

# **National Telecommunications Commission- NATCOM**

## **Status Report 2012/2013**

### **Message From the Chairman**

It has been slightly over twelve odd months since I presented the 2011/12 status report on the activities of the National telecommunications Commission, NATCOM. A lot has happened since then and it is again a collective honour and privilege, on behalf of the Board of Commissioners, Senior Management and staff of the Commission, for me to present this 2012/13 status report to the Parliamentary Oversight Committee on Information and Communications as required by the Telecommunications Act 2006 as amended 2009.

This report primarily focuses on activities undertaken in fulfilment or otherwise of the Strategic Objectives set forth by the Commission since our last status report. It will also conclude with important challenges faced by the Telecommunications and Information and Communications Technology (ICT) Sector in the country and recommendations for the way forward.

From the November 2011 annual retreat held at the Mama Beach around the Peninsula, the Commission set out Strategic Objectives that would form the basis of its operation in 2012. Amongst these were:

- Policy and Regulatory Coordination with the Ministry of Information and Communications (MoIC), the National ICT Council and the Parliamentary Oversight Committee on Information and Communications;
- Re-visitation of the Telecommunications and ICT regulatory environment in respect of introduction of new licensing regimes, Market Entry, further Liberalization and Competition on diverse services;
- Proactive and more robust engagement with perennial issues on Interconnection, Access to Scarce Resources, Tariff Regulation, Quality of Service (QoS) and Universal Service/Access and
- Institutional reform of and professional/capacity development of NATCOM

In the body of this report, dilution on the above-mentioned issues will be made sighting out our successes, challenges and recommendations going forward. Overall, 2012 was not uneventful as many institutional and regulatory milestones were achieved most historic of which was the final

completion of the submarine cable landing station and the subsequent commissioning in early 2013 on February 22. This saw the first international communications delivered over submarine optical fibre cables between Sierra Leone and the world. The Sierra Leone Cable Company (SALCAB) will be licensed to manage and operate the cable landing station and provide international communications services. To have a comprehensive and seamless understanding of this report, readers are asked to read the 2011/12 status report in conjunction with this report.

Let me thank the former Minister and Deputy Minister of MoIC for the outstanding roles they played for the development of the sector. They made their own marks. I do here welcome the incoming Minister Hon Alpha Kanu and his Deputy, Hon. Theophilus Nicol and staff of the MoIC for their continued cooperation and contributions towards the development of the sector. My thanks also go to the outgoing members of the previous Parliamentary Oversight Committee on Information and Communications for their invaluable advices and oversight roles throughout 2012.

My special thanks go to my colleagues on the Commission's Board and also to the General Directorate, Senior Management and staff of NATCOM together with whom NATCOM had sailed through sometimes very stormy seas in 2012. The amicable co-existence between us the Board and you the management cannot be over-emphasized. Let us all look forward to a smooth and cordial working relationship with the current Parliamentary Oversight Committee on Information and Communications.

Siray Alpha Timbo

Chairman and Commissioner

## **1. Policy and Regulatory Coordination**

### **1.1 With MoIC**

In January 2012, NATCOM had its first coordination meeting the MoIC in order to put modalities for continuous collaborative meetings on vital issues pertaining to the industry. Areas discussed for collaboration included the establishment of a Sierra Leone Internet Exchange, the establishment of a National Internet Registry and the governance of the dot sl top level country code Domain Name, Universal Service/Access and the liberalization of the International Gateway.

During the period under review, NATCOM coordinated with various stakeholders in the industry first among which was the MoIC on several fronts. In February, 2012, the Permanent Secretary of the MoIC, Mr Sheku Tamu led a four-man delegation to the International Telecommunications Union (ITU) World Radio Conference in Geneva. At the end of the two-week long conference, Mr. Tamu signed on behalf of the Government of Sierra Leone, the Final Acts of the Radiocommunications Treaty. The Radiocommunications Final Acts is a global treaty to which each member state of the ITU adheres for the usage and allocation of the Electromagnetic Spectrum for radio communications throughout the world.

In December, 2012, NATCOM and the MoIC coordinated to participate in the World Conference on International Telecommunication 2012 (WCIT-12), another International Treaty level conference relating to Regulations on International Communications. The Resolutions were signed by the Mr. Siray Timbo, the Chairman of NATCOM on behalf of the Government of Sierra Leone (GoSLO in the absence of the Minister of Information and Communications, Alhaji Ibrahim Ben Kargbo. This treaty is a very important one because it is the law that governs international communications to which all parties should adhere and breach of which could lead to international litigation.

Pursuant to the coordination effort, NATCOM, the MoIC and the National ICT Council, in May/June, hosted the Commonwealth Telecommunications Organization (CTO) Connecting Rural Communities (CRC) Forum with the aim to address the issues of universal service/access. This forum attracted representations from ECOWAS and farther away. Lessons and experiences were shared on the way forward on providing telecommunications and ICT services in rural areas, remote and under-served areas of Africa.

Following on the heels of this meeting, the Annual General Meeting (AGM) of WATRA (West Africa Telecommunications Regulatory Assembly) was held under the auspices of NATCOM and the MoIC. WATRA is the ECOWAS sub-regional regulatory organization that coordinates and helps harmonize telecommunications and ICT policies and regulations across West Africa. It is the counterpart of the South African region's SADC and the East African

Community, East African Regulatory, Postal and Telecommunications organization. NATCOM also collaborated with the MoIC and the Parliamentary Oversight Committee on Information and Communications on professional and institutional capacity development over the period under review.

