New Zealand Domain Name Structure

November 1, 1998 (Last update May 1, 2001)

Purpose

The Internet Society of New Zealand Inc. (ISOCNZ) has delegated responsibility for management of New Zealand **(.nz)** domain name space.

The policy framework for management of that space has been set out in this document by ISOCNZ.

Service delivery is a process managed by its subsidiary, Domainz. The Terms of Service offered, fee structure and rules dealing with non-payment of fees have also been documented and can be found at www.domainz.net.nz. All related documentation should be read in conjunction with this ISOCNZ domain name structure document.

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Introduction

The Internet Society of New Zealand Inc. was delegated responsibility to manage the **.nz** domain name space during 1996. This delegation forms part of a "cascade" of roles and responsibilities involving a number of organisations:

Internet Assigned Numbers Authority - IANA

- is an organisation responsible for overall co-ordination and management of the global Domain Name System (DNS)
- sets policy for the management of that global Internet space. Standards are usually published in RFC (Request For Comment) documents
- RFC 1591 is a key document relating to the DNS Structure and Delegation
- delegates ISOCNZ specifically to manage the **.nz** country domain space in line with that policy

Internet Society of New Zealand- ISOCNZ

- is responsible for the overall management of the **.nz** domain name space in line with IANA policy documents
- the ISOCNZ Council is responsible for the adaptation of those policies and development of local policy for the **.nz** domain space in consultation with stakeholders
- the Council creates second level domain policy to cater for "communities of interest" appropriate to the **.nz** domain space
- has established The New Zealand Internet Registry Ltd (trading as Domainz) to manage the **.nz** domain name space in line with policy
- monitors the performance of Domainz in implementing ISOCNZ's published policies

The New Zealand Internet Registry Ltd - Domainz

- is responsible to ISOCNZ for the implementation of policies in the day-to-day management of the **.nz Register**
- provides fee based registration services for listing third level domain names in the **.nz Register**
- delegates responsibility to Name Holders (the 3rd level domain manager) to ensure that each name is managed in line with all ISOCNZ and Domainz published policies
- works with a variety of agents each providing "value added" domain name services in line with published policies

ISOCNZ reserves the right to revise the DNS structure from time to time. Revisions to the structure will be published on the ISOCNZ site and take effect from a specified date which will be a minimum of one month following the date of publication.

Finally it needs to be understood that holding a name brings with it certain responsibilities. These are laid out on the Domainz site in the Reference Library, and the Registration Process document is a good starting point.

Name Holders are advised that domain names may be subject to reduced services, suspension or cancellation where the published rules are broken.

Policy feedback

ISOCNZ welcomes feedback in relation to its published DNS policy framework, as well as submissions for possible future change and wider issues such as membership of the Society.

All comments and enquiries should be sent to ISOCNZ by e-mail or phone as follows:

E-mail: **Exe.Dir@isocnz.org.nz**

Phone: (04) 801 6256

Role of Domainz

The New Zealand Internet Registry Ltd trades under the name of **Domainz**. It is a company established by ISOCNZ to provide robust DNS infrastructure and deliver quality, cost effective, registration services for the *.nz Register* in line with policy.

The Council requires that development of the **.nz** domain name system is properly funded, hence name registration is a commercial operation - customers are charged for all Domainz services.

Domainz is owned by ISOCNZ and is a customer service focused company. The Council maintains oversight to ensure that Domainz provides adequate returns to deliver the service quality and robust infrastructure required.

Finally, name registration is a process, and Domainz plays a key role in translating policy into name registration services for the benefit of Name Holders and their associated agents. Name Holders and Registrars/Agents should familiarise themselves with these processes at:

- **The process for .nz name registration**
- **Definition of registration services**
- **Domainz fee structure**
- **Role and importance of Registrars/Agents**

Structure of a .nz domain name

The structure of a domain name within the New Zealand name space has three elements. Each complete name must be unique and comprises all three elements, each separated by a period (.) i.e.

name.domain.nz

Content	Level of Domain	Purpose
nz	Country	fixed as **.nz** for all domains delegated to, and managed by, ISOCNZ
domain	Second	specifies a "community of interest" as defined in ISOCNZ policy
name	Third	names listed on behalf of users; must be consistent with ISOCNZ policy.

Any new name must conform to the relevant Internet standards (in particular RFC's 1034 and 2181) as well as specific ISOCNZ policy requirements - otherwise such applications may be automatically declined:

- **a domain name can consist of only alpha-numeric characters and the '-' hyphen**
- **the maximum length of each name element (called a label) is 63 characters**
- **the maximum length of a domain name (inc.separators) is 255 characters**
- **two letter country codes are not permitted at level 3**
- **names must have at least two configured name servers**
- **Domain names must commence and end with a letter or a digit; interior characters of domain names may be letters, digits or the hyphen character; no other characters may be used; letters may be upper or lower case."**

Prospective domain Name Holders are responsible for ensuring that at least two name servers **are configured and operable prior to** submitting their application. Registration cannot proceed until this pre-condition is met, such applications are automatically rejected.

