

THE DOMAIN NAME INDUSTRY BRIEF

VOLUME 17 – ISSUE 4
NOVEMBER 2020



VERISIGN®

THE VERISIGN DOMAIN NAME INDUSTRY BRIEF

As a global provider of domain name registry services and Internet infrastructure, 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 registrations, including key performance indicators and growth opportunities, to industry analysts, media and businesses.

EXECUTIVE SUMMARY

The third quarter of 2020 closed with 370.7 million domain name registrations across all top-level domains (TLDs), an increase of 0.6 million domain name registrations, or 0.2 per cent, compared to the second quarter of 2020.^{1,2} Domain name registrations have grown by 10.8 million, or 3.0 per cent, year over year.^{1,2}

Total country-code TLD (ccTLD) domain name registrations were 160.6 million at the end of the third quarter of 2020, an increase of 0.5 million domain name registrations, or 0.3 per cent, compared to the second quarter of 2020.^{1,2} ccTLDs increased by 1.2 million domain name registrations, or 0.7 per cent, year over year.^{1,2}

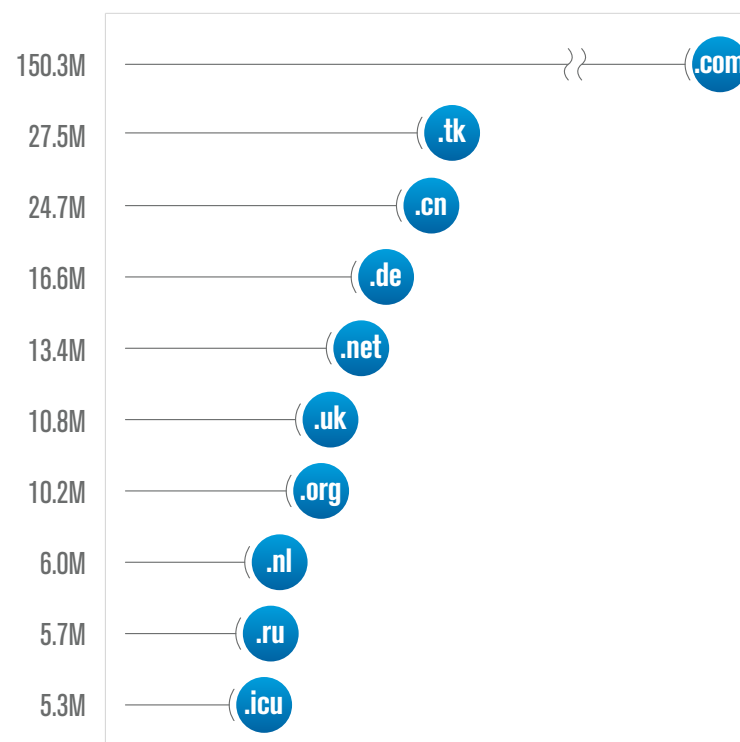
The .com and .net TLDs had a combined total of 163.7 million domain name registrations in the domain name base³ at the end of the third quarter of 2020, an increase of 1.7 million domain name registrations, or 1.0 per cent, compared to the second quarter of 2020. The .com and .net TLDs had a combined increase of 6.3 million domain name registrations, or 4.0 per cent, year over year. As of 30 of September, 2020, the .com domain name base totalled 150.3 million domain name registrations, and the .net domain name base totalled 13.4 million domain name registrations.

New .com and .net domain name registrations totalled 10.9 million at the end of the third quarter of 2020, compared to 9.9 million domain name registrations at the end of the third quarter of 2019.

Total new gTLD (ngTLD) domain name registrations were approximately 30.2 million at the end of the third quarter of 2020, a decrease of 1.5 million domain name registrations, or 4.7 per cent, compared to the second quarter of 2020. ngTLDs increased by 6.2 million domain name registrations, or 25.8 per cent, year over year.

TOP 10 LARGEST TLDs BY NUMBER OF REPORTED DOMAIN NAMES

Source: ZookNIC, Q3 2020; Verisign, Q3 2020; Centralized Zone Data Service, Q3 2020



As of 30 of September, 2020, the largest TLDs by number of reported domain names were .com, .tk, .cn, .de, .net, .uk, .org, .nl, .ru, and .icu.^{1,2,4}



