Saudi Arabia and the Internet Technology

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Abstract: While Saudi residents anxiously await the introduction of the Internet into Saudi Arabia, many have already started taking advantage of the services of the Internet through neighboring countries of the Arabian Gulf peninsula. This paper will take a brief look at the main reason for delay, current status, and current applications of the Internet technology in Saudi Arabia.

Introduction

The Internet without any doubt is one of the fastest growing technologies the World has experienced. Certain statistical studies [see Network Wizards] predict that the number of Internet Hosts will reach 100 Million hosts by the year 2000, a tremendous jump from 29 Million in early 1998. Putting this in mind one wonders why certain countries have yet to take full advantage of this technology. In some cases, the financial situation and lack of technological advancement in certain 3rd World nations make it a secondary issue to be concerned with at a later time. In the case of the Kingdom of Saudi Arabia, there is no lack of financial resources, nor that of technological advancements. The Saudi government spends a great effort providing its residents with the best, and most current, technologies, services, and resources in the World. The remainder of this paper will present the main reason for the delay in the introduction of the Internet to Saudi Arabia, the current status, and how certain organizations in the Kingdom have already taken advantage of the Internet technology.

Reason for Delay

Saudi Arabia is a country that has long upheld excellent cultural and religious values. There are many forms of censorship prohibiting anything thought to be socially harmful and against the morals and teachings of the dominant religion in the country, Islam. The Internet, with the additional services of the World Wide Web (WWW), has become a type of media source that provides access to many different types of information that is difficult to control.

On a global level, most of the Islamic nations have been slow to join the rest of the World on the Internet. Many concerns about the types of immoral material found on the Internet have been behind the hesitation to climb onto the information superhighway. Even more hesitant, have been nations of the Arabian Gulf peninsula.

On the Saudi level, many scholarly discussions and debates have been conducted to study the negative and positive affects of the Internet on the Saudi society. The main negative affect being the possible moral and ideological corruption of the younger generation through their exposure to material that is normally not accessible within the Kingdom. This represented a strong argument against the Internet and managed to prevent its introduction to the general Saudi public.

Current Status

The increased pressure to join the international community, already utilizing the many benefits of the Internet, has caused Saudi Arabia to reconsider its earlier decision. Knowing that its smaller neighboring nations of the Arabian Gulf peninsula have gotten connected to the Internet, and that many
of Saudi Arabia’s citizens have started accessing the Internet through those nations, it became more imperative for Saudi Arabia to be the provider of these services to its own citizens. Comforted with the knowledge that firewalls and proxy servers can be used to filter-out undesirable material, a decision was finally made in April of 1997 approving the introduction of the Internet to the Saudi society.

The King Abdulaziz City of Science and Technology [see KACST], an organization conducting and funding different types of research within Kingdom, and the .sa top-level domain (TLD) manager, was assigned with the responsibility for coordinating all efforts necessary to bring about services of the Internet. KACST and the newly established Saudi Telephone Company (STC) are working closely to setup an appropriate networking structure within the Kingdom that would enable fast access to the Internet for all users.

An initial plan has KACST, positioned in the country's central region, as the main node linked to the Internet via a satellite link. The Eastern and Western region network nodes will also be linked to the Internet in the initial plan via the KACST node [Fig. 1]. Each of the three nodes will then act as connecting points to local government agencies and Internet Service Providers (ISP’s). After the successful implementation of this initial plan, other regions of the country will be connected as well.

![Initial Planned Internet Network in Saudi Arabia](image)

Figure 1: Initial Planned Internet Network in Saudi Arabia

Currently, a process is nearing completion, by which, a number of companies would be granted licenses to act as Internet Service Providers (ISP’s). This process is a move away from the typically monopolized provision of Internet services seen in other Arabian Gulf nations, typically provided by their Ministries of Post, Telegraph, and Telephone (MoPTT).

