

“Connecting North Yorkshire”



North

Yorkshire County Council

Connecting North Yorkshire – Vision and Strategy

Foreword

North Yorkshire is a great place to live and work. But some of the reasons why that is the case are also the reasons why the provision of a universal high quality broadband service is a challenge. We are determined that North Yorkshire and York rise to this challenge and we know that North Yorkshire people are creative and grasp broadband when it is available.

This Strategy is a shared vision of partners across North Yorkshire and York. The focus is on 'high quality' broadband recognising that for some this will mean next generation access (or superfast broadband) while for others this may mean getting broadband for the very first time.

We are determined to ensure that the businesses and people of North Yorkshire and York continue to thrive – high quality broadband is essential to achieve that.

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Part B - Achieving the Vision

The Vision

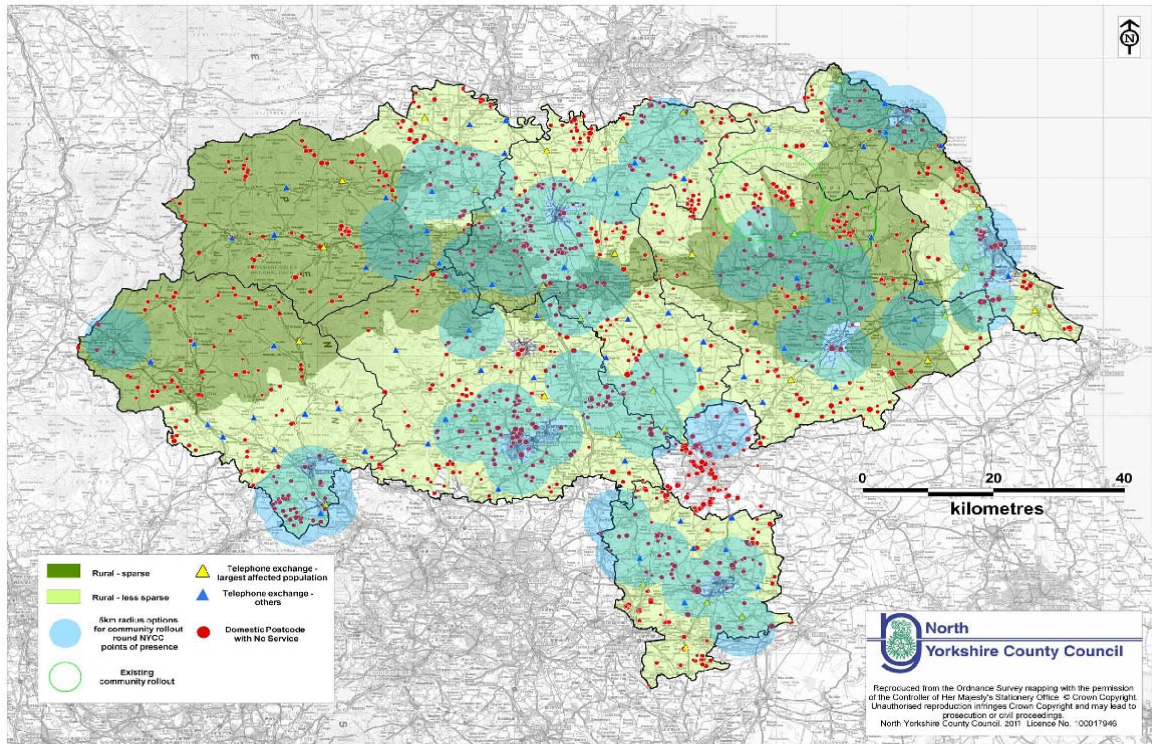
Our vision is to bring the advantages of high-quality broadband to 100% of businesses and citizens in North Yorkshire by 2017. We want to enable all to participate in the digital world so that they can carry out their business when and how they wish

