

GREN Map WG Meeting

Date: March 5, 2026

Host: Gustavo Hermínio de Araújo

1. GREN Map Project Resources Recap

The meeting began with a comprehensive review of how the GREN Map project resources are currently organized. All tools and repositories have been centralized to ensure they are easily accessible to all members through the official Linktree (<https://linktr.ee/GRENMap>).

The specific resources highlighted were:

- **[GREN Map Web Page](#):** Hosted via GitHub Pages, this serves as the main project page providing basic information. It includes a general overview of the project, comprehensive developer guides and documentation, instructions on how to contribute to the code, and our primary contact information.
- **[GitHub Repository](#):** The central repository containing all of the working group's source code.
- **[GRENML Repository](#):** A dedicated repository for GRENML files, specifically holding the network topologies that are actively used in our Proofs of Concept (PoCs).
- **[NetBox2GRENML Script](#):** The repository housing the script developed for the secure conversion of data between NetBox and GRENML.
- **[Project Drive](#):** Our centralized cloud repository used for storing meeting recordings, event presentations, and general working group documents.
- **[Project Wiki](#):** The knowledge base containing historical project information, tracking our progress and documentation from its inception up to the year 2025.

2. GP4L Ecosystem and Digital Twins

- The presentation shifted to the GP4L context, focusing on tool conception around the network ecosystem and Digital Twins.
- The technical workflow covers topology specification , Git versioning , pull requests , and triggering topology correction workflows via GP4L Automation & Orchestration.
- Integrated tools within this ecosystem include Automated Weathermap , Containerlab for simulation , Ntreplica/NRX , Grafana , and Mapgl.
- **NetBox2GRENML Use Cases:** The script allows for sharing private data with trusted first parties, creating highly detailed maps and 1:1 Digital Twins , sharing anonymized data (geo, IP, interface) of all devices , and generating public maps or sanitized Digital Twins. Future capabilities will include flexible maps of sites and customizable aggregation levels by site or tenant/owner with dynamic zoom capabilities.
- **Current Status:** The export from Netbox to GRENML is implemented , with the source code available on GitHub (<https://github.com/grenmap/NetBox2GRENML>).
- **Future Work:** The next major milestone is implementing the import of GRENML back into Netbox.

3. Map Demonstrations

- A live demonstration of the NRENs map was shared using a temporary ngrok link (<https://d486-200-129-160-130.ngrok-free.app/>) , which was only available during the meeting.
- The official GNA-G Projects map was also showcased and is permanently accessible at <https://grenmap.rnp.br/>.

4. Open Discussions

- The group engaged in open discussions to gather feedback on the maps, starting with identifying the single most critical feature missing right now.
- Participants brainstormed "Nice-to-Have" features to add to the future backlog.
- Regarding the GNA-G Projects Map, the group was asked to specify any incorrect data that needs to be corrected.
- A debate was held on what specific information is essential to display for network topologies , such as filtering only for PRENs or intercontinental links.
- The group discussed the criteria that should be met for a network topology to be included on the GNA-G map.
- The floor was opened for any additional thoughts, ideas, or feedback.