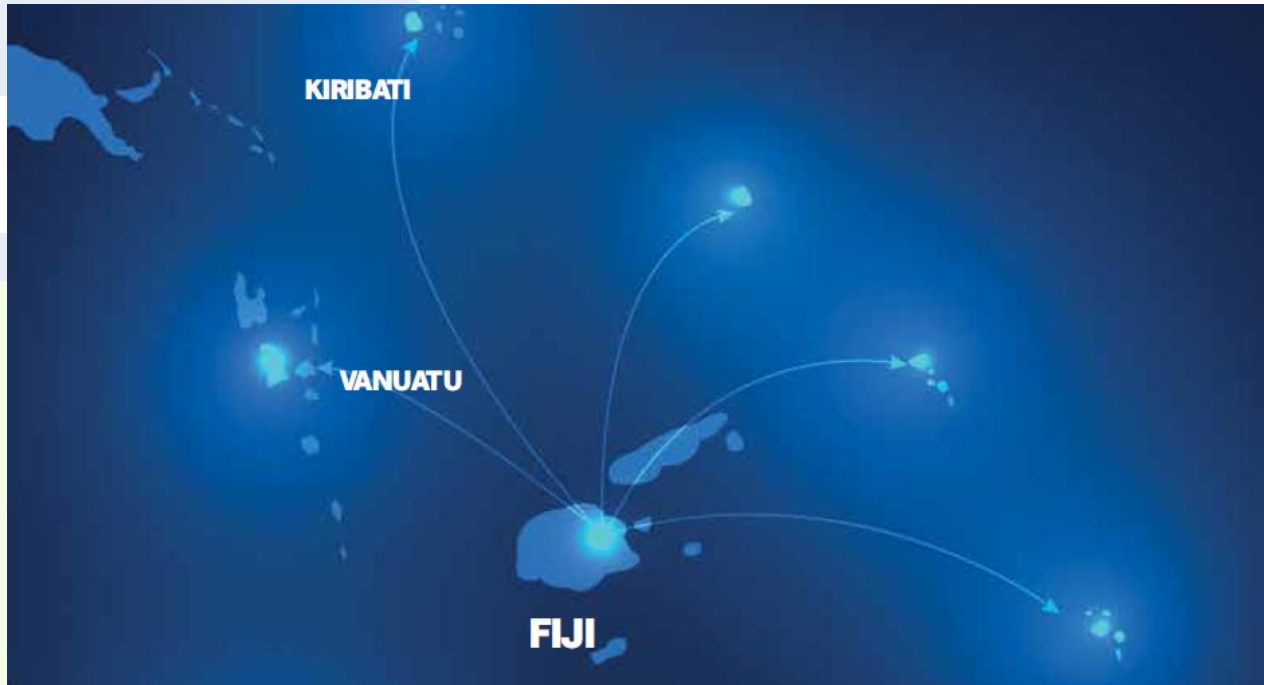




Australian Government

Department of Communications and the Arts

# BULA



**“Enhancing access to submarine cables for Pacific Islands Countries”**



# THE HUB OF THE PACIFIC

## PREREQUISITES



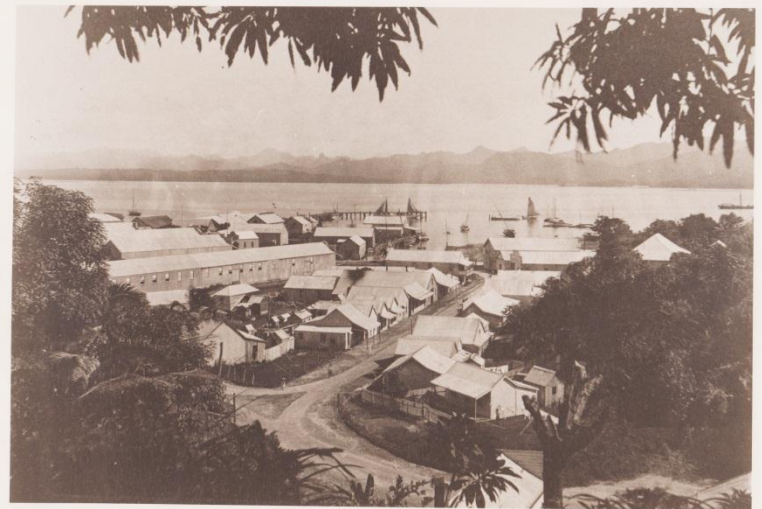
**TRANS-ATLANTIC TELEGRAPH CABLE - 1902**



