

# **Annex 1**

# STEVEN M. TEPP

Contact Information Redacted

## PROFESSIONAL EXPERIENCE

### **Sentinel Worldwide**

2013-

*President & CEO, Founder*

- *Intellectual Property Law Consulting Services*: expert legal and policy counsel on intellectual property matters before Congress, the U.S. Administration, and Federal courts, and internationally before foreign governments and multilateral institutions.

### **U.S. Chamber of Commerce, Global Intellectual Property Center**

2010-2013

*Chief Intellectual Property Counsel*

- *Top legal officer*: provided strategic and expert counsel across all Global IP Center activities; guided policy decisions and messaging; counseled Chamber leadership.
- *Senior Management Team*: co-managed \$5 million budget; participated in strategic planning for policy objectives and internal operations; managed staff.
- *Campaign Manager*: recruited and directed coalition of 400+ organizations in support of intellectual property legislation; managed \$3 million campaign effort; conceived and oversaw execution of comprehensive media, government relations, and alliance building plan; approved all campaign documents; ran 'war room' for rapid response and crisis management in dynamic environment; led industry negotiations on legislative text; devised strategy for future efforts.
- *Spokesman*: numerous appearances on international, national and local television and radio; frequent interviews with print and online journalists; extensive presentations across the United States and internationally; authored multiple publications.
- *International Thought Leader*: formulated course to achieve improved IP protection abroad; effectively led consultations with foreign governments; headed business delegations to China, securing strong legal interpretation from Supreme Court of China; chaired panel discussion for TPP negotiators; maintained strong relationships with foreign and international IP officials.

### **U.S. Copyright Office**

1999-2010

*Senior Counsel for Policy and International Affairs*

*Assistant General Counsel, Office of the General Counsel*

*Senior Attorney, Office of the General Counsel*

- *International Trade Negotiator*: Key drafter and negotiator of ACTA; lead agency counsel on U.S.-China WTO copyright dispute; primary agency representative in Asia, North America, and South America; constructed and negotiated free trade agreements; counseled interagency team.
- *Primary Copyright Office congressional contact*: mediated negotiations between representatives of entertainment industries and other interested parties concerning pending copyright legislation; formulated copyright policy; promoted Copyright Office policy views; briefed Members of Congress and their staff on copyright developments; composed congressional testimony; crafted legislation; analyzed cutting-edge technology issues and anticipated future concerns.
- *Senior Litigation Attorney*: drafted federal district, appellate, and Supreme court briefs; counseled Solicitor General and interagency staff; assisted in oral argument preparation; researched complex legal issues and prepared legal memoranda; briefed the Register, General Counsel, and Associate Register on legal and policy developments.
- *Expert Counsel*: co-authored 2003 and 2006 Section 1201 Rulemakings; co-authored Section 104 DMCA Report to Congress; analyzed final appeals for copyright registration.
- *Personnel Management*: chaired selection committees for hiring of senior policy staff.

# STEVEN M. TEPP

Contact Information Redacted

**George Washington University Law School** 2013-  
**Georgetown University Law Center** 2007  
**George Mason University School of Law** 2004-2007

*Professorial Lecturer in Law*

- *Copyright Course*: cover the history of copyright, works protected by copyright, the scope of rights and exceptions, secondary liability, formalities and the evolution of the term of protection, the Digital Millennium Copyright Act, remedies, and international issues.

**Marzulla & Marzulla** 1998

*Senior Associate*

- *Litigation*: developed and executed litigation strategies; devised, coordinated, and implemented client's strategic plan; managed complex litigation; performed intensive legal research and drafted detailed legal memoranda; crafted complaints, briefs, and affidavits; managed discovery; drafted and responded to interrogatories; coordinated and negotiated with opposing counsel; engaged in client development; supervised staff.
- *Legislative*: formulated and executed legislative strategies; identified potential public policy solutions; prescribed and implemented comprehensive government relations campaign; lobbied Capitol Hill and Executive Branch officials.

**U.S. Senate Judiciary Committee, Senator Orrin Hatch, Chairman** 1994-1997

*Staff Attorney*

- *Primary fields of responsibility*: intellectual property, oversight of the Copyright Office and the USPTO, the Balanced Budget Amendment, and First Amendment issues.
- *Managed legislative process*: successfully devised and implemented legislative strategy; guided national coalitions in support of legislation; assisted in management of Senate floor; advised Members during hearings, markups, floor debate, and high-level negotiations; prepared hearing and markup briefing materials for Members; crafted committee reports, talking points, floor statements, and press releases; negotiated with the White House, Federal agencies, Members, and private organizations.
- *Advised Chairman on legal and policy matters*: researched legal and policy issues; drafted legislation.

## PROFESSIONAL AFFILIATIONS

- 1999, Copyright Society of the U.S.A.
- Admitted, 1997, District of Columbia Bar (inactive)
- Admitted, 1994, New Jersey Bar; New Jersey Federal District Court Bar

## EDUCATION

**Washington College of Law, The American University, Washington, D.C.**

*J.D., May, 1994*

- First Year and Upper-Class Moot Court, Judge and Advocate
- The American Jurist, Editor

**Colgate University, Hamilton, NY**

*B.A., Political Science, May, 1991*

# **Annex 2**

# GAC PRINCIPLES REGARDING NEW gTLDs

Presented by the Governmental Advisory Committee  
March 28, 2007

## 1. Preamble

- 1.1 The purpose of this document is to identify a set of general public policy principles related to the introduction, delegation and operation of new generic top level domains (gTLDs). They are intended to inform the ICANN Board of the views of the GAC regarding public policy issues concerning new gTLDs and to respond to the provisions of the World Summit on the Information Society (WSIS) process, in particular *“the need for further development of, and strengthened cooperation among, stakeholders for public policies for generic top-level domains (gTLDs)”*<sup>1</sup> and those related to the management of Internet resources and enunciated in the Geneva and Tunis phases of the WSIS.
- 1.2 These principles shall not prejudice the application of the principle of national sovereignty. The GAC has previously adopted the general principle that the Internet naming system is a public resource in the sense that its functions must be administered in the public or common interest. The WSIS Declaration of December 2003 also states that *“policy authority for Internet-related public policy issues is the sovereign right of States. They have rights and responsibilities for international Internet-related public policy issues.”*<sup>2</sup>
- 1.3 A gTLD is a top level domain which is not based on the ISO 3166 two-letter country code list<sup>3</sup>. For the purposes and scope of this document, new gTLDs are defined as any gTLDs added to the Top Level Domain name space after the date of the adoption of these principles by the GAC.
- 1.4 In setting out the following principles, the GAC recalls ICANN’s stated core values as set out in its by-laws:

- a. *Preserving and enhancing the operational stability, reliability, security, and global interoperability of the Internet.*
- b. *Respecting the creativity, innovation, and flow of information made possible by the Internet by limiting ICANN's activities to those matters within ICANN's mission requiring or significantly benefiting from global coordination.*
- c. *To the extent feasible and appropriate, delegating coordination functions to or recognizing the policy role of other responsible entities that reflect the interests of affected parties.*

<sup>1</sup> See paragraph 64 of the WSIS Tunis Agenda, at <http://www.itu.int/wsis/docs2/tunis/off/6rev1.html>

<sup>2</sup> See paragraph 49.a) of the WSIS Geneva declaration at <http://www.itu.int/wsis/docs/geneva/official/dop.html>

<sup>3</sup> See: <http://www.icann.org/general/glossary.htm#G>

*d. Seeking and supporting broad, informed participation reflecting the functional, geographic, and cultural diversity of the Internet at all levels of policy development and decision-making.*

*e. Where feasible and appropriate, depending on market mechanisms to promote and sustain a competitive environment.*

*f. Introducing and promoting competition in the registration of domain names where practicable and beneficial in the public interest.*

*g. Employing open and transparent policy development mechanisms that (i) promote well-informed decisions based on expert advice, and (ii) ensure that those entities most affected can assist in the policy development process.*

*h. Making decisions by applying documented policies neutrally and objectively, with integrity and fairness.*

*i. Acting with a speed that is responsive to the needs of the Internet while, as part of the decision-making process, obtaining informed input from those entities most affected.*

*j. Remaining accountable to the Internet community through mechanisms that enhance ICANN's effectiveness.*

*k. While remaining rooted in the private sector, recognizing that governments and public authorities are responsible for public policy and duly taking into account governments' or public authorities' recommendations.*

## **2. Public Policy Aspects related to new gTLDs**

When considering the introduction, delegation and operation of new gTLDs, the following public policy principles need to be respected:

### *Introduction of new gTLDs*

#### **2.1 New gTLDs should respect:**

a) The provisions of the Universal Declaration of Human Rights<sup>4</sup> which seek to affirm "*fundamental human rights, in the dignity and worth of the human person and in the equal rights of men and women*".

b) The sensitivities regarding terms with national, cultural, geographic and religious significance.

#### **2.2 ICANN should avoid country, territory or place names, and country, territory or regional language or people descriptions, unless in agreement with the relevant governments or public authorities.**

<sup>4</sup> See <http://www.un.org/Overview/rights.html>

- 2.3 The process for introducing new gTLDs must make proper allowance for prior third party rights, in particular trademark rights as well as rights in the names and acronyms of inter-governmental organizations (IGOs).
- 2.4 In the interests of consumer confidence and security, new gTLDs should not be confusingly similar to existing TLDs. To avoid confusion with country-code Top Level Domains no two letter gTLDs should be introduced.

#### *Delegation of new gTLDs*

- 2.5 The evaluation and selection procedure for new gTLD registries should respect the principles of fairness, transparency and non-discrimination. All applicants for a new gTLD registry should therefore be evaluated against transparent and predictable criteria, fully available to the applicants prior to the initiation of the process. Normally, therefore, no subsequent additional selection criteria should be used in the selection process.
- 2.6 It is important that the selection process for new gTLDs ensures the security, reliability, global interoperability and stability of the Domain Name System (DNS) and promotes competition, consumer choice, geographical and service-provider diversity.
- 2.7 Applicant registries for new gTLDs should pledge to:
  - a) Adopt, before the new gTLD is introduced, appropriate procedures for blocking, at no cost and upon demand of governments, public authorities or IGOs, names with national or geographic significance at the second level of any new gTLD.
  - b) Ensure procedures to allow governments, public authorities or IGOs to challenge abuses of names with national or geographic significance at the second level of any new gTLD.
- 2.8 Applicants should publicly document any support they claim to enjoy from specific communities.
- 2.9 Applicants should identify how they will limit the need for defensive registrations and minimise cyber-squatting that can result from bad-faith registrations and other abuses of the registration system

#### *Operation of new gTLDs*

- 2.10 A new gTLD operator/registry should undertake to implement practices that ensure an appropriate level of security and stability both for the TLD itself and for the DNS as a whole, including the development of best practices to ensure the accuracy, integrity and validity of registry information.
- 2.11 ICANN and a new gTLD operator/registry should establish clear continuity plans for maintaining the resolution of names in the DNS in the event of registry failure.

These plans should be established in coordination with any contingency measures adopted for ICANN as a whole.

- 2.12 ICANN should continue to ensure that registrants and registrars in new gTLDs have access to an independent appeals process in relation to registry decisions related to pricing changes, renewal procedures, service levels, or the unilateral and significant change of contract conditions.
- 2.13 ICANN should ensure that any material changes to the new gTLD operations, policies or contract obligations be made in an open and transparent manner allowing for adequate public comment.
- 2.14 The GAC WHOIS principles are relevant to new gTLDs.

### **3. Implementation of these Public Policy Principles**

- 3.1 The GAC recalls Article XI, section 2, no. 1 h) of the ICANN Bylaws, which state that the ICANN Board shall notify the Chair of the Governmental Advisory Committee in a timely manner of any proposal raising public policy issues. Insofar, therefore, as these principles provide guidance on GAC views on the implementation of new gTLDs, they are not intended to substitute for the normal requirement for the ICANN Board to notify the GAC of any proposals for new gTLDs which raise public policy issues.
- 3.2 ICANN should consult the GAC, as appropriate, regarding any questions pertaining to the interpretation of these principles.
- 3.3 If individual GAC members or other governments express formal concerns about any issues related to new gTLDs, the ICANN Board should fully consider those concerns and clearly explain how it will address them.
- 3.4 The evaluation procedures and criteria for introduction, delegation and operation of new TLDs should be developed and implemented with the participation of all stakeholders.

*N.B. The public policy priorities for GAC members in relation to the introduction of Internationalised Domain Name TLDs (IDN TLDs) will be addressed separately by the GAC.*



# **Annex 3**

# **The protection of geographic names in the new gTLDs process**

**V3 – August 29 2014**

Prepared by Sub-working group for protection of geographic names in next rounds  
of new gTLDs

## **1. Mandate**

During the 47 ICANN meeting in Durban the GAC recommended that ICANN collaborate with the GAC in refining, for future rounds, the Applicant Guidebook with regard to the protection of terms with national, cultural, geographic and religious significance, in accordance with the 2007 GAC Principles on New gTLDs, as stated in section 7. a. GAC Durban Communiqué.

This document describes suggested steps in order to refine, for future rounds, procedures to be followed by applicants and changes to the Applicant Guide Book with regard to the protection of geographic names.

## **2. Background**

The GAC of ICANN worked several months during 2006 and 2007 in the document called "GAC principles regarding new gTLDs" that was finalized by the GAC during the Lisbon ICANN meeting in 2007.

Full document can be found in this link:

<http://archive.icann.org/en/topics/new-gtlds/gac-principles-regarding-new-gtlds-28mar07-en.pdf>

Special attention was given to names with national, cultural, geographic and religious significance, as stated in the mentioned document:

- New gTLDs should respect national sensitivities regarding terms with national, cultural, geographic and religious significance
- New gTLDs should not prejudice the application of the principle of national sovereignty
- Internet naming system is a public resource and it must be administered in the public and common interest

Also other important reference in paragraph 2.2 of the same document:

- ICANN should avoid country, territory or place names, and country, territory or regional language or people descriptions, unless in agreement with the relevant governments or public authorities

These concerns were captured in the Applicant Guidebook ("AGB")

The AGB is a document that was always available for public comments and created in a bottom up process by the GNSO council and then reviewed by the whole community, including private companies and commercial brand owners.

Full text of the AGB can be found in this link:

<http://newgtlds.icann.org/en/applicants/agb>

In the case of geographic names, the Applicant Guidebook establishes what a geographic name is:

- Capital city names
- City names where applicants declare that they intend to use the gTLD for purposes associated with the city name
- Sub-national place names listed in the ISO 3166-2
- Regional names appearing on the list of UNESCO regions
- Regional names on the UN's "Composition of macro geographical (continental) regions, geographical sub-regions, selected economic and other groupings"

Although these definitions of what is a geo name include approx. 5.000 names, it does not cover all the possible geo names in the world.

For this precise reason and in the event of any doubt or concern, the AGB establishes that:

"It is in the applicant's interest to consult with relevant governments and public authorities and enlist their support or non-objection prior to submission of the application, in order to preclude possible objections and pre-address any ambiguities concerning the string and applicable requirements"

These consultations did not happen with some geographic names requested by applicants in the first round of newgTLDs.

The AGB establishes ways in which governments can express concerns related with community, geographic, religious or other scripts. These processes are all explained in the AGB:

- Early warning: message sent to the applicant expressing concerns of one or more governments.

- GAC Advice: message sent from the GAC to the Board expressing concerns from the GAC related with one string.
- Objection: Independent Objector - Governments – Private – ALAC

Finally, the recently Approved Resolution of the New gTLD Program Committee<sup>1</sup> about GAC advice on “.amazon” and the analysis made by the independent third-party expert, bring new considerations about new gTLDs, trademarks and geographic names, which are detailed in section 4 of this document.

### **3. The protection of Geographic Names**

The protection of geographic names should be object of special concern within the new gTLD program<sup>2</sup>. ICANN as an institution is committed to acting on public interest<sup>3</sup>, and therefore new gTLDs that are related with words, strings and expressions that refer to different names of geographic references like regions of countries, regions of continents, sub-regions of countries, rivers, mountains, among others, should be protected in the name of public interest, due to their geographic, cultural and national relevance.

Although there are references that prevent the use of geographic names in new gTLDs included in the Applicant Guidebook, this list is limited and not sufficient to avoid the misuse of other geographic names and to protect the public interest in its entirety. It includes a limited amount of names and it does not protect in any way the diversity of places and geographic names that can be found all around the world.

Special attention should be given to the issue of geographic gTLDs as a concept (in generic terms), as they intersect with core areas of interests of any state.

Contrary to the principle of freedom of use of geographic names, allowing private companies to register geographic names as part of gTLDs strings creates a high risk for these names to be captured by companies that want to use them to reinforce their brand strategy or to profit from the meaning of these names, limiting the possibility of utilizing them in the public interest of the affected communities. Besides, the request for identity between the geographic name and the one utilized in the string, allows room for confusion in the public and consumers, as it is unavoidable that a geographic name will evoke the related geographical site and its population.

Geographic names should not be allowed to be registered as gTLDs, unless requested by the relevant communities where they belong or after a specific authorization given by the government or community to the applicant.

The national community and geographic meaning of the requested strings as new gTLDs must prevail above any other interest.

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<sup>1</sup> See <https://www.icann.org/resources/board-material/resolutions-new-gtld-2014-05-14-en>

<sup>2</sup> See GAC Principles Regarding New gTLDs, of 28 March 2007.

<sup>3</sup> See ICANN ByLaws, Section 2, “Core Values”, and ICANN AoC with the Department of Commerce, of 30 Sep 2009.

#### 4. Differences between trademarks and new gTLDs

There are differences between the concept and scope of a Trademark and a TLD.

Trademark rights are conferred by States to individuals for the sole purpose of protecting the bona fide use of a mark in a specific category of products or services. There is no system of brands in the world to grant general rights on the use of a sign or name. The applicant of a trademark registrant shall inform the agency of each country, which is the current use that does or intends to do with that mark. The State grants the exclusive right to such use and no more than that.

Requested trademark applications have been ordered for specific products and services which demonstrates its own recognition of the limitation of the company's rights. In the national nomenclature of goods and services, in accordance with the Treaty of Nice, there are 45 classes of goods and services.

The document prepared by Dr Jerome Pasa, as a third-party expert<sup>4</sup> to provide additional advice on the specific issues of application of law at the case of ".amazon", includes several paragraphs that are of high interest to the subject of this document, which are detailed as follows:

Paragraph 15.1:

.....

"an intellectual property right, whatever its nature, affords its owner an exclusivity or monopoly of exploitation over the subject matter of the right within the limits stipulated by law – whether national or regional – applicable to this right. This exclusive right allows its holder to prevent third parties from carrying out on this subject matter the acts of exploitation which the law reserves to him.

An intellectual property right is therefore, like any property, a right to exclude third parties and, in this case, a right to exclude unauthorised third parties from the scope of protection which the law grants to the owner of the intellectual property right.

Binding as against third parties, an intellectual property right never affords its owner the right to exploit or to use the subject matter of its right."

.....

"an intellectual property right does not grant its owner a right to use the intangible subject matter in question. The right grants him ownership, ownership which is always binding on unauthorised third parties, but not, unless misinterpreting the notion of intellectual

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<sup>4</sup> See <https://www.icann.org/en/system/files/correspondence/crocker-to-dryden-07apr14-en.pdf>

property, the possibility to exploit the subject matter of its ownership in any circumstances.

15-2. The same applies under trade mark law.

A trade mark right – the right associated with the registration of a trade mark – grants the owner a monopoly binding on third parties within the limits defined by law.

However, the holder cannot invoke this right as a right to use the sign, even for the products and services specified in the registration, or even as the right to use the sign in particular forms, such as a new gTLD.

.....

The document states that exclusive right held by a company in its trade mark "does not therefore necessarily give it the right per se either to use it in any other form it may choose, such as a new TLD".

The document also express that a trade mark held by an applicant do not in legal terms give it a right to the new TLD of the trade mark.

## **5. Avoiding misuse of geographic names in future gTLD rounds**

The lists of prohibited strings detailed in the Applicant Guidebook should be considered as a general reference for the applicant and not as a strict and only criteria to determine whether a name is geographic or not.

Governments should keep the right to oppose the delegation of a top level domain (even if it is not included on that list) on the basis of its sensitivity to national interests. Furthermore, that right should be enhanced for future rounds.

The flexibility and openness of criteria that applicants should have in relation with geographic names, especially in contacting previously to the application the relevant communities, does not undermine the multistakeholder structure and processes of ICANN and will not erode the confidence of global businesses.

On the contrary, a previous early contact with relevant communities and the applicant will generate confidence in the whole process and could also generate new ways of agreements among parties, before the conflict is established.

As stated in section 4 of this document and, an enhanced procedure to protect geographic names should not upset global trademark norms.

ICANN and Governments should encourage the applicants to get touch with related local governments to try to reach agreements. Dialogue and communication based on the laws and regulations is a better way to solve any difficulties. Furthermore, if the agreement between the relevant governments and the applicants can not be reached, the public interest should be priority.

## **6. Next steps**

### **a. At the National / Regional Level**

All countries should be encouraged to enhancing the ISO 3166-2 list by submitting official requests from national administrations, in a way that regions and sub-regions are included in this important reference list.

Special efforts must be done by ICANN to the broader international community, which is not comprised by GAC today.

GAC representatives and ICANN regional managers can actively engage in outreach efforts focusing in those countries not active in GAC meeting, GAC lists and ICANN activities, in order for them to be aware of future impact of this process.

The ISO 3166-2 list includes different types of country subdivisions names: districts, cantons, provinces, states, regions, cities, territories, among several others. The national reference in the ISCO 3166-2 list can be enhanced with these different divisions and subdivisions in order to satisfy the country needs.

### **b. Best practices for future rounds of new gTLDs**

To be developed (by GAC + cross constituency group?) for future rounds of new gTLDs:

- For the applicant:
  - o Once a string is selected to be requested as a new gTLD, a thorough search should be undertaken to determine whether the string is a geographic name, including but not limited to cities, countries, regions, subregions or other geographic related spaces.
  - o Sources of information on geographic names could be the general available information on the Internet, embassies, regional organizations, international organizations, national, regional and city governments, among others.
  - o If the selected string is directly related with a country, city, region, subregion or other geographic related spaces, the relevant authorities related with these denominations should be contacted.
  - o Related information can be accessed using Internet searches.

- Previous research and investigation about different meanings of the applied for string, considering also the notion of protection of a name even if it is being translated to another language.
  - In the case of doubts, encourage the applicant to establish contact previous to the application with the relevant authorities of the country – city – region – subregion.
- For ICANN:
    - Enhance outreach efforts to all countries and regions of the world previous to the next new gTLD round.
    - Governments should have an appropriate way to raise concerns about the use of geographic names associated with their territories
  - For Governments / Applicants / ICANN:
    - Establish a clear process for governments to raise their concerns when their territories names used in the next new gTLD round.
    - Establish clear steps / way forward for both the applicants and government in reaching consensus with the applied gTLD
    - What's next if there is no consensus reached between both parties.

### **c. Suggested changes in the Applicant Guide Book**

Taking into consideration that the Durban Communiqué states that "The GAC recommends that ICANN collaborate with the GAC in refining, for future rounds, the Applicant Guidebook with regard to the protection of terms with national, cultural, geographic and religious significance, in accordance with the 2007 GAC Principles on New gTLDs", a new text is suggested regarding the geographic names, in the case that the same text of the present AGB will be used as ground document:

To include in the paragraph 2.2.1.4 of the AGB the following sentence:

**"ICANN should avoid country, territory or place names, and country, territory or regional language or people descriptions, unless in agreement with the relevant governments or public authorities".**

Also the following paragraph appears in the section "**2.2.1.4.2 Geographic Names Requiring Government Support**" of the AGB. It should be a general statement or principle regarding geographic names, in order to clarify and reinforce the importance of the previous communication between the Applicants and the Governments, even in case of any doubt.

**"Nevertheless, in the event of any doubt, it is in the applicant's interest to consult with relevant governments and public authorities and enlist**



**their support or non-objection prior to submission of the application, in order to preclude possible objections and pre-address any ambiguities concerning the string and applicable requirements."**

A specific reference to the Geographic Names Repository described in section 6.b of this document must be also included.

The suggested changes in the Applicant Guide Book, paragraph 2.2.1.4 of the AGB should read as follows:

"2.2.1.4 Geographic Names Review

Applications for gTLD strings must ensure that appropriate consideration is given to the interests of governments or public authorities in geographic names, ***taking into consideration that, according with the 2007 GAC Principles regarding New gTLDs, ICANN should avoid country, territory or place names, and country, territory or regional language or people descriptions, unless in agreement with the relevant governments or public authorities.*** The requirements and procedure ICANN will follow in the evaluation process are described in the following paragraphs. Applicants should review these requirements even if they do not believe their intended gTLD string is a geographic name. All applied-for gTLD strings will be reviewed according to the requirements in this section, regardless of whether the application indicates it is for a geographic name.

**"Nevertheless, in the event of any doubt, it is in the applicant's interest to consult with relevant governments and public authorities and enlist their support or non-objection prior to submission of the application, in order to preclude possible objections and pre-address any ambiguities concerning the string and applicable requirements."**

# **Annex 4**



**New gTLD Application Submitted to ICANN by: Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti.**

Application Downloaded On: 15 Feb 2014

String: pars

Application ID: 1-2127-79611

**Applicant Information**

1. Full legal name

Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti.

2. Address of the principal place of business

Contact Information Redacted

3. Phone number

Contact Information Redacted

4. Fax number

Contact Information Redacted

5. If applicable, website or URL

<http://www.agitsys.com>

**Primary Contact**

6(a). Name

Mehdi Abbasnia

6(b). Title

Managing Director

6(c). Address

6(d). Phone Number

Contact Information Redacted

6(e). Fax Number

Contact Information Redacted

6(f). Email Address

Contact Information Redacted

**Secondary Contact**

7(a). Name

Hakan Atalay

7(b). Title

The Head of Engineering Dept.

7(c). Address

7(d). Phone Number

Contact Information Redacted

7(e). Fax Number

Contact Information Redacted

7(f). Email Address

Contact Information Redacted

### Proof of Legal Establishment

8(a). Legal form of the Applicant  
Limited Company

8(b). State the specific national or other jurisdiction that defines the type of entity identified in 8(a).  
Trade Registration Office (Ticaret Sicili Memurlugundan)

8(c). Attach evidence of the applicant's establishment.  
Attachments are not displayed on this form.

9(a). If applying company is publicly traded, provide the exchange and symbol.

9(b). If the applying entity is a subsidiary, provide the parent company.

9(c). If the applying entity is a joint venture, list all joint venture partners.

### Applicant Background

11(a). Name(s) and position(s) of all directors

Name	Position
Ali Zarinbakhsh	Member of the Board
Mehdi Abbasnia	Chairman and Managing Director

11(b). Name(s) and position(s) of all officers and partners

Name	Position
Fatih Atasoy	CFO
Mehdi Abbasnia	Chairman and Managing Director

11(c). Name(s) and position(s) of all shareholders holding at least 15% of shares

Name	Position
Ali Zarinbakhsh	Member of the Board
Mehdi Abbasnia	Chairman and Managing Director

11(d). For an applying entity that does not have directors, officers, partners, or shareholders: Name(s) and position(s) of all individuals having legal or executive responsibility

### Applied-for gTLD string

13. Provide the applied-for gTLD string. If an IDN, provide the U-label.  
pars

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14A. If applying for an IDN, provide the A-label (beginning with "xn-").

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14B. If an IDN, provide the meaning, or restatement of the string in English, that is, a description of the literal meaning of the string in the opinion of the applicant.

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14C1. If an IDN, provide the language of the label (in English).

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14C2. If an IDN, provide the language of the label (as referenced by ISO-639-1).

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14D1. If an IDN, provide the script of the label (in English).

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14D2. If an IDN, provide the script of the label (as referenced by ISO 15924).

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14E. If an IDN, list all code points contained in the U-label according to Unicode form.

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15A. If an IDN, upload IDN tables for the proposed registry. An IDN table must include:

1. the applied-for gTLD string relevant to the tables.
  2. the script or language designator (as defined in BCP 47).
  3. table version number.
  4. effective date (DD Month YYYY), and
  5. contact name, email address, and phone number.
- Submission of IDN tables in a standards-based format is encouraged.
- 

15B. Describe the process used for development of the IDN tables submitted, including consultations and sources used.

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15C. List any variants to the applied-for gTLD string according to the relevant IDN tables.

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16. Describe the applicant's efforts to ensure that there are no known operational or rendering problems concerning the applied-for gTLD string. If such issues are known, describe steps that will be taken to mitigate these issues in software and other applications.

The team behind Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. has been involved in the development of various IDN scripts for over ten years. Through this work, we have become aware of some issues that may cause rendering problems for certain new gTLDs. We have reviewed the string that will be used with this application and based upon our expertise, we see no issues with operational or rendering problems concerning the applied for gTLD string.

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17. OPTIONAL.

Provide a representation of the label according to the International Phonetic Alphabet (<http://www.langsci.ucl.ac.uk/ipa/>).

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18A. Describe the mission/purpose of your proposed gTLD.

There are in excess of a hundred million of Persians worldwide. They are a disparate group, yet they are united through their core beliefs. They are a group whose origins are found several millennia in the past, their ethnicity often inextricably linked with their heritage. Hitherto, however, there has been no way to easily unify them and their common cultural, linguistic and historical heritage. The .PARS gTLD, and the community it creates, will change this.

The origins of the ethnic Persian community can be traced to the Ancient Iranian peoples, who were part of the ancient Indo-Iranians and themselves part of the greater Indo-European linguistic family. The Ancient Iranian peoples arrived in parts of Iranian plateau around 2000-1500 BCE. Important Iranian tribes such as Old Persians, Medes, Parthians, Bactrians, Scythians, and the Avesta people used the name Arya (Iranian), which was a collective definition, denoting peoples who were aware of belonging to the one ethnic stock, speaking a common language, and mainly sharing a religious tradition that centered on the worship of Ahura Mazda.

The Old Persians (one of these ethnic Iranian groups) were originally nomadic, pastoral people occupying the western Iranian plateau. By 850 BCE they were calling themselves the Parsa, and their constantly shifting territory Parsua. For the most part this was localized around Persis (Pars), bounded on the west by Tigris River and on the south by Persian Gulf. The first known written record of the term Persian is from Assyrian inscriptions of the 9th century BCE, which mention both Parsuash and Parsua. These cognate words were taken from old Iranian Parsava and presumably meant border, borderland and were geographical designations for Iranian populations. Nonetheless, Parsua and Parsuash were two different geographical locations - the latter referring to southwestern Iran, known in Old Persian as Pârsa (Modern Fars). The Greeks (who tended earlier to use names related to "Median") began in the 5th century to use adjectives such as Perses, Persica or Persis for Cyrus the Great's empire, which is where the word Persian in English comes from. In the later parts of the Bible, where this kingdom is frequently mentioned (Books of Esther, Daniel, Ezra and Nehemya), it is called "Paras" (Hebrew פָּרַס), or sometimes "Paras ve Madai" (פָּרַס וּמַדַּי) i.e. "Persia and Media". As the Old Persians gained power, they developed the infrastructure to support their growing influence including creation of a capital named Pasargadae, and an opulent city named Persepolis.

Starting around 550 BCE, from the region of Persis in southern Iran, encompassing the present Fars province, the ancient Persians spread their language and culture to other parts of the Iranian plateau and assimilated and intermingled with local Iranian and indigenous non-Iranic groups including the Elamites over time. Persians also interacted with other ancient civilizations in Europe and Africa. The first Persian Empire extended as far as the limits of the Greek city states, where Persians and Athenians influenced each other in what is essentially a reciprocal cultural exchange.

The proposed gTLD is, in fact, the name of the accrued homeland of the Persian people, including different areas of the world including Iran, Afghanistan, Tajikistan, Uzbekistan, and many more Persian people around the world. The total number of native Persian language speakers exceeds 81 million people, while the population of the

combined global community is around 110 million.

While the .PARS gTLD ties back historically, linguistically and culturally to the Persian people, it also has the potential to tie together the tens of millions of people across the globe who read Persian-script languages. A robust gTLD has the power to bring together people across national borders in a free-flowing exchange of information and commerce. There is not a .COM or .ORG equivalent of .PARS--a domain that has universal appeal across a common origin. ICANN is dedicated to creating more competition in the TLD space, and the introduction of the Persian community through a .PARS gTLD does so in one simple stroke.

Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. (AGITSys) was founded by individuals of Persian origin who derive a great sense of honor and pride from their community, history and ancestry. AGITSys' founders have gathered together a team with extensive experience in Persian language on the Internet, a daunting but critical task. The team behind AGITSys, including technical advisor/member Dr. Shahram Soboutipour, has taken a leading role in working toward Persian domain names (something it considers inevitable) for more than 8 years. No entity is better suited to manage the .PARS gTLD, nor more dedicated to providing new online tools and services to facilitate the unification of the .PARS community online. The .PARS gTLD will increasingly open up the vast resources of the Internet and the associated global interconnectedness to this Persian community, while stimulating the introduction of more online information and resources in the Persian language - and AGITSys will be at the helm of this change.

The company is not only perfectly situated ideologically, but also physically, as it is headquartered in Turkey, which ties together the global Persian population through close relations both with the citizens of Persian-speaking countries in the East, as well as the diasporas of Persian language speakers in Western nations. Turkey's geographical and political location aids it enormously in the endeavors needed for the .PARS community to be a success, as it literally and figuratively sits in-between the East and West. This is important because the .PARS gTLD is designed to accommodate a global community, and AGITSys' team's work with ICANN has always looked toward not just to serving the Afghan, Tajik and Iranian people but all users of Persian-script languages.

**18B. How do you expect that your proposed gTLD will benefit registrants, Internet users, and others?**

The benefits of the .PARS gTLD will be manifold, not just to registrants but also to tens of millions of Persian internet users, as well as many others with an interest in or curiosity regarding Persia. The presence of a Persian-specific gTLD will increase the volume of online Persian resources, as the emergence of the .PARS second-level domains sees a network effect kick in. This network effect will create an additional incentive for the digitization of existing Persian materials, so as to facilitate their posting online as the demand for such material grows.

Consequently, the new .PARS gTLD will also increase access to online resources as the tens of millions of people that read Persian and Persia-related materials are able, for the first time, to find the content they seek within the sites operating under the .PARS gTLD. Existing website registrants will be able to extend their presence to that audience with new .PARS sites, while new registrants will emerge from those Persian populations brought together by the .PARS gTLD, adding to the value of the Internet in ways not currently possible.

As the global population expands, more people become willing Internet users and seek out second-level domains. The .PARS gTLD is flexible, and is thus capable of being used for sites focused on ecommerce, information dissemination, charitable endeavors and many more functions among Persians. A transformation in competition is anticipated for web sites within .PARS, to depart from conventional methods of attracting new customers in this expanding market. This is because it will encourage competitors, targeting the extensive and diverse collection of global Persian Internet users. This incentive doesn't currently exist in an online space devoid of the .PARS gTLD, where competition amongst the already saturated existing TLDs is stagnant.

In terms of goals in the areas of specialty, service levels, and reputation for the proposed .PARS gTLD, AGITSys is committed to offering choice in top level domain extensions among the Persian community. AGITSys recognizes many new gTLDs will naturally have a relatively narrow appeal and audience. The .PARS gTLD is different, as it not only targets a distinct online community, but one that spans the globe. AGITSys is prepared to utilize its home market of Turkey as a leading source of registrants and sites, while incorporating the power of the web to connect with myriad other registrants and Internet users beyond Turkey. Further, we intend to adopt and follow the highest standards in registry operations exceeding service levels and expectations thus producing a consistent reputation.

AGITSys has been at the forefront of the ICANN community effort in working to bring the Global Persian community together through a dedicated gTLD, as well as bringing Persians in to the larger online community. No organization has a greater understanding both of the opportunities a .PARS gTLD will afford as well as the challenges that its adoption and spread will bring. AGITSys is prepared to ensure the success of .PARS, such that it is a shining example of ICANN's wisdom in granting the gTLD.

The company is committed to bringing top-level domain registration services to registrants. To this end, AGITSys has contracted CoCCA Registry Services (NZ) Limited ("CoCCA") to provide hosted Registry Services for the .PARS gTLD. CoCCA has over nine years experience authoring open source registry software systems and providing TLD registry support services. CoCCA was originally incorporated in Australia in 2003 as CoCCA Registry Services Limited, in January 2009 CoCCA re-located to New Zealand and trades as CoCCA Registry Services (NZ) Limited. CoCCA is a privately held NZ company.

CoCCA's clients are managers of county code top level domains (ccTLDs) as of 31 March 2012, 33 national country code top level domains ("ccTLDs") are have selected CoCCA's SRS technology or services to manage their critical infrastructure. Several other ccTLDs have committed to migration to CoCCA's "pamoja" EPP Shared Registry System ("SRS") in 2012 pending the outcome of re-delegations.

CoCCA's pamoja SRS is the most widely deployed, field-tested SRS in use today. CoCCA's SRS is a mature product that has grown organically over the past decade as new standards have been developed and published. It is doubtful any other Registry Services provider has accumulated CoCCA's level of experience operating multiple small to medium sized TLDs efficiently and securely.

AGITSys' team is well-known in the ICANN community as a selfless champion of the interests of Persians around the world, including communities tied to the Persian heritage. We also have a long history of advising the Turkish internet industry. Our reputation is solid, and we have every incentive to maintain that reputation as we roll out the .PARS gTLD.

Under the shepherding of AGITSys, the .PARS gTLD will increase competition, provide more online differentiation for customers and consumers, while driving digital innovation. The addition of the .PARS gTLD will create new competition for names within the domain name space. Not only will the offering of .PARS domains create competition within content providers for users of Persian content, but it is expected that competition will be enhanced among the varying service providers that users require to deploy said content.

As it is rolled out, the .PARS gTLD will rapidly develop as the gTLD of choice among Persians in all countries. The demand for Persian content from this group isn't and won't be satisfied by .COM or .ORG offerings within the current gTLDs and in fact has hampered collaboration and innovation. The Persian people demand content that is tailored to their own unique needs and wants, under the umbrella of a dedicated gTLD. As stated in 18(a) above, as Persian-content sites increasingly seek to differentiate themselves to consumers, and registrants seek to differentiate themselves to acquirers of second-level domains, the power to differentiate will come from innovative approaches to customer service and the creation of a trusted online environment.

It is AGITSys' mission that competition and differentiation of the .PARS gTLD will be coupled with a user experience online that is reliable and predictable. To make this as likely as possible, AGITSys will work both with existing registrars seeking to reach new audiences, as well as new registrars that may emerge from within the global Persian community, thereby supporting ICANN's mission to create more capacity in developing countries. AGITSys feels it can foster more competition at the registrar level by offering assistance and encouragement to new registrars in this way. We also believe that this should and will be coupled with a positive experience for Internet users. Indeed, this is critical to the success of the .PARS gTLD. By working with the right registrars (who maintain the right, stringent) standards for adoption and use by their own customers, AGITSys can reach its goal of having the .PARS gTLD become synonymous with a safe and trusted online experience.

As a part of this, since the .PARS gTLD is community based and designed to serve those of Persian heritage - as well as to protect its good name, AGITSys intends to limit second-level domain registrations to those of Persian heritage, or those with a clear interest in serving the Persian community and culture beneficially. Such a designation is almost impossible to police, because to restrict registrations to those geographically located in Persian nations would alienate the Diasporas mentioned above. Thus, these limitations will mostly be self-imposed, with registrants agreeing themselves that they are either of Persian heritages or have a clear interest in ameliorating the community. Equally, AGITSys will not tolerate radical content, nor will it tolerate content that criticizes Persia and the Persian culture. Immediate and severe action will be taken against registrants promulgating either, and a black list will be created in an attempt to pre-empt any such attempts. Once content is registered, the community will be to an extent self-policing, with facilities to report abusive or non-Persian registrations available on the Registry website.

Because of its dedication to the Persian community and the .PARS gTLD which is intended to serve it, AGITSys will implement protection measures for registrations to ensure an abuse free environment whilst maintaining choice. This will be accomplished with Registration safeguards, wildcard alerts, name selection policies, all governed by an Acceptable Use Policy and post registration protections via Uniform Dispute Resolution Policy and Uniform Rapid Suspension. More details on these policies can be found in answer to Questions 28 and 29.

The privacy offered will be total, within the rules and procedures provided by ICANN. These policies will be transparent and rigorous, modeled after successful policies implemented by currently delegated TLDs and accompanied by vigilant processes and technologies to prevent unauthorized access to information. This is a manifestation of the larger goal of the .PARS gTLD, that of a trusted source of safe online transactions, as stipulated in 18(a).

Privacy and security will be key elements of our Acceptable Use Policy (AUP). The AUP will govern how a registrant may use its registered name, with a specific focus on protecting Internet users. AUP language would specifically address privacy by prohibiting a registrant from using a domain for any activity that violates the privacy or publicity rights of another person or entity, or breaches any duty of confidentiality owed to any other person or entity. The AUP also would prohibit spam or other unsolicited bulk email, or computer or network hacking or cracking, as well as the installation of any viruses, worms, bugs, Trojan horses or other code, files or programs designed to, or capable of, disrupting, damaging or limiting the functionality of any software or hardware. We would maintain complete enforcement rights over the use of the domain name. Should a registrant find itself in breach of the AUP, we would reserve the right to revoke, suspend, terminate, cancel or otherwise modify their rights to the domain name.

In terms of community outreach by the .PARS gTLD, it is expected that the momentum around .PARS will build quickly, given the pent-up demand that has been building for years within the ranks of the Persian people and associated community. AGITSys, as its champion in gTLD discussions, knows full well how popular this service will be.

There is already widespread support within the Persian Community for AGITSys' application for .PARS. More than 40,000 people have signed a petition to ICANN supporting our effort. As members of the Persian community, these people recognize the historical and cultural importance of the .PARS gTLD to Persians and endorse this effort. The petition can be found at <http://www.ipetitions.com/petition/dot-pars/>.

The growth of the .PARS gTLD will be driven by what economists refer to as the network effect. A network effect occurs when a service becomes more popular as more individuals adopt it. A significant portion of the service's value stems directly from the increased adoption and usage of the service. Historically the network effect is most powerful in tools of interconnection. The telegraph and telephone were technologies that grew exponentially due to the network effect. The Internet itself is an example of that phenomenon, as seen by the rapid upward growth curve of Internet penetration, broadband speeds, and web site creation. ICANN's data on the growth of .COM is an example of the network effect, and now it is seen in social-media platforms atop the Internet, such as Facebook and Twitter. In a short period of time, with very little effort invested in PR or promotion, we were able to recruit more than 40,000 supporters of our application for .PARS. Once delegated and properly promoted, we expect to see even greater results.

As more sites offer information, services, and opportunities for interconnection to the .PARS community as a whole, more members of the community will navigate to those sites. Many of those will provide their own content, and their activity there will spark further growth of second-level .PARS domains. At some point, Persian information and service providers currently not offering sites, will see the demand for .PARS-related content and will migrate their offerings to .PARS sites as well, furthering the offerings to the community and further driving community members to .PARS sites. The future benefits of interlinking this diverse and global community are incalculable but immense.

Augmenting this, AGITSys is also active in the business community within Turkey and Middle Eastern countries, and interconnected across the spectrum of the Persian community due to its promotional efforts with ICANN and elsewhere. It will leverage that network to spread the word of the .PARS gTLD in order to promote adoption. The best steps AGITSys can take to ensure the gTLD's adoption and growth, however, are to ensure a system encouraging robust, safe and dynamic second-level domain sites. At that point, the word will spread through the network effect.

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18C. What operating rules will you adopt to eliminate or minimize social costs (e.g., time or financial resource costs, as well as various types of consumer vulnerabilities)? What other steps will you take to minimize negative consequences/costs imposed upon consumers?

AGITSys will endeavor to the utmost in order to minimize the social costs to registrants of a .PARS second-level domain, not least because AGITSys has every incentive to encourage the adoption and growth of the .PARS domain. AGITSys has chosen to adopt CoCCA's tested acceptable use based policy matrix, recommendations for minimizing harm in TLDs, and subject the TLD to the CoCCA Complaint Resolution Service ("CRS").

The CoCCA Best practice policy matrix has been developed over a decade and has currently been adopted by 16 TLDs. It was developed for (and by) ccTLDs managers that desired to operate an efficient standards-based SRS system complemented by a policy environment that addressed a registrants use of a string as well as the more traditional gTLD emphasis rights to string.

A key element of CoCCA's policy matrix is that it provides for registry-level suspensions where there is evidence of AUP violations. The TLD will join other TLDs that utilize the CoCCA's single-desk CRS. The CRS provides a framework for the public, law enforcement, regulatory bodies and intellectual property owners to swiftly address concerns regarding the use of domains, and the CoCCA network. The AUP can be used to address concerns regarding a domain or any other resource record that appears in the zone.

The CRS procedure provides an effective alternative to the court system while allowing for Complaints against domains to be handled in a way treats each complaint in a fair and equal manor and allows for all affected parties to present evidence and arguments in a constructive forum.

AGITSys is also currently developing procedures for competition resolution regarding multiple registrations for the same second-level domain in addition to offering the required Sunrise offerings through general availability. AGITSys will model these procedures after the techniques and approaches that have succeeded best to date. The history of .COM will be of interest here, because .PARS should grow quickly and face demand as high among the Persian community as .COM has in the English-language online community.

In terms of cost, benefits, and incentives to registrants within the Persian community, AGITSys will offer fair and competitive pricing campaigns for tens of millions of people, introducing them to the wonders of the Internet and the Persian culture therein. Competitive pricing and/or discounts will be used and adjusted accordingly to ensure the right incentive matches the phase of operation and business goals. AGITSys' business plan increases our confidence in offerings that will encourage growing adoption of the .PARS gTLD.

Each year, AGITSys will review its financial goals versus actual performance of registry operations. Output from the analysis will include the consideration of pricing versus demand for registrations. As with any for-profit entity, adequate cash flow and predictable revenue streams are essential to successful operations. As such, AGITSys may adjust pricing of domain registrations to align with evolving business goals. Adjustments can include not only price increases, but perhaps price decreases, but only current market analysis will dictate change. Therefore, AGITSys will document in the Registrant Agreement domain price change procedures and how they can be expect to learn about changes through our communications platform. In the end, serving the Persian community through Internet technologies remains our first priority.

19. Is the application for a community-based TLD?

Yes

20A. Provide the name and full description of the community that the applicant is committing to serve. In the event that this application is included in a community priority evaluation, it will be scored based on the community identified in response to this question. The name of the community does not have to be formally adopted for the application to be designated as community-based.

The .PARS gTLD community is global; peoples of various nations united through their historical, ethnic and linguistic connections which date back more than two millenniums. The term 'Pars' (Párs: پارس) refers to the original homeland of the Persian people. The native name of the Persian language is Fārsī or Pārsī. Persia and Pārsian both derive from the Hellenized form Πέρσις Persis of the root word Pārs. The Old Persian word was Pārsa.

The Persian Community:

The Persian people are part of the Iranian peoples who speak the modern Persian language and closely akin Iranian dialects and languages. The origin of the ethnic Iranian/Persian peoples are traced to the Ancient Iranian peoples, who were part of the ancient Indo-Iranians and themselves part of the greater Indo-European linguistic family.

The term Persian translates to "from or of Persis" which is a region north of the Persian Gulf located in Pars, Iran.

It was from this region that Cyrus the Great the founder of the Achaemenid empire, united all other Iranian empires (such as the Medes and the Elamites), and expanded the Persian cultural and social influences by incorporating the Babylonian empire, and the Lydian empire. Although not the first Iranian empire, the Achaemenid Empire is the first Persian Empire well recognized by Greek and Persian historians for its massive cultural, military and social influences going as far as Athens, Egypt, and Libya and ruling on an estimated population of 40 million, about 500 B.C.

Ancient history and origin:

The Persians are believed to be descendents of the Indo-Iranian (Indo-Europeans) tribes that began migrating from Central Asia into what is now Iran in the second millennium BCE.

The ancient Persians from the province of Pars became the rulers of a large empire under the Achaemenid dynasty (Hakhamaneshiyan) in the 6th century BCE, reuniting with the tribes and other provinces of the ancient Iranian plateau and forming the Persian Empire. The founding dynasty of the empire, the Achaemenids, and later the Sassanids, were from the southern region of Iran, Pars. The latter Parthian dynasty arose from the north. However, according to archaeological evidence found in modern day Iran in the form of cuneiforms that go back to the Achaemenid era, it is evident that the native name of Parsa (Persia) had been applied to Iran from its birth.

The origin of the ethnic Iranian peoples/Persian peoples are traced to the Ancient Iranian peoples, who were part of the ancient Indo-Iranians and themselves part of the greater Indo-European linguistic family. The



Ancient Iranian peoples arrived in parts of Iranian plateau around 2000-1500 BCE. Important Iranian tribes such as Old Persians, Medes, Parthians, Bactrians, Scythians, and the Avesta people used the name Arya (Iranian), which was a collective definition, denoting peoples who were aware of belonging to the one ethnic stock, speaking a common language, and mainly sharing a religious tradition that centered on the worship of Ahura Mazda.

The Old Persians, who were one of these ethnic Iranian groups, were originally nomadic, pastoral people in the western Iranian plateau and by 850 BCE were calling themselves the Parsa and their constantly shifting territory Parsua for the most part localized around Persis (Pars), bounded on the west by Tigris River and on the south by Persian Gulf. The first known written record of the term Persian is from Assyrian inscriptions of the 9th century BCE, which mention both Parsuash and Parsua. These cognate words were taken from Old Iranian Parsava and presumably meant border, borderland and were geographical designations for Iranian populations. Nonetheless, Parsua and Parsuash, were two different geographical locations, the latter referring to southwestern Iran, known in Old Persian as Pârsa (Modern Fars, the Arabized version of Pars, since Arabs use "F" instead of "P"). The Greeks (who tended earlier to use names related to "Median") began in the 5th century to use adjectives such as Perses, Persica or Persis for Cyrus the Great's empire, which is where the word Persian in English comes from. In the later parts of the Bible, where this kingdom is frequently mentioned (Books of Esther, Daniel, Ezra and Nehemya), it is called "Paras" (Hebrew פָּרַס), or sometimes "Paras ve Madai" (פָּרַס וּמְדַי) i.e. "Persia and Media". As the Old Persians gained power, they developed the infrastructure to support their growing influence including creation of a capital named Pasargadae, and an opulent city named Persepolis. Starting around 550 BCE, from the region of Persis in southern Iran, encompassing the present Fars province, the ancient Persians spread their language and culture to other parts of the Iranian plateau and assimilated and intermingled with local Iranic and indigenous non-Iranic groups including the Elamites over time. Persians also interacted with other ancient civilizations in Europe and Africa. The first Persian Empire extended as far as the limits of the Greek city states, where Persians and Athenians influenced each other in what is essentially a reciprocal cultural exchange.

#### Ethnicity:

While a categorization of a "Persian" ethnic group persists in the West, Persians have generally been a pan-national group often comprising regional people who often refer to themselves as 'Persians' and have also often used the term "Iranian" (in the ethnic-cultural sense). As a pan-national group, defining Persians as an ethnic group, at least in terms used in the West, is not inclusive since the ethnonym "Persian" includes several Iranian people including the speakers of Modern Persian. Some scholars, classify the speakers of Persian language as a single ethnic unit (the 'Persians') and exclude those Iranians who speak dialects of Persian, or other Iranian dialects closely related to Persian; however this approach to ethnicity in Iran is erroneous, since the designation Iranian (Irani) as an ethnic term has been used by all these ethnic group in Iran, including the "Persians" irrespective of their origin, language and religion.

Although the Persian community is connected through ethnicity, origin and language, but they are now separated by borders. The major community of Persians can now be found in Iran, Georgia, Turkey, Armenia, the Caucasus, Azerbaijan, Afghanistan, Tajikistan, Uzbekistan and Northern Pakistan. Like the Persians of Iran (Western Persians), the Tajiks (Eastern Persians) are descendants of various Iranian peoples, including Persians from Iran, as well as numerous invaders. Tajiks and Farsiwan have a particular affinity with Persians in neighboring Khorasan due to historical interaction some stemming from the Islamic period. Scholars also include Iranian language speakers such as Talysh, Gilak, Lurs, Mazandarani and speakers of Central Iranian languages in Iran under the term Persian. Specifically, the Lurs speak an Archaic Persian language.

The introduction of .PARS gTLD will re-connect the Persian Community, living in countries where the old Persian Empire existed: PARS

The total population of Persian community living in Iran, Georgia, Turkey, Armenia, the Caucasus, Azerbaijan, Afghanistan, Tajikistan, Uzbekistan and Northern Pakistan, talking Persian as their mother tongue is more than 120 million, who know themselves as one group with the same origin, culture and heritage.

It is impossible to estimate how many of these people will actively participate in the online .PARS community, because internet penetration varies hugely in the various Persian and Persian-hosting nations. However, it is anticipated that millions of people will participate as the network effect (as described in section c below) begins to have an impact.

#### 20B. Explain the applicant's relationship to the community identified in 20(a).

- Relations to any community organizations.

Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. (AGITSys) was founded by individuals of Persian origin who derive a great sense of honor from their community, history and ancestry. AGITSys' founders have gathered together a team with extensive experience in Persian language on the Internet, a daunting but critical task. The company is headquartered in Turkey, which ties together the global Persian population through close relations both with the citizens of Persian-speaking countries in the East, as well as the diaspora of Persian language speakers in Western nations. Turkey's geographical and political location aids it enormously in this endeavor, as it literally and figuratively sits in-between the East and West. The .PARS gTLD is designed to accommodate a global community, and AGITSys' team's work with ICANN has always looked toward not just to serving the Afghan, Tajik and Iranian people but all users of Persian-script languages. The team behind AGITSys has pioneered the introduction of Persian text on the Internet, a daunting but critical task. They have taken a leadership role in working toward Persian domain names for more than 8 years. No entity is better suited to manage the .PARS gTLD, nor more dedicated to providing new online tools and services to facilitate the unification of the .PARS community online. The .PARS gTLD will open up the vast resources of the Internet to this community, while stimulating the introduction of more online resources in the Persian language.

ICANN is well-positioned to facilitate Persian-based domain names due to the efforts of AGITSys' leadership. Mr. Shahram Soboutipour, an expert in Persian linguistics has labored for years in anticipation of ICANN's introduction of Persian TLDs including:

## GNSO Internationalized Domain Names Working Group

Soboutipour engaged directly with this IDN-related ICANN Working Group. Over a four-month period ending in 2007, Shahram participated in policy discussions regarding new TLDs as the only representative of Persian concerns. The report can be found here: <http://gnso.icann.org/drafts/idn-wg-fr-22mar07.htm>

## GNSO Policy Process Steering Committee (PPSC)

Since 2008, AGITSys has been working with the GNSO PPSC. Soboutipour indirectly promoted policies and steering processes for future development of Persian TLDs within the Working Group-Work Team (WG-WT). The WG-WT is responsible for making recommendations concerning processes and methods involved for a new WG model, including suggestions for transition to a new model. As has been the case in other Working Groups, we were the only representatives looking out for Persian concerns.

## Public Interest Registry (.org Registry) Advisory Council

Shahram has been a member of the Advisory Council of PIR, Public Interest Registry (.org Registry) from April 2008 to 2012. He was especially engaged in the Advisory Council's Working Group, where PIR was interested in programming its future activities in this world.

## Arabic Script IDN Working Group (ASIWG)

Is a self-organizing group that consists of interested parties in the implementation of Arabic script in Internationalized Domain Names. Persian script is known as part of the Arabic script (Perso-Arabic script). Soboutipour was also active in this group,

- Relations to the community and its constituent parts/groups.

