



Secure Resilient Networks

North Solihull community will 'plug' into free Internet over power lines

An innovative project in North Solihull plans to bridge the 'digital divide' by delivering free or subsidized broadband to residents in council owned multi-storey housing blocks using CI-Net's RedKite wireless technology. Internet connectivity will be distributed to individual flats via electric plug sockets.

The initiative is designed to bring broadband to the residents of a group of multi-storey dwelling units who include a mixture of long term unemployed, low paid workers, single parent families with young children and those with disabilities. It will also create a wireless hotspot area that Solihull Metropolitan Council can use to help attract local businesses to a part of North Solihull designated a deprived area.

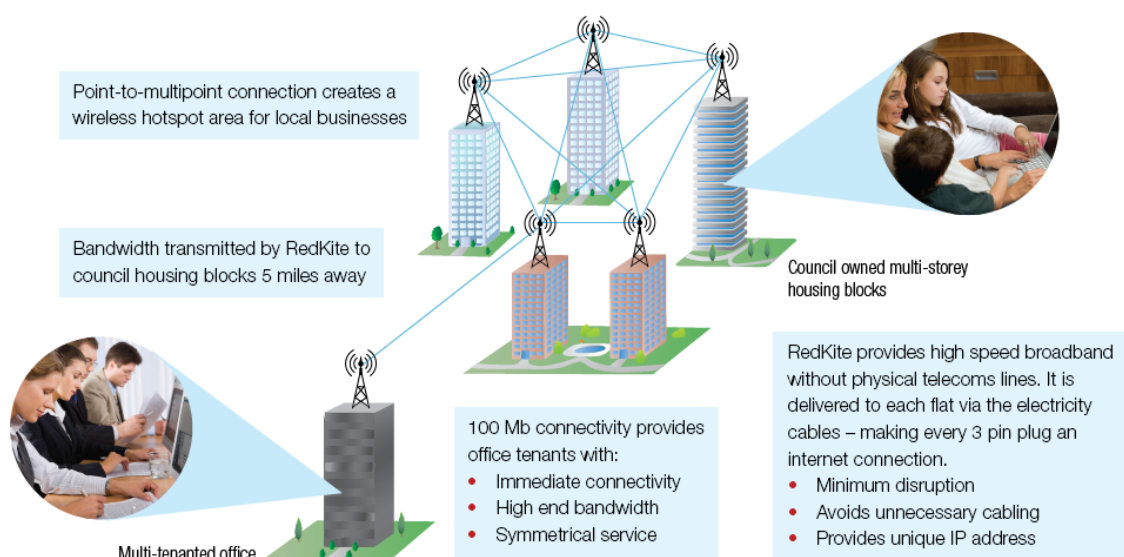
Solihull Community Housing (SCH), which manages the council's stock of 11000 homes, will implement the project with technology partner, CI-Net, a

specialist in Wide Area Networking (WAN). They plan to provide Internet bandwidth to the buildings via CI-Net's RedKite wireless connectivity service which uses Pre-Wimax radio signals to deliver high speed, symmetrical broadband without physical telecoms lines.

The RedKite wireless radio signal will be transferred to the buildings' electrical power lines to enable Internet access through three pin sockets in tenants' homes.

Low cost, low maintenance

"One of our technical challenges was finding a low cost, low maintenance, reliable way of providing Internet connectivity," explained Chris Deery Head of IT at SCH who was involved in solving the IT issues related to the project. "We wanted to minimize the civil engineering work required to deliver broadband to the multi-storey buildings, as well avoid causing disruption to individual tenants during



Please contact us for further information

CI-Net Network House Langford Locks Kidlington Oxfordshire OX5 1GA

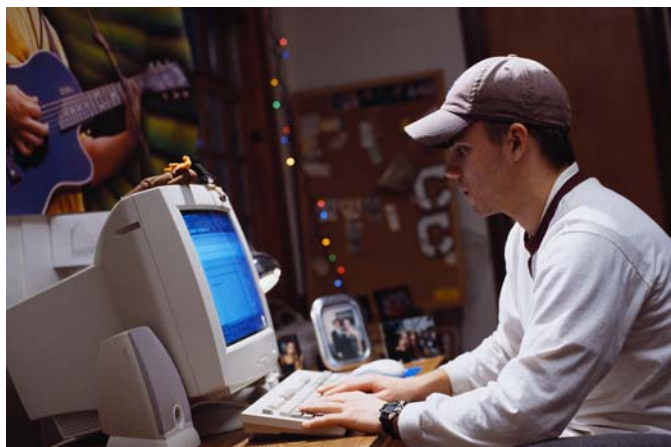
TELEPHONE 01865 856000 FAX 01865 856001 EMAIL info@ci-net.com WEB www.ci-net.com

implementation. We also wanted a solution with the ability to expand over time so we could start with one building and roll it out to more tenants in future."

As part of CI-Net's plan, an existing RedKite radio base station located five miles away in Yardley will send a broadband signal to a receiver located on the roof of one of the SCH buildings.

As more buildings become part of the project the signal will be divided and relayed to them using point-to-point wireless equipment to create a wireless 'mesh' at the site. A 'gateway' within each building will transfer the incoming bandwidth to the electricity cables running to individual flats. Tenants that qualify to receive Internet access will be given specially designed connector units, which operate like modems. These can be plugged into any three-point socket to provide connectivity.

A wireless hotspot area will be created in the shadow of the SCH buildings which can be part of a range of council incentives to attract local businesses to help regenerate the area.



Tenants will be able to use the Internet to improve IT literacy skills in order to widen employment prospects, to gain greater access to Social Services and support organisations, and as an educational resource for children.

Cable solution rejected

An earlier technology proposal for the project, based on a conventional broadband cable solution combined with wireless broadband routers on alternative floors to create a series of wireless networks throughout the buildings, was rejected in favour of CI-Net's solution. "Running cable to individual buildings could have worked out more costly and problematic because it required digging up the road. RedKite allows a faster deployment across the sites, greater flexibility and actively reduces the need for civil engineering," said Chris Deery.

Using the electrical infrastructure to feed Internet power to the flats avoids having to install routers to create wireless networks within the buildings as Chris explains: "We were a little worried about the routers - which would have been placed in stairwells or corridors - being at risk of damage or theft. We could have boxed them in but that would have weakened the signal. The connectors that CI-Net is providing will be used within the safety of individual flats. And because they have a unique IP address identifying each user individually, there's little chance they'll be stolen as they have no resale value."

SCH is receiving council funding for its initiative and is applying for funding from the European Regional Development Fund to enable it to extend the service to more tower blocks. The organisation is planning to deliver connectivity to the first building in June 2008. The benefits provided by the project will be assessed by conducting surveys among the users and this information will be used to justify rolling it out to other buildings and potentially other parts of Solihull.

The charity ReCOM has agreed to provide re-cycled Personal Computers for the project and there is support from the training organisation, the Colebridge Trust, which has agreed to provide IT and Internet training workshops to the tenants.

Please contact us for further information

CI-Net Network House Langford Locks Kidlington Oxfordshire OX5 1GA

TELEPHONE 01865 856000 FAX 01865 856001 EMAIL info@ci-net.com WEB www.ci-net.com