

Central Bedfordshire Local Broadband Plan

Draft document

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1 Executive summary

In December 2010 the Government launched a strategy entitled Britain's Superfast Broadband Future. A key objective of this strategy was to put in place a framework capable of better supporting the roll out of next generation broadband. The strategy's vision is a Britain in 2015 where the majority of residential and business premises can attain next generation broadband speeds of at least 25 mbps and a minimum 'universal' service of 2mbps.

With next generation broadband infrastructure becoming increasingly important in underpinning economic growth and enabling better delivery of public services it is critical that this strategy achieves its objectives. This is particularly so of areas such as Central Bedfordshire which contain large rural areas as well as urban settlements. As rural populations are generally more spread out and less concentrated delivering new infrastructure such as broadband to these communities can be prohibitively expensive. Consequently, industry has tended to focus on more profitable urban areas with greater numbers of potential customers in smaller areas. This has created a situation of market failure in predominantly rural or outer lying urban areas across the country.

The Government has recognised this issue and in response has committed to providing £530 million of funding to be administered and allocated by Broadband Development UK (BDUK) towards delivering improved infrastructure and encouraging further investment by the public sector and industry. Of these funds £620,000 has been allocated towards Central Bedfordshire.

This draft Central Bedfordshire Local Broadband Plan (LBP) sets out the vision for broadband in the area, the process by which we will achieve this and sets out the basis for securing BDUK resources. We have used the latest BDUK Local Broadband Template dated July 2011 and the accompanying bidding guidance notes to develop this LBP.

The preparation of the LBP has been informed by what residents, businesses and public sector partners in Central Bedfordshire have told us. We are continuously engaging with them to promote the community benefit and business usage of broadband and the need for investment in broadband infrastructure and broadband improvement in the area. The LBP details the strategic need for improved broadband provision in the area, in particular the level of opportunities and challenges we face with, and without, improved broadband provision.

Our vision for improved broadband in the area is to:

- Deliver improved standard universal broadband (At least 2Mbits/s) to all premises in Central Bedfordshire by 2015. The broadband should be reliable, robust and future proofed using a cost effective solution

- Deliver Next Generation Broadband to at least 90% of premises in Central Bedfordshire by 2015. The technology should be future proofed, innovative, cost effective and flexible for upgrade
- In-line with the need to support the effective operation of the market, seek to increase choice of broadband services and suppliers of services for Central Bedfordshire residents.

This plan is supported by the Central Bedfordshire Broadband Partnership, consisting of public, private and voluntary sector organisations, Central Bedfordshire Together (the Local Strategic Partnership) and the businesses and residents of Central Bedfordshire who see the implementation of the plan as vital for achieving the strategic vision for the Council and addressing the economic and social issues in the area.

Central Bedfordshire Council will assume a leadership role in delivering superfast broadband infrastructure. We have made plans to continue working with the community groups to continue stimulating demand to ensure take-up of the broadband services such as supporting training on access and use of ICT facilities in the community. We will seek to use existing Council powers (such as planning) to further address market failure in the provision of services, through improving the information, understanding and ease of provision to maximise the supply of superfast broadband.

Central Bedfordshire has made a significant financial commitment of GBP1.2million capital, nearly double the funding allocated by BDUK, to ensure the broadband plan is deliverable and the solution to provide next generation broadband to our residents remains sustainable. The preferred commercial option by Central Bedfordshire is to use a gap funded approach, delivered using a competitive procurement process to secure private sector investment through the BDUK framework.

socio-economic analysis shows that there will be a net Gross Value Added uplift in the local economy of circa £98 million over a period of 15 years with the availability of superfast broadband in Central Bedfordshire. This represents is a very positive outcome and has a return on public sector investment ratio of 7-1.

SECTION A – PROJECT OVERVIEW

A1 Our vision for Central Bedfordshire

Our Sustainable Community Strategy sets out the overall vision of Central Bedfordshire as:

“Globally connected, delivering sustainable growth to ensure a green prosperous and ambitious place for the benefit of all”

Implementing the broadband plan is critical to delivering our vision. It also shows that we are embracing the ambition of our partners and stakeholders to ensure Central Bedfordshire not only maintains economic performance but experiences sustainable long term growth, enabling business and residents to achieve their goals and aspirations.

