REUNA – SA3CC

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REUNA
Ciencia y Educación en Red

REUNA in numbers and current infrastructure

+12.500 km
Network infraestructure

30+
Years promoting Chilean digital development

1300+ km
With Patagonia project: Connectivity to Punta Arenas

54
Organizations connected

18
Points of presence located in the main cities

Solutions for our community

Academic Network

- Academic Network
- Internet
- eduConnect
- Public IP Address

Cloud and Operations

- +Spacio
- eduNOC
- FileSender

Security

- CSIRT REUNA
- eduroam
- eduVPN
- eduSCAN
- COFRE Federated Identity
- eduGain

Videoconference

- Webinar
- Large Meeting
- Zoom Rooms

Reach history collaborating with astronomical community

2005
AURA becomes the first non-university organization member of REUNA

2010
EVALSO Project Infrastructure is build together with ESO to deliver network services from Antofagasta – Santiago to ESO/ALMA/REUNA/RedCLARA

2012
ALMA and REUNA signed MoU for the managing of the network

2018
Vera Rubin Observatory connects to REUNA to send its traffic to USA using a link between La Serena – Santiago of 100 Gbps

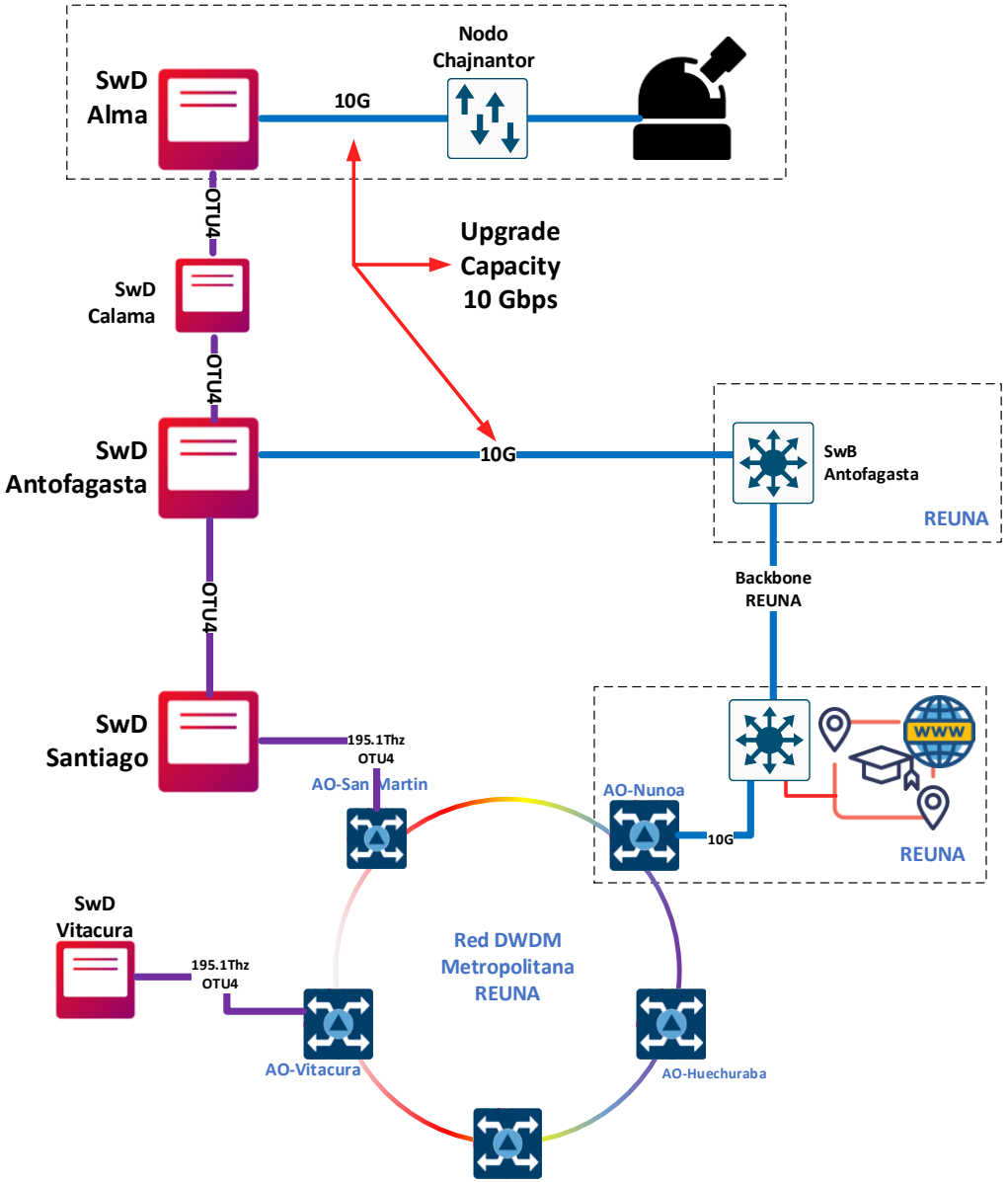
2022
ESO becomes a member of REUNA

2023
Chajnantor PoP installed. It'll connect astronomical projects located in the area

2025
New agreement with ALMA

What's new from last SA3CC?

Collaborative Connectivity for Expanding Astronomical Services in the Atacama Desert

