2012-09-13-01b-Annex-SSR Review Team Final Report

ICANN BOARD SUBMISSION NO. 2012-09-13-01b

TITLE: Security, Stability & Resiliency of the DNS Review Team Final Report

PROPOSED ACTION: For Board Information and Action

BACKGROUND:

The SSR RT's Final Report is available online.

SSR Review Team Recommendations Summary	Staff Notes
High Level – SSR role & remit, strategy, transparency	
1: ICANN should publish a single, clear and consistent statement of its SSR remit and limited technical mission. ICANN should elicit and gain public feedback in order to reach a consensus-based statement.	Staff developed a draft statement (with the awareness of the DNS Risk Mgt. Framework WG) and posted it for public comment; updated statement will be submitted for Board consideration.
7: ICANN should build on its current SSR Framework by establishing a clear set of objectives and prioritizing its initiatives and activities in accordance with these objectives. This process should be informed by a pragmatic cost-benefit and risk analysis.	Staff is integrating this in the 2013-2016 Strategic Plan and development of next budget and operating plan.
8: ICANN should continue to refine its Strategic Plan objectives, particularly the goal of maintaining and driving DNS availability. The Strategic Plan and SSR Framework should reflect consistent priorities and objectives to ensure clear alignment.	Staff is exploring the full implications of this Recommendation; implementation is connected to the next Strategic Plan.
17: ICANN should establish a more structured internal process for showing how activities and initiatives relate to specific strategic goals, objectives and priorities in the SSR Framework. It also should establish metrics and milestones for implementation.	Implementation is related to delivery of the FY 14 SSR Framework, and the related dashboard.
20: ICANN should increase the transparency of information about organization and budget related to implementing the SSR Framework and performing SSR-related functions. Information should be provided with enough clarity that the Community can track ICANN's execution of its SSR responsibilities, while not impeding ICANN's ability to operate effectively.	Implementation is connected to Staff's development of an improved dashboard with improved budget tracking, and will be fully implemented with the FY 14 Budget and Operating Plan and FY 14 SSR Framework.
21: ICANN should establish a more structured internal process for showing how organization and budget decisions relate to the SSR Framework, including the underlying cost-benefit analysis.	Implementation targeted for FY 14 Budget development.
24: ICANN must clearly define the charter, roles and responsibilities of the Chief Security Office Team.	Implementation carried out via the FY 13 SSR Framework; Security Team webpage will be updated by Toronto.

Terminology & Relationships	
3: Once ICANN issues a consensus-based statement of its SSR remit and limited technical mission, ICANN should utilize consistent terminology and descriptions of this statement in all materials.	Staff will publicize and conduct outreach after consensus on role and remit statement.
4: ICANN should document and clearly define the nature of the SSR relationships it has within the ICANN Community in order to provide a single focal point for understanding the interdependencies between organizations.	Staff is exploring implementation and connection to activities underway.
5: ICANN should use the definition of its SSR relationships to maintain effective working arrangements and to demonstrate how these relationships are utilized to achieve each SSR goal.	Staff is exploring implementation and connection to activities underway.
6: ICANN should publish a document clearly outlining the roles and responsibilities for both the SSAC and RSSAC in order to clearly delineate the activities of the two groups. ICANN should seek consensus for this across both groups, recognizing the history and circumstances of the formation of each. ICANN should consider appropriate resourcing for both groups, consistent with the demands placed upon them.	Staff will coordinate with SSAC and RSSAC on this Rec.; RSSAC restructuring is underway and new charter is under development.

