

# Pre-Delegation Testing

## Whois Search Test Cases

Version G

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# Document control

## Document information and security

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2013-01-24	PA3	Rickard Bellgrim	Update text
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2015-09-28	G	Mats Dufberg	Test cases WhoisSearch05-08 removed. Test case WhoisSearch09 added. Explicit criteria for N/A, PASS and FAIL are added. Enforcement information added. This version is enforced at 2015-11-02.

## LIST OF CONTENTS

<b>1. INTRODUCTION .....</b>	<b>5</b>
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
1.5 ENFORCEMENT.....	6
<b>2. WHOIS SEARCH 00 .....</b>	<b>7</b>
2.1 TEST CASE IDENTIFIER .....	7
2.2 OBJECTIVE .....	7
2.3 INPUTS .....	7
2.4 OUTCOME(S) .....	7
2.5 ENVIRONMENTAL NEEDS .....	7
2.6 SPECIAL PROCEDURAL REQUIREMENTS.....	7
2.7 ORDERED DESCRIPTION OF STEPS TO BE TAKEN TO EXECUTE THE TEST CASE .....	7
<b>3. WHOIS SEARCH 01.....</b>	<b>9</b>
3.1 TEST CASE IDENTIFIER .....	9
3.2 OBJECTIVE .....	9
3.3 INPUTS .....	9
3.4 OUTCOME(S) .....	9
3.5 ENVIRONMENTAL NEEDS .....	9
3.6 SPECIAL PROCEDURAL REQUIREMENTS.....	9
3.7 INTERCASE DEPENDENCIES .....	9
3.8 ORDERED DESCRIPTION OF STEPS TO BE TAKEN TO EXECUTE THE TEST CASE .....	9
<b>4. WHOIS SEARCH 02 .....</b>	<b>11</b>
4.1 TEST CASE IDENTIFIER .....	11
4.2 OBJECTIVE .....	11
4.3 INPUTS .....	11
4.4 OUTCOME(S) .....	11
4.5 ENVIRONMENTAL NEEDS .....	11
4.6 SPECIAL PROCEDURAL REQUIREMENTS.....	11
4.7 INTERCASE DEPENDENCIES .....	11
4.8 ORDERED DESCRIPTION OF STEPS TO BE TAKEN TO EXECUTE THE TEST CASE .....	11
<b>5. WHOIS SEARCH 03 .....</b>	<b>13</b>
5.1 TEST CASE IDENTIFIER .....	13
5.2 OBJECTIVE .....	13
5.3 INPUTS .....	13
5.4 OUTCOME(S) .....	13
5.5 ENVIRONMENTAL NEEDS .....	13
5.6 SPECIAL PROCEDURAL REQUIREMENTS.....	13
5.7 INTERCASE DEPENDENCIES .....	13
5.8 ORDERED DESCRIPTION OF STEPS TO BE TAKEN TO EXECUTE THE TEST CASE .....	13
<b>6. WHOIS SEARCH 04 .....</b>	<b>15</b>
6.1 TEST CASE IDENTIFIER .....	15
6.2 OBJECTIVE .....	15
6.3 INPUTS .....	15
6.4 OUTCOME(S) .....	15
6.5 ENVIRONMENTAL NEEDS .....	15
6.6 SPECIAL PROCEDURAL REQUIREMENTS.....	15
6.7 INTERCASE DEPENDENCIES .....	15

6.8	ORDERED DESCRIPTION OF STEPS TO BE TAKEN TO EXECUTE THE TEST CASE .....	15
<b>7.</b>	<b>WHOIS SEARCH o5 .....</b>	<b>17</b>
7.1	TEST CASE IDENTIFIER .....	17
7.2	REMOVED.....	17
<b>8.</b>	<b>WHOIS SEARCH o6 .....</b>	<b>18</b>
8.1	TEST CASE IDENTIFIER .....	18
8.2	REMOVED.....	18
<b>9.</b>	<b>WHOIS SEARCH o7 .....</b>	<b>19</b>
9.1	TEST CASE IDENTIFIER .....	19
9.2	REMOVED.....	19
<b>10.</b>	<b>WHOIS SEARCH o8 .....</b>	<b>20</b>
10.1	TEST CASE IDENTIFIER .....	20
10.2	REMOVED .....	20
<b>11.</b>	<b>WHOIS SEARCH o9 .....</b>	<b>21</b>
11.1	TEST CASE IDENTIFIER .....	21
11.2	OBJECTIVE .....	21
11.3	INPUTS .....	21
11.4	OUTCOME(S) .....	21
11.5	ENVIRONMENTAL NEEDS .....	21
11.6	SPECIAL PROCEDURE REQUIREMENTS .....	21
11.7	INTERCASE DEPENDENCIES .....	21
11.8	ORDERED DESCRIPTION OF STEPS TO BE TAKEN TO EXECUTE THE TEST CASE.....	21
<b>12.</b>	<b>GLOBAL .....</b>	<b>23</b>
12.1	GLOSSARY .....	23
12.2	DOCUMENT CHANGE PROCEDURES.....	23

