中国互联网络信息中心
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A Brief Introduction on CNNIC *And* The Internet In China

Major Content

- About CNNIC
- Internet and CN Domain Name Development in China
- CNNIC at the Technology Cutting Edge
- Internet Changing Life in China
- CNNIC's Views on IDN

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About CNNIC

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The History

- CNNIC, short for **C**hi**n**a Internet **N**etwork **I**nformation **C**enter.
- Established in 1997 as a non-profit organization, was authorized by the State Council as the national Network Information Center.
- Delegated by Ministry of Information Industry (MII) as the registry of .CN ccTLD.

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CNNIC's Mission & Role

CNNIC's Mission

- Serve Chinese internet users, facilitate the sound and orderly development of the internet in China.

CNNIC's Role

- CNNIC is the constructor and operator of the information society infrastructure in China.

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CNNIC's Main Functions

- Manage internet address resources in China — a NIR function
  - .CN ccTLD registry and management, Chinese domain name
  - IP/AS number allocation
- Internet Stats. and relevant information services
  - Internet resource stats., track down main developments and events, trace hot issues
- WHOIS database service
  - National level root server setting and maintenance

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CNNIC's Main Functions (Contd.)

- Internet Technology R&D
  - IDN, IPv6, ENUM, NGI, Handle DNS, Key Words
- International Intercommunion and Policy Research
  - Representing China's internet community to carry out business coordination and cooperation, participate in developments of internet standards and regulations
- Secretariat of the Internet Policy and Resource Working Committee of the Internet Society of China

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Highlights of Internet Development in China

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The Rapid Growth of .CN

- By the end of year 2005,.CN domain registrations have over 1 million! —— A remarkable 154% growth in one year!
- Reasons for fast development:
  - The price – competitive pricing, close to .com and is going to lower than .com this year.
  - Promotion campaign – national road shows, Newspaper ads and TV commercials.
  - Technology – utilized Anycast technology, 6 distributed DNS nodes (4 installed) around China and oversea.
  - Service – established callcenter, faster and more reliable name resolving services.
  - Policy – new Domain Name Dispute Resolution Policy.

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What is New in CN Domain Name Dispute Resolution Policy

- Redefine the meaning of cybersquatting:
  - cybersquatters will no longer be referred to those who register a domain name “for the purpose of selling or renting it”. Instead — “sell or rent it to competitors of a company whose rights are infringed upon.” (article 9)
- Defined rights claiming period:
  - Once a name was registered over two years, no dispute should against it. (article 2)
- Clarify the domain holders rights:
  - legitimate noncommercial or fair use of the domain name
  - have been commonly known by the domain name
  - use the domain name or a name corresponding to the domain name with a good faith in offering of goods or services. (article 10)

(http://www.cnnic.cn/en/)

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Reasons for Policy Updates

- Better protect the name holders' rights.
- Better resolve domain name disputes.
- Clarify what is considered as hostile and right-claiming period.

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Stats. of China's Internet

- By the end of year 2005
  - Total internet user reaches 111 million, a 17 million increase from year 2004.
  - Total computers connected to the internet 49.5 million, a 7.9 million increase from 12 month ago.

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Stats. of China's Internet

- By the end of year 2005
  - Total IPv4 address allocated 74,391,296, (4A+111B+31C), ranked third in the world.
  - IPv6 address allocated 19*/32+/48
  - Total bandwidth connect to the world 136,106 M, a 83% increase from last year

