The ICT Sector in MAURITIUS

An Overview

Analysis of the Current State of the Sector

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1. Executive Summary

Since the late twentieth century, telecommunications has entered a dramatic period of explosive growth and it has evolved as a modern trade route. This telecommunications revolution has been characterised by competition, technological changes, privatisation of most state monopolies, the emergence of new companies and the merging of global service providers around the world. This has also been the trend in Mauritius. State policies for the past decade have ensured that the nation is properly equipped with the necessary infrastructure, regulatory framework and a growing pool of trained professionals to take full advantage of the changing global environment. These have served as catalysts to set the economic and institutional environment needed to foster the evolving info-communications society.

Information and communication technologies hold great promises for small island economies like Mauritius. Sustained economic development of the country is pinned on its ability to access the appropriate information and transform it into new products and services to compete on the global market. The ICT sector is believed to be the most dynamic industry in the world and it constitutes one of the most powerful tools needed to open up new prospects of sustainable development. In this report we make an analysis of the current state of the ICT sector in Mauritius, we consider the evolution of the infrastructure over time, the services that have been introduced at different point in time, the regulatory framework and its evolution, as well as future expectations of the country from this sector.

2. Introduction

Basic telephony was first introduced in Mauritius in October 1883. The first telephone line was set up between the Colony Governor's residence in Reduit and Government House in Port Louis. This introduction took place only seven years after telephone was invented. In days those days sea travel was the only cross continent means of travelling and exchanging mail.

Over a century later the Overseas Telecommunications Services took over from the Cable and Wireless Ltd in January 1985. A second standard B earth station and a domestic satellite network were installed with Rodrigues and the Outer Islands, two years later. A X.25 Packet-Switched data exchange was also installed. In July 1988, the state-owned Department of Telecommunications initiated its privatisation process to become Mauritius Telecommunications Services (MTS). With this privatisation process, national and international activities were merged to form Mauritius Telecom Ltd.

Following the General Agreement on Trade in Services (GATS) at the WTO, the 1988 Telecommunications Act, which established a legal framework catering to the needs of telecoms services of a State-owned monopoly, was replaced by the Telecommunications Act of 1998. This replacement paved the way for the emergence of a free and democratised telecommunications market in the island. Subsequently with the rapid evolution in the convergence of Information and Communication Technologies, the Telecommunications Act of 1998 was revamped into the Information and Communication Technologies Act of 2001. In consequence the former Mauritius Telecommunications Authority – the regulatory body for the telecommunications sector initially set up under the Act of 1998, was replaced by the present day Information and Communication Technologies Authority - ICTA.

The rapid advances in technology have contributed to the convergence of telecommunications, broadcasting and information technologies. The far-reaching issues associated with such a convergence are wide ranging and trend setting nations around the world have assessed the relevance and impact of various regulatory models. Many countries have recognised that the previous century model of State-owned monopoly provider of telecommunications services can no longer respond to the dramatic changes in the newly converging telecommunications, broadcasting and information technologies. Nevertheless, before we consider the necessary re-structuring of the sector to cope with the wave of technological convergence, it is of paramount importance to have a profound knowledge of the situation as we read it today. Thereafter a proper paradigm may be mapped out.

3. Institutional Framework

As per the commitments of Mauritius on 15th February 1997 at the WTO Working Group on basic telecommunications services, it was decided that the telecommunications sector was to open up progressively on a voluntary basis to full competition and to end all State monopolies and exclusivity rights in both domestic and international services by the year 2004 - later on that date was advanced to the year 2003. These commitments laid the foundation to provide universal access to the most modern telecommunications services possible at fair prices, while improving the position of Mauritius and its competitive edge in global markets. In consequence, the socio-economic life of the island is benefiting from this reform of the telecommunications sector while favourable conditions have been set for Mauritius to become an info-communications hub in the region. The National Information Infrastructure forms the basis for the information highway and provides connectivity to the fast paced and rapidly evolving Global Information Infrastructure. The shortage of IT skills in general has been a major issue in the development of ICT locally. Extensive training is being carried out for public officers by both private and public institutions. Such training programmes target school teachers, public officers and the youth of all regions of the island.

To date some 2500 public officers have been trained along with some 300 primary school teachers under of the School IT project of E-education[2]. The availability of skilled IT manpower is vital to achieving Government's vision to transform socio-economical landscape of Mauritius. In 2001, the number of IT professionals was around 1,900. With the current development anticipated in the ICT sector, the number of IT professionals required to support this sector will range from 7000 to 13000 by 2006[5].

The National Computer Board (NCB) was set up to advise Government on the formulation of national policies for the development of the IT sector and to promote an IT culture in the country. The Central Informatics Bureau (CIB) and the Central Information Systems Division (CISD) were created to manage and operate the information systems within the Civil Service. The State Informatics Limited (SIL) was set up initially to assist in the computerization of the Civil Service. By 1997, the Ministry of Information and Telecommunications was created to formulate and implement policies regarding the development of the ICT sector.

Currently some 80 E-Government projects are at various stages of implementation, ranging from computerisation of records to complete automation of several processes[2]. A few of the successful implementation projects are:

- Computerisation of the Passport and Immigration Services
- Trade-net or electronic authorization by Customs Department for delivery of goods, electronic submission of sea manifest by shipping agents, and transfer of containers
- Contribution network project which includes revenue departments such as Income Tax, Value Added Tax etc.

School IT project involving the provision of computers for primary education and Telemedicine projects like computerisation of the cardiac and blood transfusion services are some examples of projects under way.

4. Regulatory Framework

Based on the dynamic economics of the telecommunications sector, there has been a global shift in the paradigm of regulation during the past fifteen years. In the age where the primary role of the regulator was to defend the public against abuse of monopoly power, regulators generally focussed on issues relating to price setting and analysis of customers' complaints with their service providers. Nowadays, exclusive pricing concerns are far outweighed by the need to stimulate competition and to ensure a level playing field among all stakeholders, customers and operators included. Regulatory issues have grown more complex with the convergence of telecommunications business.

At the present, given that the sector has been newly opened, the regulator has to concentrate on the following main functions:

- Strengthening and regulating interconnection of networks while ensuring fair access to such networks,
- disputes resolution among operators,

- wholesale tariffs including cost based access charges and long range incremental cost models,

- consumer safeguard and information,

- licensing structures taking into consideration the services which the State believes must be in place to accommodate the needs of the nation as per its policies,

- quality of service standards for a range of services,

- and Universal Service Obligation/Access to provide basic telecoms services at reasonable cost throughout Mauritius and the Outer Islands.

