100G Backbone

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Who are we ?

RedCLARA is the result of the cooperation between Latin American countries, for the creation of a high capacity network dedicated to research and education.

Today this cooperation has 13 country's totaling 17.262.326 km² of territory to be covered by the NRENs and to create paths that will enable connectivity.

How is the Network now ?

The current network consists of 5 routing points and another 8 with layer 2 services. This backbone is implemented through the most varied types of contracts, such as dedicated channels, dark fiber, DWDM, and cooperation with other projects.

The BELLA Programme

BELLA-S: By securing rights to spectrum on a direct submarine cable between the two regions, BELLA-S will provide for the transatlantic data-sharing needs of the European and Latin American research and education communities for the next quarter of a century. BELLA-S will implement sufficient capacity between the GÉANT and RedCLARA networks to provide for immediate capacity requirements, and will subsequently be able to upgrade capacity as demand requires.

The BELLA Programme

BELLA
Building the Europe Link to Latin America

BELLA-T: By completing the terrestrial optical fibre network infrastructure of RedCLARA, a significant improvement of the Latin American research and education backbone will be achieved. This enhancement will ensure that the enormous step forward of the transcontinental capacity will be evenly distributed across the region, and through synergies with Latin American NRENs will enhance capillarity and equal access to intercontinental services for all research and education end users in Latin American.

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.

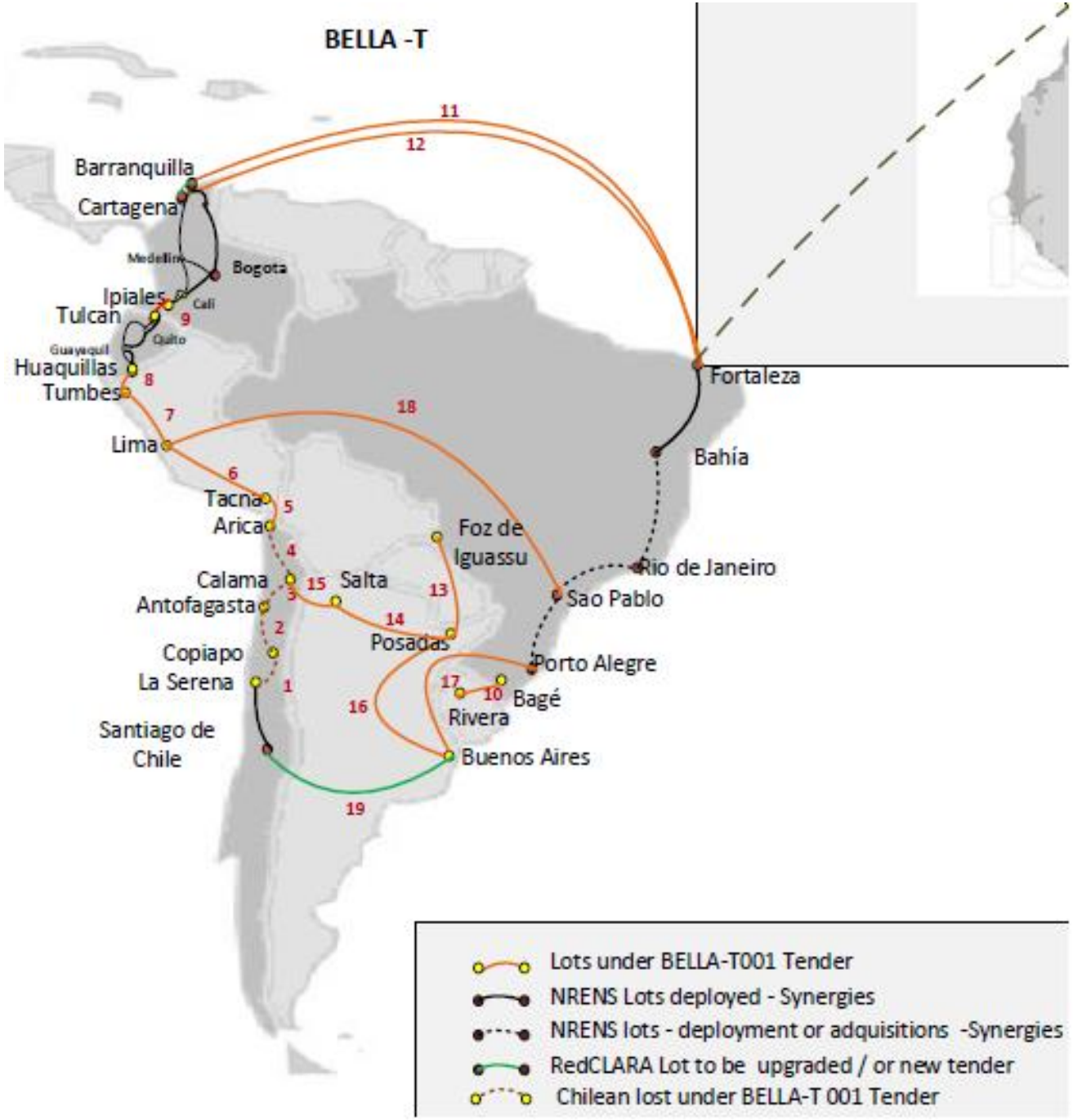
Alien wavelength

The BELLA Programme

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

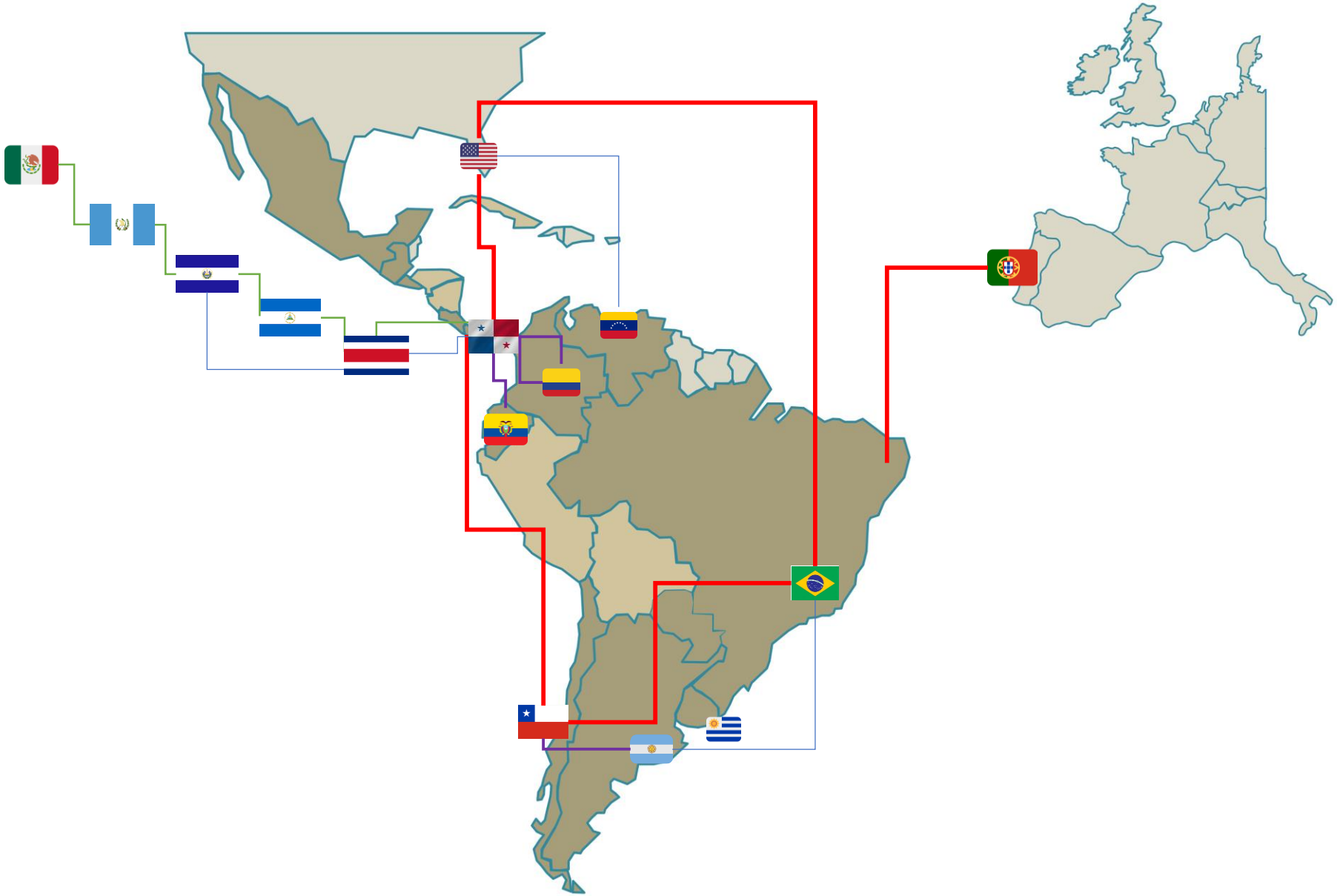
Using segments already deployed by the NRENs to build an overlay network with alien wavelength.

