



2015

Annual Report

NATIONAL TELECOMMUNICATIONS REGULATORY COMMISSION

About Cover Photo

This photo was captured at the NTRC's third annual I Squared Competition Grand Finale and Prize Giving Ceremony which took place on January 14, 2016. The photo depicts the winning team of the Mobile Application category for the secondary level known as "Inovatari". The team members include (from left to right): Betricia Stowe, Breana Marksman, Aliyah John, Rone Gurley and Deuna Forde, who all attend the St. Vincent Girls' High School.

The team "Inovatari" developed a mobile application with an interactive map which provided the locations for taxis stands, taxi offices, hospitals, clinics and police stations throughout St. Vincent and the Grenadines. The locations on the map also contained corresponding telephone numbers. Other features of the mobile application included estimated timeframes to get to and from the various locations with the objective of assisting tourists while traveling and learning about St. Vincent and the Grenadines.

The prizes awarded to the team "Inovatari" comprised of \$EC3,500.00 in cash from the NTRC, \$EC 1,000.00 in cash from Fanfare Events, and also smart phones for each team member compliments the telecommunications provider, Digicel.

The Deputy Chairman of the NTRC, Mr. Clifford Davy, distributed these prizes to the team.

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1. Mission Statement

To monitor efficiently, the operations of Telecommunications Services under the laws of St. Vincent and the Grenadines whilst providing an open market to all Telecommunications Providers, ensuring fair treatment for consumers and providing Universal Service to all Vincentians.

2. Vision Statement

To ensure that the demand for existing and future Telecommunications Services is met, in order to support economic growth and diversification, by providing a suitable environment for the tourism, information and financial sectors through a liberalized and competitive Telecommunications environment.

3. Functions

The NTRC in collaboration with ECTEL is responsible for carrying out a variety of functions that are associated with regulating the Telecommunication Sector in St. Vincent and the Grenadines. These functions are outlined in detail in the Telecommunications Act (CAP 418) of the Revised Laws of St. Vincent and the Grenadines 2009.

4. The Commissioners



Mr. Clifford Davy

Deputy Chairman



Mr. Richard Roberts

Commissioner



Mr. St. Clair Scott

Chairman



Mrs. Roxann Williams

Commissioner



Dr. Alston Stoddard

Commissioner

5. Staff Members



Mr. Apollo Knights
Director



Ms. Nadine Hull
ICT Manager



Mr. Kyron Duncan
USF Administrator



Ms. Mishka L. Quashie
Accountant



Ms. Andra Keizer
Administrative Officer



Ms. Keizer Gurley
Consumer & Public Awareness
Manager



Mr. Marcellus Constance
ICT Officer



Ms. Lizrene Charles
Operations Officer



Ms. Shonden Baptiste
Administrative Co-
ordinator



Ms. Gineal Joseph
USF Assistant



Mr. Cyron Cyrus
IT Technician



Mr. Chadwick Douglas
IT Technician



Mr. Otto Jackson
Intern

6. SWOT Analysis

6.1 Strengths

- The NTRC has the responsibility of regulating most aspects of the telecommunications sector.
- Availability of ICT infrastructure and software to efficiently carry out the NTRC's regulatory functions.
- Diversity of relevant skills and experience among current staff members and Commissioners.
- Staff members are keen to participate in capacity building programmes in line with the needs of the organization.
- A Balanced combination of experienced staff alongside young, innovative and qualified interns.

6.2 Weaknesses

- Inadequate price controlling mechanisms for dominant suppliers of services specifically in areas of mobile and cable TV retail rates.
- Lack of a formal relationship between the ECTEL organizational structure and that of the NTRCs.
- Lack of regulatory oversight on promotional activities of mobile service providers.
- Absence of Quality of Service (QoS) regulations in the sector.
- The inability of the current regulatory fee structure to maintain an adequate funding source for the regulatory system (ECTEL and the NTRCs) in the short term.
- Churn of Commissioners and staff when considering the small staff complement of the NTRC and the resources expended on developing the regulatory and technical skills of both Commissioners and staff.
- Current contribution rate to the Universal Service Fund (USF) has limited the NTRC in executing new projects.

6.3 Opportunities

- Ability to develop projects under the Universal Service Fund capable of reducing the current gaps that exist within our communities as it relates to data communication and knowledge sharing.
- Changes in technology and services being offered within the sector present a perfect opportunity for updating the Commission's legislative framework.
- The recent introduction of mobile broadband into the market by both mobile service providers presents a platform for the entry/creation of new technology based services which was not possible hitherto.

6.4 Threats

- Continued possibility of litigation from licencees.
- The issue of Cybercrime and Cyber Security is a threat facing not only the NTRC but our country and the region.
- The continued convergence of the ICT sector facilitated by IP technology which facilitates cross border services that evade the Commission's existing regulatory framework.
- Consolidation of service providers across the region is leading to a creation of new monopolies among certain services.

7. Critical Issues

Currently, there are three critical areas that need to be addressed in the sector:

7.1 Cyber Security

These issues were highlighted in detail in the NTRC's 2009 Annual Report and remains as relevant today. For these issues to be properly addressed, it requires work to be done at the regional level (CARICOM, OECS, etc.) and for this to be possible, ECTEL should take the lead and treat it as a matter of urgency. Additionally, areas should be addressed in the NTRC's new Telecommunications Regulatory framework so that the legislative provisions would guide the actual work that needs to be done by the region's respective regulatory agencies. In the interim, the NTRC is working towards improvement of this issue with the development and launching of an Associate Degree program in Cyber Security at the St. Vincent and the Grenadines Community College which started in September 2014.

7.2 Broadcast Standards and Royalties

In the absence of broadcast legislation or content/programming provisions within the new Electronic Communications Bill, the Government should look at alternative mechanisms, such as, agreements with the licencees to address issues such as royalties, local content and programming schedules. The issue of royalties for the local and regional artistes is a fundamental pillar in protecting the integrity of the Caribbean's civilization going forward.

7.3 Broadband Penetration Level

It is critical that as a country, focus is geared towards an increase in the penetration levels of broadband access to consumers, if the country is expected to compete on the global market in any serious fashion, irrespective of the sectors targeted. Broadband is now seen as an essential service globally that is comparable to that of electricity, telephone and water for which St. Vincent and the Grenadines is well into the 90% penetration at the household level but is still less than 50% at the household level for broadband. Imagine the country still being below 50% in electricity or water penetration. Our country has to develop a national strategy to bring the broadband penetration above 90% by 2017. During 2012, the ECTEL Council of Ministers mandated the ECTEL Directorate to develop a National Broadband Plan and Strategy. However, while a regional broadband working group was established in early 2013 to deliver on this mandate, nothing substantial has been prepared to date. Noting this, the NTRC took the initiative in 2014 to utilize the skills of a SET Program intern to develop a draft Broadband Plan for St. Vincent and the Grenadines. The draft Broadband Plan was submitted to Cabinet in March 2015 where the Plan sets out to bridge the digital divide, not only by providing high speed broadband access to the masses but by also creating opportunities for its potential and current users to utilize broadband to its fullest potential. It is expected that the draft Broadband Plan will be finalized through a consultative process with all of the relevant stakeholders in the second quarter of 2016.

In addition to the above, the Universal Service Fund (USF) has been working on increasing the broadband penetration level within the country through the seven different projects that have been implemented since 2010, particularly the SMART Project which saw the homes of over three hundred and forty persons being without internet service at a subsidized cost. Numerous public locations, such as community centers, educational institutes and tourism sites have been outfitted with wireless service which can be accessed by the general public. Noting the success of the projects that have been implemented to date, the USF has began the development of three new projects which will see the number of hotspots in the country increasing as well as providing over five hundred homes with subsidized internet service.

