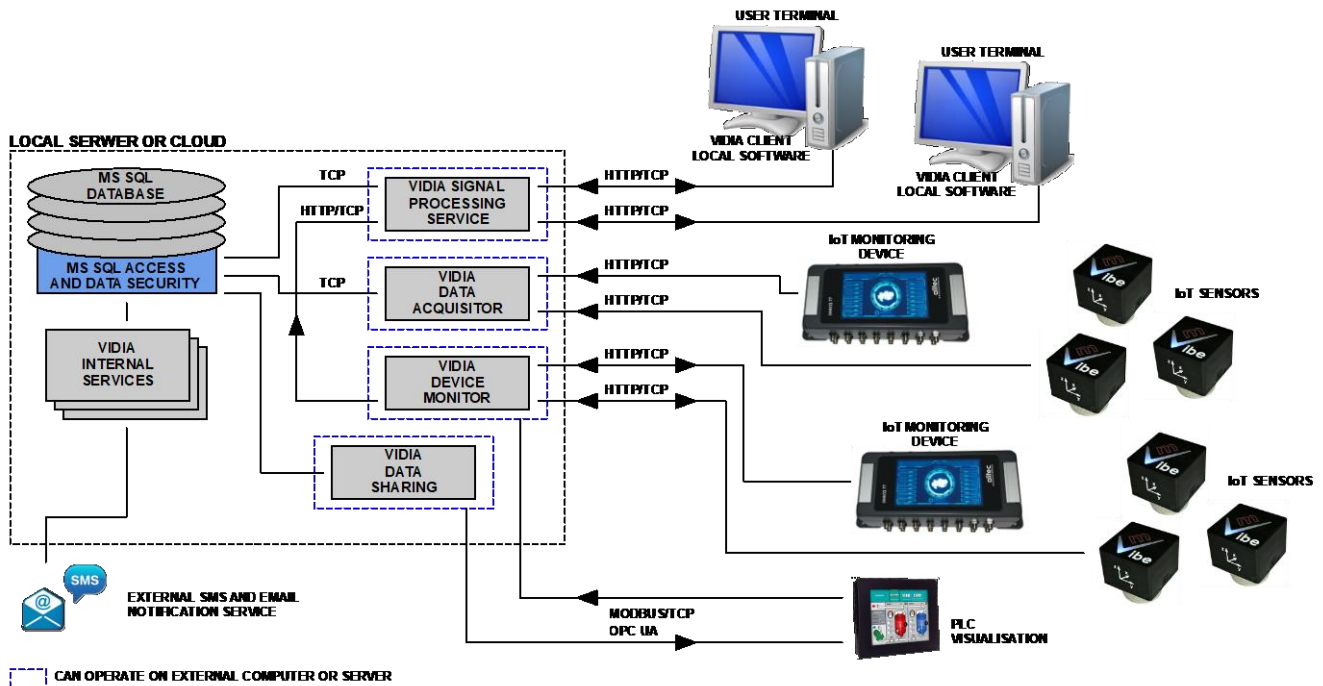


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The VIDIA Cloud™ diagnostic environment is a fully functional tool for condition assessment of machines and diagnostics of existing failures. It consists of many services running on a private or a public server. They perform tasks connected with data acquisition, data management, signal processing, sharing of analysis results. Information gathered from measurement devices, on-line monitors and automation systems is stored in MS SQL database.



Versatile solutions allow a high level of customization in the field of implementation hardware and communication channels. The highest level communication protocol is based on the HTTP/HTTPS standard. It allows to send control frames as well as raw vibration and process signal data. The chosen services communicate with database using MS SQL secured connection. The database and specified services can be hosted on separate server if needed.

Stored data and analysis results are displayed in VIDIA Client running locally on the user computer. Each user login to the service using individual ID and password. The privileges allowing access to the specific functionality are defined by the VIDIA Cloud company administrator. The HTTP/HTTPS protocol grants the access and safe access to the information from any location in the world.

The diagnostic cloud coexists with ready-to-use (Plug&Play) measuring devices. They can be used as recorders of measured signals and/or monitors that inform about the status of monitored object on an ongoing basis. The cloud stores data from both permanently installed and portable devices. One of two available device communication services can be used. First of them, VIDIA Device Monitor, requires a permanent connection with the installed devices. It sends a data transfer request ensuring deterministic communication. When the devices are distributed in different company localization, external routers allowing VPN connection should be used. The second data transfer path through VIDIA Data Acquisitor is applied in the case when there is no need or it is impossible to maintain the continuous connection between VIDIA services and in field devices. Measurement and monitoring units installed on the machines autonomously transmit stored data to the server each time they can access the VIDIA Data Acquisitor service. For the implementation based on the public VIDIA.cloud service Internet connection with unblocked port 5000 and HTTP (HTTPS) protocol allowed is enough.