Background on Safeguards

A key distinguishing feature of the New gTLD Program was the advent of additional safeguards aimed at protecting the integrity of the Domain Name System. The Government Advisory Committee (GAC) greatly influenced the development and adoption of many of the safeguards. In its Beijing Communiqué, the GAC advised that the proposed safeguards be subject to contractual oversight by ICANN and, generally speaking, many have been implemented via contract provisions in the standard Registry and Registrar Agreements required for all new gTLDs. However, certain aspects of GAC advice were implemented differently from the way in which they were initially proposed.

What follows is a discussion of certain key safeguards, focusing on the ability of the safeguard to be enforced via ICANN Contractual Compliance and/or to withstand challenges to potential enforcement.

Safeguards for all new gTLDs

Whois verification

The Whois verification requirements of the New gTLD Program sought to enhance abuse prevention and mitigation efforts. The 2013 Registrar Agreement, which was mandatory for all new gTLD registrars, required adherence to the obligations specified in the Whois Accuracy Program Specification. Consequently, new gTLD registrars are required to engage in "reasonable and commercially practicable" Whois accuracy verification at the time of registration and periodic re-verification thereafter.

Specifically, registrars were required to verify the syntax accuracy of registrant provided postal addresses, email addresses, and telephone numbers and verify the validity of the phone number and email address of the registrant. These provisions limit registrants to 7 days for correcting or updating such information and a total of 15 days for responding to inquiries by the registrar. The consequences imposed by a registrar for a registrant’s failure to comply include the suspension or cancellation of the domain name registration.

ICANN contractual compliance reports indicate that WHOIS related complaints comprise the largest category of complaints received. For example, in 2014 of the 41,790 total complaints

2 Registrar Accreditation Agreement (June 2013), Section 3.7.8
3 Registrar Accreditation Agreement (June 2013) Section 3.7.7.1 and 3.7.7.2
4 Registrar Accreditation Agreement (June 2013) Section 3.7.7.2
5 See ICANN Contract Compliance Annual Reports [insert cites]
received in 2014, 29,857 related to WHOIS, 71% of those alleged Whois accuracy as the complaint. (most complained about lack of accuracy) (about 71%). In 2015, of the 48,106 total complaints received in 2015, 36,354 related to WHOIS (accuracy) (about 75%). These figures indicate that the WHOIS safeguards created contract obligations that were sufficiently specific that violations could be readily flagged and to generated complaints subject to the ICANN compliance process. 

Coinciding with the new WHOIS verification requirements and to improve the quality of contact data in the WHOIS, ICANN has also implemented the WHOIS Accuracy Reporting System (ARS) in an effort to identify and report on accuracy in a systematic way in order to improve quality of contact data in the WHOIS. The GAC had advised Registry Operators be required to maintain statistical reports of inaccurate WHOIS records. ARS is an ICANN project raised in part to respond to this GAC safeguard requiring documentation of WHOIS inaccuracies. This implementation shifted the responsibility from Registry Operators to ICANN. Originally, the ARS contemplated three phases: syntax accuracy; operability accuracy; and identity validation.

To date, the ICANN ARS has only dealt with accuracy of syntax and operability (i.e., is the contact information in the correct format and is it an operating email, address or telephone number). The latest ARS Report was issued in June 2016 and contains findings on the accuracy of syntax (proper format) and operability (can it be used to communicate) of telephone numbers, postal address, and email address for a sampling of both new and legacy gTLDs. These findings indicate that new gTLDs have higher syntax accuracy ratings for email and telephone but lower syntax accuracy for postal address, when compared to legacy gTLDs.

At this point, ICANN has not committed to progressing to the identity validation phase (i.e., is the individual listed responsible for the domain?) in terms of effective enforcement, this documentation effort will only detect syntax and operability issues but will not detect and therefore not document inaccurate identity.

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7 Beijing Communicque: GAC Advice Effectiveness Review
8 The project aims to: proactively identify inaccurate gTLD registration data, explore the use of automated tools, forward potentially inaccurate records to registrars for action, and publicly report on the resulting actions to encourage improvement. See WHOIS Accuracy Reporting System https://whois.icann.org/en/whoisars.
9 Beijing Communicque; and GAC Advice Effectiveness Review; January 9, 2014 [insert cites]
10 See WHOIS Accuracy Reporting System at: https://whois.icann.org/en/whoisars.
11 See https://whois.icann.org/en/whoisars-reporting
to require registry operators to perform identity validation and verification. Concerns about costs may have influenced the current lack of commitment by ICANN to proceeding with the identity validation phase of the WHOIS Accuracy Reporting System.

