ISLAMIC REPUBLIC OF AFGHANISTAN
MINISTRY OF COMMUNICATION AND INFORMATION TECHNOLOGY

COMMUNICATION AND INFORMATION TECHNOLOGY STRATEGY FOR AFGHANISTAN NATIONAL DEVELOPMENT STRATEGY

(WITH FOCUS ON PRIORITIZATION)

(DRAFT)

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PILLAR-SUB-PILLAR-SECTOR AND SUB-SECTOR	**PILLAR III- ECONOMIC AND SOCIAL DEVELOPMENT** **SUB PILLAR – INFRASTRUCTURE** **SECTOR: COMMUNICATIONS**
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SECTION ONE: OVERALL SECTOR GOALS AND RESULTS

1.1 Goals:

To make affordable communication services available in every district and village of Afghanistan through enabling market economy, so that all citizens will reap the benefits of the digital age and participate fully in the global information society.

1.2 Expected Results:

A. Priority Expected Results:

1. By Jaddi 1389 (end-2010), national telecommunications networks will be expanded and interconnected so that more than 80% of Afghans will have access to affordable telecommunications services.
2. By Jaddi 1389 (end-2010), more than 5 billion Afs (US$ 100 million dollars) per year will be generated in public revenues from the telecom sector.
3. By Jaddi 1389 (end-2010), the independent sector regulator will foster a transparent legal-regulatory regime that attracts a further 37.5 billion Afs (US$ 750 million) in private sector investment, and 5,000 in direct and 50,000 in indirect employment.
4. By Jaddi 1387 (end-2008), the government will attract private investment for Afghan Telecom to reduce the financial burden on the treasury, and complete the legal basis for private investment into Afghan Post.
5. By Jaddi 1387 (end-2008), cross-cutting electronic government applications will be launched to reduce corruption and increase efficiency.
6. By Jaddi 1387 (end -2008) the annual mail per capita will be increased from 0.05 to 4 letters posted per inhabitant through promoting competition in the sector.

B. Other Expected Results:

A strong and well-functioning Communications Sector will also bring the following benefits to the citizens and the economy of Afghanistan:

- *Empower the government to execute its duties:*

Reliable communications will enable the government to successfully execute the broad reconstruction effort. A modern telecommunications sector, incorporating e-government initiatives wherever possible, will enhance the effectiveness, efficiency and transparency of the public sector and the provisioning of social services. In this case such provision of services has largely occurred through the enabling environment created within the sector for sustained private sector investment.

- *Improve Quality of Life and National Unity*

Today all the communities of our people face the “tyranny of distance” and the alienation associated with remote geography. To restore cultural and social normalcy throughout the country it is essential that all 365 districts, major villages and rural areas be integrated with Kabul, with each other, and with the rest of the world. Telecommunications is a basic enabler

of informal social and economic discourse necessary in the strengthening of civil society and the promotion of economic activity (e.g. access to markets and pricing).

- *Drive Economic Development*

Telecommunications is necessary for the resumption of productive capacity and stimulating activity in all sectors of the Afghan economy. It plays a critical role in reestablishing basic economic linkages by relieving communication bottlenecks from financial, governmental and cultural information flows. Communications is an essential enabler for boosting productivity and creates a climate for job creation, investment and sustainable growth. Research data shows that positive economic effects flow to all parts of a community once basic telephone access is achieved. And now with the advent of Internet the flow of market information is more rapid enabling the market stakeholders enjoy the availability of business/economic statistics. As important, an efficient telecommunications sector has already become the largest sector contributor of tax revenues to the national treasury. The contribution of the telecommunications sector for 2005 is estimated at 20% of national domestic revenue collection.

- *Enhance national and civil security:*

Civil preparedness, education, NGO and community outreach, peace-building and national security efforts are all strengthened when reliable and robust telecommunications network resources are distributed widely throughout society. Telecommunications is a strategic sector that urgently requires further rapid modernization by encouraging further private sector investment into the sector. It plays a unique role as a facilitator in the overall reconstruction effort – from providing a support infrastructure for humanitarian, aid and other NGO relief workers to improving education, supporting emergency operations and social welfare and boosting the economy.

- *Endorse Transparency and Accountability*

Administrative reforms being accepted as one of the major challenges by the government of Afghanistan can be tackled with the use of ICT by introducing G2G (Government to Government), G2B (Government to Business) and G2C (Government to Citizen) services. As per the international experiences technology can be one of the strong factors helping reduce the bureaucracy and increase the accountability and transparency.

SECTION TWO: CONTEXTUAL ANALYSIS

2.1 Analysis of the background and Current Status of the Sector

The national telecommunications network had been decimated by 23 years of conflict and under-investment. At the beginning of the transitional government, the infrastructure seemed to be negligible; services were extremely limited.