Monitoring, Outreach, Engagement	
2: ICANN's definition and implementation of its SSR remit and limited technical mission should be reviewed in order to maintain consensus and elicit feedback from the Community. The process should be repeated on a regular basis, perhaps in conjunction with the cycle of future SSR reviews.	The updated role and remit statement can be reviewed with the next SSR RT in 2015.
14: ICANN should ensure that its SSR-related outreach activities continuously evolve to remain relevant, timely and appropriate. Feedback from the Community should provide a mechanism to review and increase this relevance.	Outreach activities have been expanded and will be reviewed annually.
16: ICANN should continue its outreach efforts to expand Community participation and input into the SSR Framework development process. ICANN also should establish a process for obtaining more systematic input from other ecosystem participants.	Outreach activities and processes have been expanded and will be reviewed annually.
18: ICANN should conduct an annual operational review of its progress in implementing the SSR Framework and include this assessment as a component of the following year's SSR Framework.	Rec. was implemented as part of the FY 13 SSR Framework and will be repeated annually.
19: ICANN should establish a process that allows the Community to track the implementation of the SSR Framework. Information should be provided with enough clarity that the Community can track ICANN's execution of its SSR responsibilities, while not harming ICANN's ability to operate effectively. The dashboard process being used to track	Updated dashboard and measures for tracking implementation of the SSR Framework will be implemented prior to ICANN Beijing meeting.

implementation of the ATRT recommendations serves as a good model.	

Operations	
9: ICANN should assess certification options with commonly accepted international standards (e.g. ITIL, ISO and SAS-70) for its operational responsibilities. ICANN should publish a clear roadmap towards certification.	Staff is exploring the full implications of this Recommendation.
10: ICANN should continue its efforts to step up contract compliance enforcement and provide adequate resources for this function. ICANN also should develop and implement a more structured process for monitoring compliance issues and investigations.	This Rec. is being addressed by the Compliance Staff and through implementation planning for the WHOIS Review Team Report.
11: ICANN should finalize and implement measures of success for new gTLDs and IDN fast track that expressly relate to its SSR-related program objectives, including measurements for the effectiveness of mechanisms to mitigate domain name abuse.	Staff is exploring the full implications of this Recommendation.
22: ICANN should publish, monitor and update documentation on the organization and budget resources needed to manage SSR issues in conjunction with introduction of new gTLDs.	Implementation is connected to budget development for FY 14 but also regular tracking of progress on nTLD implementation.
23: ICANN must provide appropriate resources for SSR-related Working Groups and Advisory Committees, consistent with the demands placed upon them. ICANN also must ensure decisions reached by Working Groups and Advisory Committees are reached in an objective manner that is free from external or internal pressure.	Staff support has been assigned to RSSAC and additional support for other groups is being addressed in the FY 14 Budget and Operating Plan.

Best Practices	
12: ICANN should work with the Community to identify SSR-related best practices and support the implementation of such practices through contracts, agreements and MOUs and other mechanisms.	Staff is exploring the full implications of this Recommendation.
13: ICANN should encourage all Supporting Organizations to develop and publish SSR-related best practices for their members. [Note comment from RySG that this should be changed to "encourage all Stakeholder Groups to develop and publish SSR-related best practices for their members."]	Staff is exploring the full implications of this Recommendation.

Risk Management and Threat Mitigation	
15: ICANN should act as facilitator in the responsible disclosure and dissemination of DNS security threats and mitigation techniques.	Staff is exploring the full implications of this Recommendation; several activities are underway that support this objective.

28: ICANN should continue to actively engage in threat detection and mitigation, and participate in efforts to distribute threat and incident information.	Staff is exploring the full implications of this Recommendation; ICANN currently participates in several other entities' activities that support this objective.
25: ICANN should put in place mechanisms for identifying both near and longer-term risks and strategic factors in its Risk Management Framework. This process should be informed by insights from research, business partnerships, ICANN Supporting Organizations and other sources. ICANN should publish information about risks, recognizing the sensitive nature of some of these factors.	RFP for consultant was posted; timing aims for delivery of DNS Risk Management Framework by Beijing ICANN meeting and implementation will occur after that; completing a risk management cycle may take this into FY 14.
26: ICANN should prioritize the timely completion of a Risk-Management Framework. This work should follow high standards of participation and transparency.	Completion timing is dependent on retention of consultant and delivery of DNS Risk Management Framework.
27: ICANN's Risk-Management Framework should be comprehensive within the scope of its SSR remit and limited missions.	This is a subset of Rec 26.

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2012-09-13-01c-Annex-faltstrom-to-icann-board-02jul12-en (1)

02 July 2012

To: ICANN Board
From: Security and Stability Advisory Committee (SSAC)
Via: SSAC Liaison to the ICANN Board

Subject: The New Generic Top Level Domain (gTLD) Process

This letter provides an update on the SSAC's views on the status of the new gTLD process and takes note of concerns expressed by other ICANN organizations. In particular, we have examined the letter from the Chair of the Governmental Advisory Committee (GAC) to the Chair of the Board of ICANN, dated 17 June 2012.

