
Imminent Needs!

- IDN-enabled User Environments -

Workshop: Internationalized Domain Name
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Hiro HOTTA
Japan Registry Service (JPRS)
<hotta@jprs.co.jp>

<http://日本レジストリサービス.jp/>

History of JP domain names

- **1989 -Registration in the 3rd-level domain name space**
 - **Organizational Type JP Domain Name**
 - **co.jp, ne.jp, ac.jp, . . .**
 - **Geographic Type JP Domain Name**
 - **tokyo.jp, . . .**
 - **Restriction of “one domain name per organization”**
 - **Local presence required**
 - **Japanese postal address**
 - **company registration in Japan**

Introduction of general-use JP domain name

- **To address to changing situation on domain names (late 1990's)**
 - **Demands**
 - more than one domain name per organization
 - simpler, lower-cost registration procedures
 - registration of short-lived domain names, e.g. for events, TV-CMs, ...
 - **Japanese domain names**
 - **Growing Competition with other TLDs and other naming services**
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- **Feb. 2001~ General-use JP Domain Name introduced**
 - **Registration at second level**
 - ASCII label
 - **Japanese label**
 - **No restriction on the number of domain names that one entity (organization or person) may register**
 - **Local presence required**
 - **Sunrise period to avoid disputes**
 - **Priority Registration + Concurrent Registration**

Introduction of Japanese JP domain name

日本レジストリサービス.JP

Second level domain

Top level domain

- Japanese JP Domain Name consists of
 - Chinese characters ex. 喜
 - Hiragana ex. き
 - Katakana ex. キ
 - (as well as) ASCII characters
- Registered only as General-use JP Domain Name (2nd level)
- Length - up to 15 characters

Registration at the start-up phase (1)

- **Priority Registration Applications (22 Feb.~ 23 Mar. 2001)**

Category	ASCII	Japanese	Total
Trademarks	8,300	11,900	20,100
Registered names	0	12,400	12,400
Personal names	200	600	800
academic	0	400	400
Total number of applications	8,500	25,400	33,800
Number of domain names registered	6,500	22,600	29,100

Registration at the start-up phase (2)

