



DNSCheck

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What does DNSCheck do?

- DNSCheck is a program that was designed to help people check, measure and hopefully also understand the workings of the Domain Name System, DNS. When a domain (aka zone) is submitted to DNSCheck it will investigate the domain's general health by traversing the DNS from root (.) to the TLD (Top Level Domain, like .SE) to eventually the nameserver(s) that holds the information about the specified domain (like iis.se). Some other sanity checks, for example measuring host connectivity, validity of IP-addresses and control of DNSSEC signatures will also be performed.

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What makes DNSCheck special?

- Checks previously used name servers in redelegations done after February 2007 (only .SE-zones though)
- Checks the full .SE-zone periodically (Health check)
- Clarifies any found warnings/errors
- Saves history for tests done / domain
- Advanced tab in GUI for techies
- Written as modular code which helps reuse of whatever functions that are needed elsewhere
- Open source with a BSD-license
- Able to fully test undelegated domains

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Built for tomorrow

- DNSCheck runs all checks that are performed over IPv4 over IPv6 (if configured to do so and IPv6 connectivity exists, of course).
- Testing DNSSEC on found nameservers, some sanity checks like presence of legacy algorithms, if additional processing is on & following the chain of trust (if one is present, a zone must not have one but if it does it must work).

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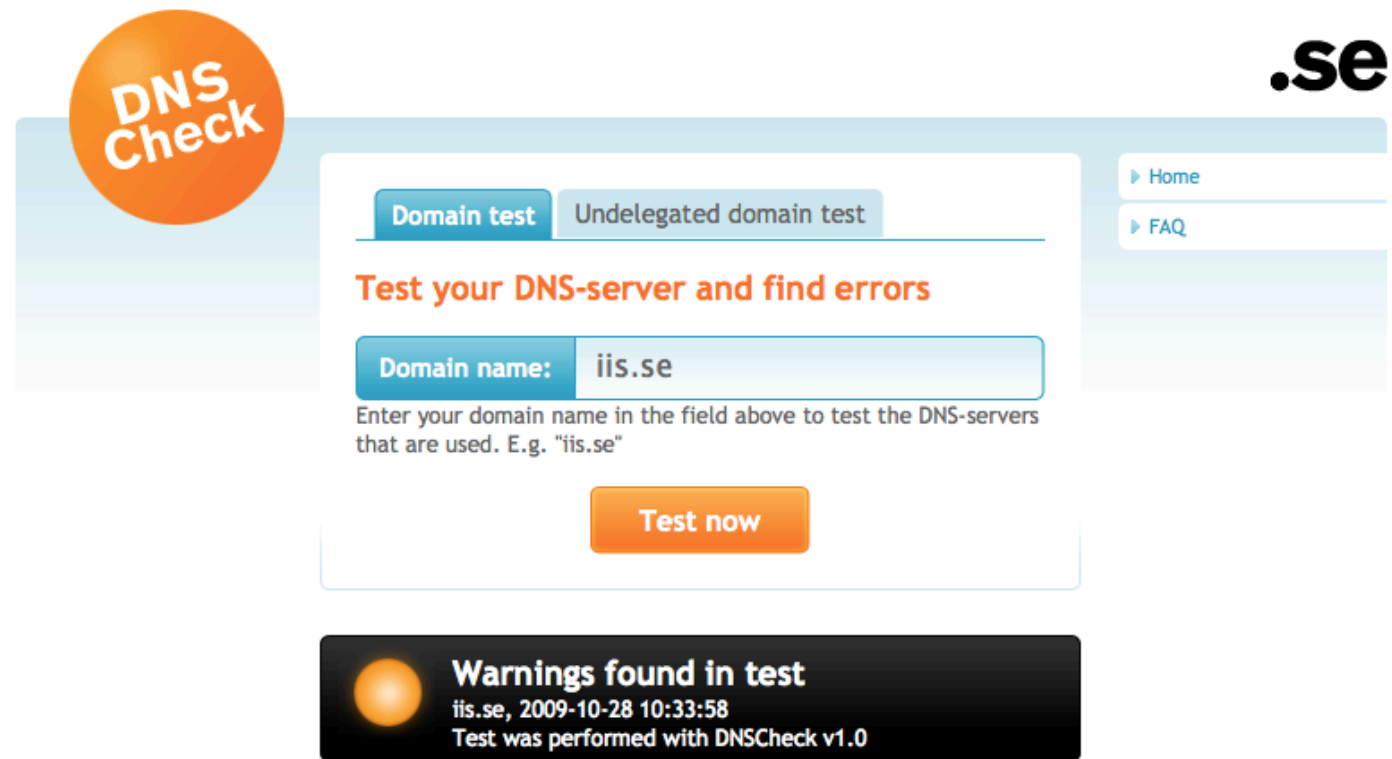


How about a live test?