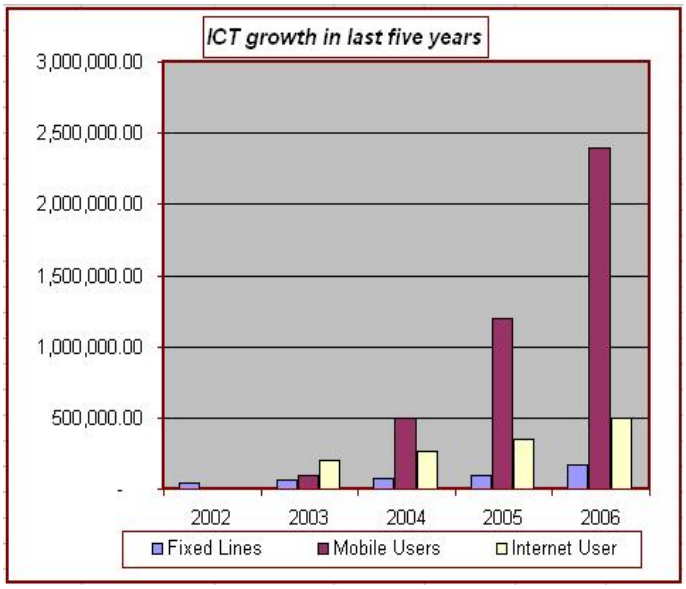
Afghanistan had fewer than 15,000 telephone lines for a population of approximately 25 million. This means a telephone penetration rate of 0.06%, among the lowest in the world. In addition to a shortage of basic telephone switching capacity, the local transmission network delivering last mile services, presented an even more difficult bottleneck. The cabling conduit, trunk cables and copper wires were also old or completely destroyed.

Afghanistan did not have a functioning long distance network to provide national or international connectivity. The absence of transmission and switching facilities meant that

citizens could only complete calls within their own cities and were unable to reach any other parts of the country or the outside world.

The objectives of the MCIT have been rapid development of the telecom sector by having multiple operators providing world-class quality services at reasonable prices. In July 2003, the MCIT adopted its Telecommunications and ICT Policy with the aim to promote rapid telecom development through private sector investments. The Islamic Republic of Afghanistan firmly recognizes the importance of embracing telecommunications & ICT technologies to achieve the nation's development and reconstruction goals.

The MCIT Policy is fully compliant with the sector framework required by the World Trade Organization (WTO) by making the MCIT responsible only for policy, by establishing an independent sector regulator Afghanistan Telecommunication Regulatry Authority (ATRA) and by corporatizing Afghan Telecom as the first step to removing the government from the provision of services to the public. The Policy encourages private investment through the introduction of measured competition; established Afghan Telecom as a state-owned corporation with the right to accept private investment; and supports rapid expansion of telecommunications and Internet services at the local level.



In line with this Policy, MCIT has issued 4 nationwide cellular mobile telephony licenses. The two most recently issued GSM licenses have resulted in combined license fee payments of $80.2m to the Government of Afghanistan. Five years after the fall of the Taliban, full mobile services are rapidly taking off, passing 1,000,000 subscribers in December 2005, 1,500,000 subscribers in August 2006 and 2.3 million in December 2006 covering major parts of Afghanistan, including approximately 150 towns and cities in Afghanistan. A report from licensees indicates that the telecommunications market in Afghanistan is growing faster now than any time in its history, with an estimated 100,000 net mobile subscriber growth across the industry per month. It is estimated that approximately 50-60% of Afghans now live within a coverage area of a telecommunications network.

In addition to the four mobile licensees, the MCIT, through the Afghanistan Telecommunications Regulatory Authority (ATRA), formally licensed Afghan Telecom in April 2006 to provide unified telecommunications services, thus providing substantial value to attract potential investors.

Afghan Telecom has implemented 165,000 digital lines using the most modern technology (CDMA WLL) in 24 provinces, interconnecting all provincial capitals as well as all districts via satellite network providing voice, Internet and video conferencing services through District Communication Network (DCN).

MCIT/ATRA has also issued fifteen (15) Internet licenses and these companies have also made some small investments and are providing Internet services in major cities in Afghanistan

The MCIT is also in process of implementing a 3,200 km optical fiber backbone network along national highways passing through major provincial capitals and also connecting with neighboring countries. This will be completed within two years.

In addition, the MCIT has extended basic communications services to government at the ministry and provincial capital level, and has improved international connectivity through a microwave link to Pakistan and fiber link to Iran. Almost 170 districts out of the 365 districts across the country are connected to provide the voice, data and fax facilities.

The postal sector is presently functioning at a higher level compared to two years back and a number of telekiosks providing internet services in key provincial centers are established.

The Postal Section of MCIT was not merely service provider, but also played the role of the regulator. Afghan Posts will be incorporated in the course of the year 2007-2008 as state-owned corporation that will be awarded a national license with the mission to provide, affordable, efficient, competitive, viable, and customer oriented postal services. The postal sub-sector specifically contributes to economic growth and development of the sector by:

- Reducing transaction cost;
- Forging markets;
- Collecting revenue to reflect the cost of services provided
- Fulfilling demand

There is a comprehensive network of 424 postal centers in provinces and 365 districts across Afghanistan, most of which were in a bad state have now been rehabilitated.

Finally, a robust communications environment will provide Afghanistan with greater assurances for achieving and sustaining national and civil security. Domestic preparedness, education, NGO and community outreach, peace-building and national security efforts are all strengthened when reliable and robust network resources are distributed widely throughout society.

