

# Registry System Testing

## IDN RST Test Plan

Version €D

**File name:** IDN RST Test Plan.docx

**Last saved:** ~~2021-06-10~~[2025-10-29](#)

Copyright (c) ~~2017~~[2025](#) Internet Corporation for Assigned Names and Numbers. All rights reserved.

# Document control

## Document information and security

Made by	Responsible for fact	Responsible for document
Lennart Bonnevier	Mats Dufberg	Mats Dufberg

Security class	File name
External	IDN RST Test Plan.docx

## Revisions

Date	Version	Name	Description
2017-07-27	A	Mats Dufberg	First release version.
2017-07-27	B	Mats Dufberg	Updated to match changed name of IDNvalid13.
2021-06-10	C	Mauro Lozano	Update references.
<a href="#">2025-10-29</a>	<a href="#">D</a>	<a href="#">Mustafa Alriface</a>	<a href="#">Remove WHOIS test area.</a>

## LIST OF CONTENTS

<b>1.</b>	<b>INTRODUCTION.....</b>	<b>4</b>
1.1	BACKGROUND .....	4
1.2	PURPOSE .....	4
1.3	SCOPE.....	4
1.4	REFERENCES.....	4
1.4.1	<i>External</i> .....	4
1.4.2	<i>Internal</i> .....	4
1.4.3	<i>Document Hierarchy</i> .....	5
1.5	SYSTEM OVERVIEW AND KEY FEATURES.....	5
<b>2.</b>	<b>DETAILS OF THE RST IDN TEST PLAN .....</b>	<b>6</b>
2.1	SYSTEM REQUIREMENTS.....	6
2.2	TWO VARIANTS.....	6
2.3	TEST AREAS INCLUDED IN A IDN RST TEST.....	6
2.4	TEST CASES INCLUDED IN A IDN RST TEST .....	6
2.4.1	<i>IDN</i> .....	6
<b>3.</b>	<b>GENERAL .....</b>	<b>7</b>
3.1	GLOSSARY.....	7
3.2	DOCUMENT CHANGE PROCEDURES .....	7

# **1. Introduction**

---

This document describes a Registry System IDN Test (RSTIDN). IDN testing is part of the Registry System Testing framework.

## **1.1 Background**

A Registry Operator may apply to ICANN to amend its Registry Agreement for an already delegated TLD, to either offer new services or retract services currently offered. If the requested amendment affects Registry Operator's support for IDN, an RST IDN test is called for before the amendment can be authorized.

## **1.2 Purpose**

The purpose of an IDN RST test is to verify that the Registry Operator's registry system handles IDN registrations in accordance with the submitted policy statements and IDN tables.

## **1.3 Scope**

Only the test cases listed in this document will be included in an IDN RST Test. For details about a test case, refer to the relevant Test Area Specification document.

