

# *The Global Domain Name Market in 2017*

**Afnic Studies**

June 2018

**afnic**

## Contents

1. Introduction .....	4
2. The things to remember .....	5
3. Global trends .....	7
3.1. Towards a "return to normal"? .....	7
3.2. Contrasting performance per TLD segment .....	8
3.3. The weakening of nTLDs.....	9
3.4. A significant contribution by nTLDs to the net balance nonetheless.....	9
4. Legacy TLDs in 2016 .....	11
4.1. Contrasting trends .....	12
4.2. Low retention rates .....	12
4.3. Indications on changes in naming strategies .....	13
5. ccTLDs.....	14
5.1. Dynamics very different from one region to another.....	14
5.2. Influence of quasi-gTLDs and penny-ccTLDs.....	15
6. nTLDs .....	17
6.1. Definition of new TLD "segments" .....	17
6.2. Performance of new TLD "segments" .....	17
6.3. Distribution of new TLDs in volumes of domain name registrations .....	18
6.4. Development of retention rates per segment.....	20
6.5. Global development in the stock of new TLDs.....	21
6.6. The utilization rate, an indicator of the longevity of nTLDs.....	22
6.7. "Leaders" relatively decelerating.....	23
7. The distribution of domain names in the world at the end of 2017 .....	26
7.1. Overview.....	26
7.2. Distribution of ccTLDs per ICANN Region.....	29

7.3.	Distribution of .COM per ICANN Region .....	30
7.4.	Distribution of nTLDs per ICANN Region.....	31
7.5.	Summary tables.....	31
7.6.	Lessons learnt .....	33
8.	Highlights of 2017 and early 2018 .....	34
8.1.	Concentration continues at all levels .....	34
8.2.	An increasingly tense financial situation.....	34
8.3.	The Chinese El Dorado .....	35
8.4.	"Sell more and better" .....	35
8.5.	A search for diversification .....	36
8.6.	The reign of Data .....	37
8.7.	The Internet of Things is still the stuff of dreams .....	37
9.	Conclusions and outlooks .....	38

## 1. Introduction

The publication of ICANN statistics as of 31/12/17 makes possible a quantified assessment of 2017, the "landing" period after the atypical disorder caused by the waves of "Chinese" create operations of late 2015 and early 2016.

The data on which this study is based come from ICANN reports (Transactions - registries), from information provided by registries in certain frameworks such as the Council of European National Top Level Domain Registries (CENTR) or the Asia Pacific Top Level Domain Association (APTLD) or via their websites, and research conducted by Afnic. In some cases, we have also relied on specialized sites such as NTLDSTATS.COM.

Our figures may vary slightly from those reported by other sources, particularly due to the lack of precise data for all country code Top-Level Domains (ccTLDs).

## 2. The things to remember

- At the end of 2017, the global domain name market represented some 342 million domain names, including 172 million legacy TLDs (.COM, .NET, .ORG, etc.), 24 million nTLDs created from 2014 onwards, and 147 million ccTLDs (so-called "geographic" namespaces).
- Overall growth in 2017 was 1.2%, down from 7.1% in 2016, as a result of the deletions following the waves of domain name creations in March and June 2016. 2018 should see the market "return to normal", with an attenuation of the impact of the atypical phenomena of 2015 - 2017.
- The build-up of nTLDs came to a halt in 2018, with a slight regression in market share (-1 point) and a 15% loss in volume (-4 million names).
- The consolidation of the market share of "leading" namespaces, both globally and in France, combined with fairly severe losses for "Legacy" TLDs other than the .COM, suggests that some arbitrage operations were taking place between nTLDs and Other Legacy TLDs, but these mostly concerned defensive names.
- Regional ccTLD dynamics show Africa is achieving impressive growth, while other regions are stagnating or declining slightly. However, these data must be put into perspective by isolating the "penny TLDs" and the "quasi-gTLDs", which seriously bias any market assessments.
- The nTLDs are suffering from an identical phenomenon that requires that the main "penny TLDs" be isolated in order to obtain a more reliable view of the "fundamentals" of this segment. It is equally important to distinguish the types of "new TLDs" because "CORP TLDs" have different approaches and behavior patterns than "Geo-TLDs" or pure generic TLDs.
- The development of the nTLD utilization rate as a whole continues to be encouraging, although its level remains low and the proportion of "really used" names increased little in 2017 despite the "purges" that impacted the main TLD suffixes.
- The global distribution of domain names clearly shows a predominance of North America for Legacy TLDs, Europe for ccTLDs, and Asia Pacific for nTLDs.
- These lessons suggest that marketing strategies for nTLDs targeting primarily North America and/or Europe (for generics) may have contributed to the mixed performance of some nTLDs.
- The two combined phenomena of concentration of the players on the one hand, and diversification of revenue sources on the other, remained decisive in the strategies implemented in 2017.
- However financial reasoning tends to be increasingly present (to the detriment of any entrepreneurial approach) due to the presence of strictly financial investors in the capital of major stakeholders (whether listed on the stock market or not) and the sluggish economic performance of many nTLDs that can create tight cash positions.
- Faced with these uncertainties, the players are looking for new opportunities, particularly in China, while striving to optimize their sales processes.

- The fact remains that the registry - registrar system will no doubt have to change in the future, by increasingly favoring the emergence of specialized or "proximity" resellers, who will take care of marketing nTLDs to the niche markets concerned. The transformation is not an easy one for all of the stakeholders and remains slow in gaining wider acceptance.
- At the registry level, security, DNS infrastructures, the fight against fraudulent or abusive use, the exploitation of data and the Internet of Things are the main areas of development and diversification identified in 2017.

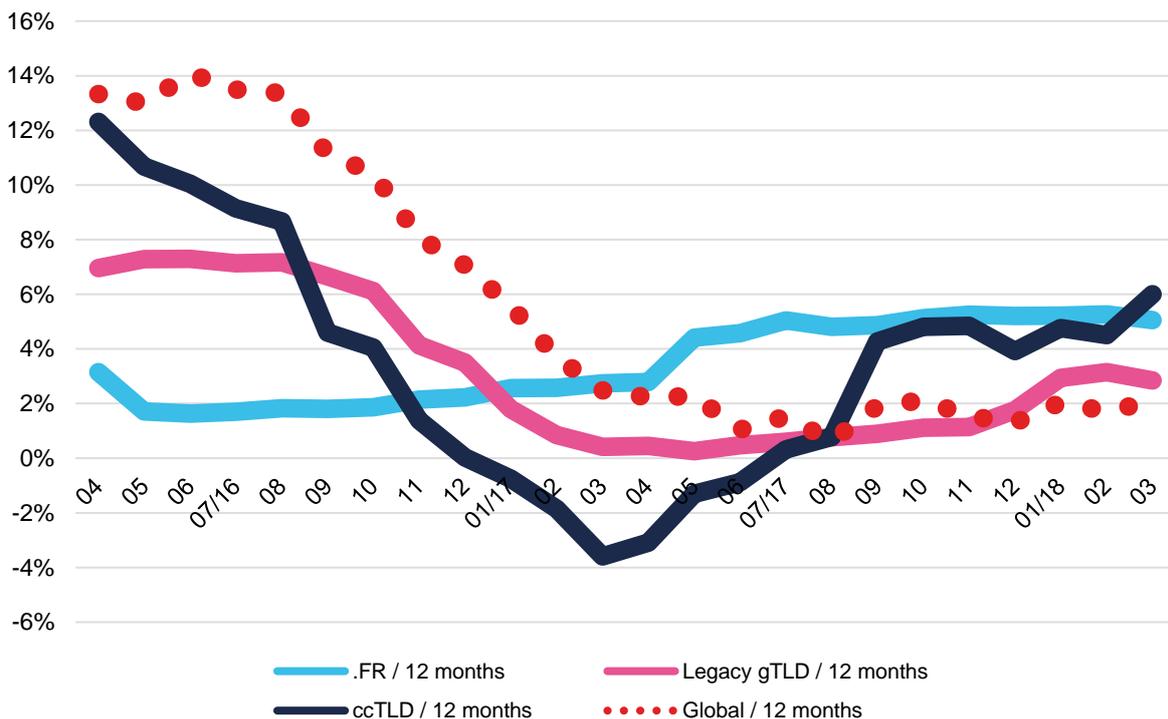
### 3. Global trends

The domain name market had 342 million names worldwide at year-end December 2017, up 1.2% from 2016 (338 million). Although still strong, its growth declined compared with 2015 (11.7%) and 2016 (7.1%). However, the very strong growth rates of 2015 and 2016 were mainly due to massive create operations by Chinese domainers, which amplified the upward movement during those two years, while weighing on the performance of 2017 and probably on that of 2018. The variations in these years were therefore cyclical and did not reflect the market fundamentals.

#### 3.1. Towards a "return to normal"?

The chart below shows the end of the "bell" phenomenon which reflects the sharp acceleration of growth in 2015/2016 before a period of "depression" in 2017 following the deletions of the names up for renewal. In the second half of 2017, the waves of deletions appear to have been "digested" and growth has picked up, reaching 2% in the first quarter of 2018.

#### Change in growth rates 2016-2018



The "Global" curve takes into account the new TLDs, whose very strong growth boosted the market until mid-2017. In the second half of 2017, the pace of market growth realigned with that of the Legacy TLDs, foremost among which is the .COM.

### 3.2. Contrasting performance per TLD segment

Table 1 below shows the main indicators for each market segment between 2015 and 2017.

	Stock (millions of DN)			Variations (%)			Market share (%)		
	2015	2016	2017	2015	2016	2017	2015	2016	2017
<b>.COM</b>	127	131	135	6.4%	3.7%	2.8%	40%	39%	39%
<b>Other Legacy TLDs*</b>	36	38	37	1.5%	3.2%	-1.9%	12%	11%	11%
<b>nTLDs</b>	11	28	24	195.9%	144.8%	-14.6%	4%	8%	7%
<b>Total gTLDs **</b>	174	196	195	9.9%	12.8%	-0.6%	56%	58%	57%
<b>ccTLDs ***</b>	141	141	147	14.0%	0.1%	3.9%	45%	42%	43%
<b>TOTAL</b>	<b>315</b>	<b>338</b>	<b>342</b>	<b>11.7%</b>	<b>7.1%</b>	<b>1.2%</b>	-	-	-

Year-end data in millions of names.

\* Other Legacy TLDs: generic TLDs created before 2012, such as .AERO, .ASIA, .BIZ, .NET, .ORG, .INFO, .MOBI, etc.

\*\* Total gTLDs: measures all the domain names managed under a contract with ICANN. This includes the new TLDs, some of which are not, strictly speaking, "generic".

\*\*\* ccTLD or "country code Top-Level Domains", i.e. suffixes corresponding to territories, such as the .FR for France.

With 135 million names (131 at year-end 2016) .COM remains the heavyweight of this market. Its market share even increased in 2017, from 38.9% to 39.5%, although its growth was affected by the deletions that also affected it (2.8% in 2017 against 3.7% in 2016 and 6.4% in 2015).

The Other Legacy TLDs suffered in 2017, losing 2% in stock, which suggests that the effects of disposals may be at work in the market, the holders opting to abandon some secondary Legacy TLDs filed defensively to transfer their budgets to equally defensive purchases in certain new TLDs.

