URS High Level Technical Requirements for Registries and Registrars
17 October 2013

As of [INSERT Registration Data Policy Effective Date] this Policy was updated to reflect changes required to implement the Registration Data Policy

The following Technical Requirements are to be followed by Registry Operators and Registrars to support the Uniform Rapid Suspension System (URS). The URS Rules and URS Procedures governing the URS are available on ICANN's Website at http://newgtlds.icann.org/en/applicants/urs.

The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "NOT RECOMMENDED","MAY", and "OPTIONAL" in this document are to be interpreted as described in BCP 14 [RFC2119] [RFC8174] when, and only when, they appear in all capitals, as shown here.

1. Definitions:

URS Lock: A combination of statuses that prevents a domain name from being updated, transferred or deleted. A request to activate a URS Lock will come from the URS Provider to the Registry Operator as specified by the URS Rules.

> The Registry Operator MUST activate the following EPP-statuses when a domain name is in URS Lock:
>
> > *I. serverUpdateProhibited*
> >
> > *II. serverTransferProhibited*
> >
> > *III. serverDeleteProhibited*
>
> Note: If a domain name transitions from URS Suspension to URS Lock, the Registry Operator MUST update the domain name to set the name server (NS) and delegation signer (DS) information that was originally present in the domain name before the URS Suspension. If glue records were removed when the Registry Operator activated the URS Suspension, the Registry Operator MUST restore the required glue records.

URS Suspension: A domain name MAY be suspended as part of the final decision of a URS Complaint (as defined in the URS Rules). A URS Suspended domain name will be redirected to a webpage that mentions that the domain name has been suspended because of a URS Complaint. In order to redirect a URS Suspended domain name to

the suspension website, the URS Provider will specify the NS and dsData (including keyData) information (if the URS Provider does not support DNSSEC, the Registry Operator MUST remove the old DS records) to the Registry Operator in the email that instructs the Registry Operator to suspend the domain name.

Non-URS State (URS Rollback): This is the state of a domain name that is not under either URS Lock or URS Suspension. If the domain name is in URS Lock or URS Suspension, and if the URS Provider requests that the domain name be transitioned to a Non-URS State, the Registry Operator MUST restore the original information of the domain name. The reversion of a domain name to a Non-URS State is referred to as a URS Rollback.

> Note: The Registry Operator MUST update the domain name to set the NS and DS information that was originally present in the domain name before the URS Suspension. If glue records were removed when the Registry Operator activated the URS Suspension, the Registry Operator MUST restore the required glue records.

2. Registry Operator Requirements:

Registry Requirement 1: Registry Operator MAY appoint a Back End Registry Operator ("BERO") to act on Registry Operator's behalf to fulfill Registry Operator's obligations under the URS ("Agreed Obligations") by written agreement between Registry Operator and the BERO. Once appointed, the BERO should receive URS requests from the URS Provider and may send notifications to the URS Provider. For the avoidance of doubt, the appointment of a BERO shall not relieve Registry Operator of its obligations under the Agreed Obligations and Registry Operator shall remain liable to perform the Agreed Obligations should the BERO fail to discharge the Agreed Obligations in whole or part in accordance with the Registry Operator's Registry Agreement.

Registry Requirement 2: The Registry Operator MUST activate a URS Lock within 24 hours of the Registry Operator's receipt of an email from a URS Provider requesting that the URS Lock be activated on the domain name.

> Note: For security purposes all emails sent by URS Providers to Registry Operators, Registrars and BEROs will be cryptographically signed using PGP.

Registry Requirement 3: The Registry Operator MUST activate URS Suspension on a URS Locked domain name within 24 hours of the Registry Operator's receipt of an email from a URS Provider requesting that the URS Suspension be activated on the domain name. In addition, the Registry Operator MUST cause the Registration Data

Directory Services information to reflect that the domain name is not able to be transferred, deleted or modified for the life of the registration.

Registry Requirement 4: The Registry Operator MUST complete a URS Rollback for a domain name within 24 hours of the Registry Operator's receipt of an email from a URS Provider requesting that the URS Rollback be performed on the domain name.

Registry Requirement 5: The Registry Operator MUST promptly notify the URS Provider via email that the action (e.g. activation of URS Lock, activation of URS Suspension or completion of a URS Rollback) requested by the URS Provider has been completed on the domain name. If URS Suspension is activated on a domain name, the Registry Operator MAY notify the Registrars of domain names that may be affected by potential resolution issues of child hosts that depend on the URS Suspended domain name.

