

Journey to the Right of the Dot: ICANN's New Web Extensions

On November 16, 2000, seven new generic Top-Level Domains (gTLDs) were approved for use on the Internet. These new gTLDs – .biz, .info, .name, .pro, .aero, .coop, and .museum – are expected to be available for use by the end of 2001.

This white paper will explain in layman's terms why new gTLDs are being introduced, how and why these seven were chosen, and how and when consumers and businesses can begin requesting, registering and using them.

This white paper was produced by VeriSign, Inc.

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Executive Summary:

The seven new Web extensions chosen by the Internet Corporation for Assigned Names and Numbers (ICANN) represent the first major expansion of the domain space ever undertaken. It's important for companies and individuals to understand how they can maximize their chances of getting the Web addresses they want.

Though some of the new extensions have more restrictions on them than the existing ones, they are still open to large classes of organizations and individuals. Thus, groups that know they want a specific Domain Name should act now to request it, through one of the several registrars offering this service.

It's important to note that requesting a Domain Name does not guarantee it will eventually be registered in the applicant's name. Since registrars will be collecting requests independently of each other until the new registries open, no central authority will be processing these requests to say whether a Domain Name is available or not. Trademark holders may have special opportunities to request select Domain Names prior to registration opening up to the general public, but these requests should still be filed as soon as possible to get in the queue.

New Names – Why Now?

On November 16, 2000, the Internet Corporation for Assigned Names and Numbers (ICANN) announced that seven new generic Top-Level Domains (gTLDs) had been selected for use beginning in 2001¹. The new gTLDs, also known as “Web extensions,” were selected based on several factors, but all towards the goal of continuing the rapid growth of the Internet.

To understand the significance of the new extensions, it makes sense to think of Web addresses as akin to phone numbers, and the new gTLDs as new area codes. In this framework, dot-com, dot-net and dot-org can be seen as the (800) numbers of the Internet phone book – effective, powerful, and (for the best combinations of letters or numbers) hard to come by. The new gTLDs are comparable to the recently introduced (888) and (877) toll-free area codes – extending an established communications tool by increasing the number of useful, memorable addresses available.

Before we discuss each of the new gTLDs in detail, it is useful to remember the reasons for new Web extensions in general. Reasons for creating new gTLDs are numerous and include:

- *The overcrowding of dot-com.* The gTLDs currently available to the general public – dot-com, dot-net, and dot-org, - were chosen in the early days of the Internet, when it was used solely by government and educational institutions. In the 1990s, dot-com took the lead as the most popular gTLD, and today it accounts for eighty percent of all registered Domain Names². This popularity has led to much of the dot-com space being reserved, making it harder for individuals and corporations to register meaningful, memorable Domain Names. New gTLDs will create new opportunities for companies and individuals to establish their unique identities on the Web.
- *Reflecting the Web’s global nature.* Though the Web’s roots are in U.S. Defense Department research, the Internet today is a global medium. New gTLDs should reflect the needs and preferences of the international Internet community.
- *Supporting the goals of the original extensions.* The original gTLDs were intended to make the Internet more navigable by separating addresses into categories based on the registering organization or individual. Meaningful gTLDs let a site’s address convey more information about the site’s owner, and also increase the overall number of possible Domain Names. The addition of new gTLDs will let more companies and individuals get the Domain Name they want, and will help those names mean more.

International Corporation for Assigned Names and Numbers (ICANN) – the group formed in 1998 to handle administration of the Internet. The group’s mission is to maintain the operational stability of the Internet and ensure its utility for the worldwide Internet community.

Top-Level Domain (TLD) – the extension that ends a full Domain Name, the most common of which is dot-com. TLDs tell Internet servers what registry to look for an address in. The two classes of TLDs are generic (gTLDs), like dot-com, dot-net and dot-org, and country code (ccTLDs), like dot-uk for the United Kingdom and dot-de for Germany.

¹ ICANN News Release, “ICANN Announces Selections for New Top-Level Domains,” 11/16/00

² VeriSign’s DotCom Research Web site, <http://www.dotcom.com/facts/quickstats.html>, viewed 3/14/01

- *Decreasing the potential for 'cybersquatting'*. The Internet Corporation for Assigned Names and Numbers (ICANN) believes that individuals and companies who reserve Domain Names to sell, rather than to use, inhibit the natural growth of the Web. New batches of Domain Names should make attractive names less scarce, and thus less attractive to cybersquatters. Additionally, applying and enforcing restrictions as to who may register names in each new gTLD should make it more difficult for cybersquatters to register names in bad faith.

There are some arguments against new gTLDs, including the potential for consumer confusion and the increased burden on trademark holders, but the arguments in favor of expansion have been judged to carry more weight.