**CABLE OFFICE – VICTORIA PARADE - 1902**



**CABLE SHORE END LANDING - 1902**



**SUVA HARBOUR - 1902**



# COMPAC & ANZCAN CABLE SYSTEMS – 1962/82



# Bandwidth – is key



Connectivity

Mobility

Bandwidth

Voice / TDM

Data / IP

10G used to be with Carriers – but now moving to buyers (Enterprises)

# CABLES ARE CRITICAL INFRASTRUCTURE

## 90% COMMS ARE CARRIED ON SUBMARINE CABLES



**TO INCREASE CONNECTIVITY**  
for users' access to content

**TO MEET GROWING TRAFFIC DEMANDS**  
Internet Annual Growth >60% 2010-2016 (\*)

**TO INCREASE CABLE ROUTE DIVERSITY**  
to ensure always-on connectivity

**TO BUILD "OWN" INFRASTRUCTURE**  
to be independent from service providers

\*Source: TeleGeography

## MARKET DRIVERS

### INTERNATIONAL TRAFFIC GROWTH

Web applications  
OTT video content  
P2P file transfers

# Internet

"Experience now"  
~ 80% of traffic  
Estimated CAGR ~50%\*

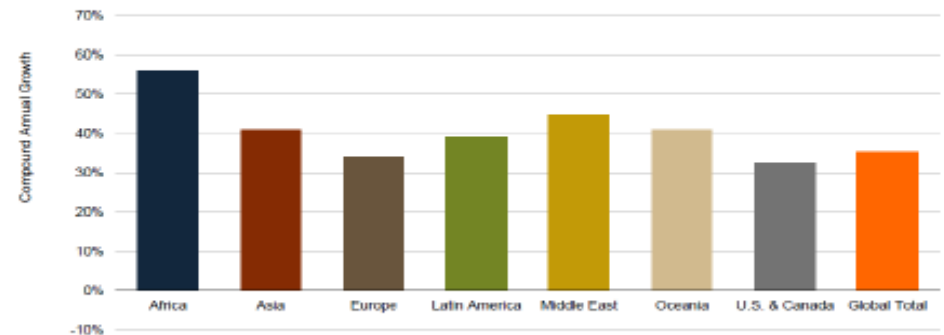
Feeding  
Enterprise and IT  
networks  
**Private Networks**  
Dedicated CDNs  
~ 20% traffic  
CAGR ~45%\*

Voice  
~1%

\*Source TeleGeography 2011

## USED INTERNATIONAL BANDWIDTH

### THE **BIG** PICTURE 2011-2018



Source: TeleGeography

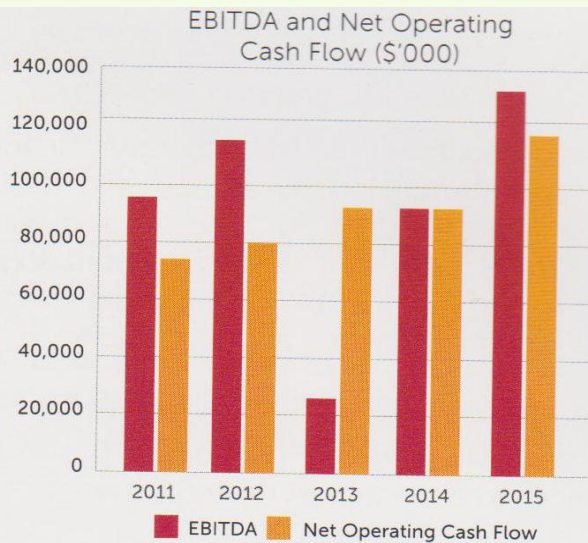
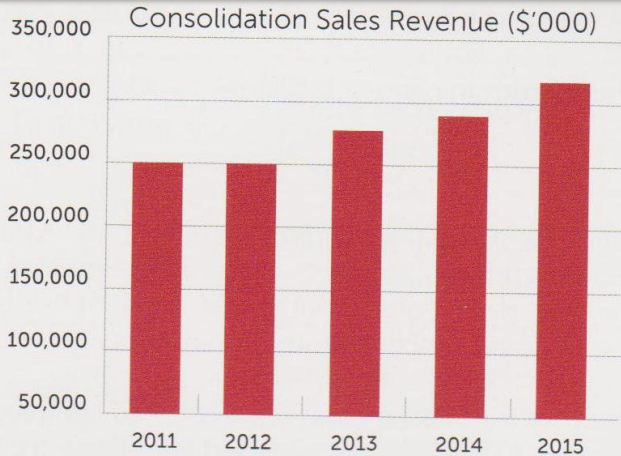