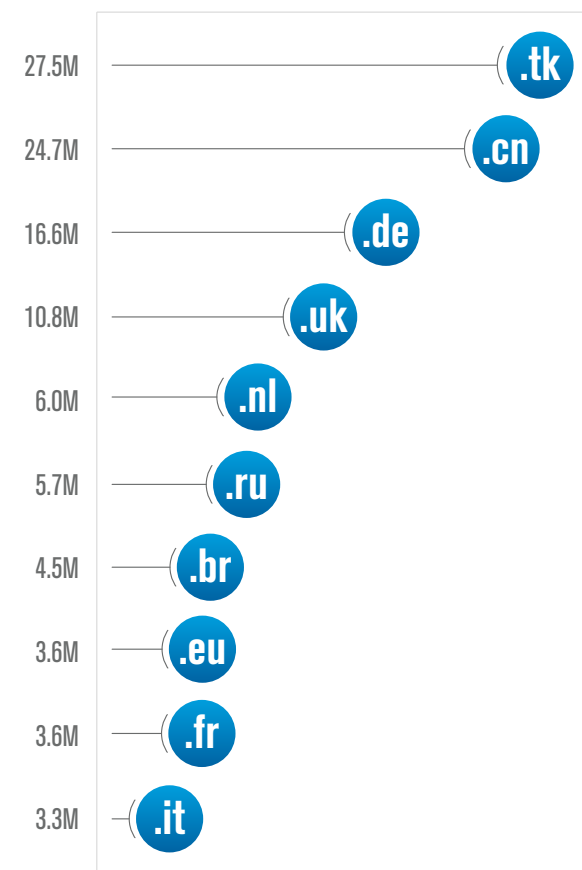
LARGEST ccTLDs BY NUMBER OF REPORTED DOMAIN NAMES

Source: ZookNIC, Q3 2020

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

Total ccTLD domain name registrations were 160.6 million at the end of the third quarter of 2020, an increase of 0.5 million domain name registrations, or 0.3 per cent, compared to the second quarter of 2020.^{1,2} ccTLDs decreased by 1.2 million domain name registrations, or 0.7 per cent, year over year.^{1,2} Excluding .tk, ccTLD domain name registrations increased by 0.5 million in the third quarter of 2020, or 0.4 per cent, compared to the second quarter of 2020. ccTLDs, excluding .tk, decreased by 3.6 million domain name registrations, or 2.6 per cent, year over year.

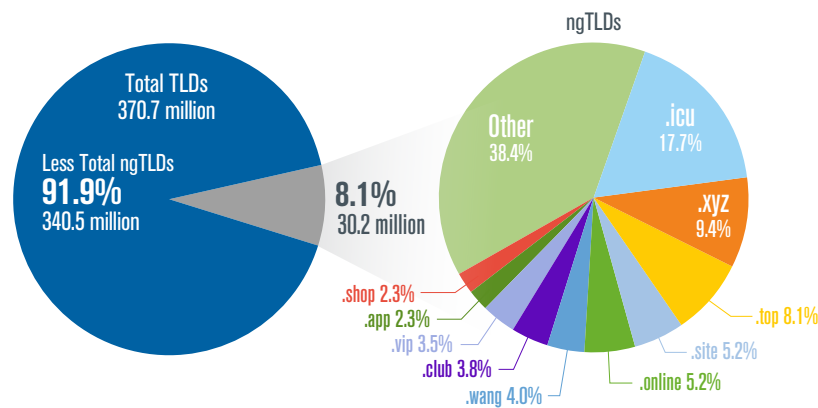
The top 10 ccTLDs, as of 30 of September, 2020, were .tk, .cn, .de, .uk, .nl, .ru, .br, .eu, .fr and .it.^{1,2} As of Sep. 30, 2020, there were 307 global ccTLD extensions delegated in the root zone, including IDNs, with the top 10 ccTLDs comprising 66.2 per cent of all ccTLD domain name registrations.^{1,2}



NEW gTLDs AS PERCENTAGE OF TOTAL TLDs

Source: ZookNIC, Q3 2020; Verisign, Q3 2020; and Centralized Zone Data Service, Q3 2020

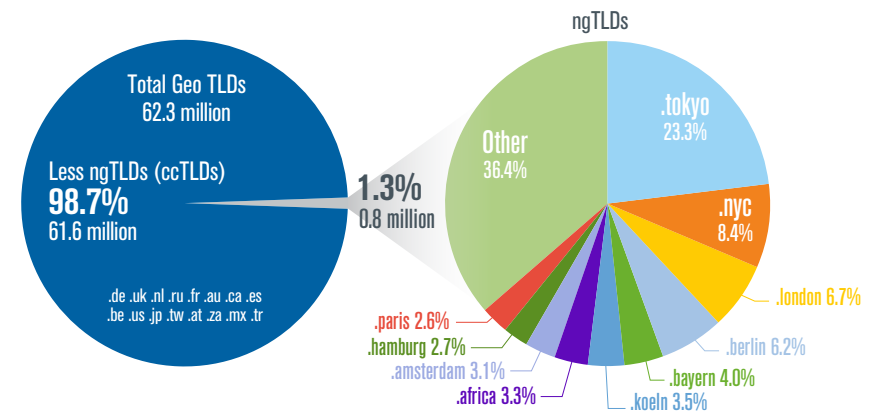
Total ngTLD domain name registrations were 30.2 million at the end of the third quarter of 2020, a decrease of 1.5 million domain name registrations, or 4.7 per cent, compared to the second quarter of 2020. ngTLDs increased by 6.2 million domain name registrations, or 25.8 per cent, year over year. The top 10 ngTLDs represented 61.6 per cent of all ngTLD domain name registrations. The following chart shows ngTLD domain name registrations as a percentage of overall TLD domain name registrations, of which they represent 8.1 per cent, as well as the top 10 ngTLDs as a percentage of all ngTLD domain name registrations for the third quarter of 2020.



