



# BELLA

## Where Are We Today?

Tom Fryer (GÉANT) & Marco Teixeira (RNP/RedCLARA) | 18 June 2019 | TNC19

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# EllaLink







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WK 12 2019  
Date: 12/12/19  
Time: 10:00 AM



HEA for Control Temperature (5)

Date	Temp	Humidity	Pressure	Flow	Temp	Humidity	Pressure	Flow	Temp	Humidity	Pressure	Flow
12/12/19	22.5	45	1013	0.5	22.5	45	1013	0.5	22.5	45	1013	0.5
12/11/19	22.5	45	1013	0.5	22.5	45	1013	0.5	22.5	45	1013	0.5
12/10/19	22.5	45	1013	0.5	22.5	45	1013	0.5	22.5	45	1013	0.5
12/09/19	22.5	45	1013	0.5	22.5	45	1013	0.5	22.5	45	1013	0.5
12/08/19	22.5	45	1013	0.5	22.5	45	1013	0.5	22.5	45	1013	0.5
12/07/19	22.5	45	1013	0.5	22.5	45	1013	0.5	22.5	45	1013	0.5
12/06/19	22.5	45	1013	0.5	22.5	45	1013	0.5	22.5	45	1013	0.5
12/05/19	22.5	45	1013	0.5	22.5	45	1013	0.5	22.5	45	1013	0.5
12/04/19	22.5	45	1013	0.5	22.5	45	1013	0.5	22.5	45	1013	0.5
12/03/19	22.5	45	1013	0.5	22.5	45	1013	0.5	22.5	45	1013	0.5
12/02/19	22.5	45	1013	0.5	22.5	45	1013	0.5	22.5	45	1013	0.5
12/01/19	22.5	45	1013	0.5	22.5	45	1013	0.5	22.5	45	1013	0.5

