

Kerala Goes Open Source In IT Education (excerpt)

The Director of IT@School, K. Anvar Sadath said, "Building collaboration and sharing practices are essential factors for the well being of societies and proprietary software often deny that." According to him, they are moving from IT education to IT enabled education. Ideological differences and cost of ownership were attributed as the main reasons for the shift from Windows to Linux. **The Kerala IT Education Department believes that sharing is an important virtue. However, sharing a proprietary software would be a violation of the End User License Agreement (EULA).** According to Sadath, "In the words of Richard Stallman, founder of the GNU project and Free Software Foundation (FSF), 'If you share with your neighbour, you are a pirate. If you want any changes, beg us to make them.'" Hence, to work around it, the major step of promoting Linux and FOSS was initiated.

Cost was another major reason that prompted the shift from proprietary software (read Windows). Thinking about the massive cost involved in setting up the IT infrastructure based on Windows, it was better to have the OS and applications realigned for Linux and other free software. Moreover, Windows package comes only with the OS and installing other proprietary software would cost additional bucks. **However, Linux can bundle all applications with the OS itself to provide a single installation kit.**

Challenges - "Our main challenge was to introduce the concept first in IT education and thus launch it, though the pre-implementation stage took us two years," says M. Sivasankar, Director of Public Instruction which looks after the overall education system in the state. The entire project had to be planned well in advance. The Central Government sanctioned Rs 6.2 crore and the Kerala Government spent about Rs 74 lakh to set up the entire infrastructure. Enabling Linux and FOSS based education in 2,738 high schools brought along its own set of challenges. In the first phase, over 40,000 teachers had to be trained for over 90 hours on Linux based systems. Accordingly, there was a requirement for a competent faculty who could train and educate them. Manpower was the single biggest challenge in the implementation. But of course not bigger than the fact that everyone else outside the school IT Lab was using Windows and thus the exposure was not truly universal. Windows was still available in cyber cafes and also with resellers of computer parts and assemblers.

Creating a single curriculum based on GNU/Linux was another issue to counter because there were many distributions of the OS and the schools had already installed different distributions. To overcome this, the Free Software Foundation of India suggested developing a custom distribution for IT@School and eventually created the distribution with funding from the Kerala State IT Mission. Another problem that the IT@School project faced was that of providing support to the schools where GNU/Linux was being used. They called for private agencies that were willing to provide support to register with them but were quite unreliable. A final solution to the problem came when Society for Promotion of Alternative Computing and Employment (SPACE) decided to offer support to IT@School, both in terms of updating the distribution used in schools and providing support to the teacher community. A Resource Centre has been established in Kochi for conducting teacher training with technical assistance from SPACE.

The Next Big Step - IT@School has managed to get concession on broadband rate for all schools. Thus came the true face of free source of education, the Internet. "We are making use of available resources

like Wikis, DrGeo, Rasmol, KEduca, KStars, KLab etc for this purpose," says Sadath who had a major hand in getting the broadband connectivity for Rs.5000 annually. Resources which are available under GPL and Creative Commons can straight away be customised to their requirements. This builds innovation and networking without much financial burden. They are also planning to make indigenous software in collaboration with Free Software Foundation (FSF).

The CM of Kerala in the IT Policy 2007 states that he wants Kerala to become a FOSS destination. With 90% literacy rate, the state is well on path to achieve that. Linux/GNU are gaining momentum not only in private but also government firms. Recently, Maharashtra deployed Red Hat Linux open source software and Linux servers for its various applications. Due to the advantage over Windows in terms of cost and customisation, its been widely accepted and used.