DOCUMENT FOR ccTLD WORKSHOP

Source:	Saudi Network Information Center, Internet Services Unit, KACST, KSA
Title:	SaudiNIC Experiences in Managing the Saudi ccTLD (.sa)

1.   INTRODUCTION

King Abdulaziz City for Science and Technology (<u>KACST</u>) is an independent scientific organization administratively belonging to the Prime Minister. It was established in 1979. Since then, it has striven to realize its objectives of transferring technology, maximizing its benefits and utilizing it to serve researchers and the society in general. KACST played a pioneering role in establishing the Gulf academic network, GULFNET, and linking it to the international BITNET at the end of 1980's. Moreover, KACST has played a fundamental and positive role also in the introduction of the Internet to the Kingdom of Saudi Arabia in the end of 1998 based on a Royal decree in which an Internet Services Unit (<u>ISU</u>) was established.

In the same direction, KACST has managed the domain name registration under the country code (ccTLD) of Saudi Arabia (.SA) since 1995. After establishing ISU in 1998, the task of domain name registration has been handled by the Saudi Network Information Center (<u>SaudiNIC</u>) of ISU.

Therefore, SaudiNIC is the entity that is responsible for the administration of the domain name space for the country code (ccTLD) of Saudi Arabia (.SA). This includes the operation of the DNS root servers for .SA domains as well as the registration and maintenance of all third-level .SA domain names. Additionally, SaudiNIC is a Local Internet Registry (LIR) authorized by RIPE-NCC, which is responsible for allocating blocks of IP addresses to universities and local ISPs in Saudi Arabia.

1.1   SaudiNIC's Mission Statement

The mission of SaudiNIC is to provide an equitable, just and competent technical and administrative management of domain name registrations and IP address allocations for Internet community in Saudi Arabia.

1.2   SaudiNIC Main Tasks

*   Setting up policies regulating domain name registrations and IP address allocations.

*   Domain name registrations

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- Provide databases for the registered domain names

- IP address allocations

- Coordinating with other GCC, Arab, and International ccTLDs.

- Participating in international events supervised by ICANN, RIPE, ISOC, ITU, WIPO, and any other activities that are related to domain names and IP numbers.

2. ORGANIZATION STRUCTURE AND STAFFING

SaudiNIC started with two persons and now it has 4 people: manager, database administrator, Registrar (clerk), and webmaster. The technical support and operation of the DNS servers are provided by the Network Operation Center of ISU. Here are the main tasks of SaudiNIC:

2.1 Regulations Development

- The responsibility of SaudiNIC manager.

- Done regularly once every 1-2 years.

- Group effort.

- Consultation with local community such as universities and service providers as well as individual groups.

- Reviewed by the legal department of KACST

- Approved by the VP of KACST

2.2 Registration

- Registration procedure are defined and drafted by SaudiNIC staff and approved by the SaudiNIC manager.

- Two levels of helpdesk support are provided. First level covers most of all support provided to SaudiNIC's customers. The second level provides mostly technical supports.

- Day-to-day registration activities (add new, modify, and delete domain names).

- Workshop to ISPs regarding domain name registration policies and registration procedures.

2.3 Database and Software Development

- Administering and monitoring the SaudiNIC database server

- Performing backups

- Developing and maintaining in-house software applications for automating domain name registrations and generating reports.

2.4 Technical Support

- Operating and monitoring the DNS servers

- Securing the DNS and database server.

- Providing 24x7 connectivity to the DNS and database server.

- Coordinating with our secondary DNS servers around the world.

- Updating the information records of .sa with ICANN/IANA

- These tasks are provided by ISU-NOC.

2.4   Web Development

- Create and maintain up to date web site in dual language (Arabic and English)

- Create web applications

3.   FINANCIAL

SaudiNIC has been funded by KACST since is establishment. Operation and staffing cost are part of KACST budget. Domain name registrations are provided free of charge for the purpose of encouraging the local community to use and utilize the Internet for e-businesses and other applications.

