

Telecommunications Commission Solomon Islands

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ANNUAL REPORT 2016

Telecommunications Commission Solomon Islands





Telecommunications Commission Solomon Islands

Annual Report for Year 2016

(In accordance to section 23, Telecommunications Act 2009)



29 March 2017

Mr Clezy Rore
Clerk to the National Parliament
Parliament House
Honiara

I am pleased to submit the Annual Report of the Telecommunications Commission for the National Parliament's attention. The Report, which is in respect of the financial year ending 31 December 2016, has been prepared in accordance with the provisions of section 23 of the Telecommunications Act 2009.

The report contains the overview of the telecommunication sector and a summary of the key initiatives of TCSI on the regulatory issues with specific reference to the functions mandated to it under the Act.

The audit of the Commission's Financial Statements for the 2016 financial year are still in progress at the Office of the Auditor General.

A handwritten signature in blue ink, appearing to read 'Bernard Hill', is placed above the printed name.

Bernard Hill
Telecommunications Commissioner

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COMMISSIONER'S OVERVIEW

Sector Financial performance

Reflecting what was a quiet year for the Solomon Islands economy overall, total revenue in the telecommunications sector declined in 2016 by some SBD\$12 million, and ARPU¹ for the mobile sector was also down by some 3%. Strong competition between the operators also played its role in these financial results.

Investment programme

The two major mobile service providers, Our Telekom and Bmobile-Vodafone, carried out significant network upgrades and expanded their coverage. They also introduced mobile data services to provincial centres and some outlying areas. A variety of new value added services also became available.

Radio-spectrum Policy

Following an industry and public consultation on the National Radio-spectrum Band Plan, the Commission assigned one of three blocks of spectrum for *FDD LTE (4G)* deployment, to local internet service provider Satellite Solutions Ltd. It is expected that the other two blocks will be assigned to the two established mobile services operators, Our Telekom and Bmobile-Vodafone, early in 2017.

Making spectrum available for “4th Generation” mobile services technology will stimulate and deepen competition in the local market which should in turn result in more choice for business users and consumers, and enhanced data services.

Fixed line services

At year's end, there were slightly fewer fixed line network subscribers in Solomon Islands than in 2015, but 'dial up' internet subscriptions fell more significantly, by 39%. However, data downloads using the ADSL capability of the fixed network, represented some 57% of downloads across all services.

Mobile Services

By December 2016, the number of active mobile subscriptions was down some 2% from 2015, but the mobile penetration rate was steady at 71.7%. Solomon Islanders proved to be the most prolific of “texters” amongst the Pacific Islands however, with 5 million text messages per month being transmitted.

Speeds continued to improve, so that at the end of the year, 70% of all subscriptions were receiving data speeds equal to or greater than 3-5 Mbit/s.

International connectivity

Unfortunately, the Ministry of Finance & Treasury, causing the abandonment of the local

¹ Average Revenue Per User.

private sector proposal for an undersea cable connecting Solomon Islands to Sydney, the country will now be dependent on satellite connectivity to the rest of the world for the foreseeable future².

Internationally, telecommunications satellites are nevertheless improving rapidly with several new technologies and commercial propositions in the pipeline, which will provide additional access for Solomon Islands in the medium term.

During 2016, there was significant improvement in the local satellite bandwidth capacity for international gateway access to the internet and other communications links. Domestic link capacity to the islands grew by 59% with O3B's satellite contribution being the largest.

Consumer Matters

The Commission continued to work closely with service providers on general consumer interest issues and the resolution of individual complaint scenarios.

The Commission is pleased to report that all the active providers of mobile telephony and internet access services have improved their customer service capability, and dealt promptly with problems when brought to their attention through the Commission.

Competition rules

Effective competition is the key feature of the market's good performance since 2010, and there were no competition rules investigations during 2016. The most significant development on the competition front was Bmobile-Vodafone's formal application for the Commission's assistance in resolving the Company's differences with Our Telekom over the terms of interconnection between their respective networks. The application, which was filed in late September, is now going through the formal statutory process. The Commission expects it to be finally resolved in the second quarter of 2017.

Conclusion

Notwithstanding the overall weakness in the local economy, the telecommunications sector continued to make a significant contribution to economic growth, and to improvements in the local standard of living during 2016. The Commission itself completed the transition from operation as a World Bank funded project, to full financial independence, with the right mix of professional competence and experience to successfully undertake its statutory responsibilities.

² There has been talk about, and some initial steps taken, towards the Government itself undertaking an undersea cable project. However, from an economic policy point of view, serious doubt surrounds the wisdom of Government entering the wholesale broadband market. The financial feasibility of building a cable and then selling its capacity on the local market is also in question, as is the Minister's compliance to date with various legal standards, including the rules for public sector procurement. Such a project will require a telecommunications licence from the Commission. If and when any licence application is made, the Commission will be closely examining all such issues by way of a formal public consultation process.

1. TELECOMMUNICATIONS REGIME

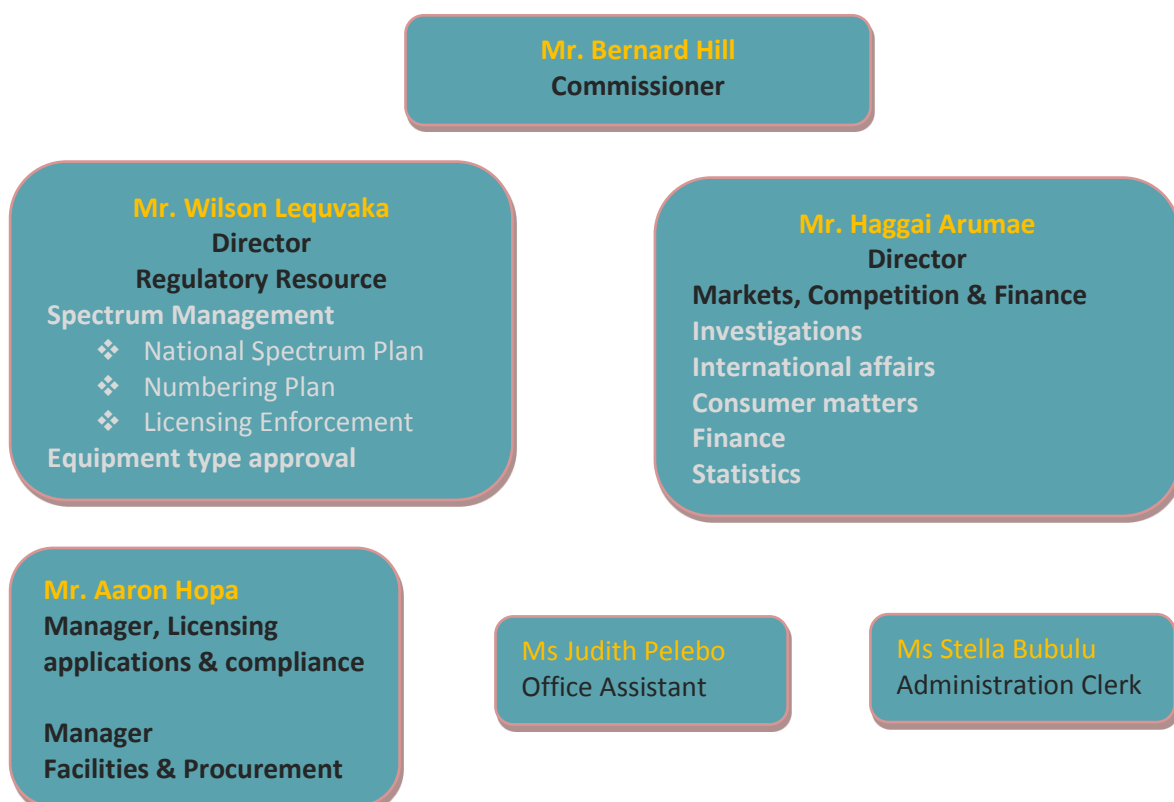
TELECOMMUNICATIONS COMMISSION SOLOMON ISLANDS (“TCSI”)

The Telecommunications Commission as an independent expert statutory authority, charged with the economic and technical management of the telecommunications sector in Solomon Islands. The most important feature of the Telecommunications Act 2009, the statute which provides for the Commission’s powers, was the opening of the market to private sector competition, and the end of political and public service involvement in the industry’s operations.

The deepening investment in and rapid growth of the market since 2009 is a vindication of the Government withdrawal from any involvement in the business of telecommunications. This successful policy outcome, to date, has been noted worldwide especially by international agencies and those developing countries which continue to be plagued by poor investment decisions, corruption, and mal-administration in the public sector.

The Commission’s core functions are to regulate and facilitate the development of the telecommunications, to manage Solomon Island’s radio-frequency spectrum resource, and to safeguard competition and the interests of consumers. The Commission is funded independently of parliamentary budget appropriations, through services licences fees paid to the Commission by the operators. In the exercise of its statutory powers and functions the Commission is not subject to the direction and control of government ministers.

