NATIONAL TELECOMMUNICATIONS REGULATORY COMMISSION

2013 ANNUAL REPORT

About the Cover Photo

The cover photo shows students using iMac and Windows desktops at the state of art computer lab at the St. Vincent and the Grenadines Community College Division of Technical and Vocational Education which was retrofitted courtesy the National Telecommunications Regulatory Commission (NTRC) under the Universal Service Fund (USF) SMART Project.

The state of the art lab now comprises thirty-five (35) high powered computers including fifteen (15) 27" iMac computers and twenty (20) 21" Lenovo all in one computers. These computers have specialized software installed such as AutoCAD, Final Cut Pro, Adobe Creative Suite, Microsoft Visual Studio among others to aid in programs taught at the institution.

In addition to the computers and specialized software installed, a mural depicting local and regional innovators was painted at the back of the room to enhance its aesthetics. The local innovators included in the painting are Rowland "Scrapie" Dopwell, Mas Innova-tor; Rosalind Ambrose, Radiologist and Leslie Spence, Virologist. Regional Innovators include: Camille Wardrop Alleyene, Trinidadian Aerospace Engineer; Kim Mallalieu, Trinidadian Electrical and Computer Engineer; Compton Deane, Guyanese Civil Engi-neer; Oliver Headley, Barbadian Chemical Researcher; Simeon Sandiford, Trinidadian Entrepreneur; and Camille Selvon Abrahams, Trinidadian Animator.

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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 of 2009.

4. The Commissioners

Mr. Clifford Davy
Deputy Chairman

Mr. Richard Roberts
Commissioner

Mr. St. Clair Scott
Chairman

Ms. Roxann Knights
Commissioner

Dr. Alston Stoddard
Commissioner

5. Staff Members

Ms. Lizrene Charles
USF Assistant

Ms. Andra Keizer
Administrative Officer

Mr. Marcellus Constance Jr.
ICT Officer

Ms. Shontell Murphy
USF Project Officer

Mr. Brandon Benn
ICT Technician

Ms. Nadine Hull
ICT Manager

Ms. Mishka L. Quashie
Accountant

Ms. Rachael Quashie
Operations Officer

Ms. Shonden Baptiste
Admin/Account Assistant

Mr. Kyron Duncan
USF Administrator

Mr. Apollo Knights
Director

6. SWOT Analysis

6.1 Strengths

- The NTRC has responsibility for regulating most aspects of the telecommunications sector.
- Availability of ICT infrastructure and software to efficiently carry out our regulatory functions.
- Diversity of relevant skills and experience among current staff and Commissioners.
- Staff members are keen to participate in capacity building programmes in line with the needs of the organization

6.2 Weaknesses

- Inadequate pricing control mechanism existing for those services offered by the incumbent operator that are not exposed to sufficient competition at this time, such as Internet service.
- Lack of a formal relationship between the ECTEL organizational structure and that of the NTRCs.
- Lack of regulatory oversight on retail pricing and promotional activities of mobile service providers.

6.3 Opportunities

- Ability to develop projects under the Universal Service Fund that can try filling 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 our legislative framework.
- The current age of our mobile networks and technology should provide an opportunity for leap frogging of our networks to the state of the art in the short term.

6.4 Threats

- Continued possibility of litigation from Licencees.
- 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.
- The inability of the current fee structure to maintain an adequate funding source for the regulatory system (ECTEL and the NTRCs) in the short term.
- 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 our regulatory framework.

7. Critical Issues

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

7.1 Cyber Security and Broadcast Standards

These issues were highlighted in details in our 2009 Annual Report and remains as relevant today. Such issues to be properly addressed should be done at the regional level (Caricom, OECS, etc.) but if this may not be possible, ECTEL should take the lead as a matter of urgency. Additionally, both areas should be addressed in our new Telecommunications Regulatory framework so that our legislative provisions would guide the actual work that would need to be done by our respective regulatory agencies. In the interim, the NTRC is trying to play its part on this issue with the development of an Associate Degree program in Cyber Security at the St. Vincent and the Grenadines College which will commence in September 2014. In the absence of Broadcast legislation or content/programing 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 our local and regional artistes is a fundamental pillar in protecting our Caribbean civilization going forward.

7.2 Broadband penetration level

It is critical that as a country, we look to increase our penetration levels of Broadband access to our consumers, if our country is to be able 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 where we are well into the 90% penetration levels at the household level but we are still less than 50% at the household level for Broadband. Imagine our country still being below 50 % in electricity or water penetration. We have to develop a national strategy to bring our broadband penetration above 90% by 2015. During 2012, the ECTEL Council of Ministers mandated the ECTEL Directorate to develop a National broadband plan

and strategy. This is a very important step and should include all stakeholders. However, while a regional Broadband working group was established in early 2013 to deliver on this mandate nothing substantial has been prepared to date.

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	xxxxxxxxxx	xxxxxxxxxx		xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx		xxxxxxxxxx	xxxxxxxxxx		xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx
2001	xxxxxxxxxx	xxxxxxxxxx		xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx		xxxxxxxxxx	xxxxxxxxxx		xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx
2002	xxxxxxxxxx	xxxxxxxxxx		xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx		xxxxxxxxxx	xxxxxxxxxx		xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx
2003	xxxxxxxxxx	xxxxxxxxxx		xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx		xxxxxxxxxx	xxxxxxxxxx		xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx
2004	xxxxxxxxxx	xxxxxxxxxx		xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx		xxxxxxxxxx	xxxxxxxxxx		xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx
2005	xxxxxxxxxx	xxxxxxxxxx		xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx		xxxxxxxxxx	xxxxxxxxxx		xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx
2006	xxxxxxxxxx	xxxxxxxxxx		xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx		xxxxxxxxxx	xxxxxxxxxx		xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx
2007	xxxxxxxxxx	xxxxxxxxxx		xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx		xxxxxxxxxx	xxxxxxxxxx		xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx
2008	xxxxxxxxxx	xxxxxxxxxx		xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx		xxxxxxxxxx	xxxxxxxxxx		xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx
2009	xxxxxxxxxx	xxxxxxxxxx		xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx		xxxxxxxxxx	xxxxxxxxxx		xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx
2010	xxxxxxxxxx	xxxxxxxxxx		xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx		xxxxxxxxxx	xxxxxxxxxx		xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx
2011	xxxxxxxxxx	xxxxxxxxxx	xxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx
2012	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx
2013	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxx	xxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxx

Table 1 *Total Revenue earned by providers of telecommunications services 2000 to 2013*

8.1.2 Revenue of the NTRC and ECTEL for the period 2002 to 2013

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

In 2013, there was a 3% increase in the application fees. The reason for this is due to a slight decrease in new applications being applied for.

