

IPv6 in Real Life

(Episode II)

Deployment of Popular Servers in IPv6

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The objective?

- Again: If our wives had a computer with only IPv6 connectivity, what would they see?
- N.B.: Our wives are lawyers and they manage to live without computer skills



Why?

- Everybody says IPv4 address space will be depleted
- Everybody says “we have to migrate to IPv6”
- But... there is such a thing as real life in IPv6 ?
- Is IPv6 really useful for something more than theoretical discussions or just small talk?

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Investigative method

- No rocket science here
- Just plain lookups in DNS space, some easy-to-do tests
- Plus some web and mail digging
- Remember: We're on our second round



Investigative method (2)

- Go get the most visited webs per country
Source: <http://www.alexa.com/>
- And then:
 - Ask the DNS of that domain for...
 - an AAAA DNS entry for the web service and the email (MX), a DNS server with an IPv6 address

Investigative method (3)

- Making the easier, difficult
- Though you can associate A and AAAA records to www.example.com, many domains do it by different ways:

www.ipv6.example.com

www6.example.com

ipv6.example.com

Periodic scan results are available at:

http://www.lab.bt.es/ipv6/global_results.html

http://www.lab.bt.es/ipv6/country_select.html



Investigative method (4)

- If there is a IPv6 entry in the DNS, verify that it works following three steps:
 - Open the web page with an IPv6 navigator
 - Telnet to port 25 and do some basic SMTP dialog
 - Dig to the IPv6 DNS server

Investigative method (5)

- We also verify the DNS hierarchy
 - Root servers with AAAA addressing
 - TLD (gTLD and ccTLD) with AAAA addressing
 - TLD that currently accepts AAAA entries for subdomain DNS servers

Iconography

- * Correct, DNS entry and server answers
- # Missing, No DNS entry
- ? Incorrect, DNS entry but no (right) answer



And now, here are the results



Some samples

- In most countries the same results were obtained
- We'll show you average results and some distinguished cases

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Hungary

	*	#	?
www.example.com	0		0
www.ipv6.example.com	0		1
www6.example.com	1		0
ipv6.example.com	0		0
Web Totals	1	98	1
SMTP IPv6	3	97	0
DNS	3	97	0

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correct Web servers

www6.atw.hu. 3600 IN AAAA 2a01:270::4

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

correct MX servers

bme.hu: nic.bme.hu. 14400 IN AAAA 2001:738:2001:2001::2

wikipedia.org: pascal.knams.wikimedia.org. 2849 IN AAAA 2001:610:672:1:145:97:39:130

atw.hu: mail.atw.hu. 3599 IN AAAA 2a01:270::10

liar MX servers

correct DNS servers

atw.hu: ns1.atw.hu. 3600 IN AAAA 2001:618:1a08:9230::1

sztaki.hu: ns5.univie.ac.at. 83415 IN AAAA 2001:628:453:4305::53

sztaki.hu: nic.bme.hu. 14395 IN AAAA 2001:738:2001:2001::2

bme.hu: nic.bme.hu. 14385 IN AAAA 2001:738:2001:2001::2

bme.hu: ns.bme.hu. 4278 IN AAAA 2001:738:2001:8001::2

liar DNS servers

Indonesia

	*	#	?
www.example.com	1		5
www.ipv6.example.com	0		1
www6.example.com	0		0
ipv6.example.com	0		0
Web Totals	1	93	6
SMTP IPv6	2	98	0
DNS	4	96	0

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correct Web servers

www.itb.ac.id. 16177 IN AAAA 2001:d30:3:508::136

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

detik.com .	16155	IN	AAAA	2001:dc6:ff2e:4000::41
detiksport.com.	16156	IN	AAAA	2001:dc6:ff2e:4000::41
detiknews.com.	16158	IN	AAAA	2001:dc6:ff2e:4000::41
detikhott.com.	16158	IN	AAAA	2001:dc6:ff2e:4000::41
detikinet.com.	16171	IN	AAAA	2001:dc6:ff2e:4000::41
www.ipv6.cbn.net.id .	10800	IN	AAAA	2001:d10:2::80

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 2756 IN AAAA 2001:610:672:1:145:97:39:130

itb.ac.id: mx2.itb.ac.id. 6471 IN AAAA 2001:d30:3:5::67

itb.ac.id: mx1.itb.ac.id. 6471 IN AAAA 2001:d30:3::236

liar MX servers

correct DNS servers

indosiar.com: ns2.cbn.net.id. 4714 IN AAAA 2001:d10:a:53::53

indosiar.com: ns1.cbn.net.id. 4714 IN AAAA 2001:d10:2:53::53

klikbca.com: ns2.cbn.net.id. 4713 IN AAAA 2001:d10:a:53::53

klikbca.com: ns1.cbn.net.id. 4713 IN AAAA 2001:d10:2:53::53

cbn.net.id: ns1.cbn.net.id. 4706 IN AAAA 2001:d10:2:53::53

cbn.net.id: ns2.cbn.net.id. 4704 IN AAAA 2001:d10:a:53::53

cbn.net.id: ns2.indo.net.id. 76716 IN AAAA 2404:170:33::2

itb.ac.id: ns2.itb.ac.id. 76716 IN AAAA 2001:d30:3:1::53

itb.ac.id: ns3.itb.ac.id. 76716 IN AAAA 2001:d30:3:278::53

itb.ac.id: ns1.itb.ac.id. 76716 IN AAAA 2001:d30:3::53 ns1.itb.ac.id. 76716 IN AAAA 2001:d30:103:3000::53

liar DNS servers

Spain

	*	#	?
www.example.com	0		0
www.ipv6.example.com	1		1
www6.example.com	0		0
ipv6.example.com	0		0
Web Totals	1	98	1
SMTP IPv6	1	99	0
DNS	0	100	0

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correct Web servers

www.ipv6.elmundo.es IN AAAA 2001:450:9:10::115

liar Web servers

www.ipv6.microsoft.com.1679 IN AAAA 2002:836b:9820::836b:9886

[correct MX servers](#)

wikipedia.org: pascal.knams.wikimedia.org. 1494 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers

China

	*	#	?
www.example.com	0		0
www.ipv6.example.com	0		1
www6.example.com	0		0
ipv6.example.com	0		0
Web Totals	0	99	1
SMTP IPv6	0	100	0
DNS	0	100	0

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correct Web servers

liar Web servers

[www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886](#)

correct MX servers

liar MX servers

correct DNS servers

liar DNS servers

The big numbers on web servers

	RIPE 53	RIPE 54
Countries	75	102
Unique domains	4315	4937
Web servers on IPv6	20	21
Unique web servers on IPv6	12	10



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Unique domains: domain names appearing in more than one list are counted as one
Unique web servers: URLs that appears in more than one list are counted as one

Incorrect webs servers

- Some servers displayed “test”, “it works”, blah, blah... (4)
- Others simply didn’t answer (19)
 - 2002: ... 2
 - 2001: ... 16
 - 3FFE: ... 1



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Dont answer

```
www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886
detik.com. 16155 IN AAAA 2001:dc6:ff2e:4000::41
detisksport.com. 16156 IN AAAA 2001:dc6:ff2e:4000::41
detiknews.com. 16158 IN AAAA 2001:dc6:ff2e:4000::41
detikhott.com. 16158 IN AAAA 2001:dc6:ff2e:4000::41
detikinet.com. 16171 IN AAAA 2001:dc6:ff2e:4000::41
ipv6.no-ip.com. 60 IN CNAME guru3.
6dns.org. guru3.6dns.org. 120 IN AAAA 2002:51e7:e65f:1::1
www.ipv6.hp.com. 3600 IN AAAA 2001:1890:1109:fc:20b:cdf:fe6b:a9e8
ipv6.hp.com. 3600 IN AAAA 2001:1890:1109:3006:156:152:32:70
ipv6.denic.de. 86400 IN AAAA 2001:608:6::1 *
www.galileo.edu. 16001 IN AAAA 2001:1348:1101::14
www.ipv6.hku.hk. 16224 IN AAAA 2001:ce0:2:117:20d:60ff:fe4d:e7ef
ipv6.sify.com. 86272 IN AAAA 2001:e48:0:1::3
www.oo.lv. 300 IN AAAA 3ffe:4013:2105:1::124
www.cyber.mmu.edu.my. IN AAAA 2001:e68:2000:6403:a00:20ff:fe95:e3f6
servidor-v6.ipv6.unam.mx. 7200 IN AAAA 2001:1218:1:6c::2
servidor-v6.ipv6.unam.mx. 7200 IN AAAA 2001:448:1:6c::2
www6.cyber.net.pk. 14644 IN AAAA 2001:4538:100::2
www.ipv6rd.net. 12507 IN AAAA 2001:a88:0:ffffe::15
ipv6.ku.ac.th. 13824 IN AAAA 2001:3c8:1303:1::10
www.ipv6.vnn.vn. 86400 IN AAAA 2001:c20:2001:1101::2
```

Test sites and similar

```
www.ipv6.cbn.net.id. 10800 IN AAAA 2001:d10:2::80
www.ipv6.chello.at. 2499 IN AAAA 2001:730::3:a00:20ff:fe85:962c
ipv6.eircom.net. 86400 IN AAAA 2001:bb0:dd0::2
www.ipv6.bt.com. 86400 IN AAAA 2001:618:1:8000::5
```

