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INFORMATION AND COMMUNICATIONS TECHNOLOGY (ICT) POLICY STATEMENT

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وزارة الاتصالات وتقنية المعلومات
Ministry of Communications and Information Technology

CONTENTS

Glossary

3G	Third Generation Mobile Technology
CERT	Computer Emergency Response Team
CITC	Communication and Information Technology Commission
DSL	Digital Subscriber Line
FLAG	Fiber Optic Link Around the Globe
FOG	Fiber Optic Gulf
Gbps	Giga *(billion)* Bits per Second
GMPCS	Global Mobile Personal Communications via Satellite
GSM	Global System for Mobile communication
ICT	Information and Communication Technology
IP	Internet Protocol
ISP	Internet Service Provider
LNP	Local Number Portability
MCIT	Ministry of Communications and Information Technology
MVNO	Mobile Virtual Network Operator
PKI	Public Key Infrastructure
RIO	Reference Interconnect Offer
SEA-ME-WE	South-East Asia, Middle East, West Europe
URL	Universal Resource Locator
VOIP	Voice over IP
VSAT	Very Small Aperture Terminal
WiMAX	Worldwide Interoperability for Microwave Access
WTO	World Trade Organization
Yesser	Saudi Arabia's E-Government Program

I. PURPOSE OF THIS POLICY STATEMENT

The Ministry of Communications and Information Technology (MCIT) recognizes that all the constituents of the Information and Communication Technology (ICT) sector, particularly domestic and foreign investors, attach great importance to removing uncertainty, creating a favorable regulatory atmosphere, and pursuing a policy of speedy reform to keep pace with the needs of the market, and attract more investment to the ICT sector.

The purpose of this policy statement is to state the policies that have been adopted by MCIT in the past few years, as well as those MCIT plans to pursue over the next few years in the development of the ICT sector in the Kingdom of Saudi Arabia. The Communications and Information Technology Commission (CITC) has ensured that it regulates the ICT sector in accordance with these policies and the existing legal and regulatory framework that has been established for the sector.

II. INTRODUCTION AND BACKGROUND

The Kingdom has long recognized the importance of communication and information and the role they play in the economic and social development of the Kingdom. The government has paid special attention to ICT, where it has been emphasized in the five-year development plans, as well as in the long-term comprehensive national development plan[1].

In recognition of this and in accordance with the Kingdom's five year development plans over the last two decades, the government has invested heavily in the development of ICT infrastructure. The primary purpose of such investments was to expand the telecommunication networks, and bring its services to customers more quickly. As a result of these efforts, some ICT indicators by end of 2005 show that fixed telephone line tele-density has reached over 17%; mobile tele-density has surpassed 60%; Internet penetration, as measured by the number of users, has reached about 13%; while the used international bandwidth capacity topped 1 Gbps. At the same time, Digital Subscriber Line (DSL) deployment has reached over 50 thousand lines, while the installed base of digital and analog leased lines exceeded 15 thousand. As for telecommunication backbones, there are fiber optic backbones stretching east to west, and south to north in a dual-ring arrangement, which is designed for attaining a better level of service. The communication backbone consists of international access through satellite and submarine cables, such as Fiber Optic Link Around the Globe (FLAG) and South-East Asia, Middle East, West Europe (SEA-ME-WE), which can provide a capacity in the range of hundreds of gigabits per second. Access to the worldwide Internet is provided through two network gateways, one in Riyadh and one in Jeddah, together providing a total bandwidth in excess of 1.3 Gbps per second. In addition, access within the Gulf Cooperation Council (GCC) states is possible via a fiber optic undersea network, called Fiber Optic Gulf (FOG).

Furthermore, a comprehensive ICT plan for the Kingdom has been prepared, which consists of a long-term vision for ICT, along with a five-year plan that charts the short-term vision for the first five years of the plan[2].

