THE DOMAIN NAME INDUSTRY BRIEF

VOLUME 11 – ISSUE 2 – AUGUST 2014

THE VERISIGN DOMAIN REPORT

VERISIGN[®]

AS A GLOBAL LEADER IN DOMAIN NAMES AND INTERNET SECURITY, VERISIGN REVIEWS THE STATE OF THE DOMAIN NAME INDUSTRY THROUGH A VARIETY OF STATISTICAL AND ANALYTICAL RESEARCH. 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.



EXECUTIVE SUMMARY

The first quarter of 2014 closed with a base of 276 million domain name registrations across all toplevel domains (TLDs), an increase of five million domain names, or 1.7 percent over the fourth quarter of 2013. Registrations have grown by 19.3 million, or 7.5 percent, year over year.¹

The base of country-code top-level domains (ccTLDs) was 127.1 million domain names, a 2.9 percent increase quarter over quarter, and a 13.1 percent increase year over year.

The .com and .net TLDs experienced aggregate growth, reaching a combined total of approximately 128.5 million domain names in the adjusted zone in the first quarter of 2014. This represents a 4 percent increase year over year. As of March 31, 2014, the base of registered names in .com equaled 113.2 million names, while .net equaled 15.2 million names.²

New .com and .net registrations totaled 8.6 million during the first quarter of 2014. In the first quarter of 2013, new .com and .net registrations totaled 8.8 million.

The order of the top TLDs in terms of zone size changed slightly when compared to the fourth quarter, as .ru (Russia) moved up a ranking from the ninth largest TLD to the eighth largest TLD, resulting in .info moving down one ranking to ninth largest TLD. All other TLDs in the top 10 maintained their rankings.

The largest TLDs in order by zone size were .com, .tk (Tokelau), .de (Germany), .net, .uk (United Kingdom), .org, .cn (China), .ru (Russian Federation), .info and .nl (Netherlands).³

As of March 31, 2014, there were 198 new generic TLDs (gTLDs) delegated into the root; 125 of which were delegated during the first quarter of 2014.⁴

LARGEST TLDs BY ZONE SIZE

Source: Zooknic, Q1 2014; Verisign, Q1 2014; Centralized Zone Data Service, Q1 2014



1 The gTLD and ccTLD data cited in this report are estimates as of the time this report was developed, and is subject to change as more complete data is received. Total includes ccTLD Internationalized Domain Names.

2. Any difference between the sum of these numbers and the total figure for the domain name base is due to rounding.

3 .tk is a free ccTLD that provides free domain names to individuals and businesses. Revenue is generated by monetizing the expired domain names. Domain names no longer in use by the registrant or are expired are taken back by the registry and the residual traffic is sold to advertisement networks. http://www.businesswire.com/news/home/20131216006048/en/Freenom-Closes-3M-Series-Funding#.UxeUGNJDv9s

4 The number of delegated new oTLDs is nublished by ICANN http://newatids.jcann.org//en/program-status/delegated-string

5 Mobile commerce sales performance is published by Internet Petailer Magazine; http://www.internetretailer.com/2011/04/15/m

Mobile commerce sales are up

from Q1 2013⁵



9



gTLD BREAKDOWN BY ZONE SIZE⁶

As of March 31, 2014, there were a total of 224 gTLDs in the root, with approximately 149 million registrations. The top 10 largest gTLDs by zone size were .com, .net, .org, .info, .biz, .mobi, .asia, .cat, .tel and .name.

Largest gTLDs by Zone Size, in Millions

Source: Centralized Zone Data Service, Q1 2014



At the end of the first quarter of 2014, 198 new gTLDs were available for registration. New gTLD registrations totaled 405,091, or 0.27 percent of total gTLD registrations. The largest new gTLDs by zone size were .guru, .berlin, .photography, .tips, .today, .email, .technology, .company, .directory and .clothing.

Largest NEW gTLDs by Zone Size, in Thousands

Source: Centralized Zone Data Service, Q1 2014



6 The total number of gTLDs and their registrations is published through the Centralized Zone Data Service: https://czds.icann.org/en

3

ccTLD BREAKDOWN OF ZONE SIZE

Total ccTLD registrations were approximately 127.1 million in the first quarter of 2014 with the addition of 3.6 million domain names, or a 2.9 percent increase compared to the fourth quarter of 2013. This is an increase of approximately 14.7 million domain names, or 13.1 percent, from a year ago.

Among the 10 largest ccTLDs, four exceeded 4 percent overall quarter-overquarter growth: Tokelau (8.0 percent), Argentina (7.2 percent), India (15.2 percent) and Colombia (12.4 percent). This marks four straight quarters where Tokelau has exceeded 4 percent growth.