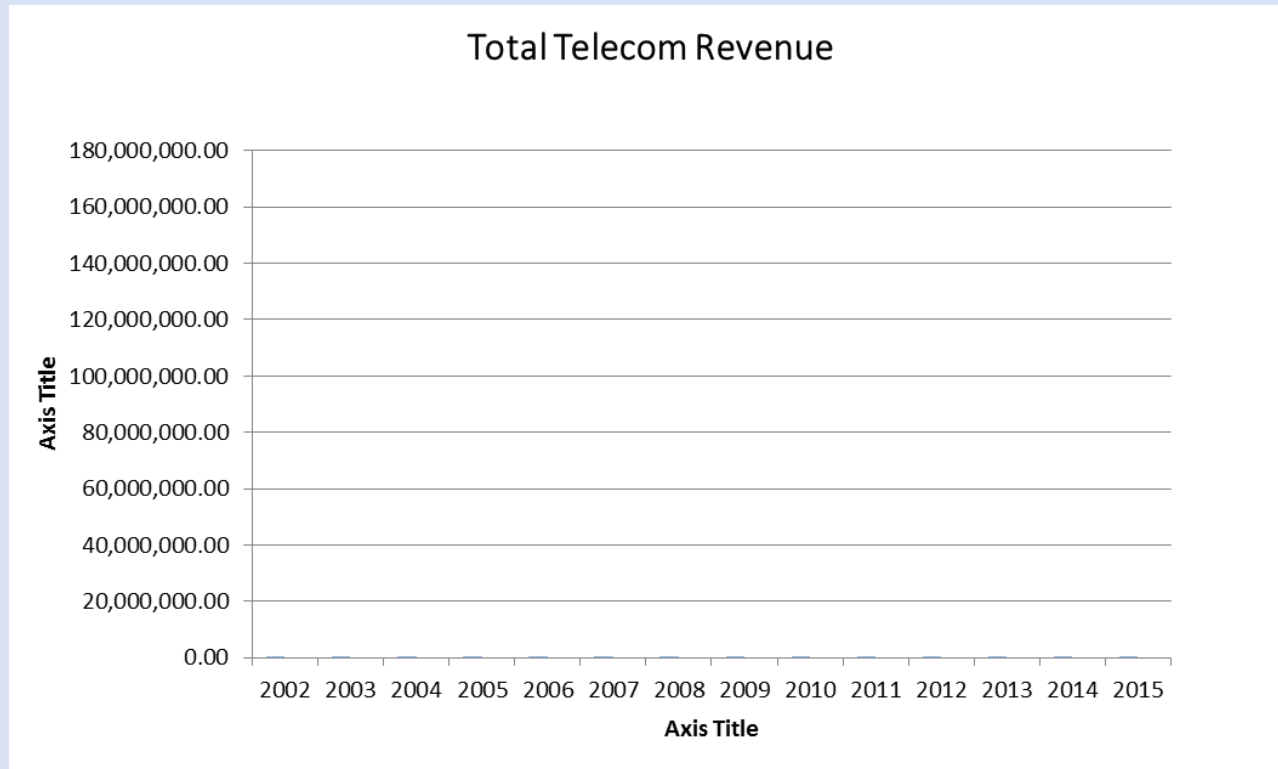
8. Sector Review

8.1 Financial Data Review

8.1.1 Telecommunications Sector Revenue

| | Cable and Wireless (SVG) Ltd | | | | | Digicel St. Vincent Ltd | | | Kelcom Int'l | | | Caribbean Business Machines Ltd | |
|------|------------------------------|------------------------|---------------------------------|-----------------------|----------------------------|----------------------------|--------------------------------|----------------------------|--|--------------------------------|-------------------------|--|-----------------------|
| Year | Int'l Revenue (EC\$) | Domestic Rev (EC\$) | Data/ Internet Rev (EC\$) | Mobile Rev. (EC\$) | Total Revenue (EC\$) | Mobile Rev (EC\$) | Data/ Internet Rev(EC\$) | Total Revenue (EC\$) | Cable TV & Fixed Line Rev (EC\$) | Data/ Internet Rev(EC\$) | Total Revenue (EC\$) | Total Revenue (EC\$) | Grand Total (EC\$) |
| 2000 | xxxxxxx | xxxxxxx | | xxxxxxx | xxxxxxx | xxxxxxx | | xxxxxxx | xxxxxxx | | xxxxxxx | xxxxxxx | xxxxxxx |
| 2001 | xxxxxxx | xxxxxxx | | xxxxxxx | xxxxxxx | xxxxxxx | | xxxxxxx | xxxxxxx | | xxxxxxx | xxxxxxx | xxxxxxx |
| 2002 | xxxxxxx | xxxxxxx | | xxxxxxx | xxxxxxx | xxxxxxx | | xxxxxxx | xxxxxxx | | xxxxxxx | xxxxxxx | xxxxxxx |
| 2003 | xxxxxxx | xxxxxxx | | xxxxxxx | xxxxxxx | xxxxxxx | | xxxxxxx | xxxxxxx | | xxxxxxx | xxxxxxx | xxxxxxx |
| 2004 | xxxxxxx | xxxxxxx | | xxxxxxx | xxxxxxx | xxxxxxx | | xxxxxxx | xxxxxxx | | xxxxxxx | xxxxxxx | xxxxxxx |
| 2005 | xxxxxxx | xxxxxxx | | xxxxxxx | xxxxxxx | xxxxxxx | | xxxxxxx | xxxxxxx | | xxxxxxx | xxxxxxx | xxxxxxx |
| 2006 | xxxxxxx | xxxxxxx | | xxxxxxx | xxxxxxx | xxxxxxx | | xxxxxxx | xxxxxxx | | xxxxxxx | xxxxxxx | xxxxxxx |
| 2007 | xxxxxxx | xxxxxxx | | xxxxxxx | xxxxxxx | xxxxxxx | | xxxxxxx | xxxxxxx | | xxxxxxx | xxxxxxx | xxxxxxx |
| 2008 | xxxxxxx | xxxxxxx | | xxxxxxx | xxxxxxx | xxxxxxx | | xxxxxxx | xxxxxxx | | xxxxxxx | xxxxxxx | xxxxxxx |
| 2009 | xxxxxxx | xxxxxxx | | xxxxxxx | xxxxxxx | xxxxxxx | | xxxxxxx | xxxxxxx | | xxxxxxx | xxxxxxx | xxxxxxx |
| 2010 | xxxxxxx | xxxxxxx | | xxxxxxx | xxxxxxx | xxxxxxx | | xxxxxxx | xxxxxxx | | xxxxxxx | xxxxxxx | xxxxxxx |
| 2011 | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx |
| 2012 | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx |
| 2013 | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx |
| 2014 | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx |
| 2015 | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx |

Table 1 Total Revenue earned by providers of telecommunications services from 2000 to 2015



8.1.2 Revenue of the NTRC and ECTEL for the period 2002 to 2015

Frequency fees are shared between the National Telecommunications Regulatory Commission (NTRC) and the Eastern Caribbean Telecommunication Authority (ECTEL).

There was a 53% increase in 2015 for frequency fees. Additional fees were collected for new frequencies as well as for frequency authorization modifications.

In 2015, there was an 18% reduction in the application fees compared to 2014. There were significant increases in new applications made in 2014 and there were a number of relicensing applications received for frequency authorization renewals as well as licence renewals received in that year.

| Revenue of NTRC and ECTEL 2002 to 2015 | | | | |
|--|-----------------------|------------------|-----------------------------|------------------|
| Year | NTRC Application fees | Percent increase | NTRC & ECTEL Frequency Fees | Percent increase |
| 2002 | \$107,036 | | \$607,600 | |
| 2003 | \$5,100 | -95% | \$1,366,604 | 125% |
| 2004 | \$8,800 | 73% | \$1,577,400 | 15% |
| 2005 | \$10,300 | 17% | \$1,539,669 | -2% |
| 2006 | \$11,275 | 9% | \$1,681,560 | 9% |
| 2007 | \$22,725 | 101% | \$1,245,183 | -25% |
| 2008 | \$13,325 | -42% | \$1,906,089 | 53% |
| 2009 | \$13,225 | -7% | \$1,487,390 | -21% |
| 2010 | \$23,846 | 80% | \$1,392,962 | -7% |
| 2011 | \$16,109 | -48% | \$1,723,158 | 24% |
| 2012 | \$16,390 | 2% | \$2,055,433 | 19% |
| 2013 | \$15,927 | -3% | \$1,787,020 | -13% |
| 2014 | \$31,547 | 98% | \$1,748,588 | -2% |
| 2015 | \$25,617 | -18% | \$2,681,489 | 53% |
| | \$321,222 | | \$22,800,145 | |

Table 2

8.1.3 Licence fees received by the Government for the period 2002 to 2015

There was a 1.6% decrease in revenue for licence fees collected by the NTRC on behalf of the Government in 2015 compared to 2014. This is mainly due to a fall in Digicel's revenue in 2015. Additionally in 2014, Southern Caribbean Fibre had paid \$50,000 in outstanding licence fees relating to the year 2013.

| Year | License Fees | Total | Percent Increase |
|------|-------------------|-------------------|------------------|
| 2002 | 3,365,391 | 3,365,391 | |
| 2003 | 2,803,927 | 2,803,927 | -17% |
| 2004 | 3,329,145 | 3,329,145 | 19% |
| 2005 | 3,421,159 | 3,421,159 | 3% |
| 2006 | 3,850,955 | 3,850,955 | 5% |
| 2007 | 4,301,521 | 4,301,521 | 11% |
| 2008 | 4,081,151 | 4,081,151 | -6% |
| 2009 | 4,065,706 | 4,065,706 | -4% |
| 2010 | 4,034,096 | 4,034,096 | -1% |
| 2011 | 3,886,912 | 3,886,912 | -4% |
| 2012 | 3,756,898 | 3,756,898 | -3% |
| 2013 | 3,638,128 | 3,638,128 | -3% |
| 2014 | 4,146,265 | 4,146,265 | 14% |
| 2015 | 4,079,164 | 4,079,164 | -1.6% |
| | 52,760,418 | 52,760,418 | |