Ultimately, specific language regarding WHOIS obligations and a detailed WHOIS specification may have promoted more focused efforts on combating abuse by creating clear obligations and hence promoting the ability to make actionable complaints to ICANN compliance.

Recommendation:

1) Given our findings about the relatively large number of WHOIS-related complaints received by ICANN contract compliance, we recommend that ICANN organization analyze complaints to identify the subject matter of the complaints (e.g., complaints about syntax, operability, or identity). Identify other potential data sources of WHOIS complaints (registrars, registries, ISPs etc.) and attempt to obtain anonymized data from these sources. If identity is a significant percentage of complaints, consult with stakeholders to explore proceeding with identity phase of ARS project. Analyze ARS Studies to see whether data exists to determine whether WHOIS accuracy has increased under the 2013 RAA.

2) Given the existing ARS efforts focused on WHOIS accuracy, determine whether the ARS team could assess whether WHOIS syntax and operability accuracy has increased under the 2013 RAA. Analyze ICANN contract compliance complaints to identify the subject matter of the complaints (e.g., complaints about syntax, operability, or identity). Identify other potential data sources of WHOIS complaints (registrars, registries, ISPs etc.) and attempt to obtain anonymized data from these sources. If identity is a significant percentage of complaints, consult with stakeholders to explore proceeding with identity phase of ARS project.

Safeguard: Mitigating abusive activity

The Base Registry Agreement required new gTLD registry operators to include provisions in their Registry-Registrar agreements that prohibited registrants from "distributing malware, abusively operating botnets, phishing, piracy, trademark or copyright infringement, fraudulent or deceptive practices, counterfeiting or otherwise engaging in activity contrary to applicable law, and providing (consistent with applicable law and any related procedures) consequences

for such activities including suspension of the domain name.“

By its terms, this safeguard is aimed at mitigating abusive activity. This provision was incorporated into the mandatory public interest commitments (PICs) section of the Registry agreement. Notably, the plain language of the safeguard does not obligate the Registry operator to monitor and enforce this provision beyond requiring the inclusion of the provision in the downstream Registrar–Registrant agreement.  

By the end of 2014, ICANN concluded that 99% of new gTLD registry operators had complied with the obligation to include this language in their Registry-Registrar agreements. Subsequently, ICANN received abuse complaints related to Registrars. These complaints included both legacy and new gTLDs. ICANN noted that these complaints involved in part, “Registrars not taking reasonable and prompt steps to respond to appropriately to reports of abuse, which at a minimum should be to forward valid complaints to the registrants.” These figures indicate that the Mitigating Abuse Safeguard is the subject of complaints and the ICANN compliance process. It is not clear whether these safeguards have had an impact on mitigating abuse. It is also not clear what constitutes “reasonable and prompt steps to respond to appropriately to reports of abuse.”

**Recommendation:**

1. In light of the important goals of these safeguards to mitigate abusive activity, continue to gather data comparing rates of abuse in domains operating under new Registry Agreement and Registrar Agreements to legacy gTLDs.

2. Determine whether it’s possible to draw any conclusions about impact of individual safeguards on rates of abuse (it may only be possible to correlate rates of abuse between new gTLDs and legacy gTLDs because each group operate under a separate systems of contracts).

3. Survey registrars to find out whether the safeguard has made a difference in the way they approach combatting abuse, and to find how registrars interpret their obligation to take reasonable and prompt steps to respond to appropriately reports of abuse.

**Safeguard: Security checks**

Another mandatory PIC included in the new gTLD Registry Agreement mandated that registry operators “periodically conduct a technical analysis to assess whether domains in the TLD are being used to perpetrate security threats, such as pharming, phishing, malware, and..."
Furthermore, this safeguard obligated registry operators to maintain statistical reports on such threats and mitigation efforts, making them available to ICANN upon request. This safeguard was intended to enhance efforts to fight DNS abuse.

ICANN compliance reports indicate that engaging in proactive monitoring of this safeguard and determined for example, that 96% of registries were conducting security checks as per the contract. GAC advice also included an enforcement mechanism calling for a Registry Operator to notify a Registrar if the detected threats pose an actual risk of harm and provides for suspension of a domain name until a matter is resolved if the Registrar fails to act. However, as implemented, the safeguards lack obligations on either notification to the Registrar or how to respond to security threats.