New TLDs lost 15% in stock, a figure that is both considerable and insignificant in itself. Considerable, in terms of its implications on the general growth of the market, which was severely disturbed. Insignificant, in that most of the 4 million "lost" names were linked to a handful of new highly speculative TLDs, distributed for a few cents, which can be called "penny TLDs". We shall come back to these "penny TLDs" later.

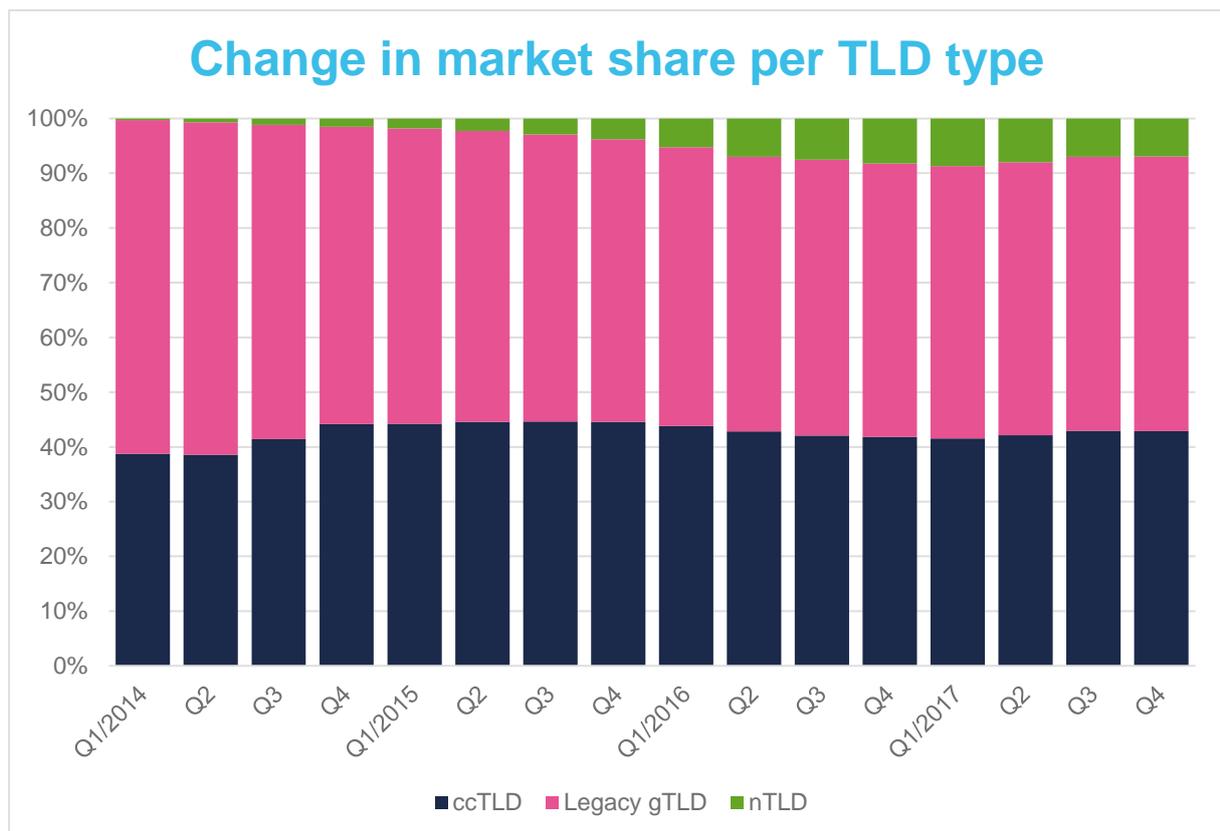
The country code Top-Level Domains (ccTLDs), on the other hand, which had an excellent year in 2015 and a "zero" year in 2016, returned to growth in 2017 resting probably on a more solid basis than in 2015.

This means the outlooks were reversed in 2017 compared with 2015 and 2016. Conquering all until then, nTLDs have gone through a natural "hangover" period before returning to moderate growth in 2018. On the other hand, Legacy and ccTLDs, which had been on the defensive for two years, consolidated their positions and recorded good momentum - but this is valid only from a global point of view, with significant contrasts between the various TLD suffixes.

### 3.3. The weakening of nTLDs

The chart below shows a quarterly view of the change in market share of the various segments since the introduction of the first nTLDs (January 2014). Note the strong growth of nTLDs up to Q3 2016, before a period of stagnation in Q4 2016 and Q1 2017 followed by a noticeable decline in Q2 and Q3 2017 and stabilization at the end of the year.

At the same time, ccTLDs appear to have reached their peak in Q3 2017 before stabilizing in the last quarter.



### 3.4. A significant contribution by nTLDs to the net balance nonetheless

The same data expressed in net balance highlights the weight of nTLDs in the global market performance in 2017, their losses fully offsetting the recovery of .COM. One may suppose, however, that in the future their variations will be more modest and that the market will be more "determined" by changes in the .COM and ccTLDs than by the newcomers "doped" in volume by some "penny TLDs" which by nature are highly volatile.

	Net balances (millions of DN)			Weight in the total		
	2015	2016	2017	2015	2016	2017
.COM	8	4	4	25%	18%	100%
Other Legacy TLDs	0	2	-1	0%	9%	-25%
nTLDs	7	16	-4	22%	73%	-100%
<i>Total gTLDs</i>	15	22	-1	47%	100%	-25%
ccTLDs	17	0	6	53%	0%	15%
<b>TOTAL</b>	<b>32</b>	<b>22</b>	<b>4</b>	<b>-</b>	<b>-</b>	<b>-</b>

Let's now look at the dynamics of each of these three market segments, Legacy TLDs, ccTLDs and nTLDs, to better understand the phenomena at work in 2016.

## 4. Legacy TLDs in 2017

There are now 18 "Legacy TLDs", or "traditional" namespaces created before 2012: AERO, ASIA, BIZ, CAT, COM, COOP, INFO, JOBS, MOBI, MUSEUM, NAME, NET, ORG, POST, PRO, TEL, TRAVEL, XXX.

The stocks of these Legacy TLDs vary considerably, from the few names of the .POST to the 135 million of the .COM.

In order to present relevant summary tables and indicators, we shall only distinguish the six most important in terms of volume, aggregating the other 12 in a line "Legacy TLDs excluding the Big Six".

	Stocks (thousands)			Create operations (thousands)			Retentions (thousands)		
	2016	2017	Var.	2016	2017	Var.	2017 *	% 2017	% 2016
<b>.BIZ</b>	2,374	2,138	-10%	509	562	11%	1,576	66%	76%
<b>.COM</b>	131,335	135,027	+3%	32,313	33,324	+3%	101,703	77%	78%
<b>.INFO</b>	5,748	6,980	+21%	1,868	3,136	+68%	3,844	67%	77%
<b>.MOBI</b>	674	544	-19%	131	67	-49%	478	71%	77%
<b>.NET</b>	16,137	14,951	-7%	3,255	3,029	-7%	11,922	74%	80%
<b>.ORG</b>	11,075	10,835	-2%	2,120	2,023	-5%	8,812	80%	82%
<b>Others</b>	1,298	1,133	-13%	465	291	-37%	842	65%	82%
<b>TOTAL</b>	<b>168,642</b>	<b>171,608</b>	<b>-1%</b>	<b>40,660</b>	<b>42,431</b>	<b>+4%</b>	<b>129,177</b>	<b>77%</b>	<b>79%</b>

\* "M" refers to the number of domain names maintained in 2016. This figure is obtained by a fairly simple equation:  $M = \text{Stock at 31/12/2017} - \text{Create operations 2017}$ .

This is because the stock of a TLD at the end of 2017 is mathematically constituted by the names of the stock as at 31/12/2016 retained in the portfolio to which have been added the domain name creations of 2016. It is therefore possible to deduce a "retention rate" based on these data from the various registries at ICANN [% R] for the names that were in stock at the end of 2016.

$Rr R 2016 = R / \text{Stock 2015}$

In 2017, the overall stock of Legacy TLDs dropped by 1% while domain name creations grew by 4%. The explanation lies in the retention rate which lost 2 points, from 79% in 2016 to 77% in 2017.

## 4.1. Contrasting trends

The data presented above show that the situations of the large "Legacy TLDs" are quite contrasting, from the .BIZ which lost 10% in stock (having seen its retention rate collapse by 10 points) .INFO which, thanks to its strong performance in China<sup>1</sup>, recorded a 68% increase in its create operations while also losing 10 points in its retention rate (and finally gaining 21% in stock).

The most troubling situations are those of TLDs which underwent simultaneous decreases in their create operations and retention rates, both of which combined to produce a loss in stock: .MOBI, .NET, .ORG, Other [small Legacy TLDs].

.INFO and .COM managed, by their create operations, to compensate for the deficit generated by higher numbers of deletions, in percentages of stock, than in 2016. The .BIZ was not so lucky, while managing to increase its domain name creations by 21%.

The spectacular variations in .BIZ and .INFO create operations, however, suggest that they are the result of promotional campaigns, resulting in registrations that are more volatile. In the end, only .COM seems to enjoy a relatively privileged situation, with a retention rate more stable than those of its competitors and a positive variation in its domain name creations.

## 4.2. Low retention rates

For the most part, the retention rates in 2017 did not hold the promises of 2016:

	2012	2013	2014	2015	2016	2017	Var. 16/17 (in pts)
.BIZ	76.6%	75.3%	66.8%	68.3%	76.2%	66.4%	-9.8
.COM	78.2%	78.0%	77.5%	77.4%	78.2%	77.4%	-0.8
.INFO	46.2%	51.2%	61.2%	65.3%	76.6%	66.9%	-9.7
.MOBI	68.7%	69.6%	58.1%	68.6%	76.6%	70.8%	-5.8
.NET	77.4%	76.6%	76.6%	76.7%	79.6%	73.9%	-5.7
.ORG	78.6%	78.4%	78.2%	78.4%	82.2%	79.6%	-2.6
Other	74.3%	69.1%	64.5%	81.4%	82.5%	64.8%	-17.7
<b>TOTAL</b>	<b>76.1%</b>	<b>76.4%</b>	<b>76.4%</b>	<b>76.8%</b>	<b>78.5%</b>	<b>76.6%</b>	<b>-1.9</b>

The good overall performance of the segment as a whole (-1.9 points) is actually due to the high stability of .COM (-0.8 points). All the other Legacy TLDs suffered, especially .BIZ and .INFO, but "small" gTLDs were the most hit (-17.7 points).

The impression is that in 2017 registrants probably performed new arbitrage operations between "Legacy" defensive names and "nTLD" defensive names, these operations generally taking place to the detriment of the Legacy and especially those that have not really found their market.

<sup>1</sup> Is .Com still king in China? <https://domainnamewire.com/2018/04/24/is-com-still-king-in-china/>

This phenomenon is worrying as it reflects a lower "loyalty" level among registrants, with a high proportion of defensive names likely to be abandoned at any time, and the fragility of revenues related to renewals even though these are most often the main sources of revenue for registries.

It should be remembered that changes in retention rates must be related to inventories to understand their importance. A 1 percentage point change in the retention rate over 135 million .COM domain names represents a gain or loss of 1.35 million names, or about 4% of the annual create rate for this TLD - an appreciable leverage effect when its create operations only grow by 3% per year.

The leverage effect is all the more important in that the TLD is older. This is one of the reasons why the dramatic variations in create rates must be put into perspective, by linking them in the medium-long term with the change in the retention rate. In terms of strategic supervision, the above example shows that maintaining the retention rate is sometimes more important than the development of create rates by means of low-cost campaigns, which can result in "kite flying".

