



New Generic Top-Level
Domains

**IT Department
Documentation**

Pre-Delegation Testing

Whois Web Test Cases

Version D

File name: PDT_Whois_TC_Web.docx
Last saved: 2013-07-01

Copyright (c) 2013 Internet Corporation For Assigned Names and Numbers. All rights reserved.

Document control

Document information and security

Made by	Responsible for fact	Responsible for document
Rickard Bellgrim	Rickard Bellgrim	Rickard Bellgrim

Security class	File name
External	PDT_Whois_TC_Web.docx

Revisions

Date	Version	Name	Description
2013-01-07	PA1	Rickard Bellgrim	Initial document
2013-01-11	PA2	Rickard Bellgrim	Update test cases
2013-01-14	PA3	Rickard Bellgrim	The test plan now has an example of response data
2013-01-24	PA4	Rickard Bellgrim	Update text
2013-02-06	PA5	Rickard Bellgrim	Update test cases after meeting with ICANN
2013-02-10	PA6	Rickard Bellgrim	Update checks on Whois data
2013-03-03	PA7	Rickard Bellgrim	No IP is required as input data; the IP will be resolved using the delegation data from the DNS tests. Check EPP keywords.
2013-03-10	PA8	Rickard Bellgrim	Add DnsGlueRecord as input data. HTTP support is mandatory and HTTPS support is optional.
2013-04-08	B	Staffan Hagnell	Delivery D2 for production
2013-05-03	C	Amar Andersson	Released
2013-06-12	PD1	Rickard Bellgrim	Clarify the test cases
2013-06-24	PD2	Rickard Bellgrim	Clarify pass/fail criteria
2013-07-01	D	Mats Dufberg	Released.

LIST OF CONTENTS

1. INTRODUCTION.....	5
1.1 SCOPE.....	5
1.2 REFERENCES	5
1.2.1 External	5
1.2.2 Internal	5
1.2.3 Document Hierarchy	5
1.3 CONTEXT	5
1.4 NOTATION FOR DESCRIPTION	5
2. WHOIS WEB o1	6
2.1 TEST CASE IDENTIFIER	6
2.2 OBJECTIVE.....	6
2.3 INPUTS	6
2.4 OUTCOME(S)	6
2.5 ENVIRONMENTAL NEEDS	6
2.6 SPECIAL PROCEDURAL REQUIREMENTS	6
2.7 INTERCASE DEPENDENCIES	6
2.8 ORDERED DESCRIPTION OF STEPS TO BE TAKEN TO EXECUTE THE TEST CASE	6
3. WHOIS WEB o2	7
3.1 TEST CASE IDENTIFIER	7
3.2 OBJECTIVE.....	7
3.3 INPUTS	7
3.4 OUTCOME(S)	7
3.5 ENVIRONMENTAL NEEDS	7
3.6 SPECIAL PROCEDURAL REQUIREMENTS	7
3.7 INTERCASE DEPENDENCIES	7
3.8 ORDERED DESCRIPTION OF STEPS TO BE TAKEN TO EXECUTE THE TEST CASE	7
4. WHOIS WEB o3	8
4.1 TEST CASE IDENTIFIER	8
4.2 OBJECTIVE.....	8
4.3 INPUTS	8
4.4 OUTCOME(S)	8
4.5 ENVIRONMENTAL NEEDS	8
4.6 SPECIAL PROCEDURAL REQUIREMENTS	8
4.7 INTERCASE DEPENDENCIES	8
4.8 ORDERED DESCRIPTION OF STEPS TO BE TAKEN TO EXECUTE THE TEST CASE	8
5. WHOIS WEB o4	9
5.1 TEST CASE IDENTIFIER	9
5.2 OBJECTIVE.....	9
5.3 INPUTS	9
5.4 OUTCOME(S)	9
5.5 ENVIRONMENTAL NEEDS	9
5.6 SPECIAL PROCEDURAL REQUIREMENTS	9
5.7 INTERCASE DEPENDENCIES	9
5.8 ORDERED DESCRIPTION OF STEPS TO BE TAKEN TO EXECUTE THE TEST CASE	9
6. WHOIS WEB o5	10
6.1 TEST CASE IDENTIFIER	10
6.2 OBJECTIVE.....	10
6.3 INPUTS	10
6.4 OUTCOME(S)	10
6.5 ENVIRONMENTAL NEEDS	10
6.6 SPECIAL PROCEDURAL REQUIREMENTS	10
6.7 INTERCASE DEPENDENCIES	10