The obligation to engage in security checks can be enforced, as implemented. ICANN compliance reports engaging in proactive monitoring of this safeguard and determined for example, that 96% of registries were conducting security checks as per the contract. Nevertheless, the safeguard lacks obligations on either notification to the Registrar or how to respond to security threats. However, the NGPC reported community concerns about the timing, cost, and scope of conducting security checks for threats. Hence, the safeguard implementation provided “general guidelines for what registry operators must do, but omits the specific details from the contractual language to allow for the future development and evolution of the parameters for conducting security checks.”

The NGPC identified community concerns about the timing, cost, and scope of conducting security threats. Hence, the safeguard implementation provided “general guidelines for what registry operators must do, but omits the specific details from the contractual language to allow for the future development and evolution of the parameters for conducting security checks.”

Recommendation

Once completed, ICANN and community stakeholders should review the proposed Registry Operator Framework and assess whether the framework is a sufficiently clear, effective, and

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24 Beijing Communiqué.
25 https://features.icann.org/safeguards-applicable-all-new-gtlds
26 https://myicann.org/plan/project/54398430005f4feb0a04e53e8afaa73b
27 https://features.icann.org/safeguards-applicable-all-new-gtlds
enforceable mechanism to mitigate abuse by providing for specified actions in response to security threats.

Making and Handling Complaints:

The Base Registry Agreement for new gTLDs imposed requirements on registry operators to "take reasonable steps to investigate and respond to any reports from law enforcement and governmental and quasi-governmental agencies of illegal conduct in connection with the use of the TLD" with the caveat that they would “not be required to take any action in contravention of applicable law.” Furthermore, new gTLD registry operators were obligated to post abuse contact details on their websites and notify ICANN of any changes to contact information.

These safeguards, like others, were aimed at enabling more focused mitigation of DNS abuse and created a duty for operators to investigate and respond to complaints from government agencies but not the public. GAC advice did not propose such a restriction.

The GAC has expressed concerns about the specifics of implementation. ICANN’s 2014 Contractual Compliance report noted that Registry Operators “not publishing the email address and primary contact for reports by mail” and “Registry Operators not responding in a timely matter” were a common contractual compliance issue regarding publishing abuse contact information. Hence, this safeguard can be the subject of complaints.

The obligation to have mechanisms to respond to complaints likely assists Registries to investigate and possibly combat abuse and may help protect the public by providing

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28 Base Registry Agreement (updated 1/9/2014), Section 2.8, Protection of Legal Rights of Third Parties
29 Base Registry Agreement (updated 1/9/2014), Specification 6, Section 4.1, Abuse Mitigation.
31 [insert cite]
32 Nielsen June 2016 Survey at pp.88, 102
33 see e.g., Singapore 2014 Communique, particularly what constitutes “reasonable steps” to investigate and respond to complaints).
34 (at p. 14).
information about harmful practices. Concerns about imposing unreasonable burdens on Registries may have driven the decision to limit the contract obligation to only handling complaints by government agencies.

**Recommendations:**

1) **Survey Registries** to find out the volume of complaints they receive from both the public and government agencies.

2) Assess whether mechanisms to report and handle complaints has led to more focused efforts to combat abuse by surveying Registries to find out what actions they take in response to complaints.

**Safeguards for sensitive and regulated strings**

The GAC identified a specific group of Category 1 strings that raised consumer protection concerns, contained sensitive strings, or strings in regulated or highly regulated markets. ICANN responded that only a subset of the recommended safeguards would apply to the strings in regulated markets. These safeguards took the form of downstream contract requirements contained in the Public Interest Commitments Specification of the Registry Agreement. Specifically, the safeguards required imposing upon registry operators obligations that they obligate registrars vis-à-vis the Registry-Registrar Agreement to include certain provisions in their Registration Agreements with Registrants.

The requirements for sensitive strings and those in regulated markets included provisions requiring registrants to comply with all applicable laws. Another provision emphasizes that this obligation includes “those laws that relate to privacy, data collection, consumer protection (including in relation to misleading and deceptive conduct), fair lending, debt collection, organic farming, disclosure of data, and financial disclosures.” Furthermore, specific provisions detailed requirements for registrants handling sensitive information, such as health or financial data, to “implement reasonable and appropriate security measures commensurate with the offering of those services, as defined by applicable law.”

