



REUNA – SAACC 2020

Marzo de 2020

REUNA in numbers

37

Organizations in Chile are part of REUNA and we want to integrate the entire I + E ecosystem

+8.500Km

Network infrastructure

REUNA
Ciencia y Educación en Red

+300.000

Nationally connected students and academics

+80%

Research in Chile is carried out by REUNA institutions

25 años

Driving Chile's digital development

Current Network Infraestructure



15

Points of presence
located in the main cities

7

PoP's with 100G Capacity

100%

Backuped Network
Infraestructure

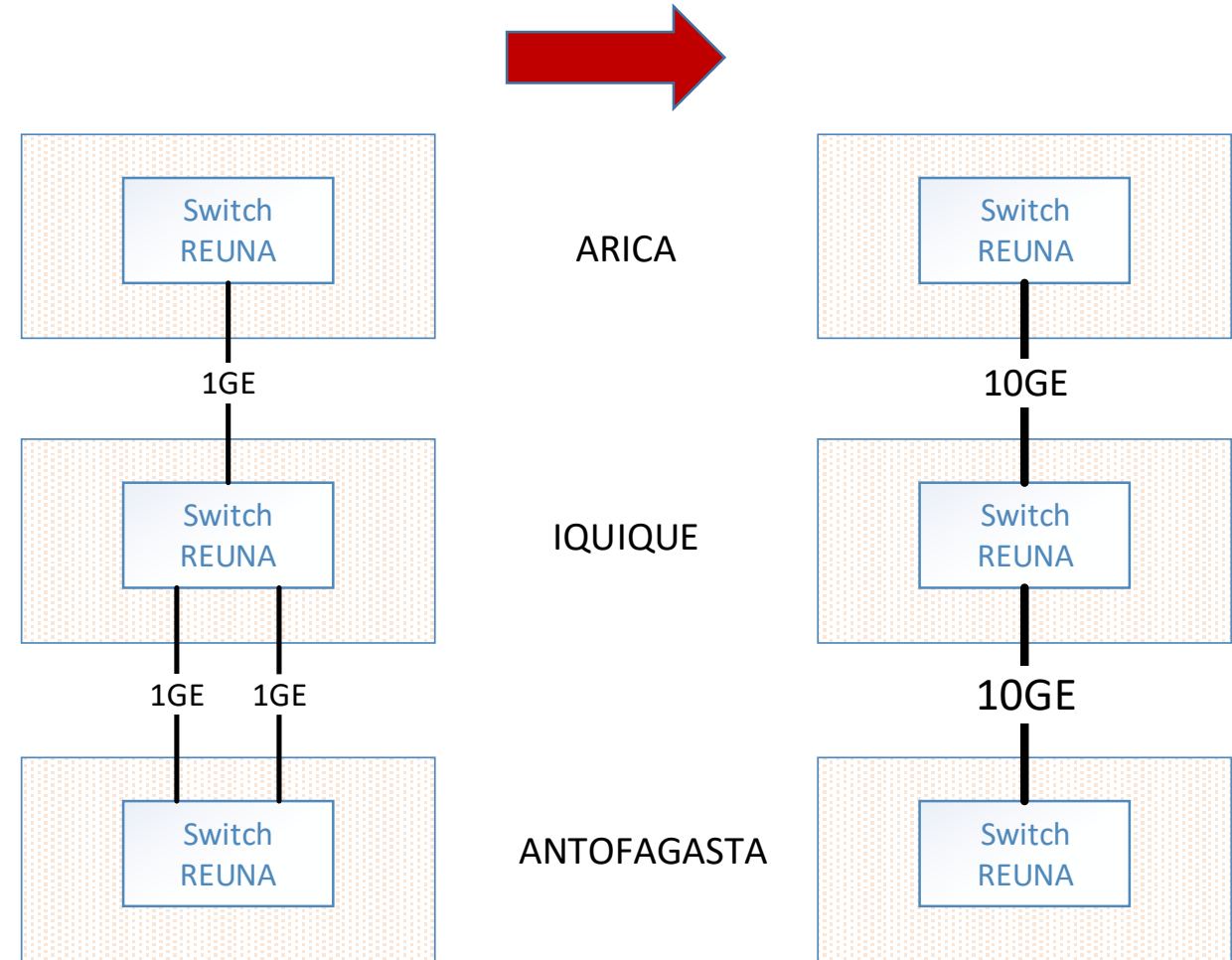
24x7

Operated in house

Northern Chile: Arica - Antofagasta

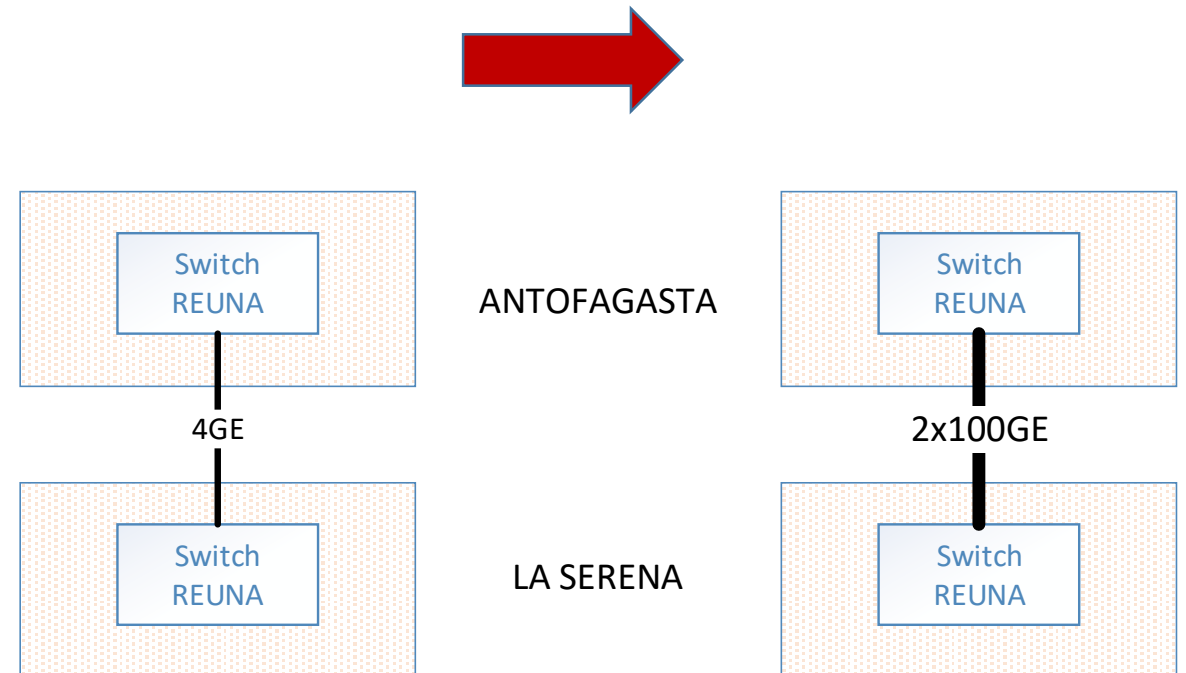
Arica – Iquique - Antofagasta

- Capacity upgrade to 10G
- Protected (1+R)
- 20 year project
- Implementation date: Second semester 2020
- Goal: To even the connectivity conditions of the institutions that are at farthest regions to the same capacities as those in the center of the country.
- Give us grow for connect future located in the area



