ICANN NGPC PAPER NO. 2014.07.18.1a

TITLE: **New gTLD Name Collision Occurrence Management Framework**

PROPOSED ACTION: **For Resolution**

EXECUTIVE SUMMARY:

On 7 October 2013, the Board New gTLD Program Committee adopted the New gTLD Collision Occurrence Management Plan (the "Collision Management Plan") to manage the collision occurrences between new gTLDs and existing private uses of the same strings. The New gTLD Collision Occurrence Management Plan adopted by the NGPC called for undertaking additional study to develop a name collision occurrence management framework. The framework was to specify a set of name collision occurrence assessments and corresponding mitigation measures if any, that ICANN or TLD applicants may need to implement, and would be made available for public comment. At this time, the NGPC is being asked to consider adopting the final Name Collision Occurrence Management Framework (the "Final Name Collision Framework"), which is included as Attachment 1 to this briefing paper. The Final Name Collision Framework takes into account the JAS Study (described in further detail below), public comments on the JAS Study, additional feedback from the NGPC and the community during the ICANN Meeting in London, and additional advice offered by the Security and Stability Advisory Committee (SSAC) in SAC066.

By way of background, on 26 February 2014, ICANN published the follow-up study called for in the NGPC's 7 October 2013 resolution. The study, which was prepared by JAS Global Advisors (JAS), was entitled "Mitigating the Risk of DNS Namespace Collisions" (the "JAS Study"). The JAS Study provided a set of recommendations that describe a comprehensive framework to reduce current and future DNS namespace collisions, alert operators of potential DNS namespace related issues, and provide emergency response capabilities in the event that critical (e.g., life safety) systems are adversely impacted. The JAS Study, which included a proposed name collision occurrence management framework, was published for public comment.

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On 6 June 2014, the SSAC published SAC 066: SSAC Comment Concerning JAS Phase One Report on Mitigating the Risk of DNS Namespace Collisions, in which it offered further advice and recommendations to the Board on name collision matters. The final JAS Report was published on 10 June 2014, taking into account feedback received during the public comment period, and discussions with the SSAC.

As a next step, if the NGPC approves the Final Name Collision Framework, ICANN will issue each registry operator a Name Collision Occurrence Assessment ("Name Collision Assessment") consistent with the approved Final Name Collision Framework. The Name Collision Assessment is the mechanism to implement the mitigation measures in the Final Name Collision Framework through the Registry Agreement. (Specification 6, Section 6 of the Registry Agreement requires registry operators to activate names in the DNS in compliance with a Name Collision Occurrence Assessment provided by ICANN. Refer to Specification 6 of the Registry Agreement for additional details.)

STAFF RECOMMENDATION:

Staff recommends that the NGPC adopt the Name Collision Occurrence Management Framework (included as Attachment 1), and direct the President and CEO to move forward with implementing the Framework.

PROPOSED RESOLUTION:

Whereas, on 7 October 2013 the NGPC directed the President, Generic Domains Division to implement the proposal to manage the occurrence of collisions between new gTLDs and existing private uses of the same strings as presented in the "New gTLD Collision Occurrence Management Plan" (the "Collision Occurrence Management Plan"), and in doing so to take into account further advice that may be offered by Security and Stability Advisory Committee (SSAC) and other experts and stakeholders.

Whereas, the Collision Occurrence Management Plan called for a follow-up study that would inform the development of a Name Collision Occurrence Management Framework (the "Collision Framework").

Whereas, on 26 February 2014, ICANN published the follow-up study called for in the NGPC's 7 October 2013 resolution, which was prepared by JAS Global Advisors (JAS) and entitled "Mitigating the Risk of DNS Namespace Collisions: A Study on Namespace Collisions in the Global Internet DNS Namespace and a Framework for Risk Mitigation, Phase One Report" (the "JAS Study and Name Collision Framework"). The JAS Study and Name Collision Framework, which was posted for public comment, provided a set of recommendations that describe a comprehensive framework to reduce current and future DNS namespace collisions, alert operators of potential DNS namespace related issues, and provide emergency response capabilities in the event that critical (e.g., life safety) systems are adversely impacted. The JAS Study and Name Collision Framework was revised in response to public comments.