## **1.2 With WARCIP/SALCAB**

At the completion of the submarine Cable Landing Station, NATCOM facilitated the start-up running of the station by providing 4,500 litres of diesel fuel to run the engine-generators 24/7 for a couple of days. NATCOM collaborated with the MoIC and SALCAB to provide (on loan) the USD 87,500.00 fine imposed by the ACE Consortium for the late commissioning of the SALCAB Cable Landing Station.

## **2. Telecommunications and ICT Regulatory Environment**

### **2.1 Introduction of new Licensing Regimes**

As part of the evolution of the regulatory environment, NATCOM contemplated introducing new licensing regimes to take into consideration the already existing convergence between the two separate traditional telecommunication and broadcasting communications. This was in line with the envisaged revision of the Telecommunications Act 2006 as amended 2009. As is already indicated in the draft revised act, three basic categories of licences are recommended to be adopted by NATCOM. These are, Infrastructure/Facility-based Licences, Service-based licences and Content Provider licences. In Appendix A, all contemplated markets, services and products slated under the proposed new licensing regimes are indicated.

### **2.2 Market Entry and Sector Growth**

No new entry into the mobile voice market was recorded. Attempts were made by two groups Access Telecoms and Telecoms Sierra Affinity but no tangible indication was provided to back up their bids to enter the market. Rawabi Dubai still could not deploy any infrastructure nor launch any services. The Commission is considering cancelling its Licence as it had exceeded the two-year limit on time to launch services after acquisition of a licence. Ambitel (GreenNet) and Intergroup Telecoms who have had separate GSM and 3G Licences respectively expressed a desire to merge. The merger talk is ongoing with the Commission.

The Sierra Leone Cable Company, SALCAB is expected to enter the market as an International Facility-based Licensee for the ACE Submarine Fibre Optic Cable. SALCAB will operate the only submarine cable landing station that will offer a comparatively cheaper International bandwidth for international

communication hitherto not seen in the market. In addition, SALCAB will manage the Ecowas Wide Area Network (ECOWAN) Cross Border Fibre facility. ECOWAN is the pan-ECOWAS inter ECOWAS countries communications super highway that will ease member states communications between ECOWAS Agencies like WAMA and respective seats of government, Immigration, Customs, National Reserve Banks and Treasuries to name a few.

The presence of SALCAB in the market will help to further develop the wholesale international voice termination market. Already, the companies that had signed up to the SALCAB divestiture agreement has applied to the Commission for licences to provide International Telecommunications Services. These are Next Gen, Africable and Teltac Africa (SL) Limited.

Sierratel, in its drive to expand and modernize its network, started laying their metropolitan fibre network that would form the junction network between their switching nodes as well as serve as wholesale lease line business.

The mobile companies had a steady growth in the number of subscriptions as evidenced in Appendix B. Appendix C shows pictorial views of the International Call Minutes status and the market share for the various companies in the International Voice traffic market.

The Internet penetration must have grown beyond the 2% in 2011 due to the introduction of the 3G services by Airtel and Africell and the increased number of private Internet access infrastructures (119 VSATs) authorized by the Commission. In 2013, it is expected that there will be a tremendous increase in Internet penetration because of the full operations of the huge transmission capacity the SLACAB ACE Submarine cable has brought into the international bandwidth market.

### **2.3 Liberalization and Competition**

In line with the Central Government's policy to attract investment into Sierra Leone, the Commission, in league with the MoIC and the West Africa Regional Communications Infrastructure Project (WARCIP) and the World Bank are continuously working to open the Telecoms and ICT market thus creating a fair competitive market. To this end, the Liberalization of the International Gateway (IGW) for International Communications and the admittance of competitive players onto the International voice termination market, the Internet and Data communications market, the Circuit lease market and other infrastructure-based markets are underway. These will be actualized by the third quarter of 2013, heightening competition on all fronts.

As of today, Sierratel holds the monopoly on the IGW particularly for international Voice communications. This monopoly is expected to end by August or September 2013 pending approval from Parliament. NATCOM is

expecting competition between and amongst several players who will qualify for International Gateway Services Providers' Licences.

### **3.0 Continuing Regulatory Works**

#### **3.1 Interconnection**

The interconnection regimes between the mobile operators remained basically stable throughout 2012. NATCOM succeeded in pegging to a maximum, the Mobile Termination Rate (MTR) between Mobile-to-Fixed (M-F) and Fixed-to-Mobile (F-M) symmetrically at \$0.07/minute while the Sierratel negotiated International Voice Termination Interconnect Rate on the GSM networks stayed at \$ 0.13/minute. Proposals were made to the Operators to drop the national MTR to \$ 0.035 but final settlement was not reached on this proposal. This matter will be pursued vigorously in 2013 in pursuant of NATCOM's desire for a gliding path towards a lowest minimum national MTR.

#### **3.2 Access To Scarce Resources**

##### **3.2.1 Radio Frequency Spectrum**

During the period under review, the Commission issued two major radio frequency spectrum licences. Two 15MHz, Duplex spectrum slots in the 2100MHz band were issued (3G licences) to Airtel and Africell in March and July 2012 respectively. These 3G services are already up and running smoothly and a couple of thousand subscribers are already browsing the Internet and doing other data communications activities on these services.

Applications were made for spectrum licence to go with a 4G Service licence in the 700MHz band by a company called Access Telecoms (SL) Limited. However no serious signs were shown on the part of the applicant to acquire that spectrum, hence no spectrum licence was issued in this band.