Applications for ISP were submitted by almost 160 companies. Realizing that no existing companies within the country have experience as ISP’s, the application forms were structured in a way to determine the level of each company's technical and financial preparedness to assume the role of an ISP. Once companies are qualified as ISP’s, they must adhere to the rules and regulations set by KACST. Failing to follow specified rules will cause an ISP to lose its license. Internet services are expected to start by late 1998.

**Arabian Gulf Communications Network**
Even though Saudi Arabia has no direct connection to the Internet, it has long been a member of a regional network linking Arabian Gulf countries. In 1985, KACST was established as the main node in GULFNET, a network linking academic and research organizations of the Arabian Gulf states. GULFNET enabled users access to services available at KACST such as the National Bibliographic Database, as well as, access to library services at several universities.

In 1987, GULFNET was linked to BITNET, one of the largest academic and research networks in the world, linking 400 U.S. universities with links to many other international networks including the Internet. This connection was established between KACST and George Washington University in the United States of America. This gave greater value to GULFNET by making useful BITNET services available to the users of GULFNET. These services include list servers that provide means for creating forums for discussion and information sharing in a given topic. In addition, since BITNET has many gateways to other major computer networks such as Internet, users of GULFNET were able to exchange email messages with millions of other users world-wide. By December 1996, KACST had converted its GULFNET BITNET links to TCP/IP protocols [see Burkhart and Goodman 1998].

Organizations Already Having Internet Access in Saudi Arabia

As seen above, there is no direct public access of the Internet in Saudi Arabia as of yet. However, a few organizations have had special connections to the Internet. In this section, some of these organizations are mentioned.

King Faisal Specialist Hospital and Research Center

Even though the Internet has not been approved until very recently on the national level, one research organization has long been allowed direct satellite access to the Internet. The King Faisal Specialist Hospital and Research Center (KFSHRC), the leading hospital in Saudi Arabia and the Middle East, has enjoyed services of the Internet since 1994. KFSHRC has a T1 (1.544 Mbps) satellite link provided as part of the Saudi American University Project for Tele-medicine with a 128 Kbps allocated for the Internet connection. The reason for granting Internet access to KFSHRC was mainly based on the hospital's well-known reputation within the Kingdom, and its need to conduct valuable medical and operations research.

King Abdulaziz City of Science and Technology

The second organization to be granted access to the Internet is the King Abdulaziz City of Science and Technology (KACST). Following its previous role with GULFNET, and its assigned responsibility for bringing about the Internet to the Kingdom, it made perfect sense that staff of this organization are granted access to the Internet. KACST's Internet connection is a modem link through KFSHRC.

SaudiNet, an ongoing project conducted by KACST is linking Saudi universities and research institutes in a nation-wide network. It is through this network that these institutions are expected to get their Internet access via KACST. Currently most universities have already been linked to KACST and are expected to be the first to get official Internet access. The geographical closeness of KACST to King Saud University (KSU) has this university as the first logical recipient of the Internet.

King Saud University

The most recent to gain Internet access is the King Saud University. Over the past few years, KSU has mainly had email services through GULFNET. Just recently, with the start of the Fall Semester of 1997, email was changed to Internet email. Starting with the Spring Semester of 1998, KSU was granted modem access to the Internet through the King Faisal Specialist Hospital and Research Center. This connection, however, in not university wide, and is strictly limited to faculty and staff members of the College of Computer and Information Sciences.
A WinGate proxy server is installed at the KFSHRC end, which restrict the types of information that may be accessed through the Internet. Any Web site containing words that are deemed tasteless are blocked out. This creates a problem when attempting to access some scientific Web sites that discuss matters regarding certain parts of the human anatomy for example.

**Organizations with Web Sites**

Many Saudi organizations and companies did not wait for the Internet to enter the Kingdom. They listed their Web pages with international Web hosts mostly in the United States or the neighboring island nation of Bahrain. Some of the Saudi Web sites that can be found on the Internet are mentioned in this section.