The Commissioner, in consultation with the statutory Evaluation Committee, is responsible for the strategic and operational management of the organisation. The Commission’s structure is illustrated below:



THE EVALUATION COMMITTEE

The Evaluation Committee constituted under section 7 of the Telecommunications Act 2009, maintains financial administrative oversight of the Commission. The Committee reviews the Commission's budgets and activities plans annually.

The members of the Committee hold office *ex officio* are:

Mr. Denton Rarawa (Chairman) - Governor of the Central Bank of Solomon Islands

Mr. Jeremy Bartlett (Member (new)) - Chairman of Solomon Islands Chamber of Commerce and Industry

Mr. Frank Paulsen (new) – Chairman Solomon Island Law Reform Commission

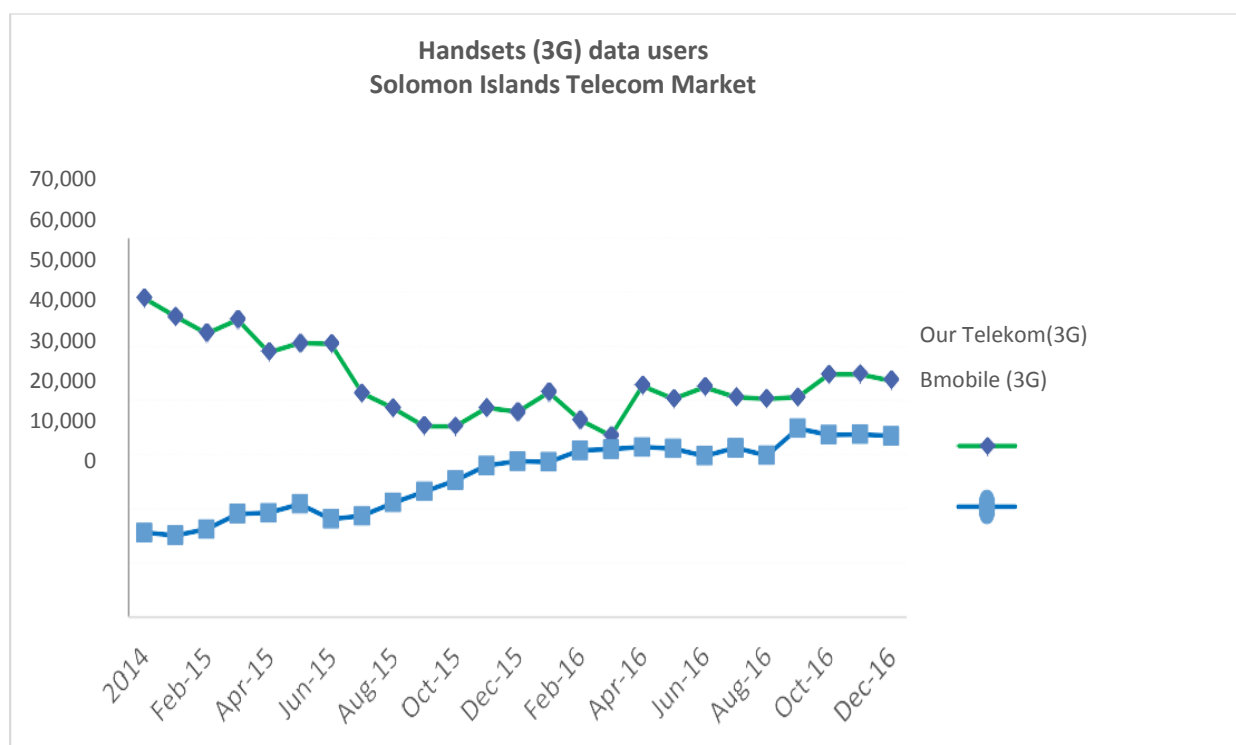
2. TELECOMMUNICATIONS MARKET

OVERVIEW

Overall revenues from telecommunications services declined from SBD\$369.4 million in 2015 to SBD\$357.1 million in 2016, reflecting strong competition in the sector as well as weakness in the wider retail economy. ARPU for the mobile sector fell from some SBD\$880 to SBD\$856, largely because telephony services were being included with data in bundled offers. Consumers generally benefitted from the intensifying competition, especially in terms of better value for money and improving choice and range of services.

Active mobile subscriptions decreased by 2% compared with 2015. In part this was the result of the operators immediately disabling services 60 days after a subscription remains dormant. Many of these numbers were being reactivated however when special pricing bundles were on offer.

Following new investment by both mobile operators in their 3G network capability and the introduction of bundled data and other services, mobile internet subscriptions increased from 66,664 in 2015 to 77,100 in 2016. In that same period, there were some 61,000 Solomon Islands Facebook users, a rate higher than any other Pacific Island nation. Mobile data competition between the two mobile network operators is illustrated below:



Overall in 2016, mobile network coverage stood at 93% geographically, with a penetration rate for use of mobile services at 71% of the population, (which compares with a rate of 73% in 2015).

MARKET PROGRESS INDICATORS

Indicator	2010	2016
	Actual	Actual
Mobile Subscribers	115,500	416,572
Mobile Penetration (calculated)	20%	71%
Mobile Coverage (calculated)	20%	93%
Fixed Lines	8,400	7405
<u>Internet Subscriber:</u>		
Mobile (3G)	8,205	77,100
Wireless	127	76
ADSL	1,359	1,272
DSL	1,163	360
<u>Internet Penetration:</u>		
Mobile (Broadband)	1.80%	13.3%
Fixed Line (ADSL)	0.2%	0.22%
Internet Providers (Active)	1	3
Gross Total Revenue: (USD) Million	**	48
Number of Mobile Service Operators	2	2
Class licensee registered	Nil	28

COMPETITION

Intense competition was a feature of the mobile services market during 2016 as both Bmobile-Vodafone and Our Telekom sought to increase their respective market shares, by offering bundled prepaid mobile plans (data, texts, & voice). Deep tariff discounts and specials particularly with unlimited free calls on net, were a regular feature on weekends and other peak periods.

By the end of December 2016, Solomon Telekom reported that its 2016 3G/2G network coverage expansion plan was completed and operational, adding another 24 towers: (11 – Malaita Province, 6 – Western Province, 1 – Isabel province, 6 - Honiara). Bmobile-Vodafone's upgrade of its network, completed in July, made 3G services available in Noro, Gizo and Munda in Western province.

A typical example of the bundled services competition between the two mobile operators is illustrated below:

Plan	Price	Data	Validity
D5	\$5	60 mb	1 day
D15	\$15	200 mb	2 days
D20	\$20	360 mb	3 days
D50	\$50	750 mb	7 days
D90	\$90	1.25 gb	14 days
D220	\$220	3 gb	30 days
D500	\$500	7gb	30 days

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Bundle Plans

HELLOBUNDLE 12
 \$12
 1 day
 data: 120 mb
 voice: 20 min
 text: 25 sms

HELLOBUNDLE 15
 \$15
 2 days
 data: 160 mb
 voice: 120 min

HELLOBUNDLE 60
 \$60
 7 days
 data: 350 mb
 voice: 4 hours
 text: 700 sms

HELLOBUNDLE 450
 \$450
 1 month
 data: 2 gb
 voice: 20 hours
 text: 2500 sms

VOICE

price	what you get	validity
\$5	20min	1 day
\$20	80min	7 days

TEXT

price	what you get	validity
\$3	75 sms	1 day
\$9	260 sms	4 days
\$20	520 sms	7 days

DATA

price	what you get	validity
\$6	90 MB	1 day
\$15	210 MB	7 days
\$20	250 MB	7 days
\$20	400 MB	4 Days
\$50	700 MB	6 Days
\$100	1.5 GB	14 Days
\$240	3.5 GB	30 Days

SPECIALS

price	what you get	validity
\$450	6 GB	30 Days
\$900	11 GB	30 Days

WIFI

price	what you get	validity
\$10	100 MB	2 Hours
\$20	200 MB	5 Hours
\$50	500 MB	24 Hours
\$100	1 GB	7 Days

ADSL

price	what you get	validity
\$199	1 GB	Monthly
\$299	2 GB	Monthly
\$799	5 GB	Monthly

3G+ Network

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Solomon Telekom data plans

CONSUMERS AFFAIRS

Notwithstanding the rapid uptake and use of mobile telephony and internet access services in recent times, high levels of consumer dissatisfaction with the local service elements of telecommunications are not apparent. And very few complaints are made to the Commission. During 2016, the Commission maintained its policy of assisting complainants to address full formed complaints to their service provider, as the first step towards resolving individual problems. This feedback from the market directly, is an important part of the competitive process since in many cases, customers have a choice of supplier. The Commission experienced a high level of cooperation from all service providers in addressing and resolving individual complaints.

