



# ICP-1: Internet Domain Name System Structure and Delegation (ccTLD Administration and Delegation)

IMPORTANT NOTICE. The following Internet Coordination Policy is being posted for the information of the Internet community. It contains a statement of the current policies being followed by the Internet Assigned Numbers Authority (IANA) in administering delegations of Top Level Domain Names of the Internet Domain Names System (DNS). At a future date, the ICANN Board may consider changes to these policies and will, at such time, notice proposed changes for public comment in accordance with the ICANN Bylaws.

Comments on this document are welcome and should be directed to [comments@icann.org](mailto:comments@icann.org).

---

## INTERNET CORPORATION FOR ASSIGNED NAMES AND NUMBERS INTERNET ASSIGNED NUMBERS AUTHORITY Internet Domain Name System Structure and Delegation (ccTLD Administration and Delegation)

(May 1999)

### Abstract

This document is a summary of current practices of the Internet Assigned Numbers Authority (IANA) in administering [RFC 1591](#), which includes the guidance contained in [ccTLD News Memo #1](#) dated October 23, 1997. It DOES NOT reflect any changes in policy affecting the administration of DNS delegations. It is intended to serve as the basis for possible future discussions of policy in this area. Changes in ICANN/IANA policy will be made following public notice and comment in accordance with the ICANN Bylaws.

### Introduction

The IANA is the overall authority for day-to-day administration of the Internet Domain Name System (DNS). IANA staff carry out administrative responsibilities for the assignment of IP Addresses, Autonomous System Numbers, Top Level Domains (TLDs), and other unique parameters of the DNS and its protocols. This document provides general information on IANA policy for administering the DNS. Instructions on procedures to be followed in requesting TLD delegations or changes are available on the website at [iana.org](http://iana.org).

### Top Level Structure of the DNS

The DNS structure contains a hierarchy of names. The root, or highest level, of the system is unnamed. Top Level Domains (TLDs) are divided into classes based on rules that have evolved over time. Most TLDs have been delegated to individual country managers, whose codes are assigned from a table known as [ISO-3166-1](#), which is maintained by an agency of the United Nations. These are called country-code Top Level Domains, or ccTLDs. In addition, there are a limited number of "generic" Top Level Domains (gTLDs), which do not have a geographic or country designation. Responsibility for adoption of procedures and policies for the assignment of Second Level Domain Names (SLDs), and lower level hierarchies of names, has been delegated to TLD

managers, subject to the policy guidance contained in this document. Country code domains are each organized by a manager for that country. These managers are performing a public service on behalf of the Internet community. A list of current TLD assignments and names of the delegated managers can be accessed at <http://www.iana.org/cctld/cctld.htm>.

## **The Management of Delegated Domains**

As part of its responsibility for the overall coordination and management of the DNS, the IANA receives and processes all requests for new TLDs and for changes to existing TLDs. The following policies are applicable to management of TLDs. In general, the principles described here apply recursively to all delegations of the Internet DNS name space.

(a) Delegation of a New Top Level Domain. Delegation of a new top level domain requires the completion of a number of procedures, including the identification of a TLD manager with the requisite skills and authority to operate the TLD appropriately. The desires of the government of a country with regard to delegation of a ccTLD are taken very seriously. The IANA will make them a major consideration in any TLD delegation/transfer discussions. Significantly interested parties in the domain should agree that the proposed TLD manager is the appropriate party. The key requirement is that for each domain there be a designated manager for supervising that domain's name space. In the case of ccTLDs, this means that there is a manager that supervises the domain names and operates the domain name system in that country. There must be Internet Protocol (IP) connectivity to the nameservers and electronic mail connectivity to the entire management, staff, and contacts of the manager. There must be an administrative contact and a technical contact for each domain. The administrative contact must reside in the country involved for ccTLDs. The IANA may choose to make partial delegations of a TLD when circumstances, such as those in a developing country, so dictate. It may also authorize a "proxy" DNS service outside of a developing country as a temporary form of assistance to the creation of Internet connectivity in new areas. [N.B. The IANA continues to receive inquiries about delegation of new gTLDs. This is a significant policy issue on which ICANN will conduct a careful study and review based on the established decision making procedures. Information about this study will be disseminated on the website at [icann.org](http://icann.org).]