Economic Development Plan

Further to the Sustainable Community Strategy, the recently published Economic Development Plan (2011) sets out the council's desire for the area to be recognised as a place truly open for business as part of meeting its ambitious growth plans of 27,000 new jobs and 26,000 new homes by 2026. A key element of our approach in enabling and encouraging long term sustainable growth in our economy is to supporting **the roll out of Next Generation Broadband**.

The Economic Development Plan (November 2011) states:

“Recognising the increasing demands from business and residents for access to high speed broadband, we will look to develop a Local Broadband Plan for Central Bedfordshire, setting out how the commercial and public sectors will work together to roll out next generation broadband (greater than 20 megabits per second) infrastructure and services”.

A1.2 Strategic objectives and outcomes

Sustainable Community Strategy

Delivering our broadband plan is a major contribution we can make towards achieving the vision in our Sustainable Community Strategy document. The content of the broadband plan reflects the vision and strategic context explained in section A1.2. Outlined below is how the broadband project will help deliver the strategic objectives for Central Bedfordshire.

While the Local Broadband Plan does not include the delivery of services, a central tenet of the plan is to provide an open access infrastructure, ensuring maximum potential for service providers to provide a range and choice of services to as wide a market as possible. This will help drive innovation and competition in the service provider market to deliver the best outcome for local residents.

Help develop and secure economic growth for the area through:

- **Improving business productivity and efficiency** through supporting business growth, attracting new high value activity investment into the area and supporting business and labour market skill development.
- **Supporting sustainable employment** - Our geographic location offers an attractive base for businesses to connect to the wider economy, but the high degree of connectivity is reflected in the high levels of commuting across our administrative borders. While job growth has been strong in the area, job densities in Central Bedfordshire (0.67) in 2008 are the lowest in the East of England, and lower than the England average (0.83). In Central Bedfordshire, the ratio shows that there are two jobs for every three resident people, and highlights the immediate priority to stimulate local employment opportunities. It is recognised nationally that access to basic broadband and improved broadband performance can have a significant impact on business start up rates, the productivity of local businesses, the ability to attract new investment. The responses from the Bedfordshire and Luton Business Survey (2011) indicate that improved broadband in the area will support growth in the economy and thereby safeguard existing jobs and contribute to new job creation.
- **Strengthening the rural economy** - Rural businesses play a key role in Central Bedfordshire's economy. Information from Bedfordshire Rural Communities Charity (BRCC) highlights a number of potential barriers to rural businesses, including lower level of access to high speed broadband and limited commercial viability for rolling out Next Generation Broadband. Improved broadband services to the rural area will help solve the problem of digital inclusion so that rural areas can benefit from the opportunities presented by the web to address skills, employment, access to services and social issues. There will also be on-going increase in the rural population with new sustainable jobs in high value sectors which encourage business collaboration and new development opportunities in the rural areas.
- **Support local business resilience, growth and enterprise** - Continuing to promote business start-up and support are essential if Central Bedfordshire is to maximise economic growth. We have a target of 27,000 new jobs by 2026. This must be considered in light of the high numbers of small size of businesses in Central Bedfordshire and the particular difficulties these businesses face in accessing support and networking opportunities, in terms of the time away from the business and resulting loss of earnings especially in the rural areas.

- Our broadband plan and improved broadband infrastructure will help businesses access new market opportunities, access the increasing range of support services delivered online and utilise improved Information and Communications Technology (ICT) to increase productivity.
- **Help contribute towards greener environment** - The quality of the area's environment can be improved and sustained through improved broadband provision. The broadband project has the potential to improve the environment through reducing travel time and costs and CO₂ emissions through remote and flexible working using broadband connectivity, enabling workspaces to be used more efficiently and to encourage the development of the environmental technology sector in the area for reduction of carbon emission.
- **Help tackle inequality in Central Bedfordshire** - For Central Bedfordshire to achieve the proposed economic growth targets, residents need to be able to contribute their potential. The broadband project has a key role to play in addressing the issue of inequality as its availability and reach will enable an increased number of people in under-represented groups to access training and employment opportunities. For example there are possibilities of providing education through **virtual and remote learning centres and job search facilities** using faster broadband connectivity (access to online library or connect to a remote learning centre). Aligned to this will be activities to support take up of superfast broadband to promote the opportunities for all to benefit from superfast broadband and tackle digital exclusion.
- **Help educate and provide opportunities for children and young people** - Improved broadband connectivity in the area can support improved education and training for children and young people through enhanced access to various online training and learning resources. For example high definition videoconferencing for schools could be used for video teaching even in the most remote place. It may also enable teaching to be shared between schools, widening the range of subjects available to pupils. Furthermore online learning opportunities will be supported by increased connectivity allowing for greater interactivity and richness of content. Students of all ages will be able to benefit from quicker access to online research materials and future learning opportunities. The Council currently supports schools by offering a traded service and connection to a Schools Secure Network, and a number of schools make independent arrangements for their broadband connectivity. Superfast broadband infrastructure improvements will support schools regardless of future arrangements for services provision.
- **Help the transformation of public services** - Our broadband plan will help deliver potential Government savings from reduction in administration overheads by using e-government initiatives, such as online billing, and e-health initiatives, for example tele-health and tele-care services (providing of health care, health information, health monitoring and health education across a distance, using telecommunications