## 1. Introduction

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### 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 and the optional searchability. If the Registry Agreement states that the TLD has support for searchable whois, then the following test cases will be run and must be met.

### 1.2 References

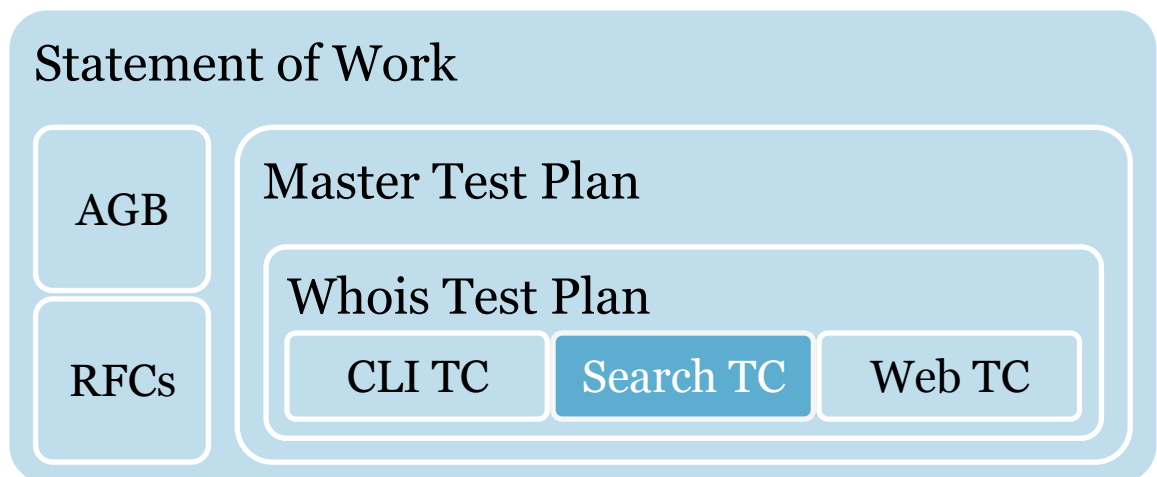
#### 1.2.1 External

- 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, except for one, are performed over IPv4 from a single test node. The exception is one test that is performed over IPv6 from a single node to verify that the Whois search function is reachable and responds over IPv6.

### 1.4 Notation for description

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

## 1.5 Enforcement

This version of this document (version G) is enforced at 2015-11-02. Prior to that date, see the previous version of this document.

## 2. Whois Search 00

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### 2.1 Test case identifier

WhoisSearch00

### 2.2 Objective

The objective is to verify if the applicant is contractually obligated to support searchable Whois service. If the applicant will support searchable Whois, the applicant must provide instructions on how to use the searchable Whois service.

### 2.3 Inputs

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

Id	Description	Type
RegAgree	The Registry Agreement for the specific gTLD	Document
SearchWhoisDoc	URL to a manual for searchable whois for the specific gTLD	String

### 2.4 Outcome(s)

- If searchable Whois is required by the Registry Agreement for the specific gTLD then remainder of the test cases must be performed, and the applicant must provide instructions on how to use searchable Whois service.
- If the Registry Agreement does not require support for searchable Whois no other tests within this specification will be performed.

### 2.5 Environmental needs

- Web browser

### 2.6 Special procedural requirements

Lookup time must not exceed 10 seconds.

### 2.7 Ordered description of steps to be taken to execute the test case

1. Identify support for searchable Whois within Registry Agreement. Expected location is Exhibit A. Determine if support for searchable Whois is required by contract.  
If not, the test will end and the result of this test case and the following test cases are N/A.
2. If it exists continue:
  - a. Browse to the web page where information on how to use searchable Whois is stored.
  - b. Information must be stored in English.
  - c. Make a note on any visible information regarding how to use searchable Whois.
  - d. If the solution for searching is self-explanatory then no separate information is needed.