During 2016, the occasions of generalized outages or poor data speeds were often the result of technical problems outside the local operators' control. Moreover, certain persistent quality of service issues, such as occasional external noise on off-net calls to and from Our Telekom's network have baffled the engineers for some time. Another cause of complaint, the inability to make off-net calls in peak periods will be addressed in the Commission's interconnection adjudication which is now in progress.

TCSI continues to monitor and collect data on the quality of handsets sold in the local market by retailers who are not telecommunications service providers, because of concerns that some devices may be illegal copies. While less expensive than the real thing available through Our Telekom and Bmobile, some of the cheap devices may not be fully functional for very

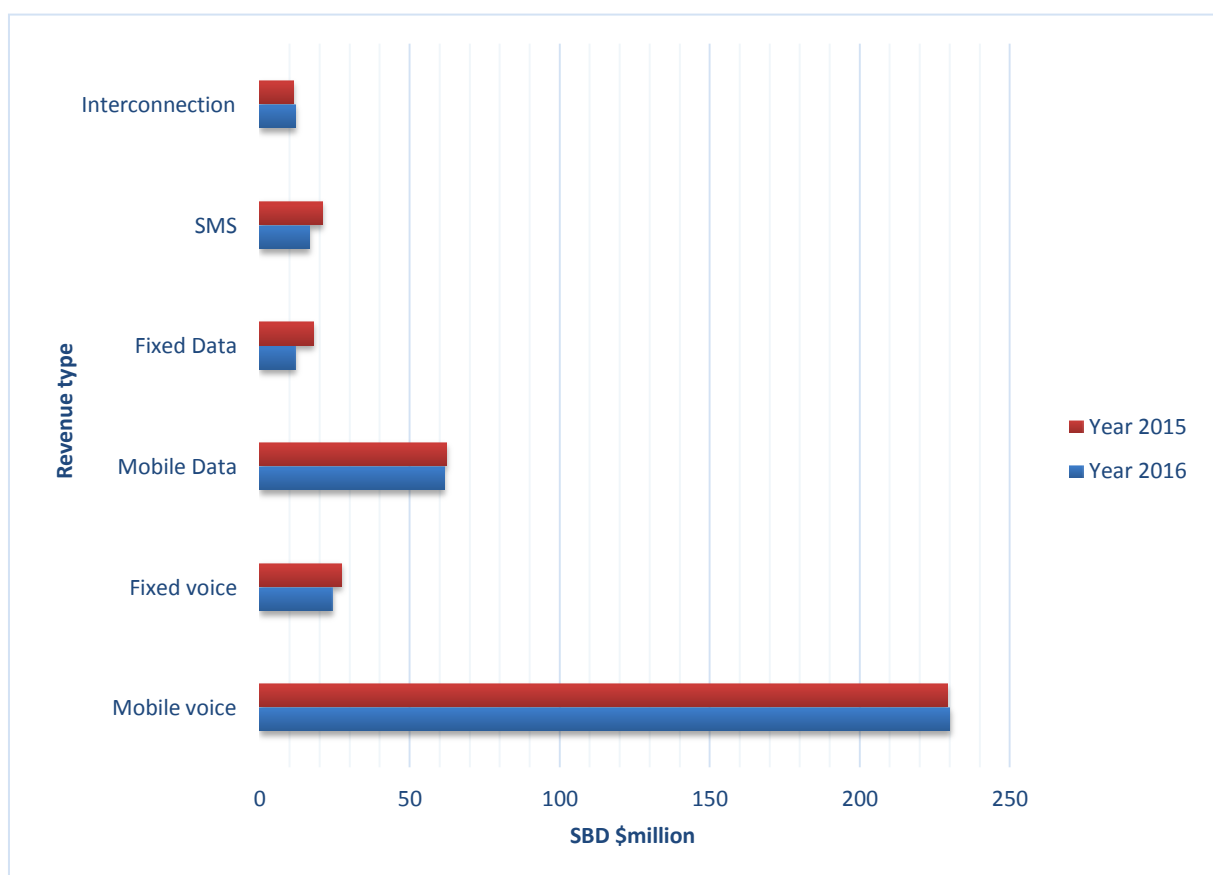
long. The Commission expects to discuss the results of its enquiries with the relevant Government Ministries during 2017.

REVENUE BY TELECOM SERVICE

Although aggregate revenue for the sector declined in 2016, revenue from mobile voice telephony was higher than previous year and comprised 65% of overall sector revenue (Some 60% of mobile network towers in rural areas support 2G traffic only).

The gross revenue in 2016 contributed to 0.3% to the real GDP growth of 3.5% as reported by the Central Bank of Solomon Islands for the year.

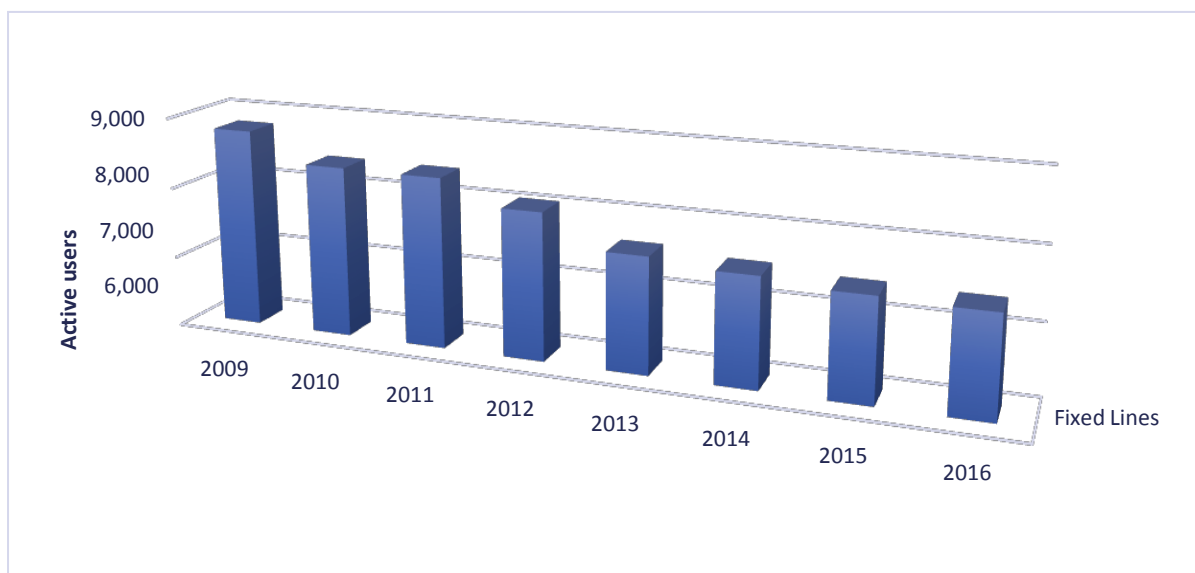
The gross revenue in this sector for the reporting year contributes to 0.3% to the real GDP growth of 3.5% as reported by the Central Bank of Solomon Islands for the year.



FIXED LINE TELEPHONY

Solomon Telekom remains the only the fixed line telephony provider. The traditional voice service on the fixed network is gradually declining in popularity however. Commercial customers are concentrated in Honiara, with minimal use in the provincial centres.

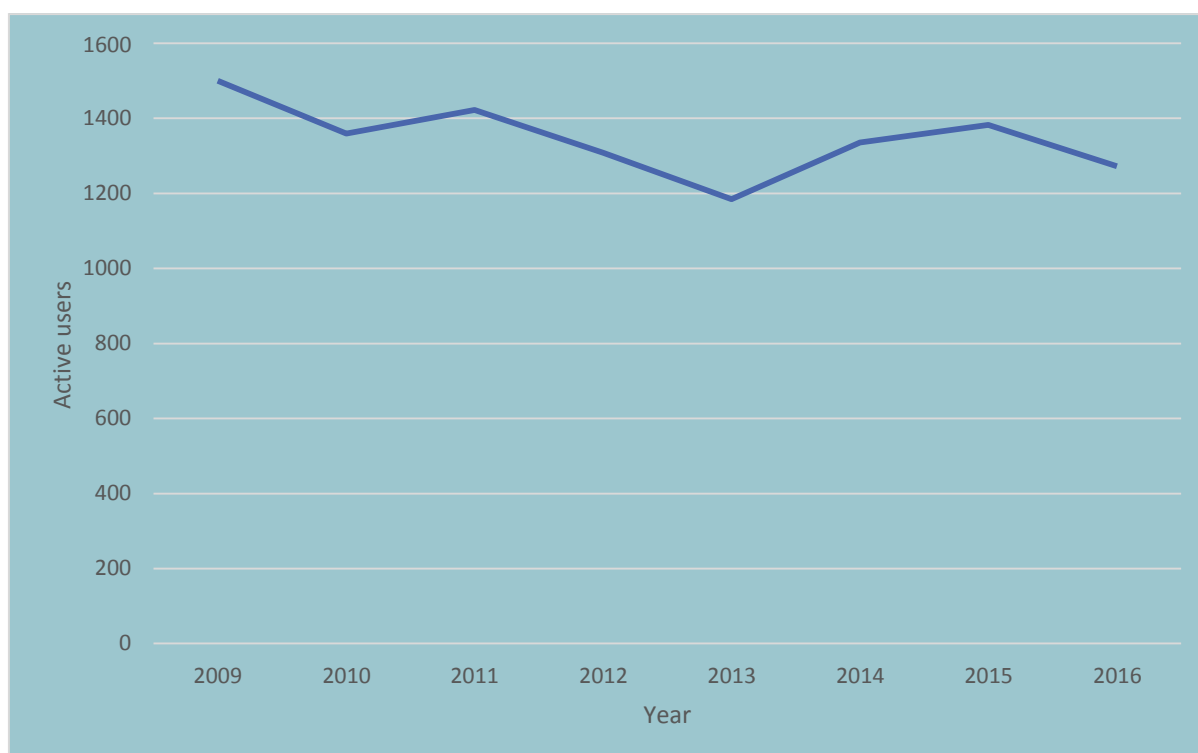
The graph below shows the trend for the fixed line network since 2010.