4.   REGULATION DEVELOPMENT

Since the establishment of the SaudiNIC, registration regulations have gone through a number of major revisions. The current version of the "Domain Name Registration Regulation In Saudi Arabia Version 1.3" was written on the 17th of November, 2001. Regulation developments were done through group efforts of SaudiNIC and ISU staff as well as the consultation of interested parties such as the universities, Internet service providers, private sectors, Ministry of Commerce, and individuals. Also, they get reviewed by the legal department of KACST. They become in effect after they have been approved by the senior management of KACST, i.e. the vice precedent for scientific research.

Domain Name Registration Regulation in Saudi Arabia is the guideline for the registration procedure followed by SaudiNIC staff. All registrations without exceptions are done according to this regulation on first come, first served basis. The regulation is applied equally over all different type of entities (governmental, educational, private, non for profit, and individuals).

4.1   Major Points in the Regulation

- SaudiNIC registers domain names on first come, first served basis.

- SaudiNIC has neither the resources nor the legal obligation to screen requested domain names to determine if the use of a domain name by an Applicant may infringe upon the right(s) of a third party. Therefore, Applicant bears the responsibility of obtaining legal permission to use the domain name which means that the use or registration of the domain name by him does not interfere with or infringe upon the right of any third party in any jurisdiction with respect to trademark, trade name, company name or any other intellectual property right. And it is the Applicant's responsibility to secure a trade name or such to protect his right to the chosen name

- Applicant agrees that the domain name will be only used by the Applicant and it is not registered for the purpose of letting other entities use it whether by selling, renting or just giving it away for free. Doing so will result in all domains owned by the violating body to be revoked immediately.

- SaudiNIC has dedicated the sub-domain "pub.sa" for personal names provided that if the requested name represents a single personal name (e.g. Ahmad, Ali, Alfulani) then it should be followed by at lest 2 digits, e.g., ahmad72.pub.sa, alfulani01.pub.sa. Combining names together is allowed without using digits, e.g., ahmadalfulani.pub.sa

- Domain names under (.sa) are provided to applicant who are either physically in Saudi Arabia, has a local representative, or owning trademarks or trade names that are registered in Saudi Arabia.

- Currently there is no fee for a domain name registration under ".sa". s

5. DISPUTE POLICY

Currently SaudiNIC is studying the UDRP and the possibility of adapting it locally. One problem that are facing SaudiNIC is that most of the legal experts (law offices, judges, lawyers, …) lack the experience and the knowledge that are related to IT legal issues particularly with respect to domain name disputes.

Currently, a separate track in the new ongoing national IT planning is dedicated for IT related regulations. Some of their recommendation will be in the area of increasing awareness in this field.

Thus, currently, any disputes between parties over the rights to use a particular domain name are to be settled between the contending parties using normal legal methods. SaudiNIC exempts itself from all responsibility for the verification of rights to a name. SaudiNIC cannot act as arbiter of disputes arising out of this kind of conflict.

Through its operation period, there were only two dispute cases. One was handled by SaudiNIC and it was resolved in 2 months. While the other it took about 2-2.5 years. It settled through the legal system including also lawsuit against SaudiNIC (from the loosing party).

6. REGISTRATION PROCESS

A domain name is a name that represents an entity on the Internet. It is, usually, similar to the entity name or derived from it. It is a distinctive and simple way to identify the entity's site on the Internet. It is used by others to visit the site or to send electronic mail. It is often that the entity will choose a domain name that is short using Latin letters and register it with the organization supervising domain name registration, such as SaudiNIC.

Any entity that wants to register a domain name under .SA has to submit a request to SaudiNIC. A domain name has the following format: `<name>.<cat>.sa` , where, `<name>` is the name that is chosen to represent the entity, `<cat>` represents the category in which the entity is classified.

