

Pager Power Case Study

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Pager Power Ltd is a leading authority in the aviation studies market, and provides technical analysis on the impact of wind turbines on aviation radar and communication links. Pager Power’s expert team has developed a suite of specialist analysis software to support the consultancy that they provide to leading energy companies and wind farm developers.

The Suffolk based consultancy business is growing quickly in response to the need for renewable energy on a global scale, with significant economic changes in the traditional energy market being a contributing factor.

As a result of this growth, Pager Power took the view that they required external IT consultancy to assist with the business’s longer term IT strategy.

Business Situation

The growth of the client’s business resulted in an increase in the workload of their existing analysis software, creating a bottle neck in the amount of data that could be processed. The volume of geospatial data that required processing was considerable, so storage and retrieval was a key consideration.

The company were also in the process of upgrading their internal infrastructure to cater for the increased workload of their systems, with green IT being a desirable outcome given the nature of the Pager Power business.

kwiboo’s technical consultants conducted a performance analysis of the existing solution to understand the data storage and retrieval requirements, establishing the potential for separation of the application into logical layers distributed across the production environment. This consultancy engagement defined the strategy for the ongoing solution infrastructure delivering performance improvements and the client’s infrastructure upgrade project.

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Solution

The solution was to use virtualisation to deliver the client's operating environment, on VMware's ESX server platform. The client's servers' operating systems were upgraded from Windows 2003 to Windows 2008 and SQL Server 2000 upgraded to SQL Server 2008. kwiboo provided the client with the relevant Dell hardware required to support the virtualisation strategy, making efficient use of physical hardware to host multiple server environments that delivered the client's application architecture.

The SQL Server database was tuned to realise performance improvements through profiling the application's use of the geospatial data and applying the required indexing to support the data retrieval for use in analysis. The geospatial dataset was of such a significant size that it benefited from table and index partitioning.

Outcome

The result of the project was performance improvements of between 400% - 1000% through tuning the database's data retrieval and storage. Virtualisation delivered the opportunity to manage application components on separate virtual servers, removing the need for the investment in additional physical hardware.

The virtualisation strategy also delivered capacity for rapid provisioning of additional server environments on the ESX platform, as required. As a company in the renewable energy business, virtualisation delivered the green IT benefits for Pager Power by removing the need for investment in underutilised physical hardware and reducing energy bills to run the infrastructure.

kwiboo is Microsoft Gold Certified Partner and a VMware professional partner. If you require consultancy for any Microsoft platform or product, or you are considering virtualisation as a strategy please contact kwiboo.



At a Glance

Project :	Pager Power
Type :	Technical Consultancy
Technologies :	VMWare ESX SQL Server 2008 .net 3.5

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