Reform and development activity at the MCIT has been brisk. Among the accomplishments MCIT has made since 2002 are the followings:

- Creating an enabling environment in which telephony penetration has risen from 0.06% to app 10 % in over last 3 years, which represents faster growth in comparison to the neighboring countries.
- Adopting and Publishing the Telecom Law (December 2005)
- Finalizing and Publishing the Telecom and ICT Policy
- Establishing of Afghan Telecom as a state owned enterprise (2005).
- Issuing the first national unified services license to Afghan Telecom (2006).
- Creating Afghanistan Telecommunication Regulatory Authority (ATRA).
- Issuing 4 GSM licenses
- Issuing 15 national and local Internet Service Provider(ISP) licenses
- Rehabilitating the Telecommunication Training Centre and upgrading it to the Information Communication Technology Instituted (ICTI)
- Renaming the Ministry of Communications (MoC) to Ministry of Communication and Information Technology (MCIT)
- Establishing ICT Directorate in MCIT

- Regaining the Recognition of the +93 country code by major international and regional carriers
- Establishing 12 ICT centers n Kabul and provinces
- Recovering the Afghanistan's .af domain name
- Establishing MCIT web site (www.moc.gov.af)
- Expanding District Communications Network (DCN) in more than 170 Districts.
- Expanding of Government Communications Network(GCN) in all provincial capitals as well as 42 ministries and other major governmental organization
- Implementing 150,000 landline copper cable network

2.2 Analysis of Key Strategic Elements and Processes in Past Programming that Contributed to Success:

MCIT of Islamic Republic of Afghanistan is committed to embracing a market regime based on aggressive market liberalization, transparent and non-discriminatory regulation, fair competition and private sector participation. The Government moved as quickly as possible to privatize the telecommunications sector to ensure that adequate financing is available to meet our development goals.

Private investment has already led to the rapid expansion of mobile communications. Private participation has been harnessed to further fund Afghanistan's substantial communications infrastructure needs. Taken together, competition and private investment will lower prices to consumers for network services and equipment, improve quality of service and accelerate a faster rate of market innovation.

Government of Afghanistan also recognizes the critical importance of ICT and has published an ICT policy to develop ICT in Afghanistan. ICT is another sector in which the private sector can play an important role and quickly develop. However, there remains important roles for government oversight and investment. Government has enforced policies and the regulatory environment required to promote private provision of services. Governments plan extending access beyond that which the market would provide alone, and government is playing an important part in ensuring that their own operations benefit from access to and use of ICTs to improve governance and government operations.

To achieve these broad policy objectives, MCIT has further identified a series of strategic initiatives and development principles to guide and direct our work. These initiatives are based on international best practices in telecommunications sector reform. They are calculated to accelerate market liberalization, attract direct inward investment and protect consumer rights.

2.3 Analysis of Constraints, Restraints and Assumptions

A. Regulatory and Governance Environment:

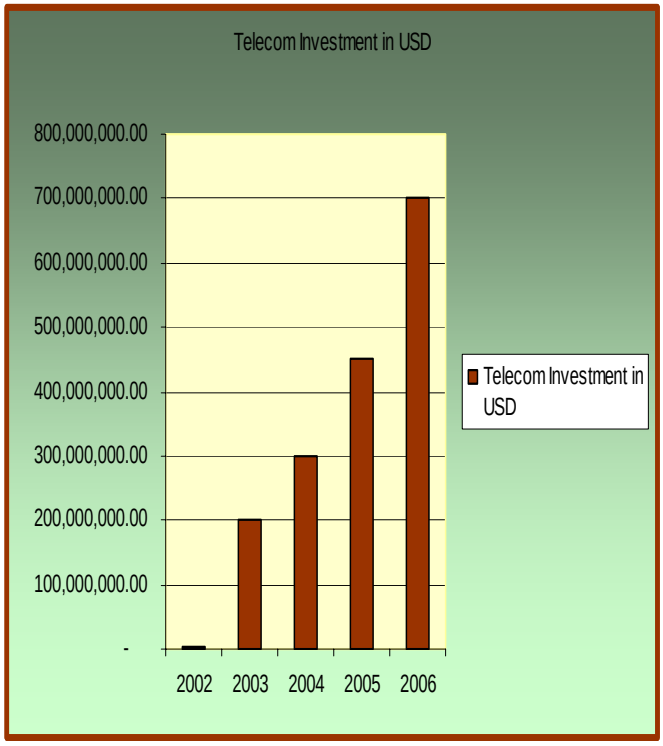
The major challenges to achieve the telecommunications goals are security, administration and financial bureaucracy, late approval of the annual budgets and development projects as well as weak implementation and technical capacity, which are the major concerns. Therefore, a strong capacity building effort is required to upgrade the capability of personnel and the government is also coping to assure that an acceptable security environment and refined administration and financial procedures be developed for sound business.

1. Telecommunications law was enacted in December 2005. The law provides for the formation of an industry regulator, the Afghanistan Telecommunications Regulatory Authority (ATRA).

2. A sound regulatory environment within the telecommunications sector has evolved rapidly over the last 3 years. To date the regulator has displayed a non-interventionist stance with regards to regulating licensees in the belief that market forces will continue to drive prices lower. The regulator is committed to implementing international best practices and creating a fully transparent regulatory environment. This can, for example, be evidenced, on issues such as interconnection dispute resolution where the regulator has hired an independent third party expert to ensure the fair and transparent resolution of a dispute.

3. Further technical, administrative and institutional support of the regulator is required. For example, to date licensees have paid in approximately $10m in fees to a Telecommunications Development Fund, the purpose of which is to accelerate the deployment of the provision of telephony services into underserved rural areas where it may be otherwise uneconomic for private licensees to extend coverage. This fund has yet to be established and disbursements yet to be made. Increased capacity and resource at the regulator could facilitate this process, thereby ensuring significant telephony investment into rural areas.

