ISOC INTERIM REPORT
Rhizomatica, “Hi-tequio” project

1. Date of report (month/year)
   August, 2014

2. A description of the activities undertaken by the project during the reporting period
   There were four main activities related to the project:

   A. Purchase of SymoBTS GSM pico-cell for testing and configuration in a controlled lab environment

   B. Installed and configured SGSN (Serving GPRS Support Node) and GGSN (Gateway GPRS Support Node), which are the software components necessary in order to get GPRS working. This allowed us to do initial testing.

   C. Began coding/programming Access Control to the GPRS service. This includes integration with RCCN, which is our network management infrastructure in order to be able to do billing, block or allow service, measure, limit and filter traffic, and so on.

   D. Met with GSM network users in Talea de Castro to discuss implementation of GPRS, objectives and expectations.

3. Discussion of the performance to date against the goals of the project
   We wished to be a bit further along at the mid-point of the grant. Specifically, for the testing and implementation phase to be complete so we could move immediately to the community deployment and subsequent phases of the project (documentation and training). We feel that we can make up the lost time in the second half of the grant period and are working very hard to get the software ready so that we can deploy ASAP.

4. Outcomes & achievements
   A. GPRS is set up and working in the lab.
   B. Posted configuration files to Github with an AGPL Free Software license.
   C. We have a clearer idea of what needs to be done to get GPRS to a deployment-ready stage and provide a quality service to the users.
   D. Talea's GSM network users are excited about being able to access the Internet through their phones and have begun discussing with us their expectations around costs, access and other factors.
5. Lessons learned and disappointments

Some parts of GPRS are not fully implemented in Osomocom/OpenBSC, which is the software stack that we use to run our GSM network. Specifically the OsmoPCU code, which handles Layer 1 of GPRS is not production ready. The Osmocom community is working on it, but for now this means that GPRS will still have some stability issues and limited coverage beyond 2 kilometers. This has impacted the project as we decided to first test everything in a controlled lab environment rather than deploy something that users would find lacking.

The takeaway or lesson-learned is that open-source development communities are great, but can be slow to develop and polish pieces of software that aren't seen as important.

6. Any changes in the design of the project and implications for future work

Overall, the project design remains the same, with some modifications to the Timeline, as discussed above.

7. Any additional information that would be useful to the Internet Society community for purposes of an interim report.

We have published the code we have developed so far on Github at https://github.com/Rhizomatica/gprs_configs

We are also including, in separate documents, some photos as supporting evidence of the project as well as an invoice from the programmer