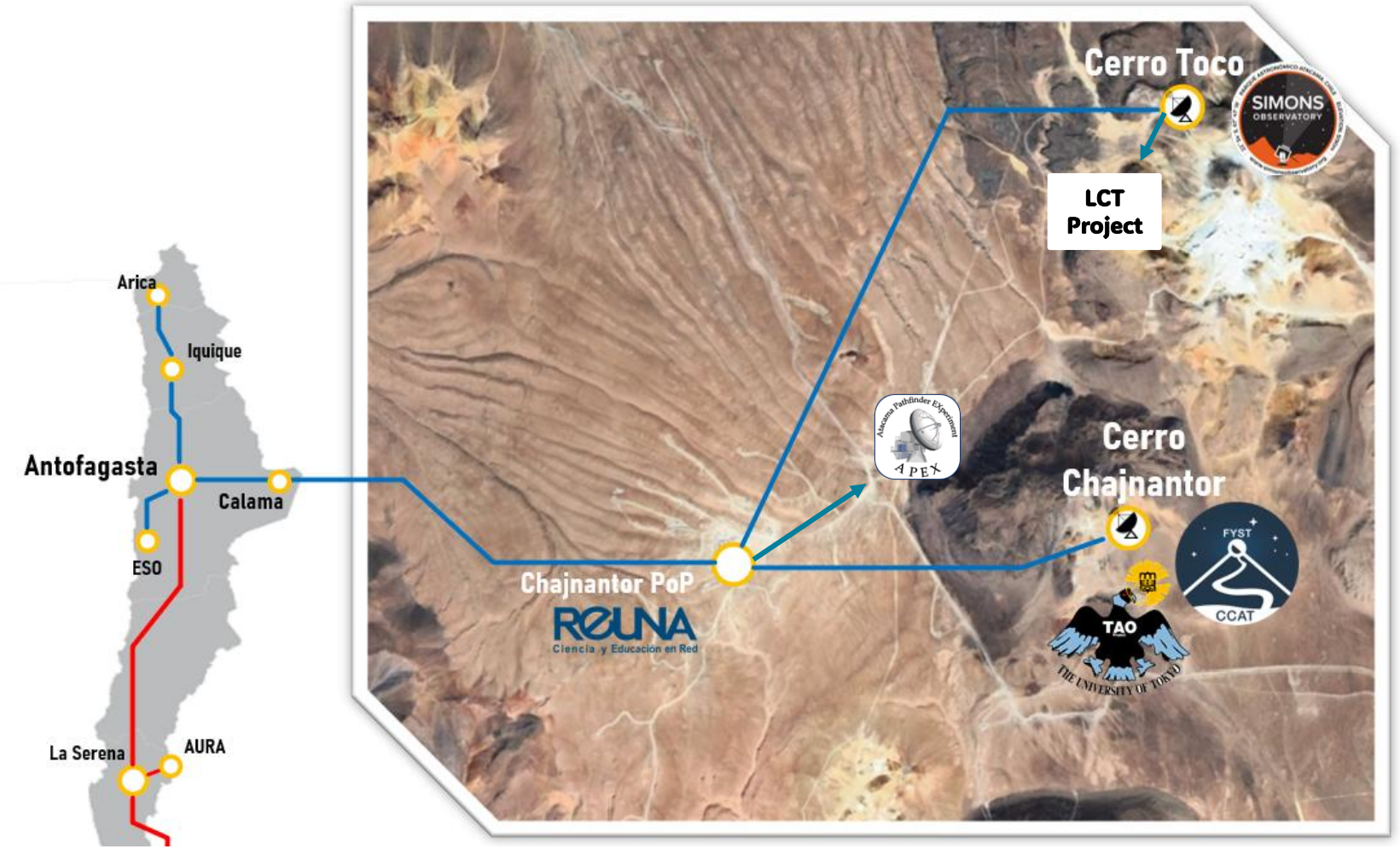


- REUNA has signed a new agreement with ALMA to share the available OTU4 lambda capacity on its new DWDM infrastructure between AOS (Chajnantor Node) and Antofagasta.

- With this upgrade, the previous 1 Gbps capacity was left behind, moving toward a 10 Gbps infrastructure — a substantial increase that enables significantly improved performance for current operations.