SMTP & DNS servers

● SMTP servers

- 9 domains with IPv6 server that answered
- 3 didn't

● DNS servers

- 59 domains answered
- 21 didn't

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Correct SMTP servers (domain and server):

bme.hu: nic.bme.hu. 14400 IN AAAA 2001:738:2001:2001::2
wikipedia.org: pascal.knams.wikimedia.org. 2849 IN AAAA 2001:610:672:1:145:97:39:130
atw.hu: mail.atw.hu. 3599 IN AAAA 2a01:270::10
itb.ac.id: mx2.itb.ac.id. 6471 IN AAAA 2001:d30:3:5::67
itb.ac.id: mx1.itb.ac.id. 6471 IN AAAA 2001:d30:3::236
univie.ac.at: zidmx2.univie.ac.at. 389 IN AAAA 2001:62a:4:25::25:101
univie.ac.at: zidmx3.univie.ac.at. 389 IN AAAA 2001:62a:4:25::25:102
univie.ac.at: zidmx1.univie.ac.at. 389 IN AAAA 2001:62a:4:25::25:100
galileo.edu: a.mx.galileo.edu. 5466 IN AAAA 2001:1348:1101::11
ktu.lt: mx-2.ktu.lt. 7200 IN AAAA 2001:778::103
ktu.lt: mx-1.ktu.lt. 7200 IN AAAA 2001:778::100
meteo.pt mail02.fccn.pt. 14400 IN AAAA 2001:690:a80:4001::300
kth.se mx.kth.se. 7200 IN AAAA 2001:6b0:1:1300:20e:7fff:fef0:f8bb
kth.se mx.kth.se. 7200 IN AAAA 2001:6b0:1:1300:20e:7fff:fe26:4fe1

SMTP servers that didn't work:

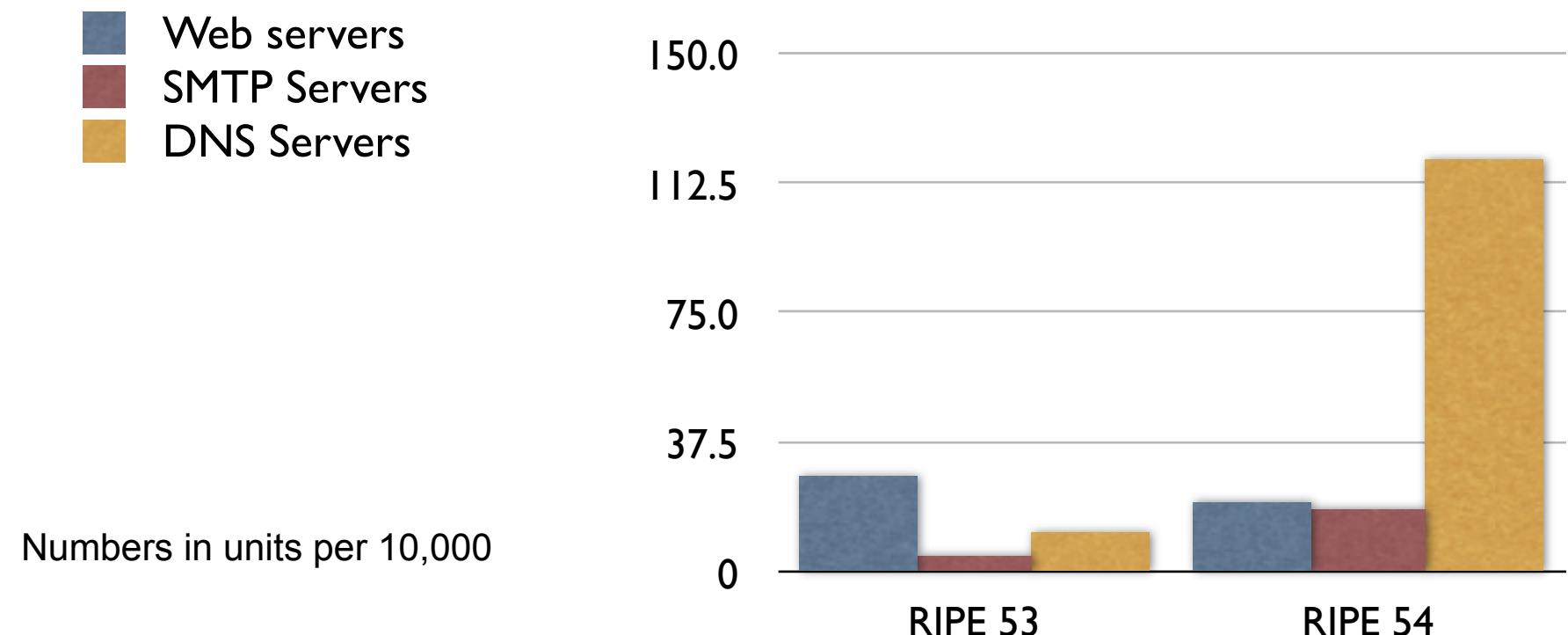
ns.belnet.be.	86306	IN	AAAA	2001:6a8:3c80::14
ns.belnet.be.	86303	IN	AAAA	2001:6a8:3c80::14
ns.belnet.be.	86301	IN	AAAA	2001:6a8:3c80::14

massey.ac.nz: mu-relay1.massey.ac.nz. 9177 IN AAAA 2001:4530:0:2::98
massey.ac.nz: mu-relay2.massey.ac.nz. 9177 IN AAAA 2001:4530:0:2::99
war4u.sk: mail_unixik.sk. 3600 IN AAAA 2001:618:400:545f::1

Correct DNS Servers (domain and server):

atw.hu: ns1.atw.hu. 3600 IN AAAA 2001:618:1a08:9230::1
sztaki.hu: ns5.univie.ac.at. 83415 IN AAAA 2001:628:453:4305::53
sztaki.hu: nic.bme.hu. 14395 IN AAAA 2001:738:2001:2001::2
bme.hu: nic.bme.hu. 14385 IN AAAA 2001:738:2001:2001::2
bme.hu: ns.bme.hu. 4278 IN AAAA 2001:738:2001:8001::2
indosiar.com: ns2.cbn.net.id. 4714 IN AAAA 2001:d10:a:53::53
indosiar.com: ns1.cbn.net.id. 4714 IN AAAA 2001:d10:2:53::53
klikbca.com: ns2.cbn.net.id. 4713 IN AAAA 2001:d10:a:53::53
klikbca.com: ns1.cbn.net.id. 4713 IN AAAA 2001:d10:2:53::53
cbn.net.id: ns1.cbn.net.id. 4706 IN AAAA 2001:d10:2:53::53
cbn.net.id: ns2.cbn.net.id. 4704 IN AAAA 2001:d10:a:53::53
cbn.net.id: ns2.indo.net.id. 76716 IN AAAA 2404:170:33::2
itb.ac.id: ns2.itb.ac.id. 76716 IN AAAA 2001:d30:3:1::53
itb.ac.id: ns3.itb.ac.id. 76716 IN AAAA 2001:d30:3:278::53
itb.ac.id: ns1.itb.ac.id. 76716 IN AAAA 2001:d30:3::53 ns1.itb.ac.id. 76716 IN AAAA 2001:d30:103:3000::53
monash.edu.au: ns7a-v6.its.monash.edu.au. 43021 IN AAAA 2001:388:608c:23e::63
univie.ac.at: ns3.univie.ac.at. 71364 IN AAAA 2001:62a:4:303::53

“Growing” rate in IPv6 servers



Numbers in units per 10,000

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Web:	27.8	20.25
SMTP:	4.63	18.23
DNS:	11.58	119.51

Funny and/or interesting things

(Not too many changes from previous edition)

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1st prize

Still showing some kind of “identity crisis”...

```
$ dig www.ipv6.chello.at
...
;; ANSWER SECTION:

www.ipv6.chello.at. 86400 IN A
    195.34.131.138

www.ipv6.chello.at. 86284 IN AAAA
    2001:730::3:a00:20ff:fe85:962c
```