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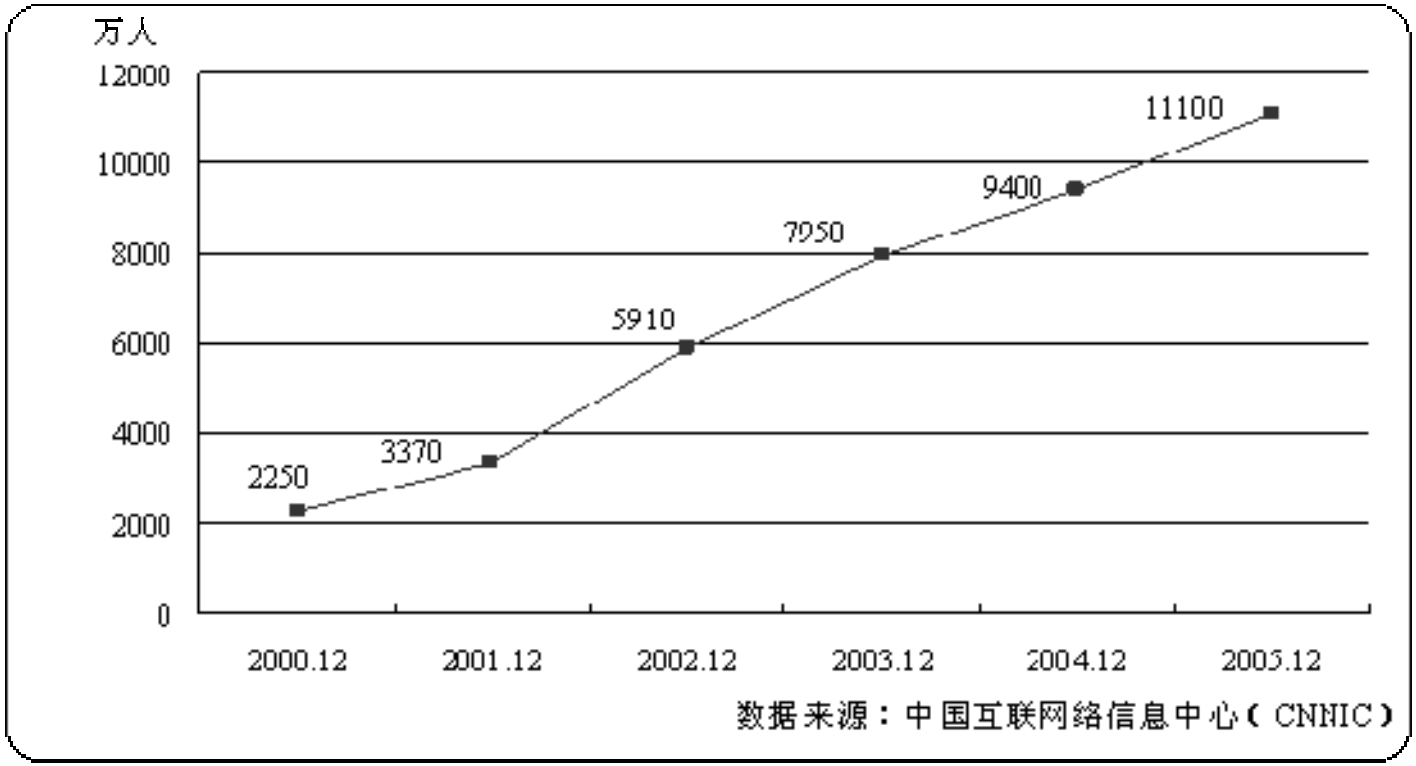
Growth of Chinese Internet Users

(In ten thousands)



The number of Internet users has grown 179 times since 1997.