##### **3.2.3 Numbering Resources-Use and Misuse**

Sierratel requested and acquired a quarter-million block of numbering resource for premium services in the 021 numbering range. A reconfirmation for emergency services numbering resource (number code 112) was made to the Government of Sierra Leone.

It is unfortunate to report that in 2012, the phenomenon of **Numbering Resource Misuse** started popping up in Sierra Leone. Complaints from Vodafone Germany, Pakistan Telecoms and Sotelgui (Senegal Telecom) of Senegal came through the ITU about misuse of telephone numbering codes

assigned in Sierra Leone. In its basic form, high-rate (premium calls) calls are directed to Sierra Leone-assigned telephone numbers. These calls cost the calling party unexpected huge sums of money. The numbers targeted were Sierratel telephone numbers. Baffling enough was the fact that the fixed-line telephone network of Sierratel was not functioning for most part if not all of 2012. Efforts are being made to get to the bottom of this malpractice which could give the country a "bad" name in the international communications community. In fact, this was one of the major themes of the Dubai World Conference on International Telecommunications 2012 (WCIT-12) earlier referred to in this report.

### **3.2.4 SIM-box Fraud**

In 2012, rampant incidences of misuse of numbering resources in the form of SIM-box fraud were on the rise. Two out of four separate SIM-box fraud incidences occurred that are worth mentioning. One involved persons associated with IpTel and persons believed to be associated with Comserve Communications Services (CCS) Sierra Leone Limited. CCs is not an unlicensed entity which got itself involved in delivering fraudulent communications services in Sierra Leone. Using one of the powers of the Commission, CCS was fined and paid the sum of \$ 200,000.00 as an alternative to prosecutions proffered against them. Police investigations into the other matters are ongoing. It should be said that this phenomenon of SIM-box fraud is rubbing the country appreciable amount of revenue that should legitimately accrue to the Government of Sierra Leone (GoSL). Monies earned from this illegal act remains off-shore with the GoSL having no visibility of the amount earned.

### **3.2.5 Emergency Communications Number Code**

NATCOM facilitated (with a token amount of USD 4,678.00) and worked in collaboration with Afcom Sierra Leone, the reconstitution of a modest Emergency Service Call Centre at the Kingtom Police Emergency Communications Room. This facility is now being used to deliver emergency communications services over all public telecommunications networks in Sierra Leone.

### **3.3 Tariff Regulation**

In July, 2012, the Commission started the process of populating a database which would eventually be used to set up a Long-run Incremental Cost (LRIC) Model for the Operators as well as for the Commission itself. The LRIC model would then be used to determine a cost-based pricing for the services or service baskets offered by mobile phone service providers. The gathering of the relevant data was met with a subtle but clever resistance from the Operators giving the flimsy excuse of not understanding the whole issue. Since this is quite a long-term project, the Commission put a hold on it until such time when all parties to the matter are fully on the same page.

On the persistent request of the GSM operators, the Commission reviewed the wholesale tariff for mobile recharge airtime in November 2012, the second review after the first one in February 2010. The maximum price for a hundred units of airtime credit was pegged at Le4, 350.00, a 6.1% increase over the February, 2010 rate of Le 4,100.00 for a hundred units. It should be noted that the consumer price index for communications, as reported by Statistics Sierra Leone, stood at 4.8% as at November 2012.

The tariff increase was eventually put on hold and not implemented by the Operators because of the intervention of the Ministry of Information and Communications.

### **3.4 Quality of Service (QoS)**

Over the period under review, the quality of service of the mobile networks took a nose dive across the board. However the most outstanding case was Airtel Sierra Leone. The Commission engaged Airtel on several fronts including visits to their network operating centre, exchange of raw Key Performance Indicator (KPI) Data and dialoguing with their group Chief Technical Officer (CTO) and Chief Operating Officer (COO).

As a cautionary move NATCOM imposed a US\$ 450,000.00 fine on Airtel for the persistent poor quality of service delivery in Sierra Leone. A US\$ 100,000.00 was paid and the Commission is seeking payment of the remaining amount. Regrettably the network quality remained poor up to the end of the year.

As a means to capacitate the Commission in determining, by scientific means, the KPIs, the process to procure a QoS monitoring equipment has begun and it is expected that by the third quarter of 2013, the Commission will have in its arsenal this all-important equipment. This will enable it to scientifically determine the KPIs thus availing the Commission proof that the networks are working at optimum quality or otherwise. In the meantime, the Commission is seeking assistance from the ECOWAS sub-region in the scientific analysis of the raw network data for eventual determination of the KPIs.

## **4. Universal Service/Access**

As mentioned earlier, the issue of Universal Service/Access was top on the agenda of the Commission. In July, 2012 the Commission in collaboration with the ITU and the Commonwealth Telecommunications Organization (CTO) established five pilot Multipurpose Community Telecenters (MCTs) in Makeni, Kambia, Mile 91, Koidu and Pujehun. Each centre was provided with 10 Personal Computers and five telephone sets. Full Internet access was also created in these centres.

In March, as part of the ITU Telecommunications and ICT day celebration, NATCOM treated school girls in Waterloo to the very first experience in having contact with Personal Computers and doing some "typing" on them. A similar experience was given to school girls in Pujehun in November.

In order for the Commission to get into full gear for the implementation of the Universal Service/Access Program, the Universal Access Development Fund (UADF) Board, in November 2012, mandated Mr. Ibrahim Kabia, Chairman, Sub-committee on Consumer, Industry and Public Affairs and Mr. Senesie Kallon, the Deputy Director-General of NATCOM to put a working document that would form the basis of full operations of the UADF office. Due to the engagement of these two people in other activities of the Commission, this task was pushed to the first half of 2013. By the end of the first half of 2013, a formidable plan of work would be in place to speedily ramp up activities in this very crucial obligation on the part of NATCOM.