There was a 13 % decrease in 2013 for frequency fees. This resulted from new frequencies being issued to telecommunications providers at the end of 2011. These fees relating to 2011 were paid at the beginning of 2012. Additionally, the fees for the subsequent period commencing in 2012 were also paid during this year. So as a result of this, the amount collected in 2012 was higher overall.

Revenue of NTRC and ECTEL 2002 to 2013				
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%
	$264,058		**$18,370,068**	

Table 2

8.1.3 Licence fees received by the Government for the period 1998 to 2013

The market has seen a slight drop in revenue for license fees collected by the NTRC on behalf of the Government in 2012 compared to 2011. This is as a result of fall in revenues for one main Telecom Provider, Cable & Wireless since the licence fees for these providers are 3% of their revenue.

Before the enactment of the Telecom Act 2001, fees paid by Cable & Wireless to the Government were called Royalties. After that date, the companies are required to pay an annual licence fee that is 3% of their gross annual revenue.

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Government of St. Vincent and the Grenadines				
Year	Royalties	License Fees	Total	Percent Increase
1998	1,303,189	15,001	1,318,190	
1999	1,286,342	31,119	1,317,461	0%
2000	1,450,800	43,529	1,449,329	13%
2001	639,000	61,143	700,143	-53%
2002	0	3,365,391	3,365,391	381%
2003	0	2,803,927	2,803,927	-17%
2004	0	3,329,145	3,329,145	19%
2005	0	3,421,159	3,421,159	3%
2006	0	3,850,955	3,850,955	5%
2007	0	4,301,521	4,301,521	11%
2008	0	4,081,151	4,081,151	-6%
2009	0	4,065,706	4,065,706	-4%
2010	0	4,034,096	4,034,096	-1%
2011	0	3,886,912	3,886,912	-4%
2012	0	3,756,898	3,756,898	-3%
2013	0	3,638,128	3,638,128	-3%
	4,679,331	**44,685,781**	**49,320,112**	

Table 3

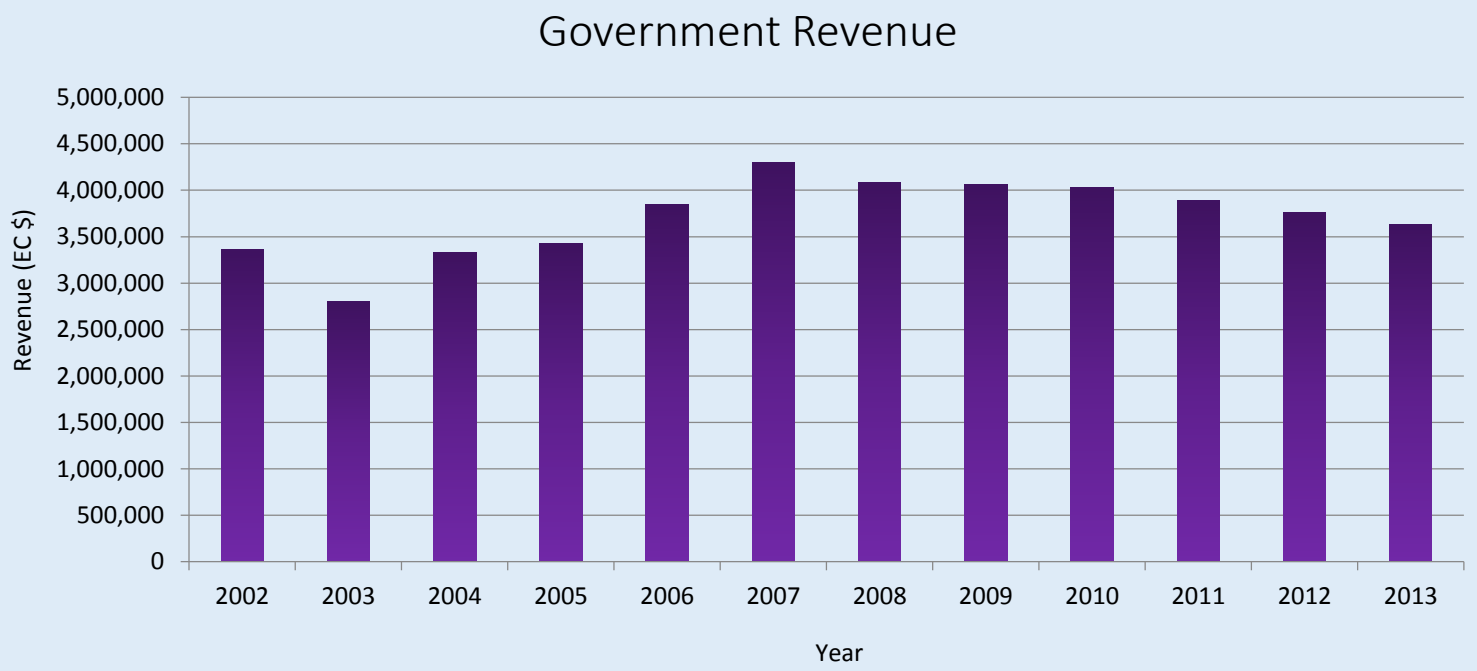

Figure 1

The Government revenue generated from telecom operators in 2013 decreased by a small margin. This was due to a decrease in Cable and Wireless' International and Domestic revenue and a slight increase in their mobile revenue. There was also small decrease in Digicel revenue but the revenue for Karib Cable increased marginally.

8.1.4 Financial Performance of the NTRC

A. Revenue

The NTRC budgeted to receive $981,899.94 for the year ending December 31, 2013; however, $1,077,638.20 was actually received giving a difference of $95,738.26 more than the budgeted amount. More application fees and numbering fees were received. In addition more interest was received on our savings account.

B. Expenditure

i. Recurrent

For the year ending December 31, 2013, the NTRC budgeted to spend $939,869.64 on recurrent expenditure; however, $967,370.77 was actually spent. The main reasons are that additional amounts were spent on Training for Staff members and additional persons were hired to assist our staff to carry out their daily operations.

ii. Capital

The amount of $32,795.17 had been budgeted for capital expenditure for the financial year 2013. However, $84,385.31 was spent. This difference of $51,590.14 was due to the Commission replacing all its computers at the beginning of the year, our printer and photocopying machine malfunctioned and also had to be replaced. IPads were purchased for the Commissioners along with a board meeting app so as to reduce the cost associated with printing and delivering documents for monthly Commissioners meetings. Meetings of Commissioners are now done paperless.

