

# **Yet another update on the AAAA lookup problem**

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## AAAA lookup problems

Should return  $\geq 0$  records. Problems listed in RFC 4074 Can cause inaccessibility, delays or sub-optimal caching.

On mailing lists NXDOMAIN or no reply seem most common. Diagnosis is tricky for end users.

`www.cnri.dit.ie/cgi-bin/check_aaaa.pl`

## Since last RIPE

- Updated draft circulated to list.
- Could adopt draft.
- Could close item and point to Internet Protocol Journal article.

`http://www.cisco.com/web/about/ac123/  
ac147/archived\_issues/ipj\_8-1/  
name\_servers.html`

- Updated survey results July/August 2006.

## Results by name

Names with	Jan'04	%	Apr'04	%	Aug'04	%	Mar '05	%	Jul'06	%
answered	22863		29287		24776		29820		24627	
AAAA records	42	.18	54	.18	55	.22	94	.32	87	.35
ns times out	102	.45	113	.39	73	.29	160	.54	68	.28
ns rets MALFORM							5	.02	4	.02
ns rets NOTIMP	6	.03	4	.01	2	.01			1	.004
ns rets NXDOMAIN	16	.07	24	.08	11	.04	7	.02	2	.01
ns rets REFUSED			2	.01	4	.02	9	.03	6	.02
ns rets 15			4	.01	2	.01	1	.00	4	.02
ns rets SERVFAIL	15	.07	23	.08	2	.01	18	.06	8	.03
CNAME loop									1	.00
NO ns responds OK	107	.47	100	.34	66	.27	89	.30	15	.06
any ns had issue	139	.61	170	.58	94	.38	198	.66	94	.38

Number of working AAAA growing further.

Number of busted well down, major ad vendor now OK!

CNAME loop is a new problem.

## Results by nameserver

Nameservers that	Jan'04	%	Apr'04	%	Aug'04	%	Mar'05	%	Jul'06	%
answered	16838		20631		17934		20233		15375	
ret AAAA records	105	.62	123	.60	118	.66	175	.86	142	.92
timed out on AAAA	64	.38	49	.24	36	.20	37	.18	10	.07
MALFORM on AAAA							8	.04	2	.01
NOTIMP on AAAA	8	.05	9	.04	2	.01			1	.01
NXDOMAIN on AAAA	11	.07	19	.09	11	.06	9	.04	4	.03
REFUSED on AAAA			4	.02	5	.03	12	.06	7	.05
15 on AAAA			3	.01	2	.01	1	.00	4	.03
SERVFAIL on AAAA	14	.08	23	.11	2	.01	17	.08	13	.08
CNAME loop									1	.01
have issue with AAAA	97	.58	107	.52	58	.32	84	.42	42	.27

Almost 1% of name servers now returning AAAA.

Problem name servers well down too.