

Remote Monitoring

Customer

Remote Diagnostic Technologies Ltd (RDT) is a new company that has created Tempus 2000, a device for remote medical monitoring of patients through satellite communications. It is designed to be used on planes and ships and in any remote location where access to medical facilities is limited.

Business Problem

To access RDT's largest market, the USA, it was first necessary to obtain clearance from the US Food and Drug Administration (FDA). The FDA's requirements for the development and documentation of software are, understandably, strict. RDT needed the services of a company who could both advise them on the required approach to the software lifecycle and develop software and documentation to the high standards required by the FDA.

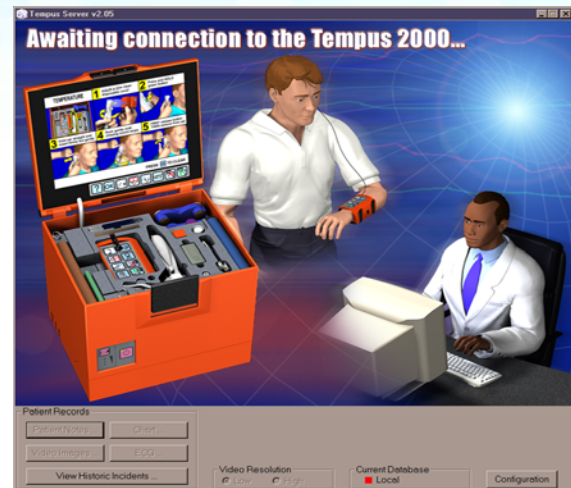
Tessella Solution

RDT's prototype software displayed most of the functionality required of the final version but, consistent with the nature of a prototype, had not followed the software lifecycle demanded by the FDA. Furthermore, several parts of the final version had not been written and technical issues concerning data transmission over unreliable satellite links had yet to be resolved.

Tessella was awarded a contract to help RDT and their existing 3rd party software contractor develop a product to the necessary standards. In addition, Tessella was contracted to design and write the additional functionality of the final version of the software and to help resolve the outstanding technical issues.

The first stage of the work was to carry out a risk assessment with RDT and perform a thorough review of the existing software

system. Tessella then produced a complete requirements document and a full design.



Tessella helped to resolve the technical difficulties involved in data communication over slow satellite links and advised how to improve the mechanisms for ensuring the all-important data reliability. At the same time, Tessella designed and created the database functionality that would facilitate remote diagnosis.

Once the development work had been completed, Tessella project managed and undertook the detailed testing required for a medical device.

Results and Benefits

RDT achieved FDA clearance of Tempus 2000 on their first submission, a significant achievement for a new company. The benefits of Tempus 2000 have already been recognised by the airline industry and it is now installed by some of the major international airlines.

Tessella continues to provide software support and help RDT as they develop the product further.