# The critical importance of technology for remote communications

2024 Papua New Guinea Investment Week

Hamish Lee: VP Enterprise & Government AUSPAC



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### **World-Leading Remote Communications Service Provider**

**Comprehensive Global Network** 

40 Gbps

**GEO Network Capacity** 

AUTHORIZED INTELSAT.

STARLINK OneWeb INTELSAT.



Globalstar ···:. iridium

inmarsat

Newtec < iDIRECT 036



Cruise &

**Maritime** 

**Innovative Technologies** 

Virtualisation



Cloud



SD-WAN

Media & Crew Welfare **Dominance** 

70%

26%

40,000+

Cruise Passengers Served

Oil & Gas Market Share (NSR)

Active Remotes

**S** speedcast K<sub>2</sub>b

Telco &

**Enterprise** 

Revenues

Oil & Gas

Government

(Land,

Sea. Air)

Employees

115

Field Technicians

Scale

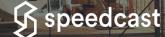
Legal Entities in

Countries

Customers in

140

Countries

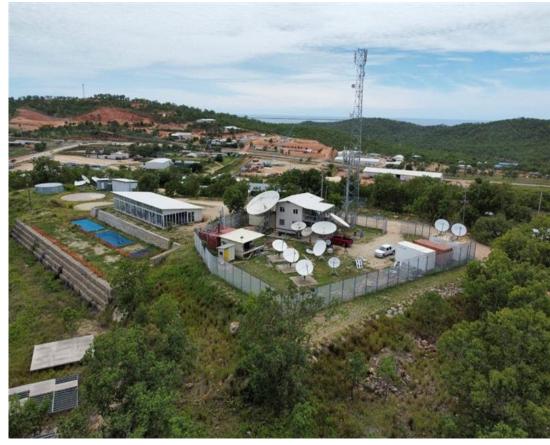


4G/5G

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### **SPEEDCAST Investment in PNG**







Lae





Taken in CANIBAL COUNTRY \_ With Pastor Len Barnard's family we made a visit down into primitive areas south of Kainantu, to the KARIMUI Most of these people had never seen "white" women and children before



### Speedcast investment in Staff and Management

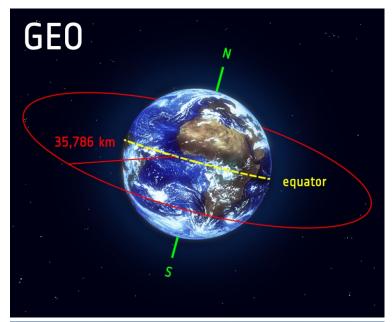


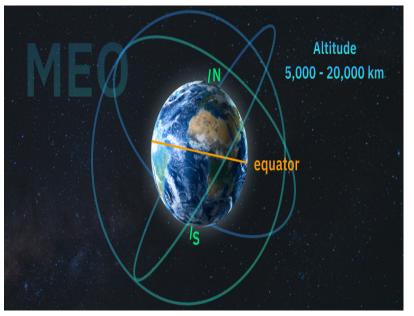






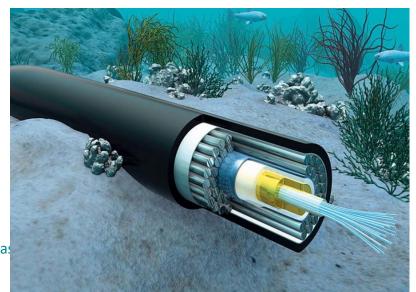
# Speedcast investment in new technologies