**Saudi Embassy in the United States of America**

A very comprehensive Web site about Saudi Arabia can be found at (http://www.saudi.net). This site provides valuable information to anyone who is interested in learning about this country. Information about its history, government, culture and arts, industry, economy, transportation, education, religion, and, much more.

**The Saudi Arabian Ministry of Education**

This site, which can be found at (http://www.mohe.gov.sa), is the first Web site for any Saudi ministry. The ministry's Web site provides valuable historical and statistical information about education in the Kingdom. It also provides information about each of the seven major universities of Saudi Arabia. Currently, only one university, the King Fahad University of Petroleum and Minerals (KFUPM) has its own domain address at (http://www.kfupm.edu.sa).

**The King Faisal Specialist Hospital and Research Center (KFSHRC)**

KFSHRC has a Web site at (http://www.kfsr.edu.sa). This home page contains links to many useful medical related international Web sites. It also allows access to the hospital’s Intranet containing different types of information about the hospital, including specific department pages, medical professionals and staff information pages, employment opportunities, and, schedule of upcoming symposiums and events. The site also allows the ability to perform searches on web pages of the hospital, as well as, the search for employees phone numbers.

**Other Organizations**

A few other Saudi Arabian organizations have Web sites, these include the Saudi Arabian National Airline: (http://www.saudiarabian-airlines.com), as well as many other private businesses, newspapers, and banks. Some of the Saudi business institutions on the WWW can be found at the either (http://www.arab.net) or at (http://www.saudi-online.com).

**Intranets in Saudi Organizations**

Many Saudi organizations, while awaiting physical connection to the Internet, have developed Intranets within their organizations to be used by their employees for information sharing and accessing of organization policies and regulations. These organizations include governmental institutions, banks, newspapers, universities, and private businesses. Certain organizations also allow public access to their Intranets through dial-up lines simulating the feel and look of the Internet. The following are just a few examples.
King Saud University

The King Saud University Intranet is one good example of how the Internet technology has been used in the Kingdom of Saudi Arabia. It currently provides home pages for all scientific colleges of the University. Each department in the College has its own home page relating useful information such as program curriculums, course descriptions, specific course home pages, graduation policies, and faculty information. Other types of links on the University Intranet include user manuals to programming and software tools, local conference proceedings, student's chat areas, and a link to the University's central library database.

Al-Rajhi Banking and Investment Corporation

One other example, this of a private banking organization that has utilized the use of the Internet technology, is the Rajhi Banking and Investment Corporation. This bank allows its clients modem dial-up into their Intranet system. [see Al-Rajhi 1997] Clients are able to check their account balances, transaction history, and, stocks and currency rates. Clients are also able to access general information about the bank and its activities.

Al-Jazirah Newspaper

This nationally popular newspaper has created an Intranet that customers can dial-into to read the latest news on-line. News can be read in both the Arabic and English languages. Customers can also post advertisements on the newspaper's server. Al-Jazirah also has a Web page on the Internet, which can be found at (http://www.Al-jazirah.com).

Internet Solution Providers

A few companies already exist in Saudi Arabia that provide Web Page design and hosting services. Web Pages are hosted with mostly American or Arabian Gulf Web hosting companies. One of the most popular services including over 4,000 pages is the Saudi based Arab Net (http://www.arab.net). This web site provides a vast array of information about the Arab World in general. It also provides home page directories of Arab businesses listed with this company.

Conclusion

The Internet is on the doorsteps of Saudi Arabia. Much publicity has been made about this great technology. Saudi newspapers and magazines are continuously writing articles about the Internet and always updating the public on organizations establishing sites on the WWW. Local conferences and symposiums held at universities, hospitals, and other government institutions are regularly conducted with the main topic being the Internet. Tools for Arabic language web browsing, and publishing have been developed by local companies, as well as, by the two giants, Microsoft and Netscape. All of this has left Saudi residents impatiently awaiting the day when they can actually experience the greatest hype of the century on their own.

References


