

Report to:  
16/05/2006

## **Web-Enabled Database:**

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### **History of project:**

The department required a web enabled database that would allow organisations within to match students to suitable courses.

The web enabled database would be scaleable and would *support the identification, co-ordination and evaluation of all pre and post registration student/learner placements on specified programmes*<sup>1</sup>.

Additionally the department required a full time help desk (within office hours) to support users of the database.

While the department worked on Tenders for this project, our programmer built a series of small databases written in Access to capture some of the data already held within the department.

The department identified a supplier who would build and manage the database and had allocated a budget for this project.

Unfortunately following the changed financial circumstances, the budget for the database was cut and so an alternative and cheaper solution was sought.

### **Meeting 3<sup>rd</sup> May:**

The meeting was originally held to discuss how the existing databases could be web enabled and shared across a website.

During the meeting it became clear that ideally the databases would be amalgamated into one database. This new database would be web enabled.

During the meeting we agreed:

1. An Access database could not be plonked<sup>2</sup> onto a website and work. It would have to be re written.
2. Sharepoint was not a suitable location for these/this database(s)
3. This left Open Source: namely a database written in MYSQL and PHP, sitting on a Linux Server.
  - a. Good News – Open Source is *an extremely reliable, secure, cheap and standard solution*.

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<sup>1</sup> From internal policy document.

<sup>2</sup> Very technical term.

## What is Open Source and how can it help?<sup>3</sup>

For some time there has been growing disquiet about the stranglehold Microsoft Corporation has on computer systems. This unease is not restricted to anxious, geeky students in halls of residence. Many governments are concerned that Microsoft has become so dominant; it has a virtual monopoly on information. As we know, information is power. Quietly, over the last few years, an alternative operating system and programming language has evolved. It's called Open Source. As none of the code is a patented trade secret, it is cheaper. The end user is not tied into endless expensive licensing and marketing agreements.

As you would expect, major rivals to Microsoft use it – here are a few:

1. IBM
2. Sun Systems
3. Novell

Major Government Players:

1. Germany
2. Denmark
3. Canada (evaluating)
4. China (whom, as you may expect, don't like an American Corporation poking around their IT systems)
5. South America
6. South Africa
7. And our dear own NHS who have just signed up Novell Suse (open source Linux) as part of the Connecting for Health Project.

I am labouring the point that just because something is a cheaper solution, it doesn't mean that it's a worse solution.

It has been suggested to me that the original suppliers were the Mercedes solution, whilst the open source is a Kia.

Personally, I find this a poor comparison and we can not afford to confuse Quality with Cost.

Most cars now offer as a standard what used to be luxury items: electric windows, stereos, central locking, air-conditioning, air bags etc. It's the lower end of the market that is developing exciting pacey little cars that punch above their weight in terms of style, fuel efficiency and capacity

However, if you are comfortable with the car metaphor – I am a Porsche girl myself - and very happy to note that [Porsche](#) has written an entire site using open source. Very lovely it is too.

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<sup>3</sup> Please contact me for more references about major users of Linux systems

## **TIME + COST:**

The key thing here is scalability and time:

Our programmer has thorough knowledge of Visual Basic, Access and the existing databases.

A second team member is able to write databases using PHP and MYSQL

The first thing is to convert the existing Access databases into Open source:

MYSQL is the equivalent to the Access Database

PHP constructs the look and design of the new web enabled database

Cost of Software - £0 (Zero)

### **Time:**

We need to agree time for programmers to work on the new database.

We can then decide what the amalgamated database may require in terms of time.

### ***At this point we would need complete specification for the new database.***

We need to be sure that the central core of the new database is complete as possible.

Modules can always be added later.

### **Hosting:**

Once the databases have been converted we can host them for testing purposes on the Dental Deaneries Linux Server.

This would be free of charge (£0).

Alternatively the department could build its own Linux Server approx cost £2000. At this stage, though I would recommend using a spare server held by the department..

Once we have got the existing databases converted and trialled them in a small way on the server we can decide how to scale up the database.

Ideally I would like the programmer to develop within house – it would feed valuable skills back to the department and personal development plan. Paul Wilkinson would also be involved.

However, what we are short of is time and manpower. I don't want to commit the IT team to a workload we can't fulfil. If we simply can't undertake the full database rewrite, remember open source is a standard package these days. The department can put it out to programmers.. A rough ball park figure for initial programming should be £20-40K<sup>4</sup>. We can discuss help desk requirements at the same time.

Time-wise we would aim to have the databases converted and on the Linux server by the middle to end of June. But this relies on the programmer's time and the understanding that if the conversion/rewrite is too difficult we will have to get outside programmers in.

## **Conclusion:**

Open Source is certainly a viable alternative and there are the skills in the market place to take advantage of this. Whether this database is developed in house or externally, the department should be confident in this solution as a cost effective way of delivering information across its patch.

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<sup>4</sup> Of course suppliers would be invited to quote at this stage.