New gTLDs: The Magnificent (?) Seven

Though some say new gTLDs have been justified for years³, this is the first major expansion of the Domain Name system since it was introduced in 1985⁴. Thus, another goal of this round of expansion is to enable ICANN to test the process of creating new gTLDs.

Each new Web extension was selected based on a proposal from a group that aspired to run the new extension's registry. There were 44 proposals for over a hundred extensions⁵, and in the end, the business plan, experience and geographical location of the proposing groups factored into the selection as much as the proposed extension itself⁶.

With this in mind, it makes sense that the new gTLDs are a varied bunch. Though the process of introducing a new Web extension into the Internet infrastructure is fairly simple, establishing and maintaining a new registry is complex, and some attractive extensions were seemingly undone by unstable business plans. So, while these gTLDs may not appear to be the ones which would most ease congestion on today's Internet, it makes sense to assume that the number of gTLDs will continue to grow as more companies gain expertise at running registries and ICANN becomes more comfortable with the process of introducing new gTLDs. Indeed, ICANN stated that a main criterion for evaluating this set of proposals (second only to "the need to maintain the Internet's stability") was "the extent to which selection of the proposal would lead to an effective 'proof of concept' concerning the introduction of top-level domains in the future."⁷

Registry – the database of information that runs a gTLD. The database includes what Domain Names are registered, who registered them, and what servers each reserved address should point to.

Registrar – a business that enables consumers and businesses to register Domain Names with a gTLD's central registry. Potential registrants must request a specific name from a registrar, which then checks with the registry to see if the name is available and reports back to the registrant. Each gTLD has only one registry, but each gTLD's registry can have an unlimited number of registrars feeding into it.

³ Karl Auerbach, CNN Digital Jam interview, November 6, 2000 19:30:00 pm ET

⁴ VeriSign's DotCom Research page, <http://www.dotcom.com/facts/funfacts.html>, viewed 3/14/01

⁵ ICANN Web site, "New TLD Program Application Process Archive," <http://www.icann.org/tlds/app-index.htm>, viewed on 3/9/01

⁶ ICANN Web site, "Report on TLD Applications: Application of the August 15 Criteria to Each Category or Group," 11/9/00, <http://www.icann.org/tlds/report/report-iiib1a-09nov00.htm>, viewed on 3/14/01.

⁷ Ibid.

Of the seven new gTLDs, four are “unsponsored,” meaning the registries are relatively open and will be run as for-profit businesses. These are the dot-biz, dot-info, dot-name and dot-pro registries. There are also three “sponsored” gTLDs, which will be run by their sponsoring organizations for a small constituency of potential registrants (though anyone may visit the sites). They are dot-aero, dot-coop and dot-museum.

As we review the new gTLDs, it helps to remember one of the goals of the original extensions: to make the Internet more navigable by separating addresses into categories based on the registering organization or individual.

.biz was selected to open up a section of the Web solely for businesses. While the dot-com gTLD is also for businesses, the dot-biz extension will specifically target commercial organizations by requiring registrants to certify they will use the site for “legitimate commercial use.”

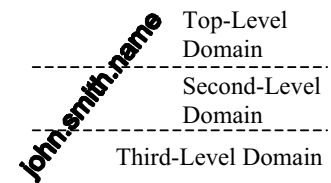
.info sites will provide general information, and are intended for both companies and individuals. Dot-info is seen as an internationally friendly Web extension, as the word “information” translates similarly across many languages. The dot-info registry will be run by a consortium of 19 leading registrars, the combined experience of which was attractive to the Internet Corporation for Assigned Names and Numbers (ICANN).

.name sites will allow individuals to have a section of the Web zoned solely for personal use. The dot-name registry will only allow registration of third-level Domain Names – the “john” part of “john.smith.name” – to allow for a greater number of personal Web addresses. This registry will be run by a British company, supporting ICANN’s goal to increase the geographical diversity of the registries. john.smith.name

.pro is intended for use exclusively by “professionals,” such as lawyers, doctors and accountants. As in the dot-name registry, only third-level Domain Names will be registered, as in “johnsmith.law.pro.” Registrants will have to provide proof of their professional credentials to reserve a Domain Name in this space, which should increase the prestige and usefulness of this gTLD.

.aero sites are reserved for “legitimate members of the air transport industry and civil aviation sector” including airlines, airports and related industry bodies⁸. This registry will be run by the Societe Internationale de Telecommunications Aeronautiques S C. SITA intends to keep third-level Domain Names consistent across most airports, as in “arrivals.jfk.aero.” SITA’s French headquarters support ICANN’s geographical diversity goals.

Top-level, Second level and Third level – these names correspond to different sections of a Domain Name. The “top-level” name at the end of the address is the most general, (i.e. “.com”); moving to the left leads to the second level, third level, etc. Each step to the left helps narrow down the address until it leads to a specific server.



