



VERISIGN™



# THE DOMAIN NAME INDUSTRY BRIEF

VOLUME 9 - ISSUE 3 - OCTOBER 2012

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## THE VERISIGN DOMAIN REPORT

AS THE GLOBAL REGISTRY OPERATOR FOR .COM AND .NET, VERISIGN REVIEWS THE STATE OF THE DOMAIN NAME INDUSTRY THROUGH A VARIETY OF STATISTICAL AND ANALYTICAL RESEARCH. AS THE TRUSTED PROVIDER OF INTERNET INFRASTRUCTURE SERVICES FOR THE NETWORKED WORLD, VERISIGN PROVIDES THIS BRIEFING TO HIGHLIGHT IMPORTANT TRENDS IN DOMAIN NAME REGISTRATION, INCLUDING KEY PERFORMANCE INDICATORS AND GROWTH OPPORTUNITIES, TO INDUSTRY ANALYSTS, MEDIA AND BUSINESSES.

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**EXECUTIVE SUMMARY**

The second quarter of 2012 closed with a base of more than 240 million domain name registrations across all Top-Level Domains (TLDs), an increase of 7.3 million domain names, or 3.1 percent over the first quarter of 2012. Registrations have grown by 25.5 million, or 11.9 percent, year over year.<sup>1,2</sup>

The base of Country Code Top-Level Domains (ccTLDs) was 100.3 million domain names, a 5.7 percent increase quarter over quarter, and an 18.5 percent increase year over year in the base.<sup>1,2</sup>

The .com and .net TLDs experienced aggregate growth, reaching a combined total of approximately 118.5 million domain names in the adjusted zone in the second quarter of 2012. This represents a 1.6 percent increase in the base over the first quarter of 2012 and a 7.8 percent increase over the second quarter of 2011. At June 30, 2012, the base of registered names in .com equaled 103.7 million names, while .net equaled 14.8 million names.

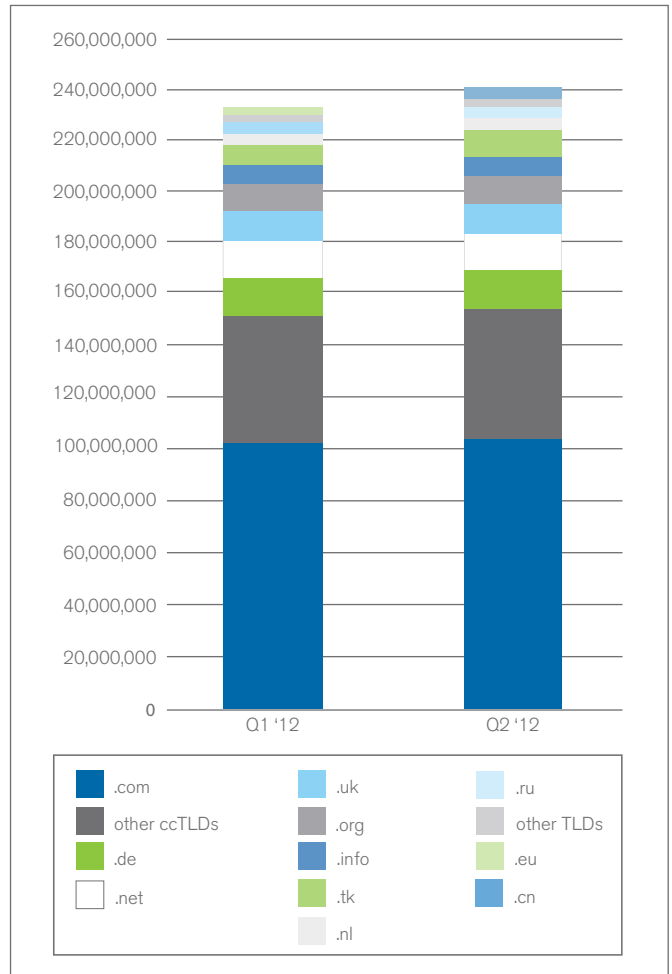
New .com and .net registrations totaled 8.4 million during the second quarter of 2012. This reflects a 4.2 percent year-over-year increase in new registrations.

The order of the top TLDs in terms of zone size changed when compared to the first quarter, as .tk moved from the seventh largest TLD in the first quarter of 2012 to being ranked the fourth largest TLD in the second quarter. This resulted in .uk, .org and .info moving down one ranking each, to the fifth, sixth and seventh largest TLDs, respectively. Finally, .cn entered the rankings as the tenth largest TLD. As a result, .eu, which was ranked as the tenth largest TLD in the first quarter, was dropped from the top 10.