Njala University, Eastern and Northern Poly Techs were all slated for NATCOM's drive to afford them access to the Internet and use of ICT tools as part of the Performance Tracking Table (PTT) obligations NATCOM had signed with the Office of the President. Unfortunately, these could not be accomplished within 2012 and had been carried forward to 2013.

## **5. Institutional Reform of and professional/capacity development of NATCOM**

### **5.1 Staff Recruitment**

By the end of the year under review, indications were that the Department of Legal/Licensing was going to be adequately staffed in anticipation of increase in activities in the sector. Proposals are that two additional staff would join the Director of that department to make that department adequately equipped to deal with the upcoming challenges. Both would be lawyers and they will help with the all-daunting licensing core function of the Commission.

### **5.2 Capacity Building /Professional Development**

Also in reaction to the reports submitted by Hellerstein and Associates, a World Bank Consulting Firm, NATCOM prepared series of capacity building and professional development programs to make do on the weaknesses identified in the consultancy reports by Hellerstein and Associates, namely weakness in Economic Regulation and Enforcement of Regulatory rules. To this end the following capacity programs were slated and some of them have been executed:

1. Cost of Service Studies in Virginia USA, attended by the Deputy Director-General, Mr. Senesie Kallon;
2. ITU Regional Workshop in Tariff and Cost Modelling- Cairo, Egypt attended by the Senior Internal Auditor and the Director of Engineering;
3. International Carrier-to-Carrier Business, from Negotiation to Revenue Assurance in Tunisia, attended by the Directors of Engineering and Finance;
4. Roles, Responsibilities and Fiduciary Duties of Chief Executive Officers and Commissioners of Regulatory Authorities in Virginia USA, attended by Commissioners Max Thompson and Saidu Turay
5. Managing Contracts, Monitoring and Evaluation of Procurement Performance in the United Kingdom, attended by the Director-General Mr. Mohamed Bangura;
6. Addressing Key Challenges of Economic Regulation of Telecommunications Services in UK, attended by Dr. Abass Hassan Kamara and Mr. Senesie Kallon, Deputy Director-General

### **5.3 NATCOM HQ Complexes**

Another important initiative undertaken by NATCOM in terms of Institutional reforms was the acquisition of a 5-acre piece of land for the construction of NATCOM's Cooperate Headquarters Complex at South Ridge, Leicester Square in Freetown. This was facilitated by the Ministry of Lands and the Environment in November 2012. Development of this piece of land is ongoing and when fully developed, it will host the Corporate Headquarters of NATCOM, an ICT School of Excellence, the Universal Service/Access Development Fund Office, a Multi-storey Car Park and above all an International Conference Centre to be named after His Excellency Dr. Ernest Bai Koroma.

## **6. Conclusions and the Way Forward**

### **6.1 Our Successes**

On the whole, the period under review (2012/2013) was quite eventful for NATCOM and the Telecommunications and ICT Sector. The successful hosting of two major conferences (CTO CRC and WATRA AGM), the Commissioning of the Fibre Optic Landing Station, the Commissioning of five pilot MCT Sites in the regions, the strategic capacity building interventions, the acquisition of landed property for NATCOM HQ and all that were accomplished (as

highlighted above) makes us proud. These give us encouragement and inspiration to do more in 2013 and beyond.

## **6.2 Our Challenges**

There are three **major** challenges facing the Commission. These are:

1. Determination of optimum prices for the products and services delivered by the operators and service providers and setting an efficient cost-based Interconnection Rate;
2. The Management of Quality Of Service (QoS) and Standards of the Networks operated in Sierra Leone and
3. Institutional reforms to right-size, "right-structure" and optimally utilize the human resource base of NATCOM.

## **6.3 Way Forward**

To overcome the challenges highlighted above, the Commission needs to bring in Consultants to do a Market and Cost Study in order for NATCOM to get over the first challenge above. The Consultants should deal with issues like market structure, market dominance, anti-competitive behaviour, market share, costs to operators for delivering their various services and Mobile Termination Rates, possibly based on Long-Run Incremental Cost (LRIC) model.

The Commission is already on the path to stand up to the second challenge. As stated above, the procurement process to acquire a QoS monitoring and Measurement Equipment has begun and as soon as the National Procurement Authority Terms and conditions are fulfilled, the Commission will purchase the equipment.

The Commission is awaiting the Consultancy Services (Five Year Strategic Plan and Organizational Restructuring of NATCOM) of the World Bank under the WARCIP Project to come to fruition. We are told by WARCIP that the Commonwealth Telecommunications Organization (CTO) had won the bid to carry out the Consultancy Services. Besides this, as a corporate body, NATCOM is constantly reviewing its internal policies and strategies to address the third challenge stated above.

To all stakeholders, 2012 was a watershed for the Telecommunications and ICT industry and 2013 and beyond will surely reap the benefits that were brought in by 2012.