As of March 31, 2014, there were 283 global ccTLD extensions delegated in the root (including Internationalized Domain Names), with the top 10 ccTLDs comprising 65.8 percent of all ccTLD registrations.⁷

Largest ccTLDs by Zone Size, in Millions

Source: Zooknic, Q1 2014

For further information on the Domain Name Industry Brief methodology, please refer to the last page of the report.





More than



Internet users send

204 MILLION emails per minute¹⁰

7 The number of ccTLD extensions cited in this report is published by IANA.

8 Source: Verisign.

9 Source: Mary Meeker's 2014 Internet trends report:

http://www.kpcb.com/insights/2014-internet-trends?_ga=1.61764204.1110473159.1401368679

10 The number of emails sent per minute is published by Domo and reported by Mashable: http://mashable.com/2014/04/23/data-online-every-minute/?utm_cid=mash-com-Tw-main-link 127,1 MILLION ccTLDs up 2.9% quarter over quarter



4



DNS QUERY LOAD

During the first quarter of 2014, Verisign's average daily Domain Name System (DNS) query load was 85 billion across all TLDs operated by Verisign, with a peak of 120 billion. Compared to the previous quarter, the daily average increased 3.4 percent and the peak increased 20.6 percent. Year over year, the daily average increased 14.8 percent and the peak increased 6 percent.

DNS Query Load by Quarter

Q1 2006 - Q1 2014



FEATURED ARTICLE

THE DOMAIN THREAT LANDSCAPE: PROTECTING CRITICAL INFRASTRUCTURE REQUIRES A LAYERED SECURITY APPROACH

Because domain names represent online identities, businesses of all sizes have expressed increasing concern over reports of "domain name hijacking." Domain name hijacking occurs when perpetrators falsify the registration data for a domain name by transferring the name away from its rightful registrant, thereby gaining unauthorized access to data and control over the namespace.

Attackers use a wide range of techniques to hijack domain names, from spyware and keystroke loggers to social engineering, in which scammers impersonate registrants or other entities in the chain of trust in order to gain access to passwords and personal information. Regardless of the technique used, the end-result for registrants is often severe. Once an attacker has full control of a domain name, they have free reign to use it for any number of nefarious purposes, from creating their own scam websites, to hosting "watering holes" with illegal and dangerous content such as malware, to extorting the original owner.

Preventative Measures

The danger of domain name hijacking is a threat that can be significantly reduced with proper planning and mitigation techniques. Monitoring Whois change activity, DNS change activity, and establishing and monitoring domain status/domain registry lock services are all techniques that registrants should regularly employ. Additionally, registrants should research their registrar's security offerings and take advantage of the tools they offer. This kind of awareness can go a long way toward mitigating risk of hijacking. Registrants who prioritize maintaining active relationships with their registrars and ensure that their registration data and contact information is up to date can avoid becoming the "low hanging fruit" that hijackers often target.



Registry locking services

Today, there are also additional tools to help registrants protect their domain names. Registry-level Lock Services provide additional levels of authentication between a registry and registrars by helping to prevent unauthorized, unwanted or accidental changes to registered domain names through server-level protection of "locked" domain names and/or name server records for registrants. For example, Verisign's Registry Lock Service, which is available through registrars for domain names on .com, .net, .tv, .cc and .name, was designed to be used in conjunction with a registrar's proprietary security measures to bring a greater level of security to registrants' domain names and help mitigate the potential for domain name hijacking, inadvertent or unintended deletions, transfers or updates. Registry Lock allows registrants to set the conditions under which their registration information can and cannot be changed. At the highest settings, Registry Lock requires direct, human-to-human interaction between registries and the registrant of record in order for a registration to be transferred. Furthermore, Whois lookup tools for registries such as Verisign enable administrators to check if their domains are locked at the registry.

By taking advantage of domain locking tools offered by registrars, registrants can make it much less likely for their domain name registrations to be changed without their full knowledge and consent. However, this is not the only precaution necessary to avoid hijacking.

DNSSEC Protection From MITM Attacks

Given that a single DNS name server can act as the name-toaddress resolution point for thousands or millions of users, the potential impact of Man-in-the-Middle (MITM) attacks can be considerable, and one of the most effective forms of protection from MITM attacks is the Domain Name System Security Extension (DNSSEC). It protects the Internet community from forged DNS data by using public key cryptography to digitally sign authoritative zone data. DNSSEC validation of this data by users provides assurances that the data originated from the stated source and that it was not tampered with in transit. It can also prove that a domain name does not exist.

Verisign implemented DNSSEC in the .com and .net zones to help assure users that the data they receive from their Internet request originated from the stated source and was not modified in transit by malicious actors. Additionally, Verisign has been instrumental in advancing DNS protocols for security and efficiency. For example, it has worked to enhance the DNS-Based Authentication of Named Entities (DANE) protocol, which builds on the DNSSEC infrastructure to enable cryptographically-secure communications. This technique can be used to exchange cryptographic credentials, such as for more generally enabling signed and encrypted email between Internet users in different organizations.