Welcome to A&M Greenwork





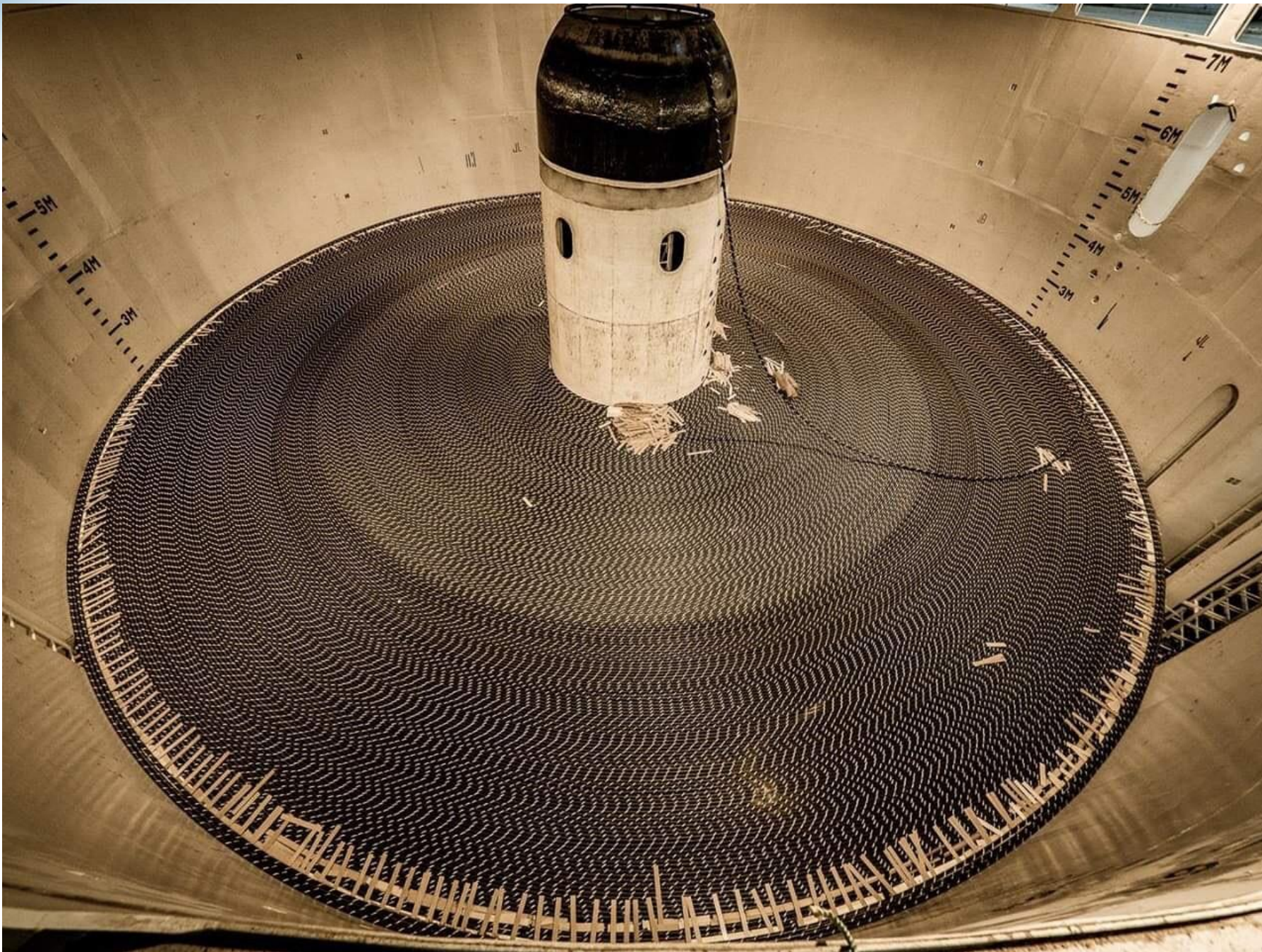


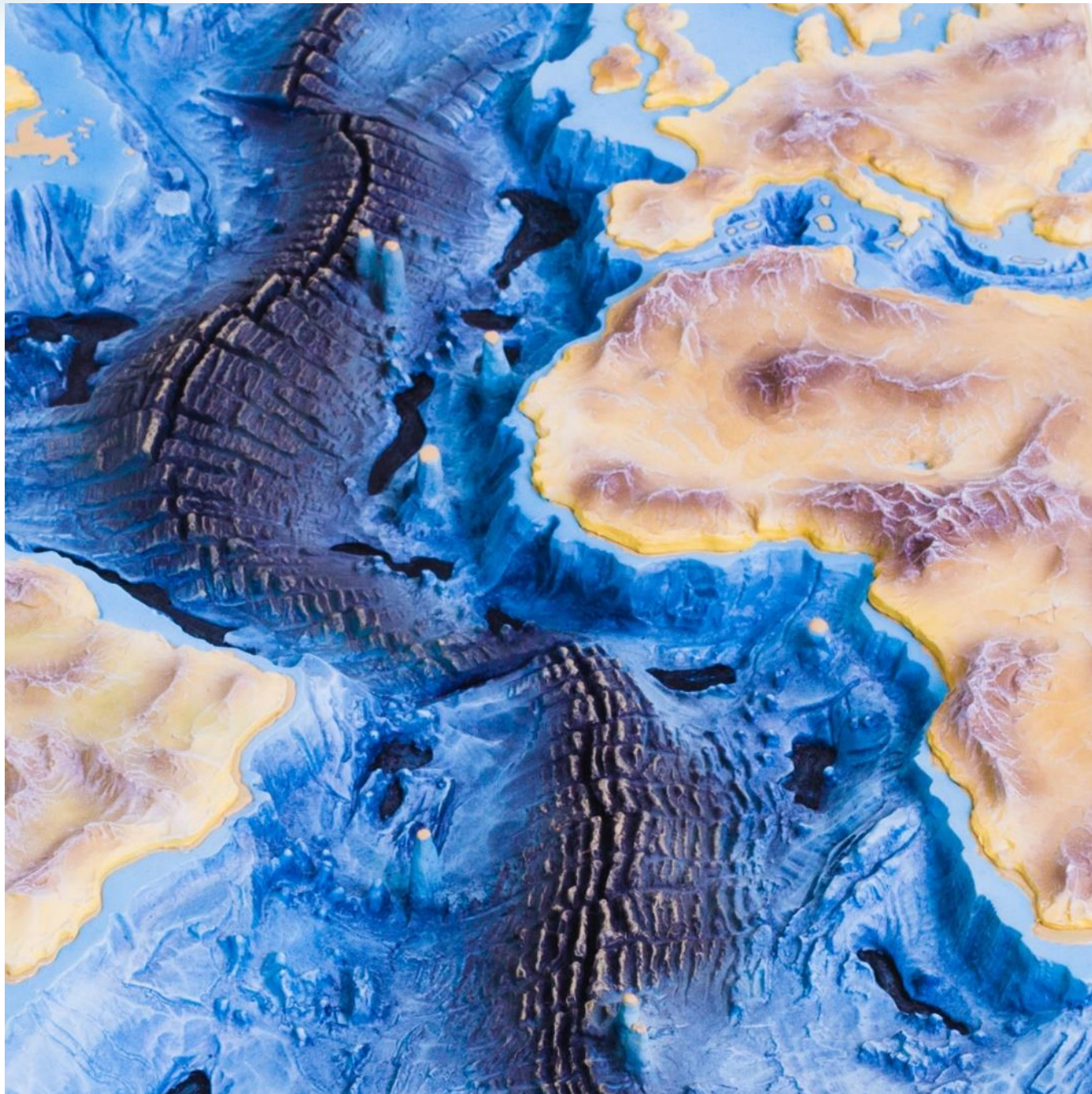




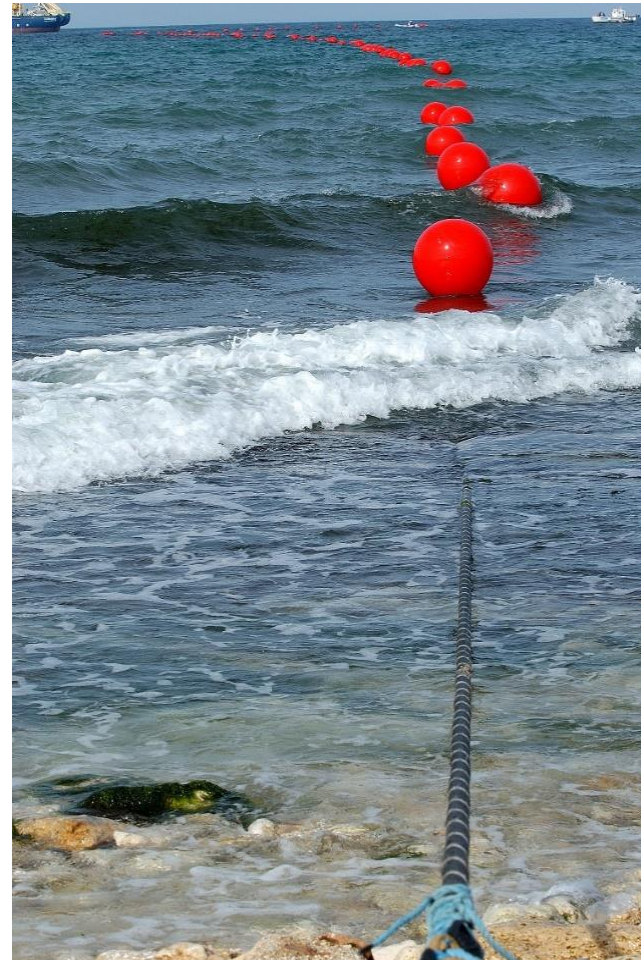
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# Red **CLARA**