## **Appendix A**

### **Identified Markets and Services Slated for Licensing**

1. Voice Call Origination, fixed and mobile
2. Voice Call Termination ,fixed and mobile
3. Transit Services on International voice calls
4. International Terminating Segments for leased lines
5. Trunk Segments for leased lines
6. Telecommunications Installers licence
7. Applications Solutions Providers' licence
8. Telecommunications Equipment Dealers' Licence
9. Private Commercial VSATs
10. International Facilities (Cable Landing Stations, Cross Border Fibre and Satellite Teleport) Licensees
11. International Services Licensees (Voice, Data and Video) who will be licensed to send and receive voice, data and video traffic
12. Mobile and Fixed Voice Resale Services Licence (Virtual Mobile Network Operators, MVNO)

## Appendix B

### Some Statistics on Sector Growth

#### Mobile Subscription Growth

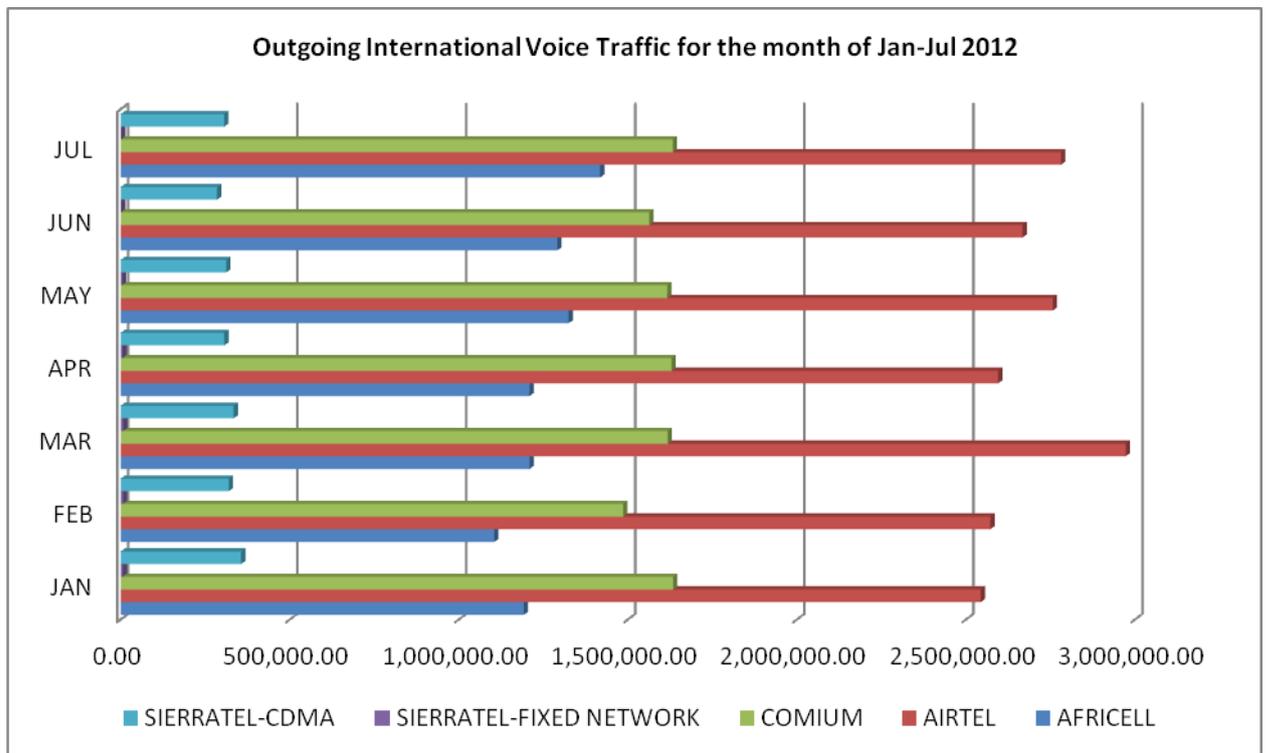
<b>Company</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>
Airtel	450,000	691,300	750,000	862,500
Africell	600,000	810,000	900,000	1,035,000.
Comium	410,000	491,743	514,143	591,265
Sierratel CDMA		5,000	200,000	230,000

#### Status of International Call Minutes- (Jan- Dec 2012)

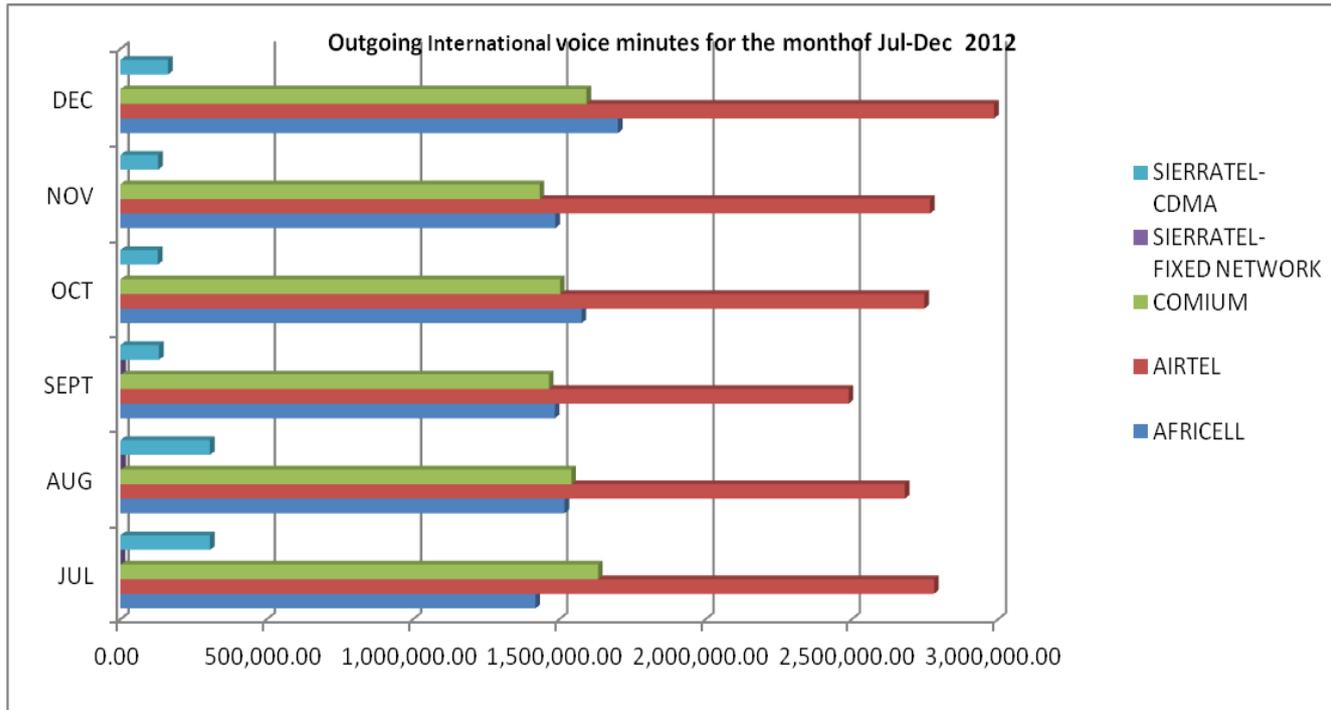
<b>Company</b>	<b>TOTAL Incoming Minutes</b>
Airtel	52,856,749
Africell	27,032,654
Comium	22,767,194
Sierratel CDMA	649,187
Sierratel Fixed-line	20,310