Whereas, on 6 June 2014, the ICANN Security and Stability Advisory Committee (SSAC) published SAC 066: SSAC Comment Concerning JAS Phase One Report on Mitigating the Risk of DNS Namespace Collisions, in which it offered advice and recommendations to the Board on the framework presented in the JAS Study and Name Collision Framework.

Whereas, the proposed name collision framework being presented to the NGPC for consideration takes into account advice offered by SSAC in SAC066, and the advice of other experts and stakeholders, including the recommendations from JAS, public comments, and community discussions at ICANN meetings.

Whereas, the ICANN Board previously adopted the NGPC's recommendation to direct the ICANN President and CEO to develop a long-term plan to management name collision at the root. The NGPC recognizes that there may be policy implications associated with developing the long-term plan.

Whereas, the NGPC is undertaking this action pursuant to the authority granted to it by the Board on 10 April 2012, to exercise the ICANN Board's authority for any and all issues that may arise relating to the New gTLD Program.

Resolved (2014.07.18.NGxx), the NGPC adopts the Name Collision Occurrence Framework (included as Attachment 1) to continue to manage the occurrence of collisions between new gTLDs and existing private uses of the same strings, and directs the President and CEO, or his designee(s), to take the necessary actions to implement the Framework. As part of implementing the Framework, registry operators will be provided with a Name Collision Occurrence Assessment (see Registry Agreement, Specification 6, Section 6), which will address, among other things, procedures to remove second level domains from the block list including measures to protect rights holders.

Resolved (2014.07.18.NGxx), the NGPC directs President and CEO, or his designee(s) to provide information to, and work with the GNSO to consider whether policy work on developing a long-term plan to manage gTLD name collision issues should be undertaken, including as part of current discussions concerning the next round of the New gTLD Program.

Resolved (2014.07.18.NGxx), the NGPC directs the President and CEO, or his designee(s), to continue to provide briefings and share information and best practices with ccTLD managers concerning name collision issues in light of the Name Collision Occurrence Management Framework.

PROPOSED RATIONALE:

Why is the NGPC considering this issue now?

The NGPC's action today follows on from its previous actions taken to address name collision issues. Specifically, on 7 October 2014, the NGPC took action directing the President, Generic Domains Division to implement the proposal to manage the occurrence of collisions between new gTLDs and existing private uses of the same strings as presented in the "New gTLD Collision Occurrence Management Plan" (the "Collision Occurrence Management Plan"), and in doing so to take into account further advice that may be offered by Security and Stability Advisory Committee (SSAC) and other experts and stakeholders. A core feature of the Collision Occurrence Management Plan required ICANN to undertake additional study to develop a name collision

occurrence management framework. The framework was intended to specify a set of collision occurrence assessments and corresponding mitigation measures if any, that ICANN or new gTLD applicants may need to implement.

To implement the NGPC's 7 October 2014 action, on 24 February 2014, ICANN published a study prepared by JAS Global Advisors ("JAS") entitled "Mitigating the Risk of DNS Namespace Collisions: A Study on Namespace Collisions in the Global Internet DNS Namespace and a Framework for Risk Mitigation, Phase One Report" (the "JAS Study and Name Collision Framework"). The JAS Study and Name Collision Framework provided a set of recommendations that describe a comprehensive framework to reduce current and future DNS namespace collisions, alerting operators of potential DNS namespace related issues, and providing emergency response capabilities in the event that critical (e.g., life safety) systems are adversely impacted. Additionally, the ICANN Security and Stability Advisory Committee (SSAC) offered advice and recommendations to the Board on the proposed name collision framework included in the JAS Report in SAC 066: SSAC Comment Concerning JAS Phase One Report on Mitigating the Risk of DNS Namespace Collisions.