Table 3

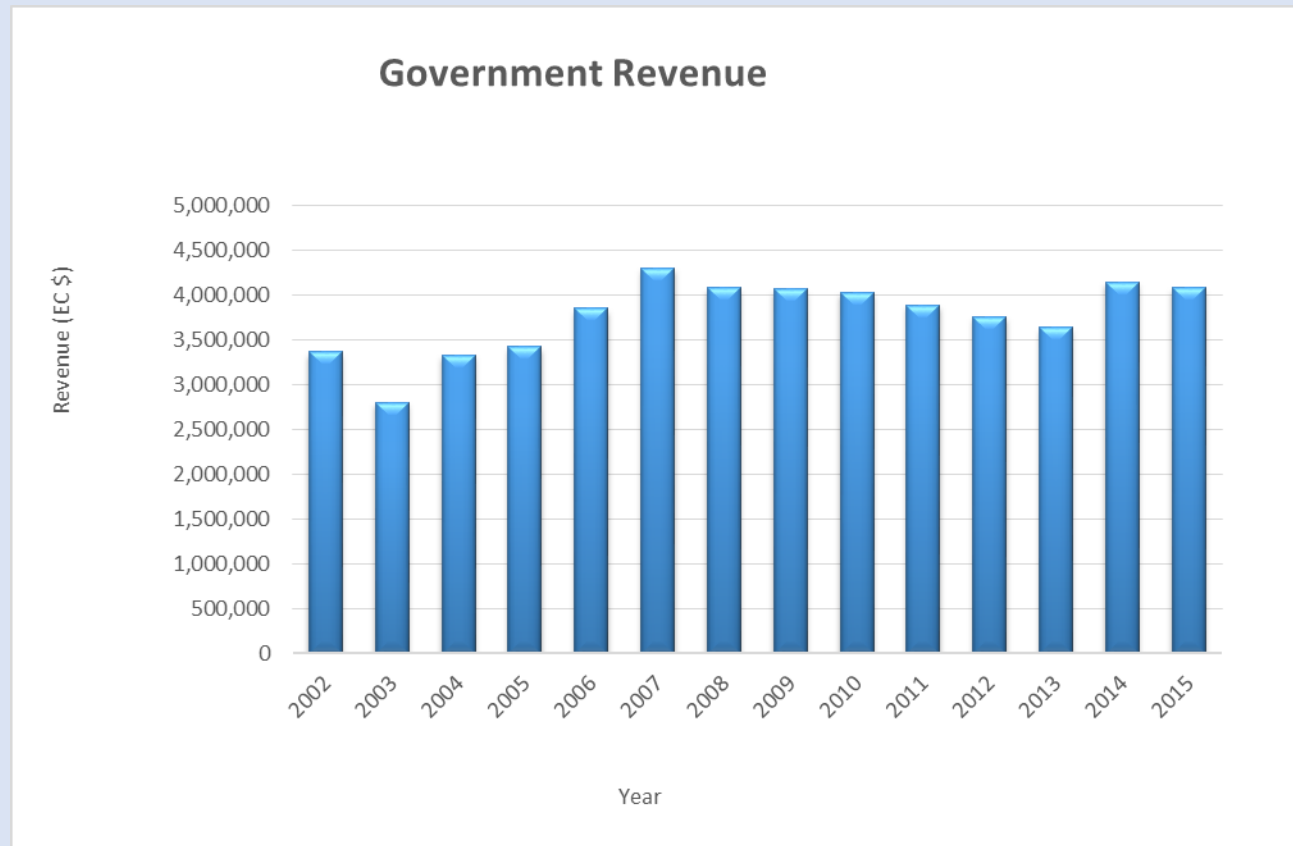


Figure 2

Licence Fees collected from 2002 - 2015

8.1.4 Financial Performance of the NTRC

A. Revenue

The NTRC projected to receive \$1,072,141.75 for the year ending December 31, 2015. However, \$1,080,993.15 was actually received which is \$8,851.40 more than the budgeted amount. At the end of the year, we also had \$34,900 in receivables outstanding from one provider for numbering fees. As such, revenues were more than anticipated. Additionally, ECTEL had contributed \$51,000.00 towards the purchase of our new spectrum vehicle.

B. Expenditure

i. Recurrent

For the year ending December 31, 2015, the NTRC projected to spend \$1,138,766.00 on recurrent expenditure; however, \$1,090,593.86 was actually spent. The Commission also has accrued expenses for 2015 amounting to \$48,867.04 which include staff gratuities and other capital items. Overall, total expenditure for 2015 amounted to \$1,139,460.90.

ii. Capital

The amount of \$33,653.58 was budgeted for capital expenditure for the financial year 2015. However, \$74,810.84 was spent which gives a difference of \$37,068.75. Included in this amount is the \$51,000 for the new vehicle which ECTEL contributed.

Conclusion

The NTRC's financial performance over the 2015 financial year was very commendable.

8.2 Projected Revenue for 2016

For the fiscal year 2016, the NTRC has projected to collect \$2,986,245 in revenue from frequency fees. This is an increase of 11% or \$304,756 compared to the 2015 amount of \$2,681,489. This increase is due to new frequencies that are expected to be issued in 2016.

8.3 Human Resource Development for 2015

The NTRC continues to expose its staff and Commissioners to relevant courses and seminars that would benefit the organization both in the short and long term taking into account the limited resources available. A number of these training programmes were sponsored by international agencies.

The particular areas covered during 2015 were as follows:

- Cisco Certified Network Associate (CCNA) Certification. This course is self-taught however, it is being done online.
- Masters in Project Management. This program is being done online with the University of International Corporation in Costa Rica.
- BSc Management Studies (Human Resource Management). This program is being done online via UWI Open Campus St. Vincent and the Grenadines.
- ACCA Professional Certification via Association of Chartered Certified Accountants (ACCA). This program is being done through ACCA in the United Kingdom.
- American Management Association (AMA) Building Better Work Relationship- New Techniques for Results-oriented Communication. This training was conducted in New York.
- American Management Association (AMA) Strategy Execution: Getting it Done. This training was conducted in New York.
- USTTI courses: 15-252 Regulatory and Privatization Issues in Telecommunications sponsored by the Federal Communications Commission. This training was conducted in Washington. 15-253 Subsea Cable Construction and Maintenance for Senior Policy Makers sponsored by AT&T. This training was conducted in New Jersey. 15-254 Creating an Enabling Regulatory Environment for Cloud Services sponsored by Microsoft. This training was conducted in Washington. 15-255 Countries in Transition: A Strategy for Driving Innovation and Transformation sponsored by The IBM Institute for Electronic Government. This training was conducted in Washington. 15-256 International Mobile Roaming Programs Sponsored by GSMA. This training was conducted in Washington.
- Spectrum Management Task Force Workshop on Frequency Allocation Table and Cross Border

interference between different countries. This workshop was conducted in Grenada.

- CTU Regional Training Workshop on ITU ICT Indicators. This workshop was conducted in Barbados.
- Advanced Mobile Application Development – This program was conducted at the SVG Community College.

In addition, staff members were required to read a new book each quarter on their area of speciality as well as, participate in Coursera courses of their choice to aid in training and development.

8.4 Regulations

No new Telecommunications Regulations were gazetted during 2015.

8.5 Staff

The NTRC filled one junior staff position in 2015 that became vacant:

- Mr. Cyron Cyrus, an intern from the SET programme for 2014 filled the position of IT Technician.

Otherwise:

- Ms. Keisha Gurley was appointed as the USF Operations Officer upon her return from her ACCA Studies.
- There was also an intern Mr. Otto Jackson from the SET programme who was assigned to the NTRC in 2015.

8.6 Policy Development

The ECTEL Council of Ministers mandated that ECTEL should proceed with having Number Portability implemented in the sub region. Work commenced on this task with the development of a briefing document for stakeholders and subsequent hosting of a workshop in St. Lucia in October 2015 comprising regulators and service providers. This workshop agreed on a working structure, programme governance and key milestones to move the process forward. This was followed up with the circulation of an ECTEL policy on number portability in December 2015 for public consultation. It is the intention to have number portability for both fixed and mobile services operational by December 2016 in the ECTEL member states.

With assistance from the World Bank funded CARCIP project, consultancy was executed in 2015 to review the draft Electronic Communications Bill that was recently developed by ECTEL along with identifying any current regulatory gaps specifically taking into consideration the trend towards mergers and acquisitions within the telecommunications sector globally and in our region. Coming out of this review were recommendations on new policies to address the following regulatory areas:

- Significant market power.
- Access to Network Infrastructure and Wholesale Services.
- Infrastructure sharing.
- Access to Essential Facilities at Cable Landing stations.
- Retail Pricing.
- Consumer Protection.

It is the intention that draft regulations covering these areas will be ready for public consultation across the ECTEL member states in the 1Q of 2016. Thereafter it is envisioned that the new Electronic Communications Bill will be enacted in all member states in 2016 in conjunction with the new regulations.

8.7 Spectrum Management

In 2015, the Commission continued its work monitoring the radio spectrum (TV and FM broadcasters, as well as, cellular operators) in our weekly monitoring checks throughout St. Vincent and the Grenadines. In February 2015, we also had a refresher training course in the use of the Spectrum Analyzer facilitated by Anritsu (the manufacturer of our Spectrum Analyzer) through ECTEL. The training was done in St. Vincent and the Grenadines with participants from the five ECTEL contracting states and ECTEL.

Also, in February 2015, a new pickup was purchased (Nissan Navara) that would be used for our weekly spectrum monitoring. The pickup replaced the Toyota Landcruiser that was previously used for spectrum monitoring since 2004.

