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ICANN Privacy and Proxy Service Provider Interfaces
draft-icann-ppsp-interfaces-00

Abstract

This document describes the interfaces provided by ICANN to Privacy and Proxy Service Providers and their Data Escrow Agents in order to fulfill the data escrow requirements of the Privacy and Proxy Accreditation Agreement.

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Table of Contents

- 1. Introduction 2
 - 1.1. Terminology 2
 - 1.2. Date and Time 3
 - 1.3. Common elements used in this specification 3
- 2. Interfaces for Data Escrow Notifications 3
 - 2.1. PPSP Data Escrow Reporting 3
 - 2.2. Data Escrow Agent Reporting 5
- 3. PPSP Quarterly Reporting 11
 - 3.1. Per-Registrar Activity Report 11
- 4. Technical details of the interfaces 11
 - 4.1. PPSP Data Escrow Reporting 12
 - 4.2. Data Escrow Agent Reporting 13
 - 4.3. Per-Registrar Activity Reporting 15
- 5. Monitoring PPSP reporting 16
 - 5.1. Monitoring the reporting status for a PPSP 16
 - 5.2. Monitoring the status of PPSP Escrow Reports 19
 - 5.3. Monitoring the status of PPSP Data Escrow Agent Notifications 20
 - 5.4. Monitoring the status of a Per-Registrar Activity Report 23
- 6. IANA Considerations 24
- 7. Security Considerations 24
- 8. Change History 24
 - 8.1. Version 00 24
- 9. Normative References 24
- Authors' Addresses 24

1. Introduction

This document describes the technical details of the interfaces provided by the Internet Corporation for Assigned Names and Numbers (ICANN) to Privacy and Proxy Service Providers (PPSP) and their Data Escrow Agents in order to fulfill the data escrow requirements of the Privacy and Proxy Accreditation Agreement.

1.1. Terminology

The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "MAY", and "OPTIONAL" in this document are to be interpreted as described in RFC 2119 [RFC2119].

XML is case sensitive. Unless stated otherwise, XML specifications and examples provided in this document MUST be interpreted in the character case presented in order to develop a conforming implementation.

Lozano & Alvarez

Expires December 8, 2018

[Page 2]

↑

Internet-Draft

ICANN PPSP Interfaces

June 2018

1.2. Date and Time

Numerous fields indicate "date and time", such as the creation and receipt dates for data escrow deposits. These fields SHALL contain timestamps indicating the date and time in UTC as specified in [RFC3339], with no offset from the zero meridian.

1.3. Common elements used in this specification

Common elements used in this specification are explained in this section.

- o <base-url>: The base URL used in the reporting interfaces examples must be replaced with the URL indicated by ICANN.

2. Interfaces for Data Escrow Notifications

This section describes the interfaces provided by ICANN to Privacy and Proxy Service Providers and their Data Escrow Agents in order to fulfill their reporting requirements related of the Privacy and Proxy Accreditation Agreement.

2.1. PPSP Data Escrow Reporting

To notify that the domain name registration data has been submitted to a Data Escrow Agent, the ICANN-accredited Privacy and Proxy Service Provider sends a <rdeReport:report> object (see, [I-D.lozano-icann-registry-interfaces]) to ICANN.

The following considerations apply for a <rdeReport:report> object corresponding to data escrow reporting for a PPSP repository:

- o The <rdeHeader:ppsp> element in the <rdeHeader:header> object (see, [I-D.arias-noguchi-dnrd-objects-mapping]) MUST be present and have a value corresponding to the PPSP's unique ID assigned by ICANN.
- o A <rdeHeader:count> element MUST be included with the corresponding "registrarId" and "rcdn" attributes in the <rdeHeader:header> object to indicate the total domains in the data escrow deposit for each Registrar and each Registry Class Domain Name (e.g. .example) combination with at least one domain name allocation at a specific point in time (watermark), regardless of the type of deposit: full or differential. If the "https://www.icann.org/ppsp-de-spec" specification is being used as the <rdeReport:rydeSpecEscrow>, then the "uri" attribute in the <rdeHeader:count> elements for domain names MUST have a value of "urn:ietf:params:xml:ns:rdeDomain-1.0".

Lozano & Alvarez

Expires December 8, 2018

[Page 3]



Internet-Draft

ICANN PPSP Interfaces

June 2018

- o If the Privacy and Proxy Service Provider domain name registration data was submitted in multiple data escrow deposits, the Privacy and Proxy Service Provider MUST generate a unique value for the <rdeReport:id> element. If the registration data was submitted in a single data escrow deposit, the <rdeReport:id> value MUST be the same as the "id" attribute from the <deposit>.
- o To indicate that a PPSP repository has no domain names, one <rdeHeader:count> element MUST be included with the "uri" attribute value of "urn:ietf:params:xml:ns:rdeDomain-1.0", no "registrarId" or "rcdn" attributes, and a value of 0 (zero).