1.0 North Yorkshire - The Area & the People

- 1.1 North Yorkshire is England's largest rural county with a population of just under 600,000 spread out over roughly 3,000 square miles. This means a density of just under 75 residents per km² averaged across 7 district areas. The county holds 4 out of the 8 most sparsely populated districts within England.
- 1.2 The landscape is predominantly small distinct market towns with significant distance between them, comprising outlying properties, farms and agricultural land. There are also 2 national parks, 3 areas of outstanding natural beauty and numerous stately homes and historic buildings.
- 1.3 Roughly 1 in 8 of the working age population of the county is self-employed. Within the Dales area nearly half of all jobs are either in self-employment or within micro businesses. This represents a greater proportion than both regionally and nationally.
- 1.4 This is in stark contrast to neighbouring conurbations, where the cities, towns and villages run in to each other and the population density figures are up to 20 times greater with more, and larger, businesses employing a greater number of people.

2.0 The Challenges for North Yorkshire

- 2.1 In an announcement on 13th May 2010 BT pledged to invest a further £1bn in its expanding fibre optic network. BT intends to upgrade about three quarters of exchanges, to cover about two-thirds of the country, by 2015. Depending on the technology used these exchanges are theoretically capable of providing speeds of up to 40Mbit/s or 100Mbit/s. Within North Yorkshire, only the telephone exchanges servicing York and Harrogate are definitely part of BT's plan at this stage.
- 2.2 The geography and population distribution of North Yorkshire are the principal reasons as to why private sector organisations are not implementing the infrastructure required to provide broadband to many North Yorkshire residents. The low number of connections per kilometre makes developing the infrastructure commercially unattractive. As a consequence the county is a low business priority. The map overleaf demonstrates the large number of not-spots where broadband is simply not available.



2.3 Approximately 45,500 residents of North Yorkshire are unable to access a usable internet services (7.6% of the population) There is however compelling evidence that the population of North Yorkshire want to connect to the internet, and with more enthusiasm than most. It appears that they have the appetite to embrace the technology, despite the associated issues mentioned above.

3.0 Economic Importance of Quality Broadband in North Yorkshire

3.1 There are numerous risks to the county's economic infrastructure if we do not achieve our vision of extending NGA across the county. **Business parks** will not attract tenants unless the latest broadband technology is available capable of supporting e-commerce. The major economy in rural areas is based on self-employment and small enterprises. 13% of the working-age population in North Yorkshire is self-employed, higher than both the regional figure of 8.4% and the national figure of 9.4%. Census data for 2001 shows that **self-employment and micro-businesses** employing 1-4 people accounted for 49% of jobs in the Dales and 37% in the Moors. Without the marketing and sales opportunities offered by the internet small businesses, which form the bulk of North Yorkshire's private sector economy, will struggle to reach markets outside a very local area.

3.2 Opportunities for home-based or **remote working** are minimal without internet access. With broadband they are able to achieve that and many other tasks that have conventionally only been done at the office. These include remote access to computers & servers, video-conferencing, web-meetings and access to the company telephony system, all without having to travel. There are numerous other benefits derived from remote working such as increased productivity; reduced sickness levels; improved staff work-life balance; reduced accommodation requirements; and smaller carbon footprint due to reduction in home-to-office travelling.

3.3 The lack of elements such as a transactional website where customer purchases can be made online, or the ability to place orders with suppliers, or send information, images or

data files, restricts the ability for businesses to trade effectively. Professional and 'clean businesses' such as solicitors, accountants and architects are nearly all required to send data electronically to their clients. Even industries seen as non-technological, such as farming, are required to make **online submissions of information** to government. There is also the push for everyone to complete self-assessment income tax forms and quarterly VAT returns online.