As stated above, AGITSys operates at the heart of the community as defined both by geography and population. But as this application demonstrates, it has a clear understanding of the larger community that would be served by .PARS, the spread over more than two millenniums of the Persian people and alphabet.

- Accountability mechanisms of applicant to the community.

AGITSys will oversee the formation of a .PARS Policy Advisory Committee (PAC) populated by members of the .PARS gTLD community. AGITSys intends that the PAC be representative of the entire broad spectrum of the Muslim community. It therefore intends to engage religious figures, academics, public figures and a broad range of community members and simply interested parties as a part of this board. Anyone with a desire to do so will be able to apply to become a member of the PAC, and AGITSys will not discriminate against any applicants; if their application is strong then the simplest farmer has as much chance of joining the board as a distinguished academic.

The PAC would serve as a conduit for the community to weigh in on any policy matters that impact the operation of the gTLD. These can range from abuse prevention and mitigation to registration policies and the maintenance and structure of the .PARS community.

This advisory Board will also be critical for our continued outreach across the community as we spread the word about the .PARS gTLD. It will serve as a key channel of communication with, and anchor to, the community which this effort hopes to serve.

AGITSys has received endorsement letters from the following organizations and individuals"

- 1 The Economic Cooperation Organization (ECO) Cultural Institute
- 2 Ferdowsi Foundation
- 3 Iran-Tajikistan Friendship Association
- 4 Institute for Trade Studies and Research
- 5 Iranian Scientific Society of Command And Control
- 6 Iranian Cavers & Speleologists Association
- 7 Dr. Majid Tafreshi, Historian and Researcher

In addition to the support of these leading organizations, there is already widespread grassroots support within the Persian Community for AGITSys' application for .PARS. More than 40,000 people have signed a petition to ICANN supporting our effort. As members of the Persian community, these people recognize the historical and cultural importance of the .PARS gTLD to Persians and endorse this effort.

In a short period of time, with very little effort invested in PR or promotion, we were able to recruit more than 40,000 supporters of our application for .PARS. Once delegated and properly promoted, we expect to see even greater results. As it is not possible to upload all 40,000 signatures, we encourage you to view the petition at <http://www.ipetitions.com/petition/dot-pars>.

## 20C. Provide a description of the community-based purpose of the applied-for gTLD.

- Intended registrants in the TLD.

The .PARS gTLD is intended for Members of the Persian Community who live in one of the countries: Iran, Georgia, Turkey, Armenia, the Caucasus, Azerbaijan, Afghanistan, Tajikistan, Uzbekistan; people who wish to promote, participate in or learn about Persian heritage, language and culture and who use it in any way in their daily lives. Equally, many companies worldwide use the word "Pars" or some derivation of Persian in their business names or even second-level domain - and thus the .PARS gTLD will benefit their internet presence, offering expansion for those already online and opportunities for those who are not.

- Intended end-users of the TLD.

Persians can be found in Iran, Georgia, Turkey, Armenia, the Caucasus, Azerbaijan, Afghanistan, Tajikistan, Uzbekistan and Northern Pakistan. Sizable Persian communities can also be found across North America in large cities such as New York City, Los Angeles, Chicago, Boston, Seattle, San Francisco, Denver, Ottawa and Toronto. It is estimated that as many as 1,560,000 Persian-speaking individuals live in the United States alone. Other major concentrations of Persian immigrants include Turkey (800,000), U.A.E. & Bahrain (560,000), Iraq (250,000), Germany (110,000), UK (80,000), Canada (75,000), France (62,000), India (60,000), Australia (60,000), CIS (50,000), Israel (50,000), Lebanon (50,000), Philippines, Korea & Japan (50,000), Russia & Other

Former Soviet Union countries (50,000), Syria (50,000), Pakistan (40,000), Egypt & North Africa (20,000), Greece (20,000), Kuwait (20,000), Austria (15,000), Spain & Portugal (15,000) and Sweden (15,000). Many of these Persian communities are served by Persian-script newspapers and periodicals, but the readers of those publications would welcome greater connection to their fellow citizens online through .PARS sites. The .PARS gTLD will also serve as a reminder of their glorious ancient homeland.

Within all of these populations, the intended end users of the .PARS gTLD are manifold:

Persian-language speakers with ties to the Persian heritage: This would include a significant percentage of the population of Persian Community along with other nations.

Persian-language native speakers: As demonstrated above, this includes millions of individuals in Afghanistan, Iran and Tajikistan as well as other continents.

Persian-language students: Those learning Persian as a foreign language would benefit from increased resources online that would help them learn and grow in their new language.

Persian businesses: Tens of thousands of entities hold the word "PARS" as part of their legal trading name, where it is needed to indicate their origin. Businessmen have chosen the word "PARS" as a symbol of honor and glory, and as an indication that they belong to the Persian community, leaving aside the simple popularity of the word. The word "PARS" is thus already used widely among Persian websites. A simple search for the word "PARS" limited to just "Persian language websites" and "in the page title" results more than 50,000,000 web pages, clearly indicating this popularity: <http://goo.gl/bG3VF>

A list of the regional and social varieties of modern Persian include;

Western variant (Farsi)  
 Eastern variant (Dari)  
 Central Asian variant (Tajik)  
 Hazara dialects (Hazaragi)  
 Judeo-Persian (Dzhidi)  
 Judeo-Tajik (Bukhori)

It is hoped that not only will these intended users derive individual benefit from the existence of a .PARS community, but that they will also contribute in turn. This should create a group benefit, which will in turn feed back in to individual benefits - establishing a beneficial cycle.

- Related activities the applicant has carried out or intends to carry out in service of this purpose.

Anticipating the diversification of TLDs now being realized, and the consequent introduction of a Persian culture-specific online space, AGITSys has been working with a wide variety of related parties for several years in preparation, and will continue to do so going forward. A key element to the success of the .PARS gTLD is a strong and interactive community, which Persians around the world are proud to associate with and keen to contribute to. In order to ensure this, AGITSys will engage in and sponsor community outreach and marketing, in order to raise awareness of the forthcoming possibilities and to gather input for how the .PARS gTLD will take shape, and what they intend to subsequently give back to it. Launching the .PARS gTLD in concert with the desires of the community will be key to its success.

Quality content will also be fundamental to a thriving .PARS community, especially because AGITSys is committed to ensuring that .PARS is populated by quality second-level domain offerings. With this in mind, AGITSys will be talking with those most likely to contribute quality content, from news and media agencies to academics and libraries (who will be able to digitize Persian-script materials and then distribute them online comprehensively for the first time) about how they can and will contribute, and what AGITSys can do to facilitate this process. Ultimately, however, culture and history will always be the most important element for a successful .PARS community online. The entire gTLD concept is designed as a place of online respect and reverence for those of Persian heritage to appreciate it - and appreciate their association with this heritage. As such, the involvement, blessing and feedback of the Persian cultural, political and religious community is fundamentally important. Aware of this, AGITSys has been in prolonged and continued contact with important Persian figures around the globe - asking them what they want to see and how they would like to see it done, whilst also encouraging them to spread the word and prepare themselves. This should mean that when the .PARS gTLD comes online, there will be a large swathe of information posted almost immediately - therefore instantly creating a rewarding user experience.

- Explanation of how the purpose is of a lasting nature.

The community that will be served by .PARS--growing as it has out of the Persian people and the Persian alphabet --has thrived and grown for more than a millennium. Remarkably, it has done so largely without the level of connection online found with English-speaking cultures. This existing community interconnection speaks to the cultural staying power of the community and the many ways it enriches world culture. With the adoption of a .PARS community, this robust group will be further empowered to interconnect and grow, allowing it to take its equal place on the Internet stage. The community thrives now, but will reach new heights with a .PARS gTLD.

The growth of the .PARS gTLD will be driven by what economists refer to as the network effect. A network effect occurs when a service becomes more popular as more individuals adopt it. A significant portion of the service's value stems directly from the increased adoption and usage of the service.

As more sites offer information, services, and opportunities for interconnection to the .PARS community as a whole, more members of the community will navigate to those sites. Many of those will provide their own content, and their activity there will spark further growth of second-level .PARS domains. At some point, information and service providers currently not offering sites in Persian will see the demand for .PARS-related content and will migrate their offerings to .PARS sites as well, furthering the offerings to the community and further driving community members to .PARS sites. The future benefits of interlinking this diverse and global community are incalculable but immense.

20D. Explain the relationship between the applied- for gTLD string and the community identified in 20(a).

- relationship to the established name, if any, of the community.

The .PARS gTLD is the name of the geographic location where the Persian community belongs to. Every member of the community can trace its heritage ethnically and linguistically to the Persian people, and millions of residents of Iran, Afghanistan and Tajikistan --among others worldwide--are descendants of the Persians who lived in the PARS land. There will be an instant connection to anyone in the community as to the meaning of .PARS, and the fact that any second-level domain with the .PARS gTLD will be a site providing them with information and access critical to them as a community member.

- relationship to the identification of community members.

As stated above, community members will feel an affinity and self-identification with the .PARS gTLD, as well as formal identification by their place of residency. As adoption of .PARS grows, use of domains using this community gTLD will grow exponentially, helping to cement the obvious connection between the string and the community.

- any connotations the string may have beyond the community.

AGITSys knows of no other connotations the .PARS string might have outside of this community.

20E. Provide a complete description of the applicant's intended registration policies in support of the community-based purpose of the applied-for gTLD. Policies and enforcement mechanisms are expected to constitute a coherent set.

- Eligibility: who is eligible to register a second-level name in the gTLD, and how will eligibility be determined.

As mentioned above, the primary goal of the .PARS gTLD is the protection and promulgation of Persian culture, language and heritage. To this end, in order to register a .PARS Domain Name, you declare during time of registration that you are part of the Persian Ethnic, Linguistic and Cultural Community.

Our policies may permit registrations in .PARS gTLD by the following:

Universities, schools, research institutions and other academic entities that use Persian in their academic activities or teach/promote aspects of Persian culture.

Public or private entities whose aim is promoting the Persian culture.

Writers, translators, correctors and journalists publishing (or contributing to) works in Persian

Publishing companies that publish works in the Persian language or relating to the Persian culture

Media using the Persian language for their communications

Individuals, groups, businesses, organizations, entities or initiatives, however constituted, carrying online communications in Persian

Individuals, groups, businesses, organizations, entities or initiatives, however constituted, carrying the word "Pars" as part of their name

In order to register a name in the .PARS TLD, all registrants must attest that they are members of the Persian Community who live in one of the following countries: Afghanistan, Armenia, Azerbaijan, The Caucasus, Georgia, Iran, Tajikistan, Turkey, or Uzbekistan and provide a valid address demonstrating their residence.

The .PARS gTLD is intended for people who wish to promote, participate or learn about the Persian heritage, Persian language, Persian culture and Persian history and who use it in any way within their daily lives.

The .PARS gTLD will be open to anyone complying with AGITSys Acceptable Use Policy (AUP), .PARS registration policies and with ICANN guidelines.

- Name selection: what types of second-level names may be registered in the gTLD.

Generally, eligible registrants may register names of their choice in the .PARS gTLD as long as they are in compliance with key registry policies such as the Acceptable Use Policies and not on the PAC Reserved list described below. AGITSys will also follow ICANN guidelines regarding potential restrictions of second-level domains. To help preserve the cultural importance of the gTLD, we will also develop and implement a reserve list of names that will represent key cultural, traditional and historical values of the Persian community. The development of this list will be spearheaded by this restriction can be controlled by creating the list of prohibited names managed by the .PARS Policy Advisory Board. This list will contain a broad listing of names that have particular significance to the .PARS community. It will include key holidays, religious institutions cultural icons and described above.

- Content/Use: what restrictions, if any, the registry operator will impose on how a registrant may use its registered name.

AGITSYS will have an Acceptable Use Policy (AUP) and registration policies that will govern how a registrant may use its registered name. We will ask all members to honor the Persian Culture, Heritage and language. We will also require registrants to ensure that websites hosted under these domain names contain Persian scripts to promote the Persian language as a valuable resource of the Persian Community.

AGITSYS will explore the use of automated measures to search for and evaluate the use of Persian scripts on websites registered in the .PARS gTLD. Those registrants who do not comply with the usage requirements above will have punitive action taken against them, potentially leading to their website being de-listed. These requirements will be enforced through the AUP and contracts registrants must sign with their registrars prior to the registration of a domain name.

- Enforcement: what investigation practices and mechanisms exist to enforce the policies above, what resources are allocated for enforcement, and what appeal mechanisms are available to registrants?

As part of the AUP and registration policies, AGITSys will have complete enforcement rights over registrants' use of .PARS domain names. AGITSys will randomly audit domain names registered in the .PARS gTLD to ensure compliance with all eligibility and use criteria. If a violation is discovered, an investigation will begin immediately to rectify said violation.

20F. Attach any written endorsements for the application from established institutions representative of the community identified in 20(a). An applicant may submit written endorsements by multiple institutions, if relevant to the community.

21A. Is the application for a geographic name?

No

22. Describe proposed measures for protection of geographic names at the second and other levels in the applied-for gTLD. This should include any applicable rules and procedures for reservation and/or release of such names.

#### Protection of Geographic Names

Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. has chosen CoCCA Registry Services (NZ) Limited (CoCCA) as their registry services provider. CoCCA has over 12 years of experience in authoring registry software and providing registry support services. With 35 national TLDs relying on CoCCA's technology to manage critical infrastructure, the CoCCA EPP Shared Registry System (SRS) is the most widely deployed, field-tested SRS in use today. In many respects new niche market gTLDs are predicted to more closely resemble existing ccTLD name spaces than the current gTLD ones. CoCCA's commercial model and technology enables TLD Sponsoring Organizations to focus on operating the front end portion of the registry including sales, marketing and community relations while leaving the operational aspects to the proven team at CoCCA.

In addition to technology CoCCA has a considered and tested set of leading - practice policies designed to address security, stability, rights protection, abuse mitigation, privacy and other issues, CoCCA is a trusted partner for Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. to operate the .pars in a manner that is fully compliant with all ICANN rules and regulations.

CoCCA, on behalf of the Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti., intends to implement the following measures to protect geographical names at the second and at all other levels within the TLD:

#### Reservation Measures for Geographical Names

Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. will adhere to Specification 5 of the proposed Registry Agreement, "Schedule of Reserved Names at the Second Level in gTLD Registries" / section 5 titled "Country and Territory Names." The geographic names listed in the following internationally approved documents will be reserved at the second level within the TLD and at all other levels where registrations occur:

(22.1.i.1) the short form (in English) of all country and territory names contained on the ISO 3166- 1 list, as updated from time to time, including the European Union, which is exceptionally reserved on the ISO 3166-1 list, and its scope extended in August 1999 to any application needing to represent the name European Union

(22.1.i.2) the United Nations Group of Experts on Geographical Names, Technical Reference Manual for the Standardization of Geographical Names, Part III Names of Countries of the World; and

(22.1.i.3) the list of United Nations member states in 6 official United Nations languages prepared by the Working Group on Country Names of the United Nations Conference on the Standardization of Geographical Names.

#### Potential Release of Geographical Names

Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. is committed to working with governments and other stakeholders that may have a concern regarding the registration of names with national or geographic significance at the second level. If Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. decides to release reserved geographical names, Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. will abide by the process outlined in Specification 5 of the Registry Agreement by seeking agreement from the applicable government(s). Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. understands that any release of the geographical names may be subject to Governmental Advisory Committee review and approval by ICANN.

#### Review, Audit, and Updates to Policies

Policy management is dynamic in nature requiring continual management. The Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. in conjunction with CoCCA's assistance will be engaged in policy development efforts in general and with respect to protections of geographical domain names. Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. will review and consider suggestions or concerns from government, public authorities or IGO's regarding this policy. And as with all required policies, Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. will perform openly and transparent should updates to existing policy or the creation of new policy be required. Further, Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti.' internal process continually reviews and manages its reserve lists as one part of the abuse prevention mechanisms described in greater detail within question 28, "Abuse Prevention and Mitigation."

23. Provide name and full description of all the Registry Services to be provided. Descriptions should include both technical and business components of each proposed service, and address any potential security or stability concerns.

The following registry services are customary services offered by a registry operator:

- A. Receipt of data from registrars concerning registration of domain names and name servers.
- B. Dissemination of TLD zone files.
- C. Dissemination of contact or other information concerning domain name registrations (e.g., port-43 WHOIS, Web- based Whois, RESTful Whois service).
- D. Internationalized Domain Names, where offered.
- E. DNS Security Extensions (DNSSEC). The applicant must describe whether any of these registry services are intended to be offered in a manner unique to the TLD.

Additional proposed registry services that are unique to the registry must also be described.

Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. has contracted CoCCA Registry Services (NZ) Limited ("CoCCA") to provide hosted Registry Services for the .pars TLD. The .pars TLD will be added to CoCCA's existing production Shared Registry System ("SRS"). CoCCA will ensure redundant geographically diverse DNS resolution through propagation of the .pars zones on the Internet Software Consortium ("ISC"), Packet Clearing House

("PCH") anycast networks - and on CoCCA unicast servers.

CoCCA authors the internet's most widely used SRS registry system ( which has been branded "pamoja" for gTLD name spaces). ISC authors BIND and pioneered anycast technology, PCH has one of the internet's largest and longest running anycast networks. DNSSEC key storage and and signature will take place on the PCH DNSSEC platform, a platform developed for ccTLD's that mirrors the security and processes used by ICANN to secure the root.

The .pars TLD SRS data will be escrowed with both NCC Group and CoCCA subsidiary CoCCA Data Escrow Services (NZ) Limited.

### 23.1 About CoCCA

CoCCA has over nine years experience authoring open source registry software systems and providing TLD registry support services. CoCCA was originally incorporated in Australia in 2003 as CoCCA Registry Services Limited, in January 2009 CoCCA re-located to New Zealand and trades as CoCCA Registry Services (NZ) Limited. CoCCA is a privately held NZ company.

CoCCA's existing clients are governments and other managers of county code top level domains (ccTLDs). As of 31 March 2012, 33 national ccTLDs have selected CoCCA's SRS technology and/or services to help them manage their critical infrastructure. Several additional ccTLDs have committed to migrate to CoCCA's "pamoja" SRS in 2012 (pending the outcome of re-delegations). As many as 40 ccTLDs are thought to be using the pamoja SRS application, while CoCCA has formal relationships and support contracts with 33 TLDs, the exact number of users is hard to determine as the pamoja software is freely available for download from the internet. CoCCA's offers ccTLDs a perpetual royalty-free license to use and deploy the SRS software.

CoCCA's commercial model is based on delivering significant economies of scale to TLD managers, CoCCA's dominant market position in the ccTLD ecosystem - where the TLD string is generally considered critical infrastructure, ensures CoCCA's commercial viability and ongoing funding of R&D regardless of the success of a particular gTLD string (or group of gTLD strings) that select CoCCA as the Registry Services provider. CoCCA's technology is mature, field tested and their commercial model is solid and not dependent on new gTLD's.

The pamoja SRS can be used several ways, the application can be downloaded and installed locally by a TLD Sponsoring Organization ("SO"), or the SO can contract CoCCA to host either the primary or failover SRS at the CoCCA Network Operations Centre ("NOC").

CoCCA's pamoja SRS is a freely available gTLD-compliant TLD database application based on the "CoCCA Tools" open source ccTLD EPP registry system. The SRS licensing simplifies failover and transition planning as the source, data, and daily virtual machine images are to be placed into escrow enabling them to be migrated or re-deployed by a different entity without any SRS licensing issues. CoCCA's SRS is a 'shrink-wrapped" application that can be installed on a single server in minutes or deployed in a High Availability (HA) configuration.

CoCCA's pamoja SRS is the most widely deployed, field-tested SRS in use today. CoCCA's SRS is a mature product that has grown organically over the past decade as new standards have been developed and published. It is doubtful any other Registry Services provider has accumulated CoCCA's level of experience operating multiple small to medium sized TLDs efficiently and securely.

CoCCA's pamoja SRS is currently used to run three (3) Arabic (IDN) TLDs and was selected by the Telecommunications Regulatory Authority in Egypt to launch the Internet's first IDN TLD (.masr) in 2010. The flexible package supports ASCII and IDN - including variants and folding where required.

### 23.2 Current pamoja SRS deployments

Key	[P] CoCCA Operated	Primary SRS	[F] CoCCA Failover SRS	[E] Escrow	[S] Software Only
.af		Afghanistan		Ministry of Communications and IT	[P] [F] [E]
.bi		Burundi		Centre National de l'Informatique	[F] [E] [S]
.bw		Botswana		Botswana Telecoms Authority	[S] [F] [E]
.cm		Cameroon		Cameroon Telecommunications (CAMTEL)	[S]
.cx		Christmas Is.		Christmas Island Internet Administration Limited	[P] [F]
[E]					
.ec		Ecuador		NIC.EC (NICEC) S.A.	[S]
.eg		Egypt		Egyptian Universities Network (EUN)	[S]
xn--wgbhlc				Egypt IDN	National Telecommunication Regulatory Authority
		[S]			
.ge		Guernsey		Island Networks Ltd.	[S]
.gl		Greenland		TELE Greenland A/S	[S]
.gs		S. Georgia		Government of South Georgia	[P] [F] [E]
.gy		Guyana		University of Guyana	[P] [F] [E]
.ht		Haiti		Consortium FDS-RDDH	[P] [F] [E]
.hn		Honduras		Red de Desarrollo Sostenible Honduras*	[P] [F] [E]
.iq		Iraq		Communications Media Commission*	[S] [F] [E]
.je		Jersey		Island Networks (Jersey) Ltd.	[S]
.ki		Kiribati		Ministry of Communications	[P] [F] [E]
.ke		Kenya		Kenya Network Information Center (KeNIC)	[S]
.mg		Madagascar		NIC-MG (Network Information Center Madagascar)	[F] [E] [S]
.mu		Mauritius		Internet Direct Ltd	[P] [F] [E]
.ms		Montserrat		MNI Networks Ltd	[F] [E] [S]
.mz		Mozambique		Centro de Informatica de Universidade	[F] [E] [S]
.na		Namibia		Namibian Network Information Center	[F] [S]
.ng		Nigeria		Nigeria Internet Registration Association	[F] [E] [S]
.nf		Norfolk Is.		Norfolk Island Data Services	[P] [F] [E]
.pe		Peru		Red Cientifica Peruana	[S]
.sb		Solomon Is.		Solomon Telekom Company Limited	[P] [F] [E]
.sy		Syria		National Agency for Network Services	[S]

xn--ogbpf8fl / xn--mqbtf8fl		Syria IDN		National Agency for Network Services	
[S]					
.tl		Timor-Leste		Ministry of Infrastructure	[P] [F] [E]
.ps		Palestine		Ministry Of Telecommunications	[S]
xn--ygbi2amxx		Palestine IDN		Ministry Of Telecommunications	
[S]		.zm		ZAMNET Communication Systems Ltd.	[F] [E] [S]

\* Currently in the process of migrating away from Neustar (.iq) and Afflias (.hn)

### 23.3 CoCCA's Hosted SRS

Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. has confirmed with CoCCA their production experience and the availability of the Registry Services described briefly in sections 23.4-23.18 below - and in greater detail in the responses to questions 24-43. Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. and CoCCA understand elements of ICANN's TLD requirements will most likely be modified in the future. CoCCA's Registry Services will comply with future ICANN requirements or mandates.

### 23.4 Receipt of Data via the SRS EPP interface

Data from Registrars concerning the insertion and maintenance of records in the SRS may be processed either via the CoCCA EPP interface (XML over SSL on port 700) or manually via CoCCA's port 443 SSL web interface. CoCCA was an early adopter of the EPP standard and has operated an EPP based SRS for almost seven years.

The .pars TLD will be added to CoCCA's existing production SRS, which currently has 203 registrars connected. CoCCA's SRS has a single EPP interface for all hosted TLDs allowing registrars to share the same contact and host objects across multiple TLDs. The .pars TLD will only be made accessible to ICANN accredited registrars, many of which are currently connected to CoCCA for ccTLDs and using the EPP and GUI interface that the .pars TLD will be accessed via when launched.

CoCCA's pamoja EPP interface currently complies the IETF RFC's required by ICANN (5730-5734 and 3735) and is explained in more detail in the response to Question 25.

### 23.5 Receipt of Data via the SRS Graphical User Interface ("GUI")

Registrars may insert and manage domain, contact and host records as well as the SRS accounting functions via a port 443 GUI. Registrars do not have to use the EPP interface on port 700. Records managed via the GUI connect to the SRS EPP engine on port 700 via background processes; this ensures rigorous conformity with the RFC's and consistency in auditing and maintenance of historical records.

### 23.6 Registrar Data Restrictions (Reserved Names)

Restrictions on what domains may be inserted and maintained by registrars is to be controlled by configuration of java regular expressions. In order to comply with the requirements set out in Specification 5 and any Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. policy, the .pars TLD will use three of pamoja's features as described below.

23.6.1 Prohibited Patterns. Domains that match patterns will be rejected with an EPP 2306 - Parameter Value Policy error, letting the registrar know that these domain names do not fit in with the registry policy for this zone.

23.6.2 Syntax Patterns. Certain strings, such as all-numeric names or single character names may be restricted. An EPP 2005 error - "Parameter Value Syntax error" will be returned to the EPP client, indicating that the name is invalid.

23.6.3 Approval Patterns. Names that match these patterns will not be rejected, but will be registered pending approval. Until they are approved, the name will not appear in the .pars zone files, and will not be able to be transferred, renewed or modified in any way by the registrar.

23.6.4 Both ASCII and non-ASCII contact details can be stored and displayed via web-based WHOIS and command line WHOIS.

### 23.7 SRS GUI, Role-Based Access

The pamoja SRS GUI has numerous role-based logins described below. Several of these have been recently developed by CoCCA in response to ICANN's proposed gTLD requirements and are currently being used in numerous ccTLD production environments.

#### Administrative Roles

- \* SRS Systems Administrator - Able to administer and configure the entire SRS system
- \* CERT / Law Enforcement - Able to view and query the SRS, but not alter records.
- \* TLD Administrator - Able to administer a TLD or group of TLDs
- \* TLD Viewer - Able to view but not alter records for a TLD or group of TLDs
- \* Zone Administrator - Able to administer a Stub Zone, or group of Stub Zones
- \* Zone Viewer - Able to view but not alter a Stub Zone, or group of Stub Zones
- \* Customer Service - Can perform tasks on behalf of a number of registrars
- \* Name Approver - Can approve names matching the Zone Approval Patterns
- \* CHIP Approver - Can approve domains registered with CHIP codes or other Trademarks.

#### Registrar Roles

- \* Registrar Master Account - Able to perform all registrar functions and create subordinate logins
- \* Registrar Technical - Able to modify domain details
- \* Registrar Helpdesk - Able to view domains and make various minor changes
- \* Registrar Finance - Able to view domains financial transactions and also edit financial data
- \* Registrar Finance - (Read Only) Same as above but view only.

#### Other Access Roles

- \* Premium WHOIS - Able to perform various queries in a SRS GUI and extract and save data to a CSV, also able to connect via the SRS EPP API for read-only query.
- \* Zone File Only - Able to login and request Zone Files

#### 23.8 Zone File Dissemination / Resolution

The .pars will be resolved by propagation of zone file data periodically extracted from the SRS, sent to PCH DNSSEC signing servers for signature, returned to CoCCA and then distributed by CoCCA's hidden master server to two redundant and independent anycast networks operated by Internet Software Consortium ("ISC" | <http://isc.org>) and Packet Clearing House ("PCH" | <http://pch.net>) - as well as two (2) public unicast TLD servers operated by CoCCA.

The .pars will be resolved by a minimum of 80 geographically distributed resolvers, all of which run ISC's BIND and are configured such that they comply with relevant RFC's including 1034, 1035, 1982, 2181, 2182, 2671, 3266, 3596, 3597, 3901, 4343 and 4472.

The PCH and ISC name servers employ IP-anycast technology for scalable geographic redundancy, strong defense from Denial of Service attacks, high quality of service, and give excellent (fast) responses to geographically diverse Internet users. DNSSEC and IPv6 are already fully integrated into the PCH and ISC networks.

Registrars will be able to continuously inspect the availability and status of each TLD server instance via the SRS GUI and other CoCCA WEB Sites. Should a TLD server be unreachable registrars are to be automatically notified (via email) and EPP polling messages. More detailed information is available in the responses to Questions 24-43.

#### 23.9 Dissemination of Domain Related Information

The SRS public WHOIS server will answer for the .pars TLD on port 43 in accordance with RFC 3912 and the requirements set out Specification Four (4), 1.1-1.7 and Specification Ten (10), Section 4.

The CoCCA SRS features a public port 443, web-based RDDS interface that enables internet users to query and extract information which is at a minimum identical to that which is provided via the port 43 server but using technology that may be more convenient or accessible to many internet users than a port 43 command line query.

The CoCCA SRS also allows any Internet user (or any user with a login to the SRS) to order a complete Historical Abstract delivered in an easy to understand pdf format.

Individuals may optionally subscribe to CoCCA's Premium WHOIS service, which provides them with:

- \* secure access to the SRS (via both a web-based port 443 GUI and read only EPP on port 700).
- \* the ability to perform a variety of boolean queries online in real-time and save the output to a CSV
- \* the ability to create "interest lists" using java regular expressions where they receive EPP polling messages and emails if a domain is registered that contains a string of interest to them.

Established CERT's and law enforcement agencies may request, and will generally be granted, read only GUI and EPP access to the CoCCA SRS free of charge. Currently this access is granted to the Australian Government CERT, who under an MOU may share information with other CERT's and national and international law enforcement agencies.

#### 23.10 DNS Security Extension (DNSSEC)

CoCCA's SRS DNSSEC implementation allows registrars to provision public key material via EPP and the GUI. Under an agreement between CoCCA and PCH, .pars TLD Keys are to be stored offline and signed using PCH's DNSSEC platform that replicates the security process, mechanisms and standards employed by ICANN in securing the ROOT of the DNS.

The CoCCA-PCH key storage implementation deviates from the ICANN model only by diversifying the locations of the secure sites such that two (2) of the three (3) sites are outside the United States. The Singapore facility is hosted by the National University of Singapore, on behalf of the Singaporean Infocomm Development Agency (IDA). The Swiss facility is hosted in Zurich by SWITCH, the Swiss national research and education network. The U.S. facility is hosted by PCH Equinix in San Jose.

The CoCCA SRS DNSSEC implementation complies with RFC's 4033, 4034, 4035, 5910, 4509, 4641 and 5155. Additional information on the DNSSEC implementation is available in the response to question 43.

#### 23.11 Escrow Deposits

CoCCA's Registry Services include deposit of escrow data in the format and following the protocols set out in Specification Two. CoCCA currently deposits ccTLD data daily (in both the native CoCCA format and the draft arias-noguchi format) with both NCC group and CoCCA Data Escrow (NZ) Limited. CoCCA Data Escrow (NZ) Limited is a subsidiary and was established in 2009 to provide Failover Registry and escrow services to users of the CoCCA SRS who run the software locally on their own infrastructure.

As part of CoCCA's Registry Services and to ensure continuity of operations, CoCCA deposits all updates to the pamoja SRS source code with NCC, and daily VMware images of the production SRS with CoCCA Data Escrow Services (NZ) Limited. These same practices will be adopted for the .pars TLD when launched.

.pars SRS data will be deposited with NCC Group, CoCCA Data Escrow and ICANN. Additional information on Escrow is available the response to question 38.

#### 23.12 Document Management



CoCCA's Registry Services include maintenance of documents related to intellectual property rights, complaints, identification of contacts, court orders etc. These documents are maintained in the SRS and become part of a domain's ( or contacts ) permanent history.

#### 23.13 Support for Various Zone States

CoCCA's Registry Services support Sunrise, Rolling Sunrise, Land-rush and Open Registrations for a given zone. Each "State" can be configured to match common policy options.

#### 23.14 Accounting

CoCCA's Registry Service's includes a variety of standardized and add-hoc reports accessible to TLD administrators via the GUI. Standardized reports include one that complies with the requirements set out in Specification Three "Format and Content for Registry Operator Monthly Reporting".

#### 23.15 Audit Trail

All SRS activity is logged and permanently archived, it can be easily retrieved via the GUI for law enforcement or complaint resolution. A "time-machine" feature allows a user with appropriate rights to view the domain information as it existed on any given date and time. Information is never purged from the SRS, information on deleted domains, hosts, contacts can be easily extracted.

#### 23.16 Monitoring

CoCCA's Registry Service's include statistics on and real-time monitoring of the primary NOC, CoCCA's DNS Servers, Escrow NOC (NZ) and failover NOC in Palo Alto California. Additional information is available in the answers to questions 24-42. Monitoring of the ISC and PCH anycast networks is done internally by those entities, with statistics and notices made available to CoCCA in near-real time. Where applicable and relevant monitoring information is made available to registrars by CoCCA via the SRS.

#### 23.17 Maintenance of Failover Facilities

CoCCA Registry Services include maintenance of their geographically dispersed Escrow and Failover SRS facilities ( Auckland and Palo Alto, a third is planned for Paris in early 2013).

#### 23.18 Complaint Resolution Service (CRS)

CoCCA's Registry Services include operating a "single desk" CRS to help resolve complaints, trigger Critical Issue Suspensions ("CIS") and enforce a Uniform Rapid Suspension ("URS") request. Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. will bind all registrants in the .pars to the CoCCA CRS, Acceptable Use Policy and Privacy and RDDS Policy via the .pars Registrant Agreement ("RA"). CoCCA's front-line CRS services are a "role" performed by CoCCA's 24/7/365 NOC Support.

#### 23.19 Registrar Support

CoCCA Registry Services provides registrars with 24/7/365 support via email and their virtual manned Network Operations Center (NOC). The CoCCA NOC Support has staff Auckland, Sydney, Jonestown (Guyana) and Paris for around the clock coverage. CoCCA NOC Support all have access to the same cloud hosted monitoring and customer service applications as well as the SRS.

#### 23.20 Security and Stability Audit

The pamoja SRS application is used to manage critical TLD infrastructure, each release is tested prior to release or deployment by CoCCA developers, developers and systems administrators at registries that deploy the application locally. Each major release is tested and audited by Yonita (<http://yonita.com/>).

CoCCA constantly reviews its SRS software and sites to ensure they meet or exceed best practices in the industry, regular external audits of the security policy and CoCCA NOC are planned commencing 2013. The CoCCA NOC and failover facilities will be independently tested twice a year to ensure compliance with the CoCCA security policy, where applicable recommendations included in a security audit will be swiftly implemented.

#### 23.21 Operational Testing and Evaluation (OT&E) Environment

CoCCA's Registry Service's include the operation of an OT&E SRS that enables registrars to evaluate new versions and features of the SRS software before they are deployed by CoCCA in production. Any ICANN accredited registrar will be granted access to OT&E. Registrars not currently connected to the CoCCA SRS will be required by CoCCA to demonstrate competency in EPP and the .pars policies before being granted EPP or GUI access to CoCCA's production SRS.

#### 23.22 Authorization Key Retrieval

CoCCA's Registry Service's include automated public retrieval of domain AuthCodes by the administrative contact via a port 443 web page. The Authorization Key facilitates expedited transfers from one registrar to another.

#### 23.23 Public Drop - List

CoCCA's Registry Services include publication of drop-lists of domains that are pending purge via a port 443 web page and email reports to registrars.

#### 23.24 Wildcard Brand Registrations

A mechanism thought to be unique to the CoCCA SRS that allows blocking registration of a domain's "variants" using java regular expressions. This requires approval and manual intervention on the part of CoCCA.

#### 23.25 Co-operation with Law Enforcement and CERTs

CoCCA works with Law Enforcement, CERTs and researchers and will generally grant registry continuous access free of charge to facilitate two-way data exchanges aimed at preventing and mitigating abuse in the DNS.

There are no known security or stability issues with the CoCCA's SRS, PCH's DNSSEC platform or ISC's and PCH's anycast networks at this time. Should any be identified resources are available internally at CoCCA, PCH and ISC to swiftly address and resolve security or stability issues as they arise.

24. Shared Registration System (SRS) Performance:  
describe

- the plan for operation of a robust and reliable SRS. SRS is a critical registry function for enabling multiple registrars to provide domain name registration services in the TLD. SRS must include the EPP interface to the registry, as well as any other interfaces intended to be provided, if they are critical to the functioning of the registry. Please refer to the requirements in Specification 6 (section 1.2) and Specification 10 (SLA Matrix) attached to the Registry Agreement; and
  - resourcing plans for the initial implementation of, and ongoing maintenance for, this aspect of the criteria (number and description of personnel roles allocated to this area).
- A complete answer should include, but is not limited to:
- A high-level SRS system description;
  - Representative network diagram(s);
  - Number of servers;
  - Description of interconnectivity with other registry systems;
  - Frequency of synchronization between servers; and
  - Synchronization scheme (e.g., hot standby, cold standby).

The .pars TLD will be added to CoCCA's existing SRS, which currently has its primary Network Operations Centre (NOC) in Sydney Australia. The Sydney primary SRS is a single SRS instance currently hosting a dozen ccTLDs. CoCCA's Sydney SRS runs the latest versions of their "pamoja" TLD software application in a High Availability (HA) configuration. The Sydney SRS registry that will host .pars currently complies with the requirements Specifications 4, 6 and 10 and will be scaled or modified to meet SLA requirements or any future ICANN gTLD specifications. Because of CoCCA's commercial model and technology the primary SRS can be moved from one data center to another with only a few minutes outage.

From an Internet users perspective trusted, secure and responsive DNS implementations are the ultimate objective of Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. To ensure this CoCCA will use PCH's DNSSEC and anycast infrastructure for offline storage, signing and resolving the .pars TLD, additional DNS resolution will be provided by the ISC SNS anycast platform and two CoCCA unicast DNS servers. Additional information and technical details on the DNSSEC and anycast DNS services can be found in the answers to questions 34, 35 and 43.

24.1 Scale of Operations

A decade of operational experience with TLDs that have implemented policies to discourage tasting or otherwise incentivize add-drop registrations confirms the widely held belief that SRS registry databases are largely static. Once registered data associated with a domain is not frequently modified. More than 99% of the queries seen by CoCCA on a daily basis are WHOIS, EPP Domain:Info or Domain:Check queries (read queries) and do not tax a SRS's resources excessively. Direct experience and anecdotal evidence from other small and mid-sized registries suggest that between 2% and 5% of the records in the register change daily through db "write" operations - new registrations, renewals, name server changes, contact updates automated changes of status, transfers etc.

For a theoretical registry of 1 million domains this equates to roughly 50,000 "write" transactions a day - or an average of 35 a min (50,000 / 1440 min/day). A recent test of CoCCA's SRS software on an single 8GB cloud server revealed that the pamoja software was able to process 4 million unique EPP registrations in a little over 5 hours. Performance tests can be designed in any number of ways, real world performance depends on a variety of factors- the specific policy and account settings for a given zone.

In terms of both transactional capability and storage, today's "off the rack" hardware and the open source PostgreSQL database used by CoCCA can easily cope with demands that a small to medium sized registry is ever likely to make on an SRS system. While the CoCCA SRS EPP and WHOIS infrastructure and platform may seem comparatively modest, a decade of experience confirms it is more than capable of meeting the ICANN's gTLD SLA requirements and comply with the required RFC's.

If future demands require it, CoCCA's SRS can easily (and affordably) be scaled by adding additional load balanced application servers and bandwidth.

24.1 SRS | High Level Description

Comprehensive information on and descriptions of the CoCCA SRS and NOC may be found the answers to questions 25-42 that follow.

24.1.1 SRS Infrastructure / Architecture

The following describes the key features of CoCCA's current production SRS that will be utilized for the .pars:

\* Primary SRS is operated from Global Switch, a tier 3 + facility and one of the largest carrier-neutral data centers in the Southern Hemisphere.  
<http://www.globalswitch.com/en/locations/sydney-data-center>

\* Redundant links to the Internet through PIPE networks and Telstra  
<http://www.pipenetworks.com/>  
<http://www.telstra.com.au/>

\* DNSSEC Key storage (offline) in Singapore at a PCH facility hosted by the National University of Singapore, on behalf of the Singaporean Infocomm Development Agency (IDA). Failover storage at a facility is hosted in Zurich by SWITCH, the Swiss national research and education network and in the U.S. at facility is hosted by Equinix in San Jose.

- \* .pars zones signed by PCH in Frankfurt or Palo Alto
- \* SRS Escrow at tier three co-location facility (Maxnet) in Auckland NZ and Failover a tier four facility (Equinix) supported by PCH in Palo Alto, CA US. A fourth SRS "instance" is planned for Paris in early 2013.
- \* Dedicated, routable CoCCA Critical Infrastructure IPv4 and IPv6 address blocks.  
IPv4 resources: 203.119.84.0/24 (crit-infra)  
IPv6 resources: 2001:dd8:3::/48 (crit-infra)
- \* Routers, Firewalls, Switches and Load balancers all configured for failover.
- \* CoCCA's pamoja SRS application load balanced and configured for failover.
- \* PostgreSQL 9.1.3 database replicated synchronously to two secondary DB servers.
- \* DS Keys lodged by registrars via EPP or the CoCCA SRS GUI
- \* Servers Virtualized (VMware vsphere v5)
- \* VM image-based replication for high availability and off-site disaster recovery <http://www.veeam.com/vmware-esx-backup.html>
- \* Critical Data continuously replicated asynchronously to two off-site SRS instances - PCH, Equinix Palo Alto CA (pch.net) and CoCCA Data Escrow (NZ) Limited, Auckland NZ (maxnet.co.nz)
- \* OT&E Environment for Registrars
- \* Primary and Secondary hidden master DNS ( failover masters ).
- \* CoCCA operated unicast DNS in Sydney Australia and Auckland New Zealand.
- \* Two anycast solutions operated by PCH and ISC - over 80 DNS nodes.

#### 24.1.2 Specification 6, Section 1.2 Compliance.

The .pars TLD will be added to CoCCA's production SRS that currently hosts 12 ccTLDs under a single RFC 5730-5743, RFC 5910 and 3915 compliant EPP interface.

A list of the Registrars that currently connect to the CoCCA SRS for one or more ccTLDs follows bellow.

#### 24.2 EPP Interface

The port 700 EPP interface for .pars will listen on the same IP and port as the EPP server for the other TLDs hosted by CoCCA - currently "production.coccaregistry.net:700", on launch the production EPP interface for .pars will be branded as epp.nic.pars.

#### 24.3 WHOIS Interface (port 43 and 443)

The WHOIS Interface(s) for .pars will listen on the same IP and port as the WHOIS server for the ccTLDs and prospective gTLDs to be hosted by CoCCA - currently "whois.coccaregistry.net:43/443" on launch the interface for .pars will be branded as "whois.nic.pars". Each TLD ( ccTLD/ gTLD ) in the CoCCA SRS may have different WHOIS disclosure settings based on the TLD policy. The .pars will comply with the ICANN gTLD disclosure requirements.

#### 24.4 GUI Interface (port 443)

The GUI Interface for .pars will listen on the same IP and port as the GUI server for ccTLDs and prospective gTLDs to be hosted by CoCCA - currently <https://production.coccaregistry.net:443>. On launch, the interface for .pars will be branded as "registry.nic.pars".

#### 24.5 Hidden Master DNS (s) (port 53)

There are two hidden master servers. CoCCA will transfer the .pars zone from the "signature master" to PCH for DNSSEC signature using TSIG IXFR / AXFR and IP restrictions at the OS and firewall level. PCH will sign the zone and transfers it back to CoCCA using TSIG and IXFER/ AXFER, CoCCA will then load the zone on a second "distribution master" which allows distribution to the PCH and ISC anycast transfer points and the CoCCA unicast DNS servers.

#### 24.6 CoCCA Public Unicast DNS

DNS servers on virtual machines running BIND in the Sydney NOC and NZ SRS will pull and resolve the .pars TLD zones.

#### 24.7 Public anycast DNS

CoCCA's distribution master notifies the anycast providers (PCH and ISC) and .pars TLD zones are transferred to the respective provider's transfer point IPs (hidden IPS for DNS transfers only) using TSIG IXFER / AXFR and then propagated by PCH and ISC across their respective anycast networks.

#### 24.8 ftp Server

Server to distribute zone files as required under Specification 4 Section 2.

#### 24.9 Escrow Server

Server used to deposit TLD data with NCC and transfer data to CoCCA's Failover and Escrow SRS. Uses Secondary IP

range.

#### 24.10 Number of Servers

There are seven physical server appliances in Sydney NOC configured such that they host 17 virtual machines.

#### 24.11 High Availability (HA) Configuration

The Sydney NOC's network appliances are configured for failover and HA in either hot or warm standby mode. The PostgreSQL databases are locally replicated using 9.1.3's synchronous replication and asynchronously over the WAN to the Failover facilities. The status of the local and off-site replication is continuously monitored by the CoCCA NOC. CoCCA also ships WAL files so that in the event of an extend WAN outage the offsite SRS can be updated using Point in Time Recovery (PITR).

RDDS and EPP services are load balanced between two different application servers at the primary SRS ( more application servers can easily be added ). Public read-only RDDS may also load balanced by simply having the nagios monitoring software automatically modify the resource records and send WHOIS traffic to either of the secondary / failover SRS's for near-real time WHOIS, When the primary becomes available or SLA issues ( DoS etc ) are resolved, RDDS services are automatically switched back to the primary SRS.

The public IPs at the NOC used for EPP, WHOIS and GUI are on routable critical infrastructure ranges assigned to CoCCA by APNIC. In the event of an issue with the primary Internet link at the Sydney NOC (PIPE networks) CoCCA may either modify A and AAA records for GUI / RDDS and EPP services to the local failover link, or the entire IP range can be re-routed using BGP routing to a CoCCA failover SRS. If the entire Sydney NOC suffers an extended outage the traffic can be routed to the the failover SRS (Palo Alto) or Escrow SRS (Auckland) as conditions dictate by either modification of resource records ( A, cname ) or BGP of the CoCCA AS.

VMware images of all virtual machines are made daily using Veeam Backup & Replication software

In addition to streaming replication, SRS data is sent to CoCCA's failover SRS and Escrow sites every 10 minutes (or sooner depending on activity) via SCP in the form of postgresql PITR files, and daily in the form of compressed database dumps and VMware images.

#### 24.12 List of Registrars Connected to the CoCCA SRS in Sydney AU as of March 30, 2012

Name		Country
12idn Limited	NZ	
1API GmbH		DE
3w Media GmbH	DE	
abayard		HT
AB NameISP		SE
Active24 .CZ	CZ	
AFGNIC Registrar	AF	
AGJ Times		GB
Alpha Communications Network	HT	
Ascio Technologies		DK
Atlantis North Ltd		GB
Automatic Inc		US
DomainReg		DE
Bamik Network Information	AF	
BBCWYSE Technology Co. Ltd	MU	
BB Online UK Limited	GB	
Beijing Guoxu Network	CN	
Bizcn.com, Inc.		CN
Biz.Vi Networks Ltd.	HT	
Blacknight Internet Solutions	IE	
Brights Consulting Inc.	JP	
Brown Domain Services	HT	
cctldnames		GY
Cogent IPC		SE
Com Laude		GB
Communigal Communication Ltd	IL	
Connect-Ireland		IE
Core   Council of Registrars	CH	
CPS-Datensysteme GmbH	DE	
Cronon AG		AF
Corporation Service Company	CA	
Consortium For Success, Inc.	US	
Cybernaptics Ltd		MU
DA Domains		DM
DANILOU.COM		HT
Digital Technology		GY
Dinahosting SL		ES
Dipcon AB		SE
documentdata anstalt	LI	
DomainClub.com		US
Domaine.fr		FR
Domaininfo AB		SE
DomainKeep		US
Domain The Net Technologies	IL	
Dominando IT		IT
Dynamic Network Services	US	
E-advert Ltd		MU
Easy Line Host		FI
Easyspace Ltd		GB

Encirca				US	
Enet Corporation		JP			
enom				US	
Entorno Digital S.A			ES		
EPAG Domainservices			DE		
Euro Billing Grona Verket AB	SE				
EuroDNS				LU	
IVX B.V.				NL	
FBS					TR
FING GLOBAL NETWORK Inc		JP			
Fody Technologies Ltd.		MU			
FRCI eServices Ltd			MU		
Gabia, Inc				KR	
Gandi SAS				FR	
Gastein IT Services		AT			
Gauss research Laboratory, Inc.	PR				
Guyanenet				GY	
Government Online Centre (MU)	MU				
GoHoto Pty Ltd			AU		
Golden Internet			RU		
GRAFIKLIF-WebalaMinute		HT			
Gransy s.r.o.			CZ		
GUYANANET				GY	
HAICOM ( HAITI Communications )	HT				
HAINET S.A.				HT	
Haiti Domain			HT		
Haqmal ICT Solution Services	AF				
Hikaru Kitabayashi			JP		
Holomedia				FR	
ht_hostmicrofos			HT		
Hostnet bv				NL	
Ultraspeed UK			GB		
FSM II				FM	
HTG					HT
GaMa Consulting S.A.		HT			
Koborg				MU	
Indeca GmbH				DE	
INDOMCO				FR	
Innovative Systems			GY		
Innter.Net				CY	
Instra Corporation			AU		
IntaServe				AU	
InterNetworX Ltd. & Co. KG		DE			
InterNetX GmbH			DE		
Indian Ocean Territories		CX			
IP Mirror Pte Ltd			SG		
Iron Mountain IPM			US		
Interactivetool.biz			MU		
Jestina Mesepitu			SB		
Jms-Networks (TM)			GB		
J SQUAD SYSTEMS INC.		AF			
Kawing Chiu				US	
Keiichi SHIGA (old: Keiichi dot business)			JP		
Key-Systems				DE	
Klute-Thiemann GmbH			DE		
Knipp				DE	
Larsen Data				DK	
Legekko Info Ltd			MU		
Lexsynergy Limited			GB		
LGLovells				FR	
MailClub (France)			FR		
Marcaria.com			US		
Marcus Cake				AU	
MARIDAN InterNET GmbH		DE			
MarkMonitor				US	
Maudeline Auguste			HT		
MediaWars CO LTD			JP		
Melbourne IT CBS AB			SE		
Domainbox				GB	
MICROCIS				AF	
Moniker Online Services, LLC.	US				
Mauritius Domains			MU		
Naikbeen_NCP			AF		
LIVING BY BLUE CO.,LTD		JP			
NameAction				CL	
Name.com LLC			US		
Nameshield				FR	
NameWeb BVBA			BE		
NATCOM S.A				HT	
National Computer Board		MU			
Nemesys Ltd				MU	
Nessus GmbH				AT	
NetAccess / AccessHaiti S.A.	HT				

NetNames Ltd		GB	
Net-Chinese Co., Ltd.	TW		
NETCOM S.A.			HT
NETLINKS			AF
Network Solutions, LLC	US		
Networking4all		NL	
Mauritius.biz Hosting	MU		
Nexus			GB
NICE S.r.l. d/b/a niceweb.eu	IT		
Norfolk Island Data Services	NF		
Novagroup			HT
Novutec Inc.		US	
OFFICE DE MANAGEMENT ET DE RESSOURCES HUMAINES		HT	
MB OPTIMAL SYSTEMS LTD	GB		
Our Telekom			SB
OVH			FR
OXWELL CC			VG
Multilink S.A		HT	
Peweb Ltda			BR
PlanA Corp			AI
pointcruz.com		SB	
pro.vider.de		DE	
Quick Net			HT
Redspider.biz		GY	
register.com		US	
Register.it spa		IT	
Register.mu			MU
Register.eu			BE
Domain Name Registration Service Reg.Net.Ua		UA	
101Domain, Inc.		US	
RWGUSA			US
Safenames			GB
Solomon Telekom		SB	
Solutions S.A.		HT	
SpeedPartner GmbH		DE	
studio28			GY
SunnyNames LLP		US	
TainoSystems		HT	
Telecommunications Authority of Kiribati		KI	
Telecom Plus Ltd		MU	
TierraNet Inc.		US	
Timor Hosting		TL	
TradeMark Unlimited, Inc	US		
Todaynic.com, Inc.		HK	
TPP Domains Pty Ltd		AU	
I.C.S. Trabia-Network S.R.L.	MD		
TRANSNET S.A		HT	
TRANSVERSAL			HT
Timor Telecom		TL	
Tucows			CA
ugcit			GY
UNICART Ltd.		BG	
united-domains AG		DE	
Variomedia AG		DE	
Melbourne IT DBS, Inc.	US		
V-Trade Ltd			MU
Visiant Outsourcing S.r.l.	IT		
Web Commerce Communications WebCC	MY		
WEB Development and Hosting Ltd MU			
WEB Ltd			MU
Web Solutions ApS		DK	
WebWorkers Internet Consultants cc	NA		
NamIT cc Namibia		NA	
WSR Corporation		GB	
Xcess Interactive		GY	
Xin Net Technology Corp .	CN		

25. Extensible Provisioning Protocol (EPP): provide a detailed description of the interface with registrars, including how the applicant will comply with EPP in RFCs 3735 (if applicable), and 5730-5734. If intending to provide proprietary EPP extensions, provide documentation consistent with RFC 3735, including the EPP templates and schemas that will be used.

Describe resourcing plans (number and description of personnel roles allocated to this area).

A complete answer is expected to be no more than 5 pages. If there are proprietary EPP extensions, a complete answer is also expected to be no more than 5 pages per EPP extension.

CoCCA was among the first registry providers to embrace the EPP standard seven years ago. CoCCA's traditional clients have been small to medium sized ccTLD operators un-encumbered by the legal, contractual and governance issues that often result in protracted delays in rolling out new policy, technology or standards in larger ccTLDs or in the gTLD environment. CoCCA and the users of its SRS software have been historically free to trial and introduce innovative technology policy.

The CoCCA SRS is an "all in one" software package ( RDDS/ EPP/ GUI / Accounting ) however this does not prevent

it from being deployed in a clustered environment where multiple instances answer for a specific protocol under a load balanced, high availability environment. Using a load balance appliance EPP traffic can be sent to one or more servers which are in turn connected to the same database. In all small to medium sized deployments tested to date load balancing the EPP service is not required - the load balancer is simply configured to provide failover and HA.

An aggressive three-year development program commenced in January 2009 with the objective of ensuring CoCCA's software was compliant with ICANN's new gTLD requirements - as well as the meeting needs of new and existing users in the ccTLD community.

#### 25.1 Current EPP RFC Compliance:

##### RFC 5730 Extensible Provisioning Protocol (EPP)

This RFC is a base protocol document for EPP. EPP is an XML-text object based client-server protocol, atomic in its transactions, and developed to support multiple transports and lower level security protocols. There are no partial failures; all commands either succeed or fail definitively. Object-to-object associations are standard with limited application of parent-child relationships where delegate relationships are necessary for affected functionality, such as internal host data and its relationship to domain objects. The pamoja SRS fully implements the service discovery, commands, responses, and the extension framework described.

##### RFC 5730

This RFC is a base protocol document for EPP. EPP is an XML-text object based client-server protocol, atomic in its transactions, and developed to support multiple transports and lower level security protocols. There are no partial failures; all commands either succeed or fail definitively. Object-to-object associations are standard with limited application of parent-child relationships where delegate relationships are necessary for affected functionality, such as internal host data and its relationship to domain objects. The pamoja SRS fully implements the service discovery, commands, responses, and the extension framework described.

##### RFC 5731

This RFC explains the mapping of the primary EPP registry object, the domain object. It reviews associated attributes and states of the domain object as well as child object relationships (hosts). It also details associations with other contact objects. The pamoja SRS complies with the full XML examples and descriptions and applies flexibility where permitted. For example, 5731 allows operators to implement the info command with different responses for a "sponsoring registrar" and a "non-sponsoring registrar" in regards to many domain object attributes. The pamoja SRS implements this as a base protocol document for EPP.