The <rdeReport:report> object to indicate the registration data was successfully sent to the Data Escrow Agent is sent using the PUT HTTP verb in the interface provided by ICANN at:

<base-url>/report/ppsp-escrow-report/<provider-id>/<report-id>

Where:

draft-icann-ppsp-interfaces-00

- * <provider-id> MUST be substituted by the ID assigned by ICANN to the PPSP for which the report is being provided.
- * <report-id> MUST be substituted by the identifier assigned to this report.

Note: The interface supports overwriting the information of a particular report <report-id> to support asynchronous interfaces between Privacy and Proxy Service Providers and Data Escrow Agents.

Example of a <rdeReport:report> object for data escrow corresponding to a PPSP repository:

Lozano & Alvarez	Expires December 8, 2018	[Page 4]
↑		
Internet-Draft	ICANN PPSP Interfaces	June 2018

```
<?xml version="1.0" encoding="UTF-8"?>
<rdeReport:report>
  <rdeReport:id>20171108001</rdeReport:id>
  <rdeReport:version>1</rdeReport:version>
  <rdeReport:rydeSpecEscrow>
    https://www.icann.org/ppsp-de-spec
  </rdeReport:rydeSpecEscrow>
  <rdeReport:resend>0</rdeReport:resend>
  <rdeReport:crDate>2017-10-05T00:15:00.0Z</rdeReport:crDate>
  <rdeReport:kind>FULL</rdeReport:kind>
  <rdeReport:watermark>2017-10-05T00:00:00Z</rdeReport:watermark>
  <rdeHeader:header>
```

```

draft-icann-ppsp-interfaces-00
<rdeHeader:ppsp>1234</rdeHeader:ppsp>
<rdeHeader:count uri="urn:ietf:params:xml:ns:rdeDomain-1.0"
  registrarId="1" rcdn="example">6</rdeHeader:count>
<rdeHeader:count uri="urn:ietf:params:xml:ns:rdeDomain-1.0"
  registrarId="1" rcdn="com.test">4</rdeHeader:count>
<rdeHeader:count uri="urn:ietf:params:xml:ns:rdeDomain-1.0"
  registrarId="9998" rcdn="example">2</rdeHeader:count>
</rdeHeader:header>
</rdeReport:report>

```

2.2. Data Escrow Agent Reporting

Data Escrow Agents could deliver to ICANN a notification every time a successfully processed deposit is received from a Privacy and Proxy Service Provider, regardless of the final status of the verification process, in addition to a receipt failure notification if a deposit is not received from a Provider on a given date by sending a <rdeNotification:notification> object as defined in Section 2 of [I-D.lozano-icann-registry-interfaces], using the POST HTTP verb in the interface provided by ICANN at:

```
<base-url>/report/ppsp-escrow-agent-notification/<provider-id>
```

Where:

- * <provider-id> MUST be substituted by the ID assigned by ICANN to the PPSP for which the notification is being provided.

A <rdeNotification:notification> with DRFN (Deposit Receipt Failure Notice) status is used to notify that a PPSP has not submitted a data escrow deposit for a past date where a deposit was scheduled to be received.

The <rdeReport:report> object of the notification MUST follow the considerations listed in Section 2.1.

Lozano & Alvarez	Expires December 8, 2018	[Page 5]
↑ Internet-Draft	ICANN PPSP Interfaces	June 2018

In the case of a <rdeNotification:notification> with DVFN (Deposit Verification Failure Notice) status, the <rdeHeader:header> element MUST include a <iirdea:result> object for each deposit verification error condition and specify in the corresponding "domainCount"

draft-icann-ppsp-interfaces-00

attribute the number of domain names with such error conditions, where applicable.

Note: an error condition may be present several times in the the same domain escrow record (e.g. the administrative, technical and billing contact contain invalid email syntax). In this case only one domain name is affected by the error condition, therefore the "domainCount" attribute value must be increased by one in the corresponding <iirdea:result> object.

The following table defines the result codes that a Data Escrow Agent could use to report verification issues for a Privacy and Proxy Service Provider's data escrow deposit:

Result Code	Message
2001	No signature file found for deposit file.
2002	Deposit file decryption error.
2003	Split deposit file numbers are not consecutive.
2004	Data escrow deposit PGP signature verification error.
2005	Archive includes unrecognized files.
2006	Invalid encoding for data escrow deposit file.
2007	Data escrow deposit file size exceeds maximum allowed size.
2008	Contact handle file missing in the data escrow deposit.
2101	Unrecognized data escrow deposit file CSV header.
2102	Escrow Record structure does not conform with CSV header definition.
2103	Escrow Record found missing data in required field(s).
2104	Invalid domain name syntax in Escrow Record.
2105	Invalid email syntax in Escrow Record.
2106	Invalid hostname syntax in Escrow Record.
2107	Invalid date syntax in Escrow Record.
2108	Invalid phone syntax in Escrow Record.
2109	Duplicate domain or handle Escrow Record found in deposit.
2110	Handle reference by Escrow Record not found.
2112	Invalid IANA Registrar Id found in Escrow Record.
2201	"Full" data escrow deposit expected but received "Differential" instead.
2202	Data Escrow deposit date is in the future.
2203	A data escrow deposit has been already successfully verified for that date.

