run on a volunteer basis, by 10 organisations.
- A model MoU between ICANN and the RSO's remains unsigned

DEVELOPMENT OF THE WORLDWIDE WEB

The development of the first commercial browser “Mosaic” in 1995 led to an explosion of use of the web and of email.

- Explosive growth in the demand for domain names.

In July 1995 NSI permitted to charge for domain names - \$50 pa.

- NSI’s marketing of .com phenomenally successful.
- Extraordinary income generated.
- Antagonism from the “pony tails”.

THE BEGINNINGS OF CORPORATISATION

Vinton Cerf (the “father of the internet”) formed the Internet Architecture Board in 1990.

- ISOC was formed in 1992.
- IAB became a committee of ISOC.
- Postel was founding member of IAB.
- He was the first individual member of ISOC.
- July 1994 Postel proposes to transfer IANA to ISOC.
- USG questions whether ISOC has jurisdiction and rights.

PRESSURE ON gTLDs

- September 1995 Postel proposes additional gTLDs managed by others.
- 150 new “descriptive TLDs – “.web, .sex,” proposed.
- 2% of income to go to an ISOC-managed fund.
- Opposition came from everywhere –
 - Robert Shaw of the ITU;
 - Trade mark owners (INTA); and
 - the net community.

THE INTERNATIONAL AD HOC COMMITTEE

In late 1996 ISOC formed the IAHC, including its previous critics. In early 1997 IAHC reported –

- Domain names were a public resource
- Wholesale/retail splitting
- Competitive Registrars
- Trade mark protection procedures controlled through the Registrars
- WIPO administrative challenge panels after 60 day wait
- Only seven new gTLDs.

The IAHC gTLD-MoU

At a signing ceremony in Geneva on 1 March 1997 a new structure announced –

- Registrars incorporated in Geneva as part of CORE.
- Governance authority provided by a POC.
- A role for the WIPO.

THE US REACTION

The suggestion that control of the internet was to move to Geneva resulted in Congressional hearings.

Madeline Albright wrote in protest to ITU.

Ira Magaziner was appointed convenor of an inter-agency group on e-commerce.

Faced with IAHC “threat”, USG developed a Green Paper.

Began to propose industry-led governance of the internet

Interest piqued around the world, of industry, governments, and “civil society”

THE US REACTION

3 June 1998: after considering comments filed on the Green Paper, the White Paper released. Its key principles:

- Bottom up processes;
- Industry self-regulation;
- Transparent;
- Geo-diverse;
- Government-free;
- A role for WIPO;
- Competition.

INTERNATIONAL FORUM ON THE WHITE PAPER

Global Internet community became involved in debating the White Paper principles:

Meetings were held in Virginia, Geneva, Singapore and Buenos Aires.

Intense (and often) abusive debate in the “Forum”.

Coincided with larger global process conducted by WIPO on trademark/domain name clashes, cybersquatting and cyberpiracy.