During the year, work was also done with regards to the research of limits for non-ionizing radiation, such as the radiation from broadcast or mobile transmitters. The summation of the research in July 2015 was very timely and came on the heels of concerns noted by the Minister of Telecommunications who indicated that residents in the Dorsetshire Hill were troubled about the radiation from the

many transmitters in that location. Dorsetshire Hill, as well as Kingstown, were tested based on the recommended ICNIRP guidelines (from the research done) for non-ionizing radiation using our Spectrum Analyzer which was specifically bought in 2013 for radiation testing. It was found that these locations were below the limits outlined and therefore there was no reason for concern. This information was communicated to the Minister. A recommendation with regards to the implementation of a radiation regulation was also submitted to ECTEL.

During the period October to December 2015, ECTEL published a tender for companies to bid on the provision of a Spectrum Monitoring and Management System for ECTEL and the contracting states. As at the end of the year, the evaluation of the technical specifications submitted by Rohde and Schwarz, TCI, LS Telecom and CRFS were completed. Left to be completed is the evaluation of the companies' financial proposals.

In November 2015, the Spectrum Analyzer developed a problem where it began to overheat and could not be used. As a result, no spectrum monitoring was done during the latter part of November and December 2015.

8.8 Cellular Sites

Table below shows the number of cellular sites and 4G services in St. Vincent and the Grenadines.

| Company | Location | Number of Cell Sites | Number of Cell Sites with 4G services |
|------------------|-------------|----------------------|---------------------------------------|
| Cable & Wireless | St. Vincent | 32 | 32 |
| | Grenadines | 8 | 8 |
| Digicel | St. Vincent | 32 | 22 |
| | Grenadines | 10 | 9 |

The above table shows that Cable & Wireless has 32 sites on mainland St. Vincent with all sites providing 4G services. Likewise in the Grenadines, all 8 of Cable & Wireless' sites provide 4G services. Digicel, on the other hand has 32 sites on mainland St. Vincent, however, only 22 of these sites provide 4G Services. In the Grenadines, 9 out of 10 Digicel sites provide 4G services.

8.9 Internet Access

As of December 2015, the total number of Fixed internet subscribers in St. Vincent and the Grenadines was eighteen thousand, seven hundred and eighty-nine (18,789). This figure shows a 12.04% increase over the number of subscribers in 2014. In 2015, both Cable and Wireless and Karib Cable had an increase in the number of subscribers when compared to their 2014 figures. These increases over the years, though steady, needs to be at an increasing level of subscription nationally to bridge the digital divide which exist.

The Government of St. Vincent and the Grenadines and particularly the NTRC is doing its part to increase access to the internet with the development of various projects. In 2015, in addition to the six other projects implemented under the Universal Service Fund (USF) that offer internet access to various locations throughout St. Vincent and the Grenadines, the NTRC began the development of another project for which we will be seeking external funding for. This project will not only revolutionize free internet access island wide but also seek to provide internet access at a subsidized rate to under privileged households.

In addition to the increased internet access which the NTRC through the use of the Universal Service Fund (USF) will be seeking, the NTRC is also seeking to have the rate of contribution to the USF by the telecommunications providers increased. This will provide increased revenues to the USF for more projects to be implemented and thus provide more access to telecommunication services. In addition to these initiatives by the NTRC, the National Broadband Plan which was drafted, is in its consultation phase and it is expected to be completed and adopted before the end of 2016. This plan sets out various policies and plans to be adopted locally so as to bridge the digital divide.

In 2016, the NTRC expanded the number of free internet access points which were available. The Milton Cato Memorial Hospital, Heritage Square, The Kingstown Cruise Ship Terminal, The Port Authority Recreational Facility all received free wireless internet connectivity in 2015. This is in addition to the other locations which have free wireless internet access nationwide. In 2015, the subsidized internet program also became fully subscribed with 340 households benefiting from internet access at a subsidized rate of \$10 E.C monthly under the SMART project funded by the USF.

8.10 Public Consultation

The NTRC conducted public consultations on the following:

1. ECTEL recommendations for the Price Cap Plan (PCP) for LIME in 2015. The objective of the PCP is to regulate the rates of certain retail services offered by Cable & Wireless St. Vincent and the Grenadines Ltd during the period May 1, 2015 to March 31, 2018. This new proposed PCP will replace the current PCP that came into effect in 2010.
2. Revised Draft Electronic Communication (EC) Bill, Proposed New Licence Template, New Licence Application Form and New Licencing Regime. The basic aim of the Consultation on the Revised Draft Electronic Communication Bill is to reform the legislation relating to telecommunications in the ECTEL Contracting States by repealing and replacing the Telecommunications Acts with legislation which given the converged environment is broader in scope to encompass electronic communications.
3. Proposed Changes to the Universal Service Fund in ECTEL Member States. The basic aim of the consultation paper seeks to solicit comments on the proposed

changes to the Universal Service Fund in the ECTEL Member States. This paper highlights the regulatory issues relating to the Universal Service Fund, taking into account best regulatory practices for the Universal Service Fund and proposes approaches that may be implemented.

4. Policy Recommendations for the Adoption of Number Portability in ECTEL States. The basic aim of the consultation paper seeks to set out the key parameters that will define the implementation of Number Portability (NP) in ECTEL Contracting States.

8.10 Telephone Rates

With the announcement of the LIME/Flow merger in late 2014, the consultation on the draft Price Cap Plan (PCP) was resumed in March 2015. However, the proposed plan did not address the current market situation taking the merger issue into account. Additionally, the issue of non-regulation of mobile rates still impact customers negatively. As such, we agreed to extend the current Price Cap Plan (PCP) until a revised plan has been developed by ECTEL.

8.11 Public Awareness

In 2015, a public awareness committee was set up to determine the public awareness activities and to partake in these activities. The Commission held various Activities in 2015. The following highlights the activities executed:

1. Public Drives: The theme for our public drive was "Public Drive On The Go" and the Public Awareness Committee met various persons in the major towns to inform them of the NTRC, USF and the third annual i² competition. The team visited Chateaubelair, Layou, Barrouallie, Calliaqua and Georgetown. The Public Awareness Team wore T-shirts with the NTRC's logo and the "Public Drive On The Go" logo at all of these events.
2. Radio and Television presentations: These were done to inform the general public of the third annual i² competition.
3. Facebook campaign: In an effort to reach a wider and more substantial audience on our Facebook page, the Commission held various competitions using this forum. Persons got the opportunity to win prizes which included android tablets, an iPad mini, school vouchers for the purchase of school items and \$500.00 worth of groceries for the Christmas season.
4. Promotional Items: The Commission purchased promotional items and distributed these items to all persons at all events.
5. School Discussions: In an effort to increase the number of entries for the third annual i² competition, the public awareness committee visited fifteen (15) secondary schools, four (4) technical institutes and the four (4) divisions of the St. Vincent and the Grenadines Community College. The presentations at the school events revolved around the NTRC, USF and Cybersecurity.
6. Third annual i² competition: On September 18, 2015 the Commission launched the third annual i² competition. This competition is a forum that challenges students to develop and present projects in the form of Ideas and Mobile Application which can implement new systems or improve existing systems within the Public Service Sector. The entries

from the secondary level came from the Petit Bordel Secondary School, Mountain View Academy, Union Island Secondary School, Thomas Saunders Secondary School, St. Vincent Girls High School and the St. Vincent Grammar School.

The tertiary level saw participation from the three (3) divisions of the St. Vincent and the Grenadines Community College entering the competition. This includes the Division of Nursing, Division of Technical and Vocational Education and the Division of Arts, Science and General Studies.

For the first time in the history of the competition, there was a preliminary phase for the tertiary schools. The tertiary schools recorded the highest entries in this year's competition. The finals of the competition is expected to conclude on January 14, 2016.

8.12 Universal Service Fund

For the year ending December 31, 2015, the Universal Service Fund budgeted to receive a total of One Million, Two

Hundred and Eighty One Thousand, Five Hundred and Seventy Seven Dollars (\$1,281,577.00) from the telecom service providers and interest on account was projected to be Twenty Five Thousand Dollars (\$25,000.00). The actual revenues received by the Universal Service Fund in 2015 was One Million, Two Hundred and Eighty Seven Thousand, Five Hundred and Fifty Dollars and Fifty Two Cents (\$1,287,550.52) from telecom service providers. A total of Twenty Two Thousand and Ninety Two Dollars and Forty Three Cents (\$22,092.43) was received as interest on the account.

A total of seven projects are currently being funded under the Universal Service Fund. The NTRC did not seek to pursue any new projects in 2015 as the current funds available are not sufficient to fund any new projects. In this regard the NTRC during 2015 worked alongside the relevant stakeholders to adjust the current USF contribution rate.

Of the seven projects currently being funded one remains un-commissioned as at December 31, 2015. This is as follows: Payphone Project: The infrastructure in this project has been completed. However, there has been a delay in the commissioning process due to inconsistent camera footage from the cameras installed at the locations under the project

for remote access viewing. The inconsistencies are occurring as a result of faulty line plants, sea blast interference, fluctuating power and modems with unstable IP configuration. Steps to rectify the issues were identified and all camera feeds are expected to be up by February 2016.