Conclusion

The NTRC's financial performance over the 2013 financial year was satisfactory. Although, we exceeded our budgeted expenditure for the year, this was compensated for by the surplus revenue that was collected.

8.2 Projected Revenue for 2014

For the fiscal year 2014, the NTRC has projected to collect $2,166,120.00 in revenue from frequency fees. This is an increase of 19% or $346,045.00 compared to the 2013 amount of $1,820,075.00. This increase is due to new frequencies that were issued during 2013.

8.3 Human Resource Development for 2013

The NTRC continued 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 2013 were as follows:

- Associate Degree in Business Management undertaken at the SVGCC.
- ACCA professional certification via Association of Chartered Certified Accountants (ACCA).
- ITU/ITSO VSAT and Satellite Systems Workshop
- PSCS High Impact Leadership Workshop
- 11th Caribbean Ministerial Strategic ICT Seminar
- ECTEL/NTRC Administrative Professional Workshop
- ECTEL/NTRC Strategic Planning Workshop
- Cave Hill School of Business Effective Leadership Course
- Cohen and Klein Supervisory Management Training
- USTTI Cybersecurity Coordination and Cybersecurity Concepts, Mechanisms Training
- ECTEL Communications and Media Awareness Training
- Workshop on the SMS4DC Spectrum Management software

In addition staff members read a new book each quarter on their area of specialty.

8.4 Regulations

No new Telecommunications regulations were gazetted during 2013.

8.5 Staff

The ICT Officer's position was filled in February 2013 by Marcellus Constance. In 2013 the following persons were recognized for the years of service to the organization.

- Ms. Nadine Hull, ICT Manager for ten years of service
- Mr. Kyron Duncan, USF Administrator for five years of service.

8.6 Policy Development

ECTEL conducted a public consultation on Internet Neutrality in 2013, however, the timeframe given to the NTRC to provide feedback was not sufficient or practical.

Two ECTEL/NTRCs forums were held in 2013. The first was held in April 2013 in St. Vincent and the Grenadines where the results of the Strategic Review of ECTEL and the NTRCs conducted by Intelecon were discussed and recommendations tabled to be addressed by the Council of Ministers. The second forum was held in August 2013 in St. Lucia and looked at the following objectives:

a. Develop region-wide regulatory priorities, and where possible goals that would guide the work plans of ECTEL and the NTRCs in the short-term;
b. Provide the platform for the NTRCs to continue formulating responses to the recommendations of the Strategic Review of ECTEL and the NTRCs;
c. Review the trends in the sector particularly related to revenue projections.

8.7 Spectrum Management

In 2013, The Eastern Caribbean Telecommunications Authority (ECTEL) purchased specialized spectrum management software, SMS4DC (Spectrum Management for Developing Countries) developed by the ITU for its member states. Spectrum engineers from each member state gathered in St. Lucia in September 2013 for training on the use of this software.

SMS4DC software includes both administrative and engineering functions relating to Spectrum Management.

The NTRC weekly spectrum monitoring activities covers not only the FM Broadcasters, but also include frequencies used by other operators such as Television broadcasters and Cellular operators.

8.8 Internet Access

As of December 2013, the total number of internet subscribers in St Vincent and the Grenadines was fourteen thousand, eight hundred and fourteen (14,814). This figure is a 7.03% increase when compared to the number of subscribers in 2012. In 2013 both Cable and Wireless and Karib Cable had an increase in the number of subscribers when compared to 2012's figures. While such increases have been the norm over the last decade, it is not large enough to bring our country to the levels of penetration seen in the developed countries.

It is imperative that we look at a practical strategies to substantially increase our penetration rates over the medium term. This will need to be done via a National Broadband plan.

At the community level, we have done substantial work over the last three years via the USF. As of the end of 2013, we have close to 150 sites nationally with open access Wi Fi. These include all educational institutions, all LRCS and a number of Community centers.

In 2013, the NTRC completed the installation of wireless internet in all Police stations, Clinics and Health centers.

8.9 Public Consultation

No formal consultations on new regulatory instruments were conducted in 2013. However the NTRC was able to get feedback on a number of issues affecting our citizens via the national survey conducted in 2013 and from the various community discussions that were held.

8.10 Telephone Rates

The existing Price Cap Plan (PCP) that regulate certain fixed line rates of the incumbent LIME was extended by one year to March 31, 2014. The issue of non-regulation of mobile retail rates was finally discussed at the regionally level with ECTEL and the NTRCs in 2013 and the decision was taken for ECTEL to examine the feasibility of implementing some form of regulatory oversight on this sector. Current mobile rates are between 10-12 times that of a fixed line call.

8.11Public Awareness

The NTRC held three community discussions in South Rivers, Chester Cottage and Evesham and 3 open days in the following areas in 2013:

1. Biabou Learning Resource Center
2. Questelles Learning Resource Center
3. Layou Learning Resource Center

The NTRC held seven school discussions throughout the country at various secondary and primary schools in 2013. The schools discussions were held to educate students about the work being done by the NTRC. In addition students were educated on Cyber Security which involves technologies and processes designed to protect computers, networks and data from unauthorized access, vulnerabilities and attacks delivered through the Internet by cyber

criminals. This is a very critical area noting that all students will have Netbooks/laptops issued by the Government.

In addition, two public drives were held under the Kingstown Post Office; all being done with the objective of informing consumers of the role of the NTRC, as well as to seek feedback on the issues that are of concern to residents across our nation. These events coincided with television and radio advertisements. Such initiatives will continue in 2014.

8.12 Universal Service Fund

For the year ending December 31st 2013, the Universal Service Fund budgeted to receive a total of One Million, Three Hundred and Seventy Three Thousand and Seven Dollars and Thirty Seven Cents ($1,373, 007.37) from the telecom service providers and interest on revenue was projected to be Two Thousand, and Ninety Four Dollars and Ninety Seven Cents ($2,094.97).The actual revenues received by the Universal Service Fund in 2013 was One Million, One Hundred and Sixty Seven Thousand, Four Hundred and Sixty Dollars and Eighty Five Cents ($1,167,460.85). A total of Forty Two Thousand, One Hundred and Eighty Four Dollars and Thirty Nine Cents ($42,184.39) 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 2013 noting the current levels of contribution to the fund. While recommendations have been made for increases to the annual contribution rate this process was not completed as planned in 2013 and as such the NTRC would wait until this process is completed before committing to funding any new projects.

