Interactive comment on “CITYZER Observation Network and Data Delivery System” by Walter Schmidt et al.

Anonymous Referee #1

Received and published: 14 May 2020

The weather effects can be hazardous and require close monitoring and forecasting. It is even more important in the urban areas with highly concentrated population. For these areas not only the weather but air quality is a very important factor. CITYZER Observation Network and Data Delivery System designed and implemented by authors provides early warnings and short-term forecasts to weather and air quality which allow to avoid weather-caused accidents and generally improve the health of the society. I think the system is well designed, takes advantage of the existing automated network management software which significantly reduces amount of resources necessary for developing and implementation. The modularity with well-defined interfaces for and between elements that allows implementation in different hardware and software configurations is another strong feature of this system. It is very good to see that authors dedicated a lot of attention to the security aspect. Unfortunately, a lot of the field sensors and IoT devices can be relatively easy compromised and jeopardize the whole system. Implementation of the firewall without external write access possibilities looks like an adequate solution. It is very exciting that a dedicated web and mobile applications to access the forecast information for rain and air quality was developed and used in verification of the CITYZER ecosystem concept. Ability of an end user to receive alerts via mobile phone when the probability for rain at a user-specified point will exceed a given level is a well thought feature of that application. This is a very interesting and well written paper that should be of wide interest. The authors should be congratulated on their accomplishments in designing and successfully implementing this system.