The Internet Corporation for Assigned Names and Numbers

Initial Report to the GNSO Council on WHOIS studies – for further discussion and action

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23 March 2010

There are six sections to this report and three annexes:

1. Background on relevant studies
2. Summary of staff approach
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1. Background:

The GNSO Council concluded that a comprehensive, objective and quantifiable understanding of key factual issues regarding the gTLD WHOIS system would benefit future GNSO policy development efforts. In March 2009, the GNSO Council asked ICANN staff to research the feasibility and cost to study several high priority aspects of WHOIS. Staff categorized these studies into three areas that could be researched independently, and is soliciting bids using an RFP approach to help determine costs and feasibilities. The purpose of this report is to provide information on progress to date, including staff analysis and cost estimates for the first two study areas, an update on remaining work to be done, and suggested next steps. Staff would be pleased to provide further information or clarification as requested or modify the report in any way that would be useful.

Following is a list of the RFPs that are being issued (each area may include more than one study):

- **WHOIS Misuse** – These studies will assess the extent, nature, and impact of WHOIS public data misuse (i.e., harmful actions like spam, phishing, and identity theft taken using WHOIS contact information). See Terms of Reference for the Misuse study here.

- **WHOIS Registrant Identification** – This study will explore WHOIS data and the extent to which domains used by legal persons (commercial entities) or for commercial purposes are: 1) not clearly identified as such in WHOIS (e.g., user's identity is obscured or implies non-commercial

use); and 2) correlated to use of Privacy and Proxy services. See Terms of Reference for the Registrant Identification study here.

- **WHOIS Privacy and Proxy Abuse and Reveal** – These studies will look at: 1) the extent to which domain names used to conduct illegal or harmful Internet activities are registered via Privacy and Proxy services; and 2) the degree to which Privacy and Proxy registrant reveal handling impedes timely identification of parties allegedly involved in illegal or harmful activities.

2. Summary of staff approach

Staff decided to use an RFP approach to assess the feasibility and cost to conduct various WHOIS studies. Terms of Reference (ToR) were drafted to define each study area at the level of detail required for research organizations to propose tasks, schedules, and costs to execute proposed studies. The GNSO community provided input on draft ToRs to ensure alignment between study definitions and key factual issues regarding WHOIS which they believed would benefit future policy development efforts.

During 4Q09, WHOIS Misuse and Registrant Identification RFPs were posted, and interested bidders were given 60 days to respond. WHOIS Privacy/Proxy Abuse and Reveal RFPs are still under development.

In the analysis that follows, staff considers the merits and limitations of conducting proposed WHOIS studies, based what we have learned to date about each study area. For studies where RFPs have not yet been issued, we describe issues hindering progress. For studies where RFP responses have been received, we provide our initial assessment of those bids based on objective criteria (see Annex 2).

3. Staff Analysis of WHOIS Misuse Studies

Overview: The Misuse studies will assess the extent, nature, and impact of harmful actions like spam, phishing, and identity theft that exploit WHOIS contact information. Specifically, these studies will attempt to prove or disprove the following hypothesis:

> **Public access to WHOIS data leads to a measurable degree of misuse – that is, to actions that cause actual harm, are illegal or illegitimate, or otherwise contrary to the stated legitimate purpose.**

One proposed Misuse study measures the frequency and severity of various harmful acts by surveying gTLD domain registrants about incidents they experienced which they believe misused WHOIS data; surveying registrars and registries about how WHOIS data can be queried; and surveying cybercrime researchers and law enforcement organizations about reported incidents. A second proposed Misuse study is an experiment that measures WHOIS misuse by classifying various kinds of harmful messages received by test domain names registered with a representative sample of registrars, comparing rates for published vs. non-published addresses and WHOIS anti-harvesting impact.

RFP Responses At-A-Glance:
We received three bids in response to this RFP to perform both of the above studies, ranging from $138,000 to $291,000 in price and 8 to 12 months in duration. Applying the assessment criteria defined in Annex 2, staff found one bid to be the clearly superior submission ($149,000, 12 months).