In July 2025, we completed the first phase of connectivity for Cerro Chajnantor - Home to the CCAT and TAO observatories!

A collaborative connectivity to bring services to more astronomical projects in Atacama Desert



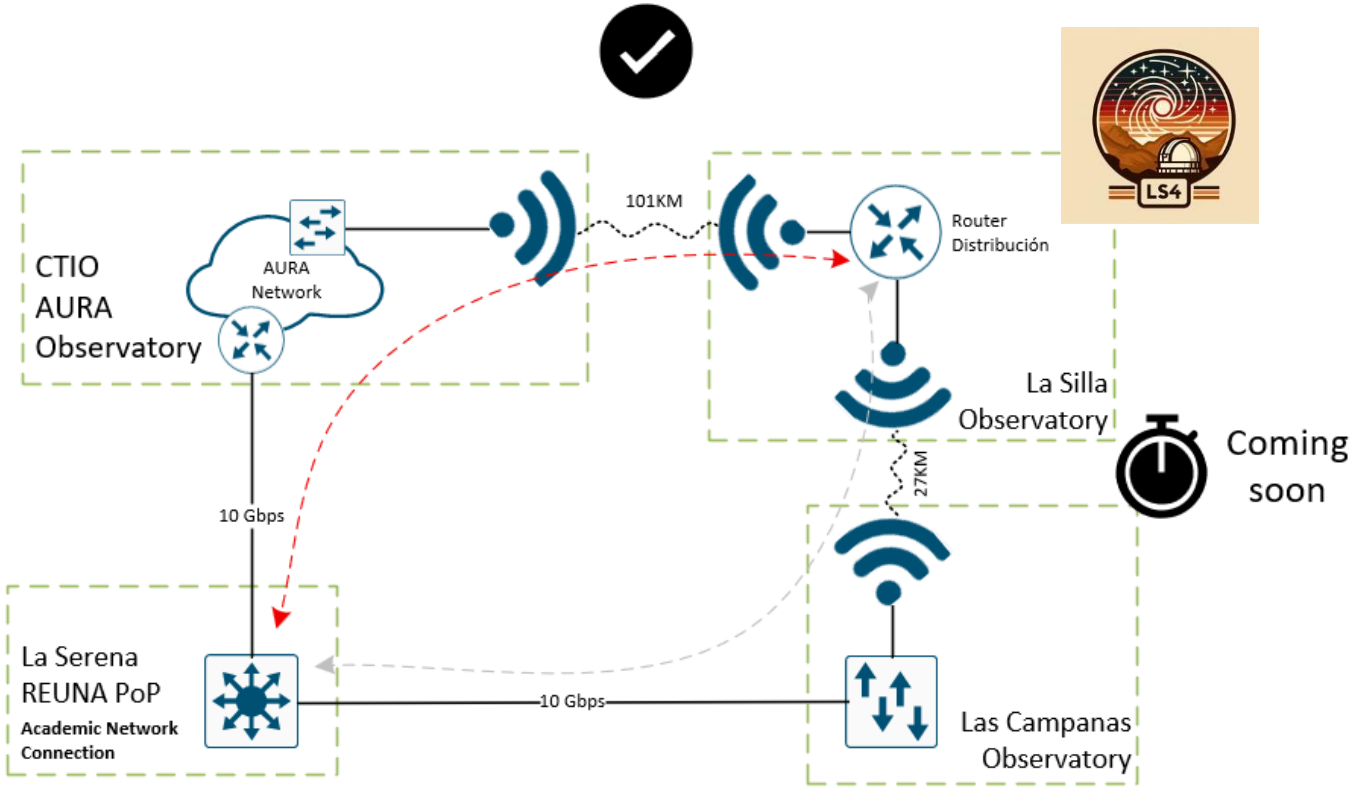
New observatory now connected to REUNA's Chajnantor Node, with initial service tests in progress.