Over the past few years, the Kingdom has embarked upon the telecommunication reform path, with a vision for a competitive ICT marketplace to provide a high quality, competitively priced services with an increased level of innovation. The resulting modern infrastructure will be a platform for further innovation and service delivery that supports economic development and creates new employment opportunities.

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[1] Ministry of Economy and Planning: http://www.planning.gov.sa

[2] National ICT Plan: http://www.mcit.gov.sa

III. ICT VISION AND OBJECTIVES

The Kingdom's vision for ICT aims at transforming the country to an information society through the utilization of ICT for providing information services to all strata of society, in all parts of the country, and by building a solid ICT industry to become a major source of national income.

The government views information as a strategic resource, and thus sees ICT as a major facilitator and driver for growth and prosperity. In particular, over the next few years, the objectives for ICT will focus on the following:

- Continuing the development of the regulatory environment to ensure fair and effective competition in a free ICT market;

- Working towards increased availability and consumer choice in the provision of voice, data, and high quality broadband services across the Kingdom;

- Bridging the digital divide in the country by utilizing different strategies from infrastructure outreach to education and awareness;

- Exerting all required efforts for attaining an information society, characterized by a knowledge-based economy, ICT-enabled learning, electronic government services, and efficient electronic commerce (E-Commerce);

- Working towards building a solid ICT industry, that is locally vibrant and internationally competitive.

IV. REGULATORY FRAMEWORK

The 2001 Telecommunications Act[3] established the legal framework for the development of the telecommunications market, and authorized in 2002 the creation of the regulator, CITC, with financial, regulatory and administrative independence.

The Telecommunications Act contains provisions pertaining to the separation of roles and responsibilities between the MCIT and CITC. MCIT is responsible for the development of sector level policies, while CITC is responsible for the regulation of the sector. As required by the Telecommunications Act, the minister of MCIT has issued the Telecommunications Bylaw, which details the principles, criteria and processes that CITC would apply in implementing the provisions of the Telecommunications Act.

A. POLICIES UNDER DEVELOPMENT

The Telecommunications Act provides for clarity, non-discrimination and transparency in licensing, including licensing processes and criteria, licensing in situations of scarcity and evaluations processes.

As markets are opened to competition, the policy thrust is to design a licensing regime that would promote a level playing field and ensure sustainable competition across the entire market. The following policies are expected to be issued within 2006:

- Spectrum Management: This includes spectrum-related requirements for fixed and mobile services, including its availability, allocation, and its efficient utilization and interference safeguards;

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[3] The Telecommunications Act and CITC Ordinance: www.citc.gov.sa/CITC/EN/Commission Statutes

- Scope of Services: This includes the range of fixed and mobile services offered by fixed and mobile service providers in other countries, and strategic recommendations including optimizing the scarce national resources for the Kingdom, and analysis of requirements for facilities-based and resellers, such as Mobile Virtual Network Operators (MVNOs), while at the same time optimizing the scarce national resources for the Kingdom;

- VoIP: The global evolution shows that Internet Protocol (IP) telephony and Voice-over-IP (VOIP) can pose a significant threat to the revenue of fixed service providers. Internet telephony bypasses the public switched telephone network and thus reduces the revenue of incumbents, especially long distance and international carriers. The VOIP policy will address all issues related to the introduction of IP Telephony and VOIP in a fair and efficient manner;

- Unbundling: The use of unbundled functionalities and network elements has great impact on how competition evolves in a multi-operator environment. The unbundled elements may include local loop, local and tandem switches, network interface devices, operation support systems functions, etc;

- Carrier Selection: A simple and equitable carrier selection mechanism will be developed, which includes guidelines for introducing the carrier selection, service provider responsibilities, call routing scenarios, interconnection requirements for facilitating carrier selection, and the required role of CITC;

- Number Portability: The Local Number Portability (LNP) policy and guidelines document will address policy statement, technical options, cost recovery principles, deploying options, service provider obligations, CITC's role, implementation requirements, interconnection requirements, operations, porting process, recommended charges, services to be ported, and benchmarking based on best international practices. With the consent of the competing mobile operators in the Kingdom, CITC has issued guidelines for the implementation of mobile number portability, as agreed upon by the competing mobile operators.