<b>Company</b>	<b>TOTAL Outgoing Minutes</b>
Airtel	32,568,824
Africell	16,521,626
Comium	17,646,386
Sierratel CDMA	3,086,580
Sierratel Fixed-line	38,095

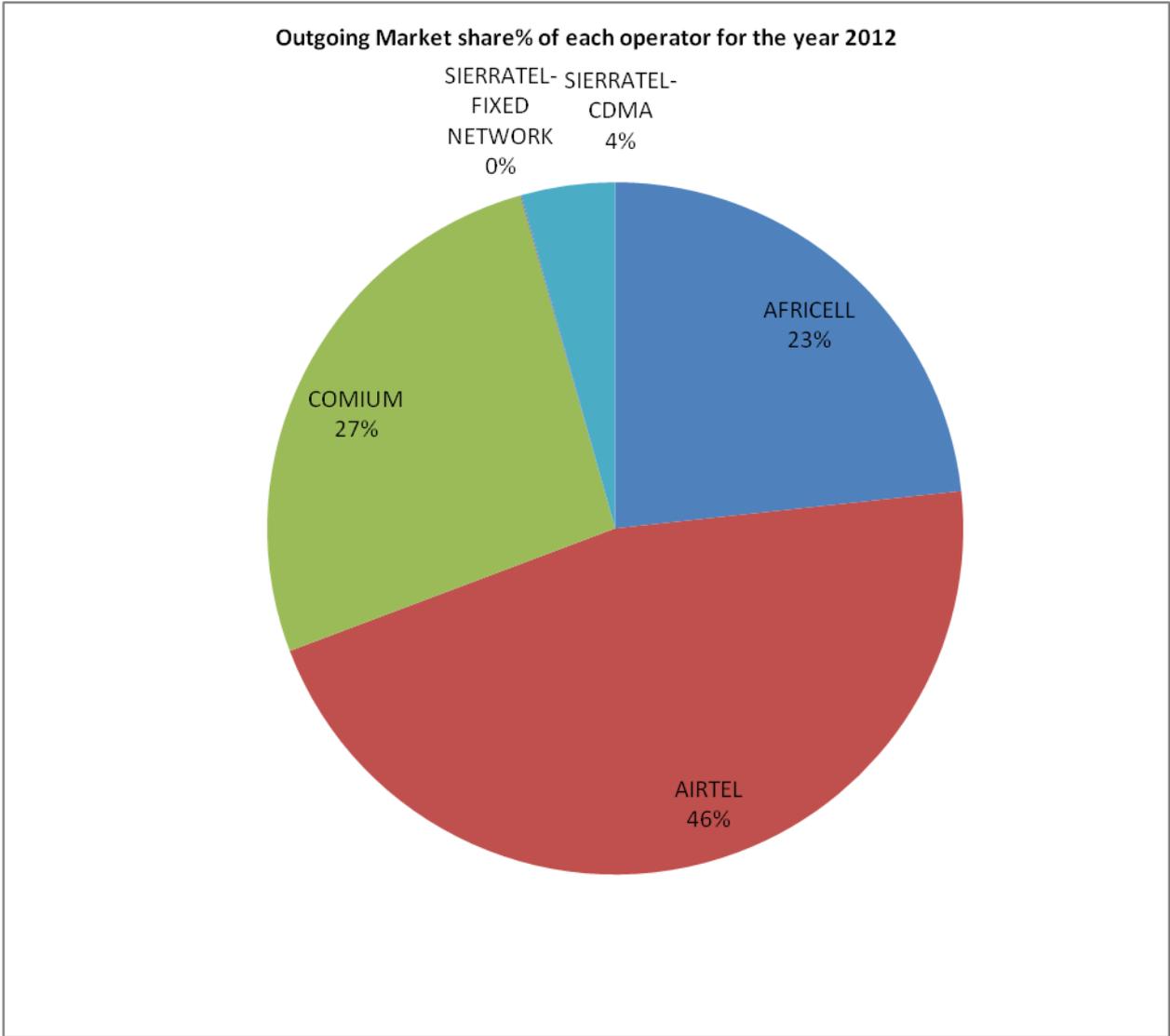
## Appendix C Market Share - International Call Minutes



