.nz NEWSLETTER – MARCH 2004

:: DNC OFFICE ::

Summary of the .nz market

For February, the level of active .nz domain names increased from 144,092 to 146,347, a net increase of 2,255. This was the largest net growth since October 2003. The growth was spread across all open second level domains except for .cri, .gen and .maori.

The number of new domain name created (3,922) in February is also the highest since August 2003 and the second highest since the SRS started.

DNC Fiji Prize Trip

Congratulations to Eddie and Kaaren of Te Awamutu who are jetting off on holiday to Fiji at the end of May as the lucky winners of the DNC Registrar Reselection Prize Draw. Eddie and Kaaren haven't been on a holiday for quite some time so they are really looking forward to the palm trees, white sands and blue skies.

Current Consultations

A reminder that we are currently consulting on the Second Level Domains (2LD) Policy and the Zone Transfer Policy.
Submissions close on Monday 5 April, all comments are welcome.
Draft 2LD Policy available at: http://www.dnc.org.nz/story/30154-35-1.html
Proposed Zone Transfer Policy available at: http://www.dnc.org.nz/story/30155-35-1.html

InternetNZ's Registrants' Survey

InternetNZ in March commissioned a random telephone poll of a sample of .nz registrants to ask them about funding of InternetNZ, and related issues. Around 300 registrants took part.

The poll found that 53% of registrants had heard of InternetNZ, with this rising to 64% amongst registrants who had personal domain names.

It was explained to registrants that a proportion of their overall domain name fee goes to a central .nz registry and that money is used to cover both the technical and policy costs of running the .nz registry but also other activities related to InternetNZ's mission to protect and promote the Internet in New Zealand.

When asked if they were comfortable that a portion, being around $6 per name per year, of their domain name fee is used by InternetNZ on activities to promote and protect the Internet in NZ, 83% said they were, 8% were not and 10% had no opinion or said it depends on specific factors.

InternetNZ is planning to publish annually in appropriate publications a summary of activities it has undertaken which are funded by the local Internet community through their domain name fees. Asked which IT media they read, the responses were:

NZ Herald Technology Section	54%
Netguide	34%
Computerworld	25%
Dominion Post Infotech	15%

InternetNZ would like to thank the registrars who co-operated in making the survey possible. According to InternetNZ's Vice-President David Farrar, the results will be of considerable assistance to InternetNZ in business planning for the next three years.

Statistics

Figures as at 29 February 2004:

	Active names as at 1 February	Active names as at end 29 February	New registrations February	Renewals February	Change over month
.ac	814	825	16	185	11
.co	122148	124133	3352	31111	1984
.cri	27	27	0	6	0
.geek	584	610	31	78	26
.gen	878	844	11	190	-34
.govt	704	710	7	181	6
.iwi	47	49	1	15	2
.maori	310	308	2	10	-2
.mil	14	17	3	7	3
.net	8143	8252	270	1662	109
.org	8309	8447	217	1842	138
.school	2114	2125	22	924	11
TOTAL	144092	146347	3932	36211	2255

Note: these figures do not include names in the 'pendingrelease' status. They incorporate all active domain names in the .nz register. For more statistics, see http://dnc.org.nz/statistics

:: .nz REGISTRY SERVICES ::

NZRS, InternetNZ and the Office of the DNC have moved to new premises and are now at Level 9, Exchange Place, 5-7 Willeston St. All organisations have retained their previous postal addresses, phone and fax numbers.

There have been several queries recently from registrars relating to the changing of nameserver IP numbers. In response to these queries there is a section this month on the Changing of Nameserver IP numbers.

NZRS is currently in the development phase for the implementation of DNS Transaction Signatures (TSIG). TSIGs are a means by which co-operating name servers can cryptographically sign data to be exchanged between them, and check that such data has been exchanged correctly.

SRS Availability

System availability for February was 99.5%, against the SLA standard of 99.9%

SRS Availability	December	January	February
%	99.8	100	99.95

SRS Response Times

Response time performance figures on the production environment for the previous three months were:

Avg Response time (in seconds)	December	January	February
Domain Details Query	0.361	0.383	0.467
Domain Update	0.401	0.393	0.387
Domain Create	0.539	0.462	0.434
GetMessage performance	0.397	0.724	1.745
GetMessage (volume)	50,886	73,231	61363
Whois	0.206	0.213	0.236
Whois queries at back end including Registrar (volume)	379,632	644,555	605548
Whois Server Queries (volume)	225,716	240,113	364867
UDAI Valid Query	0.196	0.210	0.204

Unscheduled Outages

There was one unscheduled outage of the SRS in February.