In the same context, the concept of unified licensing will be explored, where the licensing regime and the associated terms and conditions are designed to encourage competition in ICT market.

The policy of technological neutrality will allow service providers to select the most cost efficient technology to serve their customers and result in competitive prices based on the efficient provision of services.

In addition, regulations are being developed to encourage telecommunication resource owners to market any excess capacity they may have in their private backbone networks.

As for license fees, they are primarily based on market value principles. CITC selects the appropriate methodologies to determine license fees prior to or during the licensing process.

B. LIBERALIZATION POLICY

The Kingdom has gained accession to the World Trade Organization (WTO) in December 2005, and the adoption of the ICT Reference Paper. Today, competition exists in many areas such as:

- The Internet service provision market, which currently has over 30 operators;

- Very Small Aperture Terminal (VSAT) market, which currently has 5 licensed providers;

- Data services market, which has two licensed providers currently operating, in addition to the incumbent operator;

- Global System for Mobile communication (GSM) market, which has two licensed providers currently operating;

- Global Mobile Personal Communications via Satellite (GMPCS) market, with two providers available in the market;

- Third generation (3G) mobile service, with two licenses already awarded, and service expected to begin in 2006.

CITC has begun the licensing processes for fixed telephony and additional mobile service providers, including Mobile Virtual Network Operator (MVNO) licenses, with the objective of granting such licenses by the end of 2006.

As for data services, CITC aims at market regulations designed to stimulate growth, improve quality, and reduce prices for the data services. Furthermore, during 2006 CITC will pursue the process for additional licenses including resale licenses that could be awarded for the provision of data services.

C. COMPETITION

The framework for instituting competition enablers is contained in the Telecommunications Act and its Bylaw. Policies with respect to this regulatory framework for competition include guards against anti-competitive practices, requirements for interconnection, and number portability. In terms of interconnection requirement, the Act offered service providers the right to negotiate agreements for interconnection on commercial bases. The interconnection guidelines to be used by service providers has already been issued by CITC. In addition, CITC has approved incumbent-proposed Reference Interconnect Offer (RIO) in 2005, with a revised RIO expected to be issued in mid 2006.

D. PRICE REGULATIONS

CITC's price policy does not regulate the tariffs of non-dominant service providers and non-universal service providers. However, CITC has the authority to use regulation tools, to prevent predatory pricing or other anti-competitive behavior. As such, CITC statutes contain a number of provisions that are important for the development of sustainable competition, especially during the transition to full competition.

V. ICT TECHNICAL INFRASTRUCTURE

The ICT infrastructure represents a major contributor towards the success of ICT planning and development for the Kingdom. Therefore, MCIT encourages the development of broadband wireless services, subject to proper licensing, with no restrictions on its use within and between cities. Furthermore, telecommunication services, such as wireless local loop, VSAT, DSL, WiMax, and other innovative technologies are all encouraged.

The National Frequency Spectrum Plan4, which outlines the spectrum policy and provides for its efficient use, is currently under development by CITC, and will be submitted for approval upon completion.

In addition, CITC has also developed a National Numbering Plan5 to ensure proper use of such scarce ICT numbering resource. The key commercial principle adopted in the development of this plan was "…efficient use and non-discrimination among service providers with respect to assignment of numbers and fees charged."

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[4] National Frequency Spectrum Plan: http://www.CITC.gov.sa

[5] National Numbering Plan: http://www.CITC.gov.sa

Internet service in the Kingdom is provided by the private sector. One policy direction in this regard is to ensure uninterrupted service at all times, which has been achieved through having multiple international access ports for backup purposes, along with a full internet service backup site located in the west part of the country. With the newly licensed data service providers, more redundancy and better quality of service is expected.

