

Open source government

In an interview with *Public Service Review*, Gerhard Pohl, Senior Director for Operations at Development Gateway, outlines the role e-governemnt can play in the developing world...

In the last edition of *Public Service Review*, Mark Fleeton, CEO of the Development Gateway Foundation set out their aims and achievements to date. Following on from this, *Public Service Review's* Mike Lowe interviewed Gerhard Pohl, Senior Director for Operations about the opportunities presented by open source software and e-government worldwide.

What are the advantages of using open source software (OSS) over conventionally licensed software?

Well, I think the most important advantage is that you have full access to the source code and, therefore, whenever there are any problems with, for example, interfacing various packages of software, problems can be identified and solved very quickly.

Of course, people who sell software do not necessarily want to make it open source software, because they cannot charge people time and again for the same software.

The technical advantage is that the more people with access to the source code, the easier it is to identify failures and logical faults, therefore these can be solved very quickly.

This is why open source software is now used in many mission critical applications. To give you a couple of examples, NASA's Mars Explorer project relies extensively on open-source software and the German railways run exclusively on Linux operating systems.

Open source software can help you track and solve problems very quickly and at a speed that is unlikely with proprietary software. Also, there are many people working on OSS at any time that errors or viruses are likely to be discovered and resolved in a much quicker time.

Would you say OSS is more or less suitable for use in the public sector?

In the private sector you have millions of firms that have similar needs. As a result you get standardised products that users do not need to modify. For example, Microsoft Office is used by hundreds of millions of users in the world, so Microsoft doesn't necessarily want them to tinker with it.

Similarly, when you go to more sophisticated enterprise software like an enterprise resource planning system such as SA, or Oracle Financials, you have thousands, if not millions, of users of the specific software.

In the public sector that's much less the case. Most of the time, the public sector has unique requirements. Just think about a tax system. It's a very complicated thing. It's unique. You can't sell software that you sell to the Internal Revenue Service to anyone else.

Virtually all the functions of government are unique. Very often driven by laws and regulations and, unfortunately, even across countries the requirements are usually too dissimilar to allow for common solutions. So, most software in the public sector is unique.

Then the question is: How do you build it? Most often it can be built with existing software modules and this is why open-source building blocks do have much more of a foothold in the public sector. For example, Germany and France are going very strongly towards open source, mostly driven by the public sector.

This is having effects on private sector solutions as well. It's not just in the public sector, but it is more of an issue in the public sector because so much more of the end-user requirements are unique.

How is open source software beneficial in e-procurement?

We are offering governments an e-procurement solution. We have used modules, mostly open source, as the basis for building an integrated system that performs all the functions.

Procurement has a lot of similarities across countries. So one can actually build a system that can be applied for many countries. dgMarket publishes tenders for over 170 countries, all of them using the same system.

If you want to automate the processes more and more, then you are dealing with slightly different rules and regulations in different countries. This means you have to start customising. So, again, it is easier when it is an open source solution. But, it does not become a fully packaged piece of



software because these laws and regulations tend to be too idiosyncratic for those countries.

What's your take on the developing world's reaction to open source? Are developing nations more willing to adopt open source or do they prefer the more mainstream licensed software?

Well, I think for developing countries there are a lot of advantages.

First of all, in developing countries, income levels are far lower. Salaries are many times lower than in the high-income countries. Therefore, the cost composition of operating information systems is very different.

Information Systems Specialists do not cost as much as in the high-income countries. On the other hand, proprietary software licensing fees are very high relative to per capita income.

For example, Microsoft Windows plus Office in the United States will cost about \$500, which is a very small amount compared to per capita income, say 1-2%. In a developing country it could be something like 50% of per capita income. So, if you had to pay this much, you would download something for free, instead of paying for the licensed software.

If you had Linux and Open Office, for free, downloaded off the Internet, then your only costs would be to buy a laptop.

Moreover, people in the public sector in developing countries don't buy laptops, they buy second-hand laptops. They are still working and with open source software you don't need the latest, most powerful model.

So, that's the rationale for having open source in developing countries because you can get it for a fraction of an equivalent proprietary solution.

What have the Development Gateway been doing in terms of promoting e-procurement?

We have always thought that a lack of transparency in government is one of the most critical obstacles towards more rapid economic development.

There has been considerable dissatisfaction with the effectiveness of international development aid. Very often development assistance has been ineffective because too much of the money has gone into other pockets, not the ultimately beneficiaries.

Instead of schools getting the school books, it has been captured in the middle in the form of nice cars for officials. Or it is reflected in excessive costs of constructing schools or buying books, because procurement is not very transparent.

Helping to make government procurement transparent in developing countries is one of the most important elements in making aid more effective. It is also agreed by both the donors and the recipient countries in the Aid



Effectiveness Agreements that have been crafted over the last two to three years, that this is one of the most important things and there is, basically, three conditions that break this down:

- Public procurement;
- More transparent financial management in the Government;
- More transparency in interactions between the Government and citizens.

So, these are the three areas in which the DG Foundation is helping to provide e-government solutions.

How well has the dgMarket been received by developing countries?

In terms of traffic we are now the third largest web tendering site, after the US Government and EU tender sites.

We integrate tender information from industrial and developing countries in our system. Having better information access about international opportunities arising from government procurement is an excellent way to promote the development of domestic enterprises and the private sector.

If a small firm in Croatia can tender for a contract in Austria, which they would have otherwise not heard of, then it is a success. We now have about 25,000 firms who have

alerts in our system for tender opportunities worldwide. In that sense, the interest has been great! Currently, 50% of our interest is from developing countries.

As we are a small organisation, we don't want to move too fast. Recently, we have been focusing on the larger countries, like China. China is a huge market that is a multiple of Africa's. In Africa we have to work with a multiple of countries, therefore it is easier for us to work with larger single economies like China, India, Vietnam, Pakistan, Bangladesh, etc. We are also looking at getting a Brazilian tender service up and running soon.

What are dgMarket's plans for improving the awareness of e-procurement further?

There is the basic procedure of publishing bidding documents and publishing announcements. At the moment that is all that is being done in the US. The US Federal Government's Electronic Tendering System does

basically the same thing as dgMarket, they don't have more. On the other hand, people want to make this gradually more sophisticated, allowing firms to make online bids, having tender evaluation online, and so on. So, we are gradually expanding the capabilities of software to do that.

At the moment, there is plenty of work in the area of languages. We are now running our service in 18 languages. There are only a few sites, like BBC and Wikipedia that run in more languages than we do. In that sense, we have a unique service. Rendering the site to be more sophisticated across all the different languages is quite a bit of work.

We are showing a short telex summary of every bidding opportunity in every language, automatically translated by our system. It's very complicated, to make all bidding information available in all languages, but it is a worth the effort.

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