### 4.3. Indications on changes in naming strategies

We shall see in the chapter on nTLDs that they too had a difficult year in terms of retention rates. A pessimistic interpretation of these data is that the registrants are both more selective in their choices of create operation, and less likely to retain their defensive domain name registrations.

If this phenomenon were to be confirmed, it would be a natural consequence of the fact that the proliferation of TLD suffixes makes illusory (and ruinous) any "enlarged" defensive strategy, and that the only alternative is to focus filings on domain names that will actually be used, or whose importance is deemed strategic enough to warrant a defensive registration.

While being logical, this change in "naming strategies" may weigh in the future on the performance of a market which, when taken as a whole, has been largely built around defensive domain name registrations on the one hand, and speculative filings on the other.

The gradual drying up of these two sources of create operations and renewals may call into question certain business models - and in particular those of certain nTLDs and the smallest Legacy TLDs. It can eventually lead to a less dynamic market, but one which is also less volatile and more stable.

## 5. ccTLDs

Country code TLDs as a whole returned to growth in 2017, with +3.9% in stock. This recovery was particularly marked in the last quarter of 2017, when the weight of deletions related to names filed by Chinese domainers had less impact.

### 5.1. Dynamics very different from one region to another

The study of regional dynamics shows, however, that the situations differ according to geographical area. In North America, the performance mirrors that of .US, which experienced in 2017 the usual consequences of a "relaunch" in 2016, but managed to compensate for the high level of deletions by new domain name creations.

Latin America also remained very stable after strong growth in 2016. Thanks to a few penny ccTLDs, Africa continued to post double-digit growth, which may not mean much to the extent that massive domain name registrations under penny ccTLDs are not necessarily sustainable.

Asia-Pacific grew again in 2017 after a recession in 2016 due to the strong reabsorption of the .TK (which dropped that year from some 27 million names to 18 million, or - 9 million fewer). Europe, finally, appeared to be a mature market, which resumed a certain momentum in 2017 by doubling its growth rate.

	Stock (millions)			Variations (%)		Market share (%)			
	2015	2016	2017	2016	2017	2015	2016	2017	17/16
North America	4.2	4.8	4.8	15.7%	-0.4%	3.0%	3.4%	3.3%	-0.1
Latin America	7.0	7.7	7.7	9.1%	0.0%	5.0%	5.5%	5.2%	-0.3
Africa	2.3	3.3	5.8	45.0%	72.7%	1.6%	2.4%	3.9%	+1.5
Asia-Pacific	59.3	55.8	56.2	-5.9%	0.8%	42.0%	39.5%	38.3%	-1.2
Europe	68.3	69.5	72.2	1.8%	3.9%	48.4%	49.2%	49.2%	0
<b>TOTAL</b>	<b>141.1</b>	<b>141.1</b>	<b>146.7</b>	<b>0.0%</b>	<b>3.9%</b>	-	-	-	-

The European market remained largely dominant with nearly 50% of the ccTLDs filed, followed by the Asia-Pacific region, which has been losing ground since 2015. The other three regions represent little more than 12% in all, which shows the low level of their ccTLDs and their potential. We shall come back to this important issue for the future of the market.

## 5.2. Influence of quasi-gTLDs and penny-ccTLDs<sup>2</sup>

It seemed interesting to conduct a study on ccTLDs "diverted" from their original purpose, i.e. marketed not as national TLD suffixes, but as generic TLDs, or in a context of semi-gratuity where the highly attractive price replaces the potential lack of "generic" meaning of the ccTLD.

The most well-known quasi-gTLDs are .TV (Tuvalu Islands - "Television"), .ME (Montenegro - "Moi"), .CO (Colombia - "Commercial"), .NU (Niue Island - "New" in Swedish) or even the .LA (Laos - "Los Angeles"). We have added the .VC (Cape Verde - Venture Capitalist).

The penny ccTLD identified this year, subject to inventory, are the .CC (Cocos Islands), .CF (Central African Republic), .GA (Gabon), .GQ (Equatorial Guinea), .IO (British Ocean Territory Indian), .ML (Mali), .PW (Palau Islands), and .TK (Tokelau Islands).

If we distinguish three ccTLD segments based on the marketing strategies of their registries, the "true ccTLDs", the quasi-gTLDs and the penny ccTLDs, we obtain the data collected in the table below.

		2014	2015	2016	2017
ccTLD	<b>Stock</b>	<b>98.4</b>	<b>106.3</b>	<b>113.8</b>	<b>117.3</b>
	Variation	-	7.9	7.4	3.5
	Var. (%)	-	8%	7%	3%
Quasi-gTLDs	<b>Stock</b>	<b>3.5</b>	<b>3.9</b>	<b>4.3</b>	<b>4.3</b>
	Variation	-	0.4	0.4	0
	Var. (%)	-	12%	11%	-1%
Penny-ccTLD	<b>Stock</b>	<b>21.9</b>	<b>30.8</b>	<b>23.1</b>	<b>25.2</b>
	Variation	-	9.0	-7.8	2.1
	Var. (%)	-	41%	-25%	9%
<b>TOTAL</b>	<b>Stock</b>	<b>123.8</b>	<b>141.1</b>	<b>141.2</b>	<b>146.7</b>
	Variation	-	17.4	0	5.6
	Var. (%)	-	14%	0%	4%

It can be seen that quasi-gTLDs remain rather marginal, with only an average of 3% of the ccTLDs in stock over the 2014-2017 period. The penny-ccTLDs are much more significant with an average of 19%, the bulk of their numbers being provided by the .TK. The "real" ccTLDs remain the majority with an average of 79% of the names filed.

But the main lesson from this table is that the "real" ccTLDs, while being the majority item in stock, do not really determine the overall growth of the ccTLD market, which is distorted by the vagaries of the "quasi-TLDs" and especially the penny ccTLDs.

<sup>2</sup> Our selection may be imperfect, having been made on the sole knowledge that we have of the marketing policies of the registries for these ccTLDs. It will therefore evolve with the information obtained, and changes noted in the aforesaid marketing policies.

In 2015, the "true" ccTLDs represented 46% of the overall variation (7.9 / 17.4), in 2016 their growth of 7.4 million names was completely canceled out by the slump of the penny-TLDs, and in 2017 they represented 63% of the overall variation (3.5 / 5.6).

What to remember from this quick study Mainly that global market data should be taken with caution, the averages ending up by not meaning much if we do not take into account the underlying mechanisms, specific to each "sub-segment" and sometimes contradictory. In the case of of the "real" ccTLDs, it can be seen that the market experienced a fairly strong dynamic in 2015 (+8%) and 2016 (+7%), and that 2017 was more a year in this dynamic weakened (+3%) than a year of recovery.

Undeniable at the level of all ccTLDs, the recovery was mainly due to the penny-ccTLDs, which, they, returned to growth in 2017 after a rather problematic year in 2016 mainly due to the .TK.

As a result, the ccTLD segment is subject to the volatility of penny-ccTLDs, which ideally need to be isolated to get a true picture of the trends in this segment.

A similar reservation must be observed in the nTLD segment study.

## 6. nTLDs

It should be remembered that the only factor the new TLDs often have in common is that they are "new", which is not enough to qualify them because that characteristic will disappear with time. Too often, observers refer to the success or failure of "new TLDs" without taking time to group them into segments that make sense and allow for more nuanced approaches.

### 6.1. Definition of new TLD "segments"

This is why we have created different market segments, corresponding to the most frequent approaches in specialist circles. It is obvious that these TLD suffixes are still "young", such that the uses made of them may lead to revisions of this segmentation which is still highly biased by the "nature" of the nTLDs and the conditions for being eligible to hold them:

- ✓ Community: domain name filings reserved for the members of a community, where appropriate with use focusing on a community.
- ✓ Geographic: nTLDs of a geographical character designating a city or region
- ✓ Generic: nTLDs consisting of generic terms
- ✓ Corporate or Brand TLDs: TLD suffixes corresponding in general to flagship brands, filed by private entities for internal use or extended to their customers, excluding all other users.

With our nTLD segmentation, we strive to reflect the purpose of TLDs rather than their "ICANN status", since the latter are difficult to qualify and have sometimes been adopted for tactical reasons (such as the privileges granted to "Community" nTLDs). There is currently no "official" nTLD nomenclature, so our segmentation is liable to change based on information released by the registries or ICANN. An additional complexity factor is the degree of "restriction" required by each registry: access to a ".CORP" can be relatively "open" (if the only condition to be met is, for example, being a client of the delegate) when that the registration of a Generic TLD may equally as well be subject to conditions. NTLDDSTATS.COM, which provides a nomenclature, is based on a framework that ranges from "Unrestricted" to "Restricted" through "Semi-restricted" and "Brand". However, while this approach may explain volumes (or their absence) according to eligibility conditions, it does not teach us anything about the purpose and market positioning of nTLDs.

### 6.2. Performance of new TLD "segments"

	Stocks (thousands)			Create operations (thousands)			Retention		
	2016	2017	Var.	2016	2017	Var.	R. 2017	% R. 2017	% R. 2016
Community	101	142	41%	8	4	-52%	138	NA*	71%
Geographic	912	1,019	12%	381	230	-40%	789	87%	81%
Generic	26,510	22,427	-16%	19,805	13,141	-34%	9,286	35%	64%
Corporate	173	208	20%	79	127	60%	81	47%	74%
<b>TOTAL</b>	<b>27,696</b>	<b>23,796</b>	<b>-15%</b>	<b>20,273</b>	<b>13,502</b>		<b>10,294</b>	<b>37%</b>	<b>66%</b>

*\* The "Community" figures still seem wrong in 2017, unless the calculation is impacted by 2016 figures that were themselves wrong. Note that "anomalies" are frequently found in ICANN reports. They may be due to differences in the accounting of transactions and their subsequent disclosure, or to differing accounting methods from one registry to another (which should not occur if every registry followed the methodology imposed by ICANN), or to "bugs", or errors whose effects will in principle be corrected over time.*

Since community nTLD data are false, and .CORP data obey their own rationale, which only exceptionally translates into volumes of domain name registrations, we shall focus our analysis on GeoTLDs and "generics".