- <http://dnscheck.iis.se>

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DNSCheck GUI part 1(3)



The screenshot displays the DNSCheck web interface. On the left, there is an orange circular logo with the text "DNS Check". The main content area features two tabs: "Domain test" (selected) and "Undelegated domain test". Below the tabs, the heading "Test your DNS-server and find errors" is shown in orange. A text input field labeled "Domain name:" contains the text "iis.se". Below the input field, a small grey box contains the instruction: "Enter your domain name in the field above to test the DNS-servers that are used. E.g. 'iis.se'". An orange "Test now" button is positioned below the input field. To the right of the main content area, there is a sidebar with a ".se" logo at the top and two menu items: "Home" and "FAQ", each with a right-pointing arrow. At the bottom of the interface, a black notification box contains an orange circle icon, the text "Warnings found in test", the timestamp "iis.se, 2009-10-28 10:33:58", and the version information "Test was performed with DNSCheck v1.0".

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DNSCheck GUI part 2(3) [basic]

Basic results | **Advanced results**

Delegation ▾

- Too few IPv6 name servers (1). ◀

Nameserver ▾

- Nameserver ns.nic.se
- Nameserver ns2.nic.se
- Nameserver ns3.nic.se

Consistency

SOA

Connectivity

DNSSEC

Link to this test:
<http://212.247.204.227/?time=1256722438&id=867766&view=basic&test=standard>

Test history

- 2009-10-27 16:37:40
- 2009-10-27 16:14:54
- 2009-10-27 11:18:52
- 2009-10-27 10:33:00
- 2009-10-23 09:50:30
- 2009-10-21 12:08:23
- 2009-10-21 11:59:14
- 2009-09-29 16:55:23
- 2009-09-29 10:09:35
- 2009-09-15 17:36:27

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Explanation

- Test was ok
- Test contains warnings
- Test contains errors
- Test was not performed

DNSCheck GUI part 3(4) [basic]

The screenshot displays the DNSCheck GUI interface. At the top, there are two tabs: 'Basic results' (selected) and 'Advanced results'. Below the tabs, the 'Delegation' section is highlighted with an orange circle. It contains a warning message: 'Too few IPv6 name servers (1). Only one IPv6 name server was found for the zone. You should always have at least two IPv6 name servers for a zone to be able to handle transient connectivity problems.' To the right of this message is an orange circle with a white question mark. Below the 'Delegation' section is the 'Nameserver' section, which lists three nameservers: 'Nameserver ns.nic.se', 'Nameserver ns2.nic.se', and 'Nameserver ns3.nic.se'. On the right side of the interface, there is a 'Test history' panel showing a list of test results with timestamps: 2009-10-28 10:33:58, 2009-10-27 16:37:40, 2009-10-27 16:14:54, 2009-10-27 11:18:52, 2009-10-27 10:33:00, 2009-10-23 09:50:30, 2009-10-21 12:08:23, 2009-10-21 11:59:14, 2009-09-29 16:55:23, and 2009-09-29 10:09:35. At the bottom of the 'Test history' panel, there are navigation icons and the text 'Page 1/2'.

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DNSCheck GUI 4(4) [advanced]

Basic results **Advanced results**

Delegation

Begin testing delegation for iis.se.

Name servers listed at parent: ns.nic.se,ns2.nic.se,ns3.nic.se

Name servers listed at child: ns.nic.se,ns2.nic.se,ns3.nic.se

- Too few IPv6 name servers (1).

Parent glue for iis.se found: ns.nic.se (212.247.7.228)

Parent glue for iis.se found: ns.nic.se (2a00:801:f0:53:0:0:0:53)

Parent glue for iis.se found: ns2.nic.se (194.17.45.54)

Parent glue for iis.se found: ns3.nic.se (212.247.3.83)

Checking glue for ns.nic.se (212.247.7.228).

Checking glue for ns.nic.se (2a00:801:f0:53:0:0:0:53).

Checking glue for ns2.nic.se (194.17.45.54).

Checking glue for ns3.nic.se (212.247.3.83).

Previously used name servers for iis.se:

Done testing delegation for iis.se.

Nameserver

Nameserver ns.nic.se

Begin testing name server ns.nic.se.

