

**TELECOMMUNICATION
MARKETS IN THE
BRITISH VIRGIN ISLANDS
2009 - 2013**



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INTRODUCTION



This is the third annual telecommunications market data report which is based on data collected from the licensed public suppliers in the telecommunications market in the British Virgin Islands (BVI): LIME, Digicel and CCT. This report excludes BVI Cable TV.

The report is produced by the Economics Department of the Telecommunications Regulatory Commission (TRC) as part of monitoring and assessing the performance and competitiveness of the telecommunications sector in the BVI.

This report looks at the state and development of the telecommunication markets (fixed line, mobile and broadband) comparing the BVI to similar island nations and islands in the Caribbean. The report covers data from 2009-2013 and presents data for 2013 for the first time.

KEY DEFINITIONS

- **Average Revenue per User (ARPU)** – measures the average monthly revenue generated per customer
- **Average Usage per User (AUPU)** – measures the average monthly usage generated per customer
- **Download speed** – the number of bytes per second that data travels from a remote or local server to the user's device
- **Gross Domestic Product (GDP)** – the official measure of a country's economic output
- **Growth rate** – the amount of increase that a specific variable has gained within a specific period and context
- **Penetration rate** – a measure of the level of adoption of a particular product or service by the total population
- **Teledensity (telephone density)** – the number of telephone connections for every hundred individuals living within a country.

KEY MARKET TRENDS & OBSERVATIONS

- Fixed line penetration is gradually falling in line with the global trend in fixed and mobile substitution.
- High mobile teledensity continues to characterize the BVI telecommunications market to 49,521 subscribers in 2013 as many customers have multiple SIM cards.
- Active mobile broadband penetration level in BVI is high at 57% in 2013 as mobile phones and devices allow customers to access the internet on the go.
- Mobile data traffic increased by 24% in 2013 as customers rely on the internet for social media and mobile apps.
- Mobile voice traffic decreased by 40% in 2013 particularly due to a decline in outgoing international calls.
- Fixed broadband growth is slowing down at an average of 4% every year. Penetration levels have fallen since 2009 to 22% in 2013 and BVI is lagging behind in speed and value.

ECONOMIC INDICATORS FOR THE BVI

Economic Indicators	2009	2010	Growth (%)	2011	Growth (%)	2012	Growth (%)	2013	Growth (%)
GDP (US \$)	876,811,000	894,437,000	2%	915,592,000	2%	909,355,000	-1%	915,601,000	1%
Number of households	11,303	11,677	3%	11,224	-4%	11,311	1%	11,628	3%
Total population	28,882	29,537	2%	28,103	-5%	28,028	0%	28,514	2%

Source: Development Planning Unit (DPU)

Indicators	2009	2010	2011	2012	2013
Fixed line services					
# of fixed line subscribers	14,132	12,886	12,773	12,496	13,180
Fixed line penetration	49%	44%	45%	45%	46%
Mobile service					
# of mobile subscribers	47,031	47,524	46,493	49,224	49,521
Mobile penetration	163%	160%	165%	176%	174%
Broadband services					
# of fixed broadband subscribers	7,736	6,969	5,916	6,213	6,410
Fixed Broadband penetration	27%	23%	21%	22%	22%
Telecommunication revenues (in millions)	\$62	\$73	\$84	\$65	\$61
CAPEX (in millions)	\$7	\$3	\$9	\$15	\$9
OPEX (in millions)	\$33	\$33	\$32	\$35	\$36
Number of Employees in the Telecoms sector	309	293	148	140	141

MAIN TELECOMS INDICATORS

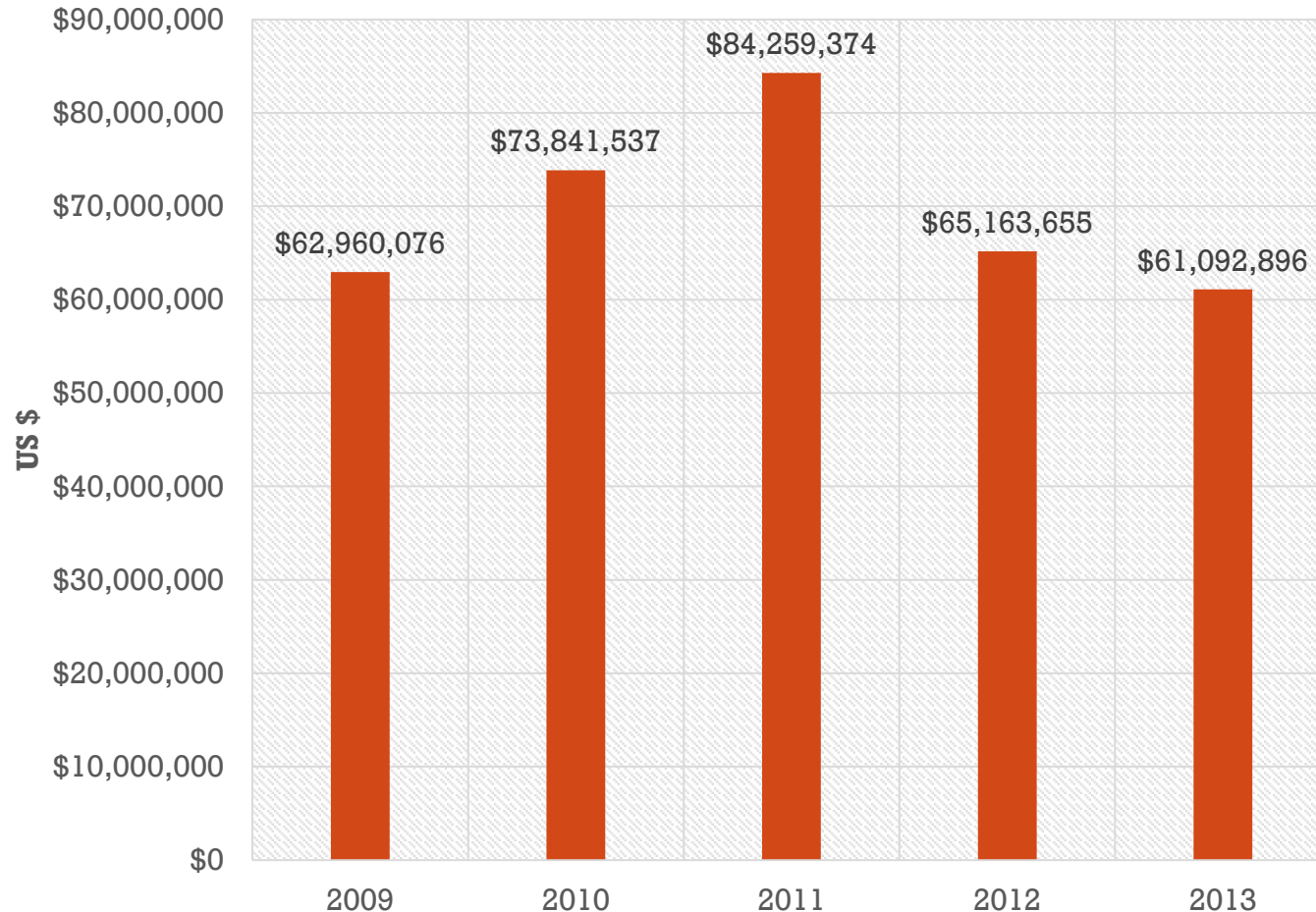
Although fixed line subscriptions increased by 5% in 2013, overtime subscriptions have been declining by 2% every year.

On average, mobile subscriptions increased by 1% every year due to fixed and mobile substitution and to an increase reliance on mobile data services.

Since 2009, fixed broadband subscriptions declined by 17% while revenues remained high despite low speeds.

Total telecommunications revenue continue to decline particularly due to decreasing fixed line revenues.

Telecommunications Revenue in the BVI



TOTAL REVENUE IN THE TELECOMS SECTOR

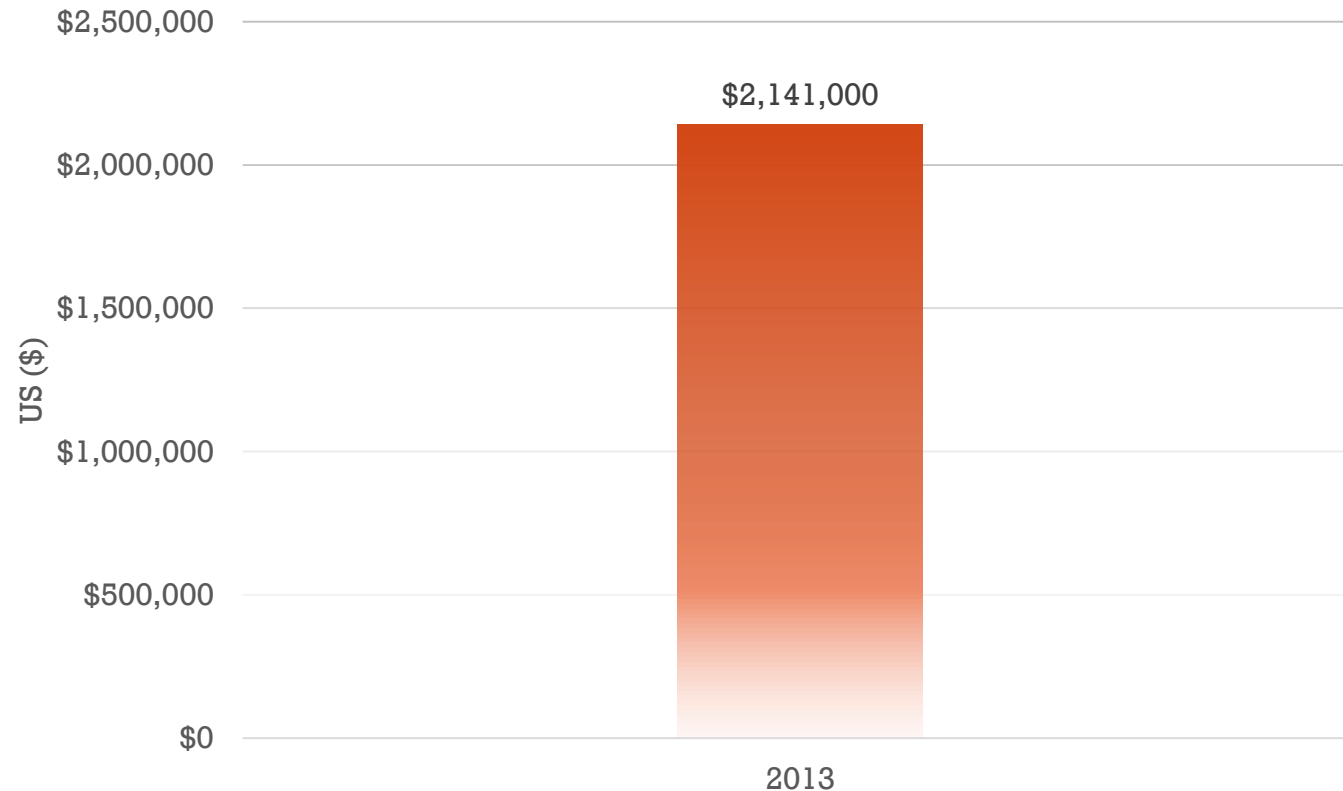
In 2011, revenue increased for the entire telecommunications sector. For that year, mobile revenues increased by 13% and other services increased by 61% which contributed to higher international capacity sales and tower rentals.