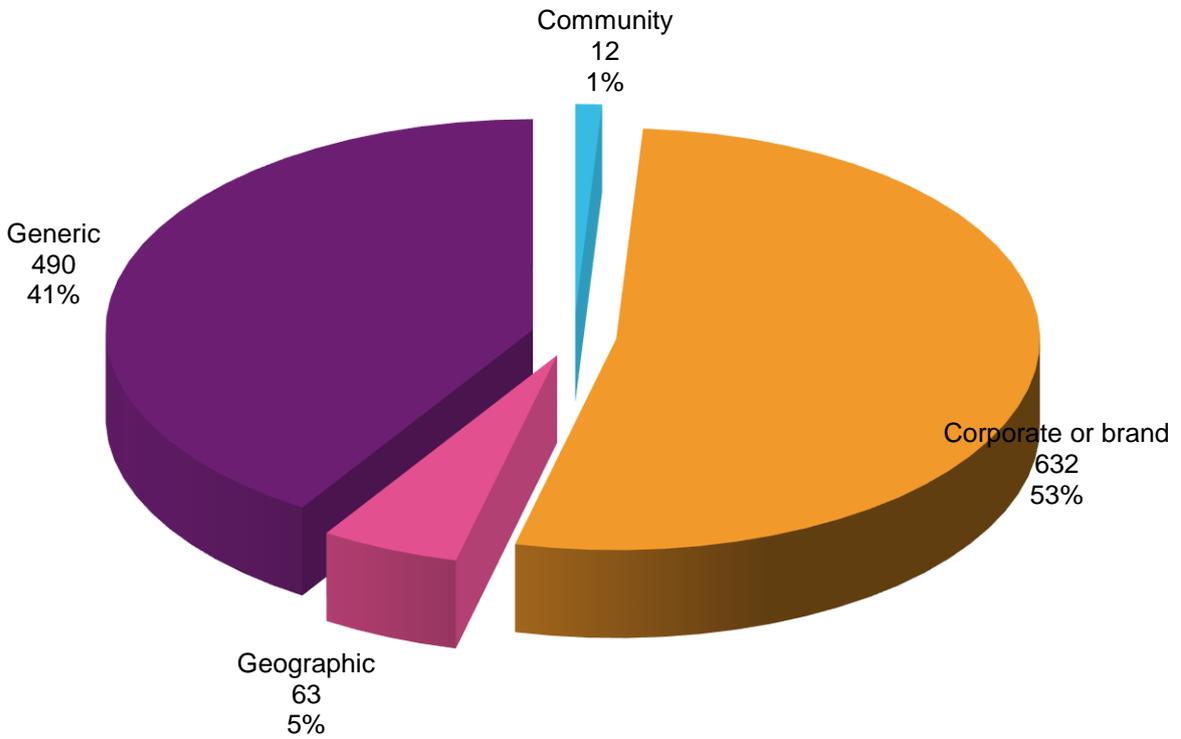
These segments are all the more interesting to compare in that various features, in 2017, appeared to be diametrically opposite. Geo-TLDs saw their stock increase by 12% despite a drop in create operations of 40%, thanks to a very high retention rate, close to 90%. This rate is particularly encouraging for nTLDs in this segment, as it reflects a real loyalty of the registrants with respect to these extensions.

Generics, on the other hand, saw their stock fall by 16% and their create operations by 34%, while their retention rate dropped from 64% to 35%. This phenomenon, which is hoped to be non-recurring, is the result of the deletions resulting from the massive domain name filings in 2015/2016, in particular as regards the .XYZ (see below).

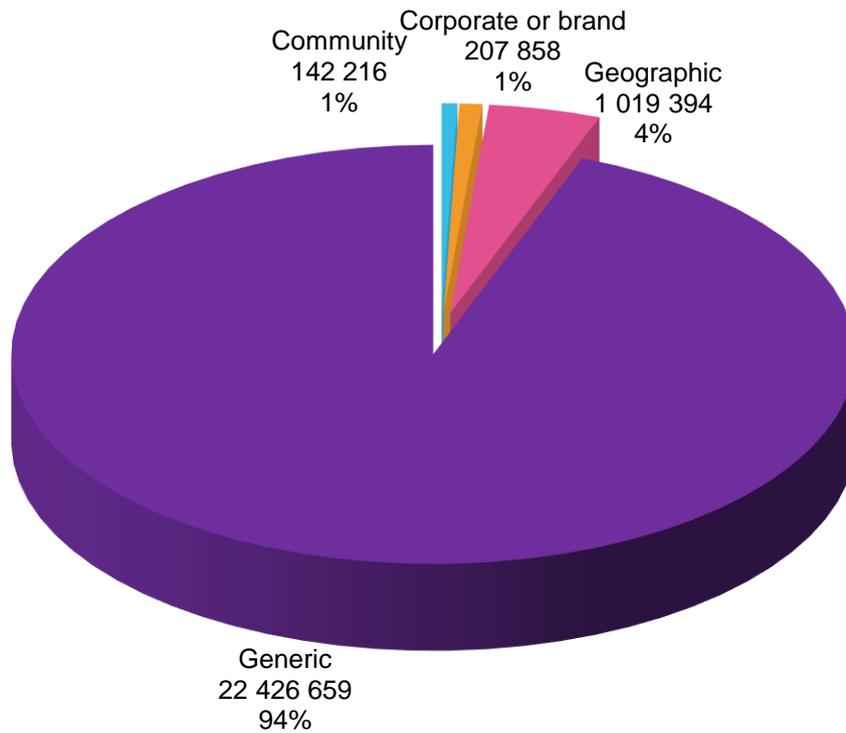
### 6.3. Distribution of new TLDs in volumes of domain name registrations

The distribution in volume of domain name registrations does not reflect the number of TLDs in each segment, as shown in the two graphs below. With 490 TLDs (42% of the total), "generic" nTLDs represented 94% of domain name registrations; with 632 TLDs (52% of the total) .CORP only represented 1% of domain name filings.

### Breakdown of nTLDs by type



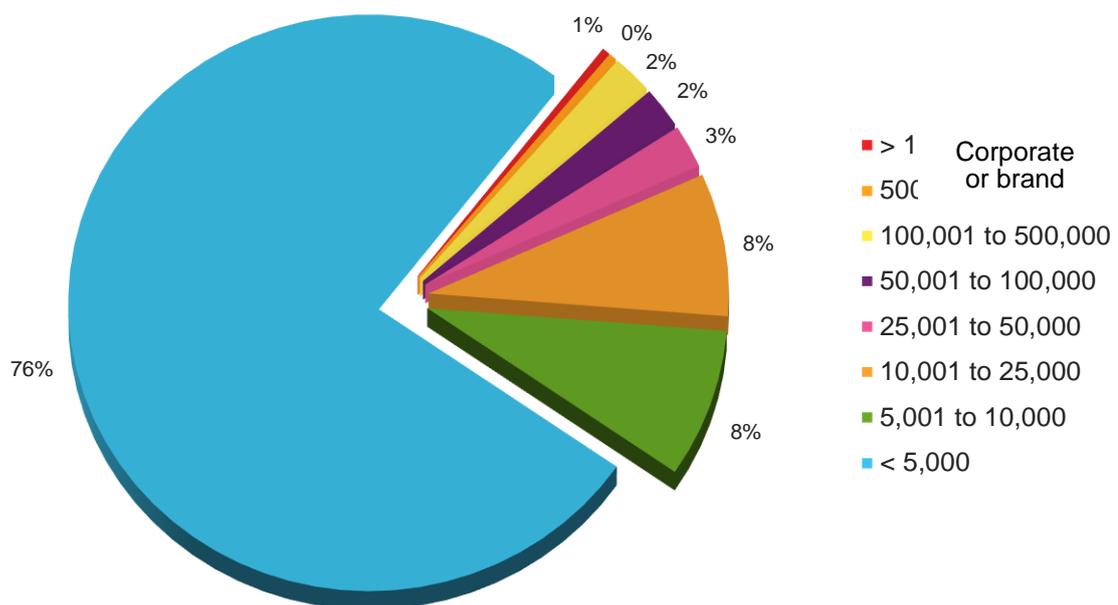
### Breakdown of nTLDs by volume



The variations in their strategies and approaches, some focusing on volume, others targeting "niche" markets, result in a high disparity in volumes. The graph below shows the breakdown of nTLDs by volume range. We can see that the "Less than 5,000 names" represent a little more than ¾ of the nTLDs, while the "More than 500,000" represent only 1%.

This approach teaches us two things: first, that an nTLD with more than 25,000 names in stock ranks in the top 8 percent; secondly, that for 92% of the nTLDs created today, the \$25,000 annual "fixed fee" imposed by ICANN represents more than \$1 per domain name.

## Breakdown of nTLDs by volume



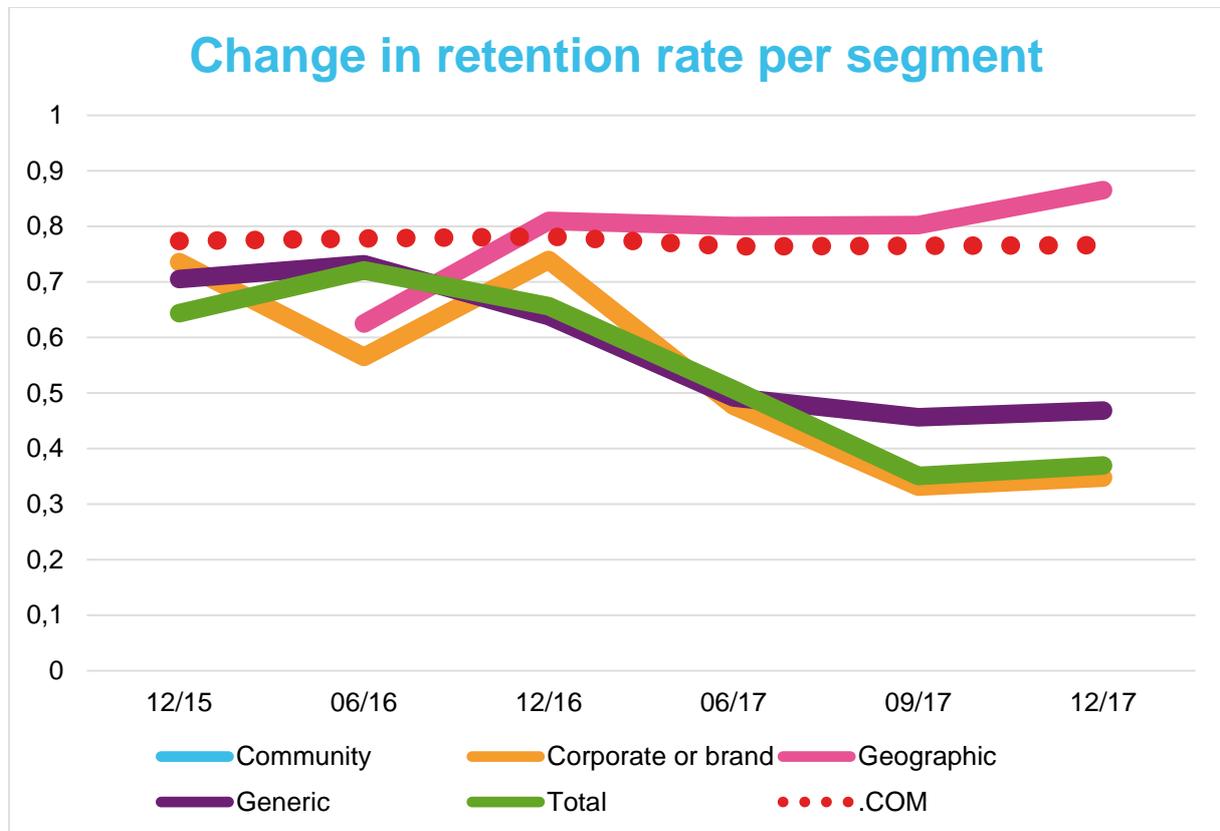
These proportions are to be compared with the previous graphs. Indeed, in the 909 TLDs that have fewer than 5,000 names, most of them are .CORP (about 625), as well as about ten community-based. "Generics" with "low" volumes are therefore about 275, or just over half.

## 6.4. Development of retention rates<sup>3</sup> per segment

The analysis in volumes shows sufficiently well that nTLDs do not form a homogeneous whole, and that the different types of TLDs within them have very different dynamics. This phenomenon is reflected in retention rates

<sup>3</sup> We make a difference between the Retention Rate, which includes all the names "kept" from one year to the next, and the renewal rate, which takes into account only "renewed" names. A name registered for 5 years will be "retained" for 5 consecutive years and renewed once, at maturity.

