A Recent DNS Survey

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Survey History

- Almost annual

- June 2005

- August 2006

- October 2007

- Commissioned by Infoblox.

Three Datasets

1. 5% random sampling of routed address space.

2. 3.2% random sampling of com/net zones.

3. The authoritative nameservers for (2)

   - by unique IP address

Number of Nameservers

- From Dataset 1

- Addresses that respond to an A query for *a.root-servers.net*

- 2005: 7,500,000

- 2006: 9,000,000

- 2007: 11,700,000

Software of Dataset 1 Nameservers

Software	2006%	2007%
BIND 9	60.7	↑ 64.5
CNS/Mystery*	15.6	↑ 19.3
PowerDNS	4.35	↑ 6.59
BIND 8	13.7	↓ 5.63
MS 2000	3.48	↓ 1.80
MS 2003	0.98	↓ 0.84
BIND 4	0.42	↓ 0.22
Cisco CNR	0.08	↑ 0.16
MS NT4	0.26	↓ 0.10

* *fpdns* mis-fingerprints some CPE device(s) as Nominum CNS?

Software of Dataset 3 Nameservers

i.e., Known authoritative nameservers.

Software	2007%
BIND 9	84.6
BIND 8	6.58
MS 2000	4.60
PowerDNS	1.55
MS 2003	0.58
BIND 4	0.36
MS NT4	0.27
Nominum ANS	0.10
Cisco CNR	0.05

Nameservers Allowing AXFR

AXFR	2005%	2006%	2007%
Allowed	41.4	29.3	31.1
Denied	58.6	70.7	68.9

I don't trust the 2005 numbers very much.

Lameness, by Zone

Lame?	2005%	2006%	2007%
Yep	16.3	27.4	22.2
Nope	83.7	72.6	77.8

Suspicious of 2005 numbers.

DNSSEC RRs

RR types	2006%	2007%
KEY, SIG, NXT	.000910	↑ .00185
DNSKEY, NSEC, RRSIG, DS	.000910	↓ .000389

- Yes, those are <u>percentages</u>.

- Did not validate content of these RRs.

- Survey is probably biased by being limited to com/net zones.

- Numbers are "in the noise" and most likely meaningless

IPv6-addressed Nameservers

2006%	2007%
.191	.265

- Did not validate content of these AAAA records.

- Survey is probably biased by being limited to com/net zones.

The End

`http://dns.measurement-factory.com/surveys/`