

Appendix 1

Data Escrow Specification

This Appendix 1 to the Sponsored TLD Registry Operator Agreement consists of four of the five exhibits to the Data Escrow Agreement that constitutes Appendix 2 to the Sponsored TLD Registry Operator Agreement:

Exhibit A-Schedule for Escrow Deposits

Exhibit B-Escrow Deposit Format Specification

Exhibit C-Escrow Transfer Process

Exhibit D-Escrow Verification Procedures

The fifth exhibit (Exhibit E), which sets forth Escrow Agent's fees, is subject to negotiation between Registry Operator and Escrow Agent.

Exhibit A

SCHEDULE FOR ESCROW DEPOSITS

Full Deposit Schedule

Full Deposits shall consist of data that reflects the state of the registry as of 0000 UTC on each Sunday. Pending transactions at that time (i.e. transactions that have not been committed to the Registry Database) shall not be reflected in the Full Deposit.

Full Deposits shall be made, according to the transfer process described in Exhibit C below, within a four-hour window beginning at 0400 UTC on the same Sunday.

Incremental Deposit Schedule

Incremental Deposits shall reflect database transactions made since the most recent Full or Incremental Deposit. Incremental Deposits for Mondays shall include transactions completed through 0000 UTC on that day that had not been committed to the registry database at the time the last Full Deposit was taken. Incremental Deposits on Tuesday through Saturday shall include transactions completed through 0000 UTC on the day of the deposit that were not reflected in the immediately prior Incremental Deposit.

Incremental Deposits shall be made, according to the transfer process described in Exhibit C below, within a four-hour window beginning at 0400 UTC on the day to which the Incremental Deposit relates.

Exhibit B

ESCROW DEPOSIT FORMAT SPECIFICATION

Each Full and Incremental Deposit consists of a series of reports that are concatenated in the escrow process.

Full Deposit Contents. The reports involved in a Full Deposit are:

Domain Object Report—This reports on the contents of all domain objects in the registry database.

Host Object Report—This reports on the contents of all host objects in the registry database.

Contact Object Report—This reports on the contents of all contact objects in the registry database.

Registrar Object Report—This reports on the contents of all registrar objects in the registry database.

Incremental Deposit Contents. The report involved in an Incremental Deposit is:

Transaction Report—This reports on the contents of all transaction records included in the Incremental Deposit.

Format of Reports. All reports are to be formatted in XML format. In compliance with the XML 1.0 specification, certain characters in the data must be escaped, as described in item 1 below. Each Report shall then be prepared according to the general XML format described in items 2 to 7 below. Item 2 describes the report container that is common to all reports. Items 3 to 7 describe the structure of the contents of the report container for each of the specific reports.

1. Escape-Character Requirements. In compliance with the XML 1.0 specification, in data escrowed using the XML format the following characters in any data elements must be replaced with the corresponding escape sequences listed here:

Character Escape Sequence

| | |
|---|--------|
| " | " |
| & | & |
| ' | ' |
| < | < |
| > | > |

2. The Report Container. At its highest level, the XML format consists of an escrow container with header attributes followed by escrow data. The header attributes are required and include the version of escrow (1.0), the Sponsored TLD (".museum"), the report type (domain, host, contact, registrar, or transaction), and database-committed date and time as to which the escrow relates. The date and time of the escrow will be specified in UTC. The general format of the report container is as follows:

```
<?xml version="1.0" encoding='UTF-8' ?>
<!DOCTYPE escrow SYSTEM "whois-export.dtd" >
<escrow version="1.0" tld="museum" report="domain" date="26-Aug-2001
3:15:00AM">
```

{Here the report contains the actual data being escrowed. It contains one element for each object of the type (domain, host, contact, registrar, or transaction) covered by the report. The specific format for each report is described in items 3 to 7 below.}

</escrow>

3. The Domain Element. The domain element has the property "fqdn" (the fully qualified name of the domain) and is a container consisting of the following elements:

- a. status: The domain status code.
- b. id: Unique identifier of the domain name
- c. owned-by: An identification of the sponsoring registrar of the domain. The sponsoring registrar is designated by a number uniquely assigned by the IANA.
- d. ens-authid: ENS authorization code.
- e. maintainer-url: URL of site of maintainer of domain name.
- f. created-code: A reference to the transaction that created the domain object.
- g. created-on: The date/time the domain object was originally created.
- h. created-by: An identification of the registrar that created the domain object. The sponsoring registrar is designated by a number uniquely assigned by the IANA.
- i. renewed-on: The date/time the domain was last renewed.
- j. expires-on: The date the registration expires.
- k. updated-by: An identification of the registrar that last updated the domain object. The sponsoring registrar is designated by a number uniquely assigned by the IANA.
- l. updated-on: The date/time the domain object was last updated.
- m. transferred-by: An identification of the registrar that last transferred the domain object. The sponsoring registrar is designated by a number uniquely assigned by the IANA.
- n. transferred-on: The date/time when the domain object was last transferred.
- o. transferred-code: A reference to the transaction that last transferred the domain object.
- p. host: Up to thirteen (13) host names that are nameservers for the domain to which the domain object relates.

q. contact-id: Multiple contact-ids that reference the contact records for this domain. Contact-id has the property "type" to denote the type of contact. "Type" can be one of: Registrant, Administrative, Technical, or Billing.

An example domain container appears below:

```
<domain fqdn="example.museum">
<id>AAA-0001</id>
<status>ACTIVE</status>
<owned-by>REG-042</owned-by>
<ens-authid>MUSEUM-1221</ens-authid>
<maintainer-url>http://example.museum</maintainer-url>
<created-code>12345678</created-code>
<created-on>1-Jul-2001 12:34:56AM</created-on>
<created-by>REG-042</created-by>
<renewed-on></renewed-on>
<expires-on>1-Jul-2003</expires-on>
<updated-by>42</updated-by>
<updated-on>1-Jul-2001 12:34:56AM</updated-on>
<transferred-by></transferred-by>
<transferred-on></transferred-on>
<transferred-code></transferred-code>
<host>dns1.example.museum</host>
<host>dns2.example.museum</host>
<contact-id type="Registrant">PER-0001</contact-id>
<contact-id type="Administrative">PER-0002</contact-id>
<contact-id type="Technical">PER-0003</contact-id>
<contact-id type="Billing">PER-0004</contact-id>
</domain>
```

4. The Host Element. The host element has the property "fqdn" (the fully qualified name of the host) and is a container consisting of the following elements:

- a. id: Identifier of the host.
- b. owned-by: An identification of the sponsoring registrar of the host. The sponsoring registrar is designated by a number uniquely assigned by the IANA.
- c. created-code: A reference to the transaction that created the host object.
- d. created-on: The date/time the host object was originally created.
- e. updated-by: An identification of the registrar that last updated the host object. The sponsoring registrar is designated by a number uniquely assigned by the IANA.
- f. updated-on: The date/time the host object was last updated.

g. transferred-by: An identification of the registrar that last transferred the host object. A number uniquely assigned by the IANA designates the sponsoring registrar.

h. transferred-on: The date/time when the host object was last transferred.

i. ip-address: Any number of IP addresses associated with this host.

An example host container appears below:

```
<host fqdn="dns1.example.museum">  
<id>HST-0001</id>  
<owned-by>REG-042</owned-by>  
<created-code>12345679</created-code>  
<created-on>1-Jul-2001 12:40:32AM</created-on>  
<updated-by>42</updated-by>  
<updated-on>1-Jul-2001 12:40:32AM</updated-on>  
<transferred-by></transferred-by>  
<transferred-on></transferred-on>  
<ip-address>192.168.1.1</ip-address>  
<ip-address>192.168.122.1</ip-address>  
</host>
```

5. The Contact Element. The contact element has the property "id" and is a container consisting of the following elements:

a. name: The name of the contact.

b. organization: The organization for the contact.

c. street1: The first part of the street address of the contact.

d. street2: The second part of the street address of the contact.

e. street3: The third part of the street address of the contact.

f. city: The name of the city of the contact.

g. state-province: The name of the state/province of the contact.

h. postal-code: The postal/zip code of the contact.

i. geographic location: The two letter ISO 3166 code for the contact's geographic location.

j. voice: The voice phone number of the contact in E164a format.

k. fax: The fax number of the contact in E164a format.

l. email: The e-mail address of the contact.

m. owned-by: An identification of the sponsoring registrar of the contact. The sponsoring registrar is designated by a number uniquely assigned by the IANA.

n. created-code: A reference to the transaction that created the contact object.

o. created-by: An identification of the registrar that created the contact object. The sponsoring registrar is designated by a number uniquely assigned by the IANA.

p. created-on: The date/time the contact object was originally created.

q. updated-by: An identification of the registrar that last updated the contact object. The sponsoring registrar is designated by a number uniquely assigned by the IANA.

r. updated-on: The date/time the contact object was last updated.

s. transferred-by: An identification of the registrar that last transferred the contact object. The sponsoring registrar is designated by a number uniquely assigned by the IANA.

t. transferred-on: The date/time when the contact object was last transferred.

u. transferred-code: A reference to the transaction that last transferred the contact object.

v. status: Contact status.

An example contact container appears below:

```
<contact id="1">  
<name>John Doe</name>  
<organization>aol</organization>  
<street1>1234 East 11th Street</street1>  
<street2></street2>  
<street3></street3>  
<city>New York</city>  
<state-province>NY</state-province>  
<postal-code>12345</postal-code>  
<country>US</country>  
<voice>+212.1234567</voice>  
<fax>+212.1234568</fax>  
<email>jdoe@example.museum</email>  
<owned-by>42</owned-by>  
<created-code>12345680</created-code>  
<created-by>REG-042</created-by>
```

```
<created-on>1-Jul-2001 12:42:22AM</created-on>
<updated-by>42</updated-by>
<updated-on>1-Jul-2001 12:42:22AM</updated-on>
<transferred-by></transferred-by>
<transferred-on></transferred-on>
<transferred-code></transferred-code>
<status>ACTIVE</status>
</contact>
```

6. The Registrar Element. The registrar element has the property "id" and is a container consisting of the following elements:

- a. password: The password for the registrar.
- b. name: The name of the registrar.
- c. status: The registrar status code.
- d. contact-id: Any number of contact-id associated with this registrar. Contact-id has the property "type" to denote the type of contact. "Type" can be one of: Registrar, Administrative, Technical or Billing.

An example registrar container appears below:

```
<registrar id="REG-042">
<password>registrarrus</password>
<name>Registrar R Us</name>
<status>ACTIVE</status>
<contact-id type="Registrar">PER-0009</contact-id>
<contact-id type="Administrative">PER-0010</contact-id>
<contact-id type="Administrative">PER-0011</contact-id>
<contact-id type="Technical">PER-0012</contact-id>
<contact-id type="Technical">PER-0013</contact-id>
<contact-id type="Billing">PER-0014</contact-id>
</registrar>
```

7. The Transaction Element. The transaction element has the properties "operation" and "type." "Operation" can be one of: add, modify or delete. "Type" can be one of: domain, host, contact or registrar. The transaction element is a container consisting of elements from the corresponding "type" element. For example, a transaction element with a "type" of "registrar" will have the same set of elements as a Registrar element.

An example transaction container appears below:

```
<transaction operation="modify" type="registrar">
<password>new password</password>
```

```
<name>Registrar R Us</name>
<status>ACTIVE</status>
<contact-id type="Administrative">10</contact-id>
<contact-id type="Administrative">11</contact-id>
<contact-id type="Technical">12</contact-id>
<contact-id type="Technical">13</contact-id>
<contact-id type="Billing">14</contact-id>
</transaction>
```

Exhibit C

ESCROW TRANSFER PROCESS

Deposit Transfer Process. Registry Operator shall prepare and transfer the Deposit file by the following steps, in sequence:

1. The Reports making up the Deposit will first be created according to the format specification. (See Exhibit B above, "Escrow Deposit Format Specification").
2. The Reports making up the Deposit will be concatenated. The resulting file shall be named according to the following format: "musemSEQN," where "SEQN" is a four digit decimal number that is incremented as each report is prepared.
3. Next, the Deposit file will be processed by a program (provided by ICANN) that will verify that it complies with the format specification and contains reports of the same date/time (for a Full Deposit), count the number of objects of the various types in the Deposit, and append to the file a report of the program's results.
4. Registry Operator may optionally split the resulting file using the Unix SPLIT command (or equivalent) to produce files no less than 1 GB each (except the final file). If Deposit files are split, a .MDS file (produced with MDSSUM or equivalent) must be included with the split files to isolate errors in case of transfer fault.
5. The Deposit file(s) will then be encrypted using Escrow Agent's public key for PGP and signed using Registry Operator's private key for PGP, both version 6.5.1 or above, with a key of DH/DSS type and 2048/1024-byte length. (Note that PGP compresses the Deposit file(s) in addition to encrypting it (them).) The formatted, encrypted and signed Deposit file(s) will be sent, by anonymous file transfer, to Escrow Agent's ftp server within the specified time window.