The superior RFP response surpassed all assessment thresholds and demonstrated a solid grasp on the task at hand. This proposal would use a balanced team from a top-tier research institution and apply feasible methods to conduct significant portions of both studies at a competitive price.

However, even that proposal did not address key challenges that could diminish the WHOIS policy contributions afforded by this study – notably, determining the "significance" of misuse and proving a causal relationship between misuse reduction and WHOIS anti-harvesting measures. If ICANN and GNSO elect to pursue this study, these concerns should be discussed with the bidder before a contract is awarded.

Staff Recommendations about Misuse Studies, based on RFP responses: It seems clear that researchers can count and categorize many different kinds of harmful acts often attributed to misuse of WHOIS data. Researchers can also demonstrate that misused data was *probably* not obtained from sources other than WHOIS (more reliably for the experiment than the survey).

More rigorous definitions will be required for "harmful acts" but all researchers included creating that taxonomy as part of these studies. (The superior bid would derive that taxonomy from cybercrime/law enforcement survey results.) Some acts may be difficult to count -- most notably, harassment and stalking. Nonetheless, it appears that researchers can still examine a broader spectrum of harmful acts than previously studied, using representative samples to generate statistically-meaningful results.

However, it is not clear that researchers can quantitatively measure or qualitatively assess whether measured misuse is "significant." The ToR suggested surveying registrants about incident impact (severity), but no bidder elaborated on this study goal or indicated how "significance" might be assessed. Simply counting harmful acts without putting them into some kind of perspective cannot prove the study's hypothesis and may thus do little to inform policy.

Every bidder expressed a strong desire to tie WHOIS queries directly to harmful acts. Methods suggested to address this include WHOIS query server log analysis and uniquely tagging WHOIS data stored by each query server. Unfortunately those methods do not appear to be feasible for a large scale study of randomly sampled domains. If no viable method can be found to examine the queries that lead to harmful acts, these studies can only loosely correlate a multitude of Registrar anti-harvesting measures to misuse; they cannot prove that reductions (if any) were *caused* by specific measures.

Surveying registrants is the most labor-intensive part of this study area. All responses struggled with the size of the sample required for sound statistical analysis and proposed a variety of registrant contact methods to contain cost. However, if the survey does not quantify misuse significance, it may not deliver enough value to justify this expense. Total study cost might be cut ~25% by eliminating registrant surveys.

An experiment alone could still count a variety of harmful acts, using industry-standard statistical sampling and analysis methods, to go well beyond the informal SSAC study that focused on spam alone. Surveying registries and registrars about anti-harvesting measures would still be necessary to put counts into context – albeit one of loose correlation rather than definitive cause. (The superior bid would also probe WHOIS servers to confirm those anti-harvesting survey results.)

Ultimately, this study could find that (for example) harmful acts resulting from WHOIS misuse occur N% more often for domain names registered within a given region/country, or M% less often for domain

names issued by registrars that uses both CAPTCHA and rate limiting. Although such findings are not guaranteed to represent cause-and-effect, they might still help policy makers decide which anti-harvesting measures could be encouraged or mandated to reduce WHOIS misuse.

4. Staff Analysis of WHOIS Registrant Identification Study

Overview: The WHOIS "Registrant Identification" study will explore the extent to which domains used by legal persons (commercial entities) or for commercial purposes are: 1) not clearly identified as such in WHOIS; and 2) correlated to use of Privacy and Proxy services. Specifically, these studies will attempt to prove or disprove the following hypothesis:

> **A significant percentage of domain names registered using Privacy or Proxy services are associated with WHOIS Registrant data that identifies a legal person as a natural person and/or obscures the domain's commercial purpose.**

This study will examine WHOIS data for a representative sample of domain names, looking for registrant names and organizations that are either patently false or appear to identify a natural person, an organization commonly engaged in non-commercial activities, or a Privacy or Proxy registration service. By analyzing Internet content associated with each of these domains, this study will attempt to measure how often registrants who are in fact legal persons or engaged in commercial activities appear to obscure the registered name holder in WHOIS, including the degree to which Privacy and Proxy services are involved. While registrants are not required to identify their domain name's purpose, this study would examine the extent to which commercial registrations appear to be registered by natural persons or for non-commercial activities.

