

ICANN: Supporting the Global Internet

Peter Dengate Thrush
Chairman



IEEE, IET & IPENZ

Combined Institutions Breakfast

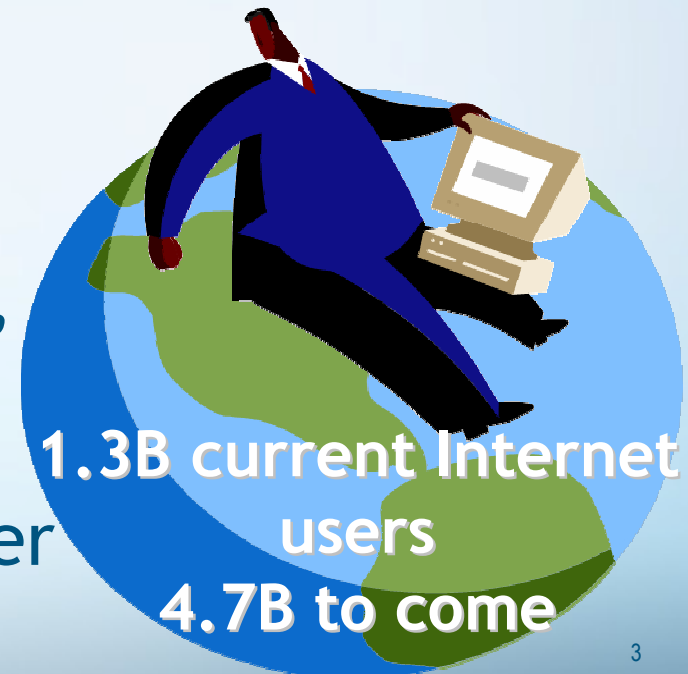
Wellington, 29 July 2009

Agenda

- Introduction - Some themes
- What is ICANN?
 - Role
 - Structure
 - How it works
 - Accomplishments and ongoing work
- Challenges and opportunities
- The Internet in the Near Future
- Q&A

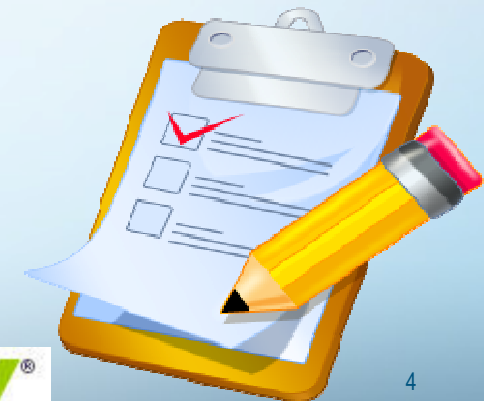
Themes

- Appropriate for Chair of ICANN to be addressing meeting of engineering professionals
- Internet is the most powerful tool ever built by engineers
- The power of the printing press is now on everyone's desks
- But more - because of convergence, everyone can now be their own film-maker, broadcaster, editor, and producer - old concepts of "distribution" are gone forever
- More than engineering rules are required -Governance needed



ICANN's role

- ICTs are going to continue to be a key industry in driving the recovery
- Think Google, Yahoo, Skype, eBay, BlackBerry, Trademe
- Think mobile telephony, wifi, cafenets, the demise of faxing, worldwide multiparty gaming, Facebook and other social networks...political blogs, fundraising
- They all rely on a single global interoperable stable Internet - ensuring that is ICANN's role



facebook

BlackBerry




So, who is in charge?

