The Linux PC that acts as data gathering unit should sample data with a given period. This period can be configurable and adjustable over time, depending on the application, the variability of data and the context requirements (e.g., energy-consumption issues). The implementation of the data acquisition unit on the Linux PC must take in consideration the features of the industrial machine wherewith it is interacting and the proper API must be chosen accordingly.

The Linux PC should perform an initial processing task to aggregate data before transmission to the remote relational DB. Processing and aggregation tasks can indeed reduce the amount of transmitted data and avoid the insertion in the database of data points conveying redundant information. Moreover, the communication between the Linux PC and the node hosting the relational DB must be reliable in order to avoid losses of data points.

In general, the relational DB is hosted remotely with respect to the acquisition and processing units and can e.g., be placed on the Cloud or on a remote server of the company that manages the application/service. The node hosting the DB should run a procedure that communicates with the Linux PC and accesses to the relational DB to store and retrieve data. Duplicates and losses should be managed at the Linux PC and at the transmission level, so that every data point received by the procedure interfacing with the DB is inserted in the proper table.