Case Study
Invec Solutions Ltd

SC/ET
Scottish Centre for Enabling Technologies

Company overview

Background

Invec Solutions is an independent company, established in 2004. They provide warranty management, repair and parts management services to leading companies in the information technology and consumer electronics sectors.

Invec Solutions use an end to end warranty management system called Viper 1 which needs to have some interaction with external client systems, currently this interaction is managed manually.

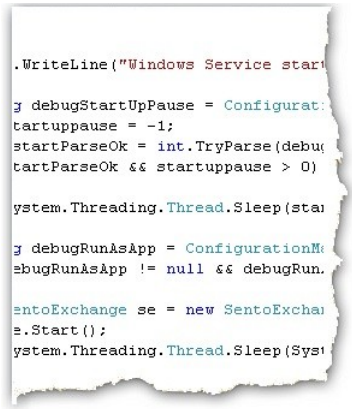
Web site: www.invec.co.uk

Feasibility Study

The objective of the feasibility study was to investigate whether a solution could be found and prototyped to allow Invec Solutions Viper 1 end to end warranty management system to directly communicate with the external systems, removing the need for the time consuming manual processing system that is currently undertaken.

The deliverables for the project were as follows:

- Prototype and document a solution to allow Viper 1 to communicate with existing external client systems. The solution had to have sufficient flexibility to allow for different data exchanges to be scheduled to occur at different time intervals with the possibility that some calls with required execution in pseudo real time.
- Briefly evaluate whether Viper 1 can be reverse engineered from the perspective of producing technical documentation for the system.
- Produce a feature comparison versus costs for various Microsoft SQL Server licence scenarios and evaluate the potential of using a non Microsoft database solution for the Viper database system.
- Contrast the feature set offered by .Net 2 vs .Net 3.5 with a view to future development of the Viper system.



The outcome

A data exchange service was created that can poll the Viper 1 systems database and pull out any unprocessed records. These are then transformed by the system into the correct XML format for the external systems. The data is sent to the external systems and if received correctly the database record is marked as processed. The polling times can be set by the user from a minute upwards to allow for pseudo real time processing of the data. Any errors were logged along with the original XML sent so that they could be checked and dealt with accordingly.

Next we conducted research into the best solution for future development of the Viper system. The Viper 1 system was created using classic ASP which is now an out of date technology. Any new functionality added and maintenance to the system takes more time and effort than it would using a modern framework such as .Net.

There is no documentation for the current system and the knowledge of how it operates is contained in the heads of a few staff members. An investigation was done into the possibility of generating reversed engineered documentation of the existing system to give a clear overview of what the system does and what will be required by any replacement system developed.

A tool called the ASP Documentation Tool was found to generate comprehensive documentation for the current code. The tool can present the documentation in several formats such as a series of HTML pages and Microsoft help format. The documentation produced a clear overview of the current system and should help with any future development.

A recommendation was made to Invec Solutions that they look at using the version 3.5 of the .Net framework for any future development due to the fact that the processes Viper handles would be best modelled using the Windows Workflow foundation framework included in this version of .Net.