

Case Study: Community Broadband

June 2011

This is one of a series of case studies produced as part of the 'Learning from the Big Society Project'. It aims to draw lessons from the Eden Valley Big Society Vanguard, covering the parish groupings in Upper Eden, Heart of Eden and Lyvennet Valley, each of whom had worked together to produce a Community Led Plan for their area.

Many of the projects covered in the case studies are currently in development but we can still learn from the experiences of the communities and agencies involved.

The Challenge

The communities of the Eden Valley exist within a sparsely populated rural area characterised by dispersed settlements where the distances to the more substantial centres of population can be considerable.

For many their geographic remoteness is compounded by inadequate broadband and mobile telephone coverage.

In recent years broadband internet has taken on new significance, no longer considered a luxury but a 'fourth utility', particularly for those living and working in rural areas.

In areas with good quality broadband and coverage there is growing evidence of new economic activity and employment. In turn they are witnessing support for local shops and schools, helping to safeguard their local services.

For those who are not in a position to benefit, through a lack of broadband provision or poor service, there is a 'digital divide', a growing sense of frustration and some anxiety that they are having to play 'catch up' in order to maintain the social and economic vibrancy of their communities.

Locally tailored solutions

The Big Society and the local decision-making and activities being demonstrated by the communities in the Eden Valley present a real opportunity to overcome some of the technical and financial barriers to broadband provision. Some of Eden's communities are developing their own solutions, finding their own way to realise the potential benefits from broadband.

New innovations and services are emerging constantly and they are changing the way people live and work e.g. online banking, trading, and on-demand entertainment.

Community broadband groups are looking to provide more than just a 'stop-gap' solution, considering instead what services may be delivered today and in the future. So-called 'superfast broadband' and even Next Generation Access (NGA) broadband are being explored to meet the needs for faster, more interactive, multimedia services, but finding the right solution can be time consuming; requiring technical advice and expertise.

In the meantime, several communities have shown how locally managed projects can deliver cost effective solutions, building on local knowledge and skills, and can go some way towards meeting their needs.

Case Study: Eden Valley Digital

Case Study: Great Asby Broadband

Eden Valley Digital

Background

A number of Eden Valley communities have been inspired to improve their broadband provision following events organised by local MP, Rory Stewart, and the announcement that the area would be a pilot for rural broadband improvements via Broadband Development UK (BDUK).

Communities across Cumbria have identified Broadband Champions to campaign on their behalf. Those in the area covered by the Leith-Lyvennet Church newsletter; Crosby Ravensworth, Morland, Bolton, Cliburn, Newby, Sleagill, Great Strickland and Little Strickland have formed the Leith-Lyvennet Broadband Group (LLBG) to inform and advise their Parish Councils and residents on broadband issues and developments.

The Project

In November and December 2010 the LLBG held community meetings to present information on rural broadband. With a live referendum, using an electronic voting system, they gauged the level of interest in a high speed service.

They are committed to fulfilling the aims of the Eden Declaration on <u>broadbandcumbria.com</u> which sets out a number of aspirations around broadband and demands that rural communities are not disadvantaged by poor access to high speed broadband connections.

Eden Valley Digital (EVD) was formed as a Community Interest Company in May 2011 to provide community run fast broadband for the Leith-Lyvennet area Parishes. EVD is considering the best way to improve broadband and mobile phone services for their communities and to get the best possible value for them.

They have representation on the East Cumbria Community Broadband Forum (ECCBF) which is talking to BDUK about piloting new ways of connecting rural communities. Cumbria is one of four areas to receive initial BDUK funding to improve the broadband infrastructure.

EVD would like to trial a variety of technological solutions to improve their broadband provision: fibre optic cables, wireless, wimax (infrared) and satellite.

They recognise the importance of maintaining an open (monopoly-free) network that will be answerable to their communities. EVD will return 65 per cent of net profits to Parish Councils in proportion to their levels of participation.

The challenges that they face include; the technicalities of delivering broadband to remote premises, levels of demand, ensuring the service is commercially viable and the introduction of service to households new to IT.

The availability of 4G wireless provision is seen as important by the group too. Eden Valley Digital are encouraged by the level of activity around broadband in Cumbria and are pleased that BDUK and Cumbria County Council are interested in addressing market failure in fast rural broadband provision through community-based innovative solutions.