The following graph shows the development of retention rates over time, highlighting the fact that the deletions in 2017 mainly affected Generics and .CORP domain names.



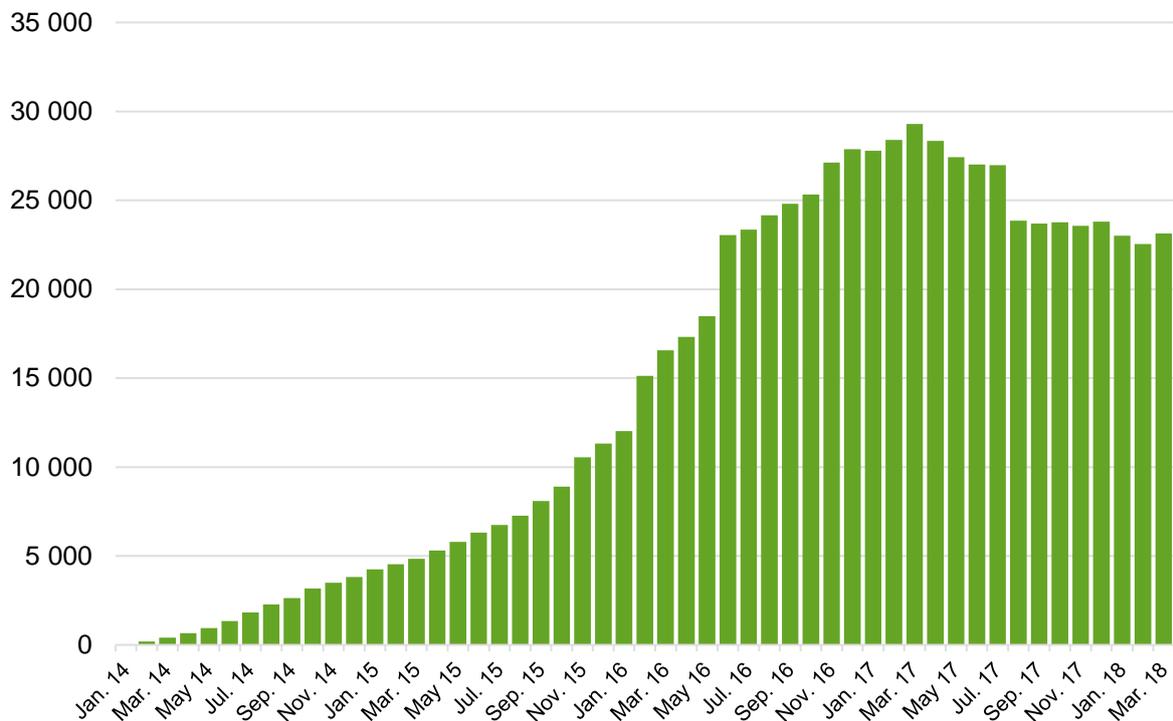
(The .COM rate is added as a comparison.)

Caution is needed, however, in the analysis of these data, because of the massive deletions that helped cloud the map in 2017. But the situation will not be the same in 2018, because generic nTLDs will no longer have the excuse of being "emerging" as in 2016, nor will they suffer from waves of "natural" deletions as in 2017. In this respect 2018 will be the real test year for most of them.

## 6.5. Global development in the stock of new TLDs

NTLDs approached the 30 million milestone in March 2017, currently marking their historic peak. The graph below makes a distinction between the different phases of 2017: a continuous rise in the first quarter, followed by a slow slowdown from April to July, a sharp drop in August followed by stagnation until December. The figures are slowly on the upswing in 2018, giving hope for a return to growth in a healthy context.

## Change in the number of names in nTLDs



### 6.6. The utilization rate, an indicator of the longevity of nTLDs

Given the uncertainties created by the volatility of create operations, the utilization rate remains a valuable indicator for measuring the longevity of nTLDs based on the idea that a domain name "really" used will be more likely to be kept for many years, unlike a "parked" name or one that is purely speculative.

We have calculated these rates based on the data presented by the website NTLDstats.com in its "parking" section. By eliminating all of the "parked" names, redirects and HTTP errors, we obtain a residue of domain names that are fairly likely to be actually used. This utilization rate "deducted" from the rest is, of course, only a rough estimate, which should be used in terms of magnitude and trends without giving too much importance to precise values.



These 11 extensions alone accounted for 56% of the nTLDs filed (compared with 63% at the end of 2016) and 59% of the create operations in 2017 (compared with 74% in 2016). Overall, they lost 26% of their stock and 47% of their volume of create operations compared with last year.

However, the analysis cannot be pushed too far, since 2016 was an exceptional year for domain name registrations at the beginning of the year (and in June by the .XYZ), as well as for the deletions that began to be felt at the end of the year. Also the particularly low retention rates of some of the nTLDs on our list (.XYZ, 14%; .TOP, 22%; .SITE, 22%) are only the quantified reflections of a situation already widely discussed.

	Stocks (thousands)			Create operations (thousands)			%Retention	
	2016	2017	Var.	2016	2017	Var.	2016	2017
.XYZ	6,751	2,641	-61%	5,864	1,671	-72%	49%	14%
.LOAN	882	2,397	172%	802	1,594	99%	74%	91%
.TOP	4,766	2,137	-55%	4,107	1,083	-74%	69%	22%
.CLUB	915	1,215	33%	509	810	59%	73%	44%
.WIN	1,264	1,037	-18%	868	450	-48%	71%	46%
.VIP	564	915	62%	563	476	-15%	-	78%
.ONLINE	586	776	32%	472	506	7%	88%	46%
.WANG	980	618	-37%	528	325	-38%	76%	30%
.SITE	613	538	-12%	529	405	-24%	96%	22%
.SHOP	113	517	358%	109	298	172%	-	NA
.BID	609	484	-21%	515	311	-40%	97%	28%
<b>Total Top 11</b>	<b>18,042</b>	<b>13,276</b>	<b>-26%</b>	<b>14,865</b>	<b>7,928</b>	<b>-47%</b>	<b>65%</b>	<b>30%</b>
<b>Other</b>	<b>9,829</b>	<b>10,520</b>	<b>7%</b>	<b>5,575</b>	<b>5,575</b>	<b>0%</b>	<b>-</b>	<b>50%</b>
<b>Ens. nTLD</b>	<b>27,871</b>	<b>23,796</b>	<b>-15%</b>	<b>20,440</b>	<b>13,503</b>	<b>-34%</b>		
<b>% Top 11 / ens. nTLD</b>	<b>63%</b>	<b>56%</b>		<b>74%</b>	<b>59%</b>			

Source: ICANN reports

The question is whether this data informs us about the health of the nTLD segment beyond these cyclical phenomena, no matter how large they may be. However, we note that the first 11 nTLDs significantly underperformed the industry average, which implies that many smaller volume extensions have been more successful.

The "Other" line gives the performance of the 1,212 other nTLDs existing at the end of 2017: it shows that, as a whole, these extensions have gained 7% in stock - seven times more than the global market for domain names - and that they benefited from an average retention rate of 50%, 20 points higher than that of the first 11.

The nTLD segment thus deserves to be analyzed by isolating the "leaders", which are subject to strong fluctuations as a result of their marketing strategies, just as ccTLDs should be considered without the penny ccTLDs that distort overall performance.

The finding revealed by the table above contradicts the gloom or pessimism that can be found in specialized publications about new TLDs. In reality, this segment is very concentrated and its "leaders" are trees that hide the forest, and are not representative of all of these "new entrants".

The slowdown of the "leaders" in 2017 should therefore continue in the future, the simultaneous ramp-up of a relatively large number of medium-sized nTLDs gradually deconcentrating this market segment.

This remark does not of course exclude the simultaneous increase in the number of failures of nTLDs that have failed to reach their point of financial equilibrium. As a result, there may be fewer nTLDs in the future, but more medium-sized nTLDs (5,000 - 25,000 names) that will gradually find their market and ensure their longevity.

## 7. The distribution of domain names in the world at the end of 2017

The analysis of the development of the major segments of the domain name market, Legacy TLDs, ccTLDs, and nTLDs, can be completed by studying the distribution of stocks of these same segments in the major regions of the world.

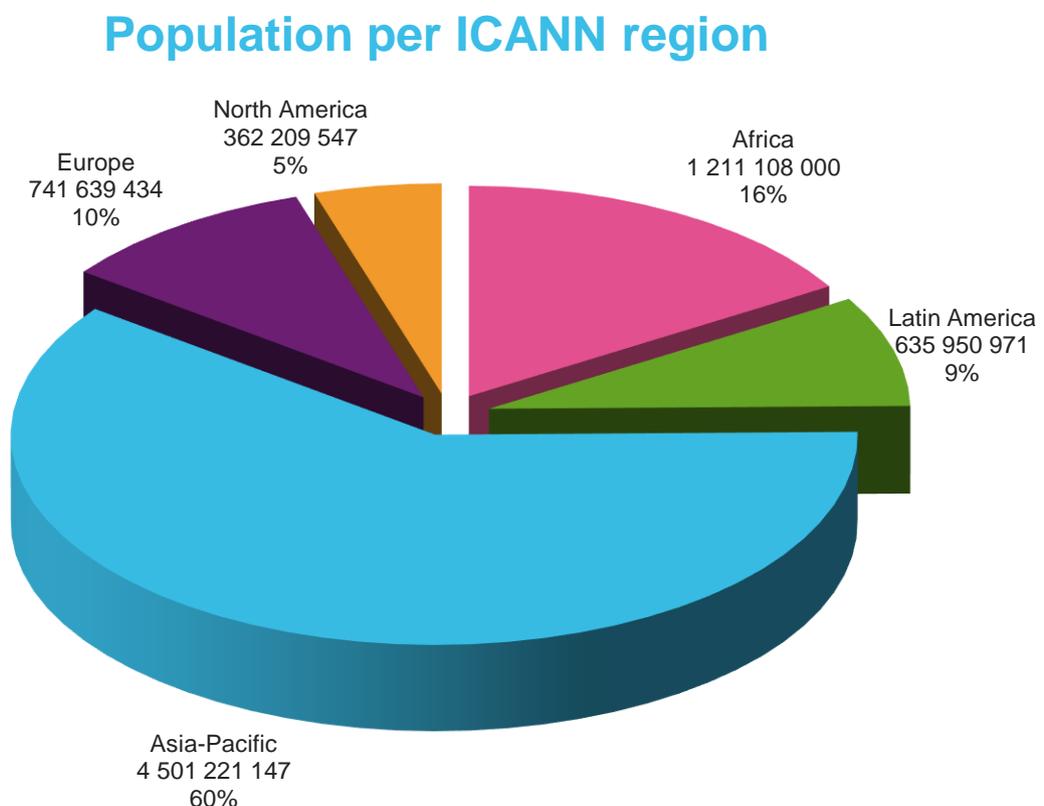
By convention, we have used the ICANN nomenclature for reference, even though it can sometimes be open to discussion.

Consolidated sources for this study range widely, from IMF reports on GDP and population statistics, to data detailing the distribution of stocks of domain names per country acquired from ZookNIC, as well as registries and information shared within the Council of European National Top Level Domain Registries (CENTR) and/or the Asia Pacific Top Level Domain Association (APTLD).

