



Pacific Radio Communication Workshop (PRW-18)

4 – 6 September 2018

Heritage Park Hotel, Honiara, Solomon Islands

CASE STUDY –Solomon Islands

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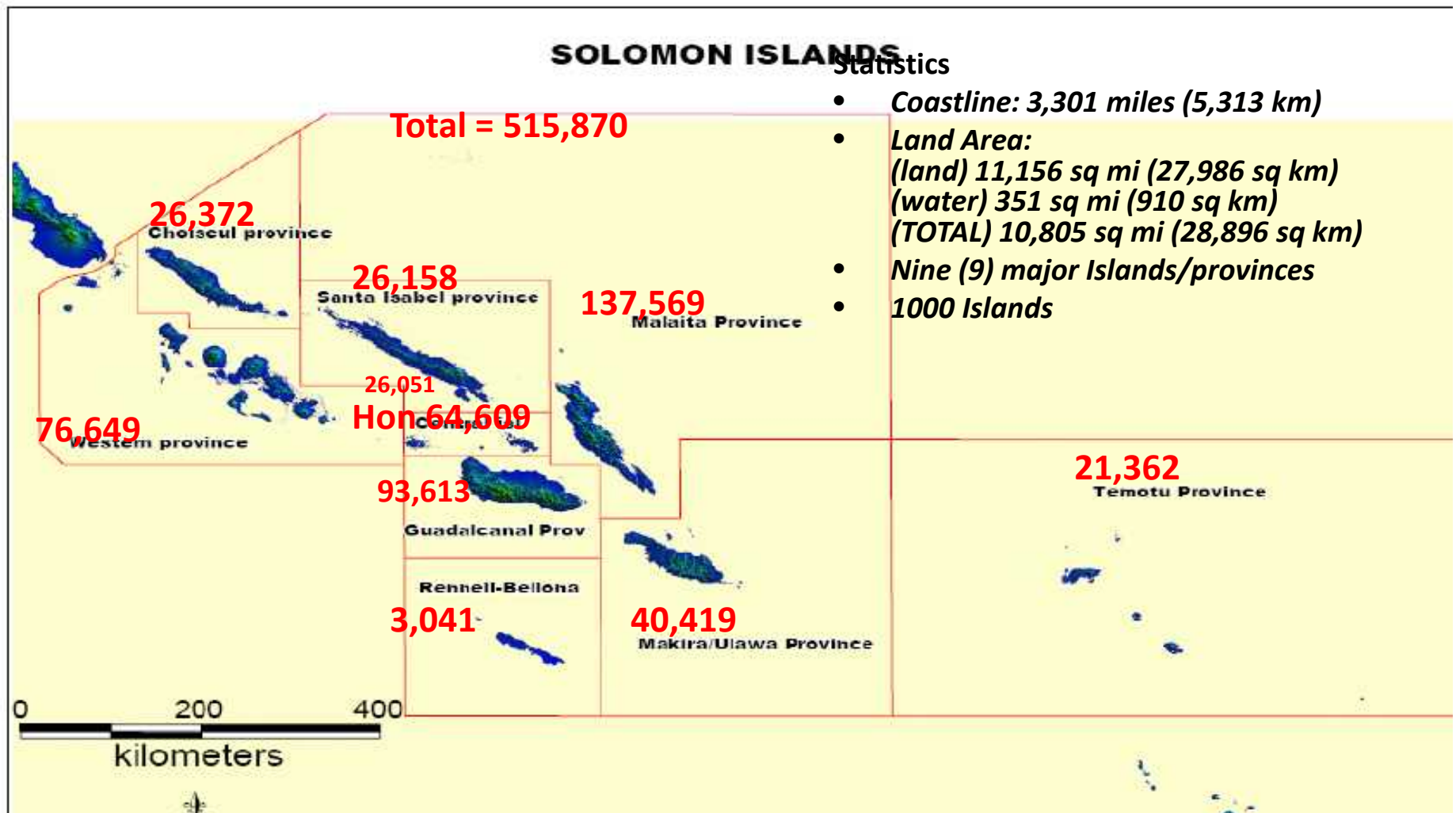
Telecommunications Commission Solomon Islands

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Background Information (National census 2009)

Map Of Solomon Islands



Telecommunication Sector Overview

- **Market and Competition**

- Competitive & Liberalised Market
- Established 2009 (Telecommunication Act 2009)
- Sector Regulator (Telecommunications Commission Solomon Islands – Office established May 2010)
- Policy Objective *“Availability, affordability quality of service and kinds of telecommunications services in Solomon Islands.”*

- **Network Operators and Service Providers**

- Solomon Telekom Company Limited (Fixed, Mobile Network, ISP, DTTB)
- Bmobile –Vodafone Solomon Islands Limited (Mobile Network)
- Satsol Limited (ISP & DTTB)