In 2013, telecommunications revenue was 6% lower than the year before and has been declining since 2011.

The decline in 2013 was affected by lower revenues from retail services particularly from fixed and mobile services which had a combined 28% decrease in revenue.

However, fixed broadband revenues increased by 12% from 2012-2013.

TOTAL ANNUAL MOBILE COMMUNICATIONS INVESTMENT IN 2013



TOTAL MOBILE COMMUNICATIONS INVESTMENT IN 2013

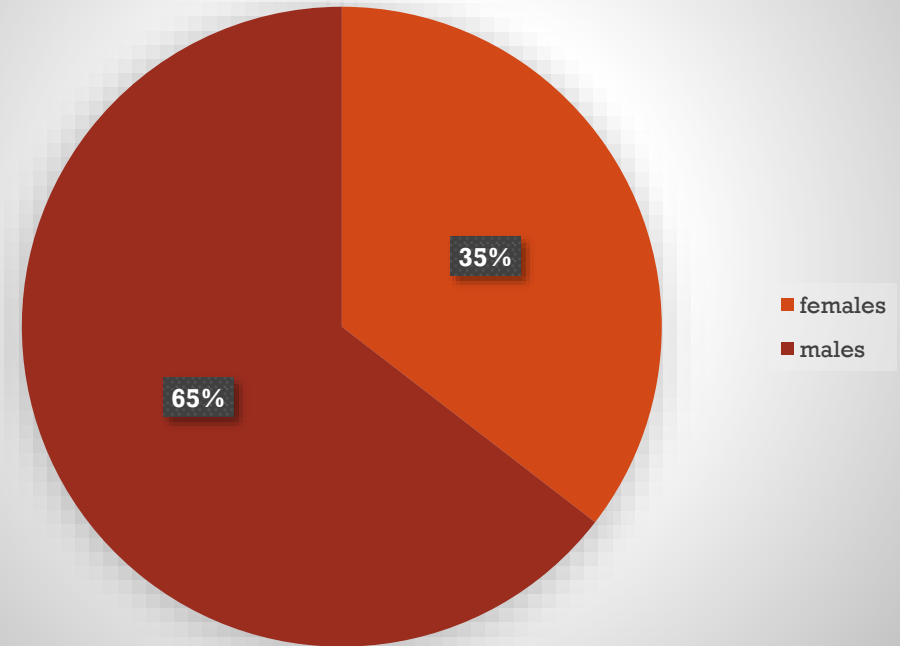
The investment in mobile communications in 2013 was for acquiring and upgrading property and networks of public suppliers and for the provision of services (both mobile voice and mobile broadband) within the BVI.

EMPLOYMENT IN THE TELECOMMUNICATIONS SECTOR

Number of Employees working in the Telecommunications Industry



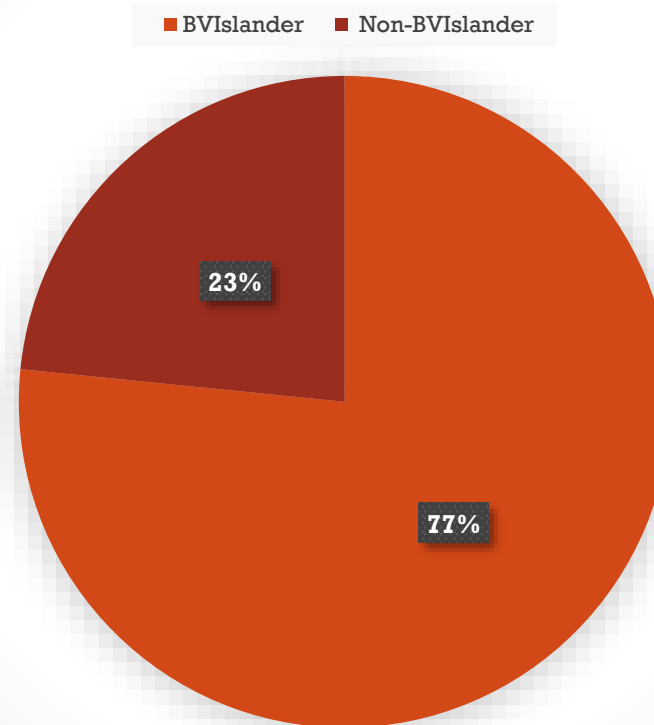
Total Employees By Gender (%) in 2013



In 2009: 64% males & 36% females – proportions remain roughly the same.

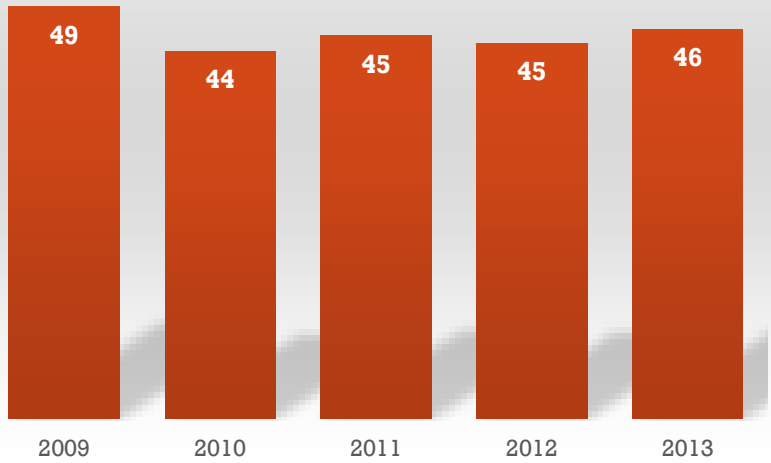
EMPLOYMENT IN THE TELECOMMUNICATIONS SECTOR CONT.

Distribution of Employees By Resident Status in 2013

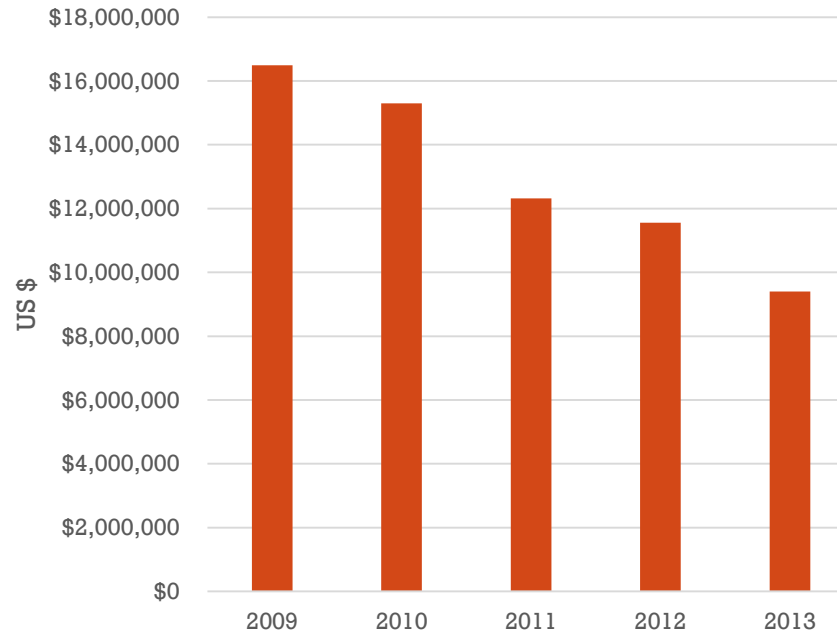


BV Islander – a native born island resident or a person who has been granted the status of a native-born resident **Please see full definition in the Virgin Islands Constitution Order 2007*

Fixed subscribers per 100 inhabitants in the BVI



Fixed Line Voice Revenue in the BVI



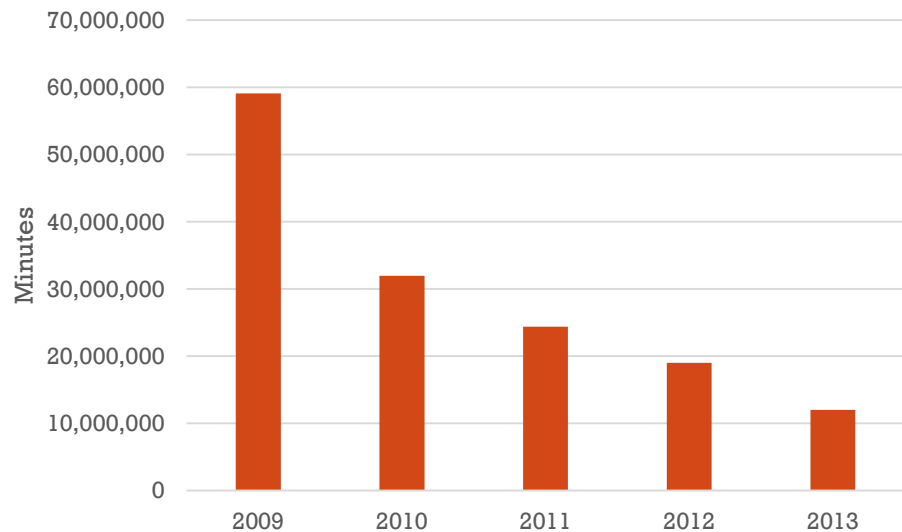
FIXED LINE SUBSCRIBERS & REVENUE IN THE BVI

Since 2009, the number of subscribers who use and access fixed lines declined by 7% as more subscribers use mobile phones.