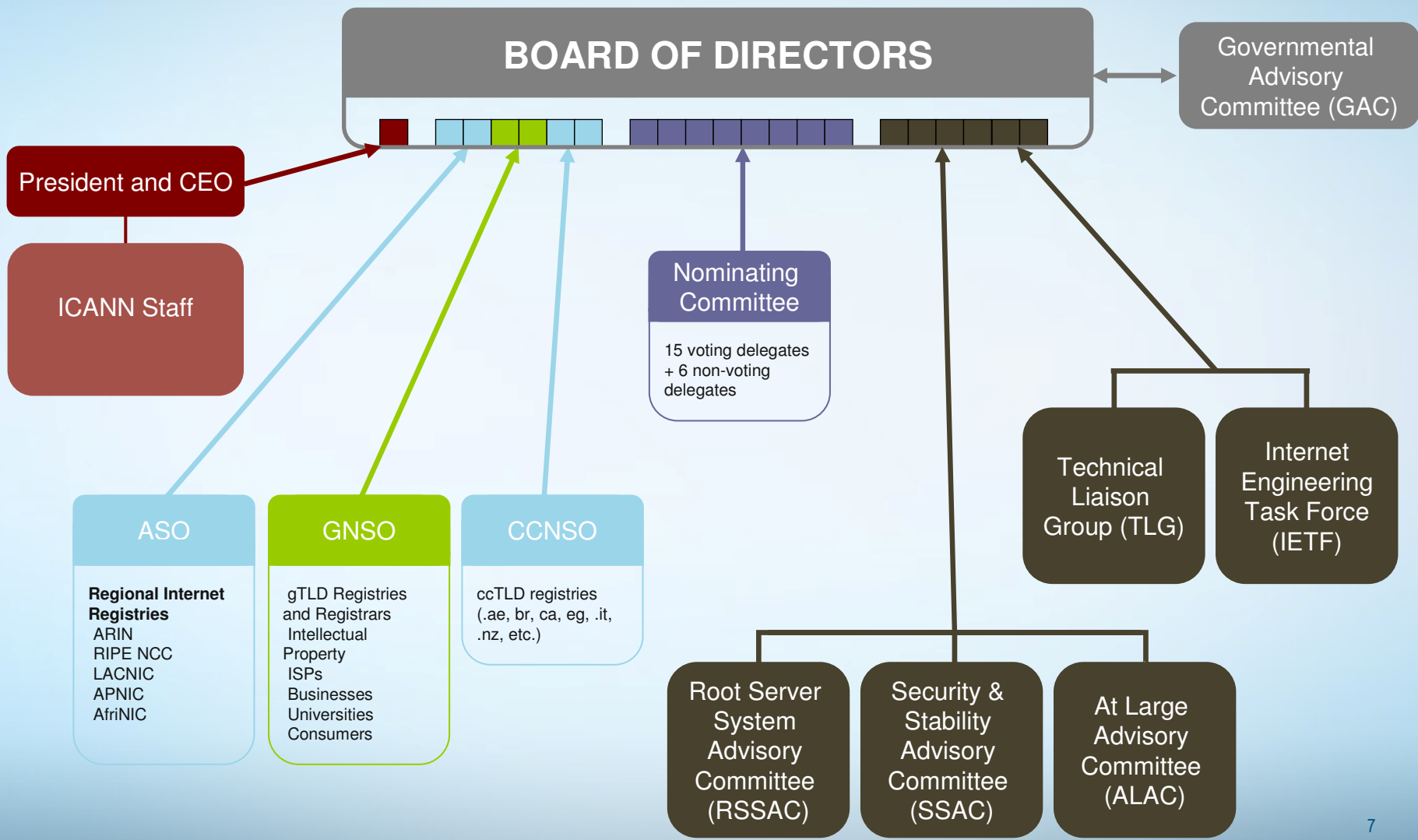
- Most of the Internet infrastructure (including personal laptops and major transmission systems) is in fact in private hands
- Internet Governance at ICANN is “private sector led”
- It is “multi-stakeholder”- the technical community, governments and civil society also all play crucial roles
- A **unique model** - no other crucial public sector infrastructural resource is governed this way; **others will follow**



ICANN described

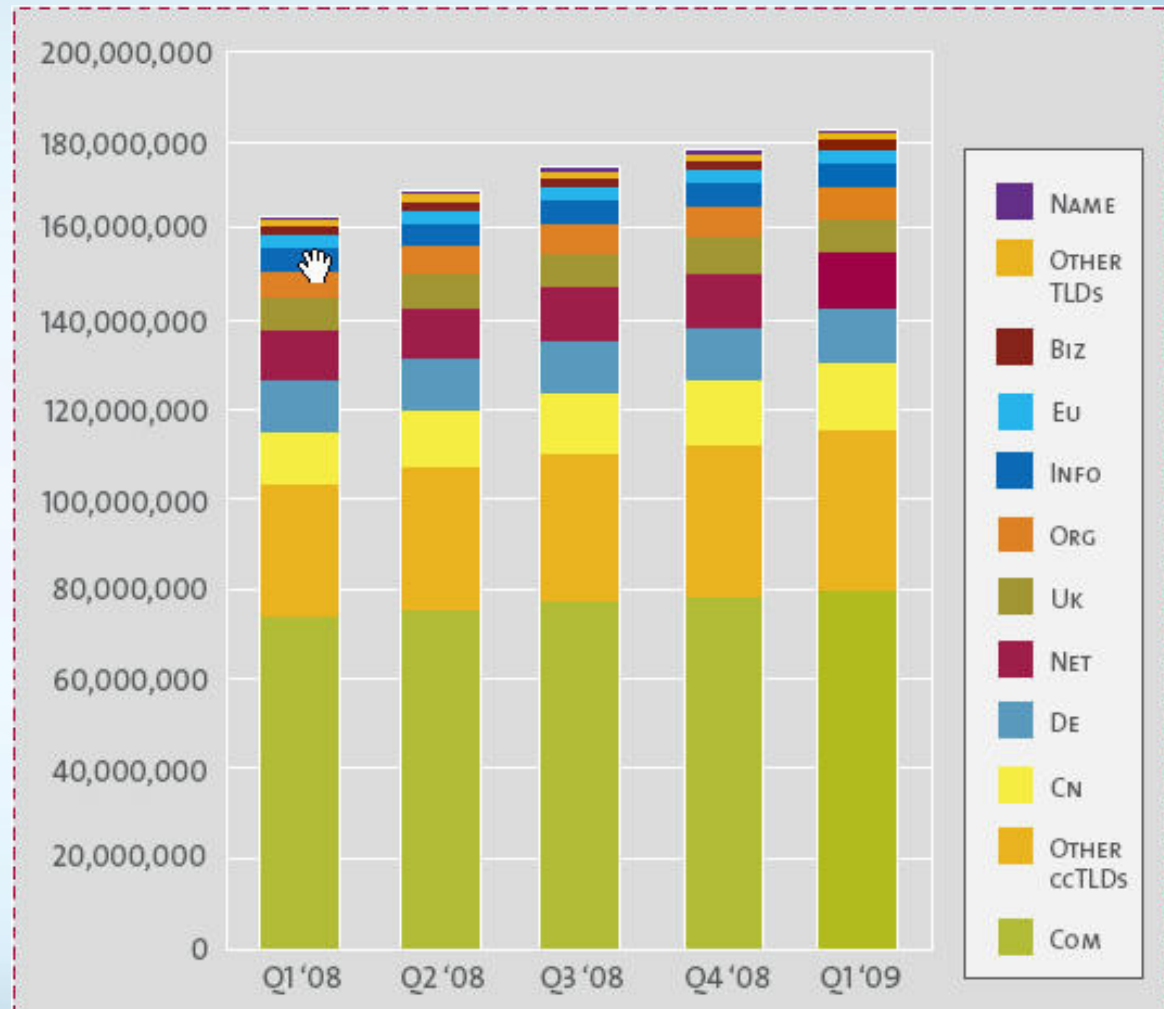
- Internationally organized, non-profit organization, multi-stakeholder
- Responsible for IP address allocation, protocol identifier assignment, gTLDs and ccTLDs name system (DNS) management and root server coordination
- **IS** dedicated to preserving the operational stability of the single global Internet ✓
- **IS NOT** responsible for rules for financial transactions, content control, spam, data protection 