RFP Responses At-A-Glance:
We received five bids in response to this RFP. Applying the assessment criteria defined in Annex 2, staff found two bids to be equally strong contenders for performing this study. Both top-ranking responses were competitively-priced, aligned with study goals, addressed potential challenges, and suggested sound (albeit different) methods, to be executed by balanced, well-qualified teams. Both bidders appear likely to produce respectable results that could contribute meaningfully to the WHOIS policy debate. Costs to perform his work are estimated at approximately $150,000 and would likely take a year to complete.

Recommendations about Registrant ID Study, based on RFP responses: This study seems to be very tractable, with at least two extremely viable proposals to classify ownership and purpose of domains apparently used by a business or for commercial purpose without clear and direct WHOIS registrant identification. Researchers can also clearly measure, with reasonable certainty, how many of those domains were registered using Privacy/Proxy services. Although classification criteria and methods (especially the degree of automated analysis) will need to be refined during the study, there were no insurmountable or even very significant obstacles raised in these RFP responses.

Classifying domain ownership and purpose are the key components of this study. As expected, all bidders would start by refining criteria and filtering/analysis methods. Several suggested using small pilots (<100 domains) to vet criteria and tools before analyzing large samples. However, responses varied on study duration and degree of automation. Proposed methods ranged from entirely manual to near-fully automated. The best approach probably lies somewhere in between and would likely impact

proposed duration (cost). A pragmatic balance, proposed by one top-ranking bid, would largely automate registrant type (including Privacy/Proxy) classification and domain content gathering, but rely primarily upon manual content analysis (aided by automated parse/search tools). No matter how much time and automation are applied, it is likely that some domains will prove hard to classify. Bidders addressed this with various solutions, including iterative refinement of methods/tools, registrant interviews for exceptional cases, and examining administrative contact to weed out common WHOIS misunderstandings. So long as the domains that cannot be reliably classified remain a small subset of the entire sample, this challenge does not appear to present a major barrier.

Ultimately, this study can shed quantitative and qualitative light on the relationship between WHOIS Registrant identification and domain names used by businesses and/or for commercial purpose. This study can measure how often Privacy/Proxy services are used by business-owned or commercial-use domains, and it can provide a wealth of specific examples to help the community better understand why these registrants do not directly and clearly identify themselves in WHOIS.

While there will be continuing debate about value judgments such as what constitutes "commercial use" or which Privacy/Proxy needs are "legitimate," these study findings have strong potential to advance WHOIS policy debate. The ICANN community may use results to explore more specific WHOIS requirements, such as clarifying how businesses should be identified in WHOIS, requiring registrants to indicate if domain names are to be used for commercial purpose, or restricting Privacy/Proxy registration of business-owned, commercial-use domain names. Just proving how often such cases occur may refute or confirm some strongly-held opinions. However, documenting real-world examples may have greater impact by helping those with competing views focus on cases where agreement exists.

5. Preliminary staff Analysis of WHOIS Abuse and Reveal Studies

Overview: The WHOIS “Privacy and Proxy” Abuse and Reveal studies will look at: 1) the extent to which domain names used to conduct illegal or harmful Internet activities are registered via Privacy and Proxy services; and 2) the degree to which Privacy and Proxy registrant reveal handling impedes timely identification of parties allegedly involved in such activities. Specifically, these studies will attempt to prove or disprove the following hypothesis:

> **A significant percentage of the domain names used to conduct illegal or harmful Internet activities are registered via Privacy or Proxy services to obscure the perpetrator’s identity or delay that identification.**

To facilitate progress on what has proven to be an especially challenging topic, this area was recently split into two independent draft studies. One relatively well-understood Privacy/Proxy Abuse study methodically analyzes a large, broad sample of gTLD domains associated with various kinds of illegal or harmful Internet activities, measuring how often these alleged “bad actors” use Privacy/Proxy registrations, compared to the overall frequency of Privacy/Proxy registrations. A second technically-difficult (perhaps infeasible) study will quantify delays and failures experienced by victims who submit WHOIS registrant reveal requests to Privacy/Proxy service providers.