Test history

- 2009-10-27 16:37:40
- 2009-10-27 16:14:54
- 2009-10-27 11:18:52
- 2009-10-27 10:33:00
- 2009-10-23 09:50:30
- 2009-10-21 12:08:23
- 2009-10-21 11:59:14
- 2009-09-29 16:55:23
- 2009-09-29 10:09:35
- 2009-09-15 17:36:27

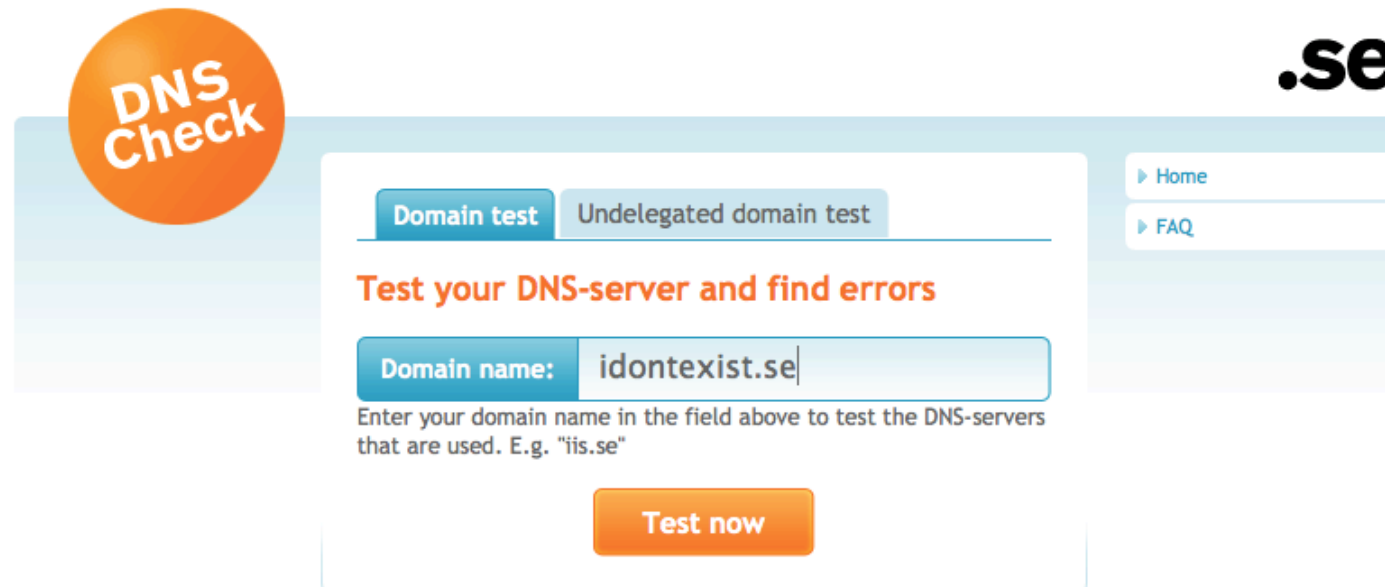
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Explanation


- Test was ok
- Test contains warnings
- Test contains errors
- Test was not performed

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So what's this "undelegated"?