ICANN's structure



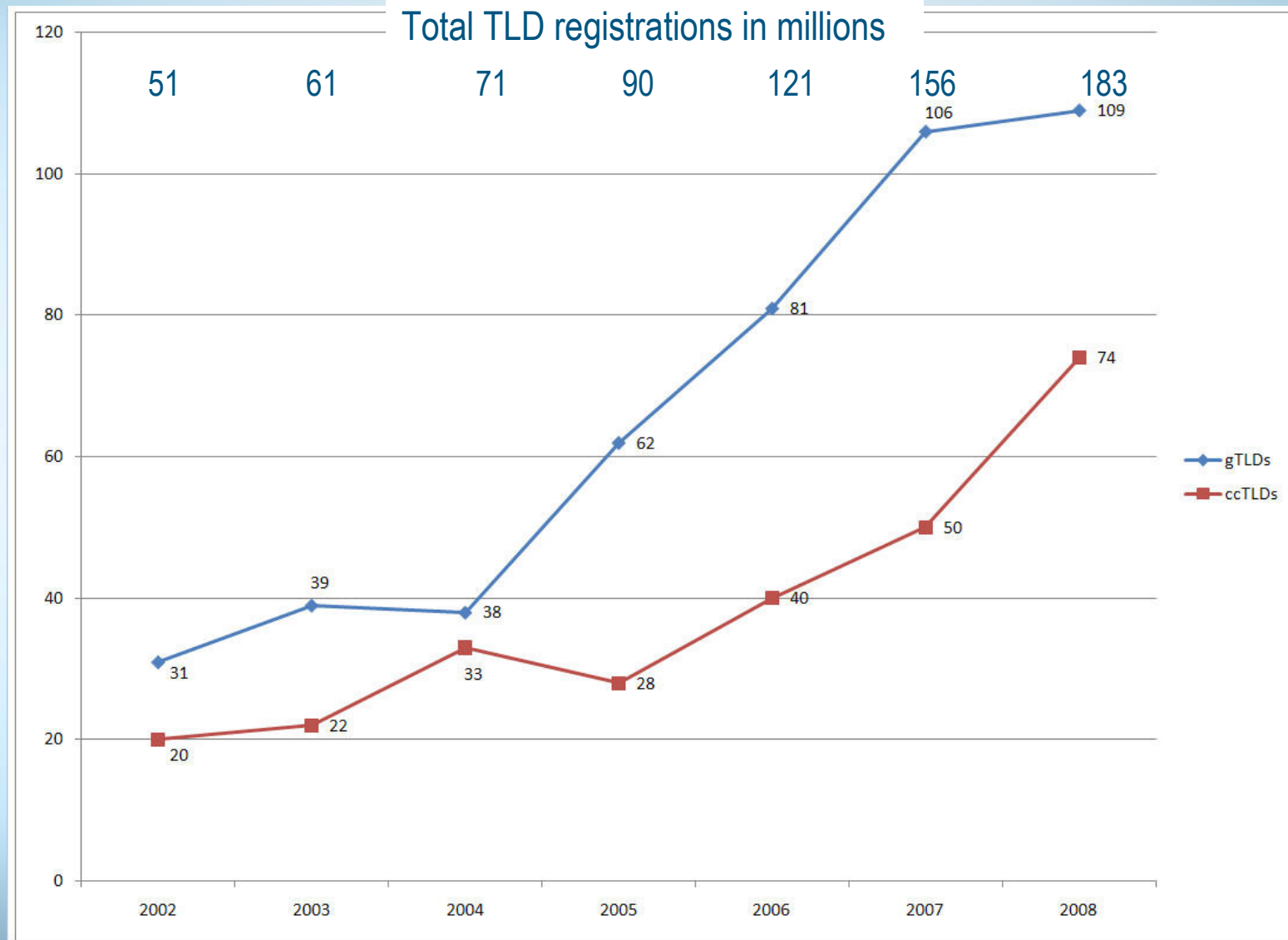
Snapshot of the Domain Name Marketplace Stats