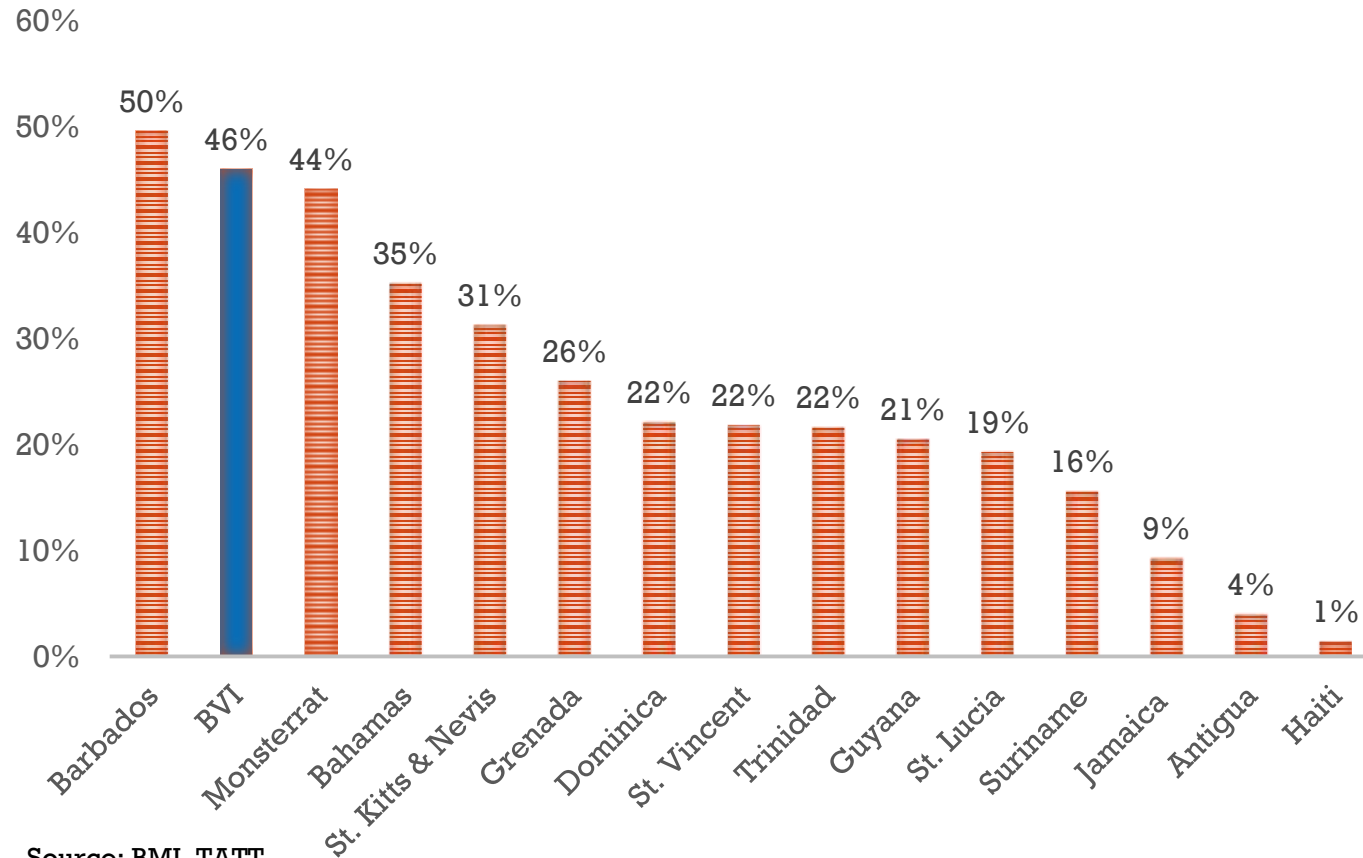
Revenue is falling and demand is increasing. On average, fixed line revenues are declining by 13% every year.

Fixed line voice traffic is falling which is in line with global trends as more subscribers rely on mobile phones for voice and VoIP calls. On average, fixed line voice traffic is declining by 32% every year.

Fixed Line Voice Traffic



FIXED LINE PENETRATION RATE IN 2013

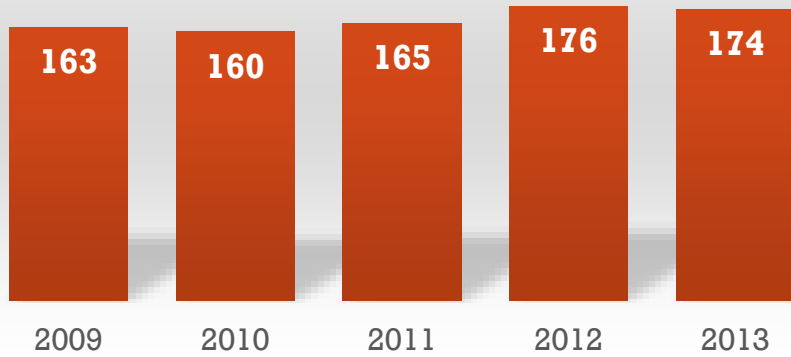


Source: BMI, TATT

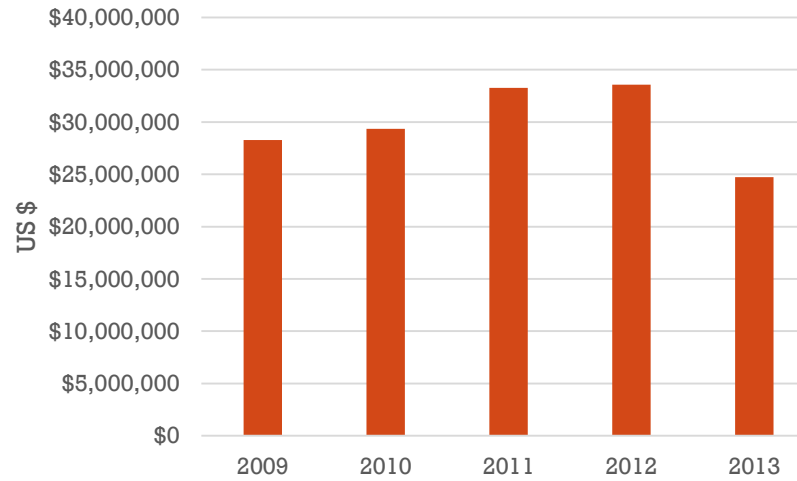
FIXED LINE PENETRATION RATE BY CARIBBEAN COUNTRY IN 2013

The BVI ranks second in the Caribbean with fixed line penetration of 46%.

Mobile subscribers per 100 inhabitants in the BVI



Mobile Revenue in the BVI



MOBILE SUBSCRIBERS, REVENUE & TRAFFIC IN THE BVI

Like the rest of the world, the BVI is turning increasingly towards mobile solutions and away from the traditional fixed line telephone. Since 2009, mobile subscribers increased by 5%.

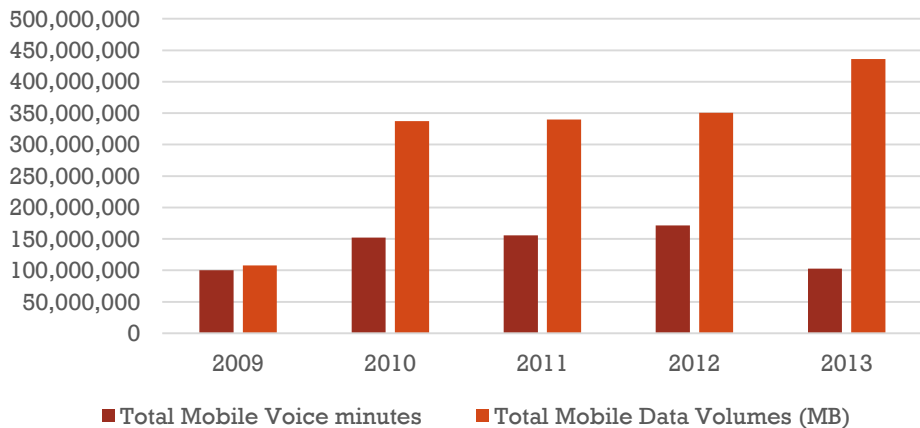
On average, mobile revenues are decreasing by 2% every year.

Declining mobile revenues comprises a reduction in mobile voice calls especially to outgoing international destinations.

Mobile voice traffic decreased in 2013 mainly driven by a 65% decrease in international calls.

Subscribers continue to have a growing reliance on mobile data services such as social media and various Apps which is in line with global trends. Mobile data volumes increased by 24% in 2013.

