

Compliance Implementation and Relevant Rule Specifications for the Allocation of Second-Level IDN Variant Labels to a Single Entity

This registry administers second-level Internationalized Domain Name (IDN) variant labels in strict compliance with the IDNA 2008 international standards (RFC 5890-5894), RFC 7940 character rule specifications, and EPP protocol standards (RFC 5730-5734). Operating under the Registration Data Policy with a Minimal Data Set, the registry fulfills the compliance requirement that second-level variant labels registered based on the second-level IDN table are allocated exclusively to a single entity or reserved solely for allocation to that entity, through mandatory technical binding and lifecycle management at the rule level. Meanwhile, the registry ensures the consistency of publication rules for WHOIS and the Registration Data Access Protocol (RDAP) within the Registration Data Directory Service (RDDS) framework. All business logic, processing rules and operating mechanisms apply uniformly to all variant top-level domains (variant TLDs). All variant TLDs adopt a single unified set of variant management algorithms, data storage logic and RDAP query and response rules, without any differentiated or exceptional handling. The rules take effect uniformly across the entire scope. Meanwhile, we confirm that the Same Entity Allocation Principle applies uniformly to the entire TLD Set, covering the primary TLD and all corresponding variant TLDs. The registry implements consistent entity qualification verification and allocation control rules across the entire TLD Set, and will not set differentiated policies separately for the primary TLD or any individual variant TLD. For example: If an entity has registered the primary domain name abc.primary-TLD, in accordance with the Same Entity Allocation Principle, only this entity is eligible to register all corresponding variant domain names within the same TLD Set, such as abc.variant-TLD and abc.other-variant-TLD. No other third party is permitted to register any variant domain name corresponding to the primary domain. The detailed implementation methods and relevant rules are specified as follows:

1. Compliance Implementation Mechanism for Allocation of Second-Level IDN Variant Labels to a Single Entity

With the RFC 7940-compliant Chinese character table for second-level IDNs as the core basis, the registry associates and matches variant labels via representative characters. Relying on the system's layered architecture and dual-table storage logic, the registry enforces the compliance requirement of allocating (reserving) variant labels to a single entity throughout the full lifecycle of registration, reservation, activation and revocation. The specific implementation rules are as follows:

1. **Registration Implies Reservation with Exclusive Allocation:** After a registrar submits a registration request for a second-level IDN primary domain and passes compliance verification, the system will match all variant domain names under the corresponding representative character of the primary domain in accordance with RFC 7940 rules and reserve all such variants exclusively for the registrant of the primary domain. These variant domain names are initially marked as Inactive, and the system does not open any independent registration channel for inactive variant labels. This ensures that all allocable variant labels under the same representative character belong solely to the registrant entity, with no other entities eligible to apply for their registration.
2. **Strict Activation Verification with Unchangeable Ownership:** Inactive variant domain names can only be activated by the registrant of the primary domain under the same representative character. The registrar must submit an activation request via an EPP UPDATE command with the IDN extension. The system first verifies the legality of the request and mandatorily confirms that the variant domain and the primary domain belong to the same registrant; activation is only completed upon successful verification. Activated variant labels remain bound to the same entity as the primary domain, and their ownership cannot be transferred to other entities.
3. **Strict Lifecycle Binding with Synchronized Revocation and Release:** The primary domain serves as the core source name for all variant labels under the corresponding representative character, and the lifecycle of variant labels is completely dependent on that of the primary domain. The registrant may revoke an activated variant domain name, after which the variant label is restored to the Inactive status and remains reserved for the same registrant. If the primary domain is revoked, all its corresponding variant labels (both activated and inactive) will be revoked and released synchronously, and will no longer be reserved for the original registrant. After release, all variant labels under the same representative character will be re-opened for registration,

ensuring that variant labels belong to a single entity for the entire duration of their existence.

