

Whitsome Broadband

I Have a Dream

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of

Whitsome Enterprises



Ian's Borders Background

- 1996 – 2012
- Edrom, Allanton and Whitsome Community Council
- Berwickshire Community Councils' Forum
- Scottish Borders Rural Partnership
- Scottish Borders New Ways Partnership
- LEADER
- Whitsome Enhancement Group
- Whitsome Enterprises Limited

Scottish Borders History

1996 – Scottish Borders Enterprise undertook a baseline study of Information Technology in Scottish Borders

1997 – Community Accessible Database Group that became the Scottish Borders Telematics Group

1998 – Scottish Borders 'Info-Ring' project funded through the Scottish Executive Rural Challenge Fund and the European Union Objective 5b

Established that most BT Telephone Exchanges are linked by fibre optic cable

1999 – Thus fibre optic link to Tweed Horizons and Heriot Watt Galashiels campus – capacity in excess of 600Mbps

2000 – launch of Scottish Borders Community Grid for Learning with support from the New Opportunities Fund – this has, through several iterations, become On-Line Borders and supports web sites for more than 1,000 voluntary organisations

2000 – a few villages formed IT centres, e.g. Copshaw and Newcastleton

2001 – 3-year project to place PCs, etc. in several small rural areas and provide support under the modernising Government Fund

2001 – Digital Scotland – South of Scotland Pathfinder Initiative

2002 – Scottish Borders Community Planning Partnership study of ICT in the Borders with a view to establishing "Digital Borders"

2006 – A Study into Broadband provision in Scotland by Scottish Executive





Whitsome Milestones

- 1988 – Whitsome Telephone Exchange upgraded from analogue to digital at UXD5 standard
- 1993 – email on 56kbps – tied up 'phone line but better than nothing
- 1993 – Integrated Services Digital Network at 64kbps had limited availability in rural exchanges – ISDN2 & ISDN2e rising to ISDN30, i.e. 30 channels at 64kbps each
- 2005 – Exchange Activate programme funded through the Scottish Executive Asymmetric Digital Subscriber Line with speeds up to 512kbps



Whitsome Frustrations

- Telephone lines are unavailable when on-line
- Surrounding areas become Broadband enabled
- Soon Whitsome was a white dot in a sea of green
- BT refused to respond to request for upgrade
- As today, BT adverts extolled the benefits of an unavailable service

- Help sought from Local Authority
- Representations to MP and MSPs
- Scottish Borders Telematics group contacted

Progress

- The Scottish Executive provides funding to upgrade smaller exchanges
- Whitsome gets an ADSL enabled facility giving 512kbps and frees up `phone lines – June 2005
- But an overall restriction of 2Mbps to share amongst all subscribers
- Soon more complaints about slow speeds
- Continual publicity through local press
- Problem raised with MP and MSP at their surgeries
- In 2008 , Ian Shanks of BT notes that under the 21CN programme Whitsome will achieve 16Mbps to 24Mbps
- Jeremy Purvis MSP wrote a `Digital Strategy for the Borders in 2010
- Then, in 2010, the Scottish Government announced a million euros grant to be distributed through LEADER groups



Project Background

Scottish Borders LEADER

Encouraging innovation in rural areas

LEADER Rural Broadband Fund will deliver support for broadband projects in rural areas.



