



SchoolNet kicks off

SchoolNet

A nationwide project is introducing broadband into thousands of schools. The company entrusted with this task reports on progress.

When we think of the digital divide, the first thing that comes to mind is that we have to 'bridge it'. The need to bridge this divide becomes more pressing when we compare ourselves with countries such as South Korea and Singapore. Taking Internet access as an example, statistics from SKMM's *Communications & Multimedia; Selected Facts & Figures Q3, 2007* (ISSN 1675-6223) has current dialup penetration at 14.3 and broadband at 4.5 per 100 inhabitants on a "subscriptions" basis. In comparison, Korea's broadband at penetration was already 25.24 and Singapore, 15.3 per 100 inhabitants in 2005 on an equivalent basis (<http://www.itu.int/ITU-D/icteye>). The regulator in its annual *Household Use of the Internet Survey 2005* revealed that main users of the Internet in households are predominantly urbanites in Klang Valley. The 2006 survey is expected to reaffirm this. Interestingly enough, a gender divide was not present.

We have actually seen lots of initiatives being taken by the government and even the private sector. This actually shows if we look at the trend in Internet growth in the country. According to the same studies, the penetration has increased tremendously from 15% in 2000 right up to the current 47.8%. One of the more successful initiatives has to be the SchoolNet project.

The SchoolNet project is a joint effort between the government, Government Intergrated Telecommunications Network Sdn Bhd (GITN), eB Technologies (M) Sdn Bhd and MIMOS Bhd. The main objective of the project is to provide broadband infrastructure and Internet access to specified school sites using different technologies to suit the varying appropriateness.

The parties involved realize the importance of educating the youth in the benefits of the Internet and therefore have undertaken this task as their responsibility. Under the project, almost 10,000 schools from all around Malaysia are being fitted with the right technology to get them connected to the Internet. It was initiated in 2004 and full implementation is through to 2009.

"We use different technologies depending on the infrastructure available at the particular schools," says Shahrudin Salehuddin, CEO of GITN.

He goes on to explain that the schools with good communication infrastructure requires less effort and they use mainly ADSL connections to get these schools up and running. The schools that are not able to enjoy ADSL are given connectivity via wireless technology. As for schools that are just too rural such as the heartlands of Sabah and Sarawak, a satellite system (VSAT) makes it possible.

"Basically we check for ADSL first, then wireless. And if all else fails, we use satellite technology," he explains.

The lines that are installed in the schools are usually connected to the computer labs. Other areas in the school premise that can be connected include any teaching resource areas, the school office and even the headmaster's room. The main aim is to have the whole school connected. However, GITN's jurisdiction only includes the infrastructure.

GITN also provides a monitoring service that can be accessed by authorized personnel at pmis.gitn.com.my. Any failure in any of the schools will immediately show up and can be rectified within 24 to 72 hours depending on the accessibility of the location. To help everything to be more efficient, a 24 hour network operating centre has been set up in Cyberjaya, and GITN has assigned staff to be based in every state in the country where the selected schools are located.

"Mind you, the staff we hire as the regional maintenance team are trained fresh graduates. So we are also helping out by creating employment opportunities for the youth," smiles Shahrudin.

The SchoolNet project, being in the midst of implementation, is currently enjoying bandwidth of up to 1 Mbps/128



The satellite system at SK Tagop Darat Ranau



Internet connection at SK Pulau Sanghai



kbps. Starting this year, 88 smart schools around the country have been selected to undergo the project's first phase of bandwidth upgrading. These smart schools are now enjoying speeds of up to 4 Mbps/768 kbps. If everything goes smoothly, the upgrading of the rest of the 10,000 schools will soon take off.

Other enhancements of the SchoolNet project include the implementation of solar power for schools that do not have sufficient power. The implementation of the SchoolNet project for 365 schools suffering from power supply related problems was put on hold. These schools were receiving electricity supply from generator sets which are not able to provide adequate and reliable power for the VSAT units and computer lab. But as of early this year, a solar power system was implemented.

Security features are also high on the priority list of the project. The Managed Security Services (MSS) initiated by the government addresses security issues at four levels.

Level 1

GITN provides basic computer maintenance training to teachers and users.

Level 2

Over 200,000 computers are installed with anti-virus softwares.

Level 3

These 200,000 computers are installed with applications and operating software updates and patch management.

Level 4

This level is undertaken at the SchoolNet gateways whereby content filtering and end point policy enforcement is implemented.

It is also important to note that all daily security risks activities are managed by a security management appli-

cation and also by staff through the centralised Security Operation Centre (SOC).

GITN has done a lot to make sure that the SchoolNet project succeeds. But everyone realizes that it takes more than just connectivity. The people who are connected need to maximise the full potential of what it brings and the way to make sure this happens is to change their mindset.

"Setting up the network is actually the least of all the challenges when it comes to the SchoolNet project," adds Shahrudin.

One of the projects that GITN has embarked on to ensure this happens is the *Sekolah Angkat* (Adopted School) program. Under this program, 25 schools around the country are selected to undergo special training depending on their needs. What happens is that GITN assigns each school with a special ICT coordinator who will help train the teachers not only in utilizing the network, but also how to teach the students.

"We will also look into furthering this program to the country's *Sekolah Agama Rakyat* (Public Religious Schools) in the very near future. In fact, the groundwork is already underway," says Shahrudin.

Apart from the programme *Sekolah Angkat Program*, GITN also hopes to engage the community by using schools. Since schools are the heart of a community, they will make it as a resource centre to serve not just the students, but the rest of the people as well. Hopefully, the SchoolNet project can be extended this way to also increase Internet penetration. [.my](http://www.gitn.com.my)

For more information on SchoolNet and GITN, please visit www.gitn.com.my