Initial recommendations about WHOIS Abuse and Reveal Studies, based on progress to date: Our initial approach for this area was to define a single two-phase study which (1) identified domain names involved in illegal or harmful activities ("bad actors") and then (2) measured the timeliness of reveal

responses for Privacy/Proxy-registered bad actors. However, as drafts were reviewed, we began to surmise that only the first phase might be viable.

To facilitate forward progress, the first phase was split into a stand-alone "Privacy and Proxy Abuse" study. An apparently-workable method has been developed to deal with timeliness challenges, and many key input sources have been identified for illegal/harmful activities to be studied. However, two significant challenges remain.

a) Input sources may identify domains allegedly involved in harmful activities, but many will turn out to have been used without the registrant's permission, and some will be false-positive reports. While these domain owners may not be criminals, Privacy/Proxy registrations could still impede resolution of those incidents. However, some reviewers have expressed concern that this study could overstate the frequency of illegal/harmful activities if compromised domains and false positives are not eliminated.

b) Studying Privacy/Proxy registrations involved in various illegal/harmful activities will require assistance from many input sources. The currently-proposed list of sources might be whittled down to a much smaller number, but it appears inevitable that this study will have numerous critical dependencies and cannot be successfully executed without extensive community cooperation.

Despite these challenges, the Privacy and Proxy Abuse study will likely progress to RFP stage so that bidders can estimate feasibility and cost. Draft Terms of Reference for the study are currently being developed, and will be shared with the GNSO Council for review before posting. If this study is conducted, it could provide solid empirical evidence about Privacy and Proxy registration involvement in (alleged) illegal or harmful Internet activities. If this is proven, Privacy and Proxy registration policy changes may be warranted to deter abuse – for example, by strengthening requirements for WHOIS identification of Privacy/Proxy providers.

Finally, the second phase of this area was spun off to form its own stand-alone "Privacy and Proxy Reveal" study. The primary barrier to this study is the apparent need for actual victims of illegal activities to originate reveal requests, accompanied by evidence of harm. A study that exercises this process effectively to produce statistically-meaningful results may not be viable. Further research is still needed, and staff is engaged in that work now.

6. Suggested Next Steps

This report is the first of several aimed at responding to the GNSO Council's request to determine the costs and feasibility to conduct various WHOIS studies. Staff recommends that the Council review this information and consider whether to recommend funding for WHOIS studies in the FY 2011 budget.

In considering whether to recommend studies, and if so, which studies to pursue, the Council may wish to consider two additional efforts now underway which are also intended to provide useful information for further policy making. The first is the Board-convened SSAC/GNSO Internationalized Registration Data Working Group, which is exploring possible standards to improve the readability of WHOIS contact information. The timeframe for completion of this work is uncertain at this time. The other is an inventory of WHOIS service requirements that ICANN staff is conducting and hopes to present to the community in draft form by the end of March 2010.

The Council should further consider that more information on potential proxy and privacy services studies will also be forthcoming, and whether funding should be proposed for those additional studies either in FY 2011 or 2012. The Council might also consider which of the three study groups described in this summary might be of highest priority, noting that available funding may be limited next year.

Lastly, the Council may wish to take note of the recently-released draft Report on WHOIS Accuracy that was commissioned by ICANN and recently completed by the National Opinion Research Center. In particular, staff urges the GNSO community to consider whether the barriers to accuracy described in the report provide useful insights from a future policy perspective.

Staff is available to answer questions about this report and to provide additional information as requested. We will continue working on the GNSO requests as detailed above, and will provide regular updates and further information as it becomes available.