The benefits of DNSSEC deployment are substantial for:

- The Internet community by improving security protections in the zones that are signed
- Registrars by allowing them to offer domain signing services to their customers
- ISPs by increasing the integrity verification capabilities of the data returned to their customers
- Users by protecting them from DNS vulnerabilities such as cache poisoning and MITM attacks

Although DNSSEC enhances DNS security, it's not a comprehensive solution. Other layers of protection, such as DDoS mitigation, security intelligence, Secure Sockets Layer (SSL) encryption and site validation, and two-factor authentication should be used in conjunction with DNSSEC.

While the threat of domain name hijacking is very real, organizations can significantly reduce the threat of hijacking through effective tools and the appropriate vigilance. It's critical that registrants consider the DNS registration ecosystem elements (e.g., registrar, DNS providers, registry operators, etc.) as part of their attack surface, know that adversaries see them as potential "soft spots," and treat the task of preventing domain name hijacking with as much care as any other asset when performing risk management functions.



LEARN MORE

To subscribe or access the archives for the Domain Name Industry Brief, please go to VerisignInc.com/DNIB. Email your comments or questions to domainbrief@verisign.com.

ABOUT VERISIGN

As a global leader in domain names and Internet security, Verisign powers the invisible navigation that takes people to where they want to go on the Internet. For more than 15 years, Verisign has operated the infrastructure for a portfolio of top-level domains that today include .com, .net, .tv, .edu, .gov, .jobs, .name and .cc, as well as two of the world's 13 Internet root servers. Verisign's product suite also includes Distributed Denial of Service (DDoS) Protection Services, iDefense[®] Security Intelligence Services and Managed DNS. To learn more about what it means to be Powered by Verisign, please visit 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 283 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 ZookNIC.com. Information on or accessible through this website is not part of this report. The Internet Corporation for Assigned Names and Numbers' 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 the IDN ccTLDs which were delegated in the root zone at that time.

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.





INDUSTRY EVENTS

Upcoming industry events through Sept. 30, 2014

- WHD.asia: September 2, 2014, Singapore
- Ninth Annual Internet Governance Forum: September 2-5, 2014, Istanbul, Turkey
- DomainX: September 7, 2014, Hyderabad, India

• 37th ISO General Assembly: September 10-12, 2014, Rio de Janeiro, Brazil

- The Digital Strategy & DotOps Congress: September 18-19, 2014, Amsterdam, Netherlands
- INTA's Internet, Innovation and ICANN: The Evolving Landscape of the Net: September 18-19, 2014, San Francisco, California

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 our 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 whether the U.S. Department of Commerce will approve any exercise by us of our right to increase the price per .com domain name, under certain circumstances, the uncertainty of whether we will be able to demonstrate to the U.S. Department of Commerce that market conditions warrant removal of the pricing restrictions on .com domain names and the uncertainty of whether we will experience other negative changes to our pricing terms; the failure to renew key agreements on similar terms, or at all; the uncertainty of future revenue and profitability and potential fluctuations in quarterly operating results due to such factors as restrictions on increasing prices under the .com Registry Agreement, changes in marketing and advertising practices, including those of third-party registrars, increasing competition, and pricing pressure from competing services offered at prices below our prices; changes in search engine algorithms and advertising payment practices; the uncertainty of whether we will successfully develop and market new products and services, the uncertainty of whether our new products and services, if any, will achieve market acceptance or result in any revenues; challenging global economic conditions; challenges of ongoing changes to Internet governance and administration; the outcome of legal or other challenges resulting from our activities or the activities of registrars or registrants, or litigation generally; the uncertainty regarding what the ultimate outcome or amount of benefit we receive, if any, from the worthless stock deduction will be; new or existing governmental laws and regulations; changes in customer behavior, Internet platforms and web-browsing patterns; system interruptions; security breaches; attacks on the Internet by hackers, viruses, or intentional acts of vandalism; whether we will be able to continue to expand our infrastructure to meet demand; the uncertainty of the expense and timing of requests for indemnification, if any, relating to completed divestitures; and the impact of the introduction of new gTLDs, any delays in their introduction, the impact of ICANN's Registry Agreement for 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 regarding the impact, if any, of the delegation into the root zone of up to 1,400 new TLDs. More information about potential factors that could affect our business and financial results is included in our filings with the SEC, including in our Annual Report on Form 10-K for the year ended Dec. 31, 2013, 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.

VerisignInc.com

© 2014 VeriSign, Inc. All rights reserved. VERISIGN, the VERISIGN logo, and other trademarks, service marks, and designs are registered or unregistered trademarks of VeriSign, Inc. and its subsidiaries in the United States and in foreign countries. All other trademarks are property of their respective owners.

Verisign Public