At this time, the NGPC is adopting a final version of the name collision framework called for in the Collision Occurrence Management Plan (the "Final Name Collision Framework"). The Final Name Collision Framework builds off of the framework in the JAS Study and Name Collision Framework, and has been further refined in response to the recommendations in SAC066, public comments, and additional community feedback during the ICANN Meeting in London. Adoption and implementation of the Final Name Collision Framework will allow ICANN to continue to move forward with the delegation of new gTLDs in a secure and stable manner.

What are the proposals being considered?

The Final Name Collision Framework being adopted by the NGPC presents a plan to manage the collision occurrences between new gTLDs and existing private uses of the same strings. The full details of the Final Name Collision Framework are presented in

Attachment 1. A summary of some of the key elements of the Final Name Collision Framework is as follows:

General Requirements for Registries:

- Required to act on name collision reports from ICANN within two hours of the report during the first two years of the life of the TLD measured from the time of delegation of the TLD.

- Required to implement "controlled interruption" as the notification measure to alert parties that they may be leaking queries intended from private namespaces to the public DNS. Controlled interruption is required to be continuous interruption (i.e. not intermittent), and lasting for a 90-day period. If the TLD was delegated prior to the adoption of the Framework, the registry operator would implement controlled interruption using MX, SRV, TXT, and A records for second level domains included in the block list. For TLDs delegated after the adoption of the Framework, the registry operator would implement controlled interruption using a wildcard method. Controlled interruption (for IPv4) will use a loopback address (127.0.53.53)

Requirements for ICANN:

- Work within the IETF and with other relevant technical communities to identify a notification mechanism for IPv6 that provides similar functionality to that available in IPv4's "Loopback" reserved prefix.

- Defer delegating .MAIL indefinitely, and collaborate with the technical and security community to identify the best way to handle .MAIL (e.g. permanent reservation through the IETF process). The JAS Study and Name Collision Framework identifies .MAIL as exhibiting "prevalent, widespread use at a level materially greater than all other applied-for TLDs" and thus its prevalent internal use is likely irreversible.

- Produce new outreach and informational materials as needed to alert potentially affected parties about name collisions, and link to existing information regarding name collisions developed as part of the initial outreach campaign.

- Develop an emergency interim registry operator mechanism to address situations where a registry operator is unable or unwilling to comply with a measure to avoid harm from name collision in a timely manner.

- Create a last-resort procedure to remove a TLD that is causing harm (i.e. clear and present danger to human life) when removal of SLD is not effective (e.g., a dotless names is causing the name collision).

In addition to adopting the Final Name Collision Framework, the NGPC is making a recommendation to the Board as a follow-up to its previous recommendation made on 7 October 2014. At that time, the NGPC recommended, and the Board subsequently decided, to direct the ICANN President and CEO to develop a long-term plan to management name collision at the root. The NGPC recognizes that there may be policy implications associated with developing the long-term plan, and as part of its action today, the NGPC is directing the President and CEO to work with the GNSO so that the GNSO may consider whether policy work on developing a long-term plan to manage gTLD name collision issues should be undertaken, including in current discussions regarding the next round of the New gTLD Program. The NGPC also is taking action to direct the President and CEO, or his designee(s), to continue to provide briefings and share information and best practices with ccTLD managers concerning name collision issues in light of the adoption of the Final Name Collision Framework.

What Stakeholders or others were consulted?

ICANN initiated a public comment forum from 26 February to 21 April 2014, inviting the community to provide feedback on the JAS Study and Name Collision Framework. During the public comment period, twenty-eight comments were received. The public comment report summarizing the comments, and the full comments can be found at:

https://www.icann.org/en/system/files/files/report-comments-name-collision-10jun14-en.pdf.