##### RFC 5732

The pamoja SRS implements this as a base protocol document for EPP. The pamoja SRS notes this RFC describes the mapping of relationships to host objects, which are by definition subordinate to the superordinate domain name object. Host objects that are defined as internal or in the namespace of the registry must be related to a superordinate domain object to be created. Internal hosts, as full child objects, face restrictions associated with the management of their superordinate domain object. External hosts are hosts belonging to another domain namespace and as such are not subordinate in the present namespace. Internal hosts can have a glue or an A record associated with them, external hosts refer to another namespace or zone for the associated A record.

##### RFC 5733

Another RFC implemented in the The pamoja SRS server, this RFC describes the contact object mappings in EPP. Contact objects are used to contain related data surrounding the standardized contacts types in TLD registries including attributes such as contact type, country, telephone numbers, email addresses, etc. As a standalone object, a contact object can be created and associated with no domain objects or with any number of domain objects available in the registry. This is used commonly by registrars to update common contact information associated across large numbers of domains in a single transaction. Like the domain object, it can be secured with a passphrase or "authinfo" code. Contact object data represents the definitive data source for authoritative RDDS (WHOIS) in new TLDs.

##### RFC 5734

The pamoja SRS implements this RFC as the preferred industry transport and in compliance with ICANN's requirements. This RFC describes a standard implementation of TCP incorporating TLS. The transport of choice for the EPP registry community has been TCP. Implementers are encouraged to take precautions against denial of service attacks through the use of standard technologies such as firewall and border router filters.

##### RFC 5735

The pamoja SRS implements this RFC as applicable to any extensions it utilizes as this RFC provides specific and detailed guidance on EPP extensions. An important principle in creating extensions to, as opposed to modifying, the EPP protocol was to fully preserve the integrity of the existing protocol schema. Additionally, a valid extension itself should be extensible. Another important requirement in the RFC is to include announcements of all available extensions in the EPP server greeting element before establishing an interactive client session.

##### RFC 3915

The pamoja SRS supports this extension since this all CoCCA managed TLDs implement the grace period implementation known as the Redemption Grace Period or "RGP". When RGP is in use, domains are deleted into the RGP where Registrars may request a restoration of the domain. This is a billable event and requires a three-step process: placement of the domain into a pending restore state, submission of a restore report explaining why the domain is being restored, and finally the restoration of the domain. The RFC extends the domain update command, adds related domain statuses, such as "redemptionPeriod" and "pendingRestore," and extends the responses of

domain info and other details. The RFC provides a lifecycle description of the RGP and defines the format and content for client to server submission of the associated restore reports.

#### RFC 5910

The pamoja SRS will support DNSSEC and therefore will also support this extension from initiation of the registration process. DNSSEC is a mechanism for cryptographically verifying that each delegate zone in the DNS hierarchy has been referred to or is referring to its genuine parent or child zone respectively. Since TLD zone files are generated from authoritative registry data, this extension specifically provides the ability to add elements to the domain-create and domain-update functions and to the domain-info responses, allowing registrars to submit associated delegated signer (DS) information of the child zone indicating it is digitally signed and that the parent zone recognizes the indicated key as a valid zone key for the child zone.

#### SRS General

The pamoja SRS Session Management - pamoja listens on port 700 for client requests.  
 The pamoja SRS Message Exchange - pamoja complies with the EPP message exchange rules  
 The pamoja SRS Data Unit Format - pamoja uses the prescribed packet formats

#### 25.2 EPP Security:

CoCCA's SRS performs username<clid>password<ssl certificate checks and also contains application level code to restrict connections to a set of IP addresses for each client and login.

Additional security is provided by firewall IP restrictions that restrict port 700 access to the SRS to trusted IP's and the use of stateful firewalls and load balancing devices to mitigate DoS attacks or other malicious activity.

#### 25.3 EPP - Demonstrating Capability

CoCCA authors the most widely deployed EPP SRS solution and has a long history of both development of and production experience operating an EPP SRS. The CoCCA MOC currently has 12 TLDs on it's production EPP SRS, over 20 TLD managers have deployed the CoCCA EPP solution locally for production use.

In order to demonstrate capability and compliance with the RFC's in 24.1 and CoCCA's Extensions in 25.3. Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. has instructed CoCCA to make available to evaluators an Operational and Testing and Evaluation (OTE) EPP interface should they desire to evaluate CoCCA's RFC compliance. Alternatively, evaluators may download CoCCA's pamoja SRS, install locally and contact CoCCA for configuration advice.

The URL to download pamoja is <https://downloads.coccaregistry.net>. Installers are available for Linux64x (Centos < Ubuntu ), OSX (10.6+) and WIN7+ servers.

#### 25.3 EPP Extensions

The CoCCA SRS currently provides several extensions to EPP, using the practices defined in RFC-3735. The CoCCA greeting currently defines the following four extensions:

```
...
{svcMenu}
...
{objURI} urn:ietf:params:xml:ns:host-1.0 {<objURI}
{svcExtension}
{extURI} urn:ietf:params:xml:ns:rgp-1.0 {<extURI}
{extURI} https://.../cocca-ip-verification-1.1 {<extURI}
{extURI} https://.../cocca-contact-proxy-1.0 {<extURI}
{extURI} https://.../cocca-contact-proxy-create-update-1.0 {<extURI}
{extURI} https://.../cocca-reseller-1.0 {<extURI}
{<svcExtension}
{<svcMenu}
...
```

##### 25.3.1 Registry Grace Period Extension

{extURI} urn:ietf:params:xml:ns:rgp-1.0 {<extURI}  
 Implemented as defined in RFC-3915 - <http://www.ietf.org/rfc/rfc3915.txt>

##### 25.3.2 Reseller Mapping Extension

{extURI} https://.../cocca-reseller-1.0 {<extURI}  
 Extensions for Domain:Create and Domain:Update

This extension tags a domain as being registered via one of registrars' resellers. The reseller reference is provided in the reference section, and is recorded against the domain as it is registered or updated. The reseller list must be maintained by the Registrar through the CoCCA Registry web interface.

If a registrar decides to load reseller information and map domains, the .pars WHOIS server (port 43 and 443), Historical Abstracts, and Premium WHOIS will display the reseller contact information as well as the Registrar information. If ICANN advises that display of reseller information in the port 43 WHOIS is inconsistent with the response format required in Specification 4, 1.4.2 then CoCCA will disable port 43 and or port 443 display of reseller data for the .pars TLD. Reseller information would still be stored and available for Historical Abstracts and users of the CoCCA's Premium WHOIS service.

```
{<xml version="1.0" encoding="UTF-8"}
```

```
{<xs:schema targetNamespace="https://production.coccaregistry.net/cocca-reseller-1.0"
```



```

xmlns="https://production.coccaregistry.net/cocca-reseller-1.0"
xmlns:xs="http://www.w3.org/2001/XMLSchema"
elementFormDefault="qualified")

(xs:element name="extension")
  (xs:complexType)
    (xs:sequence)
      (xs:element name="reference" type="xs:string"/>)
    (</xs:sequence>)
  (</xs:complexType>)
(</xs:element>)
(</xs:schema>)

(extension)
(reseller:extension xmlns:reseller="https://production.coccaregistry.net/cocca-reseller-1.0")
(reseller:reference) XXXXX (</reseller:reference>)
(</reseller:extension>)
(</extension>)

```

### 25.3.3 Clearinghouse for Intellectual Property Extension

Extension to connect to an external database to validate IP rights.

```
(extURI) https://.../coccaregistry.net/cocca-ip-verification-1.1 (</extURI>)
```

Extension for Domain:Create

```
(?xml version="1.0" encoding="UTF-8"?)

(xs:schema targetNamespace="https://.../cocca-ip-verification-1.1"
  xmlns="https://production.coccaregistry.net/cocca-ip-verification-1.1"
  xmlns:xs="http://www.w3.org/2001/XMLSchema"
  elementFormDefault="qualified")

  (xs:annotation)
    (xs:documentation)
      Extensible Provisioning Protocol v1.0
      Extension for providing IP Verification to CoCCA Registries

      v1.1 adds extra fields for trademark verification
    (</xs:documentation>)
  (</xs:annotation>)

  (xs:element name="extension")
    (xs:complexType)
      (xs:choice)
        (xs:element name="chip" type="chipType"/>)
        (xs:element name="trademarks" type="trademarkType"/>)
      (</xs:choice>)
    (</xs:complexType>)
  (</xs:element>)

  (xs:complexType name="chipType")
    (xs:sequence)
      (xs:element name="code")
        (xs:simpleType )
          (xs:restriction base="xs:token")
            (xs:maxLength value="255"/>)
            (xs:minLength value="1"/>)
          (</xs:restriction>)
        (</xs:simpleType>)
      (</xs:element>)
    (</xs:sequence>)
  (</xs:complexType>)

  (xs:complexType name="trademarkType")
    (xs:sequence)
      (xs:element name="trademark" minOccurs="1" maxOccurs="unbounded")
        (xs:complexType)
          (xs:sequence)
            (xs:element name="registeredMark")
              (xs:simpleType)
                (xs:restriction base="xs:token")
                  (xs:maxLength value="255"/>)
                  (xs:minLength value="1"/>)
                (</xs:restriction>)
              (</xs:simpleType>)
            (</xs:element>)
            (xs:element name="registrationNumber")
              (xs:simpleType)
                (xs:restriction base="xs:token")
                  (xs:maxLength value="255"/>)
                  (xs:minLength value="1"/>)
            (</xs:element>)
          (</xs:sequence>)
        (</xs:complexType>)
    (</xs:sequence>)
  (</xs:complexType>)

```

```

        (</xs:restriction>
        (</xs:simpleType>
        (</xs:element>
        (xs:element name="registrationLocality")
        (</xs:restriction>
        (</xs:simpleType>
        (</xs:element>
        (xs:element name="capacity")
        (</xs:restriction>
        (</xs:simpleType>
        (</xs:element>
        (xs:element name="companyNumber" minOccurs="0")
        (</xs:restriction>
        (</xs:simpleType>
        (</xs:element>
        (</xs:sequence>
        (</xs:complexType>
        (</xs:element>
        (</xs:sequence>
        (</xs:complexType>
        (</xs:schema>

```

This extension allows registrars to provide proof of their Intellectual Property claim for a name, when registering. It can be used to specify Clearing House for IP codes, or Trademarks. A CHIP request XML is as follows:

```

(extension)
(coccaip:extension xmlns:coccaip="https://.../cocca-ip-verification-1.1")
(coccaip:chip)
(coccaip:code) XXXXXXX (</coccaip:code>)
(</coccaip:chip>)
(</coccaip:extension>)
(</extension>)

```

An extension containing trademark information is as follows:

```

(extension)
(coccaip:extension xmlns:coccaip="https://.../cocca-ip-verification-1.1")
(coccaip:trademarks)
(coccaip:trademark)
(coccaip:registeredMark) CoCCA (</coccaip:registeredMark>)
(coccaip:registrationNumber) 12345 (</coccaip:registrationNumber>)
(coccaip:registrationLocality) NZ (</coccaip:registrationLocality>)
(coccaip:capacity) OWNER (</coccaip:capacity>)
(coccaip:companyNumber) 1234 (</coccaip:companyNumber>)
(</coccaip:trademark>)
(</coccaip:trademarks>)
(</coccaip:extension>)
(</extension>)

```

At the time of application it is not envisioned that this extension will be used for the .pars TLD. However it demonstrates an existing technical capacity to query and synchronize data with external databases in order to validate IP or other rights.

#### 25.3.4 Contact Proxy Extension

(extURI) <https://epp.ote.pars.coccaregistry.net/cocca-contact-proxy-1.0> (</extURI>)  
 Extension to allow registrars to lodge several sets of contact details for a given domain and select which one is displayed in the port WHOIS.

<https://production.coccaregistry.net/cocca-contact-proxy-1.0> and <https://production.coccaregistry.net/cocca-contact-proxy-create-update-1.0> - extensions for Contact:Create and Contact:Update.

```

(?xml version="1.0" encoding="UTF-8"?)

(xs:schema targetNamespace="https://production.coccaregistry.net/cocca-contact-proxy-create-update-1.0"
  xmlns="https://production.coccaregistry.net/cocca-contact-proxy-create-update-1.0"
  xmlns:proxy="https://production.coccaregistry.net/cocca-contact-proxy-1.0"
  xmlns:xs="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="https://production.coccaregistry.net/cocca-contact-proxy-1.0 cocca-contact-proxy-

```

```

1.0.xsd"
    elementFormDefault="qualified")

(xs:import namespace="https://production.coccaregistry.net/cocca-contact-proxy-1.0" schemaLocation="cocca-
contact-proxy-1.0.xsd"/>

(xs:annotation)
  (xs:documentation)
    Extensible Provisioning Protocol v1.0

    Extension for creating or updating a contact, with proxy information. This proxy information
    is provided as a WHOIS response, instead of the contact's real information if zone settings
    allow. Proxy information may be specified in full, by providing all the details or by using a
    reference to a previous contact proxy info. If you want to clear a contact's proxy info, send
    an existingProxy type request with an empty reference string.
  (</xs:documentation>)
(</xs:annotation>)

(xs:element name="extension")
  (xs:complexType)
    (xs:choice)
      (xs:element name="newProxy" type="proxyType"/>)
      (xs:element name="existingProxy")
        (xs:complexType)
          (xs:sequence)
            (xs:element name="reference" type="proxy:referenceType"/>)
          (</xs:sequence>)
        (</xs:complexType>)
      (</xs:element>)
    (</xs:choice>)
  (</xs:complexType>)
(</xs:element>)

(xs:complexType name="proxyType")
  (xs:sequence)
    (xs:element name="proxyDetails")
      (xs:complexType)
        (xs:sequence)
          (xs:element name="reference" minOccurs="0" type="proxy:referenceType")
            (xs:annotation)
              (xs:documentation)
                This is an optional field you can use to give this proxy info a particular reference.
                Each reference must be unique, so if you have an existing contact proxy info record
                with this reference value, you will UPDATE that record, changing the proxy info for
                any existing contact referencing that proxy.

                If you don't specify a reference, one will be created for you and returned in the EPP
                response.
              (</xs:documentation>)
            (</xs:annotation>)
          (</xs:element>)
          (xs:element name="email")
            (xs:simpleType)
              (xs:restriction base="xs:token")
                (xs:maxLength value="255"/>)
                (xs:minLength value="1"/>)
              (</xs:restriction>)
            (</xs:simpleType>)
          (</xs:element>)
          (xs:element name="voice" type="proxy:phoneNumberType"/>)
          (xs:element name="fax" minOccurs="0" type="proxy:phoneNumberType"/>)
          (xs:element name="internationalAddress" type="proxy:addressType"/>)
          (xs:element name="localAddress" type="proxy:addressType" minOccurs="0"/>)
        (</xs:sequence>)
      (</xs:complexType>)
    (</xs:element>)
  (</xs:sequence>)
(</xs:complexType>)

(xs:element name="resData")
  (xs:annotation)
    (xs:documentation)
      If a contact is created or updated with contact proxy information specified, or if the registrar
      creating the contact has a default proxy specified, then the reference value identifying the proxy
      is returned in the response, in the extension/resData field described here. If the contact was updated
      to
      clear the reference field (i.e. setting the contact's proxy using the existingProxy type, but leaving
      the reference field empty) then the reference value will be empty, confirming the update.
    (</xs:documentation>)
  (</xs:annotation>)
  (xs:complexType)
    (xs:sequence)
      (xs:element name="reference" type="proxy:referenceType"/>)

```

```

    (</xs:sequence>
     (</xs:complexType>
      (</xs:element>
       (</xs:schema>

(?xml version="1.0" encoding="UTF-8"?)

(xs:schema targetNamespace="https://production.coccaregistry.net/cocca-contact-proxy-1.0"
  xmlns="https://production.coccaregistry.net/cocca-contact-proxy-1.0"
  xmlns:xs="http://www.w3.org/2001/XMLSchema"
  elementFormDefault="qualified")

  (xs:simpleType name="referenceType")
    (xs:restriction base="xs:token")
      (xs:maxLength value="40"/>
       (xs:minLength value="0"/>
        (</xs:restriction>
         (</xs:simpleType>

  (xs:complexType name="phoneNumberType")
    (xs:sequence)
      (xs:element name="number")
        (xs:simpleType)
          (xs:restriction base="xs:token")
            (xs:maxLength value="64"/>
             (xs:minLength value="1"/>
              (</xs:restriction>
               (</xs:simpleType>
              (</xs:element>
              (xs:element name="extension" minOccurs="0")
                (xs:simpleType)
                  (xs:restriction base="xs:token")
                    (xs:maxLength value="64"/>
                     (xs:minLength value="1"/>
                      (</xs:restriction>
                       (</xs:simpleType>
                      (</xs:element>
                     (</xs:sequence>
                    (</xs:complexType>

  (xs:complexType name="addressType")
    (xs:sequence)
      (xs:element name="street1")
        (xs:simpleType)
          (xs:restriction base="xs:token")
            (xs:maxLength value="255"/>
             (xs:minLength value="1"/>
              (</xs:restriction>
               (</xs:simpleType>
              (</xs:element>
              (xs:element name="street2" minOccurs="0")
                (xs:simpleType)
                  (xs:restriction base="xs:token")
                    (xs:maxLength value="255"/>
                     (xs:minLength value="0"/>
                      (</xs:restriction>
                       (</xs:simpleType>
                      (</xs:element>
                      (xs:element name="street3" minOccurs="0")
                        (xs:simpleType)
                          (xs:restriction base="xs:token")
                            (xs:maxLength value="255"/>
                             (xs:minLength value="0"/>
                              (</xs:restriction>
                               (</xs:simpleType>
                              (</xs:element>
                              (xs:element name="city")
                                (xs:simpleType)
                                  (xs:restriction base="xs:token")
                                    (xs:maxLength value="255"/>
                                     (xs:minLength value="1"/>
                                      (</xs:restriction>
                                       (</xs:simpleType>
                                      (</xs:element>
                                      (xs:element name="stateProvince" minOccurs="0")
                                        (xs:simpleType)
                                          (xs:restriction base="xs:token")
                                            (xs:maxLength value="255"/>
                                             (xs:minLength value="0"/>
                                              (</xs:restriction>
                                               (</xs:simpleType>
                                              (</xs:element>
                                             (</xs:element>

```

```

(xs:element name="postcode" minOccurs="0")
  (xs:simpleType)
    (xs:restriction base="xs:token")
      (xs:maxLength value="255"/>)
      (xs:minLength value="0"/>)
    (</xs:restriction)
  (</xs:simpleType)
(</xs:element)
(xs:element name="countryCode")
  (xs:simpleType)
    (xs:restriction base="xs:token")
      (xs:pattern value="[A-Z]{2}"/>)
    (</xs:restriction)
  (</xs:simpleType)
(</xs:element)
(</xs:sequence)
(</xs:complexType)
(</xs:schema)

```

This extension allows the association of a contact proxy with a contact.

The contact:create and contact:update extensions can specify an existing proxy contact by ID, or create a new proxy contact. To associate a contact with an existing contact proxy, use this form:

```

(extension)
(proxyupdate:extension xmlns:proxyupdate="https://production.coccaregistry.net/cocca-contact-proxy-create-update-1.0")
(proxyupdate:existingProxy)
(proxy:reference xmlns:proxy="https://production.coccaregistry.net/cocca-contact-proxy-1.0") XXXXX
(</proxy:reference)
(</proxyupdate:existingProxy)
(</proxyupdate:extension)
(</extension)

```

where XXXXX is the ID of the proxy contact you wish to use. To create a new contact and associate it with a contact, use this form of the create or update extension:

```

(extension)
(proxyupdate:extension xmlns:proxyupdate="https://production.coccaregistry.net/cocca-contact-proxy-create-update-1.0" xmlns:proxy="https://production.coccaregistry.net/cocca-contact-proxy-1.0")
(proxyupdate:newProxy)
(proxyupdate:proxyDetails)
(proxy:reference) XXXXX (</proxy:reference)
(proxy:email) XXXXX (</proxy:email)
(proxy:voice)
(proxy:number) XXXXX (</proxy:number)
(proxy:extension) XXXXX (</proxy:extension)
(</proxy:voice)
(proxy:internationalAddress)
(proxy:street1) XXXXX (</proxy:street1)
(proxy:street2) XXXXX (</proxy:street2)
(proxy:city) XXXXX (</proxy:city)
(proxy:stateProvince) XXXXX (</proxy:stateProvince)
(proxy:postcode) XXXXX (</proxy:postcode)
(proxy:countryCode) XXXXX (</proxy:countryCode)
(</proxy:internationalAddress)
(</proxyupdate:proxyDetails)
(</proxyupdate:newProxy)
(</proxyupdate:extension)
(</extension)

```

At the time of application it is not envisioned that this extension will be used for the .pars TLD.

Other:

In addition to the above statuses, the CoCCA Registry provides additional lifecycle statuses over and above those defined in RFC-5731. The CoCCA Activation statuses are provided using namespaced status elements in the Domain:Create and Domain:Info responses, and are accompanied by an RFC-3735 compliant extension section. A Domain:Create response for a newly registered domain would appear as follows:

```

{?xml version="1.0" encoding="UTF-8" standalone="no"?}
(epp xmlns="urn:ietf:params:xml:ns:epp-1.0" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd")
  (response)
    (result code="1000")
      (msg) Command completed successfully (</msg)
    (</result)
    (msgQ count="229" id="21192"/>)
    (resData)
      (domain:infData xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
xsi:schemaLocation="urn:ietf:params:xml:ns:domain-1.0 domain-1.0.xsd")
        (domain:name) info.confirm.test (</domain:name)

```

```

    (domain:roid) 234511-CoCCA (<domain:roid)
    (domain:status s="inactive") Delegation information has not been supplied (<domain:status)
    (activation:status xmlns:activation="https://production.coccaregistry.net/coccca-activation-1.0"
s="pendingActivation")
      This domain requires acceptance of ADP and registrant agreement by 2012-02-29 10:19
    (<activation:status)
    (domain:registrant) regis-80ESBqGtje (<domain:registrant)
    (domain:clID) registrar (<domain:clID)
    (domain:crID) registrar (<domain:crID)
    (domain:crDate) 2012-02-21T21:19:32.887Z (<domain:crDate)
    (domain:exDate) 2013-02-21T21:19:33.006Z (<domain:exDate)
    (domain:authInfo)
      (domain:pw) Hh7Wz3c9dC (<domain:pw)
    (<domain:authInfo)
    (<domain:infData)
    (<resData)
    (extension)
      (rgp:infData xmlns:rgp="urn:ietf:params:xml:ns:rgp-1.0"
xsi:schemaLocation="urn:ietf:params:xml:ns:rgp-1.0 rgp-1.0.xsd"/>)
      (activation:extension xmlns:activation="https://production.coccaregistry.net/coccca-activation-1.0")
      (activation:url) https://registry-adam/activate.jsp?
activationCode=ITihilkma8SmbCsYefY18uEaJikwOXKNLOMLu0HHXkXjZUynrDZZUh6SB2h8h1D8 (<activation:url)
      (activation:link) /activate.jsp?
activationCode=ITihilkma8SmbCsYefY18uEaJikwOXKNLOMLu0HHXkXjZUynrDZZUh6SB2h8h1D8 (<activation:link)
    (<activation:extension)
    (<extension)
    (trID)
      (clTRID) CR-4 (<clTRID)
      (svTRID) 1329859182069 (<svTRID)
    (<trID)
    (<response)
  (<epp)

```

#### 25.4 EPP Access Requirements

1. IP Address white listing ( firewall and application layer )
2. Signed registry issued SSL certificates
3. Username/Password

Authentication requires that the IP address the connection is made from be white listed IP, that the entity connecting use a CoCCA-issued SSL certificate and that correct clientID and passwords be used. By default registrars have only GUI access to the SRS, EPP is enabled by request and only after a Registrar has been certified on CoCCA's OT&E platform.

#### 25.5 CoCCA GUI Environment

In addition to providing the standard implementation of EPP that runs on Port 700, CoCCA also provides a secure web based Graphical User Interface running on Port 443 that allows Registrars to register and manage domains in their portfolio without connecting by EPP.

#### 25.6 EPP Via the GUI

In cases where a registrar uses the SRS GUI, all domain, host and contact operations supported by the RFC's are executed by pamoja's internal EPP engine to ensure that GUI and port 700 EPP interfaces behave identically.

These methods of authentication include:

1. IP Address white listing
2. Using a one-time password ("OTP") delivered via hardware token, soft token or SMS is issued by CoCCA.
3. The use of a Username/Password

#### 25.7 Registrars

A list of registrars that have already successfully integrated and connected to CoCCA's SYD SRS is attached. CoCCA's SYD SRS is used by 200+ Registrars, many of which currently utilize the XML based EPP protocol for the purpose of providing automated services to their clients.

#### 25.8 Resourcing and Continuous Development

CoCCA's software development team and systems administrators support both their own in-house SRS and that of over 23 other TLD managers who have deployed the pamoja SRS software locally on their own infrastructure. Development is on-going and active. The CoCCA SRS has been developed over the past 9 years, the bulk of the development on the EPP platform has been completed, however two full time developers are employed by CoCCA to customize, maintain and improve the software for the TLD's that use it.

Because of the co-operative nature of the development process CoCCA works closely with over a dozen developers and network engineers employed by users of CoCCA's TLD software to resolve bugs, continuously improve pamoja's performance and add new features.

#### 26. Whois: describe

- how the applicant will comply with Whois specifications for data objects, bulk access, and lookups as defined in Specifications 4 and 10 to the Registry Agreement;
- how the Applicant's Whois service will comply with RFC 3912; and
- resourcing plans for the initial implementation of, and ongoing maintenance for, this aspect of the criteria (number and description of personnel roles allocated to this area).

A complete answer should include, but is not limited to:

- A high-level Whois system description;
- Relevant network diagram(s);
- IT and infrastructure resources (e.g., servers, switches, routers and other components);
- Description of interconnectivity with other registry systems; and

Frequency of synchronization between servers.

To be eligible for a score of 2, answers must also include:

- Provision for Searchable Whois capabilities; and
- A description of potential forms of abuse of this feature, how these risks will be mitigated, and the basis for these descriptions

A complete answer is expected to be no more than 5 pages.

CoCCA currently delivers proven, innovative WHOIS and Registration Data Directory Services ("RDDS") technology to the TLDs hosted by CoCCA and to the TLDs that deploy the pamoja SRS on their own infrastructure. CoCCA's Specification Four compliant WHOIS and RDDS technology will be utilized by CoCCA for the .pars TLD. Under CoCCA's SRS Architecture one WHOIS server will answer for all the TLDs in the SRS. Each TLD Sponsor can configure the WHOIS such that it serves different results depending on the wishes of the Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. and applicable ICANN requirements.

#### 26.1 WHOIS Architecture and Infrastructure Overview

CoCCA's flexible WHOIS architecture is designed for high availability, complies with RFC 3912 and surpasses the requirements in Specifications 4 and 10. The flexible pamoja WHOIS server may be configured to provide a variety of information, and in a variety of formats that supplements ICANN's proposed gTLD requirements.

As registrations appear (or are modified) in the registration database, changes are committed to a replicated read only secondary database utilized by CoCCA's WHOIS server. Because the replication is synchronous WHOIS data is presented in real time. If at a future date WHOIS query response times becomes an SLA issue, WHOIS responses may be cached using "infinite cache" horizontal caching technology, which has been tested and can readily scale to meet future demand, alternatively RDDS services may be answered by a SRS instance off-site (one of the CoCCA secondary/failover SRS's) for near real-time WHOIS and RDDS.

#### 26.2 Port 43 WHOIS (command line)

CoCCA has confirmed that the format of the domain status, individual and organizational names, address, street, city, state-province, postal code, country, telephone and fax numbers, email addresses can and will be configured to conform to the mappings specified in EPP RFC's 5730-5734. The originating IP address and date time of all WHOIS queries are logged and will be stored for a minimum of 28 days in the production SRS.

GUI configuration and command line flags allow a client to request output in ASCII, Unicode, ASCII and Unicode or HTML output (with tables). For IDN TLDs, a variety of command line WHOIS options have been tested in conjunction with the Arabic TLDs that use the CoCCA SRS. CoCCA supports all the current IETF standards and several developed for current IDN users. CoCCA's SRS can be readily modified should ICANN mandate a particular technology in the future.

##### 26.2.1 Domain Name Data:

- \* Proposed Production Query format: whois "h -whois.nic. (TLD) domain
- \* Response format: Currently compliant with Specification 4, Section 1.4.2 (pages 40-41).

##### 26.2.2 Registrar Data:

- \* Proposed Production query format: whois "h -whois.nicpars registrar
- \* Response format: Currently compliant with Specification 4, Section 1.5.2 (pages 41-42) -- with the exception of the registrar "WHOIS Server" object (p. 42), under the proposed .pars thick registry model registrars will not operate their own WHOIS servers.

Inclusion of this object seems redundant and may cause confusion regarding the authoritative WHOIS server for the .pars. If required by ICANN the registrar WHOIS object data will be collected and displayed by CoCCA.

##### 26.2.3 Name Server Data:

- \* Proposed Production Query format: whois "h -whois.nic. (TLD) (Host or IP)
- \* Response format: Currently compliant with Specification 4, Section 1.6.2 (p. 42)

#### 26.3 Public WHOIS service via a secure port 443 web-based interface:

CoCCA's pamoja software has a publicly accessible port 443 GUI service that allows individuals to query the SRS for registration data for individual domain, registrar or host records.

CoCCA has confirmed that the format of the domain status, individual and organizational names, address, street, city, state-province, postal code, country, telephone and fax numbers, email addresses can and will be configured to conform to the mappings specified in EPP RFC's 5730-5734.

To prevent abuse, CoCCA implements rate limiting via CAPTCHA for each individual transaction. The procedure would follow as per below.

- 1) An individual would navigate in a browser to [https://whois.nic. \(TLD\)](https://whois.nic.(TLD))
- 2) Click on the appropriate button (Domain, Registrar, or Name Server)
- 3) Enter the applicable parameter:
  - Domain name, including the TLD (e.g., EXAMPLE.TLD)
  - Full name of the registrar, including punctuation (e.g., Example Registrar, Inc.)
  - Full host name or the IP address (e.g., NS1.EXAMPLE.TLD or 198.41.3.39)
- 4) Enter the CAPTCHA phrase or symbols

5) Click on the Submit button

Possible Outcomes from the query:

\* If an exact match for the domain, host, or registrar exists in the SRS, the Port 443 WHOIS will display the same information and with the same formatting, as the port 43 WHOIS (see above and Specification 4, Sections 1.4 " 1.6 ).

\* If there is no exact match but a super-ordinate domain exists the SRS data for the super- ordinate name is to be displayed. By way of example if an individual searches for abc.domainpars and abc.domainpars does not exist then the SRS would display the information on domainpars and advise the individual accordingly.

#### 26.4 WHOIS and RDDS | Demonstrating Capability

CoCCA has almost a decade of experience running multiple TLDs and providing WHOIS services. WHOIS and RDDS are integrated into CoCCA's pamoja software. In order to demonstrate capability and compliance with the Specification Four, Section One, Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. has instructed CoCCA to make available to evaluators an Operational and Testing and Evaluation (OTE) WHOIS and RDDS interface on request. Alternatively, evaluators may download CoCCA's pamoja SRS, install locally and contact CoCCA for configuration advice.

The URL to download pamoja is <https://downloads.coccaregistry.net>. Installers are available for Linuxx64x (Centos / Ubuntu ), OSX (10.6+) and WIN7+ servers.

#### 26.5 Network Diagrams

CoCCA's RDDS services serve data directly from the SRS, there is no separate WHOIS database. If performance becomes and issue pamoja's RDDS read-only services can be configured to extract data from a replicated copy of the SRS.

Individuals or entities that desire to run multiple queries against the SRS for law enforcement purposes, IP protection or to mitigate cyber-crimes need simply subscribe to CoCCA's Premium RDDS Service and may query the SRS via EPP as well as port 43 and the 443 GUI. Premium RDDS users are granted EPP read-only access (on request) and need not be ICANN Accredited registrars. In many cases EPP may be a better tool for automation of multiple queries than port 43 WHOIS.

The systems supporting WHOIS are fully redundant with hardware and software that can easily scale to meet the Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti.'s growth projections of the TLD. For comprehensive description of the SYD NOC see questions 31 and 32.

The WHOIS server at the CoCCA Data Centre in Sydney currently answers for 12 TLDs and processes on average fewer than 8000 WHOIS requests per hour. The current WHOIS server and database has been tested and can answer in excess of 9,000 TPS as currently configured - network latency may impact real world results depending on the origin of the query.

#### 26.6 Synchronization Frequency Between Servers

CoCCA's WHOIS architecture is designed to ensure WHOIS data is current, accurate and reliable. CoCCA's RDDS services serve data directly from the SRS, in the default configuration there is no separate WHOIS database. CoCCA uses PostgreSQL and synchronous replication data is committed to the production SRS master database and a secondary database (read only) server configured to serve WHOIS data, so that at all times the SRS and CoCCAs WHOIS servers serve the same data.

CoCCA streams SRS data off-site asynchronously (and by log file shipping as a failover) to their SRS servers in Palo Alto and Auckland to enable those SRS's to serve near-real time WHOIS data if the primary SRS experiences an issue that negatively impacts CoCCA's ability to meet SLA's for the .pars TLD.

If WHOIS caching is required as the .pars TLD grows, compliance with the SLA requirements in the ICANN agreement may necessitate that Failover SRS or Escrow SRS answer RDDS queries or that cache servers be deployed, in such a circumstance, the WHOIS response would be near real-time ( accurate to within a min or two of the primary SRS ).

#### 26.7 Compliance with Specification 4

CoCCA will provide free RDDS Services via both port 43 and a web-based port 443 site in accordance with RFC 3912.

Additionally, the CoCA will also provide fee-based Premium RDDS service described in further detail below. CoCCA and the Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. acknowledge that ICANN reserves the right to specify alternative formats and protocols and if such change were to occur; CoCCA will implement specification changes as soon as practical.

CoCCA and the Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. will provide bulk access of thin RDDS data to ICANN to verify and ensure operational stability of registry services, as well as to facilitate compliance checks on accredited registrars. Access will be provided to ICANN on a weekly basis and the format will be based on section 3 of Specification 4. Further, exceptional access to thick RDDS will be provided to ICANN per Specification 2.

Should ICANN request it CoCCA will provide ICANN with a Premium RDDS login at no charge which will provide them with continuous access to the SRS to extract thick SRS data for the .pars at its leisure.

The proposed format of the data objects for domains, name servers , and the registrar output are provided below:

##### 1.4. Domain Name Data:

1.4.1. Query format: whois EXAMPLE.TLD

1.4.2. Response format:

Domain Name: EXAMPLE.TLD



Domain ID: D1234567-TLD  
 WHOIS Server: whois.example.tld  
 Referral URL: http://www.example.tld  
 Updated Date: 2009-05-29T20:13:00Z  
 Creation Date: 2000-10-08T00:45:00Z  
 Registry Expiry Date: 2010-10-08T00:44:59Z Sponsoring Registrar: EXAMPLE REGISTRAR LLC Sponsoring Registrar IANA ID: 5555555  
 Domain Status: clientDeleteProhibited Domain Status: clientRenewProhibited Domain Status: clientTransferProhibited Domain Status: serverUpdateProhibited Registrant ID: 5372808-ERL  
 Registrant Name: EXAMPLE REGISTRANT Registrant Organization: EXAMPLE ORGANIZATION Registrant Street: 123 EXAMPLE STREET  
 Registrant City: ANYTOWN  
 Registrant State/Province: AP  
 Registrant Postal Code: A1A1A1  
 Registrant Country: EX  
 Registrant Phone: +1.5555551212  
 Registrant Phone Ext: 1234  
 Registrant Fax: +1.5555551213  
 Registrant Fax Ext: 4321  
 Registrant Email: EMAIL@EXAMPLE.TLD Admin ID: 5372809-ERL  
 Admin Name: EXAMPLE REGISTRANT ADMINISTRATIVE Admin Organization: EXAMPLE REGISTRANT ORGANIZATION Admin Street: 123 EXAMPLE STREET  
 Admin City: ANYTOWN  
 Admin State/Province: AP  
 Admin Postal Code: A1A1A1  
 Admin Country: EX  
 Admin Phone: +1.5555551212  
 Admin Phone Ext: 1234  
 Admin Fax: +1.5555551213  
 Admin Fax Ext:  
 Admin Email: EMAIL@EXAMPLE.TLD  
 Tech ID: 5372811-ERL  
 Tech Name: EXAMPLE REGISTRAR TECHNICAL  
 Tech Organization: EXAMPLE REGISTRAR LLC  
 Tech Street: 123 EXAMPLE STREET  
 Tech City: ANYTOWN  
 Tech State/Province: AP  
 Tech Postal Code: A1A1A1  
 Tech Country: EX  
 Tech Phone: +1.1235551234  
 Tech Phone Ext: 1234  
 Tech Fax: +1.5555551213  
 Tech Fax Ext: 93  
 Tech Email: EMAIL@EXAMPLE.TLD  
 Name Server: NS01.EXAMPLEREGISTRAR.TLD  
 Name Server: NS02.EXAMPLEREGISTRAR.TLD  
 DNSSEC: signedDelegation  
 DNSSEC: unsigned  
 )) Last update of WHOIS database: 2009-05-29T20:15:00Z (( (

#### 1.5. Registrar Data:

1.5.1. Query format: whois "registrar Example Registrar, Inc." 1.5.2. Response format:

Registrar Name: Example Registrar, Inc. Street: 1234 Admiralty Way  
 City: Marina del Rey  
 State/Province: CA  
 Postal Code: 90292  
 Country: US  
 Phone Number: +1.3105551212 Fax Number: +1.3105551213  
 Email: registrar@example.tld  
 WHOIS Server: whois.example-registrar.tld  
 Referral URL: http://www.example-registrar.tld  
 Admin Contact: Joe Registrar  
 Phone Number: +1.3105551213  
 Fax Number: +1.3105551213  
 Email: joeregistrar@example-registrar.tld  
 Admin Contact: Jane Registrar  
 Phone Number: +1.3105551214  
 Fax Number: +1.3105551213  
 Email: janeregistrar@example-registrar.tld  
 Technical Contact: John Geek  
 Phone Number: +1.3105551215  
 Fax Number: +1.3105551216  
 Email: johngeek@example-registrar.tld  
 )) Last update of WHOIS database: 2009-05-29T20:15:00Z (( (

#### 1.6. Nameserver Data:

1.6.1. Query format: whois "NS1.EXAMPLE.TLD" or whois "nameserver (IP Address)" 1.6.2. Response format:

Server Name: NS1.EXAMPLE.TLD  
 IP Address: 192.0.2.123  
 IP Address: 2001:0DB8::1  
 Registrar: Example Registrar, Inc.  
 WHOIS Server: whois.example-registrar.tld  
 Referral URL: http://www.example-registrar.tld

))) Last update of WHOIS database: 2009-05-29T20:15:00Z (((

#### 26.8 Supplemental Data

Subject to ICANN Approval, Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. will ensure the SRS is configured to display of the following Supplemental RDDS data (objects only displayed if applicable).

Activation Expiry Date: 2011-12-31T11:11:11Z  
 Activation Date: 2011-12-31T11:11:11Z  
 Contact Confirmation Expiry Date: 2011-12-31T11:11:11Z  
 Contact Confirmation Date: 2011-12-31T11:11:11Z  
 Registration Grace Expiry Date: 2011-12-31  
 Registration MIN Expiry Date: 2011-12-31  
 Redemption Expiry Date: 2011-12-31  
 Purge Date: 2011-12-31  
 Renewal Grace Expiry Date: 2011-12-31  
 Transfer Grace Expiry Date: 2011-12-31

Reseller ID: 4261797-ERL  
 Reseller Name: ACME Reseller A  
 Reseller Street: 123 RESELLER STREET  
 Reseller City: RESELLER VILLE  
 Reseller State/Province: RS  
 Reseller Postal Code: 12345  
 Reseller Country: US  
 Reseller Phone: +1.5555551219  
 Reseller Phone Ext: 1239  
 Reseller Fax: +1.5555551219  
 Reseller Fax Ext: 4329  
 Reseller Support Email: helpdesk@reseller. (TLD)

#### 26.9 Compliance with Specification 10

CoCCA's WHOIS service will comply and/or exceed the Registration Data Directory Service (RDDS) performance specifications outlined in Specification 10 of the proposed Registry agreement. For the existing TLDs supported by CoCCA, all service levels already exceed the Specification 10 Requirements:

- \* RDDS Availability ) 98%
- \* RDDS Query ) 95%
- \* RDDS Update ) 95%

CoCCA's current RDDS availability statistics are available online at <http://stats.coccaregistry.net>

RDDS Services that are near real time can be provided from the failover or escrow SRS's by simply changing the IP/CNAME for the whos.nic.(TLD) if there are SLA related or loading issues. This has been tested and is being done automatically at any time by CoCCA's monitoring software with near immediate effect ( 30 seconds).

#### 26.10 Historical Abstracts

In addition to CoCCA's RDDS services, detailed Historical Abstracts for individual domains are also made readily available to the general public, law enforcement and rights owners.

Historical Abstracts are a compilation of all information available on a domain (including deleted / archived domains) that are held in the registry. This includes the time and date of all changes in contacts, hosts, registrars, resellers, status's as well as all registration, activation, confirmation, renewal, restore or commercial transactions related to the maintenance of domain in the SRS.

A representative sample of a Historical Abstract detailing the full history of a domain is attached.

#### 26.11 Premium RDDS (port 443 and port 700 EPP)

Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti., with the service support of CoCCA, intends to offer Boolean partial and exact match search capability of all Domain, Contact, Host, Registrar data in the SRS within the Directory Service via a web interface. This Premium service will be billed at a monthly rate depending on the number of queries.

ICANN's requirement that thin SRS data be made available in bulk makes it trivial for any entity who has thin data provided by the Centralized Zone Data Access Provider to run automated queries against the .pars WHOIS public WHOIS server and extract thick SRS data - for all the domains in a zone. CoCCA's Premium RDDS makes access to registration data by IP Owners, Law Enforcement and CERT's efficient (EPP and GUI ) and timely (real-time), Premium RDDS does not expose any information that ICANN's gTLD policy does not effectively require Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. to otherwise make publicly available to the public via WHOIS and the services of CZDA Provider.

Because experience has demonstrated that entities often attempt to use the WHOIS for a variety of purposes, rights protection, research etc., and because WHOIS is a rather blunt instrument which does not provide always provide the most useful advice on reserved domains, wildcard string registrations etc. entities with a Premium RDDS Service will, on request, be granted read-only EPP access to retrieve domain information.

In order to make it unnecessary for IP owners or others to continuously query the SRS via EPP or command line WHOIS subscribers to the Premium RDDS may create lists that use regular java expressions and boolean operations that will notify them by email and if applicable EPP polling messages when a domain that matches a given string is registered.

To mitigate abuse of this feature, Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. will implement the

following measures to ensure legitimate authorized users and ensure the feature is in compliance with any applicable privacy laws or policies:

- \* Premium RDDS subscribers must agree, as a condition of access to comply with Section 2.1.5 of Specification 4. To monitor that RDDS services are not being abused and used to "support the transmission by e-mail, telephone, or facsimile of mass unsolicited, commercial advertising or solicitations to entities other than user's own existing customers, or (ii) enable high volume, automated, electronic processes that send queries or data to the systems of Registry Operator or any ICANN-accredited registrar" CoCCA will seed the SRS with unique records and that enable them to track reported abuse back to an individual RDDS subscriber.

- \* Because this is only offered as a premium and paid service, the request must follow the CoCCA application process to confirm the user identification and process the financial transaction. Thus, the typical end-user will not have access to this service.

- \* All GUI searches are conducted via authenticated user access using a combination of username and password and OTP tokens.

- \* CoCCA will monitor for out of band usage patterns of the Premium RDDS service and take appropriate action if policy thresholds are exceeded.

#### 26.12 Zone File Access

Subscribers to the Premium RDDS may download .pars zone files via the port 43 GUI up to six (6) times in any 24 hour period.

CoCCA will comply all the requirements set out in Specification 4, Sections 2.1-2.1.7. Specifically, CoCCA will operate a dedicated server supporting FTP, and or other data transport access protocols in a manner specified by ICANN and the Centralized Zone Data Access Provider.

#### 26.13 Resource Plans

The .pars TLD will be added to CoCCA's SRS at their primary data center in Sydney which currently supports the features noted above.

The Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. will dedicate 2 professionals to coordinate the operation of the .pars TLD. At the same time, the technical professionals at CoCCA will be supporting the vast majority of the technical aspects of operating the .pars TLD.

27. Registration Life Cycle: provide a detailed description of the proposed registration lifecycle for domain names in the proposed gTLD. The description must:

- explain the various registration states as well as the criteria and procedures that are used to change state;
- describe the typical registration lifecycle of create/update/delete and all intervening steps such as pending, locked, expired, and transferred that may apply;
- clearly explain any time elements that are involved - for instance details of add-grace or redemption grace periods, or notice periods for renewals or transfers; and
- describe resourcing plans for this aspect of the criteria (number and description of personnel roles allocated to this area).

The description of the registration lifecycle should be supplemented by the inclusion of a state diagram, which captures definitions, explanations of trigger points, and transitions from state to state.

If applicable, provide definitions for aspects of the registration lifecycle that are not covered by standard EPP RFCs.

A complete answer is expected to be no more than 5 pages.

Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. will adopt the CoCCA harmonized life cycle currently adopted by a dozen ccTLDs. The .pars life-cycle described below builds on the CoCCA technology and policy launched in November 2011 that sought to increase the accuracy of WHOIS data, minimize harm and increase consumer trust in TLDs. The life-cycle for the .pars TLD builds on the traditional gTLD life-cycle by adding direct Registrant-Registry interaction.

The proposed .pars life-cycle ensures key elements of the .pars TLD abuse prevention and mitigation framework are adhered to by delaying mapping of the Registrant's desired NS delegation information until the registrant has Activated a domain. All .pars registrations are provisional until Activated. Activation requires that the registrant confirm (with CoCCA) the accuracy of the contact information lodged by the registrar and reads agrees to the .pars Registrant Agreement (RA), AUP and Privacy RDDS Policy.

Activation takes place via automated processes that store the time : date and IP address of the Activation as part of the domains history.

Registrants will also be required to confirm (with CoCCA) the accuracy of the contact details and agreement with the .pars RA, AUP and Privacy RDDS Policy at a) the time of renewal, b) on transfer and c) on the anniversary of registration. The following Life-Cycle describes the CoCCA SRS EPP and WHOIS behavior at various stages in the Life-Cycle.

#### 27.1 Registration | Initial Registration

Not Registered

SRS EPP domain:check response

```

{"xml version="1.0" encoding="UTF-8" standalone="no"}
(epp xmlns="urn:ietf:params:xml:ns:epp-1.0" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd")
(response)

```

```

    (result code="1000")
      (msg) Command completed successfully (</msg>)
    (</result>)
    (msgQ count="309" id="21153"</)
    (resData)
      (domain:chkData xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
xsi:schemaLocation="urn:ietf:params:xml:ns:domain-1.0 domain-1.0.xsd")
        (domain:cd)
          (domain:name avail="1") no-exist.example (</domain:name>)
        (</domain:cd>)
      (</domain:chkData>)
    (</resData>)
    (trID)
      (clTRID) 1333577979408 (</clTRID>)
      (svTRID) 1333577979414 (</svTRID>)
    (</trID>)
  (</response>)
(</epp>)
SRS WHOIS response
$ whois no-exist.example
Domain Name: no-exist.example
Domain Status: Available

TERMS OF USE: (Legal Notice)

}} Last update of WHOIS database: 2012-04-04T10:55:27.634Z (<<

Note if a string cannot be registered for policy reasons the following the SRS will return the following. EPP
domain:check Status

("xml version="1.0" encoding="UTF-8" standalone="no")
(epp xmlns="urn:ietf:params:xml:ns:epp-1.0" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd")
  (response)
    (result code="1000")
      (msg) Command completed successfully (</msg>)
    (</result>)
    (msgQ count="309" id="21153"</)
    (resData)
      (domain:chkData xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
xsi:schemaLocation="urn:ietf:params:xml:ns:domain-1.0 domain-1.0.xsd")
        (domain:cd)
          (domain:name avail="0") profanity.example (</domain:name>)
          (domain:reason) Registry policy (</domain:reason>)
        (</domain:cd>)
      (</domain:chkData>)
    (</resData>)
    (trID)
      (clTRID) 1333579251148 (</clTRID>)
      (svTRID) 1333579251168 (</svTRID>)
    (</trID>)
  (</response>)
(</epp>)

WHOIS Status Display

$ whois profanity.example
Domain Name: profanity.example
Domain Status: Not Registered
Notes: This name is not allowed by the policy of this registry, and cannot be registered

}} Last update of WHOIS database: 2012-04-04T10:55:27.634Z (<<

-----
Registered | Status "Pending Activation"

The Activation and Confirmation requirements run in parallel to Grace, MIN, Pending Delete, Pending Purge and
other SRS states. As soon the application is lodged via the SRS EPP and WHOIS servers will return the following.

EPP domain:info Status

("xml version="1.0" encoding="UTF-8" standalone="no")
(epp xmlns="urn:ietf:params:xml:ns:epp-1.0" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd")
  (response)
    (result code="1000")
      (msg) Command completed successfully (</msg>)
    (</result>)
    (msgQ count="309" id="21153"</)
    (resData)
      (domain:infData xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
xsi:schemaLocation="urn:ietf:params:xml:ns:domain-1.0 domain-1.0.xsd")

```

```

(domain:name) pending.example (<domain:name)
(domain:roid) 1234-CoCCA (<domain:roid)
(domain:status s="inactive") Delegation information has not been mapped (<domain:status)
(activation:status xmlns:activation="https://production.coccaregistry.net/cocca-activation-1.0"
s="pendingActivation") This domain requires acceptance of AUP and registrant agreement by 2012-04-09 15:39
(<activation:status)
  (domain:registrar) example (<domain:registrar)
  (domain:clID) adam (<domain:clID)
  (domain:crID) adam (<domain:crID)
  (domain:crDate) 2012-04-02T03:39:55.925Z (<domain:crDate)
  (domain:exDate) 2013-04-02T03:39:55.942Z (<domain:exDate)
  (domain:authInfo)
    (domain:pw) example (<domain:pw)
    (<domain:authInfo)
  (<domain:infData)
(<resData)
(extension)
  (activation:extension xmlns:activation="https://production.coccaregistry.net/cocca-activation-1.0")
  (activation:url)
https://registry.example/activate.jsp?activationCode=Q7DCanzCN1REmVnBlgjVIasJnLLMa4pacVRLn6ev9kc6sFppcs7FHLEX3PLPM
  (<activation:url)
  (activation:link)
  /activate.jsp?activationCode=Q7DCanzCN1REmVnBlgjVIasJnLLMa4pacVRL n6ev9kc6sFppcs7FHLEX3PLPM3x0
  (<activation:link)
  (<activation:extension)
(<extension)
(trID)
  (clTRID) TR-2 (<clTRID)
  (svTRID) 1333581885177 (<svTRID)
  (<trID)
(<response)
(<epp)

```

#### WHOIS Status Display Example

```

$ whois pending.example
Domain Name: pending.example
Domain ID: 12345-CoCCA
WHOIS Server: whois.example
Referral URL:
Updated Date: 2012-02-07T03:51:17.543Z
Creation Date: 2010-03-04T04:15:10.423Z
Registry Expiry Date: 2015-07-04T04:15:10.434Z
Sponsoring Registrar: Example Registrar
Sponsoring Registrar IANA ID: 1234
Domain Status: pendingActivation

```

```

Registrant ID: 12345-CoCCA
Registrant Name: Example Registrant
Registrant Organization: Example Org
Registrant Street: 1 Example Rd
Registrant City: Exampleville
Registrant State/Province: EX
Registrant Postal Code: 1234
Registrant Country: EX

```

```

Name Server: ns1.example.com
Name Server: ns2.example.com

```

```
DNSSEC: unsigned
```

Unless ICANN objects, the WHOIS server (port 43 and 443) and an EPP Domain:info query will also display the following values - after display of the values required in the EPP RFC's and in Specification 4 Section 1.4.

```

Activation Expiry Date: 2011-12-31T11:11:11Z
Contact Confirmation Expiry Date: 2011-12-31T11:11:11Z
Registration Grace Expiry Date: 2011-12-31T11:11:11Z
Registration MIN Expiry Date: 2011-12-31T11:11:11Z

```

#### 27.1.1 Contractual Considerations:

Under the .pars TLD policy all registrations are considered provisional by Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. until the Registrant accepts the .pars RA and confirms the accuracy of the contact details lodged by the Registrar.

#### 27.1.2 Behavior:

Until such time as the domain is Activated it is parked on a Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. controlled website that displays the domains port 43 WHOIS information. The SRS ignores the registrar-submitted Name Server ("NS") delegation information for all domains with a status of "Pending Activation" and replaces them with the CoCCA parking servers.

#### 27.1.3 Duration:

A provisional application may be Activated by the Registrant or Administrative Contact at any time during the first 28 days after the Registration request is lodged in the SRS. On the 29th day after registration if a domain has not already been deleted by the Registrar, Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. deems the application to have been withdrawn by the registrant and the Status is changed to "Pending Purge " Restore Not Possible".

```

(xml version="1.0" encoding="UTF-8" standalone="no")
(epp xmlns="urn:ietf:params:xml:ns:epp-1.0" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd")
(response)
(result code="2303")
(msg) Object does not exist (/msg)
(/result)
(trID)
(clTRID) TR-2 (/clTRID)
(svTRID) 1333583795929 (/svTRID)
(/trID)
(/response)
(/epp)

```

EPP domain:check Status

```

(xml version="1.0" encoding="UTF-8" standalone="no")
(epp xmlns="urn:ietf:params:xml:ns:epp-1.0" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd")
(response)
(result code="1000")
(msg) Command completed successfully (/msg)
(/result) (msgQ count="309" id="21153"/>)
(resData)
(domain:chkData xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
xsi:schemaLocation="urn:ietf:params:xml:ns:domain-1.0 domain-1.0.xsd")
(domain:cd)
(domain:name avail="0") purge.example (/domain:name)
(domain:reason) The domain exists (/domain:reason)
(/domain:cd)
(/domain:chkData)
(/resData)
(trID)
(clTRID) 1333584255405 (/clTRID)
(svTRID) 1333584255410 (/svTRID)
(/trID)
(/response)
(/epp)

```

WHOIS Status Display ( Domain Status: Excluded - Pending Purge). The Registrant and their Registrar are sent an email and EPP Polling message indicating the Status change.

On the 31st day after Registration, a domain that has not been Activated is purged from the SRS and instantly available for registration. Registrars are sent a polling message and email informing them that the domain application has been rejected and the domain has been deleted.

#### 27.1.4 Commercial Considerations:

Funds are debited from the Registrars account instantly and refunded in full after 31 days if a domain is not activated and where Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. has deemed the application to register to have been withdrawn. Names that are not Activated are not delegated in accordance with the Registrants wishes and cannot be used for tasting.

#### 27.2 Registered Activated

Once Activated the EPP Domain:info Status is automatically changed to "Active - Delegated" and the WHOIS display to "Active - Delegated".

Unless ICANN objects, the WHOIS server (port 43 and 443) and EPP Domain:info query will also display the following values - after display of the values required in the EPP RFC's and in Specification 4 Section 1.4.

```

} Activation Date: 2011-12-31T11:11:11Z
} Contact Confirmation Date: 2011-12-31T11:11:11Z
} Registration Grace Expiry Date: [Activation Date: 2011-12-31T11:11:11Z]
Note : [Grace Period expires as soon as a name is activated]
} Registration MIN Expiry Date: 2011-12-31

```

#### 27.3 Registration Grace

A one (1) day Grace period applies to all registrations, Provisional (pending activation) registrations. If a name is Activated the Grace Period is instantly expired. This policy effectively mitigates the prospect of abuse of the .pars TLD or CoCCA's SRS for domain tasting, kiting or other similar activity, while allowing a registrar 24 hours to reverse a registration that included a typographical error or was found to be fraudulent without incurring a commercial penalty.

