

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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Dear Dr. Schmidt,

Thank you very much for the positive and detailed comments. Please see below responds to them and answers to some of your questions.

How many data are to be transferred per hour and what is the effective bandwidth available via the used satellite link? Effective satellite link bandwidth is mentioned in section 2.1 “Satellite connection”. It was specified as advertised, but we added real measured speed. The amount of data for transfer per hour is added in section 2.2

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“FTP transfer”

What is the requirement for reliability of the link compared to its actual availability?
We added our experience about reliability and availability at the end of the section 2.1
“Satellite connection”

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. We afraid that was a misunderstanding: the redundancy protocols deployed save a backup copy of all collected data locally, on site, and don't require additional use of bandwidth. And our experience with link failures has been added in the section 2.1 “Satellite connection”

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? Yes, it means that every 30 minutes all data loggers are read. We changed wording to make it clearer. The data transfer is asynchronous to the onsite data acquisition, and has 15 min offset, as it mentioned in the section 2.5 “Near real time data collection and monitoring”

Thank you very much for pointing to a few technical mistakes, they have been addressed.

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