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



Initial network

Bella-T Implementation



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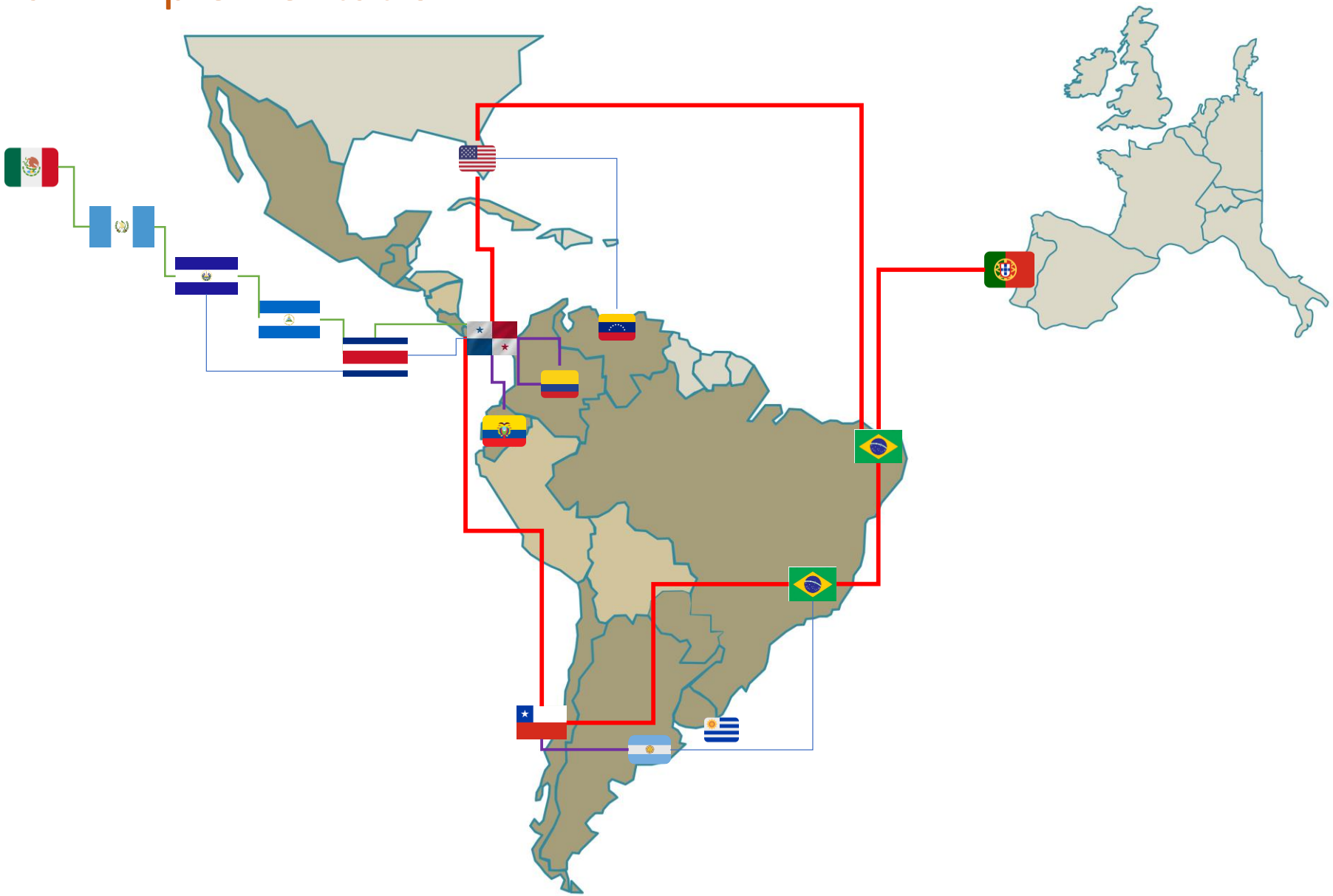

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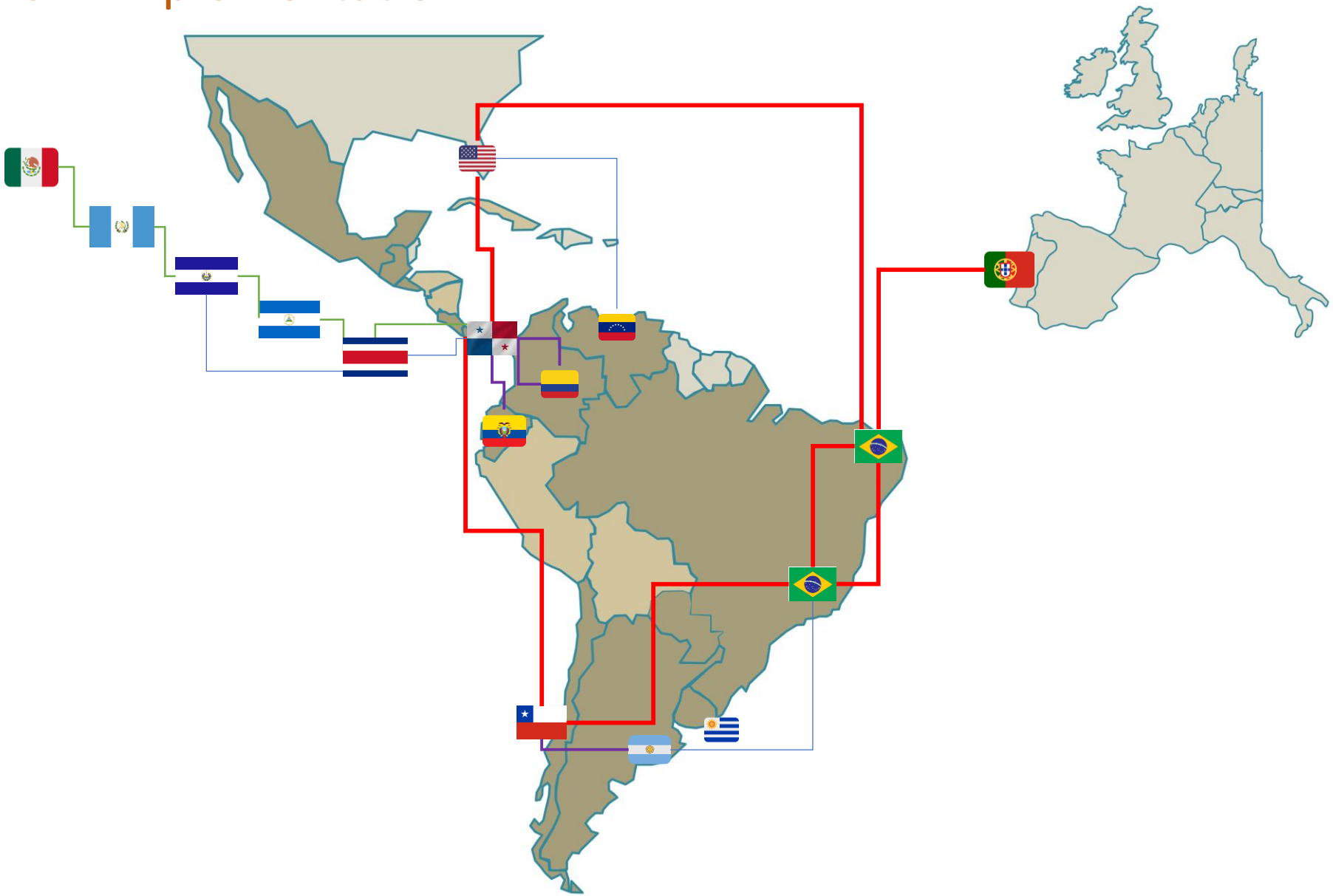

