



Interactive comment on “Near real time environmental monitoring and large volume data collection over slow communication links” by Misha B. Krassovski et al.

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Review of the manuscript “Near real time environmental monitoring and large volume data collection over slow communication links” by Misha B. Krassovski et al., revision 2

The manuscript describes a possibility of reliably transferring data from an experimental site without data connection to a remote control center using standard satellite communication possibilities. The presented approach could be a suitable and economically feasible solution for many similar sites at remote locations where observation data are generated without regular supervision by on-site personnel and without data links. The details of the experimental setup and local data collection are described in the refer-

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enced publication from 2015 by the same lead author.

While the manuscript is well written and concise, a few additional clarifications could help the reader to evaluate if this approach might be useful for the own applications. The topic of the article is the transfer of large amounts of data via a slow data link. A quantification of both aspects in the given example would be helpful: How many data are to be transferred per hour and what is the effective bandwidth available via the used satellite link? What is the requirement for reliability of the link compared to its actual availability? As described in section 2.3 a redundancy is built into the system by transferring twice the amount of data than is actually generated, therefore requiring twice the bandwidth of the satellite link. A short evaluation of the observed failure rate and therefore the need of this redundancy would be useful.

One detail of the data acquisition strategy should be mentioned also in this context, though it is at least partly covered in the referenced publication: 1.3, line 20 states “queries each datalogger every 30 minutes”: Does this mean that every 30 minutes all data loggers are read, followed by a 30 minutes break without data access activities, or is the data acquisition from all loggers distributed across the 30 minutes time window with each individual logger queried once every 30 minutes? Is the transfer of the new data via the satellite link completely asynchronous to the data acquisition or phased such that the complete data set remains unchanged during the transfers?

The following observations mention a few technical mistakes: Abstract line 10: “conducted in in(remove!) northern Minnesota” Section 1.1 The unit “m” should be separated from the preceding number by a single space. Correct in line 21, but not in lines 23, 24 and 25. Section 2.1 line 20: remove “and” before “software” Section 2.3 line 26: and data ARE accumulated

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