EPP domain:info Status

```

(xml version="1.0" encoding="UTF-8" standalone="no")

```

```

(epp xmlns="urn:ietf:params:xml:ns:epp-1.0" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd")
  (response)
    (result code="1000")
      (msg) Command completed successfully (</msg>)
    (</result>)
    (msgQ count="309" id="21153"</>)
    (resData)
      (domain:infData xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
xsi:schemaLocation="urn:ietf:params:xml:ns:domain-1.0 domain-1.0.xsd")
        (domain:name) pending.example (</domain:name>)
        (domain:roid) 1234-CoCCA (</domain:roid>)
        (domain:status s="inactive") Delegation information has not been supplied (</domain:status>)
        (domain:registrant) example (</domain:registrant>)
        (domain:clID) adam (</domain:clID>)
        (domain:crID) adam (</domain:crID>)
        (domain:crDate) 2012-04-02T03:39:55.925Z (</domain:crDate>)
        (domain:exDate) 2013-04-02T03:39:55.942Z (</domain:exDate>)
        (domain:authInfo)
          (domain:pw) example (</domain:pw>)
          (</domain:authInfo>)
        (</domain:infData>)
      (</resData>)
    (extension)
      (rgp:infData xmlns:rgp="urn:ietf:params:xml:ns:rgp-1.0" xsi:schemaLocation="urn:ietf:params:xml:ns:rgp-1.0
rgp-1.0.xsd")
        (rgp:rgpStatus s="addPeriod"</>)
        (</rgp:infData>)
      (</extension>)
    (trID)
      (clTRID) TR-2 (</clTRID>)
      (svTRID) 1333581885177 (</svTRID>)
    (</trID>)
  (</response>)
(</epp>)

```

#### WHOIS Status Display

Unless ICANN objects, the WHOIS server (port 43 and 443) and EPP Domain:info query will also display the following values - after display of the values required in the EPP RFC's and in Specification 4 Section 1.4.

```

} Activation Expiry Date: 2011-12-31T11:11:11Z
} Contact Confirmation Expiry Date: 2011-12-31T11:11:11Z
} Registration Grace Expiry Date: 2011-12-31T11:11:11Z
} Registration MIN Expiry Date: 2011-12-31T11:11:11Z

```

#### 27.3.1 Registration Grace | Behavior

Domains deleted during Grace do NOT go into redemption and are instantly available. Domains may NOT be transferred during GRACE. The Domain Status shown in a WHOIS and EPP query during grace is "clientTransferProhibited".

#### 27.3.2 Registration Grace | Commercial Considerations

A full refund equal to 100% of the registration value is applied to a registrars account for domains that are not activated in the first 24 hours. If a domain is Activated in the first 24 hours then deleted it is considered to have been deleted during the "MIN" period as Grace expires on Activation. See Section 28 below for explanation of "MIN".

#### 27.4 MIN Period

The MIN period is a life-cycle element that is probably unique to the CoCCA SRS - and mostly commercial in nature. The MIN period for the .pars is 14 days, the MIN period starts when a name is registered.

Unless ICANN objects, the WHOIS server (port 43 and 443) and EPP Domain:info query will also display the following value - after display of the values required in the EPP RFC's and in Specification 4 Section 1.4.

```

} Registration MIN Expiry Date: 2011-12-31T11:11:11Z

```

#### 27.4.1 Registration MIN | Behavior

Domains deleted by a registrar during the MIN period do NOT go into redemption. Domains may not be transferred during MIN. (the Domain Status shown in a WHOIS and EPP query is "clientTransferProhibited"). An EPP polling message is sent when the MIN period expires.

#### 27.4.2 Registration MIN | Commercial Considerations

Since the Grace period is only one day - and only for domains that are not activated, Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. will give registrars a partial refund (80% of the annual registration fee) for Activated names that are deleted in the first 14 days after registration.

#### 27.5 Renewals

Under the .pars TLD RA registrants are required to confirm the accuracy of the contact details and accept the .pars TLD RA, AUP and Privacy Policy with the registry within 28 days of renewal or the domain is suspended until such time as the RA is accepted and contact details confirmed.

#### 27.6 Expiry

The SRS supports "registrar configurable auto renew", registrars may custom configure the auto-renew behavior

via CoCCA's GUI. Some registrars may wish to auto renew domains on expiry while others may not. If a registrar has configured auto renew the SRS, and they have available credit, the SRS will renew the domain for the period selected by the registrar ( up to the maximum allowable ) on the day it expires. If a name expires the following would apply.

Unless ICANN objects, the SRS will automatically update the domain record so that a query of the WHOIS server (port 43 and 443) or EPP Domain:info query will also display the following value - after display of the values required in the EPP RFC's and in Specification 4 Section 1.4.

```

) Contact Confirmation Expiry Date: 2011-12-31T11:11:11Z
) Renewal Grace Expiry Date: 2011-12-31:T11:11:Z

```

#### 27.6.1 Expiry Grace | Suspension

On Expiry a domain automatically enters a seven day Expiry Grace period in which the domain is Suspended by the SRS and parked on a Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. parking page.

```

(xml version="1.0" encoding="UTF-8" standalone="no")
(epp xmlns="urn:ietf:params:xml:ns:epp-1.0" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd")
  (response)
    (result code="1000")
      (msg) Command completed successfully (-msg)
    (-result)
      (msgQ count="354" id="21153")
      (resData)
        (domain:infData xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
xsi:schemaLocation="urn:ietf:params:xml:ns:domain-1.0 domain-1.0.xsd")
          (domain:name) suspended-expired.example (-domain:name)
          (domain:roid) 1234-CoCCA (-domain:roid)
          (domain:status s='serverHold') Suspended automatically (-domain:status)
          (domain:registrant) MI8JPiQP (-domain:registrant)
          (domain:ns)
            (domain:hostObj) ns2.example (-domain:hostObj)
            (domain:hostObj) ns1.example (-domain:hostObj)
          (-domain:ns)
          (domain:clID) example (-domain:clID)
          (domain:crID) example (-domain:crID)
          (domain:crDate) 2009-05-17T21:49:34.649Z (-domain:crDate)
          (domain:upID) example (-domain:upID)
          (domain:upDate) 2012-04-05T01:38:12.649Z (-domain:upDate)
          (domain:exDate) 2011-11-17T20:49:34.644Z (-domain:exDate)
          (domain:trDate) 2009-05-17T21:49:34.728Z (-domain:trDate)
          (domain:authInfo)
            (domain:pw) example (-domain:pw)
          (-domain:authInfo)
        (-domain:infData)
      (-resData)
      (extension)
      (-extension)
      (trID)
        (clTRID) TR-2 (-clTRID)
        (svTRID) 1333590323304 (-svTRID)
      (-trID)
    (-response)
  (-epp)

```

An expired and suspended name is not locked and may be renewed without a restore fee in the first seven (7) days after expiration. Suspended domains may NOT be transferred.

#### 27.6.2 Expiry | Pending Delete - Restorable (Redemption)

On the eighth day after expiration the SRS will change the domain's Status to "Pending Delete Restorable" for a period of 28 days. Suspended and Pending Delete domains may NOT be transferred. At any point between after day seven (7) and before day 29 a registrar may Restore a domain via EPP (RFC-3915) after restoration a domain must be renewed.

The SRS will automatically update the domain record so that a query of the WHOIS or EPP will also display the following values.

```

) Redemption Expiry Date: 2011-12-31
) Purge Date: 2011-12-31

```

#### 27.6.3 Expiry | Pending Purge (No longer Restorable)

On the 29th day after expiry the SRS will change the status of the domain to "Pending - Purge" and apply a registry lock. The WHOIS status and EPP Domain:info query would be displayed as Pending Purge. The domain would stay in this state for seven (7) days until purged from the SRS 35 days after Expiry. Once purged it is available - subject to any restrictions or polices in effect at the time.

See Attached Life - Cycle Diagram



28. Abuse Prevention and Mitigation: Applicants should describe the proposed policies and procedures to minimize abusive registrations and other activities that have a negative impact on Internet users. A complete answer should include, but is not limited to:

- An implementation plan to establish and publish on its website a single abuse point of contact responsible for addressing matters requiring expedited attention and providing a timely response to abuse complaints concerning all names registered in the TLD through all registrars of record, including those involving a reseller;
- Policies for handling complaints regarding abuse;
- Proposed measures for removal of orphan glue records for names removed from the zone when provided with evidence in written form that the glue is present in connection with malicious conduct (see Specification 6); and
- Resourcing plans for the initial implementation of, and ongoing maintenance for, this aspect of the criteria (number and description of personnel roles allocated to this area).

To be eligible for a score of 2, answers must include measures to promote Whois accuracy as well as measures from one other area as described below.

- Measures to promote Whois accuracy (can be undertaken by the registry directly or by registrars via requirements in the Registry-Registrar Agreement (RRA)) may include, but are not limited to:
  - Authentication of registrant information as complete and accurate at time of registration. Measures to accomplish this could include performing background checks, verifying all contact information of principals mentioned in registration data, reviewing proof of establishment documentation, and other means
  - Regular monitoring of registration data for accuracy and completeness, employing authentication methods, and establishing policies and procedures to address domain names with inaccurate or incomplete Whois data; and
  - If relying on registrars to enforce measures, establishing policies and procedures to ensure compliance, which may include audits, financial incentives, penalties, or other means. Note that the requirements of the RAA will continue to apply to all ICANN-accredited registrars.
- A description of policies and procedures that define malicious or abusive behavior, capture metrics, and establish Service Level Requirements for resolution, including service levels for responding to law enforcement requests. This may include rapid takedown or suspension systems and sharing information regarding malicious or abusive behavior with industry partners;
- Adequate controls to ensure proper access to domain functions (can be undertaken by the registry directly or by registrars via requirements in the Registry-Registrar Agreement (RRA)) may include, but are not limited to:
  - Requiring multi-factor authentication (i.e., strong passwords, tokens, one-time passwords) from registrants to process update, transfers, and deletion requests;
  - Requiring multiple, unique points of contact to request and/or approve update, transfer, and deletion requests; and
  - Requiring the notification of multiple, unique points of contact when a domain has been updated, transferred, or deleted.

A complete answer is expected to be no more than 20 pages.

#### 28.1 Policy Matrix

Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. has chosen to adopt CoCCA's tested acceptable use-based policy matrix, recommendations for minimising harm in TLDs, and subject the .pars TLD to the CoCCA Complaint Resolution Service ("CRS"). Any individual who has a concern regarding abuse involving a .pars domain, glue record, or the CoCCA PCH or ISC's network services as they relate to .pars needs to lodge a complaint via the CRS. CoCCA's policy regarding glue records is quite simple, Registrars cannot create or use a host if the super-ordinate domain does not exist. When a domain is purged from the SRS CoCCA automatically deletes any glue records. All other glue record related issues can be dealt with via the CRS.

The CoCCA Best practice policy matrix has been developed over a decade and has currently been adopted by 16 TLDs. It was developed for (and by) ccTLDs managers that desired to operate an efficient standards-based SRS system complemented by a policy environment that addressed a registrants use of a string as well as the more traditional gTLD emphasis rights to string.

A key element of CoCCA's policy matrix is that it provides for registry-level suspensions where there is evidence of AUP violations. The .pars TLD will join other TLDs that utilize the CoCCA's single-desk CRS. The CRS provides a framework for the public, law enforcement, regulatory bodies and intellectual property owners to swiftly address concerns regarding the use of .pars domains, and the CoCCA network. The AUP can be used to address concerns regarding a domain or any other resource record that appears in the .pars zone.

The CRS procedure provides an effective alternative to the court system while allowing for Complaints against domains to be handled in a way treats each complaint in a fair and equal manor and allows for all affected parties to present evidence and arguments in a constructive forum.

In certain cases, it may be necessary for the CRS to trigger a Critical Issue Suspension, which suspends service of a domain, or removes a host record, when there is a compelling and demonstrable threat to the stability of the Internet, critical infrastructure or public safety. The intent of any CIS is to minimize any abuse that may occur in a timely manor. Any CIS may be appealed through the CoCCA ombudsman's Amicable Complaint Resolution service.

#### 28.1 Contractual Framework

Under the proposed framework Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. will bind registrants to a .pars TLD Registrant Agreement ("RA"). This RA is a collateral agreement that supersedes any Registrar - Registrant agreement and binds all Registrants to the .pars AUP, Privacy and WHOIS policy, CoCCA CRS and any other requirements or dispute mechanisms mandated by ICANN.

The draft .pars AUP follows below in sections 28.4. The RA and WHOIS and Privacy Policy may be viewed at <http://coccaregistry.net/.pars/policy>

#### 28.2 Minimizing Harm, Pro-active Measures

Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. will adopt the following five (5) key provisions of CoCCA's already field - tested policies and technology aimed at preventing and mitigating abuse.

##### 28.2.1 "Trust but Verify"

Applicants for .pars registrations must confirm to the registry that they agree to be bound by the registrant agreement and confirm the accuracy of contact details lodged by the Registrar with the registry. Until the Registrant or Administrative contact confirm their contact details with the Registry directly, and view accept the Registrant Agreement .pars domains are excluded from the zone. See Life-Cycle Policy.

Automated Activation processes are already in place for 12 TLD currently using the CoCCA SRS. The process involves direct registry - registrant communication using email details provided to the registry by the

Registrar. An automated email is sent to the Registrant and Admin contact that contains a link. The recipient must click on the link where they are directed to a web page that 1) displays the contact information the Registrar provided, 2) displays the .pars RA and AUP policy.

All responses (positive or negative) are lodged against the domains permanent history in the SRS and the time: date / IP address stored.

The process also allows the registry the opportunity to independently verify the accuracy of contact data supplied by the registrar, or at least that there is a functioning email - improving WHOIS accuracy. The SRS uses dynamically generated images as a challenge-response verification to prevent automated processes activating domains and to directly collect and store additional identifying information about individuals Activating a domain, which can be utilised to control fraud or investigate cyber crimes.

Although registrars are required to advise registrants of the TLD policies and conditions, with the prevalence of highly automated registration systems and expansive reseller networks it cannot be guaranteed that registrants have reviewed or agreed to the policy.

The registrant or administrative contact must confirm the accuracy of the WHOIS data on not only on Registration but also the anniversary of Registration and Renewal. On any change of Registrant or Transfer the new Registrant must also agree to the RA and AUP directly with the Registry before the changes to the contacts are committed in the registry.

These procedures and the underlying technology are in use now and undergoing constant refinement in response to Registrar and Registrant suggestions.

#### 28.2.2 Registrants' rights to a limited license

The .pars RA and AUP limit a registrants' rights to a limited license to use but not to sub-license the use of any portion of the allocated SLD, subject to continuing compliance with all policies in place during that time. Registrants must warrant they will not assign the licence or sub-license any sub-domain without:

- (a) securing the sub-licensee's agreement to the RA, AUP and all other applicable policies; and
- (b) obtaining the registry's consent in writing.

Rationale: It has occurred that registrants have registered a second level domain in order to set up what amounts to a third level registry, effectively sub-licensing to third parties the use of portions of their allocated second level domain. Most abuse seems to occur in lower level domains created by Registrants or third parties.

The .pars TLD policy is recursive, however combating abusive activity in a TLD is complicated if the registry has no information as to the user of the subordinate domain or any way to suspend a single domain created by a registrant at a subordinate level.

#### 28.2.3 Fast flux mitigation

Fast flux mitigation - queue for manual intervention by SRS admins all DNS delegation modifications that exceed four (4) requests in any 28 day period or three (3) in a one week period.

Rationale: This minimizes a registrant's ability to frequently redelegate a domain, in order to overcome service limitations imposed by Internet service providers. Frequent redelegation may also assist a malicious user to obscure their identity. Limiting frequent redelegations enhances the effectiveness of service termination as a sanction by an Internet service provider.

#### 28.2.4 Anycast Resiliency

A denial of service attack from, say, a single ISP will usually only affect a single node. All other nodes in the world will not notice anything about the attack and the rest of the Internet will thus not notice it either. A local attack is therefore only affecting the local neighborhood. Distributed denial of service attacks usually affects a few nodes only, but because the attack is spread out between nodes, so is the amount of traffic flowing to each node. With 80+ nodes and two Anycast networks, the .pars TLD is well protected against abuse targeting the .pars DNS resolvers.

#### 28.2.5 High Risk Strings

Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. will require manual intervention by the registry operator before domains that contain various strings such as "bank", "secure", "PayPal" etc., go into the zone. A comprehensive list of high-risk strings

#### 28.2.6 Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. CERT Law Enforcement Collaboration

Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. will provide CERT, Law Enforcement and other interested parties direct read - only Access to the SRS on application for research and other activities related to identifying and mitigating abuse. The CoCCA already provides direct access to the Australian Government CERT.

The CoCCA SRS contains a variety of login types with various permissions, one such type is "Cert / Law Enforcement" which allows GUI - based query as well as EPP and Zone Access.

#### 28.3 COCCA Complaint Resolution Service

The Complaint Resolution Service ("CRS") provides a transparent, efficient and cost effective way for the public, law enforcement, regulatory bodies and intellectual property owners to have their concerns addressed regarding use of a TLD managers network or SRS services. The CRS provides a single framework in which cyber-crime, accessibility of prohibited Internet content and abuse of intellectual property rights are addressed. The framework relies on three tiers of review: immediate action to protect the public interest, amicable complaint resolution lead by an independent Ombudsman, and where applicable, adjudication by an Expert. The CRS provides an efficient and swift alternative to the Courts.

All complaints made against a domain to CoCCA are referred through the CRS protocol. When a complaint is filed, a CoCCA Complaints Officer (CCO) ensures that it meets the necessary criteria. If it does, notice is sent to involved parties and CRS Proceedings begin. If a Registrant responds to the complaint, it may be referred to an Ombudsman for Amicable Complaint Resolution (ACR). If ACR does not achieve acceptable resolution, binding arbitration by an Expert be requested by the Complainant.

In some cases, a Critical Issue Suspension (CIS) may become necessary. If a CIS has been determined to be necessary, the domain, or other resource record in a zone will be disabled until a resolution is found using the

CRS protocol. A CIS is triggered in cases where there is a compelling and demonstrable threat to the stability of the Internet, critical infrastructure or public safety. A CIS does not terminate the license to a domain, and cannot be used to trigger the transfer a domain - it simply suspends resolution.  
CRS Overview Diagram - cocca-crs1.pdf

#### 28.4 Acceptable use policy

##### INTRODUCTION

AGITSys supports the free flow of information and ideas over the Internet. AGITSys does not exercise editorial control over the content of any message or web site made accessible by domain name resolution services in the .PARS TLD.

AGITSys may discontinue, suspend, or modify the services provided to the registrant of a .PARS Domain name (for example, through modification of .PARS zone files), to address alleged violations of this AUP (described further below). AGITSys may determine in its sole discretion whether use of the AGITSys network or a .PARS Domain name is prima facie violation of this AUP. AGITSys or affected parties may utilize the AGITSys AUP CRS and/or the courts in the jurisdiction and venue specified in the Registrant Agreement to resolve disputes over interpretation and implementation of this AUP, as described more fully in the AGITSys AUP CRS.

Users of the AGITSys Network are obliged and required to ensure that their use of a .PARS Domain name or the AGITSys Network is at all times lawful and in accordance with the requirements of this AUP and applicable laws and regulations of Turkey.

This AUP should be read in conjunction with the AGITSys Registrant Agreement, Complaint Resolution Policy, Privacy Policy, Acceptable Use Policy, and other applicable agreements, policies, laws and regulations. By way of example, and without limitation, the Registrant Agreement sets forth representations and warranties and other terms and conditions, breach of which may constitute non-compliance with this AUP.

##### PROHIBITED USE

A "Prohibited use" of the AGITSys Network or a .PARS Domain name is a use which is expressly prohibited by provisions of this AUP. The non-exhaustive list of restrictions pertaining to use of the AGITSys Network and .PARS Domain names in relation to various purposes and activities are as follows. Registration of one or more .PARS Domain names or access to services provided by AGITSys may be cancelled or suspended for any breach of, or non-compliance with this AUP:

##### 1. COMPLIANCE WITH AGITSys AUP

1.1 The AGITSys Network and .PARS Domain names must be used for lawful purposes and comply with this AUP. The creation, transmission, distribution, storage of, or linking to any material in violation of applicable law or regulation or this AUP is prohibited. This may include, but is not limited to, the following:

(1.1) Communication, publication or distribution of material (including through links or framing) that infringes upon the intellectual and/or industrial property rights of another person. Intellectual and/or industrial property rights include, but are not limited to: copyrights (including future copyright), design rights, patents, patent applications, trademarks, rights of personality, and trade secret information.

(1.2) Communication, publication or distribution of material (including through links or framing) that denigrates the Persian Language, Culture and History.

(1.3) Registration or use of a .PARS Domain name in circumstances in which, in the sole discretion of the AGITSys:

(1.3.a) The .PARS Domain name is identical or confusingly similar to a personal name, company, business or other legal or trading name as registered with the relevant Turkish agency, or a trade or service mark in which a third party complainant has uncontested rights, including without limitation in circumstances in which:

(1.3.a.i) The use deceives or confuses others in relation to goods or services for which a trade mark is registered in Turkey, or in respect of similar goods or closely related services, against the wishes of the registered proprietor of the trade mark; or

(1.3.a.ii) The use deceives or confuses others in relation to goods or services in respect of which an unregistered trade mark or service mark has become distinctive of the goods or services of a third party complainant, and in which the third party complainant has established a sufficient reputation in Turkey, against the wishes of the third party complainant; or

(1.3.a.iii) The use trades on or passes-off a .PARS Domain name or a website or other content or services accessed through resolution of a .PARS Domain as being the same as or endorsed, authorized, associated or affiliated with the established business, name or reputation of another; or

(1.3.a.iv) The use constitutes intentionally misleading or deceptive conduct in breach of AGITSys policy, or the laws of Turkey; or

(1.3.b) The .PARS Domain name has been used in bad faith, including without limitation the following:

(1.3.b.i) The User has used the .PARS Domain name primarily for the purpose of unlawfully disrupting the business or activities of another person; or

(1.3.b.ii) By using the .PARS Domain name, the User has intentionally created a likelihood of confusion with respect to the third party complainant's intellectual or industrial property rights and the source, sponsorship, affiliation, or endorsement of website(s), email, or other online locations or services or of a product or service available on or through resolution of a .PARS Domain name;

(1.3.b.iii) For the purpose of selling, renting or otherwise transferring the Domain name to an entity or to a commercial competitor of an entity, for valuable consideration in excess of a User's documented out-of-pocket costs directly associated with acquiring the Domain Name;

(1.3.b.iv) As a blocking registration against a name or mark in which a third party has superior intellectual or industrial property rights.

(1.4) A .PARS Domain name registration which is part of a pattern of registrations where the User has registered domain names which correspond to well-known names or trademarks in which the User has no apparent rights, and the .PARS Domain name is part of that pattern;

(1.5) The .PARS Domain name was registered arising out of a relationship between two parties, and it was mutually agreed, as evidenced in writing, that the Registrant would be an entity other than that currently in the register.

(1.6) Unlawful communication, publication or distribution of registered and unregistered know-how, confidential information and trade secrets.

(1.7) Publication or distribution of content which, in the opinion of the AGITSys:

(1.7.a) is capable of disruption of systems in use by other Internet users or service providers (e.g. viruses or malware);

(1.7.b) seeks or apparently seeks authentication or login details used by operators of other Internet sites (e.g. phishing); or

(1.7.c) may mislead or deceive visitors to the site that the site has an affiliation with the operator of another Internet site (e.g. phishing).

(1.8) Communication, publication or distribution, either directly or by way of embedded links, of images or materials (including, but not limited to pornographic material and images or materials that a reasonable person as a member of the community of Turkey would consider to be obscene or indecent) where such communication, publication or distribution is prohibited by or constitutes an offence under the laws of Turkey, whether incorporated directly into or linked from a web site, email, posting to a news group, internet forum, instant messaging notice which makes use of domain name resolution services in the .PARS TLD.

Material that a reasonable member of the community of Turkey would consider pornographic, indecent, and/or obscene or which is otherwise prohibited includes, by way of example and without limitation, real or manipulated images depicting child pornography, bestiality, excessively violent or sexually violent material, sexual activity, and material containing detailed instructions regarding how to commit a crime, an act of violence, or how to prepare and/or use illegal drugs

(1.9) Communication, publication or distribution of defamatory material or material that constitutes racial vilification.

(1.10) Communication, publication or distribution of material that constitutes an illegal threat or encourages conduct that may constitute a criminal offence.

(1.11) Communication, publication or distribution of material that is in contempt of the orders of a court or another authoritative government actor within Turkey.

(1.12) Use, communication, publication or distribution of software, technical information or other data that violates Turkey's export control laws.

(1.13) Use, communication, publication or distribution of confidential or personal information or data including confidential or personal information about persons that collected without their knowledge or consent.

## 2. ELECTRONIC MAIL

2.1 AGITSys expressly prohibits Users of the AGITSys Network from engaging in the following activities:

(1.1) Communicating, transmitting or sending unsolicited bulk e-mail messages or other electronic communications ("junk mail" or "Spam") of any kind including, but not limited to, unsolicited commercial advertising, informational announcements, and political or religious tracts. Such messages or material may be sent only to those who have expressly requested it. If a recipient asks a User to stop sending such e-mails, then any further e-mail messages or other electronic communications would in such event constitute Spam and violate the provisions and requirements of this AUP.

(1.2) Communicating, transmitting or sending any material by e-mail or otherwise that harasses, or has the effect of harassing, another person or that threatens or encourages bodily harm or destruction of property including, but not limited to, malicious e-mail and flooding a User, site, or server with very large or numerous pieces of e-mail or illegitimate service requests.

(1.3) Communicating, transmitting, sending, creating, or forwarding fraudulent offers to sell or buy products, unsolicited offers of employment, messages about "Make-Money Fast", "Pyramid" or "Ponzi" type schemes or similar schemes, and "chain letters" whether or not the recipient wishes to receive such messages.

(1.4) Adding, removing, modifying or forging AGITSys Network or other network header information with the effect of misleading or deceiving another person or attempting to impersonate another person by using forged headers or other identifying information ("Spoofing").

(1.5) Causing or permitting the advertisement of a .PARS Domain name in an unsolicited email communication.

## 3. DISRUPTION OF AGITSys NETWORK

3.1 No-one may use the AGITSys Network or a .PARS Domain name for the purpose of:

(1.1) Restricting or inhibiting any person in their use or enjoyment of the AGITSys Network or a .PARS Domain name or any service or product of AGITSys.

(1.2) Actually or purportedly reselling AGITSys services and products without the prior written consent of AGITSys.

(1.3) Transmitting any communications or activity, which may involve deceptive marketing practices such as the fraudulent offering of products, items, or services to any other party.

(1.4) Providing false or misleading information to AGITSys or to any other party through the AGITSys Network.

(1.5) Facilitating or aiding the transmission of confidential information, private, or stolen data such as credit card information (without the owner's or cardholder's consent).

## 4. NETWORK INTEGRITY AND SECURITY

4.1 Users are prohibited from circumventing or attempting to circumvent the security of any host, network or accounts ("cracking" or "hacking") on, related to, or accessed through the AGITSys Network. This includes, but is not limited to:

(1.1) accessing data not intended for such user;

(1.2) logging into a server or account which such user is not expressly authorized to access;

(1.3) using, attempting to use, or attempting to ascertain a username or password without the express written consent of the operator of the service in relation to which the username or password is intended to function;

(1.4) probing the security of other networks;

(1.5) executing any form of network monitoring which is likely to intercept data not intended for such user.

4.2 Users are prohibited from effecting any network security breach or disruption of any Internet communications including, but not limited to:

(2.1) accessing data of which such User is not an intended recipient; or

(2.2) logging onto a server or account, which such User is not expressly authorized to access.

For the purposes of this section 4.2, "disruption" includes, but is not limited to:

port scans, TCP/UDP floods, packet spoofing;

forged routing information;

deliberate attempts to overload or disrupt a service or host;

using the AGITSys Network in connection with the use of any program, script, command, or sending messages with the intention or likelihood of interfering with another user's terminal session by any means, locally or by the Internet.

4.3 Users who compromise or disrupt AGITSys Network systems or security may incur criminal or civil liability. AGITSys will investigate any such incidents and will cooperate with law enforcement agencies if a crime is suspected to have taken place.

## 5. NON-EXCLUSIVE, NON-EXHAUSTIVE

This AUP is intended to provide guidance as to what constitutes acceptable use of the AGITSys Network and of .PARS Domain names. However, the AUP is neither exhaustive nor exclusive.

## 6. COMPLAINTS

Persons who wish to notify AGITSys of abusive conduct in violation of this AUP may report the same pursuant to the AGITSys Acceptable Use Policy Enforcement Procedure, which is instituted by submitting to AGITSys a

completed AGITSys Acceptable Use Policy Violation Complaint Form.

#### 7. ENFORCEMENT

AGITSys may, in its sole discretion, suspend or terminate a User's service for violation of any of the requirements or provisions of the AUP on receipt of a complaint if AGITSys believes:

- (1.1.a) a violation of the AUP has or may have occurred; or
- (1.1.b) suspension and/or termination may be in the public interest.

AGITSys may delegate its right to take any action to an Internet security agency or may act upon any report from an Internet security agency without prior notification to the User.

If AGITSys elects not to take immediate action, AGITSys may require Registrants and a complainant to utilise the AUP Complaint Resolution Service and Policy to ensure compliance with this AUP and remedy any violation or suspected violation within a reasonable time prior to suspension or terminating service.

#### 8. LIMITATION OF LIABILITY

In no event shall AGITSys be liable to any User of the AGITSys Network, any customer, nor any third party for any direct, indirect, special or consequential damages for actions taken pursuant to this AUP, including, but not limited to, any lost profits, business interruption, loss of programs or other data, or otherwise, even if AGITSys was advised of the possibility of such damages. AGITSys's liability for any breach of a condition or warranty implied by the Registrant Agreement or this AUP shall be limited to the maximum extent possible to one of the following (as AGITSys may determine):

- (i) supplying the services again; or
- (ii) paying the cost of having the services supplied again.

#### 9. REMOVAL OF CONTENT RESPONSIBILITY

At its sole discretion, AGITSys reserves the right to:

- (i) Remove or alter content, zone file data or other material from its servers provided by any person that violates the provisions or requirements of this AUP;
- (ii) re-delegate, redirect or otherwise divert traffic intended for any service;
- (iii) notify operators of Internet security monitoring, virus scanning services and/or law enforcement authorities of any apparent breach of this AUP or .PARS TLD Policies; and/or
- (iv) terminate access to the AGITSys Network by any person that AGITSys determines has violated the provisions or requirements of this AUP.

In any regard, AGITSys is not responsible for the content or message of any newsgroup posting, e-mail message, or web site regardless of whether access to such content or message was facilitated by the AGITSys Network.

AGITSys does not have any duty to take any action with respect to such content or message by creating this AUP, and Users of the AGITSys Network are obliged and required to ensure that their use of a .PARS Domain name or the AGITSys Network is at all times in accordance with the requirements of this AUP and any applicable laws and/or regulation.

### 28.5 CoCCA CRS - Policies and Procedures

#### 1. Statement of Purpose

1.1. This Complaint Resolution Service ("CRS") provides a transparent, efficient and cost effective way for the public, law enforcement, regulatory bodies and intellectual property owners to have their concerns addressed regarding use of a TLD Managers network or services.

1.2. The Service provides a single framework in which cyber-crime, accessibility of prohibited Internet content via a member's network or services and abuse of intellectual property rights are addressed. The framework relies on three tiers of review: immediate action to protect the public interest, amicable complaint resolution lead by an independent Ombudsman, and where applicable, adjudication by an Expert. The CRS provides an efficient and swift alternative to the Courts.

This document should be read in conjunction with the Acceptable Use Policy ("AUP") applicable to the domain / TLD you are considering lodging a complaint against. If after having reviewed the applicable AUP Policy it is determined a violation has occurred, a complaint may be lodged by completing the CoCCA CRS Complaint form.

NOTE: IF YOU DO NOT LODGE THE SIGNED COMPLAINT FORM THAT FOLLOWS BELOW ON PAGES 8- 13 OF THIS DOCUMENT, YOUR COMPLAINT WILL NOT BE REVIEWED.

Complaints will be reviewed in accordance with the following Steps:

#### Step One | Confirmation / Communication

A CoCCA Complaints Officer ("CCO") will review all formally lodged complaints for compliance with the CRS and the applicable AUP. If the CCO considers that the Complaint does not address the matter covered by the AUP, or is unsigned or otherwise violates this Procedure, the Complainant will be promptly notified of the deficiencies identified.

The Complainant shall have five (5) Days from the receipt of notification within which to correct the deficiencies and return the Complaint, failing which the CCO will deem the Complaint to be withdrawn. This will not prevent the Complainant from submitting a different Complaint.

On receipt of the Complaint the CCO will lock domain and associated records until a period of ten (10) Days after the COO and Parties are notified of a Decision by the Ombudsman or and Expert, at which time the domain name may be unlocked.

#### Step Two | Immediate Review of Request for Suspension in the Public Interest

On receipt of a properly lodged Complaint, the CCO will initiate a review. When specifically requested by the Complainant the CCO may initiate a Critical Issue Suspension ("CIS").

A request for a CIS may be granted in cases where there is a compelling and demonstrable threat to the stability of the Internet, critical infrastructure or public safety. A "critical issue suspension" does not terminate the registrant's rights or their domain license; it simply modifies the NS records in the zone temporarily disabling resolution. All suspensions under the CRS, including a CIS, may be appealed to the Ombudsman's office for

amicable resolution, an Expert Panelist for binding arbitration or a court of competent jurisdiction.

Where the CCO has triggered a CIS, notice will be sent to the Registrant, Administrative Contact, Registrar and Ombudsman within 24 hours of triggering the CIS.

#### Step Three | Formal Notification

The CCO will send a copy of the Complaint to the Respondent (normally the Registrant and/or Administrative Contact) and the TLD Sponsors designated contact with an explanatory note within 5 days by:

- a) Sending the Complaint by post, fax or e-mail to the Respondent at the contact details shown as the Registrant or any other contacts in the TLD Register for the Domain Name that is the subject of the Complaint.
- b) The CCO may also, at their discretion send the complaint to any addresses provided to the CCO by the Complainant so far as this is practicable.
- c) Except as set forth otherwise, all written communication to a Party or a party's representative under the Policy or this Procedure shall be made by fax, post or e-mail.
- d) Communication shall be made in English, E-mail communications (other than attachments) should be sent in plain text or PDF format so far as this is practicable.

During the course of the proceedings under the CRS, if either Party wishes to change its contact details it must notify the CCO of all changes. However, no change shall be made in the Registrant Information for the Domain Name without mutual agreement of the parties or unless a settlement is reached. Except as otherwise provided in this Procedure or as otherwise decided by the CCO or if appointed, the Expert, all communications provided for under this procedure shall be deemed to have been received:

- a) if sent by courier, when signed for by the recipient;
- b) if sent via the Internet, on the date that the communication was transmitted

Unless otherwise provided in this Procedure, the time periods provided for under the Policy and this Procedure shall be calculated based on the time zone of the CCO.

Any communication between:

- a) the CCO and any Party shall be copied by the CCO to the other Party and if appointed, the Ombudsman or Expert;
- b) a Party to another Party shall be copied by the sender to the CCO. The CCO will copy such correspondence to the Ombudsman or Expert, if appointed.

#### Commencement of Complaint Resolution Service proceedings

The CCO will promptly notify the Parties by email of the date of the Commencement of Complaint Resolution Service proceedings. The date and time of transmission of such email in the time zone of the CCO according to the email header generated by the CCO's transmitting emails system will be the date of Commencement of CRS proceedings.

#### The Response

Within fifteen (15) Days of the date of Commencement of Complaint Resolution Service proceedings, the Respondent may submit a Response.

The Respondent must send the Response to the CCO signed in electronic form at the addresses set out in the explanatory coversheet. In determining whether a Response was submitted in a timely manner, the date and time of receipt (as determined by the CCO's receiving email server) shall be considered by the CCO as the date and time of submission, provided that such email i) contains a scanned copy of documents which include signatures, ii) contains all attachments, iii) is of a form and format which may be opened by the CCO. The Response shall:

- a) include any grounds that the Respondent wishes to rely upon to rebut the Complainant's assertions;
- b) specify whether the Respondent wishes to be contacted directly or through an authorized representative, and set out the e-mail address, telephone number, fax number, and postal address which should be used in communications with the Respondent;
- c) disclose to the CCO whether any legal proceedings have been commenced or terminated in connection with the Domain Name(s) which is the subject of the Complaint;
- d) conclude with the following statement followed by the signature of the Respondent or its authorized representative:

"The information contained in the response is to the best of the respondent's knowledge true and complete and the matters stated in this response comply with the Policy and Procedure and applicable law."

Within (3) Days following the receipt of a signed copy of the Response, the CCO will forward the Response to the Complainant. If the Respondent does not submit a Response, the Domain will be suspended 15 days after the CRS proceedings commence.

#### Reply by the Complainant

Within five (5) Days of receiving the Respondent's Response from the CCO, the Complainant may submit a Reply to

the Respondent's Response, which shall not exceed 2000 words (not including annexes). The Reply should be confined to answering any new points raised in the Response not previously dealt with in the Complaint.

#### Step Four | Amicable Complaint Resolution | Ombudsman

No Amicable Complaint Resolution ("ACR") will occur if the Respondent does not file a Response. Within three (3) Days of the receipt of the Complainant's Reply (or the expiry of the deadline to do so), the CCO will arrange with the Ombudsman's office for Amicable Complaint Resolution to be conducted. ACR will be conducted in a manner that the Ombudsman, at his or her sole discretion, considers appropriate.

Negotiations conducted between the Parties during ACR (including any information obtained from or in connection to negotiations) shall be confidential as between the Parties. Any such information will not be shown to an Expert, should one latter be appointed. Neither the Ombudsman nor any Party may reveal details of such negotiations to any third parties unless a decision-making body of competent jurisdiction orders disclosure. Neither Party shall use any information gained during mediation for any ulterior or collateral purpose or include it in any submission likely to be seen by any court or decision-making body of competent jurisdiction or an arbitral tribunal of competent jurisdiction in this Complaint or any later Complaint or litigation.

If the Parties reach a settlement during the ACR, then the existence, nature and terms of the settlement shall be confidential as between the Parties unless the Parties specifically agree otherwise, a court or decision-making body of competent jurisdiction orders otherwise, or applicable laws or regulations require it.

No binding verbal agreements can be reached as part of the ACR: any settlement reached by the Parties must be in writing to be enforceable.

If the Parties did not achieve an acceptable resolution through ACR within ten (10) Days, the Ombudsman will send notice to the Parties that the Complainant has the option to request appointment of an Expert. The Complainant will have ten (10) Days upon receipt of the notice from the Ombudsman to pay the applicable fees to CoCCA if he or she wants to move forward with binding arbitration by an Expert.

#### Step Five | Appointment of the Expert and Timing of Decision (Optional)

If the Ombudsman does not receive the Complainant's request to refer the matter to an Expert together with the applicable fees within ten (10) Days, the Complaint will be deemed to have been withdrawn. This will not prevent the Complainant submitting a different Complaint.

Within five (5) Days of the receipt of the applicable fees from the Complainant, the Ombudsman will appoint an Expert on a rotational basis from a list of Experts. An Expert may only be a person named in the CoCCA list of Experts, which the Ombudsman will maintain and publish along with the Experts' qualifications. No Expert's appointment will be challenged on the grounds that they are insufficiently qualified. Once the Expert has been appointed, the Parties will be notified of the name of the Expert appointed and the date by which the Expert will forward, except in the case of exceptional circumstances, his or her decision to the CCO and copy the Ombudsman.

The Expert shall be both impartial and independent before accepting the appointment. During the proceedings the Expert will disclose to the Ombudsman any circumstances giving rise to the justifiable doubt as to their impartiality or independence. The Ombudsman will have the discretion to appoint a substitute Expert if necessary, in which case the timetable will be adjusted accordingly.

In addition to the Complaint, and if applicable the Response, the Reply, any appeal notice and appeal notice response, the Expert may request further statements or documents from the Parties. However, the Expert will not be obliged to consider any statements or documents from the Parties which he or she has not received according to the Policy or this Procedure or which he or she has not requested. The Expert may request a further statement that will be limited to a defined topic but will not be obliged to consider any material beyond that requested.

#### Step Six | Expert Decision

The Expert will decide a Complaint on the basis of the Policy, the Procedure and the submissions made by the Party. If, in the absence of exceptional circumstances, a Party does not comply with any provision in the Policy, Procedure or any request by the Ombudsman or the Expert, the Expert may draw such inferences from the Party's non-compliance, as he or she deems appropriate.

Unless exceptional circumstances apply, an Expert shall forward his or her Decision to the Ombudsman within ten (10) Days of his or her appointment. The Decision shall be in writing and signed by the Expert. It will provide the reasons on which the decision is based, indicate the date on which it was made, the place the Decision was made and identify the name of the Expert. Within three (3) Days of the receipt of a Decision from the Expert, the Ombudsman will communicate the full text of the Decision to each Party via email with the date for the implementation of the Decision in accordance with the Policy.

#### Effect of Court Proceedings

If, before or during the course of proceedings under the Complaint Resolution Service, the Ombudsman is made aware that legal proceedings have begun in or before an applicable court or decision-making body of competent jurisdiction or an arbitral tribunal of competent jurisdiction, and that such legal proceedings relate to a Domain Name which is the subject of a Complaint, he or she will suspend the Complaint Resolution Service proceedings pending the outcome of the legal proceedings.

A Party must promptly notify the Ombudsman if it initiates or becomes aware of legal proceedings in a court or decision-making body of competent jurisdiction, or arbitral tribunal of competent jurisdiction relating to a Domain Name that is the subject of a Complaint under the proceedings of the Complaint Resolution Service.

Either party may request, before or during the Complaint Resolution Service Proceedings, an interim measure of protection from a court.

#### Expert Fees

The applicable fees in respect of the referral of proceedings under the Complaint Resolution Service to an Expert are (in United States Dollars), for Complaints involving 1-5 Domain Names and only one Complainant, \$2500 plus applicable taxes, such as goods and services taxes ("GST"). For Complaints involving 6 or more Domain Names, and / or more than one Complainant, the Ombudsman will set a fee in consultation with the Complainant. Fees are calculated on a cost-recovery basis, and are passed on in their entirety to the Expert(s). CoCCA does not charge for its mediation or administration services in respect of the Complaint Resolution Service.

#### Exclusion of Liability

Neither CoCCA nor its councilors, officers, members, employees or servants nor any Expert, Mediator or any employee of any Expert or Mediator shall be liable to a Party for anything done or omitted, whether negligently or otherwise, in connection with any proceedings under the Complaint Resolution Service unless the act or omission is shown to have been in bad faith.

29. Rights Protection Mechanisms: Applicants must describe how their registry will comply with policies and practices that minimize abusive registrations and other activities that affect the legal rights of others, such as the Uniform Domain Name Dispute Resolution Policy (UDRP), Uniform Rapid Suspension (URS) system, and Trademark Claims and Sunrise services at startup. A complete answer should include:

- A description of how the registry operator will implement safeguards against allowing unqualified registrations (e.g., registrations made in violation of the registry's eligibility restrictions or policies), and reduce opportunities for behaviors such as phishing or pharming. At a minimum, the registry operator must offer a Sunrise period and a Trademark Claims service during the required time periods, and implement decisions rendered under the URS on an ongoing basis; and
- A description of resourcing plans for the initial implementation of, and ongoing maintenance for, this aspect of the criteria (number and description of personnel roles allocated to this area).

>To be eligible for a score of 2, answers must also include additional measures specific to rights protection, such as abusive use policies, takedown procedures, registrant pre-verification, or authentication procedures, or other covenants. A complete answer is expected to be no more than 10 pages.

Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. is fully aware of the importance of protecting the rights of others in the .pars gTLD and has made rights protections a core objective. The .pars TLD Rights Protection is something CoCCA has prioritized by necessity throughout its nine-year history. CoCCA currently complies with UDRP proceedings and will comply with URS proceedings as well with methods for handling Sunrise and Trademark Claims outlined below and guided by Specification requirements of the proposed Registry Agreement.

CoCCA also offers a wide range of services including, a wildcard registration program to block variants of a domain for Trademark holders as well as an "Alert" service that any interested party can subscribe to, alerting them if a specific string is registered in any CoCCA TLD. CoCCA recognizes that ICANN has not completed the Trademark Clearing House (TMCH) program. While CoCCA cannot fully describe the details of implementation for this application based on incomplete work, CoCCA intends to comply and/or exceed the final ICANN program.

In particular, CoCCA offers the following procedures to help protect the rights of trademark owners:

Sunrise Services  
 Trademark Claims Service  
 Name Selection Policy  
 Acceptable Use Policy  
 Unqualified Registration Safeguards  
 Wildcard Registrations / Alert services  
 Clearinghouse of Intellectual Property API  
 Thick WHOIS  
 RPM Compliance auditing of Registrars  
 UDRP, URS, PDDRP and RRDRP and CRS  
 Limited License  
 Rapid Takedown & Suspension  
 Malware Mitigation  
 Fast Flux Mitigation  
 Phishing Mitigation  
 DNSSEC Deployment  
 Law Enforcement and Anti-Abuse Community Collaboration

#### 29.1 Registration Abuse Prevention Mechanisms - Pre Launch

To support Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti.' s objectives, CoCCA will implement specific measures in compliance with ICANN's Applicant Guide Book. At a minimum, ICANN states that Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. must offer sunrise registration for a period of thirty days during pre-launch in conjunction with the Trademark Clearing House.

CoCCA's RPM framework contains several levels of safeguards to deter unqualified registration and other malicious behaviors during pre-launch. This not only exceeds requirements, but also provides customers of the TLD predictably in service offerings and protections.

#### 29.1.1 Sunrise & Land-rush

To meet the ICANN requirement of a 30-day Sunrise process for those with verifiable trademark rights or owners of exact matching strings in other TLDs, CoCCA shall implement for Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. a Sunrise period for domain registrations. The validations of domains names that are an identical match will occur via the Trademark Clearinghouse via notice by Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. or Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti.' approved Registrar.



During the Sunrise, Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. will be responsible for determining eligibility of the registration and it will require the Registrant to affirm that they meet Sunrise Eligibility Requirements (SERs) and incorporate a Sunrise Dispute Resolution Policy (SDRP). The Sunrise will be followed by a 30 day Registration Land-rush for members of the community-business owners/residents/etc. The process will end in General Availability or Open Registration. Eligible Trademark holders may continue to register marks on an ongoing basis.

#### 29.1.2 Trademark Claims Service

Per ICANN's Applicant Guide Book, Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. is required to provide a Trademark Claims service during pre-launch phases and for at least 60 days from the date of open registration. During the Trademark Claims period, Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. or the Registrar will provide notice to the prospective registrants where an identical match is identified in the Trademark Clearinghouse. The notice will include warranties that the prospective Registrant must understand and adhere that the domain will not infringe on the rights of the respective Trademark holder. A notice will also be sent to the designated Trademark holder of marks where an identical match has been identified.

#### 29.1.3 Name Selection Policy

The .pars TLD will enforce a name selection policy that ensures that all names registered in the gTLD will be in compliance with ICANN mandated technical standards. These include restrictions on 2 character names, tagged names, and reserved names for Registry Operations. All names must also be in compliance with all applicable RFCs governing the composition of domain names. Registrations of Country, Geographical and Territory Names will only be allowed in compliance with the restrictions as outlined in the answer to Question 22.

Additionally, Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. requires that domain names within the .pars TLD should consist of proper characters unique within top-level domain, followed by the characters '.pars'. Domain names should meet the following technical requirements; They shall:

- contain no more than 63 characters;
- begin and end with a letter or a digit;
- contain no characters different from letters, figures and a hyphen (allowable characters are the letters of the Roman alphabet; capital and lowercase letters do not differ);
- contain no hyphens simultaneously in the third and fourth positions.

#### Acceptable Use Policy

Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. has developed an Acceptable Use Policy (AUP) that is referenced in the answer to Question 28. This AUP clearly defines what type of behavior is expressly prohibited in conjunction with the use of a .pars domain name. Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. will require, through both the Registry Registrar Agreement (RRA), and a Registry Registrant Agreement (RA) that this AUP be accepted by a registrant prior to Activation of a domain in the .pars TLD. See Life-Cycle and

#### 29.2 Rights Protection Mechanisms - Post Launch

CoCCA offers a suite of post-launch Rights Protection Mechanisms. Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti., supported by CoCCA services, will promote the security and stability of the TLD with the following:

- Unqualified Registration Safeguards
- Wildcard Registration / Alert services
- Clearinghouse of Intellectual Property API
- Thick WHOIS
- RPM Compliance auditing of Registrars
- UDRP, URS, PDDRP and RDRP
- Limited License
- Rapid Takedown & Suspension
- Malware Mitigation
- Fast Flux Mitigation
- Phishing Mitigation
- DNSSEC Deployment
- Law Enforcement and Anti-Abuse Community Collaboration

#### 29.2.1 Unqualified Registration Safeguards

Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. plans to adopt the CoCCA Acceptable Use Policy (AUP) and Complaint Resolution Service Policy (CRS) as part of the operation of the .pars gTLD. See 28.X

The CoCCA model differs from the "classic" gTLD shared registry system in that Registrants are bound by a collateral agreement between themselves and the TLD Operator. This collateral agreement binds them to the TLD AUP policy, WHOIS policy and Complaint Resolution Service.

Although registrars are required to advise registrants of the TLD policies and conditions, with the prevalence of highly automated registration systems and expansive reseller networks it cannot be guaranteed that registrants have reviewed or agreed to the policy. An email reiterating these policies will be sent to each registrant to ensure that new applicants are made aware of and confirm their agreement to these policies.

The same process therefore allows the registry the opportunity to verify the accuracy of customer data supplied by the registrar, use dynamically generated images as a challenge-response verification to prevent automated processes activating domains and to directly collect and store additional identifying information about registrants, which can be utilized to control fraud.

#### 29.2.2 Wildcard Defensive Registrations

CoCCA currently supports a Wildcard option, which will extend to all new gTLDs in which a brand owner/ trademark holder may register a Primary domain and then can upload evidence of the trademark or other rights via PDF in the GUI.

The Registrant may then they apply online to request a \*.name or other wildcard block using java regular expressions for that text string. CoCCA will manually review the request for approval, collisions with other strings etc. If approval is granted, any attempt to register any domain that triggers that string returns "not available for policy reasons" via EPP or GUI.

The domain must be kept current and up to date in order for the Wildcard Registration to be active if the Primary registration lapses, or is subject to a dispute or UDRP ruling and is transferred the Wildcard is removed.

#### 29.2.3 Alert

Subscribers to the Premium WHOIS service may request email alerts if a domain matching a given string, or

containing a specified string, is Registered.

#### 29.2.3 Clearing House for Intellectual Property (CHIP)

CHIP is a new technology that is designed to allow trademark owners to efficiently and effectively safeguard and enforce their rights on the Internet, and in particular in the domain name space. CoCCA and IP Clearinghouse, the company that operates CHIP, have collaborated in the past to allow trademark owners to retroactively (or proactively) associate trademark information with specific domain names. This technology is available but may or may not be used depending on the outcome of developments in with gTLD clearinghouse.

#### 29.2.4 Thick WHOIS

CoCCA will provide Thick WHOIS to enhance accessibility and stability and reduce malicious behavior thereby promoting increased rights protection mechanisms and investigations where applicable. All WHOIS services meet Specification 4 of the Registry Agreement in support of Thick WHOIS. The agreement between Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. and its Registrars specifies that Registrant information should be complete and accurate and instances where incomplete information occurs will be investigated to prevent reoccurrence. Given the current state nature of WHOIS, CoCCA intends to adapt to new formats and protocols as they go into effect.

#### 29.2.5 Registrar Relationship

Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. views the protection of legal rights of a user's domain name and that of trademark owners as a strategic imperative to operating a successful TLD. Therefore, ICANN accredited Registrars will only be used and be bound to the registry-registrar agreement. Certain components of the RPM framework will be administered on behalf of Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti.. To ensure compliance with designated RPMs, CoCCA will conduct annual reviews and enforce non-compliance where necessary. In cases where Registrars fail to meet Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti.' standards, the Registrar will lose its certification to register domains of the TLD until all issues are resolved.

#### 29.2.6 Uniform Dispute Resolution Policy (UDRP)

The UDRP is a proven rights protection mechanism whereby complainants can object to a domain registration via a UDRP provider. The Registrant in question has the opportunity to respond to the complaint and defend its registration and use as good faith. The UDRP provider and assigned panel provide a decision based on the information submitted by both the complainant and the respondent. Where the complainant is successful in proving a bad faith registration ownership of the domain will be transferred accordingly and in line with ICANN policy. Conversely, where the complainant is unable to prove bad faith, the domain registration will remain with the assigned Registrant. Registrars of Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti.' must implement and respond to UDRP policy where applicable. Penalties will apply where Registrars are found to be in breach.

#### 29.2.7 Uniform Rapid Suspension (URS)

CoCCA is required to implement the Uniform Rapid Suspension (URS) per the Applicant Guidebook. If an infringement is discovered, the complainant may file an objection with a URS provider. The URS provider will investigate compliance via an administrative review. Upon a successful review, the URS provider will notify Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. to place the domain in question in lock status within NEED A TIMEFRAME, meaning that no changes to registration data will occur, but the domain continues to resolve. Upon lock of the domain, the Registrant will be notified and have an opportunity to respond. If the complainant proves the domain is used in an abusive manner, the domain name will be suspended for the remainder of the registration period and will resolve to an informational site provided by the URS provider. The complainant will have the opportunity to extend the registration for one additional year. Conversely, if the evidence does not result in a successful determination of abuse, the URS Provider will contact CoCCA and controls of the registered domain will be returned to the Registrant.

#### 29.2.8 Post-Delegation Dispute Resolution Procedure (PDDRP)

Per the Applicant Guidebook, CoCCA is required to implement the Post-Delegation Dispute Resolution Procedure (PDDRP) that allows a complainant the right to object to Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti.' manner of operation or use of the gTLD. A PDDRP provider will accept objections and perform a threshold review. CoCCA will respond to the complaint as necessary to defend the operation and use Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti.' pars gTLD.

#### 29.2.9 Registration Restriction Dispute Resolution Procedure (RRDRP)

The Registration Restrictions Dispute Resolution Procedure (RRDRP) outlines the resolution proceedings whereby the Complainant determines that Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. has failed to comply with its defined registration restrictions. The parties to the dispute will be the gTLD registry operator and the harmed established institution where proper standing has been reviewed and confirmed. A successful complaint proves that the complainant is a defined community and that a strong association exists between it and the gTLD string. Further proof must be submitted that Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. violated its community-based restrictions and that measurable harm occurred. Upon administrative review of the complaint, Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. will file a response within 10 days of the filing.

If the complainant is determined to be the prevailing party, Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. will pay all Panel and Provider fees incurred, including filing fees. If Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. is found to have violated its registration restrictions, Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. will implement all remedial measures outlined by the Expert Panel, including cases where registration suspension may occur. Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. recognizes that this procedure does not preclude entities seeking remedies in courts of laws.