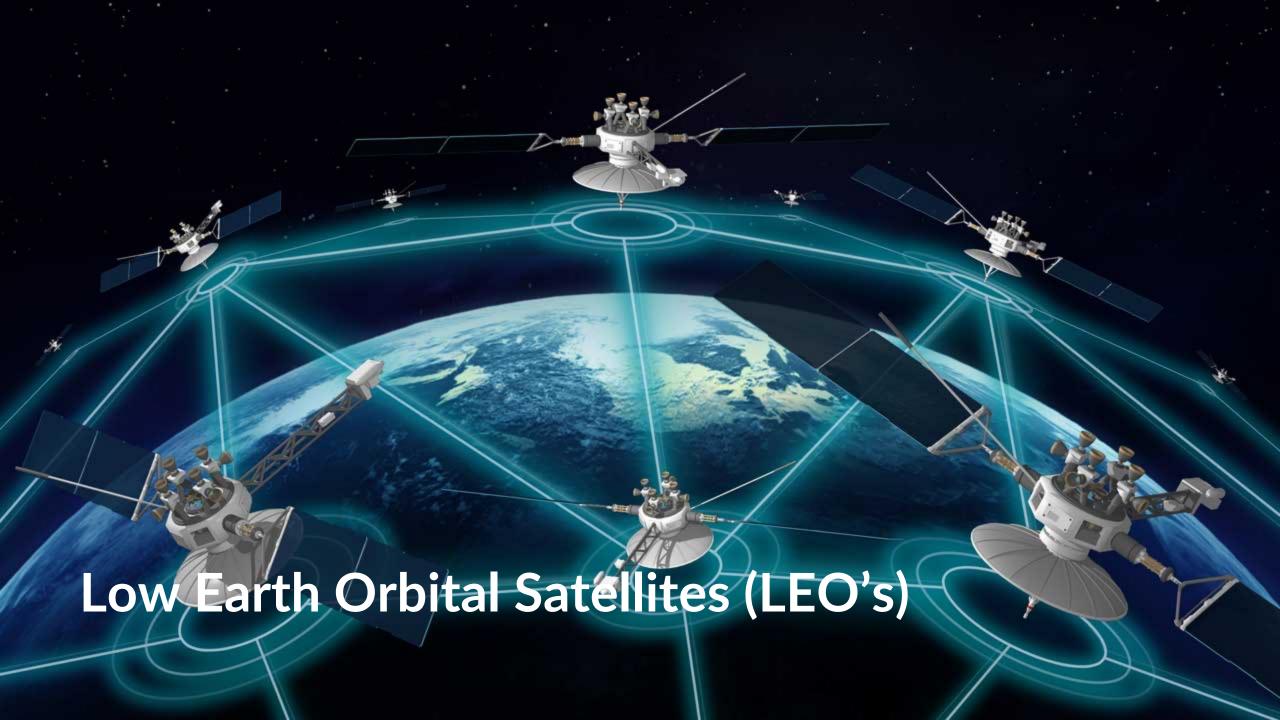












### Starlink

- Global Service, wherever it is licensed
- SpaceX has launched over 7,000 satellites
- Speeds of ~200/25 Mbps
- Best effort performance
- Public Internet
- Intersatellite links (ISL)
- Low-cost flat panel hardware, one model
- Antennas getting Smaller backpack size
- Variable fixed and mobile plans
- Designed to be installed by non-technical



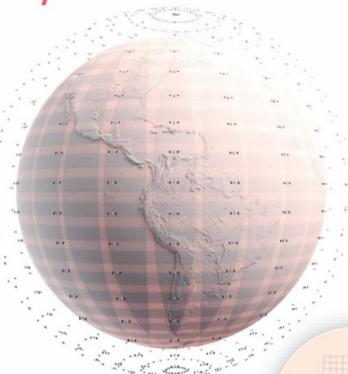




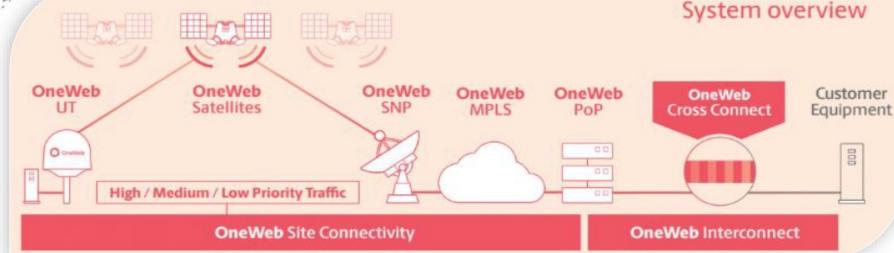




### System overview



- 634 satellites in 12 planes
- 1200km above the Earth
- 588 active
- 46 spare (4 per plane)
- 2 Satellite Operations Centers (SOCs)
- 20+ Points of Presence (PoPs) and growing
- 40+ Satellite Network Portals (SNPs)