technology) which could help improve services for residents and efficiency for service providers.

A1.4 Expected Outcomes of the broadband objectives

The implementation of the Central Bedfordshire Local Broadband Plan will deliver a number of expected strategic outcomes. The Council will also introduce performance monitoring and evaluation schemes to work with the broadband providers, residents and businesses to ensure the performance of the broadband network is maintained and sustained.

These expected outcomes of delivering this project derived from the vision and objectives outlined under A1.1 and A1.2 are:

Outcome 1: For Central Bedfordshire to become a highly attractive, well-connected prime location for businesses to thrive in a global economy, for more families to choose Central Bedfordshire as a place to live, work and enjoy. We will monitor the general level of satisfaction of residents and businesses through online survey services.

Outcome 2: For Central Bedfordshire to have a substantial number of new jobs, contributing towards reaching the target of 27,000 new jobs set for 2026. We will monitor the performance of the Central Bedfordshire labour market and people's ability to access employment; we will monitor the number of people who are unemployed or economically inactive and the levels of youth unemployment.

Outcome 3: For Central Bedfordshire to have an increased number of skilled people. We will monitor the level of skills growth for example the working age people with level 2, 3, 4 qualifications and the percentage of people who have received job related training in the private sector.

Outcome 4: For Central Bedfordshire to have an increased number of knowledge-based, high growth innovative companies established in the area. We will monitor the number of business and private sector investments in the area, in particular start-up and survival rates.

Outcome 5: An increased level of take up among Central Bedfordshire residents of both next generation and basic broadband services.

Outcome 6: Less reliance on transport and the development of a low carbon economic: Improved broadband provision will enable more people to work flexibly thereby at home or in other closer locations such as hubs. Services from the Council and other providers will be available in people's homes for the first time. We will monitor levels of home or flexible work and impact on related issues such as highways and transportation.

A1.5 Central Bedfordshire existing broadband initiatives

The council is working with a range of partners to promote Next Generation Broadband (NGB) in the area. We recognise that there are a number of existing initiatives that can help support the delivery of our broadband project and as such we have considered these initiatives during the development of this Local Broadband Plan. This has included in particular those activities concerning demand stimulation, the creation of the funding arrangement and commercial option for the delivery of the project.

Our existing broadband initiatives are summarised below:

- Working as part of the MKSM broadband working group to investigate the potential for (circa 100Mbps) rollout.
- Participating in the EEDA EREBUS demand registration scheme.
- Developed a demand survey and registration scheme specifically for Central Bedfordshire.
- Promoting digital champion and Race Online initiatives to maximise take up from our communities.

A2 Background to the broadband project

A2.1 Summary

The evidence gathered from the Bedfordshire and Luton Business Survey (2011), the Ofcom report on broadband provision in the UK, the data from BDUK and findings from an Analysys Mason forecast analysis shows that Central Bedfordshire is currently being 'underserved' with broadband provision and will likely remain so by 2015. With broadband becoming an increasingly critical 'utility' service, the fact that Central Bedfordshire residents and businesses are 'underserved' or not served at all by the market is an important issue to be addressed in order to achieve the ambition and vision for the area. Our thorough understanding of this situation has helped inform our development of the broadband plan to ensure we clearly identify the gaps in broadband provision and how best to fill these gaps in order for the strategic objectives to be met. An additional map is included in Appendix A attached to the LBP.