Exhibit D

ESCROW VERIFICATION PROCEDURES

Verification Procedures. Escrow Agent will verify the format and completeness of each Deposit by the following steps:

1. At the conclusion of the deposit window, all Deposit files will be moved to a not-publicly accessible directory and the existence and size of each will be noted.
2. Each Deposit file will be decrypted using Escrow Agent's private key for PGP and authenticated using Registry Operator's public key for PGP. (In this step, PGP will also automatically decompress the escrow file).
3. If there are multiple files, they will be concatenated in sequence.
4. Escrow Agent will run a program (to be supplied by ICANN) on the Deposit file (without report) that will split it in to its constituent reports (including the format report prepared by the Registry Operator and appended to the Deposit) check its format, count the number of objects of each type, and verify that the data set is internally consistent. This program will compare its results with the results of the Registry-generated format report, and will generate a Deposit format and completeness report. The program will encrypt the report using ICANN's public key for PGP and signed using Escrow Agent's private key for PGP, both versions 6.5.1 or above, with a key of DH/DSS type and 2048/1024-byte length. (Note that PGP compresses the Deposit file(s) in addition to encrypting it (them).)
5. The decrypted Deposit file will be destroyed to reduce likelihood of data loss to intruders in case of partial security failure.

Distribution Of Public Keys. Each of Registry Operator and Escrow Agent will distribute its public key to the other party (Registry Operator or Escrow Agent, as the case may be) via email to an email address to be specified. Each party will confirm receipt of the other party's public key with a reply email, and the distributing party will subsequently reconfirm the authenticity of the key transmitted. In this way, public key transmission is authenticated to a user able to send and receive mail via a mail server operated by the distributing party. Escrow Agent, Sponsor and ICANN shall exchange keys by the same procedure.

Appendix 2 Escrow Agreement

This Registry Data Escrow Agreement (“Agreement”) is made as of this [enter date] (the “Beginning Date”), by and between _____ (“Registry Operator”), **[Include Registry Operator as applicable] [name of Escrow Agent]** (“Escrow Agent”), and the Internet Corporation for Assigned Names and Numbers (“ICANN”). All capitalized terms not defined herein shall have the meaning set forth in the Sponsored TLD Registry Operator Agreement dated [insert date of Sponsored TLD Registry Operator Agreement] by and between Registry Operator and ICANN (“Sponsored TLD Registry Operator Agreement”).

Recitals

A. Registry Operator and ICANN have entered into the Sponsored TLD Registry Operator Agreement, which requires Registry Operator, during the term of the Sponsored TLD Registry Operator Agreement, to ensure the submission of certain domain name registration data to a reputable escrow agent to be held in escrow.

B. Pursuant to the Sponsored TLD Registry Operator Agreement, Registry Operator shall ensure the periodic delivery to Escrow Agent of an electronic copy of all Registry Data, as detailed in Subsection 3.1(c) of the Sponsored TLD Registry Operator Agreement (each such delivery referred to as a “Deposit”).

C. Registry Operator and ICANN each desire Escrow Agent to hold each Deposit, and, upon certain events, release any retained Deposits (or a copy of the Deposits) to ICANN, in accordance with the terms of this Agreement or as ordered by a court of competent jurisdiction.

Now, therefore, in consideration of the premises and mutual obligations contained herein and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties agree as follows:

Agreement

1. Content of Deposits. Deposits will be of two kinds: Full Deposits and Incremental Deposits. Each Full Deposit will consist of Registry Data that reflects the current and complete Registry Database. Incremental Deposits will consist of data that reflects all transactions involving the database that are not reflected in the last previous Full Deposit or Incremental Deposit, as the case may be.

2. Schedule for Deposits. Registry Operator must instruct the creation and delivery to Escrow Agent of a Full Deposit once each week, according to the schedule specified in Exhibit A of Appendix 1 to the Sponsored TLD Registry Operator Agreement. Registry Operator must instruct the creation and delivery to Escrow Agent of an Incremental

Deposit once each day during which a Full Deposit is not made, according to the schedule specified in Exhibit A of Appendix 1.

3. Format of Deposits. The data in each Full Deposit and in each Incremental Deposit shall follow the data format specified in the Escrow Deposit Format Specification (the "Format Specification"), attached as Exhibit B of Appendix 1.

4. Procedure for Deposits. Each properly formatted Full Deposit and Incremental Deposit shall be processed and electronically delivered in encrypted form to Escrow Agent according to the transfer process described in Exhibit C of Appendix 1.

5. Notification of Deposits. Simultaneous with the delivery to Escrow Agent of any Full or Incremental Deposit, Registry Operator shall instruct the delivery to Escrow Agent and ICANN of a written statement (which may be by authenticated e-mail) that includes a copy of the report generated upon creation of the Full or Incremental Deposit by the ICANN-provided software (as described in Exhibit C of Appendix 1) and states that the Full or Incremental Deposit (as the case may be) has been inspected by Registry Operator (or Registry Operator's agent at Registry Operator's direction) according to the procedures described in Exhibit C of Appendix 1 and is complete and accurate. Escrow Agent shall notify ICANN of all Deposits received, within two business days of receipt.

6. Verification. Within two business days after receiving each Full or Incremental Deposit, Escrow Agent shall verify the format and completeness of each Deposit by performing the verification procedures specified in Exhibit D of Appendix 1 and shall deliver to ICANN a copy of the verification report generated for each Deposit (which may be by authenticated e-mail). If Escrow Agent discovers that any Deposit fails the verification procedures, Escrow Agent shall notify, including by email and fax, Registry Operator and ICANN of such nonconformity within forty-eight hours of discovery. Upon notification of such verification failure, Registry Operator shall instruct the beginning of the development of modifications, updates, corrections, and other fixes of the Full or Incremental Deposit necessary for the Deposit to pass the verification procedures and shall instruct the delivery of such fixes to Escrow Agent as promptly as possible. Escrow Agent shall verify the accuracy or completeness of any such corrected Deposit pursuant to the procedures in this Section 6 and shall send ICANN a copy of the successful report within twenty-four hours. The failure of any Full or Incremental Deposit to meet verification procedures and any efforts by Registry Operator to remedy such failure shall not delay the delivery of any subsequent scheduled Full or Incremental Deposits pursuant to the schedule in Exhibit A of Appendix 1. Escrow Agent shall deliver, on the first business day of each month, (i) a written certification to ICANN that Escrow Agent has performed such verification procedures on each Deposit received during the last month, and (ii) copies of the verification reports generated for each Deposit received during the last month.

7. Retention and Confidentiality.

7.1 Retention. Escrow Agent shall hold and maintain the Deposits in a secure, locked, and environmentally safe facility that is accessible only to authorized representatives of Escrow Agent. Escrow Agent shall use commercially reasonable efforts to protect the integrity of the Deposits. ICANN and Registry Operator shall have the right to inspect Escrow Agent's written records with respect to this Agreement upon reasonable prior notice and during normal business hours.

7.2 Destruction of Deposits. At all times, Escrow Agent shall retain the four most recent Full Deposits and all Incremental Deposits after the earliest of those four Full Deposits, all of which must have passed the verification procedures specified in Exhibit D of Appendix 1. Escrow Agent may destroy any Deposits reflecting the Registry Database prior to these four most recent Full Deposits.

7.3 Confidentiality. Escrow Agent shall use commercially reasonable efforts to protect the confidentiality of the Deposits. Except as provided in this Agreement, Escrow Agent shall not disclose, transfer, make available, or use any Deposit (or any copies of any Deposit). Should Escrow Agent be put on notice that it is required to disclose any Deposits by statute, rule, regulation, order, or other requirement of a governmental agency, legislative body, court of competent jurisdiction, or binding arbitral body (other than any requirement pursuant to Sections 9.1.6, 11.2, and 13 of this Agreement), Escrow Agent shall notify Registry Operator and ICANN within seven days or as soon as practicable and reasonably cooperate with Registry Operator and/or ICANN in any contest of the disclosure. Should any contest prove unsuccessful, Escrow Agent shall not be held liable for any disclosure pursuant to such governmental, legislative, judicial, or arbitral order, statute, rule, regulation, or other requirement.

8. Duplication. Escrow Agent may duplicate any Deposit by any commercially reasonable means in order to comply with the terms and provisions of this Agreement, provided that Registry Operator shall bear the expense of such duplication. Alternatively, Escrow Agent, by notice to Registry Operator, may reasonably require Registry Operator to promptly oversee the duplication of any Deposit.

9. Release of Deposits. Within five business days after receipt of any required documents and/or notices specified in this Section 9, Escrow Agent shall deliver all Deposits in Escrow Agent's possession (i) to Registry Operator in the event of a release pursuant to any of Sections 9.1.2, or 9.1.5, 9.1.6, 9.1.7 and 9.1.8 or (ii) to ICANN in the event of a release pursuant to Sections 9.1.1, 9.1.4, 9.1.7, or 9.1.8, or (iii) the party designated in the event of a release pursuant to Section 9.1.3, in the event that the Escrow Agent receives all of the items required by Sections 9.1, 9.2, 9.3, and 9.4 below:

9.1 One of the following notices:

9.1.1 A written notice by ICANN that the Sponsored TLD Registry Operator Agreement has: (i) expired without renewal, pursuant to Subsection 4.1 of the Sponsored TLD Registry Operator Agreement, or (ii) been terminated in

accordance with Article VI of the Sponsored TLD Registry Operator Agreement;
or

9.1.2 A written notice by Registry Operator that the Sponsored TLD Registry Operator Agreement has expired without renewal or been terminated; or

9.1.3 A written notice by Registry Operator, Sponsor, and ICANN requesting Escrow Agent to effect such delivery to Sponsor, ICANN, or replacement escrow agent; or

9.1.4 A written notice by ICANN that it has received no successful verification report from Escrow Agent relating to a Full Deposit reflecting the Registry Database as of any date within the past month; or

9.1.5 A written notice by Registry Operator that all of the following have occurred:

9.1.5.1 Registry Operator failed, with respect to (a) any Full Deposit or (b) five Incremental Deposits within any calendar month, to receive, within five calendar days after the Deposit's scheduled delivery date, notification of receipt from Escrow Agent; and

9.1.5.2 Registry Operator gave notice to Escrow Agent of that failure; and

9.1.5.3 Registry Operator has not, within seven calendar days after the notice under Section 9.1.5.2, received notice from Escrow Agent that the Deposit has or the Deposits have been received; or

9.1.6 A written notice by Registry Operator that all of the following have occurred:

9.1.6.1 Registry Operator has received notification from Escrow Agent of failed verification of a Full Deposit or of failed verification of five Incremental Deposits within any calendar month; and

9.1.6.2 Registry Operator gave notice to Registry Operator's agent of that receipt; and

9.1.6.3 Registry Operator has not, within seven calendar days after the notice under Section 9.1.6.2, received notice from Escrow Agent of verification of a remediated version of the Deposit; or

9.1.7 A written notice by ICANN that release of the Deposits is mandated by non-payment of any fees due to Escrow Agent, pursuant to Section 15 of this Agreement; or

9.1.8 A written notice by ICANN or Registry Operator that a court, arbitral, legislative, or government agency of competent jurisdiction has issued an order, rule, statute, regulation, or other requirement that mandates the release of the Deposits to ICANN and/or Registry Operator; and

9.2 Evidence satisfactory to Escrow Agent that ICANN or Registry Operator (whichever gave the notice under Section 9.1) has previously notified the other party in writing; and

9.3 Written instructions from ICANN or a replacement escrow agent (see Section 9.1.3) that the Deposits be released and delivered to whichever of them provided such written instructions; and

9.4 A written undertaking by the party(ies) receiving the Deposits (ICANN or a replacement escrow agent) that the Deposits will be used only as permitted under the terms of the Sponsored TLD Registry Operator Agreement and undertakings made in writing to registrants at registration including with respect to the collection and use of personal information about the registrant for marketing purposes. Upon release of any Deposits to ICANN, Registry Operator or a replacement escrow agent, Escrow Agent shall at the same time deliver to Registry Operator a photostatic copy of the notice it received from Registry Operator and/or ICANN under Sections 9.1.1 to 9.1.8, as applicable.