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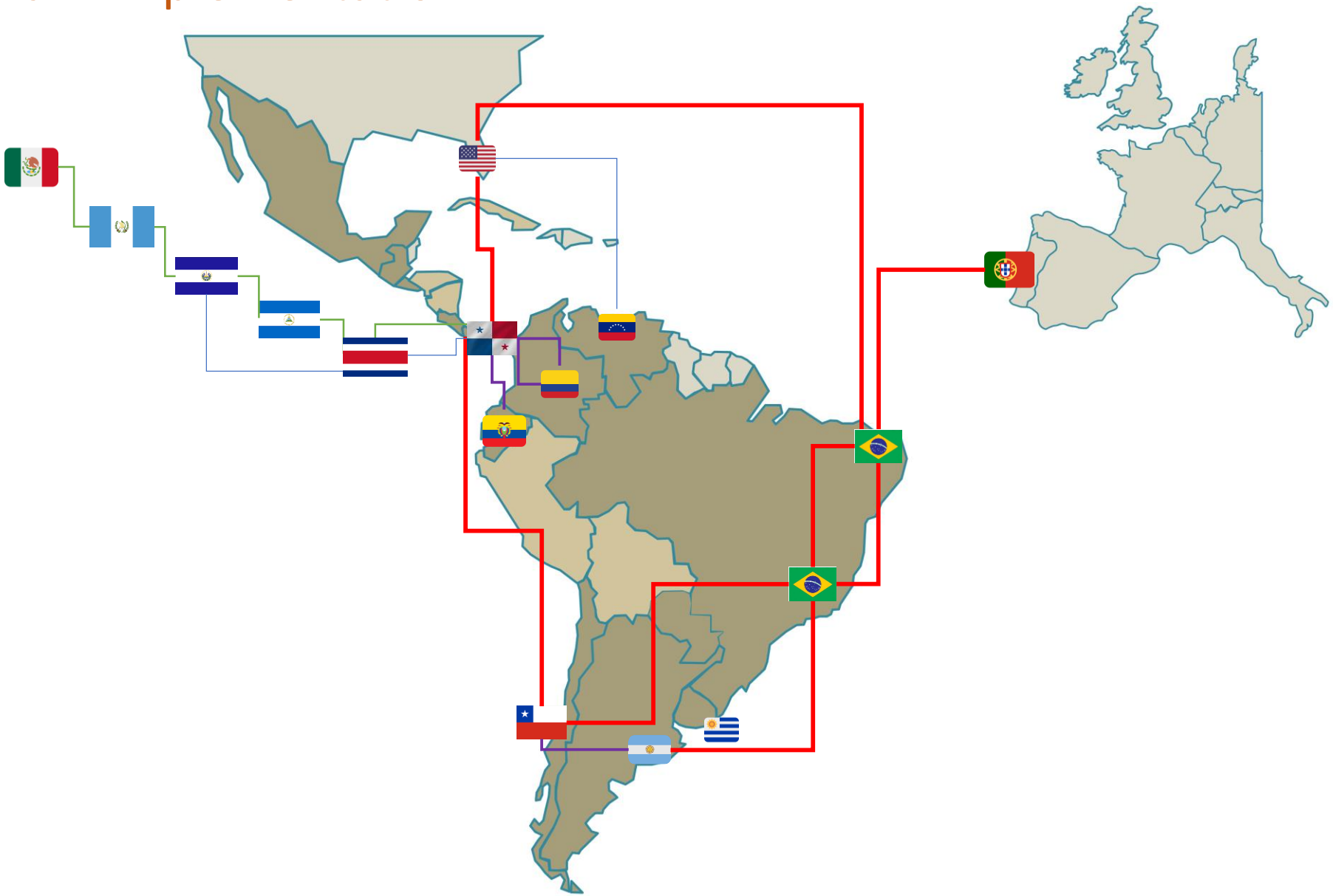

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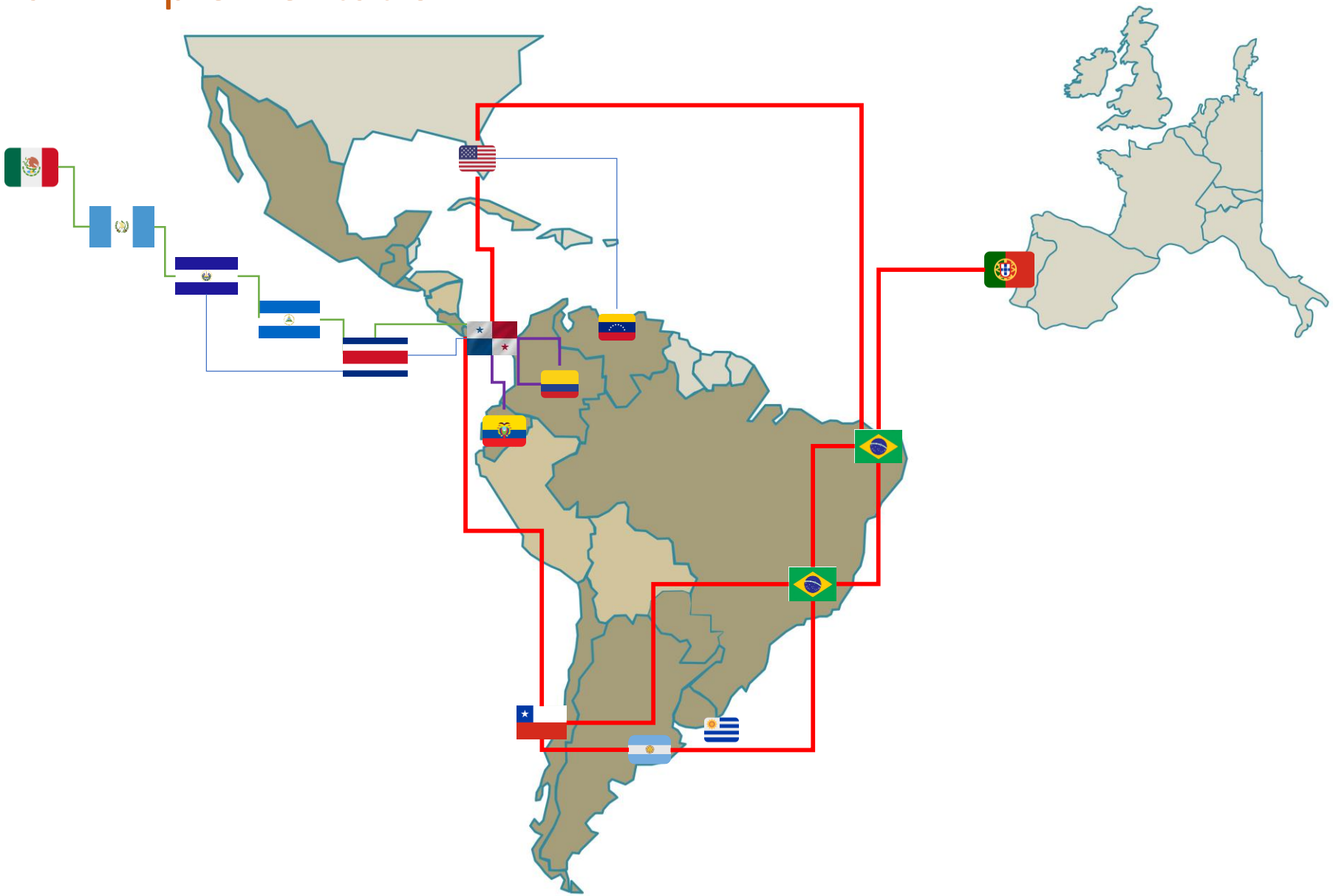