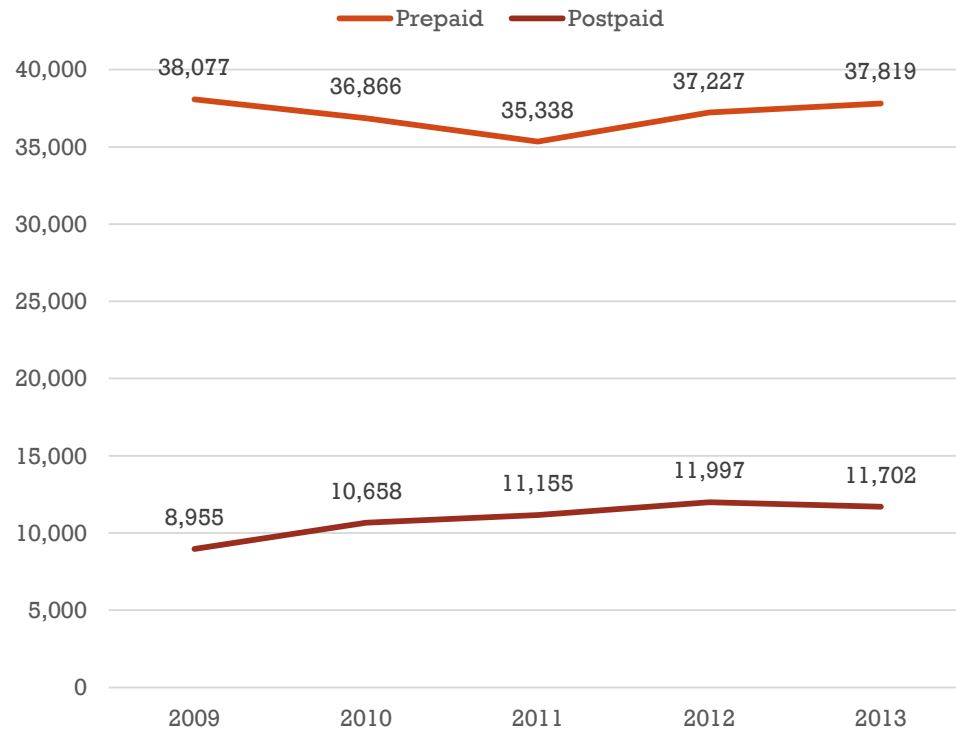
Proportion of Mobile Voice Traffic to Mobile Data Traffic



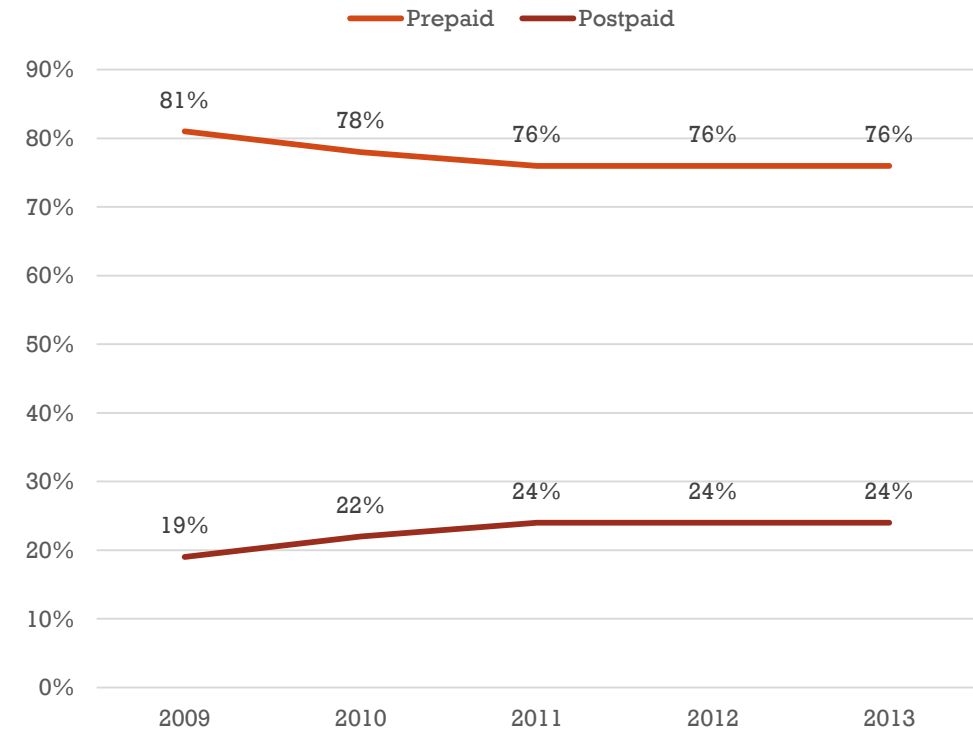
Mobile Voice Traffic (minutes)	2013
Domestic	69,908,547
International	32,672,039
Total	102,580,586

COMPARING POSTPAID SUBSCRIBERS TO PREPAID SUBSCRIBERS

Breakdown of Mobile Subscribers by Type



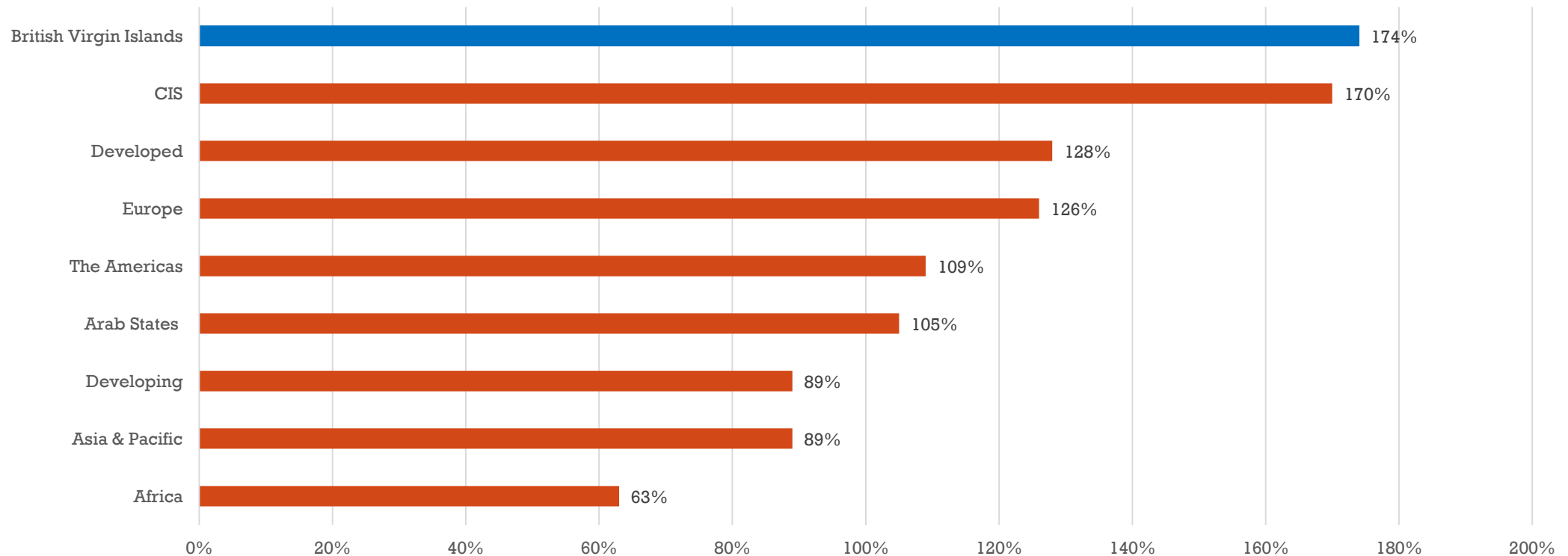
Breakdown of Mobile Subscribers by Type



Approximately 76% of BVI's mobile subscribers are on prepaid plans.

BENCHMARKING OF MOBILE PENETRATION RATES AROUND THE WORLD

Mobile Penetration in 2013 Around the World

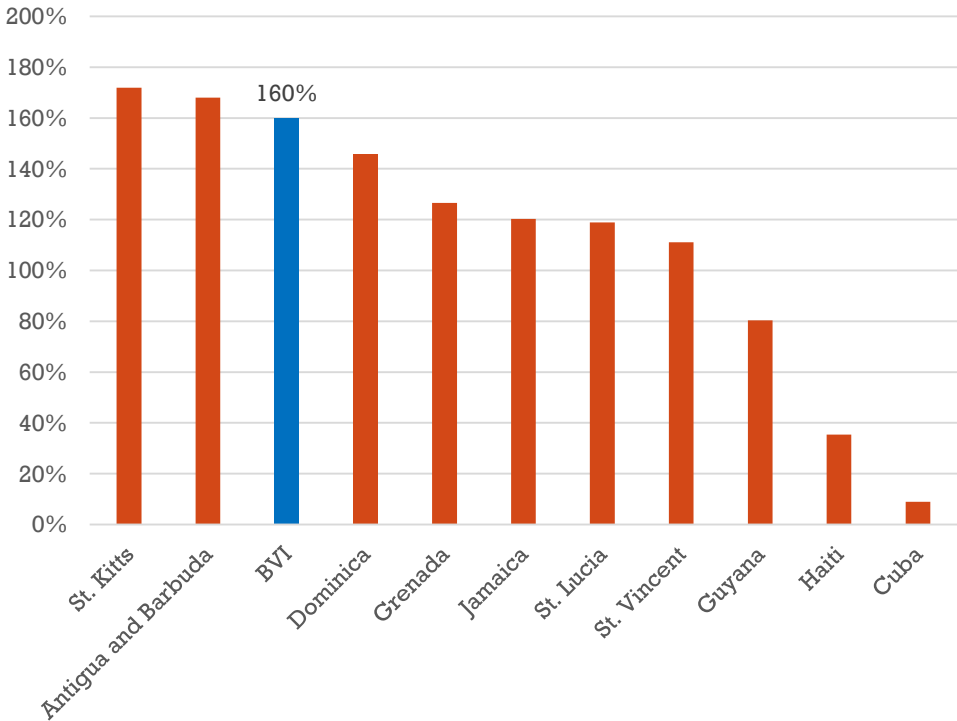


Source: ITU

The BVI's mobile penetration of 174% compares to developing nations average of 89%.