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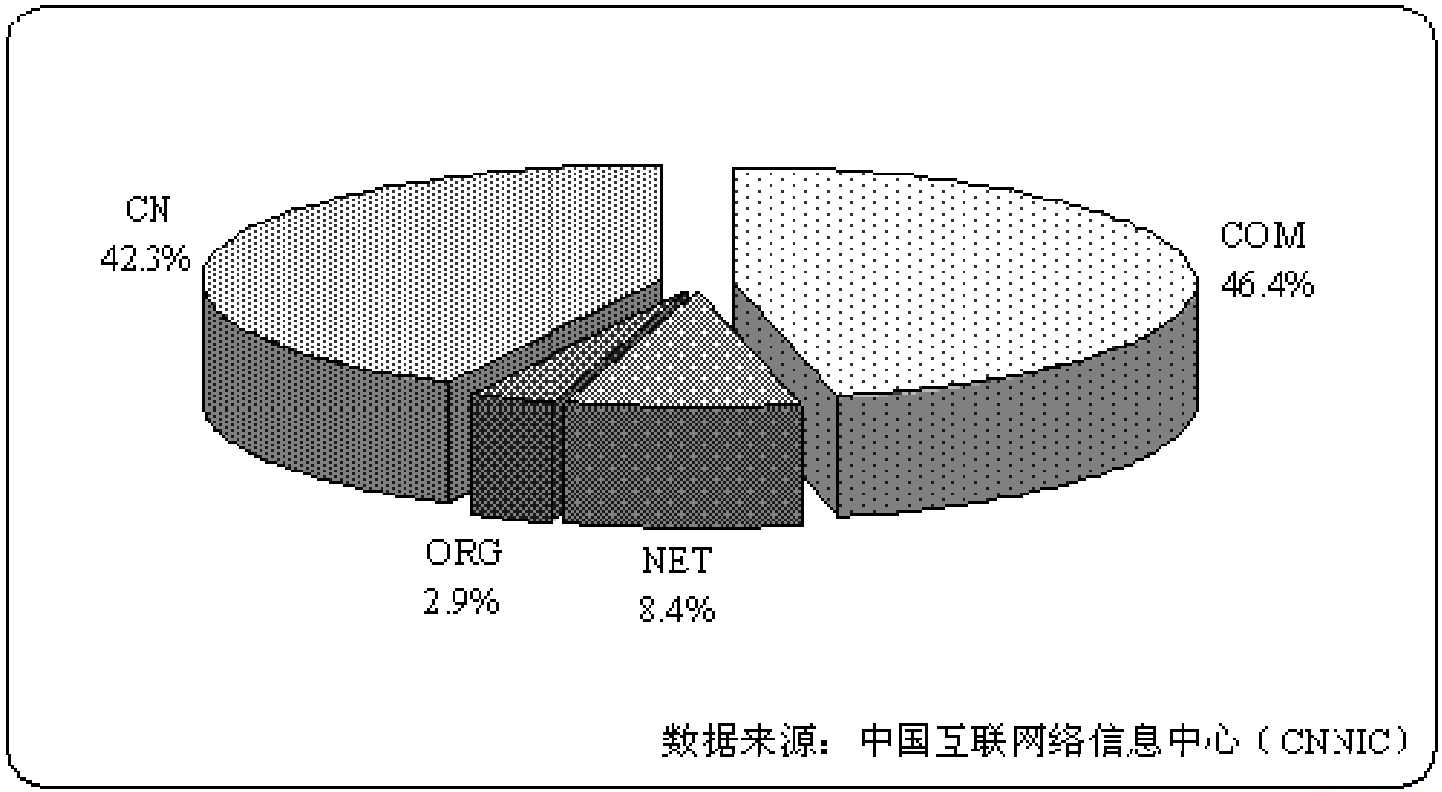
Distributions of TLDs in China

- In one year, .CN domain names has almost caught up the .COM domain names in the Chinese market. The .CN is expected to exceed .COM in 2006.



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CNNIC at the Technology Cutting Edge

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Internationalizing The Utilization of Internet

- Pioneer in IDN Development
  - Started R&D on IDN in 1998
  - Formal launch of commercial IDN.cn names in 2000
  - Started experimenting Chinese TLDs since 2002. (however, it's not an alternate root)
  - Join founders of Chinese Domain Name Consortium (CDNC) and JET
  - Rich hands-on experiences and expertise with IDNs: IETF RFC3490, RFC3743 and Etc.

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Internationalizing The Utilization of Internet

- One of the major force in Internationalized Email Application (IMA) development
  - Started R&D in 2004 and helped to create IMA mailing list within CDNC
  - Hosted JET meeting at Beijing in fall 2005
  - In November 2005, CNNIC together with JET created IMA BOF in IETF
  - Just before this presentation, IETF had created IMA work group – EAI
  - Posted 7 IETF internet drafts:
    - draft-klensin-ima-framework
    - draft-yao-ima-smtpext
    - draft-newman-ima-pop, and etc.