#### 29.2.10 Limited License

Limited License- Registration policies and terms and conditions limit registrants' rights to a limited license to use (but not to sub-license the use of any portion of) the allocated TLD, subject to continuing compliance with all policies in place during that time.

#### 29.2.11 Rapid Takedown & Suspension

CoCCA, at Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti.' request, will comply with any takedown or suspension. Usually, these types of requests are based on court orders of competent jurisdiction, but not limited to such. Before any domain take down, CoCCA maintains an internal checklist that will be followed to ensure validation of the request. If for any reason the validation procedure fails, the CoCCA Ombudsman will be notified. Upon confirmation that the registered domain is to be suspended or removed from the zone, CoCCA will execute its auditable procedure documenting the incident number, date, time, domain name, threat level, description and reason for the take down, and any other evidence that may be necessary to properly document the take down. The Ombudsman, Registrar, and Registrant will be notified before and at the time of take down execution.

#### 29.2.13 Malware Mitigation

Where commercially sensible, or a risk factor has been identified, CoCCA will perform automated and regular scanning for malware of all domains (or a subset of domains) in the registry. Often, Registrants are unaware and compromised by malware deployments. Scanning for malware reduces occurrences for this type of abusive behavior for registered domain names in the TLD.

#### 29.2.14 Phishing Mitigation

CoCCA will establish and act upon the results of a regular poll against one or more trusted databases for phishing sites operating (in second level or subordinate domains) within the TLD. Phishing activity most often occurs through a subordinate domain, rather than a directly registered second level domain. For this reason the registry should query for any wild-card occurrence of a domain that has been flagged as a phishing site or one that contains malware.

#### 29.2.15 DNSSEC Deployment

As part of Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti.' mission to maintain a highly secure and stable TLD, CoCCA will implement DNSSEC as part of its backend registry services. DNSSEC helps mitigate, for example, pharming attacks that use cache poisoning to redirect unsuspecting users to fraudulent websites or addresses. DNSSEC protects the DNS system from abuse threats in the following aspects:

Security of Domain Resolution - DNSKEY/RRSIG provide authentication and integrity verification to ensure data will be compromised during transmission. The CoCCA credit name server trust anchor is signed by the public key and then delivered to the Interim Trust Anchor Repository (ITAR) for TLD verification. NSEC resource records will also be used to verify negative response messages of queried resource records to ensure deletion does not occur during transmission.

Security of Zone File Distribution - TSIG allows communication among authentication servers to ensure that it is the correct server and that data is not compromised during transmission.

#### 29.2.16 Law Enforcement and Anti-Abuse Community Collaboration

CoCCA does and will continue to cooperate closely with anti-abuse communities, experts, and law enforcement in the mitigation and prevention of abuse behavior. Not only will best practice be shared, but also collaboration on the latest issues will remain a priority. In addition to collaboration instances may take the form of early notification by security agency of malicious content. Another form of cooperation may be the provision of user information (including historical and non-publicly available information, where available) to the security agency, to assist identification of wrongdoers. The existence of existing arrangements for dealings between security agencies and the registry operator facilitates the ability for both registry and law enforcement to react promptly to threats, promptly minimizing harm. With respect to suspensions, the registrant will be given an opportunity to remedy via automated processes, given the time sensitive nature of criminal activity automated suspension based on triggers / flags, or at the request of law enforcement should be enabled. Critical domains can be manually "Super Locked" in the registry to ensure they are not removed from the zone or suspended inadvertently by automated suspension technology. Automated suspensions will only be initiated when required to protect the public interest or network integrity. They should not be initiated to simply protect an entity's or individuals intellectual or other property rights - those sorts of disputes should be dealt with via a formal complaint resolution service.

#### 29.3 Resource Plans

Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. will dedicate 2 professionals to coordinate the operation of the .pars gTLD. At the same time, the technical professionals at CoCCA will be supporting the vast majority of the technical aspects of operating the .pars gTLD.

As the .pars gTLD is a community-supported effort, it is also expected that members of the community will help Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. develop policies and procedures that govern the operation of the gTLD.

The following Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. team members will be used to support the rights protection plan; CoCCA NOC Support, Ombudsman.

CoCCA acting as Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti.' registry services provider maintains a resource model to meet the demands of RPM implementation and on-going operation of the protection mechanisms. CoCCA maintains a qualified and experienced technical staff to support registry services that meet or exceed defined service levels.

The CoCCA workforce-staffing model is sized to provide the appropriate services for each managed TLD. Given the dynamic nature of technologies and innovation, the CoCCA staff model is constantly reviewed and adjusted to achieve optimization without sacrifice to customer satisfaction and service level requirements. In cases where growth dictates an increase in staff, CoCCA maintains a proven staffing process for acquiring qualified candidates. Details of staffing resource plans can be found in response to questions of the Financial Projections section of the application.

There are eight CoCCA CRS Officers whose Role is to monitor registry services and review Complaints lodged online or from Law Enforcement / CERTs CoCCA has an established formal relationship with.

The complaints are dealt with in accordance with the CRS and AUP / Registrant Agreement, which allows the CRS officers discretion to suspend a domain instantly or send the complaint to the Ombudsman for amicable complaint resolution. CRS officers are available twenty-four hours a day, seven days a week, and three hundred and sixty five days a year.

CoCCA estimates it will require the following personnel to support the RPM implementation and operations for Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti.:

Complaint Resolution Service Officers: 8  
Complaint Resolution Expert - Minimum of Eight  
Ombudsman - One

### 30A. Security Policy: provide a summary of the security policy for the proposed registry, including but not limited to:

- indication of any independent assessment reports demonstrating security capabilities, and provisions for periodic independent assessment reports to test security capabilities;
- description of any augmented security levels or capabilities commensurate with the nature of the applied for gTLD string, including the identification of any existing international or industry relevant security standards the applicant commits to following (reference site must be provided);
- list of commitments made to registrants concerning security levels.

To be eligible for a score of 2, answers must also include:

- Evidence of an independent assessment report demonstrating effective security controls (e.g., ISO 27001).

A summary of the above should be no more than 20 pages. Note that the complete security policy for the registry is required to be submitted in accordance with 30(b).

Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. and CoCCA desire to ensure the highest levels of security are applied and maintained for all elements in the chain that ultimately result in the resolution of a .pars TLD on the Internet. CoCCA, together with partners PCH and ISC will endeavor to ensure the secure operation of Registry Services for the .pars TLD as described below.

### 30.1 DNSSEC - Facility for Key Storage

For reasons of economies of scale and because CoCCA has a nearly decade long relationship with PCH, the .pars key is to be stored offline at a Singapore facility hosted by the National University of Singapore, on behalf of the Singaporean Infocomm Development Agency (IDA), other DNSSEC key-store facilities that are part of PCH's project are hosted in Zurich by SWITCH, the Swiss national research and education network and at a U.S. facility hosted by Equinix in San Jose California. The PCH DNSSEC project facilities mirror the security and processes used by ICANN for maintenance of the root.

See Attachment PCH\_SG\_Backgrounder.pdf

#### 30.1.1 Signature of the .pars

The .pars zones generated by the CoCCA SRS will include the DS records submitted by registrars, zones will be transferred from CoCCA's hidden signing master DNS to four PCH inbound masters using AXFER / IXFER and TSIG. PCH will transfer the zones using IXFR / AXFRE and TSIG to their signer servers in Frankfurt and Palo Alto. The signed zone is then exported to PCH's two outbound DNSSEC DNS for secure ASXFR / IXFR TSIG transfer back to CoCCA's inbound DNSSEC master in Sydney. Key signing keys and zone signing keys are to be rolled out in accordance with best practices and ICANN requirements. CoCCA and PCH's DNSSEC implementation fully adheres to applicable RFC's and to the requirements of Specification 6, section 1.3.

#### 30.1.2 Secure Distribution of the Signed Zones

CoCCA has employed the use of a double Anycast and Unicast network for the purpose of distributing signed zones across the DNS. Due to CoCCA's desire to ensure that this process is not compromised, CoCCA logs and monitors the zone signing and distribution process, and also ensures that the management of signed zones is performed by CoCCA.

On receipt of the signed zones from PCH, CoCCA will perform some basic validation against the zones sent to PCH, and then transfer these zones onto a hidden distribution master DNS which will transfer zones via TSIG and IXAFR / AXFR to ISC's SNC platform, PCH's Anycast platform and CoCCA's Unicast DNS servers. If a critical issue was found that was impacting both the primary and secondary SRS, and if instructed by CoCCA, PCH may distribute the zones to their own Anycast network, the ISC SNS Anycast network and the CoCCA Unicast nodes.

The procedures above have been tested by ccTLDs on CoCCA's SRS platform.

### 30.2 Securing the .pars DNS infrastructure and Nodes

The .pars TLD will rely on ISC's and PCH's Anycast networks and CoCCA's Unicast for resolution. ISC authors BIND and pioneered the use of DNSSEC and Anycast technology, PCH manages what is arguably the largest, most geographically dispersed Anycast network, CoCCA currently operates Unicast TLD servers for 12 TLDs. All three entities utilize best of class technology and have rigorous security policies in place to secure, monitor and respond to threats that may compromise the resolution of the .pars TLD. Both PCH and ISC are members of NSP-Sec and have BGP sinkhole capabilities. Both organizations are well positioned and able to coordinate with ISPs that may be transiting or sourcing Denial of Service attacks (DoS) or other attack traffic to mitigate it closer to its source. The geographically diverse PCH and ISC Anycast services are extremely resilient against DoS attacks, if a node fails or is otherwise compromised, it will swiftly be taken out of the PCH or ISC Anycast cloud, causing traffic to flow to other nodes with minimal or no service disruption. The two independently operated and managed Anycast network's total distributed capacity will allow the .pars to absorb even a coordinated DoS attack originating from multiple locations at once.

The geographically diverse Anycast network proposed for .pars necessitates locating dozens of nodes in a variety of co-location facilities varying from Tier 4 to Tier 2 - and each facility has different security policies for physical access. From a security and stability perspective, the critical issue is that all nodes be monitored in real time by PCH, ISC and CoCCA and any node that experiences SLA issues (or is otherwise compromised) is swiftly taken offline or out of the Anycast network. Under CoCCA's agreements with PCH and ISC, any SLA or security issues with any node in their respective Anycast networks is to be reported immediately so that CoCCA may advise registrars or take any other appropriate action.

### 30.3 CoCCA's Sydney SRS Security Policy

#### 30.3.1 CoCCA SYD NOC | SRS Physical Access

CoCCA's primary NOC is located at Global Switch in the Sydney CBD, an enhanced Tier-3 facility and one of the largest carrier neutral data centers in the southern hemisphere. CoCCA's SRS servers are housed in a dedicated, caged rack provided by PIPE networks, PIPE also provides CoCCA with the primary bandwidth used by the Sydney SRS.

In order to gain physical access to CoCCA's servers, an individual must be pre-authorised by CoCCA, pipe and Global Switch - and have formally been inducted by Global Switch. Once approved to enter the facility, an individual must be inspected and be granted access by the Global Switch Security Operations Centre - which is manned 24x7 by security personnel. After passing security, physical access requires passing through a mantrap. Access to the floor, pipe co-location room and master cage is controlled by key-cards with strict access control

lists.

Access to CoCCA's cage and rack require a combination of key-cards and physical keys both of which are distributed by, and only available to, CoCCA staff. All spaces are under constant CCTV surveillance by global switch security and the PIPE Network's NOC.

CoCCA's policy is to severely restrict physical access to network appliances, currently only six individuals have physical access to the CoCCA SRS in Sydney and all access is logged. CoCCA's security policy for physical access is collateral to the Global Switch and PIPE Networks.

### 30.3.2 CoCCA SYD NOC | SRS Admin Remote Access

The number of individuals with the ability to directly access and administer network appliances is very small - currently six, a number not expected to grow with additional gTLDs. Remote access is only accessible through VPN with the mandatory requirement to use one time passwords (OTP) for authentication purposes. SRS server command line logins use both OTP as well as traditional username and password authentication methods - enabling each login to be traced to an individual.

CoCCA NOC Support Staff, Registrar Support and Complaint / Abuse Officers and Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. staff may only access the SRS via port 443 with OTP from trusted IP addresses. CoCCA NOC Support Staff, Registrar Support and Complaint / Abuse Officers and Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. staff have no physical or remote administrative access to servers or network appliances.

### 30.3.3 CoCCA's "pamoja" SRS Software Testing

In designing any security regime it is important to clearly identify potential threats and design the policy to address them. The SRS data is a compilation of publicly available data, and all information on Registrants, Registrars, and Resellers is available via WHOIS, RDDS services or Historical Abstracts. CoCCA does not store credit card or other commercially sensitive confidential information on registrants or registrars in the SRS (or elsewhere). The security threat is not theft of SRS data, it is loss of data or tampering with data.

Information relating to the management of the Data Escrow processes performed by NCC and CoCCA Data Escrow (NZ) Limited, including information in relation to the backup policies are explained in response to question 38. The Data Escrow process ensures that data is protected against security breaches that result in the loss or unauthorized modification of SRS data, especially as the data can be recovered from several sources. The CoCCA security policy is designed to protect against un-authorized modification of production SRS data.

The only information stored in the SRS that could present a risk should the entire SRS be compromised, stolen and released "into the wild" are SRS credentials and AuthCodes. The credentials and AuthCodes are Hashed (MD5) and Encrypted in the DB. GUI access to CoCCA's production systems is only granted from trusted IP's with a requirement for OTP use. For EPP access to the production SRS, the registrar's IP must be white-listed and they must connect with a CoCCA issued SSL certificate. Even if one were able to steal the SRS DB and de-crypt the login credentials or AuthCodes, other security measures such as IP address locking, OTP and CoCCA issued certificates ensure potential data thieves would not be able to use them to access CoCCA's production SRS or modify data.

Securing the SRS largely requires ensuring the SRS software cannot be exploited by users. The SRS has four public facing websites, the WHOIS, RDDS, Historical Abstracts and Key Retrieval. The GUI login is not public facing.

CoCCA uses the same "pamoja" SRS database application that it distributes to over 20+ other TLD managers. While the application is tested internally by CoCCA and other TLD manager's, developers and systems administrators, CoCCA has a policy that each major release also be tested by an independent software testing laboratory. Currently we have contracted with Yonita (<http://yonita.com>). Yonita tests / audits the pamoja SRS application (not CoCCA's NOC) for:

- \* Security vulnerabilities
- \* Standard quality defects
- \* Performance anti-patterns
- \* Database and transaction misuses
- \* Concurrency issues
- \* Architectural bad practices

### 30.3.4 Monitoring and Detecting Threats

CoCCA monitors network traffic and activity through automated processes and seeks to detect threats that impact the SRS and more broadly CoCCA's Registry Services.

PCH and ISC directly monitor and attempt to detect threats that impact the DNSSEC signing and storage facilities as well as PCH's and ISC's respective Anycast networks. Any incident that impacts the security and stability of the .pars TLD in either the PCH DNSSEC facilities or nodes on the ISC or PCH Anycast networks is logged and reported to the CoCCA NOC immediately. ISC and PCH have near-real time reporting for all the Anycast nodes in their clouds and make this information available to CoCCA.

### 30.3.5 CoCCA SRS NOC | Essential Services Policy

CoCCA's Security Policy mandates that only essential SRS services (production EPP, WHOIS, RDDS, and SRS GUI with limited access) are to be hosted at the Sydney NOC.

Public facing policy websites, email servers, help-desk software, svn, GIT, team sites, OTE environments, and software development servers are all hosted externally using various commercial cloud - based services. None of these cloud-based servers are configured in such a way that they have access to any SRS services that are not normally available to the public.

### 30.3.6 CoCCA SRS NOC | Public Access Restrictions Policy

CoCCA's security policy dictates that only the port 43 WHOIS server, port 443 web-based WHOIS, port 443 AuthCode retrieval site, and port 443 Historical Abstract Site and a single unicast DNS server for the .pars TLD are to be publicly accessible.

Registrars, CoCCA's registrar support staff, law enforcement or CERTs may access the port 443 GUI interface only if their IP addresses have been white listed in advance and they authenticate using clientID, login and an OTP. CoCCA's use of OTP tokens allows CoCCA to track activity in the SRS by individual not just loginID (username).

### 30.3.7 CoCCA SRS NOC | Intrusion Detection

CoCCA Security Policy requires that all SRS traffic originating from outside the NOC be subjected to automated intrusion detection. CoCCA's firewalls (Watchguard XTM) are configured for intrusion detection and are able to inspect encrypted HTTPS traffic. CoCCA's Barracuda load balancers provide an additional layer of firewall protection, DoS and automated intrusion detection. CoCCA's NOC firewalls are configured in accordance with best practices with both port and application layer filtering. The load balancers are configured for NAT and are also configured for intrusion detection and DoS attacks.

### 30.3.8 CoCCA SRS NOC | Auditing and Logging

CoCCA's Security Policy requires that all access to the SRS via the port 443 GUI is logged with originating IP, clientID, OTP (generated by security token), and that the sessions are time and date stamped. All EPP and WHOIS access logs are to be stored for seven days in the production SRS where they can be readily accessed before being archived. Firewall and VPN access is also logged.

### 30.3.9 CoCCA SRS NOC | Incident Response

CoCCA NOC Support staff are on hand 24-7-365 to monitor the Registry Services offered at the primary SRS in Sydney and the availability of the Failover and Escrow SRS facilities. NOC Staff perform three "roles":

- 1) monitoring the CoCCA Sydney NOC and failover SRS's - and a dozen or so other SRS's that CoCCA supports;
- 2) registrar support for the CoCCA NOC and four other locally hosted ccTLDs; and
- 3) serve as front-line Complaint Resolution Service Officers able to trigger a CoCCA Critical Issue Suspension (CIS) or Uniform Rapid Suspension on a 24-7-365 basis.

The level of SRS access and skills required to perform all three roles are similar. CoCCA NOC support staff have no VPN access or other access to appliances at the CoCCA SRS. The GUI access they have is limited to Customer Service functions, and all the applications they use (helpdesk, monitoring, accounting, email) are hosted outside the primary NOC.

CoCCA's NOC support is a virtual "function" performed by individuals in New Zealand, Guyana and France (additional NOC staff will be trained and other centers incorporated into the service in Q4 2012). If there is a failure in any of CoCCA's Registry Services functions, the role of the NOC Support is to:

- 1) raise the alarm with CoCCA systems administrators or developers as conditions and events dictate;
- 2) liaise with PIPE Networks, PCH, ISC, IANA / ICANN and registrars as required.

### 30.3.10 Provisioning against DNS Denial of Service attacks

A Denial of Service (DoS) attack on a network service floods it with fraudulent requests so that there is no capacity left for legitimate requests. CoCCA's Anycast DNS service is outsourced to PCH and ISC's Anycast networks, CoCCA's managed Unicast DNS ensures Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. has at least two "last resort" DNS nodes under direct management. Both PCH and ISC networks provide the .pars with substantial protection against DoS attacks, including Anycasting, over provisioning, and network traffic shaping.

Both PCH and ISC utilize traffic shaping methods that rate limit the number of queries per IP address to help prevent abuse and to trigger an investigation of elevated traffic levels to see whether an attacker is testing resource limits or whether ISC or PCH should provision additional bandwidth/servers or remove the node temporarily. In cases of an active DoS against ISC, CoCCA or PCH each will make every effort to identify the offending traffic and its sources to squelch offending traffic at ISP borders before reaching the servers as well as augmenting capacity to handle any legitimate elevated traffic levels.

### 30.3.11 Provisioning against WHOIS and EPP Denial of Service attacks

CoCCA actively monitors all Registry Services to ensure they meet any required SLA. In the event of a DoS attack that threatens to lower the SLA for WHOIS or EPP services required in the ICANN Agreement, CoCCA will work with our upstream providers (who also monitor the traffic) and attempt to squelch offending traffic at the ISP borders before it reaches the CoCCA RDDS servers. In the event the traffic is found to be legitimate, the bandwidth can be swiftly increased as required.

### 30.3.12 Failover Routing

CoCCA currently has multiple links to the Internet but does not load balance across them all. The secondary (failover) link is used to replicate and transfer backup WAL and VM image data files to CoCCA's Failover SRS infrastructure (currently located in Palo Alto) and Escrow NOC. If there is a critical infrastructure issue at PIPE Networks, BGP routing will be used to move our critical infrastructure on our IPv4 and IPv6 address blocks to the failover Telstra link or to one of the two SRS instances outside of Australia. A fourth node will be added in Paris (France) in early 2013.

If the issue relates to an SLA problem, changing the A record and CNAME for RDDS services may be sufficient to resolve such an issue in a timely manner. If required by a pro-longed outage BGP routing may be used to re-route

the entire ranges to a failover facility.

### 30.3.13 Commitments to Registrants

Taken from the .pars WHOIS and Privacy Policy

#### "6. DATA SECURITY

6.1 CoCCA shall take reasonable steps to protect the Personal Information it holds from misuse and loss and from unauthorized access, modification or disclosure.

#### 7. OPENNESS

7.1 This Policy sets out CoCCA's policies on its management of Personal Information. CoCCA shall make this document available to anyone who asks for it.

7.2 On request by any person, CoCCA shall take reasonable steps to let the person know, generally, what sort of Personal Information CoCCA holds, for what purposes, and how it collects, holds, uses and discloses that information.

#### 8. ACCESS AND CORRECTION

8.1 All Registrant information lodged by a registrar that is maintained in the CoCCA SRS is publicly available from CoCCA's RDDS services - WHOIS, Premium WHOIS, and Historical Abstracts.

See the .pars RDDS Policy (Attached) for more information.

8.2 If CoCCA holds Personal Information about a Registrant and the Registrant is able to establish that the information is not true, accurate, and complete and/or up-to-date, CoCCA shall take reasonable steps to facilitate corrections to the information so that current information is accurate, complete and up-to-date - except where the data is contained in an historical record or archive."

### 30.3.14 Independent Security Assessments

In addition to software and source security Audits, CoCCA has engaged the services of Connell Wagner Pty Ltd (now known as Aurecon Group Brand (Pte) Ltd) for the purpose of performing independent security audits of the primary data center.

On the condition that a gTLD is approved, CoCCA will engage the services of Aurecon to perform independent security audits to ensure the CoCCA system fully complies with all published security requirements set forth by ICANN. Such reports will be provided to ICANN on request. With new IT infrastructure planned for deployment in 2012 and early 2013, CoCCA will contract further independent assessments with third parties.

# **Annex 5**





**New gTLD Application Submitted to ICANN by: Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti.**

Application Downloaded On: 15 Feb 2014

String: persiangulf

Application ID: 1-2128-55439

**Applicant Information**

1. Full legal name

Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti.

2. Address of the principal place of business

Contact Information Redacted

3. Phone number

Contact Information Redacted

4. Fax number

Contact Information Redacted

5. If applicable, website or URL

<http://www.agitsys.com>

**Primary Contact**

6(a). Name

Mehdi Abbasnia

6(b). Title

Managing Director

6(c). Address

6(d). Phone Number

Contact Information Redacted

6(e). Fax Number

Contact Information Redacted

6(f). Email Address

Contact Information Redacted

**Secondary Contact**

7(a). Name

Hakan Atalay

7(b). Title

The Head of Engineering Dept.

7(c). Address

7(d). Phone Number

Contact Information Redacted

7(e). Fax Number

Contact Information Redacted

7(f). Email Address

Contact Information Redacted

### Proof of Legal Establishment

8(a). Legal form of the Applicant  
Limited Company

8(b). State the specific national or other jurisdiction that defines the type of entity identified in 8(a).  
Trade Registration Office (Ticaret Sicili Memurlugundan)

8(c). Attach evidence of the applicant's establishment.  
Attachments are not displayed on this form.

9(a). If applying company is publicly traded, provide the exchange and symbol.

9(b). If the applying entity is a subsidiary, provide the parent company.

9(c). If the applying entity is a joint venture, list all joint venture partners.

### Applicant Background

11(a). Name(s) and position(s) of all directors

Name	Position
Ali Zarinbakhsh	Member Of the Board
Mehdi Abbasnia	Managing Director

11(b). Name(s) and position(s) of all officers and partners

Name	Position
Fatih Atasoy	CFO
Mehdi Abbasnia	Managing Director

11(c). Name(s) and position(s) of all shareholders holding at least 15% of shares

Name	Position
Ali Zarinbakhsh	Member Of the Board
Mehdi Abbasnia	Managing Director

11(d). For an applying entity that does not have directors, officers, partners, or shareholders: Name(s) and position(s) of all individuals having legal or executive responsibility

### Applied-for gTLD string

13. Provide the applied-for gTLD string. If an IDN, provide the U-label.  
persiangulf

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14A. If applying for an IDN, provide the A-label (beginning with "xn--").

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14B. If an IDN, provide the meaning, or restatement of the string in English, that is, a description of the literal meaning of the string in the opinion of the applicant.

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14C1. If an IDN, provide the language of the label (in English).

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14C2. If an IDN, provide the language of the label (as referenced by ISO-639-1).

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14D1. If an IDN, provide the script of the label (in English).

---

14D2. If an IDN, provide the script of the label (as referenced by ISO 15924).

---

14E. If an IDN, list all code points contained in the U-label according to Unicode form.

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15A. If an IDN, upload IDN tables for the proposed registry. An IDN table must include:

1. the applied-for gTLD string relevant to the tables,
  2. the script or language designator (as defined in BCP 47),
  3. table version number,
  4. effective date (DD Month YYYY), and
  5. contact name, email address, and phone number.
- Submission of IDN tables in a standards-based format is encouraged.
- 

15B. Describe the process used for development of the IDN tables submitted, including consultations and sources used.

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15C. List any variants to the applied-for gTLD string according to the relevant IDN tables.

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16. Describe the applicant's efforts to ensure that there are no known operational or rendering problems concerning the applied-for gTLD string. If such issues are known, describe steps that will be taken to mitigate these issues in software and other applications.

The team behind Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. has been involved in the development of various IDN scripts for over ten years. Through this work, we have become aware of some issues that may cause rendering problems for certain new gTLDs. We have reviewed the string that will be used with this application and based upon our expertise, we see no issues with operational or rendering problems concerning the applied for gTLD string.

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17. OPTIONAL.

Provide a representation of the label according to the International Phonetic Alphabet (<http://www.langsci.ucl.ac.uk/ipa/>).

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18A. Describe the mission/purpose of your proposed gTLD.

There are in excess of a hundred million of Persians worldwide. They are a disparate group, yet they are united through their core beliefs. They are a group whose origins are found several millennia in the past, their ethnicity often inextricably linked with their heritage. Hitherto, however, there has been no way to easily unify them and their common cultural, linguistic and historical heritage. The .PERSIANGULF gTLD will help change this.

The origins of the ethnic Persians can be traced to the Ancient Iranian peoples, who were part of the ancient Indo-Iranians and themselves part of the greater Indo-European linguistic family. The Ancient Iranian peoples arrived in parts of Iranian plateau around 2000-1500 BCE. The Old Persians were originally nomadic, pastoral people occupying the western Iranian plateau. By 850 BCE they were calling themselves the Parsa, and their constantly shifting territory Parsua for the most part localized around Persis (Pars), bounded on the west by Tigris River and on the south by Persian Gulf. The Persian Gulf is located in the southwest of the Asian Continent at 23 to 30 degrees northern latitude and 48 to 56 degrees longitude on the south side of the vast country of Iran, with a length of 1259 kilometers.

Although the Persian Gulf is not mentioned as a geographical name in module 2 of the Applicant Guidebook, it is still well-known across the world, as is its location.

The Persian Gulf has been a valuable waterway since the beginning of history and as the venue of the collision of great civilizations of the ancient east, it has a background of several millenniums. Since centuries ago, the Ilamites used the Port of Boushehr and the Kharg Island for dwelling, shipping and ruling over the coasts of the Persian Gulf as well as transaction with the West Indies and the Nile Valley. In the Latin American geography books the Persian Gulf has been referred to as More Persicum or the Sea of Pars.

The Latin term "Sinus Persicus" is equivalent to "Persicher golf" in French, "Persico qof" in Italian, "Persidskizalir" in Russian and "Perusha Wan" that all mean "Pars".

Prior to the stationing of the Aryan Iranians on Iran's Plateau, the Assyrians named the sea in their inscriptions as the "bitter sea" and this is the oldest name that was used for the Persian Gulf.

An inscription of Darius found in the Suez Canal, used a phrase with a mention of river Pars which points to the same Persian Gulf.

During the years: 559 to 330 B.C. coinciding with the sovereignty of the Pars Empire over the Middle East area, especially the entirety of the Persian Gulf and some parts of the Arabian Peninsula, the name of Pars Sea has been widely written in the compiled texts.

In the travel account of Pythagoras, several chapters are related to description of his travels accompanied by Darioush, a king of Achaemenid, to Shoush and Perspolis, and the area is described. Among other writings from

the same period, there is an inscription and an engraving from the fifth century BC installed at the junction of the waters of Arabian Gulf (Ahmar Sea), the Nile River and the 'Rome River' (now known as the Mediterranean). In these writings, Darius - the king of Pars Empire has named the region now known as the Persian Gulf as the Pars Sea. Other historical writings regarding the Persian Gulf include a world map drawn by Hecataeus (472 to 509 B.C.) within which the Persian Gulf and Arabian Gulf (Red Sea) have been clearly shown. Another map, drawn by Herodotus (the great historian of Greece (425-484 B.C.)), has survived and introduces Red Sea as the Arabian Gulf. Strabo, the Greek historian of the second half of the first century BCE and the first half of the first century AD wrote: Arabs are living between the Arabian Gulf and the Persian Gulf.

Equally, in the world map drawn by Diocares (285-347 B.C.), the Persian Gulf and Arabian Gulf can be clearly distinguished. Myriad other maps prepared up to the 8th century by the scientists and geographical researchers such as Hecataeus, Hiparek, Claudius Ptolemy, Krates Malous, and in the Islamic period, Mohammad Ibn Mousa Kharazmi, Abou Yousef Eshagh Kandi, Ibn Khardazabeh, Harrani (Batani), Masoudi, Abou Zeyd Balkhi, Estakhri, Ibn Houghal, Aboureyhan Birouni and others, mention that there is a wide sea South of Iran named the Pars Sea, Pars Gulf, Fars Sea, Fars Gulf, Bahre Fars, Sinus Persicus and Mare Persicum and so on.

Today, the most common Arabic works refer to the sea in south Iran as the "Persian Gulf", including the world famous Arabic encyclopedia 'Al-Monjad' which is the most reliable source in this respect.

While the .PERSIANGULF TLD ties back historically and culturally to the Middle Eastern people, it also has the potential to tie together the great number of people across the globe that may have any ties to or business in the region, including businesses, cultural institutions, civil society, NGOs and religious organizations.

A robust gTLD has the power to bring together people across national borders in a free-flowing exchange of information and commerce. There is not a .COM or .ORG equivalent of the .PERSIANGULF--a domain that has wide appeal across a common origin. ICANN is dedicated to creating more competition in the TLD space, and the introduction of those associating with the Persian Gulf through a .PERSIANGULF gTLD does so in one simple stroke.

Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. (AGITSys) was founded by individuals of Persian origin who derive a great sense of honor and pride from their community, history and ancestry. AGITSys' founders have gathered together a team with extensive experience in Persian language on the Internet, a daunting but critical task. No entity is better suited to manage the .PERSIANGULF gTLD, nor more dedicated to providing new online tools and services to facilitate the implementation and smooth-running of this gTLD. The .PERSIANGULF gTLD will increasingly open up the vast resources of the Internet and the associated global interconnectedness to those with a close affinity to the Persian Gulf, while stimulating the introduction of more online information and resources about Persian Gulf at the same time - and AGITSys will be at the helm of this change.

The proposed TLD is, quite obviously, the name of the Persian Gulf, a region in which many people live, and from which many benefit by way of resources. The total population of the countries in the Persian Gulf region exceeds 120 million people - and all of them have a sense of belonging to Persian Gulf. The .PERSIANGULF gTLD is the perfect way to easily and simply tie together these peoples of various nations, connected geographically and historically to the Persian Gulf.

#### 18B. How do you expect that your proposed gTLD will benefit registrants, Internet users, and others?

The benefits of the .PERSIANGULF gTLD will be manifold, not just to registrants but also to many Middle Eastern internet users who seek a unique place to do gulf-related business or develop their identity in relation to it - as well as many others with an interest in or curiosity regarding Persian Gulf. The presence of a .PERSIANGULF gTLD will increase the volume of online resources regarding the region. It will also allow existing website registrants to extend their presence to the Persian-Gulf specific audience with new .PERSIANGULF sites, while brand new registrants will emerge from those Middle Eastern populations who are currently desirous of Persian Gulf specific gTLD - adding to the value of the Internet in ways not currently possible.

As the global population expands, more people become willing Internet users and seek out second-level domains. The .PERSIANGULF gTLD is flexible, and is thus capable of being used for sites focused on ecommerce, information dissemination, charitable endeavors and many more functions among Middle Eastern people. A transformation in competition is anticipated for web sites within .PERSIANGULF, to depart from conventional methods of attracting new customers in this expanding market. This is because it will encourage competitors, targeting the diverse group of Middle Eastern Internet users with a specific interest or business tie to the Persian Gulf region. This incentive doesn't currently exist in an online space devoid of the .PERSIANGULF gTLD, where competition amongst the already saturated existing TLDs is stagnant.

We expect there to be strong demand from media, traditional and nontraditional, as well as historical and cultural organizations who want to not only use .PERSIANGULF gTLD domains as a basis for generating content and interest about the region but to also show their affiliation with the Gulf region.

There is already widespread support within the Persian Community for AGITSys' application for .PERSIANGULF. Approximately 30,000 people have signed a petition to ICANN supporting our effort. As members of the Persian community, these people recognize the importance of the .PERSIANGULF gTLD to Persians and endorse this effort. The petition can be found at <http://www.ipetitions.com/petition/dot-pars/>.

In terms of goals in the areas of specialty, service levels, and reputation for the proposed .PERSIANGULF gTLD, AGITSys is committed to offering choice in top level domain extensions among those interested in Persian-gulf specific domains. AGITSys is prepared to utilize its home market of Turkey as a leading source of registrants and sites, while incorporating the power of the web to connect with myriad other registrants and Internet users beyond Turkey. Further, we intend to adopt and follow the highest standards in registry operations exceeding service levels and expectations thus producing a consistent reputation.

The company is committed to bringing top-level domain registration services to registrants. To this end, AGITSys has contracted CoCCA Registry Services (NZ) Limited ("CoCCA") to provide hosted Registry Services for the .PERSIANGULF gTLD. CoCCA has over nine years experience authoring open source registry software systems and providing TLD registry support services. CoCCA was originally incorporated in Australia in 2003 as CoCCA Registry Services Limited, in January 2009 CoCCA re-located to New Zealand and trades as CoCCA Registry Services (NZ) Limited. CoCCA is a privately held NZ company.

CoCCA's clients are managers of county code top level domains (ccTLDs) as of 31 March 2012, 33 national country code top level domains ("ccTLDs") have selected CoCCA's SRS technology or services to manage their critical infrastructure. Several other ccTLDs have committed to migration to CoCCA's "pamoja" EPP Shared Registry System ("SRS") in 2012 pending the outcome of re-delegations.

CoCCA's pamoja SRS is the most widely deployed, field-tested SRS in use today. CoCCA's SRS is a mature product that has grown organically over the past decade as new standards have been developed and published. It is doubtful any other Registry Services provider has accumulated CoCCA's level of experience operating multiple small to medium sized TLDs efficiently and securely.

AGITSys' team, including the technical advisor/member Dr. Shahram Soboutipour -who has been active on the Persian Script development for many years, is well-known in the ICANN community as a selfless champion of the interests of Persians around the world, including those who have a strong association with the Persian Gulf. We also have a long history of advising the Turkish internet industry. Our reputation is solid, and we have every incentive to maintain that reputation as we roll out the .PERSIANGULF gTLD.

Under the shepherding of AGITSys, the .PERSIANGULF gTLD will increase competition, provide more online differentiation for customers and consumers, while driving digital innovation. The addition of the .PERSIANGULF gTLD will create new competition for names within the domain name space. Not only will the offering of .PERSIANGULF domains create competition within content providers for users of Persian Gulf related content, but it is expected that competition will be enhanced among the varying service providers that users require to deploy said content. As it is rolled out, the .PERSIANGULF gTLD will rapidly develop as the gTLD of choice among those interested in content from and about the region. The demand for content from this group isn't and won't be satisfied by .COM or .ORG offerings within the current gTLDs and in fact these have hampered collaboration and innovation. The Middle Eastern people, including those who have a strong affinity with the Persian Gulf, demand content that is tailored to their own unique needs and wants, under the umbrella of a dedicated gTLD. As stated in 18(a) above, as Persian Gulf related content sites increasingly seek to differentiate themselves to consumers, and registrants seek to differentiate themselves to acquirers of second-level domains, the power to differentiate will come from innovative approaches to customer service and the creation of a trusted online environment.

It is AGITSys' mission that competition and differentiation of the .PERSIANGULF gTLD will be coupled with a user experience online that is reliable and predictable. To make this as likely as possible, AGITSys will work both with existing registrars seeking to reach new audiences, as well as new registrars that may emerge from within those with a strong interest in the Persian Gulf (be it for business or personal reasons), thereby supporting ICANN's mission to create more capacity in developing countries. AGITSys feels it can foster more competition at the registrar level by offering assistance and encouragement to new registrars in this way. We also believe that this should and will be coupled with a positive experience for Internet users. Indeed, this is critical to the success of the .PERSIANGULF gTLD. By working with the right registrars (who maintain the right, stringent) standards for adoption and use by their own customers, AGITSys can reach its goal of having the .PERSIANGULF gTLD become synonymous with a safe and trusted online experience.

Because of its dedication to those with an interest in or affinity with the Persian Gulf region, and the .PERSIANGULF gTLD which is intended to serve it, AGITSys will implement protection measures for registrations to ensure an abuse free environment whilst maintaining choice. This will be accomplished with Registration safeguards, wildcard alerts, name selection polices, all governed by an Acceptable Use Policy and post registration protections via Uniform Dispute Resolution Policy and Uniform Rapid Suspension. More details on these policies can be found in answer to Questions 28 and 29.

The privacy offered will be total, within the rules and procedures provided by ICANN. These policies will be transparent and rigorous, modeled after successful policies implemented by currently delegated TLDs and accompanied by vigilant processes and technologies to prevent unauthorized access to information. This is a manifestation of the larger goal of the .PERSIANGULF gTLD, that of a trusted source of safe online transactions, as stipulated in 18(a).

Privacy and security will be key elements of our Acceptable Use Policy (AUP). The AUP will govern how a registrant may use its registered name, with a specific focus on protecting Internet users. AUP language would specifically address privacy by prohibiting a registrant from using a domain for any activity that violates the privacy or publicity rights of another person or entity, or breaches any duty of confidentiality owed to any other person or entity. The AUP also would prohibit spam or other unsolicited bulk email, or computer or network hacking or cracking, as well as the installation of any viruses, worms, bugs, Trojan horses or other code, files or programs designed to, or capable of, disrupting, damaging or limiting the functionality of any software or hardware. We would maintain complete enforcement rights over the use of the domain name. Should a registrant find itself in breach of the AUP, we would reserve the right to revoke, suspend, terminate, cancel or otherwise modify their rights to the domain name.

In terms of outreach by the .PERSIANGULF gTLD, it is expected that the momentum around .PERSIANGULF will build quickly, given the pent-up demand that has been building for years within the ranks of the Middle Eastern people who have particular interests, or vested interests, in the Persian Gulf region. AGITSys, as its champion in gTLD discussions, knows full well how popular this service will be.

Augmenting this, AGITSys is also active in the business community within Turkey and Middle Eastern countries, and interconnected across the spectrum of the Persian-gulf affiliates due to its promotional efforts with ICANN and elsewhere. It will leverage that network to spread the word of the .PERSIANGULF gTLD in order to promote adoption. The best steps AGITSys can take to ensure the gTLD's adoption and growth, however, are to ensure a system encouraging robust, safe and dynamic second-level domain sites.

18C. What operating rules will you adopt to eliminate or minimize social costs (e.g., time or financial resource costs, as well as various types of consumer vulnerabilities)? What other steps will you take to minimize negative consequences/costs imposed upon consumers?

AGITSys will endeavor to the utmost in order to minimize the social costs to registrants of a .PERSIANGULF second-level domain, not least because AGITSys has every incentive to encourage the adoption and growth of the .PERSIANGULF domain. AGITSys has chosen to adopt CoCCA's tested acceptable use based policy matrix, recommendations for minimizing harm in TLDs, and subject the TLD to the CoCCA Complaint Resolution Service ("CRS").

The CoCCA Best practice policy matrix has been developed over a decade and has currently been adopted by 16 TLDs. It was developed for (and by) ccTLDs managers that desired to operate an efficient standards-based SRS system complemented by a policy environment that addressed a registrant's use of a string as well as the more traditional gTLD emphasis rights to string.

A key element of CoCCA's policy matrix is that it provides for registry-level suspensions where there is evidence of AUP violations. The TLD will join other TLDs that utilize the CoCCA's single-desk CRS. The CRS provides a framework for the public, law enforcement, regulatory bodies and intellectual property owners to swiftly address concerns regarding the use of domains, and the CoCCA network. The AUP can be used to address concerns regarding a domain or any other resource record that appears in the zone.

The CRS procedure provides an effective alternative to the court system while allowing for Complaints against domains to be handled in a way treats each complaint in a fair and equal manor and allows for all affected parties to present evidence and arguments in a constructive forum.

AGITSys is also currently developing procedures for competition resolution regarding multiple registrations for

the same second-level domain in addition to offering the required Sunrise offerings through general availability. AGITSys will model these procedures after the techniques and approaches that have succeeded best to date.

In terms of cost, benefits, and incentives to registrants, AGITSys will offers will be fair and competitive. Competitive pricing and/or discounts will be used and adjusted accordingly to ensure the right incentive matches the phase of operation and business goals. AGITSys' business plan increases our confidence in offerings that will encourage growing adoption of the .PERSIANGULF gTLD.

Each year, AGITSys will review its financial goals versus actual performance of registry operations. Output from the analysis will include the consideration of pricing versus demand for registrations. As with any for-profit entity, adequate cash flow and predictable revenue streams are essential to successful operations. As such, AGITSys may adjust pricing of domain registrations to align with evolving business goals. Adjustments can include not only price increases, but perhaps price decreases, but only current market analysis will dictate change. Therefore, AGITSys will document in the Registrant Agreement domain price change procedures and how they can be expect to learn about changes through our communications platform. In the end, serving those with a clear affinity with the Persian Gulf through Internet technologies remains our first priority.

19. Is the application for a community-based TLD?

No

20A. Provide the name and full description of the community that the applicant is committing to serve. In the event that this application is included in a community priority evaluation, it will be scored based on the community identified in response to this question. The name of the community does not have to be formally adopted for the application to be designated as community-based.

20B. Explain the applicant's relationship to the community identified in 20(a).

20C. Provide a description of the community-based purpose of the applied-for gTLD.

20D. Explain the relationship between the applied- for gTLD string and the community identified in 20(a).

20E. Provide a complete description of the applicant's intended registration policies in support of the community-based purpose of the applied-for gTLD. Policies and enforcement mechanisms are expected to constitute a coherent set.

20F. Attach any written endorsements for the application from established institutions representative of the community identified in 20(a). An applicant may submit written endorsements by multiple institutions, if relevant to the community.

21A. Is the application for a geographic name?

No

22. Describe proposed measures for protection of geographic names at the second and other levels in the applied-for gTLD. This should include any applicable rules and procedures for reservation and/or release of such names.

#### Protection of Geographic Names

Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. has chosen CoCCA Registry Services (NZ) Limited (CoCCA) as their registry services provider. CoCCA has over 12 years of experience in authoring registry software and providing registry support services. With 35 national TLDs relying on CoCCA's technology to manage critical infrastructure, the CoCCA EPP Shared Registry System (SRS) is the most widely deployed, field-tested SRS in use today. In many respects new niche market gTLDs are predicted to more closely resemble existing ccTLD name spaces than the current gTLD ones. CoCCA's commercial model and technology enables TLD Sponsoring Organizations to focus on operating the front end portion of the registry including sales, marketing and community relations while leaving the operational aspects to the proven team at CoCCA.

In addition to technology CoCCA has a considered and tested set of leading - practice policies designed to address security, stability, rights protection, abuse mitigation, privacy and other issues, CoCCA is a trusted partner for Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. to operate the .persiangulf in a manner that is fully compliant with all ICANN rules and regulations.

CoCCA, on behalf of the Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti., intends to implement the following measures to protect geographical names at the second and at all other levels within the TLD:

#### Reservation Measures for Geographical Names

Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. will adhere to Specification 5 of the proposed Registry Agreement, "Schedule of Reserved Names at the Second Level in gTLD Registries" / section 5 titled "Country and Territory Names." The geographic names listed in the following internationally approved documents will be reserved at the second level within the TLD and at all other levels where registrations occur:

(1.i.1) the short form (in English) of all country and territory names contained on the ISO 3166- 1 list, as

updated from time to time, including the European Union, which is exceptionally reserved on the ISO 3166-1 list, and its scope extended in August 1999 to any application needing to represent the name European Union (1.1.2) the United Nations Group of Experts on Geographical Names, Technical Reference Manual for the Standardization of Geographical Names, Part III Names of Countries of the World; and (1.1.3) the list of United Nations member states in 6 official United Nations languages prepared by the Working Group on Country Names of the United Nations Conference on the Standardization of Geographical Names.

#### Potential Release of Geographical Names

Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. is committed to working with governments and other stakeholders that may have a concern regarding the registration of names with national or geographic significance at the second level. If Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. decides to release reserved geographical names, Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. will abide by the process outlined in Specification 5 of the Registry Agreement by seeking agreement from the applicable government(s). Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. understands that any release of the geographical names may be subject to Governmental Advisory Committee review and approval by ICANN.

#### Review, Audit, and Updates to Policies

Policy management is dynamic in nature requiring continual management. The Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. in conjunction with CoCCA's assistance will be engaged in policy development efforts in general and with respect to protections of geographical domain names. Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. will review and consider suggestions or concerns from government, public authorities or IGO's regarding this policy. And as with all required policies, Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. will perform openly and transparent should updates to existing policy or the creation of new policy be required. Further, Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti.' internal process continually reviews and manages its reserve lists as one part of the abuse prevention mechanisms described in greater detail within question 28, "Abuse Prevention and Mitigation."

23. Provide name and full description of all the Registry Services to be provided. Descriptions should include both technical and business components of each proposed service, and address any potential security or stability concerns.

The following registry services are customary services offered by a registry operator:

- A. Receipt of data from registrars concerning registration of domain names and name servers.
- B. Dissemination of TLD zone files.
- C. Dissemination of contact or other information concerning domain name registrations (e.g., port-43 WHOIS, Web-based Whois, RESTful Whois service).
- D. Internationalized Domain Names, where offered.
- E. DNS Security Extensions (DNSSEC). The applicant must describe whether any of these registry services are intended to be offered in a manner unique to the TLD.

Additional proposed registry services that are unique to the registry must also be described.

Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. has contracted CoCCA Registry Services (NZ) Limited ("CoCCA") to provide hosted Registry Services for the .persiangulf TLD. The .persiangulf TLD will be added to CoCCA's existing production Shared Registry System ("SRS"). CoCCA will ensure redundant geographically diverse DNS resolution through propagation of the .persiangulf zones on the Internet Software Consortium ("ISC"), Packet Clearing House ("PCH") anycast networks - and on CoCCA unicast servers.

CoCCA authors the internet's most widely used SRS registry system ( which has been branded "pamoja" for gTLD name spaces). ISC authors BIND and pioneered anycast technology, PCH has one of the internet's largest and longest running anycast networks. DNSSEC key storage and and signature will take place on the PCH DNSSEC platform, a platform developed for ccTLD's that mirrors the security and processes used by ICANN to secure the root.

The .persiangulf TLD SRS data will be escrowed with both NCC Group and CoCCA subsidiary CoCCA Data Escrow Services (NZ) Limited.

#### 23.1 About CoCCA

CoCCA has over nine years experience authoring open source registry software systems and providing TLD registry support services. CoCCA was originally incorporated in Australia in 2003 as CoCCA Registry Services Limited, in January 2009 CoCCA re-located to New Zealand and trades as CoCCA Registry Services (NZ) Limited. CoCCA is a privately held NZ company.

CoCCA's existing clients are governments and other managers of county code top level domains (ccTLDs). As of 31 March 2012, 33 national ccTLDs have selected CoCCA's SRS technology and/or services to help them manage their critical infrastructure. Several additional ccTLDs have committed to migrate to CoCCA's "pamoja" SRS in 2012 (pending the outcome of re-delegations). As many as 40 ccTLDs are thought to be using the pamoja SRS application, while CoCCA has formal relationships and support contracts with 33 TLDs, the exact number of users is hard to determine as the pamoja software is freely available for download from the internet. CoCCA's offers ccTLDs a perpetual royalty-free license to use and deploy the SRS software.

CoCCA's commercial model is based on delivering significant economies of scale to TLD managers, CoCCA's dominant market position in the ccTLD ecosystem - where the TLD string is generally considered critical infrastructure, ensures CoCCA's commercial viability and ongoing funding of R&D regardless of the success of a particular gTLD string (or group of gTLD strings) that select CoCCA as the Registry Services provider. CoCCA's technology is mature, field tested and their commercial model is solid and not dependent on new gTLD's.

The pamoja SRS can be used several ways, the application can be downloaded and installed locally by a TLD Sponsoring Organization ("SO"), or the SO can contract CoCCA to host either the primary or failover SRS at the CoCCA Network Operations Centre ("NOC").

CoCCA's pamoja SRS is a freely available gTLD-compliant TLD database application based on the "CoCCA Tools" open source ccTLD EPP registry system. The SRS licensing simplifies failover and transition planning as the source,

data, and daily virtual machine images are to be placed into escrow enabling them to be migrated or re-deployed by a different entity without any SRS licensing issues. CoCCA's SRS is a 'shrink-wrapped' application that can be installed on a single server in minutes or deployed in a High Availability (HA) configuration.

CoCCA's pamoja SRS is the most widely deployed, field-tested SRS in use today. CoCCA's SRS is a mature product that has grown organically over the past decade as new standards have been developed and published. It is doubtful any other Registry Services provider has accumulated CoCCA's level of experience operating multiple small to medium sized TLDs efficiently and securely.

CoCCA's pamoja SRS is currently used to run three (3) Arabic (IDN) TLDs and was selected by the Telecommunications Regulatory Authority in Egypt to launch the Internet's first IDN TLD (.masr) in 2010. The flexible package supports ASCII and IDN - including variants and folding where required.

### 23.2 Current pamoja SRS deployments

Key - | [P] CoCCA Operated Primary SRS | [F] CoCCA Failover SRS | [E] Escrow | [S] Software Only

.af		Afghanistan		Ministry of Communications and IT		[P] [F] [E]
.bi		Burundi		Centre National de l'Informatique		[F] [E] [S]
.bw		Botswana		Botswana Telecoms Authority		[S] [F] [E]
.cm		Cameroon		Cameroon Telecommunications (CAMTEL)		[S]
.cx		Christmas Is.		Christmas Island Internet Administration Limited		[P] [F]
[E]						
.ec		Ecuador		NIC.EC (NICEC) S.A.		[S]
.eg		Egypt		Egyptian Universities Network (EUN)		[S]
xn--wgbhlc				Egypt IDN		National Telecommunication Regulatory Authority
		[S]				
.ge		Guernsey		Island Networks Ltd.		[S]
.gl		Greenland		TELE Greenland A/S		[S]
.gs		S. Georgia		Government of South Georgia		[P] [F] [E]
.gy		Guyana		University of Guyana		[P] [F] [E]
.ht		Haiti		Consortium FDS/RDDH		[P] [F] [E]
.hn		Honduras		Red de Desarrollo Sostenible Honduras*		[P] [F] [E]
.iq		Iraq		Communications Media Commission*		[S] [F] [E]
.je		Jersey		Island Networks (Jersey) Ltd.		[S]
.ki		Kiribati		Ministry of Communications		[P] [F] [E]
.ke		Kenya		Kenya Network Information Center (KeNIC)		[S]
.mg		Madagascar		NIC-MG (Network Information Center Madagascar)		[F] [E] [S]
.mu		Mauritius		Internet Direct Ltd		[P] [F] [E]
.ms		Montserrat		MNI Networks Ltd		[F] [E] [S]
.mz		Mozambique		Centro de Informatica de Universidade		[F] [E] [S]
.na		Namibia		Namibian Network Information Center		[F] [S]
.ng		Nigeria		Nigeria Internet Registration Association		[F] [E] [S]
.nf		Norfolk Is.		Norfolk Island Data Services		[P] [F] [E]
.pe		Peru		Red Cientifica Peruana		[S]
.sb		Solomon Is.		Solomon Telekom Company Limited		[P] [F] [E]
.sy		Syria		National Agency for Network Services		[S]
xn--ogbpf8fl	/	xn--mgbt8fl		Syria IDN		National Agency for Network Services
		[S]				
.tl		Timor-Leste		Ministry of Infrastructure		[P] [F] [E]
.ps		Palestine		Ministry of Telecommunications		[S]
xn--ygbi2ammx		Palestine IDN		Ministry Of Telecommunications		
[S]		Zambia		ZANET Communication Systems Ltd.		[F] [E] [S]

\* Currently in the process of migrating away from Neustar (.iq) and Afflias (.hn)

### 23.3 CoCCA's Hosted SRS

Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. has confirmed with CoCCA their production experience and the availability of the Registry Services described briefly in sections 23.4-23.18 below - and in greater detail in the responses to questions 24-43. Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. and CoCCA understand elements of ICANN's TLD requirements will most likely be modified in the future. CoCCA's Registry Services will comply with future ICANN requirements or mandates.

### 23.4 Receipt of Data via the SRS EPP interface

Data from Registrars concerning the insertion and maintenance of records in the SRS may be processed either via the CoCCA EPP interface (XML over SSL on port 700) or manually via CoCCA's port 443 SSL web interface. CoCCA was an early adopter of the EPP standard and has operated an EPP based SRS for almost seven years.

The .persiangulf TLD will be added to CoCCA's existing production SRS, which currently has 203 registrars connected. CoCCA's SRS has a single EPP interface for all hosted TLDs allowing registrars to share the same contact and host objects across multiple TLDs. The .persiangulf TLD will only be made accessible to ICANN accredited registrars, many of which are currently connected to CoCCA for ccTLDs and using the EPP and GUI interface that the .persiangulf TLD will be accessed via when launched.

CoCCA's pamoja EPP interface currently complies the IETF RFC's required by ICANN (5730-5734 and 3735) and is explained in more detail in the response to Question 25.

### 23.5 Receipt of Data via the SRS Graphical User Interface ("GUI")

Registrars may insert and manage domain, contact and host records as well as the SRS accounting functions via a port 443 GUI. Registrars do not have to use the EPP interface on port 700. Records managed via the GUI connect to the SRS EPP engine on port 700 via background processes; this ensures rigorous conformity with the RFC's and consistency in auditing and maintenance of historical records.



### 23.6 Registrar Data Restrictions (Reserved Names)

Restrictions on what domains may be inserted and maintained by registrars is to be controlled by configuration of java regular expressions. In order to comply with the requirements set out in Specification 5 and any Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. policy, the .persiangulf TLD will use three of pamoja's features as described below.

23.6.1 Prohibited Patterns. Domains that match patterns will be rejected with an EPP 2306 - Parameter Value Policy error, letting the registrar know that these domain names do not fit in with the registry policy for this zone.

23.6.2 Syntax Patterns. Certain strings, such as all-numeric names or single character names may be restricted. An EPP 2005 error - "Parameter Value Syntax error" will be returned to the EPP client, indicating that the name is invalid.