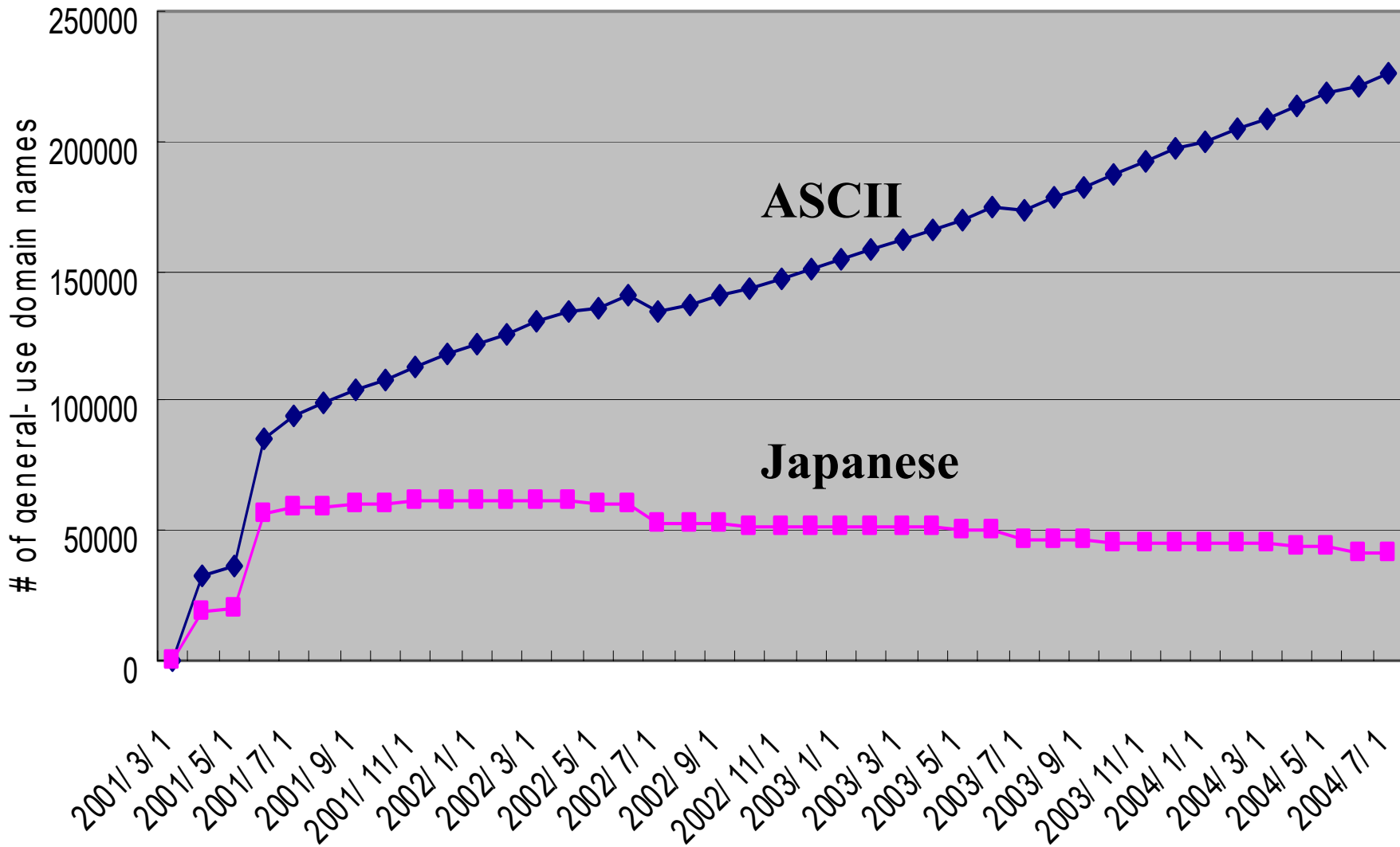
- Concurrent Registration Applications (2~23 Apr. 2001)

Category		ASCII	Japanese	Total
Number of applications	Multiple applications	32,500	41,700	74,200
	Single applications	22,600	23,400	46,000
	Total	55,100	65,200	120,300
Number of domain names	Multiple applications	4,600	5,200	9,800
	Single applications	22,600	23,400	46,000
	Total	27,200	28,600	55,800

of domain names as of 1/July/2004

Traditional 319,600 ASCII -
 General use 225,800 ASCII 41,900 Japanese

Number of general-use JP domain names



Usage statistics in Japan

- **IDN (Japanese domain names)**
 - **1,000-5,000 resolutions/day**
 - **Seems not to be a real usage**
 - **users are just experiencing how it works**
- **Google**
 - **Over 200million worldwide queries/day**
 - **guess: millions of Japanese string queries**
 - **Precision is being increased but... multiple results**
- **Keywords**
 - **Very small number of keywords**
 - **with another mechanism for registration and resolution (plug-in, DNS query trapping, ...)**
 - **Registration across keyword service providers**

Why the number of IDNs are decreasing?

- **Poor IDN-enabled environment**
 - **efforts so far**
 - **Keyword-like navigation (RealNames technology)**
 - **Distribution of IDN-enabling plug-in (i-Nav)**
 - **Distribution of IDN-enabled application development kit (mdnkit, idnkit)**
 - **providing web redirect service for registrants**
 - **Redirection from IDN URL to ASCII domain name web page**
 - **User education**
 - **What the IDN-enabled applications are and how to use them**
 - **How to set up nameservers and web-servers with IDN**
 - **Introduction of typical Web-sites with IDN URL (over 1,500)**
 - **2 other kinds of efforts (described later)**
 - **....**

however

User demands are not yet being satisfied

Experience in IDN environment so far

- **Plug-in distribution**
 - **Have tried to distribute through**
 - **Domain name Resellers**
 - **Famous software download sites**
 - **Banners on famous search engine sites**
 - **Haven't been successful**
 - **Internet users, especially consumers, are not familiar with downloading and installing them =>should be pre-installed when users buy PCs**
- **Pre-installation**
 - **Have tried to persuade PC manufacturers and sellers , but**
 - **Haven't been successful**
 - **No good solution for**
 - **Who covers the cost?**
 - **Auto-updating is technically necessary but pre-installers do not like change of the software after pre-installation**
 - **Who is responsible for answering users' questions and claims?**