4. The privatization of Afghan Telecom, once completed, will represent the government's departure from operating any telecommunications assets in line with its stated policy. This will also remove any notion of possible conflicts of interest between the government and the regulator which may arise out of the fact that the government still retains ownership of Afghan Telecom.



5. It should be noted however, that to date, the telecommunications sector has attracted over USD $700m in foreign direct investment since 2003, which in all likelihood, is the largest investment into any sector of the Afghan economy in the post-Taliban era. Further, recent loan transactions (e.g. the Asian Development Bank, Proparco, DEG, Standard Bank PLC and National Bank of Pakistan's financing of a mobile licensee - Roshan) into the sector are setting benchmarks for investment into Afghanistan. In this case, it is notable that the loans made by Standard Bank PLC and National Bank of Pakistan are the first significant cross-border commercial loans into Afghanistan. Such transactions set a positive precedent for encouraging further private and foreign direct investment into all sectors of the Afghan economy.

6. The reform and predictability of the general legal and fiscal framework in Afghanistan is vital to ensure continued investment into the telecommunications sector.

Further investment is likely to be triggered by a legal enabling environment that includes robust commercial laws that adequately address matters such as dispute resolution through competent local courts, laws of contracts and so on. An anecdotal example may shed further light on the constraints on investment and access to finance that arises from the lack of a

robust legal framework. E.G. A foreign investor is willing to lend a licensee a significant loan which is to be secured against the network equipment assets of the licensee. However, the foreign lender has no means of enforcing its security, repossessing assets, in the event that the licensee defaults on the loan. How for example, would a foreign lender enforce security provisions over technical equipment located in Herat. The lack of a functioning commercial court and legal system is deterring such investments and access to finance.

With regards to the fiscal environment, it is acknowledged that the tax and fee environment under which licensees operate needs to be predictable. An unpredictable tax environment for example is a significant deterrent to future investment in the sector. This is not to say that licensees should not be contributing to the Government of Afghanistan as they have done to date, however, the fiscal environment must balance the short term fiscal needs of the Government of Afghanistan against the long term benefits that accrue from a sustainable and predictable fiscal environment.

B. Capacity Analysis :

There has been an enormous loss of skilled professionals from Afghanistan over the last two and half decades of the civil war in the country. Afghanistan has either lost such people or they were forced to leave the country because of the political plights. The government of Afghanistan recognizes the critical importance of embracing capacity building to achieve the nation's development and reconstruction goals. The lack of local capacity for the management and implementation of the projects is the main problem to further develop the reconstruction of the country

Empowering the capacity building is one of the government's high priority and most attentive project in Afghanistan to start comprehensive capacity building with initial funds available at provincial and capital level, which is the key to the development of the capacity of civil servants; therefore, further support to above is needed to allow them to continue providing these much-needed services.

Within the Ministry, employees have received ongoing training in basic computer skills and English, which is the primary language for business worldwide. It is the goal of MCIT that by the end of 2007, every employee will have a written job description that addresses their contribution to the achievement of MCIT's goals, that a performance appraisal will be conducted every six months and that training will be mandatory to achieve professional conduct and career advancement. MCIT has initiated a public dialogue to transform its ICT Training Center into a public-private partnership so that the technical curriculum is modernized to reflect the needs of prospective employers. MCIT has also begun collaborating with the University of Kabul to accelerate the formation of the Public Administration Institute as the vehicle to raise the standard of institutional capacity building.

In December 2006, the ICT Council was proposed to be established, consisting of representatives from each government institution, plus interested stakeholders from the private sector, academia and civil society. One of the first tasks was to develop a skills questionnaire that was administered to the ICT managers throughout the government. Based on these results, additional training has begun and by the end of 2007, at least one professional certification center will be established within the Ministry. National certification is important because many of the people now working in Afghanistan have incomplete or illegitimate qualifications obtained from Pakistan.

C. Security Situation

Lack of security across Afghanistan has the following two primary negative impacts on the growth and development of the telecommunications sector.

1. Lack of security will dramatically slow down licensees' ability to extend network coverage and service provision into insecure parts of the country, thereby limiting the ability of Afghans in those areas to benefit from the provision of affordable telephony services. This is particularly prevalent in the south of the country where some licensees have had to cease all nework rollout activities due to threats to their staff and contractors.
2. A sustained lack of peace and security will simply reduce foreign private investors and stakeholders' willingness to continue to invest in the sector. Given that much of the expansion of the sector has been driven by private sector investment to date, it should be expected that continued expansion will also result from further private sector investment. Investment levels may drastically be reduced in light of continued insecurity.

SECTION THREE: STRATEGY

Overall Strategy for Achieving Expected Results

Plan One: Expanding the Telecom Infrastructure

1. Expansion of telecom service coverage to 6000 villages, 150,000 digital lines in 5 major cities and highways, including roads to major border points.

2. Implementing the national fiber optic ring to further enable national and international communications at lower prices with good quality.

3. Reduction of prices and promotion of quality of communications services through promoting an open, liberalized competitive market environment.