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36 January 9, 2014 Registry Agreement (standard Registry Agreement), Specification 11, 3(f)

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It is difficult to determine whether these safeguards have specifically been the subject of complaints to ICANN contract compliance because the categories of complaints identified in ICANN’s Compliance Reports do not reach the level of specificity necessary to precisely track each safeguard. ICANN Compliance does report that it proactively monitored compliance with Specification 11, ¶3a which includes the obligation for contracts that includes language requiring compliance with applicable laws, and determined that there was 99% compliance with this provision.  

Recommendations:

1) Include more detailed information on subject matter of complaints in ICANN publicly available Compliance Reports. More precise data on the subject matter of complaints, particularly what type of law violation is being complained of and whether complaints relate to the protection of sensitive health or financial information, would assist future review teams in their assessment of these safeguards.

2) Survey Registrars to determine whether they are complying with the obligation to provide appropriate security measures for sensitive health and financial information.

3) Follow up survey with audit to assess whether Registrars are sufficiently protecting users sensitive information.

Safeguards for highly regulated strings

Like the treatment of sensitive strings and those in regulated markets, GAC advice, which was ultimately narrowed by ICANN, identified strings in highly regulated markets that should receive additional protections. As with the other safeguards, many of these safeguards also took the form of imposing downstream contract requirements upon registry operators to requirements that they obligate Registrars vis-à-vis the Registry-Registrar Agreement to include certain provisions in their Registration Agreements with Registrants.

Along with the safeguards applicable to sensitive strings and those in regulated markets, five additional safeguards also applied to strings in highly regulated markets. These safeguards related to relationships with regulatory and industry bodies and proper credentials for strings in highly regulated markets. Registry operators were obligated to establish relationships with the relevant regulatory and industry bodies to mitigate risks of illegal activity. Moreover, Registrars were required to have a single point of contact for complaint reporting and contact info for relevant regulatory bodies.

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However, implementation of these provisions appears to be satisfied by the mere issuing of an invitation to have a relationship. Regarding the requirement to establish relationships with relevant regulatory/industry bodies, implementation of this provision appears to be satisfied by the mere issuing of an invitation to have a relationship. This implementation may reflect the practical challenges involved with mandating a relationship with a third-party organization. In terms of effectiveness, more information is needed on Registry efforts to comply with this safeguard. It is not clear whether complaints about the complaint contact safeguard, which essentially creates a downstream obligation for Registrants to provide complaint related contact information, would come to ICANN compliance. More information on Registry efforts to establish relationships with relevant regulatory/industry bodies would also assist future review teams to assess the effectiveness of this safeguard. This implementation may reflect the practical challenges involved with mandating a relationship with a third-party organization. Regarding the requirement to provide contact information for complaints, a key question would be how easy it is for the public to find information on a website regarding contact information for communicating complaints both to those responsible for the domain and applicable government agencies or regulatory bodies.

GAC advice on credentialing for registrants of strings in highly regulated markets recommended that registry operators verify and validate registrants’ credentials at the time of registration, consult with authorities in case of doubt, and conduct periodic post-registration checks to ensure registrants’ validity. Instead, these provisions were modified so that registry operators were required to request representation of the relevant professional credentials from their registrants to confirm that the “registrant possesses any necessary authorizations, charters, licenses and/or other related credentials for participation in the sector associated with the TLD.”

Further modifying the advice, the registry operators were obligated to investigate the authenticity of a registrant’s credentials only if they received a complaint casting doubt on them. Finally, lastly, registrars, vis-à-vis the Registry-Registrar Agreement, ICANN Implementation Framework for GAC Category 1 Implementation Advice at ¶¶ 6-8, https://www.icann.org/en/system/files/files/resolutions-new-gtld-annex-2-05feb14-en.pdf

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were obligated to require their registrants to report “any material changes to the validity” of their credentials.48

These provisions were designed to mitigate the higher levels of risks of abuse associated with strings in highly regulated industries, which are likely to invoke a higher level of trust to consumers.49 In design, they differed from the GAC advice which was registry-focused and treated a screening mechanism at the time of registration and instead placed the onus on the registrants to engage in self-reporting. This resulted from NGPC’s concern about the practical ability to implement these safeguards as advised because of challenges involved for Registrars in verifying credentials of entities in multiple jurisdictions.50

The GAC advice required Registry Operators to proactively screen Category 1 Registrants to ensure that they are who they purport to be before they may do business with the public using the name of a regulated sector such as a bank or pharmacy. The looser requirement that registrants provide some “representation” that they possess the appropriate credentials (e.g. as a bank, insurer, pharmacy, etc.) poses the risk of consumer fraud and potential harm because bad actors will not hesitate to make false representations about their credentials.