GEOGRAPHICAL ngTLDs AS PERCENTAGE OF TOTAL CORRESPONDING GEOGRAPHICAL TLDs

Source: ZookNIC, Q3 2020 and Centralized Zone Data Service, Q3 2020

As of 30 of September, 2020, there were 47 ngTLDs delegated that meet the following criteria: 1) has a geographical focus and 2) has more than 1,000 domain name registrations since entering general availability (GA). The chart on the left summarizes the domain name registrations as of 30 of September, 2020, for the listed ccTLDs and the corresponding geographical ngTLDs within the same geographic region. In addition, the chart on the right highlights the top 10 geographical ngTLDs as a percentage of the total geographical TLDs.



NEW ON THE VERISIGN BLOG / July - September 2020



Combatting Illegal Online Opioid Sales in the COVID-19 Era

A pilot program launched in spring 2020 provided a framework for collaboration between Verisign, the Food and Drug Administration (FDA) and National Telecommunications and Information Administration (NTIA).



DNS: An Essential Component of Cloud Computing

The evolution of the internet is anchored in the phenomenon of new technologies replacing their older counterparts. But technology evolution can be just as much about building upon what is already in place, as it is about tearing down past innovations. Indeed, the emergence of cloud computing has been powered by extending an unlikely underlying component: the more than 30-year-old global Domain Name System (DNS).



Chromium's Impact on Root DNS Traffic

Chromium is an open-source software project that forms the foundation for Google's Chrome web browser, among other browser products. Verisign technologists explore how one of Chromium's features, intended to identify whether a network is attempting to "hijack" non-existence domain results, impacts root DNS traffic. Their analysis reveals that Chromium probe queries currently account for nearly half of all DNS root server traffic.



Maximizing Qname Minimization: A New Chapter in DNS Protocol Evolution

Qname minimization is a simple but innovative step in the evolution of DNS protocol implementation. It's a fundamental way to reduce the sensitivity of DNS data exchanged between resolvers and root and top-level domain (TLD) servers, as well as any other name servers prior to the final one in the chain.

ARTICLE

CYBER SECURITY CONSIDERATIONS IN THE WORK-FROM-HOME ERA

By Yong Kim, Vice President, Cyber Strategy and Research

Verisign is deeply committed to protecting our critical internet infrastructure from potential cyber security threats, and to keeping up to date on the changing cyber landscape.

Over the years, cyber criminals have grown more sophisticated, adapting to changing business practices and diversifying their approaches in non-traditional ways. We have seen security threats continue to evolve in 2020, as many businesses have shifted to a work from home posture due to the COVID-19 pandemic. For example, the phenomenon of “Zoom-bombing” video meetings and online learning sessions had not been a widespread issue until, suddenly, it became one.

As more people began accessing company applications and files over their home networks, IT departments implemented new tools and set new policies to find the right balance between protecting company assets and sensitive information, and enabling employees to be just as productive at home as they would be in the office. Even the exponential jump in the use of [home-networked printers](#) that might or might not be properly secured represented a new security consideration for some corporate IT teams.

An increase in phishing scams accompanied this shift in working patterns. About a month after much of the global workforce began working from home in greater numbers, the Federal Bureau of Investigation (FBI) reported about a [300 per cent to 400 per cent spike](#) in cyber security complaints received by its Internet Crime Complaint Center (IC3) each day. [According to the International Criminal Police Organization \(Interpol\)](#), “[o]f global cyber-scams, 59% are coming in the form of spear phishing.” These phishing campaigns targeted an array of sectors, such as healthcare and government agencies, by imitating health experts or COVID-related charities.