More details on the USF projects can be found in the 2015 USF Annual Report.

In 2015, the NTRC hosted its first annual summer coding and application development initiative, the My App Summer Program, where the main objective of the summer program was to teach the participants how to code and design applications and provide opportunities for the younger population to enhance their technological skills. The program, which was taught by Mr. Jason Alexis, commenced on July 20, 2015 and concluded on August 21, 2015. An overall evaluation of the program was completed on August 24, 2015 and it was noted that the objective of the program was achieved without any substantial setbacks. Despite their lack of previous programming experience, the participants successfully produced a significant amount of authentic code by the completion of the program.

8.13 Cable TV

After bringing Karib Cable's TV services under the oversight of the NTRC in 2013 with the issuing of a Subscriber Television Licence under the Telecom Act, the company was acquired by FLOW (Columbus Communications) soon thereafter. Since that time the NTRC has had numerous discussions with FLOW to regularize the acquisition. It was finally agreed that the company will submit new applications for all services and frequencies which was done in September 2014. This situation was further compounded with the announcement in November 2014 that Cable & Wireless Communications (LIME) agreed to acquire 100% shareholding of Columbus Communications (FLOW). The NTRC has since briefed the Hon. Minister with responsibility for Telecommunications on the potential impact of the merger and possible solutions. LIME was issued a Subscriber television licence in 2011 and was expected to provide some level of competition to Karib cable (FLOW). With the proposed merger such competition will no longer be forthcoming and will require certain regulatory interventions by the Minister and the NTRC

8.14 Statistics

The NTRC continued in 2015 with the provisioning of statistical data from the Telecommunications sector to a number of local, regional and international entities. The following graphs depict some of the more relevant information on the sector while Table 4 on page 30 gives a detailed overview of customer data supplied by the telecommunications providers.

Fixed Line Rates to the USA

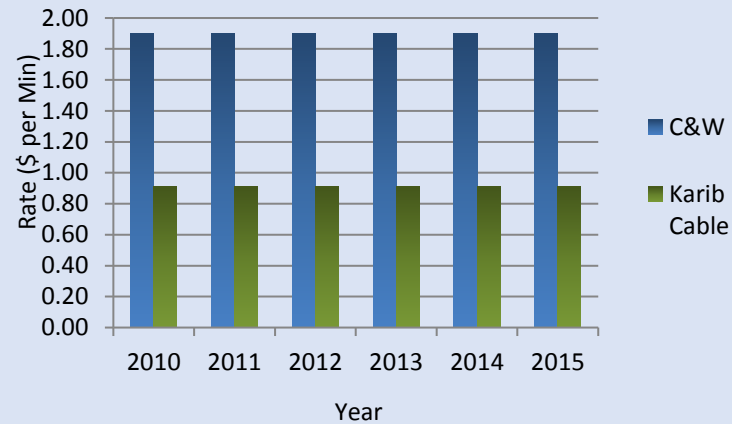


Figure 3

The rates depicted in Figure 3 are not regulated. No competition existed in the fixed line market until Karib Cable entered in 2009. Note that these rates have remained unchanged from 2010 to 2015.

Mobile Rates to the USA

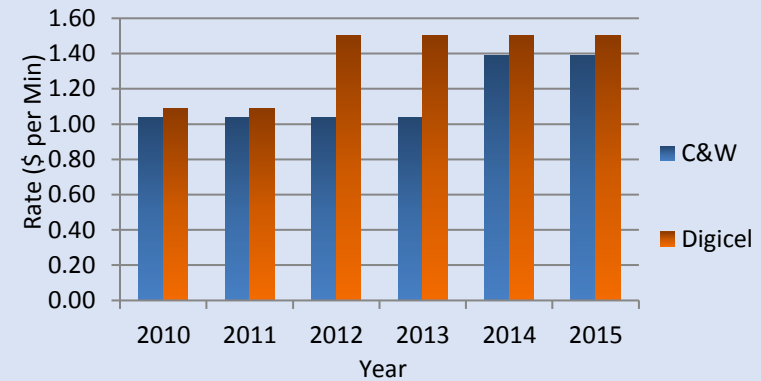


Figure 4

The rates depicted in Figure 4 are not regulated. In 2010 the rates were the lowest ever recorded to under \$1.00 EC per minute during peak time. There was no increase in rates from 2014 to 2015.

Domestic Rates

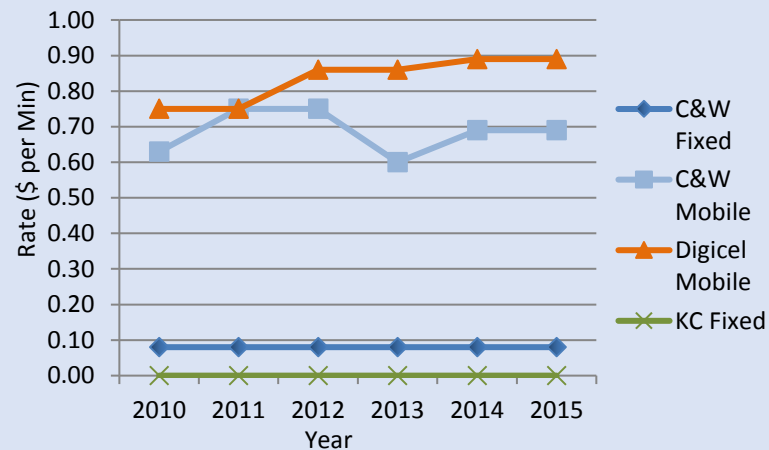


Figure 5

The domestic rates in Figure 5 are the daytime rates for calls made to customers on the same network. From 2014 to 2015 there was no increase in mobile domestic rates for C&W or Digicel.

International Rates

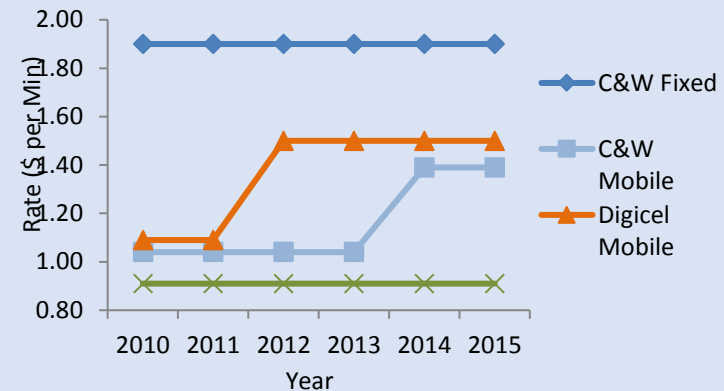


Figure 6

The international rates in Figure 6 are the daytime rates for calls to the USA for all providers. Figure 3 and Figure 4 show that while fixed line and mobile rates are basically on par for international calls, there is a large discrepancy between fixed line and mobile rates for domestic calls.

Fixed Line to Mobile

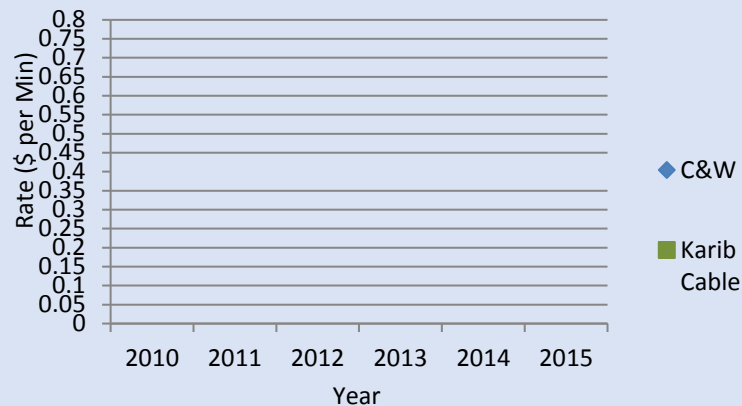


Figure 7

Figure 7 shows Cable & Wireless' and Karib Cable's fixed line to mobile rates for 2010 to 2015. We see a reduction in Cable & Wireless' rate from 2010 to 2015. Karib Cable's rate remained constant over 2010 to 2011; a reduction was noted in 2012 apart from this the rates remained unchanged going forward from 2013 to 2015.

Mobile Subscribers

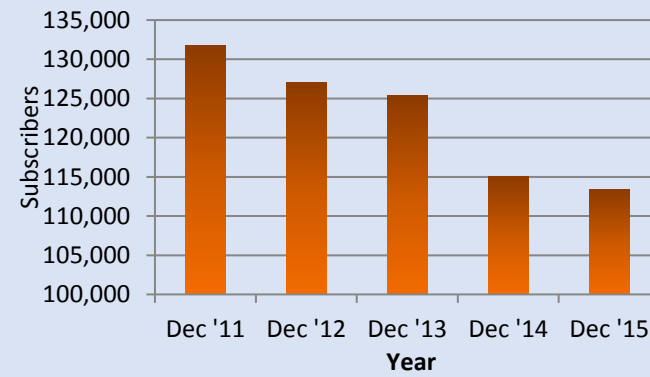


Figure 8

It is noted that Cable & Wireless' mobile subscribers decreased in 2014 however, in 2015 they had a slight increase while Digicel's customers decreased in the same year. However, Digicel's percentage in market share continues to grow over Cable & Wireless.