The Electronic Transaction Act 2000 is already in place to promote E-business and E-commerce and provide a regulatory backbone for these services[5]. Data protection and privacy, electronic consumer protection and prevention of computer misuse and cyber crimes have been considered in new Cybercrime Act 2003. Under the aegis of the ICT Authority such regulatory reforms have set Mauritius to embrace the global information revolution.

4.1 The Information & Communication Technologies Authority

The Information and Communication Technologies Authority replaced the former Mauritius Telecommunications Authority as per the Information and Communication Technologies Act of 2001. The Authority has granted and issued several new licences during its first year of operation. The list of commercial licensees at the time of publication is as follows:

- **Audiotex Services Provider Licence:** -Telecom Plus Ltd

- **Facsimile Service Licence:** -Telecom Plus Ltd
  -VanTel Ltd
  -CityCall Ltd

- **Internet Service Licence:** -Telecom Plus Ltd
  -Rogers Telecom Ltd
  -Société Internationale de Télécommunications Aéronautiques
  -Data Communications Ltd
  -Mauritius Freeport Development Ltd
  -Paging Services Ltd
  -Harel Mallac & Co Ltd
  -Clusterway Ltd

-CityCall Ltd

-Africa Digital Bridges Networks Ltd

-Mauripost.Net Ltd

- **International Long Distance Licence:** *-Emtel Ltd*

  -Data Communications Ltd

  -Hot Link Ltd

  -Mahanagar Telephone (Mauritius) Ltd

  -City Call Ltd

- **Internet Telephony Service Licence:** *-Paging Services Ltd*

- **Public Switched Telephone Network Licence:** -Mauritius Telecom Ltd.

  -Mahanagar Telephone (Mauritius) Ltd

- **Public Land Mobile Network Licence:** -Cellplus Mobile Communications Ltd

  -Emtel Ltd

  -Mahanagar Telephone (Mauritius) Ltd

- **Value Added Services Licence:** -Mauritius Telecom Ltd.

  -Telecom Plus Ltd

(Licensees in *italics* have been issued with licences post liberalization)

To date, the ICT Authority has overseen the full liberalisation of the ICT sector as from 1st January 2003. The Authority has extended its invitation to prospective operators to submit proposals and applications for new services in the new market structure. On the issue of network interconnection, Direct Peering Interconnection between mobile operators has been implemented since 1st May 2003 and this had led to a general cut of over 50% in tariffs – the ICTA has prescribed and implemented cost-oriented interconnection usage charges (IUC) for calls between different operators. SMS exchange is now possible between both mobile operators. As from 1st October 2002 the first phase of Tariff Rebalancing was completed while the Second Phase of Tariff Rebalancing based on the cost and interconnection calculations is in the process of being finalised. The public is also kept informed in the print and broadcast media about the various issues involved in the liberalisation of the telecommunications services.

Following the handing over of the Numbering Plan by the incumbent operator to the Authority, a consultation paper on the National Numbering Plan was proposed for the next 20 years and beyond. It includes an eight digit Numbering Plan which is expected to cater for the current and future demands in numbering space. This provides for the fair allocation of such numbering spaces to operators while introducing carrier selection as a means to enable subscribers to choose among several ILD operators.

A new licensing structure has been proposed in July 2003 to reinforce the free and open competition in the liberalised multi-operator telecoms sector. The new licensing structure favours a horizontal integration of businesses in a liberalised market, as compared to the vertical integration of the pre-liberalised period. The Authority has adopted a simple, open and non-discriminatory evaluation protocol in granting licences[*]. This is meant to encourage new operators to enter the market with no risk of prejudice or undue treatment. The status of various market segments and licences issued to operators and service providers is constantly monitored to ensure that a competitive market is maintained. The Authority is expected to maintain a technology neutral approach in regards to licensing of operators and service providers to encourage them to innovate and respond competitively to needs of users and new technological advances.

As per the National Telecommunications Policy 2003[1], Network Infrastructure Provider, Networking Services Provider and Network Application Services Provider will require either of two types of authorisations, namely:

- Class Licences – granted for networks and services which do not require access to scarce resources and carry a limited number of rights and obligations, and

- Individual Licences – granted for networks and services which require access to scarce resources and where a high degree of regulatory control is required.

With the evolving nature of the ICT sector, it is hoped that a Convergence Act will be introduced by December 2004[1]. This Act is expected combine information technologies, media and telecommunications in a contemporary and integrated approach, reflecting the merging of the latest technologies involved in the sector.

With the whole process of market opening, interconnection of telecommunications networks is considered as one of the most important factors for fair network provision. Interconnection requires application of the principle of open networks-transparency, objectiveness, non-discrimination, proportionality and priority to commercial agreements between parties, interconnecting their networks within rules established by the ICT Authority. Such agreements must be non-discriminatory between systems in terms of overall functionality, price, quality and performance of interconnection between systems and treatment of calls. It is highly recommended that public operators to publish a Reference Interconnection Offer, which includes all terms and conditions including the financial, technical and administrative aspects, on which the public operator will conclude such agreement with other service providers. The ICT Authority is called upon for arbitration in case no fair agreements can be reached among operators.

[*] Refer to flow chart on pages 18-19

The Authority is also responsible for investigation of consumer complaints against service providers or operators for violation of terms of service, disputed bills, maintenance and repairs. The Authority oversees all complaint review procedures and requires all licensed operators to establish specific procedure to respond to consumer complaints.

4.2 The Electronic Transaction Act 2000

In order to fully endorse the global information revolution, the Electronic Transaction Act (ETA) has been proposed by the Government. Information security, electronic signatures and certification service operations are becoming vital requirements for the proper establishment of e-businesses in Mauritius. With the vulgarisation of information access the protection of privacy is also becoming an urgent issue. The legislation addressing such issues contributes to the implementation of an information-secure society.

In July 2000, the Electronic Transactions Act 2000 was enacted in Parliament. The object of the Act is to provide for an appropriate legal framework to facilitate electronic transactions and communications by regulating electronic records and electronic signatures and the security thereof. Significantly, the Electronic Transactions Act 2000 has paved the way for the development of electronic commerce in Mauritius by giving force of law to records of transactions concluded by electronic means, i.e. over the internet. In other words, contracts concluded by emails – over the internet – can now being given formal legal recognition.