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```
<!DOCTYPE HTML PUBLIC "-//IETF//DTD HTML 2.0//EN">
<html><head>
<title>404 Not Found</title>
</head><body>
<h1>Not Found</h1>
<p>The requested URL / was not found on this server.</p>
<p>Additionally, a 404 Not Found
error was encountered while trying to use an ErrorDocument to handle the request.</p>
<hr />
<address>Apache/2.0.39 Server at www.ipv6.chello.at Port 80</address>
</body></html>
```

2nd prize

The bigger, the better...

www.ipv6.microsoft.com. 1679 IN AAAA
2002:836b:9820::836b:9886

Microsoft.com is in the top 100 in every country,
so we found it when researching every country



Servers that really works!

www.ipv6.elmundo.es. 20539 IN AAAA 2001:800:400:10::115

www.sch.gr. 146 IN AAAA 2001:648:1:10:203:baff:fed2:cd07

www.animesuki.com. 86051 IN AAAA
2001:4d88:ffff:ffff:30:524:ac23:2

wikipedia.org. 60 IN MX 50 **pascal.knams.wikimedia.org.**

...

pascal.knams.wikimedia.org. 3600 IN AAAA
2001:610:672:1:145:97:39:130



Finally, some good old friends



Finally, some good old friends

	Web	MX	NS
ripe.net	*	#	*
arin.net	*	#	*
apnic.net	*	#	*
lacnic.net	*	*	*
afrinic.net	#	#	*

More good ole friends



More good ole friends

	Web	MX	NS
iana.org	#	#	*
icann.org	#	#	*
ietf.org	*	*	*

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DNS Hierarchy

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Root servers

- 5 root servers operating in IPv6 (No change since RIPE 53)
(according to www.root-servers.org)
- But they STILL don't appear in **/domain/named.root**, so are nearly invisible
- IOHO, maybe it's time to add them...

IPv6 Root Servers?

- We need to modify the **/domain/named.root** file of all servers
- Difficult to do in installed base
 - But installed base usually doesn't work with IPv6
- Upgrading/Changing hard/soft to IPv6
 - Get new **named.root** file



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Usually the old soft don't support IPv6, so the idea is to include the modified named.root in the new versions of the DNS software
Not including modified named.root in the new releases because old releases don't support IPv6 doesn't have much sense...

TLD DNS servers

	RIPE 53	RIPE 54
with 4 IPv6 DNS servers	17	15
with 3 IPv6 DNS servers	27	31
with 2 IPv6 DNS servers	51	51
with 1 IPv6 DNS server	72	75
Without IPv6 DNS servers	97	95
TOTALS	264	267

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TLD DNS Servers (2)

gTLD	RIPE-53	RIPE-54
.int	2	2(2)
.biz	2	2(2)
.com	2	2(0)
.info	2	2(0)
.mobi	2	2(0)
.org	3	3(1)
.museum	-	1(1)
.int	-	2(2)

gTLD	RIPE-53	RIPE-54
.aero	1	1(1)
.edu	0	0
.gov	0	0
.mil	0	0
.cat	-	2(2)
.tel	-	2(2)
.travel	-	2(2)
.eu.int	-	0

RIPE support of DNS

- Many TLD use RIPE IPv6 DNS servers as secondary
 - 4(4) TLD have two RIPE IPv6 DNS servers as secondaries
 - 65(65) TLD have one



But... it's true?

- Exploring **267** TLDs, **146** DNS with ipv6 address were found:
 - **118** unique IPv6 DNS servers answered (serving **155** TLDs)
 - **28** never answered (leaving **17** TLDs unserviced)
 - The remaining **95** TLDs don't have any IPv6 DNS defined

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267 TLDs, 330 DNS entries with IPv6 addresses, 146 unique DNS servers
. 281 entries answered, from 118 unique DNS servers
. 49 entries not, 28 unique servers

Popular DNS servers *



Black: >RIPE-54 figures
(Grey): >RIPE-53 figures

Popular DNS servers *

- sunic.sunet.se: 34(31) TLDs



Black: >RIPE-54 figures
(Grey): >RIPE-53 figures

Popular DNS servers *

- sunic.sunet.se: 34(31) TLDs
- ns-ext.isc.org/ns-ext.vix.com: 32(7+13) TLDs



Black: >RIPE-54 figures
(Grey): >RIPE-53 figures

Popular DNS servers *

- sunic.sunet.se: **34**(31) TLDs
- ns-ext.isc.org/ns-ext.vix.com: **32**(7+13) TLDs
- ns.ripe.net: **15**(19) TLDs



Black: >RIPE-54 figures
(Grey): >RIPE-53 figures

Popular DNS servers *

- sunic.sunet.se: **34**(31) TLDs
- ns-ext.isc.org/ns-ext.vix.com: **32**(7+13) TLDs
- ns.ripe.net: **15**(19) TLDs
- sec3.apnic.net: **13**(10) TLDs



Black: >RIPE-54 figures
(Grey): >RIPE-53 figures

Popular DNS servers *

- sunic.sunet.se: **34**(31) TLDs
- ns-ext.isc.org/ns-ext.vix.com: **32**(7+13) TLDs
- ns.ripe.net: **15**(19) TLDs
- sec3.apnic.net: **13**(10) TLDs
- ns2.nic.fr: **8**(8) TLDs



Black: >RIPE-54 figures
(Grey): >RIPE-53 figures

Popular DNS servers *

- sunic.sunet.se: **34**(31) TLDs
- ns-ext.isc.org/ns-ext.vix.com: **32**(7+13) TLDs
- ns.ripe.net: **15**(19) TLDs
- sec3.apnic.net: **13**(10) TLDs
- ns2.nic.fr: **8**(8) TLDs
- ns0.ja.net: **5**(8) TLDs

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Black: >RIPE-54 figures
(Grey): >RIPE-53 figures

NICs support

- Do the NICs support IPv6 DNS servers for child zones?
 - Not an exhaustive research
 - Many language problems
 - We think no more than 10 NICs support it



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We found traces from the following NICs of the following countries on the TLD exploration, so we expect that these, at least, could serve child zones in in ipv6. But maybe we are wrong... as it happens fot int and eu.int domains.

AT
CH
CZ
DE
FR
HU
IT
SE
TEL
TH
UK
VE

So, what the Internet
Powered by IPv6
would be like, for our
dear wives..?

Last meeting we
said...

- Lord Howe Island
 - 11 km long by 3 km wide
 - Population: 350
 - Nearest civilization: 700 km



- Lord Howe Island
 - 11 km long by 3 km wide
 - Population: 350
 - Nearest civilization: 700 km



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- Lord Howe Island
 - 11 km long by 3 km wide
 - Population: 350
 - Nearest civilization: 700 km



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Lord Howe is VERY
small and IPv6
address space is SO

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...Welcome to Greenland!!!

Extension: 2.166.086 km²,

Population: 56.300



Questions?

Suggestions & Corrections are welcome

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Algeria

	*	#	?
www.example.com	0		0
www.ipv6.example.com	0		I
www6.example.com	0		0
ipv6.example.com	0		0
Web Totals	0	99	I
SMTP IPv6	I	99	0
DNS	0	100	0

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correct Web servers

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 3600 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers

Argentina

	*	#	?
www.example.com	0		0
www.ipv6.example.com	0		I
www6.example.com	0		0
ipv6.example.com	0		0
Web Totals	0	99	I
SMTP IPv6	I	99	0
DNS	0	100	0

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correct Web servers

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 3600 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers

Australia

	*	#	?
www.example.com	0		0
www.ipv6.example.com	0		I
www6.example.com	0		0
ipv6.example.com	0		0
Web Totals	0	99	I
SMTP IPv6	I	99	0
DNS	I	99	0

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correct Web servers

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 3600 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

monash.edu.au: ns7a-v6.its.monash.edu.au. 43021 IN AAAA 2001:388:608c:23e::63

liar DNS servers

Austria

	*	#	?
www.example.com	0		0
www.ipv6.example.com	1		2
www6.example.com	0		0
ipv6.example.com	0		0
Web Totals	1	97	2
SMTP IPv6	2	98	0
DNS	2	98	0

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correct Web servers

www.ipv6.t-online.de. 2499 IN AAAA 2003:2:0:f302::1:1

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

www.ipv6.chello.at. 2499 IN AAAA 2001:730::3:a00:20ff:fe85:962c

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 2238 IN AAAA 2001:610:672:1:145:97:39:130

univie.ac.at: zidmx2.univie.ac.at. 389 IN AAAA 2001:62a:4:25::25:101

univie.ac.at: zidmx3.univie.ac.at. 389 IN AAAA 2001:62a:4:25::25:102

univie.ac.at: zidmx1.univie.ac.at. 389 IN AAAA 2001:62a:4:25::25:100

liar MX servers

correct DNS servers

univie.ac.at: ns3.univie.ac.at. 71364 IN AAAA 2001:62a:4:303::53

univie.ac.at: ns4.univie.ac.at. 71365 IN AAAA 2001:62a:4:304::53

univie.ac.at: ns5.univie.ac.at. 86400 IN AAAA 2001:628:453:4305::53

uibk.ac.at: ns5.univie.ac.at. 86384 IN AAAA 2001:628:453:4305::53

liar DNS servers

Bahrain

	*	#	?
<u>www.example.com</u>	0		0
<u>www.ipv6.example.com</u>	0		I
<u>www6.example.com</u>	0		0
<u>ipv6.example.com</u>	0		0
Web Totals	0	99	I
SMTP IPv6	I	99	0
DNS	0	100	0

Tecnocom



46

correct Web servers

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 2181 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers

Bangla Desh

	*	#	?
<u>www.example.com</u>	0		0
<u>www.ipv6.example.com</u>	0		I
<u>www6.example.com</u>	0		0
<u>ipv6.example.com</u>	0		0
Web Totals	0	99	I
SMTP IPv6	I	99	0
DNS	0	100	0

Tecnocom



47

correct Web servers

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 2098 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers

Belarus

	*	#	?
<u>www.example.com</u>	0		0
<u>www.ipv6.example.com</u>	0		I
<u>www6.example.com</u>	0		0
<u>ipv6.example.com</u>	0		0
Web Totals	0	99	I
SMTP IPv6	I	99	0
DNS	0	100	0

Tecnocom



48

correct Web servers

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 1976 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers

Belgium

	*	#	?
<u>www.example.com</u>	0		0
<u>www.ipv6.example.com</u>	0		I
<u>www6.example.com</u>	0		0
<u>ipv6.example.com</u>	0		0
Web Totals	0	99	I
SMTP IPv6	I	99	0
DNS	3	97	0

Tecnocom



49

correct Web servers

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 1892 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

b-holding.be: ns.belnet.be. 939 IN AAAA 2001:6a8:3c80::14