PPSP Data Escrow Deposit Verification Result Codes

Example of a <rdeNotification:notification> object of a Data Escrow Agent notification corresponding to a missing PPSP Data Escrow deposit:

Lozano & Alvarez

Expires December 8, 2018

[Page 7]



Internet-Draft

ICANN PPSP Interfaces

June 2018

```
<?xml version="1.0" encoding="UTF-8"?>
<rdeNotification:notification
  xmlns:rdeNotification="urn:ietf:params:xml:ns:rdeNotification-1.0">
  <rdeNotification:deaName>Escrow Agent Inc.</rdeNotification:deaName>
  <rdeNotification:version>1</rdeNotification:version>
  <rdeNotification:repDate>2017-06-17</rdeNotification:repDate>
  <rdeNotification:status>DRFN</rdeNotification:status>
  <rdeNotification:lastFullDate>2017-06-10
    </rdeNotification:lastFullDate>
</rdeNotification:notification>
```

Example of a `<rdeNotification:notification>` object of a Data Escrow Agent notification corresponding to a PPSP repository Data Escrow deposit that has passed the verification process:

Lozano & Alvarez

Expires December 8, 2018

[Page 8]



Internet-Draft

ICANN PPSP Interfaces

June 2018

```
<?xml version="1.0" encoding="UTF-8"?>
<rdeNotification:notification
  xmlns:rdeNotification="urn:ietf:params:xml:ns:rdeNotification-1.0"
  xmlns:rdeReport="urn:ietf:params:xml:ns:rdeReport-1.0"
  xmlns:rdeHeader="urn:ietf:params:xml:ns:rdeHeader-1.0">
  <rdeNotification:deaName>Escrow Agent Inc.</rdeNotification:deaName>
  <rdeNotification:version>1</rdeNotification:version>
  <rdeNotification:repDate>
    2017-06-17</rdeNotification:repDate>
  <rdeNotification:status>DVPN</rdeNotification:status>
  <rdeNotification:reDate>
    2017-06-17T03:15:00.0Z</rdeNotification:reDate>
  <rdeNotification:vaDate>
    2017-06-17T05:15:00.0Z</rdeNotification:vaDate>
  <rdeNotification:lastFullDate>
    2017-06-17</rdeNotification:lastFullDate>
  <rdeReport:report>
    <rdeReport:id>20170617001</rdeReport:id>
    <rdeReport:version>1</rdeReport:version>
    <rdeReport:rydeSpecEscrow>
      https://www.icann.org/ppsp-de-spec
    </rdeReport:rydeSpecEscrow>
    <rdeReport:resend>0</rdeReport:resend>
    <rdeReport:crDate>2017-06-17T00:15:00.0Z</rdeReport:crDate>
    <rdeReport:kind>FULL</rdeReport:kind>
    <rdeReport:watermark>2017-06-17T00:00:00Z</rdeReport:watermark>
  <rdeHeader:header>
    <rdeHeader:ppsp>1234</rdeHeader:ppsp>
```

```

        draft-icann-ppsp-interfaces-00
    <rdeHeader:count uri="urn:ietf:params:xml:ns:rdeDomain-1.0"
        registrarId="1" rcdn="example">2</rdeHeader:count>
    <rdeHeader:count uri="urn:ietf:params:xml:ns:rdeDomain-1.0"
        registrarId="2" rcdn="example">8</rdeHeader:count>
    <rdeHeader:count uri="urn:ietf:params:xml:ns:rdeDomain-1.0"
        registrarId="1" rcdn="xn--nqvo76h">3</rdeHeader:count>
    </rdeHeader:header>
</rdeReport:report>
</rdeNotification:notification>

```

Example of a <rdeNotification:notification> object of a Data Escrow Agent notification corresponding to a PPSP repository Data Escrow deposit that has failed the verification process:

```

<?xml version="1.0" encoding="UTF-8"?>
<rdeNotification:notification
  xmlns:rdeNotification="urn:ietf:params:xml:ns:rdeNotification-1.0"
  xmlns:rdeReport="urn:ietf:params:xml:ns:rdeReport-1.0"
  xmlns:rdeHeader="urn:ietf:params:xml:ns:rdeHeader-1.0"