The largest TLDs in terms of base size were, in order, .com, .de (Germany), .net, .tk (Tokelau), .uk (United Kingdom), .org, .info, .nl (Netherlands), .ru (Russian Federation) and .cn (China).

**Top TLDs by Zone Size**

Source: Zooknic, August 2012; Verisign, August 2012



1 The gTLD and ccTLD data cited in this report are estimates as of the time of this report and subject to change as more complete data is received.  
 2 Total includes additional tracking of ccTLD internationalized domain names.



### CCTLD BREAKDOWN OF ZONE SIZE

Total ccTLD registrations were approximately 100.3 million in the second quarter of 2012 with the addition of 5.4 million domain names, or a 5.7 percent increase compared to the first quarter. This is an increase of almost 15.7 million domain names, or 18.5 percent from a year ago.

Among the 20 largest ccTLDs, three exceeded 4 percent quarter-over-quarter growth: Tokelau, China and Brazil. Last quarter, five of the top 20 exceeded the same threshold.

As of June 30, 2012, there are 280 ccTLD extensions globally that are delegated in the root (including Internationalized Domain Names), with the top 10 ccTLDs comprising 60 percent of all registrations.<sup>3</sup>

#### Top ccTLD Registries by Domain Name Base, Second Quarter 2012

Source: Zooknic, August 2012

- |                             |                         |
|-----------------------------|-------------------------|
| 1. .de (Germany)            | 6. .cn (China)          |
| 2. .tk (Tokelau)            | 7. .eu (European Union) |
| 3. .uk (United Kingdom)     | 8. .br (Brazil)         |
| 4. .nl (Netherlands)        | 9. .au (Australia)      |
| 5. .ru (Russian Federation) | 10. .ar (Argentina)     |

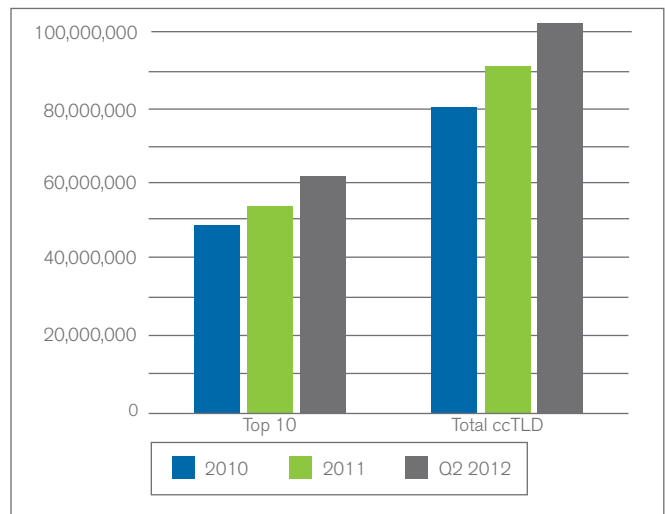
### .COM/.NET DYNAMICS

The .com/.net renewal rate for the second quarter of 2012 was 72.9 percent, down from 73.9 percent for the first quarter of 2012. Renewal rates vary quarter over quarter based on the composition of the expiring name base and the contribution of specific registrars.

Whether a domain name resolves to a website is a key factor in determining the renewal rate since domain names that resolve to websites are more likely to be renewed. Verisign estimates that 87 percent of .com and .net domain names resolve to a website, meaning that an end user visiting that domain name would find a website. These websites can be further described as those having multiple pages or as one-page websites. One-page websites include under-construction, brochure-ware and parked pages in addition to online advertising revenue generating parked pages.

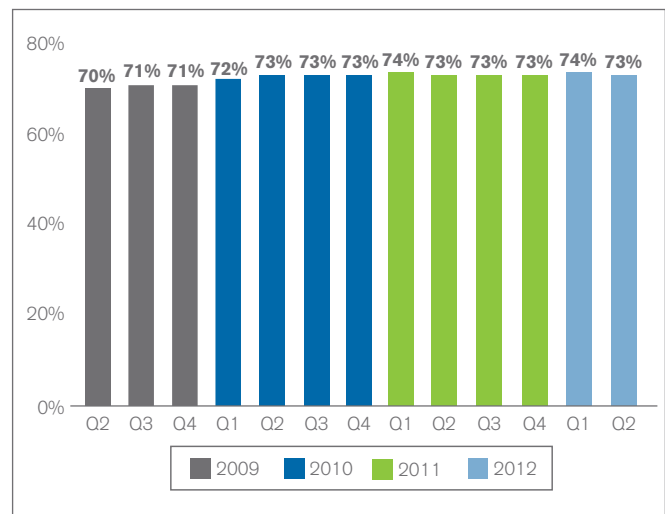
### ccTLD Breakdown

Source: Zooknic, August 2012  
For further information on the Domain Name Industry Brief methodology, please refer to the last page of the report.