⁸ SITA Web site, “Information for companies and organizations interested in registering domain names on the new “.aero” Top-Level Domain,” <http://www.sita.int/aero/info/compinfo.asp>, viewed 3/9/01

.coop will be run for “business cooperatives,” such as credit unions and rural electric cooperatives, by the National Cooperative Business Association. Dot-coop Domain Names will initially be available for registration only by members of the NCBA or an affiliated group.

.museum is intended as a sign of authenticity, to assure users that sources of information about cultural and scientific heritage are verifiable⁹. The Museum Domain Management Association, a non-profit trade association founded by the International Council of Museums and the J. Paul Getty Trust, will run this registry.

Requesting a New Place in Cyberspace

As stated above, each of the new Web extensions has its own set of rules and intended constituency. The contracts between the seven new registries and the Internet Corporation for Assigned Names and Numbers (ICANN) are still being negotiated, so these guidelines are subject to change, but there are some commonalities.

In general, the existing proposals call for Domain Names to be registered on a first-come, first-served basis, with a kickoff period during which accumulated registration requests will be processed by the registry in random order. This is done to ensure no registrant or registrar has an unfair advantage. (Some registries have proposed special provisions for trademark holders to reserve and/or protect relevant Domain Names in advance of general registration, but among trademark holders with claims to identical names, a similar process will apply.)

For all registrants, the process of submitting Domain Names to the registry will not begin for some time – possibly as late as Q3 2001 – and will almost definitely happen at different times for different registries.

Several registrars, however, are already taking non-binding requests for Domain Names, recognizing that there is no central registry to check against to ensure no one else has requested the same name. Until the registry for a new gTLD is open, each registrar will compile its own database of requests. If a registrar receives multiple requests for the same name, it may add each of them to the set of requests to be processed by the registry in random order. Most registrars do not currently offer online access to their request databases, so Web site visitors are generally unable to see if a given Domain Name has already been requested at a given registrar.

Though there is no guarantee of success, corporations and individuals should act now to request any Domain Name they know they want. (Recognizing the non-binding nature of these requests, some registrars also call this filing an “indication of interest.”) Even if a Domain Name seems too specific to require fast action, there is no reason not to file the request as early as possible as there is generally little or no cost involved. Many

Reminder:

Registry – the master database of information needed to run a gTLD.

Registrar – A business that acts as an interface between registrants and the registry. Any number of registrars can interact with the same registry, and registries must certify that they will treat all registrars equally.

⁹MuseDoma press release, “Dot-Museum (.Museum) Named As One Of Seven Winners In Expansion Of Internet Domain Names,” 11/20/00.

registrars will process these requests for free, and will only bill for completed, successful registrations once a) the registry is open and has confirmed the Domain Name is available, and b) the registrant has confirmed that he or she still wants the name.

In the event more than one person requests the same Domain Name, it gets complicated. If only two people request the same name, each at a different registrar, each has a chance of success no matter when or with whom they submitted the request. But if one person requests the Domain Name at two registrars, and the other only requests it at one, the first person has a better chance of getting the name. This is because most of the registries have proposed processing their queue of registration requests in random order – so the more requests filed, the better the odds of being the first one processed by the registry.

Queue – a list of requests or instructions, which are usually processed in the order in which they were received.

Experienced registrars like VeriSign's Network Solutions Registrar can maximize their customers' chances of success through the use of their solid infrastructure and expertise. While VeriSign believes that its customers are among the best-positioned to request and register the new Domain Names, some customers may consider filing the same requests with multiple registrars, as this may increase the chances of getting a specific name. More information on the specifics of requests for Domain Names in each new gTLD is listed in a table at the end of this report.

An important final point on requesting Domain Names: both the Internet Corporation for Assigned Names and Numbers (ICANN) and the U.S. Federal Trade Commission (U.S. FTC)¹⁰ have expressed the desire that registrars not charge for filing requests, since they cannot be guaranteed to be successful. Be wary of registrars which charge for this service for any gTLD other than dot-biz. (The dot-biz registry has proposed charging a minimal non-refundable fee to registrars for each Domain Name Application, and registrars may elect to pass this fee on to customers who request a dot-biz Domain Name.)

Calling All Web Sites

The registries are expected to be up and running by the end of 2001, meaning new Domain Names will be able to be registered in real time, and end users will be able to get to sites by entering Web addresses using the new gTLDs into their browsers.

Before then, the following steps must take place:

- Contracts must be negotiated between ICANN and seven registries (the first two completed contracts, for .biz and .info, were announced May 15th, 2001)
- The U.S. Department of Commerce must formally approve ICANN's recommendations
- Contracts must be negotiated between registries and registrars

¹⁰ FTC Web site, "What's Dot and What's Not: Domain Name Registration Scams, December 2000," <http://www.ftc.gov/bcp/online/pubs/alerts/domainalrt.htm>, viewed 3/14/01

- Sunrise periods (if applicable) for each new gTLD must be complete.

