



GOLE Operators Task Force Charter

Co-Chairs: Dale Finkelson (Internet2) & Gerben van Malenstein
(SURFnet)

Draft v0.5, 7 November 2014

Goals

The GOLE Operators task force is a forum open to all operators of GLIF Open Lightpath Exchanges (GOLEs), and those interested in GOLE operations. The Task Force strives to encourage smaller or less-experienced GOLEs to be actively involved.

The goal of the Task Force is to foster and maintain a community of GOLE operators, to provide a forum for understanding the role of and defining characteristics of GOLEs in the R&E networking landscape, to facilitate discussion of current GOLE issues, agree on operational standards and best practices, and be a focal point for the consensus building necessary for the evolution of GOLE technologies, tools, and characteristics.

Unlike most GLIF task forces, the GOLE Operators Task Force has a long-term coordinating function, and therefore does not have a set term or expiry date. The GOLE Operators Task Force is not specifically focused on solving a particular problem or set of problem, but rather on the community of GOLE operators. The Task Force will, however, take on current issues and propose solutions to the wider GLIF community.

The GOLE Operators Task Forces will pick key issues of current concern to GOLE operators as current work items, and will organize GOLE operations and GOLE technology sessions at GLIF Tech meetings.

Motivation

The operation of GOLEs is an essential function for the GLIF community. Successfully operating a GOLE requires much more than deploying and operating an isolated facility; a GOLE must interact with the community, be prepared to respond to both the transient needs of connectors, i.e., when large experiments and events are going, and be able to support and respond to the constantly evolving needs of the community.

GOLEs have become a key element in the worldwide R&E network infrastructure, used far beyond the GLIF community. For example, GOLEs have been designated as the landing points in major inter-continental connectivity efforts such as the ANA-200G project and the Global Network Architecture of the R&E Network CEO Forum. GOLEs have become the hubs for inter-continental connectivity and the place where R&E networks interconnect. This puts the highest possible demands on GOLEs in terms of dependability and trust, creates new service expectations, and means that GOLEs must respond to the needs of the R&E networking community at large. In addition, some GOLE are also connecting commercial/non-R&E entities who deliver services to R&E networks and their institutions, making GOLEs hubs for not just networks, but also above-the-net services.

At the same time GOLEs are constantly evolving, going far beyond the original, simple layer-2 switch fabric. Modern GOLEs implement dynamic circuit provisioning, are implementing SDN technologies, and are being asked to support traffic engineering. GOLEs are also being asked to implement performance and availability monitoring, controllable by the connectors. All these evolving needs must be met while ensuring consistency, adherence to a basic set of

standards and practices, and continuous support of the experimental, demanding, high-capacity applications that push the boundaries in the GLIF community. While all GOLEs adhere to same basic standards, it may be the case that it is useful to define different classes of GOLEs to better manage connector expectations.

Short Term Objectives (2014)

1. The Task Force will work to create a basic operational requirements specification for GOLEs, detailing facilities that must be present and operational standards that must be met. The requirements will make special consideration for meeting the needs of network service providers landing major transport trunks on GOLEs. The objective is to have a first draft presented at the GLIF Tech meeting in March 2015 and a first version agreed at the following meeting in September 2015.
2. The Task Force will work to establish a best GOLE Operations Best Practice Guideline document. The document will have guidelines for best-of-breed GOLE and multi-domain operations practice and recommendations for how to best serve the most demanding users. A first draft of this document will be made available to the larger GLIF community in 2015.
3. Work on a set of recommendation for advance GOLE services in support especially of evolving traffic engineering needs. The taskforce will host discussion sessions with the community on this during 2015.
4. Work on understanding new demands arising from the connection of non-R&E entities, especially above-the-networks service providers, with a view to a future white paper.