FIXEDLINE INTERNET

Fixed line internet continued to remain flat since 2010 and a slight decrease compared to 2015 by 8%. For the year 2016, Solomon Telekom and Satsol were the service providers of fixed line internet with 80% of the users connected to Solomon Telekom.

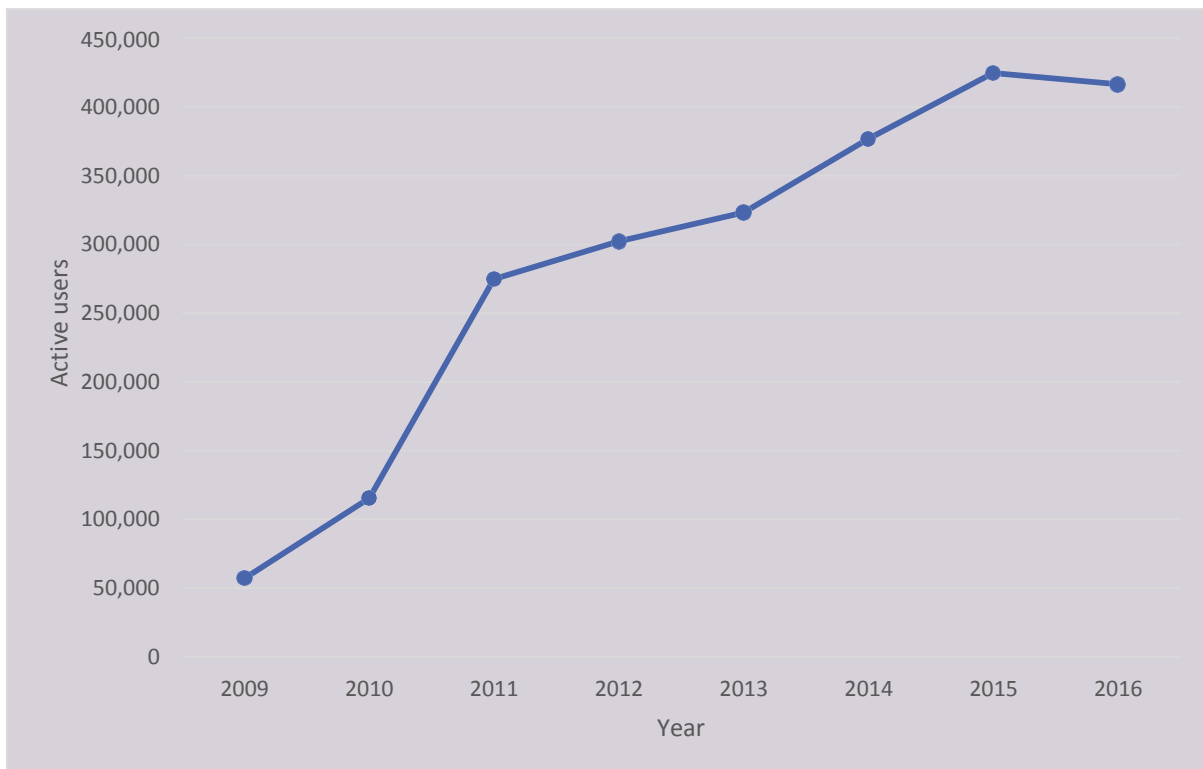
Although the users remain minimal, the download and upload speed at times were at 3-5Mbps higher than mobile network speed to its high capacity. Commercial clients are the main users of these services with high download volume compared against mobile data in the same period.



MOBILE TELEPHONY

Mobile telephony continued to increase and remain the highest connection since 2010 whilst a decrease of 2% during the year attributed to the users that only get connected whenever the mobile network operators made special offers. It further attributed to the majority of mobile towers in the rural areas were operating on 2G services which also supported by the 71% penetration of the 80% population living in the rural villages.

The graph below shows the trend increase in mobile users since 2010:



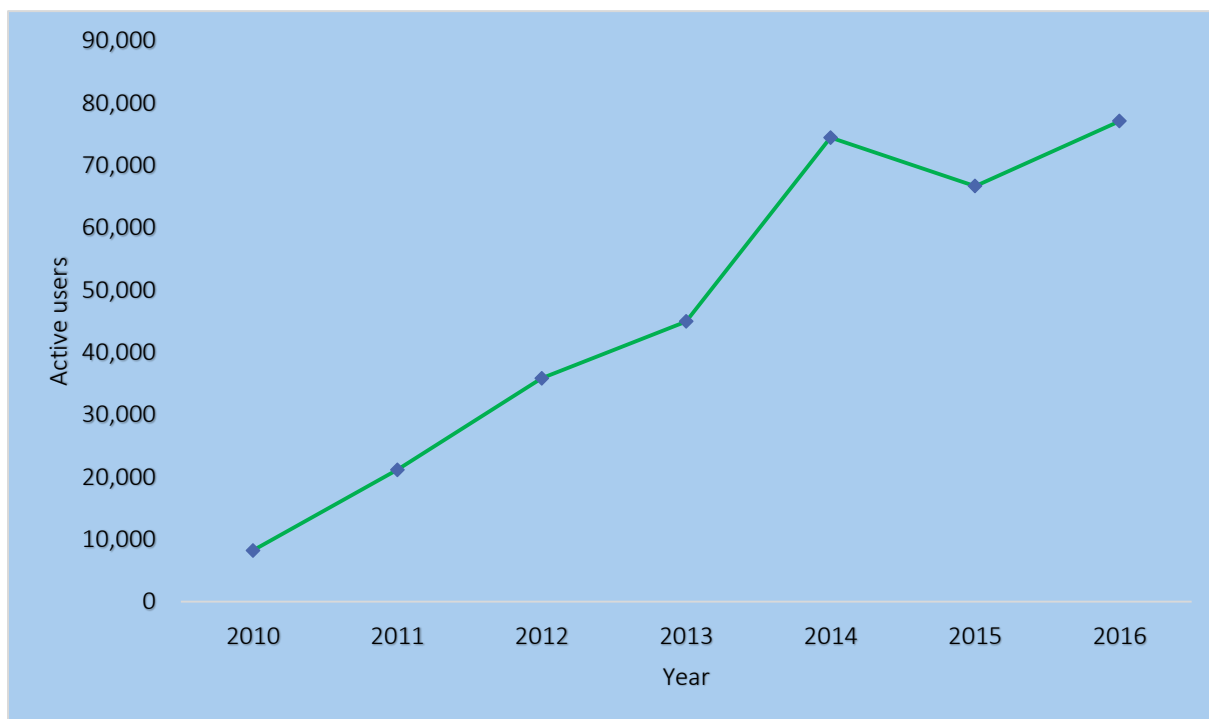
MOBILE DATA

Use of mobile data services continued to grow during 2016 following upgrades to both mobile 3G networks, and the availability of less expensive smartphones. By the end of the year the number of mobile data users stood at 77,100 an increase of 16% on 2015.

Use of social media in Solomon Islands, has risen sharply. At the end of 2016 there were 61,000 Facebook accounts user in Solomon Islands. Active use of social media was made possible by the special pricing offers and very competitive mobile data plans offered by Our Telekom and Bmobile-Vodafone.