6.8	ORDERED DESCRIPTION OF STEPS TO BE TAKEN TO EXECUTE THE TEST CASE	11
7.	WHOIS WEB o6	12
7.1	TEST CASE IDENTIFIER	12
7.2	OBJECTIVE.....	12
7.3	INPUTS	12
7.4	OUTCOME(S)	12
7.5	ENVIRONMENTAL NEEDS	12
7.6	SPECIAL PROCEDURAL REQUIREMENTS	12
7.7	INTERCASE DEPENDENCIES	12
7.8	ORDERED DESCRIPTION OF STEPS TO BE TAKEN TO EXECUTE THE TEST CASE	12
8.	WHOIS WEB o7	13
8.1	TEST CASE IDENTIFIER	13
8.2	OBJECTIVE.....	13
8.3	INPUTS	13
8.4	OUTCOME(S)	13
8.5	ENVIRONMENTAL NEEDS	13
8.6	SPECIAL PROCEDURAL REQUIREMENTS	13
8.7	INTERCASE DEPENDENCIES	13
8.8	ORDERED DESCRIPTION OF STEPS TO BE TAKEN TO EXECUTE THE TEST CASE	13
9.	WHOIS WEB o8	14
9.1	TEST CASE IDENTIFIER	14
9.2	OBJECTIVE.....	14
9.3	INPUTS	14
9.4	OUTCOME(S)	14
9.5	ENVIRONMENTAL NEEDS	14
9.6	SPECIAL PROCEDURAL REQUIREMENTS	14
9.7	INTERCASE DEPENDENCIES	14
9.8	ORDERED DESCRIPTION OF STEPS TO BE TAKEN TO EXECUTE THE TEST CASE	15
10.	GLOBAL	16
10.1	GLOSSARY.....	16
10.2	DOCUMENT CHANGE PROCEDURES.....	16

1. Introduction

1.1 Scope

The Pre-Delegation Testing Provider will test the Whois service over port 43 (Whois) and 80/443 (HTTP/HTTPS), and verify the response format.

The test cases in this document focus on the Whois service over port 80/443.

1.2 References

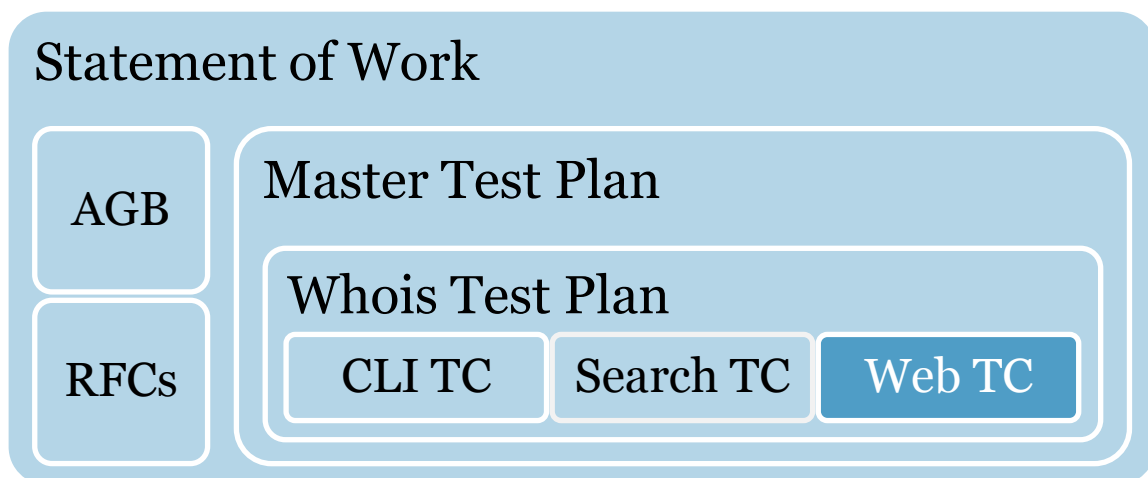
1.2.1 External

- IEEE 829-2008
- ICANN gTLD Applicant Guidebook, Version 2012-06-04

1.2.2 Internal

- Pre-Delegation Testing, Statement of Work
- Pre-Delegation Testing, Master Test Plan
- Pre-Delegation Testing, Whois Test Plan

1.2.3 Document Hierarchy



1.3 Context

All tests are performed over IPv4 and IPv6. Connectivity tests are performed from all locations, but the actual content is only validated from one location.