- More than **183 million** domain names registered worldwide
- About 20 gTLDs and 252 ccTLDs
- Users are demanding more



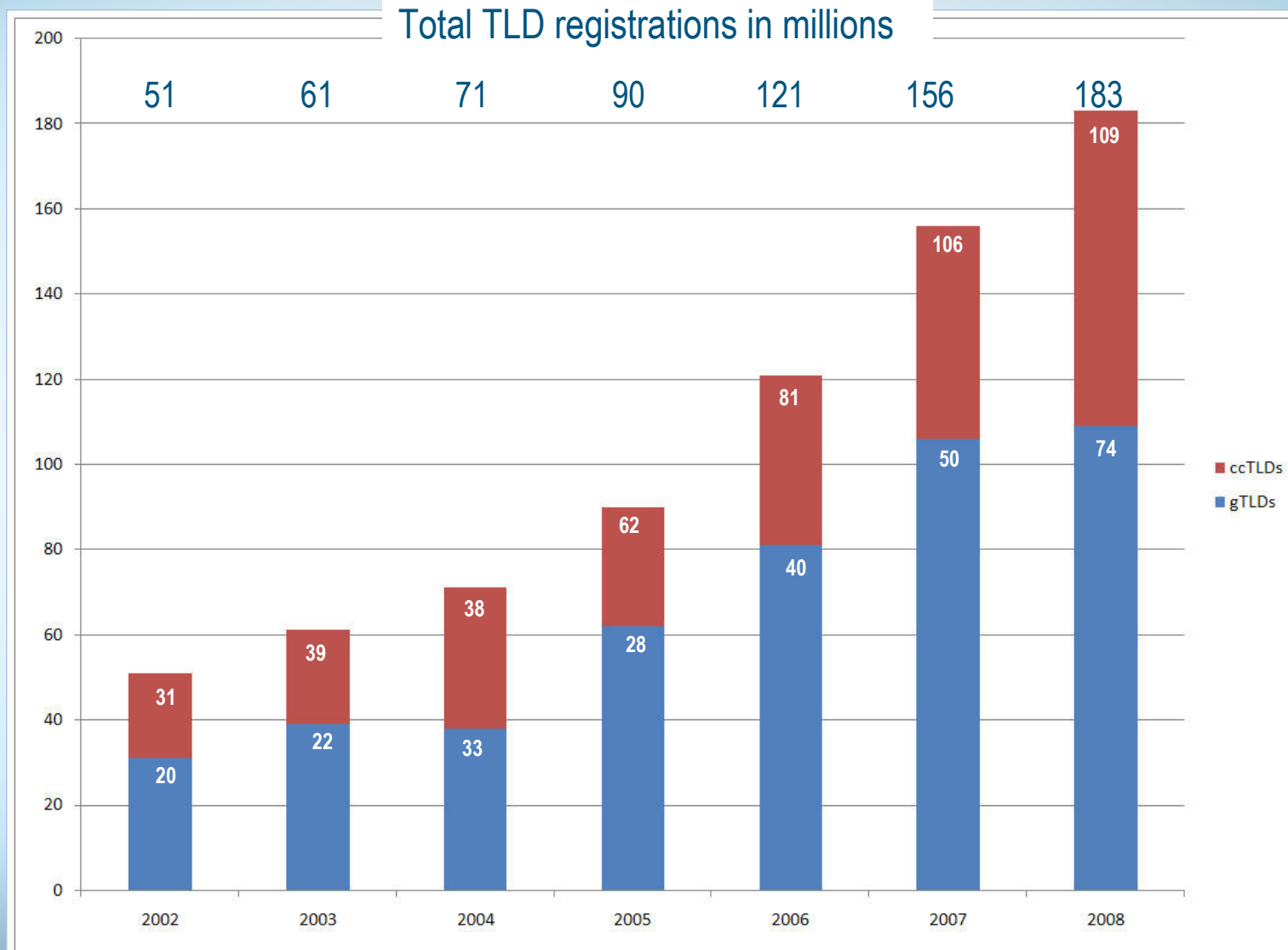
Source: VeriSign Domain Name Brief, June 2009