Annex I – 4 March 2009 GNSO Council resolution on WHOIS studies:

1. WHOIS Motion
Proposed by: Chuck Gomes
Seconded by: Tony Holmes, Olga Cavalli, Kristina Rosette

GNSO Council motion to pursue cost estimates of selected WHOIS studies.

Whereas:

In Oct-2007, the Generic Names Supporting Organization (GNSO) Council concluded that a comprehensive, objective and quantifiable understanding of key factual issues regarding the gTLD WHOIS system would benefit future GNSO policy development efforts (http://gnso.icann.org/resolutions/)

Before defining the details of these studies, the Council solicited suggestions from the community for specific topics of study on WHOIS. Suggestions were submitted (http://forum.icann.org/lists/WHOIS-comments-2008/) and ICANN staff prepared a 'Report on Public Suggestions on Further Studies of WHOIS', dated 25-Feb-2008 (http://gnso.icann.org/issues/WHOIS-privacy/WHOIS-study-suggestion-report-25feb08.pdf)

On 28-Mar-2008 the GNSO Council resolved to form a WHOIS Study Working Group to develop a proposed list, if any, of recommended studies for which ICANN staff will be asked to provide cost estimates to the Council (http://gnso.icann.org/meetings/minutes-gnso-27mar08.shtml)

The WHOIS Study WG did not reach consensus regarding further studies, and on 25-Jun-2008 the GNSO Council resolved to form another group of volunteers (WHOIS Hypotheses WG) to review the 'Report on Public Suggestions on Further Studies of WHOIS' and the GAC letter on WHOIS studies. (http://www.icann.org/correspondence/karlins-to-thrush-16apr08.pdf)

This WG was tasked to prepare a list of hypotheses to be tested, and to deliver a report to the Council. The WHOIS Hypotheses WG delivered its report to the Council on 26-Aug-2008. (https://st.icann.org/WHOIS-hypoth-wg/index.cgi?WHOIS_hypotheses_wg#WHOIS_study_hypotheses_wg_final_report).

On 29-Oct-2008 the Registry constituency circulated its recommendations for consolidating and considering further WHOIS studies. http://gnso.icann.org/drafts/gnso-WHOIS-study-recommendations-ryc-29oct08.pdf

On 5 November 2008 the GNSO Council decided to convene a series of special meetings on WHOIS studies, and to solicit further constituency views assessing both the priority level and the feasibility of the various WHOIS studies that have been proposed, with the goal of deciding which studies, if any, should be assessed for cost and feasibility. The Council would then ask staff to perform that assessment, and, following that assessment, the Council would decide which studies should be conducted. Council Chair Avri Doria convened a volunteer group of Councilors and interested constituency members to draft a resolution regarding studies, if any, for which cost estimates should be obtained. This 'WHOIS Study Drafting Team' is tracked on a wiki page at WHOIS discussion.

The WHOIS Study Drafting Team further consolidated studies and data requested by the GAC.
For each of the consolidated studies, constituencies were invited to assign priority rank and assess feasibility.5 constituencies provided the requested rankings, while 2 constituencies (NCUC and Registrars) indicated that no further studies were justified. The GAC was also invited to assign priorities, but no reply was received as of 22-Jan-2009.

The Drafting Team determined that the six studies with the highest average priority scores should be the subject of further research to determine feasibility and obtain cost estimates. The selection of these initial studies does not foreclose further consideration of the remaining studies.

Resolved:

Council requests Staff to conduct research on feasibility and cost estimates for the WHOIS studies listed below, and report its findings to Council as soon as possible, noting that Staff need not fulfill the full request at once but may fulfill the requirements in stages.