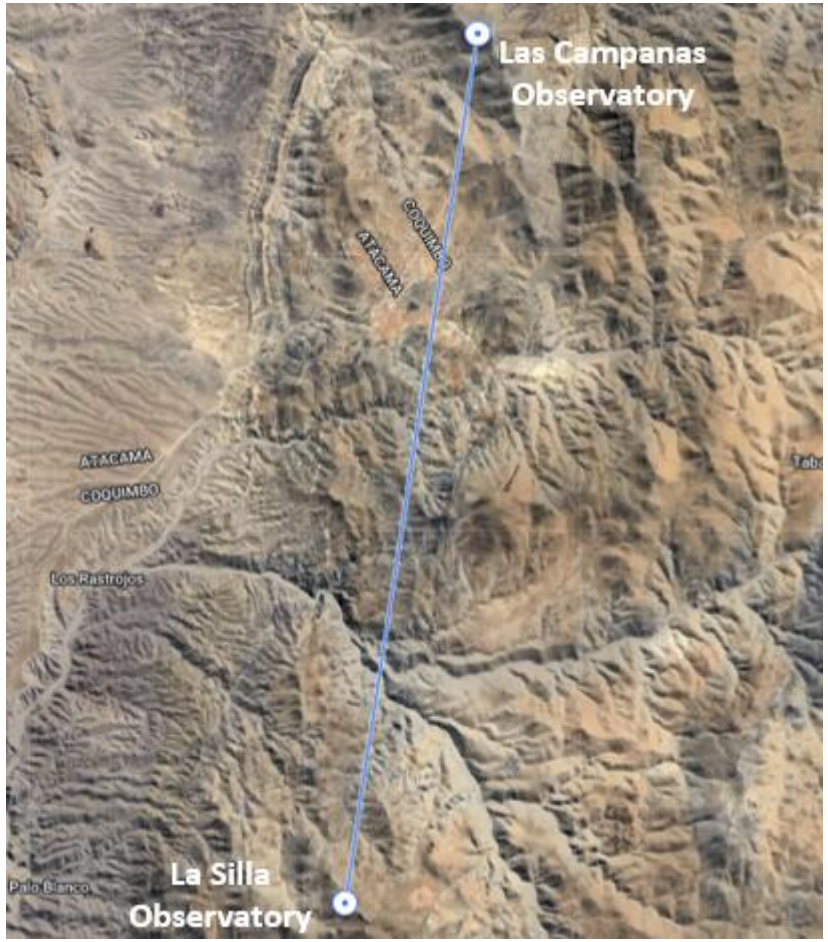
New observatories under prospect to connect to REUNA's Chajnantor Node

LCT Project

In Colaboration With:

