

MET PROCESSORS - THE DATABASE DECISION

The Situation

Your work life at Met Processors is improving. The resolution of infrastructure problems led to the centralization of all servers and data sets for application software. Reviewing the data holding on the servers, you unearthed the following factual situation:

- The combined active data sets are approximately 220 gigabytes.
- Inactive data sets, essentially archive material, are taking up another 400 gigabytes.
- It was clear that significant duplication exists in the data sets, and very little data optimization is present.
- A total of six database systems are used at present and some are not ANSI SQL compliant.
- Data held at present can be categorized as follows:
 - Data for the company ERP
 - Email and job scheduling data
 - Engineering design drawing data
 - The library data
 - Marketing information
 - Website data
- Various licensing regimes and pricing structures exist with database system and client license fees. All licenses are "per user".

Having discussed this scenario with relevant stakeholders, you are required to submit a proposal that will ensure that data duplication is eliminated, licensing fees are reduced and maintenance is made easier. If at all possible, you are required to recommend the use of one or a maximum of two database systems to be phased in over time. Conversion costs need to be as low as possible. The database should be available for use on various Operating Systems. Record locking and the use of stored procedures and views are fundamental requirements of the database systems. It would seem that a large chunk of the data will only be used for enquiring in future and no writing will be done to legacy data.

Your options are the following:

ELCOAR

This is a rock-solid database system that caters for all the data types present at Met Processors. License fees and client licenses are very expensive (\$1 000 000-00 initially and \$480 000-00 per annum). Conversion costs (labor) will be approximately \$900 000-00. The database system is available for commercial UNIX, Windows Servers and Linux. The vendor deals with ongoing support in a well-structured manner. Both record locking stored procedures and views are well-developed features of this database system, and it complies extremely well with ANSI SQL standards.

LQSSM

This is one of the younger database systems on the market. It caters for all data types but could be problematic in respect of the engineering drawings. License fees and client licenses are initially \$200K but low cost ongoing options exist for the long term at approximately \$20K per annum.

The cost of consultants to do the conversion is approximately \$200K, but you are concerned that skill levels could be problematic. This database is operative on Linux servers and concern exists in respect of the Windows version. Many qualified people are available for ongoing support from third party vendors. The biggest concern is the fact that record locking, stored procedures and views are not sufficiently developed in this product, but search speed is absolutely outstanding and it is therefore well suited to data queries and for use as a database backend for websites. Although ANSI SQL is compliant in respect of its current features, not all ANSI SQL features are included.

ZEROBASEDATA

This is a superb cross-platform database system with initial costs/license fees at \$1m and reasonably high ongoing client license fees at \$400K per annum. The cost could be offset by the superb optimization for Linux servers, with lower costs on that front. All data types are catered for, with conversion cost at \$1m. Stored procedures and views are well developed and the record locking model is acceptable. Ongoing support is available from both the database vendor and vendor-accredited third parties. Industry reviews favor this option. You are, however, worried about a third unknown party, suing this company for a large amount, alleging copyright infringement. ANSI SQL compliance is extremely good.

LQSSERGTSTOP

You like this open source database, because it reminds you of ELCOAR and the psql scripting used by ELCOAR can also be used here. The initial procurement/licensing cost is zero. No client licenses are payable, but an annual fee is charged for support at \$400K by a third party, should you prefer. This will include product updates and guarantees in respect of the suitability and availability of the software for use. All data types are accommodated well, but the administration interface is of concern to you. There are few people at present in your network and company who know this database. Various training institutions do train skills for this database and it is gaining popularity. Record locking, stored procedures and views are suitably developed in this product. You are aware that most universities now use this for educating IS students regarding databases. This product complies extremely well with ANSI SQL standards.

Please select a database system/s as a solution to accommodate live data and/or legacy data that could be queried as well as a backend for the company intranet and websites.