Group A (Studies 1, 14, 21 and GAC data set 2):
Study 1 hypothesis: Public access to WHOIS data is responsible for a material number of cases of misuse that have caused harm to natural persons whose registrations do not have a commercial purpose. http://forum.icann.org/lists/WHOIS-comments-2008/msg00001.html

Study 14 hypothesis: The WHOIS database is used only to a minor extent to generate spam and other such illegal or undesirable activities. http://forum.icann.org/lists/WHOIS-comments-2008/msg00017.html

Study 21 and GAC data set 2 hypothesis: There are significant abuses caused by public display of WHOIS. Significant abuses would include use of WHOIS data in spam generation, abuse of personal data, loss of reputation or identity theft, security costs and loss of data.http://forum.icann.org/lists/WHOIS-comments-2008/msg00026.html

Study 11.
Study 11 hypothesis: The use of non-ASCII character sets in WHOIS records will detract from data accuracy and readability. http://forum.icann.org/lists/WHOIS-comments-2008/msg00014.html

Group B (Studies 13, 17, GAC 1 & GAC 11) Study 13 hypotheses: a) The number of proxy registrations is increasing when compared with the total number of registrations; b) Proxy and private WHOIS records complicate the investigation and disabling of phishing sites, sites that host malware, and other sites perpetrating electronic crime as compared with non-proxy registrations and non-private registrations; c) Domain names registered using proxy or privacy services are disproportionately associated with phishing, malware, and other electronic crime as compared with non-proxy registrations or non-private registrations. http://forum.icann.org/lists/WHOIS-comments-2008/msg00016.html

Study 17 hypothesis: The majority of domain names registered by proxy/privacy services are used for abusive and/or illegal purposes. http://forum.icann.org/lists/WHOIS-comments-2008/msg00020.html

GAC Study 1 hypothesis: The legitimate use of gTLD WHOIS data is curtailed or prevented by the use of proxy and privacy registration services.

GAC Study 11 hypothesis: Domain names registered using proxy or privacy services are disproportionately associated with fraud and other illegal activities as compared with non-proxy registrations.

Group E (Studies 3 & 20)
Study 3 hypothesis: Some proxy and privacy services are not revealing registrant/licensee data when presented with requests that provide reasonable evidence of actionable harm, as required to avoid liability under registration agreement provisions that reflect the requirements of RAA 3.7.7.3. http://forum.icann.org/lists/WHOIS-comments-2008/msg00003.html

Study 20 hypothesis: Some proxy and privacy services do not promptly and reliably relay information requests to and from registrants/licensees. http://forum.icann.org/lists/WHOIS-comments-2008/msg00023.html

Group C (GAC Studies 5 & 6)
GAC Study 5 hypothesis: A significant percentage of registrants who are legal entities are providing inaccurate WHOIS data that implies they are natural persons. Furthermore the percentage of registrants with such inaccuracies will vary significantly depending upon the nation or continent of registration.

GAC Study 6 hypothesis: A significant percentage of registrants who are operating domains with a commercial purpose are providing inaccurate WHOIS data that implies they are acting without commercial purposes. Furthermore the percentage of registrants with such inaccuracies will vary significantly depending upon the nation or continent of registration.

Group D (Studies 18, 19, GAC 9 & GAC 10) Study 18 hypothesis: The majority of domain names registered by proxy/privacy services are used for commercial purposes and not for use by natural persons. http://forum.icann.org/lists/WHOIS-comments-2008/msg00021.html

Study 19 hypothesis: A disproportionate share of requests to reveal the identity of registrants who use proxy services is directed toward registrations made by natural persons. http://forum.icann.org/lists/WHOIS-comments-2008/msg00022.html

GAC Study 9 hypothesis: A growing and significant share of proxy/privacy service users are legal persons.

GAC Study 10 hypothesis: A growing and significant share of domains that are registered using proxy/privacy services are used for commercial purposes.

Council further requests that Staff refer to original study submissions (posted at http://forum.icann.org/lists/WHOIS-comments-2008/), for statements of how study results could lead to an improvement in WHOIS policy. Many submitters also described the type of survey/study needed, including data elements, data sources, population to be surveyed, and sample size.

Staff is invited to pursue creative ways to develop cost estimates for these studies, including re-formulations of the suggested hypotheses. At any time, Staff may come back to Council with questions regarding study hypotheses.