Of the seven projects currently being funded four remained un-commissioned as of December 2013. These are as follows:

1. SMART project: The development of two main components being the Associate degree in Cyber Security and Certificate programme Mobile App Development took up a lot of our resources during 2013. These programmes are now on schedule to start September 2014. All other components were completed in 2013 inclusive of the handing over of a state of the Art computer lab at the Technical division of the SVGCC.

2. Payphone project: All infrastructure on this project was completed in 2013. The outstanding component has to do with the prepaid billing platform for the wireless internet at the tourism sites.
3. Police and health center project: The outstanding component on this project has to do with the sites located in Mayreau and Canouan. The speeds being delivered were not up to the specifications of our contract with Karib cable. This project is expected to be completed in early 2014.
4. Community center project: The NTRC was not satisfied with some of the workmanship found during the commissioning of this project. As such remedial work had to be done which is expected to be completed in early 2014.

More details on our USF projects can be found in our 2013 USF annual report.

Additionally, in 2013, the National Telecommunications Regulatory Commission (NTRC) hosted the first annual Idea and Innovation Competition known as the I^2 Competition. The NTRC was able to partner and get assistance from the National Insurance Services (NIS), the Searchlight Newspaper, the Ministry of Education and the Center for Enterprise Development (CED). The competition encouraged students from various Secondary, Technical and Tertiary level institutes from across the country to put forward ideas and mobile apps that can implement new systems or improve existing systems within departments of the Public Service of St. Vincent and the Grenadines inclusive of state agencies that provide services to the public.

Such improvements can lead to cost savings or result in the faster delivery of such service. The competition primarily focused on the importance of idea creation and the possibilities that can develop from the seeds of innovation that are planted in the minds of our young people. The Competition officially began on Friday 18th October 2013 and was scheduled to conclude in February 2014.

8.13 Cable TV

The new licence for Subscriber television under the telecom Act was issued to Karib Cable in February 2013 after many years of discussion among all stakeholders, thereby finally giving the NTRC oversight of the company's cable TV service. However soon after this was done, it seems that the company was sold to a regional entity. Since then the NTRC has been reviewing the process followed in this sale, as it would seem that the company did not follow the relevant processes of our regulatory framework.

8.14 Statistics

The NTRC continued in 2013 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 gives a detailed overview of customer data supplied by the telecommunications providers.

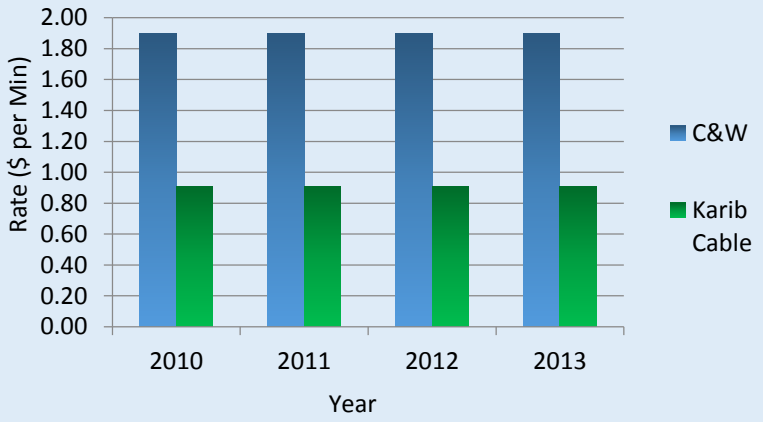

Figure 2

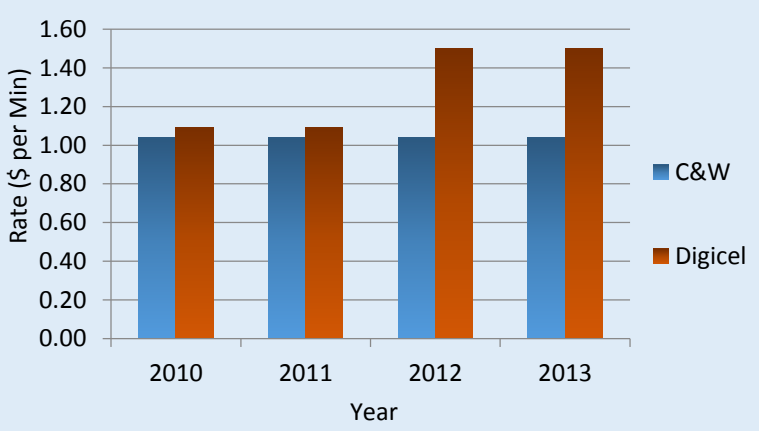

Figure 3

The rates depicted in Figure 2 are not regulated. There was no competition in the fixed line market until Karib Cable entered the market in 2009. It is noted that these rates remained unchanged from 2010 to 2013.

The rates depicted in Figure 3 are also not regulated. In 2009 the rates reached the lowest ever recorded to under $1.00 EC per minute during peak time. We have seen that there is an increase in the rates in 2012 and 2013.

