

GREN Map Working Group

Charter

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Goals

The GREN Map Working Group will guide the development of a unified system for visualising the high-level connectivity of and participation in the community of research and education networks around the globe, referred to as the GREN: Global Research and Education Network.

The purpose of this system is to provide an up-to-date visual representation of the scope and reach of the GREN. The system, as an interactive, tangible representation of the GREN, will support robust discussions of the GREN value proposition with governments, researchers, and connected institutions.

While a number of national and international Research and Education Network maps currently exist, most of them are populated manually, and involve a large effort to gather, translate, and maintain the source data from regional network operators. Many also show a singular perspective on the network.

The goal of this Working Group is to achieve a dynamic visualisation of the GREN that is perpetually up-to-date without requiring onerous parallel data collection & maintenance activities. This is achieved through the joint development of a reference data model, and standardization of supporting data automation tools. This visualisation will serve as a reference for other visualisations created by the community, in order to apply different aesthetics or perspectives on the same source data.

Deliverables

The GREN Map Working Group will establish clear and specific requirements to achieve the following deliverables, and solicit partnerships in the community for the implementations thereof.

1. Data Interchange Format

Define a schema and set of conventions for the collection and transmission of mapping data that meets the initial visualisation requirements of this project but remains easily extensible to meet future use cases.

2. Database

Develop a database model, schema, and implementation that allows each REN to provide and maintain their own data while permitting single-source querying of all global data.

3. Data Management Tools

Construct a set of tools to ease the collection and maintenance of the mapping data. This is critical to the widespread adoption of the system required to ensure its utility and success.

4. Visualisation

Create a reference visualisation that:

1. Is dynamic & interactive (zoomable with selectable layers and sections), and also supports “static” (e.g. printed) rendered versions;
2. Has the ability to show intra- and inter-NREN nodes and connections, including some meta information (e.g. link throughput and ownership);
3. Has the ability to show connected institutions and major science infrastructure and instruments, and how they connect to each other.

5. Adoption

Guide the promotion of the project and encourage participation among peers in the GREN community. In order for this initiative to mature and eventually become self-sustaining, it is important to achieve a critical mass of adoption of this paradigm and infrastructure.

Timelines

The GREN Map Working Group will establish best-effort timelines and deadlines for its own activities in good faith, to meet its own goals and in collaboration with stakeholders.

Terms of Reference

In general, video conferences will be the method of choice for collaboration of the GREN Map Working Group, while also taking advantage of opportunities for face-to-face meetings that present themselves. Meetings should take place in the range of once or twice per month, or more frequently as necessary.

Membership to the GREN Map Working Group shall be by nomination or invitation from any existing member, and approved by the chair(s).

Decisions by the GREN Map Working Group shall be made by consensus model; achieving consensus is expected to be the top priority in any discussions.