Domain Name Marketplace - 2002-2008



Source: VeriSign Domain Name Briefs, 2002 - 2008

Domain Name Marketplace - 2002-2008

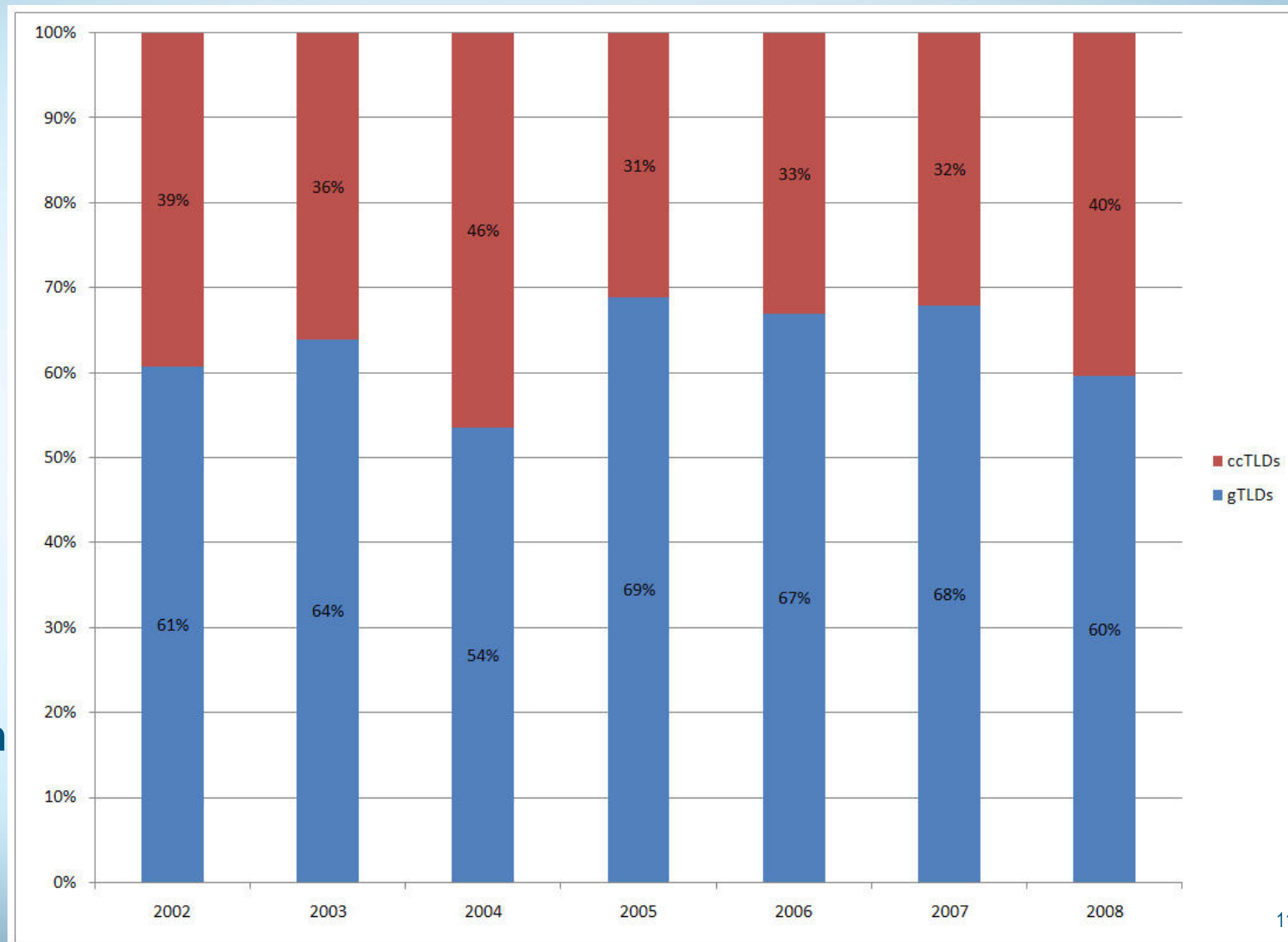


Source: VeriSign Domain Name Briefs, 2002 - 2008

Domain Name Marketplace - 2002-2008

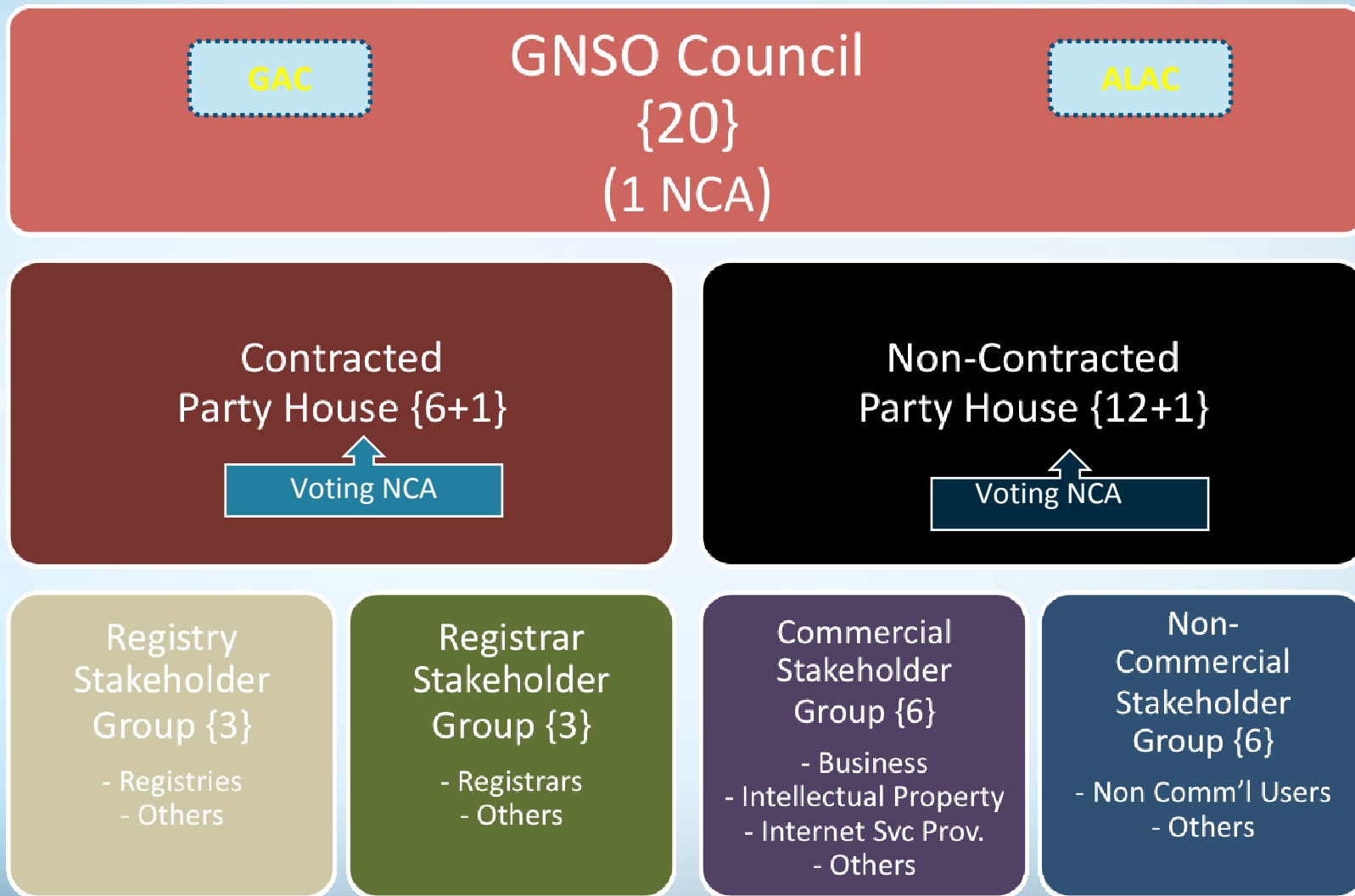
% split,
gTLDs
v
ccTLDs

With IDN
ccTLDs
about to
take off,
ccTLDs
numbers
may soon
surpass
gTLDs



Source: VeriSign Domain Name Briefs, 2002 - 2008

Regular Reform: New GNSO Council Organization - June 2009



Legend: {} Voting; () Non-Voting

IPv4 depletion - IPv6 implementation

- Internet is running out of addresses
 - Current IPv4 protocol assumed that 4 billion addresses would be enough, but . . .
 - IPv4 depletion expected within next 2 years
- IPv6 developed in 1996
 - More than 340 trillion, trillion, trillion addresses available



An IPv4/IPv6 size comparison: if all the IPv4 addresses could fit within a BlackBerry, it would take something the size of Earth to contain IPv6

Accomplishments and ongoing work

- Multi-stakeholder model emerged from the WSIS process, endorsed as best model of governance
- Established market competition for gTLDs (registration costs drop by 80%, over \$US1B annually saved by consumers and businesses)
- Implemented a UDRP (>55000 disputes regarding trademark rights resolved)
- New gTLDs (.aero, .biz, .coop, .info, .museum, .name, .pro, .mobi, .tel) - others are being explored (ongoing process)
- Workshops on relevant issues (gTLDs, IDNs, IPv6, etc.)