- 3.4 Employers without broadband are potentially missing out on **recruiting the best staff** to further their business. Vacancy adverts are less likely to be posted on the internet and reach the most suitable candidates in the jobs market. Websites, such as LinkedIn, are now seen as crucial business tools, supporting marketing, professional networking and recruitment. These sites also aid portfolio working, freelancing or those wanting a mix of paid employment and self-employment.
- 3.5 There is evidence that people increasingly consider broadband availability as they look at places to live. The local **housing** market is more at risk of declining property values as people reject properties in digitally excluded areas. A house close to a phone exchange and with a good mobile signal will have a better Internet service. People in areas with poor internet service will therefore have to move or hope for infrastructure investment.
- 3.6 Digitally excluded areas will become less desirable, especially to families of working age with children. People are likely to pay more for a property with a good connection. Communities and their facilities are then at risk of becoming less viable with fewer permanent residents and which then threatens the sustainability of local shops, pubs & schools etc.

Tourism and The Web

A recent survey by BT Mobile & Visit Britain¹ has found that over three quarters of people research, plan & book their holidays online. The survey also found that over half of users aged 51 and above claim to take their laptops on holiday and nearly 90% of all holidaymakers expect to access the internet from their destination.

This can be demonstrated with websites such as countrycottagesonline.net & wifi-holidays.com, which have been established to allow holidaymakers to find hotels & cottages with guaranteed internet connections. They actively promote themselves with "Looking for holiday accommodation with WiFi internet access?" and "These holiday cottages offer Broadband internet access so that you can check email and access the web whilst on your break."

Tourism is vital to the local economy and holidaymakers increasingly expect to find and book holidays online and to keep in touch with family and work via internet and mobile phones whilst away. The risk is that they will choose destinations outside North Yorkshire unless this expectation is met.

4.0 Social Importance of Quality Broadband in North Yorkshire

- 4.1 The same challenges that apply to the North Yorkshire economy also apply to the way in which people of all ages live their lives in the County.
 - 4.2 **Young people** increasingly need access to the internet in order to enjoy the whole range of materials and support as they study. This is particularly important where smaller schools are not able to support the wider range of curriculum and e-learning opens up such opportunities.
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- 4.3 Significant numbers of young people move from North Yorkshire to work, study and live, particularly due to the limited higher education on offer. If high quality internet access is not available this rate may increase further and they may also be less inclined to return when they have finished their studies & want to raise their families in a County which otherwise offers a high quality of life. As a consequence there is concern that the demographic profile of North Yorkshire will become further polarised. A vibrant society and County is dependent upon a blend of age groups, skills and experiences. The sustainability of rural communities becomes an increasing concern as the population profile becomes older.
- 4.4 Access to the internet and other related technologies also opens up many opportunities for **older people**. The ability to use emails, webcams and communications technology such as Skype means that people are better able to stay in touch with friends and relatives. **Leisure** opportunities are also enhanced as is the availability of key information about services. In more acute cases, technology can be used (e.g. Telecare and telehealth) so that people can be monitored and provided with care in their own homes. People want to **stay independent** as long as possible in their own homes; their wellbeing is therefore enhanced. Local communities again benefit as people stay in their own community rather than being moved elsewhere.
- 4.5 Broadband also enhances wellbeing by opening up other leisure activities. Whilst many take high speed broadband for granted, some in North Yorkshire have to travel significant distances to get access or simply do without.
- 4.6 The finances of the public sector appear challenging for the next four years plus. As a result, public sector organisations (GPs, Local Authorities, DWP, DEFRA etc) are more likely to promote people to their websites so people can get information themselves and, where necessary, request services. The public sector is also more likely to explore technologies which allow the sharing of information and, where possible, systems and hardware. The creation of the **Public Sector Network** will facilitate this and North Yorkshire is well placed to exploit this opportunity by building upon existing infrastructure.

5.0 Transformational Potential of Quality Broadband in North Yorkshire

- 5.1 As described above, high quality broadband is essential to attract and retain local businesses whilst providing the means for communities, particularly the vulnerable, to be able to stay in touch. If we get this right, then businesses, local shops, local public services, young people and older people can all flourish in our rural villages and market towns. In short, high quality broadband has the potential to help us **revitalise our rural communities**.
- 5.2 Whilst the finances of the public sector appear challenging for the next 4 years and beyond, the expectations of our citizens will be that they can increasingly “self serve” at a time of their convenience. In order to meet these expectations within a tight financial envelope requires the public sector, across the county, to harness the **transformational potential of digital technology** for which high quality broadband is a pre-requisite. The collective public sector has the opportunity to promote “self serve” and, wherever possible, to join up services for the benefit of its shared customers.
- 5.3 Partners from across the county (Councils, Police, Fire, Health, National Parks) are involved in the “Connect Partnership”. This Partnership is aimed at providing seamless service delivery (ie regardless of the provider) and, as well as improving the customer experience, has a potential to make service provision more efficient and effective. Initial work has seen development of a shared service network and data centre which allows