10. Release of Deposit to Registry Operator. Escrow Agent shall deliver all Deposits to Registry Operator upon termination of this Agreement in accordance with Sections 14.1 and 14.2.1 of this Agreement.

11. Procedure After Release.

11.1 Right to Use Deposits. Upon release of any Deposits to Registry Operator pursuant to Section 9, Registry Operator (or its assignee in accordance with the TLD Sponsorship Agreement), and subject to Section 9.4 above, shall immediately have the right to exercise or have exercised all rights in the Deposits necessary to provide registry services. Upon release of any Deposits to ICANN pursuant to Section 9, ICANN (or its assignee in accordance with the Sponsored TLD Registry Operator Agreement) shall immediately have the right, subject to Section 9.4 above, to exercise or have exercised all rights in the Deposits pursuant to the Sponsored TLD Registry Operator Agreement, including as necessary to provide registry services.

11.2 Objection Notices. Upon release of any Deposits to ICANN pursuant to Section 9, Registry Operator shall have thirty calendar days to notify Escrow Agent and ICANN in writing (the "Objection Notice") of its objection to the release of the Deposits to ICANN and request that the issue of entitlement to the Deposits be resolved pursuant to the dispute resolution procedures in the Sponsored TLD Registry Operator Agreement. Registry Operator and ICANN agree to resolve any disputes they may have as between or among themselves under this Agreement according to Section 17.2. The parties agree that (i) Registry Operator shall have no rights (other than pursuant to this Section 11.2) to

object to any release of the Deposits, and (ii) the delivery of an Objection Notice and the commencement of Dispute Resolution Procedures shall not delay release of any Deposits to ICANN pursuant to Section 9.

11.3 Dispute-Resolution Procedures. Registry Operator and ICANN each agrees that it may not challenge, in proceedings for the resolution of disputes between or among those parties under this Agreement, the resolution of any issues, claims, or defenses that were decided, or which it had a reasonable opportunity and motive to raise, in proceedings to which it was a party under the Sponsored TLD Registry Operator Agreement.

11.4 Withdrawal of Objection Notice. A party providing an Objection Notice may, at any time, notify the other parties that it wishes to withdraw its Objection Notice. Upon receipt of notice of such withdrawal, Escrow Agent shall promptly deliver to Registry Operator and/or ICANN any Deposits that have not previously been delivered.

11.5 Dispute Resolution Decisions.

11.5.1 If the release of Deposits under Section 9 is determined in dispute-resolution procedures to have been proper, Escrow Agent shall promptly deliver, in accordance with the instructions specified in Section 9.3, any Deposits that have not previously been delivered.

11.5.2 If the release of Deposits under Section 9 is determined in dispute-resolution procedures to have been improper, the party(ies) receiving the Deposits shall promptly return or destroy, at Registry Operator's discretion, the Deposits received under Section 9.

12. Indemnity. Registry Operator and ICANN shall, jointly and severally, indemnify and hold harmless Escrow Agent and each of its directors, officers, agents, employees, members, and stockholders ("Escrow Agent Indemnitees") absolutely and forever, from and against any and all claims, actions, damages, suits, liabilities, obligations, costs, fees, charges, and any other expenses whatsoever, including reasonable attorneys' fees and costs, that may be asserted by a third party against any Escrow Agent Indemnitees in connection with this Agreement or the performance of Escrow Agent or any Escrow Agent Indemnitees hereunder (with the exception of any claims based on the misrepresentation, negligence, or misconduct of Escrow Agent, its directors, officers, agents, employees, contractors, members, and stockholders). Escrow Agent shall likewise indemnify and hold harmless Registry Operator and ICANN, and each of their respective directors, officers, agents, employees, members, and stockholders ("Indemnitees") absolutely and forever, from and against any and all claims, actions, damages, suits, liabilities, obligations, costs, fees, charges, and any other expenses whatsoever, including reasonable attorneys' fees and costs, that may be asserted by a third party against any Indemnitee in connection with the misrepresentation, negligence, or misconduct of Escrow Agent, its directors, officers, agents, employees, contractors, members, and stockholders.

13. Interpleader.

13.1 Escrow Agent may submit any dispute under this Agreement to any court of competent jurisdiction in an interpleader or similar action. Any and all costs incurred by Escrow Agent in connection therewith, including reasonable attorneys' fees and costs, shall be borne equally by each of Registry Operator and ICANN that are parties to such interpleader or similar action.

13.2 Escrow Agent shall perform any acts ordered by any court of competent jurisdiction, without any liability or obligation to any party hereunder by reason of such act.

14. Term and Termination.

14.1 **Term.** The initial term of this Agreement shall be [insert period of at least one year], commencing on the Beginning Date (the "Initial Term"). This Agreement shall be automatically renewed for an additional term of one year ("Additional Term") at the end of the Initial Term and each Additional Term hereunder unless, on or before ninety days prior to the end of the Initial Term or an Additional Term, a party notifies the other parties that it wishes to terminate this Agreement at the end of such term. In the event a party gives the other parties such notice of termination, and Registry Operator and ICANN cannot agree to resolve, by the end of the then-current term, any disputes regarding the renewal of this Agreement or the establishment of a replacement escrow agent: (i) Registry Operator and ICANN shall resolve any such disputes through Subsection 5.1 of the Sponsored TLD Registry Operator Agreement; (ii) this Agreement shall continue to remain in effect during the resolution of any such disputes; and (iii) Escrow Agent shall have the right to invoice either Registry Operator or ICANN for the data escrow services provided during this dispute resolution period at the rates listed in Exhibit E to this Appendix 1.

14.2 **Termination.** This Agreement shall terminate upon the occurrence of any of the following:

14.2.1 Termination of this Agreement by Registry Operator and ICANN, upon having delivered to Escrow Agent a written notice signed by ICANN stating their common intent to terminate this Agreement upon ninety days' notice;

14.2.2 Termination of this Agreement by Escrow Agent pursuant to Section 15; or

14.2.3 As provided in Section 14.1.

15. **Fees and Payments.** Registry Operator shall pay to Escrow Agent the applicable fees and charges listed in Exhibit E as compensation for Escrow Agent's services under this Agreement. If Registry Operator fails to pay any fees or charges invoiced by Escrow Agent by the due date(s), Escrow Agent shall give written notice to Registry Operator of non-payment of any such past-due fees hereunder and, in that event, the Registry Operator shall have the right to pay the past-due fee(s) within ten business days after

receipt of the notice from Escrow Agent. Upon payment of the past-due fee by Registry Operator, this Agreement shall continue in full force and effect. If Registry Operator fails to pay the past-due fee(s) within the applicable periods under this Section 15, Escrow Agent shall have the right to terminate this Agreement immediately by sending notice of termination to all other parties, and, upon termination, Escrow Agent shall deliver to ICANN all Deposits held by Escrow Agent.

16. Ownership of Deposit Materials. Subject to the provisions of the Sponsored TLD Registry Operator Agreement (including Subsection 6.5), the parties recognize and acknowledge that ownership of the Deposit materials during the effective term of this Agreement shall remain with the Registry Operator at all times.

17. Miscellaneous.

17.1 Remedies. For the purposes of fulfilling its obligations under this Agreement, Escrow Agent may act in good faith reliance on, and shall not be held liable for, any written notice, instruction, instrument, or other writing signed or presented by a person with apparent authority to act on behalf of Registry Operator or ICANN.

17.2 Dispute Resolution. Registry Operator and ICANN agree to resolve any disputes they may have as between or among themselves under this Agreement, including any objections to release of the Deposits pursuant to Section 9.1, solely pursuant to the dispute-resolution procedures in the Sponsored TLD Registry Operator Agreement.

17.3 Limitation of Liability. The parties shall not be liable to each other for special, indirect, incidental, or consequential damages hereunder. As between Registry Operator and ICANN the liability limitations of the Sponsored TLD Registry Operator Agreement also apply. Neither Registry Operator nor ICANN shall be liable to each under for monetary damages under this Agreement.

17.4 Independent Contractor. Escrow Agent is an independent contractor and is not an employee or agent of Registry Operator or ICANN.

17.5 No Third-Party Beneficiaries. This Agreement shall not be construed to create any obligation by Registry Operator, ICANN, or Escrow Agent to any non-party to this Agreement, including but not limited to any domain-name holder or registrar.

17.6 Amendments. This Agreement shall not be modified or amended except in writing executed by each of the parties.

17.7 Assignment. Neither Registry Operator nor ICANN may assign or transfer this Agreement (by merger, sale of assets, operation of law, or otherwise), except that the rights and obligations of Registry Operator or ICANN automatically shall be transferred to the assignee of one of those parties' rights and obligations under the Sponsored TLD Registry Operator Agreement. Escrow Agent may not assign or transfer this Agreement without the prior written consent of Registry Operator and ICANN.

17.8 Entire Agreement. This Agreement, including all exhibits referenced herein, supersedes all prior discussions, understandings, and agreements between Escrow Agent and the other parties with respect to the data escrow services. Registry Operator and ICANN acknowledge and agree that, as between themselves, the Sponsored TLD Registry Operator Agreement (including all its appendices) is intended to co-exist with this Agreement; this Agreement is supplementary to the Sponsored TLD Registry Operator Agreement; and the Sponsored TLD Registry Operator Agreement shall control in the event of any conflict between this Agreement and the Sponsored TLD Registry Operator Agreement.

17.9 Counterparts. This Agreement may be executed in counterparts, each of which when so executed shall be deemed to be an original and all of which when taken together shall constitute one and the same Agreement.

17.10 Governing Law. This Agreement shall be construed and enforced in accordance with the laws of the State of California, without regard to its conflicts-of-laws principles. The parties consent and agree that jurisdiction and venue for any legal proceedings relating to this Agreement shall lie with the state and federal courts of Los Angeles County in the State of California.

17.11 Notices. All notices, requests, demands or other communications required or permitted to be given or made under this Agreement shall be in writing and shall be delivered by hand, by commercial overnight delivery service which provides for evidence of receipt, by certified mail, return receipt requested, postage prepaid, by facsimile, or by e-mail (e-mail to be followed promptly at receiver's request by a copy delivered by one of the other means of delivery) to the corresponding addresses listed on the signature page of this Agreement. If delivered personally, by commercial overnight delivery service, by facsimile, or by e-mail, the date on which the notice, request, instruction, or document is delivered shall be the date on which delivery is deemed to be made, and if delivered by mail, the date on which such notice, request, instruction, or document is received shall be the date on which delivery is deemed to be made. Any party may change its address for the purpose of this Agreement by notice in writing to the other parties as provided herein.

17.12 Survival. The obligation of confidentiality in Section 7, Sections 9, 10, 11, 12, 13, and this Section 17.12 shall survive any termination of this Agreement.

17.13 No Waiver. No failure on the part of any party hereto to exercise, and no delay in exercising any right, power, or single or partial exercise of any right, power, or remedy by any party will preclude any other or further exercise of that or any other right, power, or remedy. No express waiver or assent by any party to any breach of or default in any term or condition of this Agreement shall constitute a waiver of or an assent to any succeeding breach of or default in the same or any other term or condition.

Appendix 3

Zone File Access Agreement

1. Parties

The User named in this Agreement hereby contracts with _____ ("Registry Operator") for a non-exclusive, non-transferable, limited right to access an Internet host server or servers designated by Registry Operator from time to time, and to transfer a copy of the described Data to the User's Internet host machine specified below, under the terms of this Agreement. Upon execution of this Agreement by Registry Operator, Registry Operator will return a copy of this Agreement to you for your records with your UserID and Password entered in the spaces set forth below.

2. User Information

(a) User: _____

(b) Contact Person: _____

(c) Street Address: _____

(d) City, State or Province: _____

(e) Country and Postal Code: _____

(f) Telephone Number: _____
(including area/country code)

(g) Fax Number: _____
(including area/country code)

(h) E-Mail Address: _____

(i) Specific Internet host machine that will be used to access Registry Operator's server to transfer copies of the Data:

Name: _____

IP Address: _____

(j) Purpose(s) for which the Data will be used: During the term of this Agreement, you may use the data for any legal purpose not prohibited under Section 4 below. You may incorporate some or all of the Data in your own products or services, and distribute those products or services for a purpose not prohibited under Section 4 below.

3. Term

This Agreement is effective for a period of three (3) months from the date of execution by Registry Operator (the "Initial Term"). Upon conclusion of the Initial Term this Agreement will automatically renew for successive three-month renewal terms (each a "Renewal Term") until terminated by either party as set forth in Section 12 of this Agreement or one party provides the other party with a written notice of termination at least seven (7) days prior to the end of the Initial Term or the then current Renewal Term.