### Where does the magic happen?

- Using ALL these technologies to deliver 100% UPTIME
- Not in ONE single technology. Not one antenna or subsea cable
- Utilizing a smart edge device to incorporate multiple WAN's
- Being technology agnostic don't tie yourself to a single tech
- Understanding the challenges
- Combining technologies and hardware to deliver Metro like SLA's in remote PNG





### Research Vessel Polarstern Case Study

Multi Bearer WAN

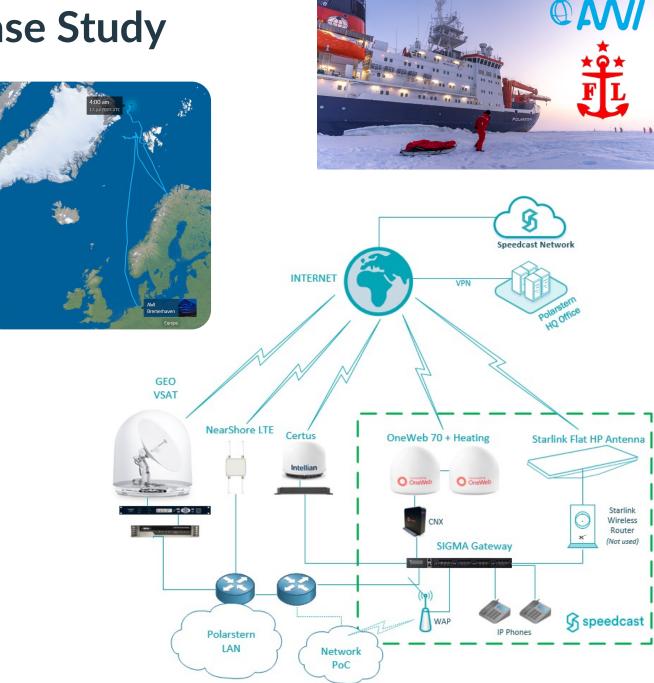
#### **Customer Needs**

- Reliable, always on connectivity
- High throughput connectivity for data hungry research
- Peliable connectivity and coverage options at the ends of the Earth and in extreme conditions, including high latitudes (83N)