The Saudi ccTLD (.SA) domain hierarchy is based on general category of organizations. The following are their definitions:

com.sa: Dedicated only for entities that provide commercial services with valid Commercial Registrations from Ministry of Commerce (MOC) or any equivalent documents. Also, registered trade names and marks with MOC can be registered as domain names under com.sa.

edu.sa: Dedicated only for educational and training institutions, e.g., universities, training institutes, etc., with valid licenses from official government offices.

sch.sa: Dedicated only for Kindergartens, elementary schools, secondary schools, and high schools with valid licenses from Ministry of Education or from General Presidency for Girls Education.

med.sa: Dedicated only for entities that provides health services such as hospitals, medical clinics, pharmacies, etc., with valid licenses from Ministry of Health.

gov.sa: Dedicated only for Governmental entities including ministries, authorities and government organizations.

net.sa: Dedicated only for entities that provide Internet-related services, e.g., ISPs, web hosting, portal sites, etc.

org.sa: Dedicated only for non-profit organizations including societies, charities, clubs and public organizations.

pub.sa: Dedicated only for entities or individuals that do not fit with any of the above definitions, including personal names.

6.1   **Registration Steps Done by Clients:**

1:    Check if the domain name is available with SaudiNIC whois

2:    Set up domain name servers

3:    Fill out SaudiNIC registration form (online or text)

4:    Submit a letter

5:    Submit legal documents

Domain name applications are kept in a pending state until required documents and name servers correct information are received from Applicant within three weeks from the reception date. If no such documents or information are submitted within this period, SaudiNIC will send email message to request the missing information or documents. If nothing is received within a week, SaudiNIC will reject the request.

SaudiNIC insists that the applicant should have arranged at least two operational DNS servers for the domain name in question. All need permanent IP connectivity to the Internet. Each DNS server must be capable of receiving queries for the domain name and responding thereto.

6.2   **SaudiNIC Internal Registration Steps:**

Here are the internal steps that are followed by SaudiNIC staff to complete domain name registrations, see Figure (1) which depicts these steps in pictorial way.

1.   **Receiving and Checking the Request:**

a.   Providing helpdesk support

b.   Receiving requests by email, fax, postal/hand, or over the web

c.   Entering the new request into the SaudiNIC database

d.   Checking the request:

- domain name availability
- completeness of required documents
- validity of the request

e.   Contacting ISP/customer for any missing information or problems

- A warning message will be sent after 3 weeks if no response is received
- Then, the request will be rejected if nothing is received within a week

