**JPRS**
JAPAN REGISTRY SERVICE

# .JP technical update

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http://jprs.jp/
http://　　　　　　　　.jp/

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# Topics

- Japanese JP Domain Name
  (　　　　　　.jp)
- Technical update of .JP DNS servers

# Japanese JP domain name (          .jp)

- We launched IDN standards (RFCs)-compatible Japanese JP domain name registration service on July 10, 2003
- Registration policy of Japanese JP domain names is in compliance with the "guideline" of ICANN
  - "Guidelines for the Implementation of Internationalized Domain Names"
- Our guideline (Internet-Draft)
  - draft-yoneya-idn-jachar-00.txt

# Available characters, variants

- Available characters
  - Hiragana, Katakana, Kanji
    - The selection is based on JIS (Japanese Industry Standard)
  - Several marks regarded as a Kana or a Kanji
- Variants
  - No variants defined
  - In our draft: "… However in the name, especially in the proper noun, those aren't interexchangable because of their own identity. Actually, there is no official Kanji variants table in Japan."

# Service Migration to IDN standards

- "Resolution Overlap Period"
    - Both NS records of Punycode and RACE on .JP DNS servers during ROP (as seen below)
    - To enhance smooth migration of DNS and/or Web server settings from RACE to Punycode

```
;                              .jp
; Punycode
xn--vckfdb7e3c7hma3m9657c16c.jp.                IN NS ns1.jprs.co.jp.
                                                IN NS ns1.jprs.co.jp.
; RACE
bq--3bs6kzzmgdwdbobqxeymqmhkgc2tb7bq2myls.jp.  IN NS ns1.jprs.co.jp.
                                                IN NS ns2.jprs.co.jp.
```

# Our schedule

- (A) Starting ROP – already done on July 10
- (X) i-Nav$^{TM}$ plug-in is changed into Punycode version – already done on July 30
- (B) Termination of RACE support – September 3



Service Migration Schedule Diagram
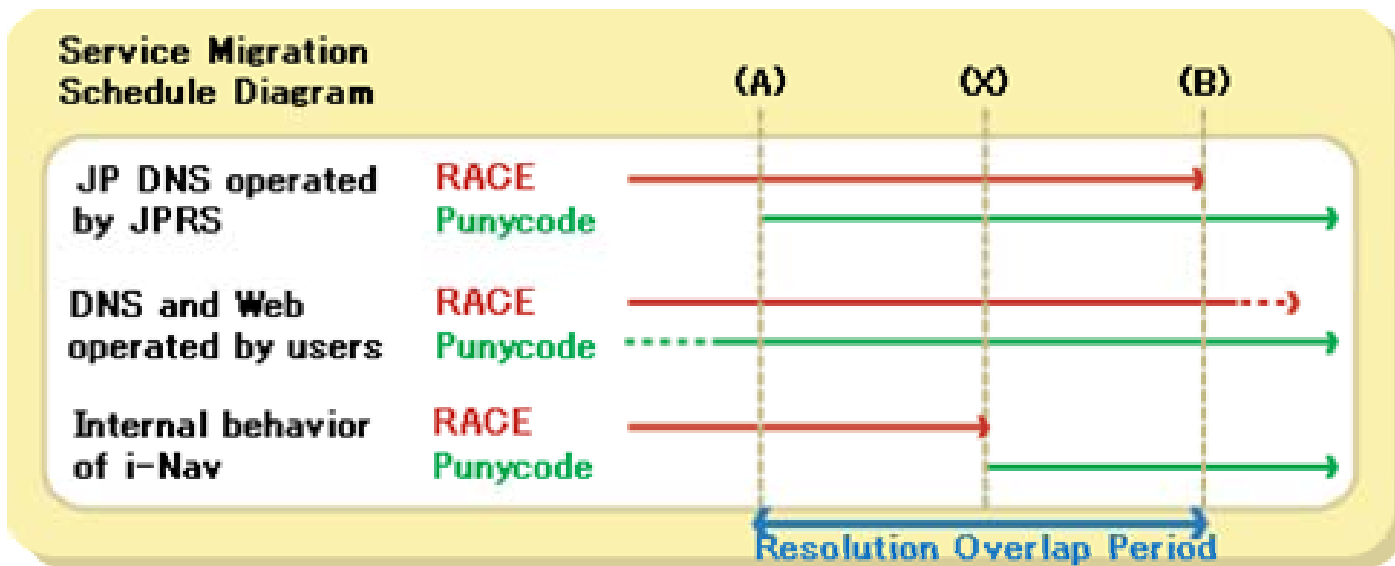
# Technical update of .JP DNS servers

- Topics
  - Unifying hostname of .JP DNS servers
  - Changing the location, IP address and AS number of E.dns.jp
  - Future plans

# Unifying hostname of .JP DNS servers

- Hostnames of .JP DNS servers are unified to [A-F].dns.jp on June-August 2003
  - Primary server
    - A.dns.jp: operated by JPRS
  - Secondary servers (*)IPv6 ready
    - B.dns.jp: formerly ns0.nic.ad.jp
    - C.dns.jp: formerly dns0.spin.ad.jp
    - D.dns.jp: formerly ns0.iij.ad.jp(*)
    - E.dns.jp: formerly ns.wide.ad.jp(*)
    - F.dns.jp: formerly ns-jp.sinet.ad.jp(*)
- To allocate the payload for 'more' IPv6 glue
- To simplify the relation of delegation
  - "dns.jp" zone itself is now delegated to [A-F].dns.jp

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# E.dns.jp

- Formerly, ns.wide.ad.jp
  - Operated by WIDE Project
- Moved the physical location
  - Outside of Tokyo (Osaka area)
- Changed the IP address and AS number
  - Performed at the same time the unification of hostname
  - Provider independent (PI) address and its own AS number
    - Detached from WIDE Internet
    - Only for DNS infrastructures
    - To acquire multiple transits

# E.dns.jp (cont.)

- This is a pilot case to enhance robustness of .JP DNS service
  - To provide extra redundancy to survive .JP DNS service in the case of serious disasters in Tokyo
  - Especially, preparing to the electric power crisis of the summer of this year (by the scandal of electric power company)
    - But, in Japan, this summer is very cool… ☺
    - But, serious power outage occurred in NY
      - This is an object lesson

# Future plans

- ## We will change IP address and AS number of A.dns.jp (primary server) for 'critical infrastructure'
  - ### Critical infrastructure is defined by APNIC
    - #### http://www.apnic.net/info/faq/critical-infrastructure-faq.html
      - country code TLD (ccTLDs) nameservers

- ## We plan to introduce anycast technology onto .JP DNS servers
  - ### To enhance robustness of DNS service

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# Related links

- Service Migration Schedule of Japanese JP Domain name
  - http://jprs.jp/en/ace-transition.html
- JPRS Launched IDN Standards-Compatible Japanese JP Domain Name Registration Service on July 10, 2003
  - http://jprs.jp/en/topics/030711.html
- E.dns.jp technical information
  - http://e-dns-jp.wide.ad.jp/