We believe there are at least three distinct issues to be considered.

First, the SSAC does not have any formal view with respect to the issue of batching the review of applications. We do not believe a process for ordering applications bears upon the security and stability of the Internet.

Second, the SSAC believes that questions regarding the maximum number of new TLDs that can be added to the root zone are misplaced. The proper concern is to ensure that the overall root zone publication system is audited and monitored to confirm that its resources can support an increase without degradation in the current service level.

Third, "SAC 042 – SSAC Comment on the Root Scaling Study Team Report and the TNO Report" noted concerns with a potential combinatorial effect of adding Internet Protocol Version 6 (IPv6), DNS Security Extensions (DNSSEC), and new gTLDs to the root zone at essentially the same time. Since IPv6 and DNSSEC records have already been added to the root zone, the SSAC does not now believe the combinatorial issue is a concern.

In addition, we would like to reiterate and emphasize the recommendations of "SAC 046 - Report of the Security and Stability Advisory Committee on Root Scaling":

> Recommendation (1): Formalize and publicly document the interactions between ICANN and the root server operators with respect to root zone scaling. ICANN and the root server operators may choose to utilize RSSAC to facilitate this interaction.
>
> Recommendation (2): ICANN, U.S. Dept. of Commerce, National Telecommunications and Information Administration (NTIA), and VeriSign should publish statements, or a joint statement, that they are materially prepared

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for the proposed changes.

Recommendation (3): ICANN should publish estimates of expected and maximum growth rates of TLDs, including IDNs and their variants, and solicit public feedback on these estimates, with the end goal of being as transparent as possible about the justification for these estimates.

Recommendation (4): ICANN should update its "Plan for Enhancing Internet Security, Stability, and Resiliency," to include actual measurement, monitoring, and data-sharing capability of root zone performance, in cooperation with RSSAC and other root zone management participants to define the specific measurements, monitoring, and data sharing framework.

Recommendation (5): ICANN should commission and incent interdisciplinary studies of security and stability implications from expanding the root zone more than an order of magnitude, particularly for enterprises and other user communities who may implement strong assumptions about the number of TLDs that may conflict with future allocations.

We note with some concern that there has been no visible progress on or discussion of these recommendations at this point in the implementation of the new gTLD program.

In accordance with our usual practice, 48 hours after this document is sent to the Board, ICANN Staff will post this letter to the SSAC web site.

The SSAC welcomes comments from the Board concerning this note and thanks the Board for its consideration.

Patrik Fältström
Chair, ICANN Security and Stability Advisory Committee

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2012-09-13-02b-Annex-0561404-mo-enclosures

Draft Public Report —
Redelegation of the .MO domain representing Macao to the
Bureau of Telecommunications Regulation (DSRT)

ICANN has received a request to redelegate the .MO domain, a country-code top-level domain representing Macao, to the Bureau of Telecommunications Regulation (DSRT). ICANN Staff have assessed the request, and provide this report for the ICANN Board of Directors to consider.

FACTUAL INFORMATION

Country

The "MO" ISO 3166-1 code is designated for use to represent Macao.

Chronology of events

The .MO domain was first delegated in 1992 to the University of Macau. The University is still the currently listed manager in the IANA Root Zone Database.

On 24 October 2002, the Administrative Regulation for the provision of Internet services of Macao Special Administrative Region (MSAR) No. 24/2002 was passed. Article 16 of this regulation specifies that "Government or its designated entity is responsible to manage and register domain names in accordance with applicable specification requirements, on behalf of the Macao Special Administrative Region."

Since 2003, the University of Macau had been designated by the Macao government to run Macao Network Information Center (MONIC) for the provision of domain name registration and management services according to two legislations that were passed in 2003 and 2006 for a period of three and five years respectively.

On 15 May 2006, the Bureau of Telecommunications Regulation (DSRT) was established as the telecommunications regulatory body of Macao. According to Item 9, Article 12 of the Administrative Regulation of Macao No. 5/2006 for organisation and functioning of the Bureau of Telecommunications Regulation, DSRT carries out the responsibility for the coordination of distribution and management of Internet domain names and websites.