NOTICE TO USER: CAREFULLY READ THE FOLLOWING TERMS AND CONDITIONS. YOU MAY USE THE USER ID AND ASSOCIATED PASSWORD PROVIDED IN CONJUNCTION WITH THIS AGREEMENT ONLY TO OBTAIN A COPY OF .MUSEUM TOP-LEVEL DOMAIN ("TLD") ZONE FILES, AND ANY ASSOCIATED ENCRYPTED CHECKSUM FILES (COLLECTIVELY THE "DATA"), VIA THE FILE TRANSFER PROTOCOL ("FTP") OR THE HYPERTEXT TRANSFER PROTOCOL ("HTTP") PURSUANT TO THESE TERMS.

4. Grant Of Access

Registry Operator grants to you a non-exclusive, non-transferable, limited right to access an Internet host server or servers designated by Registry Operator from time to time, and to transfer a copy of the Data to the Internet host machine identified in Section 2 of this Agreement no more than once per 24 hour period using FTP or HTTP for the purposes described in this Section 4.

You agree that you will:

(a) use this Data only for lawful purposes but that under no circumstances will you use this Data to: (1) allow, enable, or otherwise support the transmission by e-mail, telephone, or facsimile of mass unsolicited, commercial advertising or solicitations to entities other than your own existing customers; or (2) enable high volume, automated, electronic processes that send queries or data to the systems of Registry Operator or any ICANN-Accredited Registrar, except as reasonably necessary to register domain names or modify existing registrations. Registry Operator reserves the right, with the approval of the Internet Corporation for Assigned Names and Numbers ("ICANN"), to specify additional specific categories of prohibited uses by giving you reasonable written notice at any time and upon receiving such notice you shall not make such prohibited use of the Data you obtain under this Agreement.

(b) Not use this Data, nor permit this Data to be used to harass, annoy, interrupt, disrupt, or interfere in the normal business operations or any registrant.

(c) Not to use this Data, nor permit this Data to be used for any marketing purposes whatsoever.

(d) Copy the Data you obtain under this Agreement into a machine-readable or printed form only as necessary to use it in accordance with this Agreement in support of your use of the Data.

(e) Comply with all applicable laws and regulations governing the use of the Data.

(f) Not distribute the Data you obtained under this Agreement or any copy thereof to any other party without the express prior written consent of Registry Operator, except that you may redistribute the Data insofar as it has been incorporated by you into a value-added product or service that does not permit the extraction of a substantial portion of the Data from the value-added product or service, provided you prohibit the recipient of the Data from using the Data in a manner contrary to Section 4(a).

(g) Take all reasonable steps to protect against unauthorized access to, use, and disclosure of the Data you obtain under this Agreement.

5. Fee

You agree to remit in advance to Registry Operator a quarterly fee of \$0 (USD) for the right to access the files during either the Initial Term or Renewal Term of this Agreement. Registry Operator reserves the right to adjust, with the approval of ICANN, this fee on thirty days prior notice to reflect a change in the cost of providing access to the files.

6. Proprietary Rights

You agree that no ownership rights in the Data are transferred to you under this Agreement. You agree that any copies of the Data that you make will contain the same notice that appears on and in the Data obtained under this Agreement.

7. Method Of Access

Registry Operator reserves the right, with the approval of ICANN, to change the method of access to the Data at any time. You also agree that, in the event of significant degradation of system processing or other emergency, Registry Operator may, in its sole discretion, temporarily suspend access under this Agreement in order to minimize threats to the operational stability and security of the Internet.

8. No Warranties

The Data is being provided "as-is." Registry Operator disclaims all warranties with respect to the Data, either expressed or implied, including but not limited to the implied warranties of merchantability, fitness for a particular purpose, and non-infringement of third party rights. Some jurisdictions do not allow the exclusion of implied warranties or the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you.

9. Severability

In the event of invalidity of any provision of this Agreement, the parties agree that such invalidity shall not affect the validity of the remaining provisions of this Agreement.

10. No Consequential Damages

In no event shall Registry Operator be liable to you for any consequential, special, incidental or indirect damages of any kind arising out of the use of the Data or the termination of this Agreement, even if Registry has been advised of the possibility of such damages.

11. Governing Law

This Agreement shall be governed and construed in accordance with the laws of [_____]. You agree that any legal action or other legal proceeding relating to this Agreement or the enforcement of any provision of this Agreement shall be brought or otherwise commenced in [jurisdiction]. You expressly and irrevocably agree and consent to the personal jurisdiction and venue of the [relevant courts within jurisdiction] for matters arising in connection with this Agreement or your obtaining, use, or distribution of the Data. The United Nations Convention on Contracts for the International Sale of Goods is specifically disclaimed.

12. Termination

You may terminate this Agreement at any time by erasing the Data you obtained under this Agreement from your Internet host machine together with all copies of the Data and providing written notice of your termination to Registry Operator at [**address of Registry Operator**]. Registry Operator has the right to terminate this Agreement immediately if you fail to comply with any term or condition of this Agreement. You agree upon receiving notice of such termination of this Agreement by Registry Operator or expiration of this Agreement to erase the Data you obtained under this Agreement together with all copies of the Data.

13. Definition

"Data" means all data contained in a DNS zone file for the Registry TLD as provided to TLD nameservers on the Internet.

14. Entire Agreement

This is the entire agreement between you and Registry Operator concerning access and use of the Data, and it supersedes any prior agreements or understandings, whether written or oral, relating to access and use of the Data.

[Name of Registry Operator]

By:

(sign)

Name:
(print)
Title:
Date:

User:
By:
(sign)
Name:
(print)
Title:
Date:

ASSIGNED USERID AND PASSWORD

(To be assigned by Registry Operator upon execution of this Agreement):

USERID:

PASSWORD:

Appendix 4

Registry Operator's Monthly Report

Registry Operator shall provide the following information in its monthly reports. Reports shall be submitted via email to <registry-reports@icann.org>. ICANN shall use reasonable commercial efforts to preserve the confidentiality of the information reported until three months after the end of the month to which the report relates.

1. Accredited Registrar Status. State the number of registrars in each of the following three categories: (1) operational, (2) ramp-up (registrars that have received a password for access to OT&E), and (3) pre-ramp-up (registrars that have requested access, but have not yet entered the ramp-up period).

2. Service Level Agreement Performance. Compare Service Level Agreement requirements with actual performance measures for the reporting month.

3. TLD Zone File Access Activity. State the total number of zone file access passwords at end of the reporting month.

4. Completed System Software Releases. Describe significant releases during the reporting month, including release name, features, and completion date.

5. Whois Service Activity. State the number of Whois queries during the reporting month.

6. Total Number of Transactions by Subcategory by Month. State the total number of transactions during the reporting month, in the following subcategories: adds, deletes, modifies, checks, renews, transfers, restores.

7. Daily Transaction Range. Tabulate the number of total daily transactions. The range of transaction volume should be shown for each month, along with the average daily transaction volume.

8. Per-Registrar Activity Report. This report shall be transmitted to ICANN electronically in comma or pipe separated-value format, using the following fields per registrar:

| Field | Field Name | Notes |
|-------|-------------------|---|
| 01 | registrar-name | registrar's full corporate name |
| 02 | iana-id | http://www.iana.org/assignments/registrar-ids |
| 03 | total-domains | total domains under sponsorship |
| 04 | total-nameservers | total nameservers registered |
| 05 | net-adds-1-yr | domains successfully added (and not deleted within the add grace period) |
| 06 | net-adds-2-yr | number of domains successfully registered with an initial term of two years |

| | | |
|----|------------------------------|---|
| 07 | net-adds-3-yr | number of domains successfully registered with an initial term of three years |
| 08 | net-adds-4-yr | etc. |
| 09 | net-adds-5-yr | " " |
| 10 | net-adds-6-yr | " " |
| 11 | net-adds-7-yr | " " |
| 12 | net-adds-8-yr | " " |
| 13 | net-adds-9-yr | " " |
| 14 | net-adds-10-yr | " " |
| 15 | net-renews-1-yr | domains renewed either automatically or by command (and not deleted within the renew grace period) |
| 16 | net-renews-2-yr | number of domains successfully renewed with a new renewal period of two years |
| 17 | net-renews-3-yr | number of domains successfully renewed with a new renewal period of three years |
| 18 | net-renews-4-yr | etc. |
| 19 | net-renews-5-yr | " " |
| 20 | net-renews-6-yr | " " |
| 21 | net-renews-7-yr | " " |
| 22 | net-renews-8-yr | " " |
| 23 | net-renews-9-yr | " " |
| 24 | net-renews-10-yr | " " |
| 25 | transfer-gaining-successful | transfers initiated by this registrar that were ack'd by the other registrar – either by command or automatically |
| 26 | transfer-gaining-nacked | transfers initiated by this registrar that were n'acked by the other registrar |
| 27 | transfer-losing-successful | transfers initiated by another registrar that this registrar ack'd – either by command or automatically |
| 28 | transfer-losing-nacked | transfers initiated by another registrar that this registrar n'acked |
| 29 | transfer-disputed-won | number of transfer disputes in which this registrar prevailed |
| 30 | transfer-disputed-lost | number of transfer disputes this registrar lost |
| 31 | transfer-disputed-nodecision | number of transfer disputes involving this registrar with a split or no decision |
| 32 | deleted-domains-grace | domains deleted within the add grace period |
| 33 | deleted-domains-nograce | domains deleted outside the add grace period |
| 34 | restored-domains | domain names restored from redemption period |
| 35 | restored-noreport | total number of restored names for which the registrar failed to submit a restore report |

Appendix 5 Whois Specifications

Public Whois Specification

The Registry Operator will provide RFC954-conformant Whois service. This Appendix is subject to change by agreement of the Registry Operator and ICANN during the design process as well as during the IETF standards process. The following provides the target architecture and initial functionality. In addition, Registry Operator agrees to implement changes to this Appendix specified by ICANN to conform to the IETF provreg working group's protocol specification no later than 135 days after the IETF specification is adopted as a Proposed Standard [RFC 2026, section 4.1.1].

RFC954-Conformant Whois

The standard registry-level Whois service is intended as a lookup service for registries, registrars, registrants, as well as for other individuals and businesses that wish to query details about domain names or nameservers stored in the registry. The standard Whois service will provide a central location for all authoritative .museum TLD data. It will be in addition to Whois services provided by registrars.

The RFC954-conformant Whois service will be engineered to handle moderate transaction load and be integral to the standard suite of Registry Services. The RFC954-conformant Whois service will conform to the requirements of this Appendix. The registry-level Whois service will provide Whois data in response to queries over port 43, in conformity to the RFC 954 standard. The Registry Operator, or other vendor arranged by the Registry Operator, will also provide a port 80 (web) interface to allow convenient user access to the Whois service.

Whois Service Data Elements

The registry-level Whois service will include the following data elements:

- The name of the domain name registered;
- The IP addresses of the primary nameserver and secondary nameserver(s) for the name registered;
- The corresponding names of those nameservers;
- The identity of the of the sponsoring registrar;
- The ENS identity of the registrant;
- The original creation date and term of the registration;
- The name, postal address, e-mail address, voice telephone number, and (where available) fax number of the domain name registrant;
- The name, postal address, e-mail address, voice telephone number, and (where available) fax number of the technical contact for the name registered; and
- The name, postal address, e-mail address, voice telephone number, and (where available) fax number of the administrative contact for the name registered.

Minimum Data Update Frequency

The Registry Operator shall make reasonable efforts to have the data updated continuously as requests are processed, in a matter of seconds or minutes. The Registry Operator shall ensure that records in the Whois server are updated no later than 24 hours after the completion of the registration or modification transaction with the registrar.

Extensible Field Capability

MuseDoma will provide a directory service at directory.museum as described in Appendix 6. Means for accessing selected records in the database underlying that service may be provided as an extension of the Whois facility.

Privacy Capability

The Registry Operator may introduce the optional ability to associate privacy labels to a record in the Registry Database. These fields would appear in an "additional information" section of the Whois data. The maximum number of custom fields allowed per record is yet to be determined. The privacy label capability allows registrants to associate with certain data an indication of any special disclosure or handling restrictions.

Query Control/Object Type Control

The following keywords restrict a search to specific object type:

Domain: Search only by domain objects. The input string is searched in the Name field.

Contact: Search only contact objects. The input string is searched in the ID field.

