

COUNTRY REPORT - MAURITIUS

FUTURE PLANS AND DEVELOPMENTS

Background

Since its creation in 2001, the **Information and Communication Technologies Authority** can credit itself with a number of major achievements. Undoubtedly the most important of these has been the way that the Authority has forged ahead with liberalizing the telecoms market and thus creating a level playing field to pave the way for new entrants.

In October 2002, the former Prime Minister announced that the liberalization process in Mauritius would be brought forward by a year, i.e. liberalization would get under way on 1st January 2003 instead of 1st January 2004. Since the onset of the liberalization on 1st January 2003, the Authority has undertaken a number of measures in order to ease the entry of new operators and to promote competition.

These measures can be summed up as:

- Implementing a first tariff rebalancing as from 1st October 2002
- Allowing direct interconnection between mobile operators
- Devising and implementing a new licensing regime is characterized by technology-neutrality
- Introducing a new Numbering Plan
- Carrying out a full costing exercise for the incumbent operator and issuing an interconnection catalogue of cost-based Interconnection Usage Charge
- Implementing a second tariff rebalancing as from 15 September 2003.
- Issuing licenses to new operators
- Lowering the licence fees for ILD operators

These efforts have been in line with one of the key objectives of the Authority as set out under the ICT Act - namely to democratize access to information through the use of Information and Communication Technologies, ICTs. With the arrival of new entrants, the Authority has also had its work cut out in its role as the licensing and regulatory body.

As it looks towards the future, both in the short and long term, the Authority has a number of major projects in the pipeline pertaining to **radio communications, telecommunication, information technology and competition and tariffs**. The principal orientation of these future projects are set out over the next pages and gives an idea of the breadth and depth of the aspirations of the Mauritian regulator in fulfilling its wide ranging objectives to turn Mauritius into an information society where universal access goes hand in hand with fair play, high standards technological innovation.

RADIO COMMUNICATIONS

1. The Spectrum Monitoring Station

To manage the frequency spectrum, a proper spectrum **monitoring station** is a necessity. The tasks of this monitoring station would be as follows:

- Monitor emissions to verify compliance with frequency assignment conditions
- Frequency band observations and frequency channel occupancy measurements
- Investigate cases of interference
- Identify and stop unauthorized emissions
- Radio coverage measurement
- Radio compatibility and EMC studies
- Carry out technical and scientific studies

2. Guidelines for radiocommunication installations

The ICT Authority will issue guidelines with regard to radiocommunication installations. The Authority believes that such guidelines will improve the efficiency of spectrum usage in the country and also help reduce harmful interference. Future plans also include the creation of a Code of Conduct to set standards for the installation of radio works to ensure compatibility with existing systems.

3. Guidelines on Human Exposure to Electromagnetic Radiation

The ICT Authority will issue guidelines in accordance with ITU-T Recommendation K.52, '***Guidance on complying with limits for human exposure to electromagnetic fields***', and ICNIRP guidelines so that all radio users comply with the set safety limits for Electromagnetic Radiation.

TELECOMMUNICATION AND STANDARDIZATION

1. The Numbering Conventions

The Authority plans to come up with **Numbering Conventions**. These will provide the right framework for the allocation of telephone numbers and codes in accordance with the **Numbering Plan**.

One of the functions of the Numbering Conventions will be to define the eligibility to apply for the different categories of numbers, the level of responsibility of the holder of numbers. The conventions will also set out the appropriate use of the different categories of numbers.

2. Number Portability

One of the projects of the ICT Authority is to monitor the market evolution and identify the right moment to introduce the so called number portability to the extent that it is possible. Number Portability will enable consumers to change operators while keeping their telephone numbers. The Authority will

also investigate the most feasible solutions to ensure that Number Portability is introduced smoothly both for operators and consumers alike.

3. Next Generation Networks Regulation

It is clear that the networks and services around the world and also in Mauritius are evolving towards the **Next Generation Networks**. This evolution brings in its wake new regulatory challenges. The Authority believes that it is high time to assess the current framework to see whether they may accommodate the expected changes. The Authority would also have to ensure that measures are taken to adapt the current regulatory framework to the new services which the NGN promise to offer.

Standards Regulations

Standards are particularly important in a liberalized environment to enable interoperability among different systems. In addition, standards can be used to reduce possible human health hazards originating from telecommunication and radio communication equipment. The standards regulation will support industry and the public at large.