1.4 Notation for description

Each test case for the Whois service over port 80/443 is described in their own chapter. The test procedures are described directly in the test case.

2. Whois Web 01

2.1 Test case identifier

WhoisWeb01

2.2 Objective

The automated test makes an IPv4 HTTP(S) connection from all nodes and verifies that there is a successful connection.

2.3 Inputs

The following information will be needed as input for this test case:

Id	Description	Type
TLD	The ASCII compatible name of the TLD	String
DnsGlueRecord	IPv4 or IPv6 addresses for auth NS	String

2.4 Outcome(s)

The Whois service **MUST** be available on HTTP(S) over IPv4.

2.5 Environmental needs

- Whois test script
- IPv4 connectivity
- <WhoisIPv4> from resolving <whois.nic.TLD> using the delegation data.

2.6 Special procedural requirements

Abort the test if any Whois query takes longer than 10 seconds.

2.7 Intercase dependencies

This test has no intercase dependencies.

2.8 Ordered description of steps to be taken to execute the test case

1. Resolve IP addresses of the host whois.nic.<TLD> using <DnsGlueRecord>. This result will also be used for subsequent tests.
2. Make an IPv4 HTTP(S) connection to whois.nic.<TLD> (<WhoisIPv4>). Try connecting to both HTTP and HTTPS. No validation of the certificate is done. HTTP support is mandatory and HTTPS support is optional. If plain HTTP is not working (not even a redirect to HTTPS), then the test should fail.

3. Whois Web 02

3.1 Test case identifier

WhoisWeb02

3.2 Objective

The automated test makes an IPv6 HTTP(S) connection from all nodes and verifies that there is a successful connection.

3.3 Inputs

The following information will be needed as input for this test case:

Id	Description	Type
TLD	The ASCII compatible name of the TLD	String

3.4 Outcome(s)

The Whois service **MUST** be available on HTTP(S) over IPv6.

3.5 Environmental needs

- Whois test script
- IPv6 connectivity
- <WhoisIPv6> from resolving <whois.nic.TLD> using the delegation data.

3.6 Special procedural requirements

Abort the test if any Whois query takes longer than 10 seconds.

3.7 Intercase dependencies

This test has no intercase dependencies.

3.8 Ordered description of steps to be taken to execute the test case

1. Make an IPv6 HTTP(S) connection to whois.nic.<TLD> (<WhoisIPv6>). Try connecting to both HTTP and HTTPS. No validation of the certificate is done. HTTP support is mandatory and HTTPS support is optional. If plain HTTP is not working (not even a redirect to HTTPS), then the test should fail.

4. Whois Web 03

4.1 Test case identifier

WhoisWeb03

4.2 Objective

A manual query for a known domain name will be performed on the Whois IPv4 website. The objective is to verify the format of the response.

4.3 Inputs

The following information will be needed as input for this test case:

Id	Description	Type
TLD	The ASCII compatible name of the TLD	String
WhoisTestDomain	An existing domain name which has Whois data	String

4.4 Outcome(s)

The format of responses MUST follow a semi-free text format, as outlined in section 2.1.3.1 of the Whois Test Plan.

4.5 Environmental needs

- Web browser
- IPv4 connectivity
- <WhoisIPv4> from resolving <whois.nic.TLD> using the delegation data.

4.6 Special procedural requirements

Abort the test if any Whois query takes longer than 10 seconds.

4.7 Intercase dependencies

This test has no intercase dependencies.

4.8 Ordered description of steps to be taken to execute the test case

1. Make sure that whois.nic.<TLD> resolves to <WhoisIPv4>.
2. Browse to http://whois.nic.<TLD>.
3. Make a query for the domain <WhoisTestDomain>.
4. Do a check if the response matches the format given in Whois TP, section 2.1.3.1.
 - a. The queried domain name MUST be present in the response.
 - b. The key/value pairs MUST begin with the key, followed by a colon and the value. One on each line. Spacing is optional.
 - c. A legal disclaimer MUST be present somewhere in the response. Give a warning if it is not at the end of the response.
 - d. The values of EPP keywords MUST follow the requirements given in the Test Plan. The comparison should be case insensitive.