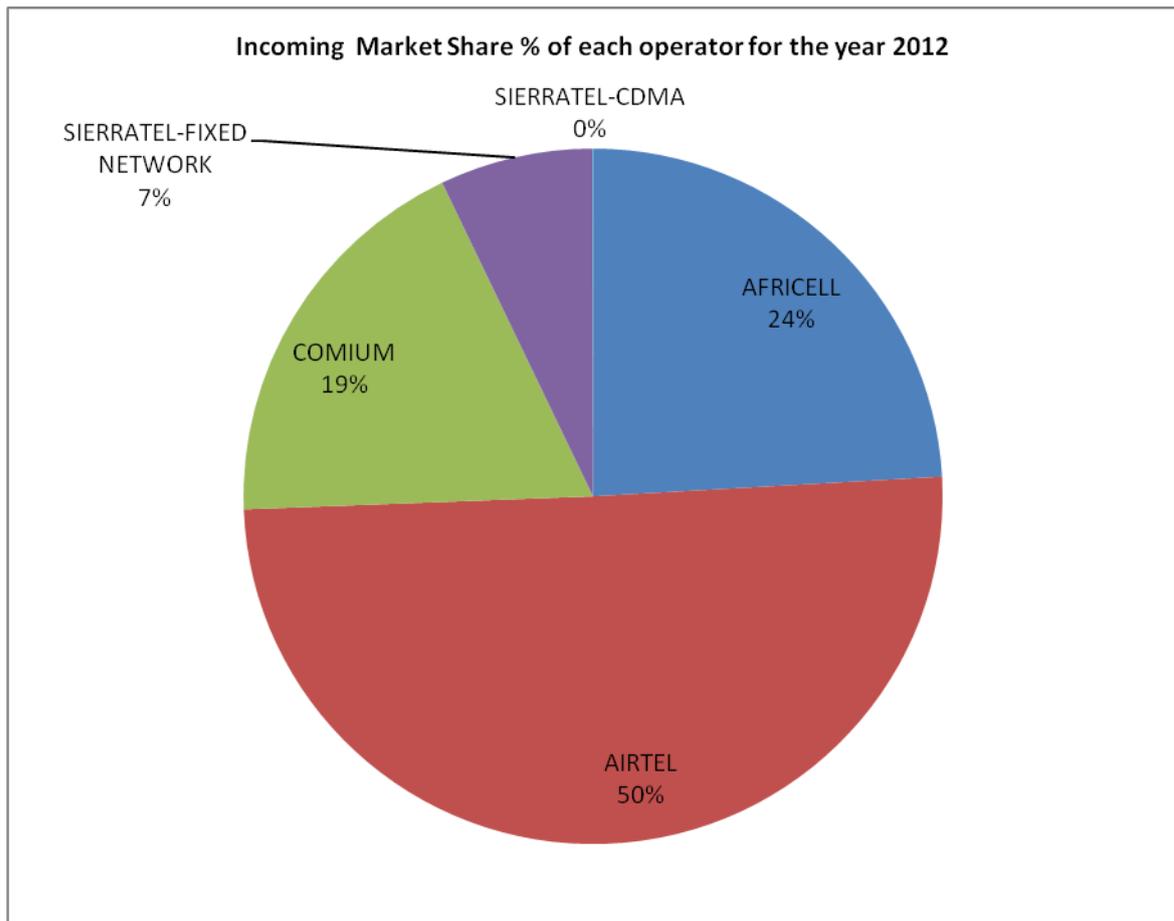
The chart above shows the outgoing voice traffic minutes reported by Sierratel, the IGW International Gateway Operator for the month of Jan-Jul 2012. There is a gradual increase in the international voice traffic for all the companies in the month of Jan- Jul except for Sierratel-fixed network which decreased gradually. Airtel's outgoing international calls increased rapidly in the month of March, 2012.



The bar chart also shows the outgoing international voice traffic for the GSM and CDMA Operators Jul-Dec 2012. Sierratel CDMA saw a drastic decrease during the months of Jul-Dec. The analysis that Airtel had the highest outgoing international voice minutes throughout the year 2012.