ICANN

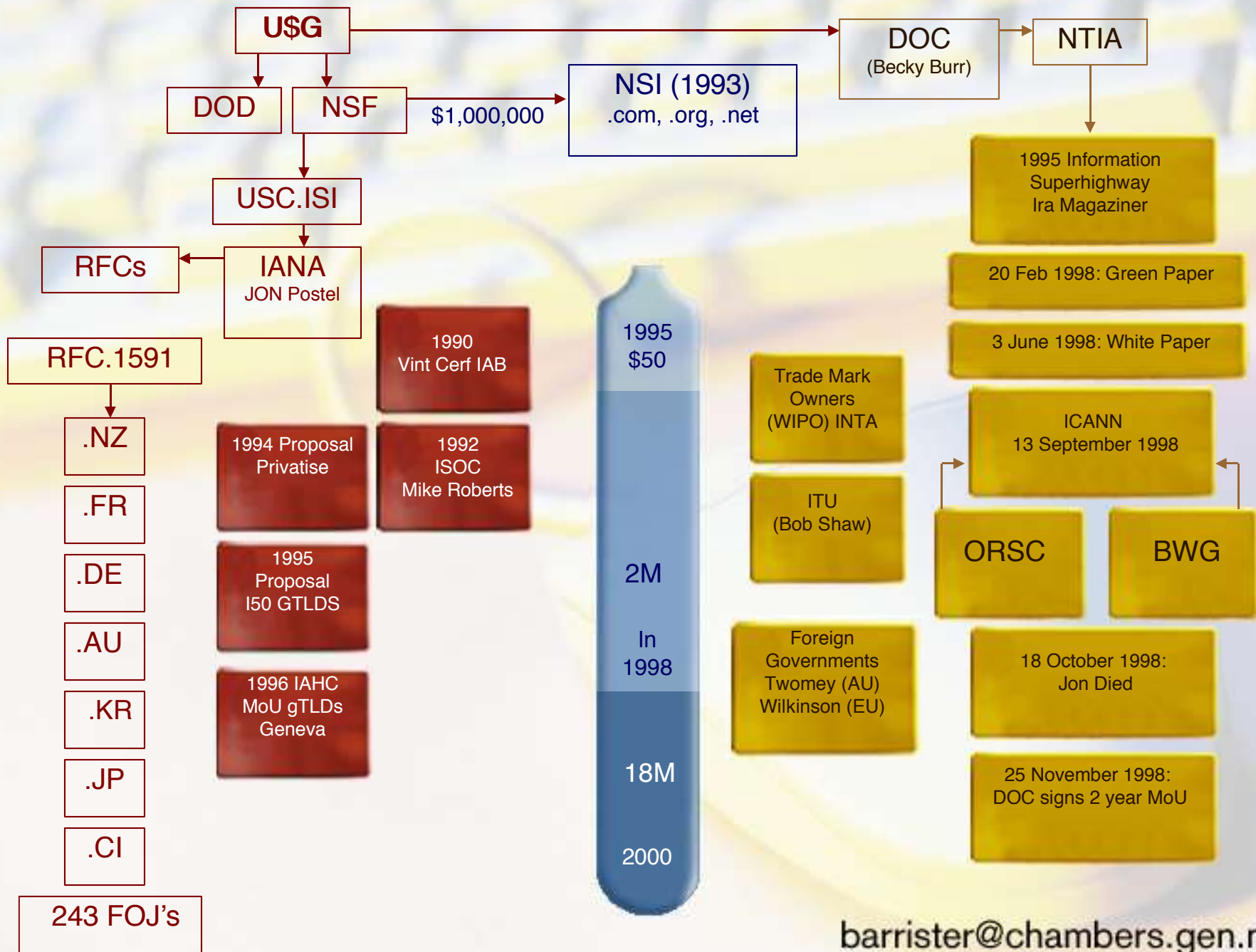
Peace broke out on 13 September 1998.

- Both the NSI contract and the IANA contract were terminating.
- Bylaws proposed a global corporation to carry out White Paper principles.
- Company formed as “NewCo”
- Eventually emerged as ICANN - the Internet Corporation for Assigned names and Numbers

ICANN

Objections from at least two organised opponents –

- Open Root Server Coalition; and
- Boston Working Group.
- 18 October 1998 Jon Postel died
- Shortly after, ICANN announced its interim board
- On 25 November 1998 Department of Commerce signed a 2 year memorandum of understanding recognising ICANN as “NewCo”.



ICANN'S PROGRESS (?)

First President and CEO was Mike Roberts, ISOC stalwart.

Meetings followed:

- 1999 in Singapore, Berlin, Santiago, Los Angeles
- 2000 in Cairo, Yokohama, and Los Angeles
- 2001 in Melbourne, Stockholm, Uruguay and Los Angeles.
- 2002 in Accra, Bucharest, Shanghai and Amsterdam*
- 2003 in Rio, Montreal and Carthage
- 2004 in Rome, Kuala Lumpur and Capetown

STRUCTURAL ACHIEVEMENTS

Domain Names Support Organisation –

- Agreed in Singapore, started in Berlin, completed by Chile.

Contained “constituencies” – Business, Non-Commercial, Intellectual property, g-Registries, g-Registrars and cctld registries

- Note the absence of an individual’s domain name constituency
- Pressures from the ccTLDs, generating change.

PROTOCOL SUPPORT ORGANISATION

Formed as the result of a memorandum of understanding between the ITU, IETF, ETSI and WWWC.

ADDRESS SUPPORT ORGANISATION

Formed exclusively of the existing address registries.

THE INDEPENDENT REVIEW PANEL

As a mechanism for controlling the actions of the Board, the independent review advisory committee recommends a panel of the “great and good”, to exercise moral authority.

THE GOVERNMENTAL

ADVISORY COMMITTEE

A standing policy advisory committee, of governmental officials.

The “GAC” principles.

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ICANN



CHAIR: VINT CERF



ICANN ACHIEVEMENTS by 2001

- It had survived
- NSI's .com contract (now Verisign's) was with ICANN
- Established a shared registry system - the .com monopoly broken
- Seven new gTLDs: .biz, .name, .pro, .coop, .museum, .aero, .info
- The UDRP - much reduced the effect of cybersquatting
- Some At large Directors in place
- Apparent support from Governments, and the ITU

ICANN FAILURES by 2001

- No relationship with cctlds - “blackmail” operating in the updating of IANA database
- No relationship with Root Server Operators
- No relationships with Address registries
- Insufficient (fading?) support from governments, concerned about USG control
- Lack of money
- Few new gTLDs, capture of At large.....etc

Major Reforms

Triggered in Feb 2002 by 2nd President, Stuart Lynn, in a paper acknowledging problems.