The SSAC also was consulted and offered advice and recommendations to the Board (via SAC066) on the proposed name collision framework included in the JAS Study and Name Collision Framework. Additionally, ICANN presented a version of the proposed Final Name Collision Framework during the ICANN Meeting in London.

What concerns or issues were raised by the community?

The JAS Study and Name Collision Framework received twenty-eight comments during the public comment period which were submitted by a full range of sources, including New gTLD applicants and those affiliated with applicants, corporations not directly affiliated with applicants, individual technology experts, and various DNS related industry organizations. Additionally, the SSAC raised some concerns in SAC066 regarding the name collision framework.

Some key themes and concerns expressed by the SSAC and ICANN community included, but are not limited to the following:

- Concerns related to the current use of the Second Level Domain (SLD) Block Lists and the Alternate Path to Delegation in general

- Concerns that the proposed 120 day "controlled interruption" period is too long and/or not justified – Some commenters suggested that there is no data to support having a 120-day controlled interruption period, and suggested that if there is a period, it should fall in the range of 45 days to 90 days.

- Concerns for using a "loopback" approach instead of a "honeypot" approach – The SSAC recommended that using a honeypot approach allows better notification for HTTP cases, and provides support for IPv4 and IPv6. Some of the public comments also suggest that a honeypot approach would provide a better opportunity to inform users of impending problems. Some other commenters, however, note that a honeypot may expose personally identifiable or sensitive

information outside of the local network or to potential attackers, among other issues.

- Concerns about whether the controlled interruption should be continuous or intermittent – The SSAC recommended that instead of a single controlled interruption period, ICANN should introduce rolling interruption periods, broken by periods of normal operation, to allow affected end-user systems to continue to function during the test period with less risk of catastrophic business impact.

- Concerns about what type of event would trigger an emergency response – The SSAC recommended that ICANN should expand the range of situations that would trigger an emergency response, for example national security, emergency preparedness, critical infrastructure, key economic processes, commerce, and the preservation of law and order. Some of the public comments also raised concern that a "clear a present danger to human life" standard draws an arbitrary line, and others suggest that certain significant dangers to the business and financial sectors of the global economy might also merit the use of emergency measures.

- Concerns about the treatment of .CORP, .HOME, and .MAIL – Some of the public comments support the treatment of .CORP, .HOME, and .MAIL recommending in the JAS Study and Name Collision Framework, while others suggest that a final decision on this matter be postponed until a more comprehensive technical evaluation can be performed and a solution may be developed to allow for these strings to operate in the DNS.

- Comments requesting the acceleration and closure of the collisions issue in general - Some members of the community noted a general concern that the name collision matter is being dealt with at such a late stage of the New gTLD process, and questioned why ICANN did not address the matter sooner. Commenters raising concerns about timing also requested that ICANN take action on the matter with deliberate speed so as not to cause further delay.

- Comments expressing concern about the interaction between the name collision block lists and intellectual property rights protection mechanisms – Some public comments suggest that all names, which registries blocked under their alternative path to delegation plans, be subject to the Sunrise and Trademark Claims services outlined in the gTLD Applicant Guidebook, the Registry Agreement, and the Rights Protection Mechanism Requirements (RPMs). Additionally, some .BRAND TLD applicants note many of the "brand" terms included in the block lists are trademarks for the brand's products and services, and are seemingly generated at the root by the brand itself. These commenters suggest that ICANN consider an alternative process for .BRAND TLD applicants to expedite the release of such trademarked terms for their immediate use.

What significant materials did NGPC review?

The NGPC reviewed several materials, including, but not limited to the following:

- [SAC057: The SSAC Report on Internal Name Certificates](#)

- [SAC062: SSAC Advisory Concerning the Mitigation of Name Collision Risk](#)

- [Name Collision in the DNS](#) – prepared by Interisle Consulting Group

- [New gTLD Collision Occurrence Management Plan](#)

- [Mitigating the Risk of DNS Namespace Collisions –A Study on Namespace Collisions in the Global Internet DNS Namespace and a Framework for Risk Mitigation, Phase One Report (Final)](#)

- [Report of public comments on the JAS Study and Name Collision Framework](#)

- [SAC066: SSAC Comment Concerning JAS Phase One Report on Mitigating the Risk of DNS Namespace Collisions](#)

What factors did the NGPC find to be significant?