The ETA sets to establish the necessary framework for the use and authentication of electronic signatures, thus setting up the bases for the fostering of a secure environment for the promotion of electronic commerce in the country. This Act enhances the information security and data protection in e-services, while making provisions on electronic signatures and their legal bindings. Public key cryptography is the technology identified to secure the e-services that need to be implemented. The setting up of a Public Key Infrastructure (PKI) can provide a strong protection backbone that issues digital evidence as laid out in the Act, and thus allows for secure business process to operate. The Electronic Transaction Act also brings up the need for a communications security scheme, where testing, approving and supervising of communications security is established. The Information Security aspect of the sector must not be neglected in view of the strong policy plans to make the country a Disaster Recovery Centre. As such the regulatory body will need to address this matter in terms of empowering such a scheme.

Based on the legal provision stipulated in the ETA, the regulatory implications are as follows:

- **PKI**: A Public Key Infrastructure (PKI) is a strong form of protection in that it can provide the digital evidence as stipulated in the ETA for a transaction, protecting the business process and making it legally binding. It can also be used to protect the data in local storage, before and after transmission. With a PKI in place, businesses can quickly adopt e-commerce and secure e-government projects can be enabled - embracing the benefits of the Internet - without sacrificing the requirements of a trusted and secure transaction.

The benefits of using PKI are:

- It allows businesses to identify their customers, suppliers and employees over the Internet.
- It ensures the authenticity of the transacting parties.
- It places trust into the transaction, since the transacting parties use digital certificates issued by a trusted third party.
- It records proof of transaction, through digital receipts, time-stamping, etc
- It guarantees the privacy and confidentiality of the transactions over the Internet.
- It guarantees the integrity of the data, i.e. the data is not tampered with.
- It provides non-repudiation of transactions.

- **Communications Security**: Communication security issues to be enforced by the ICTA are as follows:
  - Technical regulations and guidelines on the operation of telecommunications operators and on how telecommunications terminal equipment, telecommunications networks and telecommunications services shall be arranged to reach a sufficient level of information security.
  - Data protection and information security in the operation of telecommunications operators providing public telecommunications services.
  - Supervision of operators to ensure that the telecommunications networks comply with the relevant technical regulations and standards.
  - Assurance that the telecommunications operators are prepared for emergencies and that they take care of the information security in their telecommunications as well as inform the users of telecommunications services about information security risks and the measures taken to prevent them. The operators must also report on significant information security incidents and threats and significant faults and disturbances in telecommunications networks and services.

4.3 The Computer Misuse and Cybercrime Act

The Computer Misuse and Cybercrime Act 2003 is one of the latest statutory enactments to come in force in Mauritius. It provides for the repression of criminal activities perpetrated through computer systems. It essentially protects computer users from unauthorised access and interference with their systems and creates offences in that respect. The Act's objectives are to combat spam, hacking, electronic/computer fraud and it is designed to enable the Government of Mauritius to participate in the worldwide effort in fighting against computer related crimes.

5. Information Super Highway & the Dynamics of the Telecommunications Sector

The National Information Infrastructure has evolved from an obsolete network essentially used for data processing operations, into a modern and fully digitalised backbone which will cater for future development in Mauritius. The successful commissioning of the SAFE/SAT3/WASC submarine fibre optic cable system firmly pins Mauritius on the digital world map and it opens the gateway to the global information highway. This SAFE (South Africa-Far East) cable system is indeed a technological and commercial breakthrough of unparalleled significance for Africa, offering a faster, more efficient trading channel between the continent and international markets.

SAT3/WASC/SAFE is a historic Achievement made possible by the participation of 36 nations, the majority of the landings are in African states. Together they have funded the undersea cable system costing more than US$600 million and will own and operate it for the next 25 years[6]. This results in much of the revenue it generates being ploughed back into the continent. SAFE fibre optic network, which goes from Cape Town, was set up on a Telkom South Africa initiative in 1993. SAFE is in turn linked in Cape Town to SAT-3/WASC (South Atlantic Telephone-West African Submarine Cable), which is 15,000-km long and links Europe to South Africa and Western Africa. SAFE continues this connection over 13,800 km from Cape Town to Malaysia, linking Mauritius, Reunion and India on the way.

The SAT-3/WASC-SAFE network thus goes from Sesimbra, Portugal, to Penang, Malaysia, connecting along the way India, Mauritius, Reunion, South Africa, Nigeria, Ghana, Cote d'Ivoire, Senegal and the Canaries. This project is helping to bridge the digital divide between Africa and the developed nations and all parties will enjoy the access to knowledge brought about by the information revolution that has already had such a dramatic impact in the West, Europe, and the Far East.

In Mauritius, the SAFE project provides an alternative reliable high speed link to satellite routes with the rest of the world. The ultimate speed of SAFE is 130 Gbps and the system has a capacity of 6.3 million simultaneous telephone channels. Following the launch of SAFE, ADSL was introduced in the country for faster access to the internet, permanent connection, simultaneous voice or fax calls, all while surfing the web at a low flat rate tariff. This has also reinforced the image of Mauritius in its kingpin role in the region for European companies seeking to outsource certain activities such as data entry and processing, call centres, fund administration and disaster scenario data backup and recovery centres.

Digitalisation on a whole, had allowed the country to adopt state-of-the art technologies to facilitate universal access to telecommunications. Mauritius has one of the most efficient and up-to-date telecoms network in the sub-Saharan Africa.

The island has seen a boom in its number of connected lines, a leap from 65,000 in 1991 to over 330,845 lines by mid 2003†. As such Mauritius has Africa's second highest fixed line penetration of over 27.2 per cent for its 1.2 million inhabitants. The mobile line teledensity has also had tremendous expansion from 2.03 per cent in 1997 to 27.76 per cent in 2002. It should been noted that by 2002, as per international trends, the mobile line subscription in Mauritius had exceeded the fixed line subscription in Mauritius.

The mobile telephony sector was opened in October 1996 after the seven year monopoly period allotted to Emtel Ltd. The liberalisation of this sector introduced a new operator in the form of Cellplus Ltd, a subsidiary of Mauritius Telecom. Initially Emtel Ltd started an analogue TACS-based cellular service in Mauritius in May 1989. It was the pioneer in providing this type of service in Mauritius at a time when there were less than 45,000 fixed lines on the national fixed telephone network. It was also the first mobile cellular operation in the whole of the Southern Hemisphere. Subsequently, the GSM network took over and along with Cellplus Ltd., Emtel Ltd currently has a fully digitalized network operating on the GSM 900 MHz band.

The scope of transforming Mauritius into a cyber-ready island is strongly supported by bold measures taken by the Government through its commitments to the WTO General Agreements on Trade in Services. These commitments have prompted the liberalization of the Information and Communications Technologies sector, and more than ever, the current policies are acting as catalyst to boost and sustain the development in the Telecommunications sector.