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Enable Multiple Access Methods of the Web

- Just launched the commercial wireless Keyword in March 2006
- Internet Keywords
- R&D in ENUM
- RFID technology R&D
- Actively participating the advance use of IPv6

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Internet Changing Life in China

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Internet Changing Life in China

- E-mails — significant impact on traditional postal services
- Instant Messaging — improved communication
  - Tencent QQ, MSN Messaging, Yahoo! Messenger, etc.
- Online Services
  - Information search, online news, online forum, etc.
  - E-Government, on-line education, e-banking, e-stock market, etc.
- E-commerce
  - Web stores, auction sites, B2B platform, etc.
- Online Gaming, Multi-medias (music, movie, etc.)
- P2P(IP phones, BT, etc.)

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Internet Changing Life in China
(Contd.)

- Helped China further join the world
  - Exchanging views, students apply for oversea school online, foreign website and information availability, etc.
- Created many millionaires
  - Eachnet. com (now eBay.com.cn), Sina.com.cn, Sohu.com, Tencent, Shanda.com.cn (SNDA), Taobao.com, many others
- New channels for illegal activities
  - Online-gambling, intellectual property issues, money laundry, “phishing”, domain hijacking, spamming, etc.
- A future look of internet in China
  - Richer content, better services, more impact on traditional business — “ We are just getting started!”

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CNNIC’s View on IDN

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Strong Need for IDN

- According to CNNIC's statistics, among the 111 millions Internet users
  - 99.8% access Internet Content in Chinese
  - Over 70% of the users are Chinese only Internet users.
- According to CNNIC's analysis, just one positive sign of IE starting to support IDN has caused the IDN registration rate increased by over 100%.
- With the hope of ICANN adding IDN TLDs in the foreseeable future, CNNIC expect the IDN market to surpass the ASCII name registrations in China.

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DNAME vs NS Record

- Common characteristics:
  - New TLD in the root zone
  - Represented in the root zone in the form of Punycode

- Differences:
  - DNAME are alias of existing TLDs, in resolution, DNAME method point to an existing TLD instead of a real DNS name server.
  - NS record are creating a true new TLDs, in resolution, NS record method point to a real DNS name server.

Problem with DNAME in gTLD

- Policy & Managerial problems:
  - DNAME automatically grants the existing TLD manager new TLDs, it may create a hostile environment for competition in gTLD market.
  - Many nations are very concerned about a foreign company manage a TLD in their own languages.
  - Hostile to users, a domain name dispute in ones language has to be resolved internationally.

Problem with DNAME in gTLD

- Policy & Managerial aspect :
  - Translation problem, an ASCII TLD can be translated into several different words in local language, there is no sole match.
  - When using one language script for a gTLD, may cause inconveniences for users share the same language but using variant scripts or have their own translation habits.

IDN ccTLD vs. IDN gTLD

- IDN ccTLD has less policy issues, it's easy to identify who should manage the new IDN ccTLD, regardless DNAME method or NS record method.

- IDN gTLD, no matter in DNAME form or NS record form, the managerial issues are hard to reach a consent.

What Are We Ought to Do?

- Support ICANN move ahead with the technical test of IDN TLDs, regardless there are policy issues still need to be solved since there is no necessary precedence between technical trial and policy development.
- Once the technical test has completed, we should urge ICANN give the priority to internationalize ccTLD.
- ccTLDs can phase in IDN gradually, whoever is ready, can move ahead and should be supported.

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What Are We Ought to Do?

- gTLDs due to the complex policy and managerial issues, should be handled in a careful fashion, more discussions are required.
- Further R&D in utilization of IDN based applications, such as I-email.
- Give stronger support to developing countries to utilize IDN, and help bridge the digital divide.

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Thank You!

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