The NGPC considered several significant factors during its deliberations over whether or not to adopt the Final Name Collision Framework. The following are among the factors the NGPC found to be significant:

- The NGPC considered the recommendations of the SSAC in SAC066.

- As previously noted, several commenters, including the SSAC, raised concerns about using a "loopback" approach instead of a "honeypot" approach. In choosing the loopback approach in the Final Name Collision Framework, the NGPC took into consideration the privacy and legal risks associated with the honeypot approach described in SAC 062 and 066 and the JAS report. On balance, the NGPC notes that the notification features offered by using the loopback approach provides a better option to provide a notification system of name collisions while minimizing the issues inherent in using a honeypot approach. The NGPC also notes that while the honeypot approach has the benefit of offering a IPv6 solution, the Final Name Collision Framework includes a requirement that ICANN will work within the IETF and with other relevant technical communities to identify a mechanism for IPv6 that provides similar functionality to that available in IPv4's "Loopback" reserved prefix.

- The NGPC also found to be significant comments concerning whether the controlled interruption should be continuous or intermittent. While the SSAC recommended an intermittent controlled interruption, it also acknowledged that every approach to controlled interruption involves balancing trade-offs and exercising judgment. From an operational perspective the intermittent approach presents more risk for registries and ICANN to implement and ensure correct functioning. On the other hand, continuous controlled interruption presents a more simple approach operationally and provides for an easier way to diagnose and troubleshoot. It also provides a more effective way to indicate the need for changes in an affected party's network configuration. Additionally, an intermittent controlled interruption approach in theory would allow an affected party to have temporary relief while the controlled interruption is in the "off"

cycle. It should be noted that there is already a mechanism in place (name collision reporting) for affected parties to find temporary relief from name collision harm, if needed, making the intermittent approach an unnecessary burden.

- The NGPC considered the concerns raised by some commenters, noted above, regarding the interaction of the intellectual property rights protection mechanisms (RPMs) and the name collision framework. The NGPC notes that registry operators who choose the alternative path to delegation as permitted by the NGPC's 7 October 2013 action took one of two approaches: (1) blocking the second level domains on the block list by treating them as reserved names, or (2) blocking the second level domains on the block list by making them available for registration but not activation in the DNS. If a registry operator chose approach (1) and treated the blocked second level domains as reserved names, after the registry operator completes its period of controlled interruption to remove the name collision "block", the second level domain would no longer be blocked, but would remain on the registry operator's reserved name list. If in the future the registry operator removed the name from the reserved list, the name would be subject to the Claims Period described in the RPMs, as would be the case for any other reserved name. If instead, the registry operator choose approach (2) and treated the blocked second level domains as available for registration but not activation in the DNS, after the registry operator completes its period of controlled interruption to remove the name collision "block", the second level domain would be available for activation because the name has already gone through the Sunrise and Claims periods. Given this, there are no additional changes needed to the RPMs as a result of the Final Name Collision Framework.

Are there Positive or Negative Community Impacts? Are there fiscal impacts/ramifications on ICANN (Strategic Plan, Operating Plan, Budget); the community; and/or the public? Are there any Security, Stability or Resiliency issues relating to the DNS?

SAC057 and the Name Collision Study identified several security risks to the DNS. The Final Name Collision Framework, as revised in response to community comments, and recommendations of the SSAC in SAC066 provides a path forward to delegating new gTLDs in a secure and stable manner.

