

.nz NEWSLETTER – November 2011

:: Domain Name Commission ::

NZRS as a gTLD registrar

At a previous meeting of the Registrar Advisory Group (RAG) some registrars suggested that there would be value to them if NZRS was a gTLD registrar as that would enable registrars to have a seamless interface to register both .nz and gTLD domain names. Some of the reasons raised for their interest in this were issues they faced in dealing with some overseas registrars and the systems operated in the gTLD space.

There has been some discussion between NZRS and DNCL around this topic since that RAG meeting. There is some thought that there could be value to New Zealand registrants in offering such a service as we would seek to operate any gTLD registrar services to the same standards as .nz, protecting the rights of registrants.

It is considered timely to go back to registrars and seek their views as to whether there would be any interest in NZRS looking into ICANN registrar accreditation and offering registration services for .nz authorised registrars to use. Please note that the only proposal NZRS might consider is for NZRS to become a wholesale gTLDs registrar that only accepts .nz registrars as customers. It would not be appropriate for NZRS to be a retail registrar offering general registration services to registrants, so this option will not be considered.

If there is interest expressed then work will be done on evaluating the costs, risks and benefits of such a service. The community will be consulted should any work be done on this initiative.

Please send any comments you have on this to Jay Daley, the NZRS Chief Executive, at jay@nzrs.net.nz, copied to policies@dnc.org.nz. Comments can be sent at any time but it would be useful to have them by the end of November 2011 so we can incorporate these into our planning for next year.

Statistics

In October, the number of active .nz domain names increased from 456,744 to 460,160, a net increase of 3,416.

Figures as at 31 October 2011:

	1 Oct 11	31 Oct 11	New registrations September	Renewals September	Net Growth
.ac	1,875	1,908	56	310	33
.co	396,018	398,841	7,558	62,341	2823
.cri	13	13	0	1	0
.geek	1,086	1,121	49	257	35
.gen	1,370	1,403	45	289	33
.govt	1,097	1,097	0	1,065	0
.health	141	144	3	126	3
.iwi	76	76	0	9	0
.maori	642	669	35	103	27
.mil	33	33	0	9	0
.net	25,526	25,781	612	3,744	255
.org	25,689	25,859	427	3,702	170
.parliament	8	8	0	8	0
.school	3,170	3,207	50	1,277	37
TOTAL	456,744	460,160	8,835	73,241	3,416

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

:: .nz Registry Services ::

DNSSEC deployment has commenced!

On Friday November 18th, the cryptographic keys required to sign the .nz zones with DNSSEC were created. We have posted part of the materials used during this procedure on our website: <http://nzrs.net.nz/content/first-key-generation>

At 10:00am on Monday November 21st NZDT, a signed version of the .nz zone went live. The DNSKEY records have been obscured to prevent validation as a first step on the deployment phase. More details available at: <http://nzrs.net.nz/content/nz-signed-zone-published-obscured-keys>

During November we will be closely monitoring the DNS service to evaluate if it's advisable to proceed with the next step: publishing the un-obscured DNSKEY set and sending the DS records to the root zone.

Detailed below are the dates for deployment of DNSSEC for the .nz zone.

Date	Task	Description
22-May-11	SRS began accepting DS records	Both SRS and EPP interfaces are capable of receiving DS records for the third level domains. Those records won't be published until the corresponding second level domain is signed
18-Nov-11	Key Generation	The keys needed to sign the .nz zone and the second level zones will be generated according to procedure. This will be a once-a-year task.
21-Nov-11	signed .nz zone is published with obscured keys	The .nz nameservers will start serving a signed version of the .nz zone, but with the DNSKEY records obfuscated to prevent their use as trust anchors.
Nov-11	Deployment results are analyzed and decision to submit DS record to the root is taken	Over the next two weeks, we will be analyzing the behaviour of the system while serving a signed zone. This will enable us to determine if it's safe to proceed with the DNSSEC deployment schedule.
9-Dec-11	DNSKEY records for .nz are unobscured	The obfuscation of DNSKEY records in the .nz zone will be reverted, making their real content visible in the zone. It's not advisable to use them as trust anchors.
9-Dec-11	DS records for .nz are submitted to the root	NZRS requests a change to the Root Zone Management to add the DS records for the .nz zone.
16-Dec-11	.nz DS records are published in the root zone	If all the checks pass, the Root Zone Management should make the changes requested visible around this date

If you have any questions, please contact Dave or Sebastian on support@nzrs.net.nz

Projects Update

SRS Architecture Upgrade

We have commenced the project to upgrade the architecture of the SRS system. Most if not all of the anticipated changes will be internal and have no impact to registrars.