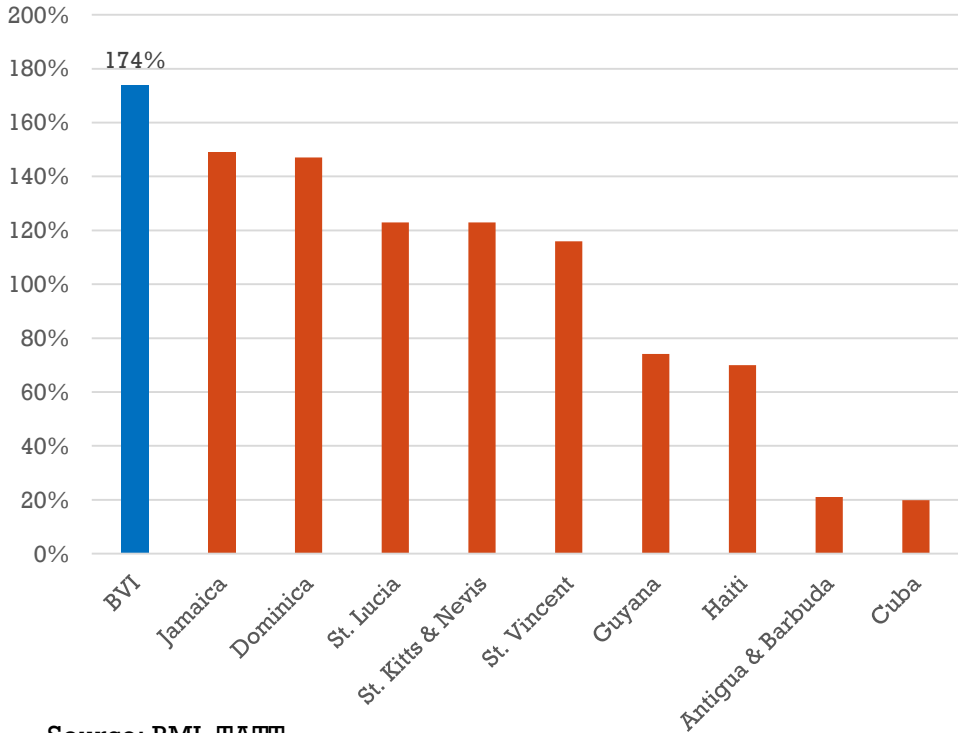
BENCHMARKING MOBILE PENETRATION RATES AROUND THE WORLD

Mobile Penetration Rate in 2010



Source: ITU

Mobile Penetration Rate in 2013

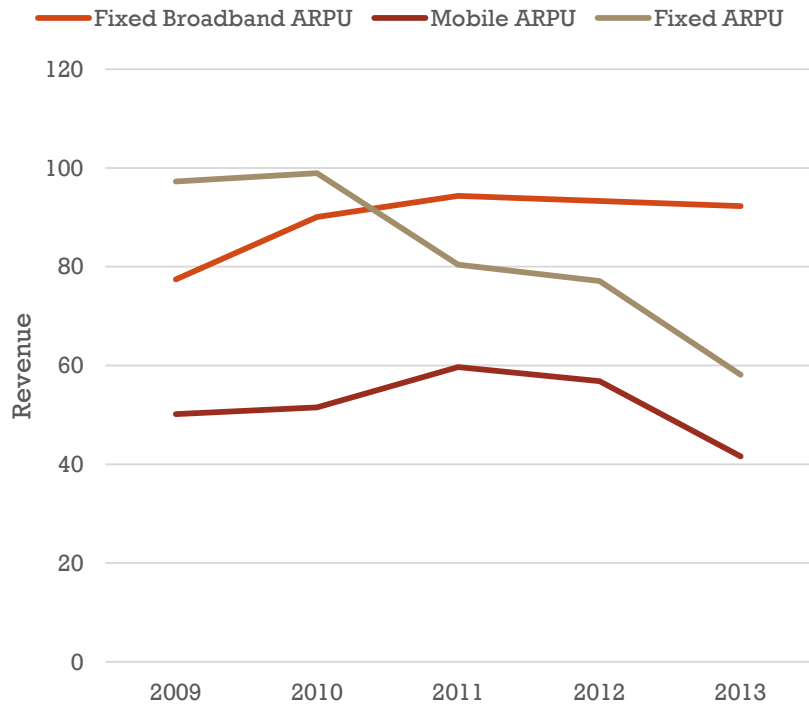


Source: BMI, TATT

The BVI has a high mobile penetration compared to similar island nations and other Caribbean islands.

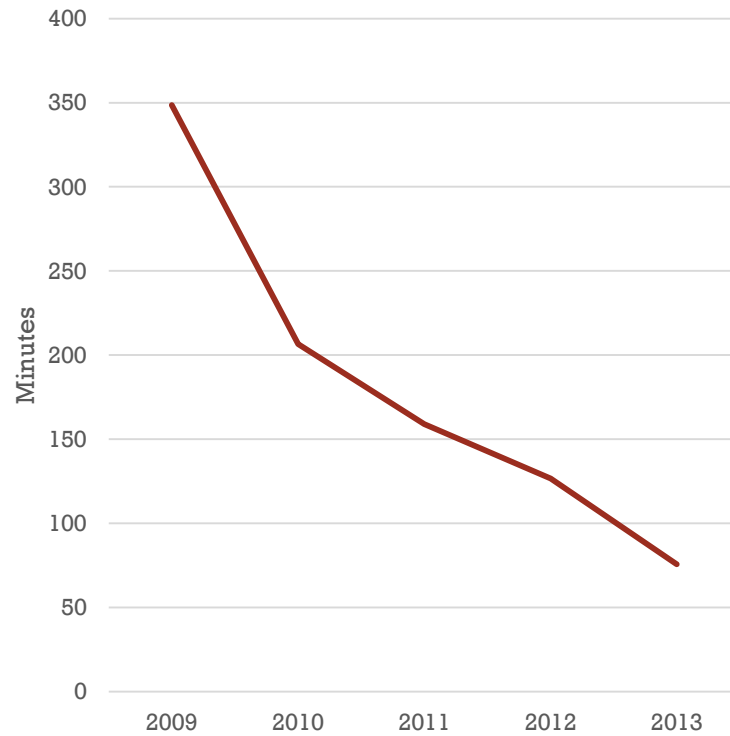
AVERAGE REVENUE PER USER (ARPU) & AVERAGE USAGE PER USER (AUPU)