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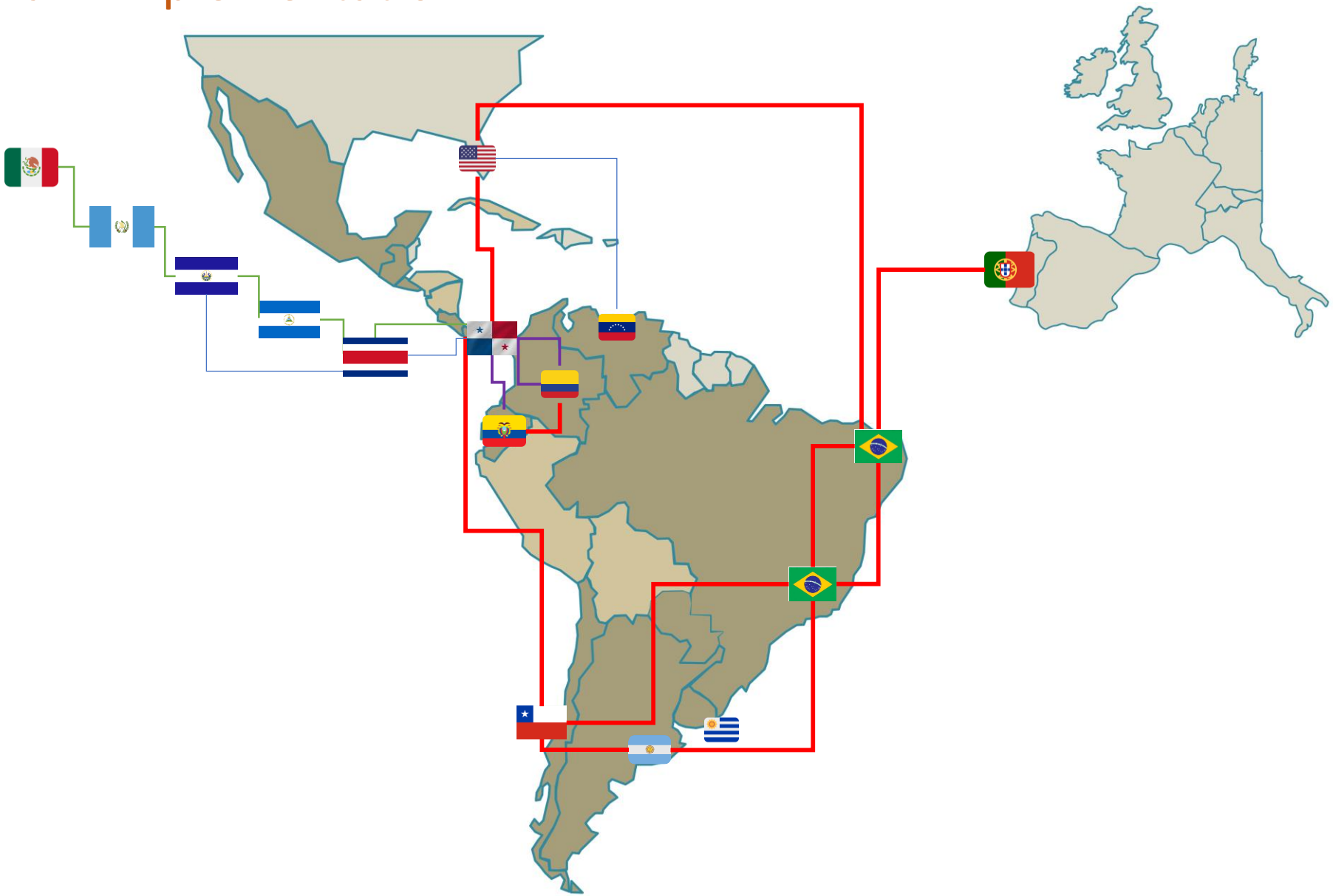