Whitsome Existing Broadband Bid

- The area is that covered by the Whitsome telephone exchange and is approximately 20 square kilometres and as the population is around 280 the density in this remote rural region is 14/km².
- There are some 125 lines from to the exchange with about 15 designated as 'business' connections and although ADSL was enabled in 2005 (*Exchange Activate* programme) the number of broadband subscribers is unknown but it is believed that BT Wholesale is the only supplier. Whitsome appears to be one of a small number of Scottish Borders Exchanges not to have had *ADSL Max* made available.
- From our enquiries it is obvious that existing broadband users experience considerable frustration when using certain aspects of the internet, e.g. some websites take a long time to download, video clips pause frequently, documents and photographs attached to emails are slow to appear. Whether social or businesses users or school children/students we all waste countless hours just 'waiting'.
- The proposal is to have the exchange capacity raised sufficiently to allow all subscribers to be able to stream videos, Youtube, BBC iPlayer, etc. without any breaks. We understand that a minimum speed of 2Mbps is suitable for this use and that in excess of 90% of subscribers on an *ADSL Max* enabled exchange can achieve this requirement.
- The added value of a successful upgrade will not only be an increase in the output of businesses but the additional time made available to others to pursue further objectives. As a number of folks in the area have not subscribed to "a poor broadband service" but prefer to travel to a library in Duns, Kelso or Berwick to complete their internet business, substantial environmental benefits will accrue by the reduction in car travel – note that Whitsome has one return bus service to Berwick each week so it has to be car travel to get anywhere!



The Process

- Expressions of Interest were invited by the LEADER Local Action Group to be submitted by 30th July 2010
- The Whitsome Enhancement Group brought together five people to 'front' a bid and successfully achieved an offer of £100,000 to provide a broadband service for 5 years in Whitsome Parish
- An Invitation To Tender (ITT) was compiled but as BT was likely to be a bidder, clearance had to be obtained from the Scottish Government
- To ensure 'fair play' the ITT was advertised widely

The Results of the Bid Process

- The completed bid was 'put out ' using the Scottish government bid website and we waited patiently for replies
- Our incumbent supplier did not respond therefore registering their lack of interest in upgrading the existing exchange
- One reply came from Cyermoor offering a way to implement a fast reliable broadband system without involving the incumbent supplier



The Proposal

- Cybermoor offered to provide a broadband service to properties in Whitsome using a wireless system similar to one they had installed in Alston, Cumbria
- This would comprise four transmitter locations and small receiver aerials on each customer's property
- As specified in the ITT, the minimum speed was 2Mbps with options to subscribe for 2Mbps and 6Mbps
- The minimum speed would be priced close to the current BT offering of 512kbps

Finance – 1

Dilemma!

- LEADER offered a 100% grant of £100,000
- 7% could be advanced to provide a cash flow for the project
- The time to defray all expenses was limited
- The last 10% of the grant would not be paid until all invoices had been settled in full and a final, satisfactory, monitoring visit completed
- To achieve this a loan had to be secured to enable adequate cash flow to achieve the timetable set out
- Social Investment Scotland (SIS) agreed to provide up to £20,000 - 7% interest, 2% set-up fee and £300 legal fee
- None of the SIS expenditure was eligible under LEADER
- The committee of the Whitsome Enhancement Group, as an unincorporated association, was not prepared to carry the risk



Finance - 2

Solution

- Scottish Borders Council (SBC) through its Small Grants Scheme was prepared to consider an application for money to cover the SIS costs
- The group of five who originally put the bid together formed a Company Limited by Guarantee called Whitsome Enterprises
- LEADER agreed to the transfer of grant to the new company
- SBC confirmed its offer of grant to meet the loan costs
- Detailed discussions with Cybermoor could begin