5. Whois Web 04

5.1 Test case identifier

WhoisWeb04

5.2 Objective

A manual query for a known registrar will be performed on the Whois IPv4 website. The objective is to verify the format of the response.

5.3 Inputs

The following information will be needed as input for this test case:

Id	Description	Type
TLD	The ASCII compatible name of the TLD	String
WhoisTestRegistrar	An existing registrar which has Whois data	String

5.4 Outcome(s)

The format of responses MUST follow a semi-free text format, as outlined in section 2.1.3.2 of the Whois Test Plan.

5.5 Environmental needs

- Web browser
- IPv4 connectivity
- <WhoisIPv4> from resolving <whois.nic.TLD> using the delegation data.

5.6 Special procedural requirements

Abort the test if any Whois query takes longer than 10 seconds.

5.7 Intercase dependencies

This test has no intercase dependencies.

5.8 Ordered description of steps to be taken to execute the test case

1. Make sure that whois.nic.<TLD> resolves to <WhoisIPv4>.
2. Browse to http://whois.nic.<TLD>.
3. Make a query for the registrar <WhoisTestRegistrar>.
4. Do a check if the response matches the format given in Whois TP, section 2.1.3.2.
 - a. The queried registrar name MUST be present in the response.
 - b. The key/value pairs MUST begin with the key, followed by a colon and the value. One on each line. Spacing is optional.
 - c. A legal disclaimer MUST be present somewhere in the response. Give a warning if it is not at the end of the response.
 - d. The values of EPP keywords MUST follow the requirements given in the Test Plan. The comparison should be case insensitive.

6. Whois Web 05

6.1 Test case identifier

WhoisWeb05

6.2 Objective

A manual query for a known name server will be performed on the Whois IPv4 website. The objective is to verify the format of the response.

6.3 Inputs

The following information will be needed as input for this test case:

Id	Description	Type
TLD	The ASCII compatible name of the TLD	String
WhoisTestNameServerName	The domain name of an existing name server which has Whois data	String
WhoisTestNameServerIP	The IP address of an existing name server which has Whois data	String

6.4 Outcome(s)

The format of responses MUST follow a semi-free text format, as outlined in section 2.1.3.3 of the Whois Test Plan.

6.5 Environmental needs

- Web browser
- IPv4 connectivity
- <WhoisIPv4> from resolving <whois.nic.TLD> using the delegation data.

6.6 Special procedural requirements

Abort the test if any Whois query takes longer than 10 seconds.

6.7 Intercase dependencies

This test has no intercase dependencies.

6.8 Ordered description of steps to be taken to execute the test case

1. Make sure that whois.nic.<TLD> resolves to <WhoisIPv4>.
2. Browse to http://whois.nic.<TLD>.
3. Make a query for the name server using the hostname <WhoisTestNameServerName> or the IP <WhoisTestNameServerIP>. At least one of them **MUST** give a response with Whois data.
4. Do a check if the response matches the format given in Whois TP, section 2.1.3.3.
 - a. The queried name server **MUST** be present in the response.
 - b. The key/value pairs **MUST** begin with the key, followed by a colon and the value. One on each line. Spacing is optional.
 - c. A legal disclaimer **MUST** be present somewhere in the response. Give a warning if it is not at the end of the response.
 - d. The values of EPP keywords **MUST** follow the requirements given in the Test Plan. The comparison should be case insensitive.

7. Whois Web 06

7.1 Test case identifier

WhoisWeb06

7.2 Objective

A manual query for a known domain name will be performed on the Whois IPv6 website. The objective is to verify the format of the response.

7.3 Inputs

The following information will be needed as input for this test case:

Id	Description	Type
TLD	The ASCII compatible name of the TLD	String
WhoisTestDomain	An existing domain name which has Whois data	String

7.4 Outcome(s)

The format of responses MUST follow a semi-free text format, as outlined in section 2.1.3.1 of the Whois Test Plan.

7.5 Environmental needs

- Web browser
- IPv6 connectivity
- <WhoisIPv6> from resolving <whois.nic.TLD> using the delegation data.

7.6 Special procedural requirements

Abort the test if any Whois query takes longer than 10 seconds.