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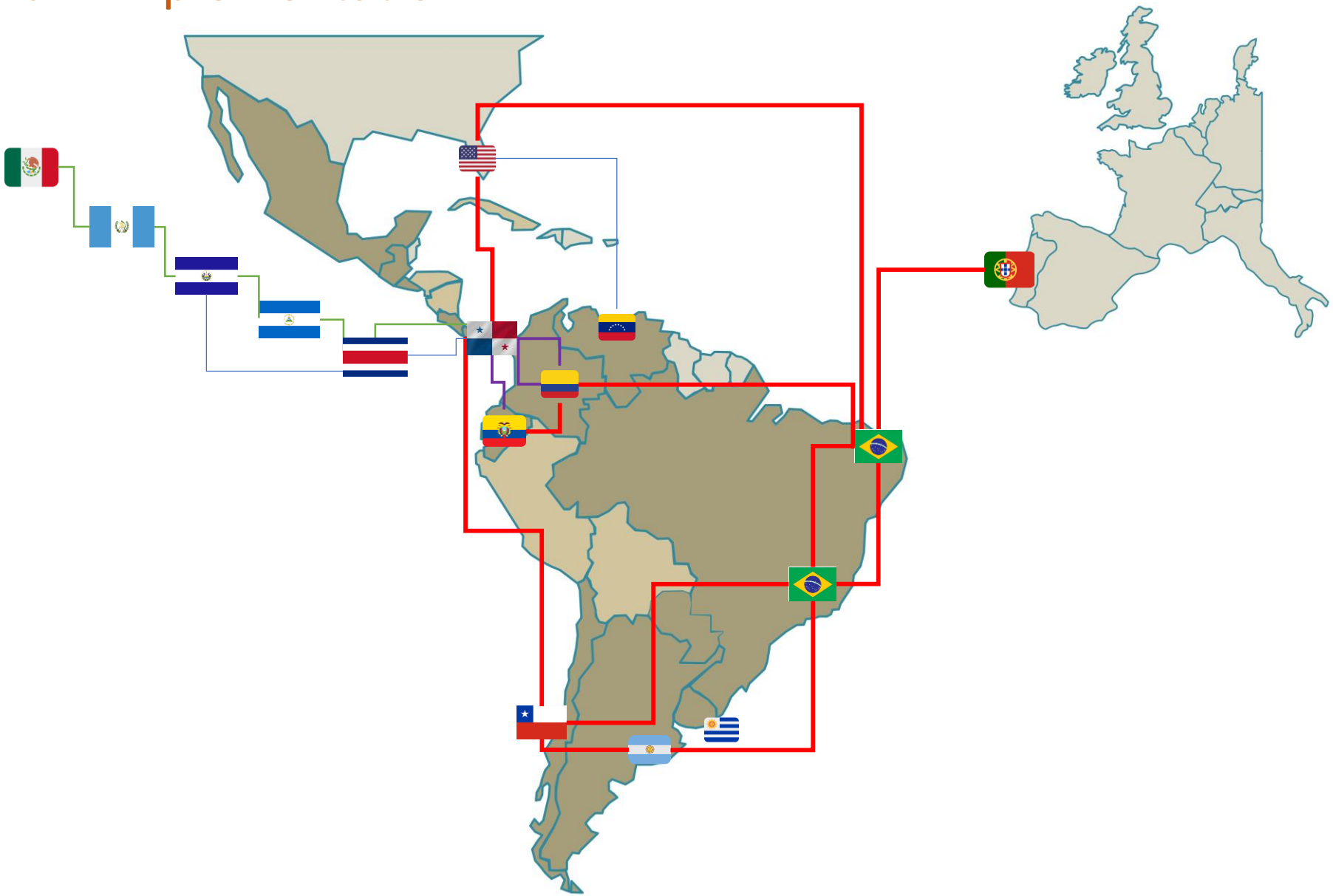
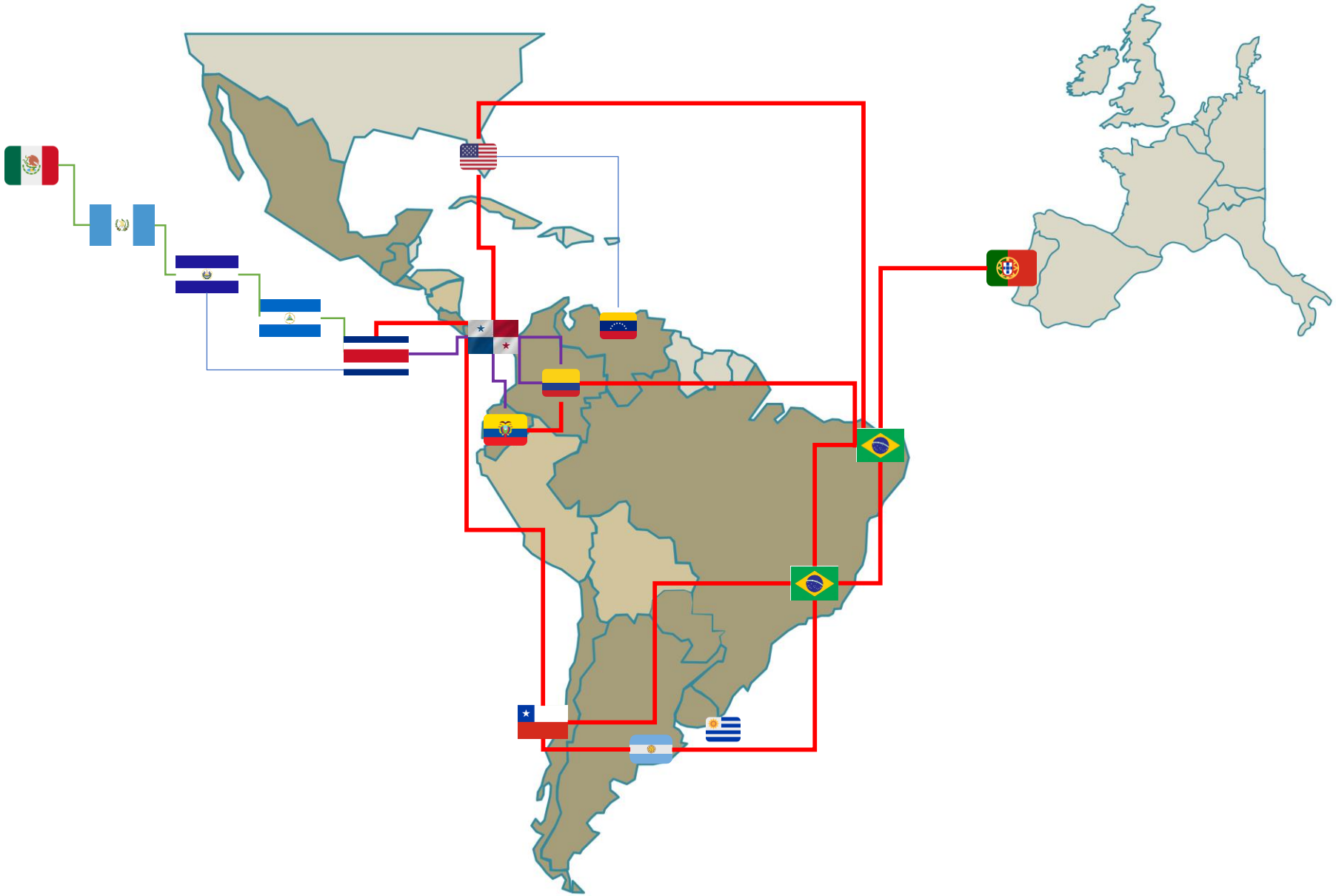


Network

Future Plans



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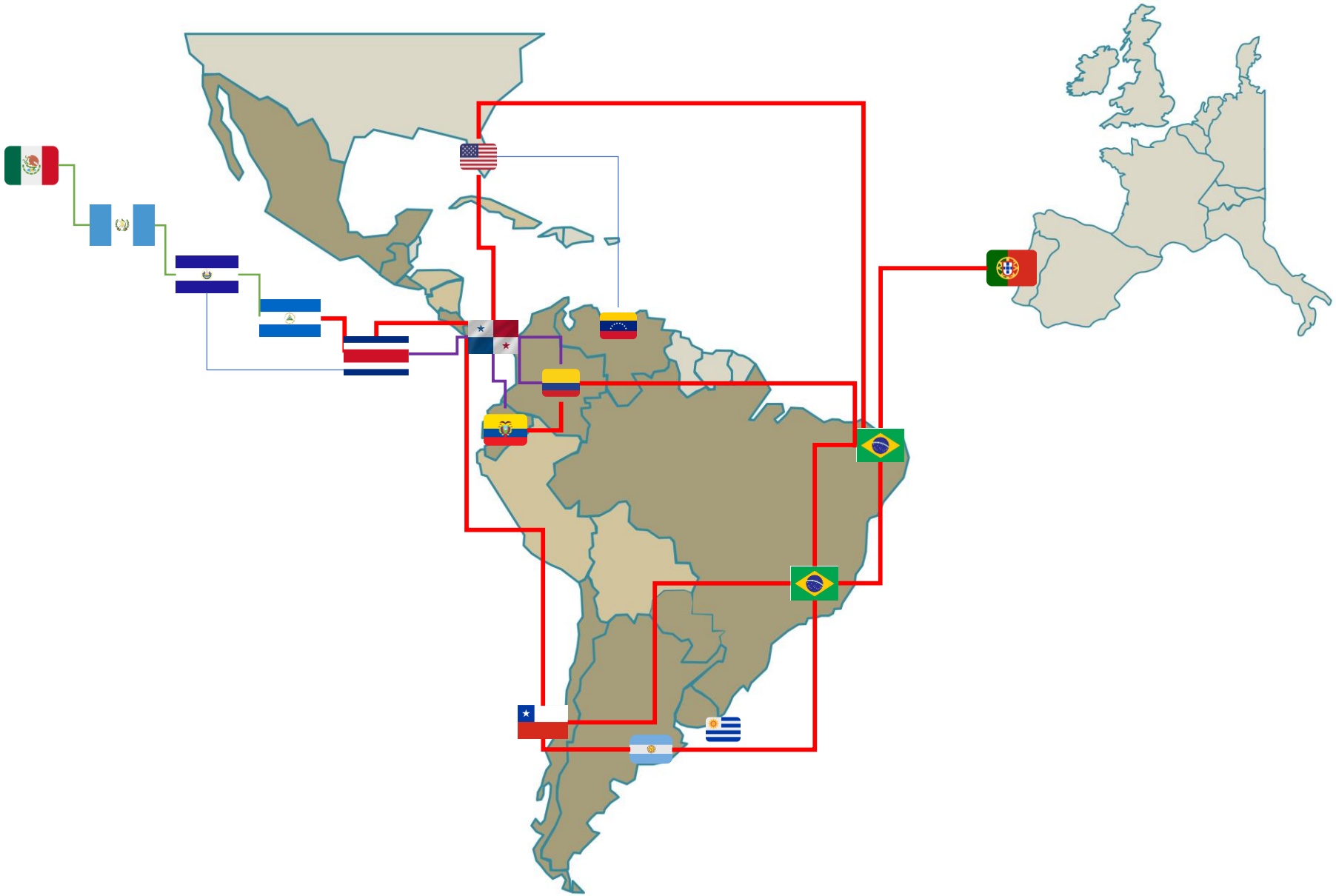

