.kr DNS Redirection


Korea Internet & Security Agency
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1. DNS Redirection

- When domain name can’t be translated into IP address ⇒ DNS redirection (ex. mistyped, no longer exits, etc)
- Good 😊 or Bad 😞
2. Use of .kr DNS Redirection

IE6.0 or earlier version Users

[.kr DNS Redirection]

Web-Navigation System
- IP address: 222.xxx.xxx.xxx
- Puny-code Converting
- Forwarding web page

[.kr Zone DB]

* 1800 IN A 222.xxx.xxx.xxx
ns1.kisa.or.kr IN A 111.xxx.xxx.xxx
...
nx--bj0bj06e.kr IN NS ns1.kisa.or.kr
...

[.kr DNS server]

⑥ IP: 111.xxx.xxx.xxx
⑤ xn--bj0bj06e.kr
② IP: 222.xxx.xxx.xxx
① 한글.kr
③ 한글.kr http request
④ 한글.kr = xn--bj0bj06e.kr &

http response
3-1. Web-Navigation System

• System for IE 6.0 or earlier ver. Users
  – Web server (Hyper Text Transfer Protocol)
  – Converting Hangul domain name into ASCII domain name (Puny-code)
  – Forwarding web page of the ASCII domain name

<HTML>
…
  <meta http-equiv=refresh content='0; url=forwarding_URL'>
…
</HTML>

[Response of Web-Navigation]
3-2. Web-Navigation System

• Merits
  – IE6 or earlier ver. users can use Hangul .kr domain name without plug-ins
  – Study on status of Hangul .kr domain name queries and handling the system easily

• Demerits
  – Garbage traffic by using wild character(∗) in .kr Zone ⇒ System overload
  – Last response
4. Market share of web browser in Korea

Market share of Web browsers in Korea

From InternetTrend™
4-1. Market share of web browser in Korea

*Image showing a screenshot of web browsers with multiple tabs open.*
5. .kr DNS Redirection status

- Total .kr Responses: 1.52 billion (per one day)
  - Normal .kr Queries: 1.45 billion (96.73%)
  - .kr DNS Redirection: 2.5 million (0.17%)
  - Etc.: 47.13 million (3.10%)

From KISA

*kr DNS Redirection Queries

- Hangul .kr Domain Name: 1.7 million (67%)
- Etc.: 0.8 million (33%)

Total .kr Redirection: 2.5 million ※ per one day

From KISA
7. Future Plan

• Alternation for Web-Navi. System
  – Developing Puny-code Converting DNS S/W

• Promotion
  – Using IE 7.0 or upper version for IE users
Thank you

Q & A