

Registry System Testing

SRS Gateway Test Plan

Version C

File name: SRS Gateway Test Plan.docx
Last saved: 2025-10-29

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Document control

Document information and security

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Security class	File name
External	SRS Gateway Test Plan.docx

Revisions

Date	Version	Name	Description
2017-07-27	A	Mats Dufberg	First release version.
2021-06-10	B	Mauro Lozano	Update references.
2025-10-21	C	Mustafa Alrifae	Remove WHOIS test area.

LIST OF CONTENTS

1. INTRODUCTION	4
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>	4
1.5 TEST OVERVIEW	5
2. DETAILS OF THE TEST PLAN	6
2.1 TEST AREAS INCLUDED IN A SRS GATEWAY TEST	6
2.2 TEST CASES INCLUDED IN AN SRS GATEWAY TEST	6
2.2.1 <i>EPP</i>	6
3. GENERAL	7
3.1 GLOSSARY	7
3.2 DOCUMENT CHANGE PROCEDURES	7

1. Introduction

This document defines an SRS Gateway Test within the Registry System Testing framework.

1.1 Background

An SRS Gateway service is a Shared Registry System implementation that acts as a proxy between a subset of Registrars and the Registry. It uses a local cache to speed up EPP query commands, but forwards all EPP transform commands to the TLD Registry System. TLD registries need to deploy a proxy setup in order to operate in certain markets worldwide.

1.2 Purpose

The purpose of an SRS Gateway Test is to verify that the Registry Operator's proxy setup operates in accordance with the technical and operational criteria for EPP systems described in the gTLD Applicant Guidebook (AGB). Furthermore, it must keep its own database synchronized with that of the TLD registry.

1.3 Scope

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

1.4 References

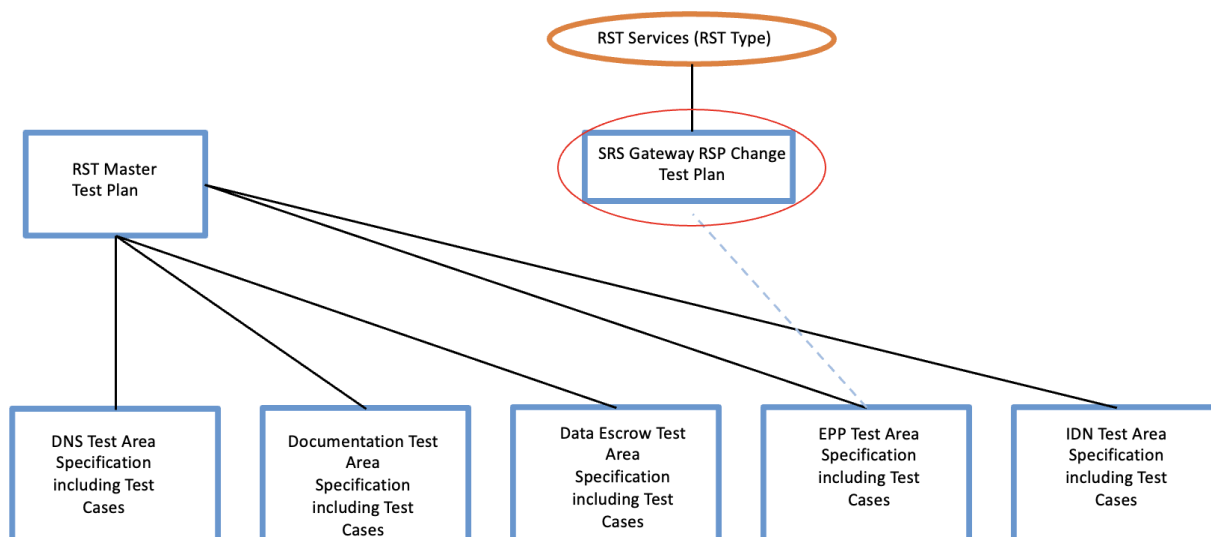
1.4.1 External

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

1.4.2 Internal

- RST Master Test Plan
- Registry System Testing, RDAP [RST2.0 specification sections 7.118.](#)
- Registry System Testing, EPP 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 Test overview

An SRS Gateway Test consists of three distinct phases. In the first phase, a set of standard EPP transform commands are sent to the TLD Registry System, to ensure that it operates correctly. Second, the same set of transform commands are sent to the Gateway proxy, and it is verified that all changes are propagated to the TLD Registry System through EPP INFO commands to both systems (Gateway proxy and TLD Registry System, respectively).