2.   **Checking DNS servers**

a.   At lease two DNS servers (one primary and one secondary), they should be

- Accessible through the Internet
- Hosting the new domain name

b.   Contacting ISP/Customer for any problems

c.   Updating database

3.   Registration

a.   Adding the domain name to our zone file

b.   Updating the database

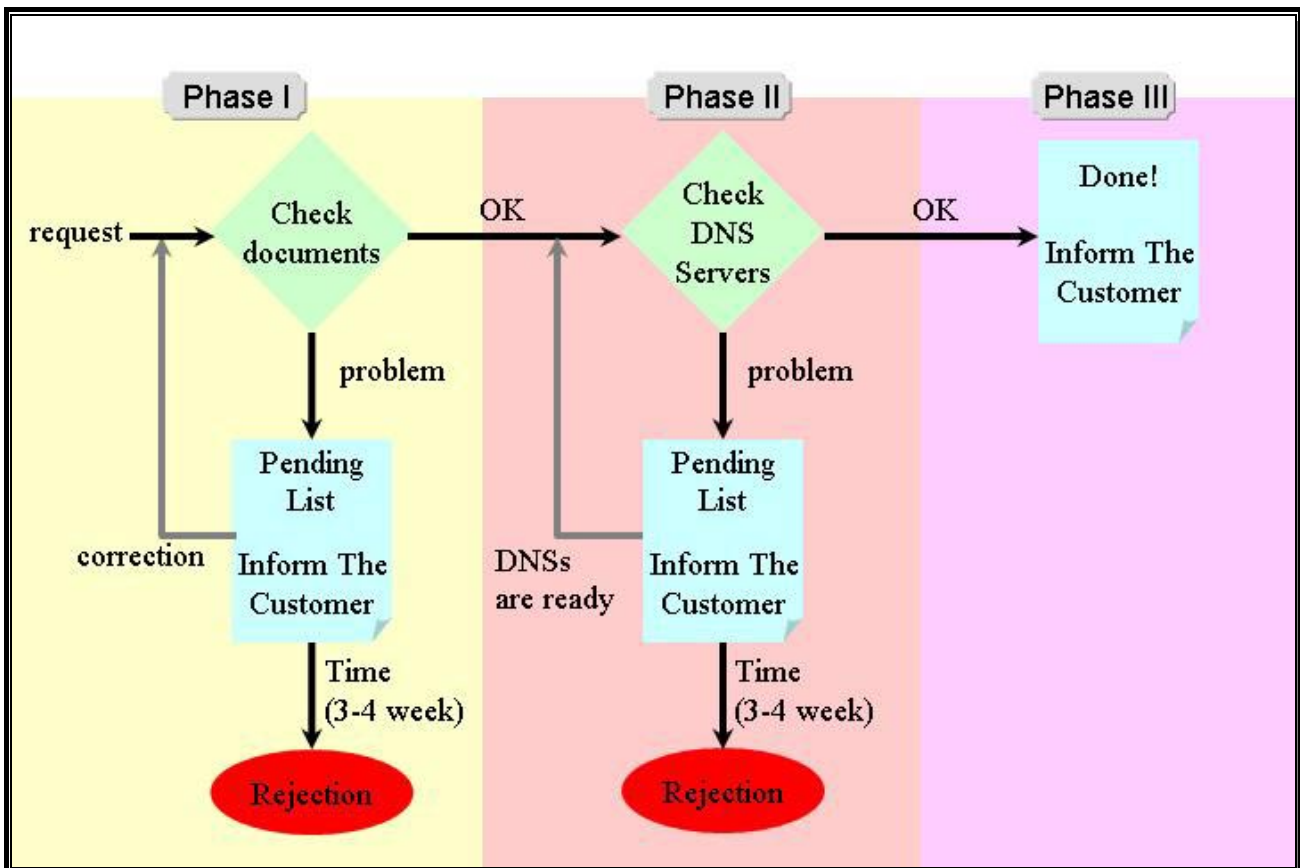c.   Informing the ISP/Customer

**Figure 1: SaudiNIC Internal Registration Procedure**

7.   SAUDINIC ONLINE INFORMATION