According to the Central Statistical Office statistics, total output of the ICT sector amounted to Rs 9,497 million in 2002, as compared to Rs 7,845 million in 2000. Hardware represented 70%, software 5% and services (database activities, networking, data processing, computerization and IT training) 25% of total output in the sector. ICT represented 4.03% of total GDP in 2002.

It has been observed from NCB ICT Surveys and MT indicators that Internet subscribers had increased to 46,500 in 2002. Out of 300 establishments surveyed, 83.3% owned at least one computer, 37.3% had between 1 to 3 servers, 24.3% between 1 to 3 PCs and 20% had more than 20 PCs. 43% had LANs and 12.7% had WANs while 75% had access to Internet. 21.3% had their web sites and ICT budget was absorbed mainly in software, consultancy and hardware. The proportion of ICT personnel to total employees was 11% while ICT support personnel represented 92.9% of ICT personnel. 46.1% of employees were qualified up to computer literacy skill level.

The Ebene – Reduit zone has been earmarked for cyber development. With a total of Rs 6.0 billion investment (Rs 4.5 billion funded by the private sector), the Ebene Cybercity will have seven zones which include a Knowledge Centre. Eight ICT companies have registered so far to set up IT Education, IT Enabled Education and Training in the Knowledge Centre.

† Refer to ICT Statistics Pages 14-17

6. Government Vision Outlook for the Telecommunications Sector

In 1997, the initial Green Paper on Telecommunications "Strategies and Policies for the Info-Communications sector 1997-2007" identified four pillars of the information economy as:

- Liberalisation and Sector Efficiency – as per 1997 WTO commitments made by the country, to open the market to full competition by 2003/4

- Regulatory Framework – An effective independent regulatory body with well defined powers and responsibilities to regulate the sector

- Ownership and Investment – Back in 1997, the Government was the majority owner of Mauritius Telecom, and as such it was the strong will of the policy makers to privatise Mauritius Telecom and, in a series of measures to achieve this goal, MT was gradually cleared from State ownership. Through strategic mergers with multinational operators, MT was able to fund and sustain its capital expenditure levels needed to bring the telecommunications infrastructure to the highest international standards.

- Promotion of an Information Intensive Society – In order to maintain its position as the new global competitive market-place of the region, policy makers in Mauritius aimed to establish an information based society.

These were the pillars required for the setting up of an information based economy, several reforms took place in the form of institutions creation, and Telecommunication Acts amendments. Ultimately with the Information and Communications Technologies Act of 2001, the ICT Authority has been established.

The goals of the Authority have always been to maintain a telecommunications environment that allows optimal opportunities for all, operators, service providers and subscribers alike, to contribute efficiently to the modern global information economy. The objectives remain the promotion of Mauritius as the key info-communication hub in the region, while maintaining a modern and robust telecommunications infrastructure in the perspective of the convergence of information and communications with media, broadcasting, consumer electronics and the telecommunications sector as a whole.

Furthermore, the Authority is empowered to ensure universal access to affordable and cost based info-communications services. In consequence, a proper and fair playing field must be maintained to encourage the entry of new operators in the sector and attract private investment for the development of the telecommunications sector through effective competition.

The key features that will help in the strengthening of the national ICT infrastructure are:

- provision of broadband capacity,
- availability of services at fair cost based prices,
- establishment of international redundancy and reliability standards,
- adequate capacity to provide service on demand,
- accessibility of services by the large majority of consumers,
- delivery of a wider range of value added services.

In order to achieve the set objectives in line with the NTP-2004, it will be necessary to strengthen market oriented policies to maintain an efficient framework for the development of this sector as follows:

- Creation of conditions for the adoption of the latest and convergent info-communications technologies.
- Introduction in 2004 of a Convergence Act, which will combine information technology, media, broadcasting and telecommunications.
- Creation of conditions to sustain private investment in the telecommunications sector
- Efficient management of the scarce resources, including the radio frequency spectrum, telephone numbering, and info-communications infrastructure.
- Expansion of the telecommunications services in a methodical and comprehensive approach to promote development of innovative services.
- Maintenance of a reasonable quality of service at affordable prices.
- Promoting mechanisms of low cost access to info-communications and wireless services.

The targets to ensure sustained progress in the realisation of the objectives have been identified as:

- Increase of fixed line density from 27% to 35% by 2005
- Increase of mobile cellular telephone density from 27% to 50% by 2005
- Extension of broadband connectivity to all business hubs by 2006
- Provision of a minimum of 30% of household with broadband connectivity by 2008
- Provision of a minimum of 50% of household with internet connectivity by 2008

7. Conclusion

The objective of this paper was to present the ICT sector in Mauritius. The Government has fulfilled its commitments towards the World Trade Organisation to open up the sector to full competition by 2003. Through its institutional and regulatory reforms, Government remains highly committed to the promotion of global trade in services where telecommunications sector is one of the main services identified.

The proper regulatory framework has been set up, licensing structure has been worked out, framework for management of scarce resources such as radio spectrum and numbering has been charted out. As the regulatory body of the country, the ICT Authority is actively pursuing the policy of liberalisation while consolidating all the benefits of such a democratisation of the telecoms sector. Active training and capacity building is ensuring that the personnel of the Authority benefit from international exposure in the field. The ICTA officers actively participate in several international and local workshops, as well as training programs. On the international front, the ICTA is addressing issues like managing competition, universal access, consumer protection and spectrum management at several forums like the ITU. Such initiative is benefiting the local Telecommunications sector with the latest standards and recommendations while the Authority keeps track for the ever changing technologies involved. The ICT Authority is also having a marked influence on the local social development. In the promotion of the concept of Information Society in Mauritius and its outer islands, the public is being informed regularly on the latest changes in the telecommunications world, the latest tariff updates. Furthermore, the public is kept informed of the future trend in the sector so that that they can have a proper perspective on how the country will be evolving in line with technological innovations around the world. Special attention is required to the various issues involved with the evolution of the information society. Not only must the public be well educated on the risks that accompany the free access to information of all types but they must also be exposed to the means to adopt a mature approach to the use of ICTs. To minimise abuse and cybercrimes, people must also be well informed on their consumer rights, and thus consumer protection and education must be a priority in the setting up of an Information Society.