```



```

xmlns:iirdea="urn:ietf:params:xml:ns:iirdea-1.0">
<rdeNotification:deaName>Escrow Agent Inc.</rdeNotification:deaName>
<rdeNotification:version>1</rdeNotification:version>
<rdeNotification:repDate>2017-10-07</rdeNotification:repDate>
<rdeNotification:status>DVFN</rdeNotification:status>
<rdeNotification:results>
  <iirdea:result code="2104" domainCount="2">
    <iirdea:msg>
      Invalid domain name syntax in Escrow Record.
    </iirdea:msg>
  </iirdea:result>
  <iirdea:result code="2109" domainCount="1">
    <iirdea:msg>
      Duplicate domain or handle Escrow Record found in deposit.
    </iirdea:msg>
  </iirdea:result>
</rdeNotification:results>
<rdeNotification:reDate>
  2017-10-07T03:15:00.0Z
</rdeNotification:reDate>

```

```
<rdeNotification:vaDate>
  2017-10-07T05:15:00.0Z
</rdeNotification:vaDate>
<rdeNotification:lastFullDate>
  2017-10-01
</rdeNotification:lastFullDate>
<rdeReport:report>
  <rdeReport:id>20170617002</rdeReport:id>
  <rdeReport:version>1</rdeReport:version>
  <rdeReport:rydeSpecEscrow>
    https://www.icann.org/ppsp-de-spec
  </rdeReport:rydeSpecEscrow>
  <rdeReport:resend>0</rdeReport:resend>
  <rdeReport:crDate>2017-10-07T00:15:00.0Z</rdeReport:crDate>
  <rdeReport:kind>FULL</rdeReport:kind>
  <rdeReport:watermark>2017-10-07T00:00:00Z</rdeReport:watermark>
  <rdeHeader:header>
    <rdeHeader:ppsp>1234</rdeHeader:ppsp>
    <rdeHeader:count uri="urn:ietf:params:xml:ns:rdeDomain-1.0"
      registrarId="1" rcdn="example">2</rdeHeader:count>
    <rdeHeader:count uri="urn:ietf:params:xml:ns:rdeDomain-1.0"
      registrarId="8" rcdn="example">8</rdeHeader:count>
    <rdeHeader:count uri="urn:ietf:params:xml:ns:rdeDomain-1.0"
      registrarId="9998" rcdn="example">3</rdeHeader:count>
  </rdeHeader:header>
</rdeReport:report>
</rdeNotification:notification>
```

Lozano & Alvarez	Expires December 8, 2018	[Page 10]
↑		
Internet-Draft	ICANN PPSP Interfaces	June 2018

3. PPSP Quarterly Reporting

The Per-Registrar Activity Report, as described in the Privacy and Proxy Accreditation Agreement, MAY be sent by Privacy and Proxy Service Providers to ICANN. This section specifies the interfaces provided by ICANN to automate the upload of this report.

3.1. Per-Registrar Activity Report

A Privacy and Proxy Service Provider MAY send the "Per-Registrar Activity Report" as a CSV report as described in the Privacy and Proxy Accreditation Agreement using the PUT HTTP verb in the

interface provided by ICANN at:

<base-url>/report/ppsp-activity-registrar/<provider-id>/<date>

Where:

- * <provider-id> MUST be substituted by the ID assigned by ICANN to the PPSP for which the report is being provided.
- * <date> MUST be substituted by the last month of the quarter for which the report is being provided in the form of YYYY-MM. Where 'YYYY' is the year and 'MM' is the two digit month number. For example: 2018-03

4. Technical details of the interfaces

Content-type value in the HTTP header:

- o The client MUST set "text/xml" in the HTTP header Content-type when using the Data Escrow Agent Reporting and Privacy and Proxy Service Provider Reporting interfaces described in Section 2.
- o The client MUST set "text/csv" in the HTTP header Content-type when using the Per-Registrar Activity Report interface described in Section 3.

The interfaces support HTTP streams only (HTTP multi-part forms are not supported).

After successfully receiving and processing an input, the interfaces return any of the HTTP status codes described in Section 4 of [I-D.lozano-icann-registry-interfaces].

The following sections provide the IIRDEA Result Codes that can be expected in the <response> object from each interface:

Lozano & Alvarez	Expires December 8, 2018	[Page 11]
↑ Internet-Draft	ICANN PPSP Interfaces	June 2018

4.1. PPSP Data Escrow Reporting

The following table lists the result codes of the interface:

draft-icann-ppsp-interfaces-00

Result Code	Message
1000	No ERRORS were found and the report has been accepted by ICANN.
2001	The report did not validate against the schema.
2004	Report for a date in the future. The <crDate> and <watermark> date should not be in the future.
2005	Version is not supported.
2006	The <id> in the <report> element and the <report-id> in the URL path do not match.
2301	Interface is disabled for this PPSP.
2302	The <crDate> and <watermark> date should not be before the creation date of the PPSP in the system.
2303	The <ppsp> in the <header> and the <provider-id> in the URL path do not match.
2304	Report regarding an differential deposit received when a full deposit was expected (<watermark>).
2305	Count element greater than 0 is missing the <registrarId> or <rcdn> attributes in the report <header>.
2306	Multiple count elements with the same <uri>, <rcdn>, and <registrarId> attribute values provided in the <header>.
2307	Missing required <ppsp> element in the <header>.
2312	An invalid NR-LDH label or A-label was found or the domain name syntax is invalid in the <rcdn> attribute.
2313	Not supported "ppspId" attribute found in the <header>.

