

The NAMESENTRYSM Quality Report

Abuse Detection and Mitigation Service

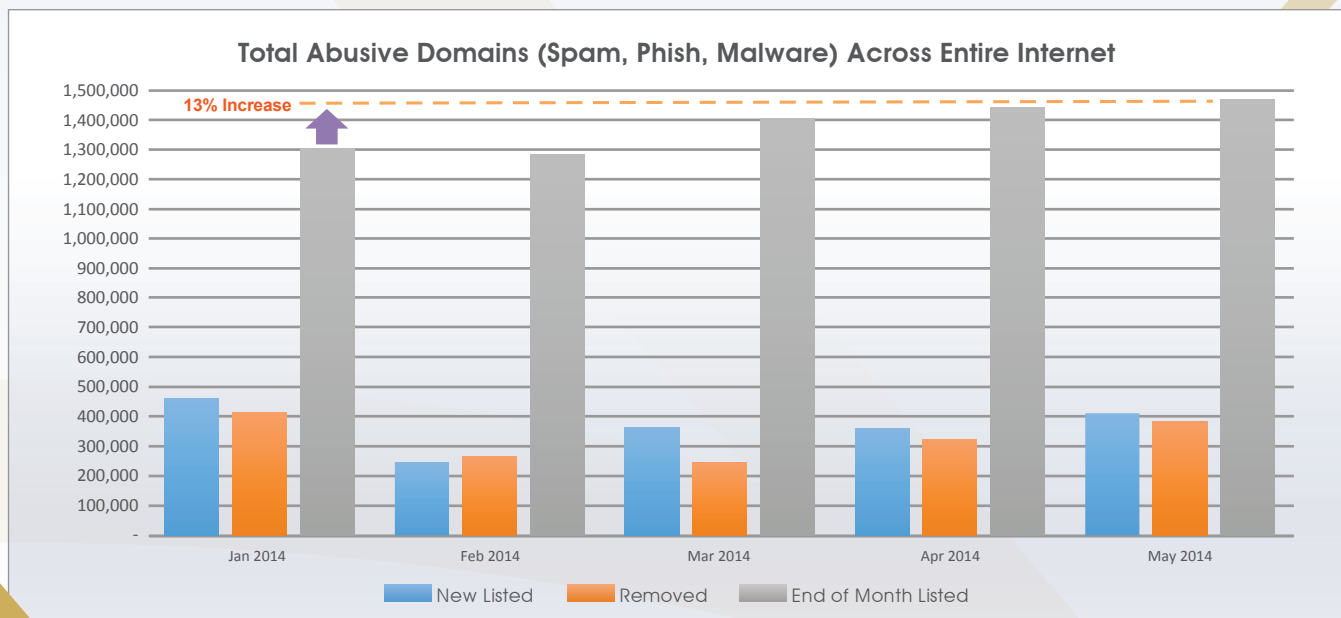
Benchmarking the Current State

This report covers the state of abuse across the Internet by tracking how many domain names were listed in the first five (5) months in 2014 by major blocklisting and security services. Previous NameSentry Quality Reports benchmarked the levels of abuse beginning in July 2013, and this latest report extends the data through May 2014. The first new generic TLDs (gTLDs) were launched starting in November 2013 with the first several entering general public availability in January 2014.

This report covers the state of abuse across the Internet, by tracking how many domain names are listed by major blocklisting and security services in the first five (5) months in 2014.

Major Findings for 2014:

- **Total abusive domains listed increased 50% from December 2012 through May 2014.**
- From January through May 2014, the total number of abusive domains listed increased 13%, to 1.47 million.
- An average of 369,000 abusive domains were added to the blocklists each month in 2014, while only an average 326,000 were removed.
- An estimated 5% of new domains were listed for abuse. Virtually all listed domains are new, i.e., were within their first year of registration. During the period there were approximately 276 million domain names in the world's registries. Assuming a worldwide 75% renewal rate (slightly higher than the .com/.net renewal rate) and 8% growth in the world TLD space, that means 7.6 million new domains were being created per month. In 2014 so far, an average of 369,000 domains were added to the blocklists per month, or 5% of the total domains created.
- At the end of May 2014, 3.0% of the listed domains were Malware, 3.6% Phishing, and 92.4% were advertised in Spam.
- Domains advertised in Spam often lead visitors to phishing, scams and malware sites, and therefore may overlap with those categories. An overwhelming number of the world's spam messages are sent by illegal means, mainly through botnets, hacked servers, and other deceitful practices.