Finally, in 2004, Mauritius will be hosting various international events, where the Authority will play a linchpin role. Along with a major conference on Internet Governance, for the first time Mauritius is going to chair the Telecommunication Regulators Association of Southern Africa (TRASA). This event will include members of TRASA who are telecommunications regulatory organisations of Southern African nations, which have been established separately from operators and government ministries. It will help to co-ordinate regulatory matters and to exchange ideas, views and experiences on all aspects of regulation of the telecommunications sector throughout the Southern Africa region

The sector reforms of the type we have recently introduced attempt at removing inefficiencies so that the so-called market-access gap and the digital divide are eliminated. As we move ahead into this liberalised environment, at some point in time the sector regulation model that Mauritius has adopted will have to be revised into a more general ex-post competition regulation model, as it has been the case in most liberalised telecom sector around the world.
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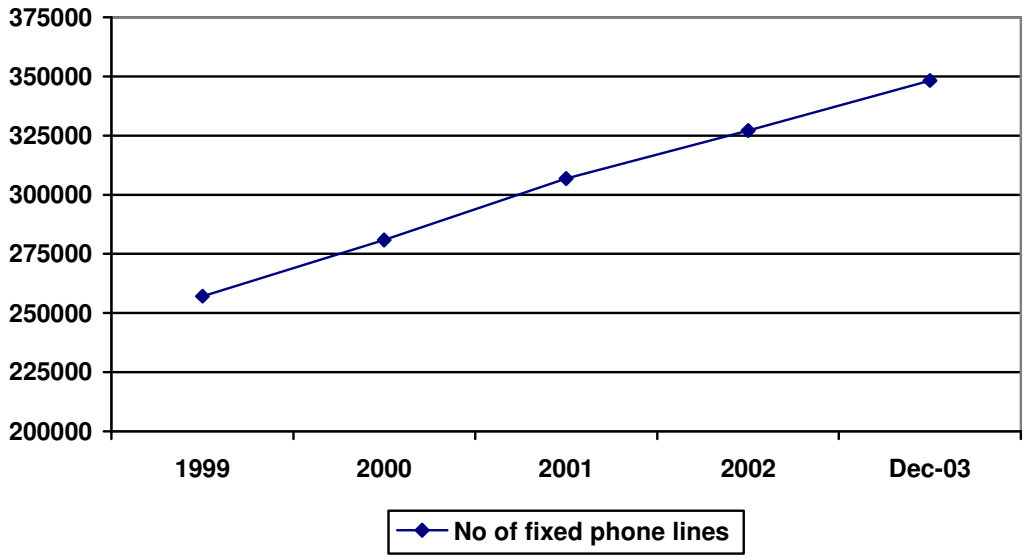
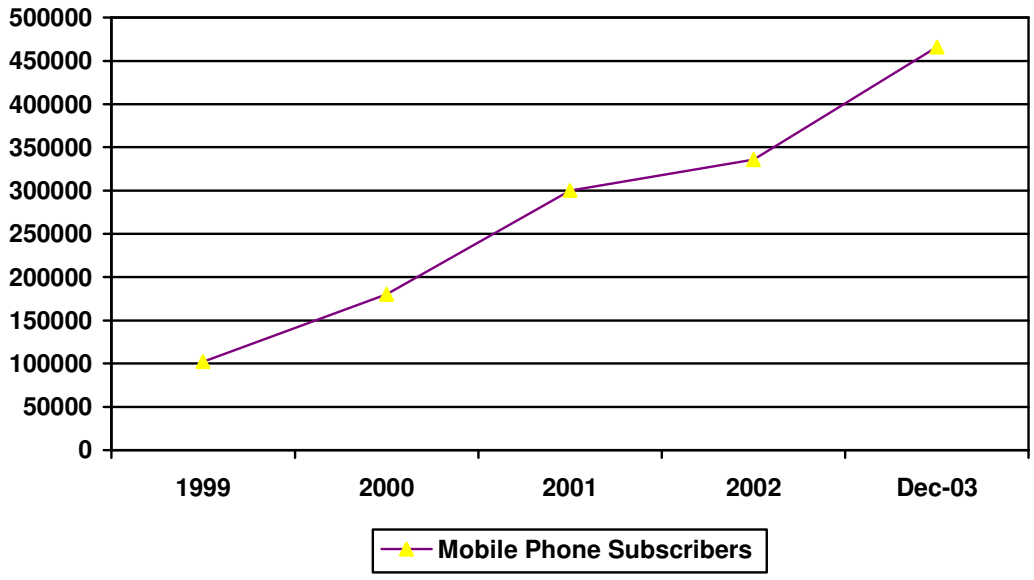
Statistical figures for Telecoms Sector