Ghana meeting formed an “Evolution and Reform Committee (March 2002)

Extensive consultation and complete re-examination of all principles and structures.

“Blueprint for Reform” presented in Bucharest (June 2002)

ccTLD Reforms

Proposal to withdraw from DNSO and form a ccSO first presented by Peter Dengate Thrush to ccTLD meeting in Marina del Rey, (November 2001)

Formal decision to withdraw adopted in Stockholm (June 2001). Work begun on ccSO Bylaws.

“Blueprint” (July 2002) included a ccNSO

ccTLD Reforms

ERC appoints “Assistance Group” (August ‘02)

Formal withdrawal from DNSO completed at Shanghai meeting (October 2002)

Draft bylaws for ccnso heavily negotiated through Rio Meeting (March 2003)

Breakthrough in Montreal (June 03) - ERC abandons concept of “binding” cctlds to policy development process

cctld Reforms

Further negotiations through Carthage meeting
(October '03) first “members meeting”

+30 members with +4 from each region enables
formation of ccNSO by Rome meeting (March 04)
and further bylaw changes

First ccNSO Council meeting held at Kuala Lumpur
meeting (July 04)

Now building ... establishing links, board members etc

The ccNSO Structure in the Bylaws



(Regional associations by agreement)
Member ccTLDS



DNSO Reform

ccTLDs withdraw, leaving 6 constituencies

Renamed GNSO to reflect focus on gTLDs

2 “contract” constituencies, g-registries and g-registrars,
get 2 votes each (total 4 votes)

4 non-contract constituencies get 1 vote each (total 4
votes)

3 appointments by the Nominating Committee intended
to break any deadlocks

PSO Reform

The reformed ICANN did away with the PSO, subsuming some of its functions in Standing Advisory Committees, particularly the Stability and Security Committee, and the Technical Liaison Group.

Gac Reform

GAC influence considerably enhanced in ICANN 2
Declined board seats, but have liaison, and if board disagrees with GAC advice, must explain in writing.

ASO Reform

Formal agreement between the RIRs and ICANN has not been reached, other than the MoU to form the ASO.

The ASO tends not to meet at ICANN meetings
RIRs have now formed the Number Resource Organisation

NRO and ICANN have signed a letter of Intent to form a new ASO, by MoU between them.

At Large Reform

Concern over risks of capture

Formation of ALAC - the At Large Advisory Committee

Seen by some as “top down capture” by board

Proposes “Regional At Large Organisations” made up
of membership by “At Large Structures”

22 applications received....watch this space...

ICANN

CHAIR: VINT CERF

Board seats

2 GNSO	2 ASO	2 CCSO	8 "At Large"	6 Liaison	* Nom Com
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Generic Support Org	Address Support Org	Country code Support Org
Names Council (16)	Address Council	International Council
ISPS	RIPE ARIN APNIC LACNIC tbd	Voting members commit to ICANN policy development No authority to make binding policy
Registries		
Registrars		
Non-Commercial		
Trade Marks		
Business		
Others ?		

Selected by the Nominating Committee*	Standing committees
	TLG
	IAB/IETF
	RSSAC
	SSAC
	GAC
	ALAC

- Chair and Past Chair
- RSSAC liaison
- SSAC liaison
- GAC liaison
- g Registries
- 5 ALAC
- Large business users
- Small business users
- g Registries
- g Registrars
- ccNSO, ISP's
- IP Constituency
- ASO, IETF, TLG
- Academic/Public
- Consumer groups

Ombudsman

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Does it all matter?

Current work in progress includes:

- Monitoring new UN Working Group on Internet Governance, arising from the WSIS
- Working with ITU on “ccTLD experiences”
- Setting up AfriNic
- Implementing Ipv6, Internationalised domains, considering WIPO II, Wildcards
- Rules for operation of .net

Does it all matter?

Further litigation with Verisign over Wait List Service,
Site Finder(wild cards) and IDN

Detailed policy on g-tld issues - inter registrar transfers,
Whois, Restored names, “grace period” etc etc.

Consideration of new gTLDs

Changes to ccTLD manager....just beginning

CONCLUSION

- The formation and development of ICANN is an historically significant, continuing exercise in –
 - governance
 - international law
 - competition law
 - global diversity
 - politics and personalities,
 - the most important technology since the wheel
- InternetNZ supports an ICANN which implements the principles of the White Paper, and the mission statement in amended Bylaws.
- APTLD intends to function as a regional cctld organisation in association with the ccNSO.

FURTHER READING

SEE –

- www.icann.org
- www.icannwatch.com
- www.ccnso.icann.org
- www.aso.icann.org
- www.internetnz.net.nz
- www.aptd.org

Questions?