Contact Details

More information about Eden Valley Digital can be found at:

www.leith-lyvennet.broadbandcumbria.com

"It's important for us to future proof what we do and peer review improves chances of success.

"This work will have increasing importance as time passes; not everyone may understand the need for super fast broadband right now, but it will probably be crucial for their children and their grandchildren."

Charles Paxton, Eden Valley Digital Member

Great Asby Broadband

Background

Great Asby Broadband pre-dates both the Heart of Eden Community Plan (although it falls within the Plan's area) and the Big Society Vanguard.

It covers the village of Great Asby in Eden District and the surrounding area.

The Project

Great Asby Broadband delivers a broadband service to a community unable to use conventional broadband by cable or by ADSL over a copper wire phone network.

For many rural communities, even if ADSL is available in a village, speeds tend to be relatively slow and the service poor due to the long distance from the exchange.

Initially in Great Asby subscribers used a satellite system to connect to the internet which was installed in the village in 2005. This is known as the *backhaul*. However, in 2007 the local primary school became connected to the internet by fibre optic cable as part of the CLEO (Cumbria and Lancashire Education On-line) initiative.

With the school's permission it was possible then for the village to 'piggy-back' on that connection via an Ethernet cable and a series of wireless devices forming a network around the village. It was at that time that local people formed Great Asby Broadband into a Community Interest Company and placed the service on a stable footing.

Over a five year period the company's subscribers have increased in number from 20 to 69. More recently a separate fibre connection has been brought into the village hall, rather than having to connect to the school.

This provides the location for the main wireless base in a wireless network of linked nodes situated around the village to which individual households can connect.

Great Asby Broadband have overcome a number of challenges to get a good local network in place and in March 2011 completed a project to upgrade the network and increase bandwidth and speed of connection.

The funding came from RDPE (Rural Development Programme for England) and Cumbria Community Foundation (from the CRISP Fund and Environment Fund).

As CLEO have declined to increase the available bandwidth of the backhaul, the company is now looking for a new backhaul provider to improve their primary connection to the internet.

It may be possible for a number of community broadband services to group together to purchase a backhaul solution and share the cost between them. This would be likely to involve renting a connection to a fibre trunk at a central point, possibly near the M6, and creating local networks to different communities.



Laying cable during the network upgrade

What have the challenges been?

Recently Great Asby Broadband has faced three challenges:

Local technical challenges: connecting remote households is difficult. One of their wireless nodes needed to be located on a hill to reach a number of subscribers.

Although originally powered by solar and wind energy, when upgraded, this node had increased power requirements and they had to take mains power from a local house across a field via a 200m mains cable buried in the ground which involved negotiating with the householder and the landowner.

Financial challenges: RDPE funding is paid retrospectively which has made cash-flow difficult. To overcome this members lent the company money on a short-term basis.

Securing adequate backhaul: this has been mentioned above and is currently a focus for Great Asby Broadband.

What has been achieved?

A financially sustainable community-led solution has been developed in Great Asby to provide local people with a reliable broadband service.

The company looks for opportunities to improve their service and is part of East Cumbria Community Broadband Forum which covers forty parishes in the East of the county.

The Learning

The open market is unlikely to provide broadband services in many rural areas when households are inaccessible and populations are sparse. Public service broadband networks, such as those used by schools and other education institutions should be made available to community broadband groups to enable them to have an affordable connection to the internet.

Broadband connections could be improved if landowners would allow fibre optic cables to be buried on their land at minimal or no cost through wayleave agreements.

Contact Details

The Great Asby Broadband website contains information about their service, upgrade and future plans: www.greatasbybroadband.org.uk.

www.broadbandcumbria.com connects broadband campaigners in Cumbria and has useful resources, a glossary of technical terms and a frequently asked questions section.

The ACRE Policy Position paper on Digital Inclusion sets out the case for equitable access to broadband in rural areas www.acre.org.uk/Resources

Cumbria County Council has updates on the BDUK-sponsored broadband procurement www.cumbria.gov.uk/broadband/update.asp.

More information from BDUK is available at discuss.bis.gov.uk/bduk/

For more information about this and other case studies in this series, please contact ACT on Tel: 01228 817224 or Email: info@cumbriaaction.org.uk

Topics covered in this series:

- Community Housing
- Community Broadband
- Community Owned Enterprise
- Community Renewable Energy
- Neighbourhood Planning
- Community Transport





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