The Final Name Collision Framework may have a fiscal impact on ICANN, the community or the public, as there may be additional costs associated with implementing the measures in the Final Name Collision Framework, including additional resources needed to continue the outreach campaign targeted to affected parties to help them identify and manage the name collision occurrences in their networks.

As part of ICANN's organizational administrative function, ICANN posted for public the name collision framework as presented in the JAS Study. The report of public comments is available at: https://www.icann.org/en/system/files/files/report-comments-name-collision-10jun14-en.pdf.

Signature Block:

Submitted by: Francisco Arias

Position: Director, Technical Services – Global Domains Division

Date Noted: 11 July 2014

Email: Francisco.arias@icann.org

NAME COLLISION OCCURRENCE MANAGEMENT FRAMEWORK

A component of the New gTLD Collision Occurrence Management Plan

1. INTRODUCTION

A name collision occurs when a user unknowingly accesses a name that has been delegated in the public DNS when the user's intent is to access a resource identified by the same name in a private network. Circumstances like these, where the administrative boundaries of private and public namespaces overlap and name resolution yields unintended results, present concerns and should be avoided if possible.

On 7 October 2013 the ICANN Board's New gTLD Program Committee passed a resolution adopting the New gTLD Collision Occurrence Management Plan[1] aimed at mitigating the risk of name collisions in new gTLDs. Among other elements, the Plan calls for ICANN to commission a study to develop a name collision occurrence management framework. The framework will specify a set of name collision occurrence assessments and corresponding mitigation measures for ICANN and/or TLD applicants to implement. On November 2013 ICANN engaged JAS Global Advisors ("JAS") to develop a draft framework as a recommendation to ICANN on this regard. JAS developed a draft report that underwent public comment from 26 February to 21 April 2014. The final version of the report ("the JAS report") was published on 6 June 2014[2].

ICANN has considered the recommendations in the JAS report, the public comment forum, and SSAC advice in SAC 062[3] and SAC 066[4]. This paper describes a proposal for the Name Collision Occurrence Management Framework requested in the Plan. For full detail on the measures, the reader is referred to the JAS report. This Framework contains measures to be implemented by ICANN and new gTLD registry operators. Measures directed at registry operators are legally binding per the new gTLD registry agreement, Specification 6, Section 6.2.1.

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[1] https://features.icann.org/new-gtld-collision-occurrence-management
[2] https://www.icann.org/en/system/files/files/name-collision-mitigation-study-06jun14-en.pdf
[3] https://www.icann.org/en/groups/ssac/documents/sac-062-en.pdf
[4] https://www.icann.org/en/system/files/files/sac-066-en.pdf

PART A – MEASURES TO BE IMPLEMENTED BY REGISTRIES

Unless otherwise indicated in this section, all registry obligations remain (e.g., provide WHOIS and web-based Directory services).

2. NAME COLLISION REPORT HANDLING

Regarding the name collision report handling provision described in Section 6.3 of Specification 6 of the new gTLD Registry Agreement, Registry Operator shall act on requests from ICANN within 2 hours of receipt.

3. CONTROLLED INTERRUPTION

ICANN is interested in maintaining the reliability, security and stability of the DNS and the Internet. As such, ICANN is interested in providing a good notification measure for those parties that may be leaking queries intended for private namespaces to the public DNS. However, ICANN is also aware of the privacy and legal risks associated with the honeypot approach described in SAC 062 and 066 and the JAS report. ICANN has decided on balancing the good notification features offered by using the loopback address option with its superior privacy protection vs. the use of a honeypot.

SSAC recommends an intermittent controlled interruption, but also acknowledges that every approach to controlled interruption involves balancing trade-offs and exercising judgment. From an operational perspective the intermittent approach presents more risk for registries and ICANN to implement and ensure correct functioning. On the other hand, continuous controlled interruption presents a simpler approach operationally and provides for an easier way to diagnose and troubleshoot, it is also a better way to indicate the need for changes in an affected party's network configuration. Additionally, and intermittent controlled interruption approach in theory would allow an affected party to have temporary relief while the controlled interruption is in the "off" cycle. It should be noted that there is already a mechanism in place (name collision reporting) for affected parties to find temporary relief from name collision harm, if needed, making the intermittent approach an unnecessary burden.