Sector Investment Information

- Sector Investment since 2010 approximately SBD2b (USD 250m)
- 2.5% growth 2017
- 3.0% of GDP 2017
- Total Sector Revenue SBD368.8m (USD 46.1m) 2017
- ARPU SBD 809 (USD 100)

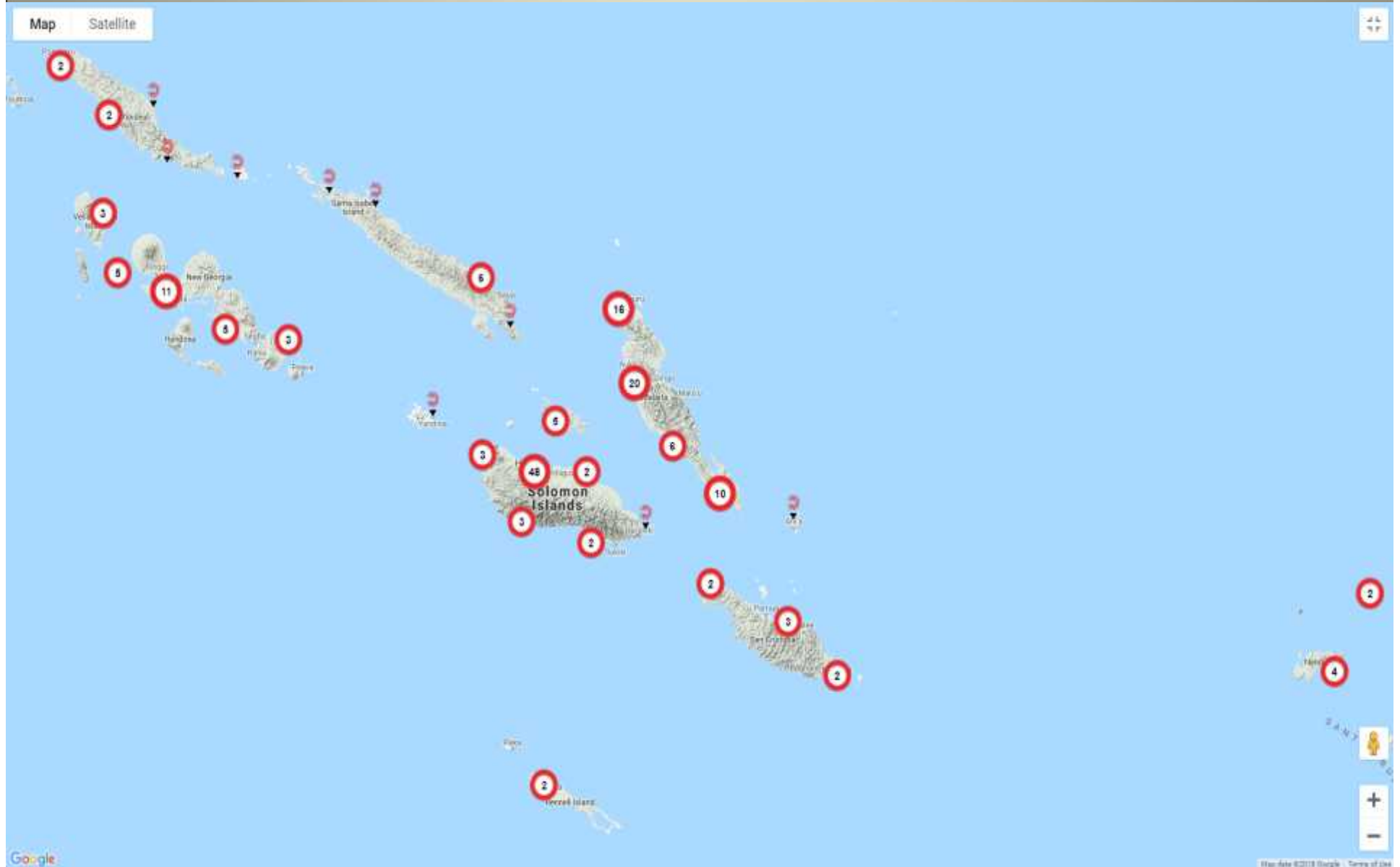
Detail Information: www.tcsi.org.sb

Market Performance Indicators

Market Progress Indicators

Indicator
Mobile Subscribers
Mobile Penetration (Calculated)
Mobile Coverage (Calculated)
Fixed Lines
Internet Subscriber:
Mobile (3G)
Wireless
ADSL
DSL
Internet Penetration:
Mobile (Broadband)
Fixed Line (ADSL)
Internet Providers (Active)