On 26 August 2010, the Government of Macao Special Administrative Region (MSAR) issued a public tender for the installation and operation of "Domain Name Administration and Registration System of Macao SAR".

On 2 December 2010, the Executive Chief of MSAR awarded the contract to the joint venture between DotAsia Organisation Ltd. and HN Group. The two entities submitted their bid as a joint venture "with the intention to form the entity if ... successful in the tender", according to applicants.

On 14 December 2010, HNET Asia Ltd. was formed as a joint venture between HN Group and DotAsia Organisation Ltd. (the current .ASIA TLD registry operator).

On 31 December 2010, the tender selection details were published in the Official Gazette of MSAR at http://images.io.gov.mo/bo/i/2010/52/despce-405-2010.pdf.

On 12 March 2011, prior to applying for redelegation from ICANN, HNET Asia Ltd. assumed responsibilities for running .MO ccTLD registry with the transfer of the MONIC from the University of Macau to the HNET Asia Ltd.

On 23 August 2011, the Order of the Secretary for Transport and Public Works No. 32/2011 "Regulation of Registration of Internet Domain Names in Macao Special Administrative Region" came into effect. The new legislation regulates how domains under .MO ccTLD should be registered.

On 9 September 2011, the Bureau of Telecommunications Regulation and HNET Asia Ltd. commenced a request to ICANN for redelegation of the ".MO" top-level domain. Since then a new request was lodged as applicants provided an updated proposal.

Proposed Sponsoring Organisation and Contacts

The proposed sponsoring organisation is the Bureau of Telecommunications Regulation (DSRT), the telecommunications regulatory body for the Macao Special Administrative Region under the supervision of the Secretary for Transport and Public Works. The applicant has stated that DSRT will not be responsible for day-to-day operations of .MO ccTLD. However, DSRT will play a role in the approval and establishment of the policies that regulate the .MO registry, as well as the selection and authorization of the operator of MONIC. At the same time HNET Asia Ltd. will be responsible for the technical operations of the .MO ccTLD registry and will be running the MONIC. The agreement signed between DSRT and HNET Asia Ltd. outlines the responsibilities of each party as well as the term (the initial contract is for three years and will be reviewed a year and a half prior to its expiration, applicants stated.)

The proposed administrative contact is Kelvin Kam, Technical Support, MONIC — HNET Asia. The proposed administrative contact is not a representative of DSRT. The administrative contact is understood to be based in Macao.

The proposed technical contact is Edmon Chung, Director, HNET Asia Ltd.

EVALUATION OF THE REQUEST

String Eligibility

The top-level domain is eligible for continued delegation under ICANN policy, as it is the assigned ISO 3166-1 two-letter code representing Macao.

Public Interest

Support for the application to delegate the domain was provided by Tou Veng Keong, Director of the Bureau of Telecommunications Regulation (DSRT) Macao Special Administrative Region.

No additional statements in support of this redelegation application were provided. The applicants, however, stated that the public tender process was conducted with "integrity, transparency and openness."

The application is consistent with known applicable local laws in Macao.

The proposed sponsoring organisation undertakes to operate the domain in a fair and equitable manner.

Based in country

The proposed sponsoring organisation is constituted in Macao. The proposed administrative contact is understood to be resident in Macao. The applicant has asserted the registry will be operated inside Macao.

Stability

The request is deemed uncontested, with the currently listed sponsoring organisation consenting to the transfer. The transfer of the operations from the University of Macau to DSRT and HNET Asia Ltd. has already taken place without applying for a redelegation. Based on the information provided to us, HNET Asia Ltd. has been managing the .MO ccTLD as of 12 March 2011. As such, ICANN can not assess the transfer plan.

Competency

The application has provided satisfactory details on the technical and operational infrastructure and expertise that will be used to operate the .MO domain. Proposed policies for management of the domain have also been tendered.

EVALUATION PROCEDURE

The Internet Corporation for Assigned Names and Numbers (ICANN) is tasked with managing the Domain Name System root zone as part of a set of functions governed by

a contract with the U.S. Government. This includes managing the delegations of top-level domains.