2000

USD\$30M Investment



<https://announcements.spse.com.fj/ftp/news/021726431.PDF>



**Major Shares:**  
 Government - 17.3 %  
 FNPF - 72.6%.

Telecom Fiji Limited - 100%  
 ATH

Fiji Directories Limited - 100% ATH.

Fiji International Telecommunications Limited (FINTEL) - 100% ATH

Vodafone - ATH (51%) and FNPF (49%)

Datec Fiji & Australia – subsidiary of VFL

Telecommunications Service Kiribati Limited – ATH (100%)

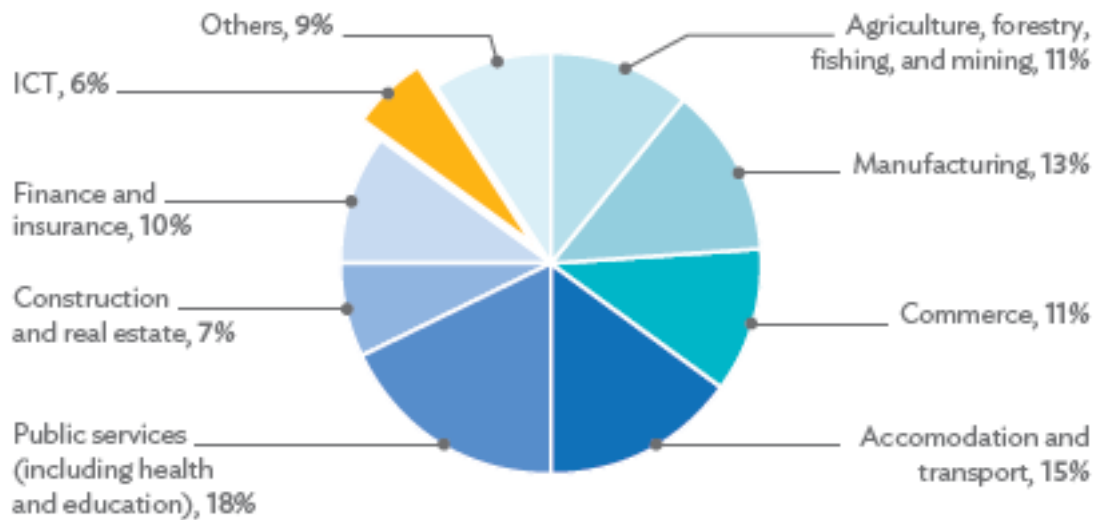
Telecom Vanuatu – 100% ATH

BlueSky Samoa – 100% ATH



Pop: 900,000  
Per Capita GNI: \$4,830 (2015)  
ICT Sector: 6% (2015)

**Figure 1: Structure of the Fiji Economy, 2015**

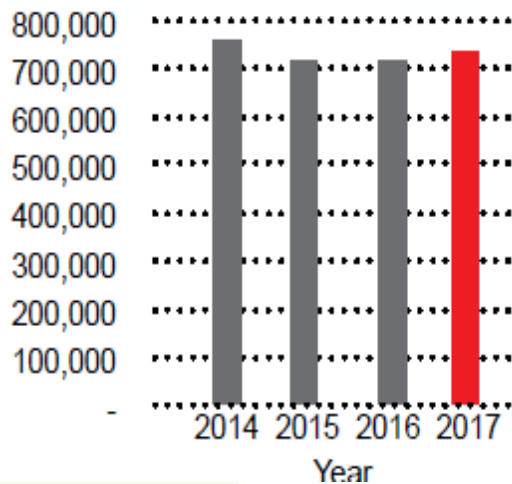


ICT = information and communication technology.  
Source: Fiji Bureau of Statistics.