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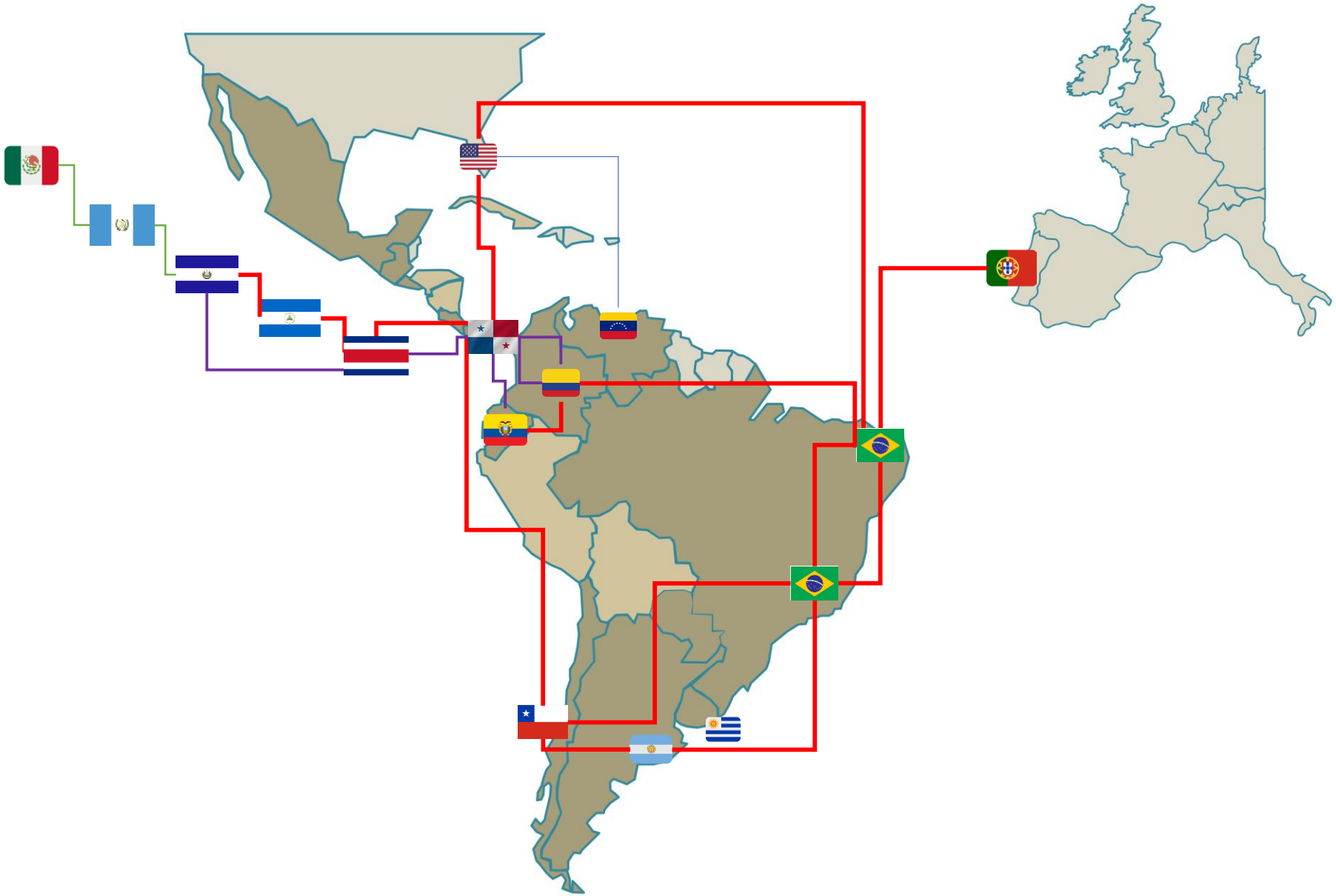

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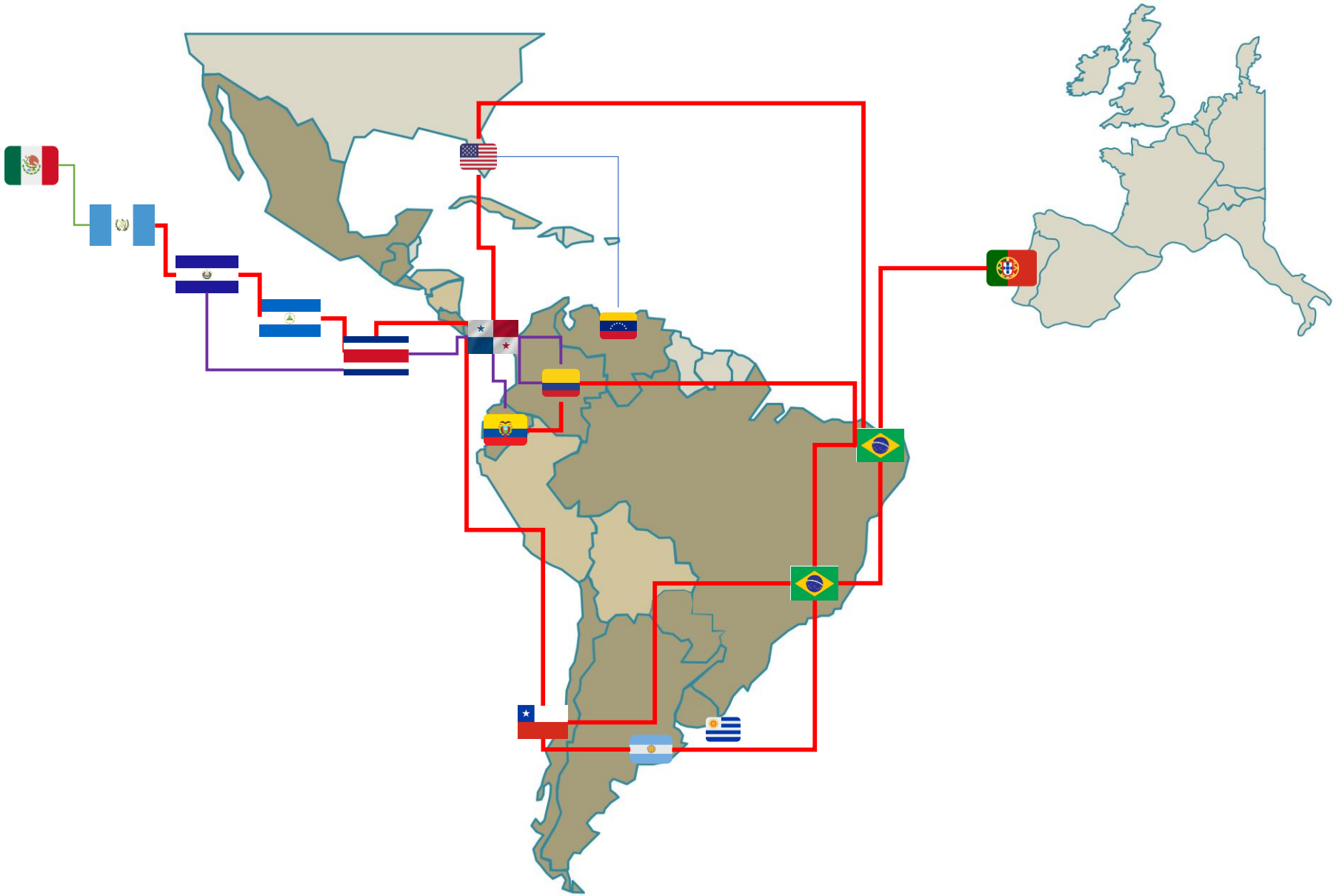