Reactivation of the Lyra Project: Connecting La Silla and Las Campanas Observatories During the First Semester



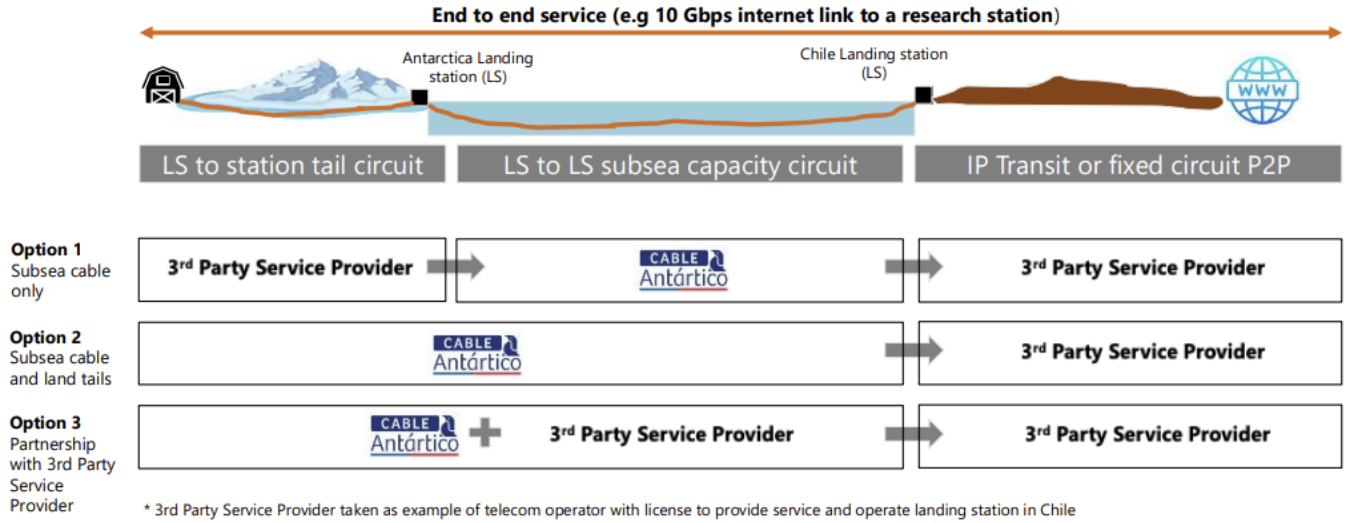


Unlocking the White Continent

The Antarctic Cable Project: Bridging the digital divide for next-generation science

A World Pole For Science

- CAF and the Chilean Telecommunication Subsecretary signed agreement to fund feasibility study to be done during 2024.
- The first report for the Chile–Antarctica submarine cable concluded that the project is technically viable and strategically important for scientific, environmental, and geopolitical purposes.
- The preliminary report proposes a submarine system of approximately 1,850 km connecting southern Chile with King George Island and the northern Antarctic Peninsula,



