intetics

The Remote In-Sourcing® Company

"*Intetics created a versatile monitoring application that was in high demand by our clients. Their quality level has been very high and the integration very smooth. Overall, great value add to our solution.*"

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INTETICS SIMPLIFIES THE MONITORING PROCESS OF ANALYTICAL EQUIPMENT

OBJECTIVE

To develop a software system for a global manufacturer of analytical instruments to make their instrument analysis process more transparent, mobile and easily managed.

CHALLENGE

The Client manufactures analytical instruments that conduct liquids analysis, such as automated liquid level monitoring, automatic warming of samples, and incubation of analytical cuvettes. They needed a software system that would receive information about the status of their hardware devices during the analysis process and send alerts to operators' mobile devices. They also needed an online dashboard allowing operators to login and monitor different parameters of the system (like temperature or pressure) in real time.

While the Client had their own IT department that developed embedded software for their devices, they needed more technical expertise to develop a new server application.

After development they also required knowledge transfer to their in-house team and possibility of easily modifying the application in the future.

SOLUTION

The manufacturer of analytical instruments turned to Intetics, because of its experience working with highly technical clients and its 20 year history of application development. Intetics created a team of engineers experienced in server-side development and mobile applications. The team closely cooperated with the Client's in-house team to define the requirements for the monitoring system and adjust software API of the analytical devices so they can be monitored efficiently.

Then, the Intetics team developed a server application that could be installed on a dedicated server at the user's premises for additional security and on a cloud server to ensure simplicity of integration. The server application was configurable to connect and monitor any possible combination of instruments and provided visual (graphs) and textual reports online.

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A versatile notification system was added to the application. Users could choose to receive alerts via email or SMS when different events occurred (such as alerts for a combination of temperature and pressure beyond a certain threshold). The notification system could send alerts to different types of mobile devices, including wearable devices such as Android watch. After receiving the alert, a user could instantly follow a link and check parameters of the hardware device online from their mobile device. To make the checking process efficient, a special layout was developed to make the user interface suitable for mobile browsing.

Finally, the client's in-house team received necessary training for configuration and further development of the application, as well as comprehensive documentation. The internal training allows the Client to further support and develop the product independently.
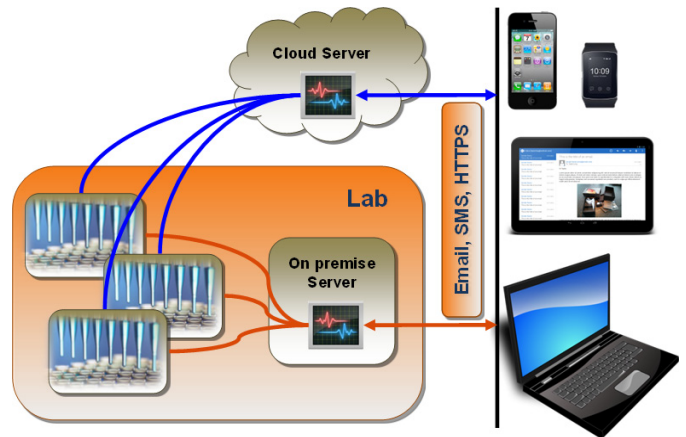
RESULTS

As a result of working with Intetics, the Client received a new software application that made monitoring analyses easier and mobile. The application included an attractive design, secure multi-user access, and graphical representation of the monitored data. The application became a significant part of the Client's offering and added value to the customers purchasing Client's hardware. The architecture of the solution allowed the Client to offer both on-premise and cloud-based setup of the system to meet the requirements of most customers.

The selected technologies also optimized licensing costs, as the Client could spend less on setting up the monitoring server.

The application was a stepping stone for upgrading the software of the Client's other product lines, which will be carried out by their in-house team in the future – using technical knowledge gained from working with Intetics.

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