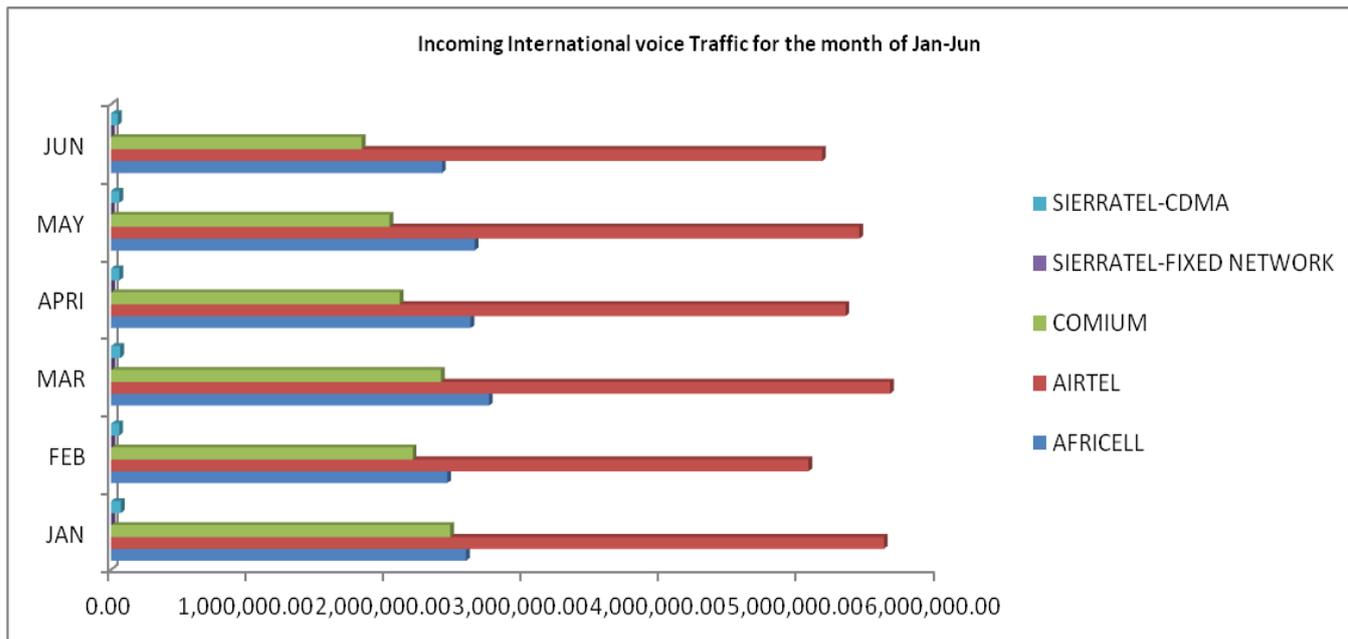


The pie chart above shows the market share in percentage (%) of outgoing international voice minutes for the year 2012. Airtel has the highest market share percentage of 46% whilst Sierratel fixed line has an insignificant figure nearly registering 0%. Airtel subscribers made more international calls than subscribers in other networks for the year 2012.

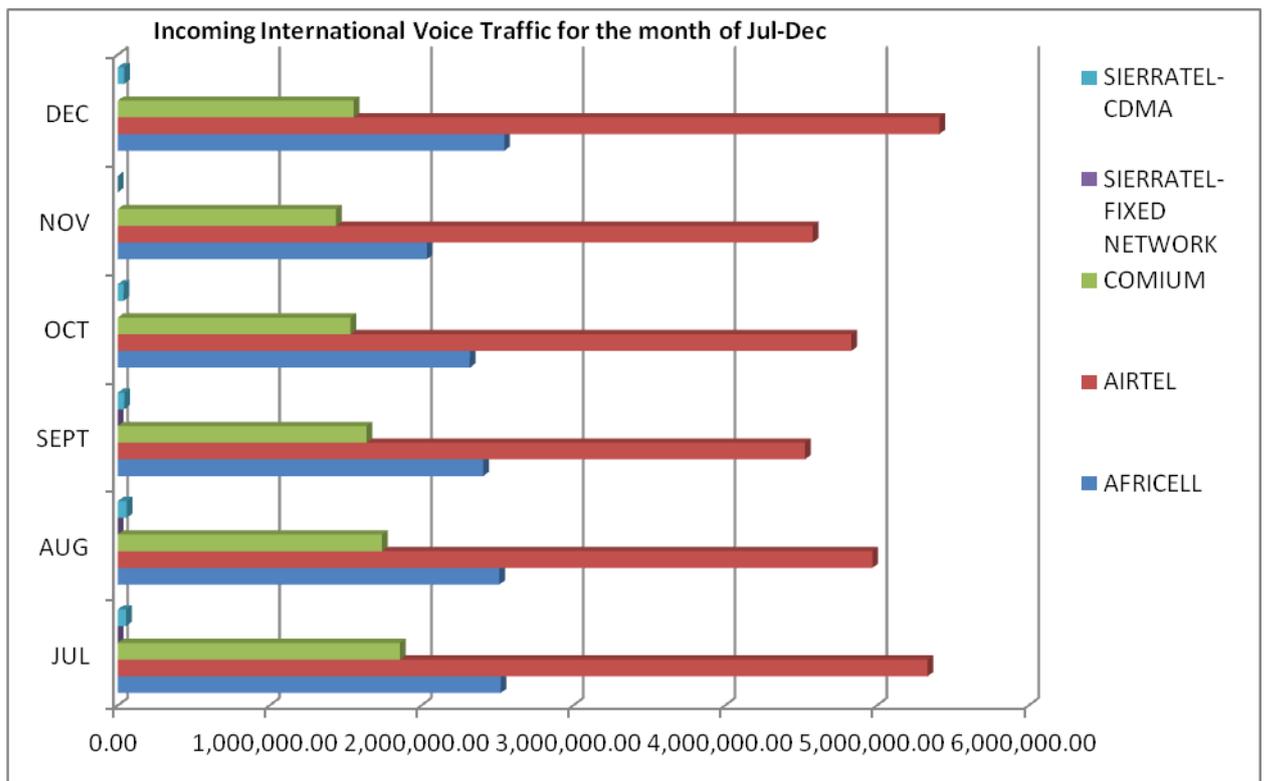


Airtel also has the highest market share of 50% in terms of incoming international voice minutes which indicates that Airtel is dominant in this particular market.

**Note:** Each operator percentage market share is computed for International minute usage and not revenue or subscriber base.



The Figure above shows the incoming international voice traffic of the five companies for the month of Jan-Jun 2012.



Sierratel CDMA and fixed Network received less international calls than the other networks throughout the year because they have less number of subscriber base in the industry.