Registry Operators will implement a period of, at least, 90 days of continuous controlled interruption. ICANN will monitor and time the implementation of the measure, primarily using the zone files that are transferred to ICANN from new gTLD registries once they are delegated (per Specification 4 of the new gTLD Registry Agreement).

If at some point in the future a solution is found for IPv6 that has similar properties to the loopback address used for IPv4, registries will include the additional DNS record(s) as instructed by ICANN. This addition will not increase the duration of the controlled interruption period.

3.1.   WILDCARDED CONTROLLED INTERRUPTION

For new gTLDs that are delegated on 1 August 2014 and later, the Registry Operator will implement controlled interruption inserting the following records in its TLD zone file (substituting "<TLD>" with its respective TLD):

```
<TLD>. 3600 IN MX 10 your-dns-needs-immediate-attention.<TLD>.
* 3600 IN MX 10 your-dns-needs-immediate-attention.<TLD>.
<TLD>. 3600 IN SRV 10 10 0 your-dns-needs-immediate-attention.<TLD>.
* 3600 IN SRV 10 10 0 your-dns-needs-immediate-attention.<TLD>.
<TLD>.    3600    IN    TXT    "Your    DNS    configuration    needs    immediate    attention    see
https://icann.org/namecollision"
*    3600    IN    TXT    "Your    DNS    configuration    needs    immediate    attention    see
https://icann.org/namecollision"
<TLD>. 3600 IN A 127.0.53.53
* 3600 IN A 127.0.53.53
```

During this period, ICANN hereby extends a temporary waiver to the Registry Operator with respect to Section 2.2 of Specification 6 of the new gTLD Registry Agreement (e.g., to allow the use of wildcard records). ICANN also extends a temporary waiver to the Registry Operator with respect to Section 1 of Exhibit A of the new gTLD Registry Agreement (e.g., to allow the use of TXT, SRV, and MX records). The waivers are only for purposes of implementing the controlled interruption measure and will cease upon termination of the controlled interruption measure in the TLD.

Registry Operator is permitted to delegate the second level domain name "nic" during the controlled interruption period. Per the new gTLD registry agreement, Registry Operator is expected, among other things, to offer RDDS services at "whois.nic.<TLD>", where "<TLD>" is the registry's TLD. During this period Registry Operator will not activate any other names under the TLD.

Registry Operators for TLDs that have been delegated prior to 1 August 2014 may implement this option only if they have not activated names under the TLD with the exception of "nic". Interested Registry Operators that meet these criteria must notify and obtain ICANN consent through the GDD portal before implementing the measure.

3.2.   RELEASING NAMES IN THE SLD BLOCK LIST

For new gTLDs that have been delegated prior to 1 August 2014 and have activated names under the TLD other than "nic", the Registry Operator will implement controlled interruption for 90 days by inserting A, MX, TXT and SRV records for each of the names in its SLD block list that it wishes to release from its SLD Block List. Registry Operator will insert the following records in its TLD zone file for each label in the List of SLDs to Block (substituting "<TLD>" with its respective TLD and "<label>" appropriately):

```
<label>.<TLD>. 3600 IN A 127.0.53.53
<label>.<TLD>. 3600 IN SRV 10 10 0 your-dns-needs-immediate-attention.<TLD>.
<label>.<TLD>. 3600 IN MX 10 your-dns-needs-immediate-attention.<TLD>.
<label>.<TLD>.    3600    IN    TXT    "Your    DNS    configuration    needs    immediate    attention    see
https://icann.org/namecollision"
your-dns-needs-immediate-attention.<TLD>. 3600 IN A 127.0.53.53
```

ICANN extends a temporary waiver to the Registry Operator with respect to Section 1 of Exhibit A of the new gTLD Registry Agreement (e.g., to allow the use of SRV, TXT, and MX records). The waivers are only for purposes of implementing the controlled interruption measure and will cease upon termination of the controlled interruption measure in the TLD.

