Gartner

September 17, 2002

M. Stuart Lynn
President & CEO
ICANN
4676 Admiralty Way, Suite 330
Marina del Rey, California 90292

Re: .ORG Reassignment RFP Review

Dear Stuart,

Gartner is pleased to have completed its evaluation of the eleven proposals that were submitted by the applicants seeking the privilege of operating the .org TLD. We are submitting this letter as a supplement to our final report.

We recommend that ICANN select the next operator for the .ORG TLD from among the five candidates show below (alphabetically). These applicants are above average and have demonstrated their competence through their proposals.

- ❑ DotOrg
- ❑ GNR
- ❑ ISOC
- ❑ NeuStar
- ❑ Register

In addition to the comprehensive findings contained in the report, Gartner wishes to augment its conclusions and recommendations with the following advisory. The advisory is necessitated because one of the characteristics of computed and averaged scores is that higher scores can compensate low scores. In some cases the final score can obscure shortcomings. Although none of the issues identified within this Advisory are material, we believe ICANN should be aware of their existence. We have noted the exceptions in our comments (Appendix B of the final report), and are summarizing them here.

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The DotOrg Foundation

The DotOrg Foundation has proposed a technical design containing the among the highest Service Level commitments of all of the proposals. The Registry operations will be outsourced to Registry Advantage (RA), a division of Registy.com. RA is a Registry operator for the .pro TLD and seven ccTLDs. Within these 8 Registries, RA has existing agreements with 19 Registrars. Registry.com currently provides DNS and Whois services to 3.4M domain names as a Registrar.

Following a thorough review of the proposal, Gartner believes that the DotOrg Foundation would be capable of successfully operating the .org Registry. However, we believe the following issues warrant additional attention should they be awarded the .org Registry.

1) Although RA Registries is an experienced Registry operator, the combined registries only have "over 15K names registered in them". This is on the relatively diminutive side of Registry experience as compared to the other top applicants.
2) Technical observations include:
   a) The proposal indicates only one firewall tier, comparable proposals include a second firewall tier protecting the core SRS databases. Please note that this is a minor issue and arguable from the standpoint of a representing a higher security venerability,
   b) Running the Registry entirely from the backup Tokyo location raises unknown issues that were not evaluated by Gartner.
3) Although DotOrg Foundation committed to the support of "multiple languages", the number of languages, and extent of multi-language support was not specified. Supplemental information included references to plans for the introduction of the following languages:
   - Chinese
   - English (?)
   - French
   - German
   - Italian
   - Japanese
   - Korean

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- Spanish

The Global Name Registry

The Global Name Registry (GNR) proposal includes a technical design that is partially based on the use of the infrastructure currently used to support the .name gTLD Registry. The .name registry launched operations on December, 2001. GNR also operates the DNS Registry for .name, the registry contains 144k .name registrations using a thick database. GNR also managed the .name landrush using EPP for Registrar communications.

Following a thorough review of the proposal, Gartner believes GNR would be capable of successfully operating the .org Registry. However, we believe the following issues warrant additional attention should GNR be awarded the .org Registry.

1) GNR does not have direct experience in the operation of the portion of the "SRS governing registrar interactions" – this portion of the .name SRS is currently operated by VeriSign.
2) GNR has limited experience in terms of the length of time GNR has operated the .name registry. The .name registry has only been in operation since December, 2001
3) At 144k registrations, GNR experience could be considered to be based on a comparatively low numbers of registrations.
4) Only four regional DNS server sites were proposed. Other applicants have a larger number of regional locations.
5) The originally proposed service levels of SRS uptime of 99.4%; DNS uptime of 99.999%; Whois 99.4% were at the lower end of the proposals. GNR submitted revised service levels in response to a supplemental question.
6) Unknowns exist with regards to the backup data centers capacities. Capacities were not clearly stated.