> Note: For security purposes emails sent by the Registry Operator and BERO (if one has been appointed) to the URS Provider MUST be cryptographically signed using PGP.

Registry Requirement 6: The Registry Operator MUST promptly notify the URS Provider via email if a URS Locked or URS Suspended domain name has been: (a) deleted or (b) purged (if the Registry Operator implements RGP).

Registry Requirement 7: The Registry Operator MUST provide ICANN with a URS point of contact (e.g., name, position, phone number, email address), and PGP public key, which ICANN will make available to the URS Providers, for the purposes of receiving and sending URS communications. If the Registry Operator appoints a BERO, the Registry Operator MUST provide ICANN with a BERO point of contact, which ICANN will make available to the URS Providers, for the purposes of receiving and sending URS communications. If the Registry Operator appoints a BERO, the PGP public key of the BERO SHOULD be provided instead of the PGP public key of the Registry Operator. ICANN will make available to the Registry Operator and the BERO (if one has been appointed) the list of PGP public keys used by URS Providers, for the purpose of validating URS communications.

Registry Requirement 8: Following the activation of a URS Lock or, if applicable, URS Suspension on a domain name, if the Registry Operator in its good faith belief concludes that the activation of URS Suspension on the domain name is likely to create a present or imminent security incident to the TLD or the DNS (e.g. indirect effects on a significant number of domain names related to possible child hosts that would result in resolution issues after activating the URS Suspension), the Registry Operator MAY

submit an "Expedited Registry Security Request" to ICANN requesting that ICANN grant the Registry Operator a waiver from compliance with these Technical Requirements in order to deactivate the URS Lock or URS Suspension on the domain name ("ERSR Waiver"). ICANN will promptly engage all parties related to the ERSR Waiver on a case by case basis to reach a final resolution to the concerns that led to the Registry Operator's ERSR Waiver request.

Registry Requirement 9: The Registry Operator (or appointed BERO) MUST provide the URS provider with the available Registration Data[1] for each of the specified domain names, upon the URS provider notifying the Registry Operator (or appointed BERO) of the existence of a complaint, or participate in another mechanism to provide the available Registration Data to the Provider as specified by ICANN.

3. Domain Name Life-Cycle:

Registry Requirement 10 Registry Operator MUST follow the normal domain name life-cycle for a URS Locked domain name. The Registry Operator SHOULD deactivate the serverDeleteProhibited EPP status at expiration of a URS Locked domain name. Alternatively, if the Registry Operator decides not to deactivate the serverDeleteProhibited EPP status at the expiration of a URS Locked domain name, the Registry Operator MUST process the deletion of such URS Locked domain name through an offline process with the Registrar.
>   Note: If a domain name that is subject to a URS procedure is purged (if the Registry Operator implements Redemption Grace Period (RGP)), or deleted, the URS procedure will automatically terminate.

Registry Requirement 11: In cases where a URS Complainant (as defined in the URS Rules) has prevailed, Registry Operator MUST offer the option for the URS Complainant to extend a URS Suspended domain name's registration for an additional year (if allowed by the maximum registration policies of the TLD), provided, however, that the URS Suspended domain name MUST remain registered to the registrant who was the registrant at the time of URS Suspension. Registry Operator MAY collect the Registrar renewal fee if the URS Complainant elects to renew the URS Suspended domain name with the sponsoring Registrar.

Registry Requirement 12: The Registry Operator MUST deactivate the serverDeleteProhibited EPP status at expiration of a URS Suspended domain name.

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[1] The term "Registration Data" as used in this policy SHALL have the meaning given to it in the Registration Data Policy [add link]

4. Registry-Registrar Agreement:

The Registry Operator MUST specify in the Registry-Registrar Agreement for the Registry Operator's TLD that the Registrar MUST accept and process payments for the renewal of a domain name by a URS Complainant in cases where the URS Complainant prevailed.

The Registry Operator MUST specify in the Registry-Registrar Agreement for the Registry Operator's TLD that the Registrar MUST NOT renew a domain name to a URS Complainant who prevailed for longer than one year (if allowed by the maximum validity period of the TLD).

5. Registrar Requirements:

Registrar Requirement 1: Registrar MUST provide ICANN with a URS point of contact (e.g., name, position, phone number, email address), which ICANN will make available to the URS Providers, for the purposes of receiving URS communications. ICANN will make available to the Registrar the list of URS Providers point of contacts, for the purpose of receiving URS communications.