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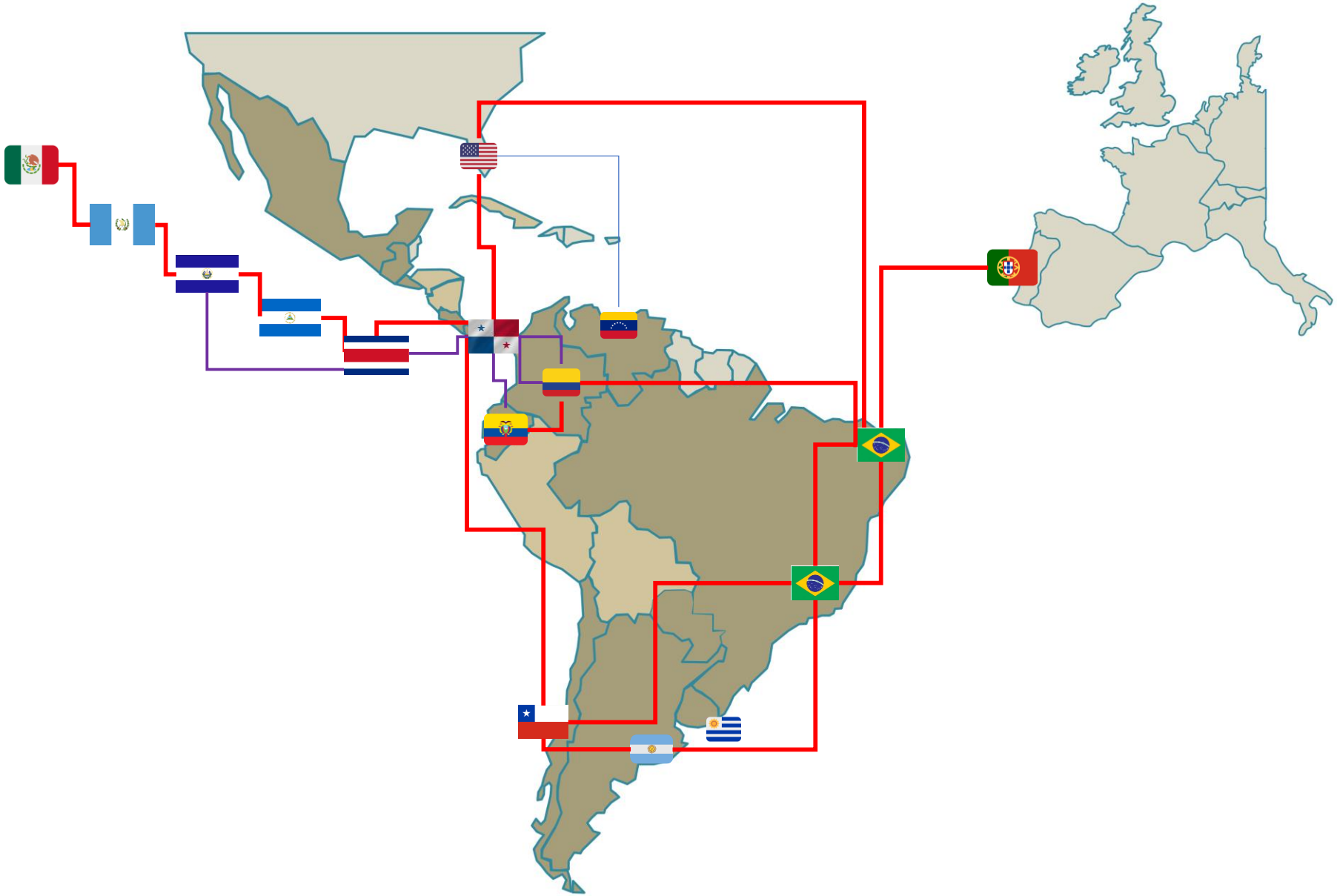

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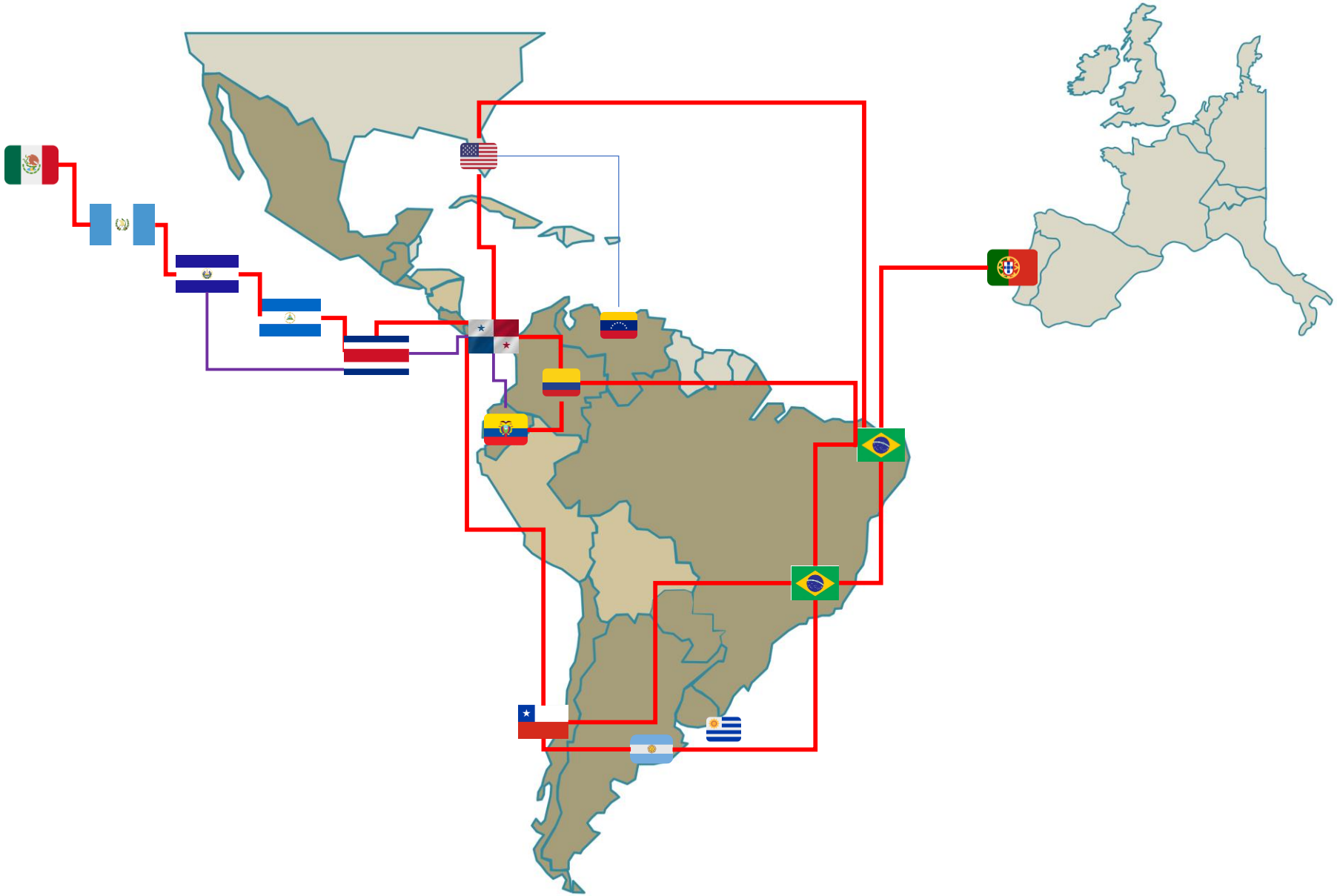