(b) TLD Manager Responsibility. TLD managers are trustees for the delegated domain, and have a duty to serve the community. The designated manager is the trustee of the TLD for both the nation, in the case of ccTLDs, and the global Internet community. Concerns about "rights" and "ownership" of domains are inappropriate. It is appropriate, however, to be concerned about "responsibilities" and "service" to the community.

(c) Fair Treatment. The designated manager must be equitable and fair to all groups in the domain that request domain names. Specifically, the same rules must be applied to all requests and they must be processed in a non-discriminatory fashion. The policies and procedures for the use of each TLD must be available for public inspection. Generally these are posted on web pages or made available for file transfer. While variations in policies and procedures from country to country are expected due to local customs and cultural values, they must be documented and available to interested parties. Requests from for-profit and non-profit companies and organizations are to be treated on an equal basis. No bias shall be shown regarding requests that may come from customers of some other business related to the TLD manager. For example, no preferential service for customers of a particular data network provider. There can be no stipulation that a particular application, protocol, or product be used.

(d) Operational Capability. The TLD manager must do a satisfactory job of operating the DNS service for the domain. Duties such as the assignment of domain names, delegation

of subdomains and operation of nameservers must be done with technical competence. This includes keeping the IANA or other higher-level domain manager advised of the status of the domain, responding to requests in a timely manner, and operating the database with accuracy, robustness, and resilience. Because of its responsibilities for the DNS, the IANA must be granted access to all TLD zones on a continuing basis. There must be a primary and a secondary nameserver that have IP connectivity to the Internet and can be easily checked via access to zones for operational status and database accuracy by the IANA.

(e) Transfers and Disputes over Delegations. For transfer of TLD management from one organization to another, the higher-level domain manager (the IANA in the case of TLDs), must receive communications from both the old organization and the new organization that assure the IANA that the transfer is mutually agreed, and that the proposed new manager understands its responsibilities. It is also very helpful for the IANA to receive communications from other parties that may be concerned or affected by the transfer. In the event of a conflict over designation of a TLD manager, the IANA tries to have conflicting parties reach agreement among themselves and generally takes no action unless all contending parties agree. On a few occasions, the parties involved in proposed delegations or transfers have not been able to reach an agreement and the IANA has been required to resolve the matter. This is usually a long drawn out process, leaving at least one party unhappy, so it is far better when the parties can reach an agreement among themselves. It is appropriate for interested parties to have a voice in the selection of the designated manager.

(f) Revocation of TLD Delegation. In cases where there is misconduct, or violation of the policies set forth in this document and RFC 1591, or persistent, recurring problems with the proper operation of a domain, the IANA reserves the right to revoke and to redelegate a Top Level Domain to another manager.

(g) Subdelegations of Top Level Domains. There are no requirements for management of subdomains of TLDs, including subdelegations, beyond the requirements for TLDs stated in this document and RFC 1591. In particular, all subdomains shall be allowed to operate their own domain nameservers, providing in them whatever information the subdomain manager sees fit, as long as it is true and correct.

(h) Rights to Domain Names. The IANA has no special requirement for policies to be followed by TLD managers in connection with disputes over rights to domain names other than those stated generally in this document and RFC 1591. Please note, however, that use of a particular domain name may be subject to applicable laws, including those concerning trademarks and other types of intellectual property.

(i) Uses of ISO 3166-1 Table. The IANA is not in the business of deciding what is and what is not a country. The selection of the ISO-3166-1 list as a basis for country code top-level domain names was made with the knowledge that ISO has a procedure for determining which entities should be and should not be on that list. For more information about the ISO 3166 Maintenance Agency, please see the following webpage:  
<http://www.din.de/gremien/nas/nabd/iso3166ma/>.

(j) Maintenance Procedure for Root Zone File. The primary root zone file is currently located on the A root server, which is operated by Network Solutions, Inc.(NSI), under a cooperative agreement with the U.S. Government. Changes to the root zone file are made by NSI according to procedures established under Amendment 11 of that cooperative agreement.