The goal is to know the "real" distribution of domain names around the world, indicating salient facts (for example, North America accounts for 3% of ccTLDs, but 58% of .COMs). In the same logic, comparing market data with external indicators such as population or GDP enriches the depth of analyzes of the underlying mechanisms determining the trends observed.

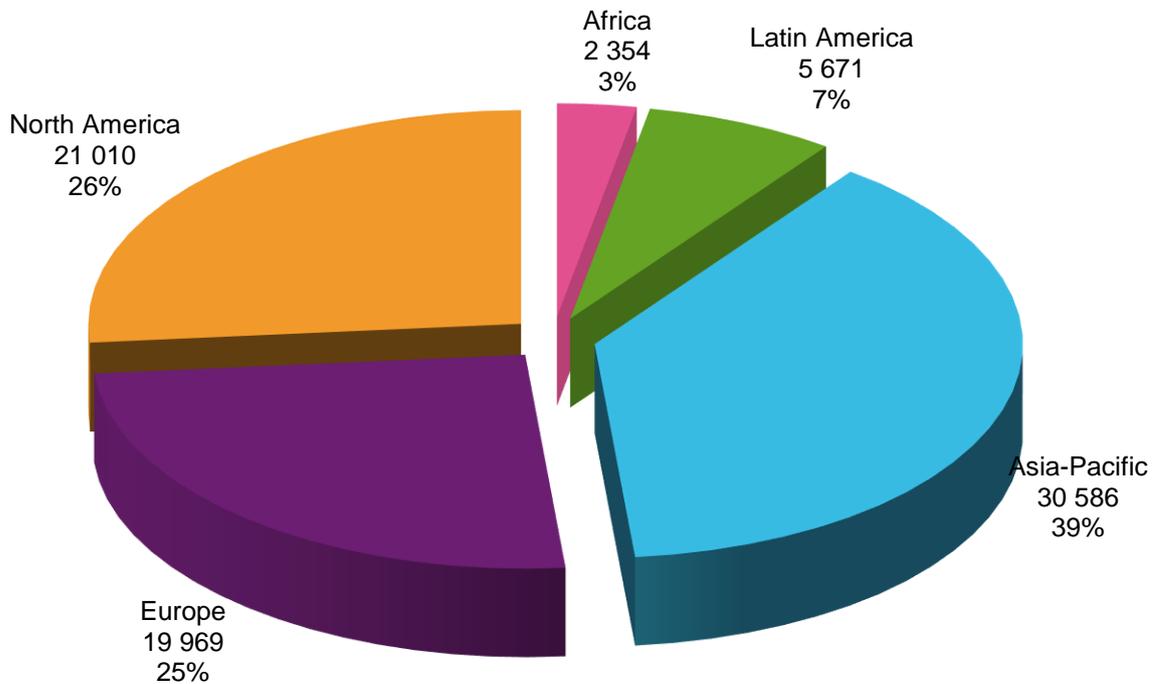
### 7.1. Overview

The figures below show, at the end of 2017, the distributions by major ICANN regions of the world population, GDP and domain names across all segments.



The chart below shows that Europe and North America together account for only 15% of the world's population, compared with 60% for Asia-Pacific. Africa "weighs" about as much as Europe plus North America, with Latin America slightly lower.

## GDP per ICANN region



The "economic" vision based on GDP is very different from that based on population. Here, North America and Europe "weigh" 51% between them when Asia-Pacific accounts for only 39% of global GDP, and Africa 3%. Latin America and the Caribbean are close in both GDP and population (7% against 9%).

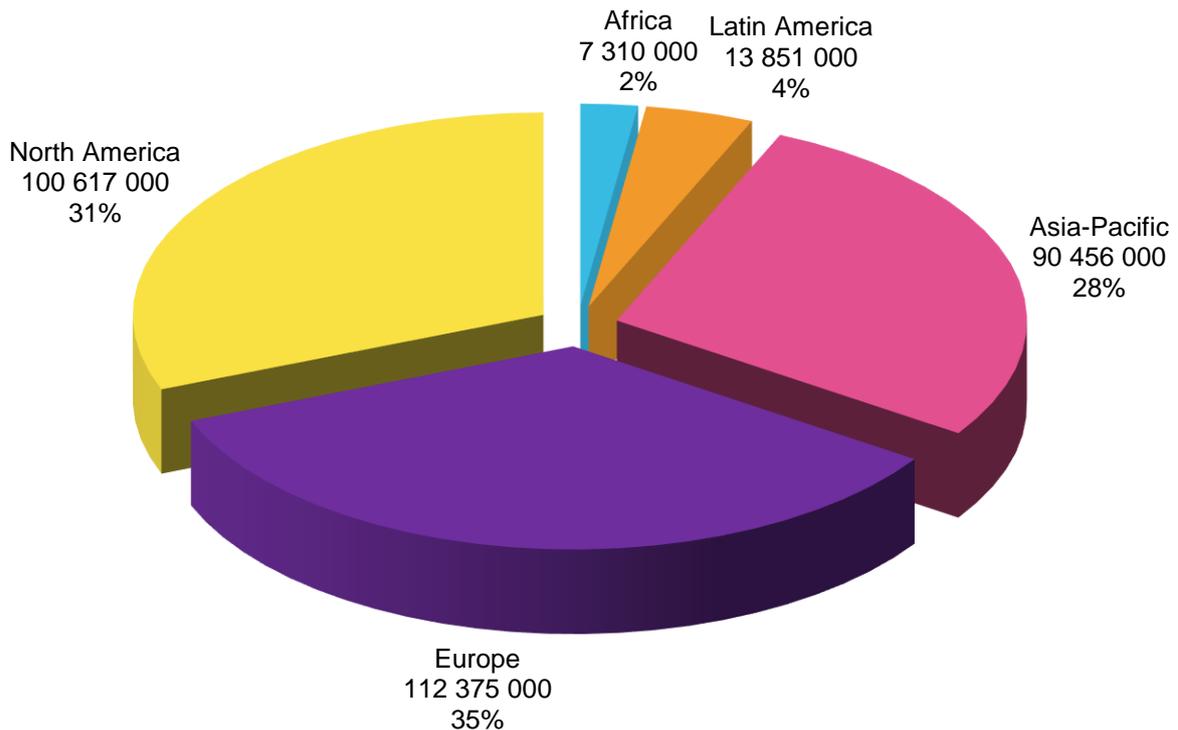
These elements highlight the relative wealth of the populations of each region, measurable by means of the ratio %GDP / %Population:

Region	Ratio %GDP / %POP
North America	5.43
Europe	2.52
Latin America and the Caribbean	0.83
Asia-Pacific	0.64
Africa	0.18

With the total number of domain names per ICANN region we have a third vision, in which Europe and North America account for 65% of the names filed between them, Asia-Pacific 28%, Africa 2% and Latin America and the Caribbean 4%.

Europe (34%), North America (31%) and Asia-Pacific (28%) therefore account for most of the domain names registered at the end of 2017 (93%).

## Domain names filed by ICANN



If we compare these "weights" in terms of domain names with the weights of each region in terms of population and GDP, we obtain the following ratios:

Region	Ratio %GDP / %POP	Ratio %NDD / %GDP	Ratio %NDD / %POP
North America	5.43	1.16	6,31
Europe	2.52	1.37	3.44
Latin America and the Caribbean	0.83	0.59	0.49
Asia-Pacific	0.64	0.72	0.46
Africa	0.18	0.75	0.14

In economic terms (%NDD / %GDP), the Asia-Pacific, Latin America and Africa regions are underweighted, which indicates a significant potential for development, but also a clear lack

of means for accessing the Internet. The overweight of the North America and Europe regions confirms that these markets are well equipped and mature.

In demographic terms, the NDD/Population ratio is even more striking and contrasting between the different regions, but globally consistent with what can be seen in economic terms.

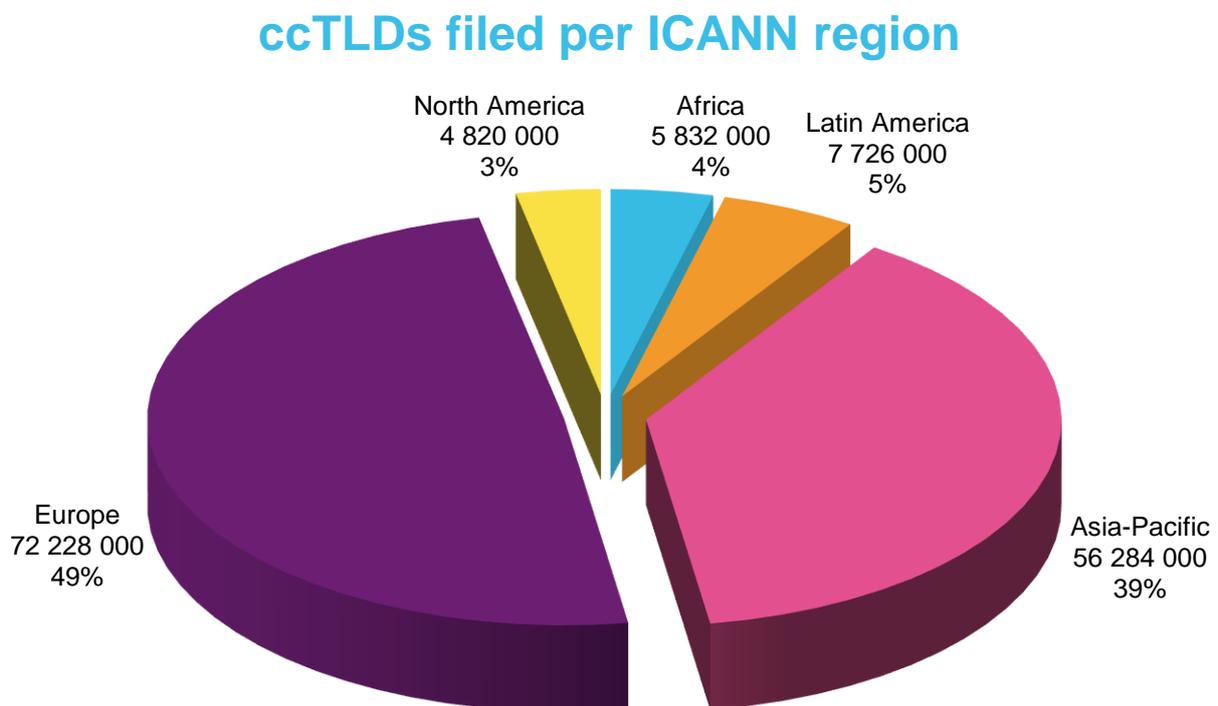
In detail, however, we can observe that Europe is more equipped in terms of domain names than North America, on the economic criterion, while North America remains the undisputed "leader" in terms of domain names per inhabitant.

Ultimately, the ratios largely reflect access to the Internet and the possibility - or usefulness - of the populations and businesses in each region to exist on the Net and to acquire domain names to optimize their Internet presence.

However, the analysis of the distribution of the different domain name segments (Legacy, ccTLD, nTLD) by region shows that clear preferences exist in each of them, and that these "fundamentals" cannot be ignored when explaining market trends.

## 7.2. Distribution of ccTLDs per ICANN Region

Without going into the details of the ratios, it can easily be seen the overweighting of Europe (49% of the names filed in ccTLDs) and Asia-Pacific (39%) and as a corollary, the quite marginal position of North America (3%).