Cooperación Latino Americana de Redes Avanzadas

## 100G Backbone

Technical Manager

[Marco.Teixeira@redclara.net](mailto:Marco.Teixeira@redclara.net)

# How to build this huge network ?

During the years, the group concluded that the best way to obtain better capacity was buying long term IRU of Spectrum from submarine systems and mixing with terrestrial spectrum that are obtained by each NREN to form their core.

This solution has proved to be a great challenge in terms of installation and operation, but with a lot of cooperation and innovation we found ways to reduce impacts and make implementation viable, significantly reducing the OPEX costs.



Alien  
wavelength



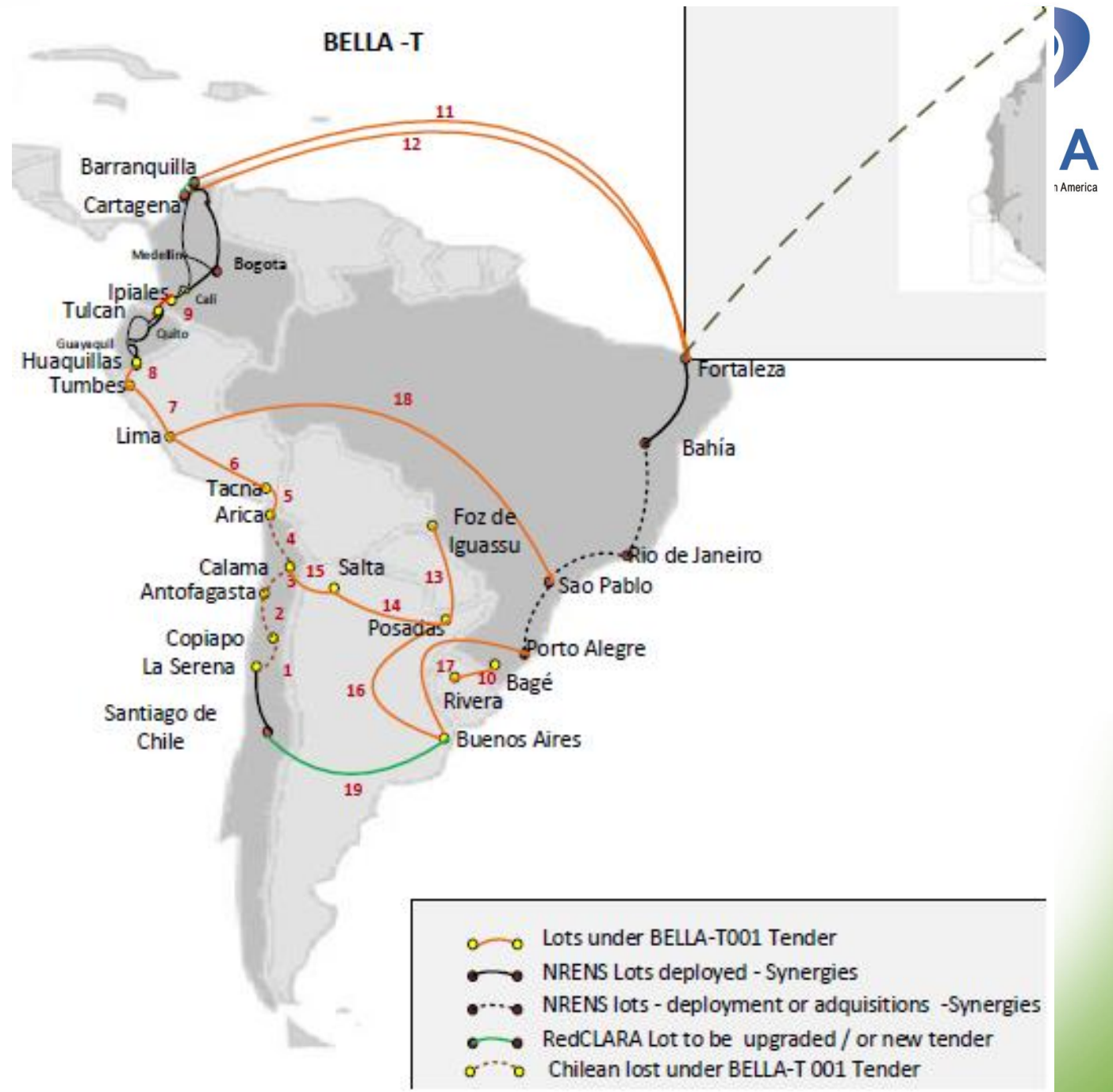
DCI DWDM

# The BELLA Programme

To be able to accomplish the objective we used the moto divide to conquest.

Using segments already deployed by the NRENS to build an overlay network with alien wavelength.