Nameserver: Search only by nameserver objects. The input string is searched in the nameserver name field or the IP address field.

Registrar: Search only registrar objects. The input string is searched in the Name field. By default, if no object type control is specified, then the Name field of the Domain object is searched.

Whois Output Fields

The Whois service will provide responses to queries as described below. In the event that a query produces no match, the response of the Whois server will begin with the words "No matching data found."

Domain Record:

A Whois query that results in domain information will return the following fields from the Domain object and the associated data from host and contact objects. This set of data is also referred to as the Domain Record.

- Domain ID
- Domain Name
- Domain Status
- Sponsoring Registrar
- ENS Identity
- Registrant, Administrative, Technical and Billing Contact Information including Contact ID
- Contact Name
- Contact Organization
- Contact Address, City, State/Province, Country
- Contact Postal Code
- Contact Phone, Fax, E-mail
- Name Servers associated with this domain
- Created Date
- Last Updated Date
- Last Transferred Date
- Additional fields (Sponsor specified)
- Domain Registration Date
- Domain Expiration Date
- Domain Last Updated Date
- Nameserver Record:
 - Nameserver ID
 - Nameserver name
 - Currently Associated (true/false)
 - Nameserver status
 - IP addresses associated
 - Created Date
 - Sponsoring Registrar
 - Last Updated Date
 - Last Transferred Date
 - Additional fields (Sponsor specified)

Contact Record:

A Whois query that results in contact information will return the following. This set of information is referred to as the Contact Record.

- Contact ID
- Contact Name
- Contact Organization
- Contact Address, City, State/Province, Country + 3 street fields
- Contact Postal Code

Contact Phone, Fax, E-mail
Contact Registration Date
Contact Last Updated Date
Currently Associated
Contact Status
ENS Identity
Sponsoring Registrar
Created Date
Last Transferred Date

Registrar Record:

A Whois query that results in registrar information will return the following. This set of information is referred to as the Registrar Record.

Registrar ID (conforming to the IANA registrar-ids registry)
Registrar Name
Registrar Status
Registrar Address, City, State/Province, Country
Registrar Postal Code
Registrar Phone, Fax, E-mail
Registrar Administrative Contacts
Registrar Billing Contacts

Sample Whois Output

This section provides sample output from the Whois server for each type of Registry Object: Domain, Contact, and Nameserver. The output is structured as key/value pairs, which simplifies machine-readability.

Domain Record:

Input: whois "domain = musedoma.museum"
Output: Domain ID: AAA-0001
Domain Name: MUSEDOMA.MUSEUM
Sponsoring Registrar: SAMPLE
ENS Identity: ORG-00001
Domain Status: ACTIVE
Registrant Name: CARY KARP
Registrant Organization: MUSEUM DOMAIN MANAGEMENT ASSOCIATION
Registrant Address: FRESCATIVÄGEN 40
Registrant City: STOCKHOLM
Registrant State/Province: A
Registrant Country: SE
Registrant Postal Code: 10405
Registrant Phone Number: +46-8-5195-4055

Registrant Facsimile Number: +46-8-5195-5100
Registrant Email: KARP@MUSEDOMA.MUSEUM
Admin ID: PER-00001
Admin Name: CARY KARP
Admin Organization: MUSEUM DOMAIN MANAGEMENT ASSOCIATION
Admin Address: FRESCATIVÄGEN 40
Admin City: STOCKHOLM
Admin State/Province: A
Admin Country: SE
Admin Postal Code: 10405
Admin Phone Number: +46-8-5195-4055
Admin Facsimile Number: +46-8-5195-5100
Admin Email: KARP@MUSEDOMA.MUSEUM
Tech ID: PER-00001
Tech Name: CARY KARP
Tech Organization: MUSEUM DOMAIN MANAGEMENT ASSOCIATION
Tech Address: FRESCATIVÄGEN 40
Tech City: STOCKHOLM
Tech State/Province: A
Tech Country: SE
Tech Postal Code: 10405
Tech Phone Number: +46-8-5195-4055
Tech Facsimile Number: +46-8-5195-5100
Tech Email: KARP@MUSEDOMA.MUSEUM
Billing ID: PER-00001
Billing Name: CARY KARP
Billing Organization: MUSEUM DOMAIN MANAGEMENT ASSOCIATION
Billing Address: FRESCATIVÄGEN 40
Billing City: STOCKHOLM
Billing State/Province: A
Billing Country: SE
Billing Postal Code: 10405
Billing Phone Number: +46-8-51954055
Billing Facsimile Number: +46-8-51955100
Billing Email: KARP@MUSEDOMA.MUSEUM
Name Server: NIC.MUSEUM.ORG
Name Server: WWW.ICOM.ORG
Created On: JANUARY 2, 2002
Expires On: JANUARY 2, 2004
Updated On: JANUARY 2, 2002

Contact Record:

Input: whois "contact = Cary Karp"
Output: Contact ID: PER-00001
Name: CARY KARP

ENS Identity: ORG-0001
Organization: MUSEUM DOMAIN MANAGEMENT ASSOCIATION
Address: FRESCATIVÄGEN 40
City: STOCKHOLM
State: A
Country: SE
Postal Code: 10405
Phone Number: +46-8-5195-4055
Facsimile Number +46-8-5195-5100
E-mail: KARP@MUSEDOMA.MUSEUM
Sponsoring Registrar: SAMPLE
Created On: JANUARY 2, 2002
Updated On: JANUARY 2, 2002

Nameserver Record:

Input: whois "nameserver nic.musedoma.museum"
Output: Nameserver ID: HST-1
Nameserver name: NIC.MUSEDOMA.MUSEUM
Currently Associated (true/false):T
Nameserver status: ACTIVE
IP addresses associated: 130.242.24.6
Sponsoring Registrar: SAMPLE
Created by registrar: JANUARY 2, 2002
Last Updated by Registrar: JANUARY 2, 2002
Last Transferred Date: JANUARY 2, 2002
Additional fields (Sponsor specified)

Registrar Record:

Input: whois "registrar SAMPLE"
Output: Registrar ID: REG-01
Registrar Name: SAMPLE
Registrar Status: ACTIVE
Registrar Address 1: 123 Some Street
Registrar Address 2:
Registrar City: Acity
Registrar State/Province: RE
Registrar Country: CC
Registrar Postal Code: 12345
Registrar Phone: +11-11-1111-1111
Registrar E-mail: jdoe@sample.museum
Admin Contact Name: Jane Doe
Admin Contact Phone: +11-11-1111-1111
Admin Contact E-mail: jdoe@sample.museum
Billing Contact Name: Jane Doe

Billing Contact Phone: +11-11-1111-1111
Billing Contact E-mail: jdoe@sample.museum

Whois Provider Data Specification

Registry Operator shall provide bulk access to up-to-date data concerning domain name and nameserver registrations maintained by Registry Operator in connection with the Sponsored TLD on a daily schedule, only for purposes of providing free public query-based access to up-to-date data concerning domain name and nameserver registrations in multiple TLDs, to a party designated from time to time in writing by ICANN (the "Designated Recipient"). Any agreement between ICANN and a Designated Recipient for the license of such data (a "Whois License Agreement") will provide Registry Operator with the right to enforce the Designated Recipient's obligations under this Appendix and the Whois License Agreement directly against the Designated Recipient, whether through being made a party to or third-party beneficiary of such agreement or through such other means as may be appropriate. In addition, any Whois License Agreement will include the following provisions governing the use of such data by the Designated Recipient:

1. The Designated Recipient shall only use the data provided by the Registry Operator for the purpose of providing free public query-based Whois access as described in Section 3.1(c)(v) of the TLD Sponsorship Agreement. The Designated Recipient may not use such data for any other purpose.
2. The Designated Recipient shall use best efforts to implement any corrections to the data provided by the Registry Operator as soon as practicable.
3. The Designated Recipient must take such technical and organizational security measures as are, at a minimum, equivalent to those implemented by the Registry Operator with respect to such data.
4. Except for providing free public query-based access according to item 1 above, the Designated Recipient shall not transfer the data to any third party for any purpose except in the event that such third party becomes bound in the same manner as a Designated Recipient by the provisions of this Appendix and the Whois License Agreement. The procedures for providing access, and the specification of the content and format of this data, will be as stated below, until changed according to the TLD Sponsorship Agreement. This Appendix is subject to change by agreement of Registry Operator and ICANN during the design process as well as during the IETF standards process. In addition, Registry Operator agrees to require Registry Operator to implement changes to this Appendix specified by ICANN to conform to the IETF provreg working group's protocol specification no later than 135 days after the IETF specification is adopted as a Proposed Standard [RFC 2026, section 4.1.1]. Accordingly, the following provides the target architecture and initial functionality.

A. Procedures for Providing Access

Registry Operator shall ensure Registry Operator prepares (i) full data sets for one day of each week (the day to be designated by ICANN) and (ii) incremental data sets for all seven days of each week. Full and incremental data sets shall be up-to-date and coherent as of 1200 UTC on the day to which they relate. Until a different day is designated by ICANN, the full data sets will be prepared for Sundays. (Note that on the ICANN-designated day both an incremental and a full data set are prepared.)

1. Preparation of Files Containing Data Sets. Each full and incremental data set consists of an XML document meeting the content and format requirements of Parts B and C of this document. Once the XML document is generated, the following preparation steps will be performed:

a. The XML document will be placed in a file named according to the following convention:

For full data sets: "wfYYMMDD" where "YYMMDD" is replaced with the date (YY=last two digits of year; MM=number of month; DD=day; in all cases a single-digit number should be leftpadded with a zero).

For incremental data sets: "wiYYMMDD" where "YYMMDD" follows the same format.

b. The Registry Operator may optionally split the document using the Unix SPLIT command (or equivalent) to produce files no less than 1GB each (except the final file). If files are split, an MD5 file (produced with MD5SUM or equivalent) must be included with the resulting files to isolate errors in case of transfer fault. The Registry Operator may optionally compress the document using the Unix GZIP command (or equivalent) to reduce the file size.

c. The file(s) will then be encrypted and signed using PGP, version 6.5.1 or above, with a key of DH/DSS type and 2048/1024-byte length. (Note that PGP compresses the escrow file in addition to encrypting it.) The Data Recipient's public key will be used for the encryption and the Registry Operator's private key will be used for the signature. Public keys will be exchanged between the Registry Operator and the Designated Recipient by e-mail, physical delivery of floppy diskettes, or other agreed means.

2. Transmission of Full Data Sets. Once prepared, full data sets will be provided either by the procedures for incremental data sets described in item A(3) below or, at the option of either the Registry Operator or the Designated Recipient, by writing the full data set to DAT tape (or other media mutually agreed by Registry Operator and the Designated Recipient) and sending it to the Designated Recipient by expedited delivery service (such as FedEx or DHL). If sent by expedited delivery service, the full data set will be scheduled for arrival no later than the second calendar day following the day to which the full backup relates.

3. Transmission of Incremental Data Sets. To permit the transmission of incremental data sets, Registry Operator shall make them available for download by the Designated Recipient by Internet File Transfer Protocol. Incremental data sets will be made available for download no later than 2000 UTC on the day to which they relate.

B. Content

The data sets (whether full or incremental) will consist of four types of objects:

1. Domain Objects. One type of object is the domain object, which corresponds to a single Registered Name. Each domain object includes the following data:

- Domain ID
- Domain Name
- Sponsoring Registrar (IANA-assigned identifier)
- Domain Status
- Registrant, Administrative, Technical and Billing Contact Information including ENS Identity
- Contact ID
- Contact Name
- Contact Organization
- Contact Address, City, State/Province, Country
- Contact Postal Code
- Contact Phone, Fax, E-mail
- Name Servers associated with this domain
- Created by Registrar (IANA-assigned identifier)
- Last Updated by Registrar (IANA-assigned identifier)
- Last Transferred Date
- Additional fields (Registrar specified)
- Additional fields (Sponsor specified)
- Domain Registration Date
- Domain Expiration Date
- Domain Last Updated Date

2. Nameserver Objects. A second type of object is the nameserver object, which corresponds to a single registered nameserver. The nameserver object includes the following data:

- Nameserver ID
- Nameserver Name
- IP Addresses associated
- Sponsoring Registrar (IANA-assigned identifier)
- Created by Registrar (IANA-assigned identifier)
- Name Server Last Updated by Registrar (IANA-assigned identifier)
- Last Transferred Date

3. Contact Objects. A third type of object is the contact object, which corresponds to a single contact (whether registrant, administrative, technical or billing contact). The contact object includes the following data:

- Contact ID
- Contact Name
- Contact Organization
- ENS Identity
- Contact Address, City, State/Province, Country
- Contact Postal Code
- Contact Phone, Fax, E-mail
- Contact Registration Date
- Contact Last Updated Date
- Currently Associated
- Contact Status
- Additional fields (Sponsor specified)
- Sponsoring Registrar (IANA-assigned identifier)
- Created Registrar (IANA-assigned identifier)
- Last Transferred Date

4. Registrar Object. The final type of object corresponds to a single registrar. It includes the following data:

- Registrar ID (conforming to the IANA registrar-ids registry)
- Registrar Name
- Registrar Status
- Registrar Address, City, State/Province, Country
- Registrar Postal Code
- Registrar Phone, Fax, E-mail
- Registrar Administrative Contacts
- Registrar Billing Contacts

5. Objects Contained in Full and Incremental Data Sets. Full data sets include one domain object for each Registered Name within the Sponsored TLD; and nameserver, contact, and registrar objects for each nameserver, contact, and registrar referred to in any domain object. Incremental data sets consist of (a) those of the objects constituting a full data set that have been added or updated since the last incremental data set and (b) notations of deletion of any objects since the last incremental data set.

