



Technical requirements for the registration and use of .nl domain names

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SIDN BV

Contact

T +31 (0)26 352 5500

support@sidn.nl

www.sidn.nl

Offices

Meander 501

6825 MD Arnhem

The Netherlands

Mailing address

PO Box 5022

6802 EA Arnhem

The Netherlands

Registration

Arnhem 88 77 28 96

If you register a domain name, it has to meet some technical requirements. Most registrants leave it up to their registrars (hosting service providers) to make sure the requirements are met. If you've got any questions about the technical requirements, feel free to get in touch. These are the technical requirements that all domain names have to meet:

1. Your domain name has to meet recognised internet industry standards.
The Internet Engineering Task Force (IETF) defines policy on internet standards. It does that by publishing protocols in documents called RFCs.
 - Your domain name at least has to meet IETF RFCs 1034, 1035, 1123 and 2181. There are also standards on specific applications of Resource Records. Then there are informative RFCs, such as RFC 1912, and other Best Common Practice RFCs.
 - You can read the RFCs [on the IETF's website](#).
 - The additional requirements that we ourselves make are listed below.
2. The only characters you're allowed to have in your domain name are letters (a - z), numbers (0 - 9) and hyphens (-).
Also:
 - If you include a hyphen, it must have a letter or number on each side of it.
 - Your domain name must have at least two characters, but no more than sixty-three.
3. Every domain we include in the .nl zone file must have a primary name server. And at least one secondary name server.
 - a. The name servers must be redundant and on separate (sub)networks.
4. The name servers must be reachable from anywhere on the internet using IPv4.
 - a. And preferably using IPv6 as well.



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5. The name servers must be reachable from anywhere on the internet using UDP port 53 and TCP port 53.
 - a. If the domain name generates query responses more than 512 octets long, the EDNSo protocol (RFC 2671) must be supported as well.
6. Once a domain has been added to the .nl zone file, we check all the name servers.
 - a. That includes name servers that are not registered with us, but are included in the registered domain's own zone file.

We check all these things and more:

- The name servers registered with us must be in the domain's NS records.
- The primary data source in the SOA record's MNAME field must be a valid host name.
- The SOA record's MNAME field and the NS and MX records must refer to objects with A records (and possibly AAAA records).
 - They mustn't refer to objects with CNAME records.
- The SOA record's RNAME field must follow the syntax referred to in RFC 1912, section 2.2.
 - It also has to provide a valid e-mail address that accepts mail.
- The TTL value of the NS records must not be less than 3600 (1 hour).
 - That prevents the .nl zone getting too much traffic if the records aren't configured correctly.
 - We recommend a TTL value of 172800 (48 hours). That's because the records are important parts of the internet's infrastructure. It's also a lot of work to change them.
- The expire value of the SOA record in the registered domain's zone file must be between 604800 (7 days) and 3456000 (40 days).
 - Our procedures assume a value in that range. The quarantine period for a cancelled domain name is based on that range, for example.
 - The expire value has to be at least seven times the refresh value. Also, the retry value mustn't be higher than the refresh value.
- For every name server host at a subdomain level within the .nl domain, there must be a glue record in the .nl zone file.
 - The record has to be type A or type AAAA.
- If a name server is running on a host operated by the same registrar, the canonical host name must be in the zone file.
 - The zone file mustn't include an alias that's subordinate to the domain name itself. That's so that the .nl zone file doesn't get littered with unnecessary glue records. It also prevents problems if the IP address of the name server is changed.