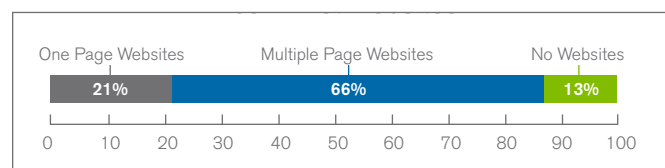
### .com/.net Registry Renewal Rates

Source: Verisign, August 2012



### .com/.net Websites

Source: Verisign, August 2012



<sup>3</sup> The number of ccTLD extensions cited in this report is published by IANA.



Verisign's average daily Domain Name System (DNS) query load during the second quarter of 2012 was 68 billion, with a peak of 90 billion. Compared to the previous quarter, the daily average increased 1.9 percent and the peak increased 21 percent. Year over year, the daily average increased 19.8 percent and the peak increased 32 percent.

### WHAT'S IN A NAME SERVER?

With the domain name space continuing to expand and new service providers entering the market, there has been a lot of discussion about the different types of DNS services available today. While on the surface, many of these DNS services sound similar, in reality, the technology and name servers behind these services are vastly different in terms of functions, scale and complexity. One of the most important differentiators is whether the name server in question is authoritative or recursive.

### How DNS Resolution Works

The Internet is made up of two major name spaces: The domain name hierarchy and the Internet Protocol (IP) addressing system. The DNS maintains the domain name space and provides translation services between the two name spaces.

A DNS name server stores the DNS records, such as address records, name server records, and mail exchanger (MX) records, for a domain name and responds with answers to queries against this data.

Every computer on the Internet has an IP address. Usually this is a series of four decimal numbers from 0 to 255 separated by dots, although in some cases, you may see a larger (IPv6) address of up to eight hexadecimals from 00 to FF separated by colons. The DNS resolves, that is, translates, computers' names into IP addresses and vice versa.

When you use your Internet browser to navigate to a website, the DNS supports you in multiple ways. First, a DNS stub resolver, a software application on your computer (or Internet enabled device such as a smart phone), looks into local memory to see if it has recently found and cached an IP address for the domain name of

the website. If it does not find the address in its cache, it sends a DNS query to a recursive name server. The recursive name server has a cache as well. If it has looked up that exact domain name before, it will find the answer in its cache and respond at once. If not, it will need to send its own DNS queries to obtain the answer. It sends its queries to one or more of the authoritative name servers. These name servers maintain the domain data about specific portions of the name space (called zones) and thus can provide definitive answers.

### Recursive Name Servers

A recursive name server performs domain name lookups on behalf of end-user devices, such as PCs, smartphones, etc., and is typically located on the network to which the device is attached. If you are using an Internet Service Provider (ISP), your recursive name server is typically at your ISP. If you are using the network at your office or school, the recursive server is usually located in a server room somewhere close by.

If a recursive name server does not find the answer to an end user's query in its cache, it will send one or more queries to authoritative name servers that chase down the answer using a process called recursion. The recursive name server repeats the query to one server after another. By default it starts with a query to a root name server, which is the authoritative server for TLDs. If it already has information in its cache for a more specific authoritative name server than root, the recursive name server will query the more specific authoritative server. For example, because queries for domain names in .com occur frequently, the recursive name server often already has information about the authoritative name servers for .com in its cache.

Recursive name servers cache DNS query results for a period of time determined in the configuration of each domain name record. DNS caching improves the efficiency of DNS by reducing DNS traffic across the Internet, and by reducing load on authoritative name servers. Because caching often allows a name server to answer questions quickly, end-user applications also see increased DNS performance.



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Recursive name servers resolve any query they receive, by ultimately consulting the server or servers that are authoritative for the question being asked. The recursive server's queries to authoritative servers either result in a referral, directing the recursive server to a different authoritative server, or the final answer to the question.

### **Authoritative Name Servers**

Authoritative name servers primarily answer queries from recursive name servers. In order to do so, they maintain accurate, up-to-date domain information for specific zones. Every domain name appears in a zone served by one or more authoritative name servers.

When a domain is registered with a domain name registrar, an administrator provides a list of name servers that are authoritative for the zone corresponding to that domain. The registrar in turn conveys these server names to the domain registry for the TLD that is authoritative for the corresponding zone, e.g. .com for VerisignInc.com. The domain registry updates its authoritative name servers to include the new domain information.

Authoritative name servers both respond to queries and act as maintainers of the domain name data, while recursive name servers only respond to queries, and do not have roles of registering, updating and maintaining the domain data.