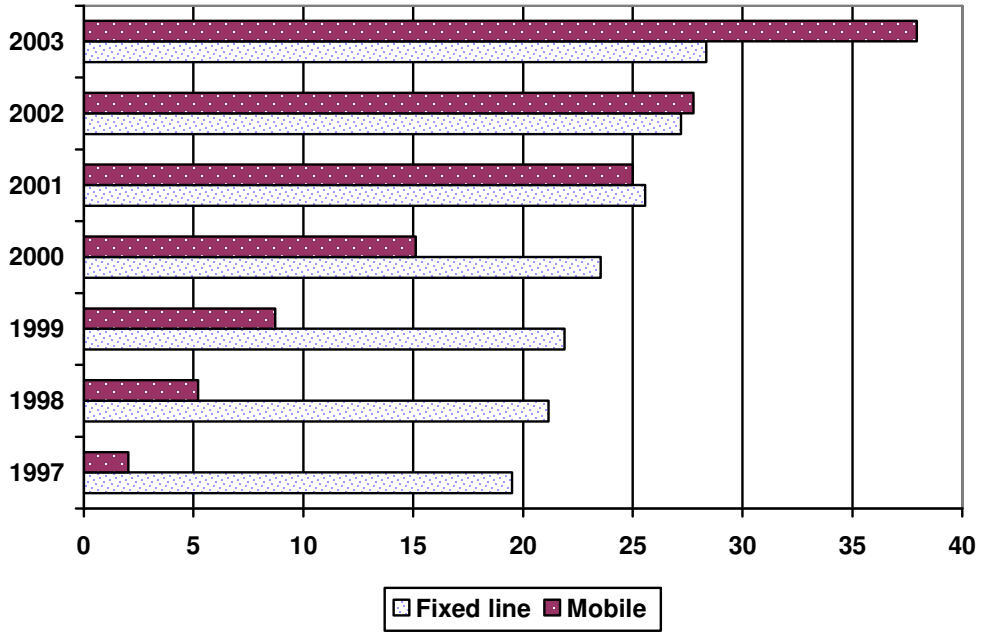
Fixed Phone Lines



Mobile Phone Subscribers

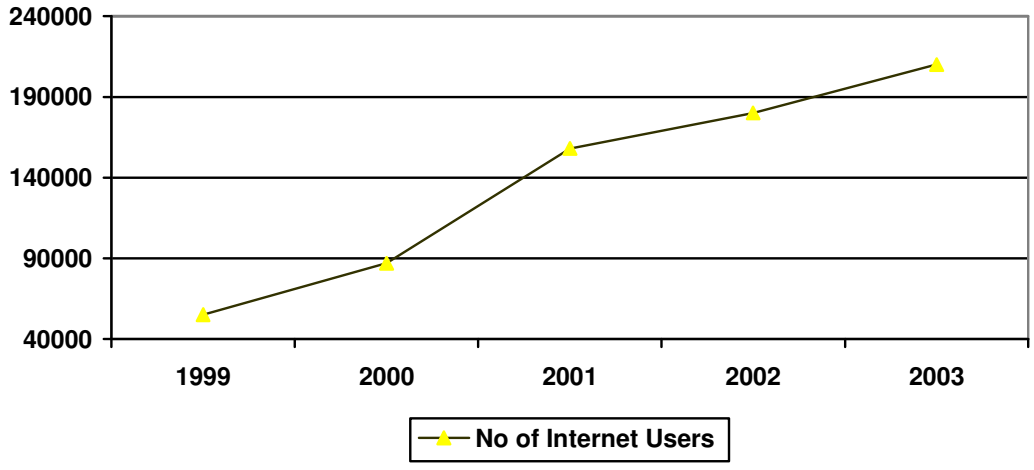


Teledensity

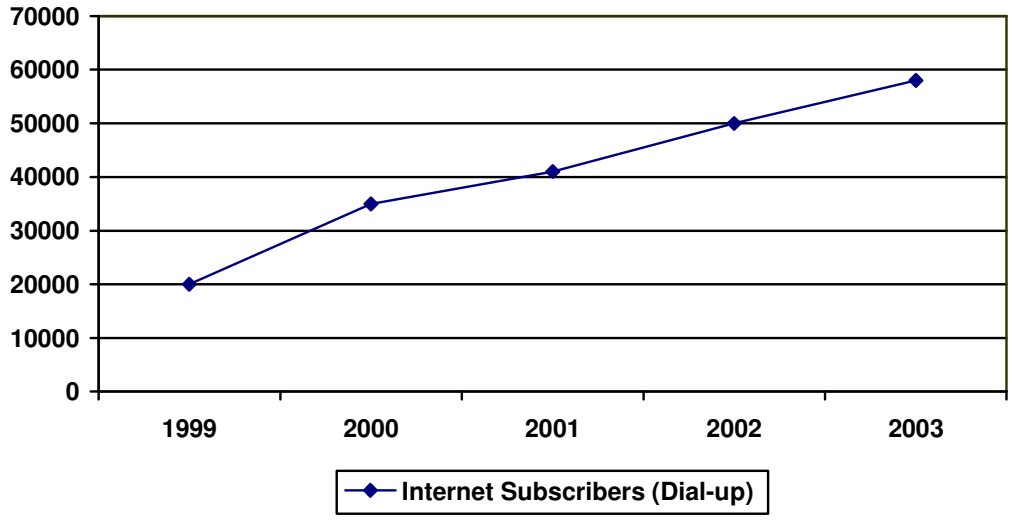


(*Teledensity estimates are based on adjusted 2003 Population Census data)

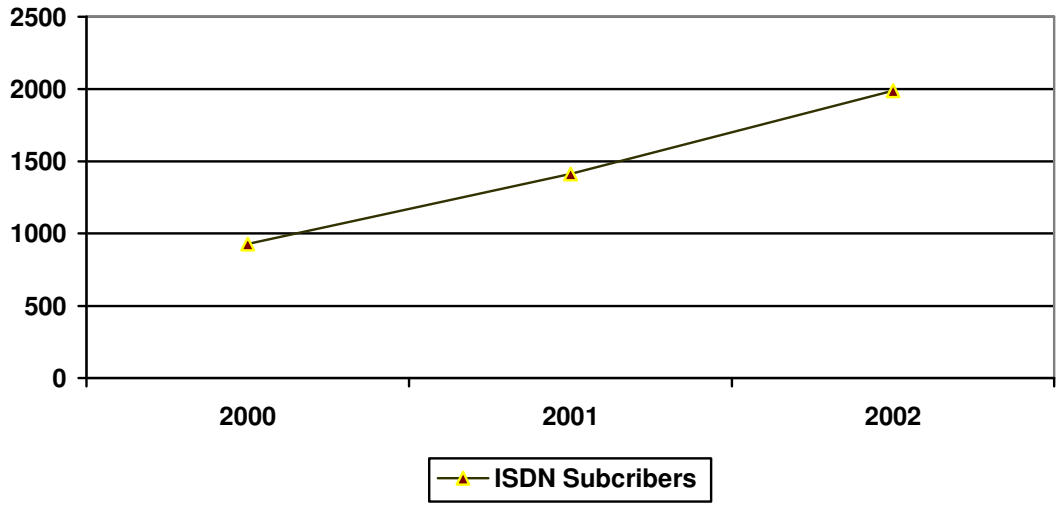
No of Internet Users



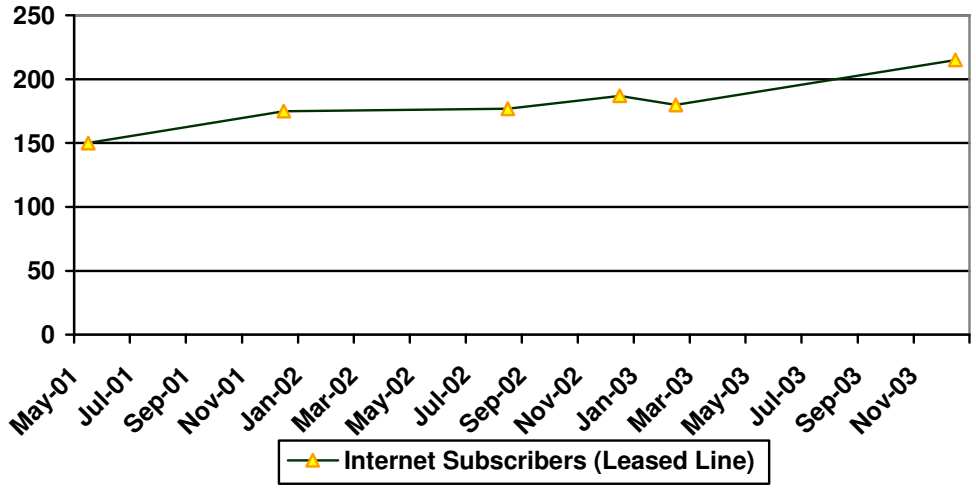
Internet Subscribers (Dial-up)