Data Escrow Reporting Result Codes

4.2. Data Escrow Agent Reporting

The following table lists the result codes of the interface:

Result Code	Message
1000	No ERRORS were found and the notification has been accepted by ICANN.
2001	The notification did not validate against the schema.
2002	A DVPN notification exists for that date (<repDate>).
2004	Notification for a date in the future. The <crDate>, <watermark>, <lastFullDate> and <repDate> date should not be in the future.
2005	Version is not supported.
2201	The <repDate> and <watermark> in the notification do not match.
2203	A Deposit Verification Pass Notice (DVPN) notification was received, but the Domain Name count is missing in the <header>.
2204	The notification for the report "id" already exists.
2207	A DVPN or DVFN was received, but the <report> element is missing in the notification.
2208	A DRFN was received, but a <report> element exists in the notification.
2209	<reDate> and <vaDate> elements must not be present in a DRFN.
2301	Interface is disabled for this PPSP.
2302	The <crDate> and <watermark> and <repDate> date should not be before the creation date of the PPSP in the system.
2303	The <ppsp> in the <header> and the <provider-id> in the URL path do not match.
2304	Notification regarding an differential deposit received when a full deposit was expected (<repDate>).
2305	Count element greater than 0 is missing the <registrarId> or <rcdn> attributes in the report <header>.
2306	Multiple count elements with the same <uri>, <rcdn>, and <registrarId> attribute values provided in the <header>.
2307	Missing required <ppsp> element in the <header>.
2309	A DVFN was received, but the <results> element is missing in the notification.

draft-icann-ppsp-interfaces-00

2310	The specified result code in the <result> element requires the "domainCount" attribute to be present.
2311	Unrecognized value in the "code" attribute of the <result> element.

Lozano & Alvarez Expires December 8, 2018 [Page 13]

↑
Internet-Draft ICANN PPSP Interfaces June 2018

2311	Unrecognized value in the "code" attribute of the <result> element.
2312	An invalid NR-LDH label or A-label was found or the domain name syntax is invalid in the <rcdn> attribute.
2313	Not supported "ppspId" attribute found in the <header>.

+-----+

Data Escrow Reporting Result Codes



4.3. Per-Registrar Activity Reporting

The following table lists the result codes of the interface:

Result Code	Message
1000	No ERRORS were found and the report has been accepted by ICANN.
2001	The structure of the report is invalid.
2002	A report for that month already exists, the cut-off date already passed.
2003	Negative numeric value present in the report.
2004	Report for a month in the future.
2007	Interface is disabled for this PPSP.
2008	Reported month before the creation date of the PPSP in the system.
2101	Incorrect totals present in the report.
2102	A non ICANN-accredited registrar ID is present in the report.
2103	Values found in the second field of the totals line.
2105	The report is not encoded in UTF-8. Note: reports encoded in US-ASCII are accepted.

Per-Registrar Activity Report Result Codes

Lozano & Alvarez	Expires December 8, 2018	[Page 15]
↑ Internet-Draft	ICANN PPSP Interfaces	June 2018

5. Monitoring PPSP reporting

Privacy and Proxy Service Providers MAY monitor the reporting status using the following interfaces that support the GET HTTP verb:

5.1. Monitoring the reporting status for a PPSP

Privacy and Proxy Service Providers MAY monitor the general reporting status and get a list of any outstanding issues using the following interface:

```
<base-url>/info/status/ppsp/<provider-id>
```

Where:

- * <provider-id> MUST be substituted by the ID assigned by ICANN to the PPSP being queried.

This interface provides a <rriReporting:summary> element as defined in Section 2 of [I-D.lozano-icann-registry-interfaces] that uses the

<rdeHeader:ppsp> element and includes the following
<rriReporting:type> values:

- o "PPSP_Escrow_Report" : For PPSP Data Escrow Reporting as defined in Section 2.1. The "date" attribute for any reporting issue is provided in "YYYY-MM-DD" format.
- o "DEA_Notification" : For Data Escrow Agent Notifications as defined in Section 2.2. The "date" attribute for any reporting issue is provided in "YYYY-MM-DD" format.
- o "PPSP_Per_Registrar_Activity_Report" : For PPSP Per-Registrar Activity reporting as defined in Section 3.1. The "date" attribute for any reporting issue is provided in "YYYY-MM" format.