partners to share information, hardware and software and provides a foundation for wider collaboration. North Yorkshire is therefore already well placed to deliver the transformational benefits of the Public Sector Network (PSN). We know that the public sector will need to provide the means by which our citizens can communicate with us but we will also need to be proactive in encouraging take up (ie helping to stimulate demand). How we can encourage digital participation will therefore form part of our thinking as we transform services locally, collectively and as we deliver the vision for high quality broadband in North Yorkshire. Some of our guiding principles will be –

- To transform the way local government & public sector organisations do business, deliver services and deal with customers.
- Customers have increased choice in how and when they communicate with public sector organisations
- That there is a greater shift towards automating services and increased web transactions.
- Greater collaborative working and shared services between public sector organisations within North Yorkshire.

5.4 Now is the ideal time for public services to exploit broadband technology and become more efficient, responsive and work in a smarter way. This transformation cannot be realised without the infrastructure in place and customers with the ability to use it. The revitalisation of our rural communities therefore goes hand in hand with the transformational potential of public sector service delivery.

6.0 Vision and Values

The Connecting North Yorkshire Vision

Our vision is to bring the advantages of high-quality broadband to 100% of businesses and citizens in North Yorkshire by 2017. We want to enable all to participate in the digital world so that they can carry out their business when and how they wish.

- 6.1 The term “high quality broadband” is used as it is recognised that broadband needs to be appropriate to people’s needs and for some this will mean getting broadband for the very first time whilst for others, particularly the likes of business parks, there is a need for next generation access (or super-fast broadband).
- 6.2 The aim to get all connected by 2015 will clearly be dependent upon resources but we know that we are well placed to deliver to many communities significantly in advance of 2015. How this is to be achieved is laid out in greater detail in ‘Achieving the Vision’.
- 6.3 The emerging ‘Sustainable Community Strategy’ for North Yorkshire has 3 areas of priority:-
- Protecting and supporting vulnerable people
 - Supporting economic growth and employment
 - Improving accessibility for all our communities
- 6.4 As explained elsewhere, high quality broadband plays a positive part in supporting each of these priorities. The aim is to deliver a high-quality broadband service capable of supporting voice, video and data to meet the needs and long term growth of businesses and individuals in all areas of North Yorkshire. Specifically this includes;

- All businesses in North Yorkshire having the ability to access high-quality broadband, so that they remain competitive with the rest of the UK.
- All communities in North Yorkshire having the ability to access high-quality broadband, so that they can enjoy the same social, economic & environmental benefits available to residents in other parts of the country.
- The provision of financially sustainable broadband with local communities using, running and owning the service.
- Residents having the ability to enhance their ICT skills.
- Greater access to social, medical and remote care technology allowing greater independence.
- Greater sustainability of rural communities by providing essential infrastructure so that businesses and communities can flourish and prosper.
- Reduce the need to travel and the subsequent carbon footprint of the county.
- Customer service is increased by enabling public sector bodies to provide more online services, allowing transactions to be performed at a time that suits them.
- More effective participation and information sharing (e.g. via the Government Connect GCSx secure data network.)

6.5 The values that underpin this strategy are:-

- Business and communities lead in identifying those communities ready for investment in broadband infrastructure.
- The public sector provides up front investment where there is a market “failure”. Communities themselves will sustain provision.
- Business and communities shape strategy and delivery.
- Partners work together in a coherent manner to maximise opportunities and benefits to communities.
- Success will be assessed on outcomes for business and communities. This strategy is therefore neutral in terms of technology and provider.
- The public sector will work together and provide appropriate support to communities to develop sustainable longer term broadband provision; it will not, however, accept on-going operational responsibility.
- Examples of good practice and resource sharing will be encouraged amongst communities recognising the expertise that exists.