7.7 Intercase dependencies

This test has no intercase dependencies.

7.8 Ordered description of steps to be taken to execute the test case

1. Make sure that whois.nic.<TLD> resolves to <WhoisIPv6>.
2. Browse to http://whois.nic.<TLD>.
3. Make a query for the domain <WhoisTestDomain>.
4. Do a check if the response matches the format given in Whois TP, section 2.1.3.1.
 - a. The queried domain name MUST be present in the response.
 - b. The key/value pairs MUST begin with the key, followed by a colon and the value. One on each line. Spacing is optional.
 - c. A legal disclaimer MUST be present somewhere in the response. Give a warning if it is not at the end of the response.
 - d. The values of EPP keywords MUST follow the requirements given in the Test Plan. The comparison should be case insensitive.

8. Whois Web 07

8.1 Test case identifier

WhoisWeb07

8.2 Objective

A manual query for a known registrar will be performed on the Whois IPv6 website. The objective is to verify the format of the response.

8.3 Inputs

The following information will be needed as input for this test case:

Id	Description	Type
TLD	The ASCII compatible name of the TLD	String
WhoisTestRegistrar	An existing registrar which has Whois data	String

8.4 Outcome(s)

The format of responses MUST follow a semi-free text format, as outlined in section 2.1.3.2 of the Whois Test Plan.

8.5 Environmental needs

- Web browser
- IPv6 connectivity
- <WhoisIPv6> from resolving <whois.nic.TLD> using the delegation data.

8.6 Special procedural requirements

Abort the test if any Whois query takes longer than 10 seconds.

8.7 Intercase dependencies

This test has no intercase dependencies.

8.8 Ordered description of steps to be taken to execute the test case

1. Make sure that whois.nic.<TLD> resolves to <WhoisIPv6>.
2. Browse to http://whois.nic.<TLD>.
3. Make a query for the registrar <WhoisTestRegistrar>.
4. Do a check if the response matches the format given in Whois TP, section 2.1.3.2.
 - a. The queried registrar name MUST be present in the response.
 - b. The key/value pairs MUST begin with the key, followed by a colon and the value. One on each line. Spacing is optional.
 - c. A legal disclaimer MUST be present somewhere in the response. Give a warning if it is not at the end of the response.
 - d. The values of EPP keywords MUST follow the requirements given in the Test Plan. The comparison should be case insensitive.

9. Whois Web 08

9.1 Test case identifier

WhoisWeb08

9.2 Objective

A manual query for a known name server will be performed on the Whois IPv6 website. The objective is to verify the format of the response.

9.3 Inputs

The following information will be needed as input for this test case:

Id	Description	Type
TLD	The ASCII compatible name of the TLD	String
WhoisTestNameServerName	The domain name of an existing name server which has Whois data	String
WhoisTestNameServerIP	The IP address of an existing name server which has Whois data	String

9.4 Outcome(s)

The format of responses MUST follow a semi-free text format, as outlined in section 2.1.3.3 of the Whois Test Plan.

9.5 Environmental needs

- Web browser
- IPv6 connectivity
- <WhoisIPv6> from resolving <whois.nic.TLD> using the delegation data.

9.6 Special procedural requirements

Abort the test if any Whois query takes longer than 10 seconds.

9.7 Intercase dependencies

This test has no intercase dependencies.

9.8 Ordered description of steps to be taken to execute the test case

1. Make sure that whois.nic.<TLD> resolves to <WhoisIPv6>.
2. Browse to http://whois.nic.<TLD>.
3. Make a query for the name server using the hostname <WhoisTestNameServerName> or the IP <WhoisTestNameServerIP>. At least one of them **MUST** give a response with Whois data.
4. Do a check if the response matches the format given in Whois TP, section 2.1.3.3.
 - a. The queried name server **MUST** be present in the response.
 - b. The key/value pairs **MUST** begin with the key, followed by a colon and the value. One on each line. Spacing is optional.
 - c. A legal disclaimer **MUST** be present somewhere in the response. Give a warning if it is not at the end of the response.
 - d. The values of EPP keywords **MUST** follow the requirements given in the Test Plan. The comparison should be case insensitive.

10. Global

10.1 Glossary

The glossary is available in the Master Test Plan.

10.2 Document change procedures

Document change procedures are documented in the Master Test Plan.