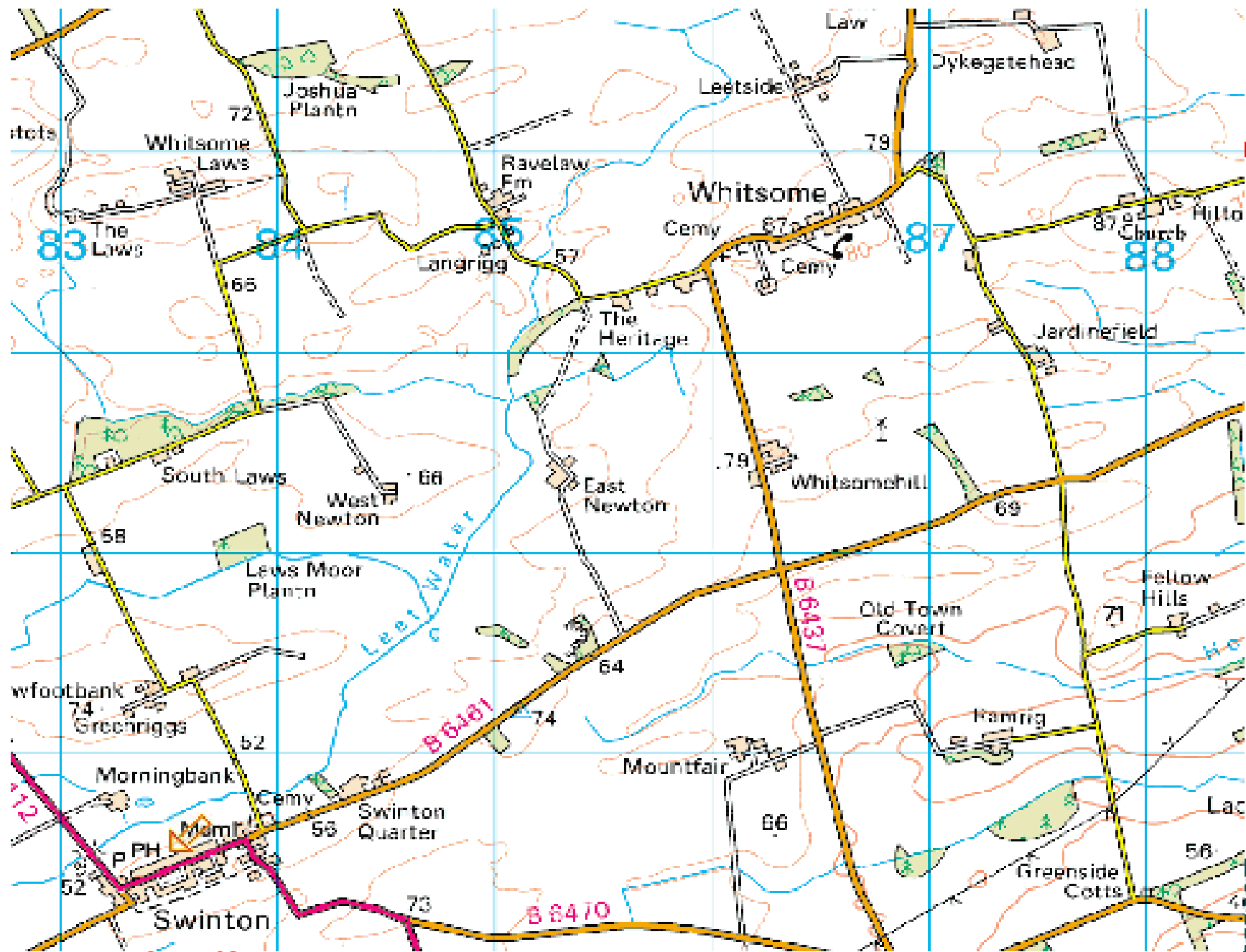
The Work

- Cybermoor undertook a details topographical survey of the area to choose the best sites for transmitters
- Approaches made to landowners for consent to site transmitters
- Discussion with potential suppliers for the broadband source signals began
- Through the various village organisations publicity was put in place to make sure everyone was fully aware of the impending birth of the new broadband service
- The local newspaper and village newsletter carried articles

The Outcome

- After much research the source contact was through BT's Swinton telephone exchange
- Four ADSL lines were routed by landline to Swinton Primary School
- The signal was transmitted wirelessly to Ravelaw Farm then to Whitsomehill Farmhouse as the main area transmitters
- 32 customers were connected by line-of-sight to these locations
- Additional customers are awaiting connection as their sight-lines are obscured by trees
- Another location is being sought for a fourth transmitter to cater for further customers





The Future

(Ian's Dream)

- A larger customer base
- Community of Cothill
- Residents of Hutton
- Other scattered settlements with long copper 'phone lines
- Connect system to high-capacity fibre optic cables
- Achieve speeds similar (or better) than urban areas
- Keep costs low





Whitsome Parish Boundary

Ravelaw

Whitsome Ark

Whitsomehill

Proposed New Fibre Optic Cable

THUS Fibre Optic Cable

Swinton School



Thank you