6.6 **Engagement with local communities** is a key feature of these values. It is intended that existing structures will be used wherever possible. It is envisaged that the York and North Yorkshire LEP will lead on business engagement including the existing range of business engagement fora. Additionally LSPs are likely to be directly involved in identifying and engaging communities with social interest. It is recognised that there is likely to be a high degree of correlation between the ‘business’ and ‘social’ communities and it will be necessary to co-ordinate this area. Similarly, it will be necessary to work with existing and emerging community ISPs. A criteria is to be further worked up which provides the basis by which communities will be identified and encouraged to develop community broadband solutions. It is suggested that the following areas will be key components of such a criteria:-

Technical Deliverability – the extent to which a solution can be delivered, noting that one technology deployment may service numerous communities.

Number of Businesses – the extent to which the number of businesses can benefit from an upgraded quality of broadband.

Number of Residents – the extent to which the number of residential properties can benefit from an upgraded quality of broadband.

Sustainability – the extent to which the specific community can demonstrate that they are well placed to assume on-going responsibilities for provision.

Case Study - RHBMesh, Robin Hood's Bay, North Yorkshire

The Bay Broadband Co-operative (BBC) is a 'not for profit' Social Enterprise Co-operative, set up to bring High Speed Broadband to the village of Robin Hood's Bay and surrounding areas in North Yorkshire, which had no other means of broadband connection.

Although a number of properties in the area have access to regular ADSL broadband, many of the outlying farms and houses have severely limited or no connectivity due to their distance from the exchange. They are able to offer high speed and economical wireless Internet access to over 100 regular users throughout Robin Hood's Bay, Fylingthorpe and the surrounding farms, including both residents and visitors. Users enjoy a reliable and high quality broadband connection through a wifi mesh of up to 8 Mb. Permanent members pay £8 a month for this service and visitors to the area, who can purchase a temporary connection, for between £3 a day and £10 a week. The co-operative survives on its income and is currently making a sustainable profit.

Internet 'gateways' have been installed at two locations, one in the Mount Pleasant area of Robin Hood's Bay and the other in Fylingthorpe. This consists of a modem and a mesh box connected to an aerial, fixed to the roof of a house. The broadband signal is purchased from one of a number of suppliers (currently Nildram) and comes into the house via a dedicated ADSL BT line. This is purchased as a business package to obtain a very low contention ratio compared with standard domestic lines. The signal is then broadcast (over a 3 mile radius) and reinforced through a network of a dozen strategically placed mesh boxes in the village and surrounding area. Once set up, apart from occasional glitches the system runs by itself and has proved to be very reliable. A team of volunteers deals with any technical work, such as installing new members and coping with technical problems.

The users have formed a private company limited by guarantee. The company has several named Directors, a secretary and a treasurer and all full time users are automatically members. There is no formal committee or board, but all members are invited to attend open weekly meetings held in the local pub. Only the first meeting in the month is minuted – the rest are deemed informal. There is a core of about 12 members who regularly turn up to most meetings and form an informal "executive". Admin is shared out at the meetings and the members keep in touch through email during the week. The informal meetings have become useful in sharing information and advice about the use of computers and the internet and have become part of the social life of the community!

7.0 Supporting Delivery in North Yorkshire

- 7.1 Whilst the geography and population density of North Yorkshire present many challenges, the county is well placed to deliver high quality broadband and its significant benefits. Some of the key assets of North Yorkshire include:-

- 7.2 *NYnet* a limited company, 100% owned by NYCC, which has created a core infrastructure delivering high speed broadband to a range of public sector sites across North Yorkshire. These sites provide the potential for smaller and more rural locations to be provided with broadband. Proof of concept pilots have been delivered, including the smallest and most remote communities bordering the North York Moors National Park and a Scarborough business park.