Domain names under the Saudi domain hierarchy are provided free of charge for all private companies, government agencies, and individual users.

VI. ICT USAGE AND CONTENT

Saudi Arabia is under transformation towards becoming an information society, with the main engines for this transformation being ICT applications, services, and content.

The government believes that E-Government will have a major effect on the public sector, the private sector, the national economy, and society at large. This is currently being implemented through a dedicated E-Government Program (Yesser[6]), a joint program among MCIT, Ministry of Finance, and CITC. Yesser is based on best practices and international experiences, and is being executed in a coordinated, transparent, and decentralized fashion. The requirements for a successful E-Commerce and E-Government are to be met through enhancing telecommunication backbones; establishing relevant laws and regulations; ensuring information security and privacy; building a Public Key Infrastructure (PKI)[7]; developing common standards; establishing the national technical infrastructure; building an e-payment gateway[8]; using smart cards and creating the national e-services portal; introducing change management program across the public sector; and improving on postal delivery and related services.

Without rich and proper information content, ICT has a limited use. To that end, and as detailed in the national ICT Plan, MCIT is working towards instituting policies for the placement of Arabic digital content on the Internet, translating electronic content into Arabic, and using Arabic domain names for Internet addresses, a practical way for addressing Arabic web sites. Local publishers are encouraged to provide digital summaries for all books and reports they may have published or printed.

VII. PRIVACY AND SECURITY

The physical access security infrastructure requires the security of communication lines and equipment against improper use. One way of achieving data security is through PKI, which allows government agencies, the private sector, and individuals to use encryption and electronic signatures to secure their transactions, and to promote the development of E-Business and E-Transactions, in general. User privacy is being tackled by drafting laws to curb various network violations; by upholding user personal information rights; and by controlling the use and access to user personal data. Thus, users will be informed about the implications of their personal privacy when using ICT services, and will be able to maintain their existing level of privacy free of charge. Personal information can be collected only with the express consent of the individual, except as and when required by law.

In this regard, the government is developing acts and regulations, stemming from the Telecommunications Act and its Bylaws, such as the E-Transactions Act9, and the Computer and E-Crime Act[10].

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[6] Yesser: http://www.yesser.gov.sa

[7] PKI: http://www.pki.gov.sa

[8] Payment gateways: http://www.sama.gov.sa; http://www.sadad.com

[9] Electronic Transactions Law: http://www.yesser.gov.sa

In addition, the government is currently establishing a national center for information Security (CERT) at CITC, which focuses on building a framework for consistency and dissemination of IT security-related information and best practices.

VIII. BRIDGING THE DIGITAL DIVIDE

The digital divide is being addressed by enhancing digital Arabic content, and spreading ICT awareness by means of computer and Internet literacy education, and by boosting the usage of PCs in the country. The home computing initiative, launched in mid 2005, aims at enabling one million homes to own personal computers within a period of 5 years[11].

MCIT is also working on plans to freely distribute to the public training material on CDs, which cover basic PC and internet skills. The training material will be available also through the MCIT learning portal.

Small and Medium Businesses (SMBs) are a major vehicle for economic growth and job creation. The government is coordinating an initiative to provide a complete solution to automate SMBs, promote awareness and standardization, and facilitate ownership of basic ICT tools and solutions.   The policy on universal access and universal service, soon to be enacted, will bring the benefits of ICT to all geographic areas and to all social strata.

Developing the nation's human resources is a basic element of national development, and a major contributor to bridging the digital divide. The privatization program12 attaches particular importance to Saudization, and aims at developing appropriate regulations and incentives to encourage the private sector to hire Saudi citizens, and provide opportunities for training and professional development.