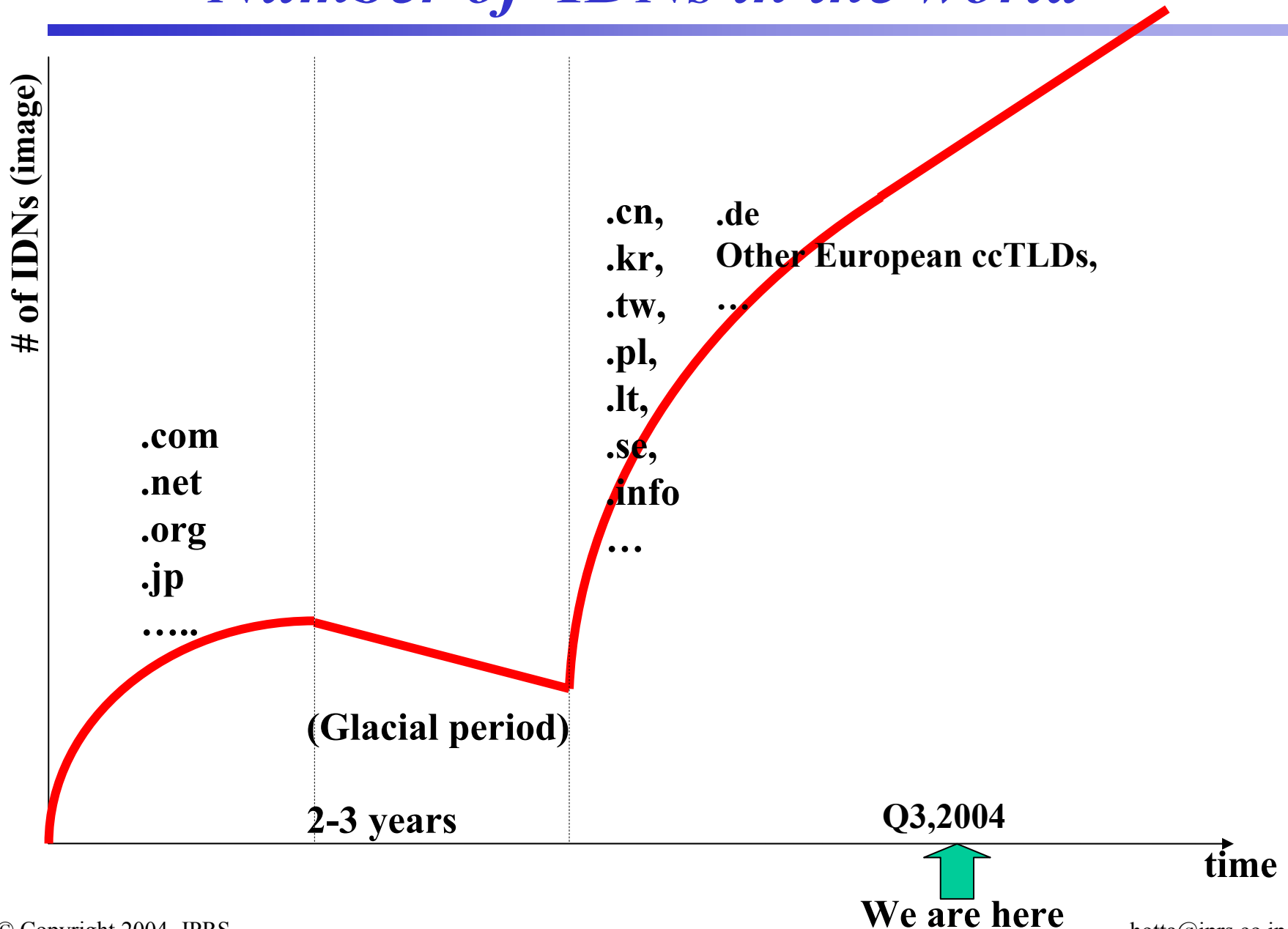
Stimulating IDN Environment

- **National level**
 - **JDNA (Japanese Domain Name Association)**
 - SDK distribution
 - user education / promotion
- **International level**
 - **IDN Software Developers Consortium**
<http://www.idnsdc.com/>
 - encouraging browser and e-mail software vendors by
 - Showing many TLDs support IDN registration
 - Propelling additional related standardization such as URI format and e-mail address format including non-ASCII string
 - Next meeting: July 31, 2004 @San Diego, California?
 - **IDNConnect <http://idnconnect.jdna.jp/>**
 - Multiple implementations
 - Interoperability
 - SDKs being distributed

Potential demands on IDN

- **Big demands : steep growth is being observed**
 - **Evidence in the past**
 - # of Registrations of IDN.com, .net, .org
 - # of Registrations of IDN.jp, IDN.kr, IDN.tw...
 - # of Registrations of IDN.{european-ccTLDs}...
 - Small extension to ASCII characters may show another big increase
 - **Emerging in the future**
 - TLDs are about to launch IDN registration services
 - **# of IDN registrations is exploding**
- **Big demands : IDN-enabled environment is demanded to be deployed swiftly**

Number of IDNs in the world

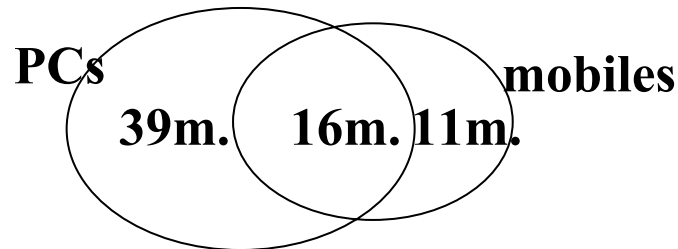


Necessity of Real IDN Environment

- **IDN environment : 2 streams required**
 - **Short-term (in a few months)**
 - **Native/Pre-installed browsers and e-mail software become IDN-enabled**
 - **browsers**
 - » **Internationalization in domain name part is a big demand requiring immediate action** e.g., **http://慶応.jp/**
 - **e-mail software**
 - » **Internationalization in domain name part is a first big step to use the same domain names web URL and e-mail addresses** e.g., **tanaka@慶応.jp**
 - **Mid-term (in a few years)**
 - **Whole environment (i.e., all the applications) becomes IDN-enabled**
- **more user experience <-> richer environment**
 - **Chicken and egg**
 - **Promotion by registries/registrars/application-vendors**
 - **URI elements other than domain name**

Recent efforts of IDN environment deployment

- **Internet Users**



- PCs
- Mobile phones

- **PCs : A service called “Japanese JP Navi”**

- Similar to web-based navigation by VeriSign, KRNIC, and TWNIC
- Access to Japanese JP domain names with UTF-8 (8bit) format labels are navigated to a page that prompts to install IDN plugins and IDN-enabled browsers
- Only domain names that have nameserver delegation(s) in the JP zone are navigated
- Opt-in : each registrant is asked if (s)he wishes to take the service
- Under consultation with communities (service providers and users)
- Launched on February 18, 2004