Date	17/2/04
Time	12:22 - 12:42
Duration	20 mins
Impact	High
Cause	The problem was caused by the VPN between Auckland and Wellington dying and not marking Wellington backends as inactive.
Action required	Marked the Wellington backends as inactive. Auto restart Script updated

Scheduled Outages and Updates

There was a scheduled outage on 29 February to allow for an upgrade of the SRS. The Replication changes were not undertaken and have been postponed until the next Scheduled outage. Refer Replication Changes for further details.

Replication Changes

The changes to the SRS replication software that were scheduled to be included with the SRS 1.8 release were not released into production. Some problems related to transaction request and response size were highlighted by the stress testing phase of our testing.

One of the major components of the replication changes is the incorporation of the Spread toolkit (http://www.spread.org/) to be used by the front-end replication to improve reliability of the message passing within the front-end replication. The web site describes Spread this way:

Spread is a toolkit that provides a high performance messaging service that is resilient to faults across external or internal networks. Spread functions as a unified message bus for distributed applications and provides highly tuned application-level multicast and group communication support. Spread services range from reliable message passing to fully ordered messages with delivery guarantees, even in case of computer failures and network partitions

The problem found during stress testing related to the ability of the Spread toolkit to handle large request sizes (in excess of 100k). To overcome this problem the request size of an SRS transaction will be limited to 100k. A review of the SRS logs has shown that no Registrar transaction request has exceeded this limit to-date.

TSIG

NZRS is currently in the development phase of for the implementation of DNS Transaction Signatures, or TSIGs, are a means by which co-operating name servers can cryptographically sign data to be exchanged between them, and check that such data has been exchanged correctly.

TSIG relies on the use of shared secrets, and thus can only be used between co-operating name servers, for example between primary and secondary servers for securing zone downloads by the secondary servers.

Changing name server IP numbers

The IP address for a name server in a domain record should be included if the name server is within the zone that it is associated with.

For example:

	Domain name:	**dnsnameserver.net.nz**
	Name Server:	ns1.dnsnameserver.net.nz
	IP:	123.45.678.1
	Name Server:	ns2.dnsnameserver.net.nz
	IP:	123.45.678.2
And		
	Domain name:	**nzrsregistry.co.nz**
	Name Server:	ns1.dnsnameserver.net.nz
	IP:	123.45.678.1
	Name Server:	ns2.dnsnameserver.net.nz
	IP:	123.45.678.2

What actually gets pushed to the DNS is:

dnsnameserver.net.nz.	NS	ns1.dnsnameserver.net.nz.
ns1.dnsnameserver.net.nz.	A	123.45.678.1
dnsnameserver.net.nz.	NS	ns2.nameserver.net.nz.
ns2.dnsnameserver.net.nz.	A	123.45.678.1

and

nzrsregistry.co.nz.	NS	ns1.dnsnameserver.net.nz.
nzrsregistry.co.nz.	NS	ns2.dnsnameserver.net.nz.

That is, the IP addresses given in **nzrsregistry.co.nz's** domain record are completely ignored by the zone load process, as you can look up the name server IP addresses by querying in the **dnsnameserver.net.nz** domain.

You need IP addresses in the case where the name server is below the domain simply because to look up **dnsnameserver.net.nz** you need to know the address of ns1.dnsnameserver.net.nz (or ns2.dnsnameserver.net.nz), and to find that you need to look up **dnsnameserver.net.nz**.

The IP addresses (known as "glue records") placed in the delegating zone simply shortcuts the process in that special case.

The SRS name server xml for domain **dnsnameserver.net.nz** should be:
```
<NameServers>
        <Server FQDN="ns1.dnsnameserver.net.nz" IP4Addr="123.45.678.1"/>
        <Server FQDN="ns2.dnsnameserver.net.nz" IP4Addr="123.45.678.2"/>
</NameServers>
```

And the SRS name server xml for domain **nzrsregistry.co.nz** should be:
```
<NameServers>
            <Server FQDN="ns1.dnsnameserver.net.nz " />
            <Server FQDN="ns2.dnsnameserver.net.nz"  />
</NameServers>
```

So if you have to change the IP addresses for a nameserver, you only need to change the IP addresses in the domain record for the name server itself. Of course you need to keep both the old & new addresses operating for 24 hours after the changed addresses are pushed to the NZ servers, as cached answers may be held that long for the NZ domains.

Any Comments?

If you have any questions or concerns about the SRS, please don't hesitate to contact us. For registry or technical matters, contact Nick Griffin at support@nzrs.net.nz. For all other matters, contact Debbie Monahan at info@dnc.org.nz.

Please Note

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