2. Confirmation of Consistent Publication Rules for WHOIS and RDAP Within the RDDS Framework

The Registry maintains fully consistent information disclosure rules for second-level IDN variant domain names under the RDDS framework. Query behavior, displayed results, and notification messages are highly aligned between WHOIS and RDAP, with no differential treatment. The specific rules are as follows:

1. **Consistent rules for inactive variant queries:** When querying an inactive variant domain name under a primary domain via WHOIS or RDAP, the system shall uniformly indicate that the domain name does not exist, and shall not disclose reservation or ownership information of such variant domain name.
2. **Consistent rules for active variant queries:** Once the registrant activates a variant domain name, the activated variant domain can be queried via both WHOIS and RDAP systems with synchronized and identical results. For example, a RDAP response for an active variant domain name will return:
 - `ldhName`: A- label of the queried variant domain name
 - `unicodeName`: U- label of the queried variant domain name
 - `variantNames`: list containing the primary domain name and all its variant domain names.

Except for `ldhName`, `unicodeName`, and DNSSEC information (key pairs, signature records, etc.), all other fields in the response of an active variant domain name are identical to those of the primary domain name, including registrant ID, registration time, domain status, resolution information, and other data elements.

3. **Consistent status synchronization rules:** Status changes and deletion of the primary domain name, as well as activation and deletion of variant domain names, shall be synchronized to both WHOIS and RDAP databases without delay or discrepancy. This ensures consistency of registration data across the RDDS system.

3. Detailed Responses to Relevant Rules Under the Minimal Data Set

The registry's second-level IDN management system operates under the Registration Data Policy with a Minimal Data Set. Detailed responses to the three core issues of registrant uniqueness for variant labels, independent host object configuration, and DS Resource Record configuration at the DNSSEC level are as follows:

3.1 Mandatory Safeguards for Registrant Uniqueness of Variant Labels

The registry mandatorily requires all variant labels to belong to the same registrant. Under the operational scenario of a Minimal Data Set, this requirement is achieved through mandatory binding of unique identifiers at the technical level, and further strengthened through contractual controls with registrars to enhance compliance. The specific implementation is as follows:

1. **Core Technical Basis:** The system assigns a unique registrant identifier to each registrant, which is strictly bound to the registrant entity. This identifier is the core basis for the registry to identify registrant entities under the Minimal Data Set, and is stored in the IDN Domain Name Representative Character Information Table (Table A) and associated with the domain_id of the primary domain. When a variant label is activated, the system verifies whether the registrant identifier of the variant is consistent with that of the primary domain; the activation request is directly rejected if the identifiers do not match. This technically enforces that all variant labels under the same representative character belong to a single entity.
2. **Supplementary Contractual Controls:** The registry signs formal service contracts with cooperating registrars, explicitly requiring registrars to ensure that the entity submitting requests for variant label activation, modification and other operations is the same as the registrant of the primary domain. Registrars are strictly prohibited from processing variant label operations under the same representative character for different entities. Compliance with the registrant uniqueness requirement is further strengthened through such contractual controls.

3.2 Rules for Independent Host Object Configuration for Authorized Variant Labels

The registry's system does not allow the configuration of independent host objects for authorized variant domain names. Under the Minimal Data Set, all information of a variant domain name (including the unique registrant identifier, registration time, domain status, basic resolution configuration, etc.) is identical to that of the primary domain, except for DNSSEC configuration information, meaning there is no information basis for configuring independent host objects for variants. Meanwhile, to ensure the unified management of variant labels under a single entity, the system applies the host object configuration of the primary domain synchronously to all activated variant domain names and does not provide an entry for configuring independent host objects for variant domain names.

3.3 DS Resource Record Configuration Capabilities at the DNSSEC Level

The registry's system supports the configuration of different DS Resource Records (DS RRs) for primary and variant domain names. For the primary domain and all its corresponding variant domains under the same representative character, the system adopts a strategy of independent maintenance of DNSSEC information. Core DNSSEC information (including DS records, key pairs, signature records, etc.) for the primary domain and each variant domain can be configured and stored separately. Registrars may submit DS record configuration instructions for each domain name individually via the EPP protocol, and the system completes configuration and validation on a per-domain basis, meeting the personalized configuration requirements at the DNSSEC level.