The business drivers for the architectural work are:

- i. The SRS system was first written in 2001/2002 and has been amended considerably since then. This has become increasing complex and time consuming to maintain. The outcome is a system that will be easier and quicker to add to as new features and services are integrated and thereby remain fit for purpose for the medium term.
- ii. The system should make use of modern techniques (where appropriate) that may not have been available when the architecture was originally designed and replace any that have since been deprecated.
- iii. The system should be scalable, allowing for additional sites (including offshore)

The following are desired technical features of the new system:

- i. A simpler, more coherent architecture
- ii. Increased use of off-the-shelf tools and components where appropriate
- iii. Better separation of component layers allowing the later upgrading/replacement of those layers with minimal impact on the rest of the system.

The first stage of this project involved defining the road map of the architectural rework (i.e. the high-level design of the system), and the breakdown of the stages of work required. This stage is complete.

The second stage identified in the road map is to replace the existing third party message system (Spread) used by the SRS with RabbitMQ. All the development work and code migration for this stage was completed in October. The production roll out of these changes will take place in December.

The next stage in the Architectural Roadmap is to replace the Back-end replication with an improved "Catch-up functionality"

Later phases are likely to include the following:

- Serialisation
- Business Logic
- Internal Language
- Native Front-Ends

Network Upgrade

During the maintenance window scheduled for Sunday 20th November we attempted to replace the Cisco routers at the Auckland and Wellington sites with Juniper devices. We encountered a few issues with the new configuration and decided to roll back our changes before the end of the maintenance window. We will review the new configuration and the issues we encountered over the coming weeks and reschedule this work for a maintenance window in the new year.

EPP

We have deployed a functioning version of the SRS EPP interface to the SRS production system.

If there are any registrars that would like to use the EPP interface on the test or production system then please contact Dave or Pearl on support@nzrs.net.nz

RIK Deprecation Announcements

With the 5.16 release of the RIK, the following was removed from the RIK:

RIK Libs:

SRS/NativeData/*.pm	SRS/XML/LibXML.pm
SRS/Client/XMLTranslator.pm	SRS/Action.pm
SRS/Common/Data/Error.pm	SRS/AutoRestart.pm
SRS/Common/Data/ErrorInfo.pm	SRS/Error.pm
SRS/Common/Data/ValidPostalCCs.pm	SRS/Logger.pm
SRS/Error/Repository.pm	SRS/LogMessageGenerator.pm
SRS/Logger/Apache.pm	SRS/NativeData.pm
SRS/Logger/Stream.pm	SRS/UDAI.pm
	SRS/XML.pm

CPAN libs:

Date::Calc	Sys::Syslog
Devel::StackTrace	List::MoreUtils

Command Line Clients:

SRSCient (In favour of SRSCient2)

For more information please refer to the document [RIK changes 5.09](#)

RIK Redevelopment Project

The project to update the Registrar Information Kit (RIK) has been completed. SendJSON, sendXML and SRSCient2 clients have been introduced and command-line options standardised.

The most recent version of the RIK is 5.16, released 13th November, with minor changes.

Detailed information available at: <http://nzrs.net.nz/notices/updates>

Maintenance Windows for 2012

Maintenance windows have been scheduled for 2012, and listed at: <http://nzrs.net.nz/notices/updates>

Availability

Availability %	SLA	Aug 11	Sept 11	Oct 11
SRS	99.90	100	100	100
Whois	99.90	100	100	100
DNS	100	100	100	100

SRS Response times

Performance figures on the production environment for the previous three months:

Avg Response time (in seconds)	SLA Target	Aug 11	Sept 11	Oct 11
Domain Details Query	≤0.5	0.01	0.02	0.01
Domain Update	≤0.8	0.21	0.21	0.20
Domain Create	≤0.8	0.25	0.24	0.23
Get Message	≤0.5	0.03	0.03	0.03
Whois	≤0.5	0.05	0.05	0.05
Whois queries at back end including Registrar (volume 000's)	N/A	8148	8693	8973
Whois Server Queries (volume 000's)	N/A	1,006	945	972
UDAI Valid Query	≤0.5	0.10	0.10	0.09

Server DNS % Availability

	Aug 11	Sept 11	Oct 11
NS1	100	100	100
NS2	100	100	100
NS3	100	100	100
NS4	100	100	100
NS5	100	100	100
NS6	100	100	100
NS7	100	100	100

Unscheduled Outages during October 2011

Outage Type	Total Duration
SRS Unscheduled	50 seconds
WHOIS Unscheduled	0
DNS	0

Scheduled Outages during October 2011

Outage Type	Total Duration
SRS Scheduled	3 hours
SRS Emergency Scheduled	0
Whois Scheduled	3 hours

Planned Scheduled Outages

Details of future SRS releases and planned scheduled outages can be found on our website <http://nzrs.net.nz/notices/updates>

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 Dave Baker at support@nzrs.net.nz or on 04 931 6970. For all other matters, contact Debbie Monahan at info@dnc.org.nz.

Please Note

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