23.6.3 Approval Patterns. Names that match these patterns will not be rejected, but will be registered pending approval. Until they are approved, the name will not appear in the .persiangulf zone files, and will not be able to be transferred, renewed or modified in any way by the registrar.

23.6.4 Both ASCII and non-ASCII contact details can stored and displayed via web-based WHOIS and command line WHOIS.

### 23.7 SRS GUI, Role-Based Access

The pamoja SRS GUI has numerous role-based logins described below. Several of these have been recently developed by CoCCA in response to ICANN's proposed gTLD requirements and are currently being used in numerous ccTLD production environments.

#### Administrative Roles

- \* SRS Systems Administrator - Able to administer and configure the entire SRS system
- \* CERT / Law Enforcement - Able to view and query the SRS, but not alter records.
- \* TLD Administrator - Able to administer a TLD or group of TLDs
- \* TLD Viewer - Able to view but not alter records for a TLD or group of TLDs
- \* Zone Administrator - Able to administer a Stub Zone, or group of Stub Zones
- \* Zone Viewer - Able to view but not alter a Stub Zone, or group of Stub Zones
- \* Customer Service - Can perform tasks on behalf of a number of registrars
- \* Name Approver - Can approve names matching the Zone Approval Patterns
- \* CHIP Approver - Can approve domains registered with CHIP codes or other Trademarks.

#### Registrar Roles

- \* Registrar Master Account - Able to perform all registrar functions and create subordinate logins
- \* Registrar Technical - Able to modify domain details
- \* Registrar Helpdesk - Able to view domains and make various minor changes
- \* Registrar Finance - Able to view domains financial transactions and also edit financial data
- \* Registrar Finance - (Read Only) Same as above but view only.

#### Other Access Roles

- \* Premium WHOIS - Able to perform various queries in a SRS GUI and extract and save data to a CSV, also able to connect via the SRS EPP API for read-only query.
- \* Zone File Only - Able to login and request Zone Files

### 23.8 Zone File Dissemination / Resolution

The .persiangulf will be resolved by propagation of zone file data periodically extracted from the SRS, sent to PCH DNSSEC signing servers for signature, returned to CoCCA and then distributed by CoCCA's hidden master server to two redundant and independent anycast networks operated by Internet Software Consortium ("ISC" | <http://isc.org>) and Packet Clearing House ("PCH" | <http://pch.net>) - as well as two (2) public unicast TLD servers operated by CoCCA.

The .persiangulf will be resolved by a minimum of 80 geographically distributed resolvers, all of which run ISC's BIND and are configured such that they comply with relevant RFC's including 1034, 1035, 1982, 2181, 2182, 2671, 3266, 3596, 3597, 3901, 4343 and 4472.

The PCH and ISC name servers employ IP-anycast technology for scalable geographic redundancy, strong defense from Denial of Service attacks, high quality of service, and give excellent (fast) responses to geographically diverse Internet users. DNSSEC and IPv6 are already fully integrated into the PCH and ISC networks.

Registrars will be able to continuously inspect the availability and status of each TLD server instance via the SRS GUI and other CoCCA WEB Sites. Should a TLD server be unreachable registrars are to be automatically notified (via email) and EPP polling messages. More detailed information is available in the responses to Questions 24-43.

### 23.9 Dissemination of Domain Related Information

The SRS public WHOIS server will answer for the .persiangulf TLD on port 43 in accordance with RFC 3912 and the requirements set out in Specification Four (4), 1.1-1.7 and Specification Ten (10), Section 4.

The CoCCA SRS features a public port 443, web-based RDDS interface that enables internet users to query and extract information which is at a minimum identical to that which is provided via the port 43 server but using technology that may be more convenient or accessible to many internet users than a port 43 command line query.

The CoCCA SRS also allows any Internet user (or any user with a login to the SRS) to order a complete Historical

Abstract delivered in an easy to understand pdf format.

Individuals may optionally subscribe to CoCCA's Premium WHOIS service, which provides them with:

- \* secure access to the SRS (via both a web-based port 443 GUI and read only EPP on port 700).
- \* the ability to perform a variety of boolean queries online in real-time and save the output to a CSV
- \* the ability to create "interest lists" using java regular expressions where they receive EPP polling messages and emails if a domain is registered that contains a string of interest to them.

Established CERT's and law enforcement agencies may request, and will generally be granted, read only GUI and EPP access to the CoCCA SRS free of charge. Currently this access is granted to the Australian Government CERT, who under an MOU may share information with other CERT's and national and international law enforcement agencies.

#### 23.10 DNS Security Extension (DNSSEC)

CoCCA's SRS DNSSEC implementation allows registrars to provision public key material via EPP and the GUI. Under an agreement between CoCCA and PCH, .persiangulf TLD Keys are to be stored offline and signed using PCH's DNSSEC platform that replicates the security process, mechanisms and standards employed by ICANN in securing the ROOT of the DNS.

The CoCCA-PCH key storage implementation deviates from the ICANN model only by diversifying the locations of the secure sites such that two (2) of the three (3) sites are outside the United States. The Singapore facility is hosted by the National University of Singapore, on behalf of the Singaporean Infocomm Development Agency (IDA). The Swiss facility is hosted in Zurich by SWITCH, the Swiss national research and education network. The U.S. facility is hosted by PCH Equinix in San Jose.

The CoCCA SRS DNSSEC implementation complies with RFC's 4033, 4034, 4035, 5910, 4509, 4641 and 5155. Additional information on the DNSSEC implementation is available in the response to question 43.

#### 23.11 Escrow Deposits

CoCCA's Registry Services include deposit of escrow data in the format and following the protocols set out in Specification Two. CoCCA currently deposits ccTLD data daily (in both the native CoCCA format and the draft arias-noguchi format) with both NCC group and CoCCA Data Escrow (NZ) Limited. CoCCA Data Escrow (NZ) Limited is a subsidiary and was established in 2009 to provide Failover Registry and escrow services to users of the CoCCA SRS who run the software locally on their own infrastructure.

As part of CoCCA's Registry Services and to ensure continuity of operations, CoCCA deposits all updates to the pamoja SRS source code with NCC, and daily VMware images of the production SRS with CoCCA Data Escrow Services (NZ) Limited. These same practices will be adopted for the .persiangulf TLD when launched.

.persiangulf SRS data will be deposited with NCC Group, CoCCA Data Escrow and ICANN. Additional information on Escrow is available the response to question 38.

#### 23.12 Document Management

CoCCA's Registry Services include maintenance of documents related to intellectual property rights, complaints, identification of contacts, court orders etc. These documents are maintained in the SRS and become part of a domain's ( or contacts ) permanent history.

#### 23.13 Support for Various Zone States

CoCCA's Registry Services support Sunrise, Rolling Sunrise, Land-rush and Open Registrations for a given zone. Each "State" can be configured to match common policy options.

#### 23.14 Accounting

CoCCA's Registry Service's includes a variety of standardized and add-hoc reports accessible to TLD administrators via the GUI. Standardized reports include one that complies with the requirements set out in Specification Three "Format and Content for Registry Operator Monthly Reporting".

#### 23.15 Audit Trail

All SRS activity is logged and permanently archived, it can be easily retrieved via the GUI for law enforcement or complaint resolution. A "time-machine" feature allows a user with appropriate rights to view the domain information as it existed on any given date and time. Information is never purged from the SRS, information on deleted domains, hosts, contacts can be easily extracted.

#### 23.16 Monitoring

CoCCA's Registry Service's include statistics on and real-time monitoring of the primary NOC, CoCCA's DNS Servers, Escrow NOC (NZ) and failover NOC in Palo Alto California. Additional information is available in the answers to questions 24-42. Monitoring of the ISC and PCH anycast networks is done internally by those entities, with statistics and notices made available to CoCCA in near-real time. Where applicable and relevant monitoring information is made available to registrars by CoCCA via the SRS.

#### 23.17 Maintenance of Failover Facilities

CoCCA Registry Services include maintenance of their geographically dispersed Escrow and Failover SRS facilities ( Auckland and Palo Alto, a third is planned for Paris in early 2013).

#### 23.18 Complaint Resolution Service (CRS)

CoCCA's Registry Services include operating a "single desk" CRS to help resolve complaints, trigger Critical

Issue Suspensions ("CIS") and enforce a Uniform Rapid Suspension ("URS") request. Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. will bind all registrants in the .persiangulf to the CoCCA CRS, Acceptable Use Policy and Privacy and RDDS Policy via the .persiangulf Registrant Agreement ("RA"). CoCCA's front-line CRS services are a "role" performed by CoCCA's 24/7/365 NOC Support.

#### 23.19 Registrar Support

CoCCA Registry Services provides registrars with 24/7/365 support via email and their virtual manned Network Operations Center (NOC). The CoCCA NOC Support has staff Auckland, Sydney, Jonestown (Guyana) and Paris for around the clock coverage. CoCCA NOC Support all have access to the same cloud hosted monitoring and customer service applications as well as the SRS.

#### 23.20 Security and Stability Audit

The pamoja SRS application is used to manage critical TLD infrastructure, each release is tested prior to release or deployment by CoCCA developers, developers and systems administrators at registries that deploy the application locally. Each major release is tested and audited by Yonita (<http://yonita.com/>).

CoCCA constantly reviews its SRS software and sites to ensure they meet or exceed best practices in the industry, regular external audits of the security policy and CoCCA NOC are planned commencing 2013. The CoCCA NOC and failover facilities will be independently tested twice a year to ensure compliance with the CoCCA security policy, where applicable recommendations included in a security audit will be swiftly implemented.

#### 23.21 Operational Testing and Evaluation (OT&E) Environment

CoCCA's Registry Service's include the operation of an OT&E SRS that enables registrars to evaluate new versions and features of the SRS software before they are deployed by CoCCA in production. Any ICANN accredited registrar will be granted access to OT&E. Registrars not currently connected to the CoCCA SRS will be required by CoCCA to demonstrate competency in EPP and the .persiangulf policies before being granted EPP or GUI access to CoCCA's production SRS.

#### 23.22 Authorization Key Retrieval

CoCCA's Registry Service's include automated public retrieval of domain AuthCodes by the administrative contact via a port 443 web page. The Authorization Key facilitates expedited transfers from one registrar to another.

#### 23.23 Public Drop - List

CoCCA's Registry Services include publication of drop-lists of domains that are pending purge via a port 443 web page and email reports to registrars.

#### 23.24 Wildcard Brand Registrations

A mechanism thought to be unique to the CoCCA SRS that allows blocking registration of a domain's "variants" using java regular expressions. This requires approval and manual intervention on the part of CoCCA.

#### 23.25 Co-operation with Law Enforcement and CERTs

CoCCA works with Law Enforcement, CERTs and researchers and will generally grant registry continuous access free of charge to facilitate two-way data exchanges aimed at preventing and mitigating abuse in the DNS.

There are no known security or stability issues with the CoCCA's SRS, PCH's DNSSEC platform or ISC's and PCH's anycast networks at this time. Should any be identified resources are available internally at CoCCA, PCH and ISC to swiftly address and resolve security or stability issues as they arise.

### 24. Shared Registration System (SRS) Performance: describe

- the plan for operation of a robust and reliable SRS. SRS is a critical registry function for enabling multiple registrars to provide domain name registration services in the TLD. SRS must include the EPP interface to the registry, as well as any other interfaces intended to be provided, if they are critical to the functioning of the registry. Please refer to the requirements in Specification 6 (section 1.2) and Specification 10 (SLA Matrix) attached to the Registry Agreement; and
  - resourcing plans for the initial implementation of, and ongoing maintenance for, this aspect of the criteria (number and description of personnel roles allocated to this area).
- A complete answer should include, but is not limited to:
- A high-level SRS system description;
  - Representative network diagram(s);
  - Number of servers;
  - Description of interconnectivity with other registry systems;
  - Frequency of synchronization between servers; and
  - Synchronization scheme (e.g., hot standby, cold standby).

The .persiangulf TLD will be added to CoCCA's existing SRS, which currently has its primary Network Operations Centre (NOC) in Sydney Australia. The Sydney primary SRS is a single SRS instance currently hosting a dozen ccTLDs. CoCCA's Sydney SRS runs the latest versions of their "pamoja" TLD software application in a High Availability (HA) configuration. The Sydney SRS registry that will host .persiangulf currently complies with the requirements Specifications 4, 6 and 10 and will be scaled or modified to meet SLA requirements or any future ICANN gTLD specifications. Because of CoCCA's commercial model and technology the primary SRS can be moved from one data center to another with only a few minutes outage.

From an Internet users perspective trusted, secure and responsive DNS implementations are the ultimate objective of Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. To ensure this CoCCA will use PCH's DNSSEC and anycast infrastructure for offline storage, signing and resolving the .persiangulf TLD, additional DNS resolution will be provided by the ISC DNS anycast platform and two CoCCA unicast DNS servers. Additional information and technical details on the DNSSEC and anycast DNS services can be found in the answers to questions 34, 35 and 43.

#### 24.1 Scale of Operations

A decade of operational experience with TLDs that have implemented policies to discourage tasting or otherwise incentivize add-drop registrations confirms the widely held belief that SRS registry databases are largely static. Once registered data associated with a domain is not frequently modified. More than 99% of the queries seen by CoCCA on a daily basis are WHOIS, EPP Domain:Info or Domain:Check queries (read queries) and do not tax a SRS's resources excessively. Direct experience and anecdotal evidence from other small and mid-sized registries suggest that between 2% and 5% of the records in the register change daily through db "write" operations - new registrations, renewals, name server changes, contact updates automated changes of status, transfers etc.

For a theoretical registry of 1 million domains this equates to roughly 50,000 "write" transactions a day - or an average of 35 a min (50,000 / 1440 min/day). A recent test of CoCCA's SRS software on a single 8GB cloud server revealed that the pamoja software was able to process 4 million unique EPP registrations in a little over 5 hours. Performance tests can be designed in any number of ways, real world performance depends on a variety of factors- the specific policy and account settings for a given zone.

In terms of both transactional capability and storage, today's "off the rack" hardware and the open source PostgreSQL database used by CoCCA can easily cope with demands that a small to medium sized registry is ever likely to make on an SRS system. While the CoCCA SRS EPP and WHOIS infrastructure and platform may seem comparatively modest, a decade of experience confirms it is more than capable of meeting the ICANN's gTLD SLA requirements and comply with the required RFC's.

If future demands require it, CoCCA's SRS can easily (and affordably) be scaled by adding additional load balanced application servers and bandwidth.

#### 24.1 SRS | High Level Description

Comprehensive information on and descriptions of the CoCCA SRS and NOC may be found the answers to questions 25-42 that follow.

##### 24.1.1 SRS Infrastructure / Architecture

The following describes the key features of CoCCA's current production SRS that will be utilized for the .persiangulf:

- \* Primary SRS is operated from Global Switch, a tier 3 + facility and one of the largest carrier-neutral data centers in the Southern Hemisphere.  
<http://www.globaswitch.com/en/locations/sydney-data-center>
- \* Redundant links to the Internet through PIPE networks and Telstra  
<http://www.pipenetworks.com/>  
<http://www.telstra.com.au/>
- \* DNSSEC Key storage (offline) in Singapore at a PCH facility hosted by the National University of Singapore, on behalf of the Singaporean Infocomm Development Agency (IDA). Failover storage at a facility is hosted in Zurich by SWITCH, the Swiss national research and education network and in the U.S. at facility is hosted by Equinix in San Jose.
- \* .persiangulf zones signed by PCH in Frankfurt or Palo Alto
- \* SRS Escrow at tier three co-location facility (Maxnet) in Auckland NZ and Failover a tier four facility (Equinix) supported by PCH in Palo Alto, CA US. A fourth SRS "instance" is planned for Paris in early 2013.
- \* Dedicated, routable CoCCA Critical Infrastructure IPv4 and IPv6 address blocks.  
IPv4 resources: 203.119.84.0/24 (crit-infra)  
IPv6 resources: 2001:dd8:3::/48 (crit-infra)
- \* Routers, Firewalls, Switches and Load balancers all configured for failover.
- \* CoCCA's pamoja SRS application load balanced and configured for failover.
- \* PostgreSQL 9.1.3 database replicated synchronously to two secondary DB servers.
- \* DS Keys lodged by registrars via EPP or the CoCCA SRS GUI
- \* Servers Virtualized (VMware vsphere v5)
- \* VM image-based replication for high availability and off-site disaster recovery <http://www.veeam.com/vmware-esx-backup.html>
- \* Critical Data continuously replicated asynchronously to two off-site SRS instances - PCH, Equinix Palo Alto CA (pch.net) and CoCCA Data Escrow (NZ) Limited, Auckland NZ (maxnet.co.nz)
- \* OT&E Environment for Registrars
- \* Primary and Secondary hidden master DNS ( failover masters ).
- \* CoCCA operated unicast DNS in Sydney Australia and Auckland New Zealand.
- \* Two anycast solutions operated by PCH and ISC - over 80 DNS nodes.

##### 24.1.2 Specification 6, Section 1.2 Compliance.

The .persiangulf TLD will be added to CoCCA's production SRS that currently hosts 12 ccTLDs under a single RFC 5730-5743, RFC 5910 and 3915 compliant EPP interface.

A list of the Registrars that currently connect to the CoCCA SRS for one or more ccTLDs follows below.

#### 24.2 EPP Interface

The port 700 EPP interface for .persiangulf will listen on the same IP and port as the EPP server for the other TLDs hosted by CoCCA - currently "production.coccaregistry.net:700", on launch the production EPP interface for .persiangulf will be branded as epp.nic.persiangulf.

#### 24.3 WHOIS Interface (port 43 and 443)

The WHOIS Interface(s) for .persiangulf will listen on the same IP and port as the WHOIS server for the ccTLDs and prospective gTLDs to be hosted by CoCCA - currently "whois.coccaregistry.net:43-443" on launch the interface for .persiangulf will be branded as "whois.nic.persiangulf". Each TLD ( ccTLD/ gTLD ) in the CoCCA SRS may have different WHOIS disclosure settings based on the TLD policy. The .persiangulf will comply with the ICANN gTLD disclosure requirements.

#### 24.4 GUI Interface (port 443)

The GUI Interface for .persiangulf will listen on the same IP and port as the GUI server for ccTLDs and prospective gTLDs to be hosted by CoCCA - currently https://production.coccaregistry.net:443. On launch, the interface for .persiangulf will be branded as "registry.nic.persiangulf".

#### 24.5 Hidden Master DNS (s) (port 53)

There are two hidden master servers. CoCCA will transfer the .persiangulf zone from the "signature master" to PCH for DNSSEC signature using TSIG IXFR / AXFR and IP restrictions at the OS and firewall level. PCH will sign the Zone and transfers it back to CoCCA using TSIG and IXFER / AXFER, CoCCA will then load the zone on a second "distribution master" which allows distribution to the PCH and ISC anycast transfer points and the CoCCA unicast DNS servers.

#### 24.6 CoCCA Public Unicast DNS

DNS servers on virtual machines running BIND in the Sydney NOC and NZ SRS will pull and resolve the .persiangulf TLD zones.

#### 24.7 Public anycast DNS

CoCCA's distribution master notifies the anycast providers (PCH and ISC) and .persiangulf TLD zones are transferred to the respective provider's transfer point IPs (hidden IPs for DNS transfers only) using TSIG IXFER / AXFR and then propagated by PCH and ISC across their respective anycast networks.

#### 24.8 ftp Server

Server to distribute zone files as required under Specification 4 Section 2.

#### 24.9 Escrow Server

Server used to deposit TLD data with NCC and transfer data to CoCCA's Failover and Escrow SRS. Uses Secondary IP range.

#### 24.10 Number of Servers

There are seven physical server appliances in Sydney NOC configured such that they host 17 virtual machines.

#### 24.11 High Availability (HA) Configuration

The Sydney NOC's network appliances are configured for failover and HA in either hot or warm standby mode. The PostgreSQL databases are locally replicated using 9.1.3's synchronous replication and asynchronously over the WAN to the failover facilities. The status of the local and off-site replication is continuously monitored by the CoCCA NOC. CoCCA also ships WAL files so that in the event of an extended WAN outage the offsite SRS can be updated using Point in Time Recovery (PITR).

RDDS and EPP services are load balanced between two different application servers at the primary SRS ( more application servers can easily be added ). Public read-only RDDS may also load balanced by simply having the nagios monitoring software automatically modify the resource records and send WHOIS traffic to either of the secondary / failover SRS's for near-real time WHOIS. When the primary becomes available or SLA issues ( DoS etc ) are resolved, RDDS services are automatically switched back to the primary SRS.

The public IPs at the NOC used for EPP, WHOIS and GUI are on routable critical infrastructure ranges assigned to CoCCA by APNIC. In the event of an issue with the primary Internet link at the Sydney NOC (PIPE networks) CoCCA may either modify A and AAA records for GUI / RDDS and EPP services to the local failover link, or the entire IP range can be re-routed using BGP routing to a CoCCA failover SRS. If the entire Sydney NOC suffers an extended outage the traffic can be routed to the the failover SRS (Palo Alto) or Escrow SRS (Auckland) as conditions dictate by either modification of resource records ( A, cname ) or BGP of the CoCCA AS.

VMware images of all virtual machines are made daily using Veeam Backup & Replication software

In addition to streaming replication, SRS data is sent to CoCCA's failover SRS and Escrow sites every 10 minutes (or sooner depending on activity) via SCP in the form of postgresql PITR files, and daily in the form of compressed database dumps and VMware images.

#### 24.12 List of Registrars Connected to the CoCCA SRS in Sydney AU as of March 30, 2012

Name	Country
12idn Limited	NZ
1API GmbH	DE

3w Media GmbH	DE			
abayard	HT			
AB NameISP	SE			
Active24 .CZ	CZ			
AFGNIC Registrar				AF
AGJ Times		GB		
Alpha Communications Network				HT
Ascio Technologies			DK	
Atlantis North Ltd			GB	
Automattic Inc	US			
DomainReg	DE			
Bamik Network Information				AF
BBCWYSE Technology Co. Ltd				MU
BB Online UK Limited				GB
Beijing Guoxu Network				CN
Bizcn.com, Inc.	CN			
Biz.Vi Networks Ltd.				HT
Blacknight Internet Solutions				IE
Brights Consulting Inc.				JP
Brown Domain Services			HT	
cctldnames	GY			
Cogent IPC		SE		
Com Laude	GB			
Communigal Communication Ltd				IL
Connect-Ireland	IE			
Core   Council of Registrars				CH
CPS-Datensysteme GmbH			DE	
Cronon AG		AF		
Corporation Service Company				CA
Consortium For Success, Inc.				US
Cybernaptics Ltd			MU	
DA Domains	DM			
DANILOU.COM	HT			
Digital Technology				GY
Dinahosting SL	ES			
Dipcon AB		SE		
documentdata anstalt				LI
DomainClub.com	US			
Domaine.fr		FR		
Domaininfo AB	SE			
DomainKeep	US			
Domain The Net Technologies				IL
Dominiando IT	IT			
Dynamic Network Services				US
E-advert Ltd	MU			
Easy Line Host	FI			
Easyspace Ltd	GB			
Encirca	US			
Enet Corporation			JP	
enom		US		
Entorno Digital S.A			ES	
EPAG Domainservices			DE	
Euro Billing Grona Verket AB				SE
EuroDNS	LU			
IVX B.V.		NL		
FBS	TR			
FING GLOBAL NETWORK Inc			JP	
Fody Technologies Ltd.				MU
FRCI eServices Ltd				MU
Gabia, Inc		KR		
Gandi SAS		FR		
Gastein IT Services				AT
Gauss research Laboratory, Inc.				PR
Guyanenet		GY		
Government Online Centre (MU)				MU
GoHoto Pty Ltd	AU			
Golden Internet	RU			
GRAFIKLIF-WebalaMinute			HT	
Gransy s.r.o.	CZ			
GUYANANET	GY			
HAICOM ( HAITI Communications )				HT
HAINET S.A.	HT			
Haiti Domain	HT			
Haqmal ICT Solution Services				AF
Hikaru Kitabayashi			JP	
Holomedia		FR		
ht_hostmicrofos	HT			
Hostnet bv		NL		
Ultraspeed UK	GB			
FSM II	FM			
HTG	HT			
GaMa Consulting S.A.				HT
Koborg	MU			

Indeca GmbH	DE			
INDOMCO	FR			
Innovative Systems			GY	
Innter.Net		CY		
Instra Corporation			AU	
IntaServe		AU		
InterNetworX Ltd. & Co. KG				DE
InterNetX GmbH	DE			
Indian Ocean Territories				CX
IP Mirror Pte Ltd			SG	
Iron Mountain IPM		US		
Interactivetool.biz				MU
Jestina Mesepitu			SB	
Jms-Networks (TM)			GB	
J SQUAD SYSTEMS INC.			AF	
Kawing Chiu	US			
Keiichi SHIGA (old: Keiichi dot business)				JP
Key-Systems	DE			
Klute-Thiemann GmbH		DE		
Knipp	DE			
Larsen Data	DK			
Legekko Info Ltd			MU	
Lexsynergy Limited			GB	
LGLovells		FR		
MailClub (France)		FR		
Marcaria.com	US			
Marcus Cake	AU			
MARIDAN InterNET GmbH		DE		
MarkMonitor	US			
Maudeline Auguste				HT
MediaWars CO LTD			JP	
Melbourne IT CBS AB				SE
Domainbox		GB		
MICROCIS		AF		
Moniker Online Services, LLC.				US
Mauritius Domains			MU	
Naikbeen NCP	AF			
LIVING BY BLUE CO.,LTD		JP		
NameAction	CL			
Name.com LLC	US			
Nameshield	FR			
NameWeb BVBA	BE			
NATCOM S.A	HT			
National Computer Board			MU	
Nemesys Ltd	MU			
Nessus GmbH	AT			
NetAccess / AccessHaiti S.A.				HT
NetNames Ltd	GB			
Net-Chinese Co., Ltd.				TW
NETCOM S.A.	HT			
NETLINKS		AF		
Network Solutions, LLC		US		
Networking4all	NL			
Mauritius.biz Hosting			MU	
Nexus	GB			
NICE S.r.l. d/b/a niceweb.eu				IT
Norfolk Island Data Services				NF
Novagroup		HT		
Novutec Inc.	US			
OFFICE DE MANAGEMENT ET DE RESSOURCES HUMAINES	HT			
MB OPTIMAL SYSTEMS LTD			GB	
Our Telekom	SB			
OVH	FR			
OXWELL CC	VG			
Multilink S.A	HT			
Peweb Ltda	BR			
PlanA Corp		AI		
pointeruz.com	SB			
pro.vider.de	DE			
Quick Net		HT		
Redspider.biz	GY			
register.com	US			
Register.it spa	IT			
Register.mu	MU			
Register.eu	BE			
Domain Name Registration Service Reg.Net.Ua			UA	
10iDomain, Inc.	US			
RWGUSA	US			
Safenames	GB			
Solomon Telekom	SB			
Solutions S.A.	HT			
SpeedPartner GmbH		DE		
studio28		GY		

SunnyNames LLP	US		
TainoSystems	HT		
Telecommunications Authority of Kiribati			KI
Telecom Plus Ltd		MU	
TierraNet Inc.	US		
Timor Hosting	TL		
TradeMark Unlimited, Inc			US
Todaynic.com, Inc.		HK	
TPP Domains Pty Ltd		AU	
I.C.S. Trabia-Network S.R.L.			MD
TRANSNET S.A	HT		
TRANSVERSAL	HT		
Timor Telecom	TL		
Tucows	CA		
ugcit	GY		
UNICART Ltd.	BG		
united-domains AG		DE	
Variomedia AG	DE		
Melbourne IT DBS, Inc.			US
V-Trade Ltd		MU	
Visiant Outsourcing S.r.l.			IT
Web Commerce Communications WebCC		MY	
WEB Development and Hosting Ltd		MU	
WEB Ltd	MU		
Web Solutions ApS		DK	
WebWorkers Internet Consultants cc			NA
NamIT cc Namibia			NA
WSR Corporation	GB		
Xcess Interactive			GY
Xin Net Technology Corp .		CN	

25. Extensible Provisioning Protocol (EPP): provide a detailed description of the interface with registrars, including how the applicant will comply with EPP in RFCs 3735 (if applicable), and 5730-5734.

If intending to provide proprietary EPP extensions, provide documentation consistent with RFC 3735, including the EPP templates and schemas that will be used.

Describe resourcing plans (number and description of personnel roles allocated to this area).

A complete answer is expected to be no more than 5 pages. If there are proprietary EPP extensions, a complete answer is also expected to be no more than 5 pages per EPP extension.

CoCCA was among the first registry providers to embrace the EPP standard seven years ago. CoCCA's traditional clients have been small to medium sized ccTLD operators un-encumbered by the legal, contractual and governance issues that often result in protracted delays in rolling out new policy, technology or standards in larger ccTLDs or in the gTLD environment. CoCCA and the users of its SRS software have been historically free to trial and introduce innovative technology policy.

The CoCCA SRS is an "all in one" software package ( RDDS/ EPP/ GUI / Accounting ) however this does not prevent it from being deployed in a clustered environment where multiple instances answer for a specific protocol under a load balanced, high availability environment. Using a load balance appliance EPP traffic can be sent to one or more servers which are in turn connected to the same database. In all small to medium sized deployments tested to date load balancing the EPP service is not required - the load balancer is simply configured to provide failover and HA.

An aggressive three-year development program commenced in January 2009 with the objective of ensuring CoCCA's software was compliant with ICANN's new gTLD requirements - as well as the meeting needs of new and existing users in the ccTLD community.

#### 25.1 Current EPP RFC Compliance:

##### RFC 5730 Extensible Provisioning Protocol (EPP)

This RFC is a base protocol document for EPP. EPP is an XML-text object based client-server protocol, atomic in its transactions, and developed to support multiple transports and lower level security protocols. There are no partial failures; all commands either succeed or fail definitively. Object-to-object associations are standard with limited application of parent-child relationships where delegate relationships are necessary for affected functionality, such as internal host data and its relationship to domain objects. The pamoja SRS fully implements the service discovery, commands, responses, and the extension framework described.

##### RFC 5730

This RFC is a base protocol document for EPP. EPP is an XML-text object based client-server protocol, atomic in its transactions, and developed to support multiple transports and lower level security protocols. There are no partial failures; all commands either succeed or fail definitively. Object-to-object associations are standard with limited application of parent-child relationships where delegate relationships are necessary for affected functionality, such as internal host data and its relationship to domain objects. The pamoja SRS fully implements the service discovery, commands, responses, and the extension framework described.

##### RFC 5731

This RFC explains the mapping of the primary EPP registry object, the domain object. It reviews associated attributes and states of the domain object as well as child object relationships (hosts). It also details associations with other contact objects. The pamoja SRS complies with the full XML examples and descriptions and applies flexibility where permitted. For example, 5731 allows operators to implement the info command with



different responses for a "sponsoring registrar" and a "non-sponsoring registrar" in regards to many domain object attributes. The pamoja SRS implements this as a base protocol document for EPP.

#### RFC 5732

The pamoja SRS implements this as a base protocol document for EPP. The pamoja SRS notes this RFC describes the mapping of relationships to host objects, which are by definition subordinate to the superordinate domain name object. Host objects that are defined as internal or in the namespace of the registry must be related to a superordinate domain object to be created. Internal hosts, as full child objects, face restrictions associated with the management of their superordinate domain object. External hosts are hosts belonging to another domain namespace and as such are not subordinate in the present namespace. Internal hosts can have a glue or an A record associated with them, external hosts refer to another namespace or zone for the associated A record.

#### RFC 5733

Another RFC implemented in the The pamoja SRS server, this RFC describes the contact object mappings in EPP. Contact objects are used to contain related data surrounding the standardized contacts types in TLD registries including attributes such as contact type, country, telephone numbers, email addresses, etc. As a standalone object, a contact object can be created and associated with no domain objects or with any number of domain objects available in the registry. This is used commonly by registrars to update common contact information associated across large numbers of domains in a single transaction. Like the domain object, it can be secured with a passphrase or "authinfo" code. Contact object data represents the definitive data source for authoritative RDDS (WHOIS) in new TLDs.

#### RFC 5734

The pamoja SRS implements this RFC as the preferred industry transport and in compliance with ICANN's requirements. This RFC describes a standard implementation of TCP incorporating TLS. The transport of choice for the EPP registry community has been TCP. Implementers are encouraged to take precautions against denial of service attacks through the use of standard technologies such as firewall and border router filters.

#### RFC 5735

The pamoja SRS implements this RFC as applicable to any extensions it utilizes as this RFC provides specific and detailed guidance on EPP extensions. An important principle in creating extensions to, as opposed to modifying, the EPP protocol was to fully preserve the integrity of the existing protocol schema. Additionally, a valid extension itself should be extensible. Another important requirement in the RFC is to include announcements of all available extensions in the EPP server greeting element before establishing an interactive client session.

#### RFC 3915

The pamoja SRS supports this extension since this all CoCCA managed TLDs implement the grace period implementation known as the Redemption Grace Period or "RGP". When RGP is in use, domains are deleted into the RGP where Registrars may request a restoration of the domain. This is a billable event and requires a three-step process: placement of the domain into a pending restore state, submission of a restore report explaining why the domain is being restored, and finally the restoration of the domain. The RFC extends the domain update command, adds related domain statuses, such as "redemptionPeriod" and "pendingRestore," and extends the responses of domain info and other details. The RFC provides a lifecycle description of the RGP and defines the format and content for client to server submission of the associated restore reports.

#### RFC 5910

The pamoja SRS will support DNSSEC and therefore will also support this extension from initiation of the registration process. DNSSEC is a mechanism for cryptographically verifying that each delegate zone in the DNS hierarchy has been referred to or is referring to its genuine parent or child zone respectively. Since TLD zone files are generated from authoritative registry data, this extension specifically provides the ability to add elements to the domain-create and domain-update functions and to the domain-info responses, allowing registrars to submit associated delegated signer (DS) information of the child zone indicating it is digitally signed and that the parent zone recognizes the indicated key as a valid zone key for the child zone.

#### SRS General

The pamoja SRS Session Management - pamoja listens on port 700 for client requests.  
 The pamoja SRS Message Exchange - pamoja complies with the EPP message exchange rules  
 The pamoja SRS Data Unit Format - pamoja uses the prescribed packet formats

#### 25.2 EPP Security:

CoCCA's SRS performs username/cld/password/ssl certificate checks and also contains application level code to restrict connections to a set of IP addresses for each client and login.

Additional security is provided by firewall IP restrictions that restrict port 700 access to the SRS to trusted IP's and the use of stateful firewalls and load balancing devices to mitigate DoS attacks or other malicious activity.

#### 25.3 EPP - Demonstrating Capability

CoCCA authors the most widely deployed EPP SRS solution and has a long history of both development of and production experience operating an EPP SRS. The CoCCA NOC currently has 12 TLDs on it's production EPP SRS, over 20 TLD managers have deployed the CoCCA EPP solution locally for production use.

In order to demonstrate capability and compliance with the RFC's in 24.1 and CoCCA's Extensions in 25.3. Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. has instructed CoCCA to make available to evaluators an

Operational and Testing and Evaluation (OTE) EPP interface should they desire to evaluate CoCCA's RFC compliance. Alternatively, evaluators may download CoCCA's pamoja SRS, install locally and contact CoCCA for configuration advice.

The URL to download pamoja is <https://downloads.coccaregistry.net>. Installers are available for Linux64x (Centos / Ubuntu ), OSX (10.6+) and WIN7+ servers.

### 25.3 EPP Extensions

The CoCCA SRS currently provides several extensions to EPP, using the practices defined in RFC-3735. The CoCCA greeting currently defines the following four extensions:

```
...
(svcMenu)
...
(objURI) urn:ietf:params:xml:ns:host-1.0 (<objURI)
(svcExtension)
(extURI) urn:ietf:params:xml:ns:rgp-1.0 (<extURI)
(extURI) https://.../cocca-ip-verification-1.1 (<extURI)
(extURI) https://.../cocca-contact-proxy-1.0 (<extURI)
(extURI) https://.../cocca-contact-proxy-create-update-1.0 (<extURI)
(extURI) https://.../cocca-reseller-1.0 (<extURI)
(<svcExtension)
(<svcMenu)
...
```

#### 25.3.1 Registry Grace Period Extension

```
(extURI) urn:ietf:params:xml:ns:rgp-1.0 (<extURI)
Implemented as defined in RFC-3915 - http://www.ietf.org/rfc/rfc3915.txt
```

#### 25.3.2 Reseller Mapping Extension

```
(extURI) https://.../cocca-reseller-1.0 (<extURI)
Extensions for Domain:Create and Domain:Update
```

This extension tags a domain as being registered via one of registrars' resellers. The reseller reference is provided in the reference section, and is recorded against the domain as it is registered or updated. The reseller list must be maintained by the Registrar through the CoCCA Registry web interface.

If a registrar decides to load reseller information and map domains, the .persiangulf WHOIS server (port 43 and 443), Historical Abstracts, and Premium WHOIS will display the reseller contact information as well as the Registrar information. If ICANN advises that display of reseller information in the port 43 WHOIS is inconsistent with the response format required in Specification 4, 1.4.2 then CoCCA will disable port 43 and or port 443 display of reseller data for the .persiangulf TLD. Reseller information would still be stored and available for Historical Abstracts and users of the CoCCA's Premium WHOIS service.

```
("xml version="1.0" encoding="UTF-8")

(xs:schema targetNamespace="https://production.coccaregistry.net/cocca-reseller-1.0"
  xmlns="https://production.coccaregistry.net/cocca-reseller-1.0"
  xmlns:xs="http://www.w3.org/2001/XMLSchema"
  elementFormDefault="qualified")

  (xs:element name="extension")
    (xs:complexType)
      (xs:sequence)
        (xs:element name="reference" type="xs:string"/>)
      (<xs:sequence)
      (<xs:complexType)
      (<xs:element)
      (<xs:schema)

(extension)
(reseller:extension xmlns:reseller="https://production.coccaregistry.net/cocca-reseller-1.0")
(reseller:reference) XXXXX (<reseller:reference)
(<reseller:extension)
(<extension)
```

#### 25.3.3 Clearinghouse for Intellectual Property Extension

Extension to connect to an external database to validate IP rights.

```
(extURI) https://.../coccaregistry.net/cocca-ip-verification-1.1 (<extURI)
```

Extension for Domain:Create

```
(<?xml version="1.0" encoding="UTF-8"?)

(xs:schema targetNamespace="https://.../cocca-ip-verification-1.1"
  xmlns="https://production.coccaregistry.net/cocca-ip-verification-1.1"
  xmlns:xs="http://www.w3.org/2001/XMLSchema"
  elementFormDefault="qualified")

  (xs:annotation)
    (xs:documentation)
```

Extensible Provisioning Protocol v1.0  
 Extension for providing IP Verification to CoCCA Registries

v1.1 adds extra fields for trademark verification

```

</xs:documentation>
</xs:annotation>

<xs:element name="extension">
  <xs:complexType>
    <xs:choice>
      <xs:element name="chip" type="chipType"/>
      <xs:element name="trademarks" type="trademarkType"/>
    </xs:choice>
  </xs:complexType>
</xs:element>

<xs:complexType name="chipType">
  <xs:sequence>
    <xs:element name="code">
      <xs:simpleType>
        <xs:restriction base="xs:token">
          <xs:maxLength value="255"/>
          <xs:minLength value="1"/>
        </xs:restriction>
      </xs:simpleType>
    </xs:element>
  </xs:sequence>
</xs:complexType>

<xs:complexType name="trademarkType">
  <xs:sequence>
    <xs:element name="trademark" minOccurs="1" maxOccurs="unbounded">
      <xs:complexType>
        <xs:sequence>
          <xs:element name="registeredMark">
            <xs:simpleType>
              <xs:restriction base="xs:token">
                <xs:maxLength value="255"/>
                <xs:minLength value="1"/>
              </xs:restriction>
            </xs:simpleType>
          </xs:element>
          <xs:element name="registrationNumber">
            <xs:simpleType>
              <xs:restriction base="xs:token">
                <xs:maxLength value="255"/>
                <xs:minLength value="1"/>
              </xs:restriction>
            </xs:simpleType>
          </xs:element>
          <xs:element name="registrationLocality">
            <xs:simpleType>
              <xs:restriction base="xs:token">
                <xs:pattern value="[A-Z]{2}"/>
              </xs:restriction>
            </xs:simpleType>
          </xs:element>
          <xs:element name="capacity">
            <xs:simpleType>
              <xs:restriction base="xs:token">
                <xs:enumeration value="OWNER"/>
                <xs:enumeration value="ASSIGNEE"/>
              </xs:restriction>
            </xs:simpleType>
          </xs:element>
          <xs:element name="companyNumber" minOccurs="0">
            <xs:simpleType>
              <xs:restriction base="xs:token">
                <xs:maxLength value="255"/>
                <xs:minLength value="1"/>
              </xs:restriction>
            </xs:simpleType>
          </xs:element>
        </xs:sequence>
      </xs:complexType>
    </xs:element>
  </xs:sequence>
</xs:complexType>
</xs:schema>

```

This extension allows registrars to provide proof of their Intellectual Property claim for a name, when registering. It can be used to specify Clearing House for IP codes, or Trademarks. A CHIP request XML is as

follows:

```
(extension)
(coccaip:extension xmlns:coccaip="https://../cocca-ip-verification-1.1")
(coccaip:chip)
(coccaip:code) XXXXXXX (</coccaip:code)
(</coccaip:chip)
(</coccaip:extension)
(</extension)
```

An extension containing trademark information is as follows:

```
(extension)
(coccaip:extension xmlns:coccaip="https://../cocca-ip-verification-1.1")
(coccaip:trademarks)
(coccaip:trademark)
(coccaip:registeredMark) CoCCA (</coccaip:registeredMark)
(coccaip:registrationNumber) 12345 (</coccaip:registrationNumber)
(coccaip:registrationLocality) NZ (</coccaip:registrationLocality)
(coccaip:capacity) OWNER (</coccaip:capacity)
(coccaip:companyNumber) 1234 (</coccaip:companyNumber)
(</coccaip:trademark)
(</coccaip:trademarks)
(</coccaip:extension)
(</extension)
```

At the time of application it is not envisioned that this extension will be used for the .persiangulf TLD. However it demonstrates an existing technical capacity to query and synchronize data with external databases in order to validate IP or other rights.

#### 25.3.4 Contact Proxy Extension

(extURI) https:// epp.ote.persiangulf.coccaregistry.net/cocca-contact-proxy-1.0 (</extURI)  
Extension to allow registrars to lodge several sets of contact details for a given domain and select which one is displayed in the port WHOIS.

https://production.coccaregistry.net/cocca-contact-proxy-1.0 and https://production.coccaregistry.net/cocca-contact-proxy-create-update-1.0 - extensions for Contact:Create and Contact:Update.

```
(<?xml version="1.0" encoding="UTF-8"?)
```

```
(<xs:schema targetNamespace="https://production.coccaregistry.net/cocca-contact-proxy-create-update-1.0"
  xmlns="https://production.coccaregistry.net/cocca-contact-proxy-create-update-1.0"
  xmlns:proxy="https://production.coccaregistry.net/cocca-contact-proxy-1.0"
  xmlns:xs="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="https://production.coccaregistry.net/cocca-contact-proxy-1.0 cocca-contact-proxy-
```

1.0.xsd"

```
  elementFormDefault="qualified")
```

```
(<xs:import namespace="https://production.coccaregistry.net/cocca-contact-proxy-1.0" schemaLocation="cocca-
  contact-proxy-1.0.xsd"/>
```

```
(<xs:annotation)
  (<xs:documentation)
    Extensible Provisioning Protocol v1.0
```

```
    Extension for creating or updating a contact, with proxy information. This proxy information
    is provided as a WHOIS response, instead of the contact's real information if zone settings
    allow. Proxy information may be specified in full, by providing all the details or by using a
    reference to a previous contact proxy info. If you want to clear a contact's proxy info, send
    an existingProxy type request with an empty reference string.
```

```
(</xs:documentation)
(</xs:annotation)
```

```
(<xs:element name="extension">
  (<xs:complexType)
    (<xs:choice)
      (<xs:element name="newProxy" type="proxyType"/>)
      (<xs:element name="existingProxy">
        (<xs:complexType)
          (<xs:sequence)
            (<xs:element name="reference" type="proxy:referenceType"/>)
          (</xs:sequence)
        (</xs:complexType)
      (</xs:element)
    (</xs:choice)
  (</xs:complexType)
(</xs:element)
```

```
(<xs:complexType name="proxyType">
  (<xs:sequence)
    (<xs:element name="proxyDetails")
```

```

(xs:complexType)
  (xs:sequence)
    (xs:element name="reference" minOccurs="0" type="proxy:referenceType")
      (xs:annotation)
        (xs:documentation)
          This is an optional field you can use to give this proxy info a particular reference.
          Each reference must be unique, so if you have an existing contact proxy info record
          with this reference value, you will UPDATE that record, changing the proxy info for
          any existing contact referencing that proxy.

          If you don't specify a reference, one will be created for you and returned in the EPP
          response.
        (<xs:documentation)
        (<xs:annotation)
      (<xs:element)
    (xs:element name="email")
      (xs:simpleType)
        (xs:restriction base="xs:token")
          (xs:maxLength value="255"</>)
          (xs:minLength value="1"</>)
        (<xs:restriction)
      (<xs:simpleType)
    (<xs:element)
    (xs:element name="voice" type="proxy:phoneNumberType"</>)
    (xs:element name="fax" minOccurs="0" type="proxy:phoneNumberType"</>)
    (xs:element name="internationalAddress" type="proxy:addressType"</>)
    (xs:element name="localAddress" type="proxy:addressType" minOccurs="0"</>)
    (<xs:sequence)
  (<xs:complexType)
  (<xs:element)
  (<xs:sequence)
</xs:complexType)

(xs:element name="resData")
  (xs:annotation)
    (xs:documentation)
      If a contact is created or updated with contact proxy information specified, or if the registrar
      creating the contact has a default proxy specified, then the reference value identifying the proxy
      is returned in the response, in the extension<resData field described here. If the contact was updated
to
      clear the reference field (i.e. setting the contact's proxy using the existingProxy type, but leaving
      the reference field empty) then the reference value will be empty, confirming the update.
    (<xs:documentation)
  (<xs:annotation)
  (xs:complexType)
    (xs:sequence)
      (xs:element name="reference" type="proxy:referenceType"</>)
    (<xs:sequence)
  (<xs:complexType)
  (<xs:element)
</xs:schema)

(?xml version="1.0" encoding="UTF-8"?)

(xs:schema targetNamespace="https://production.coccaregistry.net/cocca-contact-proxy-1.0"
  xmlns="https://production.coccaregistry.net/cocca-contact-proxy-1.0"
  xmlns:xs="http://www.w3.org/2001/XMLSchema"
  elementFormDefault="qualified")

  (xs:simpleType name="referenceType")
    (xs:restriction base="xs:token")
      (xs:maxLength value="40"</>)
      (xs:minLength value="0"</>)
    (<xs:restriction)
  (<xs:simpleType)

  (xs:complexType name="phoneNumberType")
    (xs:sequence)
      (xs:element name="number")
        (xs:simpleType)
          (xs:restriction base="xs:token")
            (xs:maxLength value="64"</>)
            (xs:minLength value="1"</>)
          (<xs:restriction)
        (<xs:simpleType)
      (<xs:element)
    (xs:element name="extension" minOccurs="0")
      (xs:simpleType)
        (xs:restriction base="xs:token")
          (xs:maxLength value="64"</>)
          (xs:minLength value="1"</>)
        (<xs:restriction)

```

```

    (<xs:simpleType)
  (<xs:element)
(<xs:sequence)
(<xs:complexType)

(xs:complexType name="addressType")
  (xs:sequence)
    (xs:element name="street1")
      (xs:simpleType)
        (xs:restriction base="xs:token")
          (xs:maxLength value="255"/>)
          (xs:minLength value="1"/>)
        (<xs:restriction)
      (<xs:simpleType)
    (<xs:element)
    (xs:element name="street2" minOccurs="0")
      (xs:simpleType)
        (xs:restriction base="xs:token")
          (xs:maxLength value="255"/>)
          (xs:minLength value="0"/>)
        (<xs:restriction)
      (<xs:simpleType)
    (<xs:element)
    (xs:element name="street3" minOccurs="0")
      (xs:simpleType)
        (xs:restriction base="xs:token")
          (xs:maxLength value="255"/>)
          (xs:minLength value="0"/>)
        (<xs:restriction)
      (<xs:simpleType)
    (<xs:element)
    (xs:element name="city")
      (xs:simpleType)
        (xs:restriction base="xs:token")
          (xs:maxLength value="255"/>)
          (xs:minLength value="1"/>)
        (<xs:restriction)
      (<xs:simpleType)
    (<xs:element)
    (xs:element name="stateProvince" minOccurs="0")
      (xs:simpleType)
        (xs:restriction base="xs:token")
          (xs:maxLength value="255"/>)
          (xs:minLength value="0"/>)
        (<xs:restriction)
      (<xs:simpleType)
    (<xs:element)
    (xs:element name="postcode" minOccurs="0")
      (xs:simpleType)
        (xs:restriction base="xs:token")
          (xs:maxLength value="255"/>)
          (xs:minLength value="0"/>)
        (<xs:restriction)
      (<xs:simpleType)
    (<xs:element)
    (xs:element name="countryCode")
      (xs:simpleType)
        (xs:restriction base="xs:token")
          (xs:pattern value="[A-Z]{2}" />)
        (<xs:restriction)
      (<xs:simpleType)
    (<xs:element)
  (<xs:sequence)
(<xs:complexType)
(<xs:schema)

```

This extension allows the association of a contact proxy with a contact.

The contact:create and contact:update extensions can specify an existing proxy contact by ID, or create a new proxy contact. To associate a contact with an existing contact proxy, use this form:

```

(extension)
(proxyupdate:extension xmlns:proxyupdate="https://production.coccaregistry.net/cocca-contact-proxy-create-update-1.0")
(proxyupdate:existingProxy)
(proxy:reference xmlns:proxy="https://production.coccaregistry.net/cocca-contact-proxy-1.0") XXXXX
(<proxy:reference)
(<proxyupdate:existingProxy)
(<proxyupdate:extension)
(<extension)

```

where XXXXX is the ID of the proxy contact you wish to use. To create a new contact and associate it with a contact, use this form of the create or update extension:

```

(extension)
(proxyupdate:extension xmlns:proxyupdate="https://production.coccaregistry.net/cocca-contact-proxy-create-update-1.0" xmlns:proxy="https://production.coccaregistry.net/cocca-contact-proxy-1.0")
(proxyupdate:newProxy)
(proxyupdate:proxyDetails)
(proxy:reference) XXXXX (<proxy:reference)
(proxy:email) XXXXX (<proxy:email)
(proxy:voice)
(proxy:number) XXXXX (<proxy:number)
(proxy:extension) XXXXX (<proxy:extension)
(<proxy:voice)
(proxy:internationalAddress)
(proxy:street1) XXXXX (<proxy:street1)
(proxy:street2) XXXXX (<proxy:street2)
(proxy:city) XXXXX (<proxy:city)
(proxy:stateProvince) XXXXX (<proxy:stateProvince)
(proxy:postcode) XXXXX (<proxy:postcode)
(proxy:countryCode) XXXXX (<proxy:countryCode)
(<proxy:internationalAddress)
(<proxyupdate:proxyDetails)
(<proxyupdate:newProxy)
(<proxyupdate:extension)
(<extension)

```

At the time of application it is not envisioned that this extension will be used for the .persiangulf TLD.

Other:

In addition to the above statuses, the CoCCA Registry provides additional lifecycle statuses over and above those defined in RFC-5731. The CoCCA Activation statuses are provided using namespaced status elements in the Domain:Create and Domain:Info responses, and are accompanied by an RFC-3735 compliant extension section. A Domain:Create response for a newly registered domain would appear as follows:

```

(?xml version="1.0" encoding="UTF-8" standalone="no"?)
(epp xmlns="urn:ietf:params:xml:ns:epp-1.0" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd")
(response)
(result code="1000")
(msg) Command completed successfully (<msg)
(</result)
(msgQ count="229" id="21192"~)
(resData)
(domain:infData xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
xsi:schemaLocation="urn:ietf:params:xml:ns:domain-1.0 domain-1.0.xsd")
(domain:name) info.confirm.test (<domain:name)
(domain:roid) 234511-CoCCA (<domain:roid)
(domain:status s="inactive") Delegation information has not been supplied (<domain:status)
(activation:status xmlns:activation="https://production.coccaregistry.net/cocca-activation-1.0"
s="pendingActivation")
This domain requires acceptance of AUP and registrant agreement by 2012-02-29 10:19
(<activation:status)
(domain:registrant) regis-80ESBqGtje (<domain:registrant)
(domain:clID) registrar (<domain:clID)
(domain:crID) registrar (<domain:crID)
(domain:crDate) 2012-02-21T21:19:32.887Z (<domain:crDate)
(domain:exDate) 2013-02-21T21:19:33.006Z (<domain:exDate)
(domain:authInfo)
(domain:pw) Hh7Wz3c9dC (<domain:pw)
(<domain:authInfo)
(<domain:infData)
(</resData)
(extension)
(rgp:infData xmlns:rgp="urn:ietf:params:xml:ns:rgp-1.0"
xsi:schemaLocation="urn:ietf:params:xml:ns:rgp-1.0 rgp-1.0.xsd"~)
(activation:extension xmlns:activation="https://production.coccaregistry.net/cocca-activation-1.0")
(activation:url) https://registry-adam/activate.jsp?
activationCode=ITihilkma8SmbCsYefY18uEaJikwoXKNLOMLu0HHXkXj2UynrDZZUh6SB2h8h1D8 (<activation:url)
(activation:link) /activate.jsp?
activationCode=ITihilkma8SmbCsYefY18uEaJikwoXKNLOMLu0HHXkXj2UynrDZZUh6SB2h8h1D8 (<activation:link)
(<activation:extension)
(</extension)
(trID)
(clTRID) CR-4 (<clTRID)
(svTRID) 1329859182069 (<svTRID)
(</trID)
(</response)
(</epp)

```

## 25.4 EPP Access Requirements

### 1. IP Address white listing ( firewall and application layer )

2. Signed registry issued SSL certificates
3. Username/Password

Authentication requires that the IP address the connection is made from be white listed IP, that the entity connecting use a CoCCA-issued SSL certificate and that correct clientID and passwords be used. By default registrars have only GUI access to the SRS, EPP is enabled by request and only after a Registrar has been certified on CoCCA's OT&E platform.

#### 25.5 CoCCA GUI Environment

In addition to providing the standard implementation of EPP that runs on Port 700, CoCCA also provides a secure web based Graphical User Interface running on Port 443 that allows Registrars to register and manage domains in their portfolio without connecting by EPP.

#### 25.6 EPP Via the GUI

In cases where a registrar uses the SRS GUI, all domain, host and contact operations supported by the RFC's are executed by pamoja's internal EPP engine to ensure that GUI and port 700 EPP interfaces behave identically.

These methods of authentication include:

1. IP Address white listing
2. Using a one-time password ("OTP") delivered via hardware token, soft token or SMS is issued by CoCCA.
3. The use of a Username/Password

#### 25.7 Registrars

A list of registrars that have already successfully integrated and connected to CoCCA's SYD SRS is attached. CoCCA's SYD SRS is used by 200+ Registrars, many of which currently utilize the XML based EPP protocol for the purpose of providing automated services to their clients.

#### 25.8 Resourcing and Continuous Development

CoCCA's software development team and systems administrators support both their own in-house SRS and that of over 23 other TLD managers who have deployed the pamoja SRS software locally on their own infrastructure. Development is on-going and active. The CoCCA SRS has been developed over the past 9 years, the bulk of the development on the EPP platform has been completed, however two full time developers are employed by CoCCA to customize, maintain and improve the software for the TLD's that use it.