Proactive steps can help businesses improve their cyber security hygiene and guard against phishing scams. One of these steps is for companies to focus part of their efforts on educating employees on how to detect and avoid malicious websites in phishing emails. Companies can start by building employee understanding of how to identify the destination domain of a URL (Uniform Resource Locator – commonly referring to as “links”) embedded in an email that may be malicious. URLs can be complex and confusing and cyber criminals, who are well aware of that complexity, often use deceptive tactics within the URLs to mask the malicious destination domain. Companies can take proactive steps to inform their employees of these deceptive tactics and help them avoid malicious websites. Some of the most common tactics are described in Table 1 below.

Tactic	What is it?
Combosquatting	Adding words such as “secure,” “login” or “account” to a familiar domain name to trick users into thinking it is affiliated with the known domain name.
Typosquatting	Using domain names that resemble a familiar name but incorporate common typographical mistakes, such as reversing letters or leaving out or adding a character.
Levelsquatting	Using familiar names/domain names as part of a subdomain within a URL, making it difficult to discover the real destination domain.
Homograph attacks	Using homograph, or lookalike, domain names, such as substituting the uppercase “l” or number “1” where a lowercase “L” should have been used, or using “é” instead of an “e.”

CYBER SECURITY CONSIDERATIONS IN THE WORK-FROM-HOME ERA (Cont.)

Tactic	What is it?
Misplaced domains	Planting familiar domain names within the URL as a way of adding a familiar domain name into a complex-looking URL. The familiar domain name could be found in a path (after a "/"), as part of the additional parameters (after a "?"), as an anchor/fragment identifier (after a "#") or in the HTTP credentials (before "@").
URL-encoded characters	Placing URL-encoded characters (%[code]), which are sometimes used in URL parameters, into the domain name itself.

Table 1. Common tactics used by Cyber-Criminals to mask the destination domain.

Teaching users to find and understand the domain portion of the URL can have lasting and positive effects on an organization's ability to avoid phishing links. By providing employees (and their families) with this basic information, companies can better protect themselves against cyber security issues such as compromised networks, financial losses and data breaches.

To learn more about what you can do to protect yourself and your business against possible cyber threats, check out the STOP. THINK. CONNECT. campaign online at <https://www.stopthinkconnect.org>. STOP. THINK. CONNECT. is a global online safety awareness campaign led by the National Cyber Security Alliance and in partnership with the Anti-Phishing Working Group to help all digital citizens stay safer and more secure online.



VERISIGN®

ABOUT VERISIGN

Verisign, a global provider of domain name registry services and Internet infrastructure, enables Internet navigation for many of the world's most recognized domain names. Verisign enables the security, stability and resiliency of key Internet infrastructure and services, including providing root zone maintainer services, operating two of the 13 global Internet root servers, and providing registration services and authoritative resolution for the .com and .net top-level domains, which support the majority of global e-commerce. To learn more about what it means to be Powered by Verisign, please visit [Verisign.com](https://www.verisign.com).

LEARN MORE

To view the average daily number of queries Verisign processes, please go to the "What We Do" section at [Verisign.com](https://www.verisign.com).⁵ To access the archives for the *Domain Name Industry Brief*, please go to [Verisign.com/DNIBArchives](https://www.verisign.com/DNIBArchives). Email your comments or questions to DomainBrief@verisign.com.

METHODOLOGY

The data presented in this brief, including quarter-over-quarter and year-over-year metrics, reflects information available to Verisign at the time of this brief 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 domain name registrations. In addition, the data available for this brief may not include data for all of the 307 ccTLD extensions that are delegated to the root zone, and includes only the data available at the time of the preparation of this brief.

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](https://www.zooknic.com).

¹ The figure(s) includes domain names in the .tk ccTLD. .tk is a free ccTLD that provides free domain names to individuals and businesses. Revenue is generated by monetizing expired domain names. Domain names no longer in use by the registrant or expired are taken back by the registry and the residual traffic is sold to advertising networks. As such, there are no deleted .tk domain names. <https://www.businesswire.com/news/home/20131216006048/en/Freenom-Closes-3M-Series-Funding#.UxeUGNJdV9s>.

² The generic top-level domain (gTLD) and ccTLD data cited in this brief: (i) includes ccTLD Internationalized Domain Names (IDNs), (ii) is an estimate as of the time this brief was developed and (iii) is subject to change as more complete data is received. Some numbers in this brief may reflect standard rounding.

³ The domain name base is the active zone plus the number of domain names that are registered but not configured for use in the respective TLD zone file plus the number of domain names that are in a client or server hold status. The .com and .net domain name registration figures are as reported in Verisign's most recent SEC filings.

⁴ Line break indicates that the .com line has been shortened for display considerations.

⁵ The "What We Do" section is located on Verisign.com under the "About Verisign" tab and under the sub-tab "Overview."

Verisign.com

© 2020 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

202011