Criteria for N/A:

- Searchable Whois is not required by Exhibit A.

Criteria for PASS:

- Searchable Whois is required by Exhibit A, and
- enough information on how to use searchable Whois is available, and
- the information is in English, and
- the information is comprehensible and complete.

Criteria for FAIL:

- Searchable Whois is required by Exhibit A but is not available, or
- no information on how to use searchable Whois is available, or
- the information is not in English, or
- the information is incomplete or not comprehensible.



### 3. Whois Search 01

---

#### 3.1 Test case identifier

WhoisSearch01

#### 3.2 Objective

The objective is to verify the abuse protection.

#### 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
WhoisCredentials	Optional credentials. E.g. username and password for accessing the Whois service	String
DnsGlueRecord	IPv4 or IPv6 addresses for auth NS	String

#### 3.4 Outcome(s)

Abuse protection MUST exist for the Whois service.

#### 3.5 Environmental needs

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

#### 3.6 Special procedural requirements

Whois query response time must not exceed 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. Resolve IP addresses of the host whois.nic.<TLD> using <DnsGlueRecord>. This result will also be used for subsequent tests.
2. Make sure that whois.nic.<TLD> resolves to <WhoisIPv4>.
3. Browse to http://whois.nic.<TLD>
4. Make a note on any visible abuse protection.
5. Access the service with <WhoisCredentials>, if required.

Criteria for N/A:

- Searchable Whois is not required by Exhibit A.

Criteria for PASS:

- Abuse protection is used.

Criteria for FAIL:

- No abuse protection can be detected.

## 4. Whois Search 02

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### 4.1 Test case identifier

WhoisSearch02

### 4.2 Objective

Manual search queries will be performed on the Whois IPv4 website. The objective is to verify the partial match capabilities.

### 4.3 Inputs

- Information on webpage in English on how to use the Searchable Whois.
- The following information will be needed as input for this test case:

Id	Description	Type
TLD	The ASCII compatible name of the TLD	String
WhoisCredentials	Optional credentials. E.g. username and password for accessing the Whois service	String
WhoisTestDomain	An existing domain which has Whois data	String

### 4.4 Outcome(s)

The Whois service MUST offer partial match capabilities.

### 4.5 Environmental needs

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

### 4.6 Special procedural requirements

Whois query response time must not exceed 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. Access the service with <WhoisCredentials>, if required.
4. Perform a partial match search based on domain name. Use data from a previous domain query.
5. Perform a partial match search based on contact name. Use data from a previous domain query
6. Perform a partial match search based on registrant name. Use data from a previous domain query.

7. Perform a partial match search based on contact postal address (e.g. street, city, state, or province). Use data from a previous domain query.
8. Perform a partial match searches based on registrant postal address (e.g. street, city, state, or province). Use data from a previous domain query.
9. The search results MUST include the domain name(s) matching the search criteria.

Criteria for N/A:

- Searchable Whois is not required by Exhibit A.

Criteria for PASS:

- A partial match search based on domain name was successfully completed, and
- a partial match search based on contact name was successfully completed, and
- a partial match search based on registrant name was successfully completed, and
- a partial match search based on contact postal address was successfully completed, and
- a partial match search based on registrant postal address was successfully completed, and
- all search results included the domain name(s) matching the search criteria.

Criteria for FAIL:

- Any search query failed to complete, or
- Any search result failed to include the domain name(s) matching the search criteria.

## 5. Whois Search 03

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### 5.1 Test case identifier

WhoisSearch03

### 5.2 Objective

Manual search queries will be performed on the Whois IPv4 website. The objective is to verify the exact-match capabilities.

### 5.3 Inputs

- Information on webpage in English on how to use the Searchable Whois.
- The following information will be needed as input for this test case:

Id	Description	Type
TLD	The ASCII compatible name of the TLD	String
WhoisCredentials	Optional credentials. E.g. username and password for accessing the Whois service	String
WhoisTestDomain	An existing domain which has Whois data	String

### 5.4 Outcome(s)

The Whois service MUST offer exact-match capabilities.