Fixed, Mobile and Broadband ARPU



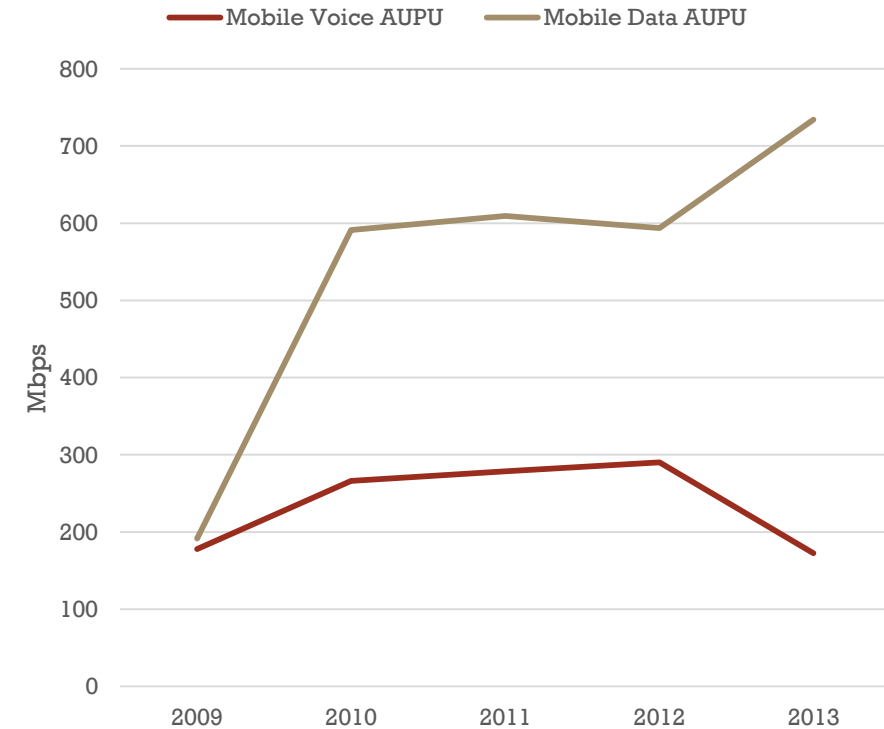
*ARPU per month in US\$

Fixed Line AUPU



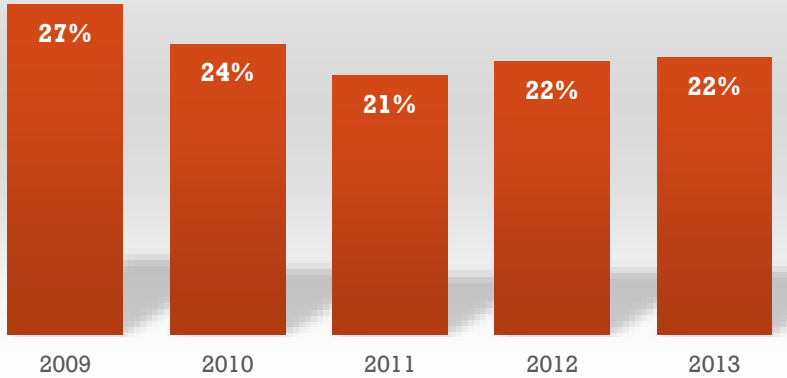
*AUPU per month in minutes

Mobile Voice and Data AUPU

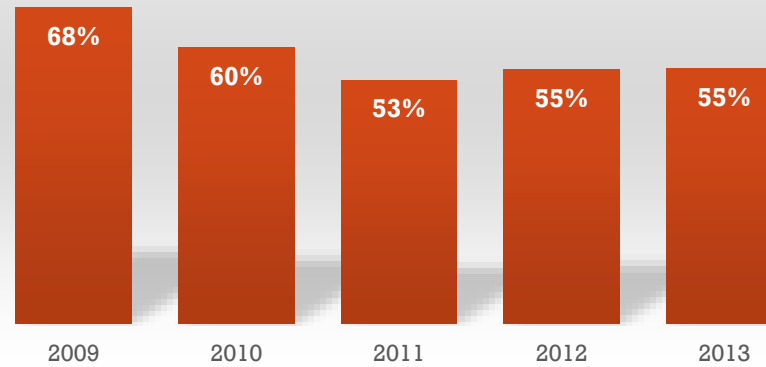


*AUPU per month in minutes

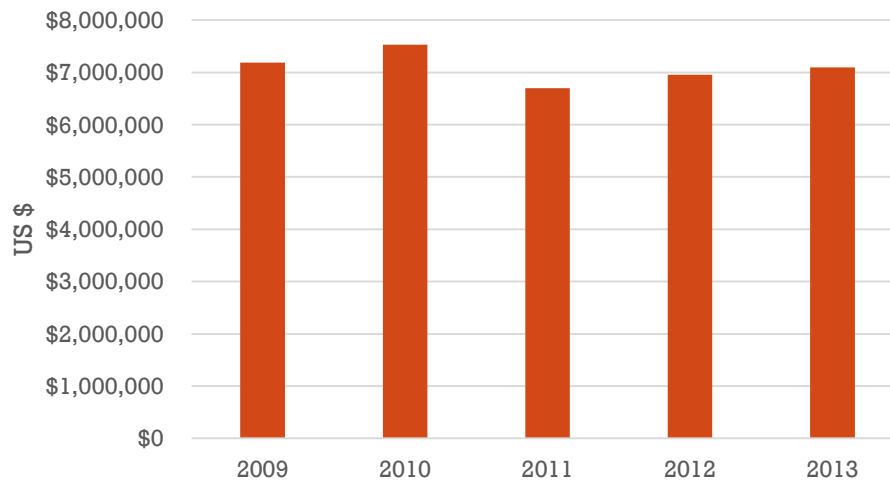
Fixed Broadband subscribers per 100 inhabitants in the BVI



Proportion of households with Fixed Broadband subscription



Fixed Broadband Revenue in the BVI



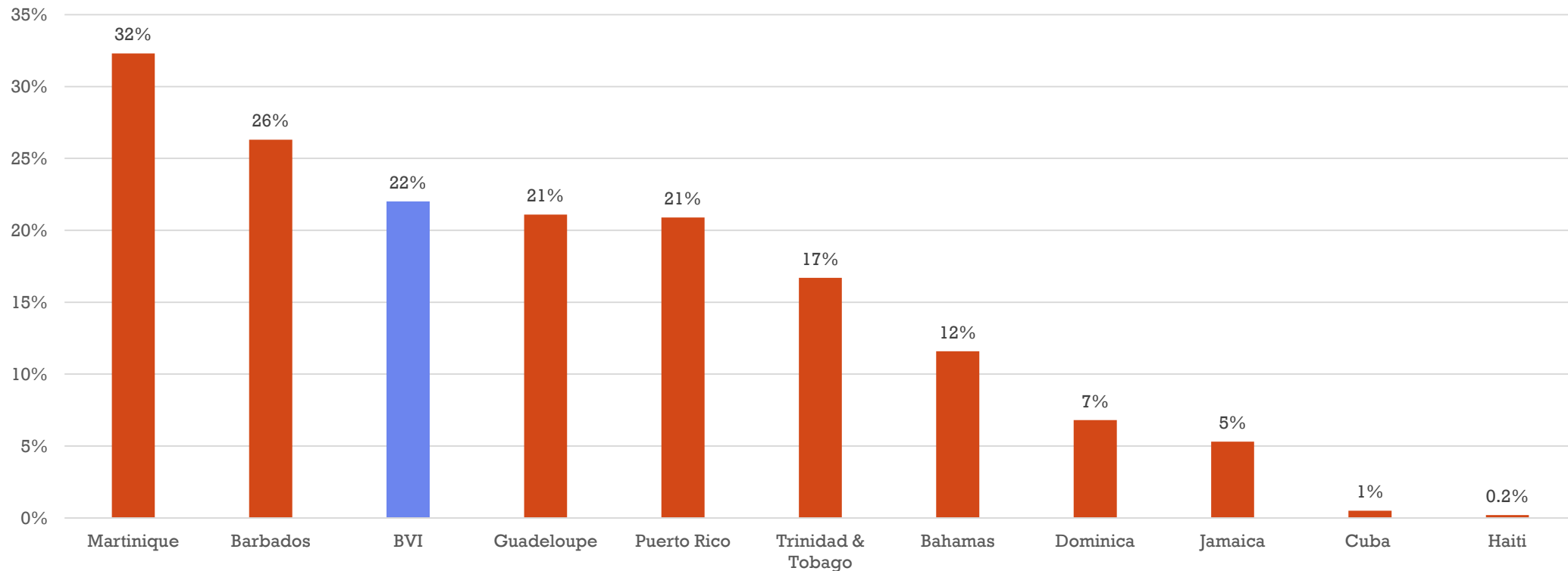
FIXED BROADBAND SUBSCRIBERS AND REVENUE IN THE BVI

The number of fixed broadband subscribers has decreased by 17% since 2009.

Number of fixed broadband subscribers are decreasing by 4% per year meanwhile revenues are stable. This implied that broadband services have remained expensive.

BENCHMARKING FIXED BROADBAND PENETRATION RATES AROUND THE CARIBBEAN

Fixed broadband Penetration in 2012

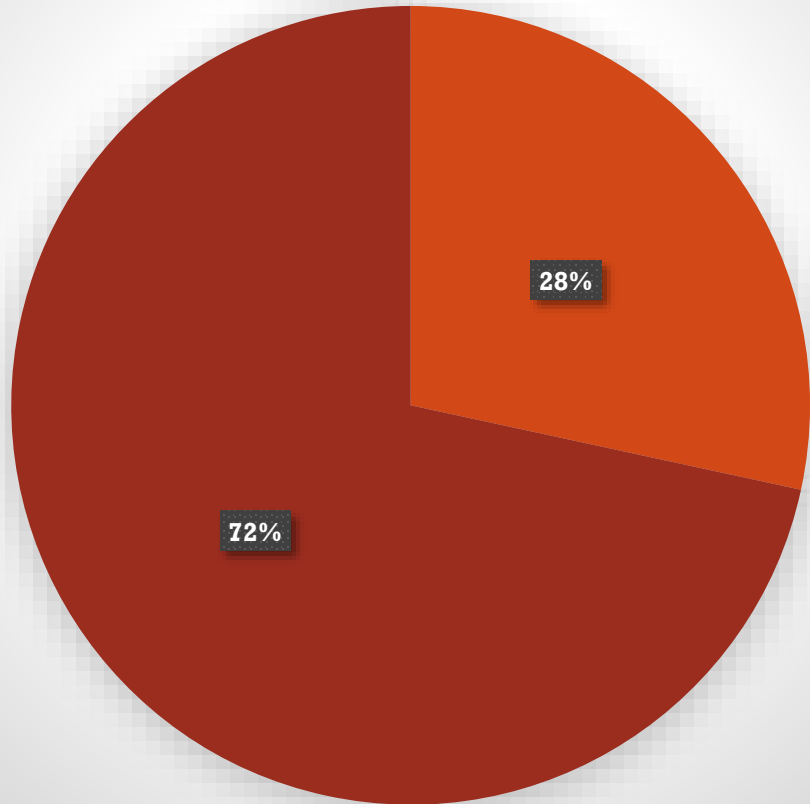


Source: ITU

The BVI has low penetration levels similarly to other Caribbean countries despite being a high income territory with high demand.

Distribution of Fixed Broadband & Mobile Broadband Subscriptions in 2013

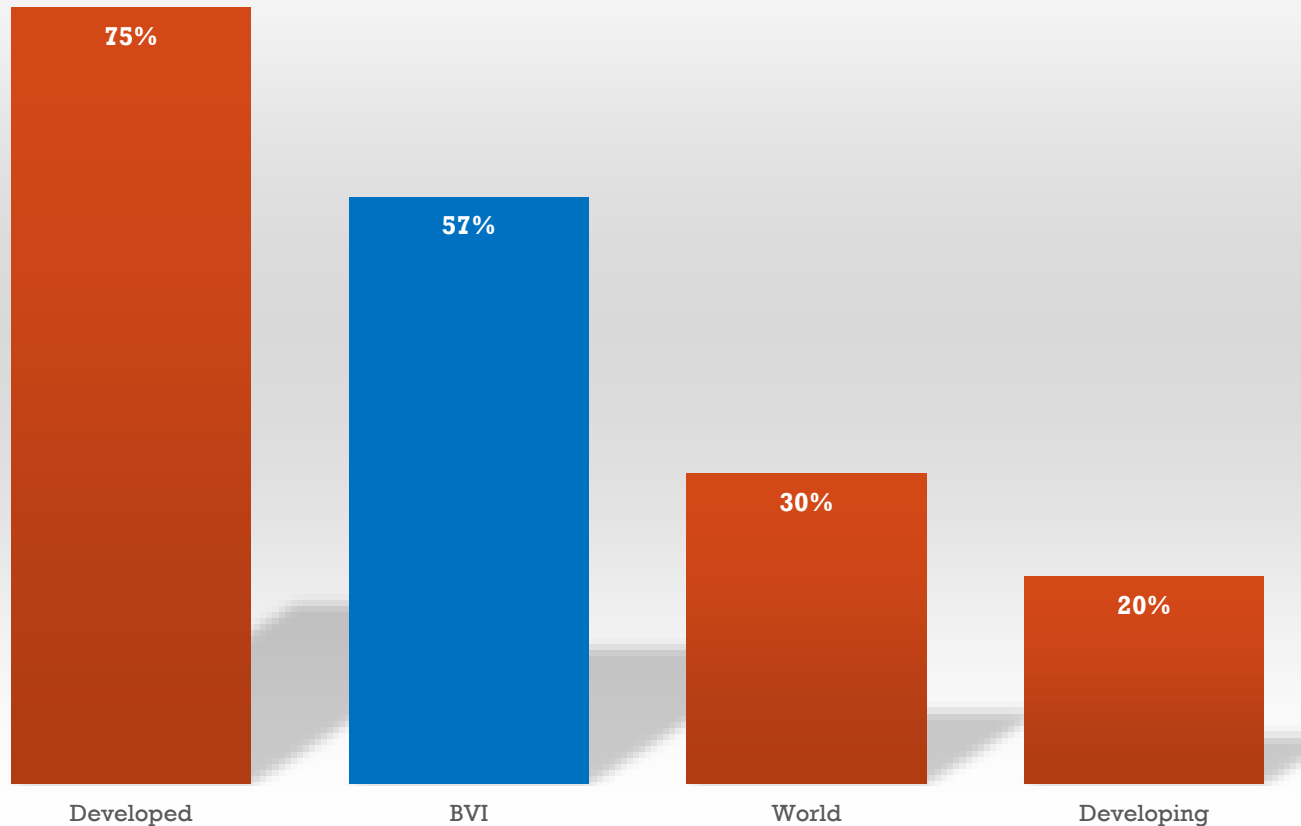
■ Fixed broadband subscribers ■ Active mobile broadband subscribers