For more information:

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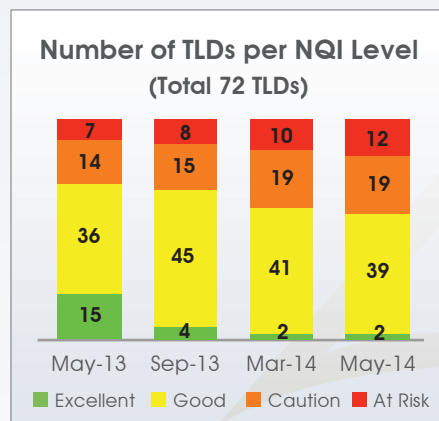
About the Namespace Quality Index (NQI)

To assess the safety of a utility we rely on everyday, namely the Internet, we introduced the concept of Namespace Quality Index (NQI). NQI measures the relative concentration of abusive domain names in any given namespace, thus providing a comparative measure of safety.

Specifically, the NQI measures the number of abusive domain names per million Domains Under Management (DUM) in a TLD. The types of abuse include domains used for phishing, malware, botnet command-and-control, and domains advertised via spam sent from botnets and by other abusive means. The domains are reported by trusted security sources including Internet Identity, SURBL, Spamhaus, ZeusTracker/Abuse.CH, MalwareURL, Malware Domain List, and Malc0de.com; but our data providers were not involved in the creation of this report. We have been tracking this data via Architelos' patent-pending **NameSentrySM abuse detection and mitigation service**. NameSentry also mines additional data unique to each reported domain name abuse. Domains under management numbers were taken directly from ccTLD registry websites, ICANN registry reports, and other research and analysis. New abuse addition counts are smoothed (reduced) to account for volatility in non-unique re-listings of abuse on blocklists. New additions to smoothing/reduction can occasionally reduce previous abuse counts consistently. Relatively scoring methodologies remain unchanged due to smoothing/reductions.

The great majority of the domains on these blocklists were registered for the purpose of perpetrating abuse, with a small minority consisting of domains that have been compromised by criminals. The NQI is used only to measure and communicate how safe or unsafe a particular namespace may be, but also to benchmark the industry's performance before and after the introduction of the new gTLDs.

Namespace Quality Index (NQI) Values	Levels of Abuse Concern	Colors	Results
Range is Abuses per million domain names	The namespace quality conditions are	As symbolized by this color	Percent Abuse
less than 100	Excellent	Green	0% - 0.01%
100 - 1,000	Good	Yellow	0.01% - 0.1%
1,000 - 10,000	Caution	Orange	0.1% - 1%
over 10,000	At Risk	Red	Over 1%



In 2014, hundreds of new gTLDs will be added to the Internet's root. Although it is too early to speculate on the success or failure of these new gTLDs, or the impact they may have on level of abuse across the Internet, one thing is certain: the Internet will never be the same. Our goal remains to bring greater transparency to the industry regarding abuse, and to encourage open discussion about best practices for combating abuse.

Overall Rating of TLDs

The number of Excellent/Green TLDs has decreased from fifteen in May 2013 to only two or less than 3% of the 72. This demonstrates that it can be challenging to achieve and maintain a score of less than 100 abusive domains per million. The number of Good/Yellow rated TLDs decreased from 41 to 39 in the latest reporting period. The number of Caution/Orange-rated TLDs remained steady at 19, and the number of at Risk/Red rated TLDs increased from ten to twelve. At each level, many TLDs changed their ranking as indicated in the full NQI table. Overall, from May of 2013 to May of 2014 there has been consistent erosion in the overall rating performance of all TLDs.

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Movement in the Ranks

The chart below depicts the abuses per million score (APM) for all TLDs that have more than 100,000 domains under management. These TLDs account for more than 276 million domain names, or over 99% of the total domains in the world's registries. The RankΔ column shows each TLD's ranking in the March 2014 NQI report, and whether the rank improved, declined (-) or remained the same (0).