Fuente: Salience Consulting

Subsecretaría de Telecomunicaciones

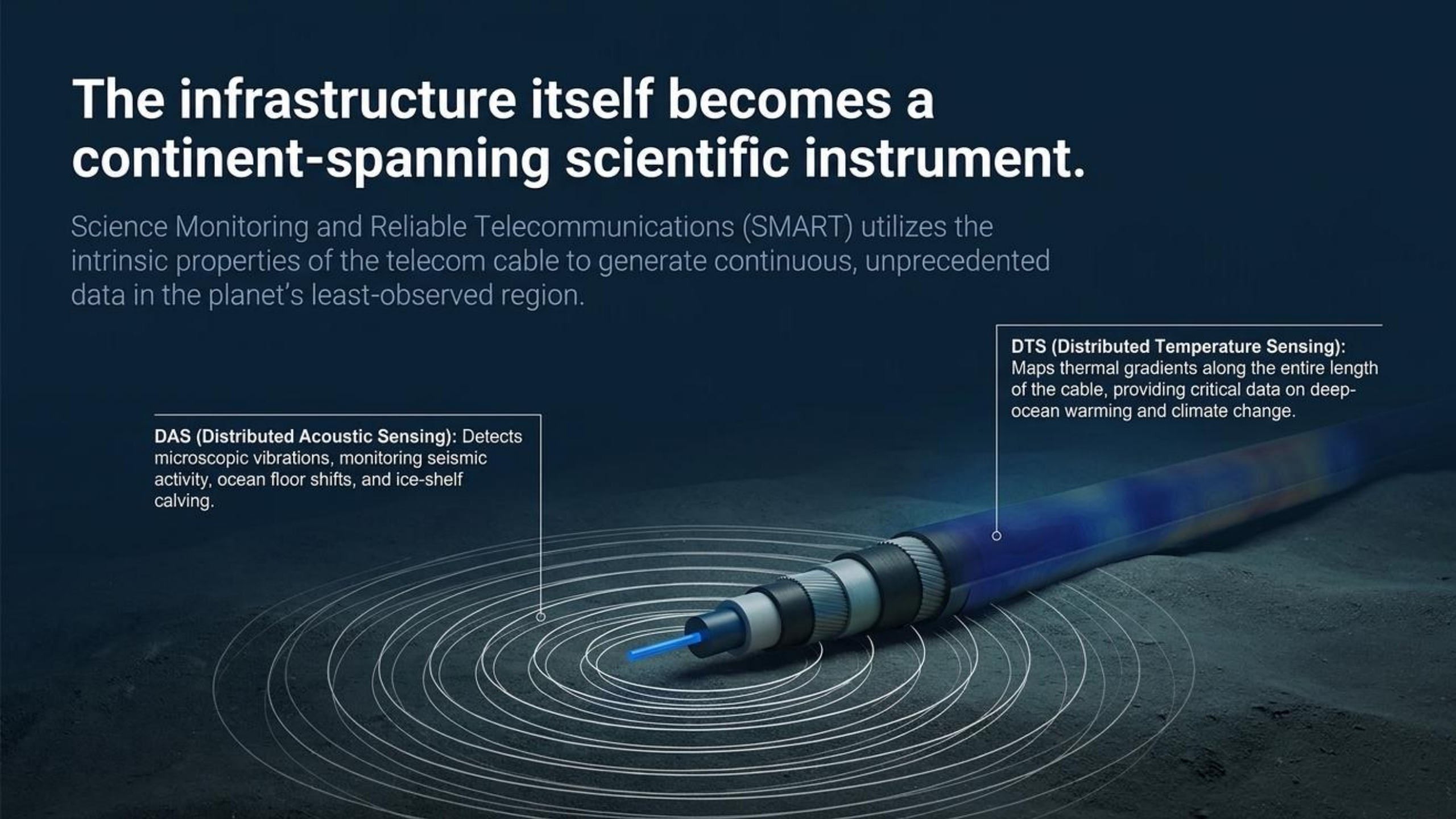
Gobierno de Chile

The infrastructure itself becomes a continent-spanning scientific instrument.

Science Monitoring and Reliable Telecommunications (SMART) utilizes the intrinsic properties of the telecom cable to generate continuous, unprecedented data in the planet's least-observed region.

DTS (Distributed Temperature Sensing): Maps thermal gradients along the entire length of the cable, providing critical data on deep-ocean warming and climate change.

DAS (Distributed Acoustic Sensing): Detects microscopic vibrations, monitoring seismic activity, ocean floor shifts, and ice-shelf calving.