4. INTERIM EMERGENCY BACK-END REGISTRY OPERATOR

Registry Operator agrees that ICANN may designate an interim emergency back-end registry operator for its TLD in case the Registry Operator is unable or unwilling to comply with a measure to avoid harm from name collision in a timely manner as described in Section 2 above.

PART B – MEASURES TO BE IMPLEMENTED BY ICANN

5. HIGH-RISK STRINGS (MAIL)

Following the recommendation from SSAC to identify strings that should be reserved for private use and the proposal in the JAS report, ICANN will treat **mail** the same as **home** and **corp**, i.e., defer delegating this string indefinitely. The JAS report identifies **mail** as exhibiting "*prevalent, widespread use at a level materially greater than all other applied-for TLDs*".

ICANN will collaborate with the technical and security community to identify the best way to handle these strings, e.g., reserve them permanently through IETF process.

6. INFORMATIONAL MATERIALS

ICANN will produce informational materials as needed and link to existing information regarding name collision. ICANN will work to make this information available to parties potentially affected by name collision. Particularly, ICANN will work to ensure that web search engine results for name collision key terms (e.g., 127.0.53.53) provide useful information to potentially affected parties.

7. EMERGENCY RESPONSE

ICANN will limit emergency response for name collision reports to situations where there is a reasonable belief that the name collision presents a clear and present danger to human life. ICANN acknowledges SSAC advice with respect to expanding the range of situations that would trigger an emergency response. However, ICANN notes that the severity of this risk (as in other cases) can be measured from multiple points of view; necessarily, there will be a decision between various impacted parties (i.e., the party that was using the domain name before it was delegated in the public DNS and the party that registered the name). Commercial interests could attempt to "game" a broader mechanism for competitive advantage. Concepts like "national security," "law and order", and "key economic processes" are not easily agreeable on a global basis. On the other hand, focusing on danger to human life is a more objective standard.

As described in Section 4, ICANN will develop an interim emergency back-end registry operator program to cover situations in which the registry operator is unable or unwilling to comply with a measure to avoid harm from name collision in a timely manner.

ICANN will create a last-resort procedure to remove a TLD that is causing harm (as described above) when removal of a SLD is not effective (e.g., a dotless names is causing the name collision). As indicated by SAC 062[5] and the JAS report, removal of a TLD is an extreme measure that has the potential to cause a number of problems. The use of this measure will be exercised only in an extreme circumstance where there is clear and present danger to human life during the wildcarded controlled interruption period.

8. IPv6 SUPPORT IN CONTROLLED INTERRUPTION

ICANN will work within the IETF and with other relevant technical communities to identify a mechanism for IPv6 that provides similar functionality to that available in IPv4's "Loopback" reserved prefix.

9. ROOT SERVER MEASUREMENTS

The JAS report contains two recommendations (11 and 12) with respect to measurements and storage of root-server data traffic. ICANN notes that the Board already instructed ICANN to work on this on a resolution on 21 November 2013[6]. ICANN will consider JAS recommendations when implementing the aforementioned resolution.

10. CONCLUSION

ICANN's mission and core values call on ICANN to preserve and enhance the operational stability, reliability, security, and global interoperability of the Internet's system of unique identifiers (names, IP numbers, and protocol parameters). ICANN is fully committed to the delegation of new gTLDs in accordance with its mission and core values. ICANN appreciates the community's involvement in the process and looks forward to further collaboration on the remaining work.

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[5] https://www.icann.org/en/groups/ssac/documents/sac-062-en.pdf
[6] https://features.icann.org/ssac-advisory-and-ngpc-recommendations-name-collision