Challenges and opportunities

- Transition to IPv6 (enhanced stability and security)
- New gTLDs (.beach, .wine, .movie, .Paris competition, openness, change, innovation - branding opportunities)
- IDN TLDs (in language scripts other than Latin)
- Ending the Joint Project Agreement
- Others are wanting to eat ICANN's lunch...
- Conficker worm and other security threats
- Economic/financial crisis impact on registries/registrars

The ITU



First visit of an ICANN Chairman to the Secretary General of ITU in Geneva - July 2008

The ITU comes to ICANN



- Secretary General Hamadoun Toure address the ICANN public forum, Cairo November 2008

Example.test IDNs in 11 languages

Script	Language	SLD.TLD U-labels	SLD A-label	TLD A-label
Arabic	Arabic	مثال.إختبار	xn--mgbh0fb	xn--kgbechtv
Arabic	Persian	مثال.آزمایشی	xn--mgbh0fb	xn--hgbk6aj7f53bba
Chinese, simplified	Chinese	例子.测试	xn--fsqu00a	xn--0zwm56d
Chinese, traditional	Chinese	例子.測試	xn--fsqu00a	xn--g6w251d
Cyrillic	Russian	пример.испытание	xn--e1afmkfd	xn--80akhbyknj4f
Devanagari	Hindi	उदाहरण.परीक्षा	xn--p1b6ci4b4b3a	xn--11b5bs3a9aj6g
Greek	Greek	παράδειγμα.δοκιμή	xn--hxajbhheg2az3al	xn--jxalpdlp
Hangul	Korean	실례.테스트	xn--9n2bp8q	xn--9t4b11yi5a
Hebrew	Yiddish	טעסט.למשל	xn--fdbk5d8ap9b8a8d	xn--deba0ad
Kanji Hirigana, and Katakana	Japanese	例え.テスト	xn--r8jz45g	xn--zckzah
Tamil	Tamil	உதாரணம்.பரிட்சை	xn--zkc6cc5bi7f6e	xn--hlcj6aya9esc7a

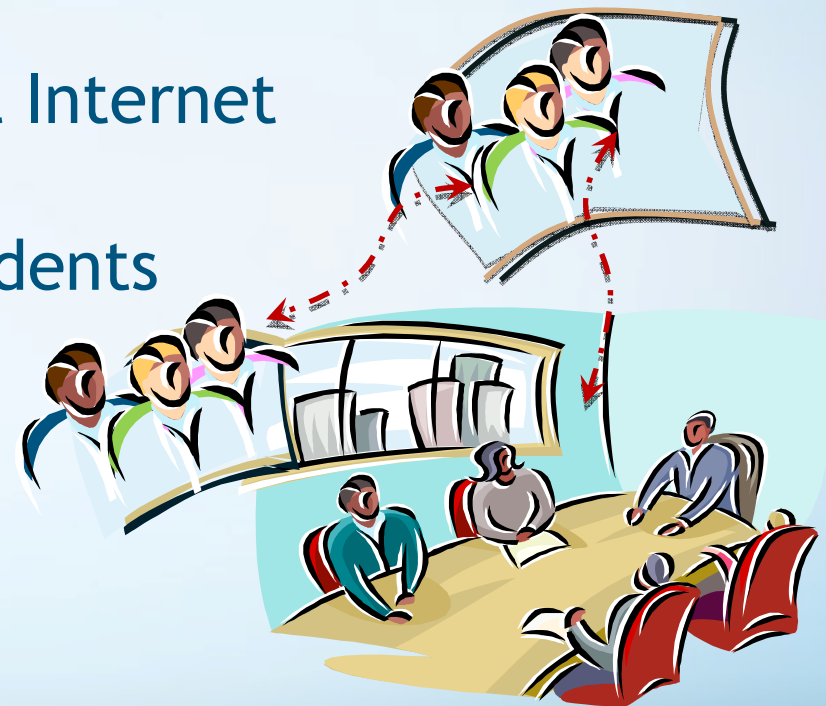
Ending the JPA



Chairing the Washington consultations on the ending of the Joint Project Agreement - October 2008 ¹⁹

The near future...

- 92% of all scientists and 85% of all engineers who have ever lived are alive today
- China is about to become the largest English speaking population
- China is already the largest Internet user population
- India has more honours students in its schools than the USA has children
- Nanotechnology means we will wear, and carry in our bloodstream, more powerful computers than exist today