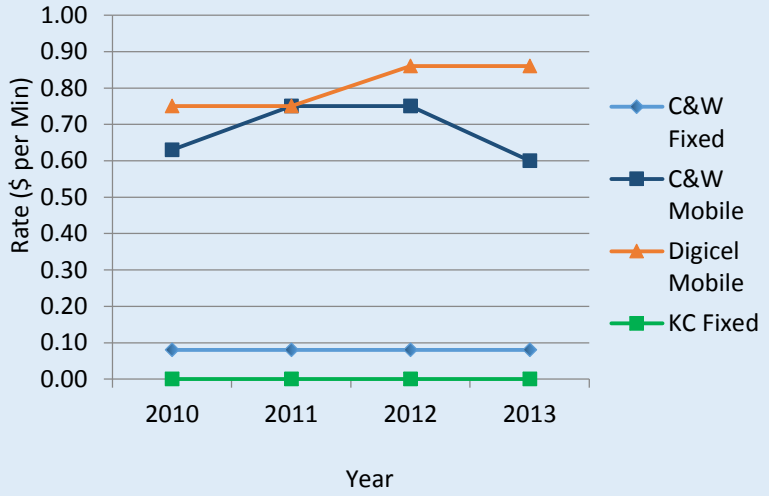

Figure 4

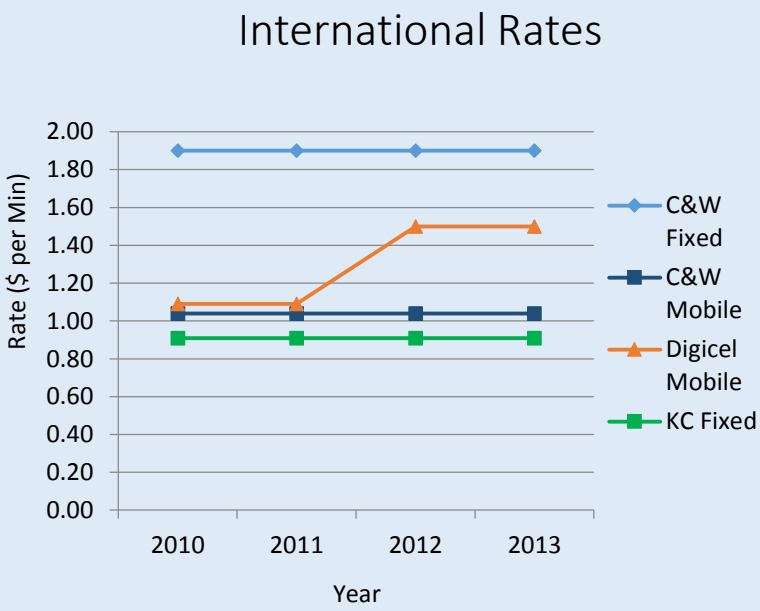

Figure 5

The domestic rates in figure 4 are the daytime rates for calls made to customers on the same network. In 2013 there was a decrease in C&W mobile domestic rates.

The international rates in figure 5 are the daytime rates for calls to the USA for all providers. Figure 4 and Figure 5 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.

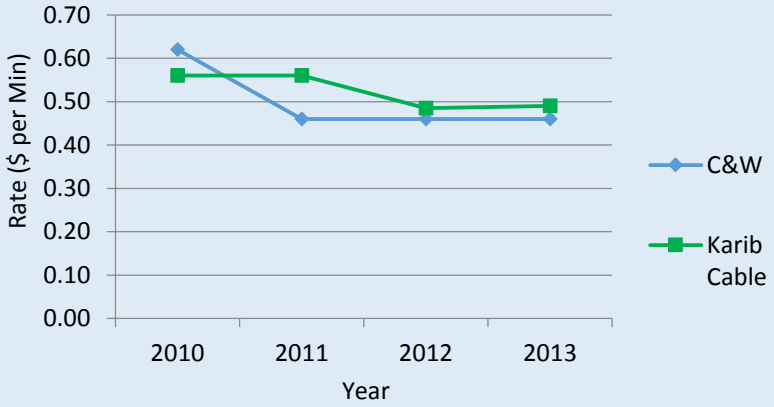

Figure 6

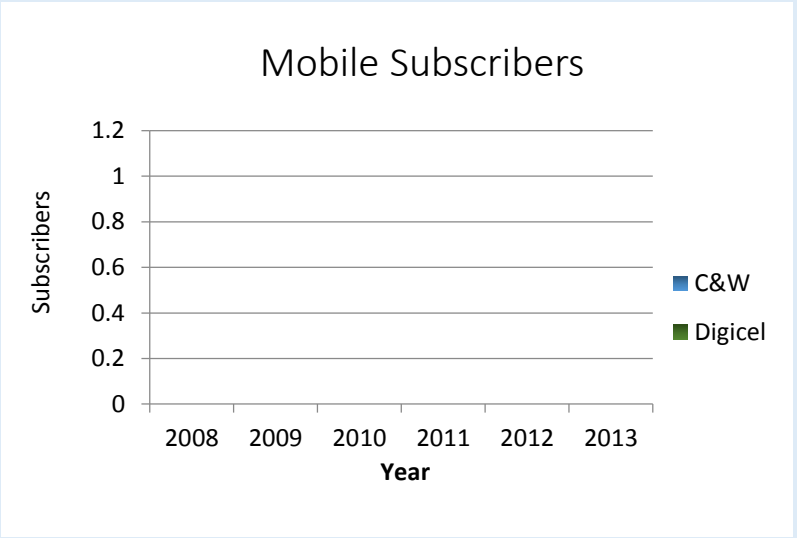

Figure 7

Figure 6 shows Cable & Wireless' and Karib Cable's fixed line to mobile rates for 2010 to 2013.We see a reduction to Cable & Wireless' rate from 2011 to 2013. Karib Cable's rate remained constant over 2010 to 2011; but a reduction took place in 2012 and there was a slight increase in 2013.

It is noted that Cable & Wireless' mobile subscribers have slightly decreased from 2013 while Digicel's customers increased. Digicel's percentage in market share continues to grow over Cable & Wireless'

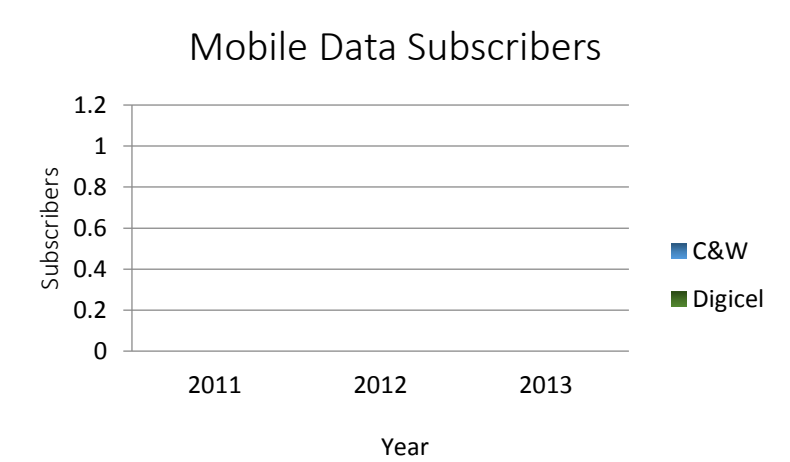

Figure 8

Figure 8 shows a comparison of the total mobile data subscribers for Cable & Wireless' and Digicel from 2011 and 2013.