SaudiNIC puts all of its information into its web site (www.saudinic.net.sa) since 1997 in both languages Arabic and English. It consists of:
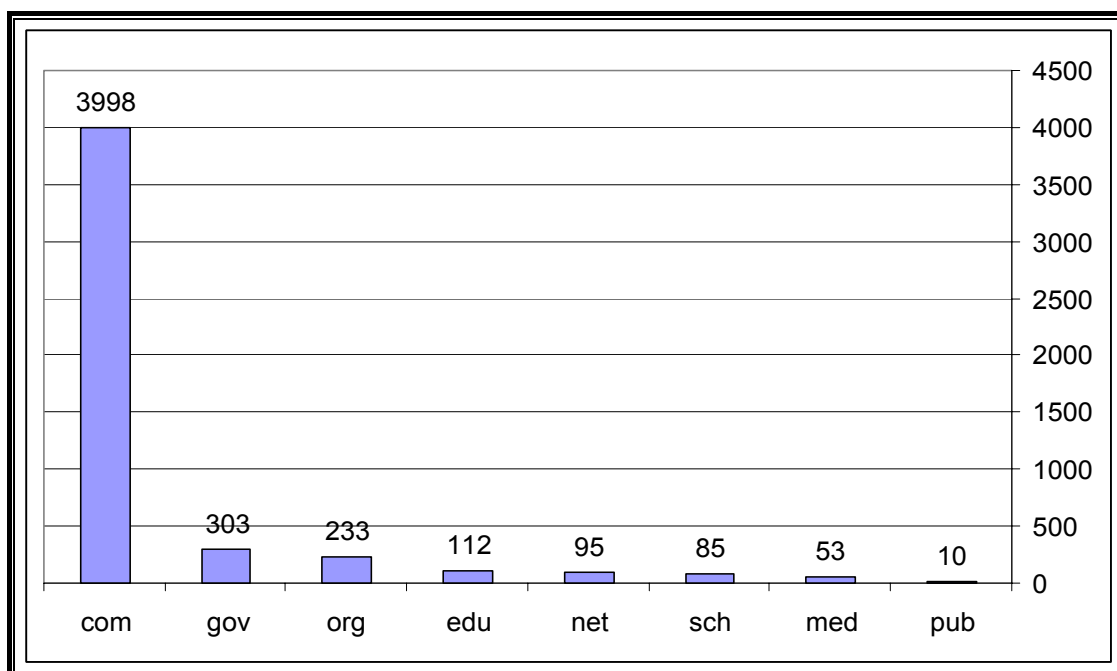
- Regulations

- Registration procedure and online forms

- Tools

- Whois

- Documentations, how-to, and FAQs

- Description of all SaudiNIC error and worming registration messages

- Statistics

8. STATISTICS

Total number of registered domain names per year by the end of 2002:
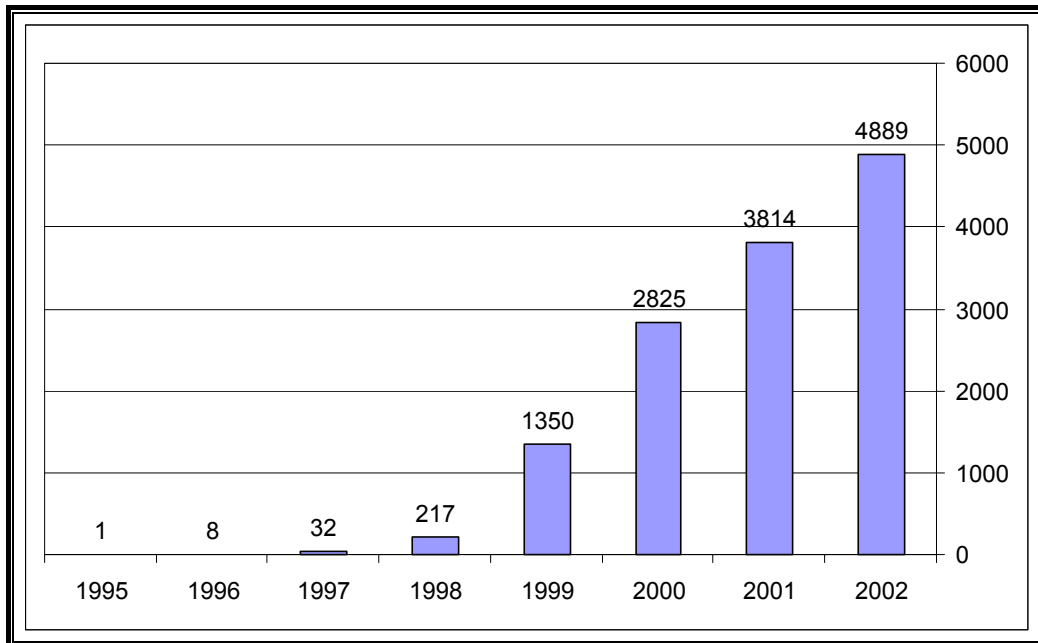
Total number of registered domain names per sub-domain by the end of 2002:

