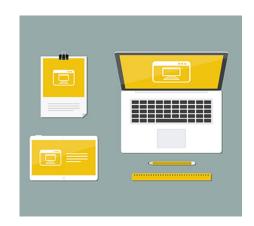# intetics
Where software concepts come alive

REMOTE DEVICE MAINTENANCE TOOL

OBJECTIVE

Help device manufacturer company do remote troubleshooting, firmware updates and remote maintenance of the analytical instruments that they produce. Reduce cases of sending their technical consultants onsite by providing efficient and secure remote diagnostic and maintenance system.

CHALLENGE

A European leading analytical instruments manufacturer had customers purchased and operating their equipment in different locations. The equipment is sophisticated electronic analysis hardware that has programmable controllers and can be configured from the PC by connecting via Bluetooth interface.

When the users of the devices had difficulties using them or upgrading their firmware they called customer's tech support. The tech support specialist spent a lot of time on getting the symptoms of the problem and receiving device parameters to diagnose the problem. In many difficult cases they had to send their consultants onsite to analyze and solve the problem.

This made maintenance efforts expensive, caused lengthy device shutdown and negatively affected customer satisfaction.

SOLUTION

Intetics built a mobile remote maintenance application and server solution for configuration and maintenance of the equipment that allowed remote interaction with custom technical specialist. The system allowed performing the following operations:

- Connect to the instruments from Android or IOs tablets via Bluetooth or WiFi. The users didn't have to do that via PC any more.

- Update instrument firmware from the mobile device (Android, IOs, Windows tablets)

- Get diagnostic information from the instrument

- Update configuration parameters of the instruments

- Connect remotely from the tablet application to the manufacturer's support center

- Provide telemetry information about the device from the tablet to the support engineer

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- Allow video and audio communication channel between the instrument user and support engineer to show the device and help diagnosing the problem

- Allow support engineer suggest configuration changes or firmware updates that the user than applies to the instrument. This complies with the safety regulation related to the remote device manipulations.

RESULTS

The developed remote maintenance application and server-side solution allowed significantly optimize the process of equipment troubleshooting, firmware updates and remote

maintenance:

- The users were enabled to configure the equipment from the mobile devices with user-friendly interface

- The average time-to-fix the issue remotely was reduced by 45% due to instant remote access of technical consultants to device parameters

- The number of required on-site visits of technical consultants was reduced by 23% resulting in significant cost savings for the company

- The company obtained possibility to track current device parameters remotely and help marketing specialists to proactively offer maintenance or other

additional services

See the illustration below how we saved device manufacturer Eur 12,000/mo on tech maintenance by providing remote diagnostic and maintenance system.

QUICK FACTS

- ✓ *Reduced average time-to-fix by 45%*

- ✓ *Saved Eur 12,000/mo on tech maintenance*

- ✓ *Established additional marketing channel to active users*