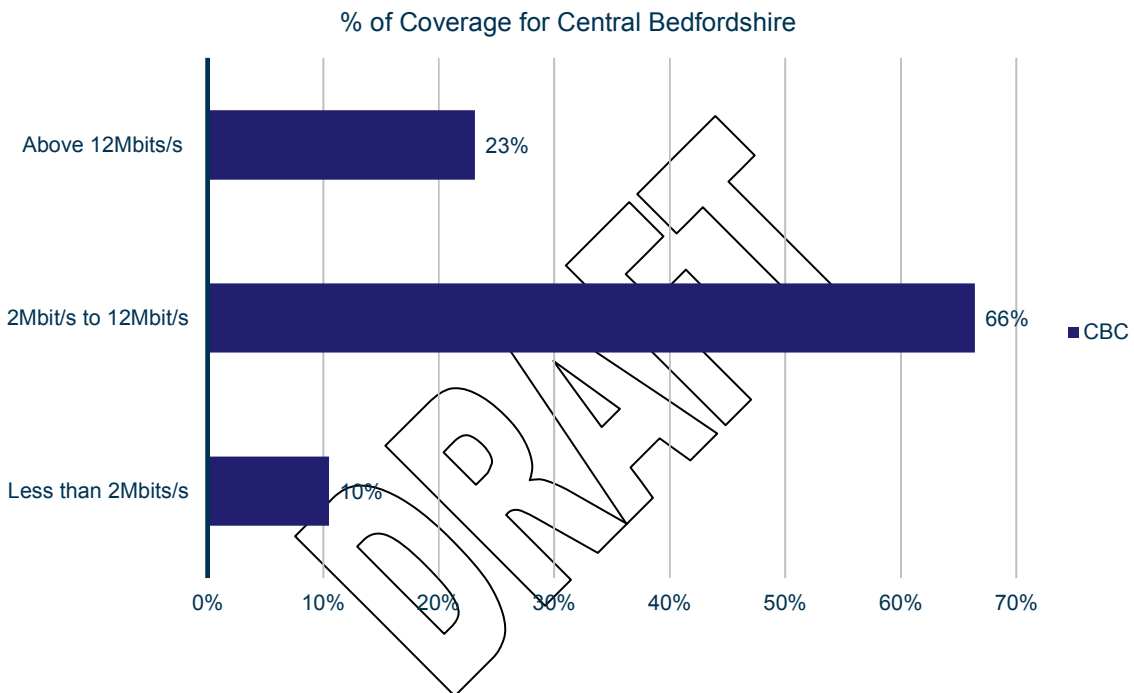
A2.2 Basic Broadband coverage in Central Bedfordshire

Broadband provision using ADSL technology remains the most common form of broadband available in Central Bedfordshire. Our analysis of BDUK data shows that the speed received by users varies due to the long length or poor quality of the copper telephone line used in ADSL technology from premises to the local telephone exchange. Our findings show that 10% of premises in Central Bedfordshire fail to meet the Universal Service Commitment (USC) of receiving at least 2Mbits/s broadband speed. The rest of the findings are summarised below in Figure 0.1

Figure 0.1: Residential/Business split [Source: Central Bedfordshire, BDUK, and Ofcom 2011]

	Total	Less than 2Mbits/s	Between 2Mbits/s and 12Mbits/s	Greater than 12Mbits/s
Residential	107,612	11,276	71,741	24,595
% Residential	100%	10%	67%	23%
Business	4,256	454	2,524	1,278
% Business	100%	11%	59%	30%

Figure 0.2: Broadband distribution in Central Bedfordshire [Source: Analysys Mason, Ofcom, 2011]



We have also used the findings from the Commission for Rural Communities (CRC) report titled ‘Mind the Gap’, 2009, to support the findings from the analysis of the BDUK data. According to the CRC report, there are a number of rural areas in Central Bedfordshire, which appear to include parishes east of Biggleswade (Sutton, Eyeworth, Dunton, Edworth); around Shefford (Campton & Chicksands, Southill, Old Warden); to the north of Luton (Sundon, Streatley, Harlington); and west of Ampthill (Millbrook, Lidlington, Ridgmont, Brogborough); where ADSL broadband services are likely to fall short of the proposed 2Mbits/s USC.

The Communications Infrastructure Report on Fixed broadband in the UK published by Ofcom indicates that the average speed of basic broadband in Central Bedfordshire area is 7.5Mbits/s with 13.8% of the area premises receiving less than 2Mbits/s. This is comparable with the national average of 14% of the total premises not receiving the USC speed of 2Mbits/s.