ISOC

The ISOC proposal specifies the use of Afilias as the provider of Registry services under contract. Afilias is the current Registry operator of the .info TLD. Afilias also provides "back-end" registry services for the .vc ccTLD. Between the

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two TLDs, Afilias manages a total of 925k names. Afilias also supports over 100 ICANN accredited Registrars using EPP, accounting for over 99% of current .org registrations. Afilias will contract with IBM for data centers and UltraDNS for managed DNS services. ISOC is experienced at transitioning an existing TLD to EPP. ISOC is also experienced at managing a land-rush.

Gartner believes ISOC would be capable of successfully operating the .org Registry. However, we believe the following issues warrant additional attention should ISOC be awarded the .org Registry.

1) No SRS fail-over time was provided. Furthermore, the proposal includes the statement that "The secondary data center may perform at a degraded level"
2) ISOC is unique among the finalists in proposing the use of an open source database (PostgreSQL). We are uncertain as to the ability of PostgreSQL to meet the forecasted performance requirements of a thick database the size of the .org registry. We have concerns regarding;
   - The potential difficulty of transitioning from the Oracle database used by VeriSign.
   - The fact that the .org Registry will be the largest mission-critical deployment of PostgreSQL.
   - Regarding potential issues of support as the unique demands of the .org Registry potentially evolve PostgreSQL away from mainstream users.

We recommend the proposed use of PostgreSQL in the SRS database architecture be reviewed with regards to potential risks in its ability to scale, replicate, mirror, cluster, perform application processing, and it's on-line/off-line maintenance capabilities in accordance with the high-availability and scalability requirements of the .org registry. Our concern should be interpreted to reflect what we believe is a manageable risk - a risk that can be managed through frequent monitoring of database performance and mitigated – if required - through the deployment of an alternative technology.

NeuStar

NeuStar operates the .biz gTLD and the .us ccTLD. The .biz registry had start-up in spring of 2001; registrations began in the fall. The .us ccTLD transitioned at end of year 2001. Between the two registries NeuStar currently has over 1M names under management (735k in .biz, 302k in .us). Offering real-time registration services for almost a year. Currently have relationships with 90 .biz

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registrars and 70 .us registrars. Supported a real-time landrush process for .us. Has used EPP for both the .us and .biz registries. NeuStar also managed the transition of the .us Registry from VeriSign

The NeuStar proposal combines a strong technical design with experience running a large Registry. Gartner believes NeuStar would be capable of successfully operating the .org Registry. We do not have any advisories regarding NeuStar.

Register.Org

Register.Org has proposed a technical design containing among the highest Service Level commitments of all of the proposals. The Registry operations will be outsourced to Registry Advantage (RA), a division of Registy.com. RA is a Registry operator for the .pro TLD and seven ccTLDs. Within these 8 Registries, RA has existing agreements with 19 Registrars. Registry.com currently provides DNS and Whois services to 3.4M domain names as a Registrar.

Following a thorough review of the proposal, Gartner believes that Register.Org would be capable of successfully operating the .org Registry. However, we believe the following issues warrant additional attention should they be awarded the .org Registry.

1) Although RA Registries is an experienced Registry operator, the combined registries only have "over 15K names registered in them". This is on the relatively lower side of Registry experience as compared to the other top applicants.
2) Technical observations include:
   a) The proposal indicates only one firewall tier; comparable proposals include a second firewall tier protecting the core SRS databases. Please note that this is a minor issue and arguable from the standpoint of a representing a higher security venerability,
   b) Running the Registry entirely from the backup Tokyo location raises unknown issues that were not evaluated by Gartner.
3) Although Register.Org committed to the support of "multiple languages", the number of languages, and extent of multi-language support was not

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specified. Supplemental information included references to plans for the introduction of the following languages:

- Chinese
- English (? – Gartner notation)
- French
- German
- Italian
- Japanese
- Korean
- Spanish

With regards to items raised for all of the top five candidates; we believe that the previous issues, with the exception of the lack of experience, can be successfully addressed during contract negotiations.

We appreciate the opportunity to assist ICANN on this most important and challenging project. Please let us know if we can be of further assistance.

Kind regards,

Mark Gilbert
Director
Gartner

CC: Louis Touton – ICANN
        Jamshid Lal - Gartner