### **Public DNS Services vs. Domain Registries**

One type of public DNS service is provided by outsourced, publicly available recursive name servers. When using a public DNS service, an end-user computer sends its initial queries to the public DNS instead of sending to the recursive name server operated by its ISP, school, or company. Public DNS services thus receive queries from global locations, in common with authoritative name servers. As already noted, authoritative name servers answer queries from recursive name servers, while public DNS services are recursive servers that answer queries from end-user computers, and domain registries additionally create and maintain the authoritative domain databases. Because they differ in roles, the two server types have different resource requirements in terms of memory consumption, CPU usage, and network bandwidth and usage patterns. Despite their differences, the two types of server work together to enhance the performance of the Internet and enable the world to connect online with reliability and confidence.

### **LEARN MORE**

To subscribe or access the archives for the Domain Name Industry Brief, please go to [www.VerisignInc.com/DNIB](http://www.VerisignInc.com/DNIB). Email your comments or questions to [domainbrief@verisign.com](mailto:domainbrief@verisign.com).



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## ABOUT VERISIGN

VeriSign, Inc. (NASDAQ: VRSN) is the trusted provider of Internet infrastructure services for the networked world. Billions of times each day, Verisign helps companies and consumers all over the world connect between the dots. Additional news and information about the company is available at [www.VerisignInc.com](http://www.VerisignInc.com).

## METHODOLOGY

The data presented in this report for ccTLDs, including quarter-over-quarter and year-over-year metrics, reflects the information available to Verisign at the time of this report and may incorporate changes and adjustments to previously reported periods based on additional information received since the date of such prior reports, so as to more accurately reflect the growth rate of the ccTLDs. In addition, the data available for this report may not include data for the 280 ccTLD extensions that are delegated to the root, and includes only the data available at the time of the preparation of this report.

For gTLD and ccTLD data cited with Zooknic as a source, the Zooknic analysis uses a comparison of domain name root zone file changes supplemented with Whois data on a statistical sample of domain names which lists the

registrar responsible for a particular domain name and the location of the registrant. The data has a margin of error based on the sample size and market size. The ccTLD data is based on analysis of root zone files. For more information, see [www.zooknic.com](http://www.zooknic.com). Information on or accessible through this website is not part of this report.

ICANN's IDN ccTLD Fast Track Process enables countries and territories that use languages based on scripts other than Latin to offer users domain names in non-Latin characters. The first quarter of 2012 was the first quarter that Verisign reported on these TLDs that have been delegated into the root zone, including Russian Federation, Thailand, Jordan, Palestinian Territories, Saudi Arabia, Serbia and Sri Lanka.

Recognizing that this growth did not all occur in the first quarter of 2012, the changes in domain name registrations for each new TLD were phased in beginning with the quarter that the IDN.IDN variants were initially launched, in order to more closely model the changes in the worldwide domain name growth. Following the initial launch, the quarterly growth rate for previous TLD launches was applied to determine the domain base. These adjustments resulted in a growth curve for each TLD that is typical of historic TLD introduction lifecycles.

Statements in this announcement other than historical data and information constitute forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 as amended and Section 21E of the Securities Exchange Act of 1934 as amended. These statements involve risks and uncertainties that could cause Verisign's actual results to differ materially from those stated or implied by such forward-looking statements. The potential risks and uncertainties include, among others, the uncertainty of future revenue and profitability and potential fluctuations in quarterly operating results due to such factors as increasing competition, pricing pressure from competing services offered at prices below our prices and changes in marketing practices including those of third-party registrars; challenging global economic conditions; challenges to ongoing privatization of Internet administration; the outcome of legal or other challenges resulting from our activities or the activities of registrars or registrants, or litigation generally; new or existing governmental laws and regulations; changes in customer behavior, Internet platforms and web-browsing patterns; the uncertainty of whether Verisign will successfully develop and market new services; the uncertainty of whether our new services will achieve market acceptance or result in any revenues; system interruptions; security breaches; attacks on the Internet by hackers, viruses, or intentional acts of vandalism; the uncertainty of the expense and duration of transition services and requests for indemnification relating to completed divestitures; the uncertainty of whether Project Apollo will achieve its stated objectives; the impact of the introduction of new gTLDs and whether our gTLD applications or the applicants' gTLD applications for which we have contracted to provide back-end registry services will be successful; and the uncertainty of whether the .com Registry Agreement renewal will occur on or before November 30, 2012, if at all. More information about potential factors that could affect the Company's business and financial results is included in Verisign's filings with the Securities and Exchange Commission, including in the Company's Annual Report on Form 10-K for the year ended December 31, 2011, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K. Verisign undertakes no obligation to update any of the forward-looking statements after the date of this announcement.



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