b-rail.be: ns.belnet.be. 934 IN AAAA 2001:6a8:3c80::14

fgov.be: ns.belnet.be. 933 IN AAAA 2001:6a8:3c80::14

liar DNS servers

Bolivia

	*	#	?
<u>www.example.com</u>	0		0
<u>www.ipv6.example.com</u>	I		I
<u>www6.example.com</u>	0		0
<u>ipv6.example.com</u>	0		0
Web Totals	I	97	2
SMTP IPv6	I	99	0
DNS	0	100	0

Tecnocom



50

correct Web servers
www.ipv6.elmundo.es

liar Web servers
www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886
ipv6.no-ip.com. 60 IN CNAME guru3.6dns.org.
guru3.6dns.org. 120 IN AAAA 2002:51e7:e65f:1::1

correct MX servers
wikipedia.org: pascal.knams.wikimedia.org. 1892 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers
ns.belnet.be. 86306 IN AAAA 2001:6a8:3c80::14
ns.belnet.be. 86303 IN AAAA 2001:6a8:3c80::14
ns.belnet.be. 86301 IN AAAA 2001:6a8:3c80::14

correct DNS servers

liar DNS servers

Bosnia Herzegovina

	*	#	?
<u>www.example.com</u>	0		0
<u>www.ipv6.example.com</u>	0		I
<u>www6.example.com</u>	0		0
<u>ipv6.example.com</u>	0		0
Web Totals	0	99	I
SMTP IPv6	I	99	0
DNS	0	100	0

Tecnocom



51

correct Web servers

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 1745 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers

Brazil

	*	#	?
<u>www.example.com</u>	0		0
<u>www.ipv6.example.com</u>	0		I
<u>www6.example.com</u>	0		0
<u>ipv6.example.com</u>	0		0
Web Totals	0	99	I
SMTP IPv6	I	99	0
DNS	0	100	0

Tecnocom



52

correct Web servers

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 1590 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers

Brunei

	*	#	?
<u>www.example.com</u>	I		0
<u>www.ipv6.example.com</u>	0		I
<u>www6.example.com</u>	0		0
<u>ipv6.example.com</u>	0		0
Web Totals	I	98	I
SMTP IPv6	I	99	0
DNS	0	100	0

Tecnocom



53

correct Web servers
www.animesuki.com. 15902 IN AAAA 2001:4d88:ffff:ffff:30:524:ac23:2

liar Web servers
www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

correct MX servers
wikipedia.org: pascal.knams.wikimedia.org. 1468 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers
animesuki.com. 86365 IN AAAA 2001:4d88:ffff:ffff:30:524:ac23:2

Bulgaria

	*	#	?
<u>www.example.com</u>	0		0
<u>www.ipv6.example.com</u>	0		I
<u>www6.example.com</u>	0		0
<u>ipv6.example.com</u>	0		0
Web Totals	0	99	I
SMTP IPv6	I	99	0
DNS	0	100	0

Tecnocom



54

correct Web servers

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 1377 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers

Canada

	*	#	?
<u>www.example.com</u>	0		0
<u>www.ipv6.example.com</u>	0		I
<u>www6.example.com</u>	0		0
<u>ipv6.example.com</u>	0		0
Web Totals	0	99	I
SMTP IPv6	I	99	0
DNS	0	100	0

Tecnocom



55

correct Web servers

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 1317 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers

Chile

	*	#	?
www.example.com	0		0
www.ipv6.example.com	I		I
www6.example.com	0		0
ipv6.example.com	0		0
Web Totals	I	98	I
SMTP IPv6	I	99	0
DNS	0	100	0

Tecnocom



56

correct Web servers

www.ipv6.elmundo.es. AAAA 2001:800:400:10::115

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 1248 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers

Colombia

	*	#	?
www.example.com	0		0
www.ipv6.example.com	I		I
www6.example.com	0		0
ipv6.example.com	0		0
Web Totals	I	98	I
SMTP IPv6	0	100	0
DNS	0	100	0

Tecnocom



57

correct Web servers

www.ipv6.elmundo.es. IN AAAA 2001:450:9:10::115

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 832 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers

Costa Rica

	*	#	?
<u>www.example.com</u>	0		0
<u>www.ipv6.example.com</u>	0		I
<u>www6.example.com</u>	0		0
<u>ipv6.example.com</u>	0		I
Web Totals	0	98	2
SMTP IPv6	I	99	0
DNS	0	100	0

Tecnocom



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correct Web servers

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886
www.ipv6.hp.com. 3600 IN AAAA 2001:1890:1109:fc:20b:cdff:fe6b:a9e8
ipv6.hp.com. 3600 IN AAAA 2001:1890:1109:3006:156:152:32:70

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 720 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers

Croatia

	*	#	?
www.example.com	0		0
www.ipv6.example.com	0		I
www6.example.com	0		0
ipv6.example.com	0		0
Web Totals	0	99	I
SMTP IPv6	I	99	0
DNS	0	100	0

Tecnocom



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correct Web servers

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 660 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers

Cyprus

	*	#	?
<u>www.example.com</u>	0		0
<u>www.ipv6.example.com</u>	0		I
<u>www6.example.com</u>	0		0
<u>ipv6.example.com</u>	0		0
Web Totals	0	99	I
SMTP IPv6	I	99	0
DNS	I	99	0

Tecnocom



60

correct Web servers

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 617 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

ucy.ac.cy: estia.ics.forth.gr. 86400 IN AAAA 2001:648:2c30::191:3

liar DNS servers

Czech Republic

	*	#	?
<u>www.example.com</u>	0		0
<u>www.ipv6.example.com</u>	0		I
<u>www6.example.com</u>	0		0
<u>ipv6.example.com</u>	I		0
Web Totals	0	99	I
SMTP IPv6	I	99	0
DNS	I	99	0

Tecnocom



61

correct Web servers

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 363 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

cuni.cz: ns.ces.net. 3927 IN AAAA 2001:718:1:101::3

muni.cz: ns.ces.net. 3924 IN AAAA 2001:718:1:101::3

liar DNS servers

Denmark

	*	#	?
www.example.com	0		0
www.ipv6.example.com	0		I
www6.example.com	0		0
ipv6.example.com	0		0
Web Totals	0	99	I
SMTP IPv6	I	99	0
DNS	0	99	I

Tecnocom



62

correct Web servers

www.ku.dk. IN AAAA 2001:878:100:12::135

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 319 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers

dmi.dk: ns-soa.darenet.dk. 74380 IN AAAA 2001:878:0:100::4

Dominican Republic

	*	#	?
www.example.com	0		0
www.ipv6.example.com	I		I
www6.example.com	0		0
ipv6.example.com	0		0
Web Totals	I	98	I
SMTP IPv6	I	99	0
DNS	0	100	0

Tecnocom



63

correct Web servers
www.ipv6.elmundo.es. 20983 IN AAAA 2001:450:9:10::71

liar Web servers
www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

correct MX servers
wikipedia.org: pascal.knams.wikimedia.org. 267 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers

Ecuador

	*	#	?
www.example.com	0		0
www.ipv6.example.com	I		2
www6.example.com	0		0
ipv6.example.com	0		0
Web Totals	I	97	2
SMTP IPv6	I	99	0
DNS	0	100	0

Tecnocom



64

correct Web servers
www.ipv6.elmundo.es. 20084 IN AAAA 2001:800:400:10::71

liar Web servers
www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886
www.ipv6.hp.com. 3600 IN AAAA 2001:1890:1109:fc:20b:cdff:fe6b:a9e8
ip6.hp.com. 3600 IN AAAA 2001:1890:1109:3006:156:152:32:7

0

correct MX servers
wikipedia.org: pascal.knams.wikimedia.org. 194 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers

Egypt

	*	#	?
<u>www.example.com</u>	0		0
<u>www.ipv6.example.com</u>	0		I
<u>www6.example.com</u>	0		0
<u>ipv6.example.com</u>	0		0
Web Totals	0	99	I
SMTP IPv6	I	99	0
DNS	0	100	0

Tecnocom



65

correct Web servers

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 134 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers

El Salvador

	*	#	?
www.example.com	0		0
www.ipv6.example.com	I		I
www6.example.com	0		0
ipv6.example.com	0		0
Web Totals	I	98	I
SMTP IPv6	I	99	0
DNS	0	100	0

Tecnocom



66

correct Web servers
www.ipv6.elmundo.es. 20084 IN AAAA 2001:800:400:10::71

liar Web servers
www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

correct MX servers
wikipedia.org: pascal.knams.wikimedia.org. 68 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers

Estonia

	*	#	?
<u>www.example.com</u>	0		0
<u>www.ipv6.example.com</u>	0		I
<u>www6.example.com</u>	0		0
<u>ipv6.example.com</u>	0		0
Web Totals	0	99	I
SMTP IPv6	I	99	0
DNS	2	98	0

Tecnocom



67

correct Web servers

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 3586 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

postimees.ee: dns.estpak.ee. 86400 IN AAAA 2001:7d0:0:e010::1

tallinn.ee: ns.eunet.ee. 74897 IN AAAA 2001:ad0::

liar DNS servers

Finland

	*	#	?
<u>www.example.com</u>	0		0
<u>www.ipv6.example.com</u>	0		I
<u>www6.example.com</u>	0		0
<u>ipv6.example.com</u>	0		0
Web Totals	0	99	I
SMTP IPv6	I	99	0
DNS	2	98	0

Tecnocom



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correct Web servers

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 3540 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

ns.ipv6.helsinki.fi. 10800 IN AAAA 2001:708:110:30::10
riemurasia.net: ns2.isoveli.org. 91073 IN AAAA 2001:670:a4::a800:c1ff:fe40:f486

liar DNS servers

France

	*	#	?
<u>www.example.com</u>	0		0
<u>www.ipv6.example.com</u>	0		I
<u>www6.example.com</u>	0		0
<u>ipv6.example.com</u>	0		0
Web Totals	0	99	I
SMTP IPv6	I	99	0
DNS	0	100	0

Tecnocom



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correct Web servers

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 3451 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers

Georgia

	*	#	?
<u>www.example.com</u>	0		0
<u>www.ipv6.example.com</u>	0		I
<u>www6.example.com</u>	0		0
<u>ipv6.example.com</u>	0		0
Web Totals	0	99	I
SMTP IPv6	I	99	0
DNS	I	99	0

Tecnocom



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correct Web servers

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 3384 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

forum.ge: ns1.inet.ge. 7200 IN AAAA 2001:6f8:1372:1000::100

liar DNS servers

Germany

	*	#	?
www.example.com	0		0
www.ipv6.example.com	I		I
www6.example.com	0		0
ipv6.example.com	0		I
Web Totals	I	97	2
SMTP IPv6	I	99	0
DNS	4	96	0

Tecnocom



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correct Web servers