IX. ICT INDUSTRY AND INVESTMENT

Part of the vision for ICT is to build a solid ICT industry, capable of competing locally and internationally, to become a major source of national income. This is to be achieved by investing in scientific research, innovation and development in some strategic areas, and by forging regional and international cooperation agreements in industry-specific initiatives.   As for funding, MCIT is working with Ministry of Finance on a framework for funding ICT projects, and boosting their productivity, and is also working with the Ministry of Commerce and Industry (MoCI) and the Commission on Industrial Cities and Technology Areas to create a suitable environment for ICT incubators and parks, and to devise incentive programs to stimulate innovation and high productivity.

Some of the other industry areas to be focused on are general ICT services, localization of ICT applications, software production specific to local culture, such as Hajj and Omrah, oil and gas operations and refinement, etc.

A. SMART CITIES AND INCUBATORS

CITC is in the process of launching a smart cities' initiative, which aims to transform key cities in the kingdom to digital cities, thus providing E-Government, E-Commerce and E-Transactions services and relevant local content to city dwellers and visitors. The immediate target is to transform Riyadh to become the first city to follow this model and then roll the concept to other cities.

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[10] Computer and Internet Crimes Law: http://www.yesser.gov.sa

[11] Home PC Initiative: http://www.citc.gov.sa

[12] Privatization Strategy for the Kingdom of Saudi Arabia, Chapter 1, Supreme Economic Council Decision 1/23 Dated 23/3/1423 A.H. [June 4, 2002]

The government advocates the establishment of a number of incubators and technology parks, so as to encourage the development of knowledge industries, speed up the transfer of technology, and create high quality job opportunities for Saudi citizens.

B. STANDARDS AND CLASSIFICATIONS

The Telecommunications Act and its Bylaws provide a policy framework for standards for telecommunications equipment. CITC is currently in the final phase of developing regulations for type approvals[13], which is a scheme for licensing of ICT equipment supplied and used within the Kingdom. MCIT will also be working with the Saudi Arabian Standards Organization (SASO)14, and other bodies, on a process of developing ICT-related standards that will form the basis for building a solid ICT infrastructure.

Other efforts the government is taking for boosting the ICT industry and investment includes a project that aims at classifying and rating ICT companies in terms of their technology capabilities, expertise, and track record. This project is being carried out in cooperation with the Ministry of Municipalities and Rural Affairs, and will be used for assisting decision makers in their ICT vendor selection process, and for providing a level playing field for all competing ICT companies.

C. INVESTMENT CLIMATE

Creating a positive investment climate is essential for the development of effective competition in the ICT market in the Kingdom. The commitment to the WTO in ICT services reinforces the commitment of the government to create an investment climate appropriate to the development of new firms in the ICT market. Such investment will increase market opportunities, as existing service providers upgrade their network and new providers construct facilities in order to compete with established providers.

The Foreign Investment Act, approved in the year 2000, governs foreign investment in Saudi Arabia. The new act allows foreign companies the possibility of up to 100% ownership of the projects and their real estate requirements, while allowing foreign investors to enjoy the same incentives given to national investors.

Concurrent with the promulgation of the new investment act was the establishment of the Saudi Arabian General Investment Authority (SAGIA)15, which has streamlined the requirements for the foreign investment application process, and in particular allowed for foreign investment in the provision of all ICT services[16].

X. CONCLUSION

This policy statement has outlined some of the major efforts, achievements, and future directions of the ICT sector in Saudi Arabia, and has described the broad policy directions taken by the country to develop and enhance ICT. The statement has touched upon policies related to the regulatory framework and policies in the areas of ICT infrastructure, applications, and content. It then shed some light on the policies being pursued for building human capacity, providing safety and security, developing the ICT industry, and boosting investment. Policy directions are not static, but rather are dynamic, continually evolving, and subject to change as various social and technological changes take place.

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[13] Type approvals: http://www.CITC.gov.sa

[14] Saudi Arabian Standards Organization: http://www.saso.gov.sa

[15] SAGIA: http://www.SAGIA.gov.sa

[16] Regulations, laws and requirements governing foreign investments: http://www.SAGIA.gov.sa