Registrar Requirement 2: Registrar MUST follow the normal domain name life-cycle for a URS Locked domain name. If the domain name registrant elects to renew, elected to auto-renew or restore the domain name registration, Registrar MAY accept such renewal and/or restoration (if the Registry Operator implements RGP).

Registrar Requirement 3: Registrar MUST offer the option for the URS Complainant to extend a URS Suspended domain name's registration for up to one additional year (if allowed by the maximum validity period of the TLD) in cases where the URS Complainant prevailed. Registrar MUST pay the renewal fee for such domain name to the Registry Operator.

Registrar Requirement 4: Following notice from a Registry Operator that a URS Suspension has been activated on a domain name, Registrar MAY notify the registrants of domain names that depend on the resolution of the URS Suspended domain name so that they can remediate potential indirect effects of the URS Suspension (e.g., possible resolution issues for child hosts that depend on the URS Suspended domain name).

Registrar Requirement 5: Registrar SHOULD NOT modify the contact data (i.e. contacts and registrant data) of a URS Locked or URS Suspended domain name.

Registrar Requirement 6: If the URS provider is unable to obtain the full Registration Data from the Registry Operator (or appointed BERO) because the Registration Data is not available at the Registry Operator, the Registrar MUST provide the full Registration Data to the URS Provider upon notification of the complaint.

Non-Repudiation mechanism:

URS Providers, Registrars, ICANN, and Registries MUST support the OpenPGP standard as described in RFC 4880 for signing messages, message format, etc. Several files are provided by ICANN at the repository located at https://urs.icann.org. In order to access the repository, HTTP Basic access authentication MUST be used. Credentials for accessing the repository will be provided by ICANN to Registries, Registrars, and URS Providers.

Generals:

Date and time, datetime: Date and time are specified following the standard "Date and Time on the Internet specification" in RFC 3339.

URS Provider Information:

URS Provider PGP Keys:

- The URS Provider PGP Keys (URSPK) is an ASCII-armored PGP key-ring file that contains the PGP keys used by URS Providers to sign the notifications sent by email to Registries and Registrars.

- URSPK is located at https://urs.icann.org/urs/urs-pgp-keys.asc

- The URSPK MUST be used to validate the PGP signature in the notifications sent from the URS Provider.

- After accessing https://urs.icann.org/urs/urs-pgp-keys.asc, the server will respond with an HTTP 302 status code redirecting to the latest URSPK. The filename of the URSPK is urs-pgp-keys.<YYYYMMDDvv>.asc, Where:

- ○ YYYY: year that the URSPK was updated.

- ○ MM: zero-padded month that the URSPK was updated.

- ○ DD: zero-padded day that the URSPK was updated.

- ○ vv: zero-padded version of the URSPK, "00" is used for the first version of the day.

Registry Operator PGP Requirement 1: The Registry Operator MUST download at least every 24 hours the URSPK. If the URSPK is newer than the local copy based on the filename, the Registry Operator/BERO MUST use the downloaded file.

Registrar PGP Requirement 1: The Registrar MUST download at least every 24 hours the URSPK. If the URSPK is newer than the local copy based on the filename, the Registrar MUST use the downloaded file.

Registrar Provider Information:

Registrar Provider Contacts CSV:

- ● The Registrar Contacts CSV (RrCC) contains a list of Registrar and URS point of contact.

- ● The RrCC is located at https://urs.icann.org/registrar/registrar-contacts.csv, the RrCC is contained in a CSV-like formatted file that has the following structure:

  - ○ first line: <version>,<RrCC creation datetime>. Where:

    - ■ <version>, version of the file, this field MUST be 1.

    - ■ <RrCC creation datetime>, datetime in UTC that the RrCC was created.

  - ○ line: a header line as specified in RFC 4180, With the header names as follows:

    - ■ IANA-Registrar-ID,contact-email-address

- One or more lines with:
  <IANA-Registrar-ID>,<contact-email-address>, where:

    - <IANA-Registrar-ID>, IANA Registrar ID as defined in http://www.iana.org/assignments/registrar-ids/registrar-ids.xml

    - <contact-email-address>, where email messages shall be sent to by the Registry Operator / BERO or URS Provider.

Registry PGP Requirement 2: The Registry Operator/BERO MAY download at least every 24 hours the RrCC. If the <RrCC creation datetime> value in the downloaded file is newer than the local copy, the Registry Operator/BERO MUST use the downloaded copy.