CASE STUDY – Newton-on-Rawcliffe

Over 140 residents living and working in the remote rural North Yorkshire village of Newton-on-Rawcliffe are now benefiting from high-speed, next generation broadband. The village previously suffered from a slow or nonexistent internet connection, which limited economic opportunities, further isolating the community.

Following funding from North Yorkshire County Council, NYnet has provided optic fibre-based internet to within striking distance of the village, where it is beamed wirelessly to the rest of the village by community interest company NextGenUs UK CIC and community service provider Beeline Broadband. As a result of this initiative, residents will be able to access a broadband connection of up to 10Mbps.

Mike Steele who lives at Kale Pot Hole, five miles outside Newton-on-Rawcliffe, runs an event management company and holiday cottage from his home. His nearest neighbour is half a mile away and the property is very remote. The new broadband connection has made a huge difference to both Mike's business and family life enabling him to work from home, supporting the local economy rather than being forced to commute to nearby towns and cities.

Mike said: "The broadband connection has made an incredible difference to my life. It has reduced my working hours and given me time to keep in touch with my family who are spread all over the world, via web cam. Businesses and clients used to send me files that could take up to a day to clear from my server – it was often quicker to receive files by post!"

Newton-on-Rawcliffe resident Norah Moxon uses the internet to do her grocery shopping, order online prescriptions and arrange doctor appointments without having to worry about paying per minute.

Norah said: "The internet provides a window to the world and brings the outside inside. The new service has made a huge difference and I now feel less isolated. I am able to stay in touch with friends via email and even pay bills and check my bank balance online."

- 7.3 BDUK Pilot** - In recognition of the lack of sufficient market interest to supply to parts of the country, central government has earmarked funding to deliver high quality broadband through the Broadband Delivery UK (BDUK) initiative. They have selected North Yorkshire to be one of the pilot areas for rural broadband the Department for Business, Innovation & Skills (BIS) has pledged funding for the project. The North Yorkshire pilot will provide BDUK with valuable data, both in terms of procurement issues for larger projects, and on a more technical level to refine the delivery model for future waves of investment.
- 7.4 The People** - As identified previously North Yorkshire is home to resilient, innovative, creative and enterprising people. They have a desire to be self-sufficient and want to prosper using their own skills and talents. This desire to succeed is a strong indication that the potential of high-quality broadband will be fully exploited and that investment will reap significant levels of take-up. Take-up of adult education courses, especially those relating to computers, is very high within the county. The desire to learn new skills is therefore strong.
- 7.5 Partners** - There is a high degree of consensus on the importance of high quality broadband to the County and the wider sub-region (incorporating York). The York and North Yorkshire Local Enterprise Partnership (LEP) has identified broadband as a key priority to promote business growth. The North Yorkshire Strategic Partnership has allocated funding to deliver broadband to further rural "not spots" and various Local Strategic Partnerships (LSPs) have expressed a wish to facilitate further broadband activity. This high degree of consensus has been confirmed by the political leadership of all 9 local

authorities at the meeting of Local Government North Yorkshire and York on 28 January 2011.

7.6 Funding - As well as benefiting from the NYnet investment, the County has also managed to secure additional funds whilst investing some local authority funds. In order to make the roll-out of high quality broadband to the whole of the County a reality though will require significant additional funding. This is why the BDUK programme is particularly welcome and it offers the opportunity to attract European matched funding.

8.0 Conclusion

8.1 North Yorkshire needs high quality broadband so that it is able to revitalise rural communities and transform the delivery of its public services.

8.2 We know that there is a strong appetite for broadband in North Yorkshire and that people grasp the opportunities it brings. We therefore believe there is a strong case to invest in the County's broadband infrastructure.

8.3 Achieving this Vision will be challenging but worthwhile. The means by which we will achieve the Vision are set out in other more detailed plans (e.g. Procurement; Project Plan; Financial Model etc.). Relevant extracts to provide an insight into delivery are as follows.