Example of response for a PPSP status check with no reporting issues:

Lozano & Alvarez	Expires December 8, 2018	[Page 16]
↑		
Internet-Draft	ICANN PPSP Interfaces	June 2018

```
<?xml version="1.0" encoding="UTF-8"?>
<rriReporting:summary
  xmlns:rriReporting="urn:ietf:params:xml:ns:rriReporting-1.0"
  xmlns:rdeHeader="urn:ietf:params:xml:ns:rdeHeader-1.0">
  <rdeHeader:ppsp>1</rdeHeader:ppsp>
  <rriReporting:creationDate>
    2017-06-10T12:00:30.101Z</rriReporting:creationDate>
  <rriReporting:depositSchedule>Daily</rriReporting:depositSchedule>
  <rriReporting:lastFullDate>2017-10-21</rriReporting:lastFullDate>
  <rriReporting:statusReports>
    <rriReporting:statusReport>
      <rriReporting:type>PPSP_Escrow_Report</rriReporting:type>
```

```

        draft-icann-ppsp-interfaces-00
        <rriReporting:enabled>true</rriReporting:enabled>
        <rriReporting:status>ok</rriReporting:status>
    </rriReporting:statusReport>
    <rriReporting:statusReport>
        <rriReporting:type>DEA_Notification</rriReporting:type>
        <rriReporting:enabled>true</rriReporting:enabled>
        <rriReporting:status>ok</rriReporting:status>
    </rriReporting:statusReport>
    <rriReporting:statusReport>
        <rriReporting:type>
            PPSPer_Registrar_Activity_Report</rriReporting:type>
        <rriReporting:enabled>true</rriReporting:enabled>
        <rriReporting:status>ok</rriReporting:status>
    </rriReporting:statusReport>
    </rriReporting:statusReports>
    <rriReporting:timestamp>
        2017-10-21T02:22:14.148Z</rriReporting:timestamp>
</rriReporting:summary>

```

Example of response for a PPSP status check with reporting issues:

Lozano & Alvarez	Expires December 8, 2018	[Page 17]
↑ Internet-Draft	ICANN PPSP Interfaces	June 2018

```

<?xml version="1.0" encoding="UTF-8"?>
<rriReporting:summary
  xmlns:rriReporting="urn:ietf:params:xml:ns:rriReporting-1.0"
  xmlns:rdeHeader="urn:ietf:params:xml:ns:rdeHeader-1.0">

```

draft-icann-ppsp-interfaces-00

```
<rdeHeader:ppsp>1</rdeHeader:ppsp>
<rriReporting:creationDate>
  2017-06-10T12:00:30.101Z</rriReporting:creationDate>
<rriReporting:depositSchedule>Daily</rriReporting:depositSchedule>
<rriReporting:lastFullDate>2017-10-08</rriReporting:lastFullDate>
<rriReporting:statusReports>
  <rriReporting:statusReport>
    <rriReporting:type>PPSP_Escrow_Report</rriReporting:type>
    <rriReporting:enabled>true</rriReporting:enabled>
    <rriReporting:status>ok</rriReporting:status>
  </rriReporting:statusReport>
  <rriReporting:statusReport>
    <rriReporting:type>DEA_Notification</rriReporting:type>
    <rriReporting:enabled>true</rriReporting:enabled>
    <rriReporting:status>unsatisfactory</rriReporting:status>
    <rriReporting:issues>
      <rriReporting:issue date="2017-10-14"
        description="Invalid_Deposit_Diff" />
      <rriReporting:issue date="2017-10-15"
        description="Missing_Deposit_Full" />
      <rriReporting:issue date="2017-10-16"
        description="Missing_Deposit_Diff" />
      <rriReporting:issue date="2017-10-17"
        description="No_Report_Received" />
    </rriReporting:issues>
  </rriReporting:statusReport>
  <rriReporting:statusReport>
    <rriReporting:type>
      PPSP_Per_Registrar_Activity_Report</rriReporting:type>
    <rriReporting:enabled>true</rriReporting:enabled>
    <rriReporting:status>unsatisfactory</rriReporting:status>
    <rriReporting:issues>
      <rriReporting:issue date="2017-09"
        description="No_Report_Received" />
    </rriReporting:issues>
  </rriReporting:statusReport>
</rriReporting:statusReports>
<rriReporting:timestamp>
  2017-10-21T02:22:14.148Z</rriReporting:timestamp>
</rriReporting:summary>
```



5.2. Monitoring the status of PPSP Escrow Reports

Privacy and Proxy Service Providers MAY monitor the status of the latest Data Escrow notification received using the following interface:

```
<base-url>/info/report/ppsp-escrow-report/<provider-id>/<date>
```

Where:

- * <provider-id> MUST be substituted by the ID assigned by ICANN to the PPSP for which the notification is being queried.
- * <date> MUST be substituted by the day being queried in "YYYY-MM-DD" format. For example: 2017-08-01

Possible results are:

- o The interface provides a HTTP/200 status code with a <rdeReports:reports> element in the response content as defined in Section 2 of [I-D.lozano-icann-registry-interfaces], listing each <rdeReport:report> successfully received with watermark value that matches the queried date.