Because of the co-operative nature of the development process CoCCA works closely with over a dozen developers and network engineers employed by users of CoCCA's TLD software to resolve bugs, continuously improve pamoja's performance and add new features.

## 26. Whois: describe

- how the applicant will comply with Whois specifications for data objects, bulk access, and lookups as defined in Specifications 4 and 10 to the Registry Agreement;
- how the Applicant's Whois service will comply with RFC 3912; and
- resourcing plans for the initial implementation of, and ongoing maintenance for, this aspect of the criteria (number and description of personnel roles allocated to this area).

A complete answer should include, but is not limited to:

- A high-level Whois system description;
- Relevant network diagram(s);
- IT and infrastructure resources (e.g., servers, switches, routers and other components);
- Description of interconnectivity with other registry systems; and

Frequency of synchronization between servers.

To be eligible for a score of 2, answers must also include:

- Provision for Searchable Whois capabilities; and
- A description of potential forms of abuse of this feature, how these risks will be mitigated, and the basis for these descriptions

A complete answer is expected to be no more than 5 pages.

CoCCA currently delivers proven, innovative WHOIS and Registration Data Directory Services ("RDDS") technology to the TLDs hosted by CoCCA and to the TLDs that deploy the pamoja SRS on their own infrastructure. CoCCA's Specification Four compliant WHOIS and RDDS technology will be utilized by CoCCA for the .persiangulf TLD. Under CoCCA's SRS Architecture one WHOIS server will answer for all the TLDs in the SRS. Each TLD Sponsor can configure the WHOIS such that it serves different results depending on the wishes of the Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. and applicable ICANN requirements.

### 26.1 WHOIS Architecture and Infrastructure Overview

CoCCA's flexible WHOIS architecture is designed for high availability, complies with RFC 3912 and surpasses the requirements in Specifications 4 and 10. The flexible pamoja WHOIS server may be configured to provide a variety of information, and in a variety of formats that supplements ICANN's proposed gTLD requirements.

As registrations appear (or are modified) in the registration database, changes are committed to a replicated read only secondary database utilized by CoCCA's WHOIS server. Because the replication is synchronous WHOIS data is presented in real time. If at a future date WHOIS query response times becomes an SLA issue, WHOIS responses may be cached using "infinite cache" horizontal caching technology, which has been tested and can readily scale to meet future demand, alternatively RDDS services may be answered by a SRS instance off-site (one of the CoCCA secondary/failover SRS's) for near real-time WHOIS and RDDS.

### 26.2 Port 43 WHOIS (command line)



CoCCA has confirmed that the format of the domain status, individual and organizational names, address, street, city, state/province, postal code, country, telephone and fax numbers, email addresses can and will be configured to conform to the mappings specified in EPP RFC's 5730-5734. The originating IP address and date time of all WHOIS queries are logged and will be stored for a minimum of 28 days in the production SRS.

GUI configuration and command line flags allow a client to request output in ASCII, Unicode, ASCII and Unicode or HTML output (with tables). For IDN TLDs, a variety of command line WHOIS options have been tested in conjunction with the Arabic TLDs that use the CoCCA SRS. CoCCA supports all the current IETF standards and several developed for current IDN users. CoCCA's SRS can be readily modified should ICANN mandate a particular technology in the future.

#### 26.2.1 Domain Name Data:

- \* Proposed Production Query format: whois "h -whois.nic. (TLD) domain
- \* Response format: Currently compliant with Specification 4, Section 1.4.2 (pages 40-41).

#### 26.2.2 Registrar Data:

- \* Proposed Production query format: whois "h -whois.nic.persiangulf registrar
- \* Response format: Currently compliant with Specification 4, Section 1.5.2 (pages 41-42) -- with the exception of the registrar "WHOIS Server" object (p. 42), under the proposed .persiangulf thick registry model registrars will not operate their own WHOIS servers.

Inclusion of this object seems redundant and may cause confusion regarding the authoritative WHOIS server for the .persiangulf. If required by ICANN the registrar WHOIS object data will be collected and displayed by CoCCA.

#### 26.2.3 Name Server Data:

- \* Proposed Production Query format: whois "h -whois.nic. (TLD) (Host or IP)
- \* Response format: Currently compliant with Specification 4, Section 1.6.2 (p. 42)

#### 26.3 Public WHOIS service via a secure port 443 web-based interface:

CoCCA's pamoja software has a publicly accessible port 443 GUI service that allows individuals to query the SRS for registration data for individual domain, registrar or host records.

CoCCA has confirmed that the format of the domain status, individual and organizational names, address, street, city, state/province, postal code, country, telephone and fax numbers, email addresses can and will be configured to conform to the mappings specified in EPP RFC's 5730-5734.

To prevent abuse, CoCCA implements rate limiting via CAPTCHA for each individual transaction. The procedure would follow as per below.

- 1) An individual would navigate in a browser to [https://whois.nic. \(TLD\)](https://whois.nic.(TLD))
- 2) Click on the appropriate button (Domain, Registrar, or Name Server)
- 3) Enter the applicable parameter:
  - Domain name, including the TLD (e.g., EXAMPLE.TLD)
  - Full name of the registrar, including punctuation (e.g., Example Registrar, Inc.)
  - Full host name or the IP address (e.g., NS1.EXAMPLE.TLD or 198.41.3.39)
- 4) Enter the CAPTCHA phrase or symbols
- 5) Click on the Submit button

#### Possible Outcomes from the query:

- \* If an exact match for the domain, host, or registrar exists in the SRS, the Port 443 WHOIS will display the same information and with the same formatting, as the port 43 WHOIS (see above and Specification 4, Sections 1.4 " 1.6 ).
- \* If there is no exact match but a super-ordinate domain exists the SRS data for the super- ordinate name is to be displayed. By way of example if an individual searches for abc.domain.persiangulf and abc.domain.persiangulf does not exist then the SRS would display the information on domain.persiangulf and advise the individual accordingly.

#### 26.4 WHOIS and RDDS | Demonstrating Capability

CoCCA has almost a decade of experience running multiple TLDs and providing WHOIS services. WHOIS and RDDS are integrated into CoCCA's pamoja software. In order to demonstrate capability and compliance with the Specification Four, Section One, Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. has instructed CoCCA to make available to evaluators an Operational and Testing and Evaluation (OTE) WHOIS and RDDS interface on request. Alternatively, evaluators may download CoCCA's pamoja SRS, install locally and contact CoCCA for configuration advice.

The URL to download pamoja is <https://downloads.coccaregistry.net>. Installers are available for Linux64x (Centos < Ubuntu ), OSX (10.6+) and WIN7+ servers.

#### 26.5 Network Diagrams

CoCCA's RDDS services serve data directly from the SRS, there is no separate WHOIS database. If performance becomes and issue pamoja's RDDS read-only services can be configured to extract data from a replicated copy of the SRS.

Individuals or entities that desire to run multiple queries against the SRS for law enforcement purposes, IP protection or to mitigate cyber-crimes need simply subscribe to CoCCA's Premium RDDS Service and may query the SRS via EPP as well as port 43 and the 443 GUI. Premium RDDS users are granted EPP read-only access (on request) and need not be ICANN Accredited registrars. In many cases EPP may be a better tool for automation of multiple queries than port 43 WHOIS.

The systems supporting WHOIS are fully redundant with hardware and software that can easily scale to meet the Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti.'s growth projections of the TLD. For comprehensive description of the SYD NOC see questions 31 and 32.

The WHOIS server at the CoCCA Data Centre in Sydney currently answers for 12 TLDs and processes on average fewer than 8000 WHOIS requests per hour. The current WHOIS server and database has been tested and can answer in excess of 9,000 TPS as currently configured - network latency may impact real world results depending on the origin of the query.

#### 26.6 Synchronization Frequency Between Servers

CoCCA's WHOIS architecture is designed to ensure WHOIS data is current, accurate and reliable. CoCCA's RDDS services serve data directly from the SRS, in the default configuration there is no separate WHOIS database. CoCCA uses PostgreSQL and synchronous replication data is committed to the production SRS master database and a secondary database (read only) server configured to serve WHOIS data, so that at all times the SRS and CoCCAs WHOIS servers serve the same data.

CoCCA streams SRS data off-site asynchronously (and by log file shipping as a failover) to their SRS servers in Palo Alto and Auckland to enable those SRS's to serve near-real time WHOIS data if the primary SRS experiences an issue that negatively impacts CoCCA's ability to meet SLA's for the .persiangulf TLD.

If WHOIS caching is required as the .persiangulf TLD grows, compliance with the SLA requirements in the ICANN agreement may necessitate that Failover SRS or Escrow SRS answer RDDS queries or that cache servers be deployed, in such a circumstance, the WHOIS response would be near real-time ( accurate to within a min or two of the primary SRS ).

#### 26.7 Compliance with Specification 4

CoCCA will provide free RDDS Services via both port 43 and a web-based port 443 site in accordance with RFC 3912.

Additionally, the CoCA will also provide fee-based Premium RDDS service described in further detail below. CoCCA and the Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. acknowledge that ICANN reserves the right to specify alternative formats and protocols and if such change were to occur; CoCCA will implement specification changes as soon as practical.

CoCCA and the Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. will provide bulk access of thin RDDS data to ICANN to verify and ensure operational stability of registry services, as well as to facilitate compliance checks on accredited registrars. Access will be provided to ICANN on a weekly basis and the format will be based on section 3 of Specification 4. Further, exceptional access to thick RDDS will be provided to ICANN per Specification 2.

Should ICANN request it CoCCA will provide ICANN with a Premium RDDS login at no charge which will provide them with continuous access to the SRS to extract thick SRS data for the .persiangulf at its leisure.

The proposed format of the data objects for domains, name servers , and the registrar output are provided below:

#### 1.4. Domain Name Data:

1.4.1. Query format: whois EXAMPLE.TLD

1.4.2. Response format:

Domain Name: EXAMPLE.TLD

Domain ID: D1234567-TLD

WHOIS Server: whois.example.tld

Referral URL: http://www.example.tld

Updated Date: 2009-05-29T20:13:00Z

Creation Date: 2000-10-08T00:45:00Z

Registry Expiry Date: 2010-10-08T00:44:59Z Sponsoring Registrar: EXAMPLE REGISTRAR LLC Sponsoring Registrar IANA ID: 5555555

Domain Status: clientDeleteProhibited Domain Status: clientRenewProhibited Domain Status:

clientTransferProhibited Domain Status: serverUpdateProhibited Registrant ID: 5372808-ERL

Registrant Name: EXAMPLE REGISTRANT Registrant Organization: EXAMPLE ORGANIZATION Registrant Street: 123 EXAMPLE STREET

Registrant City: ANYTOWN

Registrant State/Province: AP

Registrant Postal Code: A1A1A1

Registrant Country: EX

Registrant Phone: +1.5555551212

Registrant Phone Ext: 1234

Registrant Fax: +1.5555551213

Registrant Fax Ext: 4321

Registrant Email: EMAIL@EXAMPLE.TLD Admin ID: 5372809-ERL

Admin Name: EXAMPLE REGISTRANT ADMINISTRATIVE Admin Organization: EXAMPLE REGISTRANT ORGANIZATION Admin Street: 123 EXAMPLE STREET

Admin City: ANYTOWN

Admin State/Province: AP

Admin Postal Code: A1A1A1

Admin Country: EX

Admin Phone: +1.5555551212

Admin Phone Ext: 1234

Admin Fax: +1.5555551213

Admin Fax Ext:

Admin Email: EMAIL@EXAMPLE.TLD

Tech ID: 5372811-ERL

Tech Name: EXAMPLE REGISTRAR TECHNICAL

Tech Organization: EXAMPLE REGISTRAR LLC  
 Tech Street: 123 EXAMPLE STREET  
 Tech City: ANYTOWN  
 Tech State/Province: AP  
 Tech Postal Code: A1A1A1  
 Tech Country: EX  
 Tech Phone: +1.1235551234  
 Tech Phone Ext: 1234  
 Tech Fax: +1.5555551213  
 Tech Fax Ext: 93  
 Tech Email: EMAIL@EXAMPLE.TLD  
 Name Server: NS01.EXAMPLEREGISTRAR.TLD  
 Name Server: NS02.EXAMPLEREGISTRAR.TLD  
 DNSSEC: signedDelegation  
 DNSSEC: unsigned  
 ) ) ) Last update of WHOIS database: 2009-05-29T20:15:00Z ( ( (

#### 1.5. Registrar Data:

1.5.1. Query format: whois "registrar Example Registrar, Inc." 1.5.2. Response format:

Registrar Name: Example Registrar, Inc. Street: 1234 Admiralty Way  
 City: Marina del Rey  
 State/Province: CA  
 Postal Code: 90292  
 Country: US

Phone Number: +1.3105551212 Fax Number: +1.3105551213  
 Email: registrar@example.tld  
 WHOIS Server: whois.example-registrar.tld  
 Referral URL: http://www.example-registrar.tld  
 Admin Contact: Joe Registrar  
 Phone Number: +1.3105551213  
 Fax Number: +1.3105551213  
 Email: joeregistrar@example-registrar.tld  
 Admin Contact: Jane Registrar  
 Phone Number: +1.3105551214  
 Fax Number: +1.3105551213  
 Email: janeregistrar@example-registrar.tld  
 Technical Contact: John Geek  
 Phone Number: +1.3105551215  
 Fax Number: +1.3105551216  
 Email: johngeek@example-registrar.tld  
 ) ) ) Last update of WHOIS database: 2009-05-29T20:15:00Z ( ( (

#### 1.6. Nameserver Data:

1.6.1. Query format: whois "NS1.EXAMPLE.TLD" or whois "nameserver (IP Address)" 1.6.2. Response format:

Server Name: NS1.EXAMPLE.TLD  
 IP Address: 192.0.2.123  
 IP Address: 2001:0DB8::1  
 Registrar: Example Registrar, Inc.  
 WHOIS Server: whois.example-registrar.tld  
 Referral URL: http://www.example-registrar.tld  
 ) ) ) Last update of WHOIS database: 2009-05-29T20:15:00Z ( ( (

#### 26.8 Supplemental Data

Subject to ICANN Approval, Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. will ensure the SRS is configured to display of the following Supplemental RDDS data (objects only displayed if applicable).

Activation Expiry Date: 2011-12-31T11:11:11Z  
 Activation Date: 2011-12-31T11:11:11Z  
 Contact Confirmation Expiry Date: 2011-12-31T11:11:11Z  
 Contact Confirmation Date: 2011-12-31T11:11:11Z  
 Registration Grace Expiry Date: 2011-12-31  
 Registration MIN Expiry Date: 2011-12-31  
 Redemption Expiry Date: 2011-12-31  
 Purge Date: 2011-12-31  
 Renewal Grace Expiry Date: 2011-12-31  
 Transfer Grace Expiry Date: 2011-12-31

Reseller ID: 4261797-ERL  
 Reseller Name: ACME Reseller A  
 Reseller Street: 123 RESELLER STREET  
 Reseller City: RESELLER VILLE  
 Reseller State/Province: RS  
 Reseller Postal Code: 12345  
 Reseller Country: US  
 Reseller Phone: +1.5555551219  
 Reseller Phone Ext: 1239  
 Reseller Fax: +1.5555551219  
 Reseller Fax Ext: 4329  
 Reseller Support Email: helpdesk@reseller.(TLD)

#### 26.9 Compliance with Specification 10

CoCCA's WHOIS service will comply and/or exceed the Registration Data Directory Service (RDDS) performance

specifications outlined in Specification 10 of the proposed Registry agreement. For the existing TLDs supported by CoCCA, all service levels already exceed the Specification 10 Requirements:

- \* RDDS Availability ) 98%
- \* RDDS Query ) 95%
- \* RDDS Update ) 95%

CoCCA's current RDDS availability statistics are available online at <http://stats.coccaregistry.net>

RDDS Services that are near real time can be provided from the failover or escrow SRS's by simply changing the IP/ CNAME for the whos.nic.[TLD] if there are SLA related or loading issues. This has been tested and is being done automatically at any time by CoCCA's monitoring software with near immediate effect ( 30 seconds.

#### 26.10 Historical Abstracts

In addition to CoCCA's RDDS services, detailed Historical Abstracts for individual domains are also made readily available to the general public, law enforcement and rights owners.

Historical Abstracts are a compilation of all information available on a domain (including deleted / archived domains) that are held in the registry. This includes the time and date of all changes in contacts, hosts, registrars, resellers, status's as well as all registration, activation, confirmation, renewal, restore or commercial transactions related to the maintenance of domain in the SRS.

A representative sample of a Historical Abstract detailing the full history of a domain is attached.

#### 26.11 Premium RDDS (port 443 and port 700 EPP)

Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti., with the service support of CoCCA, intends to offer Boolean partial and exact match search capability of all Domain, Contact, Host, Registrar data in the SRS within the Directory Service via a web interface. This Premium service will be billed at a monthly rate depending on the number of queries.

ICANN's requirement that thin SRS data be made available in bulk makes it trivial for any entity who has thin data provided by the Centralized Zone Data Access Provider to run automated queries against the .persiangulf WHOIS public WHOIS server and extract thick SRS data - for all the domains in a zone. CoCCA's Premium RDDS makes access to registration data by IP Owners, Law Enforcement and CERT's efficient (EPP and GUI ) and timely (real-time), Premium RDDS does not expose any information that ICANN's gTLD policy does not effectively require Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. to otherwise make publicly available to the public via WHOIS and the services of CZDA Provider.

Because experience has demonstrated that entities often attempt to use the WHOIS for a variety of purposes, rights protection, research etc., and because WHOIS is a rather blunt instrument which does not provide always provide the most useful advice on reserved domains, wildcard string registrations etc. entities with a Premium RDDS Service will, on request, be granted read-only EPP access to retrieve domain information.

In order to make it unnecessary for IP owners or others to continuously query the SRS via EPP or command line WHOIS subscribers to the Premium RDDS may create lists that use regular java expressions and boolean operations that will notify them by email and if applicable EPP polling messages when a domain that matches a given string is registered.

To mitigate abuse of this feature, Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. will implement the following measures to ensure legitimate authorized users and ensure the feature is in compliance with any applicable privacy laws or policies:

- \* Premium RDDS subscribers must agree, as a condition of access to comply with Section 2.1.5 of Specification 4. To monitor that RDDS services are not being abused and used to "support the transmission by e- mail, telephone, or facsimile of mass unsolicited, commercial advertising or solicitations to entities other than user's own existing customers, or (ii) enable high volume, automated, electronic processes that send queries or data to the systems of Registry Operator or any ICANN-accredited registrar" CoCCA will seed the SRS with unique records and that enable them to track reported abuse back to an individual RDDS subscriber.

- \* Because this is only offered as a premium and paid service, the request must follow the CoCCA application process to confirm the user identification and process the financial transaction. Thus, the typical end-user will not have access to this service.

- \* All GUI searches are conducted via authenticated user access using a combination of username and password and OTP tokens.

- \* CoCCA will monitor for out of band usage patterns of the Premium RDDS service and take appropriate action if policy thresholds are exceeded.

#### 26.12 Zone File Access

Subscribers to the Premium RDDS may download .persiangulf zone files via the port 43 GUI up to six (6) times in any 24 hour period.

CoCCA will comply all the requirements set out in Specification 4, Sections 2.1-2.1.7. Specifically, CoCCA will operate a dedicated server supporting FTP, and or other data transport access protocols in a manner specified by ICANN and the Centralized Zone Data Access Provider.

#### 26.13 Resource Plans

The .persiangulf TLD will be added to CoCCA's SRS at their primary data center in Sydney which currently supports the features noted above.

The Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. will dedicate 2 professionals to coordinate the operation of the .persiangulf TLD. At the same time, the technical professionals at CoCCA will be supporting the vast majority of the technical aspects of operating the .persiangulf TLD.

27. Registration Life Cycle: provide a detailed description of the proposed registration lifecycle for domain names in the proposed gTLD. The description must

- explain the various registration states as well as the criteria and procedures that are used to change state;
- describe the typical registration lifecycle of create/update/delete and all intervening steps such as pending, locked, expired, and transferred that may apply;
- clearly explain any time elements that are involved - for instance details of add-grace or redemption grace periods, or notice periods for renewals or transfers; and
- describe resourcing plans for this aspect of the criteria (number and description of personnel roles allocated to this area).

The description of the registration lifecycle should be supplemented by the inclusion of a state diagram, which captures definitions, explanations of trigger points, and transitions from state to state.

If applicable, provide definitions for aspects of the registration lifecycle that are not covered by standard EPP RFCs.

A complete answer is expected to be no more than 5 pages.

Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. will adopt the CoCCA harmonized life cycle currently adopted by a dozen ccTLDs. The .persiangulf life-cycle described below builds on the CoCCA technology and policy launched in November 2011 that sought to increase the accuracy of WHOIS data, minimize harm and increase consumer trust in TLDs. The life-cycle for the .persiangulf TLD builds on the traditional gTLD life-cycle by adding direct Registrant-Registry interaction.

The proposed .persiangulf life-cycle ensures key elements of the .persiangulf TLD abuse prevention and mitigation framework are adhered to by delaying mapping of the Registrant's desired NS delegation information until the registrant has Activated a domain. All .persiangulf registrations are provisional until Activated. Activation requires that the registrant confirm (with CoCCA) the accuracy of the contact information lodged by the registrar and reads agrees to the .persiangulf Registrant Agreement (RA), AUP and Privacy RDDS Policy.

Activation takes place via automated processes that store the time : date and IP address of the Activation as part of the domains history.

Registrants will also be required to confirm (with CoCCA) the accuracy of the contact details and agreement with the .persiangulf RA, AUP and Privacy RDDS Policy at a) the time of renewal, b) on transfer and c) on the anniversary of registration. The following Life-Cycle describes the CoCCA SRS EPP and WHOIS behavior at various stages in the Life-Cycle.

#### 27.1 Registration | Initial Registration

Not Registered

SRS EPP domain:check response

```

<?xml version="1.0" encoding="UTF-8" standalone="no" >
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd">
  <response>
    <result code="1000">
      <msg>Command completed successfully </msg>
    </result>
    <msgQ count="309" id="21153"></msgQ>
    <resData>
      <domain:chkData xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
xsi:schemaLocation="urn:ietf:params:xml:ns:domain-1.0 domain-1.0.xsd">
        <domain:cd>
          <domain:name avail="1" no-exist.example </domain:name>
        </domain:cd>
        </domain:chkData>
      </resData>
      <trID>
        <clTRID>1333577979408 </clTRID>
        <svTRID>1333577979414 </svTRID>
      </trID>
    </response>
  </epp>

```

SRS WHOIS response

```
$ whois no-exist.example
```

```
Domain Name: no-exist.example
```

```
Domain Status: Available
```

TERMS OF USE: <Legal Notice>

```
) ) ) Last update of WHOIS database: 2012-04-04T10:55:27.634Z <<<
```

Note if a string cannot be registered for policy reasons the following the SRS will return the following. EPP domain:check Status

```

<?xml version="1.0" encoding="UTF-8" standalone="no" >
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd">

```

```

(response)
  (result code="1000")
  (msg) Command completed successfully (<msg)
  (<result)
  (msgQ count="309" id="21153"<)
  (resData)
    (domain:chkData xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
  xsi:schemaLocation="urn:ietf:params:xml:ns:domain-1.0 domain-1.0.xsd")
      (domain:cd)
        (domain:name avail="0") profanity.example (<domain:name)
        (domain:reason) Registry policy (<domain:reason)
      (<domain:cd)
    (<domain:chkData)
  (<resData)
  (trID)
    (clTRID) 1333579251148 (<clTRID)
    (svTRID) 1333579251168 (<svTRID)
  (<trID)
(<response)
(<epp)

```

#### WHOIS Status Display

```

$ whois profanity.example
Domain Name: profanity.example
Domain Status: Not Registered
Notes: This name is not allowed by the policy of this registry, and cannot be registered

```

```

)) ) Last update of WHOIS database: 2012-04-04T10:55:27.634Z <<<

```

```

-----
Registered | Status "Pending Activation"

```

The Activation and Confirmation requirements run in parallel to Grace, MIN, Pending Delete, Pending Purge and other SRS states. As soon the application is lodged via the SRS EPP and WHOIS servers will return the following.

#### EPP domain:info Status

```

("xml version="1.0" encoding="UTF-8" standalone="no"")
(epp xmlns="urn:ietf:params:xml:ns:epp-1.0" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd")
  (response)
    (result code="1000")
    (msg) Command completed successfully (<msg)
    (<result)
    (msgQ count="309" id="21153"<)
    (resData)
      (domain:infData xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
  xsi:schemaLocation="urn:ietf:params:xml:ns:domain-1.0 domain-1.0.xsd")
        (domain:name) pending.example (<domain:name)
        (domain:roid) 1234-CoCCA (<domain:roid)
        (domain:status s="inactive") Delegation information has not been mapped (<domain:status)
        (activation:status xmlns:activation="https://production.coccaregistry.net/cocca-activation-1.0"
  s="pendingActivation") This domain requires acceptance of AUP and registrant agreement by 2012-04-09 15:39
        (<activation:status)
          (domain:registrant) example (<domain:registrant)
          (domain:clID) adam (<domain:clID)
          (domain:crID) adam (<domain:crID)
          (domain:crDate) 2012-04-02T03:39:55.925Z (<domain:crDate)
          (domain:exDate) 2013-04-02T03:39:55.942Z (<domain:exDate)
          (domain:authInfo)
            (domain:pw) example (<domain:pw)
          (<domain:authInfo)
        (<domain:infData)
      (<resData)
    (extension)
      (activation:extension xmlns:activation="https://production.coccaregistry.net/cocca-activation-1.0")
        (activation:url)
          https://registry.example/activate.jsp?activationCode=Q7DCanzCN1REmVnBlgjVIasJnLLMa4pacVRLn6ev9kc6sFppcs7FHLEX3PLPM
          (<activation:url)
        (activation:link)
          /activate.jsp?activationCode=Q7DCanzCN1REmVnBlgjVIasJnLLMa4pacVRL n6ev9kc6sFppcs7FHLEX3PLPM3x0
          (<activation:link)
        (<activation:extension)
      (<extension)
    (trID)
      (clTRID) TR-2 (<clTRID)
      (svTRID) 1333581885177 (<svTRID)
    (<trID)
  (<response)
(<epp)

```

## WHOIS Status Display Example

```
$ whois pending.example
Domain Name: pending.example
Domain ID: 12345-CoCCA
WHOIS Server: whois.example
Referral URL:
Updated Date: 2012-02-07T03:51:17.543Z
Creation Date: 2010-03-04T04:15:10.423Z
Registry Expiry Date: 2015-07-04T04:15:10.434Z
Sponsoring Registrar: Example Registrar
Sponsoring Registrar IANA ID: 1234
Domain Status: pendingActivation
```

```
Registrant ID: 12345-CoCCA
Registrant Name: Example Registrant
Registrant Organization: Example Org
Registrant Street: 1 Example Rd
Registrant City: Exampleville
Registrant State/Province: EX
Registrant Postal Code: 1234
Registrant Country: EX
```

```
Name Server: ns1.example.com
Name Server: ns2.example.com
```

```
DNSSEC: unsigned
```

Unless ICANN objects, the WHOIS server (port 43 and 443) and an EPP Domain:info query will also display the following values - after display of the values required in the EPP RFC's and in Specification 4 Section 1.4.

```
Activation Expiry Date: 2011-12-31T11:11:11Z
Contact Confirmation Expiry Date: 2011-12-31T11:11:11Z
Registration Grace Expiry Date: 2011-12-31T11:11:11Z
Registration MIN Expiry Date: 2011-12-31T11:11:11Z
```

## 27.1.1 Contractual Considerations:

Under the .persiangulf TLD policy all registrations are considered provisional by Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. until the Registrant accepts the .persiangulf RA and confirms the accuracy of the contact details lodged by the Registrar.

## 27.1.2 Behavior:

Until such time as the domain is Activated it is parked on a Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. controlled website that displays the domains port 43 WHOIS information. The SRS ignores the registrar-submitted Name Server ("NS") delegation information for all domains with a status of "Pending Activation" and replaces them with the CoCCA parking servers.

## 27.1.3 Duration:

A provisional application may be Activated by the Registrant or Administrative Contact at any time during the first 28 days after the Registration request is lodged in the SRS. On the 29th day after registration if a domain has not already been deleted by the Registrar, Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. deems the application to have been withdrawn by the registrant and the Status is changed to "Pending Purge " Restore Not Possible".

```
("xml version="1.0" encoding="UTF-8" standalone="no")
(epp xmlns="urn:ietf:params:xml:ns:epp-1.0" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd")
  (response)
    (result code="2303")
      (msg) Object does not exist (←msg)
    (←result)
    (trID)
      (clTRID) TR-2 (←clTRID)
      (svTRID) 1333583795929 (←svTRID)
    (←trID)
  (←response)
(←epp)
```

## EPP domain:check Status

```
("xml version="1.0" encoding="UTF-8" standalone="no")
(epp xmlns="urn:ietf:params:xml:ns:epp-1.0" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd")
  (response)
    (result code="1000")
      (msg) Command completed successfully (←msg)
    (←result) (msgQ count="309" id="21153"←)
    (resData)
      (domain:chkData xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
xsi:schemaLocation="urn:ietf:params:xml:ns:domain-1.0 domain-1.0.xsd")
```

```

      (domain:cd)
        (domain:name avail="0") purge.example (</domain:name)
        (domain:reason) The domain exists (</domain:reason)
      (</domain:cd)
      (</domain:chkData)
      (</resData)
      (trID)
        (clTRID) 1333584255405 (</clTRID)
        (svTRID) 1333584255410 (</svTRID)
      (</trID)
    (</response)
  (</epp)

```

WHOIS Status Display ( Domain Status: Excluded - Pending Purge). The Registrant and their Registrar are sent an email and EPP Polling message indicating the Status change.

On the 31st day after Registration, a domain that has not been Activated is purged from the SRS and instantly available for registration. Registrars are sent a polling message and email informing them that the domain application has been rejected and the domain has been deleted.

#### 27.1.4 Commercial Considerations:

Funds are debited from the Registrars account instantly and refunded in full after 31 days if a domain is not activated and where Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. has deemed the application to register to have been withdrawn. Names that are not Activated are not delegated in accordance with the Registrants wishes and cannot be used for tasting.

#### 27.2 Registered Activated

Once Activated the EPP Domain:info Status is automatically changed to "Active - Delegated" and the WHOIS display to "Active - Delegated".

Unless ICANN objects, the WHOIS server (port 43 and 443) and EPP Domain:info query will also display the following values - after display of the values required in the EPP RFC's and in Specification 4 Section 1.4.

```

} Activation Date: 2011-12-31T11:11:11Z
} Contact Confirmation Date: 2011-12-31T11:11:11Z
} Registration Grace Expiry Date: [Activation Date: 2011-12-31T11:11:11Z]
Note : [Grace Period expires as soon as a name is activated]
} Registration MIN Expiry Date: 2011-12-31

```

#### 27.3 Registration Grace

A one (1) day Grace period applies to all registrations, Provisional (pending activation) registrations. If a name is Activated the Grace Period is instantly expired. This policy effectively mitigates the prospect of abuse of the .persiangulf TLD or CoCCA's SRS for domain tasting, kiting or other similar activity, while allowing a registrar 24 hours to reverse a registration that included a typographical error or was found to be fraudulent without incurring a commercial penalty.

#### EPP domain:info Status

```

("xml version="1.0" encoding="UTF-8" standalone="no")
(epp xmlns="urn:ietf:params:xml:ns:epp-1.0" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd")
  (response)
    (result code="1000")
    (msg) Command completed successfully (</msg)
    (</result)
    (msgQ count="309" id="21153"</)
    (resData)
      (domain:infData xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
xsi:schemaLocation="urn:ietf:params:xml:ns:domain-1.0 domain-1.0.xsd")
        (domain:name) pending.example (</domain:name)
        (domain:roid) 1234-CoCCA (</domain:roid)
        (domain:status s="inactive") Delegation information has not been supplied (</domain:status)
        (domain:registrar) example (</domain:registrar)
        (domain:clID) adam (</domain:clID)
        (domain:crID) adam (</domain:crID)
        (domain:crDate) 2012-04-02T03:39:55.925Z (</domain:crDate)
        (domain:exDate) 2013-04-02T03:39:55.942Z (</domain:exDate)
        (domain:authInfo)
          (domain:pw) example (</domain:pw)
        (</domain:authInfo)
      (</domain:infData)
    (</resData)
  (extension)
    (rgp:infData xmlns:rgp="urn:ietf:params:xml:ns:rgp-1.0" xsi:schemaLocation="urn:ietf:params:xml:ns:rgp-1.0
rgp-1.0.xsd")
      (rgp:rgpStatus s="addPeriod"</)
    (</rgp:infData)
  (</extension)
  (trID)
    (clTRID) TR-2 (</clTRID)
    (svTRID) 1333581885177 (</svTRID)
  (</trID)

```



```

    (</response>)
  (</epp>)

```

#### WHOIS Status Display

Unless ICANN objects, the WHOIS server (port 43 and 443) and EPP Domain:info query will also display the following values - after display of the values required in the EPP RFC's and in Specification 4 Section 1.4.

```

) Activation Expiry Date: 2011-12-31T11:11:11Z
) Contact Confirmation Expiry Date: 2011-12-31T11:11:11Z
) Registration Grace Expiry Date: 2011-12-31T11:11:11Z
) Registration MIN Expiry Date: 2011-12-31T11:11:11Z

```

##### 27.3.1 Registration Grace | Behavior

Domains deleted during Grace do NOT go into redemption and are instantly available. Domains may NOT be transferred during GRACE. The Domain Status shown in a WHOIS and EPP query during grace is "clientTransferProhibited".

##### 27.3.2 Registration Grace | Commercial Considerations

A full refund equal to 100% of the registration value is applied to a registrars account for domains that are not activated in the first 24 hours. If a domain is Activated in the first 24 hours then deleted it is considered to have been deleted during the "MIN" period as Grace expires on Activation. See Section 28 below for explanation of "MIN".

##### 27.4 MIN Period

The MIN period is a life-cycle element that is probably unique to the CoCCA SRS - and mostly commercial in nature. The MIN period for the .persiangulf is 14 days, the MIN period starts when a name is registered.

Unless ICANN objects, the WHOIS server (port 43 and 443) and EPP Domain:info query will also display the following value - after display of the values required in the EPP RFC's and in Specification 4 Section 1.4.

```

) Registration MIN Expiry Date: 2011-12-31T11:11:11Z

```

##### 27.4.1 Registration MIN | Behavior

Domains deleted by a registrar during the MIN period do NOT go into redemption. Domains may not be transferred during MIN. (the Domain Status shown in a WHOIS and EPP query is "clientTransferProhibited"). An EPP polling message is sent when the MIN period expires.

##### 27.4.2 Registration MIN | Commercial Considerations

Since the Grace period is only one day - and only for domains that are not activated, Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. will give registrars a partial refund (80% of the annual registration fee) for Activated names that are deleted in the first 14 days after registration.

##### 27.5 Renewals

Under the .persiangulf TLD RA registrants are required to confirm the accuracy of the contact details and accept the .persiangulf TLD RA, AUP and Privacy Policy with the registry within 28 days of renewal or the domain is suspended until such time as the RA is accepted and contact details confirmed.

##### 27.6 Expiry

The SRS supports "registrar configurable auto renew", registrars may custom configure the auto-renew behavior via CoCCA's GUI. Some registrars may wish to auto renew domains on expiry while others may not. If a registrar has configured auto renew the SRS, and they have available credit, the SRS will renew the domain for the period selected by the registrar ( up to the maximum allowable ) on the day it expires. If a name expires the following would apply.

Unless ICANN objects, the SRS will automatically update the domain record so that a query of the WHOIS server (port 43 and 443) or EPP Domain:info query will also display the following value - after display of the values required in the EPP RFC's and in Specification 4 Section 1.4.

```

) Contact Confirmation Expiry Date: 2011-12-31T11:11:11Z
) Renewal Grace Expiry Date: 2011-12-31T11:11:11Z

```

##### 27.6.1 Expiry Grace | Suspension

On Expiry a domain automatically enters a seven day Expiry Grace period in which the domain is Suspended by the SRS and parked on a Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. parking page.

```

("xml version="1.0" encoding="UTF-8" standalone="no")
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0 epp-1.0.xsd">
  (response)
    (result code="1000")
    (msg) Command completed successfully (</msg>)
    (</result>)
    (msgQ count="354" id="21153"</>)
    (resData)
      (domain:infData xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
xsi:schemaLocation="urn:ietf:params:xml:ns:domain-1.0 domain-1.0.xsd")
        (domain:name) suspended-expired.example (</domain:name>)
        (domain:roid) 1234-CoCCA (</domain:roid>)
        (domain:status s='serverHold') Suspended automatically (</domain:status>)
        (domain:registrar) MI8JPIQP (</domain:registrar>)
        (domain:ns)
          (domain:hostObj) ns2.example (</domain:hostObj>)

```

```

      (domain:hostObj) ns1.example (<domain:hostObj)
    (<domain:ns)
    (domain:cIID) example (<domain:cIID)
    (domain:crID) example (<domain:crID)
    (domain:crDate) 2009-05-17T21:49:34.649Z (<domain:crDate)
    (domain:upID) example (<domain:upID)
    (domain:upDate) 2012-04-05T01:38:12.649Z (<domain:upDate)
    (domain:exDate) 2011-11-17T20:49:34.644Z (<domain:exDate)
    (domain:trDate) 2009-05-17T21:49:34.728Z (<domain:trDate)
    (domain:authInfo)
      (domain:pw) example (<domain:pw)
    (<domain:authInfo)
    (<domain:infData)
    (<resData)
    (extension)
    (<extension)
    (trID)
      (clTRID) TR-2 (<clTRID)
      (svTRID) 1333590323304 (<svTRID)
    (<trID)
    (<response)
  (<epp)

```

An expired and suspended name is not locked and may be renewed without a restore fee in the first seven (7) days after expiration. Suspended domains may NOT be transferred.

#### 27.6.2 Expiry | Pending Delete - Restorable (Redemption)

On the eighth day after expiration the SRS will change the domain's Status to "Pending Delete Restorable" for a period of 28 days. Suspended and Pending Delete domains may NOT be transferred. At any point between after day seven (7) and before day 29 a registrar may Restore a domain via EPP (RFC-3915) after restoration a domain must be renewed.

The SRS will automatically update the domain record so that a query of the WHOIS or EPP will also display the following values.

```

} Redemption Expiry Date: 2011-12-31
} Purge Date: 2011-12-31

```

#### 27.6.3 Expiry | Pending Purge (No longer Restorable)

On the 29th day after expiry the SRS will change the status of the domain to "Pending - Purge" and apply a registry lock. The WHOIS status and EPP Domain:info query would be displayed as Pending Purge. The domain would stay in this state for seven (7) days until purged from the SRS 35 days after Expiry. Once purged it is available - subject to any restrictions or polices in effect at the time.

See Attached Life - Cycle Diagram

**28. Abuse Prevention and Mitigation:** Applicants should describe the proposed policies and procedures to minimize abusive registrations and other activities that have a negative impact on Internet users. A complete answer should include, but is not limited to:

- An implementation plan to establish and publish on its website a single abuse point of contact responsible for addressing matters requiring expedited attention and providing a timely response to abuse complaints concerning all names registered in the TLD through all registrars of record, including those involving a reseller;
- Policies for handling complaints regarding abuse;
- Proposed measures for removal of orphan glue records for names removed from the zone when provided with evidence in written form that the glue is present in connection with malicious conduct (see Specification 6); and
- Resourcing plans for the initial implementation of, and ongoing maintenance for, this aspect of the criteria (number and description of personnel roles allocated to this area).

To be eligible for a score of 2, answers must include measures to promote Whois accuracy as well as measures from one other area as described below.

- Measures to promote Whois accuracy (can be undertaken by the registry directly or by registrars via requirements in the Registry-Registrar Agreement (RRA)) may include, but are not limited to:
  - Authentication of registrant information as complete and accurate at time of registration. Measures to accomplish this could include performing background checks, verifying all contact information of principals mentioned in registration data, reviewing proof of establishment documentation, and other means
  - Regular monitoring of registration data for accuracy and completeness, employing authentication methods, and establishing policies and procedures to address domain names with inaccurate or incomplete Whois data; and
  - If relying on registrars to enforce measures, establishing policies and procedures to ensure compliance, which may include audits, financial incentives, penalties, or other means. Note that the requirements of the RAA will continue to apply to all ICANN-accredited registrars.
- A description of policies and procedures that define malicious or abusive behavior, capture metrics, and establish Service Level Requirements for resolution, including service levels for responding to law enforcement requests. This may include rapid takedown or suspension systems and sharing information regarding malicious or abusive behavior with industry partners;
- Adequate controls to ensure proper access to domain functions (can be undertaken by the registry directly or by registrars via requirements in the Registry-Registrar Agreement (RRA)) may include, but are not limited to:
  - Requiring multi-factor authentication (i.e., strong passwords, tokens, one-time passwords) from registrants to process update, transfers, and deletion requests;
  - Requiring multiple, unique points of contact to request and/or approve update, transfer, and deletion requests; and
  - Requiring the notification of multiple, unique points of contact when a domain has been updated, transferred, or deleted.

A complete answer is expected to be no more than 20 pages.

### 28.1 Policy Matrix

Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. has chosen to adopt CoCCA's tested acceptable use-based policy matrix, recommendations for minimising harm in TLDs, and subject the .persiangulf TLD to the CoCCA Complaint Resolution Service ("CRS"). Any individual who has a concern regarding abuse involving a .persiangulf domain, glue record, or the CoCCA PCH or ISC's network services as they relate to .persiangulf needs to lodge a complaint via the CRS. CoCCA's policy regarding glue records is quite simple, Registrars cannot create or use a host if the super-ordinate domain does not exist. When a domain is purged from the SRS CoCCA automatically deletes any glue records. All other glue record related issues can be dealt with via the CRS.

The CoCCA Best practice policy matrix has been developed over a decade and has currently been adopted by 16 TLDs. It was developed for (and by) ccTLDs managers that desired to operate an efficient standards-based SRS system complemented by a policy environment that addressed a registrants use of a string as well as the more traditional gTLD emphasis rights to string.

A key element of CoCCA's policy matrix is that it provides for registry-level suspensions where there is evidence of AUP violations. The .persiangulf TLD will join other TLDs that utilize the CoCCA's single-desk CRS. The CRS provides a framework for the public, law enforcement, regulatory bodies and intellectual property owners to swiftly address concerns regarding the use of .persiangulf domains, and the CoCCA network. The AUP can be used to address concerns regarding a domain or any other resource record that appears in the .persiangulf zone.

The CRS procedure provides an effective alternative to the court system while allowing for Complaints against domains to be handled in a way treats each complaint in a fair and equal manor and allows for all affected parties to present evidence and arguments in a constructive forum.

In certain cases, it may be necessary for the CRS to trigger a Critical Issue Suspension, which suspends service of a domain, or removes a host record, when there is a compelling and demonstrable threat to the stability of the Internet, critical infrastructure or public safety. The intent of any CIS is to minimize any abuse that may occur in a timely manor. Any CIS may be appealed through the CoCCA ombudsman's Amicable Complaint Resolution service.

#### 28.1 Contractual Framework

Under the proposed framework Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. will bind registrants to a .persiangulf TLD Registrant Agreement ("RA"). This RA is a collateral agreement that supersedes any Registrar - Registrant agreement and binds all Registrants to the .persiangulf AUP, Privacy and WHOIS policy, CoCCA CRS and any other requirements or dispute mechanisms mandated by ICANN.

The draft .persiangulf AUP follows below in sections 28.4. The RA and WHOIS and Privacy Policy may be viewed at <http://coccaregistry.net/.persiangulf/policy>

#### 28.2 Minimizing Harm, Pro-active Measures

Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. will adopt the following five (5) key provisions of CoCCA's already field - tested policies and technology aimed at preventing and mitigating abuse.

##### 28.2.1 "Trust but Verify"

Applicants for .persiangulf registrations must confirm to the registry that they agree to be bound by the registrant agreement and confirm the accuracy of contact details lodged by the Registrar with the registry. Until the Registrant or Administrative contact confirm their contact details with the Registry directly, and view accept the Registrant Agreement .persiangulf domains are excluded from the zone. See Life-Cycle Policy.

Automated Activation processes are already in place for 12 TLD currently using the CoCCA SRS. The process involves direct registry - registrant communication using email details provided to the registry by the Registrar. An automated email is sent to the Registrant and Admin contact that contains a link. The recipient must click on the link where they are directed to a web page that 1) displays the contact information the Registrar provided, 2) displays the .persiangulf RA and AUP policy.

All responses (positive or negative) are lodged against the domains permanent history in the SRS and the time: date / IP address stored.

The process also allows the registry the opportunity to independently verify the accuracy of contact data supplied by the registrar, or at least that there is a functioning email - improving WHOIS accuracy. The SRS uses dynamically generated images as a challenge-response verification to prevent automated processes activating domains and to directly collect and store additional identifying information about individuals Activating a domain, which can be utilised to control fraud or investigate cyber crimes.

Although registrars are required to advise registrants of the TLD policies and conditions, with the prevalence of highly automated registration systems and expansive reseller networks it cannot be guaranteed that registrants have reviewed or agreed to the policy.

The registrant or administrative contact must confirm the accuracy of the WHOIS data on not only on Registration but also the anniversary of Registration and Renewal. On any change of Registrant or Transfer the new Registrant must also agree to the RA and AUP directly with the Registry before the changes to the contacts are committed in the registry.

These procedures and the underlying technology are in use now and undergoing constant refinement in response to Registrar and Registrant suggestions.

##### 28.2.2 Registrants' rights to a limited license

The .persiangulf RA and AUP limit a registrants' rights to a limited license to use but not to sub-license the use of any portion of the allocated SLD, subject to continuing compliance with all policies in place during that time. Registrants must warrant they will not assign the licence or sub-license any sub-domain without:

- (a) securing the sub-licensee's agreement to the RA, AUP and all other applicable policies; and
- (b) obtaining the registry's consent in writing.

Rationale: It has occurred that registrants have registered a second level domain in order to set up what amounts to a third level registry, effectively sub-licensing to third parties the use of portions of their

allocated second level domain. Most abuse seems to occur in lower level domains created by Registrants or third parties.

The .persiangulf TLD policy is recursive, however combating abusive activity in a TLD is complicated if the registry has no information as to the user of the subordinate domain or any way to suspend a single domain created by a registrant at a subordinate level.

#### 28.2.3 Fast flux mitigation

Fast flux mitigation - queue for manual intervention by SRS admins all DNS delegation modifications that exceed four (4) requests in any 28 day period or three (3) in a one week period.

Rationale: This minimizes a registrant's ability to frequently redelegate a domain, in order to overcome service limitations imposed by Internet service providers. Frequent redelegation may also assist a malicious user to obscure their identity. Limiting frequent redelegations enhances the effectiveness of service termination as a sanction by an Internet service provider.

#### 28.2.4 Anycast Resiliency

A denial of service attack from, say, a single ISP will usually only affect a single node. All other nodes in the world will not notice anything about the attack and the rest of the Internet will thus not notice it either. A local attack is therefore only affecting the local neighborhood. Distributed denial of service attacks usually affects a few nodes only, but because the attack is spread out between nodes, so is the amount of traffic flowing to each node. With 80+ nodes and two Anycast networks, the .persiangulf TLD is well protected against abuse targeting the .persiangulf DNS resolvers.

#### 28.2.5 High Risk Strings

Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. will require manual intervention by the registry operator before domains that contain various strings such as "bank", "secure", "PayPal" etc., go into the zone. A comprehensive list of high-risk strings

#### 28.2.6 Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. CERT Law Enforcement Collaboration

Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. will provide CERT, Law Enforcement and other interested parties direct read - only Access to the SRS on application for research and other activities related to identifying and mitigating abuse. The CoCCA already provides direct access to the Australian Government CERT.

The CoCCA SRS contains a variety of login types with various permissions, one such type is "Cert / Law Enforcement" which allows GUI - based query as well as EPP and Zone Access.

#### 28.3 COCCA Complaint Resolution Service

The Complaint Resolution Service ("CRS") provides a transparent, efficient and cost effective way for the public, law enforcement, regulatory bodies and intellectual property owners to have their concerns addressed regarding use of a TLD managers network or SRS services. The CRS provides a single framework in which cyber-crime, accessibility of prohibited Internet content and abuse of intellectual property rights are addressed. The framework relies on three tiers of review: immediate action to protect the public interest, amicable complaint resolution lead by an independent Ombudsman, and where applicable, adjudication by an Expert. The CRS provides an efficient and swift alternative to the Courts.

All complaints made against a domain to CoCCA are referred through the CRS protocol. When a complaint is filed, a CoCCA Complaints Officer (CCO) ensures that it meets the necessary criteria. If it does, notice is sent to involved parties and CRS Proceedings begin. If a Registrant responds to the complaint, it may be referred to an Ombudsman for Amicable Complaint Resolution (ACR). If ACR does not achieve acceptable resolution, binding arbitration by an Expert be requested by the Complainant.

In some cases, a Critical Issue Suspension (CIS) may become necessary. If a CIS has been determined to be necessary, the domain, or other resource record in a zone will be disabled until a resolution is found using the CRS protocol. A CIS is triggered in cases where there is a compelling and demonstrable threat to the stability of the Internet, critical infrastructure or public safety. A CIS does not terminate the license to a domain, and cannot be used to trigger the transfer a domain - it simply suspends resolution.

CRS Overview Diagram - cocca-crs1.pdf

#### 28.4 .PERSIANGULF Acceptable Use Policy

This Acceptable Use Policy ("AUP") sets out the actions prohibited to users of the Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. (AGITSys) ("applicant") network. "Users" are defined as anyone who uses or accesses the .PERSIANGULF domain SRS, who has responsibility for one or more host records in the .PERSIANGULF zone files generated from the .PERSIANGULF SRS, registrants of a .PERSIANGULF Top Level ("TLD") Domain name (".PERSIANGULF Domain name"), and/or users of hardware, name servers, bandwidth, telecommunications transport, zone files or e-mail routing services or of any other domain name resolution systems and services in the .PERSIANGULF SRS and zone. Exceptions for use will be made for sites that denigrate the Persian Language, Culture and History.

This AUP policy applies recursively to all Domain names (which end in the suffix .PERSIANGULF), including second-level .PERSIANGULF Domain names (such as (nic.PERSIANGULF) ) and sub second-level domains (such as (example.nic.PERSIANGULF) ) which are maintained in the authoritative .PERSIANGULF register (managed by AGITSys); and those that are created outside the AGITSys TLD register and resolve as a result of sub-delegation by a Registrant.

No reference in this document constitutes a license to sub-delegate or otherwise sub-license any right obtained under the .PERSIANGULF Registrant Agreement, this AUP or other applicable .PERSIANGULF TLD Policies.

This AUP is in addition to rules governing qualifications for registration. Use of a .PERSIANGULF Domain name or the AGITSys Network in a manner that contravenes this AUP, may result in the suspension or revocation of a registrant's right to use a .PERSIANGULF Domain name or to continue to be recognized as the registrant of a .PERSIANGULF Domain name. Suspension or revocation may apply to one or more .PERSIANGULF Domain names for which User is a registrant in addition to a particular .PERSIANGULF Domain name which may have given rise to a particular complaint.

AGITSys reserves the right to modify or update this AUP at any time and any such modifications or restatements shall be posted on AGITSys' website at <http://registry.PERSIANGULF/legal/aup.htm> from time to time. AGITSys will use reasonable commercial efforts to inform designated contacts in the event of changes to this AUP. Such efforts may include posting the revised AUP on AGITSys' website and/or sending email notice that this AUP has been modified or updated.

## INTRODUCTION

AGITSys supports the free flow of information and ideas over the Internet. AGITSys may discontinue, suspend, or modify the services provided to the registrant of an .PERSIANGULF Domain name (for example, through modification of .PERSIANGULF zone files), to address alleged violations of this AUP (described further below). AGITSys may determine in its sole discretion whether use of the AGITSys network or a .PERSIANGULF Domain name is prima facie violation of this AUP. AGITSys or affected parties may utilize the AGITSys AUP CRS and/or the courts in the jurisdiction and venue specified in the Registrant Agreement to resolve disputes over interpretation and implementation of this AUP, as described more fully in the AGITSys AUP CRS. Users of the AGITSys Network are obliged and required to ensure that their use of a .PERSIANGULF Domain name or the AGITSys Network is at all times lawful and in accordance with the requirements of this AUP and applicable laws and regulations of Turkey.

This AUP should be read in conjunction with the AGITSys Registrant Agreement, Complaint Resolution Policy, Privacy Policy, Acceptable Use Policy, and other applicable agreements, policies, laws and regulations. By way of example, and without limitation, the Registrant Agreement sets forth representations and warranties and other terms and conditions, breach of which may constitute non-compliance with this AUP.

## PROHIBITED USE

A "Prohibited use" of the AGITSys Network or a .PERSIANGULF Domain name is a use which is expressly prohibited by provisions of this AUP. The non-exhaustive list of restrictions pertaining to use of the AGITSys Network and .PERSIANGULF Domain names in relation to various purposes and activities are as follows. Registration of one or more .PERSIANGULF Domain names or access to services provided by AGITSys may be cancelled or suspended for any breach of, or non-compliance with this AUP:

## 1. COMPLIANCE WITH AGITSys AUP

1.1 The AGITSys Network and .PERSIANGULF Domain names must be used for lawful purposes and comply with this AUP. The creation, transmission, distribution, storage of, or linking to any material in violation of applicable law or regulation or this AUP is prohibited. This may include, but is not limited to, the following:

(1.1) Communication, publication or distribution of material (including through links or framing) that infringes upon the intellectual and/or industrial property rights of another person. Intellectual and/or industrial property rights include, but are not limited to: copyrights (including future copyright), design rights, patents, patent applications, trademarks, rights of personality, and trade secret information.

(1.2) Communication, publication or distribution of material (including through links or framing) that denigrates the Persian Language, Culture and History.

(1.3) Registration or use of a .PERSIANGULF Domain name in circumstances in which, in the sole discretion of the AGITSys:

(1.3.a) The .PERSIANGULF Domain name is identical or confusingly similar to a personal name, company, business or other legal or trading name as registered with the relevant Turkish agency, or a trade or service mark in which a third party complainant has uncontested rights, including without limitation in circumstances in which:

(1.3.a.i) The use deceives or confuses others in relation to goods or services for which a trade mark is registered in Turkey, or in respect of similar goods or closely related services, against the wishes of the registered proprietor of the trade mark; or

(1.3.a.ii) The use deceives or confuses others in relation to goods or services in respect of which an unregistered trade mark or service mark has become distinctive of the goods or services of a third party complainant, and in which the third party complainant has established a sufficient reputation in Turkey, against the wishes of the third party complainant; or

(1.3.a.iii) The use trades on or passes-off a .PERSIANGULF Domain name or a website or other content or services accessed through resolution of a .PERSIANGULF Domain as being the same as or endorsed, authorized, associated or affiliated with the established business, name or reputation of another; or

(1.3.a.iv) The use constitutes intentionally misleading or deceptive conduct in breach of AGITSys policy, or the laws of Turkey; or

(1.3.b) The .PERSIANGULF Domain name has been used in bad faith, including without limitation the following:

(1.3.b.i) The User has used the .PERSIANGULF Domain name primarily for the purpose of unlawfully disrupting the business or activities of another person; or

(1.3.b.ii) By using the .PERSIANGULF Domain name, the User has intentionally created a likelihood of confusion with respect to the third party complainant's intellectual or industrial property rights and the source, sponsorship, affiliation, or endorsement of website(s), email, or other online locations or services or of a product or service available on or through resolution of a .PERSIANGULF Domain name;

(1.3.b.iii) For the purpose of selling, renting or otherwise transferring the Domain name to an entity or to a commercial competitor of an entity, for valuable consideration in excess of a User's documented out-of-pocket costs directly associated with acquiring the Domain Name;

(1.3.b.iv) As a blocking registration against a name or mark in which a third party has superior intellectual or industrial property rights.