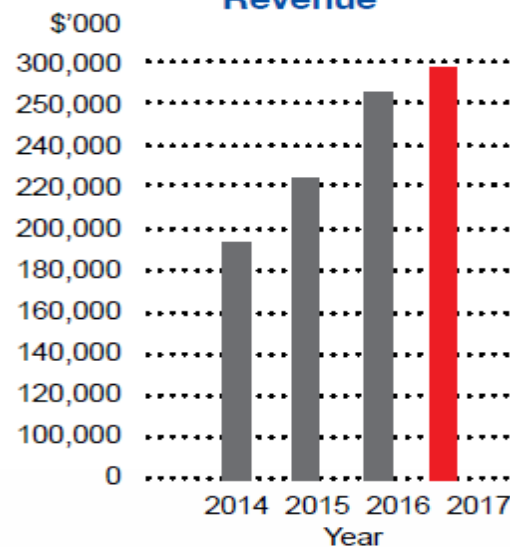
**Country Wide Report : 2016**

1 : Fixed telephone subscription per 100 population	17.87
2 : <b>Mobile - cellular telephone subscription per 100 population</b>	<b>112.67</b>
3 : Fixed (Wired) - broadband subscriptions per 100 population	1.53
4 : Wireless - broadband subscriptions per 100 population	6.07
5 : <b>Active mobile - broadband subscription per 100 population</b>	<b>140.35</b>
6 : International internet bandwidth, in Mbit/s per 100	1.33