## **1.4 References**

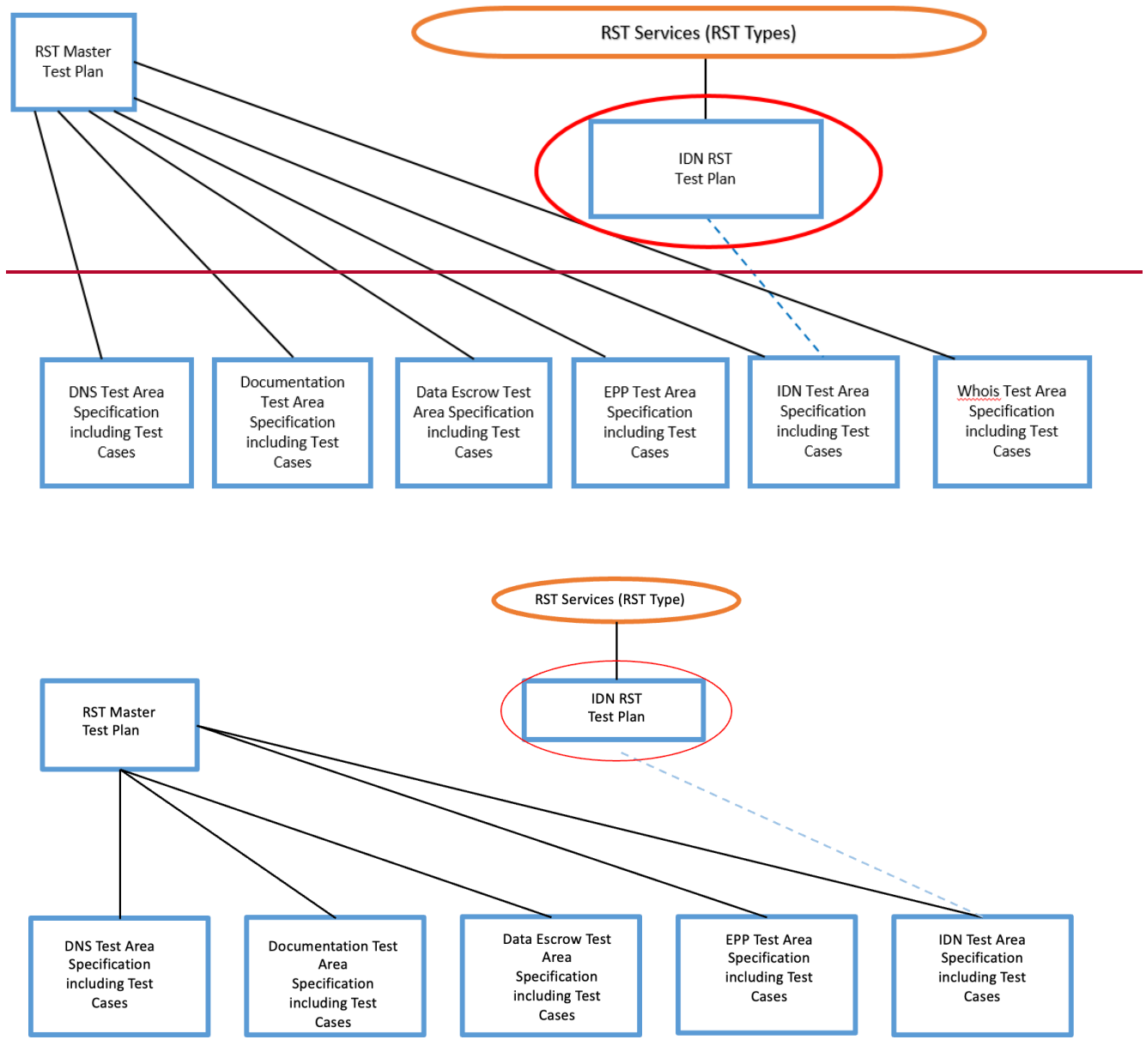
### **1.4.1 External**

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

### **1.4.2 Internal**

- Registry System Testing, IDN Test Area Specification

### 1.4.3 Document Hierarchy



This document is one of many that specifies the Test Plan for a specific RST Type (circled in red in the above graphic).

## 1.5 System overview and key features

A Registry Operator who wishes to modify IDN support for a TLD by adding and/or removing scripts and languages will undergo RST IDN Testing to verify the new IDN implementation and online registration functionality.

There is also a set of technical documentation that needs to be reviewed. This set includes:

- Amended Exhibit A of Registry Agreement
- IDN tables

## 2. Details of the RST IDN Test Plan

---

### 2.1 System requirements

The initial requirements are found in the Statement of Work. Some of the requirements are also referring to requirements in the ICANN gTLD Applicant Guide Book and the IANA Technical Requirements.

### 2.2 Two variants

The RST IDN RST Type comes in two variants, with or without test registration over EPP, referred to as EPPIDN. If EPPIDN is not included, then IDNvalid11 and IDNvalid10 are not applicable and IDNvalid07 is only partly applicable. See the IDN Test Area Specification document for details.

### 2.3 Test Areas included in a IDN RST Test

1. IDN

### 2.4 Test Cases included in a IDN RST Test

#### 2.4.1 IDN

- IDNvalid00 IDN documentation validation
- IDNvalid01 IDN Table validation
- IDNvalid02 IDNA Code Point validation
- IDNvalid03 Contextual Rule validation
- IDNvalid04 IDN Script validation
- IDNvalid05 IDN Script Mixing Rule validation
- IDNvalid06 IDN Language validation
- IDNvalid07 Variant Code Point validation
- IDNvalid09 Variant Management Policy
- IDNvalid10 Basic IDN compliance
- IDNvalid11 IDN online registry response validation
- IDNvalid12 Asymmetrical and intransitive variant rule verification
- IDNvalid13 Pre-composed vs. decomposed character equivalence verification

### **3. General**

---

#### **3.1 Glossary**

The glossary is available in the RST Master Test Plan.

#### **3.2 Document change procedures**

Document change procedures are documented in the RST Master Test Plan.