This can be explained by the fact that the region has few ccTLDs: .BM (Bermuda), .CA (Canada), .GL (Greenland), .PM (Saint-Pierre and Miquelon) and .US (United States). This

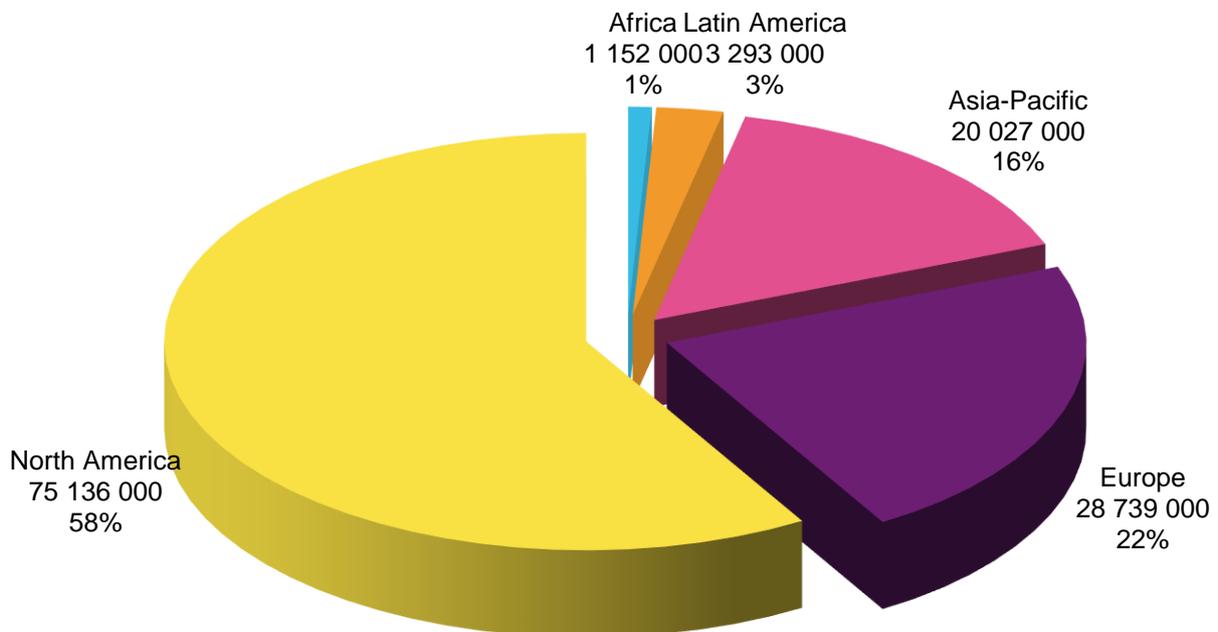
disproportion, however, shows that these different ccTLDs, and in particular the .US, are largely undersized compared with the European ratios.

The situations in Latin America and Africa are more difficult to analyze given the presence in their midst of ccTLDs marketed as generics (.CO - Colombia) or in quasi-free mode (.ML - Mali, etc.). A similar bias exists with .TK (Tokelau) in Asia-Pacific.

### 7.3. Distribution of .COM per ICANN Region

The explanatory factor for North America is obvious when the distribution of Legacy TLDs is considered. That of .COM is presented here and taken in isolation, but the distribution of "Other Legacy TLDs" as a whole is very close to the figures presented here.

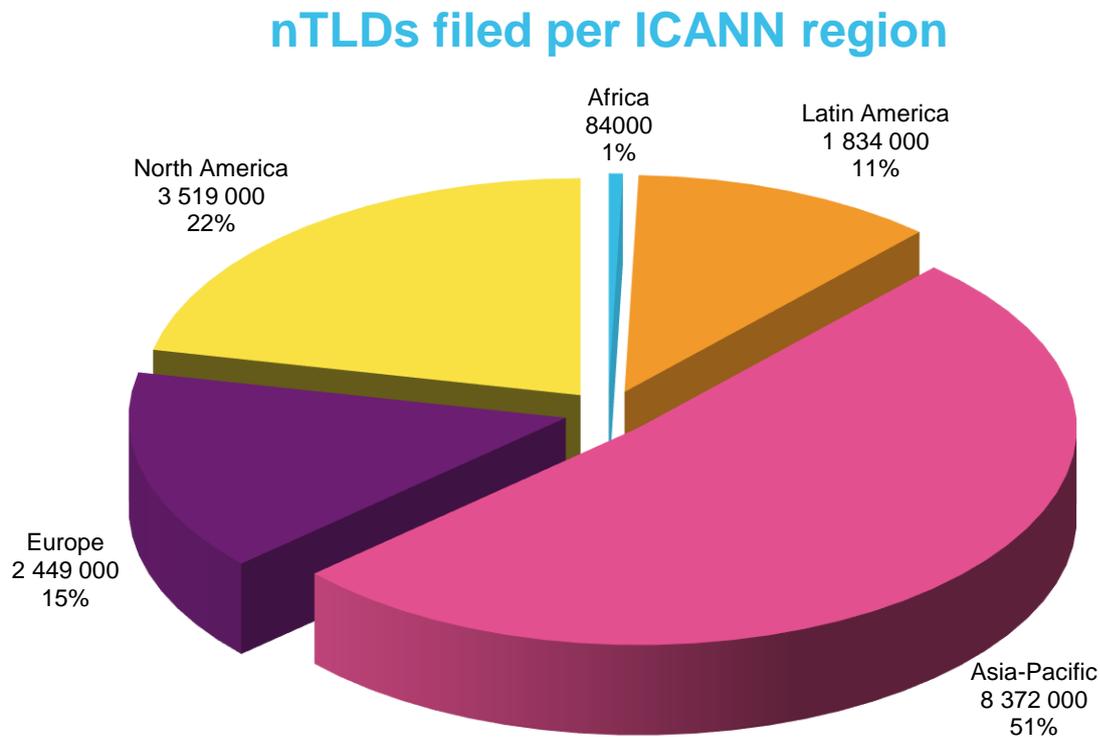
#### .COM filed per ICANN region



This chart alone explains the importance of Verisign in the ICANN ecosystem. Nearly 60% of .COMs are registered in North America and only 22% in Europe and 15% in Asia-Pacific. Overall, as we shall see below, .COM alone represent 75% of the domain names registered in North America, which justifies the interest of the American authorities in the management of this extension. On the other hand, .COM - itself the undisputed market leader in the world - is 60% dependent on the economic and demographic conditions of the North American region. That is to say that the health of LegacyTLDs continues, even today, to depend mainly on North America.

## 7.4. Distribution of nTLDs per ICANN Region

Let us now consider nTLDs. The image of the market is once again very different from that for ccTLDs and LegacyTLDs.



Here, the Asia-Pacific region dominates with 47% of registered names, mainly because of the massive domain name filings by Chinese domainers - but perhaps not only. Europe represents only a low 14% and North America only 20%. It's as if there is a distribution of domain names that is both related to ICANN segments and regions. CcTLDs would be present mainly in Europe; Legacy TLDs, mainly in North America; nTLDs, mainly in Asia Pacific.

Africa and Latin America are still quite marginal, with some biases that have been mentioned and that are particularly strong in the case of nTLDs because of a registrant located in Panama

...

## 7.5. Summary tables

The three tables below are intended to synthesize the distribution data of TLD segments per major ICANN region.

## Distribution (in thousands) of domain names of different TLD segments per ICANN region

	ccTLD	.COM	Other Legacy TLDs	nTLDs	Total
Africa	5,832	1,152	241	84	<b>7,310</b>
Latin America and the Caribbean	7,726	3,293	999	1,834	<b>13,851</b>
Asia-Pacific	56,284	20,027	5,773	8,372	<b>90,456</b>
Europe	72,228	28,739	8,959	2,449	<b>112,375</b>
North America	4,820	75,136	17,142	3,519	<b>100,617</b>
<b>TOTAL</b>	<b>146,890</b>	<b>128,346</b>	<b>33,114</b>	<b>16,258</b>	<b>324,608</b>

## Weight of each segment in the regional total

	ccTLD	.COM	Other Legacy TLDs	nTLDs	Total
Africa	80%	16%	3%	1%	<b>100%</b>
Latin America and the Caribbean	56%	24%	7%	13%	<b>100%</b>
Asia-Pacific	62%	22%	6%	9%	<b>100%</b>
Europe	64%	26%	8%	2%	<b>100%</b>
North America	5%	75%	17%	3%	<b>100%</b>
<b>TOTAL</b>	<b>45%</b>	<b>40%</b>	<b>10%</b>	<b>5%</b>	

## Weight of regions in the total of each segment

	ccTLD	.COM	Other Legacy TLDs	nTLDs	Total
Africa	4%	1%	1%	1%	<b>2%</b>
Latin America and the Caribbean	5%	3%	3%	11%	<b>4%</b>
Asia-Pacific	38%	16%	17%	51%	<b>28%</b>
Europe	49%	22%	72%	15%	<b>35%</b>
North America	3%	59%	52%	22%	<b>31%</b>
<b>TOTAL</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	

## 7.6. Lessons learnt

While these data need to be further explored - for example, by examining the geographical distribution of the different types of nTLDs - we can, on the basis of this study, question whether part of the "failure" of nTLDs is not due to the fact that many registries and registrars have primarily sought to market them where they were least likely to find a receptive audience.

To caricature the situation, distributing an nTLD via an exclusively US registrar means marketing to users who have been impregnated for years with the ".COM culture". Operating in a similar way in Europe means convincing users who are more aware of the charms of "local" ccTLDs than of the virtues of generic terms, which are mostly Anglo-Saxon to boot.

"Geo-TLDs" are apparently best placed to live up to expectations in Europe, if they can be spontaneously perceived by users as natural extensions of ccTLDs at the level of regions or cities, proximity being more important in Europe than in North America.

This specific market configuration, reflecting the culture of users in each region, should drive nTLD registries to focus on countries where .COM and ccTLDs are not yet highly popular: Asia-Pacific is a location of choice because of its relative level of wealth, which makes it more attractive in the short-to-medium term than Latin America or Africa. It can be seen here the extent to which the constitution and management of a distribution network suitable for each TLD can be strategic for a registry and, for a registrar, the extent to which the development of networks of targeted resellers is essential when the registrar wants to effectively distribute certain nTLDs.

## 8. Highlights of 2017 and early 2018

Continuing on from 2015 and 2016, 2017 marked a period of profound changes in the market and its re-composition in new forms of alliances or links between players in the value chain. The changes were "horizontal", indicating a desire to diversify revenues in the face of an "increasingly less predictable" domain name market (Nominet). They were also "vertical", through buy-outs between players.

### 8.1. Concentration continues at all levels

In the back-ends, Donuts absorbed Rightside for \$213 million, and CentralNIC took over KeyDrive and the nTLDs from its subsidiary KS Registry

Many extensions changed hands (resale or change of back-end). To cite only the cases made public, DotXYZ acquired the .STORAGE, Afiliac recovered the management of .AU (Australia) and .PR (Puerto Rico), CIRA (the .CA registry) that of .SX (Dutch St. Martin), CentralNIC the .SK (Slovakia) and the nTLDs of KS Registry. Afnic signed with MuseDoma and relaunched the .MUSEUM (early 2018).