```
www.ipv6.t-online.de. 83233 IN AAAA 2003:2:0:f302::1:2
www.ipv6.t-online.de. 83233 IN AAAA 2003:2:0:f302::1:1
```

liar Web servers

```
www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886
ip6.denic.de. 86400 IN AAAA 2001:608:6::1
```

correct MX servers

```
wikipedia.org: pascal.knams.wikimedia.org. 3341 IN AAAA 2001:610:672:1:145:97:39:130
```

liar MX servers

correct DNS servers

```
freenet.de: ns2.roka.net. 5091 IN AAAA 2001:748:100:70::2
lokalisten.de: ns3.DNS.Space.Net. 86400 IN AAAA 2001:608:0:f0f::f
lokalisten.de: ns4.DNS.Space.Net. 86400 IN AAAA 2001:608:0:81::175
denic.de: dns3.denic.de. 75492 IN AAAA 2001:608:6::2
4players.de: ns2.roka.net. 5076 IN AAAA 2001:748:100:70::2
```

liar DNS servers

Greece

	*	#	?
www.example.com	I		0
www.ipv6.example.com	0		I
www6.example.com	0		0
ipv6.example.com	0		0
Web Totals	I	98	I
SMTP IPv6	I	99	0
DNS	2	97	I

Tecnocom



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correct Web servers

www.sch.gr. IN AAAA 2001:648:1:10:203:baff:fed2:cd07

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 3290 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

sch.gr: nic.att.sch.gr. 86318 IN AAAA 2001:648::a101:a00:20ff:fec4:663f

sch.gr: nic.sch.gr. 218 IN AAAA 2001:648:1:1:a00:20ff:fed8:e919

liar DNS servers

uo.gr: nsv6.uoa.gr. 86320 IN AAAA 2001:648:2010::86:cc82

Guatemala

	*	#	?
www.example.com	0		I
www.ipv6.example.com	0		I
www6.example.com	0		0
ipv6.example.com	0		I
Web Totals	0	97	3
SMTP IPv6	2	98	0
DNS	0	99	I

Tecnocom



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correct Web servers

liar Web servers
 www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886
 ipv6.hp.com. 770 IN AAAA 2001:1890:1109:3006:156:152:32:70
www.galileo.edu. 16001 IN AAAA 2001:1348:1101::14

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 3171 IN AAAA 2001:610:672:1:145:97:39:130
 galileo.edu: a.mx.galileo.edu. 5466 IN AAAA 2001:1348:1101::11

liar MX servers

correct DNS servers

liar DNS servers
 galileo.edu: b.ns.galileo.edu. 559740 IN AAAA 2001:1348:1101::3
 galileo.edu: a.ns.galileo.edu. 559739 IN AAAA 2001:1348:1101::2

Honduras

	*	#	?
www.example.com	0		0
www.ipv6.example.com	0		I
www6.example.com	0		0
ipv6.example.com	0		I
Web Totals	0	98	2
SMTP IPv6	I	99	0
DNS	I	99	0

Tecnocom



74

correct Web servers

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886
ipv6.hp.com. 504 IN AAAA 2001:1890:1109:3006:156:152:32:70

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 3120 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

gob.hn: TLD1.ULTRADNS.NET. 60 IN AAAA 2001:502:d399::1

liar DNS servers

Hong Kong

	*	#	?
www.example.com	0		0
www.ipv6.example.com	0		2
www6.example.com	0		0
ipv6.example.com	0		1
Web Totals	0	97	3
SMTP IPv6	1	99	0
DNS	0	100	0

Tecnocom



75

correct Web servers

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886
www.ipv6.hku.hk. 16224 IN AAAA 2001:ce0:2:117:20d:60ff:fe4d:e7ef
ipv6.no-ip.com. IN AAAA 2002:51e7:e65f:1::1 (test site)

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 3071 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers

India

	*	#	?
www.example.com	0		0
www.ipv6.example.com	0		3
www6.example.com	0		0
ipv6.example.com	0		0
Web Totals	0	98	2
SMTP IPv6	1	99	0
DNS	0	100	0

Tecnocom



76

correct Web servers

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886
ipv6.sify.com. 86272 IN AAAA 2001:e48:0:1::3

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 2813 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers

Iran

	*	#	?
<u>www.example.com</u>	0		0
<u>www.ipv6.example.com</u>	0		I
<u>www6.example.com</u>	0		0
<u>ipv6.example.com</u>	0		0
Web Totals	0	99	I
SMTP IPv6	I	99	0
DNS	0	100	0

Tecnocom



77

correct Web servers

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 2662 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers

Ireland

	*	#	?
<u>www.example.com</u>	0		0
<u>www.ipv6.example.com</u>	0		1
<u>www6.example.com</u>	0		0
<u>ipv6.example.com</u>	0		1
Web Totals	0	98	2
SMTP IPv6	1	99	0
DNS	9	91	0

Tecnocom



78

correct Web servers

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

ipv6.eircom.net. 86400 IN AAAA 2001:bb0:dd0::2

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 2492 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

flyaerlingus.com: sec02.ns.esat.net. 6566 IN AAAA 2001:7c8:2:a::2

ryanair.com: auth02.ns.esat.net. 6563 IN AAAA 2001:7c8:3:2::5

ryanair.com: sec02.ns.esat.net. 6563 IN AAAA 2001:7c8:2:a::2

paddypower.com: ns.heanet.ie. 3600 IN AAAA 2001:770:18:4::c101:c1c2

365online.com: sec02.ns.esat.net. 6562 IN AAAA 2001:7c8:2:a::2

bookryanair.com: auth02.ns.esat.net. 6559 IN AAAA 2001:7c8:3:2::5

bookryanair.com: sec02.ns.esat.net. 6559 IN AAAA 2001:7c8:2:a::2

one.lt: ns1.data.lt. 7200 IN AAAA 2001:900::9

ucc.ie: ns1.surfnet.nl. 44024 IN AAAA 2001:610:1:800a:192:87:106:101

dcu.ie: ns5.univie.ac.at. 83036 IN AAAA 2001:628:453:4305::53

ucd.ie: auth-ns2.ucd.ie. 7200 IN AAAA 2001:770:98:200::35:2

ucd.ie: scsnms.switch.ch. 172800 IN AAAA 2001:620::1

liar DNS servers

Israel

	*	#	?
<u>www.example.com</u>	0		0
<u>www.ipv6.example.com</u>	0		I
<u>www6.example.com</u>	0		0
<u>ipv6.example.com</u>	0		0
Web Totals	0	99	I
SMTP IPv6	I	99	0
DNS	0	100	0

Tecnocom



79

correct Web servers

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 2437 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers

Italy

	*	#	?
<u>www.example.com</u>	0		0
<u>www.ipv6.example.com</u>	0		I
<u>www6.example.com</u>	0		0
<u>ipv6.example.com</u>	0		0
Web Totals	0	99	I
SMTP IPv6	I	99	0
DNS	0	100	0

Tecnocom



80

correct Web servers

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 2386 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers

Jamaica

	*	#	?
www.example.com	0		0
www.ipv6.example.com	0		I
www6.example.com	0		0
ipv6.example.com	0		0
Web Totals	0	99	I
SMTP IPv6	I	99	0
DNS	0	100	0

Tecnocom



81

correct Web servers

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 2349 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers

Japan

	*	#	?
www.example.com	0		0
www.ipv6.example.com	0		I
www6.example.com	0		0
ipv6.example.com	0		0
Web Totals	0	99	I
SMTP IPv6	I	99	0
DNS	0	100	0

Tecnocom



82

correct Web servers

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 2284 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers

Jordan

	*	#	?
<u>www.example.com</u>	0		0
<u>www.ipv6.example.com</u>	0		I
<u>www6.example.com</u>	0		0
<u>ipv6.example.com</u>	0		0
Web Totals	0	99	I
SMTP IPv6	I	99	0
DNS	0	100	0

Tecnocom



83

correct Web servers

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 2109 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers

Kazakhstan

	*	#	?
<u>www.example.com</u>	0		0
<u>www.ipv6.example.com</u>	0		I
<u>www6.example.com</u>	0		0
<u>ipv6.example.com</u>	0		0
Web Totals	0	99	I
SMTP IPv6	I	99	0
DNS	0	100	0

Tecnocom



84

correct Web servers

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 2059 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers

Kuwait

	*	#	?
<u>www.example.com</u>	0		0
<u>www.ipv6.example.com</u>	0		I
<u>www6.example.com</u>	0		0
<u>ipv6.example.com</u>	0		I
Web Totals	0	98	2
SMTP IPv6	I	99	0
DNS	0	100	0

Tecnocom



85

correct Web servers

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

ipv6.hp.com. 3600 IN AAAA 2001:1890:1109:fc:

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 2018 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers

Latvia

	*	#	?
<u>www.example.com</u>	0		I
<u>www.ipv6.example.com</u>	0		I
<u>www6.example.com</u>	0		0
<u>ipv6.example.com</u>	0		0
Web Totals	0	98	2
SMTP IPv6	I	99	0
DNS	0	100	0

Tecnocom



86

correct Web servers

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

www.oo.lv. 300 IN AAAA 3ffe:4013:2105:1::124

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 1940 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers

Lebanon

	*	#	?
<u>www.example.com</u>	0		0
<u>www.ipv6.example.com</u>	0		I
<u>www6.example.com</u>	0		0
<u>ipv6.example.com</u>	0		0
Web Totals	0	99	I
SMTP IPv6	I	99	0
DNS	0	100	0

Tecnocom



87

correct Web servers

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 1862 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers

Lithuania

	*	#	?
www.example.com	0		0
www.ipv6.example.com	0		I
www6.example.com	0		0
ipv6.example.com	0		0
Web Totals	0	99	I
SMTP IPv6	2	98	0
DNS	2	97	I

Tecnocom



88

correct Web servers

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 1824 IN AAAA 2001:610:672:1:145:97:39:130

ktu.lt: mx-2.ktu.lt. 7200 IN AAAA 2001:778::103

ktu.lt: mx-1.ktu.lt. 7200 IN AAAA 2001:778::100

liar MX servers

correct DNS servers

one.lt: ns1.data.lt. 7200 IN AAAA 2001:900::9

tele2.lt: ns1.data.lt. 7200 IN AAAA 2001:900::9

liar DNS servers

ktu.lt: slave.dns.lt. 7200 IN AAAA 2001:778::111

Macao

	*	#	?
www.example.com	0		0
www.ipv6.example.com	I		I
www6.example.com	0		0
ipv6.example.com	0		0
Web Totals	I	98	I
SMTP IPv6	I	99	0
DNS	0	100	0

Tecnocom



89

correct Web servers

www.ipv6.hinet.net. 3600 IN AAAA 2001:238::2

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 1771 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers

Macedonia

	*	#	?
www.example.com	0		0
www.ipv6.example.com	0		I
www6.example.com	0		0
ipv6.example.com	0		0
Web Totals	0	99	I
SMTP IPv6	I	99	0
DNS	0	100	0

Tecnocom



90

correct Web servers

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 1771 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers

Malaysia

	*	#	?
www.example.com	0		I
www.ipv6.example.com	0		I
www6.example.com	0		0
ipv6.example.com	0		0
Web Totals	0	98	2
SMTP IPv6	I	99	0
DNS	0	99	I

Tecnocom



91

correct Web servers

liar Web servers