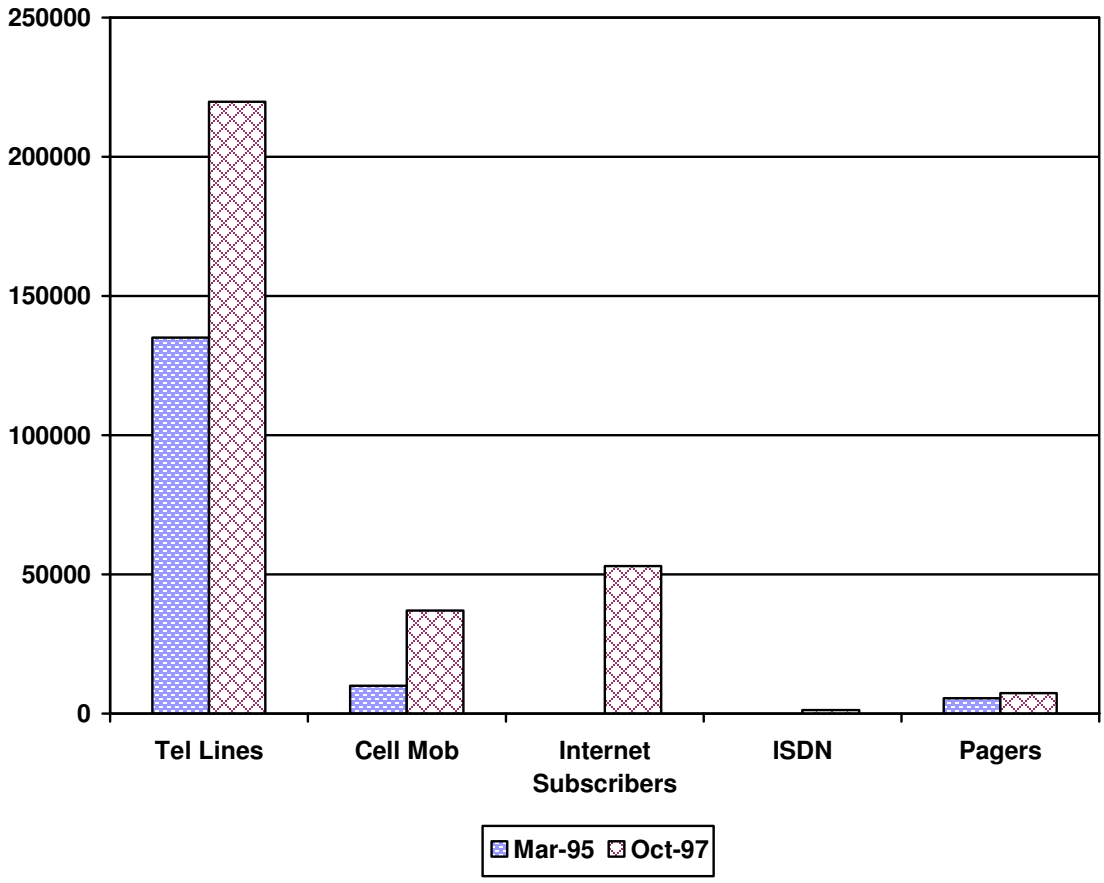
ISDN Subscribers



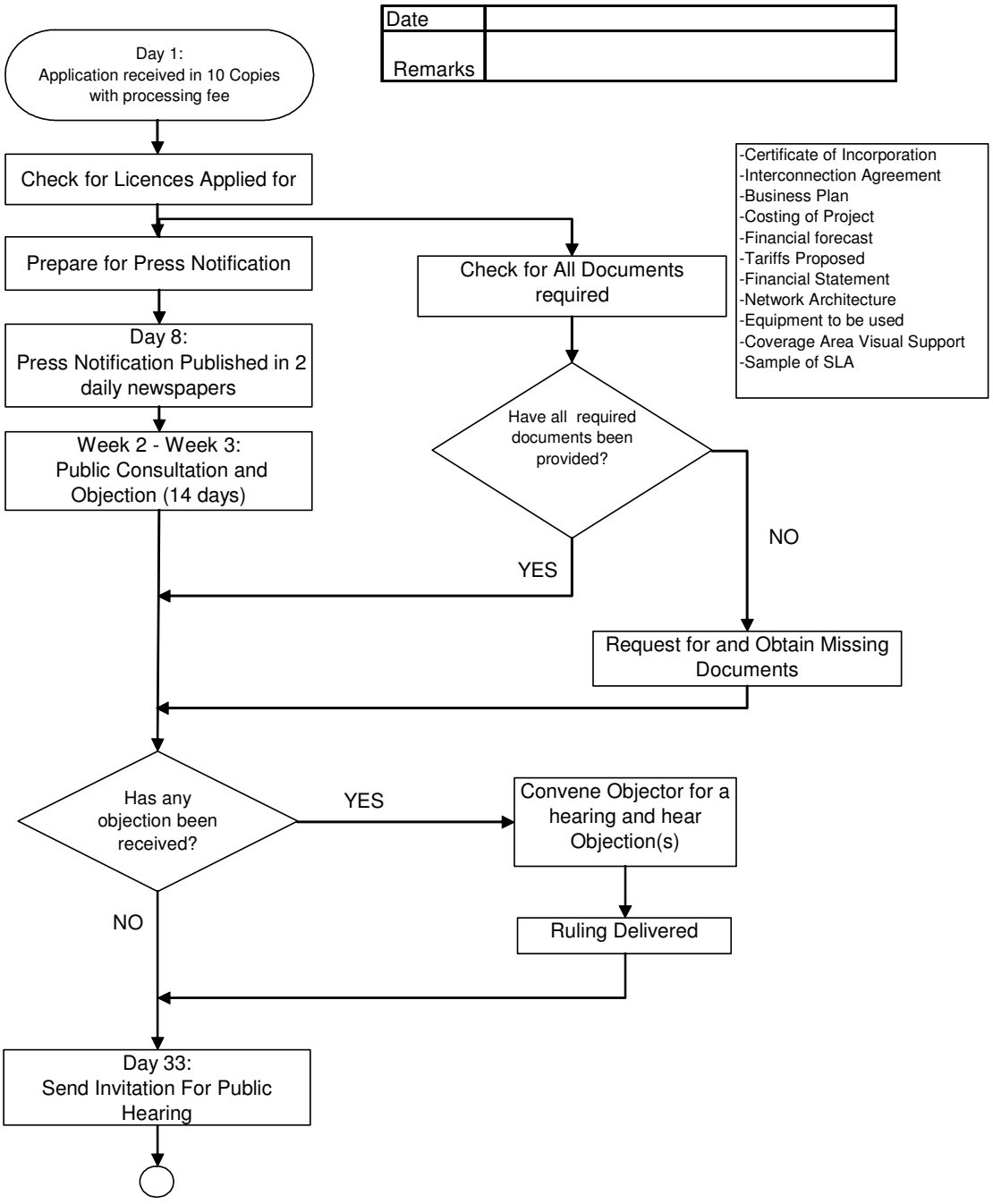
Internet Subscribers (Leased Line)