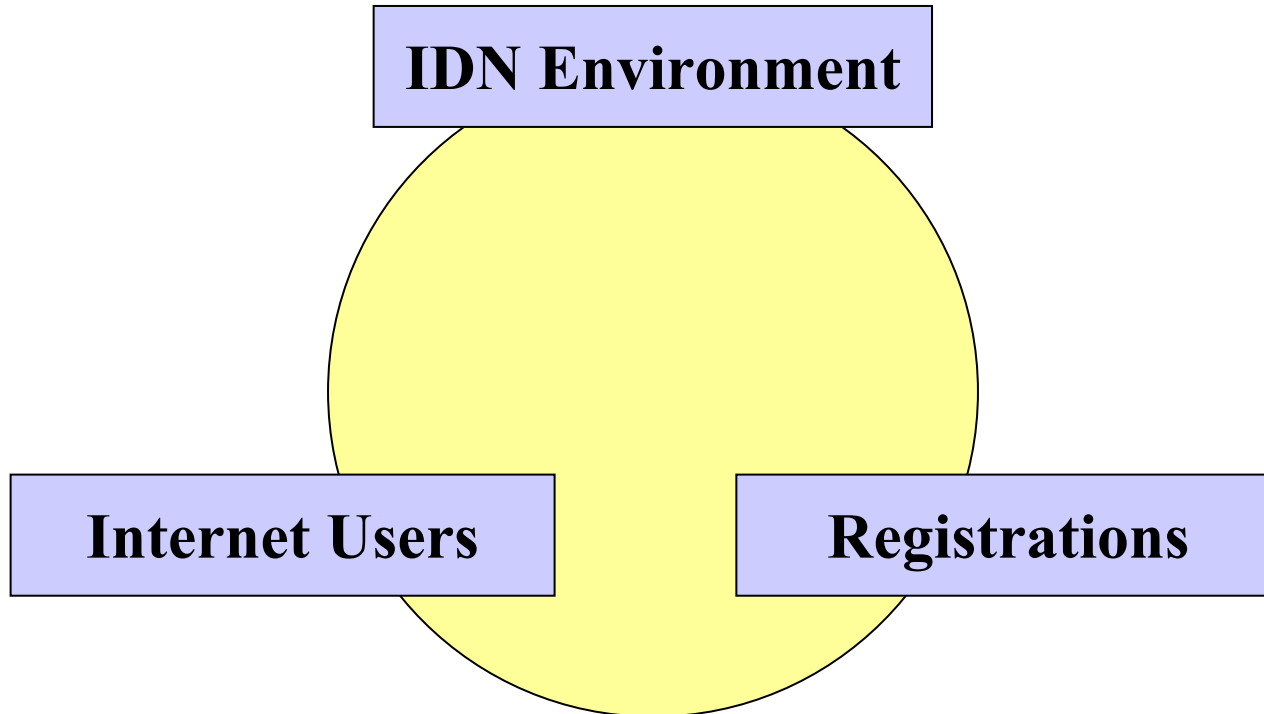
Japanese Domain Names with Mobile Phones

- **Mobile phones : a service called “jajp.jp”**
 - A web page that receives a Japanese Domain Name as input and jumps to the web page with that domain name
 - to stimulate vendors to develop IDN-enabled mobile phone and let mobile phone users experience to input IDN
 - Started on December 15, 2003
- **Mobile Phones : IDN-enabled web browser**
 - Large consumer acceptance expected
 - Negotiation with mobile phone vendors and mobile phone service providers

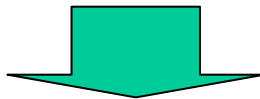
Japanese Domain Names Association

- **Non-profit organization established in 2001**
 - **Activities**
 - Information exchange
 - Standardization of usage
 - Development of a tool kit
 - Support for development and testing
 - **Members**
 - ISPs
 - Application/Hardware vendors
 - Domain name registries/registrars
 - Universities
 - **Working Groups**
 - Interface specification
 - Web
 - Mail
 - VoIP
- <http://日本語ドメイン名協会.jp/>

Synergy : IDN Environment



- **3 elements have not grown so far**
 - Chicken and egg problem
 - Seems to be a “Negative feedback”
- **However, registrations (potential demands) are rapidly growing**



user environment is now needed!