C. Format

Full and incremental data sets will be XML version 1.0, UTF-8 encoded documents conforming to the following schema:

```
<?xml version="1.0"?>  
<schema targetNamespace="urn:musedoma:whoisdb"  
xmlns="http://www.w3.org/2001/XMLSchema"
```

```
xmlns:whoisdb="urn:musedoma:whoisdb"
xmlns:eppcom="urn:ietf:params:xml:ns:eppcom-1.0"
xmlns:epp="urn:ietf:params:xml:ns:epp-1.0"
xmlns:contact="urn:ietf:params:xml:ns:contact-1.0"
xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
xmlns:host="urn:ietf:params:xml:ns:host-1.0"
elementFormDefault="qualified">
<!--Import EPP Element Types-->
<import namespace="urn:ietf:params:xml:ns:eppcom-1.0" schemaLocation="eppcom-
1.0.xsd"/>
<import namespace="urn:ietf:params:xml:ns:epp-1.0" schemaLocation="epp-1.0.xsd"/>
<import namespace="urn:ietf:params:xml:ns:contact-1.0" schemaLocation="contact-
1.0.xsd"/>
<import namespace="urn:ietf:params:xml:ns:domain-1.0" schemaLocation="domain-
1.0.xsd"/>
<import namespace="urn:ietf:params:xml:ns:host-1.0" schemaLocation="host-1.0.xsd"/>
<annotation>
<documentation>XML Schema for Whois Data Escrow From MuseDoma
</documentation>
</annotation>
<!--Child Element-->
<element name="whois-data" type="whoisdb:whoisDbType"/>
<complexType name="whoisDbType">
<choice>
<element name="full" type="whoisdb:fullsetType"/>
<element name="incremental" type="whoisdb:partialType"/>
</choice>
<attribute name="tld" type="whoisdb:tldType" use="required"/>
<attribute name="date" type="dateTime" use="required"/>
</complexType>
<simpleType name="tldType">
<restriction base="string">
<enumeration value="museum"/>
</restriction>
</simpleType>
<complexType name="fullsetType">
<sequence minOccurs="1">
<element name="contact" type="ContactType" minOccurs="0"
maxOccurs="unbounded"/>
<element name="domain" type="DomainType" minOccurs="0"
maxOccurs="unbounded"/>
<element name="host" type="host:infDataType" minOccurs="0"
maxOccurs="unbounded"/>
<element name="registrar" type="whoisdb:registrarType" minOccurs="0"
maxOccurs="unbounded"/>
</sequence>
```

```
</complexType>
<complexType name="partialType">
  <sequence minOccurs="1">
    <element name="contact" type="ContactType" minOccurs="0"
      maxOccurs="unbounded"/>
    <element name="domain" type="DomainType" minOccurs="0"
      maxOccurs="unbounded"/>
    <element name="host" type="host:infDataType" minOccurs="0"
      maxOccurs="unbounded"/>
    <element name="registrar" type="whoisdb:registrarType" minOccurs="0"
      maxOccurs="unbounded"/>
    <element name="del-contact" type="contact:sIDType" minOccurs="0"
      maxOccurs="unbounded"/>
    <element name="del-domain" type="domain:sNameType" minOccurs="0"
      maxOccurs="unbounded"/>
    <element name="del-host" type="host:sNameType" minOccurs="0"
      maxOccurs="unbounded"/>
    <element name="del-registrar" type="eppcom:clIDType" minOccurs="0"
      maxOccurs="unbounded"/>
  </sequence>
</complexType>
<complexType name="registrarIDType">
  <sequence>
    <element name="registrar-id" type="eppcom:clIDType"/>
  </sequence>
</complexType>
<complexType name="registrarType">
  <sequence>
    <element name="roid" type="eppcom:roidType"/>
    <element name="registrar-id" type="eppcom:clIDType"/>
    <element name="name" type="whoisdb:registrarNameType"/>
    <element name="address" type="contact:addrType"/>
    <element name="web-url" type="whoisdb:registrarWebUrlType"/>
    <element name="iana-id" type="whoisdb:registrarIanaIDType"/>
    <element name="contact" type="whoisdb:registrarContactType" maxOccurs="5"/>
    <element name="status" type="whoisdb:registrarStatusType"/>
    <element name="crDate" type="dateTime"/>
    <element name="upDate" type="dateTime" minOccurs="0"/>
  </sequence>
</complexType>
<simpleType name="registrarNameType">
  <restriction base="token">
    <minLength value="1"/>
    <maxLength value="128"/>
  </restriction>
</simpleType>
```

```
<simpleType name="registrarWebUrlType">
  <restriction base="token"/>
</simpleType>
<simpleType name="registrarIanaIDType">
  <restriction base="token"/>
</simpleType>
<complexType name="registrarContactType">
  <simpleContent>
    <extension base="eppcom:roidType">
      <attribute name="type" use="required">
        <simpleType>
          <restriction base="string">
            <enumeration value="administrative"/>
            <enumeration value="billing"/>
            <enumeration value="technical"/>
          </restriction>
        </simpleType>
      </attribute>
    </extension>
  </simpleContent>
</complexType>
<simpleType name="registrarStatusType">
  <restriction base="string">
    <enumeration value="active"/>
    <enumeration value="suspended"/>
    <enumeration value="defunct"/>
  </restriction>
</simpleType>
<complexType name="DomainType">
  <sequence>
    <element name="name" type="eppcom:labelType"/>
    <element name="roid" type="eppcom:roidType"/>
    <element name="status" type="domain:statusType" maxOccurs="14"/>
    <element name="registrant" type="domain:contactType" minOccurs="0"/>
    <element name="contact" type="domain:contactType" minOccurs="0"
      maxOccurs="unbounded"/>
    <element name="ns" type="eppcom:labelType" minOccurs="0"
      maxOccurs="unbounded"/>
    <element name="host" type="eppcom:labelType" minOccurs="0"
      maxOccurs="unbounded"/>
    <element name="clID" type="eppcom:clIDType"/>
    <element name="crID" type="eppcom:clIDType"/>
    <element name="crDate" type="dateTime"/>
    <element name="upID" type="eppcom:clIDType" minOccurs="0"/>
    <element name="upDate" type="dateTime" minOccurs="0"/>
    <element name="exDate" type="dateTime" minOccurs="0"/>
  </sequence>
</complexType>

```

```

<element name="trDate" type="dateTime" minOccurs="0"/>
<element name="authInfo" type="eppcom:authInfoType" minOccurs="0"/>
<element name="ENSIdentity" type="whoisdb:ENSIdType"/>
</sequence>
</complexType>
<complexType name="ContactType">
<sequence>
<element name="id" type="eppcom:clIDType"/>
<element name="roid" type="eppcom:roidType"/>
<element name="status" type="contact:statusType" maxOccurs="8"/>
<element name="ascii" type="contact:postalType"/>
<element name="i15d" type="contact:postalType" minOccurs="0"/>
<element name="voice" type="contact:e164Type" minOccurs="0"/>
<element name="fax" type="contact:e164Type" minOccurs="0"/>
<element name="email" type="normalizedString"/>
<element name="clID" type="eppcom:clIDType"/>
<element name="crID" type="eppcom:clIDType"/>
<element name="crDate" type="dateTime"/>
<element name="upID" type="eppcom:clIDType" minOccurs="0"/>
<element name="upDate" type="dateTime" minOccurs="0"/>
<element name="trDate" type="dateTime" minOccurs="0"/>
<element name="authInfo" type="eppcom:authInfoType" minOccurs="0"/>
<element name="ENSIdentity" type="whoisdb:ENSIdType"/>
</sequence>
</complexType>
<simpleType name="ENSIdType">
<restriction base="token">
<minLength value="8"/>
<maxLength value="14"/>
<pattern value="MUSEUM-[a-zA-Z0-9]+"/>
</restriction>
</simpleType>
</schema>

```

Whois Data Specification – ICANN

Registry Operator shall provide bulk access by ICANN to up-to-date data concerning domain name and nameserver registrations maintained by Registry Operator in connection with the Sponsored TLD on a daily schedule, only for purposes of verifying and ensuring the operational stability of Registry Services, the DNS, and the Internet. The procedures for providing access, and the specification of the content and format of this data, will be as stated below, until changed according to the Sponsorship Agreement. This Appendix is subject to change by agreement of Registry Operator and ICANN during the design process as well as during the IETF standards process. In addition, Registry Operator will implement changes to this Appendix specified by ICANN to conform to the IETF provreg working group's protocol specification no later than 135

days after the IETF specification is adopted as a Proposed Standard [RFC 2026, section 4.1.1]. Accordingly, the following represents the target architecture and initial functionality.

A. Procedures for Providing Access

Registry Operator shall prepare a full data set for one day of each week (the day to be designated by ICANN). Full data sets shall be up-to-date and coherent as of 1200 UTC on the day to which they relate. Until a different day is designated by ICANN, the full data sets will be prepared for Sundays.

1. Preparation of Files Containing Data Sets. Each full data set consists of an XML document meeting the content and format requirements of Parts B and C of this document. Once the XML document is generated, the following preparation steps will be performed:

- a. The XML document will be placed in a file named according to the following convention: "wfYYMMDD" where "YYMMDD" is replaced with the date (YY=last two digits of year; MM=number of month; DD=day; in all cases a single-digit number should be left-padded with a zero).
- b. The Registry Operator may optionally split the document using the Unix SPLIT command (or equivalent) to produce files no less than 1GB each (except the final file). If files are split, an .MD5 file (produced with MD5SUM or equivalent) must be included with the resulting files to isolate errors. The Registry Operator may optionally compress the document using the Unix GZIP command (or equivalent) to reduce the filesize.
- c. The file(s) will then be encrypted and signed using PGP, version 6.5.1 or above, with a key of DH/DSS type and 2048/1024-byte length. (Note that PGP compresses the escrow file in addition to encrypting it.) An ICANN public key will be used for the encryption and the Registry Operator's private key will be used for the signature. Public keys will be exchanged between the Registry Operator and ICANN by e-mail, physical delivery of floppy diskettes or other agreed means.

2. Transmission of Full Data Sets. Once prepared, full data sets will be provided according to paragraph a below or, at Registry Operator's option, according to paragraph b below:

- a. Registry Operator shall make full data sets available for download by ICANN by Internet File Transfer Protocol (FTP) (FTP access will be password protected and limited to prespecified IP ranges). The data sets will be made available for download beginning no later than 2000 UTC on the day to which they relate and until the next full data set becomes available for download.

b. Registry Operator shall write the full data set to DAT (DDS-4) tape (or other media specified by ICANN) and sends it to ICANN by expedited delivery service (such as FedEx or DHL). The full data set will be scheduled for arrival at ICANN no later than the second calendar day following the day to which the data set relates.

B. Content

The full data sets will consist of four types of the objects and contents described for full data sets in the “Public Whois” section above.

C. Format

Full data sets will be XML version 1.0, UTF-8 encoded documents conforming to the schema/document type declaration set forth in Exhibit B of Appendix 1.