FIXED BROADBAND VS. ACTIVE MOBILE BROADBAND SUBSCRIPTIONS

72% of total broadband users are active mobile broadband users which is line with global trend.

Active Mobile Broadband Penetration Around the World



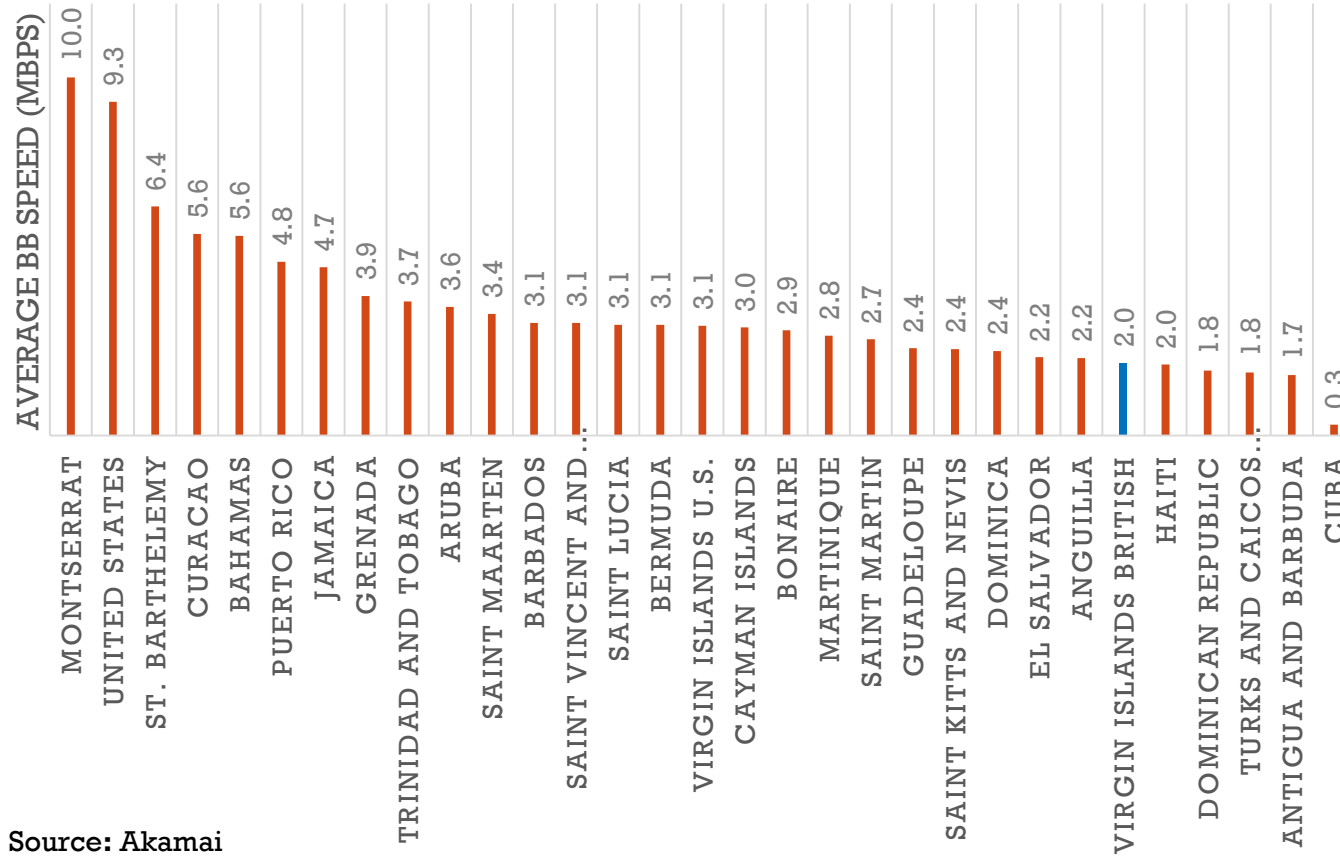
Source: ITU

ACTIVE MOBILE BROADBAND PENETRATION

The BVI's active mobile broadband* penetration rate at 57% is above the global average in 2013.

*Active mobile broadband subscriptions include active handset-based (mobile phones) and computer based (USB/dongles).

AVERAGE DOWNLOAD SPEED BY CARIBBEAN COUNTRY IN 2013



Source: Akamai

BENCHMARKING FIXED BROADBAND DOWNLOAD SPEEDS

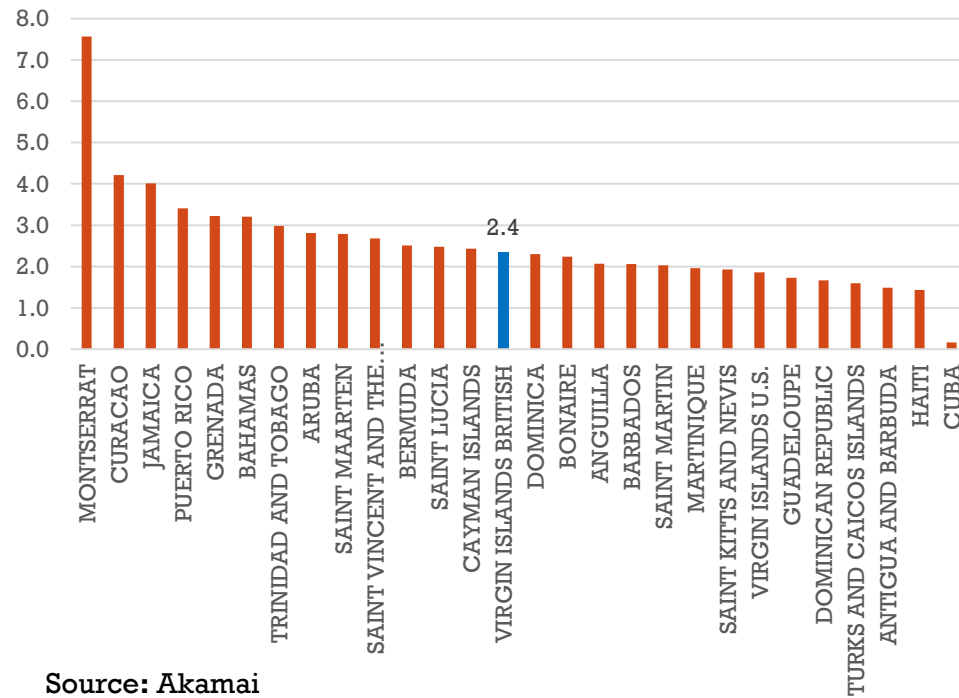
The BVI ranks very low in the average speed customers receive when compared to other Caribbean countries.

Weak competition and insufficient bandwidth characterizes fixed broadband services in the BVI compared to other Caribbean islands.

Speed isn't solely determined by the network, it is also affected by device capabilities and user behavior.