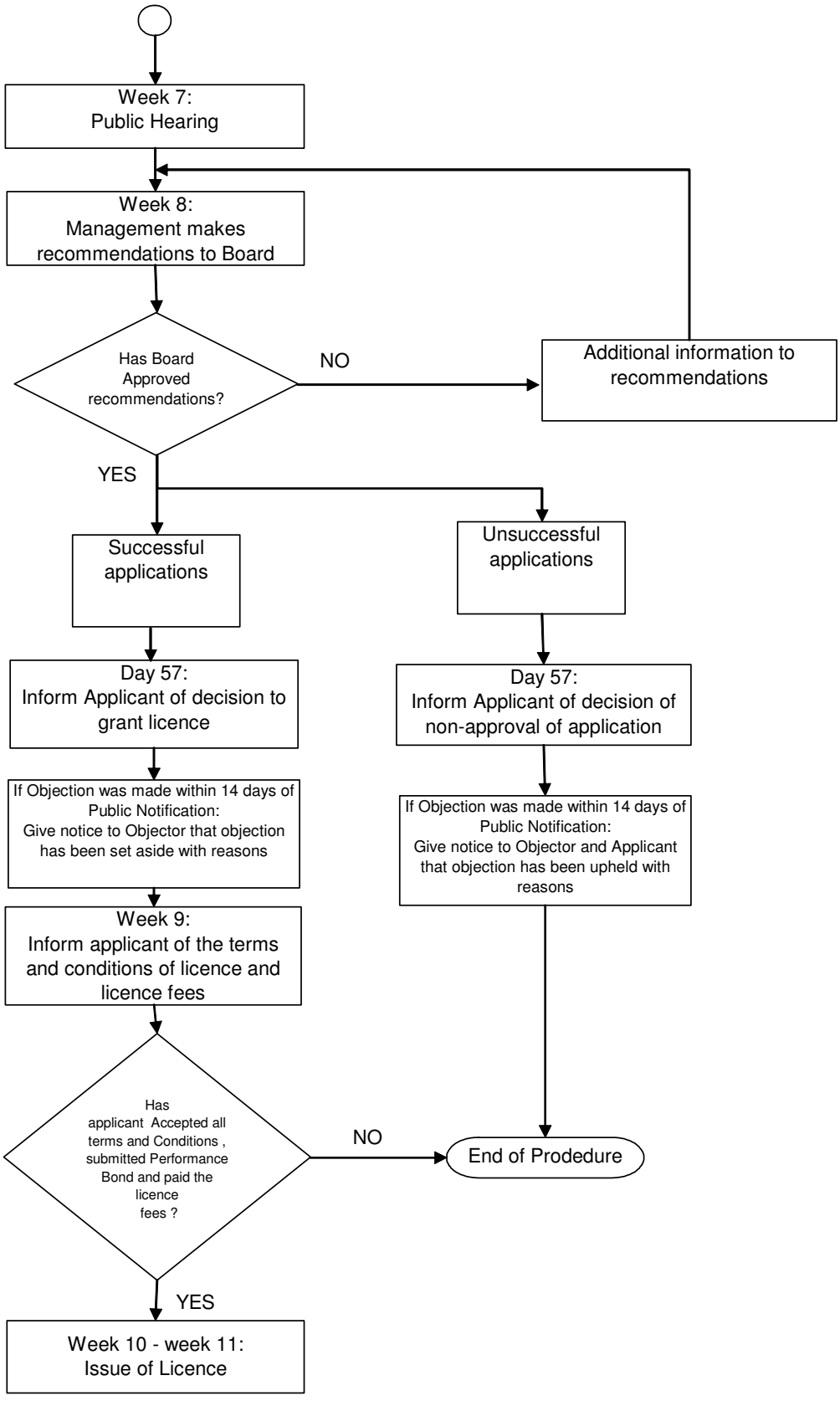


Summary of the Telecoms Market before and after the '97 WTO Commitments



PROCEDURE FOR COMMERCIAL LICENCES




Week 7:
Public Hearing
Week 8:
Management makes recommendations to Board
Has Board Approved recommendations?
NO
Additional information to recommendations
YES
Successful applications
Unsuccessful applications
Day 57:
Inform Applicant of decision to grant licence
Day 57:
Inform Applicant of decision of non-approval of application
If Objection was made within 14 days of Public Notification:
Give notice to Objector that objection has been set aside with reasons
If Objection was made within 14 days of Public Notification:
Give notice to Objector and Applicant that objection has been upheld with reasons
Week 9:
Inform applicant of the terms and conditions of licence and licence fees
Has applicant Accepted all terms and Conditions , submitted Performance Bond and paid the licence fees ?
NO
End of Prodedure
YES
Week 10 - week 11:
Issue of Licence

Reference and Bibliography

1. National Telecommunications Policy 2003 (NTP - 2003); *Ministry of Information Technology and Telecommunications*, August 2003.

2. e-Africa 2003 – Expert Consultative Meeting on e-Governance; *The Mauritian Experience – by Mrs P. Aubeeluck – Ministry of Information Technology & Telecommunications*, October 2002

3. White Paper on the Telecommunications Sector; *Ministry of Telecommunications and Information Technology*, December 1997.

4. Figures and statistics courtesy of Central Statistical Office, Mauritius.

5. Delegates' Handbook; *Mauritius Conference on access to ICTs for All – ICT Authority*, April 2003.

6. http://www.safe-sat3.co.za SAFE/WASC/SAT3 website