Staff is also requested to consider the results obtained from the ALAC on its priorities for studies and include any of studies that, based on the same prioritization, fit in the groups designated in this resolution.

Council further requests that Staff communicate the resolution to GAC representatives once it has been approved.

The motion passed unanimously by voice vote:

Chuck Gomes, Jordi Iparraguirre (Registry constituency); Greg Ruth, Tony Harris, Tony Holmes (ISP); Mike Rodenbaugh, Philip Sheppard, Zahid Jamil (CBUC); Tim Ruiz, Stéphane van Gelder, Adrian inderis (Registrars) Olga Cavalli, Avri Doria, Terry Davis -remote participation (NCA); Mary Wong, Carlos Souza, Bill Drake (NCUC) Kristina Rosette, Cyril Chua - remote (IPC).

Absent: Edmon Chung (Registry constituency), Ute Decker (IPC).

Annex 2 – WHOIS Study RFP Assessment Criteria

To help determine WHOIS Study cost and feasibility, an RFP approach was used to solicit proposals from independent researchers. This describes how those proposals were assessed.

Proposal Assessment Grid

Request for Proposals:			
Bidder:			
Name of proposal evaluator:			
	Max Score	Evaluators' Score	Minimum Threshold
Understanding of the assignment (total)	30		20
- Understanding of the Terms of Reference	15		
- Alignment with study hypothesis and goals	15		
Qualifications of bidder (total)	40		25
- Previous similar research activities	10		
- Suitability of proposed CVs	10		
- Previous experience with DNS and WHOIS services	10		
- Other skills required or given special merit by the RFP	10		
Proposed methodology and tools (total)	55		30
- Suitability of timetable	10		
- Work organization and methodological approach	15		
- Suitability of proposed data gathering tools	15		
- Suitability of proposed data analysis / validation methods	15		
Financial offer (total)	15		10
- Effort is justified and consistent with proposed methodology	10		
- Overall value of money	5		
Overall Score	**140**		**85**

Proposal Assessment Process

1. Assessment of proposals will be carried out by a review panel composed of ICANN staff.
2. Evaluators will read all proposals received and then score each proposal using the above grid.
3. The panel leader will produce a final assessment grid for each proposal received by averaging the individual evaluator scores attributed to each bid, under each criteria of assessment.
4. Proposals failing to obtain – in the final assessment grid – the minimum thresholds for all four main criteria of assessment will not be considered for contract awarding.
5. The final assessment grid for the two bidders scoring the highest marks, accompanied by a list of verified references, will be presented to ICANN management for final bidder selection.

Proposal Assessment Criteria

1. **Understanding of the Assignment:** This criterion measures how well each bidder understood the two key elements making up this assignment, namely:
    - Understanding of the Terms of Reference: Does the proposal's scope and approach reveal an accurate understanding of the ToR? Does it contain all elements required by the RFP? Does it demonstrate an understanding of the subject matter and the work involved?
    - Alignment with study hypothesis and goals: How well does the proposal align with study hypothesis and goals identified by the ICANN community and stated in the ToR? (independent of the method(s) proposed to prove/disprove that hypothesis)
2. **Qualification of bidder**: This criterion measures how suitable the bidder is to conduct the study, both as a bidding organization and as a team of individuals that are to perform the work:
    - Previous similar research activities: Has the bidding organization conducted Internet crime experiments or large-scale user surveys for other organizations or ICANN? Zero points for no prior activities; otherwise, score should reflect frequency of activities and relevance to task at hand. Credible peer-reviewed research is given greater weight.
    - Suitability of proposed CVs: Do the individual team members have the background and expertise needed to carry out the work? Do CV's complement each other in order to cover all required skills and areas of expertise? Has the team worked together well before?
    - Previous experience with DNS and WHOIS services: Does the proposed team have prior research experience with DNS in general and WHOIS in particular? How well is the team likely to already understand the parties and processes involved in DNS, and the issues related to domain name registration, WHOIS access, and Privacy/Proxy services?
    - Other skills required or given special merit: Does the proposed team have any special skills required by the RFP (e.g., ability to read/speak non-English text) or any attributes cited by RFP as deserving special merit? Would the bidder's reputation bring added benefits to the ICANN community or speed progress on WHOIS-related studies? Are there potential conflicts of interest (e.g., bidder has vested interest in study results)?
3. **Proposed methodology and tools:** This criterion measures how well the bidder's approach reflects rigorous consideration of one or more studies outlined by the ToR, and whether the proposed methodology and tools appear to be suitable and feasible.
    - Suitability of timetable: Does the schedule included in the response reflect the proposed approach and appear to be credible and implementable? Are there any critical activities proposed that cannot realistically be accomplished?
    - Work organization and methodological approach: Is the work logically structured in clearly identified phases? Is the scope of each phase clearly described? Are external constraints and dependencies clearly identified and taken into consideration? Have important issues been overlooked? Are all necessary quantitative and qualitative elements of analysis addressed by the bidder's proposed methodology?