.MUSEUM Appendix 6 Schedule of Reserved Names

Except to the extent that ICANN otherwise expressly authorizes in writing, the Sponsor shall reserve names formed with the following labels from initial (i.e. other than renewal) registration within the Sponsored TLD:

A. Labels Reserved at All Levels. The following names shall be reserved as labels forming part of Registered Names within the Sponsored TLD:

ICANN-related names:

- aso
- gnso
- icann
- internic
- ccnso

IANA-related names:

- afrinic
- apnic
- arin
- example
- gtld-servers
- iab
- iana
- iana-servers
- iesg
- ietf
- irtf
- istf
- lacnic
- latnic
- rfc-editor
- ripe
- root-servers

B. Additional Second-Level Reservations. In addition, the following names shall be reserved at the second level:

- All single-character labels.
- All two-character labels shall be initially reserved. The reservation of a two-character second-level label shall be released to the extent that the Sponsor reaches agreement with the government and manager of the country-code TLD designated by that label, or with the ISO 3166 maintenance agency, whichever

appropriate. The Sponsor may also propose release of these reservations based on its implementation of measures to avoid confusion with the corresponding country codes.

C. Tagged Domain Names:

All labels with hyphens in the third and fourth character positions (e.g., "bq--1k2n4h4b" or "xn--ndk061n")

D. Second-Level Reservations for Registry Operations. The following names are reserved for use in connection with the operation of the registry for the Sponsored TLD. They may be used by the Sponsor, but upon conclusion of Sponsor's designation as the Sponsor for the Sponsored TLD they shall be transferred as specified by ICANN:

- nic
- whois
- www

E. Sponsor may register up to 4,000 domain names directly with the Registry Operator, as outlined in Appendix S, Part VII, and keep these names under direct management until the conclusion of its designation by ICANN as the sponsor for the Sponsored TLD. At that time all such names that are registered to the Sponsor (but not including those in Part B below) will be transferred at the conclusion of status of sponsor of the registry.

Part A: Names to Be Transferred at Conclusion of Sponsor Status:

ftp.museum
gopher.museum
imap.museum
login.museum
ldap.museum
registry.museum
registrar.museum
zonefile.museum

Part B: Names to be Retained by Sponsor in the Event of Reassignment:

musedoma.museum
mdma.museum
musenic.museum
themuseumdomainmanagementassociation.museum
museumdomainmanagementassociation.museum

Part C: Names Subject to other Disposition:

Within 90 days of it being determined that Sponsor will conclude its designation by ICANN as the Sponsor for the Sponsored TLD, Sponsor will submit a list of all names that it has under direct management as described above. This list will indicate any name

that has been made available for use by a third party in a manner that might be materially effected by the disposition of that name. Sponsor will, at the same time the list of these reserved names is submitted, notify all parties using the names appearing on it about the pending transfer of management of the registry.

Appendix 7

Functional and Performance Specifications

Pursuant to the responsibility delegated to it in Appendix S, Registry Operator will prescribe functional requirements for Registry Services provided for the Sponsored TLD. These functional requirements shall ensure that at least the following minimum functional capabilities are provided.

1. Conventions

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 IETF RFC 2119.

2. Nameserver Requirements

The nameservers for the Sponsored TLD **MUST** be operated in compliance with the following Requests for Comments (RFCs): 1034 , 1035 , 1101 , 2181 , 2182 . In clarification of the statement of host-name rules in these RFCs, all Registered Names **SHALL** comply with the following syntax in augmented Backus-Naur Form (BNF) as described in RFC 2234:

```
dot = %x2E ; "."
dash = %x2D ; "-"
alpha = %x41-5A / %x61-7A ; A-Z / a-z
digit = %x30-39 ; 0-9
ldh = alpha / digit / dash
id-prefix = alpha / digit
label = id-prefix [*61ldh id-prefix]
sldn = label dot label; not to exceed 254 characters
hostname = *(label dot) sldn; not to exceed 254 characters
```

There **MUST** be nameservers for the Sponsored TLD on at least five different network segments. So that the IANA has zone-file access, zone-file transfers **MUST** be enabled at all nameservers for transfers to at least 128.9.0.0/16 and 192.0.32.0/20.

3. Registry System Requirements

The registry system **MUST** enforce the name reservations and Charter requirements set forth in Appendix S.

4. Whois Service Requirements

Whois service **MUST** meet at least the functional specifications set forth in Appendix 5.

5. Data Escrow Requirements

Data escrow MUST meet at least the functional specifications set forth in Appendix 1. The registry shall be capable of storing the data to be escrowed.

6. Reporting Requirements

The registry system MUST provide data sufficient to meet the reporting requirements set forth in Appendix 4.

7. Performance Specifications

DNS Service Availability. Service availability as it applies to the DNS Service refers to the ability of the Nameservers, as a group, to resolve a DNS query from an Internet user. The committed Performance Specification is 99.999% measured in Monthly Timeframes.

Performance Level. At any time at which it is available, each Nameserver (including a cluster of Nameservers addressed at a shared IP address) MUST be able to handle a load of queries for DNS data that is three times the measured daily peak (averaged over the Monthly Timeframe) of such requests on the most loaded Nameserver.

Cross-Network Nameserver Performance Requirements. The committed Performance Specification for cross-network Nameserver performance is a measured Round-trip time of under 300 ms and measured packet loss of under 10%. Cross-network Nameserver performance measurements will be conducted by ICANN at times of its choosing, in the following manner:

The measurements will be conducted by sending strings of DNS request packets from each of four measuring locations to each of the Nameservers and observing the responses from the Nameservers. (These strings of requests and responses are referred to as a "CNNP Test".) The measuring locations will be four root nameserver locations (on the US East Coast, US West Coast, Asia, and Europe).

Each string of request packets will consist of 100 UDP packets at 10-second intervals requesting ns records for arbitrarily selected second-level domains in the Sponsored TLD, preselected to ensure that the names exist in the Sponsored TLD and are resolvable. The packet loss (i.e. the percentage of response packets not received) and the average Round-trip time for response packets received will be noted.

To meet the packet loss and Round-trip-time requirements for a particular CNNP Test, all three of the following must be true:

- The Round-trip time and packet loss from each measurement location to at least one Nameserver must not exceed the required values.
- The Round-trip time to each of 75% of the Nameservers from at least one of the measurement locations must not exceed the required value.

- The packet loss to each of the Nameservers from at least one of the measurement locations must not exceed the required value.

Any failing CNNP Test result obtained during an identified Core Internet Service Failure shall not be considered.

To ensure a properly diverse testing sample, ICANN will conduct the CNNP Tests at varying times (i.e. at different times of day, as well as on different days of the week). The cross-network Nameserver performance requirement will be deemed to have not been met only if the Nameservers persistently fail the CNNP Tests with no less than three consecutive failed CNNP Tests to be considered to have persistently failed.

In the event of persistent failure of the CNNP Tests, ICANN will give Registry Operator written notice of the failures (with backup data) and Registry Operator will have sixty days to cure the failure. If, following Registry Operator's opportunity to cure, the Nameservers continue to persistently fail CNNP Tests and Registry Operator fails to resolve the problem within thirty days after written notice of the continuing failures, Registry Operator will be in breach of its obligations under the Registry Agreement. Sixty days before the commencement of testing under this provision, ICANN will provide Registry Operator with the opportunity to evaluate the testing tools and procedures to be used by ICANN. In the event that Registry Operator does not approve of such tools and procedures, ICANN will work directly with Registry Operator to make necessary modifications.

Whois Service Availability. The committed Performance Specification for Whois Service is 99.4% measured in Monthly Timeframes.

Whois Service Performance Level. The Whois Service will, on average, be able to handle 50 queries per second.

Whois Service Response Times. The Whois Service will have a maximum whois query response time of 1.5 seconds. Failure of the Whois Service to respond to three (3) consecutive rcPing commands initiated by the Registry Operator at regular intervals within such maximum processing time shall mean the Whois Service is considered unavailable.

Whois Service Updates. The data provided by the Whois Service will be updated on at least a daily basis.

8. Location of Data Centers

The back-end provider will provide data centers for registration services, currently CORE. The primary data center is currently located in Dortmund, Germany. Back-up data centers are currently located in Stockholm, Sweden.

9. Fail Over Practice

The registry shall practice fail over between data centers not less frequently than once every two years.

Appendix S – PART I .MUSEUM Charter

The .museum TLD has been established to serve the needs of the international museum community. It will be managed in accordance with the provisions of this charter (“Charter”) and in the interests of that community.

1. The Sponsor will be responsible for establishing registration requirements for the .museum TLD, provided that registrations shall be granted only to entities that are museums (as defined in item 2 below), professional associations of museums, or individuals who are professional museum workers (as defined in item 7 below).
2. For the purposes of this Charter, the basic definition of a “museum” is provided in Article 2, Paragraph 1 of the Statutes of the International Council of Museums (“ICOM”), as quoted below. The Sponsor may extend this definition to cover other entities that acquire, conserve, document, and communicate or exhibit evidence of people or their environment, provided that any such extension is in accordance with community perceptions about the prevailing scope of the field of museum activity.
3. The Sponsor may clarify this definition as may be necessary for the operation of the domain, subject to the limits on extension in item 2 above.
4. The Sponsor may establish stricter requirements for registrants according to the requirements for policy-development set forth in the Sponsorship Agreement.
5. The Sponsor will promptly convey to ICOM all statements of museum community need that may result in the Sponsor amending the definition of “museum” referred to in item 2 above, with the request that ICOM consider, in accordance with its procedures, commensurate modification to its definition of “museum” at the earliest date at which this may be done.
6. The Sponsor will promptly convey to ICANN any modifications that may be made to the definition of “museum” provided in the ICOM Statutes.
7. For the purposes of this Charter, the definition of “professional museum worker” is provided in Article 2, Paragraph 2 of the ICOM Statutes, as quoted below. A professional museum worker shall receive registrations of Registered Names within .museum only (a) under one or more role descriptive second-level sub-domains within .museum (e.g., john.smith.curator.museum and jane.doe.conservator.museum) established for this purpose or (b) under one or more sub-domains assigned to a museum or museums with which the worker is affiliated.

From Article 2 of the Statutes of the International Council of Museums:

The ICOM Statutes were adopted by the 16th General Assembly of ICOM (The Hague, The Netherlands, 5 September 1989), amended by the 18th General Assembly of ICOM

(Stavanger, Norway, 7 July 1995), and amended again by the 20th General Assembly of ICOM (Barcelona, Spain, 6 July 2001).

Article 2 - Definitions

1. A museum is a non-profit making, permanent institution in the service of society and of its development, and open to the public, which acquires, conserves, researches, communicates and exhibits, for purposes of study, education and enjoyment, material evidence of people and their environment.

(a) The above definition of a museum shall be applied without any limitation arising from the nature of the governing body, the territorial character, the functional structure or the orientation of the collections of the institution concerned.

(b) In addition to institutions designated as "museums" the following qualify as museums for the purposes of this definition:

(i) natural, archaeological and ethnographic monuments and sites and historical monuments and sites of a museum nature that acquire, conserve and communicate material evidence of people and their environment;

(ii) institutions holding collections of and displaying live specimens of plants and animals, such as botanical and zoological gardens, aquaria and vivaria;

(iii) science centres and planetaria;

(iv) non profit art exhibition galleries;

(v) nature reserves;

(vi) international or national or regional or local museum organizations, ministries or departments or public agencies responsible for museums as per the definition given under this article;

(vii) non-profit institutions or organizations undertaking conservation, research, education, training, documentation and other activities relating to museums and museology;

(viii) cultural centres and other entities that facilitate the preservation, continuation and management of tangible or intangible heritage resources (living heritage and digital creative activity); and

(ix) such other institutions as the Executive Council, after seeking the advice of the Advisory Committee, considers as having some or all of the

characteristics of a museum, or as supporting museums and professional museum personnel through museological research, education or training.

2. Professional museum workers include all the personnel of museums or institutions qualifying as museums in accordance with the definition in Article 2, para. 1, having received specialized training, or possessing an equivalent practical experience, in any field relevant to the management and operations of a museum, and independent persons respecting the ICOM Code of Professional Ethics and working for museums as defined above, either in a professional or advisory capacity, but not promoting or dealing with any commercial products and equipment required for museums and services.