9.   SUPPORTING ARABIC LANGUAGE IN DOMAIN NAMES

Since the Internet was originally evolved in the United Sates, it supported only 7-bit ASCII code (English characters), and the Domain name System (DNS) supports alphabets, numbers and hyphen of the ASCII code. The activity of supporting multilingual characters in domain names is becoming very important now along other Internet internationalization to make the Internet globally accessible and become ubiquitous. Therefore, using the Arabic language to express Internet domain names is becoming also important and a number of solutions and implementations have been introduced in the market but based on non-open standards. Also, there is some non-for-profit international organizations that are trying to promote the multilingual issues and standards on the Internet, such as MINC (Multilingual Internet Names Consortium) and AINC (Arabic Internet Names Consortium),

9.1   AINC's Arabic Linguistic Committee (ALC)

One of the strategic tasks of AINC is to setup some linguistic guidelines to be used by technology providers. Therefore, an Arabic Linguistic Committee was established during the formation of AINC in April 2000 to carry this task. The main goals of the committee are (a) to define the accepted Arabic character set to be used for writing domain names in Arabic, and (b) to define the top-level domains of the Arabic domain name tree structure (i.e., Arabic gTLDs, and Arabic ccTLDs). Thee group are using email as the main communications medium to exchange ideas and suggestions. The mailing list of the group is: AINC-ALC@ISU.NET.SA. Here is their recommendation regarding some linguistic issues:

ISSUE	Title	Recommendations
1.1	Tashkeel (Diacritics)	Tashkeel should not be allowed. However, if there is a need to allowed users to entered Tashkeel as part of a domain name then it should be stripped off by nameprep
1.2	Kasheeda	Kasheeda should be disallowed
1.3	Folding Teh Marbuta + Heh	Folding should not be allowed
1.4	Folding different forms of Hamzah	
1.5	Folding Alif Maqsura+Ya	
1.6	Numbers	If it is technically possible, it is preferred to support both (Latin and Arabic) sets with folding to one set. Otherwise, Latin set is sufficient
1.7	Arabic Zero	
1.8	Connecting Multiple Words	It is recommended that multiple words are separated by the character "-".
1.9	Spaces	
1.10	Mixing Latin and Arabic Characters	It is recommended that Arabic domain names be pure Arabic and they should not be mixed with other languages.
1.11	Special Characters (e.g., @, #, $, %, ...)	It is recommended that Arabic domain names should follow the standard with respect to the use of special characters.
1.12	ACCEPTED CHARACTER SET	It is recommended to use UNICODE 3.1. The following Unicode characters are accepted in Arabic domain names: U0621(hamza) until U063A (gheen) U0641 (feh) until U064A (yeh) Arabic numbers: 9-0 (U0660 until U0669) Latin numbers: 0-9 (U0030 – U0039) Hyphen (U002D) Dot (U002E) Other than these characters are not allowed

10. FUTURE WORK

SaudiNIC keeps updating its regulations and procedures for the benefits of the local community. This includes some work that SaudiNIC is planning to achieve, such as:

- Increasing public awareness.

- Open the registration process to be performed by other entities (e.g., private sector) and making SaudiNIC concentrates on the supervision, monitoring, and setting regulations.

- Adapting fully automated registration system in dual languages (Arabic, English).

- Build an index directory of all the registered domain names in dual languages (Arabic, English).

11. REFERENCES

For more information visit the following links:

- Domain names in Arabic language:
  http://www.saudinic.net.sa/arabicdomain/arabic_domains.htm

- Domain Name Registration Regulation In Saudi Arabia:
  http://www.saudinic.net.sa/terms/policies.htm

- SaudiNIC web site: http://www.saudinic.net.sa

- ISU web site: http://isu.net.sa

- KACST web site: http://www.kacst.edu.sa

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