4. Quality of Service

The Authority is fully aware of the risk of a decline in the level of **Quality of Service (QoS)** with regard to telephony. The reason for this decline is the increasing use being made of the Internet to supply telephony services. The Authority will therefore set the required level for the QoS parameters in accordance with the relevant ITU recommendations. This will ensure that no degradation occurs in the QoS.

INFORMATION TECHNOLOGY

1. National Information Security Strategy for Mauritius

The **National Information Security Strategy** aims to increase citizens' and companies' trust in the information society. It will compile guidelines and measures that can improve information security and create the enabling framework for the enforcement of the recently passed **Data Protection Act** to ensure protection and privacy in Mauritius.

The Strategy will serve to integrate the efforts of the Government, trade, industry, organizations and private citizens. Common information security objectives will be formulated.

The adopted Strategy will be an essential part of the Government's information society policy. At the national level also it is imperative that security be a well-thought out process from system inception and design via system implementation to policies and practices for system deployment, operation and use. This strategy will, in turn, be based on a **National Information Security Policy (NISP)**.

2. Public Key Infrastructure Project

The large volumes of financial transactions which are each day processed electronically means that almost all sectors of industry and government are dependent on networks to one extent or another; the increasing emphasis by business and government on online service delivery and the projected growth in on-line business, all provide strong evidence of high and growing dependence on both traditional networks and the public Internet.

In anticipation of this, the Mauritian Government has already brought the necessary legal framework. Parliament has passed the **Electronic Transaction Act (ETA)**, the **Cybercrime & Computer Misuse Act** and most recently the **Data Protection Act**. These new laws constitute major milestones in the creation of a conducive and secure environment for on-line transactions/services.

One of the primary concerns in e-business is the lack of trust and potential loss of assets due to security breaches which online transaction can entail. In the brick and mortar world, responsibility to mitigate these risks is well

understood. To sustain an equivalent level of risk management under new business models that rely on the electronic flow of sensitive information, new infrastructure and trust models must be established. **Public Key Infrastructure** (PKI) today is the most secure method to provide authenticity and integrity to electronic communications on the web.

3. Registry project

Management of a country's domain name is an important policy issue that can be integral to the development of e-commerce applications. It should, therefore, be considered as a part of the overall e-commerce strategy that is being developed by Government.

The development of a national **Domain Name System** (DNS) infrastructure is an important means of facilitating the online exchange of information. This can generate a valuable resource for communication, education and business. At the same time, however, domain names and the DNS present a complex array of commercial, technical, policy and legal issues which highlight many of the cross-border issues presented by the Internet and e-commerce. It's important that these issues be understood. Responses that are appropriate for the country's online community, satisfying relevant legal, cultural, economic and linguistic factors must then be formulated. Appropriate policy decisions are, therefore, required in relation to the national country code **top-level domain** (ccTLD), which foster not only ease of registration of domain names but also overall confidence in the ccTLD space.

In this context, the ICT Authority has been assigned the responsibility attached to the administration of such a significant public resource. In order to undertake the necessary measures required to ensure the technical administration of the **.mu** domain name, the creation of a **ccTLD Registry** in Mauritius is a core component in the overall management framework of **.mu ccTLD**.

4. IXP project

Internet eXchange Points (IXPs) are the most critical part of the Internet's Infrastructure. It is the meeting point where **ISPs** interconnect with one

another. In Mauritius, there are no interconnections between local ISPs. Without the IXP, the local ISP community will interconnect in another country; the result is a major obstacle to the development of local **e-Communities** and **e-Commerce**. International transit traffic is mixed with domestic traffic. With an IXP, customers seeking to exchange of information and content would benefit from a fast and efficient service.

5. Internet Community Access Point

The policy of the Mauritian government is to create universal Internet access through a range of platforms at home and in the community. This would in effect enable online delivery of all information-based government services through the **e-Government** project.

Bearing in mind that the Internet should be made accessible to all to share information, to promote intellectual work and business, democratisation of Internet access to the public at large is the starting point in this endeavour.

Through the “Internet Community Access Point” project, Government will ensure that free public access to the Internet becomes a reality. This will be achieved through the deployment of computers at host sites in various communities scattered throughout the island. The first Internet Service Access Point was recently inaugurated in a rural region.

Number of Landline Operators: 1 in operation

One more licensed

Number of Mobile Operators: 2 in operation

One more licensed

Number of Internet Service Providers: 8 in operation

4 more licensed

Number of International Long Distance operators: 6 in operation

2 more licensed

Number of Internet Telephony Service Provider: 1

Number of Paging Services: 2 but 1 only in operation

INDEPENDENT REGULATORY BODY

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