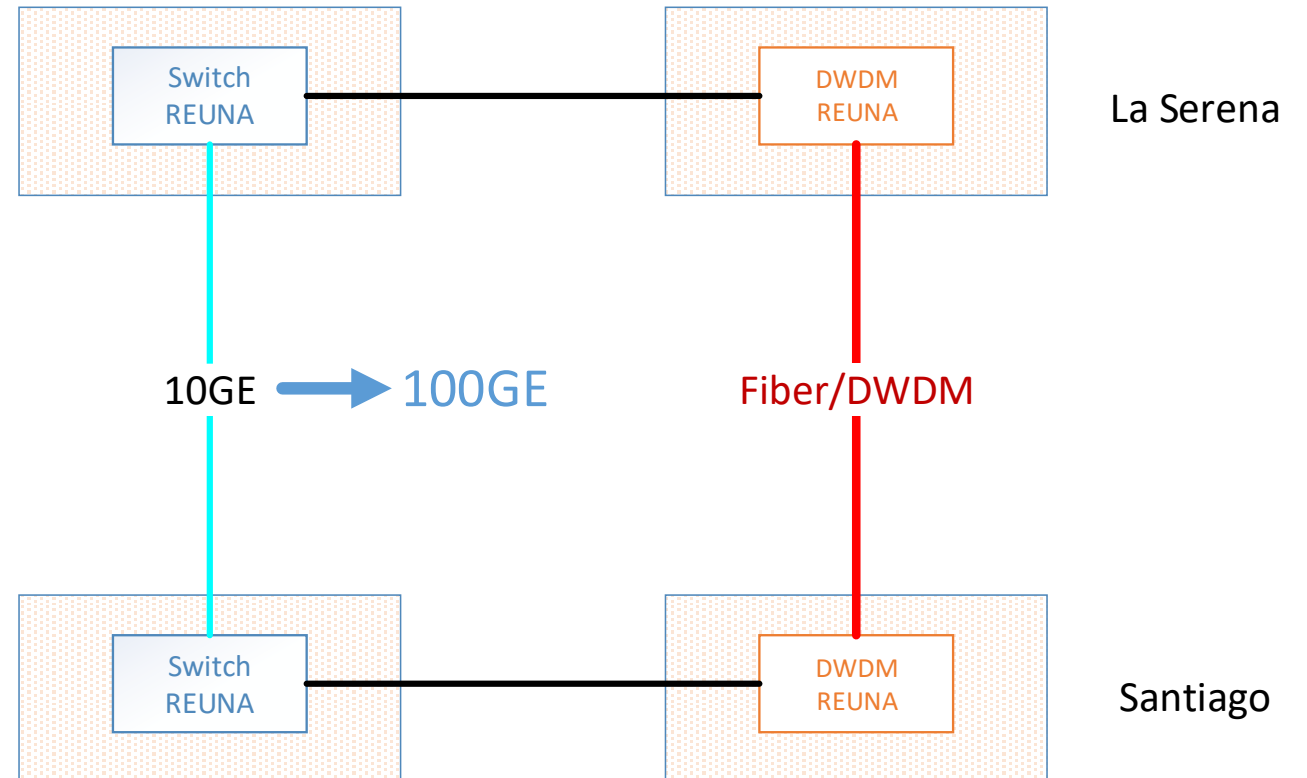
Northern Chile: Antofagasta – La Serena

- 6 contiguous 50Ghz channels deliver at the beginning in 100GE each
- Protected (1+R)
- 20 years Project
- Phased implementation with 2 channels delivered in 2020
- Grow of 50 times the current capacity



La Serena - Santiago

- Upgrade for backup connectivity.
- Capacity goes from 10G to 100G
- Service is delivered by a different route than the existing DWDM infrastructure
- 100G interfaces requires new Switches
 - New equipment to be installed is Nexus 9504



South Backbone enhancement

- Phase of negotiation with service providers
- Goals:
 - Increase backup capacity between Santiago – Temuco to 100G or several 10G.
 - Increase capacity between Temuco – Puerto Montt at least to 10Gbps
 - Open new points of presence that universities are requiring
- Estimated implementation time: 2021