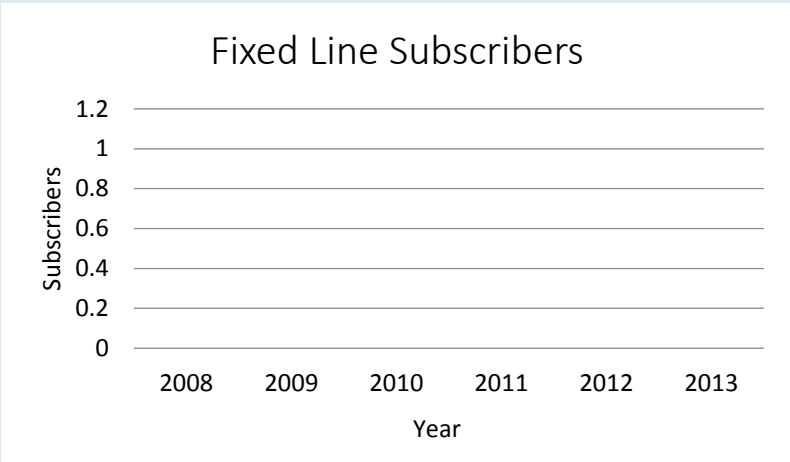

Figure 9

Figure 9 shows a decrease in fixed line subscribers in 2012 and 2013 for both Cable & Wireless and Karib Cable. The decrease has to do with the fact that some persons have terminated their fixed line accounts.

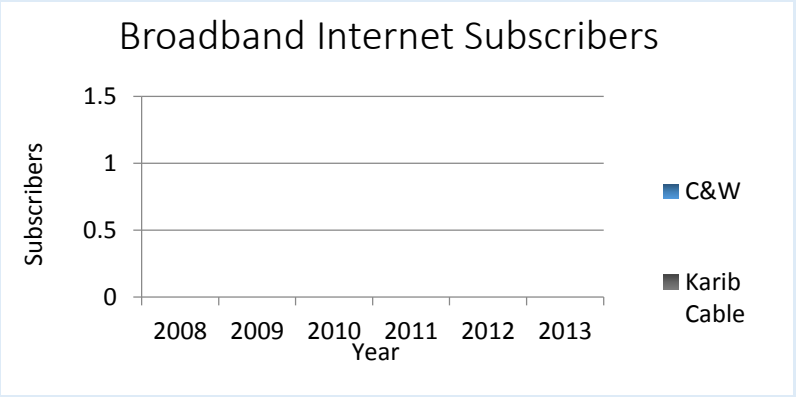

Figure 10

Figure 10 shows the number of broadband internet customers by provider. Cable and Wireless had experienced a decline in Broadband subscribers in 2012, however there is an increase in Broadband subscribers 2013. Karib Cable has also increased its number of subscribers for 2013.

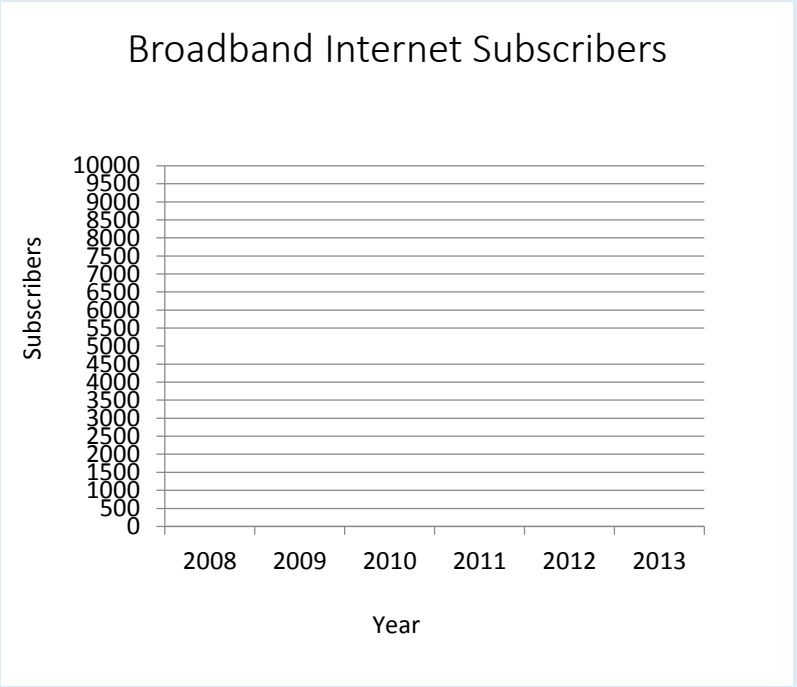

Figure 11

Figure 11 shows the number of broadband internet subscribers in 2008-2013. There has been a slight decline in 2012, however there is an increase in the Broadband Internet subscribers in 2013.

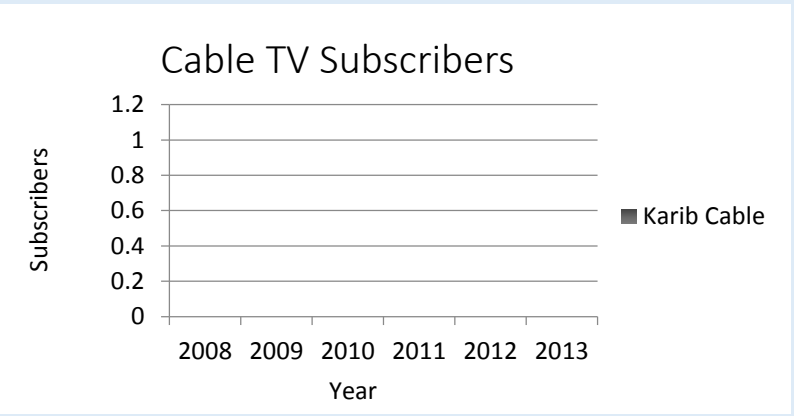

Figure 12

Figure 12 shows that Karib Cable experienced a further decrease in Cable TV subscribers during 2013.

Table 4 contains the Customer data submitted from the three main Telecom Providers. The ISDN Internet service for Cable & Wireless (SVG) Ltd is no longer in use. For Karib Cable's data for 2013, the three services have been broken down into residential, business and free service.