Appendix S – PART II

Delegated Authority

The following areas of responsibility for development of policies for the Sponsored TLD are delegated to the Sponsor, provided the other provisions of the Agreement and its Attachments are followed:

1. Establishment of naming conventions to be used in the Sponsored TLD.
2. Restrictions on what persons or entities may register Registered Names (which need not be uniform for all names within the Sponsored TLD), provided the scope of the Charter (Section 1 of this Attachment) is not exceeded.
3. Restrictions on how Registered Names may be used (which need not be uniform for all names within the Sponsored TLD), provided the scope of the Charter (Part 1 to this Appendix S) is not exceeded.
4. Performance of Eligibility and Name-Selection Services (ENS Services), either directly by the Sponsor or by one or more organizations or individuals to which it delegates the responsibility for performing ENS Services, provided that revenues received in connection with ENS Services are used solely to defray the cost of providing ENS Services or otherwise sponsoring the Sponsored TLD, with allowance for accumulation of reasonable operating reserves.
5. Mechanisms for enforcement of the restrictions in items 2 and 3, including procedures for cancellation of registrations. See also Subsection 3.1(d)(i)(B).
6. Mechanisms for resolution of disputes between owners of rights in names (such as trademarks) and registrants that do not supplant ICANN's dispute-resolution policies or remedies that may be available under law.
7. Selection of the Registry Operator (not to be an affiliate of the Sponsor) and establishment of the terms of agreement between Sponsor and the Registry Operator.
8. Functional and performance specifications for, and pricing of, Registry Services.

9. Matters concerning the operation of the registry for the Sponsored TLD.
10. Selection of ICANN-Accredited Registrars to act as registrars for the Sponsored TLD, consistent with Part 4 of this Appendix S.
11. Terms of agreement to be offered by the Registry Operator to ICANN-Accredited Registrars selected by Sponsor, including provisions for fair treatment by the Registry Operator of those registrars.
12. Practices of ICANN-Accredited Registrars selected by Sponsor with respect to Registered Names and their registration.
13. Terms of agreement between registrars and registrants under which Registered Names are registered.
14. Uses and practices by registrants with respect to Registered Names.
15. Provisions for publication of registry and registrar data consistent with the Sponsorship Agreement and Registrar Accreditation Agreements.
16. Terms of agreement between or among Sponsor, Registry Operator, registrars, and registrants necessary to give effect to the above.
17. Reservation of names to be withheld from general registration in the sTLD (in addition to those names reserved by ICANN and set forth in Appendix 6).
18. Other areas of responsibility as agreed to in writing by both ICANN and Sponsor.
19. Any other policies or practices not inconsistent with the Agreement, ICANN Temporary Specifications and Policies, or Consensus Policies as applicable.

Appendix S – Part III Description of Sponsored TLD Community

The .MUSEUM TLD is intended to serve the needs of the international museum community, which consists of those persons and entities eligible to register in the .MUSEUM TLD pursuant to the Charter (Part I to this Appendix S).

Appendix S – Part IV Selection of Registrars

This Attachment specifies the criteria for Sponsor's selection of ICANN-Accredited Registrars wishing to enter into an Authorizing Agreement to register domain names in the Sponsored TLD. Sponsor will select from among ICANN-Accredited Registrars in a

manner that promotes the following characteristics in the group of authorized ICANN-Accredited Registrars:

1. Recognition of the public-benefit nature of the .museum TLD and the willingness to participate in it in that spirit;
2. Thorough understanding of the principles and intentions underlying .museum TLD policies, especially as manifested in the naming conventions;
3. Dedicated willingness to propagate and enforce these policies in an observant and diligent manner;
4. Familiarity with the needs of the museum community and established modes for reflecting these needs in the selection of domain names;
5. Broad geographic distribution of registrar locations;
6. Familiarity with the particular requirements of museums in the language and cultural region served by the registrar, and active interest in the deployment of appropriate Internationalized Domain Names;
7. Established collaborative contact with one or several organizations representing the museum community in the language and cultural region served by the registrar, or, if the registrar specializes in a disciplinary segment of the museum community, contact with an organization representing museums within that discipline; and
8. Dedicated willingness to act together with the museum organizations referred to above, in the processing of registration requests. Sponsor will accept applications from any ICANN-accredited Registrar but will enter into agreements with Registrars only after a decision with respect to the selection of each applicant to serve as a Registrar based on all of the above criteria and will periodically review and, as appropriate, revise its selection of Registrars based on such criteria.

Appendix S – Part V Challenges to Registrations in Violation of Charter

I. IN GENERAL

Disputes concerning domain name registrations made in violation of the Sponsored TLD Charter defined in Attachment 1 of the Agreement shall be resolved under the Charter Eligibility Dispute Resolution Policy (the "CEDRP").

II. CHARTER ELIGIBILITY DISPUTE RESOLUTION POLICY

A. General Information

All registrants in the Sponsored TLD are bound by the CEDRP. The CEDRP applies to challenges to registered domain names on the grounds that the registrant does not meet the eligibility requirements set forth in the Sponsored TLD Charter (the "Eligibility Requirements"). Challenges based on other grounds, including claims that a registration violates restrictions established by the Sponsor under its delegated authority, are not subject to the CEDRP. Any person or entity may bring a challenge to a registered domain name, under the CEDRP. To invoke the CEDRP, the challenger must submit a complaint to a CEDRP dispute resolution provider approved by ICANN (the "CEDRP Providers") in accordance with the Rules for Charter Eligibility Dispute Resolution Policy (the "CEDRP Rules").

B. Principal Documents

The following documents provide details:

1. Charter Eligibility Dispute Resolution Policy. The CEDRP is followed by all ICANN-Accredited Registrars with respect to the Sponsored TLD. The CEDRP is attached as Exhibit 1 to this Attachment, and is made a part of the registration agreement, enforceable by Sponsor, between the Registered Name Holder and either Sponsor or the applicable registrar (see Subsection 3.7).

2. Rules for Charter Eligibility Dispute Resolution Policy. The CEDRP Rules will be followed by all CEDRP Providers. The CEDRP Rules will be developed by the CEDRP Providers in consultation with the Sponsor and ICANN. Such CEDRP Providers may supplement these rules, as appropriate.

3. List of CEDRP Providers. The then-current list of CEDRP Providers will be identified on ICANN's web site and will be made available to Sponsor to post on its web site.

EXHIBIT 1 **Charter Eligibility Dispute Resolution Policy** (the "Policy")

This Policy is to be incorporated in all agreements with registrants concerning domain-name registrations in the Sponsored TLD (the "Registration Agreement"). "You" and "your" refer to the registrant. "Us" "our" and "we" refer to [either Sponsor or the applicable registrar (see Subsection 3.7)].

1. Purpose. This Charter Eligibility Dispute Resolution Policy (the "Policy") is incorporated by reference into your Registration Agreement, and sets forth the terms and conditions in connection with disputes over the registration and use of an Internet domain name, registered by you in the Sponsored TLD. The proceedings under Paragraph 4 of this Policy will be conducted according to the Rules for Charter Eligibility Dispute Resolution Policy (the "CEDRP Rules"), which are available at <URL to be specified by ICANN>, and the selected administrative dispute resolution service provider's

supplemental rules. For the purposes of this Policy, the term "Registered Name" means a domain name registration in the Sponsored TLD.

2. Your Representations. By applying to register a domain name within the Sponsored TLD (a "Registered Name"), or by asking us to maintain or renew a Registered Name, you hereby represent and warrant to us that, to your knowledge, the registration of your Registered Name conforms to the eligibility requirements set forth in the Sponsored TLD Charter (the "Eligibility Requirements").

3. Cancellations. We will cancel Registered Names upon our receipt of a decision of a CEDRP Provider requiring such action in any administrative proceeding to which you were a party and which was conducted under this Policy or a later version of this Policy. (See Paragraph 5(e) below.) We may also cancel a Registered Name registration in accordance with the terms of your Registration Agreement or other legal requirements.

4. Mandatory Administrative Proceeding. This paragraph sets forth the types of disputes for which you are required to submit to a mandatory administrative proceeding under this Policy. These proceedings will be conducted before a CEDRP Provider that has been approved by the Internet Corporation for Assigned Names and Numbers ("ICANN"). A list of CEDRP Providers is available at <www.icann.org/cedrp/approved-providers.htm>.

(a) Applicable Disputes. You are required to submit to a mandatory administrative proceeding in the event that a third party (a "Complainant") asserts to the applicable CEDRP Provider, in compliance with the CEDRP Rules that your Registered Name does not meet the Eligibility Requirements; in the administrative proceeding, the Complainant must prove this element.

(b) Registered Name Disputes: Evidence of Registration in Violation of the Eligibility Requirements. For the purposes of Paragraph 4(a), if the Panel of the CEDRP Provider finds that your Registered Name does not meet the Eligibility Requirements, then such finding shall be evidence that your Registered Name violated the Eligibility Requirements. If the Panel finds that your Registered Name violated the Eligibility Requirements, the Panel shall exercise the remedy set forth in Section 5(e).

(c) Registered Name Disputes: How to Demonstrate Your Rights to and Legitimate Interests in the Registered Name in Responding to a Complaint. For the purposes of Paragraph 4(a), when you receive a complaint, you should refer to the CEDRP Rules in determining how your response should be prepared.

5. Procedure.

(a) Selection of CEDRP Provider. The Complainant shall select the CEDRP Provider from those on the list of CEDRP Providers available at <www.icann.org/cedrp/approvedproviders.htm> by submitting the complaint to

that CEDRP Provider. The selected CEDRP Provider will administer the proceeding.

(b) Initiation of Proceeding and Process and Appointment of the Panel. The CEDRP Rules state the process for initiating and conducting a proceeding and for appointing the panel that will decide the dispute (the "Panel").

(c) Fees. All fees charged by a CEDRP Provider in connection with any dispute before a Panel shall be paid in accordance with the CEDRP Rules.

(d) Our Involvement in Administrative Proceedings. We do not, and will not, participate in the administration or conduct of any proceeding before a Panel. In addition, we will not be liable as a result of any decisions rendered by the Panel.

(e) Remedy. The remedy available to a Complainant pursuant to any proceeding before a Panel shall be limited to the cancellation of your Registered Name.

(f) Notification and Publication. The CEDRP Provider shall notify us and ICANN of any decision made by a Panel with respect to a Registered Name. All decisions under this Policy will be published in full over the Internet, except when a Panel determines in an exceptional case to redact portions of its decision.

6. All Other Disputes and Litigation. All other disputes between you and any party other than us regarding your Registered Name that are not brought pursuant to the mandatory administrative proceeding provisions of Paragraph 4 shall be resolved between you and such other party through any court, arbitration or other proceeding that may be available.

7. Our Involvement in Disputes. We will not participate in any way in any dispute between you and any party other than us or the operator of the Sponsored TLD registry regarding the registration and use of your Registered Name. You shall not name us as a party or otherwise include us in any such proceeding. In the event that we are named as a party in any such proceeding, we reserve the right to raise any and all defenses deemed appropriate, and to take any other action necessary to defend ourselves.

8. Maintaining the Status Quo. We will not cancel, transfer, activate, deactivate, or otherwise change the status of any Registered Name under this Policy except as provided in Paragraph 3 above.

9. Changing Registrars During a Dispute. You may not transfer your Registered Name to another registrar during a pending administrative proceeding brought pursuant to Paragraph 4 or for a period of fifteen (15) business days (as observed in the location of our principal place of business) after such proceeding is concluded.

10. Policy Modifications. We reserve the right to modify this Policy at any time with the permission of ICANN. We will post our revised Policy at <Registrar URL> at least thirty (30) calendar days before it becomes effective. Unless this Policy has already been

invoked by the submission of a complaint to a CEDRP Provider, in which event the version of the Policy in effect at the time it was invoked will apply to you until the dispute is over, all such changes will be binding upon you with respect to any Registered Name dispute, whether the dispute arose before, on or after the effective date of our change. In the event that you object to a change in this Policy, your sole remedy is to cancel your Registered Name, provided that you will not be entitled to a refund of any fees you paid to us. The revised Policy will apply to you until you cancel your Registered Name.

Appendix S – Part VI Existing Sponsor Services

As of the Effective Date of this contract, Sponsor offers the .MUSEUM index. The sponsor maintains a searchable index of the names and labels that appear in the .museum domain. The shared generic second-level labels that appear in separately delegated three-label names therefore also all resolve directly in the .museum zone in the general form sharedlabel.museum.

Appendix S - Part VII Community Related Registrations

Recognizing that: i) the charter of the .MUSEUM top-level domain is sufficiently restrictive so that it has appeal to a small, identifiable and limited community, and that said restrictions have created conditions that substantially limit market demand and as a result, registrar uptake; ii) MuseDoma is a not-for-profit entity as is the community it is required to serve by the definition of its charter; and iii) MuseDoma makes available to its community members under certain conditions, at no cost, third-level domain names. Therefore, MuseDoma is permitted to maintain up to 4,000 domain names directly with the Registry Operator and keep these names under direct management for purposes stated in iii) of this Section until the conclusion of its designation by ICANN as the Sponsor for the Sponsored TLD.