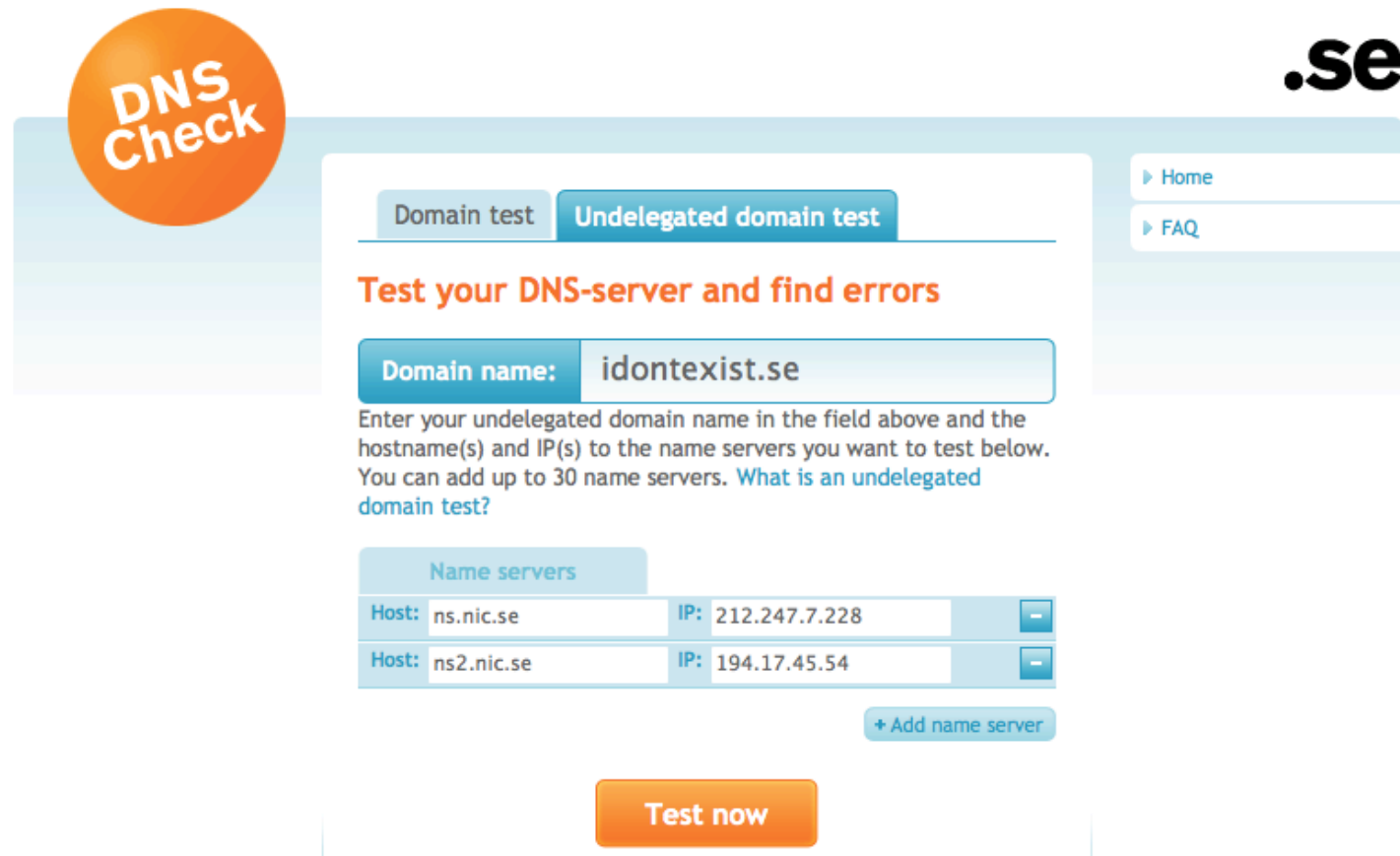


The screenshot shows a web interface for a DNS check tool. On the left, there is an orange circular logo with the text "DNS Check". The main content area has two tabs: "Domain test" (selected) and "Undelegated domain test". Below the tabs, the heading reads "Test your DNS-server and find errors". A text input field labeled "Domain name:" contains the text "idontexist.se". Below the input field, a small text block says: "Enter your domain name in the field above to test the DNS-servers that are used. E.g. 'iis.se'". A large orange button labeled "Test now" is positioned below the input field. On the right side of the interface, there are two navigation links: "Home" and "FAQ". In the top right corner of the interface, the ".se" domain logo is displayed.

 **Domain doesn't exist**
The domain you provided doesn't seem to be delegated or was entered incorrectly. You need to enter only the domain name, like "iis.se", not the name of a subdomain, like "dev.iis.se" or a webservice like "www.iis.se".

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Let's lie about the parent...



The screenshot shows a web interface for a DNS check tool. On the left, there is an orange circular logo with the text "DNS Check". The main content area has two tabs: "Domain test" and "Undelegated domain test", with the latter being selected. Below the tabs is the heading "Test your DNS-server and find errors". A text input field labeled "Domain name:" contains the text "idontexist.se". Below this field is a paragraph of instructions: "Enter your undelegated domain name in the field above and the hostname(s) and IP(s) to the name servers you want to test below. You can add up to 30 name servers. [What is an undelegated domain test?](#)". Below the instructions is a table with the heading "Name servers". The table has two rows, each with a "Host" column and an "IP" column. The first row shows "ns.nic.se" and "212.247.7.228". The second row shows "ns2.nic.se" and "194.17.45.54". Below the table is a button labeled "+ Add name server". At the bottom center of the interface is a large orange button labeled "Test now". On the right side of the interface, there is a ".se" logo and a navigation menu with links for "Home" and "FAQ".

DNS Check

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Domain test Undelegated domain test

Test your DNS-server and find errors

Domain name: idontexist.se

Enter your undelegated domain name in the field above and the hostname(s) and IP(s) to the name servers you want to test below. You can add up to 30 name servers. [What is an undelegated domain test?](#)

Name servers	
Host: ns.nic.se	IP: 212.247.7.228
Host: ns2.nic.se	IP: 194.17.45.54

+ Add name server

Test now

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Ns.nic.se knew nothing, but...



Errors found in test

idontexist.se, 2009-10-28 10:48:50

Test was performed with DNSCheck v1.0

Note: This test was performed on a undelegated domain

Basic results	Advanced results
Delegation	
• No name servers found at child.	
• Superfluous name server listed at parent: ns.nic.se	
• Superfluous name server listed at parent: ns2.nic.se	

Test history
No test history found
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Do you want to know more?

Adress to current running DNSCheck –

<http://dnscheck.iis.se>

Adress to the source code of the new DNSCheck -

<http://opensource.iis.se/trac/dnscheck>

Adress to the developers of the GUI -

<http://www.pingdom.se>

Adress to the previously used DNSCheck –

<http://www.dnscheck.se>

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