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Monitoring Infrastructure among FIBRE-BR islands

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FIBRE-BR I&M Architecture

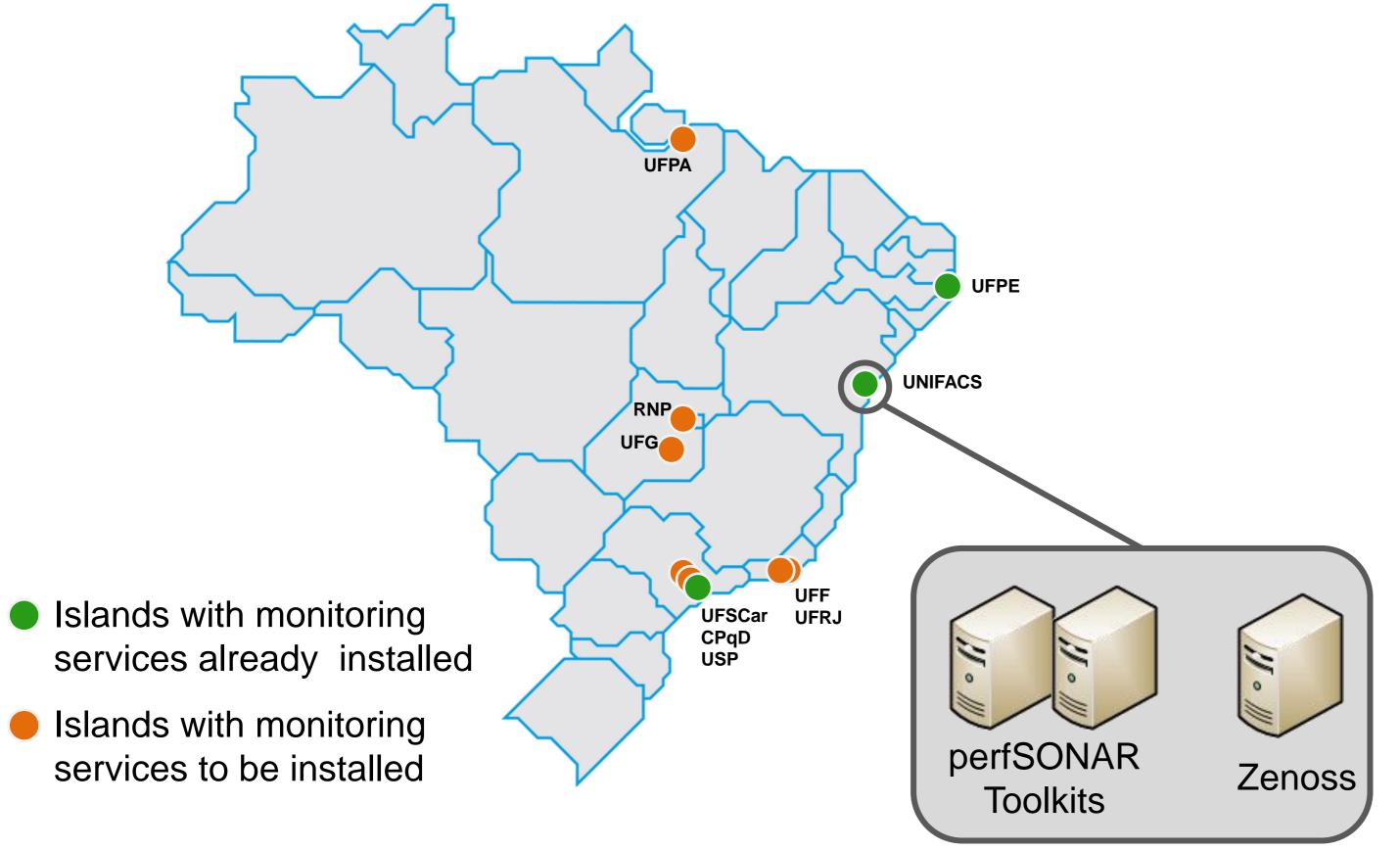
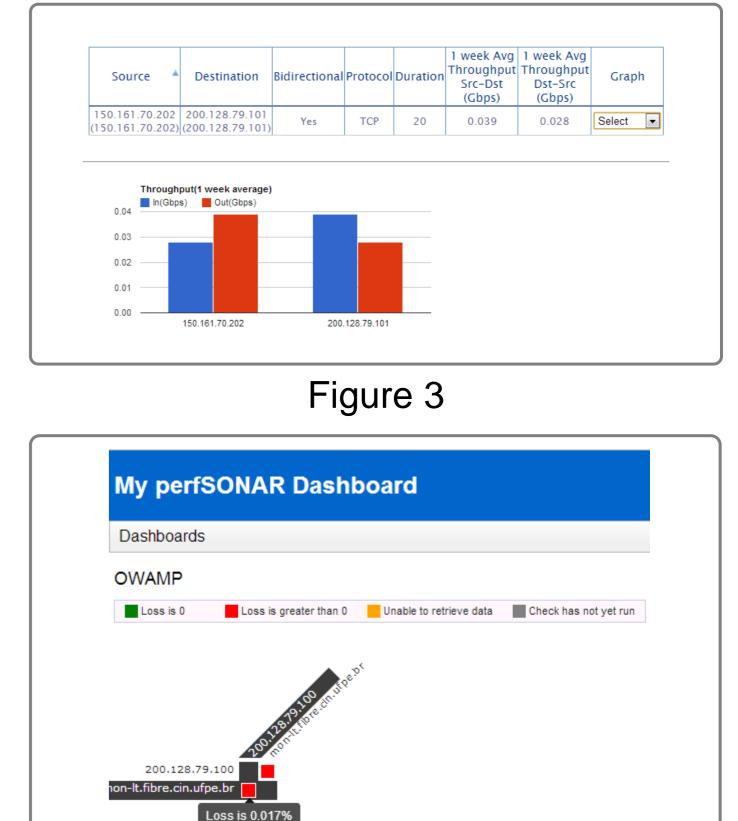