4. By the end of 2009, all schools will have access to the internet and multimedia resources, including the possibility of extending the reach of the existing District Communications Network (DCN)

5. By 2009, The TDF will be used for the network expansion to the rural areas.

Plan Two: Increasing the Revenues to the Treasury

1. Broadening the tax basis by private sector competition to meet the demand of the users (where the money is coming from)

    - Custom duty for the importation of the infrastructure
    - Telecom Development Fund (TDF)
    - Spectrum Fees
    - Business Receipt Tax (BRT)
    - Income tax
    - Payroll/health benefits and life insurance

Every additional user brings the multiplier affect of these revenue resources to the government. Meanwhile, each company hires additional staff and employee payroll has additional tax benefits to the government.

Plan Three: Legal-Regulatory Reform

1. By Jaddi 1386 (2008), the Afghanistan Telecommunication Regulatory Authority (ATR)A will conduct public consultations to complete all of the normative acts that are required by the Telecom Law, including:
   - Procedural Rules (Voting, Appeal)
   - Administrative Rules (Hiring, Spending, Reporting)
   - Substantive Rules (Licensing, Frequency Assignments).
2. By Jaddi 1386 (2008), ATRA will complete an independent audit of its finances, with particular focus on the Telecom Development Fund (TDF). The results of the audit will be submitted to the Government as part of an annual report of activities published on the ATRA official website.
3. By Jaddi 1387 (2009), ATRA will have launched international competitive tenders to provide telecom and ICT services in rural underserved areas of Afghanistan, using the TDF.
4. By Jaddi 1388 (2010), ATRA will deploy the first electronic government application in Afghanistan, which will allow licensees to renew their licensees and frequency assignments via the official ATRA website. The application will also feature the first electronic commerce feature, to allow online payment.
5. By Jaddi 1389 (2011), the majority of ATRA professional staff will have completed certification program in the newly launched Public Service Institute at Kabul University (or equivalent).

Plan Four: Removing the Government from Provision of Telecom Services

1. By the end of 2007, Afghan telecom will be fully restructured and will be ready to introduce new products and services to improve its commercial position in the market. The first phase will be to move to prepaid calling and to automate all the internal operations.

2. By the end of 2008, it is expected that most retail customers will be receiving full mobility services and institutional customers will have wired broadband services.

Plan Five: Providing ICT Leadership

1. By the end of 2007, a fully functioning ICT Council will be in place top avoid duplication and waste and to improve the professional capabilities of the staff
2. By the end of 2007, the ICT Council will select the first cross cutting e-government applications(for example it might be payroll, procurement)

Plan Six: Improving the Provision of Postal Services

1. By the end of 2007 Afghan post will be split into Regulatory and operational fields,

2. By the beginning of 2008, the major license will be issued to Afghan Post as a major operator wholly owned by the Government ;

3. By the mid of 2008 the minor licenses will be issued to private operators;

4. By the end of 2009, the penetrating rate will be increased from 60000 inhabitants per post office to 24000 inhabitants/post office.

Analyze each of the options for:

1. If we look at the past decades, we see that in the Telecom sector there was coverage of only six cities providing solely local connection for 15000 lucky users. However, during the transitional government requests were made to donors to provide additional money and response was very limited to emergency communications, there was a consensus of opinions that there was only way for Afghanistan to get out this situation which through licensing and private sector investment.
2. Before the transitional government, the tradition was that each ministry was collecting the taxes and was not used effectively, however, now we have a modern tax system which is capable of a broader tax base and benefits from more economic players where each one contributes directly to the treasury. The fact is when you look back the increase of the customers from 15000 to 2 Million makes it possible for us to predict that more licenses results in more investment results more services results in more customers and more taxes.
3. There were no options but to follow the path of the 150 countries over the last decade that have established independent regulators and adopted a licensing regime and mobilized billions of dollars of private capital to the telecom infrastructure and services
4. Let's look at what is needed to make the Afghan telecom commercially viable, the reality is that the Government does not have an extra 750 Million in the treasury to accomplish what is necessary to meet the demands of the market.
5. The old model is not working, a new business model is need, and people are fed up that the government is not providing them with services. What are the option, fire the government but that won't work that is not reasonable another option is to incentives that government employees so when they do good work they get rewarded finically .We know that the capacity is low, so lets train them to achieve better results.MCIT believes that that in addition to these options automated systems can be a rapid solution to improving efficiency reducing corruption and signaling to the citizens that the government is capable of the service they need.
6. Much of the work to prepare Afghan Telecom for privatization has already been completed or is in an advanced stage of implementation that will be completed by the end of 2007. The top management has been replaced and is now guided by international professional managers. By November 2006, all of the assets and liabilities were documented, catalogued and valuated. By January 2007, all assets were legally transferred from MCIT to Afghan Telecom Corporation. By February 2007, two international competitive tenders were launched for a pre-paid billing platform and full mobility services. By May 2007, investment advisors will begin meeting potential international investors, which could result in a transaction by Jaddi 1386.
7. MCIT has received extensive donor support for capacity building, and will continue to do so. Hundreds of MCIT personnel have received English language and computer literacy training and will continue to do so. MCIT has completed the PRR process and re-trained or re-assigned numerous key staff to improve alignment with the new policies and strategies. ATRA has hired all of its staff on the basis of merit and competition and is making training a mandatory element in the semi-annual performance review program.

SECTION FOUR: PROGRAMMING

MCIT has restructured itself to more efficiently develop and deliver the programmes to achieve its strategies.