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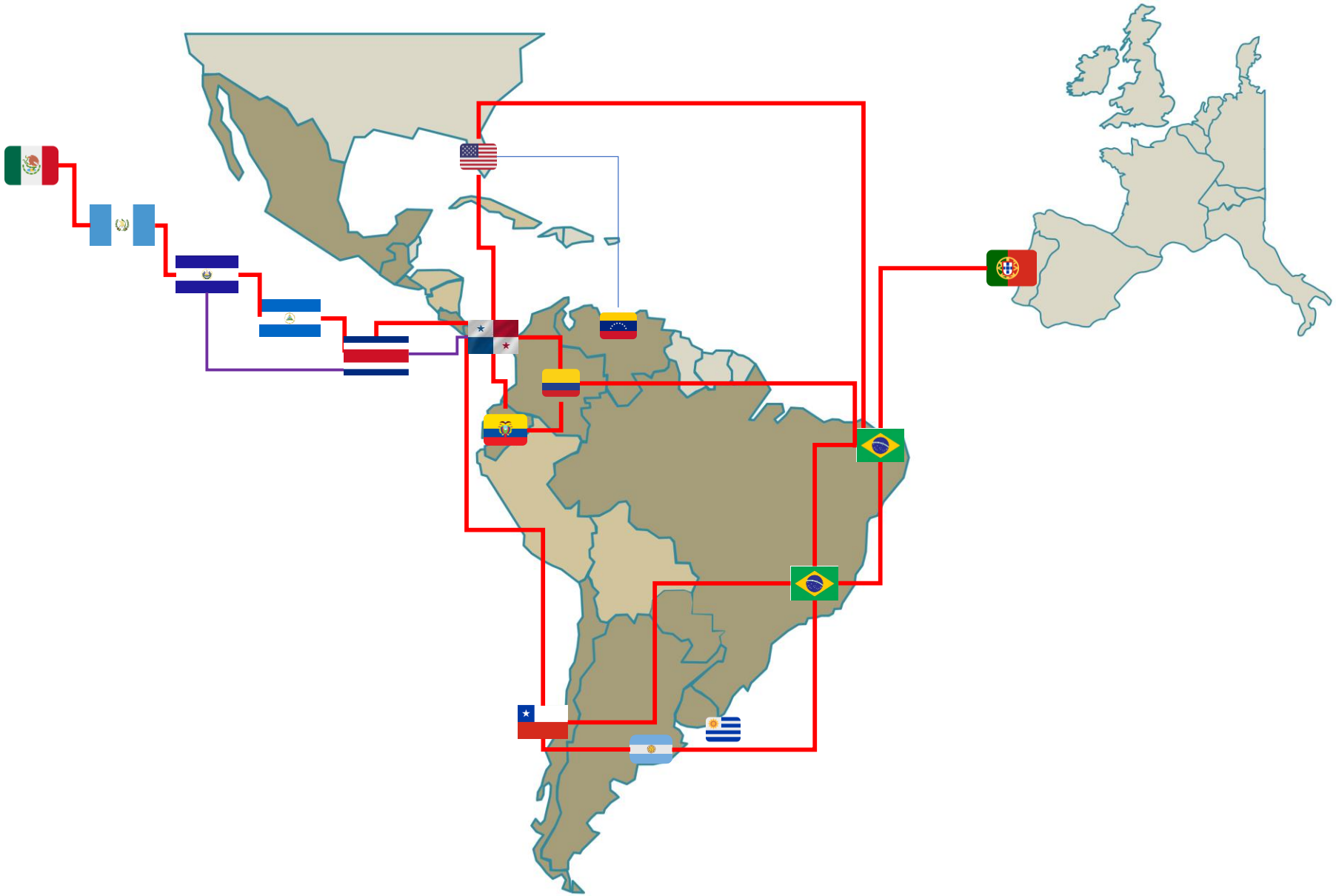

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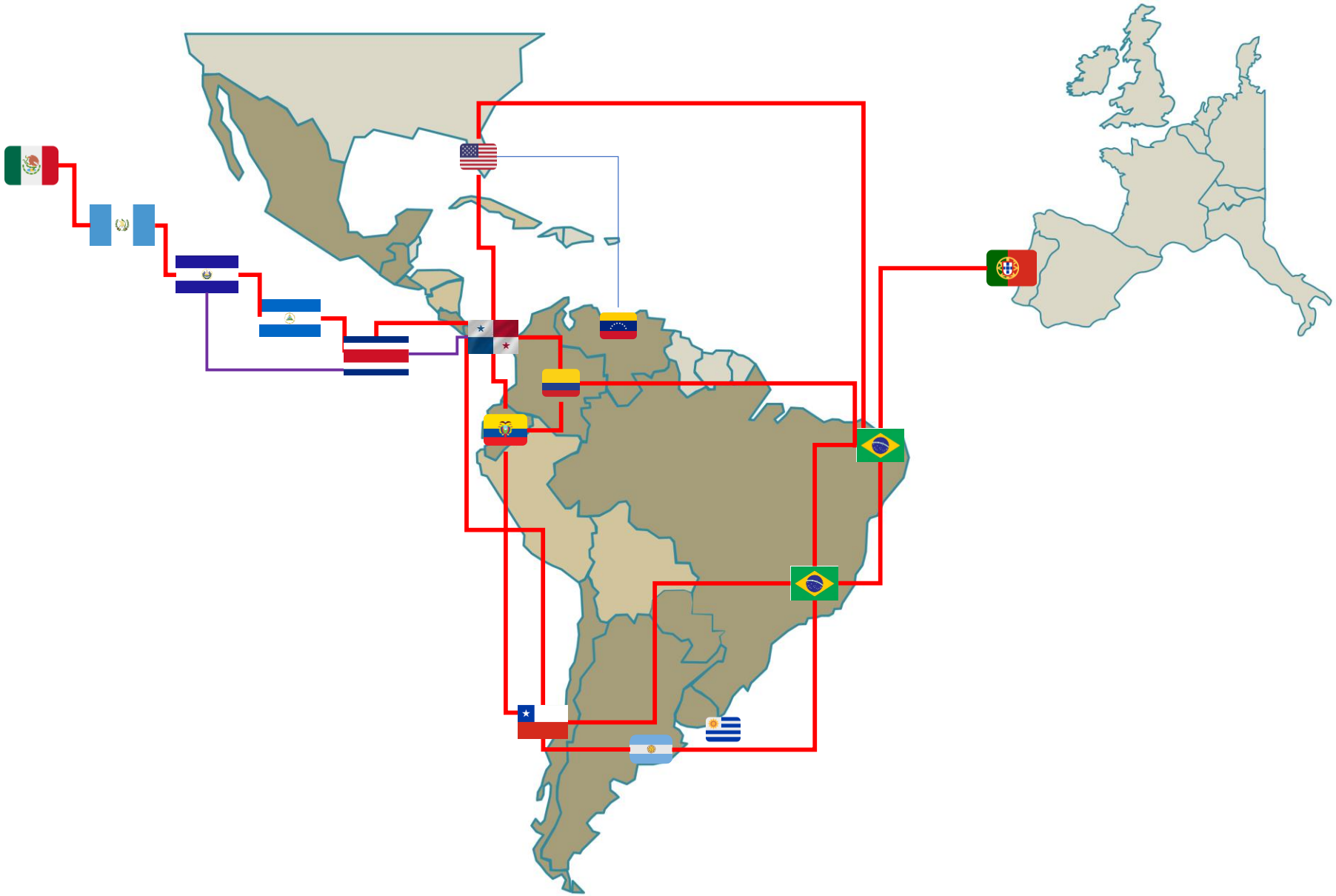

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