

Pre-Delegation Testing

Whois CLI Test Cases

Version E

File name: PDT_Whois_TC_CLI.docx

Last saved: 2014-01-17

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_CLI.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
2013-01-22	PA4	Rickard Bellgrim	The response data will be collected automatically, but it needs to be reviewed by the Test Officer.
2013-01-24	PA5	Rickard Bellgrim	Update text
2013-02-06	PA6	Rickard Bellgrim	Update test cases after meeting with ICANN
2013-02-10	PA7	Rickard Bellgrim	Update checks on Whois data
2013-03-03	PA8	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	PA9	Rickard Bellgrim	Add DnsGlueRecord as input data
2013-04-08	B	Staffan Hagnell	Delivery D2 for production
2013-05-03	C	Amar Andersson	Released
2013-06-12	PD1	Rickard Bellgrim	Clarify all test cases
2013-06-24	PD2	Rickard Bellgrim	Clarify pass/fail criteria
2013-07-01	D	Mats Dufberg	Released.
2014-01-17	E	Jan Sandström	Replaced warn instructions with SHOULD criteria.

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 CLI 01.....	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 CLI 02	8
3.1 TEST CASE IDENTIFIER	8
3.2 OBJECTIVE	8
3.3 INPUTS	8
3.4 OUTCOME(S)	8
3.5 ENVIRONMENTAL NEEDS	8
3.6 SPECIAL PROCEDURAL REQUIREMENTS.....	8
3.7 INTERCASE DEPENDENCIES	8
3.8 ORDERED DESCRIPTION OF STEPS TO BE TAKEN TO EXECUTE THE TEST CASE	8
4. WHOIS CLI 03	9
4.1 TEST CASE IDENTIFIER	9
4.2 OBJECTIVE	9
4.3 INPUTS	9
4.4 OUTCOME(S)	9
4.5 ENVIRONMENTAL NEEDS	9
4.6 SPECIAL PROCEDURAL REQUIREMENTS.....	9
4.7 INTERCASE DEPENDENCIES	9
4.8 ORDERED DESCRIPTION OF STEPS TO BE TAKEN TO EXECUTE THE TEST CASE	10
5. WHOIS CLI 04	11
5.1 TEST CASE IDENTIFIER	11
5.2 OBJECTIVE	11
5.3 INPUTS	11
5.4 OUTCOME(S)	11
5.5 ENVIRONMENTAL NEEDS	11
5.6 SPECIAL PROCEDURAL REQUIREMENTS.....	11
5.7 INTERCASE DEPENDENCIES	11
5.8 ORDERED DESCRIPTION OF STEPS TO BE TAKEN TO EXECUTE THE TEST CASE	11
6. WHOIS CLI 05.....	12
6.1 TEST CASE IDENTIFIER	12
6.2 OBJECTIVE	12
6.3 INPUTS	12
6.4 OUTCOME(S)	12
6.5 ENVIRONMENTAL NEEDS	12
6.6 SPECIAL PROCEDURAL REQUIREMENTS.....	12
6.7 INTERCASE DEPENDENCIES	12

6.8	ORDERED DESCRIPTION OF STEPS TO BE TAKEN TO EXECUTE THE TEST CASE	12
7.	WHOIS CLI 06	13
7.1	TEST CASE IDENTIFIER	13
7.2	OBJECTIVE	13
7.3	INPUTS	13
7.4	OUTCOME(S)	13
7.5	ENVIRONMENTAL NEEDS	13
7.6	SPECIAL PROCEDURAL REQUIREMENTS.....	13
7.7	INTERCASE DEPENDENCIES	13
7.8	ORDERED DESCRIPTION OF STEPS TO BE TAKEN TO EXECUTE THE TEST CASE	14
8.	GLOBAL	15
8.1	GLOSSARY	15
8.2	DOCUMENT CHANGE PROCEDURES	15

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 43.