Example of response for a PPSP Data Escrow Reporting status check:

Lozano & Alvarez

Expires December 8, 2018

[Page 19]



Internet-Draft

ICANN PPSP Interfaces

June 2018

```
<?xml version="1.0" encoding="UTF-8"?>
<rdeReports:reports
  xmlns:rdeReports="urn:ietf:params:xml:ns:rdeReports-1.0"
  xmlns:rdeReport="urn:ietf:params:xml:ns:rdeReport-1.0"
  xmlns:rdeHeader="urn:ietf:params:xml:ns:rdeHeader-1.0">
  <rdeReports:receivedReport>
    <rdeReports:received>2017-10-13T00:30:13.741Z</rdeReports:received>
    <rdeReport:report>
      <rdeReport:id>20171013001</rdeReport:id>
      <rdeReport:version>1</rdeReport:version>
      <rdeReport:rydeSpecEscrow>
        https://www.icann.org/ppsp-de-spec
      </rdeReport:rydeSpecEscrow>
      <rdeReport:resend>0</rdeReport:resend>
      <rdeReport:crDate>2017-10-13T00:01:11.0Z</rdeReport:crDate>
      <rdeReport:kind>FULL</rdeReport:kind>
      <rdeReport:watermark>2017-10-13T00:00:00.0Z</rdeReport:watermark>
      <rdeHeader:header>
        <rdeHeader:ppsp>1</rdeHeader:ppsp>
        <rdeHeader:count rcdn="example" registrarId="1"
          uri="urn:ietf:params:xml:ns:rdeDomain-1.0">2</rdeHeader:count>
        <rdeHeader:count rcdn="test" registrarId="1"
          uri="urn:ietf:params:xml:ns:rdeDomain-1.0">8</rdeHeader:count>
        <rdeHeader:count rcdn="xn--nqvo76h" registrarId="9999"
          uri="urn:ietf:params:xml:ns:rdeDomain-1.0">3</rdeHeader:count>
      </rdeHeader:header>
    </rdeReport:report>
  </rdeReports:receivedReport>
</rdeReports:reports>
```

5.3. Monitoring the status of PPSP Data Escrow Agent Notifications

Privacy and Proxy Service Providers and Data Escrow Agents MAY monitor the status of Data Escrow Agent Notifications using the following interface:

<base-url>/info/report/ppsp-escrow-agent-notification/<provider-id>/<date>

Where:

- * <provider-id> MUST be substituted by the ID assigned by ICANN to the PPSP for which the notification is being queried.
- * <date> MUST be substituted by the day being queried in "YYYY-MM-DD" format. For example: 2017-08-01

Lozano & Alvarez	Expires December 8, 2018	[Page 20]
↑		
Internet-Draft	ICANN PPSP Interfaces	June 2018

Possible results are:

- o The interface provides a HTTP/200 status code with a <rdeNotifications:notifications> element in the response content as defined in Section 2 of [I-D.lozano-icann-registry-interfaces], listing each <rdeNotification:notification> successfully received with a watermark value that matches the queried date.

Example of a response of a PPSP Data Escrow Agent Notification status check for a date with 2 received notifications:

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<rdeNotifications:notifications
  xmlns:iirdea="urn:ietf:params:xml:ns:iirdea-1.0"
  xmlns:rdeNotification="urn:ietf:params:xml:ns:rdeNotification-1.0"
  xmlns:rdeNotifications="urn:ietf:params:xml:ns:rdeNotifications-1.0"
  xmlns:rdeReport="urn:ietf:params:xml:ns:rdeReport-1.0"
  xmlns:rdeHeader="urn:ietf:params:xml:ns:rdeHeader-1.0">
  <rdeNotifications:receivedNotification>
    <rdeNotifications:received>
      2017-10-13T01:30:13.741Z</rdeNotifications:received>
    <rdeNotification:notification>
      <rdeNotification:deaName>Escrow Agent Inc.
    </rdeNotification:deaName>
    <rdeNotification:version>1</rdeNotification:version>
    <rdeNotification:repDate>2017-10-13</rdeNotification:repDate>
    <rdeNotification:status>DVFN</rdeNotification:status>
    <rdeNotification:results>
```

draft-icann-ppsp-interfaces-00

```
<iirdea:result code="2104" domainCount="2">
  <iirdea:msg>
    Invalid domain name syntax in Escrow Record.
  </iirdea:msg>
</iirdea:result>
<iirdea:result code="2110" domainCount="1">
  <iirdea:msg>
    Handle reference by Escrow Record not found.
  </iirdea:msg>
</iirdea:result>
</rdeNotification:results>
<rdeNotification:reDate>
  2017-10-13T00:15:00.0Z</rdeNotification:reDate>
<rdeNotification:vaDate>
  2017-10-13T01:15:00.0Z</rdeNotification:vaDate>
<rdeNotification:lastFullDate>2017-10-10
</rdeNotification:lastFullDate>
<rdeReport:report>
  <rdeReport:id>20171013001</rdeReport:id>
  <rdeReport:version>1</rdeReport:version>
```

Lozano & Alvarez

Expires December 8, 2018

[Page 21]



Internet-Draft

ICANN PPSp Interfaces

June 2018