Figure 1. Monitoring infrastructure FIBRE-BR islands

The FIBRE project adopted an Instrumentation and Monitoring (I&M) architecture that has as its final goal to integrate monitoring facilities among multiple CMFs (OCF, OMF, and ProtoGENI). One adopted premise is to leverage on some currently adopted monitoring tools, such as the perfSONAR Toolkit and Zenoss.

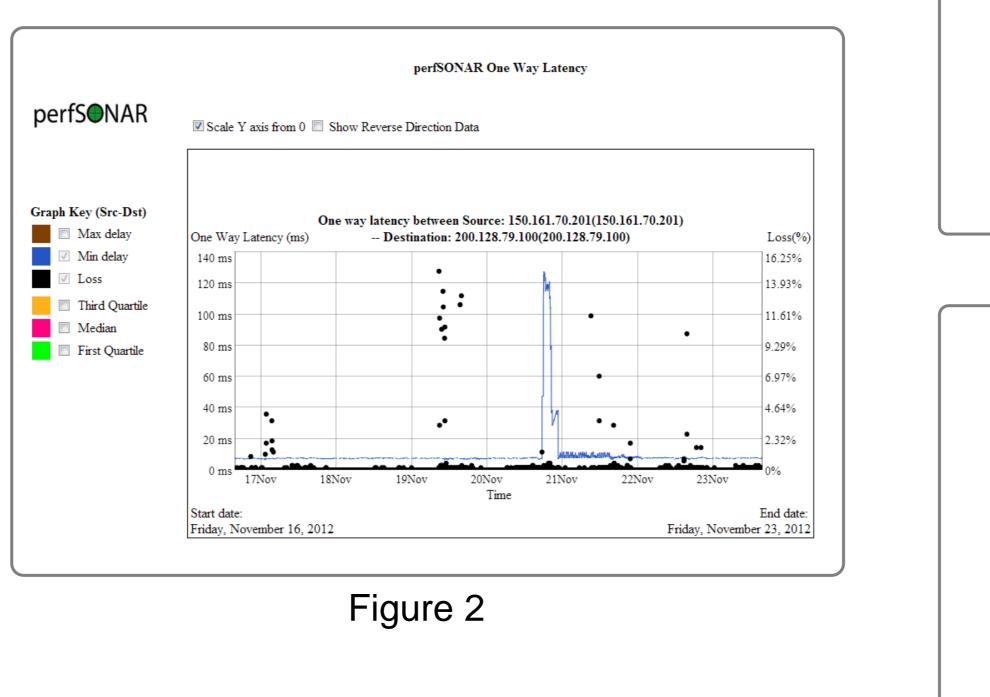
Both tools provide different monitoring information that will certainly help experimenters in knowing the status of the islands infrastructure, their internal operational resources and functional conditions, as well as connectivity performance results. The islands operations teams will also benefit from these information by proactively adjusting parameters or reactively solving issues.