Preliminary technical design proposed

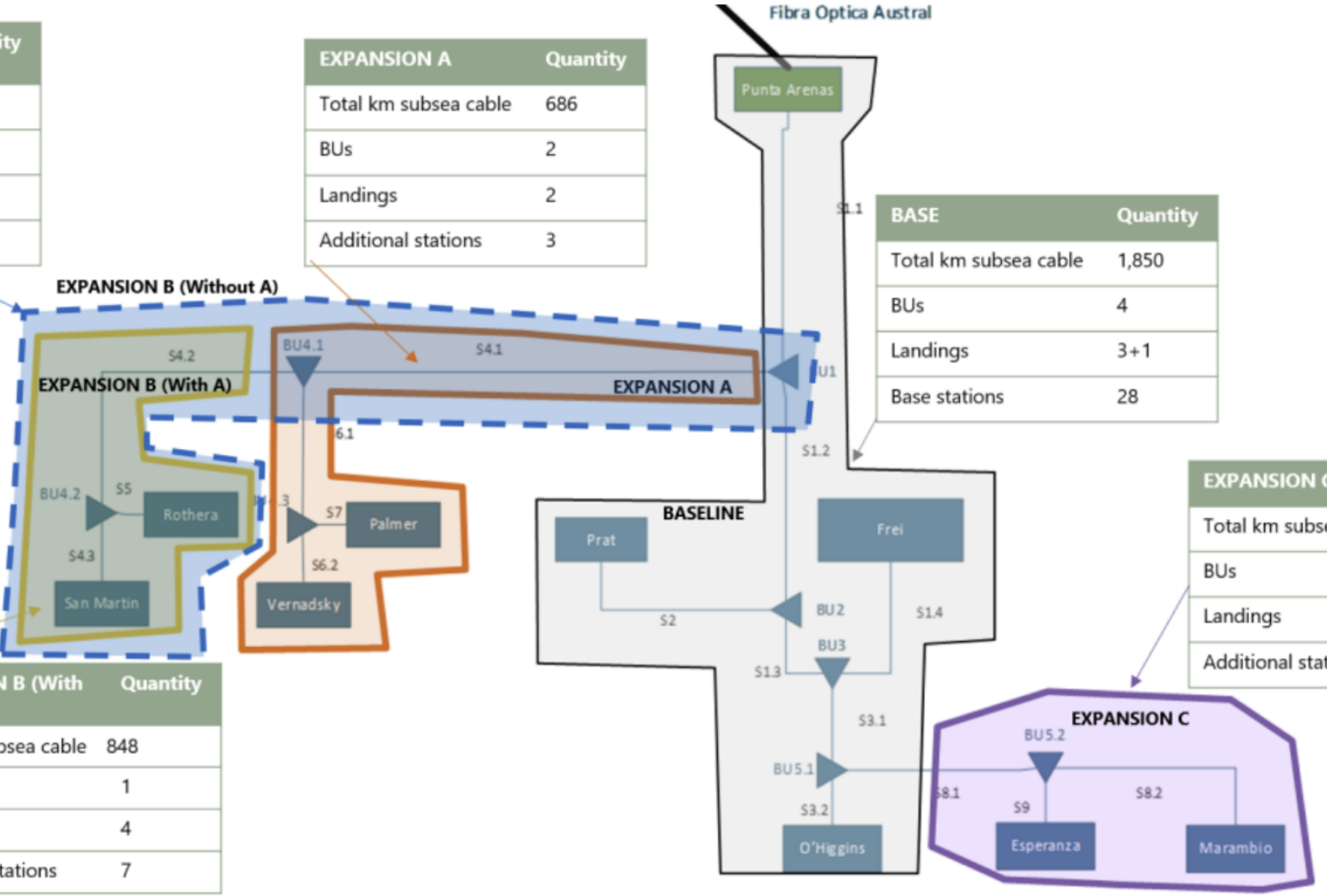
EXPANSION B (Without A)	Quantity
Total km subsea cable	1,260
BUs	2
Landings	2
Additional stations	4

EXPANSION A	Quantity
Total km subsea cable	686
BUs	2
Landings	2
Additional stations	3

BASE	Quantity
Total km subsea cable	1,850
BUs	4
Landings	3+1
Base stations	28

EXPANSION C	Quantity
Total km subsea cable	205
BUs	1
Landings	2
Additional stations	2

EXPANSION B (With A)	Quantity
Total km subsea cable	848
BUs	1
Landings	4
Additional stations	7



Note: The base station connectivity via fibre/MV is indicative

Fuente: Salience Consulting and Pioneer Consulting

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