Mobile broadband

Mobile broadband is used to complement fixed broadband in Central Bedfordshire and currently Central Bedfordshire is served by a number of mobile operators. According to a report published by Ofcom on Mobile coverage in the UK¹, Central Bedfordshire has 97.9% 2G geographical coverage and 99.2% 2G premises coverage compared to 40.1% 3G geographical coverage and 61.1% 3G premises coverage. The 3G mobile coverage is largely confined to the larger towns, with little or no mobile broadband coverage in the rural parts of the Council area.

A2.3 NGB coverage in Central Bedfordshire

The result from the Bedfordshire and Luton Business Survey (2011) shows that our businesses are increasingly demanding a high speed, reliable and high bandwidth network. We have analysed the data provided by BDUK on the current and future plan of broadband operators for the provision of NGB in the Central Bedfordshire area. There are two main operators that currently provide or have publicly made known their plan to provide NGB to Central Bedfordshire premises. This includes BT and Virgin Media. Further details about BT and Virgin media are provided below.

BT

Analysis undertaken by Analysys Mason estimates that BT will provide coverage to around 63% of premises in Central Bedfordshire by 2015. This number compares with BT's announced plan for commercial rollout to two-thirds of UK premises. The NGA enabled exchanges will provide two main packages: up to 40Mbit/s and 100Mbit/s downstream, with these speeds expected to increase during 2012.

The Openreach website, accessed on 12 December 2011, lists the exchanges to be upgraded in Central Bedfordshire, to deliver to the region. A number of these announced exchanges are located outside the region but serve premises within the region. For example one located in Milton Keynes, three located in Hertfordshire, two located in Luton.

Virgin Media

Virgin Media (VM) has a good footprint in Central Bedfordshire (58% - 65,164 premises) compared to the UK average of 51% according to Ofcom. VM coverage is concentrated in the densely populated areas of Central Bedfordshire where the business case is viable for the operator. VM has not publicly announced any extension to its current footprint coverage in Central Bedfordshire and we do not expect any major improvements in terms of coverage by 2015. Their network provides headline speed up to 100Mbits/s.

¹ Infrastructure report, Ofcom, 2011

Combining the footprint of the NGB operators in Central Bedfordshire, Analysys Mason undertook analysis of the current NGB coverage and prepared the expected NGB coverage by 2015 in Central Bedfordshire.

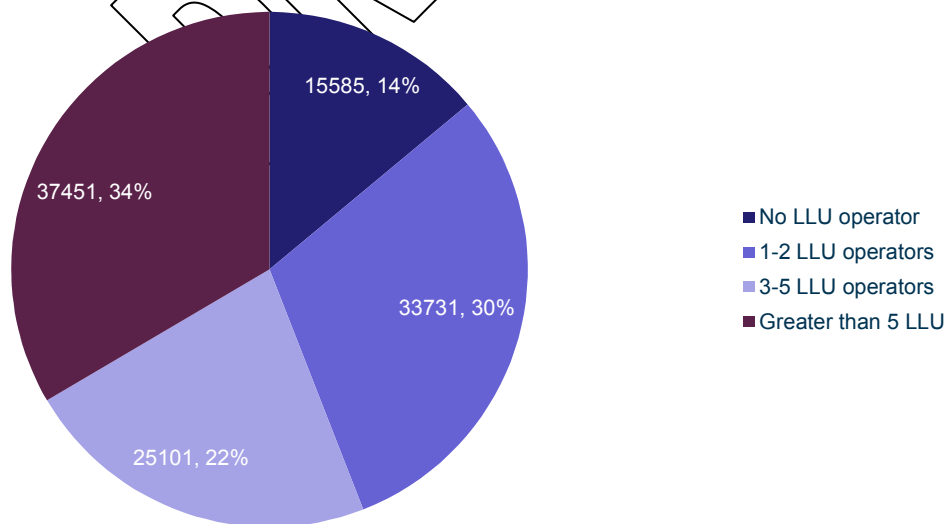
Figure 0.3: NGA coverage in Central Bedfordshire by 2015 [Source: Analysys Mason, Central Bedfordshire, BDUK, and Ofcom 2011]

	Total	NGB provided from 2 operators	NGB provided from 1 operator	No NGB coverage
Total premises	107,612	52,521	30,088	29,259
% Premises	100%	46.9%	26.9%	26.2%

A2.4 Broadband competition and usage

In the UK, the regulatory framework encourages competition in the telecoms market by allowing rival operators to compete with BT by unbundling BT’s local exchanges known as Local Loop Unbundling (LLU). The operators can then offer their wholesale service over BT’s lines. Currently within the region, there are a total of **43** BT telephone exchanges, with around **24** of them offering some level of infrastructure competition through local loop unbundling (LLU). **5** of the exchange are located outside the Central Bedfordshire area. The LLU distribution is summarised in Figure 0.4.