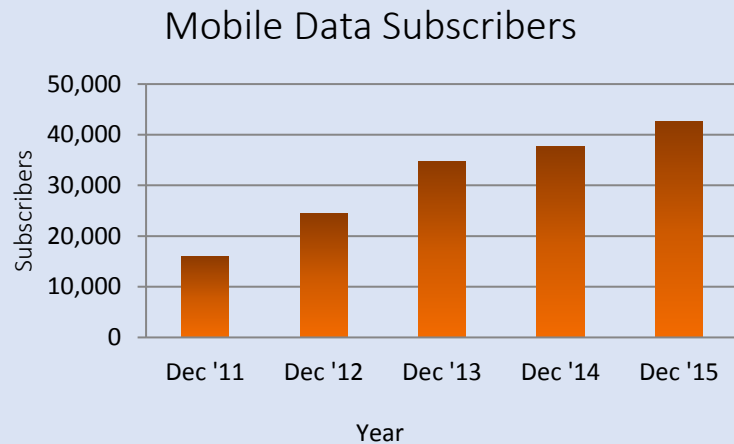
*Figure 9*

Figure 9 shows the total Mobile Data Subscribers for Cable & Wireless and Digicel from 2011 to 2015.

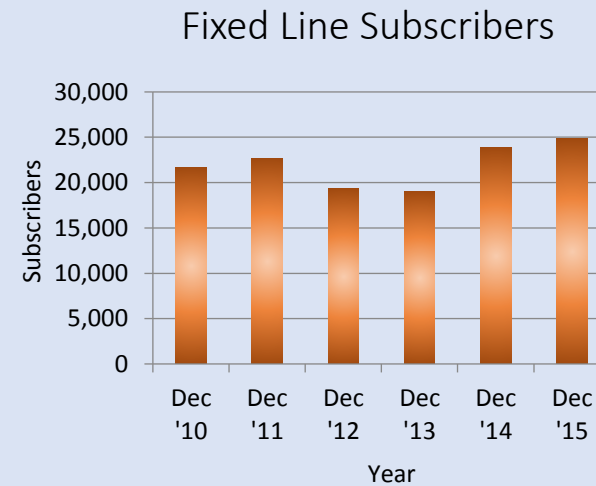
*Figure 10*

Figure 10 shows a decrease in Fixed Line Subscribers in 2012 and 2013 for both Cable & Wireless and Karib Cable. However, in 2014 and 2015 there was an increase in Fixed Line Subscribers for Cable and Wireless.

Broadband Internet Subscribers

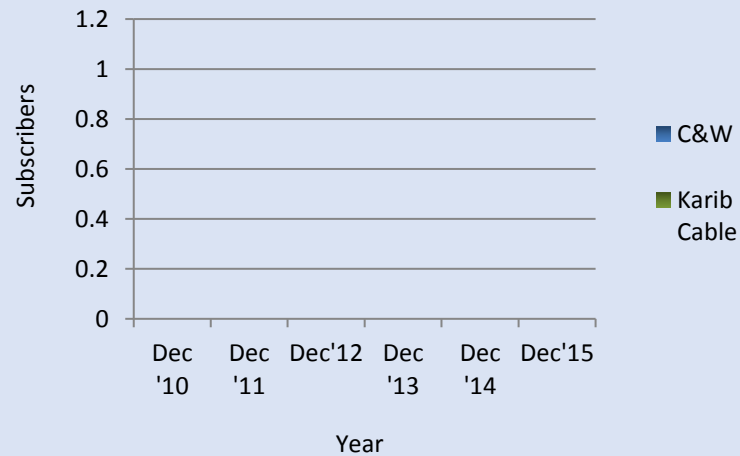


Figure 11

Figure 11 shows the number of Broadband Internet Subscribers per provider. Cable and Wireless experienced a decline in broadband subscribers in 2012, however there was an increase in broadband subscribers in 2013 and 2014. Karib Cable has also increased its number of subscribers for 2014 and 2015.

Broadband Internet Subscribers

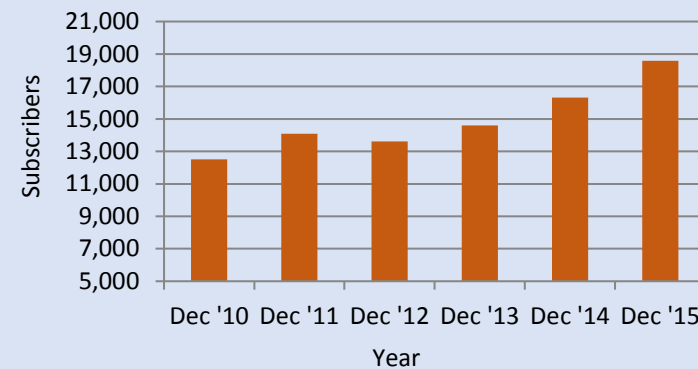


Figure 12

Figure 12 shows the number of Broadband Internet Subscribers from 2010 to 2015 on a whole. There has been a slight decline in 2012, however there is an increase in the Broadband Internet Subscribers in 2013 to 2015.

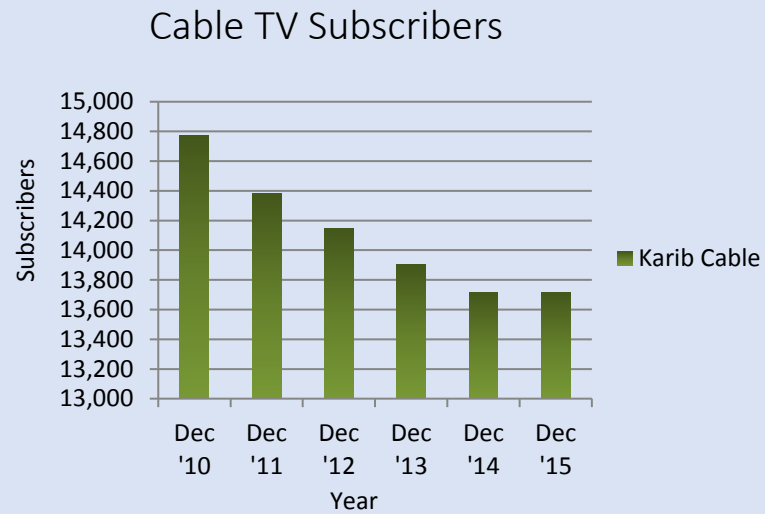


Figure 13

Figure 13 shows that Karib Cable experienced a slight increase in Cable TV subscribers during 2015.

| | | | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|---------------------------|---------------------------|--------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Cable & Wireless (WI) Ltd | Fixed Line Subscribers | Residential | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx |
| | | Business | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx |
| | | Total | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx |
| | Internet Subscribers | Dialup | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx |
| | | ISDN | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx |
| | | ADSL (Residential) | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx |
| | | ADSL (Business) | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx |
| | | Total | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx |
| | Mobile Subscribers | Post paid | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx |
| | | Prepaid | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx |
| | | Total | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx |
| Digicel | Mobile Subscribers | Post paid | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx |
| | | Prepaid | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx |
| | | Total | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx |
| Karib Cable | Cable TV Subscribers | Residential | | | | | | 13,810 | 13,556 | 13,397 | 13,397 |
| | | Business | | | | | | 172 | 186 | 224 | 224 |
| | | Free Service | | | | | | 166 | 163 | 96 | 96 |
| | | Total | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx |
| | Internet Subscribers | Residential | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx |
| | | Business | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx |
| | | Free Service | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx |
| | | Total | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx |
| | Fixed Line Subscribers | Residential | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx |
| | | Business | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx |
| | | Free Service | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx |
| | | Total | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx | xxxxxxx |

Table 4

Table 4 contains the Customer data submitted from the three Telecom Providers. The ISDN Internet Service for Cable & Wireless is no longer in use. For Karib Cable's data for 2015, the three services have been broken down into Residential, Business and Free Service.