VeriSign will update this white paper and information on its Web site as information becomes available in the coming weeks and months.

Appendix A: More detailed information on reserving Domain Names in each new gTLD (ALL DATES SUBJECT TO CHANGE)

gTLD	Audience	Proposed Steps to Reserving a Domain Name	Proposed Trademark Guidelines	Other
.biz	Restricted for “commercial use” by businesses and individuals	<p>Requests for specific Domain Names may be submitted to ICANN-accredited registrars through September 25th, 2001. A fee may apply for each request submitted to the registry; this fee is non-refundable, even if the application is unsuccessful.</p> <p>Between September 26th and October 1st, all Domain Name requests from all registrars will be put into a single batch and processed in random order, thus ensuring no registrar or applicant receives any preference. Successful applicants will be notified and billed.</p> <p>Once the dot-biz registry goes live on October 1st, registrations will be processed on a first-come, first-serve basis.</p>	<p>Trademark Claim Forms filed between May 21st and July 9th, 2001 will be entered into a database. Anyone who applies for a Domain Name which matches one in the database will be informed that someone has claimed a trademark of that name, but will be able to continue to file an application. Submission of a Trademark Claim Form does not create any special rights with respect to registering a particular Domain Name. Trademark Claim Forms can only be submitted during this startup period; no forms will be accepted after July 9th.</p> <p>If a Domain Name request which requests a name listed in the trademark database is successful, that name will be put on hold for 30 days, giving the trademark claimants the right to contest the registration through a standard dispute resolution process. If no successful challenge is filed, the Domain Name will automatically resolve to the registrant after 30 days; otherwise, it will resolve after the dispute is settled.</p>	<p>.biz names are expected to go live October 1st, 2001.</p> <p>More information is available on the registry website at www.neulevel.com</p>
.info	Unrestricted – general	<p>Non-trademark-related applications for new Domain Names will only be accepted from registrars after the registry goes live, in August 2001.</p> <p>At that point, queued applications will be processed on a “round-robin” basis, with each accredited registrar submitting requests from its list of applicants until one is successful (i.e. the desired Domain Name is available). Each registrar will receive one successful registration per round, and rounds will continue until all queues are exhausted.</p>	<p>Prior to opening the registry for general registration, Afilias will implement a Sunrise Period registration program.</p> <p>During this Sunrise Period, owners of any valid and enforceable trademark or service mark registration having national effect that issued prior to October 2, 2000 will be eligible to register a Domain Name that is identical to the textual or word elements of such trademark or service mark, using ASCII characters only.</p> <p>Multiple requests for the same Domain Names will be processed using the same queue system detailed at</p>	<p>.info names are expected to go live in August 2001.</p> <p>More information and exact dates will be available at www.afilias.com.</p>

		This process will repeat five times (with queues accruing at registrars while the previously submitted queue is processed by the registry). At the end of the fifth processing session, the registry will begin offering realtime registration of a first-come, first-served basis.	left, with the first round of Sunrise registrations expected to begin 45 days before the general opening of the registry.	
.name	Restricted to individuals	Registration procedure yet to be made public by the Global Name Registry.	A specific proposal for protection of established trademarks is still being discussed. Since this gTLD is restricted to individuals, there should be minimal corporate trademark concerns. However, corporations may have the right to “defensively register” their trademarks, taking them out of circulation for a minimum of ten years. This would prevent the registration of (for example) “microsoft.smith.name.”	More information and exact dates will be available at www.theglobalname.org
.pro	Restricted to professionals and professional associations	Registration procedure yet to be made public by RegistryPro	Expects to offer a Sunrise Period ¹¹ , but since this gTLD is mostly restricted to individuals, there should be no major trademark concerns.	Hoping to open between May and September 2001. Exact dates will be available at www.registrypro.com
.aero	Restricted to airlines	Registration procedure yet to be made public by Societe Internationale de Telecommunications Aeronautique.	Because SITA will monitor each request, it is expected to manage and arbitrate all trademark disputes.	More information and exact dates will be available at www.sita.int
.coop	Restricted to business cooperatives	Registration procedure yet to be made public by the National Cooperative Business Association.	Because NCBA will monitor each request, it is expected to manage and arbitrate all trademark disputes.	More information and exact dates will be available at www.ncba.org
.museum	Restricted to museums	Registration procedure yet to be made public by the Museum Domain Management Association	Because MDMA will monitor each request, it is expected to manage and arbitrate all trademark disputes.	More information and dates will be available at www.musedoma.org

¹¹ Reuters - “ICANN: Launch of New Domain Names Behind Schedule,” Eric Lai, 3/2/01