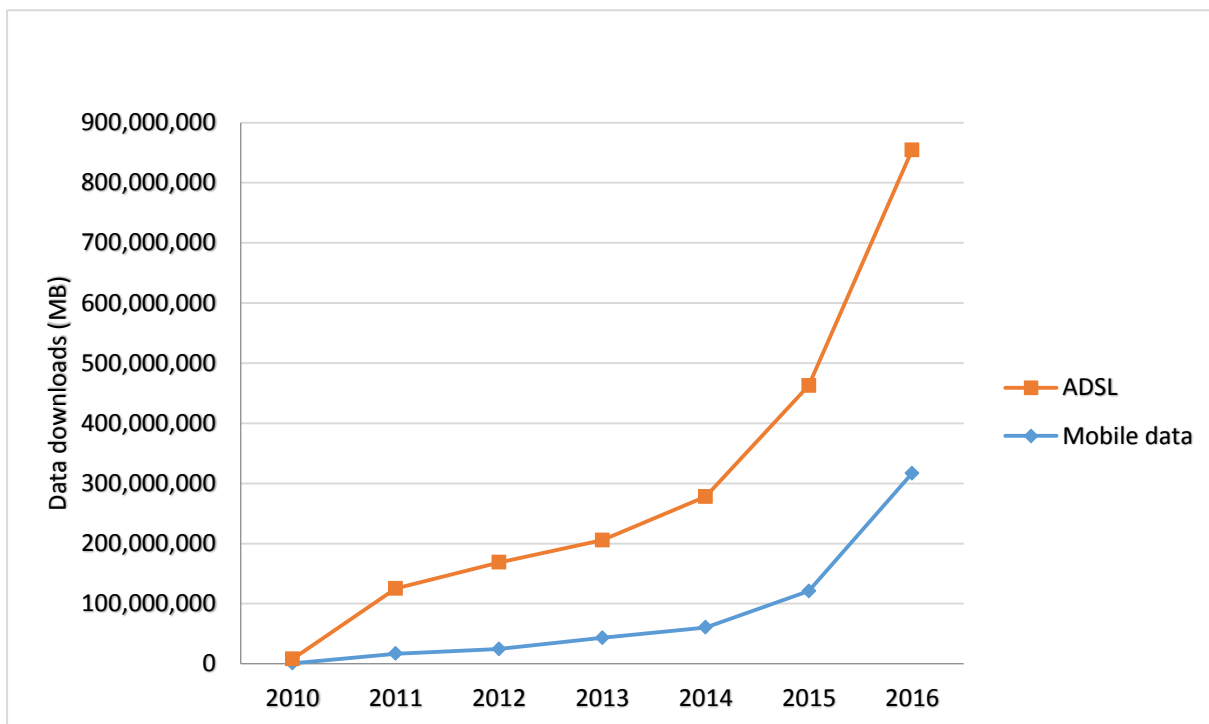
The increased demand for data, resulted in the service providers increasing their satellite capacity by 49%. Data speeds within the city of Honiara ranged from 110Kbps to 5Mbps at peak times. By age group, 50% of data users were in the age group 18 -30 years old.

Smartphone data use is illustrated below:



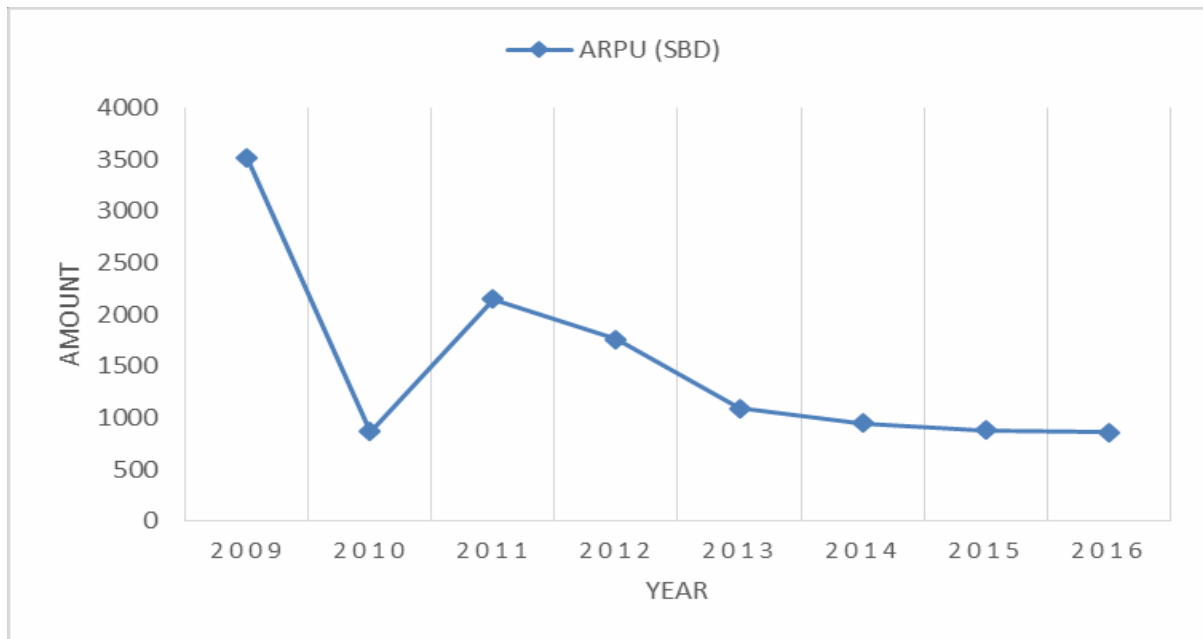
DATA DOWNLOADS- MOBILE vs FIXED

Some 538 terabytes of data were downloaded via fixed line (ADSL) during 2016 an increase of 57% on 2015. In the same period, some 317 terabytes were downloaded via mobile services, an annual increase of 162%. The relative use of fixed and mobile internet access is illustrated below:



AVERAGE REVENUE PER USERS (ARPU)

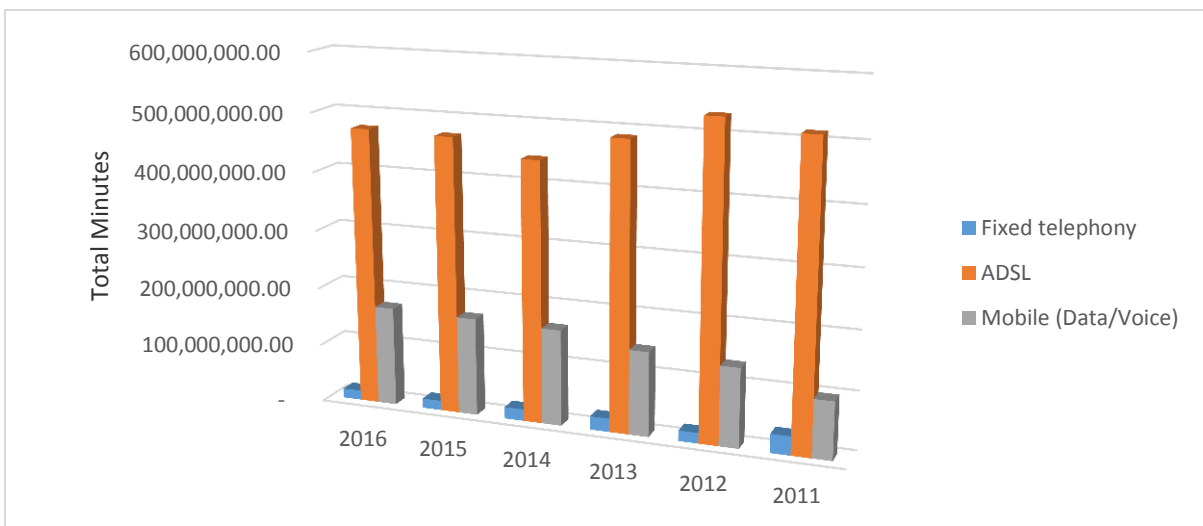
Data downloads remain higher at 538 terabytes of data for Fixed line (ADSL) for the reported year and also since 2010. The downloads for Mobile data reported as 317 terabytes by the end of December 2016, an increase of 162% against 2015, whilst 57% is for ADSL for the same year as well. Fixed internet contributes 63% whilst Mobile internet contributes 37% to the overall data downloads for Solomon Islands for the year 2016 as shows in the graph below.



INTERNATIONAL TRAFFIC

In 2016, the number of international traffic minutes increased by 1% to 653 million minutes. Of that total, 26% was conveyed via mobile network services, and 76% by fixed network services. There were 3.4 million outgoing international connections and 3.6 million incoming.

The graph below illustrates the recent history of international traffic:



SIGNAL STRENGTH - HONIARA

In October 2016, the Commission engaged GIS specialist, Gideon Geographic Ltd to undertake an independent field survey of the signal coverage for both mobile services. This study will provide the baseline for future quality of services assessments and identifies the location of areas where signals remain weak. The survey involved using android apps and other open applications to test the signal strength within the city boundaries. The handsets popular in the local market used in the survey included; *Samsung, ZTE, Avvio, Aspera, Nokia, Blu, HTC, and Huawei*.