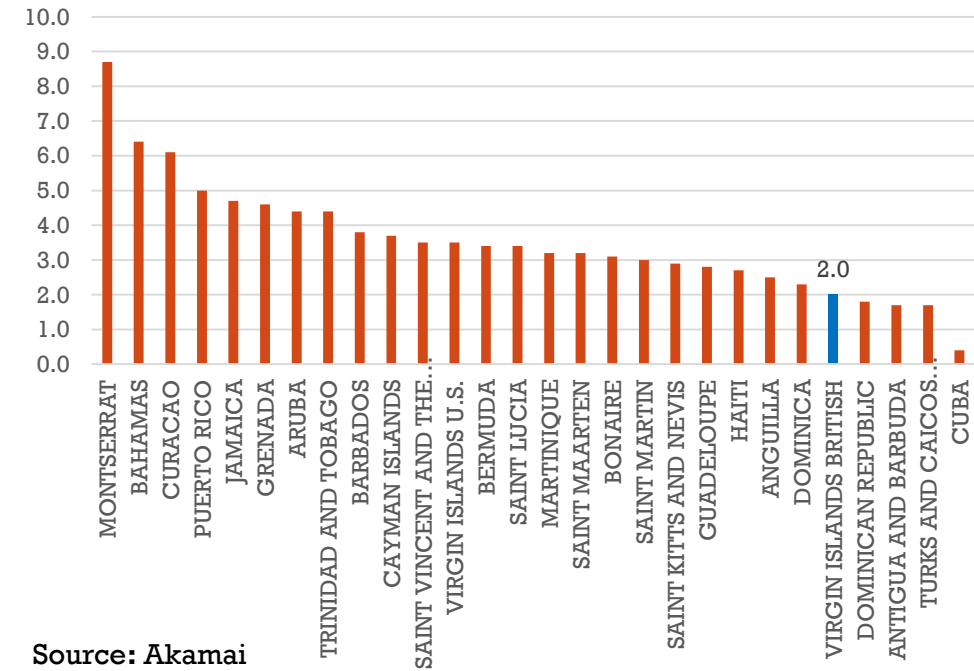
BENCHMARKING FIXED BROADBAND DOWNLOAD SPEEDS

Average Download Speed By Caribbean Country in Q4 in 2012



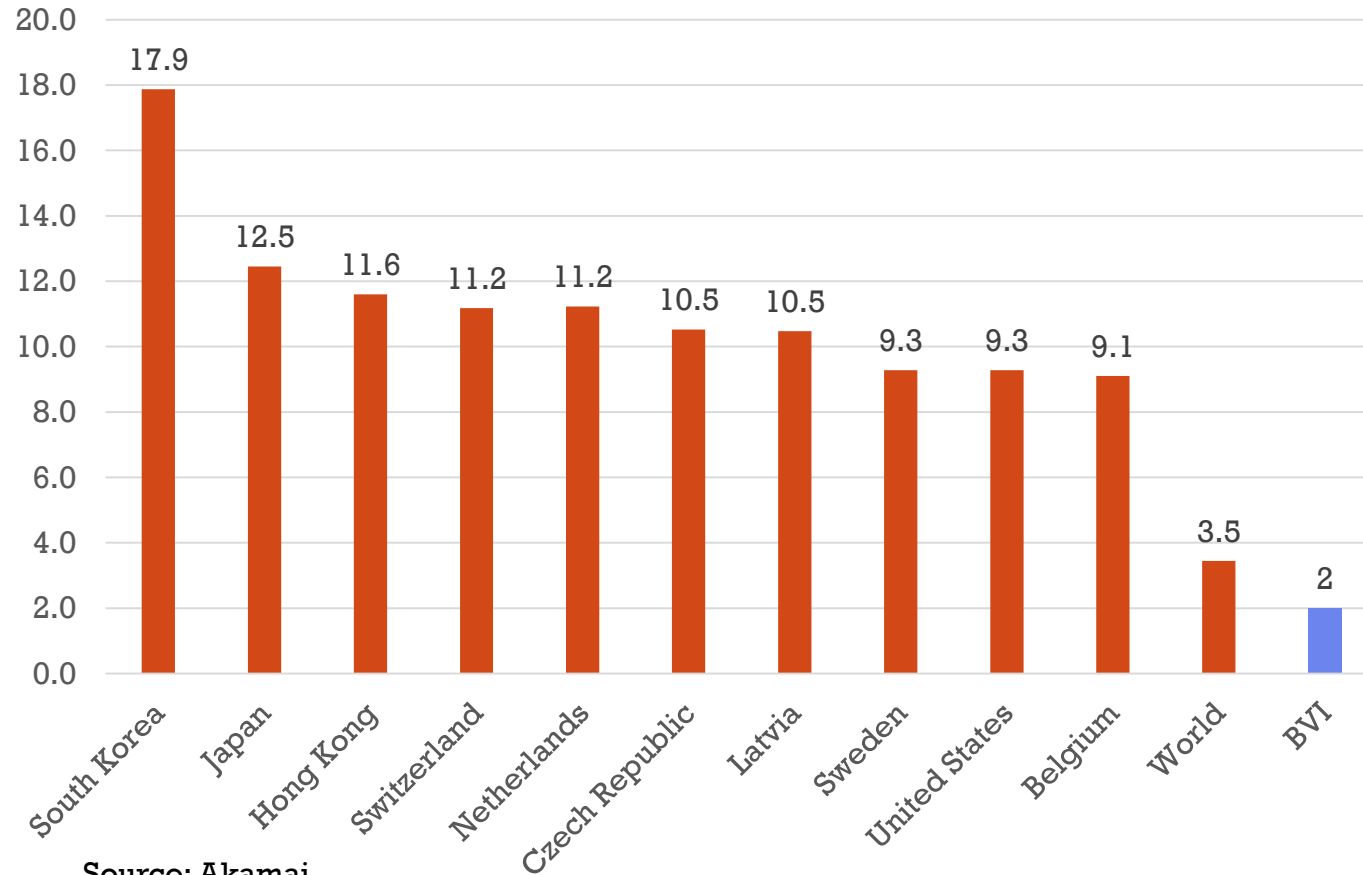
Source: Akamai

Average Download Speed By Caribbean Country in Q4 in 2013



Source: Akamai

Top 10 Countries: Average Download Speed (Mbps) vs. BVI in 2013

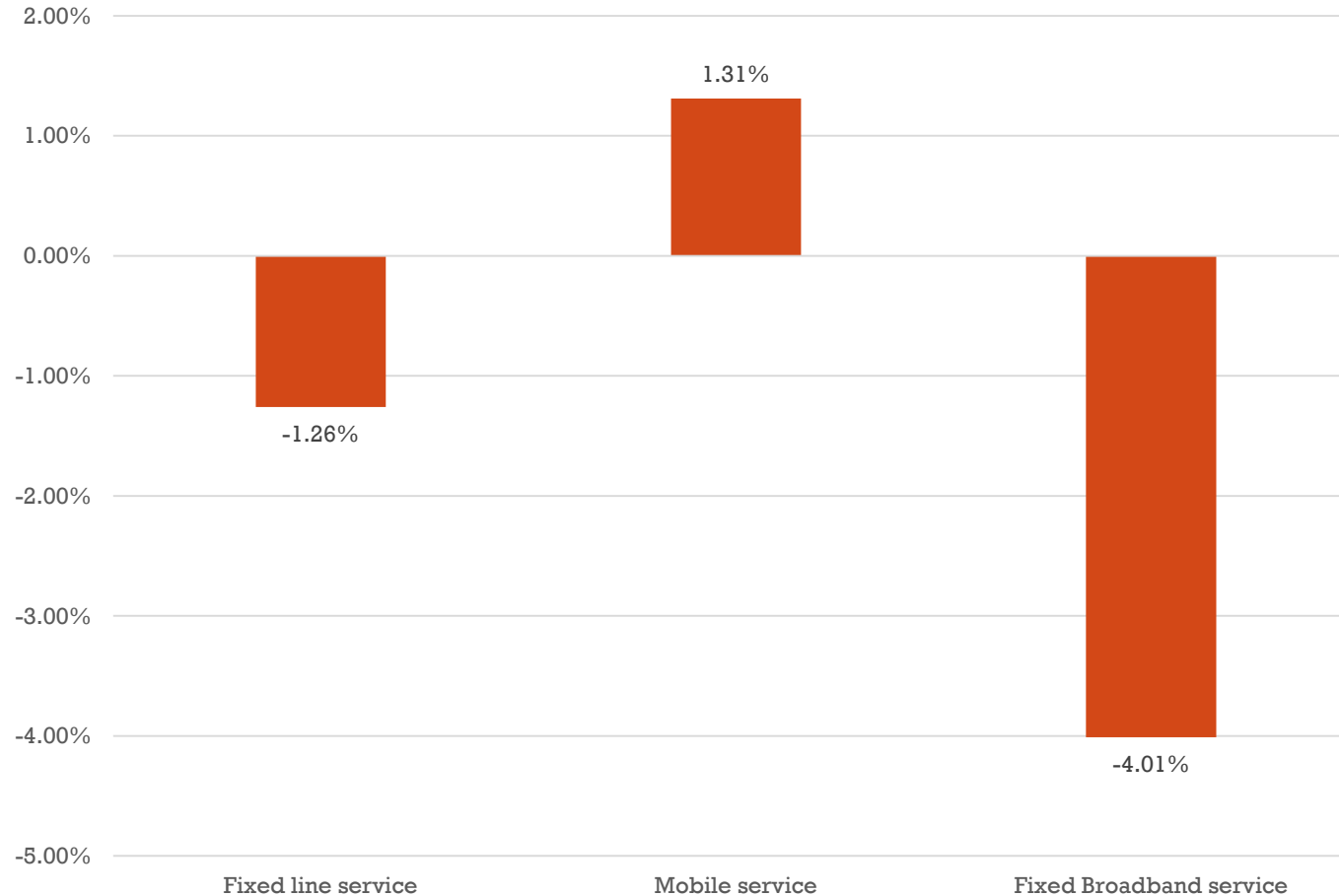


Source: Akamai

BENCHMARKING OF FIXED BROADBAND DOWNLOAD SPEEDS

There is a wide gap in the average download speed in the BVI in comparison to the most connected countries in the world

Compound Annual Growth Rate from 2009-2013 by Type of Service



COMPOUND ANNUAL GROWTH RATE (CAGR) BY TYPE OF SERVICE

Declining growth in fixed line subscriptions are in line with global trends to fixed and mobile substitution.

The CAGR growth rate in mobile subscriptions increased by 1.31% since 2009.

Lack of growth in fixed broadband for the BVI is a concern based on quality of service and reliability.

Promoting the fixed broadband speeds to comparable levels as in Montserrat and to the most connected countries in the world is a priority. The developments of fiber is essential for the BVI to stay competitive.

CONCLUSION

On average, fixed line voice traffic is falling by 32% every year as fixed penetration continues to fall in line with global trend in fixed to mobile substitution.

Mobile telephony has become an integral part of everyday life as customers move away from traditional fixed line voice service and grow accustomed to accessing mobile data typically on more than one SIM card.

The marriage of mobile and internet via mobile broadband allows users to access data on the move and no longer be physically constrained by location. In 2013, mobile broadband penetration at 57% was higher than the global average. Forecasts are expected to increase in line with global trends.

Particularly in 2013, mobile data increased by 24% and mobile voice traffic declined by 40%, which is driven by a decline in outgoing international calls. Strong mobile data usage forecasts signal greater demand for LTE.

A key concern for the BVI is decline in fixed broadband services from 2009-2013, high revenues and the low bandwidth speed available. Regulatory intervention may be required to be on par with the rest of the world.

Mobile Voice and Data AUPU