```
www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886
www.cyber.mmu.edu.my.          IN AAAA 2001:e68:2000:6403:a00:20ff:fe95:e3f6
```

correct MX servers

```
wikipedia.org: pascal.knams.wikimedia.org. 1493 IN AAAA 2001:610:672:1:145:97:39:130
```

liar MX servers

correct DNS servers

liar DNS servers

```
mmu.edu.my: ns3.mmu.edu.my. 78986 IN AAAA 2001:e68:2000:6403:203:baff:fe04:f040
```

Malta

	*	#	?
www.example.com	I		0
www.ipv6.example.com	0		I
www6.example.com	0		0
ipv6.example.com	0		0
Web Totals	I	98	I
SMTP IPv6	I	99	0
DNS	0	100	0

Tecnocom



92

correct Web servers
www.um.edu.mt.

15742 IN AAAA 2001:1a70:1:1::40

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 1286 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers

Mauritius

	*	#	?
www.example.com	0		0
www.ipv6.example.com	0		I
www6.example.com	0		0
ipv6.example.com	0		0
Web Totals	0	99	I
SMTP IPv6	I	99	0
DNS	0	100	0

Tecnocom



93

correct Web servers

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 1286 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers

Mexico

	*	#	?
www.example.com	0		0
www.ipv6.example.com	1		3
www6.example.com	0		0
ipv6.example.com	0		0
Web Totals	1	96	3
SMTP IPv6	1	99	0
DNS	0	100	0

Tecnocom



94

correct Web servers

www.ipv6.elmundo.es IN AAAA 2001:450:9:10::71

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

servidor-v6.ipv6.unam.mx. 7200 IN AAAA 2001:1218:1:6c::2

servidor-v6.ipv6.unam.mx. 7200 IN AAAA 2001:448:1:6c::2

www.ipv6.hp.com. 1603 IN AAAA 2001:1890:1109:fc:20b:cdff:fe6b:a9e8

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 1214 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers

Moldova

	*	#	?
www.example.com	0		0
www.ipv6.example.com	0		I
www6.example.com	0		0
ipv6.example.com	0		0
Web Totals	0	99	I
SMTP IPv6	I	99	0
DNS	0	100	0

Tecnocom



95

correct Web servers

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 1214 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers

Mongolia

	*	#	?
www.example.com	0		0
www.ipv6.example.com	0		I
www6.example.com	0		0
ipv6.example.com	0		0
Web Totals	0	99	I
SMTP IPv6	I	99	0
DNS	0	100	0

Tecnocom



96

correct Web servers

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 1214 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers

Morocco

	*	#	?
<u>www.example.com</u>	0		0
<u>www.ipv6.example.com</u>	0		I
<u>www6.example.com</u>	0		0
<u>ipv6.example.com</u>	0		0
Web Totals	0	99	I
SMTP IPv6	I	99	0
DNS	0	100	0

Tecnocom



97

correct Web servers

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 1214 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers

Netherlands

	*	#	?
<u>www.example.com</u>	0		0
<u>www.ipv6.example.com</u>	0		I
<u>www6.example.com</u>	0		0
<u>ipv6.example.com</u>	0		0
Web Totals	0	99	I
SMTP IPv6	I	99	0
DNS	0	100	0

Tecnocom



98

correct Web servers

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 1214 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers

New Zealand

	*	#	?
<u>www.example.com</u>	0		0
<u>www.ipv6.example.com</u>	0		I
<u>www6.example.com</u>	0		0
<u>ipv6.example.com</u>	0		0
Web Totals	0	99	I
SMTP IPv6	I	98	I
DNS	0	100	0

Tecnocom



99

correct Web servers

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 1214 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

massey.ac.nz: mu-relay1.massey.ac.nz. 9177 IN AAAA 2001:4530:0:2::98

massey.ac.nz: mu-relay2.massey.ac.nz. 9177 IN AAAA 2001:4530:0:2::99

correct DNS servers

liar DNS servers

Nicaragua

	*	#	?
<u>www.example.com</u>	0		0
<u>www.ipv6.example.com</u>	0		I
<u>www6.example.com</u>	0		0
<u>ipv6.example.com</u>	0		I
Web Totals	0	98	2
SMTP IPv6	I	99	0
DNS	0	100	0

Tecnocom



100

correct Web servers

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886
ipv6.hp.com. 3600 IN AAAA 2001:1890:1109:3006:156:152:32:70

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 1214 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers

Norway

	*	#	?
<u>www.example.com</u>	0		0
<u>www.ipv6.example.com</u>	0		I
<u>www6.example.com</u>	0		0
<u>ipv6.example.com</u>	0		0
Web Totals	0	99	I
SMTP IPv6	I	99	0
DNS	0	100	0

Tecnocom



101

correct Web servers

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 1214 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers

Oman

	*	#	?
<u>www.example.com</u>	0		0
<u>www.ipv6.example.com</u>	0		2
<u>www6.example.com</u>	0		0
<u>ipv6.example.com</u>	0		0
Web Totals	0	98	2
SMTP IPv6	1	99	0
DNS	0	100	0

Tecnocom



102

correct Web servers

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886
www.ipv6.hp.com. 3063 IN AAAA 2001:1890:1109:fc:20b:cdff:fe6b:a9e8

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 2198 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers

Pakistan

	*	#	?
<u>www.example.com</u>	0		0
<u>www.ipv6.example.com</u>	0		I
<u>www6.example.com</u>	0		I
<u>ipv6.example.com</u>	0		I
Web Totals	0	97	3
SMTP IPv6	I	99	0
DNS	0	100	0

Tecnocom



103

correct Web servers

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886
www6.cyber.net.pk. 14644 IN AAAA 2001:4538:100::2
ipv6.hp.com. 2810 IN AAAA 2001:1890:1109:3006:156:152:32:70

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 1908 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers

Palestinian Territory

	*	#	?
<u>www.example.com</u>	0		0
<u>www.ipv6.example.com</u>	0		I
<u>www6.example.com</u>	0		0
<u>ipv6.example.com</u>	0		0
Web Totals	0	99	I
SMTP IPv6	I	99	0
DNS	0	100	0

Tecnocom



104

correct Web servers

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 1647 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers

Panama

	*	#	?
<u>www.example.com</u>	0		0
<u>www.ipv6.example.com</u>	I		I
<u>www6.example.com</u>	0		0
<u>ipv6.example.com</u>	0		I
Web Totals	I	97	2
SMTP IPv6	I	99	0
DNS	0	100	0

Tecnocom



105

correct Web servers

www.ipv6.elmundo.es. 14044 IN AAAA 2001:800:400:10::71
www.ipv6.elmundo.es. 14044 IN AAAA 2001:800:400:10::115
www.ipv6.elmundo.es. 14044 IN AAAA 2001:450:9:10::71
www.ipv6.elmundo.es. 14044 IN AAAA 2001:450:9:10::115

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886
ipv6.hp.com. 2364 IN AAAA 2001:1890:1109:3006:156:152:32:70

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 1647 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers

Paraguay

	*	#	?
www.example.com	0		0
www.ipv6.example.com	I		I
www6.example.com	0		0
ipv6.example.com	0		0
Web Totals	I	98	I
SMTP IPv6	I	99	0
DNS	0	100	0

Tecnocom



106

correct Web servers

www.ipv6.elmundo.es. 14044 IN AAAA 2001:800:400:10::71
www.ipv6.elmundo.es. 14044 IN AAAA 2001:800:400:10::115
www.ipv6.elmundo.es. 14044 IN AAAA 2001:450:9:10::71
www.ipv6.elmundo.es. 14044 IN AAAA 2001:450:9:10::115

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 1647 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers

Peru

	*	#	?
www.example.com	0		0
www.ipv6.example.com	I		I
www6.example.com	0		0
ipv6.example.com	0		0
Web Totals	I	98	I
SMTP IPv6	I	99	0
DNS	0	100	0

Tecnocom



107

correct Web servers
www.ipv6.elmundo.es. IN AAAA 2001:450:9:10::71

liar Web servers
www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

correct MX servers
wikipedia.org: pascal.knams.wikimedia.org. 973 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers

Philippines

	*	#	?
<u>www.example.com</u>	0		0
<u>www.ipv6.example.com</u>	0		I
<u>www6.example.com</u>	0		0
<u>ipv6.example.com</u>	0		0
Web Totals	0	99	I
SMTP IPv6	I	99	0
DNS	0	100	0

Tecnocom



108

correct Web servers

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 745 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers

Poland

	*	#	?
<u>www.example.com</u>	0		0
<u>www.ipv6.example.com</u>	0		I
<u>www6.example.com</u>	0		0
<u>ipv6.example.com</u>	0		I
Web Totals	0	98	2
SMTP IPv6	0	100	0
DNS	0	96	4

Tecnocom



109

correct Web servers

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 596 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

orange.pl: dns.atman.pl. 14557 IN AAAA 2001:1a68:0:5::10

idg.pl: dns.atman.pl. 14547 IN AAAA 2001:1a68:0:5::10

playmobile.pl: dns2.atman.pl. 14540 IN AAAA 2001:1a68:0:7::68

playmobile.pl: kirdan.nask.net.pl. 43200 IN AAAA 2001:a10:1:ffff::1:f408

pf.pl: ns4.ikp.pl. 86400 IN AAAA 2001:4190:8002:8001::2

liar DNS servers

Portugal

	*	#	?
www.example.com	0		0
www.ipv6.example.com	0		I
www6.example.com	0		0
ipv6.example.com	0		0
Web Totals	0	99	I
SMTP IPv6	2	98	0
DNS	I	99	0

Tecnocom



110

correct Web servers

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 244 IN AAAA 2001:610:672:1:145:97:39:130