1.2 References

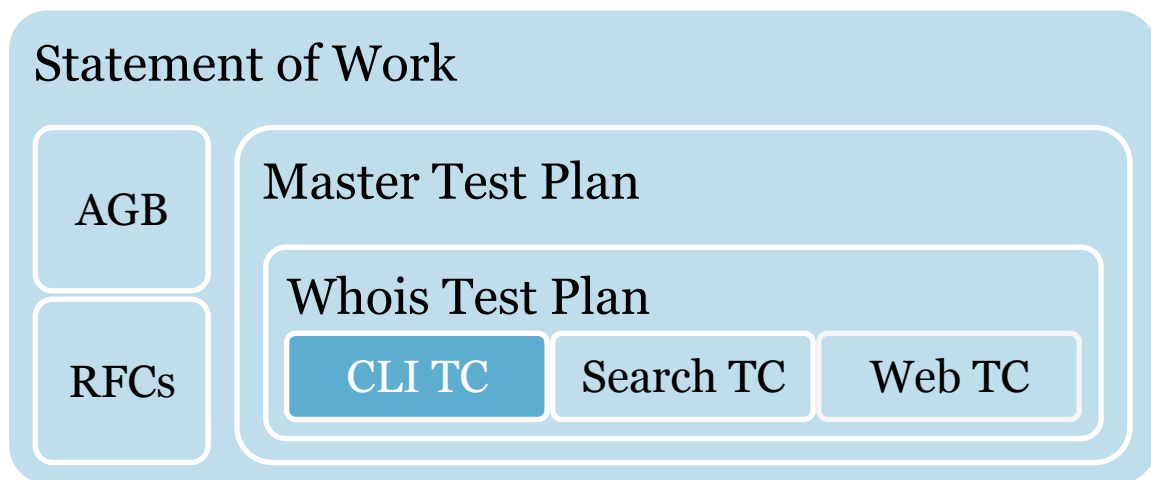
1.2.1 External

- 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 from all nodes. All data is collected automatically, but the responses must be verified by the Test Officer.

1.4 Notation for description

Each test case for the Whois service over port 43 is described in their own chapter. The test procedures are described directly in the test case.

2. Whois CLI 01

2.1 Test case identifier

WhoisCLI01

2.2 Objective

Multiple queries will be performed over IPv4 TCP connections on port 43. The objective is to verify the format of the responses.

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
WhoisTestDomain	An existing domain name which has Whois data	String
DnsGlueRecord	IPv4 or IPv6 addresses for auth NS	String

2.4 Outcome(s)

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

2.5 Environmental needs

- Whois client software
- 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 a query from each test node using the client software.
whois -h <WhoisIPv4> <WhoisTestDomain>
3. Do a check if the responses match 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. The disclaimer SHOULD be 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.

3. Whois CLI 02

3.1 Test case identifier

WhoisCLI02

3.2 Objective

Multiple queries will be performed over IPv4 TCP connections on port 43. The objective is to verify the format of the responses.

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
WhoisTestRegistrar	An existing registrar which has Whois data	String

3.4 Outcome(s)

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

3.5 Environmental needs

- Whois client software
- IPv4 connectivity
- <WhoisIPv4> 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 a query from each test node using the client software.
whois -h <WhoisIPv4> "registrar <WhoisTestRegistrar>"
2. Do a check if the response matches the format given in Whois TP, section 2.1.3.3.
 - 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. The disclaimer SHOULD be 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.

4. Whois CLI 03

4.1 Test case identifier

WhoisCLI03

4.2 Objective

Multiple queries will be performed over IPv4 TCP connections on port 43. The objective is to verify the format of the responses.

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
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

4.4 Outcome(s)

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

4.5 Environmental needs

- Whois client software
- 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 two queries from each test node using the client software. At least one of them MUST give response with Whois data.
whois -h <WhoisIPv4> <WhoisTestNameServerName>
whois -h <WhoisIPv4> "nameserver <WhoisTestNameServerIP>"
2. For each positive response, 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. The disclaimer SHOULD be 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 CLI 04

5.1 Test case identifier

WhoisCLI04

5.2 Objective

Multiple queries will be performed over IPv6 TCP connections on port 43. The objective is to verify the format of the responses.

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
WhoisTestDomain	An existing domain name which has Whois data	String

5.4 Outcome(s)

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

5.5 Environmental needs

- Whois client software
- IPv6 connectivity
- <WhoisIPv6> 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 a query from each test node using the client software.
whois -h <WhoisIPv6> <WhoisTestDomain>
2. Do a check if the responses match 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. The disclaimer SHOULD be 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 CLI 05

6.1 Test case identifier

WhoisCLI05

6.2 Objective

Multiple queries will be performed over IPv6 TCP connections on port 43. The objective is to verify the format of the responses.

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
WhoisTestRegistrar	An existing registrar which has Whois data	String

6.4 Outcome(s)

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

6.5 Environmental needs

- Whois client software
- IPv6 connectivity
- <WhoisIPv6> 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 a query from each test node using the client software.
whois -h <WhoisIPv6> "registrar <WhoisTestRegistrar>"
2. 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. The disclaimer SHOULD be 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 CLI 06

7.1 Test case identifier

WhoisCLI06

7.2 Objective

Multiple queries will be performed over IPv6 TCP connections on port 43. The objective is to verify the format of the responses.

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
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

7.4 Outcome(s)

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

7.5 Environmental needs

- Whois client software
- 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 two queries from each test node using the client software. At least one of them MUST give a response with Whois data.
whois -h <WhoisIPv6> <WhoisTestNameServerName>
whois -h <WhoisIPv6> "nameserver <WhoisTestNameServerIP>"
2. For each positive response, 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. The disclaimer SHOULD be 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. Global

8.1 Glossary

The glossary is available in the Master Test Plan.

8.2 Document change procedures

Document change procedures are documented in the Master Test Plan.