Mobile Infrastructure Build Distribution



Spectrum Information

- Telecommunication Act 2009: Part 7 **Section 53 (2)** Management of Spectrum

“ No Person may use radio frequencies, including transmitting and receiving radio communications, in a manner that is inconsistent with or in violation of any determination, order, regulation or direction”

Frequency Allocation, Assignments

- Solomon Islands National Radio Spectrum Plan: Consultation document release Dec. 2015
- Allocation Mobile Spectrum - Commercial
 - 700 MHz (4G LTE) Adopt APT Standard
 - 850 MHz (UMTS)
 - 900 MHz (GSM/UMTS/4G LTE)
 - 1800 MHz (GSM/UMTS/4G LTE)
 - 2100 MHz (UMTS/4G LTE)
 - 2300 MHz (4G LTE)
 - 2500 MHz (4G LTE)

Frequency Assignment

- Assigned Mobile Spectrum - Commercial
 - 700 MHz (4G LTE) Fully Assigned 3 x 15 MHz, not Utilized
 - 850 MHz (UMTS) Fully Assigned, To be Reviewed
 - 900 MHz (GSM/UMTS/4G LTE) Fully Assigned & Utilized
 - 1800 MHz (GSM/UMTS/4G LTE) Assigned & Utilized, Capacity available
 - 2100 MHz (UMTS/4G LTE) Assigned, Not Utilized, Capacity Available
 - 2300 MHz (4G LTE) Assigned, Not Utilized, Capacity Available
 - 2500 MHz (4G LTE) Assigned, Not Utilized, Capacity Available

Fixed PTP Frequency Allocations

ITU-R Standard Channel Arrangement

- F.1099 -4

High Capacity Fixed Wireless Systems operating in the upper 4 GHz spectrum band (4.4 – 5GHz) with a 28MHz & 40MHz channelling arrangements

- F.383-8

High Capacity Fixed Wireless Systems operating in the lower 6GHz spectrum band (5.925 – 6.425 GHz) with a 29.65 MHz channelling arrangement

- F.384-11

High Capacity Fixed Wireless Systems Operating in the upper 6GHz spectrum band (6.425-7.125GHz) with a 40MHz channelling arrangement

Fixed PTP

- **F.385-9**

High Capacity Fixed Wireless Systems operating in the 7GHz spectrum band (7.11 – 7.9 GHz) with a 28MHz channelling arrangement

- **F.386-8**

High Capacity Fixed Wireless Systems Operating in the 8GHz spectrum band (7.725 – 8.5 GHz) with a 28 MHz channelling arrangement

- **F.387 -10**

High Capacity Fixed Wireless Systems Operating in the 11 GHz spectrum band (10.7 – 11.7GHz) with a 40MHz channelling arrangement

Fixed PTP

- **F.497 - 7**

High Capacity Fixed Wireless Systems operating in the 13 GHz spectrum band (12.75 – 13.25 GHz) with a 28MHz channelling arrangement

- **F.636 - 3**

High Capacity Fixed Wireless Systems operating in the 15GHz spectrum band (14.4 – 15 .35 GHz) with a 28MHz channelling arrangement

- **F.595 - 10**

High Capacity Fixed Wireless Systems operating in the 18GHz spectrum band (17.7 – 19. 7 GHz) with a 27.8 MHz channelling arrangements

802.11 (a/b/g/n/ac) Standard (ISM/Short ranges)

- 902 – 928 MHz (GSM Band)
 - 2.4 – 2483.5 GHz
 - 5.15 - 5.25 GHz (Indoor use only)
 - 5.25 - 5.35 GHz (RLAN)
 - 5.75 - 5.85 GHz
- Equipment Policy emphasis on DFS (Dynamic Frequency Selection)

Maritime and PPDR Information

- 250 Maritime Registered Vessels Solomon Waters
- HF Radio Communication major form of radio communication
- Parliament passed Maritime Bill September 2018 (establishment of Maritime Authority)
- Recent trend high losses of lives at high seas compared to other natural disasters

PPDR

- **Asia Pacific Region 3, Spectrum bands identified:**

406 – 430MHz

440-470MHz

806 – 824MHz paired 851 -869 MHz;

4940 – 4990MHz

5850 – 5925MHz

380 – 400MHz

746 – 806MHz

Challenges

- **Disperse Population (Isolation & Remoteness)**
Investment
- **Power Issue in Rural Communities**
- **Satellite BW Costs/Mbps Domestic (still high)**
- **Satellite Technology Innovation (High Throughput ,
Lower Cost and Efficient)**
- **Achieve Sustainable Operation**

Way Forward

- **Continue to Provide Conducive Environment for Investment (Incentive & Confidence)**
- **Satellite Innovated Rural Solution (Technology & Infrastructure build)**
- **Relevant Economical Model (Scale & Scope)**
- **Adopt Collaborative Cross Functional Regulatory Approach (Sectors)**