Program One:" **Foundation of Communications Infrastructure in Afghanistan"**

The traditional structure of the communications sector is comprised of telecom and postal services. Afghan Telecom will continue to refine its commercial strategy to better meet the needs of the consumer and react more successfully to the new competitive market conditions. Afghan Telecom will deploy new wireless technologies to make service more affordable and comparable with what is now offered by the GSM licensees. It will also move to adjust its retail prices to be cost-oriented, as required by the Telecom Law, and will migrate to a pre-paid service platform to eliminate the non-payment problem. Based on what has been done with Afghan Telecom, MCIT will go the same path with Afghan post.

Afghan Post will act as a major licensee and under the license regime the company has the exclusive right to deliver letters up to 1 Kg (at affordable and uniform tariffs) throughout Afghanistan (Reserved service), Fulfill the government service obligation by provision of universal service. This should include giving all Afghans access to a postal service, which is equitable and reasonably meets community needs. The service should allow customers sent and receive messages and goods to and from any point in the world at affordable price.

1. **Fiber optic Ring:** Afghan Telecom will continue to supervise the MCIT's major infrastructure programme, which will link the six major cities of Afghanistan via fiber optic cable. This system will also link to neighboring countries like Iran and Pakistan to eliminate the high cost of satellite connectivity, this making retail calls and internet access more affordable to more people. MCIT will retain ownership of the system until it can be privatized to provide non-discriminatory access to all licensees. The supply and construction contract was awarded to a Chinese supplier in November 2006 and the project is expected to be fully complete by the end of 2008.

2. **District Communications Network (DCN):** Afghan Telecom will continue its satellite system to reach all of the 435 districts with at least a basic level of telephone services. In many cities, where demand warrants it, the DCN will offer additional community services, such as distance learning and access to microfinance.

3. **Village Communications Network (VCN):** VCN will be a further extension of the DCN satellite network, which will eventually reach 5-6,000 communities throughout Afghanistan. A financial analysis of the DCN operations revealed that a low-cost version could be commercially viable if the package configuration is scaled down. Nevertheless, donor funding would be essential to achieve a rapid roll-out.

4. **Afghanistan Postal Commission (APC):** will prepare a written policy for the development of the postal sector, which will form the basis of a new Postal Services Law. The law will create a transparent licensing regime to regulate all postal services providers on an equal basis and articulate the obligations of nationwide postal services and the rights of consumers. Rationalize the provision of postal services to meet current requirements
   - By the end of 2007, MCIT will obtain donor funding to strengthen the newly-established Afghan Postal Commission (APC) so that it can properly license private sector postal service providers, as well as monitor sector activities and ensure a high level of consumer satisfaction

- By the end of 2007, MCIT will adopt a roadmap to corporatize Afghan Post, including the implementation of commercially-oriented restructuring and product mix
- By the end of 2008, MCIT will facilitate the necessary legal and legislative instruments to corporatize Afghan Telecom
- By the end of 2009, MCIT will explore private investors for Afghan Post.

5. **Private Investment:** Afghan Telecom will attract a foreign private investor to make its operations sustainable and reduce the drain of resources upon the national treasury.

Program Two: *"*Strengthening the Independent Telecom Regulatory to foster vibrant competitive telecom market"

Afghanistan Telecommunication Regulatory Authority (ATRA) activities are the primary mechanism to achieve MCIT's strategies and goals. In particular, ATRA will continue to issue licenses that attract private sector investment, pushing the availability of telecom services further into every village in Afghanistan. Each existing and new licensee will pay licensing fees and spectrum fees, as well as taxes and customs duties, which will reach a volume of 5 billion Afs (US$100 million) by Jaddi 1389. Each existing and new licensee will also invest in telecom infrastructure, expected to reach a further 37.5 billion Afs (US$750 million) by Jaddi 1389.ATRA is committed to achieving the following projects in the coming by 2010.

1. **Broadband Wireless Licenses:** ATRA will conduct a public consultation to define the terms of an international competitive tender for multiple nationwide licenses of new broadband wireless services. Pursuant to the Telecom Law, the licenses will be awarded by an auction that may bring substantial fees to the treasury and include mandatory network construction milestones.

2. **Telecom Development Fund (TDF):** ATRA will conduct a public consultation to define the terms and methodology for multiple projects to accelerate the construction of wireless networks in rural and underserved areas of Afghanistan. Examples of likely projects are: creation of community telecenters; provision of internet connectivity to schools; rapid mobilization of VCN to respond to requests from community leaders. ATRA will work closely with Provincial and District governors, the Provincial Development Councils (PDC), the Provincial Reconstruction Teams (PRT), the provincial directors of the MCIT, the members of Parliament, donors and other interested parties to ensure that these new access facilities meet the immediate needs of the rural users. The immediate goal is to provide basic telephony connectivity, but further needs such as distance learning, remote payment of salaries and access to microfinance via mobile commerce platforms will be promoted.

3. **TETRA Regime:** Integrated public safety networks, linking local, regional and national players – ATRA is responsible for assigning spectrum for all commercial and public service requirements.

    - By the end of 2007, organize a Public Safety Task Force, consisting of the Ministry of Interior, the Afghan National Army, the border protection forces, the President's National Security Advisor and the police, fire and ambulance entities
    - By 2008, facilitate the adoption of the appropriate technical standards, including the assignment of spectrum frequencies, to ensure inter-operability of all public safety elements and to establish protocols for emergency response at the local, provincial and national levels. Guidance will be based upon the technical specifications already

contained in the ANA TETRA network procured by international competitive tender in 2006, as well as international best practices using TETRA systems in Germany and elsewhere.