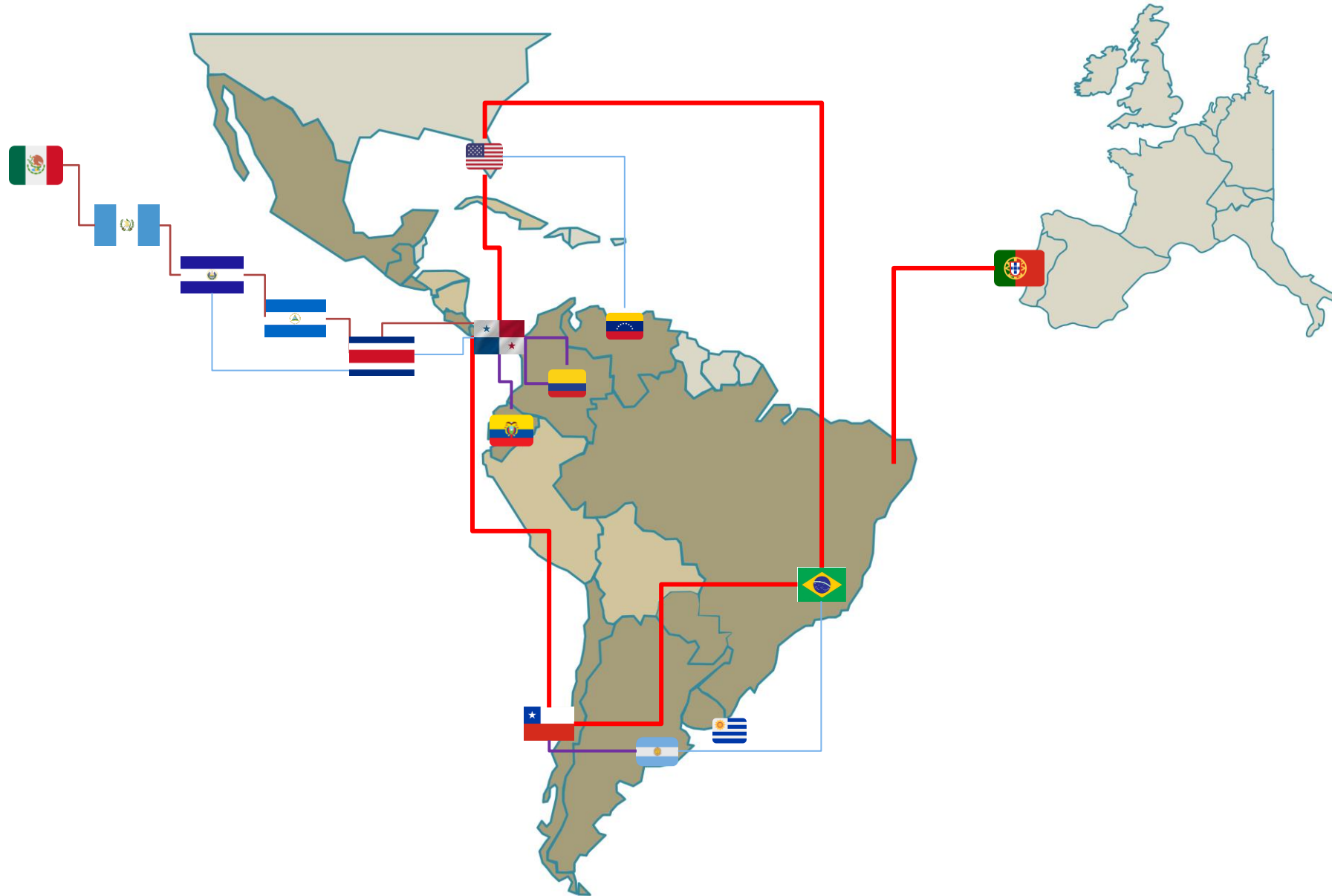
Upgrading systems already deployed and buying spectrum where the network was not available.