Everything will be
connected

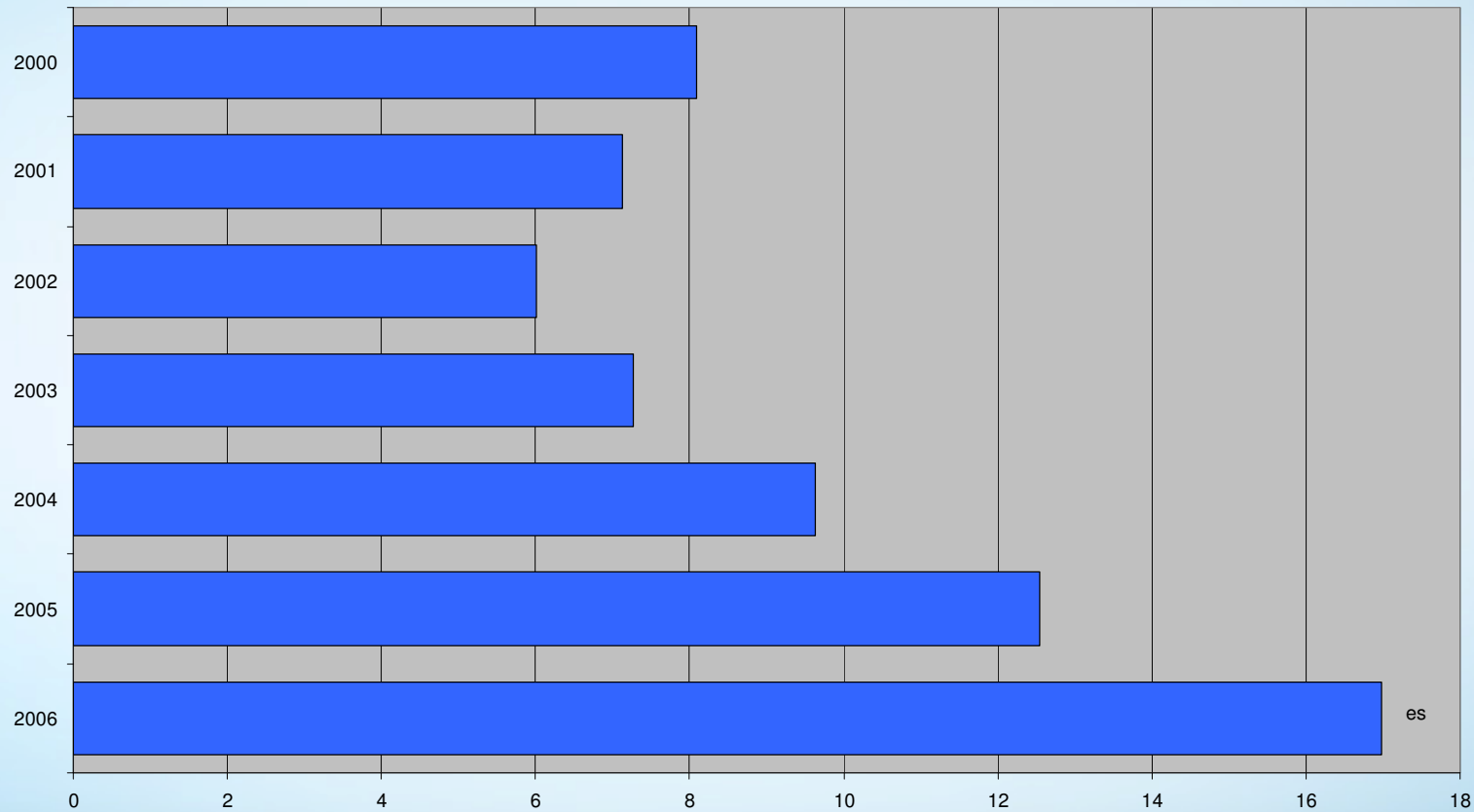
What will the Internet look like in 3 years?

- Usage limited by access to electricity - 3 billion
- Many, perhaps most, will access by mobile devices - 1 M a month in India
- Significant increase in broadband access (over 100 mb/sec)
- Machine-to-machine Internet will overtake person-to-person Internet
- Billions of Internet-enabled appliances at home, work, in the car, in the pocket
- Third parties will use Internet to monitor all sorts of activities and utilities - washing machines to cars to electricity meters
- Geolocation and geo-indexed systems much more common; emergency services more precisely dispatched



U.S. Internet advertising revenue, 2000-2006 (in billions)

Internet advertising revenues (\$ bn)



Source: e-marketer.com

What will the Internet look like in 5 years?

- Significant improvement in spoken interaction with Internet-based systems
- Wide range of delivery methods for intellectual property (movies, sound tracks, books, etc.). VoIP will be prevalent and SIP may be the principal protocol means by which calls are set up. Voice communication will be essentially free except perhaps for calls that terminate on traditional PSTN devices, including mobiles
- Almost no industry will be offline - most will rely on the Net for customer interaction, customer discovery, sales, service, advertising, etc.
- Group interaction, collaborative support tools (including distributed games) will be very common
- IDNs and much more multilingual Internet content

Changing the CEO

Paul Twomey

March 2003-June 2009



Rod Beckstrom

July 1, 2009



ICANN welcomes your participation



- Address Supporting Organization (ASO)
- At Large Advisory Committee (ALAC) and At Large Structures
- Country Code Domain Names Supporting Organization (ccNSO)
- Generic Names Supporting Organization (gNSO)
- business, IP, Academia ...
- Governmental Advisory Committee (GAC)
- IETF, TLG, ISOC



Q & A

Thank you very much

Peter Dengate Thrush