### 5.5 Environmental needs

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

### 5.6 Special procedural requirements

Whois query response time must not exceed 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. Access the service with <WhoisCredentials>, if required.
4. Perform an exact-match search based on registrar id. Use data from a previous domain query.
5. Perform an exact-match search based on name server name. Use data from a previous domain query.
6. The search results MUST include the domain name(s) matching the search criteria.

Criteria for N/A:

- Searchable Whois is not required by Exhibit A.

Criteria for PASS:

- An exact match search based on registrar id was successfully completed, and
- an exact match search based on name server name was successfully completed, and
- all search results included the domain name(s) matching the search criteria.

Criteria for FAIL:

- Any search query failed to complete, or
- Any search result failed to include the domain name(s) matching the search criteria.

## 6. Whois Search 04

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### 6.1 Test case identifier

WhoisSearch04

### 6.2 Objective

Manual search queries will be performed on the Whois IPv4 website. The objective is to verify the Boolean search capabilities.

### 6.3 Inputs

- Information on webpage in English on how to use the Searchable Whois.
- The following information will be needed as input for this test case:

Id	Description	Type
TLD	The ASCII compatible name of the TLD	String
WhoisCredentials	Optional credentials. E.g. username and password for accessing the Whois service	String
WhoisTestDomain	An existing domain name which has Whois data	String

### 6.4 Outcome(s)

The Whois service MUST offer Boolean search capabilities.

### 6.5 Environmental needs

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

### 6.6 Special procedural requirements

Whois query response time must not exceed 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. Access the service with <WhoisCredentials>, if required.
4. Perform a Boolean search using AND based on data from a previous domain query.
5. Perform a Boolean search using OR based on data from a previous domain query.
6. Perform a Boolean search using NOT based on data from a previous domain query.
7. The search results MUST include the domain name(s) matching the search criteria.

Criteria for N/A:

- Searchable Whois is not required by Exhibit A.

Criteria for PASS:

- A Boolean search using AND was successfully completed, and
- a Boolean search using OR was successfully completed, and
- a Boolean search using NOT was successfully completed, and
- all search results included the domain name(s) matching the search criteria.

Criteria for FAIL:

- Any search query failed to complete, or
- Any search result failed to include the domain name(s) matching the search criteria.



## 7. Whois Search 05

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### 7.1 Test case identifier

WhoisSearch05

### 7.2 Removed

This test case was removed in version G of this document.

## 8. Whois Search 06

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### 8.1 Test case identifier

WhoisSearch06

### 8.2 Removed

This test case was removed in version G of this document.

## 9. Whois Search 07

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### 9.1 Test case identifier

WhoisSearch07

### 9.2 Removed

This test case was removed in version G of this document.

## 10. Whois Search 08

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### 10.1 Test case identifier

WhoisSearch08

### 10.2 Removed

This test case was removed in version G of this document.

## 11. Whois Search 09

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### 11.1 Test Case Identifier

WhoisSearch09

### 11.2 Objective

A manual search query will be performed on the Whois IPv6 website. The objective is to verify that the search is reachable and responds over IPv6.

### 11.3 Inputs

- Information on webpage in English on how to use the Searchable Whois.
- The following information will be needed as input for this test case:

Id	Description	Type
TLD	The ASCII compatible name of the TLD	String
WhoisCredentials	Optional credentials. E.g. username and password for accessing the Whois service	String
WhoisTestDomain	An existing domain name which has Whois data	String

### 11.4 Outcome(s)

The Whois service **MUST** be reachable over IPv6 and it **MUST** return a valid response.

### 11.5 Environmental needs

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

### 11.6 Special procedure requirements

Whois query response time must not exceed 10 seconds.

### 11.7 Intercase dependencies

This test has no intercase dependencies.

### 11.8 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. Access the service with <WhoisCredentials>, if required.
4. Verify that all communication is done over IPv6 and that no intermediate step is done over IPv4.
5. Perform a search. Use the data from a previous domain query.
6. The search result **MUST** be successful.

Criteria for N/A:

- Searchable Whois is not required by Exhibit A.

Criteria for PASS:

- All communication is done over IPv6, and
- the search was successfully completed.

Criteria for FAIL:

- Some communication is done over IPv4, or
- the search did not successfully complete, or
- the search result did not include the domain name matching the search criteria.

## 12. Global

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### 12.1 Glossary

The glossary is available in the Master Test Plan.

### 12.2 Document change procedures

Document change procedures are documented in the Master Test Plan.