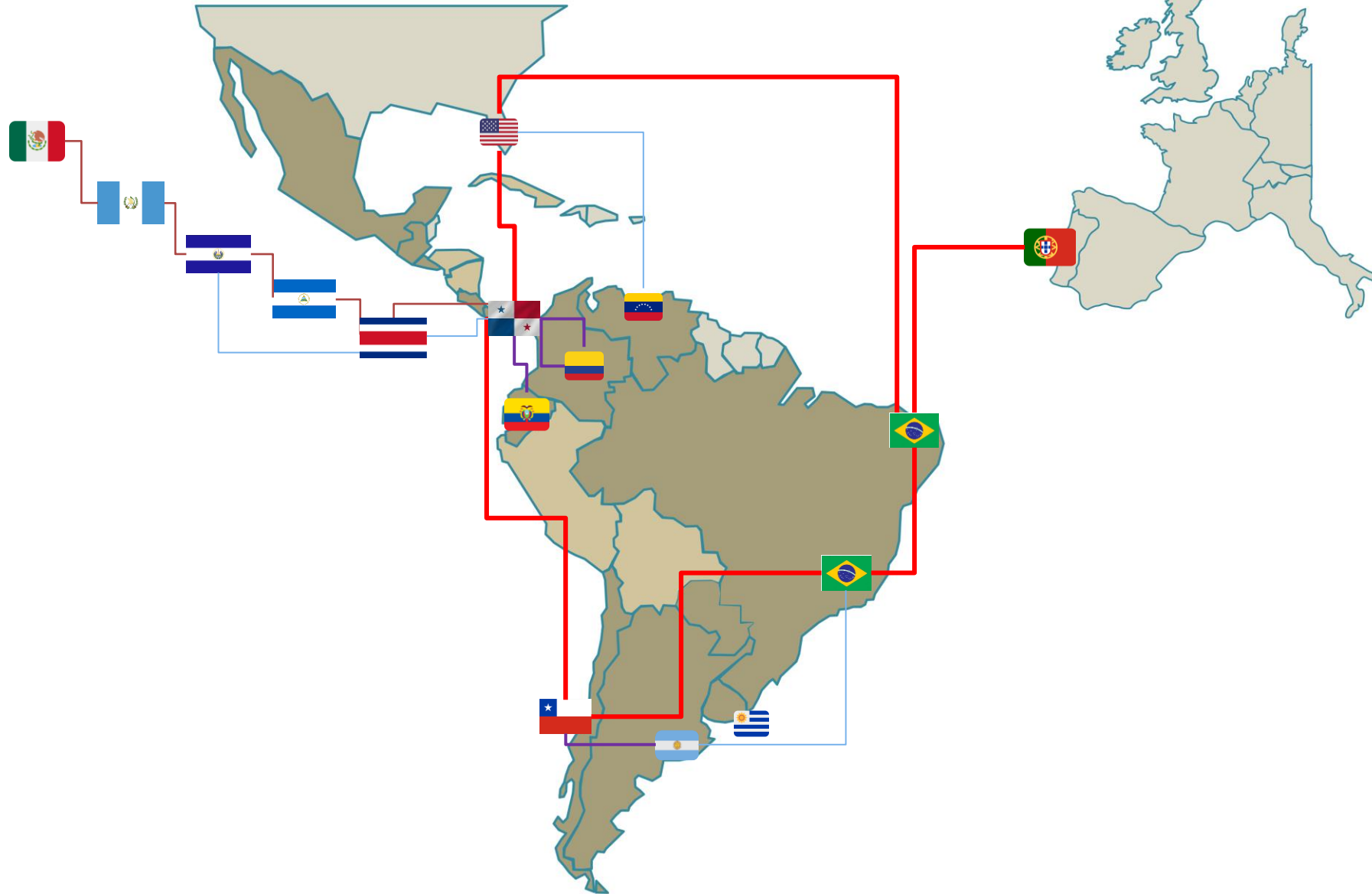
# Initial network



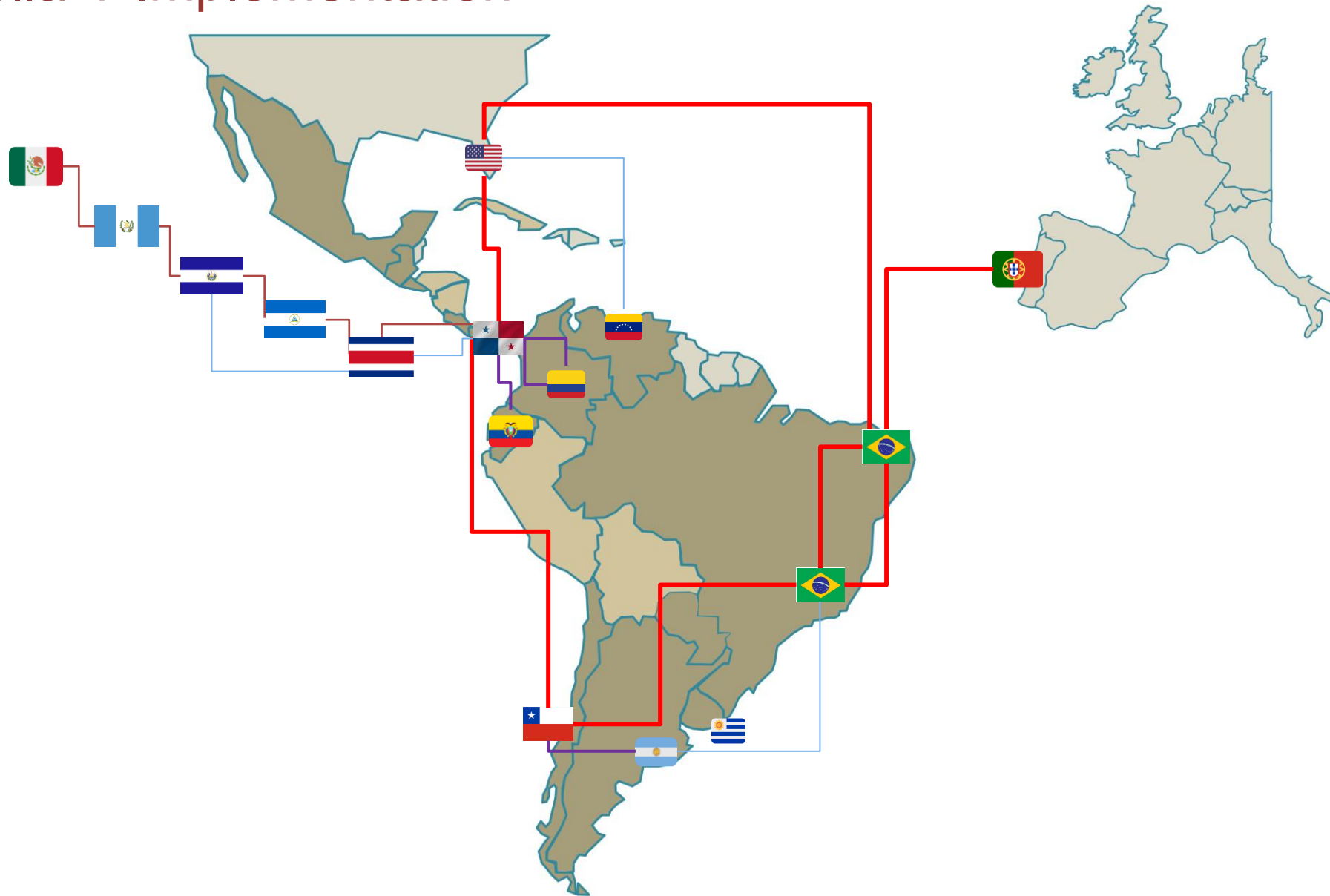
# Bella-T Implementation



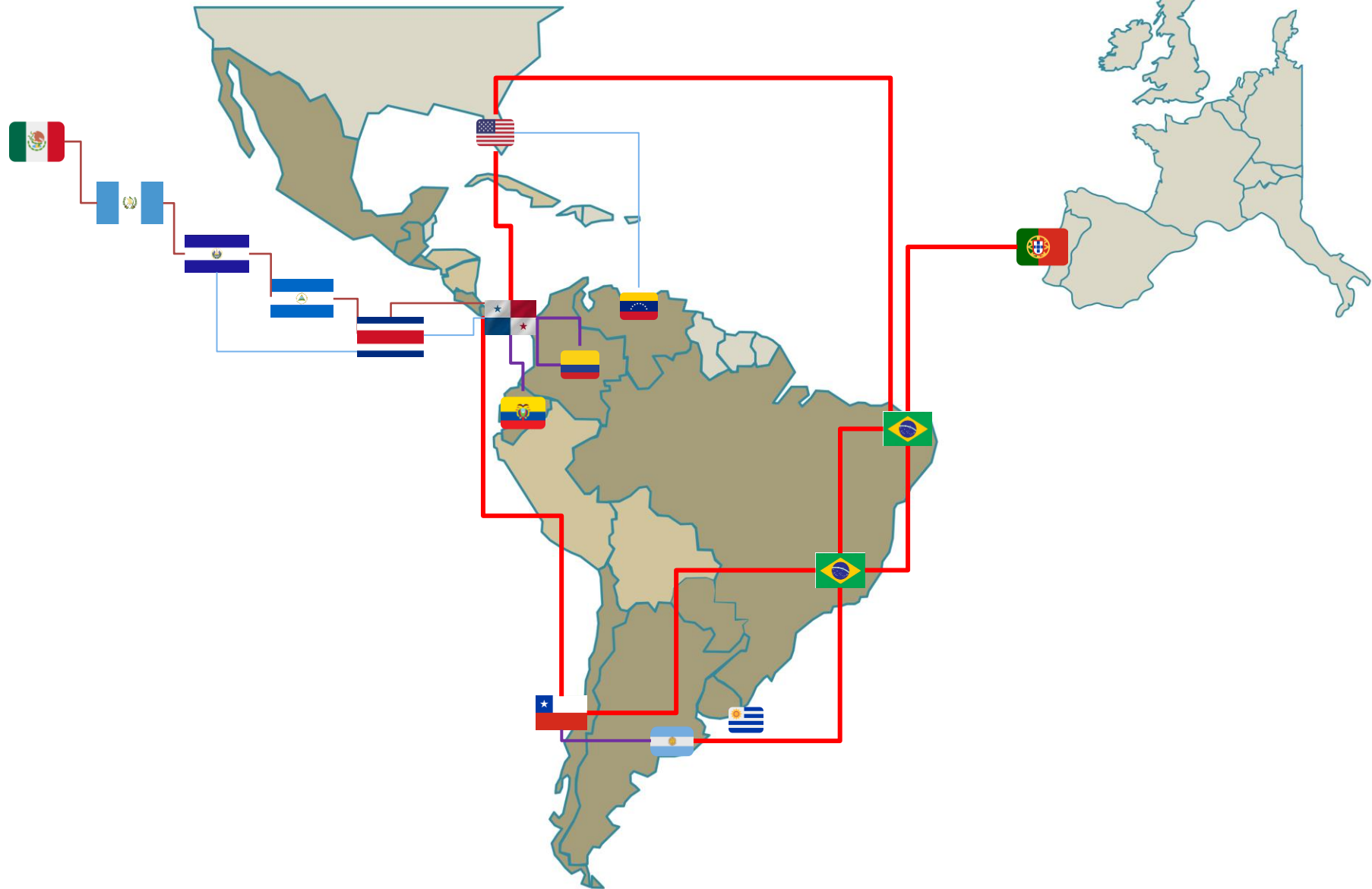
# Bella-T Implementation



# Bella-T Implementation

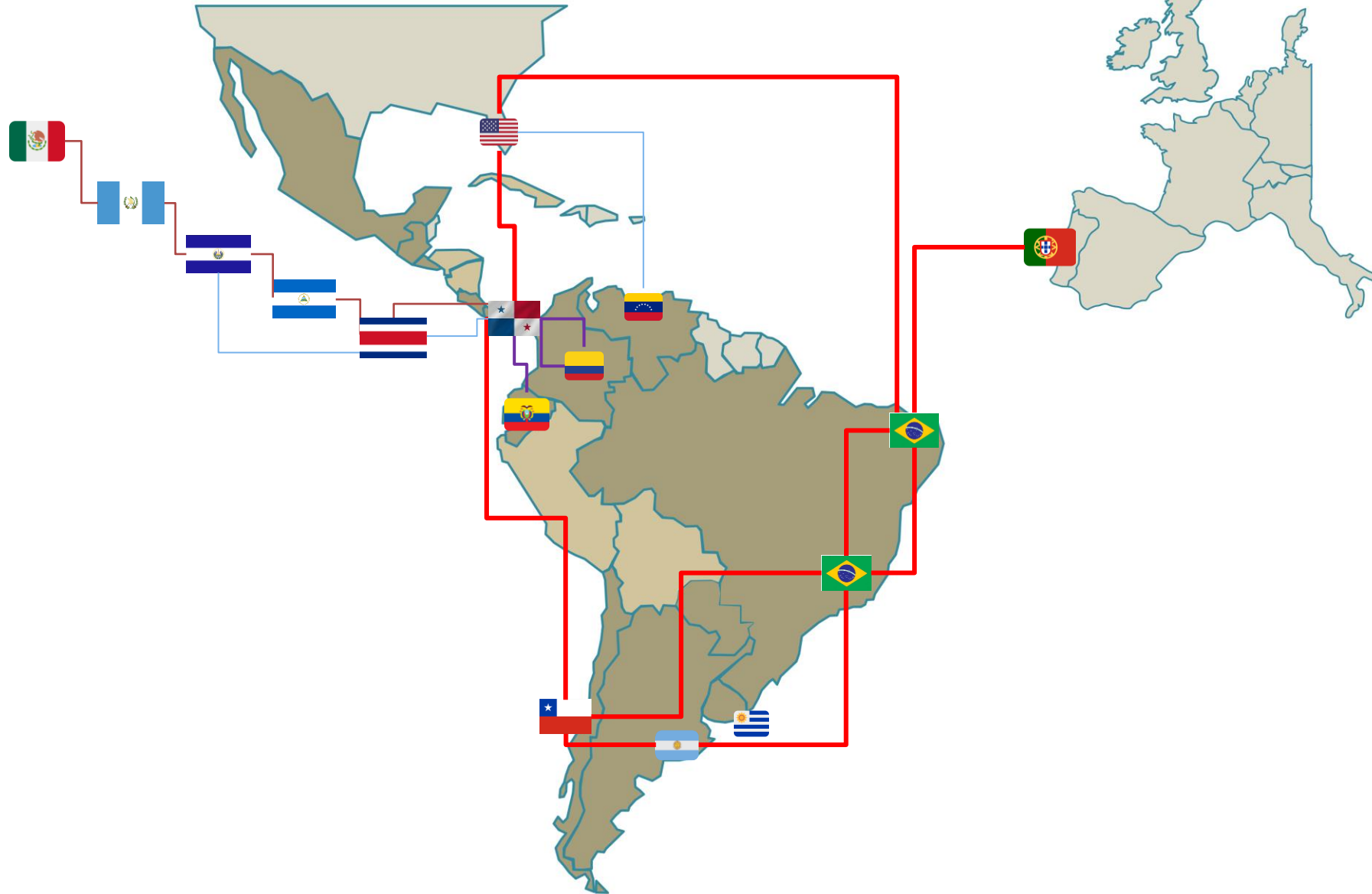


# Bella-T Implementation

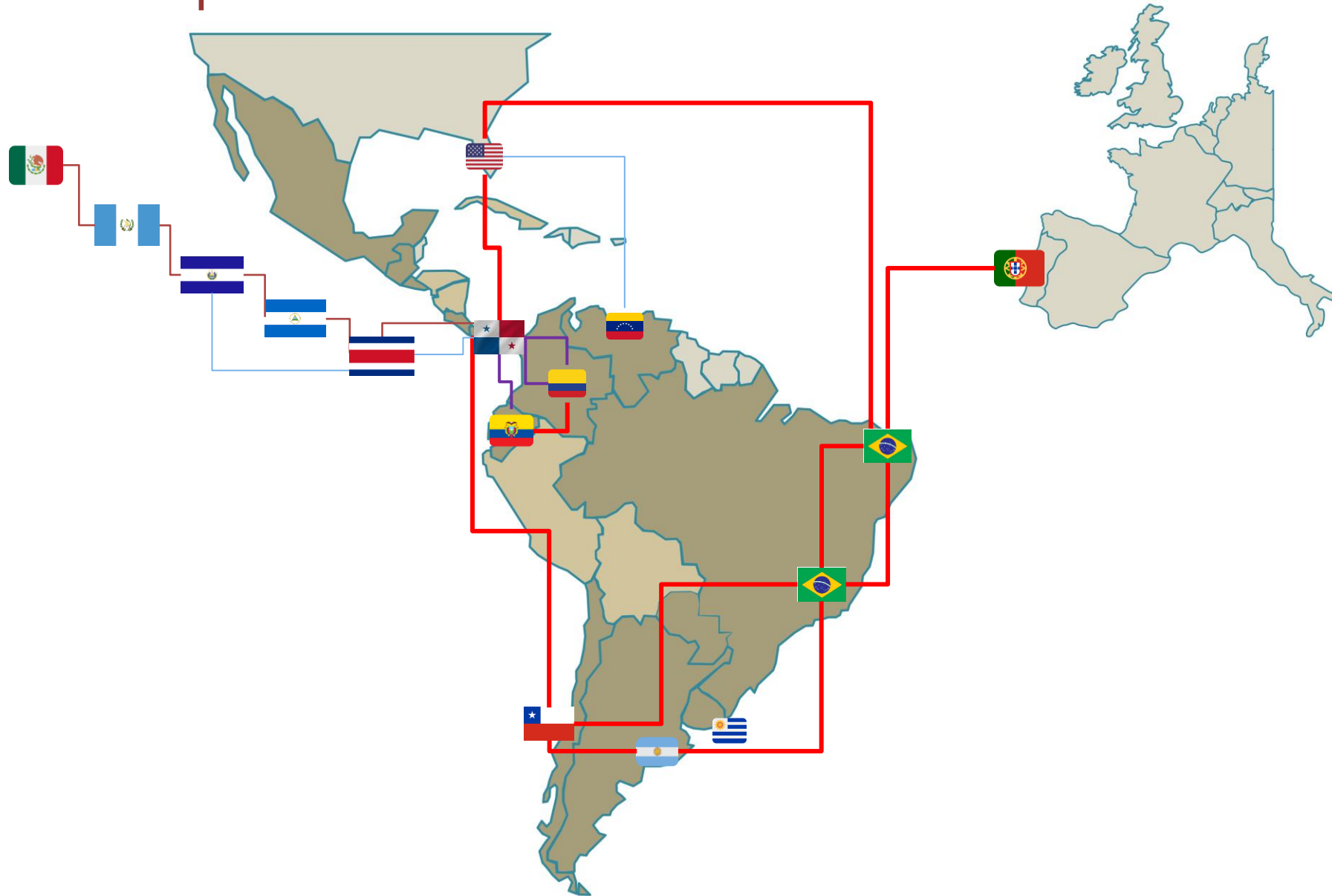




