Halesowen College: Doing more for less - saving costs with an open source telephony system

Summary

Halesowen College has saved thousands of pounds by choosing an open source telephony system to link its 3 college sites.

About Halesowen College

Halesowen College has a good reputation for high standards and student achievement. It consistently appears in the top 10% of colleges for examination performance. The most recent Ofsted inspection highlighted areas such as 'good academic support, leadership and the fact that all students are valued.'
The college is currently undergoing an extensive redevelopment of the main Whittingham Road site. This includes a phased replacement to ‘Block 0’ with the remaining student accommodation replaced during a 3-year period.

The challenge

In 2003, Halesowen College opened a new ‘remote’ site and needed a cost effective telephony solution to carry voice and data communications over the same line.

The budget for this project was relatively small and Technical Resources Director Will Davidson wanted to avoid paying line rental for extra lines between sites, and call charges for lengthy periods of time.

Will says, “It’s a phased approach – we will add a new data link to the part of the building that will remain in situ, and replace the analogue phones with VOIP so that we don’t need to install dedicated telephony cabling just for the remaining 12-18 months that it takes to demolish the building. This will save further unnecessary costs.”

The activity

Will deployed Voice Over Internet Protocol (VOIP) - a cheaper alternative to traditional telephony which allows users to make calls over the network or Internet. This means there are no call charges, with hardware and software costs also being very cheap by comparison.

Will said “We decided to set up the infrastructure in-house to save further costs, and after being disappointed with a commercial product, we looked at Asterisk – an open source VOIP solution. Despite a steep learning curve, we were able to simply take out the existing system and drop Asterisk in its place – it is so flexible and configurable that it didn’t affect the front end user experience.”

Will downloaded ‘Trixbox’ – a pre-packaged, fully customisable version of Asterisk. Trixbox also includes a voicemail interface, call reporting feature and a CRM package.

Keen to continue the ethos of using open source alternatives, Will also downloaded ‘HUD lite’ – software which acts as an interface on the PC desktop enabling users to make and receive phone calls across the network. Other features of HUD lite include:

- Instant messaging
- Transfer and call parking
- Presence management (i.e. ‘available’, ‘away’)
- Outlook integration – outbound dialling and contact matching

The system also helps to support the college’s flexible working arrangement approach. Will, for example, has a wireless extension and he is able to make and receive phone calls to and from his work extension from anywhere with wireless Internet access. Dialling to mobiles is not currently something that is made use of, but is a feature that will be explored further in the future.

Will says, “In terms of hardware, all you need is either a standard handset with a VOIP adapter or a VOIP phone – they are relatively inexpensive. If you need to interface with another system, you will need gateways and interface cards but apart from that there are no additional costs.”
He adds, “You don’t even need to buy a high spec server to run Asterisk. At the Whittingham road site, we use a PC we bought in 2004 which works really well.”

The outcomes

After successfully deploying VOIP at the remote site, Will introduced it at the Whittingham Road site - it is gradually being deployed but currently only where it is of benefit. The next phase is to remove the telephony links to the oldest and biggest building on the site which is slowly being demolished.

Will says, “It’s a phased approach – we will add a new data link to the part of the building that will remain in situ, and replace the analogue phones with VOIP so that we don’t need to install dedicated telephony cabling just for the remaining 12-18 months that it takes to demolish the building. This will save further unnecessary costs.”

The impact

VOIP is now working across all college sites. During the Summer of 2010, the college will open a new building which, says Will, setting up the telephony for will be easy.

He adds, “The cost savings have been huge. Traditional telephony is expensive but we can now do the same job as we did 10 years ago for about a tenth of the cost. We have also spent nearly a quarter of what the commercial providers quoted us to install the same solution.”

He adds, “Another area where we have saved money is support. By doing it ourselves we don’t have to worry about lack of knowledge once the service provider has gone, plus we are working with already familiar technology (Asterisk is Linux-based). There has been a reasonable investment in time but this project was carried out as part of my daily role so the college has not incurred any additional staffing costs.”

Future plans include the removal of a traditional box at the Coombs Wood site which connects back to the Whittingham Road site. Replacing this, and an old fashioned G703 line, will save an additional £1,500 a year on maintenance and £2,000 on line rental.

In terms of significant changes in the day to day operations of the VOIP system, there have been none to the end user.

Will explains, “It’s really a behind the scenes thing. The fact that we haven’t noticed any real problems, or had comments from the staff about major disruptions and changes constitutes a success.”

Will has the following advice for providers who may be thinking about a VOIP telephony system:
• Think about security from the start – the college was compromised although it was only a small scale attack. Will says, “It really opened our eyes to the risk”
• Consider a phased approach rather than ripping out the existing system entirely. Think about what jobs each system is best suited for and interface the two together. If things go wrong, you are not left completely without phones
• Try an open source solution before considering commercial options – you haven’t lost any money if it doesn’t suit your needs
• There is a lot of support available for Asterisk so you are not alone. It has a similar community feel to Moodle

Will adds, “Open source is not always the best approach, for example, for a small business with limited resources to support an open source system. However for the college, we have the means to support it internally and it cost only £2k compared to the £12k quoted by commercial vendors. The cost savings speak for themselves – it was definitely the best solution for us.”

**Case study update**

Since the implementation of Asterisk in 2010, Halesowen College has continued to reap the benefits of this open source solution.

Will Davidson says, “Asterisk has been fantastic for the college. It has given us a tremendous amount of flexibility and a continuity of service whilst our building works took place. It has saved massive amounts of time and the disruption to the user has been minimal.”

He adds, “It has also saved us an incredible amount of money. Not only the up-front cost, but we don’t need to buy further licenses. The only costs involved are for additional handsets. We did have to replace the VOIP server with something more robust however we utilised an old rack mount server so there was no cost.” Will believes that the amount of time saved during the past 3 years is conducive with a Technician’s annual salary.

As a result of the success with Asterisk, Will has continued to use open source alternatives, for example Alfresco for document management, firewall and mail relay software.

Will advises other providers, “You have to have a certain skillset in your organisation but if you do, be prepared to dive in! Open source is free so it’s virtually without risk.”

**Useful links**

- [Halesowen College](#)
- [Asterisk Open Source Telephony System](#)
- [Trixbox](#)
- [HUD from Fonality](#)
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