

ICANN



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ICANN headquarters, Marina del Rey, Calif.

ICANN, nonprofit private organization incorporated in California on September 18, 1998, and tasked with taking over from the U.S. government various administrative duties associated with running the Internet. ICANN's functions include overseeing the top-level domains (TLDs; e.g., .com, .net, .org, .edu, .us), registering and maintaining the directory of domain names (e.g., www.britannica.com) used in the Internet protocol (IP), and resolving trademark

disputes over domain names.

In 1997 U.S. Pres. Bill Clinton signed the Framework for Global Electronic Commerce, directing the Department of Commerce (DOC) to oversee the growth of business over the Internet. Although Clinton emphasized the importance of the private sector in his directive to the DOC, the U.S. government retained ultimate control through the Joint Project Agreement.

The Framework set goals for the management of domain names—a function for which ICANN was purposely created. Managing the domain name system (DNS) is critical to the functioning of the Internet. DNS servers provide automated lookup or telephone directory-like services, translating domain names into computer-readable addresses so that information will flow to and from the correct places. ICANN issues accreditations to more than 1,000 independent registrars worldwide that issue domain names to individuals, businesses, and other site owners on the Internet. The organization has revoked those credentials when registrars violate the terms of the Registrar Accreditation Agreement, such as it did with Parava Networks in 2009 for, among other violations, failing to accurately maintain information about some Web sites it had registered.

Since the 1990s the exclusive right to use Internet domain names has been a highly contested issue. Domain name labels enable “packets” of information transmitted over the Internet to be delivered to their intended destinations, using the transmission control protocol/Internet protocol; the whole system of transmission and addressing is known as

TCP/IP. The mnemonic character of domain names assists consumers in locating Internet-based businesses. As commercial activity on the Internet grew, evocative domain names became increasingly valuable, and struggles over them multiplied, especially as a result of the activities of so-called cybersquatters, who registered popular domain names with the aim of ransoming them to businesses at huge profits. On taking over administration of the Internet, ICANN promulgated a Uniform Domain Name Dispute Resolution Policy to resolve domain name controversies. ICANN also licensed several arbitration services to interpret and enforce it, with the assistance of the World Intellectual Property Organization. The first cases under ICANN's dispute resolution policy, including those brought by the World Wrestling Federation and by American actress Julia Roberts, were settled in 2000.

In 2000 ICANN's board of directors, after debating a list of close to 200 new top-level domain names submitted by numerous organizations, voted in favour of adding seven new suffixes: .aero (for aviation sites), .biz (businesses), .coop (cooperatives), .info (general information), .museum (museums), .name (individuals), and .pro (professionals, such as doctors). In 2003 ICANN added .asia (for Asian sites), .cat (Catalan language), .jobs (employment), .mobi (mobile devices), .tel (contact information), and .travel (tourism). With the exception of the .info domain, few sites have registered in the new domains. In 2010, after years of legal controversy, ICANN approved the .xxx top-level domain for adult entertainment sites. ICANN then announced in 2011 that it would greatly increase the number of top-level domains by allowing nearly any new top-level domain name in any language.

As the Internet and World Wide Web became a global force, some critics felt that the United States had too much control over ICANN. Pressure for a more-independent structure persisted until 2009, when the U.S. government signed the Affirmation of Commitments, in which it relinquished its sole right to annual reviews of ICANN and took only one seat on ICANN's board, along with representatives of 11 other countries. However, the United States did maintain ultimate stewardship of the Internet Assigned Numbers Authority (IANA), which coordinates some of the key technical underpinnings of the Internet, such as managing the DNS root. IANA also controls specific TLDs, such as .arpa. ICANN manages IANA under contract with the DOC's National Telecommunications and Information Administration, to which ICANN files quarterly technical reports. In 2016 the United States ended its contract, which placed managing the DNS completely under ICANN's control.

According to ICANN, the native languages of more than half of the Internet's users are not Latin-based. Accordingly, in 2007 ICANN began testing the use of non-Latin script in the software used by DNS servers to locate TLD resources on the Internet. These internationalized domain names (IDNs) initially included Chinese, Arabic, and Cyrillic characters in addition to the long-serving Latin letters A to Z, Arabic numerals 0 to 9, and punctuation symbols such as hyphens. Eventually, IDNs will recognize almost 100,000 characters in many different languages. The first IDNs, which used Arabic characters for domain names in Egypt, Saudi Arabia, and the United Arab Emirates, went into service in May 2010.

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