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Regeneration Wales
Adfywio Cymru

Housing Association affordable community broadband solutions

Case Study

Home broadband is fast becoming an essential utility in order to benefit from the digital age. A home broadband connection provides a gateway to cheaper goods and services, the ability to apply and search for jobs, mechanisms to communicate in real time with people and organisations across the world, and a wealth of information to improve knowledge and empower individuals. As the supply and demand for online services continues to grow, research suggests that those who are not online face many disadvantages including a decline in health, finance and employment opportunities. In addition, the Department of Work and Pensions has started to phase in Direct Payments and online benefit applications and services which requires recipients to access the internet in order to claim their entitlements.

Household tenure is an indicator of digital exclusion with those in social housing nearly twice as likely to not have a home broadband connection. Social housing tenants are some of the most socially and economically excluded individuals with high levels of demand on health, social care, education and welfare services, and are therefore a group which would significantly benefit from the advantages of online access.

The cost of home broadband is a significant barrier for those on the lowest incomes. The average cost for the most basic home broadband package is £17 a month including line rental which is unaffordable for those on the lowest incomes.

In order to improve the wellbeing of tenants and ensure that tenants are able to access online services to apply for Universal Credit online and engage with their landlord, some housing associations are taking the lead in developing their own affordable broadband solutions for their tenants.

The following case study discusses the experiences of Welsh housing associations Coastal Housing and Merthyr Valley Homes in their development of affordable broadband solutions.

Coastal Housing, Swansea

Coastal Housing looked to install an affordable Wi-Fi solution in a block of 76 flats in their Strand Court and Strand Mews developments in Swansea. The first broadband scheme installed that they installed in the block was affordable but not reliable and consisted of 2 ADSL connections of 8MB/s each serving 76 flats. The bandwidth was very low and there was no traffic management system to evenly distribute the connection. In addition, the delivery of the signal to each individual flat was via Wi-Fi and some of the access points were poorly located with some even being behind metal pipes which substantially blocked the signal. There were also issues around the thermal insulation restricting the Wi-Fi signal because of the foil surrounding the insulation.

The alternative option to overcome this issue was to turn the Wi-Fi signal up to max. This however resulted in interference between the devices, and although it is possible to have a network where each Wi-Fi device can be individually turned up or down, that type of system increases the cost of the solution. Coastal Housing therefore decided to work with Cable-Com Solutions to scope a new approach.

Given that the wires already connect the Wi-Fi access points back to a central distribution point, it was possible to extend them into the individual flats so that the signal did not have to punch through the walls to get to the tenant's devices. This approach also allowed for the installation of a wired access point within each flat so that the tenant could plug-in wired devices into the broadband for a quicker and more reliable experience.

Coastal signed a ten year contract with Cable-Com Solutions for the delivery and management of the scheme which provides a guaranteed 5MB/s upload and download service. Tenants also have the opportunity to pay extra to 'top-up' their package to increase their MB/s. The installations costs were absorbed by Coastal Housing (approximately £50 per flat) and the ongoing delivery costs are charged as a service charge that was already in place to pay for the previous broadband scheme. Tenants are therefore paying the same amount for a new and improved affordable broadband service.

Coastal Housing are now looking to replicate and install this broadband solution in their other flat developments, however there are challenges which will need to be worked through on introducing broadband as a new service charge to existing tenancies.

Merthyr Valley Homes, Gellideg Estate

A survey by Merthyr Valley Homes (MVH) found that 80% of residents on the Gellideg estate in Merthyr were affected by Welfare Reform however less than a third were online. With Universal Credit on the horizon MVH wanted to bring the internet to its communities to ensure that their tenants had sufficient broadband access in order to complete and manage their Universal Credit and pay their rent. MVH initially discussed developing a solution with BT who offered to put Wi-Fi into every house as part of its social landlord package. However, MVH would have had to guarantee to collect the telephone bill in order to get a discount, putting the organisation at risk.

'That was 4,000 properties with us taking the risk and it would have cost something like £1.2 million a year...with expensive phone lines and Sky contracts and beholden to the major providers, communities like Merthyr are always going to be disenfranchised.' said Chief Executive Mike Owen.

As MVH had good community links with the Gellideg estate they decided to instead use the area as a pilot to develop a new affordable home broadband scheme through the sharing of internet connection between many users.

The new Digital Merthyr solution was funded by a grant from Nominet Trust and supported by the Creative Coop. MVH identified potential in replicating a network model called Guifi-net which is a specialist self-managed community network that has connected 35,000 people in Catalonia, Spain. The grant funded the recruitment of Nicholas Giles, a computer science graduate, as project officer and he visited Barcelona to learn how to install and manage the infrastructure.



The replicated model in Merthyr involved splitting the broadband capacity at the MVH Head Office in Merthyr town centre and beaming the signal across the Valley up to the Gellideg estate via an aerial. From there a series of nodes or aerials are located on the estate to receive and send the signal and cable from these brings Wi-Fi into the house with a router in each. MVH used their links with the local community centre and primary school to identify which households did not have home broadband and prioritised these households to first receive the installation.

During the initial pilot only 45 homes on the estate were fitted with the connection to test the infrastructure but MVH are currently extending the network to other households. The pilot was deemed a success with 100% of users recommending the network to others on the basis of price and quality of connection. The infrastructure also held up despite bad weather.

Many tenants have positively reported on the benefits experienced from the connection:

Terry and his partner previously had a commercial broadband connection but were struggling to pay the bills. Now they're saving £25 a month and he's considering setting up his own custom t-shirt business run primarily over the Digital Merthyr connection.

Chris lives with his mother and is her main carer. He previously had no internet connection but now he can get online to get the best deal when he gets the chance to shop and he's hoping to access additional health services for her online.

The system is currently offered to the household free of charge and there is no need for a landline. Going forward MVH are looking to charge the connection as a service charge. In total the scheme cost £80,000 to install which was funded by MVH and the grant from Nominet Trust. The system was developed with specialist help from Guifi-net, which still offers technical support, but from there was taken forward with a bottom-up approach through a core group of six local digital champions who volunteered their time to install and manage the infrastructure.

Conclusion

This case study highlights the differences between installing affordable broadband in a block of flats compared to a street of general needs houses. The solutions offered by major suppliers are generally unaffordable to housing associations which has led them to develop their own network with suppliers that can offer flexible solutions.

Housing associations across Wales are looking closely at these innovative examples to see if they can be replicable in their areas. Community Housing Cymru facilitates the running of the Digital Inclusion Group which brings together digital inclusion officers working in housing associations across Wales to share experiences and good practice. Affordable broadband solutions is a fixed agenda item at all meetings of the group.

Whilst this case study details the solutions that are available to allow social housing tenants to access cheaper broadband access, it is important to also consider alternative options that could be developed using the capacity of Welsh housing associations. For example, Welsh Government has made a huge investment in connecting public services. Every primary school in Wales is linked to the system and there could be potential to share the signal out of school hours. In addition, is there potential to use the lobbying and collective purchasing powers of housing associations to call on the major suppliers to develop an affordable social tariff for tenants? These options and the innovative case studies highlighted in this study all need to be further explored in order to develop a truly sustainable and affordable broadband option for social housing tenants.

Contact Crew:

enquiries@regenwales.org
[@CREWRegenWales](https://www.instagram.com/CREWRegenWales)
www.regenwales.org