Listed Name Holders are also responsible for ensuring that at least two name servers **remain configured and operable**. Listed domains that are found to have less than two operable name servers are termed "lame delegations" and will be automatically de-activated.

Once a name has been listed the Name Holder may specify further sub-domains that can appear to the left of the listed name. These sub-domains are outside the scope of ISOCNZ policy and are the responsibility of the name holder - the third level domain manager.

Examples

Third level name	Use
isocnz.org.nz	The Internet Society of New Zealand, an Incorporated Society
domainz.net.nz	Domainz, The New Zealand Internet Registry Ltd, managing the .nzdomain name space
aardvark.co.nz	A New Zealand company involved in commercial pursuits
nzgo.govt.nz	TheNew Zealand Government on-line
waikato.ac.nz	University of Waikato
eric.gen.nz	An individual

Third level domain names

The registration of a third level domain name in the *.nz Register* is a listing service, delivered in accordance with published policies. All published policies and Terms of Service can be found using the ISOCNZ and Domainz web sites

Identifiable individuals over 18 years or properly constituted organisations are allowed to list third level domain names in the *.nz Register*. These names must be unique within the appropriate selected second level domain.

Before applying, prospective Name Holders and their agents are advised that registration involves the collection of personal information to provide public name listing services. Information collected will be published on the Domainz web site, and accessible by all users of the Internet.

Applicants may be asked to provide proof of their identity, or details of their existence as a properly constituted organisation, and evidence of their ability to meet the conditions for holding a domain name.

Upon application for registration of a new name, Name Holders agree to be bound by all published policies and terms of service. Where the Name Holder makes use of a Registrar/Agent, the Registrar/Agent agrees that it has made its client aware of all policies - and - that the client agrees to be bound by those policies.

The listing of names within any domain in the .nz domain space is carried out on a **"first come, first served"** basis.

If there is conflict between an applicant for a new listing and the holder of an existing name, it is for those parties to resolve the conflict. Any resulting change in registration details of the existing name must be mutually agreed between the parties.

Neither ISOCNZ nor Domainz has any role in deciding whether an applicant has a legitimate right to the name. The applicant, in lodging the request for the name,

Domainz will accept a request for change to the name holder of a listed name only when signed original written instructions are provided. Domainz may require evidence of the authority of any representative of a domain Name Holder and the instructions must:

- be duly authorised by the current Name Holder. Authorisation must include the name holder's ID and password
- identify the new Name Holder, with details of address and all other particulars necessary to list the name and delegate it to the new Name Holder
- be formally acknowledged by the new Name Holder, who must agree to the conditions and policies under which domain names are delegated
- release ISOCNZ and Domainz from any further obligation to the first holder after the re-delegation has been completed.

Registration applications are performed using the processes established by Domainz, who provide appropriate customer friendly interfaces. The Registration Services provided are defined, and should enable Name Holders, potential Name Holders and their Registrars/Agents to,

- **Register a new name**
- **Receive a Name Holder ID and password**
- **Change listed information**
- **Change the Name Holder**
- **Cancel a listed name**

ISOCNZ requires that the DNS structure is professionally managed, hence the DNS registration services operate as a business. Fees are set by Domainz for all registration services and are detailed in the Domainz fee structure document.

Second level domains

ISOCNZ has established a set of guiding principles describing second level domain names. Central to these principles, is the notion of **"communities of interest"**:

- there should be a clear statement of a common interest shared by entities that reside within the domain, e.g. tertiary educational institutions
- communities of interest should not overlap. This means that minimum ambiguity should exist between different second level domains
- the second level domain name should be an obvious derivative of a word that properly describes the community of interest, e.g. **.ac** for academic.
- the community of interest should be long lived, e.g. tertiary education is long lived, the 2000 America's Cup race is not

ISOCNZ may grant permission for moderation of membership of a community of interest to be managed by that community of interest, in some circumstances. The following policies apply to second level domains within the total **.nz** domain space managed by ISOCNZ and cover:

- **Permissible second level domains**
- **Selection of an appropriate second level domain**
- **Moderation of existing second level domains**
- **Creation of new second level domains**

Permissible second level domains

There are currently 10 second level domains. The description of the communities of interest that each represents is as follows,

Second level domain	Community of Interest
.ac	Tertiary educational institutions and related organisations
.co	Organisations pursuing commercial aims and purposes
.cri	Crown Research Institutes
.gen	Individuals and other organisations not covered elsewhere
.govt	National, regional and local government organisations operating with statutory powers
.iwi	A traditional Maori tribe, mandated by the local Iwi Authority
.mil	Military organisations of the NZ Government
.net	Organisations and service providers directly related to the NZ Internet
.org	Not-for-profit organisations
.school	Primary, secondary and pre-schools and related organisations

ISOCNZ has granted permission to four organisations to moderate membership of specific second level domains. These are **.cri**, **.govt**, **.iwi** and **.mil**. Moderation means that applicants need to meet specific additional criteria in order to be included in each community of interest. Those that do not meet these criteria will be excluded.