**Mobile Connections**

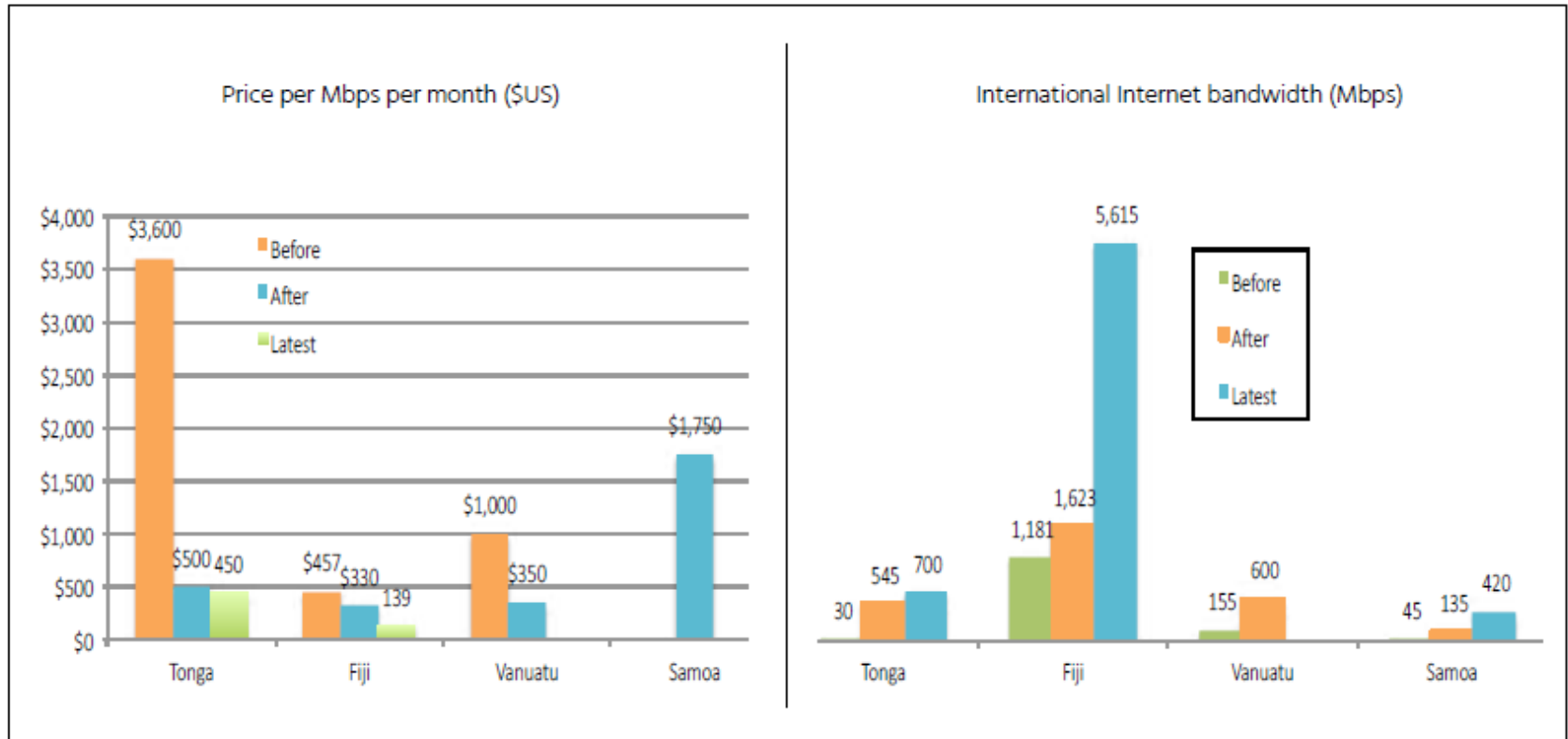


**Revenue**



# REGULATIONS

## 2010 – SMP – GLIDE PATH – 63/83% (AUS/US) DECREASE



**Figure 5.6. IP Transit Costs and International Bandwidth in South Pacific SIDS following the Launch of a Submarine Cable or Price Regulation**  
 (Source: World Bank, PRIF)

Note: In the left chart, data for Tonga refer to price of wholesale capacity link, data for Fiji to the regulated price of IP transit, for Vanuatu to the estimated price of IP transit and for Samoa to the price of international bandwidth on the ASH cable.

# Trans-Pacific Cables and Their Response to the Web-Scale Effect

## The Internet of Things (IoT)

2014 - 12.5 billion devices

2020 - *there will be 50 billion devices or seven for every human*

## Cloud Services

2011 - 7 percent of consumer content was stored in the cloud.

2016 - *it will be 35 percent.*

## Mobile Traffic – 5G

Smartphone generated traffic will grow to about eight times current levels by 2020 , and by that time *55 percent of mobile traffic will be video content*



REGIONAL CABLES – 2016/17

PACIFIC TELECOMMUNICATIONS HUB



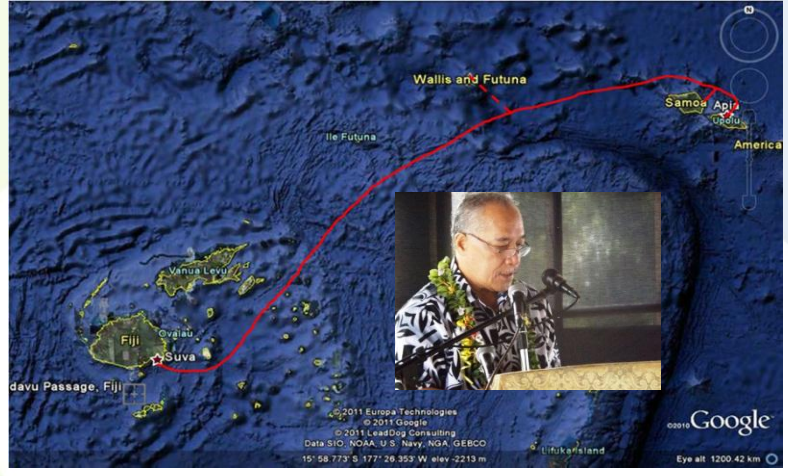
- Office locations**
- Wellington
  - Sydney
  - Auckland
  - Bermuda