meteo.pt mail02.fccn.pt. 14400 IN AAAA 2001:690:a80:4001::300

liar MX servers

correct DNS servers

meteo.pt ns02.fccn.pt. 14348 IN AAAA 2001:690:a80:4001::200

liar DNS servers

Puerto Rico

	*	#	?
www.example.com	0		0
www.ipv6.example.com	0		I
www6.example.com	0		0
ipv6.example.com	0		0
Web Totals	0	99	I
SMTP IPv6	I	99	0
DNS	0	100	0

Tecnocom



111

correct Web servers

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 3600 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers

Qatar

	*	#	?
<u>www.example.com</u>	0		0
<u>www.ipv6.example.com</u>	0		I
<u>www6.example.com</u>	0		0
<u>ipv6.example.com</u>	0		0
Web Totals	0	99	I
SMTP IPv6	I	99	0
DNS	0	100	0

Tecnocom



112

correct Web servers

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 3452 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers

Romania

	*	#	?
<u>www.example.com</u>	0		I
<u>www.ipv6.example.com</u>	0		I
<u>www6.example.com</u>	0		0
<u>ipv6.example.com</u>	0		0
Web Totals	0	98	2
SMTP IPv6	I	99	0
DNS	0	99	I

Tecnocom



113

correct Web servers

liar Web servers
www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886
guru3.6dns.org. 120 IN AAAA 2002:51e7:e65f:1::1

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 3341 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers
edu.ro: ns1.roedu.net. 14274 IN AAAA 2001:b30:1800:1201::2

Russia

	*	#	?
<u>www.example.com</u>	0		0
<u>www.ipv6.example.com</u>	0		I
<u>www6.example.com</u>	0		0
<u>ipv6.example.com</u>	0		0
Web Totals	0	99	I
SMTP IPv6	I	99	0
DNS	0	100	0

Tecnocom



114

correct Web servers

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 3167 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers

Saudi Arabia

	*	#	?
<u>www.example.com</u>	0		0
<u>www.ipv6.example.com</u>	0		I
<u>www6.example.com</u>	0		0
<u>ipv6.example.com</u>	0		0
Web Totals	0	99	I
SMTP IPv6	I	99	0
DNS	0	100	0

Tecnocom



115

correct Web servers

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 3010 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers

Serbia and Montenegro

	*	#	?
<u>www.example.com</u>	0		0
<u>www.ipv6.example.com</u>	0		I
<u>www6.example.com</u>	0		0
<u>ipv6.example.com</u>	0		0
Web Totals	0	99	I
SMTP IPv6	I	99	0
DNS	0	100	0

Tecnocom



116

correct Web servers

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 2766 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers

Singapore

	*	#	?
<u>www.example.com</u>	0		0
<u>www.ipv6.example.com</u>	0		I
<u>www6.example.com</u>	0		0
<u>ipv6.example.com</u>	0		0
Web Totals	0	99	I
SMTP IPv6	I	99	0
DNS	0	100	0

Tecnocom



117

correct Web servers

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 2577 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers

Slovakia

	*	#	?
<u>www.example.com</u>	0		0
<u>www.ipv6.example.com</u>	0		I
<u>www6.example.com</u>	0		0
<u>ipv6.example.com</u>	0		0
Web Totals	0	99	I
SMTP IPv6	I	98	I
DNS	0	99	I

Tecnocom



118

correct Web servers

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 2360 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

war4u.sk: mail_unixik_sk. 3600 IN AAAA 2001:618:400:545f::1

correct DNS servers

war4u.sk ns_unixik_sk. 3580 IN AAAA 2001:618:400:545f::1

war4u.sk ns1_unixik_sk. 3580 IN AAAA 2001:718:2:980:1:3:3:7

liar DNS servers

Slovenia

	*	#	?
<u>www.example.com</u>	0		0
<u>www.ipv6.example.com</u>	0		I
<u>www6.example.com</u>	0		0
<u>ipv6.example.com</u>	0		0
Web Totals	0	99	I
SMTP IPv6	I	99	0
DNS	0	98	2

Tecnocom



119

correct Web servers

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 2254 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

uni-mb.si niobe.ijs.si. 86400 IN AAAA 2001:1470:ff80::24

arnes.si ns4.arnes.eu. 172800 IN AAAA 2001:620::1

arnes.si niobe.ijs.si. 86397 IN AAAA 2001:1470:ff80::24

liar DNS servers

South Africa

	*	#	?
www.example.com	0		I
www.ipv6.example.com	0		I
www6.example.com	0		0
ipv6.example.com	0		I
Web Totals	0	97	3
SMTP IPv6	I	99	0
DNS	0	98	2

Tecnocom



120

correct Web servers

liar Web servers
www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886
ipv6.hp.com. 3600 IN AAAA 2001:1890:1109:3006:156:152:32:70
www.ipv6rd.net. 12507 IN AAAA 2001:a88:0:ffff::15

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 2085 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers
uovs.ac.za: ns.uovs.ac.za. 14297 IN AAAA 2001:4200:5000::12
uovs.ac.za: hippo.ru.ac.za. 14146 IN AAAA 2001:4200:1010::1
uct.ac.za: hippo.ru.ac.za. 86400 IN AAAA 2001:4200:1010::1

South Korea

	*	#	?
<u>www.example.com</u>	I		0
<u>www.ipv6.example.com</u>	0		I
<u>www6.example.com</u>	0		0
<u>ipv6.example.com</u>	0		0
Web Totals	I	98	I
SMTP IPv6	I	99	0
DNS	0	100	0

Tecnocom



121

correct Web servers
vsix.paran.com. 600 IN AAAA 2001:220:1034::500

liar Web servers
www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

correct MX servers
wikipedia.org: pascal.knams.wikimedia.org. 1655 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers

Sri Lanka

	*	#	?
www.example.com	0		0
www.ipv6.example.com	0		I
www6.example.com	0		0
ipv6.example.com	0		I
Web Totals	0	98	2
SMTP IPv6	I	99	0
DNS	0	100	0

Tecnocom



122

correct Web servers

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886
ipv6.hp.com. 2862 IN AAAA 2001:1890:1109:3006:156:152:32:70

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 1494 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers

Sudan

	*	#	?
<u>www.example.com</u>	0		0
<u>www.ipv6.example.com</u>	0		I
<u>www6.example.com</u>	0		0
<u>ipv6.example.com</u>	0		I
Web Totals	0	98	2
SMTP IPv6	I	99	0
DNS	2	98	0

Tecnocom



123

correct Web servers

liar Web servers
www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886
ipv6.hp.com. 2669 IN AAAA 2001:1890:1109:3006:156:152:32:70

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 1140 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

gov.sd: tld1.ultradns.net. 60 IN AAAA 2001:502:d399::1
gov.sd: ns-sd.ripe.net. 172800 IN AAAA 2001:610:240::53:cc:12:209

liar DNS servers

Sweden

	*	#	?
<u>www.example.com</u>	0		0
<u>www.ipv6.example.com</u>	0		I
<u>www6.example.com</u>	0		0
<u>ipv6.example.com</u>	0		0
Web Totals	0	99	I
SMTP IPv6	2	98	0
DNS	I	98	I

Tecnocom



124

correct Web servers

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 1009 IN AAAA 2001:610:672:1:145:97:39:130

kth.se mx.kth.se. 7200 IN AAAA 2001:6b0:1:1300:20e:7fff:fef0:f8bb

kth.se mx.kth.se. 7200 IN AAAA 2001:6b0:1:1300:20e:7fff:fe26:4fe1

liar MX servers

correct DNS servers

tele2.se: sunic.sunet.se. 86400 IN AAAA 2001:6b0:7::2

liar DNS servers

kth.se: a.ns.kth.se. 7165 IN AAAA 2001:6b0:1::246

Switzerland

	*	#	?
www.example.com	0		0
www.ipv6.example.com	I		I
www6.example.com	0		0
ipv6.example.com	0		0
Web Totals	I	98	I
SMTP IPv6	I	99	0
DNS	0	97	3

Tecnocom



125

correct Web servers

www.ipv6.t-online.de. 86400 IN AAAA 2003:2:0:f302::1:2

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 667 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

20min.ch: ns1.cyberlink.ch. 6985 IN AAAA 2001:8a8:22::a
20min.ch: ns2.cyberlink.ch. 6985 IN AAAA 2001:8a8:20::10
20min.ch: ns3.cyberlink.ch. 7200 IN AAAA 2001:8a8:22::10
festzeit.ch: ns4.genotec.ch. 3600 IN AAAA 2001:1b50::3:82:195:235:69
festzeit.ch: ns2.genotec.ch. 3600 IN AAAA 2001:1b50::82:195:225:5
festzeit.ch: ns3.genotec.ch. 3600 IN AAAA 2001:1b50::2:82:195:235:37
unisg.ch: scsnms.switch.ch. 172800 IN AAAA 2001:620::1

liar DNS servers

Syrian Arab Republic

	*	#	?
<u>www.example.com</u>	0		0
<u>www.ipv6.example.com</u>	0		I
<u>www6.example.com</u>	0		0
<u>ipv6.example.com</u>	0		0
Web Totals	0	99	I
SMTP IPv6	I	99	0
DNS	0	100	0

Tecnocom



126

correct Web servers

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 406 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers

Taiwan

	*	#	?
www.example.com	0		I
www.ipv6.example.com	0		3
www6.example.com	0		0
ipv6.example.com	0		I
Web Totals	0	95	5
SMTP IPv6	I	99	0
DNS	0	100	0

Tecnocom



127

correct Web servers

www.ipv6.hinet.net. 3600 IN AAAA 2001:238::2

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

guru3.6dns.org. 120 IN AAAA 2002:51e7:e65f:1::1

www.ipv6.microsoft.com. 283 IN AAAA 2002:836b:9820::836b:9886

dns.ipv6.ntu.edu.tw. 13911 IN AAAA 2001:e10:800:3::83

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 8 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers

Tahiland

	*	#	?
www.example.com	0		I
www.ipv6.example.com	0		I
www6.example.com	0		0
ipv6.example.com	0		I
Web Totals	0	97	3
SMTP IPv6	I	99	0
DNS	0	93	7

Tecnocom



128

correct Web servers

liar Web servers