```
<rdeReport:rydeSpecEscrow>
  https://www.icann.org/ppsp-de-spec
</rdeReport:rydeSpecEscrow>
<rdeReport:resend>0</rdeReport:resend>
<rdeReport:crDate>2017-10-13T00:05:00.0Z</rdeReport:crDate>
<rdeReport:kind>FULL</rdeReport:kind>
<rdeReport:watermark>
  2017-10-13T00:00:00Z</rdeReport:watermark>
<rdeHeader:header>
  <rdeHeader:ppsp>1</rdeHeader:ppsp>
  <rdeHeader:count rcdn="example" registrarId="1"
    uri="urn:iETF:params:xml:ns:rdeDomain-1.0">2
  </rdeHeader:count>
  <rdeHeader:count rcdn="test" registrarId="1"
    uri="urn:iETF:params:xml:ns:rdeDomain-1.0">8
  </rdeHeader:count>
  <rdeHeader:count rcdn="xn--nqvo76h" registrarId="9999"
    uri="urn:iETF:params:xml:ns:rdeDomain-1.0">3
  </rdeHeader:count>
</rdeHeader:header>
```

draft-icann-ppsp-interfaces-00

```
</rdeReport:report>
</rdeNotification:notification>
</rdeNotifications:receivedNotification>
<rdeNotifications:receivedNotification>
<rdeNotifications:received>
  2017-10-14T01:00:00.0Z</rdeNotifications:received>
<rdeNotification:notification>
<rdeNotification:deaName>
  Escrow Agent Inc.</rdeNotification:deaName>
<rdeNotification:version>1</rdeNotification:version>
<rdeNotification:repDate>2017-10-13</rdeNotification:repDate>
<rdeNotification:status>DVPN</rdeNotification:status>
<rdeNotification:reDate>
  2017-10-13T10:00:00.0Z</rdeNotification:reDate>
<rdeNotification:vaDate>
  2017-10-13T10:15:00.0Z</rdeNotification:vaDate>
<rdeNotification:lastFullDate>
  2017-10-17</rdeNotification:lastFullDate>
<rdeReport:report>
<rdeReport:id>20171013002</rdeReport:id>
<rdeReport:version>1</rdeReport:version>
<rdeReport:rydeSpecEscrow>
  https://www.icann.org/ppsp-de-spec
</rdeReport:rydeSpecEscrow>
<rdeReport:resend>1</rdeReport:resend>
<rdeReport:crDate>2017-10-13T09:15:00.0Z</rdeReport:crDate>
<rdeReport:kind>FULL</rdeReport:kind>
<rdeReport:watermark>
```

Lozano & Alvarez

Expires December 8, 2018

[Page 22]



Internet-Draft

ICANN PPSP Interfaces

June 2018

```
2017-10-13T00:00:00Z</rdeReport:watermark>
<rdeHeader:header>
<rdeHeader:ppsp>1</rdeHeader:ppsp>
<rdeHeader:count rcdn="example" registrarId="1"
  uri="urn:ietf:params:xml:ns:rdeDomain-1.0">2
</rdeHeader:count>
<rdeHeader:count rcdn="test" registrarId="1"
  uri="urn:ietf:params:xml:ns:rdeDomain-1.0">8
</rdeHeader:count>
<rdeHeader:count rcdn="xn--nqvo76h" registrarId="9999"
  uri="urn:ietf:params:xml:ns:rdeDomain-1.0">3
</rdeHeader:count>
```

```
</rdeHeader:header>  
</rdeReport:report>  
</rdeNotification:notification>  
</rdeNotifications:receivedNotification>  
</rdeNotifications:notifications>
```

5.4. Monitoring the status of a Per-Registrar Activity Report

Privacy and Proxy Service Providers MAY monitor the status of Per-Registrar Activity Report using the following interface that supports the HEAD HTTP verb:

```
<base-url>/info/report/ppsp-activity-registrar/<provider-id>/<date>
```

Where:

- * <provider-id> MUST be substituted by the ID assigned by ICANN to the PPSP for which the report is being provided.
- * <date> MUST be substituted by the last month of the quarter being queried in "YYYY-MM" format. For example: 2018-03.

Possible results are:

- * The interface provides a HTTP/200 status code, if a syntactically valid Per-Registrar Activity report was received for the queried month.
- * The interface provides a HTTP/404 status code, if a syntactically valid Per-Registrar Activity report has not been received for the queried month.



6. IANA Considerations

TODO

7. Security Considerations

TODO

8. Change History

[[RFC Editor: Please remove this section.]]

8.1. Version 00

Initial version.

9. Normative References

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