



# THE DOMAIN NAME INDUSTRY BRIEF

**VOLUME 8 - ISSUE 1 - FEBRUARY 2011** 

# 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 A LEADING PROVIDER OF DIGITAL INFRASTRUCTURE FOR THE INTERNET, VERISIGN PROVIDES THIS BRIEFING TO HIGHLIGHT TO INDUSTRY ANALYSTS, MEDIA, AND BUSINESSES IMPORTANT TRENDS IN DOMAIN NAME REGISTRATION, INCLUDING KEY PERFORMANCE INDICATORS AND GROWTH OPPORTUNITIES.



#### **EXECUTIVE SUMMARY**

The fourth quarter of 2010 closed with a base of more than 205.3 million domain name registrations across all Top Level Domains (TLDs), an increase of 3.5 million domain names, or 1.7 percent over the third quarter. Registrations have grown by 12.1 million, or 6.3 percent over the past year.

The base of Country Code Top Level Domains (ccTLDs) was 80.1 million domain names, a 1.1 percent increase quarter over quarter, and a 0.3 percent increase year over year.<sup>1</sup>

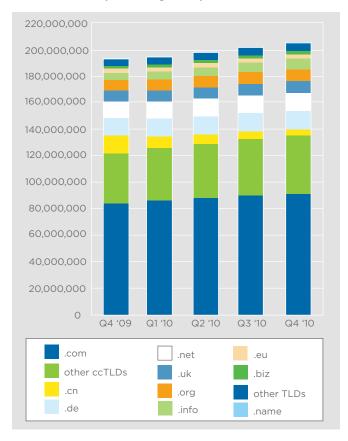
The .com and .net TLDs experienced strong aggregate growth in the fourth quarter, reaching a combined total of approximately 105.2 million names. New .com and .net registrations totaled 7.6 million during the quarter. This is a 1.6 percent increase in new registrations from the third quarter. Year over year, new registrations increased 4 percent.

The order of the top TLDs in terms of zone size changed only slightly compared to the third quarter, as .org moved from fifth to fourth largest TLD, dropping .uk (United Kingdom) from fourth to fifth.

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

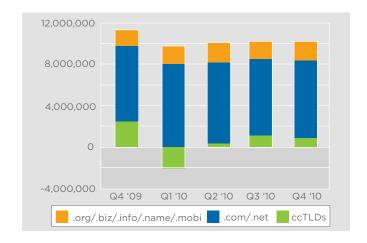
#### **Total Domain Name Registrations**

Source: Zooknic, January 2011; Verisign, January 2011



### **New Registration Growth**

Source: Zooknic, January 2011; Verisign, January 2011; ICANN Monthly Reports





### **CCTLD BREAKDOWN OF ZONE SIZE**

Total ccTLD registrations were approximately 80.1 million in the fourth quarter of 2010 with the addition of 0.9 million domain names, or a 1.1 percent increase compared to the third quarter. This is an increase of approximately 0.3 million domain names, or 0.3 percent from a year ago.<sup>2</sup>

Among the 20 largest ccTLDs, Poland, Australia, Canada and Switzerland exceeded 4 percent quarter over quarter growth. Last quarter, four of the top 20 met the same threshold.

Poland and Australia also joined the Russian Federation and the United States as top 20 ccTLDs exceeding 20 percent year-over-year growth.

There are more than 240 ccTLD extensions globally, with the top 10 ccTLDs comprising 61 percent of all registrations.

# Top ccTLD Registries by Domain Name Base, Fourth Quarter 2010

Source: Zooknic, January 2011

de (Germany)
.ru (Russian Federation)
.uk (United Kingdom)
.ar (Argentina)

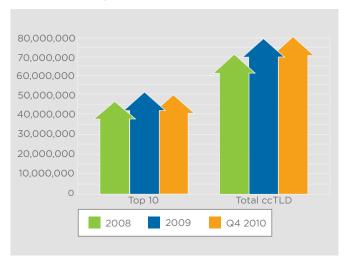
3. .cn (China)
4. .nl (Netherlands)
5. .eu (European Union)
8. .br (Brazil)
9. .it (Italy)
10. .pl (Poland)

# .COM/.NET DYNAMICS

The .com/.net renewal rate for the fourth quarter was 72.7 percent, down from 72.8 percent for the third quarter. Renewal rates may deviate a few percentage points in either direction quarter over quarter based on the composition of the expiring name base and the contribution of specific registrars.

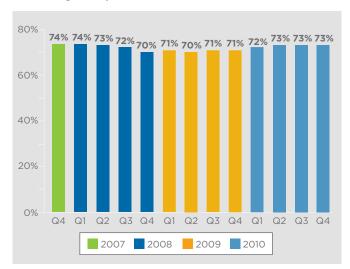
#### ccTLD Breakdown

Source: Zooknic, January 2011



# .com/.net Registry Renewal Rates

Source: Verisign, January 2011





#### .com/.net Websites

Source: Verisign, January 2011



Whether a domain name resolves to a website is a key factor in the renewal rates since domain names that resolve to websites are more likely to be renewed. Verisign estimates that 88 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 underconstruction, brochure-ware and parked pages in addition to online advertising revenue generating parked pages.

Verisign's average daily Domain Name System (DNS) query load during the quarter was 61 billion, with a peak of 72 billion. Compared to the same timeframe in 2009, the daily average and the peak each grew 17 percent.