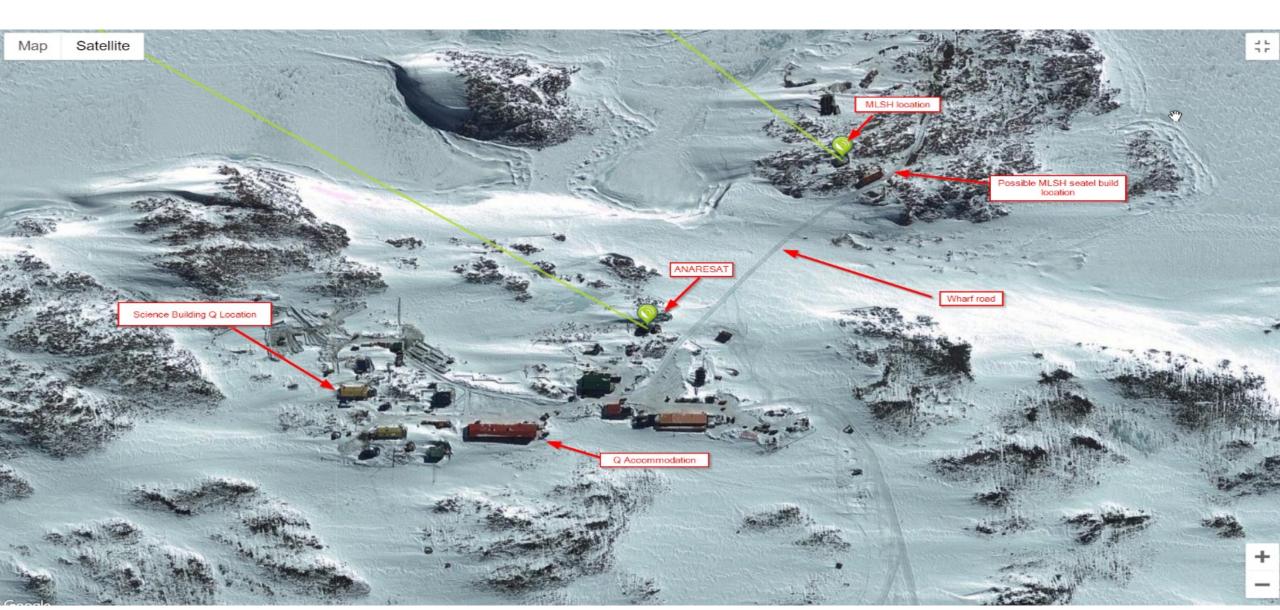
#### Solution

- WANs: OneWeb Ocean, Starlink, GEO, Certus
- Management platform: Speedcast SIGMA
- Enabled the vessel's first high-speed internet at the North Pole
- System used to stream live video from diving operations





# **Casey Station - South Pole**



## Casey Station: New secondary GEO tri-band



### Casey Station, Antarctica: Starlink + SDWAN



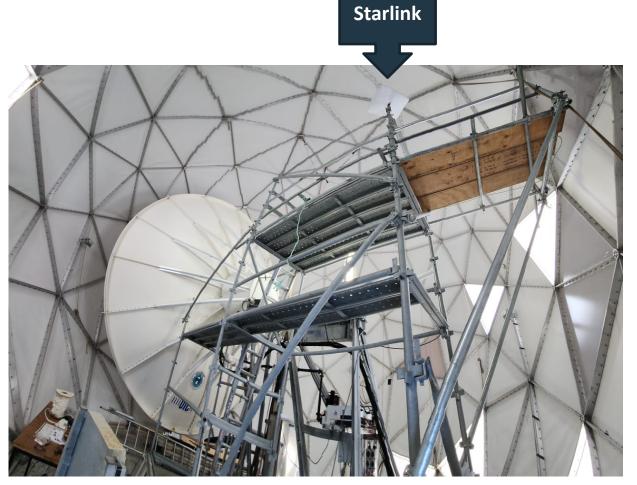








### Starlink in the Radome







### Collaborating to Meet Precise Customer Needs Innovating

# Customized Network Interface for AAD Remote comms in a box

- Easy, seamless SSID-connected wireless device
- Enables Multi-WAN service
- Creates a secure VPN tunnel from sites to HQ
- 7 units

#### 3 Components:

- **SIGMA**, power supply, 3 Ubiquity wireless devices for extended wireless connectivity
- Starlink kit and case
- Iridium Certus fully operational inside the Pelican Case while connected



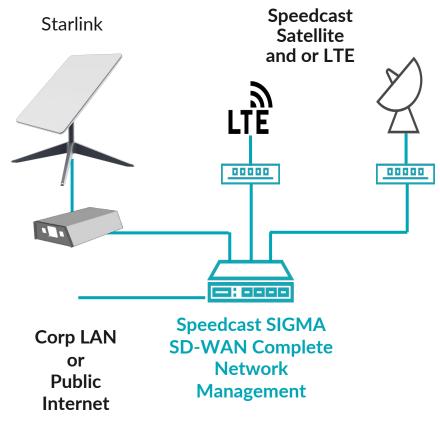






# Embrace the tech - for 100% uptime







### Thank you



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