- Suitability of proposed data gathering tools: Are the proposed sample generation and data gathering approaches consistent with the overall direction given the ToR? Are they consistent with the bidder's proposed methodology? Does the proposal suggest creative data gathering approaches that would help the study better evaluate its stated hypothesis? Does the proposal take into consideration necessary interaction with other parties (e.g., users to be surveyed, dependencies to be contacted)?
- Suitability of proposed data analysis / validation methods: Are the proposed data analysis methods suitable to aggregate, interpret, and weight study findings? Would those findings address the stated study hypothesis? Are validation mechanisms or limitations of findings and conclusions foreseen and described? Does the proposal anticipate the need to communicate and review preliminary findings with the ICANN community?

4. **Financial offer:** This criterion measures two elements of the bidder's financial offer:
   - Effort is justified and consistent with proposed methodology: Do the projected efforts appear to be a realistic estimate of the work required to execute the proposed study? Have any necessary expenses been omitted? Have staffing requirements and efforts been described and justified in sufficient detail to enable review?
   - Overall value of money: Evaluators are invited subjectively rank proposals on their value for the money. The proposal representing the best value for the money should be scored a **5**, while that representing the worst value for the money should be scored **0**. Other proposals should receive intermediate scores.

Annex 3 -- GNSO Council-requested WHOIS studies – Cross-reference to original study numbers

Study Area/Topic	X-ref to study proposals	Specific studies defined (work in progress)	Current status
1. WHOIS Misuse Studies Extent to which publicly displayed WHOIS data is misused	Study # 1, #14, #21 GAC data set 2	1. Experimental: register test domains and measure harmful messages resulting from misuse 2. Descriptive: study misuse incidents reported by registrants and researchers/law enforcement	Staff analysis provided in this report.
2. WHOIS Registrant Identification Study	GAC 5, GAC 6 #13a, #18 GAC 9, GAC 10	1. Gather info about how business/commercial domain registrants are identified. 2. Correlate such identification with use of proxy/privacy services.	Staff analysis provided in this report.
3. WHOIS Proxy and Privacy Abuse and Reveal Studies	#13b, #13c, #17 GAC 1, GAC 11 #3, #19, #20	1. Relationship between use of proxies and harmful/illegal activity, if any ("Abuse") 2. Proxy service responsiveness to information requests ("Reveal")	RFP terms of reference are being developed. The schedule for these has been delayed, as explained in this report.
4. Impact of non-ASCII registration information on accuracy and readability	Previously Study #11	Technical analysis of how entry of non-ASCII registration information is displayed by various client-side software. Analysis would examine and recommend methods to display WHOIS contact information.	On hold pending work of the SSAC-GNSO Internationalized Registration Data Working Group.
5. WHOIS service requirements	Separate request-7 May 2009	Compile a list of WHOIS service requirements based on current + previous policy discussions	Compilation of service requirements is underway. Targeting first draft in March-April timeframe.

Note: Study areas 1-4 reflect all the studies initially requested by the GNSO Council 4 March, 2009. Study area 5 was requested by the Council 7 May, 2009.