8.15Licencing

The NTRC continued in 2015 to facilitate the application process for new licences under the Telecommunications Act (CAP 418) of the Revised Laws of St. Vincent and the Grenadines 2009. Individual type applications were forwarded to ECTEL for evaluation while Class type applications were evaluated by the NTRC. The NTRC also evaluated and made recommendations to the Minister on a number of frequency applications.

| | | 2009 | | 2010 | | 2011 | | 2012 | | 2013 | | 2014 | | 2015 | |
|---------------------------------|-------------------------------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|------|-------|
| | | New | Renew | New | Renew | New | Renew | New | Renew | New | Renew | New | Renew | New | Renew |
| Individual type licenses | Fixed Public | 0 | N/A | 1 | N/A | 1 | N/A | 0 | N/A | 0 | N/A | 0 | N/A | 0 | N/A |
| | Internet Networks | 0 | N/A | 0 | N/A | 0 | N/A | 0 | N/A | 0 | N/A | 1 | N/A | 1 | N/A |
| | Subscriber Television | 0 | N/A | 2 | N/A | 1 | N/A | 0 | N/A | 1 | N/A | 1 | N/A | 1 | N/A |
| | Int'l Simple Voice Resale | 0 | N/A | 1 | N/A | 0 | N/A | 0 | N/A | 0 | N/A | 1 | N/A | 0 | N/A |
| | Mobile Cellular | 0 | N/A | 0 | N/A | 0 | N/A | 0 | N/A | 0 | N/A | 0 | N/A | 0 | N/A |
| | Public Radio paging | 0 | N/A | 0 | N/A | 0 | N/A | 0 | N/A | 0 | N/A | 0 | N/A | 0 | N/A |
| | Submarine cable | 0 | N/A | 0 | N/A | 0 | N/A | 0 | N/A | 0 | N/A | 0 | N/A | 0 | N/A |
| Class type licenses | Private network/services | 0 | N/A | 1 | N/A | 1 | N/A | 1 | N/A | 0 | N/A | 0 | N/A | 1 | 1 |
| | Internet services | 0 | N/A | 0 | N/A | 0 | N/A | 0 | N/A | 0 | N/A | 0 | N/A | 0 | N/A |
| | Radio Broadcast | 0 | N/A | 8 | N/A | 1 | N/A | 0 | N/A | 0 | 3 | 1 | 5 | 1 | 6 |
| | Value Added Services | 0 | N/A | 0 | N/A | 0 | N/A | 0 | N/A | 0 | N/A | 1 | N/A | 1 | N/A |
| | Community radio | 1 | N/A | 0 | N/A | 0 | N/A | 0 | 2 | 0 | N/A | 0 | N/A | 1 | 1 |
| | Television Broadcast | 0 | N/A | 0 | N/A | 0 | N/A | 1 | N/A | 0 | N/A | 0 | N/A | 0 | N/A |
| | Maritime mobile | 1 | 23 | 0 | 19 | 3 | 42 | 4 | 67 | 35 | 31 | 35 | 31 | 1 | 16 |
| | Land mobile | 1 | 275 | 3 | 212 | 5 | 267 | 3 | 172 | 2 | 155 | 3 | 204 | 0 | 10 |
| | Aeronautical radio | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| | Aircraft station | 3 | 18 | 1 | 16 | 2 | 17 | 2 | 17 | 4 | 17 | 3 | 17 | 1 | 18 |
| | Amateur Radio station | 29 | 23 | 36 | 36 | 38 | 60 | 27 | 80 | 25 | 84 | 26 | 82 | 8 | 47 |
| | Citizen Band radio | 0 | 0 | 0 | 5 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 3 |
| | Family Radio Band | 4 | 0 | 2 | 1 | 1 | 0 | 1 | 5 | 1 | 3 | 1 | 3 | 1 | 2 |
| | Ship Station | 61 | 112 | 28 | 131 | 44 | 170 | 27 | 122 | 15 | 182 | 18 | 157 | 46 | 177 |
| Miscellaneous | CPE Dealers reg. fee | 18 | 12 | 18 | 17 | 17 | 44 | 15 | 18 | 14 | 16 | 10 | 17 | 2 | 10 |
| | Exam Fees for Radio Operators | 0 | N/A | 0 | N/A | 2 | N/A | 0 | N/A | 1 | N/A | 1 | N/A | 0 | N/A |
| | Type Approval fee | 0 | N/A | | N/A | 3 | N/A | 16 | N/A | 22 | N/A | 27 | N/A | 56 | N/A |
| | Ship station Operators | 24 | 16 | 25 | 32 | 17 | 55 | 25 | 9 | 27 | 7 | 29 | 21 | 17 | 40 |
| | Aircraft Station Operators | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Table 5

Table 5 outlines the number of licences issued from 2009 to 2015. The issued licences are broken down as new licences, issued in the specific year, and renewals of existing licences, first issued in previous years.

9. Broad Response Strategies

As the Telecom/ICT Sector continues to function within a liberalized environment, the NTRC, in collaboration with ECTEL and the Government, has to respond to the requirements of a competitive sector so as to protect the interests of both the providers and the consumers and facilitate a relevant regulatory framework that will cater for the increased rate of change in the sector.

The NTRC has to operate within the harmonized framework of the ECTEL Treaty and the Telecommunications Act (CAP 418) of the Revised Laws of St. Vincent and the Grenadines 2009. Most of the objectives cannot be accomplished on its own due to the mandate given to ECTEL on certain issues. However, the Universal Service Fund allows for some flexibility at the national level which NTRC SVG has sought

to utilize the available resources for the maximum benefits via practical and needed projects that meet the needs of the citizens.

Recognizing the limitations outlined above, the NTRC aims to continue to work closely with ECTEL, the Ministry/Minister responsible for Telecommunications and relevant stakeholders in order to ensure that the pending review of the NTRC's regulatory framework for the telecom sector and other ICT initiatives are capable of addressing the issues that currently exist and those that are envisioned.

10. Result Indicators 2015

1. To execute the 3rd annual NTRC's i^2 Competition which presents the opportunity for students at the Secondary and Tertiary level institutions to develop innovative ideas and mobile applications that can improve the efficiency and effectiveness of our public service.

On September 18, 2015 the Commission launched the third annual i^2 competition. This competition is a forum that challenges students to develop and present projects in the form of Ideas and Mobile Application which can implement new systems or improve existing systems within the Public Service Sector. This task was accomplished even in light of the reduction in activities due to budget constraints. The NTRC was however able to increase the number of sponsors and partners for the competition which is a sign of its growing capacity and the positive impact it is having on our students. Videos of the presentations are accessible to the general public via the NTRC's website www.ntrc.vc. It is the intention of

the NTRC to assist with funding the implementation of some of these ideas and apps within the Government service as soon as it gets the increase in the USF contribution rate paid by service providers.

The Competition saw entries from the secondary level which included the Petit Bordel Secondary School, Mountain View Academy, Union Island Secondary School, Thomas Saunders Secondary School, St. Vincent Girls High School and the St. Vincent Grammar School.

Regarding the entries for the tertiary level, three (3) divisions of the St. Vincent and the Grenadines Community College entered the competition which included the Division of Nursing, Division of Technical and Vocational Education and the Division of Arts, Science and General Studies.

For the first time in the history of the competition, there was a preliminary phase for the tertiary schools. The tertiary schools recorded the highest entries in this

year's competition. The finals of the competition is anticipated to conclude on January 14, 2016.

2. Work along with ECTEL and the other NTRCs in developing new regulation and contribution orders for the Universal Service Fund (USF).

ECTEL submitted a draft consultation document on the subject matter to all NTRCs in July 2015 for their feedback. The revised consultation document was sent to the NTRCs in December 2015 for public consultation. The public consultation period was to be completed in February 2016, however it has been postponed to March 2016 after requests were made by the service providers. There is a proposal of an increase from the current contribution rate of 1% of gross annual revenue of the service providers to 2% based on the implementation rates of the USFs in member states. Other major changes are to allow entities other than service providers to bid on contracts from the USF and for expanding the mandate of the fund to facilitate more projects targeting training, content development, etc.

3. To submit the draft proposal of the National Broadband Plan to Cabinet for adoption and implementation.

The draft National Broadband Plan, developed by the NTRC, was submitted to the Ministry responsible for Telecommunications in mid 2015. In follow up discussions with the Ministry it was their view that there should be a town hall meeting to gather the views of the stakeholders on the document before sending it to Cabinet for adoption and implementation. The NTRC not being in a position to fund such an exercise it was agreed that some funding could be sourced from the CARCIP project for this activity. Terms of Reference are expected to be drawn up by the CARCIP Project Coordinator to seek the services of a consultant to review and finalize the draft document and to conduct the necessary town hall meetings. It should be noted that none of the ECTEL states have national broadband plans in place. This is a task that was to be driven by ECTEL but after no progress at the regional entity the NTRC took the initiative to develop it on its own.

4. The Launching of our national IXP (Internet Exchange Point).

The IXP became operational in May 2015 with all three major service providers Digicel, LIME and Flow being connected at the IXP location in Arnos Vale. This is the first IXP in the OECS to be located at a subsea landing station which is an optimal location noting that all existing and potential network operators and content suppliers will most likely have connectivity at such a location. A formal launch of the IXP is expected to be held on January 25, 2016 to coincide with a two day IXP workshop facilitated by the Carcip project and which was targeted at IXP stakeholders in SVG. The objective of this workshop is to continue the process of putting in place the other initiatives around the IXP that will help deliver the benefits of an IXP namely faster internet load times for certain content, better security, etc.

5. The Launching of the electronic payment option for the NTRC.

The NTRC was successful in implementing its electronic payment facility on its website. This now allows for secure payment of application and licence fees by our

customers via credit card online. We believe this might be a first for any public sector entity in SVG. It is already being utilized by our international customers (they were our initial test market for the service) who process type approval applications on behalf of telecommunications equipment manufacturers who are desirous of having their equipment approved for sale in our country. Previously these companies would FedEx or email their applications but then had to make a wire transfer of the relevant applications fees. Such a payment option is not currently the best practice in the developed world.