Additional rules for these domains are being drawn up by the selected second level moderators in consultation with ISOCNZ. The ensuing rules will be incorporated within this DNS structure document to provide a complete framework for listing names in the *.nz Register.*

Selection of an appropriate second level domain

Choosing the most appropriate second level domain is an important part of the name registration process. Prospective name holders sometimes overlook its importance.

Prospective Name Holders are strongly encouraged to select the second level

domain that matches the most appropriate community of interest. Applicants choosing second level domains that might be viewed as inappropriate by the general Internet community, do so at their own risk:

- for use of second level domains moderated by another organisation, permission must be sought to ensure that the applicant meets any additional criteria required
- for those second level domains managed by ISOCNZ, the final choice of appropriate second level domain rests with the applicant

Prospective Name Holders should talk with their Registrar/Agent prior to application, to establish an appropriate second level domain.

Domainz will be pleased to handle enquiries on any aspect of choice of the appropriate second level. In some cases, it may initiate contact with an applicant to clarify their requirements.

Moderation of existing second level domains

Generally, ISOCNZ retains management authority of all listed second level domains. Under specific circumstances, authority to moderate membership may be granted to another organisation. Existing moderated domains are .cri, .govt, .iwi, .mil

For ISOCNZ to consider granting authority for an existing second level domain, the following principles are important. The community of interest proposing to accept responsibility for moderation must:

- comprise a well-defined set of organisations with a strong community of interest
- develop acceptable policies for allocating domains within that second level space
- provide a "designated second level moderator" with authority to implement policy
- provide open, responsive, channels of communication to ISOCNZ and Domainz

Granting this authority is a formal process involving agreement between two parties, ISOCNZ and the community of interest. ISOCNZ will periodically review the agreement and retains the right to revoke it where issues arise in relation to the above criteria.

Creation of new second level domains

It will be necessary for the second level domain name space to evolve over time to reflect the changing needs of society. ISOCNZ has established a procedure for the creation of new second level domains that includes extensive consultation with the

wider community.

Firstly, ISOCNZ has established a <u>set of guiding principles</u> describing second level domain names. All proposals should reflect the theme central to these principles, that being the notion of "communities of interest"

Secondly, proposals for new second level domains will be expected to:

- provide a substantive description of the community of interest requiring the domain
- justify the requirement for a new second level domain for this community of interest
- justify the selection of a new domain with respect to the principles listed above

And thirdly, the proposals need to meet the needs of the process for consideration of new second level domains which is <u>published separately</u>.

Use of information collected

The management of the DNS involves the collection of personal information to provide public name listing services. This is in line with other Internet domain name registration services world-wide.

Information is collected in one of two ways:

- by Registrars/Agents acting on behalf of a Name Holder, or
- directly from the Name Holder through the Domainz web site

All information collected will be considered as information within the public domain. It may be published on the Domainz web site, and will be accessible to all users of the Internet.

All information collected will be held in the Domainz registration database, the content, form and interfaces of which are copyright and property of Domainz.

Name Holders are provided with a Name Holder ID and password which provides access to their data. They are responsible for keeping their information up to date.

Domainz does not accept receipt of any information under any imposed conditions of confidentiality or non-disclosure, whether express or implied, by the Name Holder or their Registrar/Agent.

Domainz does not (except with specific written consent which may include conditions), authorise any party to copy, adapt, translate or use its databases for commercial purposes.

ISOCNZ reservation of names

ISOCNZ retains the right to reserve names for its own future use. Names so reserved will be publicly listed by ISOCNZ. Reserved names may be allocated from time to time by ISOCNZ for such purposes and with such restrictions as it may decide.

ISOCNZ has no names on reserve (May 1, 2001).

Delegation in .nz prior to July 1996

Prior to July 1996, name registration in New Zealand took one of three forms:

- simple reservation - the name was reserved and a comment, known as a TXT record, added to the DNS noting the reservation. In July 1996 there were about 600 of these.
- mail only (MX) registration - the name was reserved and DNS entries made to allow the Name Holder to receive mail only. These entries, known as MX records, needed to be changed when full connectivity to the Internet was required.
- full (NS) registration - the name was reserved and suitable DNS entries made to allow connection of the Name Holders name servers to the Internet. This was done by inserting suitable records known as NS records in the DNS.

While offering several types of registration was appropriate when the Internet was in its early days, only Full (NS type) registrations are now available.

There are a number of reasons for the introduction of this approach:

- ISOCNZ wishes to deliver a quality, cost effective DNS service. "Simple" and "Mail Only" registrations would require extra Domainz involvement at some future point
- checking the validity of MX registrations is more time-consuming and harder to automate than full registrations.
- "Simple" and "Mail Only" functionality is easily achieved when fully registered.

This is how all registrations are handled at the US InterNIC and many other overseas registries.

Guidelines explaining how to achieve this were published, and an extensive program was run from January to July 1997 to fully register all domains listed in the.*nz Register*.

Historical Policies

- Policy in 1998 Superceded
- Policy in 1997 Superceded
- Policy in 1997 Superceded

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