



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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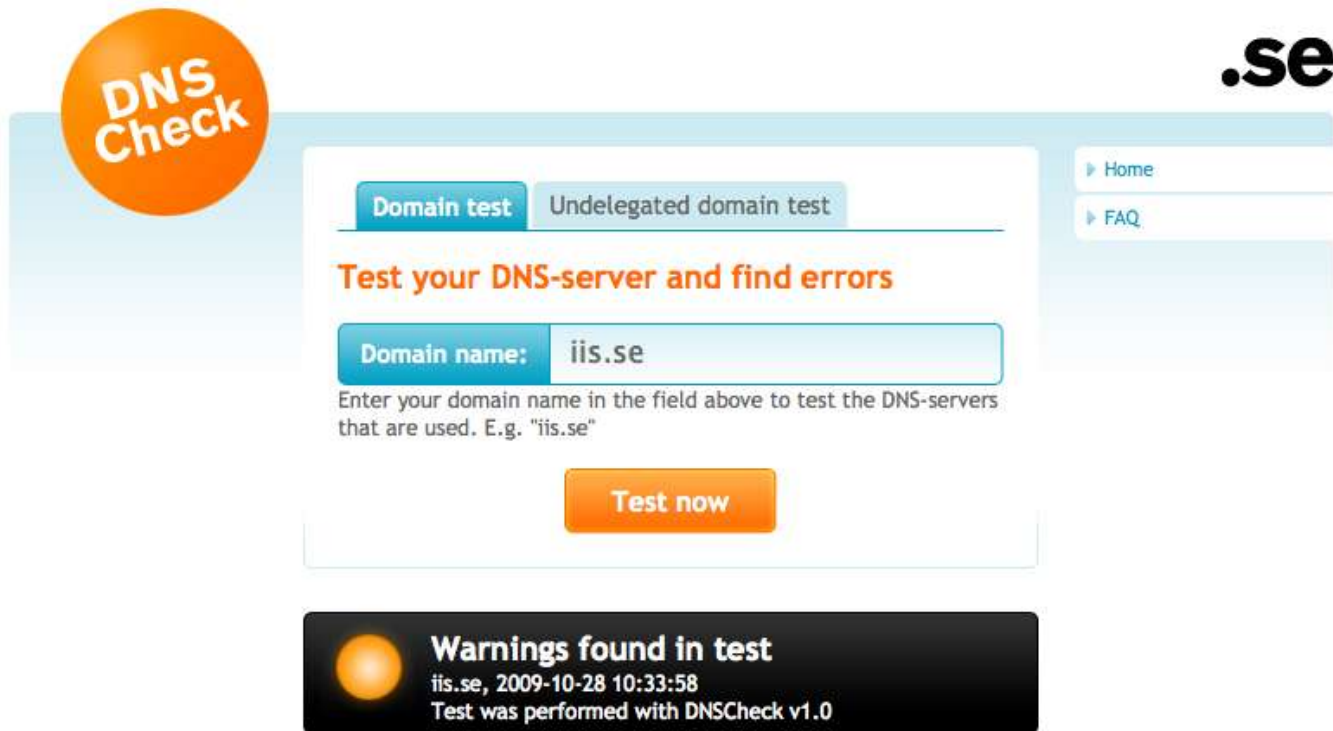


How about a live test?

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

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DNSCheck GUI part 1(3)



The image shows a screenshot of the DNSCheck web application interface. At the top left is an orange circular logo with the text "DNS Check". At the top right is the ".se" logo. The main content area has a light blue header with two tabs: "Domain test" (selected) and "Undelegated domain test". Below the tabs is the heading "Test your DNS-server and find errors". A form field labeled "Domain name:" contains the text "iis.se". Below the field is a small text instruction: "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 form. At the bottom, a black banner displays a warning icon (an orange circle with a dot) and the text "Warnings found in test", "iis.se, 2009-10-28 10:33:58", and "Test was performed with DNSCheck v1.0". On the right side of the interface, there are 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: iis.se

Enter your domain name in the field above to test the DNS-servers that are used. E.g. "iis.se"

Test now

Warnings found in test
iis.se, 2009-10-28 10:33:58
Test was performed with DNSCheck v1.0

Home
FAQ

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DNSCheck GUI part 2(3) [basic]

Basic resultsAdvanced 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. It features two tabs: 'Basic results' (selected) and 'Advanced results'. Under 'Basic results', there are two sections: 'Delegation' and 'Nameserver'. The 'Delegation' section has an orange warning icon and a 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. The 'Nameserver' section has a green success icon and lists three nameservers: 'Nameserver ns.nic.se', 'Nameserver ns2.nic.se', and 'Nameserver ns3.nic.se'. On the right side, there is a 'Test history' panel showing a list of test results with timestamps. At the bottom of the test history panel, there are navigation icons and the text 'Page 1/2'.

Basic results **Advanced results**

Delegation

- 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.

Nameserver

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

Test history

- 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
- 2009-09-29 10:09:35

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DNSCheck GUI 4(4) [advanced]

Basic resultsAdvanced 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 the 'DNS Check' tool for the '.se' domain. It features a light blue header with the '.se' logo on the right. On the left, there's an orange circle with the text 'DNS Check'. The main content area has two tabs: 'Domain test' (active) and 'Undelegated domain test'. Below the tabs, the text 'Test your DNS-server and find errors' is displayed in orange. A text input field labeled 'Domain name:' contains the text 'idontexist.se'. Below the input field, a message reads: 'Enter your domain name in the field above to test the DNS-servers that are used. E.g. "iis.se"'. An orange button labeled 'Test now' is positioned below the input field. On the right side of the header, there are two links: 'Home' and 'FAQ'.




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 webserver like "www.iis.se".

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Let's lie about the parent...



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Domain test **Undelegated domain test**

Test your DNS-server and find errors

Domain name:

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: <input type="text" value="ns.nic.se"/>	IP: <input type="text" value="212.247.7.228"/>
Host: <input type="text" value="ns2.nic.se"/>	IP: <input type="text" value="194.17.45.54"/>

[+ Add name server](#)

Test now

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



Errors found in test

identexist.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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