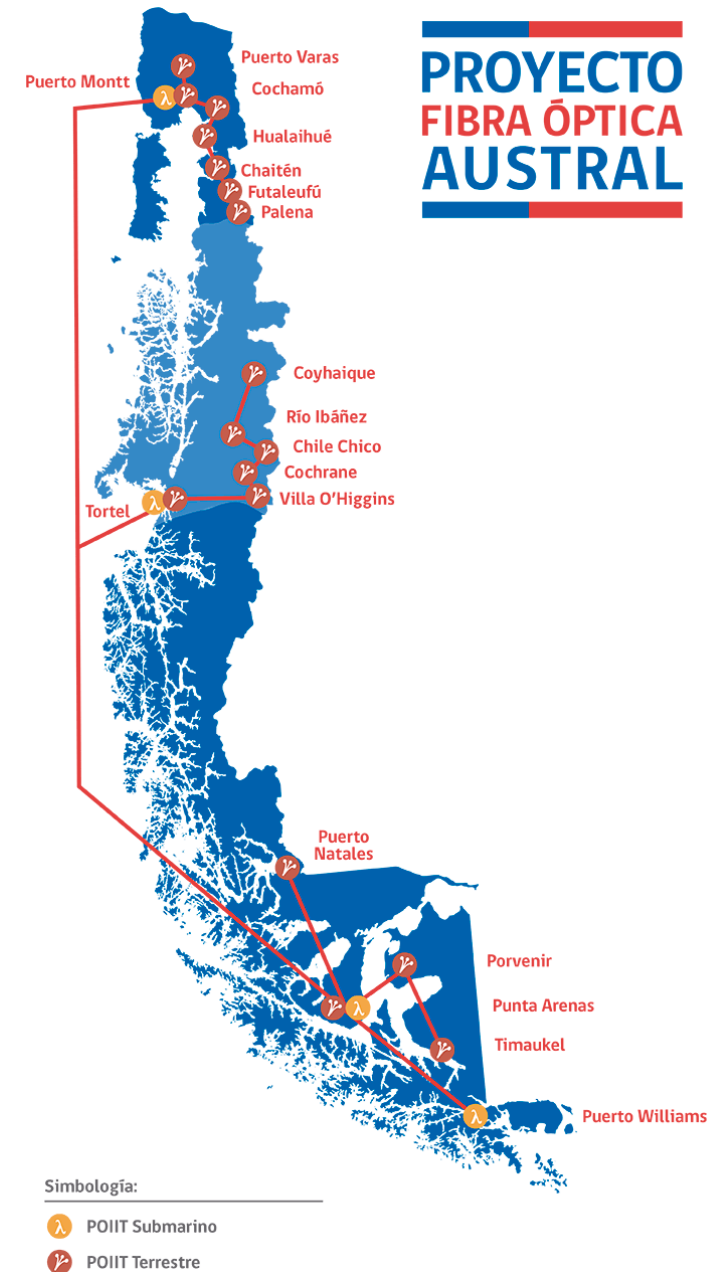
Work in progress

FOA (Fibra Óptica Austral)

- Chilean government project to connect the southern part of the country
- Working with the Science Minister to explore the feasibility that REUNA have access to this infraestructura

LeoSAT WG

- Low Orbit satellite connectivity
- REUNA is part of an international group of academic networks seeking to understand the service and join efforts to establish relationships with this companies
- Advantages of this technology compared to current satellite connections:
 - Greater bandwidth
 - Lower latency
- Connectivity option for remote locations and probably Antarctica



New Alliances in the astronomical field

- Chajnantor area:
 - REUNA is working to install a PoP in ALMA
 - Objective: Provide connectivity to observatories and telescopes located in the area
 - MOU in progress with ALMA
 - MOU in progress with AAP (Atacama's Astronomical Park)
 - Simons observatory test
 - In talks with CCAT-Prime telescope
- New institution is added Universidad Adolfo Ibañez: Institution that houses the Data Observatory
 - DO: Public – Private initiative that seeks to create a Chilean scientific data platform
 - Working in a project with ALMA

A hand is shown from the bottom, holding a glowing, spherical network of nodes and connections. The nodes are small circles, some white and some light blue, connected by thin white lines. The background is a soft, out-of-focus light blue.

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