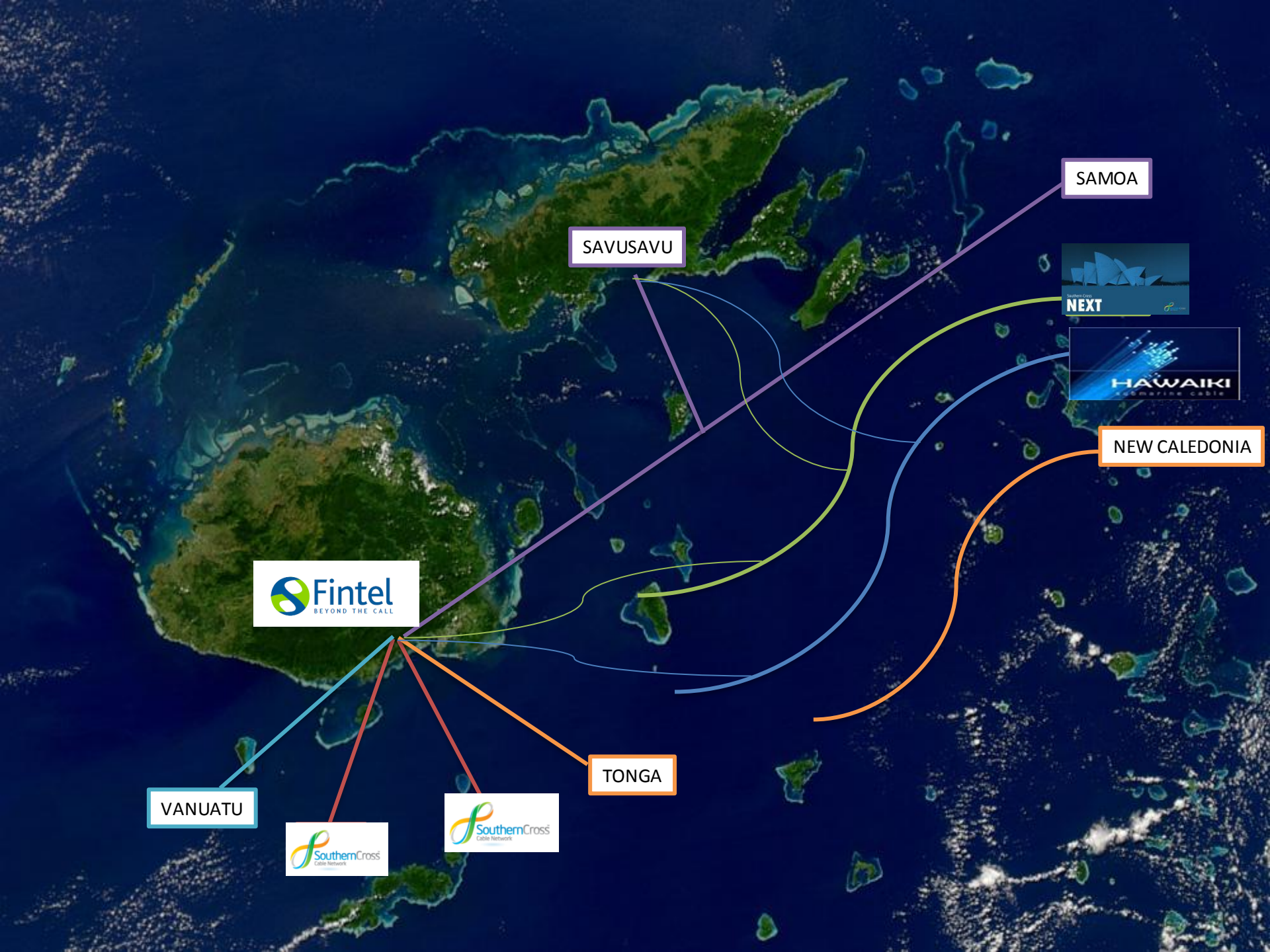
**FIJI-VANUATU  
USD\$40M**



**FIJI-SAMOA  
USD\$49M  
(Savusavu)**



**FIJI-TONGA  
USD\$35M**



SAMOA

SAVUSAVU



NEW CALEDONIA

TONGA

VANUATU



SITES FROM SURVEY – SAVUSAVU