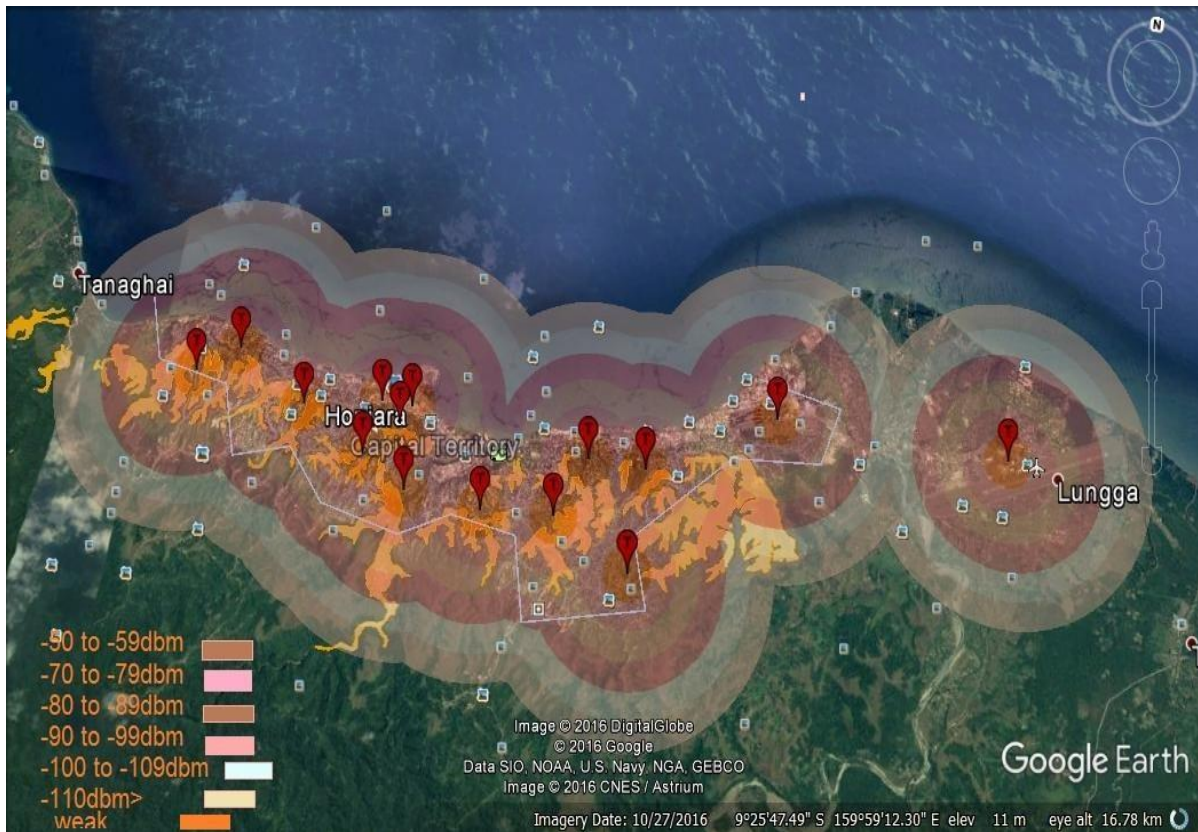
The signal strength measurement, called Received Signal Strength Indication (RSSI), is recorded in dBm (decibel-milliwatts). The dBm scale is between -50 and -120dBm, with -50 being regarded as a perfect signal and -120 being when the device's connection to the network falls off. RSSI measurements rate as follows:

-50 to -75 dbm	High signal
-76 to -90 dbm	Medium signal
-91 to -100 dbm	Low signal
-101 to -120 dbm	Poor signal

In late 2016, the signal coverage in Honiara was strongest around the network tower highpoints, but weak in the many gullies and valleys away from the city coastal strip. Some of the city's highest population growth is in the weak signal areas, and the mobile operators are continuing to target those areas for a boost in 3G signal.

The picture below shows a live view snapshot of the signal coverage, embedded in the Google Earth map of the city. This, and other such maps, will be available for viewing on the Commission's website. This facility for public access to mobile coverage detail is the first of its kind in the Pacific region.

The first map shows the signal coverage for Solomon Telekom, the with second map is Bmobile – Vodafone. When the user clicks on the colour legends in the map, it will show the signal strength in that location.



Our Telekom 3G-signal coverage – Honiara



Bmobile 3G-signal coverage – Honiara

3. CONNECTIVITY

INTERNATIONAL CAPACITY

International bandwidth capacity reported for the year was 785Mbps and increase of capacity from 415MB in 2015, with O3b contributing some 89% of the capacity. O3B high through put satellite becomes the only international gateway for both mobile network operators. Apart from O3b and other satellite, V-Sats Licensees also operating mini individual network have contribute to the international capacity reported.

4. ACTIVITIES OF THE COMMISSION

(The activities requiring specific report further to Section 23 of the Telecommunications Act 2009).

DETERMINATIONS, ORDERS AND DIRECTIONS MADE

No formal Determinations, Orders or Directions were gazetted during 2015.

STEPS TAKEN IN CONNECTION WITH UNIVERSAL ACCESS

In the 20th century, during the fixed network monopoly era, supply-side public subsidy schemes for universal access to voice telephony operated in many countries. A scheme to subsidize the build of communications network towers is also possible under the 2009 Solomon Islands legislation.

However, at present effective competition between the network operators is continuing to result in a satisfactory rate of a network deployment. A supply-side subsidy scheme for voice telephony would most likely distort this competitive process, and the worldwide convergence of communications and media technologies which is underway. That would be contrary to the interests of Solomon Islanders in the longer run.

On the other hand, even when new network towers do appear, the affordability of mobile services subscriptions remains an issue in many villages. Accordingly, over the next two years, the Commission will be concerned to establish whether alternative, demand-side measures, (subsidies for devices and subscriptions) might be developed to suit the circumstances of Solomon Islands, and the aid programmes of donor agencies.

APPLICATIONS, DISPUTES AND COMPLAINTS FILED

In September 2016, Bmobile-Vodafone filed a formal application under s.100 of the Telecommunications Act 2009, requesting the Commission's assistance in resolution of its dispute with Our Telekom concerning several related matters to do with the connection of their networks and call traffic between them. The Commission commenced the statutory process, and as the result of both parties expressing their preference for adjudication, the Commission called for further submissions and evidence from the parties in early December. The Commission expects to issue its determination in the second quarter of 2017.

INVESTIGATIONS UNDERTAKEN

In response to Bmobile's application concerning its interconnections with Our Telekom, the Commission commenced an investigation into the technical, economic, and legal matters raised by the application.

The Commission also investigated the telecommunications regulatory issues involved in the siting and erection of certain mobile network towers in Honiara. The Commission determined that there was no breach of licence and other statutory obligations. The Commission nevertheless assisted in the resolution of the concerns raised by affected residents.

PROCUREMENT AND OUTSOURCING ACTIVITIES

There were no large value goods or services procurements during the year. The most important engagement was for the radio-communications signal strength mapping of Honiara, by Gideon Geographic. This exercise will form the basis for further quality of service assessments in 2017.

In the interest of containing costs following the winding up the World Bank Telecommunications & ICT Development Project, and the end of the additional financial reporting which the Project required, the Commission has outsourced its accounting functions to a qualified local accounting services provider.

MATERIAL LITIGATION

There was no material litigation during 2016.

STATUTORY OBJECTIVE AND PLAN

During 2016, satisfactory progress was made towards the principal objective in the Telecommunications Act in terms of improvements in the “... *availability, affordability, quality of service and kinds of telecommunications services in Solomon Islands.*”

Services in Solomon Islands are of course predominantly mobile services and their better availability is demonstrated in part by the rapid changes in the number of mobile subscriptions nationally from some 424,712 at the beginning of 2016 to some 416,572 by year’s end.

Network coverage expanded from around 91% of the population at the beginning of the year to some 93% at the year’s close, due to upgrades and new mobile network towers. Spectrum has also been allocated in the 4G LTE band to Satsol Ltd, which may play a role in the maintenance and upgrade of the SIG Connect wide area network.

The affordability of mobile voice calls did improve during 2016, reflecting the level of effective competition in that sector. The Commission estimates that some prices for mobile voice calls dropped by over 50% during the year. Bundled unlimited calls and SMS packages, on weekends were common. Low price mobile data plans could be accessed by dialling *155# for Our Telekom and *444# for Bmobile-Vodafone. Data services coverage was also expanded in Honiara and other provincial centres.