			2007	2008	2009	2010	2011	2012	2013
Cable & Wireless (WI) Ltd	Fixed Line Subscribers	Residential	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
		Business	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
		Total	**xxxxxx**	**xxxxxx**	**xxxxxx**	**xxxxxx**	**xxxxxx**	**xxxxxx**	**xxxxxx**
	Internet Subscribers	Dialup	xxx	xxx	xxx	xxx	xxx	xxx	xxx
		ISDN	x	x	x	x	x	x	x
		ADSL (Residential)	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
		ADSL (Business)					xxxxx	xxxxxx	xxxxxx
		Total	**xxxxxx**	**xxxxxxx**	**xxxxxx**	**xxxxxxx**	**xxxxxxx**	**xxxxxxx**	**xxxxxxxx**
	Mobile Subscribers	Post paid	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx
		Prepaid	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx
		Total	**xxxxxxxx**	**xxxxxxxx**	**xxxxxxxx**	**xxxxxxxx**	**xxxxxxxx**	**xxxxxxxx**	**xxxxxxxx**
Digicel	Mobile Subscribers	Post paid	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx
		Prepaid	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx
		Total	**xxxxxxxx**	**xxxxxxxx**	**xxxxxxxx**	**xxxxxxxx**	**xxxxxxxx**	**xxxxxxxx**	**xxxxxxxx**
Karib Cable	Cable TV Subscribers	Residential						xxxxxxxx	xxxxxxx
		Business						xxx	xxxx
		Free Service						xxx	xxxx
		Total	**xxxxxx**	**xxxxxx**	**xxxxxx**	**xxxxxx**	**xxxxxxx**	**xxxxxxx**	**xxxxxxx**
	Internet Subscribers	Residential	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx
		Business					xxxxx	xxxxx	xxxxx
		Free Service							
		Total	**xxxxxx**	**xxxxxx**	**xxxxxx**	**xxxxxx**	**xxxxxx**	**xxxxxx**	**xxxxxx**
	Fixed Line Subscribers	Residential				xxx	xxx	xxx	xxx
		Business				x	x	x	xx
		Free Service						xx	xx
		Total			**xxx**	**xxx**	**xxx**	**xxx**	**xxxx**

Table 4

8.15 Licensing

The NTRC continued in 2013 to facilitate the application process for new licenses under the Telecommunications Act (CAP 418) of the Revised Laws of St. Vincent and the Grenadines of 2009. Individual type applications were forwarded to ECTEL to be evaluated 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.

Table 5 outlines the number of licences issued from 2009 to 2013. These issued licences are broken down as being new licences, issued in the specific year, and renewals of existing licences, first issued in previous years.

		2009		2010		2011		2012		2013	
		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
	Internet Networks	0	N/A	0	N/A	0	N/A	0	N/A	0	N/A
	Subscriber Television	0	N/A	2	N/A	1	N/A	0	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
	Mobile Cellular	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
	Submarine cable	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
	Internet services	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
	Community radio	1	N/A	0	N/A	0	N/A	0	2	0	N/A
	Television Broadcast	0	N/A	0	N/A	0	N/A	1	N/A	0	N/A
	Maritime mobile	1	23	0	19	3	42	4	67	35	31
	Land mobile	1	275	3	212	5	267	3	172	2	155
	Aeronautical radio	1	0	0	0	0	0	0	0	0	0
	Aircraft station	3	18	1	16	2	17	2	17	4	17
	Amateur Radio station	29	23	36	36	38	60	27	80	25	84
	Citizen Band radio	0	0	0	5	0	1	0	1	0	0
	Family Radio Band	4	0	2	1	1	0	1	5	1	3
	Ship Station	61	112	28	131	44	170	27	122	15	182
Miscellaneous	CPE Dealers reg. fee	18	12	18	17	17	44	15	18	14	16
	Exam Fees for Radio Operators	0	N/A	0	N/A	2	N/A	0	N/A	1	N/A
	Type Approval fee	0	N/A		N/A	3	N/A	16	N/A	22	N/A
	Ship station Operators	24	16	25	32	17	55	25	9	27	7
	Aircraft Station Operators	0	0	0	0	0	0	0	0	0	0

Table 5

8.16 Policy Recommendations

1. Cyber Security/Strategy - This threat needs a regional approach noting the resources needed and the complexity of the problem. Such an initiative can be facilitated with possible assistance from the USA, noting the potential threat to their country and the role the Caribbean can play in minimizing such a threat if the member states of the region are properly prepared. More details on this very important issue were outlined in our 2009 Annual Report. While our NTRC is doing some work via the Associate Degree programme in Cyber security at our Community College, more has to be done at the national, regional and Caricom level.

   As we develop a broadband plan which will guide the work of the USFs in the sub region, it is imperative that we also develop a cyber-strategy both at the regional and domestic levels. We cannot wait until we have a catastrophic event occurring in our business community or Government sector to do this. Banks always create vaults to protect their assets. The bigger the banks, the bigger the vaults! It would be unwise of us to build a large national bank without a vault. In the same way, we cannot build larger and faster networks that connect our people, businesses and critical infrastructure and systems without the relevant structures, systems and regulatory framework to protect these networks and services. The ITU have done some work in this area in 2012 in assisting our countries to set up national CIRTs. It is now up to us to move this process forward ASAP. These are areas that can be funded by the USF with an increased mandate and scope.

2. Regulatory Focus on Convergence- Our Country has to move from our current approach of just regulating networks and some services offered over these networks. We have to move to regulating what goes on these networks and not just the "content", etc. but more so, the applications that are allowed to or not allowed to operate on these networks. More details on this issue are outlined in our 2009 Annual Report.

3. USF mandate: We have to ask ourselves, what should we be creating access to? Access to the global internet with the content of developed countries or to the global internet with content also from our region and our nation states. We cannot create access to something that does not exist and which our fund as currently structured can only provide limited funding. We have to expand our

USF scope to allow for more and sole funding of content related projects. As an example, our countries are paying foreign exchange for broadcast rights to access football content from the developed countries. Such rights cost allows these clubs to build substantial business entities that employ many and make many millionaires from playing sports. We have a huge problem with unemployment in the region which requires targeted interventions by our governments via unconventional socially targeted programmes.

We are currently putting most of our attention to academic programs and some service oriented fields such as the hospitality sector to create employment. While such a focus is required, we also need to pay some attention to the sports and cultural aspects as well that can also create employment opportunities. ICT /telecom can assist in this. Not everyone is academically inclined or wants to work a normal day job. We can create as an example semi-professional football leagues that pay a minimum stipend to players/teams via a national fund. Such games can then be broadcast to our homes/mobile devices via IP streaming technology thereby creating content for our citizens while creating jobs. Similar situation can be done with movie making and other local programs.

We can create a new sector of the economy that will compete with the drug trade for our younger generation. Most persons involved in the drug trade make very little money but they see an opportunity to make it big without the need for much formal education, etc. We can do the same with sports and movies, etc. Have small stipends for most persons with a big pay day for the winners, after a period of time such programmes will be self-sustaining. One does not need many O' levels or ICT qualifications to be a great footballer or actor/actress but you need certain talent which many of our youths' possess. We have to create programmes that target the different strengths of our youth. Not everyone has strengths in the academic stream. The USF can be utilized under a new mandate to facilitate the development and distribution of such content related programmes.

Such a change in mandate for the USF will require an adjustment in the annual contribution fee in order to see meaningful benefits to our citizens.