(1.4) A .PERSIANGULF Domain name registration which is part of a pattern of registrations where the User has registered domain names which correspond to well-known names or trademarks in which the User has no apparent rights, and the .PERSIANGULF Domain name is part of that pattern;

(1.5) The .PERSIANGULF Domain name was registered arising out of a relationship between two parties, and it was mutually agreed, as evidenced in writing, that the Registrant would be an entity other than that currently in the register.

(1.6) Unlawful communication, publication or distribution of registered and unregistered know-how, confidential information and trade secrets.

(1.7) Publication or distribution of content which, in the opinion of the AGITSys:

(1.7.a) is capable of disruption of systems in use by other Internet users or service providers (e.g. viruses or malware);

(1.7.b) seeks or apparently seeks authentication or login details used by operators of other Internet sites (e.g. phishing); or

(1.7.c) may mislead or deceive visitors to the site that the site has an affiliation with the operator of another Internet site (e.g. phishing).

(1.8) Communication, publication or distribution, either directly or by way of embedded links, of images or materials (including, but not limited to pornographic material and images or materials that a reasonable person as a member of the community of Turkey would consider to be obscene or indecent) where such communication, publication or distribution is prohibited by or constitutes an offence under the laws of Turkey, whether incorporated directly into or linked from a web site, email, posting to a news group, internet forum, instant messaging notice which makes use of domain name resolution services in the .PERSIANGULF TLD.

Material that a reasonable member of the community of Turkey would consider pornographic, indecent, and/or obscene or which is otherwise prohibited includes, by way of example and without limitation, real or manipulated

images depicting child pornography, bestiality, excessively violent or sexually violent material, sexual activity, and material containing detailed instructions regarding how to commit a crime, an act of violence, or how to prepare and/or use illegal drugs

(1.9) Communication, publication or distribution of defamatory material or material that constitutes racial vilification.

(1.10) Communication, publication or distribution of material that constitutes an illegal threat or encourages conduct that may constitute a criminal offence.

(1.11) Communication, publication or distribution of material that is in contempt of the orders of a court or another authoritative government actor within Turkey.

(1.12) Use, communication, publication or distribution of software, technical information or other data that violates Turkey's export control laws.

(1.13) Use, communication, publication or distribution of confidential or personal information or data including confidential or personal information about persons that collected without their knowledge or consent.

## 2. ELECTRONIC MAIL

2.1 AGITSys expressly prohibits Users of the AGITSys Network from engaging in the following activities:

(1.1) Communicating, transmitting or sending unsolicited bulk e-mail messages or other electronic communications ("junk mail" or "Spam") of any kind including, but not limited to, unsolicited commercial advertising, informational announcements, and political or religious tracts. Such messages or material may be sent only to those who have expressly requested it. If a recipient asks a User to stop sending such e-mails, then any further e-mail messages or other electronic communications would in such event constitute Spam and violate the provisions and requirements of this AUP.

(1.2) Communicating, transmitting or sending any material by e-mail or otherwise that harasses, or has the effect of harassing, another person or that threatens or encourages bodily harm or destruction of property including, but not limited to, malicious e-mail and flooding a User, site, or server with very large or numerous pieces of e-mail or illegitimate service requests.

(1.3) Communicating, transmitting, sending, creating, or forwarding fraudulent offers to sell or buy products, unsolicited offers of employment, messages about "Make-Money Fast", "Pyramid" or "Ponzi" type schemes or similar schemes, and "chain letters" whether or not the recipient wishes to receive such messages.

(1.4) Adding, removing, modifying or forging AGITSys Network or other network header information with the effect of misleading or deceiving another person or attempting to impersonate another person by using forged headers or other identifying information ("Spoofing").

(1.5) Causing or permitting the advertisement of a .PERSIANGULF Domain name in an unsolicited email communication.

## 3. DISRUPTION OF AGITSys NETWORK

3.1 No-one may use the AGITSys Network or a .PERSIANGULF Domain name for the purpose of:

(1.1) Restricting or inhibiting any person in their use or enjoyment of the AGITSys Network or a .PERSIANGULF Domain name or any service or product of AGITSys.

(1.2) Actually or purportedly reselling AGITSys services and products without the prior written consent of AGITSys.

(1.3) Transmitting any communications or activity, which may involve deceptive marketing practices such as the fraudulent offering of products, items, or services to any other party.

(1.4) Providing false or misleading information to AGITSys or to any other party through the AGITSys Network.

(1.5) Facilitating or aiding the transmission of confidential information, private, or stolen data such as credit card information (without the owner's or cardholder's consent).

## 4. NETWORK INTEGRITY AND SECURITY

4.1 Users are prohibited from circumventing or attempting to circumvent the security of any host, network or accounts ("Cracking" or "hacking") on, related to, or accessed through the AGITSys Network. This includes, but is not limited to:

(1.1) accessing data not intended for such user;

(1.2) logging into a server or account which such user is not expressly authorized to access;

(1.3) using, attempting to use, or attempting to ascertain a username or password without the express written consent of the operator of the service in relation to which the username or password is intended to function;

(1.4) probing the security of other networks;

(1.5) executing any form of network monitoring which is likely to intercept data not intended for such user.

4.2 Users are prohibited from effecting any network security breach or disruption of any Internet communications including, but not limited to:

(2.1) accessing data of which such User is not an intended recipient; or

(2.2) logging onto a server or account, which such User is not expressly authorized to access.

For the purposes of this section 4.2, "disruption" includes, but is not limited to:

port scans, TCP/UDP floods, packet spoofing;

forged routing information;

deliberate attempts to overload or disrupt a service or host;

using the AGITSys Network in connection with the use of any program, script, command, or sending messages with the intention or likelihood of interfering with another user's terminal session by any means, locally or by the Internet.

4.3 Users who compromise or disrupt AGITSys Network systems or security may incur criminal or civil liability. AGITSys will investigate any such incidents and will cooperate with law enforcement agencies if a crime is suspected to have taken place.

## 5. NON-EXCLUSIVE, NON-EXHAUSTIVE

This AUP is intended to provide guidance as to what constitutes acceptable use of the AGITSys Network and of .PERSIANGULF Domain names. However, the AUP is neither exhaustive nor exclusive.

## 6. COMPLAINTS

Persons who wish to notify AGITSys of abusive conduct in violation of this AUP may report the same pursuant to the AGITSys Acceptable Use Policy Enforcement Procedure, which is instituted by submitting to AGITSys a completed AGITSys Acceptable Use Policy Violation Complaint Form.

## 7. ENFORCEMENT

AGITSys may, in its sole discretion, suspend or terminate a User's service for violation of any of the requirements or provisions of the AUP on receipt of a complaint if AGITSys believes:

(1.1.a) a violation of the AUP has or may have occurred; or

(1.1.b) suspension and/or termination may be in the public interest.

AGITSys may delegate its right to take any action to an Internet security agency or may act upon any report from an Internet security agency without prior notification to the User.

If AGITSys elects not to take immediate action, AGITSys may require Registrants and a complainant to utilise the

AUP Complaint Resolution Service and Policy to ensure compliance with this AUP and remedy any violation or suspected violation within a reasonable time prior to suspension or terminating service.

#### 8. LIMITATION OF LIABILITY

In no event shall AGITSys be liable to any User of the AGITSys Network, any customer, nor any third party for any direct, indirect, special or consequential damages for actions taken pursuant to this AUP, including, but not limited to, any lost profits, business interruption, loss of programs or other data, or otherwise, even if AGITSys was advised of the possibility of such damages. AGITSys' liability for any breach of a condition or warranty implied by the Registrant Agreement or this AUP shall be limited to the maximum extent possible to one of the following (as AGITSys may determine):

- (i) supplying the services again; or
- (ii) paying the cost of having the services supplied again.

#### 9. REMOVAL OF CONTENT RESPONSIBILITY

At its sole discretion, AGITSys reserves the right to:

- (i) Remove or alter content, zone file data or other material from its servers provided by any person that violates the provisions or requirements of this AUP;
- (ii) re-delegate, redirect or otherwise divert traffic intended for any service;
- (iii) notify operators of Internet security monitoring, virus scanning services and/or law enforcement authorities of any apparent breach of this AUP or .PERSIANGULF TLD Policies; and/or
- (iv) terminate access to the AGITSys Network by any person that AGITSys determines has violated the provisions or requirements of this AUP.

In any regard, AGITSys is not responsible for the content or message of any newsgroup posting, e-mail message, or web site regardless of whether access to such content or message was facilitated by the AGITSys Network. AGITSys does not have any duty to take any action with respect to such content or message by creating this AUP, and Users of the AGITSys Network are obliged and required to ensure that their use of a .PERSIANGULF Domain name or the AGITSys Network is at all times in accordance with the requirements of this AUP and any applicable laws and/or regulation.

### 28.5 CoCCA CRS - Policies and Procedures

#### 1. Statement of Purpose

1.1. This Complaint Resolution Service ("CRS") provides a transparent, efficient and cost effective way for the public, law enforcement, regulatory bodies and intellectual property owners to have their concerns addressed regarding use of a TLD Managers network or services.

1.2. The Service provides a single framework in which cyber-crime, accessibility of prohibited Internet content via a member's network or services and abuse of intellectual property rights are addressed. The framework relies on three tiers of review: immediate action to protect the public interest, amicable complaint resolution lead by an independent Ombudsman, and where applicable, adjudication by an Expert. The CRS provides an efficient and swift alternative to the Courts.

This document should be read in conjunction with the Acceptable Use Policy ("AUP") applicable to the domain / TLD you are considering lodging a complaint against. If after having reviewed the applicable AUP Policy it is determined a violation has occurred, a complaint may be lodged by completing the CoCCA CRS Complaint form.

NOTE: IF YOU DO NOT LODGE THE SIGNED COMPLAINT FORM THAT FOLLOWS BELLOW ON PAGES 8- 13 OF THIS DOCUMENT, YOUR COMPLAINT WILL NOT BE REVIEWED.

Complaints will be reviewed in accordance with the following Steps:

#### Step One | Confirmation / Communication

A CoCCA Complaints Officer ("CCO") will review all formally lodged complaints for compliance with the CRS and the applicable AUP. If the CCO considers that the Complaint does not address the matter covered by the AUP, or is unsigned or otherwise violates this Procedure, the Complainant will be promptly notified of the deficiencies identified.

The Complainant shall have five (5) Days from the receipt of notification within which to correct the deficiencies and return the Complaint, failing which the CCO will deem the Complaint to be withdrawn. This will not prevent the Complainant from submitting a different Complaint.

On receipt of the Complaint the CCO will lock domain and associated records until a period of ten (10) Days after the COO and Parties are notified of a Decision by the Ombudsman or and Expert, at which time the domain name may be unlocked.

#### Step Two | Immediate Review of Request for Suspension in the Public Interest

On receipt of a properly lodged Complaint, the CCO will initiate a review. When specifically requested by the Complainant the CCO may initiate a Critical Issue Suspension ("CIS").

A request for a CIS may be granted in cases where there is a compelling and demonstrable threat to the stability of the Internet, critical infrastructure or public safety. A "critical issue suspension" does not terminate the registrant's rights or their domain license; it simply modifies the NS records in the zone temporarily disabling resolution. All suspensions under the CRS, including a CIS, may be appealed to the Ombudsman's office for amicable resolution, an Expert Panelist for binding arbitration or a court of competent jurisdiction.

Where the CCO has triggered a CIS, notice will be sent to the Registrant, Administrative Contact, Registrar and Ombudsman within 24 hours of triggering the CIS.

#### Step Three | Formal Notification

The CCO will send a copy of the Complaint to the Respondent (normally the Registrant and/or Administrative Contact) and the TLD Sponsors designated contact with an explanatory note within 5 days by:

- a) Sending the Complaint by post, fax or e-mail to the Respondent at the contact details shown as the Registrant or any other contacts in the TLD Register for the Domain Name that is the subject of the Complaint.
- b) The CCO may also, at their discretion send the complaint to any addresses provided to the CCO by the Complainant so far as this is practicable.
- c) Except as set forth otherwise, all written communication to a Party or a party's representative under the Policy or this Procedure shall be made by fax, post or e-mail.
- d) Communication shall be made in English, E-mail communications (other than attachments) should be sent in plain text or PDF format so far as this is practicable.

During the course of the proceedings under the CRS, if either Party wishes to change its contact details it must notify the CCO of all changes. However, no change shall be made in the Registrant Information for the Domain Name without mutual agreement of the parties or unless a settlement is reached. Except as otherwise provided in this Procedure or as otherwise decided by the CCO or if appointed, the Expert, all communications provided for under this procedure shall be deemed to have been received:

- a) if sent by courier, when signed for by the recipient;
- b) if sent via the Internet, on the date that the communication was transmitted

Unless otherwise provided in this Procedure, the time periods provided for under the Policy and this Procedure shall be calculated based on the time zone of the CCO.

Any communication between:

- a) the CCO and any Party shall be copied by the CCO to the other Party and if appointed, the Ombudsman or Expert;
- b) a Party to another Party shall be copied by the sender to the CCO. The CCO will copy such correspondence to the Ombudsman or Expert, if appointed.

#### Commencement of Complaint Resolution Service proceedings

The CCO will promptly notify the Parties by email of the date of the Commencement of Complaint Resolution Service proceedings. The date and time of transmission of such email in the time zone of the CCO according to the email header generated by the CCO's transmitting emails system will be the date of Commencement of CRS proceedings.

#### The Response

Within fifteen (15) Days of the date of Commencement of Complaint Resolution Service proceedings, the Respondent may submit a Response.

The Respondent must send the Response to the CCO signed in electronic form at the addresses set out in the explanatory coversheet. In determining whether a Response was submitted in a timely manner, the date and time of receipt (as determined by the CCO's receiving email server) shall be considered by the CCO as the date and time of submission, provided that such email i) contains a scanned copy of documents which include signatures, ii) contains all attachments, iii) is of a form and format which may be opened by the CCO. The Response



shall:

- a) include any grounds that the Respondent wishes to rely upon to rebut the Complainant's assertions;
- b) specify whether the Respondent wishes to be contacted directly or through an authorized representative, and set out the e-mail address, telephone number, fax number, and postal address which should be used in communications with the Respondent;
- c) disclose to the CCO whether any legal proceedings have been commenced or terminated in connection with the Domain Name(s) which is the subject of the Complaint;
- d) conclude with the following statement followed by the signature of the Respondent or its authorized representative:

"The information contained in the response is to the best of the respondent's knowledge true and complete and the matters stated in this response comply with the Policy and Procedure and applicable law."

Within (3) Days following the receipt of a signed copy of the Response, the CCO will forward the Response to the Complainant. If the Respondent does not submit a Response, the Domain will be suspended 15 days after the CRS proceedings commence.

Reply by the Complainant

Within five (5) Days of receiving the Respondent's Response from the CCO, the Complainant may submit a Reply to the Respondent's Response, which shall not exceed 2000 words (not including annexes). The Reply should be confined to answering any new points raised in the Response not previously dealt with in the Complaint.

Step Four | Amicable Complaint Resolution | Ombudsman

No Amicable Complaint Resolution ("ACR") will occur if the Respondent does not file a Response. Within three (3) Days of the receipt of the Complainant's Reply (or the expiry of the deadline to do so), the CCO will arrange with the Ombudsman's office for Amicable Complaint Resolution to be conducted. ACR will be conducted in a manner that the Ombudsman, at his or her sole discretion, considers appropriate.

Negotiations conducted between the Parties during ACR (including any information obtained from or in connection to negotiations) shall be confidential as between the Parties. Any such information will not be shown to an Expert, should one latter be appointed. Neither the Ombudsman nor any Party may reveal details of such negotiations to any third parties unless a decision-making body of competent jurisdiction orders disclosure. Neither Party shall use any information gained during mediation for any ulterior or collateral purpose or include it in any submission likely to be seen by any court or decision-making body of competent jurisdiction or an arbitral tribunal of competent jurisdiction in this Complaint or any later Complaint or litigation.

If the Parties reach a settlement during the ACR, then the existence, nature and terms of the settlement shall be confidential as between the Parties unless the Parties specifically agree otherwise, a court or decision-making body of competent jurisdiction orders otherwise, or applicable laws or regulations require it.

No binding verbal agreements can be reached as part of the ACR: any settlement reached by the Parties must be in writing to be enforceable.

If the Parties did not achieve an acceptable resolution through ACR within ten (10) Days, the Ombudsman will send notice to the Parties that the Complainant has the option to request appointment of an Expert. The Complainant will have ten (10) Days upon receipt of the notice from the Ombudsman to pay the applicable fees to CoCCA if he or she wants to move forward with binding arbitration by an Expert.

Step Five | Appointment of the Expert and Timing of Decision (Optional)

If the Ombudsman does not receive the Complainant's request to refer the matter to an Expert together with the applicable fees within ten (10) Days, the Complaint will be deemed to have been withdrawn. This will not prevent the Complainant submitting a different Complaint.

Within five (5) Days of the receipt of the applicable fees from the Complainant, the Ombudsman will appoint an Expert on a rotational basis from a list of Experts. An Expert may only be a person named in

the CoCCA list of Experts, which the Ombudsman will maintain and publish along with the Experts' qualifications. No Expert's appointment will be challenged on the grounds that they are insufficiently qualified. Once the Expert has been appointed, the Parties will be notified of the name of the Expert appointed and the date by which the Expert will forward, except in the case of exceptional circumstances, his or her decision to the CCO and copy the Ombudsman.

The Expert shall be both impartial and independent before accepting the appointment. During the proceedings the Expert will disclose to the Ombudsman any circumstances giving rise to the justifiable doubt as to their impartiality or independence. The Ombudsman will have the discretion to appoint a substitute Expert if necessary, in which case the timetable will be adjusted accordingly.

In addition to the Complaint, and if applicable the Response, the Reply, any appeal notice and appeal notice response, the Expert may request further statements or documents from the Parties. However, the Expert will not be obliged to consider any statements or documents from the Parties which he or she has not received according to the Policy or this Procedure or which he or she has not requested. The Expert may request a further statement that will be limited to a defined topic but will not be obliged to consider any material beyond that requested.

#### Step Six | Expert Decision

The Expert will decide a Complaint on the basis of the Policy, the Procedure and the submissions made by the Party. If, in the absence of exceptional circumstances, a Party does not comply with any provision in the Policy, Procedure or any request by the Ombudsman or the Expert, the Expert may draw such inferences from the Party's non-compliance, as he or she deems appropriate.

Unless exceptional circumstances apply, an Expert shall forward his or her Decision to the Ombudsman within ten (10) Days of his or her appointment. The Decision shall be in writing and signed by the Expert. It will provide the reasons on which the decision is based, indicate the date on which it was made, the place the Decision was made and identify the name of the Expert.

Within three (3) Days of the receipt of a Decision from the Expert, the Ombudsman will communicate the full text of the Decision to each Party via email with the date for the implementation of the Decision in accordance with the Policy.

#### Effect of Court Proceedings

If, before or during the course of proceedings under the Complaint Resolution Service, the Ombudsman is made aware that legal proceedings have begun in or before an applicable court or decision-making body of competent jurisdiction or an arbitral tribunal of competent jurisdiction, and that such legal proceedings relate to a Domain Name which is the subject of a Complaint, he or she will suspend the Complaint Resolution Service proceedings pending the outcome of the legal proceedings.

A Party must promptly notify the Ombudsman if it initiates or becomes aware of legal proceedings in a court or decision-making body of competent jurisdiction, or arbitral tribunal of competent jurisdiction relating to a Domain Name that is the subject of a Complaint under the proceedings of the Complaint Resolution Service.

Either party may request, before or during the Complaint Resolution Service Proceedings, an interim measure of protection from a court.

#### Expert Fees

The applicable fees in respect of the referral of proceedings under the Complaint Resolution Service to an Expert are (in United States Dollars), for Complaints involving 1-5 Domain Names and only one Complainant, \$2500 plus applicable taxes, such as goods and services taxes ("GST"). For Complaints involving 6 or more Domain Names, and/or more than one Complainant, the Ombudsman will set a fee in consultation with the Complainant. Fees are calculated on a cost-recovery basis, and are passed on in their entirety to the Expert(s). CoCCA does not charge for its mediation or administration services in respect of the Complaint Resolution Service.

#### Exclusion of Liability

Neither CoCCA nor its councilors, officers, members, employees or

servants nor any Expert, Mediator or any employee of any Expert or Mediator shall be liable to a Party for anything done or omitted, whether negligently or otherwise, in connection with any proceedings under the Complaint Resolution Service unless the act or omission is shown to have been in bad faith.

29. Rights Protection Mechanisms: Applicants must describe how their registry will comply with policies and practices that minimize abusive registrations and other activities that affect the legal rights of others, such as the Uniform Domain Name Dispute Resolution Policy (UDRP), Uniform Rapid Suspension (URS) system, and Trademark Claims and Sunrise services at startup.

A complete answer should include:

- A description of how the registry operator will implement safeguards against allowing unqualified registrations (e.g., registrations made in violation of the registry's eligibility restrictions or policies), and reduce opportunities for behaviors such as phishing or pharming. At a minimum, the registry operator must offer a Sunrise period and a Trademark Claims service during the required time periods, and implement decisions rendered under the URS on an ongoing basis; and
- A description of resourcing plans for the initial implementation of, and ongoing maintenance for, this aspect of the criteria (number and description of personnel roles allocated to this area).

>To be eligible for a score of 2, answers must also include additional measures specific to rights protection, such as abusive use policies, takedown procedures, registrant pre-verification, or authentication procedures, or other covenants.

A complete answer is expected to be no more than 10 pages.

Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. is fully aware of the importance of protecting the rights of others in the .persiangulf gTLD and has made rights protections a core objective. The .persiangulf TLD Rights Protection is something CoCCA has prioritized by necessity throughout its nine-year history. CoCCA currently complies with UDRP proceedings and will comply with URS proceedings as well with methods for handling Sunrise and Trademark Claims outlined below and guided by Specification requirements of the proposed Registry Agreement.

CoCCA also offers a wide range of services including, a wildcard registration program to block variants of a domain for Trademark holders as well as an "Alert" service that any interested party can subscribe to, alerting them if a specific string is registered in any CoCCA TLD. CoCCA recognizes that ICANN has not completed the Trademark Clearing House (TMCH) program. While CoCCA cannot fully describe the details of implementation for this application based on incomplete work, CoCCA intends to comply and/or exceed the final ICANN program.

In particular, CoCCA offers the following procedures to help protect the rights of trademark owners:

Sunrise Services  
 Trademark Claims Service  
 Name Selection Policy  
 Acceptable Use Policy  
 Unqualified Registration Safeguards  
 Wildcard Registrations / Alert services  
 Clearinghouse of Intellectual Property API  
 Thick WHOIS  
 RPM Compliance auditing of Registrars  
 UDRP, URS, PDDRP and RRDRP and CRS  
 Limited License  
 Rapid Takedown & Suspension  
 Malware Mitigation  
 Fast Flux Mitigation  
 Phishing Mitigation  
 DNSSEC Deployment  
 Law Enforcement and Anti-Abuse Community Collaboration  
 29.1 Registration Abuse Prevention Mechanisms - Pre Launch  
 To support Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti.'s objectives, CoCCA will implement specific measures in compliance with ICANN's Applicant Guide Book. At a minimum, ICANN states that Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. must offer sunrise registration for a period of thirty days during pre-launch in conjunction with the Trademark Clearing House.

CoCCA's RPM framework contains several levels of safeguards to deter unqualified registration and other malicious behaviors during pre-launch. This not only exceeds requirements, but also provides customers of the TLD predictably in service offerings and protections.

#### 29.1.1 Sunrise & Land-rush

To meet the ICANN requirement of a 30-day Sunrise process for those with verifiable trademark rights or owners of exact matching strings in other TLDs, CoCCA shall implement for Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. a Sunrise period for domain registrations. The validations of domains names that are an identical match will occur via the Trademark Clearinghouse via notice by Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. or Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti.' approved Registrar.

During the Sunrise, Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. will be responsible for determining eligibility of the registration and it will require the Registrant to affirm that they meet Sunrise Eligibility Requirements (SERs) and incorporate a Sunrise Dispute Resolution Policy (SDRP).

The Sunrise will be followed by a 30 day Registration Land-rush for members of the community/business owners/residents/etc. The process will end in General Availability or Open Registration. Eligible Trademark holders may continue to register marks on an ongoing basis.

#### 29.1.2 Trademark Claims Service

Per ICANN's Applicant Guide Book, Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. is required to provide a Trademark Claims service during pre-launch phases and for at least 60 days from the date of open registration. During the Trademark Claims period, Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. or the Registrar will provide notice to the prospective registrants where an identical match is identified in the Trademark Clearinghouse. The notice will include warranties that the prospective Registrant must understand and adhere that the domain will not infringe on the rights of the respective Trademark holder. A notice will also be sent

to the designated Trademark holder of marks where an identical match has been identified.

#### 29.1.3 Name Selection Policy

The .persiangulf TLD will enforce a name selection policy that ensures that all names registered in the gTLD will be in compliance with ICANN mandated technical standards. These include restrictions on 2 character names, tagged names, and reserved names for Registry Operations. All names must also be in compliance with all applicable RFCs governing the composition of domain names. Registrations of Country, Geographical and Territory Names will only be allowed in compliance with the restrictions as outlined in the answer to Question 22.

Additionally, Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. requires that domain names within the .persiangulf TLD should consist of proper characters unique within top-level domain, followed by the characters 'persiangulf'. Domain names should meet the following technical requirements; They shall:

- contain no more than 63 characters;
- begin and end with a letter or a digit;
- contain no characters different from letters, figures and a hyphen (allowable characters are the letters of the Roman alphabet; capital and lowercase letters do not differ);
- contain no hyphens simultaneously in the third and fourth positions.

#### Acceptable Use Policy

Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. has developed an Acceptable Use Policy (AUP) that is referenced in the answer to Question 28. This AUP clearly defines what type of behavior is expressly prohibited in conjunction with the use of a .persiangulf domain name. Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. will require, through both the Registry Registrar Agreement (RRA), and a Registry Registrant Agreement (RA) that this AUP be accepted by a registrant prior to Activation of a domain in the .persiangulf TLD. See Life-Cycle and

#### 29.2 Rights Protection Mechanisms - Post Launch

CoCCA offers a suite of post-launch Rights Protection Mechanisms. Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti., supported by CoCCA services, will promote the security and stability of the TLD with the following:

- Unqualified Registration Safeguards
- Wildcard Registration / Alert services
- Clearinghouse of Intellectual Property API
- Thick WHOIS
- RPM Compliance auditing of Registrars
- UDRP, URS, PDDRP and RRDRP
- Limited License
- Rapid Takedown & Suspension
- Malware Mitigation
- Fast Flux Mitigation
- Phishing Mitigation
- DNSSEC Deployment

Law Enforcement and Anti-Abuse Community Collaboration

#### 29.2.1 Unqualified Registration Safeguards

Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. plans to adopt the CoCCA Acceptable Use Policy (AUP) and Complaint Resolution Service Policy (CRS) as part of the operation of the .persiangulf gTLD. See 28.X

The CoCCA model differs from the "classic" gTLD shared registry system in that Registrants are bound by a collateral agreement between themselves and the TLD Operator. This collateral agreement binds them to the TLD AUP policy, WHOIS policy and Complaint Resolution Service.

Although registrars are required to advise registrants of the TLD policies and conditions, with the prevalence of highly automated registration systems and expansive reseller networks it cannot be guaranteed that registrants have reviewed or agreed to the policy. An email reiterating these policies will be sent to each registrant to ensure that new applicants are made aware of and confirm their agreement to these policies.

The same process therefore allows the registry the opportunity to verify the accuracy of customer data supplied by the registrar, use dynamically generated images as a challenge-response verification to prevent automated processes activating domains and to directly collect and store additional identifying information about registrants, which can be utilized to control fraud.

#### 29.2.2 Wildcard Defensive Registrations

CoCCA currently supports a Wildcard option, which will extend to all new gTLDs in which a brand owner/ trademark holder may register a Primary domain and then can upload evidence of the trademark or other rights via PDF in the GUI.

The Registrant may then they apply online to request a \*.name or other wildcard block using java regular expressions for that text string. CoCCA will manually review the request for approval, collisions with other strings etc. If approval is granted, any attempt to register any domain that triggers that string returns "not available for policy reasons" via EPP or GUI.

The domain must be kept current and up to date in order for the Wildcard Registration to be active if the Primary registration lapses, or is subject to a dispute or UDRP ruling and is transferred the Wildcard is removed.

#### 29.2.3 Alert

Subscribers to the Premium WHOIS service may request email alerts if a domain matching a given string, or containing a specified string, is Registered.

#### 29.2.3 Clearing House for Intellectual Property (CHIP)

CHIP is a new technology that is designed to allow trademark owners to efficiently and effectively safeguard and enforce their rights on the Internet, and in particular in the domain name space. CoCCA and IP Clearinghouse, the company that operates CHIP, have collaborated in the past to allow trademark owners to retroactively (or proactively) associate trademark information with specific domain names. This technology is available but may or may not be used depending on the outcome of developments in with gTLD clearinghouse.

#### 29.2.4 Thick WHOIS

CoCCA will provide Thick WHOIS to enhance accessibility and stability and reduce malicious behavior thereby promoting increased rights protection mechanisms and investigations where applicable. All WHOIS services meet Specification 4 of the Registry Agreement in support of Thick WHOIS. The agreement between Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. and its Registrars specifies that Registrant information should be complete

and accurate and instances where incomplete information occurs will be investigated to prevent reoccurrence. Given the current state nature of WHOIS, CoCCA intends to adapt to new formats and protocols as they go into effect.

#### 29.2.5 Registrar Relationship

Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. views the protection of legal rights of a user's domain name and that of trademark owners as a strategic imperative to operating a successful TLD. Therefore, ICANN accredited Registrars will only be used and be bound to the registry-registrar agreement. Certain components of the RPM framework will be administered on behalf of Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti.. To ensure compliance with designated RPMs, CoCCA will conduct annual reviews and enforce non-compliance where necessary. In cases where Registrars fail to meet Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti.' standards, the Registrar will lose its certification to register domains of the TLD until all issues are resolved.

#### 29.2.6 Uniform Dispute Resolution Policy (UDRP)

The UDRP is a proven rights protection mechanism whereby complainants can object to a domain registration via a UDRP provider. The Registrant in question has the opportunity to respond to the complaint and defend its registration and use as good faith. The UDRP provider and assigned panel provide a decision based on the information submitted by both the complainant and the respondent. Where the complainant is successful in proving a bad faith registration ownership of the domain will be transferred accordingly and in line with ICANN policy. Conversely, where the complainant is unable to prove bad faith, the domain registration will remain with the assigned Registrant. Registrars of Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti.' must implement and respond to UDRP policy where applicable. Penalties will apply where Registrars are found to be in breach.

#### 29.2.7 Uniform Rapid Suspension (URS)

CoCCA is required to implement the Uniform Rapid Suspension (URS) per the Applicant Guidebook. If an infringement is discovered, the complainant may file an objection with a URS provider. The URS provider will investigate compliance via an administrative review. Upon a successful review, the URS provider will notify Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. to place the domain in question in lock status within NEED A TIMEFRAME, meaning that no changes to registration data will occur, but the domain continues to resolve. Upon lock of the domain, the Registrant will be notified and have an opportunity to respond. If the complainant proves the domain is used in an abusive manner, the domain name will be suspended for the remainder of the registration period and will resolve to an informational site provided by the URS provider. The complainant will have the opportunity to extend the registration for one additional year. Conversely, if the evidence does not result in a successful determination of abuse, the URS Provider will contact CoCCA and controls of the registered domain will be returned to the Registrant.

#### 29.2.8 Post-Delegation Dispute Resolution Procedure (PDDRP)

Per the Applicant Guidebook, CoCCA is required to implement the Post-Delegation Dispute Resolution Procedure (PDDRP) that allows a complainant the right to object to Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti.' manner of operation or use of the gTLD. A PDDRP provider will accept objections and perform a threshold review. CoCCA will respond to the complaint as necessary to defend the operation and use Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti.' .persiangulf gTLD.

#### 29.2.9 Registration Restriction Dispute Resolution Procedure (RRDRP)

The Registration Restrictions Dispute Resolution Procedure (RRDRP) outlines the resolution proceedings whereby the Complainant determines that Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. has failed to comply with its defined registration restrictions. The parties to the dispute will be the gTLD registry operator and the harmed established institution where proper standing has been reviewed and confirmed. A successful complaint proves that the complainant is a defined community and that a strong association exists between it and the gTLD string. Further proof must be submitted that Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. violated its community-based restrictions and that measurable harm occurred. Upon administrative review of the complaint, Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. will file a response within 10 days of the filing.

If the complainant is determined to be the prevailing party, Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. will pay all Panel and Provider fees incurred, including filing fees. If Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. is found to have violated its registration restrictions, Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. will implement all remedial measures outlined by the Expert Panel, including cases where registration suspension may occur. Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. recognizes that this procedure does not preclude entities seeking remedies in courts of laws.

#### 29.2.10 Limited License

Limited License- Registration policies and terms and conditions limit registrants' rights to a limited license to use (but not to sub-license the use of any portion of) the allocated TLD, subject to continuing compliance with all policies in place during that time.

#### 29.2.11 Rapid Takedown & Suspension

CoCCA, at Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti.' request, will comply with any takedown or suspension. Usually, these types of requests are based on court orders of competent jurisdiction, but not limited to such. Before any domain take down, CoCCA maintains an internal checklist that will be followed to ensure validation of the request. If for any reason the validation procedure fails, the CoCCA Ombudsman will be notified. Upon confirmation that the registered domain is to be suspended or removed from the zone, CoCCA will execute its auditable procedure documenting the incident number, date, time, domain name, threat level, description and reason for the take down, and any other evidence that may be necessary to properly document the take down. The Ombudsman, Registrar, and Registrant will be notified before and at the time of take down execution.

#### 29.2.13 Malware Mitigation

Where commercially sensible, or a risk factor has been identified, CoCCA will perform automated and regular scanning for malware of all domains (or a subset of domains) in the registry. Often, Registrants are unaware and compromised by malware deployments. Scanning for malware reduces occurrences for this type of abusive behavior for registered domain names in the TLD.

#### 29.2.14 Phishing Mitigation

CoCCA will establish and act upon the results of a regular poll against one or more trusted databases for phishing sites operating (in second level or subordinate domains) within the TLD. Phishing activity most often occurs through a subordinate domain, rather than a directly registered second level domain. For this reason the registry should query for any wild-card occurrence of a domain that has been flagged as a phishing site or one that contains malware.

#### 29.2.15 DNSSEC Deployment

As part of Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti.' mission to maintain a highly secure and

stable TLD, CoCCA will implement DNSSEC as part of its backend registry services. DNSSEC helps mitigate, for example, pharming attacks that use cache poisoning to redirect unsuspecting users to fraudulent websites or addresses. DNSSEC protects the DNS system from abuse threats in the following aspects:

Security of Domain Resolution - DNSKEY/RRSIG provide authentication and integrity verification to ensure data will be compromised during transmission. The CoCCA credit name server trust anchor is signed by the public key and then delivered to the Interim Trust Anchor Repository (ITAR) for TLD verification. NSEC resource records will also be used to verify negative response messages of queried resource records to ensure deletion does not occur during transmission.

Security of Zone File Distribution - TSIG allows communication among authentication servers to ensure that it is the correct server and that data is not compromised during transmission.

#### 29.2.16 Law Enforcement and Anti-Abuse Community Collaboration

CoCCA does and will continue to cooperate closely with anti-abuse communities, experts, and law enforcement in the mitigation and prevention of abuse behavior. Not only will best practice be shared, but also collaboration on the latest issues will remain a priority. In addition to collaboration instances may take the form of early notification by security agency of malicious content. Another form of cooperation may be the provision of user information (including historical and non-publicly available information, where available) to the security agency, to assist identification of wrongdoers. The existence of existing arrangements for dealings between security agencies and the registry operator facilitates the ability for both registry and law enforcement to react promptly to threats, promptly minimizing harm. With respect to suspensions, the registrant will be given an opportunity to remedy via automated processes, given the time sensitive nature of criminal activity automated suspension based on triggers / flags, or at the request of law enforcement should be enabled. Critical domains can be manually "Super Locked" in the registry to ensure they are not removed from the zone or suspended inadvertently by automated suspension technology. Automated suspensions will only be initiated when required to protect the public interest or network integrity. They should not be initiated to simply protect an entity's or individuals intellectual or other property rights - those sorts of disputes should be dealt with via a formal complaint resolution service.

#### 29.3 Resource Plans

Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. will dedicate 2 professionals to coordinate the operation of the .persiangulf gTLD. At the same time, the technical professionals at CoCCA will be supporting the vast majority of the technical aspects of operating the .persiangulf gTLD.

As the .persiangulf gTLD is a community-supported effort, it is also expected that members of the community will help Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. develop policies and procedures that govern the operation of the gTLD.

The following Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. team members will be used to support the rights protection plan; CoCCA NOC Support, Ombudsman.

CoCCA acting as Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti.' registry services provider maintains a resource model to meet the demands of RPM implementation and on-going operation of the protection mechanisms. CoCCA maintains a qualified and experienced technical staff to support registry services that meet or exceed defined service levels.

The CoCCA workforce-staffing model is sized to provide the appropriate services for each managed TLD. Given the dynamic nature of technologies and innovation, the CoCCA staff model is constantly reviewed and adjusted to achieve optimization without sacrifice to customer satisfaction and service level requirements. In cases where growth dictates an increase in staff, CoCCA maintains a proven staffing process for acquiring qualified candidates. Details of staffing resource plans can be found in response to questions of the Financial Projections section of the application.

There are eight CoCCA CRS Officers whose Role is to monitor registry services and review Complaints lodged online or from Law Enforcement / CERTs CoCCA has an established formal relationship with.

The complaints are dealt with in accordance with the CRS and AUP / Registrant Agreement, which allows the CRS officers discretion to suspend a domain instantly or send the complaint to the Ombudsman for amicable complaint resolution. CRS officers are available twenty-four hours a day, seven days a week, and three hundred and sixty five days a year.

CoCCA estimates it will require the following personnel to support the RPM implementation and operations for Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti.:

Complaint Resolution Service Officers: 8  
Complaint Resolution Expert - Minimum of Eight  
Ombudsman - One

#### 30A. Security Policy: provide a summary of the security policy for the proposed registry, including but not limited to:

- indication of any independent assessment reports demonstrating security capabilities, and provisions for periodic independent assessment reports to test security capabilities;
- description of any augmented security levels or capabilities commensurate with the nature of the applied for gTLD string, including the identification of any existing international or industry relevant security standards the applicant commits to following (reference site must be provided);
- list of commitments made to registrants concerning security levels.

To be eligible for a score of 2, answers must also include:

- Evidence of an independent assessment report demonstrating effective security controls (e.g., ISO 27001).

A summary of the above should be no more than 20 pages. Note that the complete security policy for the registry is required to be submitted in accordance with 30(b).

Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. and CoCCA desire to ensure the highest levels of security are applied and maintained for all elements in the chain that ultimately result in the resolution of a .persiangulf TLD on the Internet. CoCCA, together with partners PCH and ISC will endeavor to ensure the secure operation of Registry Services for the .persiangulf TLD as described below.

### 30.1 DNSSEC - Facility for Key Storage

For reasons of economies of scale and because CoCCA has a nearly decade long relationship with PCH, the .persiangulf key is to be stored offline at a Singapore facility hosted by the National University of Singapore, on behalf of the Singaporean Infocomm Development Agency (IDA), other DNSSEC key-store facilities that are part of PCH's project are hosted in Zurich by SWITCH, the Swiss national research and education network and at a U.S. facility hosted by Equinix in San Jose California. The PCH DNSSEC project facilities mirror the security and processes used by ICANN for maintenance of the root.

See Attachment PCH\_SG\_Backgrounder.pdf

#### 30.1.1 Signature of the .persiangulf

The .persiangulf zones generated by the CoCCA SRS will include the DS records submitted by registrars, zones will be transferred from CoCCA's hidden signing master DNS to four PCH inbound masters using AXFER / IXFER and TSIG. PCH will transfer the zones using IXFER / AXFRE and TSIG to their signer servers in Frankfurt and Palo Alto. The signed zone is then exported to PCH's two outbound DNSSEC DNS for secure ASXFR / IXFR TSIG transfer back to CoCCA's inbound DNSSEC master in Sydney. Key signing keys and zone signing keys are to be rolled out in accordance with best practices and ICANN requirements. CoCCA and PCH's DNSSEC implementation fully adheres to applicable RFC's and to the requirements of Specification 6, section 1.3.

#### 30.1.2 Secure Distribution of the Signed Zones

CoCCA has employed the use of a double Anycast and Unicast network for the purpose of distributing signed zones across the DNS. Due to CoCCA's desire to ensure that this process is not compromised, CoCCA logs and monitors the zone signing and distribution process, and also ensures that the management of signed zones is performed by CoCCA.

On receipt of the signed zones from PCH, CoCCA will perform some basic validation against the zones sent to PCH, and then transfer these zones onto a hidden distribution master DNS which will transfer zones via TSIG and IXAFR/ AXFR to ISC's SNC platform, PCH's Anycast platform and CoCCA's Unicast DNS servers. If a critical issue was found that was impacting both the primary and secondary SRS, and if instructed by CoCCA, PCH may distribute the zones to their own Anycast network, the ISC SNS Anycast network and the CoCCA Unicast nodes.

The procedures above have been tested by ccTLDs on CoCCA's SRS platform.

### 30.2 Securing the .persiangulf DNS infrastructure and Nodes

The .persiangulf TLD will rely on ISC's and PCH's Anycast networks and CoCCA's Unicast for resolution. ISC authors BIND and pioneered the use of DNSSEC and Anycast technology, PCH manages what is arguably the largest, most geographically dispersed Anycast network, CoCCA currently operates Unicast TLD servers for 12 TLDs. All three entities utilize best of class technology and have rigorous security policies in place to secure, monitor and respond to threats that may compromise the resolution of the .persiangulf TLD. Both PCH and ISC are members of NSP-Sec and have BGP sinkhole capabilities. Both organizations are well positioned and able to coordinate with ISPs that may be transiting or sourcing Denial of Service attacks (DoS) or other attack traffic to mitigate it closer to its source. The geographically diverse PCH and ISC Anycast services are extremely resilient against DoS attacks, if a node fails or is otherwise compromised, it will swiftly be taken out of the PCH or ISC Anycast cloud, causing traffic to flow to other nodes with minimal or no service disruption. The two independently operated and managed Anycast network's total distributed capacity will allow the .persiangulf to absorb even a coordinated DoS attack originating from multiple locations at once.

The geographically diverse Anycast network proposed for .persiangulf necessitates locating dozens of nodes in a variety of co-location facilities varying from Tier 4 to Tier 2 - and each facility has different security policies for physical access. From a security and stability perspective, the critical issue is that all nodes be monitored in real time by PCH, ISC and CoCCA and any node that experiences SLA issues (or is otherwise compromised) is swiftly taken offline or out of the Anycast network. Under CoCCA's agreements with PCH and ISC, any SLA or security issues with any node in their respective Anycast networks is to be reported immediately so that CoCCA may advise registrars or take any other appropriate action.

### 30.3 CoCCA's Sydney SRS Security Policy

#### 30.3.1 CoCCA SYD NOC | SRS Physical Access

CoCCA's primary NOC is located at Global Switch in the Sydney CBD, an enhanced Tier-3 facility and one of the largest carrier neutral data centers in the southern hemisphere. CoCCA's SRS servers are housed in a dedicated, caged rack provided by PIPE networks, PIPE also provides CoCCA with the primary bandwidth used by the Sydney SRS.

In order to gain physical access to CoCCA's servers, an individual must be pre-authorized by CoCCA, pipe and Global Switch - and have formally been inducted by Global Switch. Once approved to enter the facility, an individual must be inspected and be granted access by the Global Switch Security Operations Centre - which is manned 24x7 by security personnel. After passing security, physical access requires passing through a mantrap. Access to the floor, pipe co-location room and master cage is controlled by key-cards with strict access control lists.

Access to CoCCA's cage and rack require a combination of key-cards and physical keys both of which are distributed by, and only available to, CoCCA staff. All spaces are under constant CCTV surveillance by global switch security and the PIPE Network's NOC.

CoCCA's policy is to severely restrict physical access to network appliances, currently only six individuals have physical access to the CoCCA SRS in Sydney and all access is logged. CoCCA's security policy for physical access is collateral to the Global Switch and PIPE Networks.

#### 30.3.2 CoCCA SYD NOC | SRS Admin Remote Access

The number of individuals with the ability to directly access and administer network appliances is very small - currently six, a number not expected to grow with additional gTLDs. Remote access is only accessible through VPN with the mandatory requirement to use one time passwords (OTP) for authentication purposes. SRS server command line logins use both OTP as well as traditional username and password authentication methods - enabling each login to be traced to an individual.

CoCCA NOC Support Staff, Registrar Support and Complaint / Abuse Officers and Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. staff may only access the SRS via port 443 with OTP from trusted IP addresses. CoCCA NOC Support Staff, Registrar Support and Complaint / Abuse Officers and Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. staff have no physical or remote administrative access to servers or network appliances.

### 30.3.3 CoCCA's "pamoja" SRS Software Testing

In designing any security regime it is important to clearly identify potential threats and design the policy to address them. The SRS data is a compilation of publicly available data, and all information on Registrants, Registrars, and Resellers is available via WHOIS, RDDS services or Historical Abstracts. CoCCA does not store credit card or other commercially sensitive confidential information on registrants or registrars in the SRS (or elsewhere). The security threat is not theft of SRS data, it is loss of data or tampering with data.

Information relating to the management of the Data Escrow processes performed by NCC and CoCCA Data Escrow (NZ) Limited, including information in relation to the backup policies are explained in response to question 38. The Data Escrow process ensures that data is protected against security breaches that result in the loss or unauthorized modification of SRS data, especially as the data can be recovered from several sources. The CoCCA security policy is designed to protect against un-authorized modification of production SRS data.

The only information stored in the SRS that could present a risk should the entire SRS be compromised, stolen and released "into the wild" are SRS credentials and AuthCodes. The credentials and AuthCodes are Hashed (MD5) and Encrypted in the DB. GUI access to CoCCA's production systems is only granted from trusted IP's with a requirement for OTP use. For EPP access to the production SRS, the registrar's IP must be white-listed and they must connect with a CoCCA issued SSL certificate. Even if one were able to steal the SRS DB and de-encrypt the login credentials or AuthCodes, other security measures such as IP address locking, OTP and CoCCA issued certificates ensure potential data thieves would not be able to use them to access CoCCA's production SRS or modify data.

Securing the SRS largely requires ensuring the SRS software cannot be exploited by users. The SRS has four public facing websites, the WHOIS, RDDS, Historical Abstracts and Key Retrieval. The GUI login is not public facing.

CoCCA uses the same "pamoja" SRS database application that it distributes to over 20+ other TLD managers. While the application is tested internally by CoCCA and other TLD manager's, developers and systems administrators, CoCCA has a policy that each major release also be tested by an independent software testing laboratory. Currently we have contracted with Yonita (<http://yonita.com>). Yonita tests / audits the pamoja SRS application (not CoCCA's NOC) for:

- \* Security vulnerabilities
- \* Standard quality defects
- \* Performance anti-patterns
- \* Database and transaction misuses
- \* Concurrency issues
- \* Architectural bad practices

### 30.3.4 Monitoring and Detecting Threats

CoCCA monitors network traffic and activity through automated processes and seeks to detect threats that impact the SRS and more broadly CoCCA's Registry Services.

PCH and ISC directly monitor and attempt to detect threats that impact the DNSSEC signing and storage facilities as well as PCH's and ISC's respective Anycast networks. Any incident that impacts the security and stability of the .persiangulf TLD in either the PCH DNSSEC facilities or nodes on the ISC or PCH Anycast networks is logged and reported to the CoCCA NOC immediately. ISC and PCH have near-real time reporting for all the Anycast nodes in their clouds and make this information available to CoCCA.

### 30.3.5 CoCCA SRS NOC | Essential Services Policy

CoCCA's Security Policy mandates that only essential SRS services (production EPP, WHOIS, RDDS, and SRS GUI with limited access) are to be hosted at the Sydney NOC.

Public facing policy websites, email servers, help-desk software, svn, GIT, team sites, OTE environments, and software development servers are all hosted externally using various commercial cloud - based services. None of these cloud-based servers are configured in such a way that they have access to any SRS services that are not normally available to the public.

### 30.3.6 CoCCA SRS NOC | Public Access Restrictions Policy

CoCCA's security policy dictates that only the port 43 WHOIS server, port 443 web-based WHOIS, port 443 AuthCode retrieval site, and port 443 Historical Abstract Site and a single unicast DNS server for the .persiangulf TLD are to be publicly accessible.

Registrars, CoCCA's registrar support staff, law enforcement or CERTs may access the port 443 GUI interface only if their IP addresses have been white listed in advance and they authenticate using clientID, login and an OTP. CoCCA's use of OTP tokens allows CoCCA to track activity in the SRS by individual not just loginID (username).

### 30.3.7 CoCCA SRS NOC | Intrusion Detection



CoCCA Security Policy requires that all SRS traffic originating from outside the NOC be subjected to automated intrusion detection. CoCCA's firewalls (Watchguard XTM) are configured for intrusion detection and are able to inspect encrypted HTTPS traffic. CoCCA's Barracuda load balancers provide an additional layer of firewall protection, DoS and automated intrusion detection. CoCCA's NOC firewalls are configured in accordance with best practices with both port and application layer filtering. The load balancers are configured for NAT and are also configured for intrusion detection and DoS attacks.

### 30.3.8 CoCCA SRS NOC | Auditing and Logging

CoCCA's Security Policy requires that all access to the SRS via the port 443 GUI is logged with originating IP, clientID, OTP (generated by security token), and that the sessions are time and date stamped. All EPP and WHOIS access logs are to be stored for seven days in the production SRS where they can be readily accessed before being archived. Firewall and VPN access is also logged.

### 30.3.9 CoCCA SRS NOC | Incident Response

CoCCA NOC Support staff are on hand 24/7/365 to monitor the Registry Services offered at the primary SRS in Sydney and the availability of the Failover and Escrow SRS facilities. NOC Staff perform three "roles":

- 1) monitoring the CoCCA Sydney NOC and failover SRS's - and a dozen or so other SRS's that CoCCA supports;
- 2) registrar support for the CoCCA NOC and four other locally hosted ccTLDs; and
- 3) serve as front-line Complaint Resolution Service Officers able to trigger a CoCCA Critical Issue Suspension (CIS) or Uniform Rapid Suspension on a 24/7/365 basis.

The level of SRS access and skills required to perform all three roles are similar. CoCCA NOC support staff have no VPN access or other access to appliances at the CoCCA SRS. The GUI access they have is limited to Customer Service functions, and all the applications they use (helpdesk, monitoring, accounting, email) are hosted outside the primary NOC.

CoCCA's NOC support is a virtual "function" performed by individuals in New Zealand, Guyana and France (additional NOC staff will be trained and other centers incorporated into the service in Q4 2012). If there is a failure in any of CoCCA's Registry Services functions, the role of the NOC Support is to:

- 1) raise the alarm with CoCCA systems administrators or developers as conditions and events dictate;
- 2) liaise with PIPE Networks, PCH, ISC, IANA / ICANN and registrars as required.

### 30.3.10 Provisioning against DNS Denial of Service attacks

A Denial of Service (DoS) attack on a network service floods it with fraudulent requests so that there is no capacity left for legitimate requests. CoCCA's Anycast DNS service is outsourced to PCH and ISC's Anycast networks, CoCCA's managed Unicast DNS ensures Asia Green IT System Bilgisayar San. ve Tic. Ltd. Sti. has at least two "last resort" DNS nodes under direct management. Both PCH and ISC networks provide the .persiangulf with substantial protection against DoS attacks, including Anycasting, over provisioning, and network traffic shaping.

Both PCH and ISC utilize traffic shaping methods that rate limit the number of queries per IP address to help prevent abuse and to trigger an investigation of elevated traffic levels to see whether an attacker is testing resource limits or whether ISC or PCH should provision additional bandwidth/servers or remove the node temporarily. In cases of an active DoS against ISC, CoCCA or PCH each will make every effort to identify the offending traffic and its sources to squelch offending traffic at ISP borders before reaching the servers as well as augmenting capacity to handle any legitimate elevated traffic levels.

### 30.3.11 Provisioning against WHOIS and EPP Denial of Service attacks

CoCCA actively monitors all Registry Services to ensure they meet any required SLA. In the event of a DoS attack that threatens to lower the SLA for WHOIS or EPP services required in the ICANN Agreement, CoCCA will work with our upstream providers (who also monitor the traffic) and attempt to squelch offending traffic at the ISP borders before it reaches the CoCCA RDDS servers. In the event the traffic is found to be legitimate, the bandwidth can be swiftly increased as required.

### 30.3.12 Failover Routing

CoCCA currently has multiple links to the Internet but does not load balance across them all. The secondary (failover) link is used to replicate and transfer backup WAL and VM image data files to CoCCA's Failover SRS infrastructure (currently located in Palo Alto) and Escrow NOC. If there is a critical infrastructure issue at PIPE Networks, BGP routing will be used to move our critical infrastructure on our IPV4 and IPV6 address blocks to the failover Telstra link or to one of the two SRS instances outside of Australia. A fourth node will be added in Paris (France) in early 2013.

If the issue relates to an SLA problem, changing the A record and CNAME for RDDS services may be sufficient to resolve such an issue in a timely manner. If required by a pro-longed outage BGP routing may be used to re-route the entire ranges to a failover facility.

### 30.3.13 Commitments to Registrants

Taken from the .persiangulf WHOIS and Privacy Policy

#### "6. DATA SECURITY

6.1 CoCCA shall take reasonable steps to protect the Personal Information it holds from misuse and loss and from unauthorized access, modification or disclosure.

#### 7. OPENNESS

7.1 This Policy sets out CoCCA's policies on its management of Personal Information. CoCCA shall make this document available to anyone who asks for it.

7.2 On request by any person, CoCCA shall take reasonable steps to let the person know, generally, what sort of Personal Information CoCCA holds, for what purposes, and how it collects, holds, uses and discloses that information.

#### 8. ACCESS AND CORRECTION

8.1 All Registrant information lodged by a registrar that is maintained in the CoCCA SRS is publicly available from CoCCA's RDDS services - WHOIS, Premium WHOIS, and Historical Abstracts.

See the .persiangulf RDDS Policy (Attached) for more information.

8.2 If CoCCA holds Personal Information about a Registrant and the Registrant is able to establish that the information is not true, accurate, and complete and/or up-to-date, CoCCA shall take reasonable steps to facilitate corrections to the information so that current information is accurate, complete and up-to-date - except where the data is contained in an historical record or archive."

#### 30.3.14 Independent Security Assessments

In addition to software and source security Audits, CoCCA has engaged the services of Connell Wagner Pty Ltd (now known as Aurecon Group Brand (Pte) Ltd) for the purpose of performing independent security audits of the primary data center.

On the condition that a gTLD is approved, CoCCA will engage the services of Aurecon to perform independent security audits to ensure the CoCCA system fully complies with all published security requirements set forth by ICANN. Such reports will be provided to ICANN on request. With new IT infrastructure planned for deployment in 2012 and early 2013, CoCCA will contract further independent assessments with third parties.