GREN Map WG Kickoff Meeting

3rd July 2025

**Participants:**

* Gustavo Hermínio de Araújo - RNP
* Dan Sellars - CANARIE
* Lucas Bondan - RNP
* Erik-Jan Bos - Nordunet
* James Kafader - ESnet
* Alex Moura - KAUST
* Daniel Sweeney - HEAnet
* Marcos Felipe Schwarz - RNP
* Lucas Borges de Oliveira - RNP
* Max Mudde - SURF
* Frédéric LOUI - Renater
* John Hay - SANReN
* Chris Wilkinson - Internet2
* Gabriel Vassoler - RNP

**Meeting Notes**

**Administrative Points & Opening**

* Gustavo Araújo opened the meeting, noting it was the first GREN Map working group meeting of 2025.
* The agenda was set to include introductions, an update on the GREN Map's status, a discussion of current challenges, and a proposal for future plans.
* Participants introduced themselves and their organizations.
* Gustavo Araújo presented the core motivation for the GREN Map initiative: to create a collaborative and dynamic global topology map, as previous static maps quickly become outdated and are costly to maintain.
* Past work focused on creating a standard data format (GRENML) and a hierarchical storage system where each participant can run their own node to share topology data.
* Dan Sellars clarified the three main components of the project: the GRENML XML format for data sharing, the back-end database nodes, and the visualization front-end, which serves as a reference implementation with a GraphQL API.
* Dan Sellars noted that a historical challenge has been encouraging organizations to take on the responsibility of running their own software node, even though it is low-maintenance.

**Short-Term Challenges and Goals**

* Gustavo Araújo outlined key challenges, including expanding NREN participation, creating simplified processes for updating the map, and automating data collection from sources of truth like Netbox.
* A primary goal is to create a global map view to demonstrate the value of the initiative.
* The group discussed the need to simplify the contribution process to encourage broader participation. A consensus emerged to initially hide the complexity of running individual nodes.
* The immediate strategy proposed is to host a central instance of the map and populate it with data provided by partners, likely via a spreadsheet, to quickly demonstrate a valuable, unified view.

**Discussion**

* Erik-Jan Bos inquired about what help is available for NRENs that wish to contribute data but are unsure how to begin.
* Dan Sellars and Gustavo Araújo explained that two primary methods exist: a simple spreadsheet template for easy data entry and a Python library for more technical users to script the export from their systems into the GRENML format.
* Dan Sellars noted that for security and privacy, guidance is provided to obfuscate exact equipment locations and to avoid sharing sensitive data like link capacities.
* Alex Moura asked about the availability of the code and suggested a Docker compose file to make it easier to run a local instance. Dan Sellars confirmed that the project's GitHub repository contains a Docker Compose file for local development and an example Helm chart for Kubernetes deployment.
* Alex Moura raised the possibility of enhancing the visualization, such as showing curved lines for submarine cable paths by reusing data from sources like Telegeography. The group confirmed that using geo-referenced paths is possible, but the current visualization is a minimum viable product (MVP) and such features have not yet been implemented.

**Next Steps & Communication**

* Dan Sellars suggested that a great first step would be for all interested participants in the meeting to provide their own data to create a foundational map.
* It was agreed to establish more regular communication channels. A Slack channel will be created in the NREN workspace, and the existing Confluence wiki page, hosted by GÉANT, will be updated to serve as a central point for information.
* The group agreed that a monthly meeting would be a good cadence to maintain momentum.

**Action Items**

* Create a Slack channel for the GREN Map WG in the NREN workspace and share the link.
* Revamp the GREN Map Confluence wiki page with updated information and notes from this meeting.
* Contact GNA-G support (Veronica di Luna) to update the GREN Map section on the GNA-G website.
* Send a follow-up email containing a meeting summary, a link to the data contribution spreadsheet, and instructions on how to fill it out.
* Interested parties to begin compiling their network data using the spreadsheet template to contribute to the first version of the unified map.
* Schedule the next meeting for late July or early August 2025 and send an invitation to the group.