Finally, a series of RDAP queries are sent to both the TLD Registry System and the Gateway proxy, and the answers are compared, refer to [RST2.0 specification sections 7.118. srsgw-13 - Domain RDAP synchronization, srsgw-14 - Nameserver RDAP synchronization, and srsgw-15 - Registrar RDAP synchronization.](#)

All tests of the SRS Gateway are run from a single Test Node residing in the same country as the SRS Gateway. If no such node is available to the RST Provider, one must be set up in preparation for the test. Test against the TLD Registry System are run from a single Test Node within an ICANN region different from the one where the SRS Gateway is located.

2. Details of the Test Plan

2.1 Test Areas included in a SRS Gateway Test

1. EPP

2.2 Test Cases included in an SRS Gateway Test

2.2.1 EPP

All Test Cases below are defined in “EPP Test Area Specification”. To verify the consistency for domain name objects, consistency for registrar objects and consistency for name server objects, RDAP will be used as defined in [“RDAP RST2.0 specification sections 7.118. srsgw-13 - Domain RDAP synchronization, srsgw-14 - Nameserver RDAP synchronization, and srsgw-15 - Registrar RDAP synchronization”](#).

- | | |
|----------------------------|--|
| • TLDSRSEPPConnTest | Verify connectivity |
| • TLDSRSEPPDomCreate01 | Create a domain |
| • TLDSRSEPPDomCreate02 | Add hosts to existing domain |
| • TLDSRSEPPDomCreate03 | Create a DNSSEC-signed domain |
| • TLDSRSEPPDomRenew01 | Renew a domain |
| • TLDSRSEPPDomTransfer01 | Request transfer of a domain |
| • TLDSRSEPPDomTransfer02 | Approve a requested domain transfer |
| • TLDSRSEPPDomDelete01 | Delete a domain |
| • TLDSRSEPPConCreate01 | Create a contact |
| • TLDSRSEPPConDelete01 | Delete a contact |
| • TLDSRSEPPHostDelete01 | Delete a host |
| • TLDSRSEPPHostUpdate01 | Update a host |
| • TLDSRSEPPConUpdate01 | Update a contact |
| • TLDSRSEPPDomUpdate01 | Add DNSSEC records to a domain |
| • SRSGWAddrVer | Verify IP addresses to SRS Gateway System |
| • SRSGWConnTest | Verify connectivity |
| • SRSGWDomCreate01 | Create a domain and verify that TLD SRS is updated |
| • SRSGWDomCreate02 | Add hosts to a domain and verify that TLD SRS is updated |
| • SRSGWDomCreate03 | Create DNSSEC-signed domain and verify TLD SRS is updated |
| • SRSGWDomRenew01 | Renew a domain and verify that TLD SRS is updated |
| • SRSGWDomTransfer01 | Request transfer of a domain and verify TLD SRS is updated |
| • SRSGWDomTransfer02 | Approve a domain transfer and verify TLD SRS is updated |
| • SRSGWDomDelete01 | Delete a domain and verify TLD SRS is updated |
| • SRSGWConCreate01 | Create a contact and verify that TLD SRS is updated |
| • SRSGWConDelete01 | Delete a contact and verify that TLD SRS is updated |
| • SRSGWHostDelete01 | Delete a host and verify that TLD SRS is updated |
| • SRSGWHostUpdate01 | Update a host and verify that TLD SRS is updated |
| • SRSGWConUpdate01 | Update a contact and verify that TLD SRS is updated |
| • SRSGWDomUpdate01 | Add DNSSEC records to a domain, verify TLD SRS is updated |
| • SRSGW-13 | Verify consistency for domain name objects. |
| • SRSGW-14 | Verify consistency for registrar objects. |
| • SRSGW-15 | Verify consistency for name server objects. |

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.