4. Mobile Broadband: One should be cautious with the potential of mobile broadband which is being pushed by some as a real solution of bringing broadband to the masses. From what is being seen in a number of developed countries, there are limitations to this technology. If it was different, we would not see a move to limit the quantity of data downloaded to mobile devices by consumers. There is a growing move to do away with unlimited mobile plans which LIME has already moved to implement and which Digicel has also followed in 2013. Currently, fixed line internet does not have data caps. If these mobile broadband solutions which purports speeds greater that DSL are so robust, why are we seeing caps on the data that their customers can download? We believe it has to do with capacity. The mobile networks are not designed to back haul such a large amount of data by so many concurrent users. It is also the reason more and more mobile service providers are using Wi-Fi hot spots to offload data from their mobile networks. We believe this is the way we have to go. We can look at installing more Wi-Fi hotspots across our country and use them as a source of revenue for the USFs by handling traffic from the mobile operators. Such a network will also have positive spin offs for fixed broadband into our homes. The mobile devices will automatically switch between the Wi-Fi spots and the mobile networks base on which are in proximity. This is a project that could be done in all five ECTEL states as a regional project with local components.

   We also have to look beyond just mobile phones but other devices and services. Such a network can also be used to link devices in police cars, service vehicles, etc. Such a network will require few new towers etc. but will use existing buildings and existing fixed line network assets.

5. National Broadband Strategy- There is a critical need to develop a national strategy to facilitate the increasing of broadband penetration level to a minimum of 90% of households by 2015. As a country, we cannot allow the current rate of increase for this essential service at the household level to remain on its current trend. To do so will keep a large proportion of our population from productively participating in our country's economic, social and cultural development thereby reducing the level of our competitive advantage as a nation.

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 of 2009. Most of its 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 our NTRC has sort to utilize the available resources for the maximum benefits via practical and needed projects that meet the needs of our citizens.

Recognizing the limitations outlined above, the NTRC would seek to continue to work closely with ECTEL, the Ministry/Minister responsible for Telecommunications and relevant stakeholders has to ensure that the revised 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 2013

1. Conduct a National ICT survey following the initial survey conducted in 2009. This should identify the gains made in the sector over the period and the gaps that still exist. This objective was achieved in 2013. The survey commenced in February of 2013 and was completed in March 2013 and got responses from 2016 respondents.

2. Hold ten public awareness events across our country to highlight the functions of the NTRC and the services available from its USF projects. This was completed. The NTRC conducted public consultations, open-days sessions and school discussions which were held across various communities on the island.

3. Draft recommendations to improve current USF regulations noting the challenges encountered to date and the needs that will arise in managing the fund in the short and medium term. This objective was completed. Recommendations were developed in collaboration with a local consultant and forwarded to the Minister of Telecommunications for his approval.

4. Implement the Community Center project that will bring Internet services to 14 Community Centers across the state. This is not complete. This project will provide wireless internet access at 14 Community Centers in various communities throughout St. Vincent and the Grenadines at a minimum speed of 8 Mbps. During the commissioning of the project in late 2013 the quality of the installations at some locations were not up to specifications. As such remedial work had to be done. The project is expected to be completed in early 2014.

5. Implement the Police and Health Center project that will bring wireless Internet and computers to all 44 health centers and all 29 police stations state-wide. This is incomplete. This project provides wireless internet access at all 29 Police stations and 42 Health Centers throughout St. Vincent and the Grenadines at a minimum speed of 8 Mbps. The sites in Canouan and Mayreau were not completed as of the end of 2013 as the speeds were not up to the NTRC specifications. These are now expected to be completed in early 2014

after Karib cable upgrades its wireless links to these islands.

6. Implement the SMART project that will among other things establish two new programmes in Mobile Application development and Cyber security at the SVG Community College. This objective is incomplete. All of the equipment and services have been completed however the two programmes (Cyber Security and Mobile app development) to be delivered at the SVG Community College were not fully completed as of 2013. These will be completed in 2014 in time for the September school term.

7. Launch an annual Innovation competition at the High School level. This is complete. The competition encouraged students from various Secondary, Technical and Tertiary level institutes from across the country to put forward ideas and Mobile apps that can implement new systems or improve existing systems in the current departments within the Public Service of St. Vincent and the Grenadines.

8. Enter two NTRC/USF projects into the annual Canto Connect the Caribbean contest. This objective is not complete. This objective is incomplete. The videos were not completed on time for the entry for the 2013 contest. However, they will be entered in 2014.

9. Install new computer network including servers and software at the NTRC. This is complete. 8 Lenovo computers, 1 Lenovo server and Microsoft 2013 Office were purchased and installed.

10. Incorporate electronic payment option on NTRC website. This objective is incomplete. However, the Commission has commenced the process with an online payment merchant. This objective is expected to be completed in early 2014.

11. Facilitate the development of an NTRC/ ECTEL knowledge network. This objective is complete. The ECTEL/NTRCs online Knowledge Network has been created for communications as well as transfer of knowledge between ECTEL and the five NTRCs.

12. Research radiation and QoS standards for possible implementation. This objective is incomplete. Due to the ICT manager being on maternity leave in 2013 this objective will be addressed in 2014.

13. Research new regulatory areas that may need to be addressed by the NTRC. A number of regulatory areas were identified and have been included in the 2014 workplan.

14. Distribute GMDSS VHF radios to selected fishermen across the state. This is complete. The NTRC visited various fishing communities throughout St. Vincent and the Grenadines and awarded selected fishermen GMDSS VHF radios.

11. Major Objectives for 2014

1. Recommend amendments to current Universal Service Fund (USF) regulations to enable the widening of the mandate of the USF.

2. Execute 2nd annual I^2 competition which will have students in secondary and tertiary level institutions develop innovative ideas and apps that can improve the efficiency and effectiveness of our Public Service.

3. Develop two major USF projects that could attract funding from regional and International donors.

4. Develop electronic payment option on the NTRC website.

5. Develop a draft National Broadband Plan for St. Vincent and the Grenadines.

6. Develop and execute a new Public Awareness Plan for the NTRC.

7. Research radiation and QoS standards for possible implementation.

12. Annex A

12.1 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.

ITU International Telecommunication Union
ITU works closely with all standards organizations to form an international uniform standards system for communication.

Land Mobile A mobile service between base stations and land mobile stations, or between land mobile stations

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

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

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

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

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.

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

Telecommunications 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.

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.

USAID The US Agency for International Development

13. Annex B

13.1 Audited Financial Statements 2013