- By 2009, identify gaps in coverage and capability and obtain donor funding to achieve reliable public safety network architecture. The network will be managed by the individual user groups, and additional technical training will be included as part of the competitive tender solicitation requirements.

4. **Mobile Commerce** :Accelerating electronic and mobile commerce

- By the end of 2007, ATRA will organize a task force to promote the adoption of technical standards so that mobile phones can be used to access commercial bank accounts as part of an inexpensive medium for microfinance and trade
- By the end of 2008, mobile commerce should be possible on a nationwide basis and also facilitate standard commercial transactions amongst users and vendors
- By the end of 2007, the MCIT will submit draft legislation governing eCommerce to the President for adoption. The legislation is needed to allow commercial contracts and transactions to obtain the same legal standing as their paper counterparts
- By the end of 2007, the MCIT will facilitate the establishment of a tri-partite NGO Institute (government, academic community and private sector) that will be the focal point for ensuring that Afghanistan is eReady, including the issuance of Public Key Infrastructure (PKI) certificates, an Internet Exchange Point (IXP) and to establish statistical measurements to benchmark progress
- By 2009, the IXP should substantially reduce nationwide internet costs by eliminating the need to route all traffic outside of Afghanistan
- By 2009, the PKI should foster the creation of domestic electronic commerce sites, including government electronic procurement

Program Three: "E-government as an enabler for cross cutting solutions "

The official name of the Ministry has been changed from MCIT to MCIT to reflect its new, broader responsibilities which extends beyond just communications to include also information technology (computers and networking).

For the promoting and development of ICT, MCIT has designed ICT Development in Afghanistan as a program which covers E-Government, Cyber Security, National ICT Council, Internet Governance, Building ICT Capacity, Localization and ICT standards. ,

These activities will enable Afghanistan to fully benefit from ICTs and in the course of coming 10 years Afghan society will be based on information fully benefiting from the international market and opportunities. To achieve that goal the following projects are planned and are underway:

1. **National Data Center (NDC):** The NDC is being refurbished and will soon be the secure physical hub for many government-wide networks and computer applications. It will also contain a training center to allow Afghans to gain computer skills certification, this eliminating the need to travel to Pakistan or elsewhere. The NDC will also facilitate web hosting and other advanced web services presently available only outside of Afghanistan

2. **Internet Exchange Point (IXP):** The IXP will be housed in the NDC and provide a shared platform that will eliminate the need to send vast volumes of internet traffic outside of Afghanistan via satellite. Presently, every electronic message has to be

routed to external hubs (in Dubai, Hong Kong or elsewhere) even if both the originating and terminating location is within Afghanistan.

3. **Electronic Government (eGov):** eGov applications will make the provision of government services more efficient and transparent, this reducing fraud and corruption. Examples include automated procurement and logistics, drivers license and passport renewals and fiscal services (payroll, budget, customs).

- By mid-2007, bring the ICT Council to becoming a fully-functioning institution that will guide the adoption of government-wide standards and ICT policies and coordinate ICT projects and resources amongst all institutions to reduce duplication and wasteful spending
- By mid-2007, drive the ICT Council to reach an agreement of the top ICT priorities and conduct a nationwide e-Readiness assessment (including infrastructure, applications and human resources)
- By the end of 2007, define a suitable eGovernment project that will serve as the template for all future cross-cutting ICT applications, and obtain donor funding for rapid implementation
- By mid-2008, have the first eGovernment project deployed on a small scale and by the end of the year, fully deployed across all institutions
- By 2008, identify further eGovernment projects and obtain donor funding as needed
- By 2009, ensure that eGovernment applications reach to the provincial, regional and district levels MCIT will work with the new 5-year US$200 million USAID Afghans Building Capacity (ABC) program to ensure that training is provided to all potential user groups.
- By 2010, deploy the broader suite of eGovernment applications.
- The MCIT will work closely with the Ministry of Education and Kabul University to mobilize the necessary resources to ensure that the youth of Afghanistan are eReady

4. . Smart cards for secure electronic access

- By the end of 2008, the ICT Council will adopt a suitable national standard for smart cards that may be used as the basis for a National Identity Card, National Healthcare Card and other official and commercial purposes
- By the end of 2010, the ICT will facilitate donor funding to integrate these smart cards into applicable eGovernment projects.

5. Electronic participation for the disabled

- By the end of 2009, the ICT Council will adopt standards requiring the design and content of all official websites and eGovernment applications to be accessible to persons with disabilities. These are specially-designed features geared only to overcome disabilities such as blindness (Braille keyboards, voice conversion into text, etc.)
- By the end of 2012, the ICT council will work to ensure all such official websites and eGovernment applications are fully functional.

6. Healthcare online

- By the end of 2008, the ICT Council will work to obtain donor funding for a pilot project that will utilize the District Communications Network (DCN) as the basis for remote healthcare (possibly diagnosis, exchange of basic medical information and realtime remote treatments) MCIT is already working with the Ministry of Health for the initial pilot phase, which is to utilize teleconferencing facilities and highspeed broadband connections that can rapidly display color images on standard computers.
- By the end of 2010, MCIT will work with the Ministry of Health, the Ministry of Environment and the Ministry of Labor to adopt a plan for all Afghans to have the possibility of having a health smartcard providing secure, confidential access to networked patient information.