The ongoing upgrade of mobile network services by both the mobile operators contributed to an overall improvement in services availability and quality of service. Despite earlier incidents of call and connection disruption, particularly for 3G based services, the operators were maintaining near continuous access and call connection on a real-time basis by the end of the year.

The Commission’s plan of activities to advance progress towards the statutory objectives is outlined in section 8.

LIST OF LICENCES AND EXEMPTIONS

Type of Services	Type of Licence	No. of Licensee
Fixed telephony	Individual	1
Fixed Internet (ADSL + DSL)	Individual/Class	3
Mobile (Voice) 2G	Individual/Class	2
Mobile (Voice + Data) 3-3.9G	Individual/Class	2
Leased lines	Individual/Class	3
TV	TV/Broadcasting	2

Active Licensees were: Solomon Telekom Company Ltd (“Our Telekom”), Bmobile (Solomon Islands) Ltd (“Bmobile-Vodafone”), Satsol Limited.

Inactive, but duly registered Class Licensees totalled 21, with three new class licensees registered in 2016.

SUMMARY OF RADIO FREQUENCIES ALLOCATED

The radio spectrum licenses issued during 2016 were in the table below;

Type of Radio Spectrum Licence	Licensees	Licences
Amateur	6	6
Aeronautical	1	6
Maritime	76	133
Land mobile	11	11
VSAT Satellite	8	8
Handheld	None	None
Fixed Station	11	11
Broadcasting	5	5
Television	6	6

INTERNET COUNTRY CODE TOP LEVEL DOMAIN (CCTLD .SB) MANAGEMENT

The Telecommunication Act 2009 enables the Commission to assume administrative responsibility of the country code top level internet domain, “.sb”. Currently this function is delegated to Our Telekom, which consults with the Commission on domain policy issues.

In the future, the Commission is likely to examine the costs and benefits of changing the current .sb domain administrative arrangements, through a public and stakeholder consultation process. The Commission and Our Telekom will also liaise with the New Zealand authorities, concerning policies for the future.

Certificates of accreditation have been issued to three local .SB domain name registrars SoloSoft IT, Global Junction, Hitek and Novus under Solomon Telekom delegated responsibility by the Internet Assigned Numbers Authority (IANA).

RADIO SPECTRUM MANAGEMENT

The National Spectrum Band Plan was adopted by the Commission in March 2016 following the public consultation conducted in December 2015.

The creation of the spectrum use data base is also a key Commission function. The Commission’s engineers are currently deploying the ITU SMS4DC software to populate the spectrum data base. This will improve administrative efficiency and aligns Solomon Islands with the ITU Regional Regulations and the objectives of the Telecommunication Act 2009.

The Commission continued to deploy its radio frequency signal monitoring equipment where required further to its monitoring programme for radio licence compliance and signal interference enforcement.

At the end of the reporting year, TCSI authorised Satsol Ltd one of the communication service operator to commence 4G implementation and assigned spectrum in the *FDD LTE 700MHz Band 28* spectrum band comprises the following frequency pairings:

FDD Paired Channel Bandwidth:	2 x 15MHz = 30MHz
UPLINK:	703 – 718 MHz
DOWNLINK:	758 – 773 MHz

The assigned spectrum in the *1800MHz Band 3 spectrum band* comprises the following frequency pairings:

Paired Channel Bandwidth:	2 x 15MHz = 30MHz
UPLINK:	1755.2 – 1770.2MHz
DOWNLINK:	1850.2 – 1865.2MHz

5. INTERNATIONAL AFFAIRS

During 2016, the Commission successfully met its obligations to represent Solomon Islands in international and regional information sharing and policy development projects and at international telecommunications events.

INTERNATIONAL TELECOMMUNICATIONS UNION (ITU)

Training for Commission officers on the improved SMS4DC spectrum management software was provided by the ITU during 2016. The Commission also contributed to the ITU's work on assessing and harmonizing Pacific Islands ITU member countries spectrum management resources and capability.

Commission officers participated in the ITU-PTA Asia-Pacific Regulators' Roundtable that focused on Collaborative Regulation for Smart Digital Societies and other issues such as Cybersecurity and online protection in Asia Pacific.



The Commissions Director of Markets & Competition attended the workshop in Islamabad, 18-22 July 2016.

The Director also takes the opportunity to present and discuss regulatory issues pertinent to Solomon Islands with the Secretary General of ITU Mr. Houlin Zhao.



ASIA PACIFIC TELECOMMUNITY (APT)

In June 2016, the Commission's Director of Regulatory Resources attended the Pacific Regulators Forum 9th (PRFP 9) which is the platform where Pacific regulators and other industry stakeholders address regulatory issues facing the Pacific island countries.

PACIFIC REGIONAL REGULATORY RESOURCE CENTRE (PIRRC)

The Director of Markets & Competition was appointed to be the contact point for Solomon Islands in representing the Regulator in all events organized by the Pacific Island Regulatory Resource Centre. He was also appointed to the steering committee overseeing the World Bank ICT funding project supporting the ICT centre at the University of South Pacific.

PACIFIC TELECOMMUNICATIONS COUNCIL (PTC)

The PTC annual conference is a significant international telecommunications event which sees business, academics and regulators interact over a range of topics. These include commercial strategies, commercial revenue models, communications and media products and services, consumer relationships and regulatory issues, and industry and organization adaptation in an era of communications and computing abundance. The 2016 event was attended by the Director of Markets & Competition.

COMMONWEALTH TELECOMMUNICATIONS ORGANISATION (CTO)

A Commission officer also accompanied the Minister of Communications & Aviation and his ICT Policy Director to the CTO forum held in Fiji in September. The event had the Theme *“ICTs for Inclusive Development”* the focus areas were:

- Broadband strategies for small island nations
- Cyber security strategies
- E-applications



Minister Shanel representing SIG at the CTO Council Meeting and panel sessions during the CTO forum.

The Commission was also active during 2016 in assisting other Ministries dealing with Solomon Islands Government international treaties obligations, including the telecommunications and ICT sectors of WTO, PACER+, MSG and Istanbul POA.

6. ICT DEVELOPMENTS

DISASTER MANAGEMENT

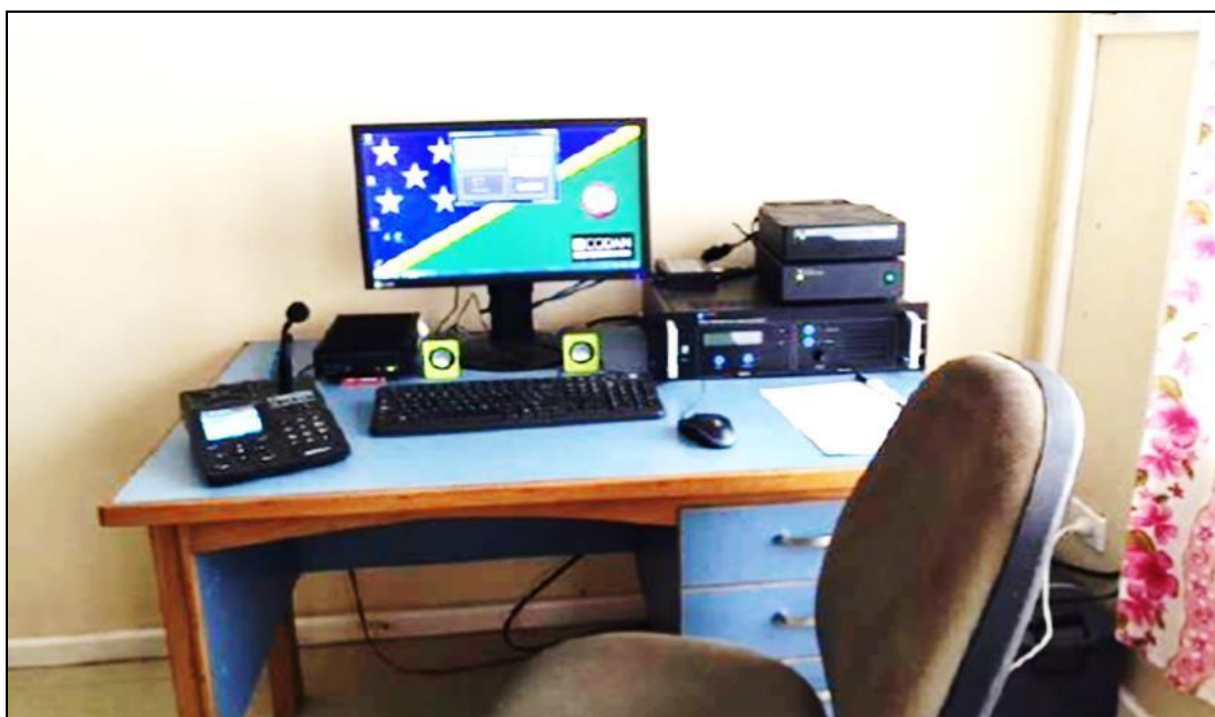
SDR (SOFTWARE DEFINED RADIO) DIGITAL HF RADIO EMERGENCY ALERT WARNING STANDALONE COMMUNICATION SYSTEM

During 2016, the Commission's senior radio-communications engineer and Director of Regulatory Resources provided crucial inputs on the technical design and installation of an emergency alert warning communication system for Solomon Islands.