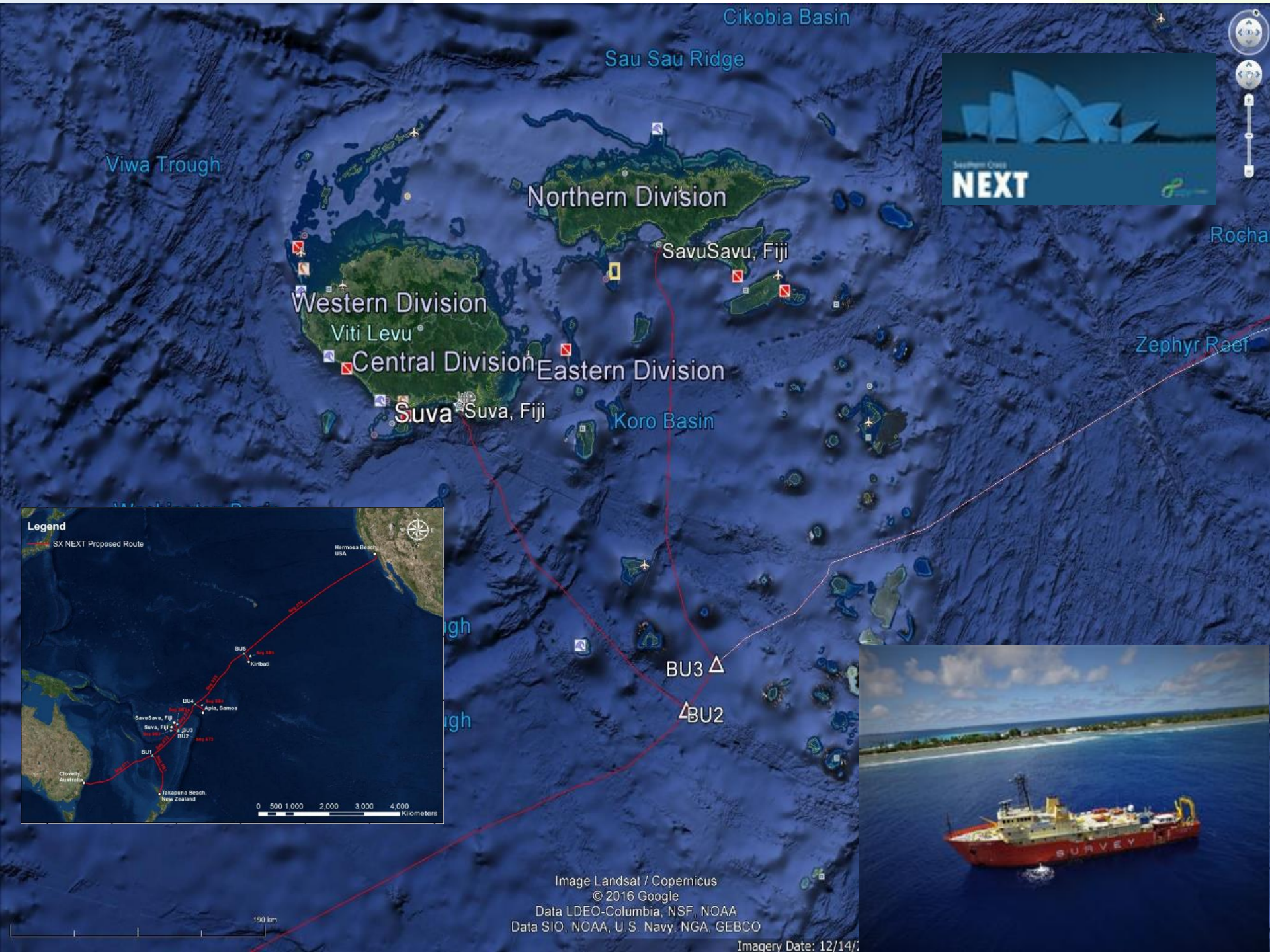


Image Landsat / Copernicus  
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 Data SIO, NOAA, U.S. Navy, NGA, GEBCO

Imagery Date: 12/14/16



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