SECTION FIVE: ROLE ANALYSIS

MCIT has been working extensively with both the donor community and the private sector since 2002. The primary donor relationship has been with USAID and the World Bank, but there have also been projects and activities supported by the ITU, UNDP, JAICA and the Governments of China, India, Iran and Korea. The list of private sector partners is even more extensive. The primary ones include the four nationwide mobile licensees (Areeba, AWCC, Etisalat and Roshan), as well as GSI, Motorola, Samsung, Huawei and ZTE.

MCIT has a physical presence in over 200 communities through its ownership of Afghan Telecom and serves all 398 districts via Afghan Post. MCIT communicates on a regular basis with the provincial and district governors, including occasional teleconferences with the larger local communities.

Going forward, ATRA has the primary responsibility for achieving the MCIT mission of making affordable telecom services available to rural and underserved areas. Pursuant to the Telecom Law, ATRA has established a Telecom Development Fund (TDF) that will sponsor and facilitate special telecom projects in areas that can not otherwise afford them. It is also expected that the TDF will be used to facilitate distance learning by internet access in schools, where the Ministry of Education will provide the content.

ATRA conducts it business in a transparent procedure and all of its decisions are the result of public consultations. Mainly, these meetings and seminars are in Kabul, but depending on the subject matter, public meetings are also conducted in the provincial capitals. In order to accommodate the vast distances across Afghanistan, ATRA has established a nationwide “help line” where any citizen can reach a consumer care representative by calling “999” from any phone, free of charge. Citizens may lodge complaints about lack of service, quality of service or make other comments to improve telecom services

SECTION Six : PRIORITIZATION OF PROJECTS FOR 1386 BUDGET

Priority (1) ” **Foundation of Communications Infrastructure in Afghanistan”**	**Budget M (USD)**	**Priority 2 “Strengthening the Independent Telecom Regulatory Body to foster vibrant competitive telecom market”**	**Budget M (USD)**	**Priority 3 “E-Afghanistan as an enabler for cross cutting solutions”**	**Budget M (USD)**
Project 1- *Optical Fiber Cable(OFC) Microwave Network*	**24**	**Project 1–** *Strengthening ATRA*	**1**	**Project 1 –** *ICT Law*	
Project 2- *Expansion of Digital Telephone Network*	**32**	**Project 2** WiMAX Licenses		**Project 2** – National Data Center (NDC)	**1.00**
Project 3- *Government Communication NW, District Communication NW Village Communication NW(GCN/DCN/VCN)*	**6**	**Project 3** Telecom Development Fund (TDF)		**Project 3 –** Smartcards for secure electronic access	
Project 4- *Modernization of Postal Sector*	**0.5**	**Project 4–** Mobile Commerce		**Project 4:-** Electronic participation for the disabled	
Project 5- *Creation of Afghan Post*	**0.79**			**Project 5:-** Healthcare online	
Project 6:- *Supporting Afghan Telecom Cooperation*	**1.00**			***Project 6:*** *E-Government*	
Project 7– Earth Station for Satellite	**0.80**			***Project 7****:* *AfCERT*	
Project 8- Expansion of GCN International Switching	**6.00**			***Project 8:*** *Internet Exchange Point*	
Project 9- Technical and Administration buildings	**3.00**			*NIRA*	

SECTION SIX : MONITORING AND EVALUATION

(To be elaborated Later)

1. *Use of LOG Frame as attached- Objectives, Impact, Outcome and Outputs and Indicators*
2. *Use of Monitoring Matrices Input and Output Data*

Frame Annex

Ministry Sector Strategy LOG Framework Analysis (LFA)

Strategic Goal -			
Objectives	**Expected Results**	**Indicators**	**Risk**
Program – (1) **Foundation of communications Infrastructure in Afghanistan"**	**Impact –** 80% of Afghan will be able to access to affordable telecommunications	% of population with access	Security
Project 1- Expansion of DCN	80% of Afghan will be able to access to affordable telecommunications	% of introduced districts	The project might be delayed due to the security reasons
Project 2 – Optical fiber backbone		% of installed length of total distance	
Project 3 – Expansion of Microwave System		% of installed length of total distance	
Project 4 – Digital telephone lines		(1) Fixed telephone penetration rate, (2) % of population with access	
Project 5 – Strengthening Afghan Telecom		(1) Fixed telephone penetration rate, (2) % of population with access	
Project 6 – Encouraging private sector		(1) Mobile telephone penetration rate, (2) % of population with access	
Project 7 – Coverage area expansion by mobile phone sector		% of population with access	
Project 8: Expansion of postal network	40% of Afghans will have access to affordable postal services	% of population with access	
Program 2 **Strengthening the Independent Telecom Regulatory Body to foster vibrant competitive telecom market**	More tan US$100 million per year are generated in public revenues		
Project 1 – Strengthen Regulatory Authority		1) No. of telecom carriers	
Project 2 –			

Expansion of Spectrum Monitoring System	More tan US$100 million per year are generated in public revenues	(2) No. of ISPs (3) No. of employee in telecom business (4) Amount of investment (5) generated public revenue	
Project 3 – TDF			
Project 4 – Wimax Licenses			
Program 3: **E-government as an enabler for cross cutting solutions.**	1) Efficient administration (2) Efficient telecom business management		
Project 1 –	1) Efficient administration (2) Efficient telecom business management	Digestive rate of the planned budget	
Project 2 –		% of past trainees of target staff	
Project 3 –		% of past trainees of target staff	