The System, which deploys software defined, digital, high-frequency radio technology, is an affordable, innovative and state of the art solution. It has been developed out of the real-life communications experiences and technical challenges in the Solomon Islands. It is the first system of its kind in the Pacific, and can serve as a model for other small island countries.

The digital HF radio-communication system is a standalone system that triggers alerts during emergencies by means of a siren system, but also provides first responder communications support. The system is nevertheless interoperable with the country's commercial communication and broadcasting networks so that during emergencies, warnings and alerts can be propagated.

The System was an initiative under the Community Resilience to Climate and Disaster Risk in Solomon Islands Project (CRISP). The System's elements were installed at the National Disaster Management Office in Honiara, PEOC offices in Kira Kira, Gizo, Auki and the Lata Provincial Emergency Operating Centres. The System was completed and handed over to the NDMO of the Ministry of Climate Change, Environment, Disaster Management and Meteorology in December 2016.



SDR Digital HF Radio Emergency room at NDMO Headquarter Honiara

SIG CONNECT

Another milestone for the telecommunications and ICT sector was the Government's engagement of Satsol Ltd, in the ICT infrastructure upgrade of SIG-Connect. The upgrade will enable the Information Communication Technology Support Unit (ICTSU) of the Ministry of Finance & Treasury to detect issues and provide assistance in the connectivity of all Government locations, including those in remote locations.

SIG Connect, a government wide area network has grown to cover some 5,350 individual users connected across 110 public sector locations, including 48 in the Provinces. The system has now brought digital technology to the whole of government, which should improve the efficiency of public services delivery in the future.

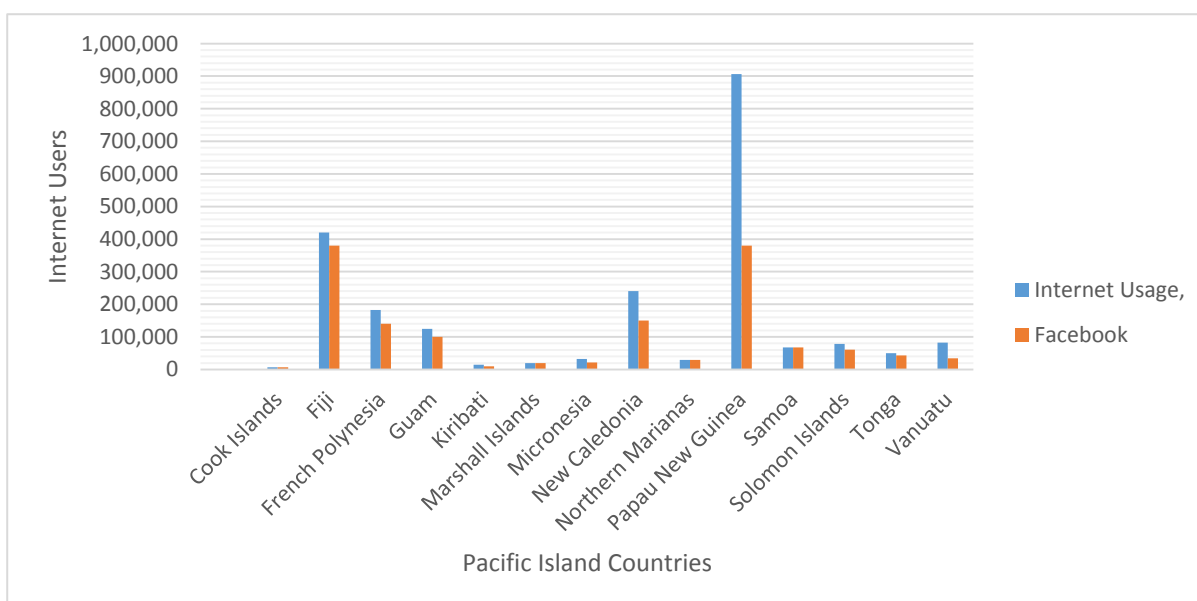
MOBILE BANKING

Mobile banking continued to grow in popularity during 2016. These kinds of services enable users to access bank balances from remote areas and make secured transactions via their mobile handsets. The latest development is the "POB Purse" launched in August by Pan Oceanic Bank. As a complimentary USSD service that facilitates transactional options via the POB app, POB purse is a secure branchless banking mode that is generated through analogue phone numbers.



MOBILE INTERNET USERS (PIC)

The graph below illustrates internet use across Pacific Island countries for 2016. It was reported that 61,000 Facebook users were from Solomon Islands, notwithstanding that the country remained reliant on internet access via satellite rather than undersea cable.



Source: ITU, GSMA, Facebook, Our Telekom, Bmobile

BROADCASTING ROADMAP TO DIGITAL TV

At the end of December 2016, the roadmap for the transition from Analogue to Digital Terrestrial Television is a document setting out the framework for the smooth transition from analogue to digital TV broadcasting (DTTB) finally approved and published by ITU. The roadmap is essential to ensure Solomon Islands developed own strategies (objectives & activities) and prepare for the change over from Analogue Terrestrial TV broadcasting to Digital Terrestrial TV broadcasting and the introduction to mobile TV technology. The changeover is a subject of market forces and factors which brings about innovation and changes in broadcasting technologies which users of technology have to prepare and harnessed.

The Solomon Islands roadmap document was developed by the previous Television Board, The National Roadmap Team (TV Board Chairman, TCSI Commissioner, Broadcasting Representatives), Telecommunications Commission with initiation and assistance from the International Telecommunication Union (ITU). The final process of the roadmap is for the Ministry of Communication and Aviation, the new Television Board to take ownership of the document in conjunction with ICT policy frame, which contains reform in broadcasting legislation and established.

A copy of the roadmap can be access at TCSI and the TV Board at the Ministry of Communications and Aviation.



7. PLAN OF ACTIVITIES

During 2017, the Commission will focus on the following:

- Adjudication of the mobile network operator interconnection dispute.
- Completion of the assignment of the LTE 4G radio-communication spectrum.
- Continuation of the national signal testing and coverage GIS mapping programme.
- Provision of support to the Ministry of Communications & Aviation in the adoption and implementation of the National ICT Policy.
- Surveillance of the competition and fair trading aspects of the telecommunications services and product markets, with attention on the grey market for mobile communication devices.
- Raising of consumer choice awareness and rural district outreach in relation to telecommunications and ICT issues, including internet access and use.
- Development of up to date domain management policies.

8. STATEMENT OF CASH RECEIPTS AND PAYMENTS

STATEMENT OF CASH RECEIPTS AND PAYMENTS FOR THE YEAR ENDED 31 DECEMBER 2016		
	2016	2015
	(SBD)	(SBD)
FINANCING		
IDA & PRIF grants	-	1,547,831
Other Receipts		
Service licence fees	7,519,455	7,303,675
Radio spectrum application fees	98,800	106,400
Numbering fees	-	292,105
Interest income	1,199	2,086
Miscellaneous income	250,351	1,739,832
TOTAL FINANCING	7,869,805	10,991,928
EXPENDITURE:		
Operational expenses		
Commission remuneration	5,297,326	7,135,447
Fixed line & Outreach audit	16,200	94,539
International memberships and subscriptions	62,351	87,774
Office rent	586,740	640,080
Telecommunications	522,298	569,213
Utilities-electricity,gas & water costs	396,871	340,654
Stationery, printing and publications	102,353	167,485
Vehicles & vessel maintenance & operation	230,969	315,464
Bank & tax charges	6,414	13,468
General repair & maintenance	7,444	6,836
Insurance	79,465	116,291
Professional training & development	111,530	153,156
Workshops & participation	483,073	734,944
Services contracts	216,060	38,800
Accounting Services	139,400	
Office supplies	99,204	130,239
Miscellaneous	91,352	79,490
	8,449,052	10,623,880
Capital Expenses		
ICT equipment	66,671	111,147
ICT maintenance	8,495	2,500
Office equipment	43,358	75,077
Furniture & fittings		46,516
Spectrum Equipment & Software		78,570
	118,524	313,811
Other Expenses		
Our Telekom compensation		2,057,259
	-	2,057,259
TOTAL EXPENDITURES	8,567,576	12,994,950
Net increase/(decrease) in cash and cash equivalent	(697,771)	(2,003,022)
Cash at beginning of the period	2,167,915	4,144,240
Unrealised exchange rate difference on foreign currency conversions	-	26,697
Cash at end of the period	1,470,144	2,167,915