A byproduct of this task was the need to develop a new website for the NTRC as our existing website code was not capable of handling this new function. However, we were able to execute both tasks in 2015 with all tasks being done in house.

6. The development of a draft Radiation Standard for possible implementation.

The NTRC was able to develop draft radiation standards in 2015 after much research on best practice work on the subject matter globally. These were submitted to ECTEL for the possibility of further development via draft

regulations for adoption by member states. Given that ECTEL is responsible for the development of regulations for the sector, the NTRC had to hand this task over to ECTEL at this stage. The issue is one of importance for our country and our region and will become even more critical in coming years with the further expansion of wireless services and devices. Over the years we have had a number of enquiries on this issue. After having raised the issue in light of having it addressed by ECTEL over many years without avail, NTRC SVG took the initiative to start the work on this process.

7. To seek international funding for two USF projects in collaboration with other NTRCs.

It is expected that the two draft project documents along with costings will be prepared to cater for project needs in SVG. The NTRC will seek consultations with the other NTRCs in the second quarter of 2016 to see which project components they may be interested in executing in their countries or new components exclusive to their countries. Thereafter, the final draft project document with a regional focus will be put forward to international funding agencies in the third quarter of 2016.

8. To monitor the LIME/Flow merger.

The NTRC participated in a national town hall meeting in February 2015 organized by the Ministry of Foreign Affairs, Trade, Commerce and Regional Integration to discuss the merger with stakeholders. The NTRC in the second quarter did not approve the new Price Cap Plan (PCP) developed and recommended by ECTEL for LIME. It decided to extend the existing PCP on the view that the new plan was not in the best interest of consumers considering the implications of the merger. In mid-2015, the NTRC participated in discussions with ECTEL as it related to planning negotiations involving ECTEL and the parties involved in the merger based on the Directives of the Council of Minister.

9. To increase public awareness on the issues of Cyber Security and Cyber Crime.

The NTRC has developed videos on the subject of cybersecurity and cybercrime and are using these and other media outlets on its ongoing school visits and public awareness events. During 2015, the NTRC held over 15 such events.

11. Major Objectives for 2016

1. To execute the 4th annual NTRC's *F²* Competition which presents the opportunity for students at the Secondary and Tertiary level institutions to develop innovative ideas and mobile applications that can improve the efficiency and effectiveness of our public service.
This will commence in September 2016. The aim is to further improve and increase the number of participating teams and schools. To do this, the plan is to execute targeted public awareness activities in the first half of the year at those secondary schools that have not participated in the competition to date.
2. Increase Public Awareness on Complaint Filing.
The aim of this activity is to inform the general public of the procedures to file complaints relating to telecommunication services in SVG. There are still numerous Vincentians that are unaware of this process. It is our hope to sensitize more persons on the process so that consumers are aware of their rights regarding telecommunication dispute complaints.
3. To seek international funding for two USF projects in collaboration with other NTRCs
In 2015, the NTRC completed the scope of works for two (2) new projects which we will be seeking funding from external funding agencies due to the scope and cost of these projects. These projects are primarily geared towards the increase in penetration of internet access. These projects will also include works and services which will be provided in the other ECTEL member states and the NTRC SVG will be working along with the other NTRCs in the region on these projects to secure the necessary funding in 2016.
4. Management of the VC Domain.
This was worked on and the report has been completed and submitted to the Ministry. It will be going forward to Cabinet soon and this hopefully will provide additional funds for the NTRC as we will be the one managing the vc domain based on the documentation prepared and we will receive a percentage of the funds collected.

5. New USF Regulations and Fees.

The new USF Regulations and Fees were sent out for consultation in 2015. This document outlines the proposed changes to be made to the existing regulations. The document is still out for consultation which will come to an end in the first quarter of 2016. Following this, the new regulations and fees will be put in place.

6. Implementation of an I Squared App or Idea.

The Commission has been hosting the I Squared Competition each year since 2013 and have seen many innovative ideas and mobile applications put forward by students. None of these applications or ideas have since been implemented, and as such, the Commission will be taking the initiative to have some of these implemented for the upcoming year.

7. Launch of Map App.

This mobile application will allow users to identify all the locations that currently have free Wi-Fi in St. Vincent and the Grenadines which were implemented by the NTRC such as schools, learning resource centers, hospitals etc.

Information and pictures of these locations would be displayed to the user to edify the user on the location and also making it easily identifiable. The application also gives users the ability to report problems with these Wi-Fi hotspots and also any general telecommunication faults which they might be experiencing. The launching of the app is expected to take place on April 13, 2016.

8. Launch and promotion of the IXP.

The Commission will be launching St. Vincent's Internet Exchange Point in 2016. An Internet Exchange Point is a physical network infrastructure operated by a single entity to facilitate the exchange of traffic between two or more autonomous systems. An IXP allows local internet traffic to be exchanged locally avoiding expensive international routes. This can result in a faster user experience for local consumers.

The Commission will be promoting the IXP to the public so as to encourage the production and consumption of local content at the IXP. The promotions will be done primarily using social media.

9. Broadband Plan.

The Government of St. Vincent and the Grenadines through the CARCIP project, has decided to acquire the services of a consultant to finalize the draft National Broadband Plan and to provide direction and guidance for promoting widespread access to high-speed broadband services throughout the country as a significant driver for poverty alleviation, economic growth and job creation. Furthermore, the Plan will serve as a critical input to the Government's broader national objective of building a knowledge-based economy and development of the telecommunication services sector. The consultant will be hired and will be mandated to complete the document within 16 weeks of the date of the contract between them and the Government of St. Vincent and the Grenadines.

12. Annex A

12.12 Technical Definitions/Terminology

CANTO Caribbean Association of National Telecommunication Organizations
CANTO provides a platform for all Caribbean telecommunications operators to speak with one voice to policy makers, regulators and other stakeholders in the sector in influencing the creation of a favourable business environment for all stakeholders.

CIDA Canadian International Development Agency
CIDA supports sustainable development in developing countries in order to reduce poverty and to contribute to a more secure, equitable and prosperous world.

CITEL Inter-American Telecommunication Commission
CITEL is an entity of the Organization of American States, it is the main forum in the hemisphere in which the governments and the private sector meet to coordinate regional efforts to develop the

Global Information Society. CITEL endeavours to make telecommunications a catalyst for the dynamic development of the Americas by working with governments and the private sector.

CTO Commonwealth Telecommunications Organization
The (CTO) is a partnership between Commonwealth governments and telecommunications businesses to promote ICT in the interests of consumers, businesses and social and economic development. It's Program for Development and Training (PDT) is a unique program of training and expert assistance in every aspect of telecommunications for Commonwealth developing countries

CTU Caribbean Telecommunications Union
CTU is the major Telecommunications policy organ in the Region, directed by Inter-Governmental specialized action under a special Agreement establishing the Union.

Frequency The rate of a repetitive event. The standard unit for frequency is the hertz (Hz), defined as the number of events or cycles per second. The frequency of electrical signals is often measured in multiples of hertz, including kilohertz (kHz), megahertz (MHz), or gigahertz (GHz).

GMDSS Global Maritime Distress and Safety System
The GMDSS provides for automatic distress alerting and locating in cases where a radio operator doesn't have time to send an SOS or MAYDAY call.

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|------------------------|---|---------------------------------|---|--------------------------|---|
| ITU | International Telecommunication Union ITU works closely with all standards organizations to form an international uniform standards system for communication. | Radio frequency spectrum | That part of the electromagnetic Spectrum used for communications; includes frequencies used for AM- FM radio and cellular phones and television etc. | Universal Service | universal service” includes the provision of – a. Public voice telephony; b. Internet access; c. Telecommunications services to schools, hospitals and similar institutions and the disabled and physically challenged; or d. Other service by which people access efficient, affordable and modern telecommunications. |
| Land Mobile | A mobile service between base stations and land mobile stations, or between land mobile stations | Ship Station | A Mobile station in the maritime mobile service Located on board a vessel which is not permanently moored, other than a survival craft station | | |
| Maritime Mobile | A mobile service between coast station and ship stations, or between ship stations, or between associated on-board communication stations; survival craft stations, and emergency position- Indicating radio beacon stations may also participate in this service | Spectrum | “(Electromagnetic Spectrum) is an ordered array of the components of an emission or wave. Sound, Radio Frequency Spectrum, Infra-Red, Visible Light, Ultraviolet Rays, X-Ray etc. are all part of the Electromagnetic Spectrum in that order. | USAID | The US Agency for International Development |
| MMSI | Maritime Mobile Service Identity MMSI are formed of a series of nine digits which are transmitted over the radio path in order to uniquely identify ship stations, ship earth stations, coast stations, coast earth stations, and group calls. These identities are formed in such a way that the identity or part thereof can be used by telephone and telex customers connected to the general telecommunications network principally to call ships automatically | Stations | One or more transmitters or receivers or a combination of transmitters and receivers, including the accessory equipment, necessary at one location for carrying on a radio communication service, or the radio astronomy service | | |
| | | Telecomm unications | Any transmission, emission or reception of signs, signals, writings, images and sounds or intelligence of any nature by wire, radio, optical or other electromagnetic systems. | | |

13. Annex B

13.12 Audited Financial Statements 2015