NameSentry Namespace Quality Index (NQI) May 2014

Rank	TLD	NQI	RankΔ	Rank	TLD	NQI	RankΔ	Rank	TLD	NQI	RankΔ	Rank	TLD	NQI	RankΔ
1	tel	0	0	21	il	304	-4	41	my	878	2	61	pw	11,142	4
2	ch	96.25	0	22	pt	342	5	42	id	1,001	0	62	net	11,202	0
3	fi	110	1	23	si	346	-2	43	tv	1,080	4	63	me	11,736	0
4	dk	116	-1	24	kr	367	2	44	ro	1,101	0	64	in	13,186	3
5	no	132	0	25	hk	396	-11	45	be	1,107	1	65	su	14,267	-1
6	se	139	2	26	ae	405	-1	46	tr	1,162	2	66	co	17,194	-9
7	tw	151	0	27	fr	413	6	47	tk	1,191	-19	67	info	19,692	-1
8	nz	154	-2	28	za	445	3	48	cl	1,215	-3	68	ru	20,220	0
9	nu	159	3	29	vn	460	0	49	PΦ	1,447	3	69	us	37,465	0
10	cz	163	-1	30	es	463	-6	50	br	1,456	0	70	biz	43,583	0
11	ar	202	0	31	sg	466	1	51	eu	1,486	-2	71	mobi	89,846	0
12	de	211	4	32	gr	473	-2	52	name	2,010	1	72	asia	143,653	0
13	sk	243	-3	33	lv	505	3	53	uk	2,231	-2				
14	au	244	-1	34	at	533	3	54	pl	2,518	2				
15	nl	266	8	35	jp	555	6	55	org	4,158	0				
16	hu	269	-1	36	mx	573	2	56	com	4,514	2				
17	lt	285	3	37	cc	620	2	57	pro	5,113	2				
18	ie	285	1	38	ir	641	-4	58	ua	5,330	-4				
19	ca	290	-1	39	xxx	717	-4	59	cn	5,460	2				
20	it	294	2	40	ve	786	0	60	ws	5,682	0				

RankΔ - positive number indicates rank improvement
 APM- Abuse Per Million domain

Source: www.namesentry.com
 Date: as of May 31, 2014

All TLDs over 100,000 DUM

NQI Ratings Scale

Scale	APM
Excellent	Less than 100
Good	101-1,000
Caution	1,000-10,000
At Risk	Over 10,000

Only two TLDs (.tel and .ch) rated Excellent, with NQI scores under 100. The ccTLDs .fi and .dk just missed scoring Excellent. The .nl ccTLD improved the most positions (8), from a rank of 23 to a rank of 15. The .jp TLD achieved the largest reduction in NQI scoring, by 31%. The abuse per million rating for .asia increased substantially over the reporting period, with 14% of .asia domains under management being blocklisted. The .tk TLD grew significantly and reached over 24 million domains under management, but also attracted an increased amount of abuse and fell 19 rank spots.

The NQI scoring is only done for TLDs over 100,000 domains under management. Since January 2014, over 100 new gTLDs have launched, but as of May 31, 2014 none have exceeded 100,000 DUM. Therefore we have not included any new gTLD NQI scores in this report. However, in aggregate by May 31 2014, all newly launched gTLDs had over 890,000 domains under management with a total of 71 abuse listings on our reporting blocklists. This results in an NQI score of 80 abuses per million or a Green/Excellent rating for all new gTLDs in aggregate. This compares to an NQI rating of 1,800 or Orange/Caution for the aggregate top 72 TLDs listed in the NQI table.

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About Architelos - architelos.com



Architelos is unique in having over thirty years of experience in building, launching, and managing multi-million name gTLDs. Clients include new and legacy generic (gTLD) and country code (ccTLD) registries. Architelos has locations in Leesburg, Virginia; Los Angeles, California; Toronto, Canada; and Dublin, Ireland; as well as data centers in Toronto and Los Angeles. The executive team includes Alexa Raad (CEO), John Matson (COO), Michael Young (CTO), and Norbert Grey (CFO). Architelos provides SaaS-based TLD managed services solutions, and strategic consulting for clients in the domain name (DNS) industry. NameSentrySM, a patent-pending abuse detection and mitigation service, is the second SaaS-based service launched by the company. We are in the process of launching our third product, NumberSenseSM, a deferred revenue calculation engine specifically designed for the complex revenue recognition of the DNS industry.

For more information follow us @architelos on Twitter or join us on Facebook.

About Illumintel (Illumintel.com)

Greg Aaron is President of Illumintel and a co-creator of NameSentry. Greg is an expert in domain abuse detection and mitigation and works regularly with registries, registrars, and law enforcement to combat spam, malware, phishing, and other abuses. Greg is a member of ICANN's Security and Stability Advisory Committee (SSAC) and is co-chair of the Anti-Phishing Working Group's Internet Policy Committee.

For More Information

If you would like additional information about the report, please contact us at namesentry@architelos.com. If you'd like to automatically receive the next installment of the NameSentrySM Report, please sign up at <http://architelos.com/contact-us/>

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