The ongoing growth of DNS query loads stems both from normal traffic drivers – most notably the continuing increase in global Internet usage – and from increasingly powerful distributed denial of service (DDOS) attacks leveled against all parts of the Internet's critical infrastructure. These increases, both from benign and malicious sources, require aggressive innovation and investment on the part of infrastructure operators to meet the growing demand. For Verisign, this means Project Apollo, which will grow capacity 1,000 times today's level of 4 trillion queries to manage 4 quadrillion queries per day by 2020.

## **USHERING IN THE DAWN OF THE IPV6 ERA**

Before the end of 2011, the Internet's addressing system could experience two of the most significant changes since its inception. One of these changes will be glaringly obvious, while the other will be all but invisible to most Internet users.

The first change, of course, will be the launch of an application process that will introduce potentially hundreds of new generic top-level domains (gTLDs) to the naming system. Although the precise date that process will begin remains uncertain, the Internet Corporation for Assigned Names and Numbers (ICANN) is nearing completion of its gTLD launch plan, and could start reviewing applications by summer. Within months of the launch – perhaps by early 2012 – Internet users may very well have their choice of an unprecedented array of top-level domains, from consumer domains like .shop and .bank to geographic ones like .nyc and .london.

The second change will be less visible to ordinary Internet users, but has the potential to be every bit as profound. Throughout the Internet, access and infrastructure providers, service operators and content providers are ramping up preparedness for the deployment of Internet Protocol Version 6 (IPv6). IPv6 is designed to replace the longstanding Internet Protocol Version 4 (IPv4). Internet stakeholders must clear the way for that process by preparing for the transitional coexistence of both protocols on their networks and systems.



IP numbers are the numerical addresses that form the basis of Internet communication, since every resource on the Internet requires a machine-readable address in order to be identified by other resources on the network. The purpose of the DNS is to translate long, machine-readable IP numbers into memorable, meaningful linguistic names. They are essential to the operation and continued growth of the Internet's global addressing system.

Technologists have been working on the protocol that would become IPv6 for nearly two decades. Well before the standard for IPv6 was published in 1998, infrastructure operators knew that the clock was ticking on IPv4, since its 32-bit addressing technology would be insufficient to accommodate continuing, exponential Internet expansion.

This year, though, the clock has finally reached zero, with the last available IPv4 addresses within the Internet Assigned Numbers Authority (IANA) pool being allocated in February, effectively exhausting the master pool of "new" IPv4 addresses. While the Regional Internet Registries (RIRs) that provide IP addresses to ISPs still have IPv4 addresses in their inventory (an inventory that, in some cases, could last for a couple more years) no "new" IPv4 addresses can be created.

When that happens, a change that has long been inevitable will quite quickly become necessary, since the Internet needs new IP numbers to continue its global growth and serve as a ubiquitous platform for innovation.

With a 32-bit address space, the number of total IPv4 addresses is limited to approximately 4.3 billion, a number that seemed more than sufficient at the time that IPv4 was developed in the early 1980s. But while the Internet community has been engineering to accommodate address space limitations for nearly two decades, IPv4's available address space is proving increasingly insufficient in a world with literally billions of Internet-connected devices.

IPv6 solves this problem by using 128-bit addressing, creating a massively larger number of addresses (the actual number is typically described as 2 to the 128th power – or '340 trillion trillion trillion' – widely believed to be more than the Internet will need for decades, even by the most ambitious growth projections).

To date, the most significant obstacles to widespread IPv6 deployment have been inertia and cost, and the lack of benefit from network externalities. While the costs of retrofitting the infrastructure to support the IPv6 protocol remain significant, the looming exhaustion of the IPv4 addressing pool has struck at the heart of the inertia that has hobbled transition for the past decade.

Both technically and psychologically, the exhaustion of the IPv4 pool should finally provide the impetus for widespread adoption of IPv6. The change will not happen overnight, but when historians look back, 2011 may very well be the year that it began in earnest. Coupled with the continued deployment of DNSSEC, IPv6 will ultimately provide the stable and secure base for the next generation of Internet evolution.

Responsibility for making that happen is shared among all Internet stakeholders. No single stakeholder or group of stakeholders shoulders all of the responsibility for supporting the deployment of IPv6.

For the transition to be successful, everyone from infrastructure operators and service providers to application developers and users will have to work together to support and develop IPv6 capabilities, debugging issues with new software and applications that are IPv6 only, and refining interworking and transitional co-existence with IPv4.

For Verisign, that means ensuring that the critical Internet infrastructure under its stewardship is fully prepared for the coming change. The Verisign network must be ready to support wide-scale IPv6 adoption, while still supporting coexistence with IPv4 into the foreseeable future. To that end Verisign has invested heavily to ensure that its network is ready to support IPv6. Verisign has been capable of servicing IPv6 queries at the network layer, and supporting IPv6 extensions in the DNS itself, for several years now and is committed to continually expand its IPv6 capacity and capabilities to meet and exceed the global need. Verisign now looks to share that experience with other infrastructure operators as they ready their networks for IPv6. Working together, we can make 2011 an historic year for ensuring the stability, security and growth of the Internet.



## **LEARN MORE**

To subscribe or access the archives for the Domain Name Industry Briefs, please go to http://www.verisigninc.com/en\_US/why-verisign/research-trends/domain-name-industry-brief/index.xhtml. Email your comments or questions to domainbrief@verisign.com.

#### **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 to connect online with confidence. Additional news and information about the company is available at www.VerisignInc.com.

## Zooknic Methodology

For gTLD data cited with Zooknic as a source, the 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.

# VerisignInc.com

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