```
www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886
ipv6.ku.ac.th. 13824 IN AAAA 2001:3c8:1303:1::10
guru3.6dns.org. 120 IN AAAA 2002:51e7:e65f:1::1
```

correct MX servers

```
wikipedia.org: pascal.knams.wikimedia.org. 8 IN AAAA 2001:610:672:1:145:97:39:130
```

liar MX servers

correct DNS servers

liar DNS servers

```
pramool.com ns2.inet.co.th. 360 IN AAAA 2001:c00:4618:202::2
kapook.com ns1.inet.co.th. 360 IN AAAA 2001:c00:4618:202::1
kapook.com ns2.inet.co.th. 352 IN AAAA 2001:c00:4618:202::2
sf.in.th ns.tde.co.th. 817 IN AAAA 2002:cb90:f55d::cb90:f55d
ns.tde.co.th. 817 IN AAAA 2002:cb90:f55b::cb90:f55b
thairath.co.th ns1.inet.co.th. 313 IN AAAA 2001:c00:4618:202::1
thairath.co.th ns2.inet.co.th. 305 IN AAAA 2001:c00:4618:202::2
ku.ac.th ns.ku.ac.th. 86400 IN AAAA 2001:3c8:1303:1102::10
ku.ac.th ns2.ku.ac.th. 86400 IN AAAA 2001:3c8:1303:1125::10
dailynews.co.th ns2.inet.co.th. 253 IN AAAA 2001:c00:4618:202::2
dailynews.co.th ns1.inet.co.th. 261 IN AAAA 2001:c00:4618:202::1
```

Trinidad and Tobago

	*	#	?
<u>www.example.com</u>	0		0
<u>www.ipv6.example.com</u>	0		I
<u>www6.example.com</u>	0		0
<u>ipv6.example.com</u>	0		I
Web Totals	0	98	2
SMTP IPv6	I	99	0
DNS	0	100	0

Tecnocom



129

correct Web servers

liar Web servers
www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886
ip6.hp.com. 3600 IN AAAA 2001:1890:1109:3006:156:152:32:70

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 1855 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers

Tunisia

	*	#	?
<u>www.example.com</u>	0		0
<u>www.ipv6.example.com</u>	0		I
<u>www6.example.com</u>	0		0
<u>ipv6.example.com</u>	0		I
Web Totals	0	98	2
SMTP IPv6	I	99	0
DNS	0	96	4

Tecnocom



130

correct Web servers

liar Web servers
www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886
 ipv6.hp.com. 3600 IN AAAA 2001:1890:1109:3006:156:152:32:70

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 1855 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers
 emploi.nat.tn: ns.ati.tn. 86400 IN AAAA 2001:970:1:1::10
 topnet.tn: ns.ati.tn. 86398 IN AAAA 2001:970:1:1::10
 assabah.com.tn: ns.ati.tn. 86395 IN AAAA 2001:970:1:1::10
 meteo.tn: ns.ati.tn. 86400 IN AAAA 2001:970:1:1::10

Turkey

	*	#	?
<u>www.example.com</u>	0		0
<u>www.ipv6.example.com</u>	0		I
<u>www6.example.com</u>	0		0
<u>ipv6.example.com</u>	0		0
Web Totals	0	99	I
SMTP IPv6	I	99	0
DNS	0	100	0

Tecnocom



131

correct Web servers

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 1417 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers

Ukraine

	*	#	?
<u>www.example.com</u>	0		0
<u>www.ipv6.example.com</u>	0		I
<u>www6.example.com</u>	0		0
<u>ipv6.example.com</u>	0		0
Web Totals	0	99	I
SMTP IPv6	I	99	0
DNS	I	99	0

Tecnocom



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correct Web servers

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 1195 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

lviv.ua: ns5.univie.ac.at. 77600 IN AAAA 2001:628:453:4305::53

liar DNS servers

United Arab Emirates

	*	#	?
<u>www.example.com</u>	0		0
<u>www.ipv6.example.com</u>	0		I
<u>www6.example.com</u>	0		0
<u>ipv6.example.com</u>	0		0
Web Totals	0	99	I
SMTP IPv6	I	99	0
DNS	0	100	0

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correct Web servers

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 1050 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers

United Kingdom

	*	#	?
www.example.com	0		0
www.ipv6.example.com	0		2
www6.example.com	0		0
ipv6.example.com	0		0
Web Totals	0	98	2
SMTP IPv6	1	99	0
DNS	0	100	0

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correct Web servers

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886
www.ipv6.bt.com. 86400 IN AAAA 2001:618:1:8000::5 (test site)

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 892 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers

United States

	*	#	?
www.example.com	0		0
www.ipv6.example.com	0		2
www6.example.com	0		0
ipv6.example.com	0		0
Web Totals	0	98	2
SMTP IPv6	1	99	0
DNS	2	98	0

Tecnocom



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correct Web servers

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886
www.ipv6.hp.com. 3600 IN AAAA 2001:1890:1109:fc:20b:cdff:fe6b:a9e8 (test site)

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 737 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

constantcontact.com auth03.ns.uu.net. 3600 IN AAAA 2600:803:5:1::11
stumbleupon.com NS2.LAYER42.net. 3600 IN AAAA 2001:1868:2::10
stumbleupon.com NS3.LAYER42.net. 3600 IN AAAA 2001:1868:1::10
stumbleupon.com NS1.LAYER42.net. 3599 IN AAAA 2001:1868:4:1::10

liar DNS servers

Uruguay

	*	#	?
www.example.com	0		I
www.ipv6.example.com	0		I
www6.example.com	0		0
ipv6.example.com	0		0
Web Totals	0	98	2
SMTP IPv6	I	99	0
DNS	5	95	0

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correct Web servers

liar Web servers
 www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886
 guru3.6dns.org. 120 IN AAAA 2002:51e7:e65f:1::1

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 737 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers
 bedelias.edu.uy seciu.edu.uy. 86400 IN AAAA 2001:1328:6::5
 anteldata.com.uy seciu.uy. 86400 IN AAAA 2001:1328:6::5
 fing.edu.uy seciu.edu.uy. 86395 IN AAAA 2001:1328:6::5
 ucu.edu.uy seciu.edu.uy. 86389 IN AAAA 2001:1328:6::5
 ccee.edu.uy seciu.edu.uy. 86387 IN AAAA 2001:1328:6::5

liar DNS servers

Venezuela

	*	#	?
www.example.com	0		I
www.ipv6.example.com	I		I
www6.example.com	0		0
ipv6.example.com	0		0
Web Totals	I	97	2
SMTP IPv6	I	99	0
DNS	0	100	0

Tecnocom



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correct Web servers

www.ipv6.elmundo.es. 28800 IN AAAA 2001:450:9:10::115

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

guru3.6dns.org. 120 IN AAAA 2002:51e7:e65f:1::1

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 326 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers

Vietnam

	*	#	?
www.example.com	0		0
www.ipv6.example.com	0		2
www6.example.com	0		0
ipv6.example.com	0		0
Web Totals	0	98	2
SMTP IPv6	1	99	0
DNS	0	100	0

Tecnocom



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correct Web servers

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886
www.ipv6.vnn.vn. 86400 IN AAAA 2001:c20:2001:1101::2

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 16 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers

Yemen

	*	#	?
<u>www.example.com</u>	0		0
<u>www.ipv6.example.com</u>	0		I
<u>www6.example.com</u>	0		0
<u>ipv6.example.com</u>	0		0
Web Totals	0	99	I
SMTP IPv6	I	99	0
DNS	0	100	0

Tecnocom



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correct Web servers

liar Web servers

www.ipv6.microsoft.com. 1679 IN AAAA 2002:836b:9820::836b:9886

correct MX servers

wikipedia.org: pascal.knams.wikimedia.org. 3600 IN AAAA 2001:610:672:1:145:97:39:130

liar MX servers

correct DNS servers

liar DNS servers