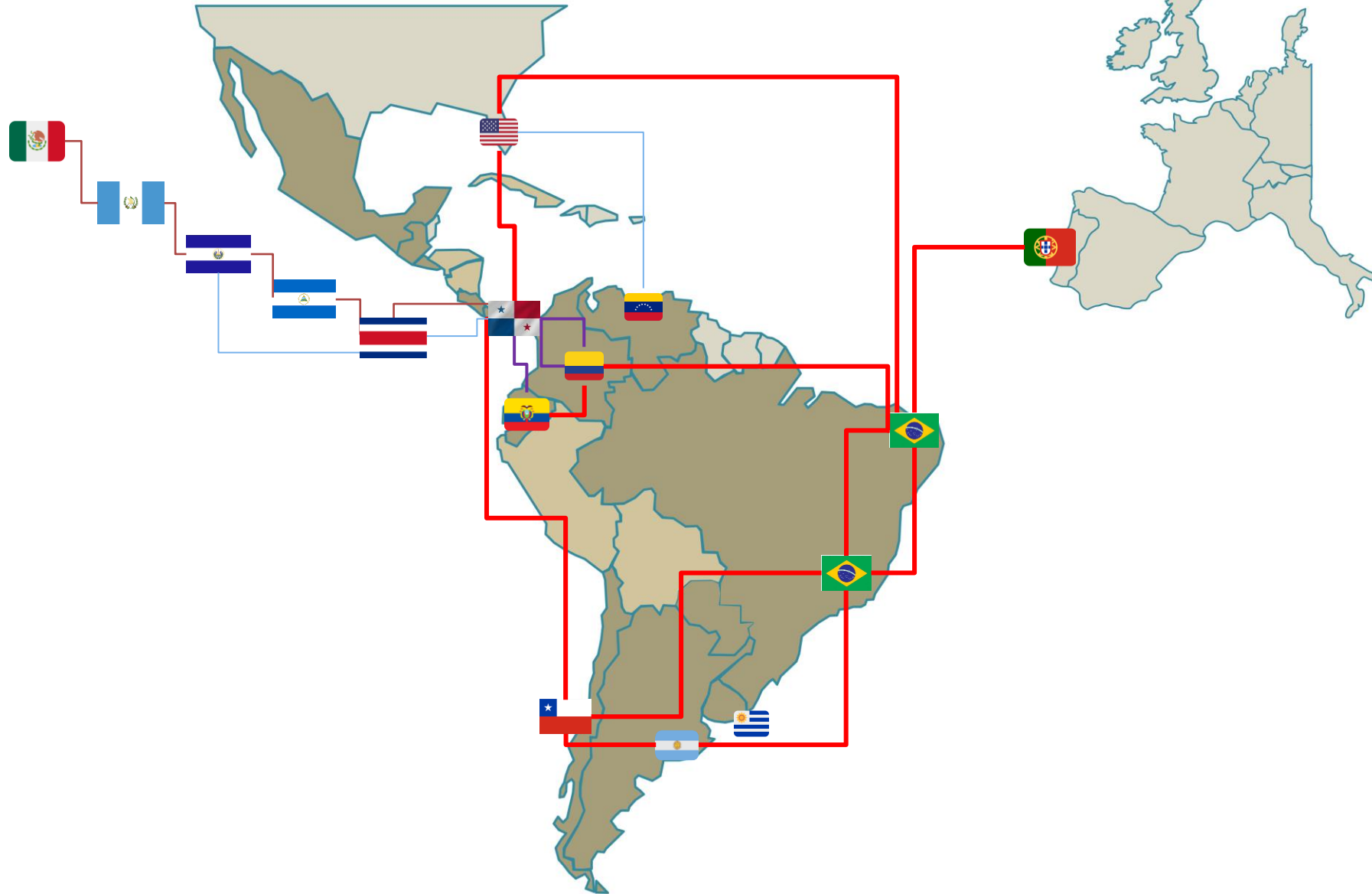
# Bella-T Implementation



# Bella-T Implementation



# Bella-T Implementation



## Bella-T Status Implementation



**Brazil:** By the end of year 2019 RNP will have deployed 90% of its infrastructure allowing RedCLARA to advance with DCI specifications and implementation.



**Colombia:** Network already deployed by RENATA and specifications for the DCI tender in progress.



**Chile:** BY the end of year 2019 REUNA will have deployed 90% of the infrastructure allowing RedCLARA to advance with DCI specifications and implementation.

# Bella-T Status Implementation



**Ecuador:** Network already deployed by CEDIA and specifications for the DCI tender in progress.



**RedCLARA:** Finishing the second tender process to complete the interconnection between country's and starting the deployment of the network on November 2019. Its expected that all the network should have be implemented by August 2020.