CONNECTIVITY MONITORING



The perfSONAR Toolkit servers periodically measure latency (Fig. 2) and available bandwidth (Fig. 3) among the Unifacs, UFPE, and USP islands.

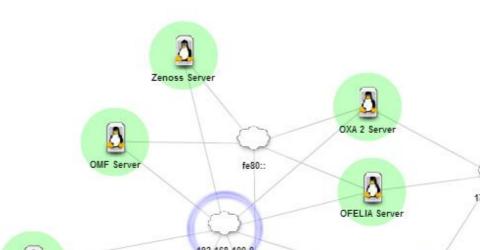
A unified view of the entire FIBRE-BR testbed performance is available through the Measurement Dashboard (Fig. 4).





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INFRASTRUCTURE MONITORING

Zenoss will provide useful monitoring information about the operational infrastructure for each island in the FIBRE-BR testbed.

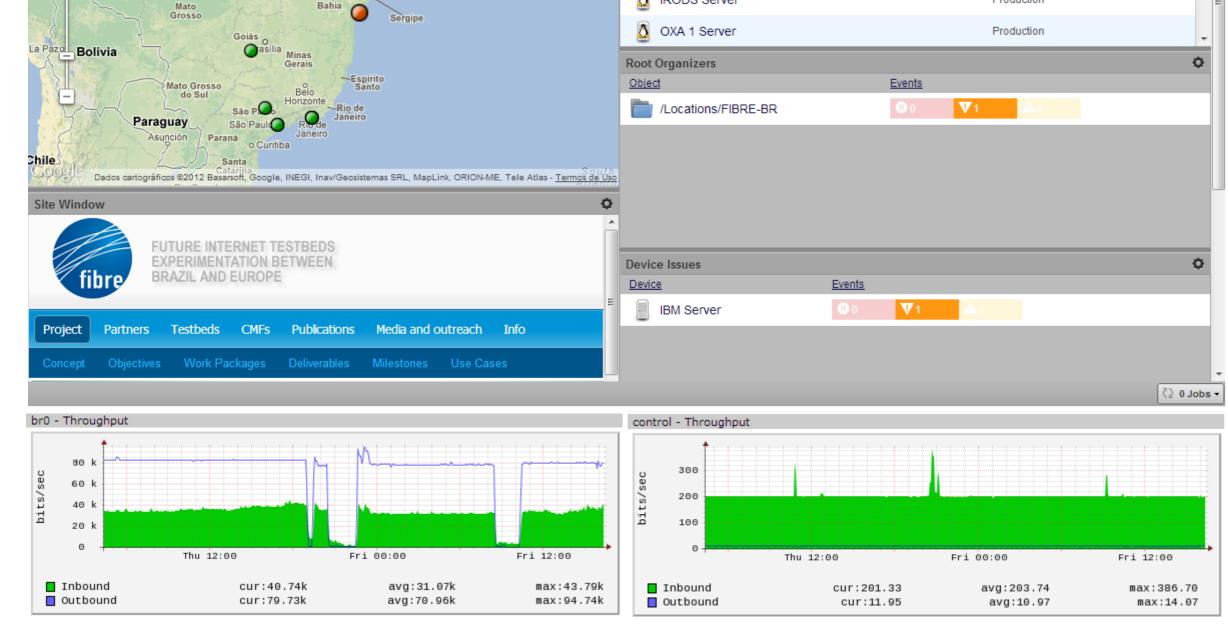


Figure 5

iRODS Server

Experimenters and managers will have the ability to manage physical servers, network devices and virtual machines used in experiments (Fig. 5).

With a collection of extensions, Zenoss allows to customize the monitoring experience.

This work makes use of results produced by the FIBRE project, co-funded by the Brazilian Council for Scientific and Technological Development (CNPq) and by the European Commission within its Seventh Framework Programe.