A subset of top-level domains are designated for the local Internet communities in countries to operate in a way that best suits their local needs. These are known as country-code top-level domains, and are assigned by ICANN to responsible trustees (known as "Sponsoring Organisations") who meet a number of public-interest criteria for eligibility. These criteria largely relate to the level of support the trustee has from their local Internet community, their capacity to ensure stable operation of the domain, and their applicability under any relevant local laws.

Through an ICANN department known as the Internet Assigned Numbers Authority (IANA), requests are received for delegating new country-code top-level domains, and redelegating or revoking existing country-code top-level domains. An investigation is performed on the circumstances pertinent to those requests, and, when appropriate, the requests are implemented. Decisions on whether to implement requests are made by the ICANN Board of Directors, taking into account ICANN's core mission of ensuring the stable and secure operation of the Internet's unique identifier systems.

Purpose of evaluations

The evaluation of eligibility for country-code top-level domains, and of evaluating responsible trustees charged with operating them, is guided by a number of principles. The objective of the assessment is that the action enhances the secure and stable operation of the Internet's unique identifier systems. The evolution of the principles has been documented in "Domain Name System Structure and Delegation" (RFC 1591), "Internet Domain Name System Structure and Delegation" (ICP-1), and other informational memoranda.

In considering requests to delegate or redelegate country-code top-level domains, input is sought regarding the proposed new Sponsoring Organisation, as well as from persons and organisations that may be significantly affected by the change, particularly those within the nation or territory to which the ccTLD is designated.

The assessment is focussed on the capacity for the proposed sponsoring organisation to meet the following criteria:

- The domain should be operated within the country, including having its sponsoring organisation and administrative contact based in the country.

- The domain should be operated in a way that is fair and equitable to all groups in the local Internet community.

- Significantly interested parties in the domain should agree that the prospective trustee is the appropriate party to be responsible for the domain, with the desires of the national government taken very seriously.

- The domain must be operated competently, both technically and operationally. Management of the domain should adhere to relevant technical standards and community best practices.

- Risks to the stability of the Internet addressing system must be adequately considered and addressed, particularly with regard to how existing identifiers will continue to function.

Method of evaluation

To assess these criteria, information is requested from the applicant regarding the proposed sponsoring organisation and method of operation. In summary, a request template is sought specifying the exact details of the delegation being sought in the root zone. In addition, various documentation is sought describing: the views of the local internet community on the application; the competencies and skills of the trustee to operate the domain; the legal authenticity, status and character of the proposed trustee; and the nature of government support fort he proposal. The view of any current trustee is obtained, and in the event of a redelegation, the transfer plan from the previous sponsoring organisation to the new sponsoring organisation is also assessed with a view to ensuring ongoing stable operation of the domain.

After receiving this documentation and input, it is analysed in relation to existing root zone management procedures, seeking input from parties both related to as well as independent of the proposed sponsoring organisation should the information provided in the original application be deficient. The applicant is given the opportunity to cure any deficiencies before a final assessment is made.

Once all the documentation has been received, various technical checks are performed on the proposed sponsoring organisation's DNS infrastructure to ensure name servers are properly configured and are able to respond to queries for the top-level domain being requested. Should any anomalies be detected, ICANN staff will work with the applicant to address the issues.

Assuming all issues are resolved, an assessment is compiled providing all relevant details regarding the proposed sponsoring organisation and its suitability to operate the top-level domain being requested. This assessment is submitted to ICANN's Board of Directors for its determination on whether to proceed with the request.

2012-09-13-02b-Annex-561404-mo

ANNEX TO ICANN BOARD SUBMISSION NO. 2012-09-13-02b

TITLE: Redelegation of the .MO domain representing Macao to the Bureau of Telecommunications Regulation (DSRT)

IANA REFERENCE: 561404

In accordance with ICANN's obligations for managing the DNS root zone, IANA[1] receives requests to delegate, redelegate and revoke top-level domains. This application has been compiled by IANA for presentation to the ICANN Board of Directors for review and appropriate action.

Sensitive Delegation Materials

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[1] The term IANA is used throughout this document to refer to the department within ICANN that performs the IANA functions.

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