

A Report on the Activities of Danny Foulstone, Computer Engineer, during his visit to Bo
One World Link:
10 February - 01 March 2006

Introduction:

In October 2005 I put myself in touch with John Myers, the Secretary of Leamington One World Link, to offer my skills, knowledge and time as an IT Professional to whatever purpose they could be used. My occupation and job title is 'Network Administrator' and I am qualified as a Microsoft Certified Professional and Microsoft Certified Systems Administrator. John Myers and the Leamington OWL committee quickly saw the potential of my offer and it was arranged that I should visit Bo in February 2006 to look at the feasibility of setting up an IT resource centre with an internet connection and to carry out maintenance work on the computers supplied to the various institutions by OWL.

AIMS:

One World Link Community Centre:

- To carry out maintenance work on the computers sent over by Leamington OWL.
- To look at the possibility of setting up some form of internet connection. Including the technology required, the cost and the need.
- Investigate any income generating possibilities that could be created from having computers in the centre, such as an Internet café or desktop publishing.

Schools and Education Centers:

- To represent OWL and visit as many schools and places of education as possible in order to perform maintenance work on computers supplied to them by the link

Education:

- To offer advice and information regarding all aspects of computing including both hardware, software and networking to anybody involved with the Link who has a desire to learn.

Work Performed:

One World Link Community Centre:

- An assessment was carried out on the computers supplied to Bo OWL by Leamington and unfortunately all the computers are now obsolete. Only two of the computers were able to power up and these two had such low specifications that they were unable to cope with basic programs like word and excel. Rather than spending time trying to make something of these computers and having discussed the situation with David Ngombu, Maada Fobay and Magnus Lansana, I felt that it was better to concentrate my efforts elsewhere.
- During the month prior to arriving in Bo I spent two Sundays at Janet Alty's house going through the computers that had been donated to One World Link. From this I was able to strip many useful parts from the computers, including the majority of components needed to build two complete units.
- The building of two reasonable specification computers has been achieved. One computer has a Pentium hardware base and the other an AMD base. This was done with parts brought over by myself, from the donation of two ATX cases from Magnus Lansana and the purchase of one ATX Power Supply from Freetown at a cost of 60,000 (£12).
- A CD-RW was fitted on the Pentium computer for copying CDs.
- A set of speakers were purchased from Freetown for the sum of 50,000 (£10), allowing the computers to have audio capability.
- One HP Laser Jet 1300 was purchased from Freetown. This was more expensive than anticipated. After receiving five quotations the printer was bought for a sum of 1,900,000 (£380).

- A Compaq Armada M700 Notebook was kindly donated by Brian Austen. This had to be reformatted with Windows 2000 before it could be prepared for linking to the network at the centre. Office XP, Adobe and Norton Antivirus were also installed onto the notebook.
- An Ethernet network has been established at the Link Centre with Cat V Cable and a switch that I had brought over from the UK. Both computers and the laptop have been established on the network. A shared folder has been created on the AMD computer for file sharing and a mapped drive to this folder has been created on all the computers so that files may be shared between them. The printer has been installed and shared on the Pentium computer and the laptop and AMD computer have been configured to be able to use the printer.
- The possibilities of an internet connection at the Link Centre have been investigated. I have been in touch with the Country Director of Action Aid, Tennyson Williams, to ask him if the Link Centre could be involved in the project that had been planned for Bo. This involved installing a VSAT at the Action Aid office in Bo and then the further installation of access points at various schools. However, after discussions with both Tennyson Williams and his IT Manager I was told that all the Access Points had already been allocated. I chose not to pursue this any further.
- I enquired about the installation of a commercial VSAT being installed in the Link Centre through a company called Access Point which is situated in Bo. The cost of the VSAT per month is extremely expensive. For a 256 KBPS connection the price is \$450. This is not a viable option at this stage.
- I arranged for Sierra Tel to visit the centre and quote on the installation of a phone line. They quoted 500,000. To use Seirra Tel as an ISP would cost another 72,000 a month and then on top of this would be the cost of the calls i.e. the amount of time that the internet was used. This appears a more realistic option. Additionally, the notebook donated by Brian Austen has a modem installed for connecting to the internet over a phone line, so no further hardware would need to be purchased. Having the notebook as the only computer that can connect to the internet will also make it easier to monitor the use of the internet.

Schools and Education Centers:

During the period that I have stayed in Bo, myself and Magnus Lansana have visited 6 schools to carry out maintenance work needed on the computers supplied by OWL. As with the Link Centre most of these computers were now so old that they had become redundant and irreparable. However, our time was not wasted as Action Aid had donated Pentium II computers to the schools that were all of a reasonable standard but were often in need of repair. Below is a list of the schools visited and a brief description of the work carried out:

▪ Christ the King:

All the computers at Christ the King were being used and were in working order

▪ Bo Commercial:

Four computers were repaired.

Two of the computers had a corrupt operating system and Windows 98 was re-installed. Computer 3 had a faulty PSU. The PSU was replaced with another from a computer that was also not working. Computer 4 had a faulty hard drive. A hard disk and a CD ROM Drive were donated by the Link for this computer.

▪ Methodist School:

Out of the four computers that needed work at this school, we managed to repair two of them.

The PSU was replaced on one computer

The hard disk was reformatted with Windows 2000 Professional on the other computer

▪ YMCA:

All the computers at the YMCA appeared in working order.