See e.g., GAC London Communiqué at p. 10.

Moreover, the Nielsen Consumer and Registrant Surveys indicated that consumers expect restrictions on who can purchase new gTLDs and that restrictions on who can purchase new gTLDs contribute to consumer trust.51

Recommendations:
1) Survey Registrars to determine what steps they are taking to establish working relationships with relevant government or industry bodies.
2) Survey Registrants to determine the volume of complaints they are receiving from regulatory bodies and their standard practices to respond to those complaints.
3) Assess a sampling of domain websites to see whether contact information to file complaints is sufficiently easy to find.
4) Assess whether restrictions regarding possessing necessary credentials are being enforced by auditing registrars and resellers offering the highly restricted TLDs (i.e., can an individual or entity without the proper credentials buy a highly regulated domain?).

48 See Beijing and London Communiques.
49 See e.g. October 29, 2013 correspondence; Sept. 2, 2014 correspondence.
50 See e.g. October 29, 2013 correspondence; Sept. 2, 2014 correspondence.
5) Determine volume and subject matter of complaints regarding domains in highly regulated industries by seeking more detailed information from ICANN compliance and registrar/resellers of highly regulated domains.
6) Compare rates of abuse between those highly regulated gTLDs who have voluntarily agreed to verify and validate credentials to those highly regulated gTLDs that have not.

Safeguards for new gTLDs with inherent governmental functions

The Base Registry Agreement included provisions for operators of new gTLDs with inherent governmental functions, such as .army, .navy, and .airforce, to mandate that their registrars to ensure that their registrants “take reasonable steps to avoid misrepresenting or falsely implying” that the registrant was associated with a governmental authority when such a relationship did not exist.52 However, the safeguard did not include any consequences for a failure to comply. This made its implementation difficult to measure.

Recommendations:
1. Determine whether the complaints for failure to comply with this safeguard has generated complaints.
2. Survey Registries to determine how they enforce this safeguard.

Cyberbullying

Another safeguard that was applicable where special safeguards apply was related to cyberbullying and harassment. This provision required registry operators to “develop and publish registration policies to minimize the risk of cyber bullying and/or harassment.”53 It is not clear whether failure to comply with this safeguard has generated complaints. In addition, the safeguard does not contain consequences for failure to comply.

Recommendations:
1. Determine whether there have been complaints for failure to comply with this safeguard.
2. Survey Registries to determine how they enforce this safeguard.

Restricted Registration Policies

The GAC issued Category 2 safeguard advice on domain names that did not falling into the aforementioned Category 1 sensitive strings or strings related to regulated or highly regulated markets. These recommendations were incorporated into the Base Registry Agreement to mandate that registries operate in “a transparent manner consistent with general principles of openness and non-discrimination by establishing, publishing and adhering

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to clear registration policies.” Furthermore, another provision prevents “Generic String” registry operators from restricting registration eligibility to a “single person or entity and/or that person’s or entity’s ‘Affiliates’”. This provision may affect competition and GAC advices reflects ongoing concerns about whether restricted registration policies could lead to undue preferences.

Recommendations:

1. Collect data comparing trustworthiness of new gTLDs with restrictions on registration to new gTLDs with few or no restrictions.
2. Repeat selected parts of the Nielsen study and look for increase in perceived trustworthiness of new gTLDs and seek data on reasons for increase or decrease.
3. Repeat/refine upcoming DNS Abuse Study to determine whether presence of additional safeguards correlates to decrease in abuse.
4. Collect data weighing cost/benefits of implementing various safeguards, including impact on compliance costs and costs for Registries, Registrars, and Registrants. Could look to existing gTLDs for information (for example for verification/validation restrictions, could look to those new gTLDs that have voluntarily included verification/validation requirements to get a sense of costs involved).

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54 ANNEX 2 -- ICANN NGPC RESOLUTION NO. 2014.02.05. NG01
https://features.icann.org/category-2-safeguard-advice-re-restricted-and-exclusive-registry-access

55 ANNEX 2 -- ICANN NGPC RESOLUTION NO. 2014.02.05. NG01
https://features.icann.org/category-2-safeguard-advice-re-restricted-and-exclusive-registry-access