The fight is also going on at the level of registrars, with important issues at stake in terms of dissemination/distribution strategies. KeySystems acquired its reseller EDC, Crazy Domains (Australia) acquired the registrar Vodien Group in Singapore, DirectNIC acquired Fabulous.com, a subsidiary of Dark Blue Sea. The latent struggle between major registrars and registries sometimes breaks out into the open: eName decided to suspend the marketing of large Legacy TLDs whose registries are not accredited in China; GoDaddy decided not to offer Uniregistry's TLDs as a result of a disagreement over the latter's pricing policy.

### 8.2. An increasingly tense financial situation

The phenomenon of concentration can partly be explained, or facilitated, by the tense financial situation of many registries of new TLDs who in 2017 had their 3rd, 2nd or 1st year as delegates for extensions launched on the market. For many of these registries, commercial performance has been disappointing compared with expectations, for three main reasons:

- ✓ generally insufficient communication / promotion resources, making it difficult to inform potential clients and raise their awareness;
- ✓ lead-times longer than expected in the "appropriation" of nTLDs by "real" users, that is to say, long-term holders, using domain names over time, excluding "domainers" and rights holders who have more opportunistic approaches leading to high volatility;
- ✓ poorly adapted distribution channels for the simultaneous launch of hundreds of subject-related extensions. Registrars, as obligatory waypoints, were created and have organized their business models in a "universe" where the "products" were at the same time limited in number (about twenty Legacy TLDs) and "global", having no highly precise meaning. Today, the "products" are considerable in number and target niche markets, such that registrars are liable to become wholesalers surrounded by specialized resellers more capable than they are in reaching end customers. But this transformation of the domain name distribution system is only happening very slowly, perhaps in some cases even meeting resistance that fully benefit the .COM.

The financial difficulties of registries that have not been able to access a sufficient market lead them to resell their nTLDs or to adapt their business models, while seeking to obtain from ICANN that it reduces the costs it levies on them, and/or give them back some of the tens of millions of dollars raised in the 2012 "round" (of which there remain \$96 million ) and auctions (about \$250 million remaining), and which have not yet been spent.

There is little doubt that 2018 will see this move to divest nTLDs continue as a result of shortfalls or a lack of prospects of an upswing in the short term. The presence of investment funds in the capital of a number of market players (the acquisition in 2018 of the NameSilo registrar by the investor Brisio Innovation) can weigh increasingly heavily on their strategies. The investors may be tempted to impose decisions dictated by short-term financial constraints rather than by longer term "industrial" visions: this may result in sales but also, for the larger players, IPOs intended to give them the means to "last" until the market "really" takes off. Donuts' recent decision to bring all of its nTLDs under the same umbrella (Binky Moon) could be part of that IPO approach. Afiliias, which has attempted an IPO but which has been postponed sine die, and Uniregistry, could be candidates for similar operations.

We are also seeing changes in the business models, Donuts having opted for create rates closer to \$5 - \$10 than the initial \$20. With a renewal rate of 71%, the operation can be profitable after a few years of renewals at "normal" rates.

This constant pressure on prices nevertheless shows that the "product" suffers from a lack of recognition of its "value" among potential customers, who remain indifferent or even suspicious of TLD suffixes they do not know.

### 8.3. The Chinese El Dorado

Statistical evidence clearly shows that the Asian market is currently the most promising - and the most buoyant - for nTLDs. This explains the efforts made by various registries to invest in the Chinese market, from MMX with its .VIP, .WORK, .LAW, .BEER and .购物 ("shopping")) or Radix (.FUN, .ONLINE, .STORE and .TECH) to .SHOP (GMO) and .LTD (Donuts). Registrars are not the last to accompany the movement.

Will this market keep its promises? Today dominated by "domainers", it remains largely under-equipped and holds strong long-term prospects, despite being subject to the demanding requirements of the Chinese authorities.

### 8.4. "Sell more and better"

Faced with uncertainties about traditional sources of market value - create and renewal operations - stakeholders are striving to develop strategies to capture or retain value.

As a result, an alliance between Donuts and GoDaddy has been formed, with Donuts now listing all the expired names of its registrar Name.com (formerly Rightside) on the GoDaddy Auctions platform. The trend here would be to consider that a domain name once created should never fall back into the public domain, but go through periods when it is allocated or not, while remaining held by the registry or registrar during periods of "non-allocation".

"Domain name suggestion tools" also tend to multiply, taking the place of traditional engines that add prefixes and suffixes to the required terms. Some are starting to offer keywords selected for their "popularity" and "SEO value." This factor is all the more important in that by

creating a bridge between domain names and SEO, for the first providing a more tangible and measurable "marketing value" than traditional approaches (and just as valid, but less "scientific") based on brand awareness and "brand territory". Some of these tools are also made available to "own brand" registrars, increasing the chances of selling relevant variants of names already filed while associating the two levels of the value chain in a joint operation.

Last but not least, efforts are being made by ccTLD registries to play a role as "business providers" for their registrars by offering applicants wishing to file a domain name with various search tools to find the "best" registrar for their needs, in terms of service portfolios, price ranges, etc. These initiatives, in addition to benefiting both parties, once again make domain names a key factor in internet presence by closely associating them with other essential services (hosting, website editor, SEO, etc.).

## 8.5. A search for diversification

The efforts made by registries to diversify their revenue streams continued, resulting in a number of initiatives in line with what could already be observed in 2015/2016.

Several technical operators have developed ancillary services (or in the case of SIDN purchased a business) forming a "second layer" above the services of technical registry operators strictly speaking. It is at this level that new alliances are being formed, such as that of CIRA which has succeeded in selling its D-Zone anycast offer to SIDN and Uniregistry. SIDN, for its part, is highlighting its "DNS Billing Service" as best it can, built thanks to the acquisition of Connectis.

A first focus for diversification is linked to infrastructure and security. For example, Denic (the registry for the .DE) accredited by ICANN as escrow for nTLD data and the promoter of an anycast offer, like CIRA (the registry for the .CA) which also offers a "DNS" Firewall "in partnership with Nominum.

DNS Belgium (the registry for the .BE) can boast of having been the first national registry to host in the cloud its .BE registration platform, choosing to focus on the software layer.

Monitoring and measurement tools are still flourishing with new generations of turing (Nominet, the registry for the .UK) and anycast infrastructure monitoring tools (IIS.SE, the registry for the .SE). With its "ISP DNS Stack" project, CZNIC (the registry for the .CZ) is associating ISPs with the stability of the Czech DNS by remotely deploying part of its DNS infrastructures, which, in the event of an attack targeting the registry's DNS servers, would preserve the client servers of its ISP partners. Another significant benefit is that it improves DNS resolution times.

Imagination therefore remains a key factor in terms of security (to fight against various types of attacks including DDOS and phishing) but also to strengthen infrastructure (to face attacks, but also in order to improve performance).

In terms of DNS security, however, the difficult progress of "locking" services is still noteworthy. A service provider working with many large US companies reports that only 28% of them subscribed to a Registry Lock service.

The second major focus for innovation in 2017 was the fight against "abuses", that is, all forms of illicit or even "aggressive" operations involving the use of a domain name: phishing, spreading viruses or malware, etc.

The Dutch registry SIDN is among the most active, with its "Abuse204.nl" initiative (i.e. "**Abuse to Zero for .NL**") to combat malware and phishing under the .NL; elsewhere, EURid (the registry for the .EU) has announced a "methodology" allowing it to identify domain names

potentially intended for fraudulent use as soon as they are created. The intention is to be able to block these names even before they are activated. According to EURid, this methodology is based on "sophisticated machine-learning techniques". Afnic meanwhile in mid-2017 launched a new FRWATCH service to monitor and prospect for domain names.

A third, more diffuse focus concerns multiple actions targeting users. Through its "Réussir avec le web (Succeeding with the web)" initiative, Afnic has positioned itself as one of the leading players in the development of the Internet in France, specifically targeting VSEs / SMEs still hesitant about ensuring their Internet presence.

## 8.6. The reign of Data

Research into the prevention of "abuses" naturally leads to an intensification of data exploitation by registries. This trend was further accentuated by the market turmoil in 2015-2017, which increased the sentiment among market players that the days when the domain name market developed by itself were about to end.

Faced with these uncertainties, it has become vital to better understand market fundamentals and to analyze the decisive factors. Since the management of huge databases is the business of registries, developing tools for monitoring, reporting and analyzing them is a natural extension of those tasks.

Some players are positioning themselves on value-added services, for example to "assess the risk associated with a domain name" by identifying patterns of criminal behavior; others are seeking to make their databases more profitable, such as Neustar and its "Authoritative Contact Intelligence Solution" used to identify the best phone number to call for each "target", and in what time slot. Closer to the concerns of the domain name market, the New Zealand InternetNZ registry is trying to better qualify NZ holders by analyzing the content of their websites; a system already deployed by Afnic under the name of "Webcrawling".

The fact remains that the European General Data Protection Regulation (GDPR) could call into question certain offers now based on the collection, storage and processing of personal information that can no longer be collected, stored or processed. 2018 is likely to be a year of repositioning for these various services.

## 8.7. The Internet of Things is still the stuff of dreams

Most stakeholders are finally interested, directly or indirectly, in the opportunities offered by the Internet of Things. While SIDN is specifically working on security issues, and Nominet has been conducting tests of "niche" services under real-world conditions for more than a year, Afnic is an institutional member of the LoRa Alliance and is taking part in discussions between member of this organization in order to develop innovative services based on Internet of Things technologies. Its contribution focuses on interoperability / roaming between LoRa networks via the DNS. Afnic is also a member of the AIOTI (Alliance for Internet of Things Innovation - <https://aioti.eu>) to which it provides its expertise on "Identification" and "Interoperability" issues.

## 9. Conclusions and outlooks

We completed the 2017 edition of this overview of the global domain name market, noting that "2017 opened with a symbolic event: for the first time in its history, .COM lost inventory when the domain names filed in October / November 2015 were up for renewal. This incident was anticipated, and even announced by Verisign. But it remains a sign of the times."

In the end, 2017 had a rather hectic first half before entering a quieter period, reconnecting with the underlying trend that existed before the waves of massive create operations at the end of 2015.

The apparent calm could be deceptive. First, because, as we have seen in this report, the tension is very high between the different TLD suffix segments and between the various stakeholders in a value chain that is struggling to adapt to the new market situation. Secondly, because structuring phenomena are still possible, making any looking forward difficult:

- ✓ the reappearance of waves of "domaining" affecting more or less permanently a greater or lesser number of TLD suffixes;
- ✓ the on-going development of "near-free" models, although the long-term economic underpinnings for these business models remain to be proven;
- ✓ the general economic conditions, which stimulate the domain name market or weigh on its growth, as we saw between 2012 and 2015 (economic slowdown) and since 2015 (relative recovery);
- ✓ changes in usage and, where applicable, the emergence of substitute products for domain names, if not the DNS itself;
- ✓ in connection with the above, the more or less rapid appropriation of "new gTLDs" by users. In a related manner, the degree of corporate appetite for their .CORPs in future ICANN rounds may also play a role, since defensive filings make up a significant portion of current registrations under certain TLDs, and the potential of this .CORP market has still only been outlined by the create operations since 2014.

2018 promises to be a year of "recovery" for the market, which should experience better growth than in 2017 simply because of the absence of massive deletions following the 2015/2016 filings. On the other hand, it will also be a "test" year for many new TLD registries.

With this in mind, the successes or failures of the coming months could condition the features of the next ICANN round, which cannot afford not to review the mistakes made in 2008-2012, or the factors that have ensured the genuine success of certain TLD suffixes.