Office 97 was installed on four computers and a CD ROM drive was donated and installed on one of the computers

▪ Ahmadiyya:

Four Computers were repaired

Computer 1 could not print and appeared to have a corrupt operating system. This was reformatted with Windows 2000 Professional.

Computer 2 would not boot up. This was a result of a faulty floppy drive. The floppy drive was replaced.

Computer 3 would not power up. The PSU was identified as the problem and it was arranged to be repaired.

Computer 4 was unable to use Office XP. This was identified as an unlicensed copy. It was uninstalled and a useable copy was installed.

▪ **St Francis:**

Two computers were looked at

Computer 1 was in good working order apart from a faulty CD-ROM drive. Arrangements have been made to have this replaced as I had run out of CD-Rom drives to donate. A printer was also installed on this computer. Due to age, Computer 2 was beyond repair and we advised Joe Pine to keep it only for spare parts.

Education:

As my stay in Bo was for a period of less than 3 weeks I chose not to organize any formal workshops. Instead I attempted to pass on my knowledge to all that wanted to listen whilst I worked. I believe that the Link Member, Magnus Lansana, has benefited from my stay. Although he is already a capable and established IT Professional there has been certain areas of expertise that I have been able to share with him that he had not the opportunity to learn before.

In whatever location I have worked in Bo, there have always been a number of keen students and teachers interested in what I have been doing. I have attempted to explain in detail the job being carried out and when ever possible I have involved them in the work.

Recommendations and Conclusions:

One World Link Community Centre:

With regards to the Link Centre, I arrived in Bo with the intent of investigating the feasibility of setting up an internet connection that may have some income generating possibility. However, it is apparent that at this point in time this is not possible. The cost of a connection with reasonable enough bandwidth to set up an internet café is presently too expensive. This coupled with the cost of paying staff to man the café would make the venture unsustainable.

The concept of a telephone line being installed and having access to the internet over a dial up connection for administrative purposes i.e. the sending and receiving of email is far more realistic. As a result Leamington OWL has agreed to cover the cost of the telephone line installation and also the monthly payments of the ISP charge. Bo OWL will need to cover the cost of the calls through their administration budget. These costs can be reduced considerably if people compose their email in Word before they connect to the internet. I would also recommend that email is used via a free webmail service such as hotmail or yahoo, rather than Outlook. In hotmail and yahoo mail, all mail is virus checked before it can be opened. This will minimize the risk of the laptop becoming infected. Additionally, with webmail, all the emails are stored on a remote server; therefore the hard disk on the notebook will not become unnecessarily full, allowing more space for documents. Finally, webmail will give more privacy. If everyone downloads their emails to Outlook then they will be there for everyone to see. For information about setting up a webmail account please contact Magnus Lansana.

I am certain that the cost of high bandwidth internet connections in Bo will eventually fall as more competition and new technology arrives. Maybe then the possibility of launching an internet café can be re-visited.

There are still some income generating opportunities with the computers that have been installed at the Link Centre. The printer is a good quality laser printer and has been networked so that all the computers are able to print to it. A charge could be instigated for the use of the printer. The CR-RW can be used to copy music, software and digital photos. I recommend a supply of CDs be kept in stock so that the copying of these can be charged on an individual basis.

Schools and Education Centers:

With the exception of one, I felt that all the schools that Magnus and I visited as representatives of the Link were highly appreciative of our time, expertise and the few parts that we were able to donate. In which case I

feel good relationships have been maintained. The exception that I mentioned concerns Ahmadiyya School. The teachers at this school did not appear to understand the concept and spirit of the Link. Immediately they were asking for new computers and for us to pay for an internet connection. Even after explaining to them that we were not an NGO or an organization with large funds, they continued to ask for software. One teacher implied that I should have attended Ahmadiyya for at least two days to teach him hardware. I would recommend that if a visit is arranged to Ahmadiyya again a letter should be sent prior to the visit to explain what the Link is about. Furthermore, if the same episode was to happen after the letter was sent I suggest that no further visits are conducted at Ahmadiyya. The teachers did not genuinely seem to appreciate that we had fixed four of their computers and focused mainly on what we could not provide for them.

Education:

The small network of computers that has been installed at the Link Centre gives an ideal opportunity for members of the Link to become more computer literate. I hope the potential of the computers is taken full advantage of. Both computers and the notebook have Office installed and both computers have sound cards so that educational CD-ROMS with audio can be played upon them.

Personal Note:

I have enjoyed my stay in Bo immensely and have received as much as I have given. I would like to say a special thank you to the following individuals who have in some way contributed to the information given in this report:

Magnus Lansana:

Magnus has given much of his personal time to accompany me around the schools. His technical skills and abilities have been a great help in fixing the various computers we have come across. He also kindly let us use the workshop where he works as a base for fixing the computers.

Maada Fobay:

Maada has been very supportive of my work throughout my stay here in Bo and I have reported back to him on a daily basis. He has given provided me with concise information that has allowed me to make the correct decisions.

Brian Austen:

Brian has made a very generous donation in the form of his laptop to the Computer Resource Centre at the Link building. It is a very good machine and will give Bo OWL a useful tool for connecting to the internet and provide them with greater flexibility than the static PCs.

Janet Alty:

Janet has been storing computers in her basement over a long period of time in the hope that someday they would be able to help the link. As a result, two PCs were constructed for the Link from parts taken from these computers. Also, it was only possible to fix many of the computers at the schools by using parts from the donated computers.