Figure 0.4: LLU distribution [Source: Analysys Mason, BDUK, 2011]



The statistics above shows that the vast majority of the broadband market in Central Bedfordshire has more than 1 LLU operator, which indicates a good level of broadband competition in the area.

A3 Local Broadband Context Evidence of Need/ Gap Analysis

A3.1 Summary

The Digital Agenda for Europe sets the target that, by 2020, all EU citizens will have access to fast broadband of at least 30Mbps/s and 50% or more of European households will access broadband at speeds above 100Mbps/s. The UK government also has ambitious plans for the country to have the best broadband network in Europe by 2015 by achieving at least 90% NGB coverage by 2015, with all premises having access to a minimum of 2Mbps/s.

The demography, topography, economic and social profile of Central Bedfordshire combined with the scale of investment and uncertainty of the business case to deploy broadband networks to the challenging parts of our area, mean that it will be impossible to achieve the objective of the UK government and the European agenda without public investment.

From the Bedfordshire and Luton Business Survey, we have identified that we need a reliable and secure network to meet and sustain our economic growth. The survey questioned broadband availability and future needs. The results highlight the potential for increased business opportunities arising from having NGB in Central Bedfordshire; 60% of businesses who already have broadband stated a higher speed broadband service would support their business processes better.

Faster broadband provision can help improve the quality and delivery of our public services in particular to the people in our rural and remote areas, helping them to become more skilled, productive and earn higher wages.

A3.2 Evidence of gaps

Overall, Central Bedfordshire has a relatively successful economy with associated high levels of employment – 125,000 people or 76.1% of working age population are in work (Annual Population Survey March 2011). Economic activity rates are high at 81.1%. However, the Annual Population Survey shows that the employment rate in Central Bedfordshire appears to be falling more sharply than in comparator areas which remain relatively static. Unemployment remains relatively low at 6.1% compared to the region and country as a whole, but the area has seen growing levels of unemployment across all sectors, most notably women and young people, as a result of the recession. Female unemployment is at a record high, and youth unemployment is higher than in the South East Midlands Local Enterprise Partnership area and the East of England. In March 2011 wordlessness levels rose to 24%, or 39,300 people, showing an increase of 1,600 people since December 2010.

The 2010 Business Register and Employment Survey (BRES - Sept 2011) reports that between March 2009 and March 2010 Central Bedfordshire experienced one of the largest increases in jobs in the country – a total of 6,700 new jobs, or 8.2% overall growth. However, this overall figure masks some concerning trends in private sector employment, where employment in the Information and Communications sector fell by 25.7%. Likewise, employment in the finance and insurance industry fell by 26.7%. These factors highlight the on-going need to provide a high quality range and choice of premises to attract new businesses to the area, support existing business to grow and support new business start-ups.

Data from the ONS UK Business: Activity, Size and Location – 2010 highlights that there were 11,565 local Units (individual business locations) in Central Bedfordshire. This is a 3% (345 unit) drop from a high in 2009 of 11,910. There were 1,055 business births in Central Bedfordshire in 2009, according to the 2009 Business Demography, reflecting a fall from the previous year and a birth rate of 9.3%. This is a drop from previous high levels and has fallen below national levels.

Data on adult skills levels for 2010 show a further increase in attainment at all levels. 73% of working age adults in Central Bedfordshire are qualified to NVQ Level 2 or equivalent, up from 69% in 2009. The number qualified to Level 3 or above has risen from 53% to 55%; and Level 4 attainment now stands at 33.9%, up from 30% in 2009. At all Levels, Central Bedfordshire has more skilled people than the average both regionally and nationally.

Public assets

Central Bedfordshire Council has an MPLS corporate wide area network (WAN) to 84 locations in the area. This is provided by Virgin Media. In addition the authority supports an educational WAN to 135 schools

The Council is not intending to utilise its Public Sector Network as part of the LBP.

Basic broadband

Findings from the Bedfordshire and Luton Business Survey (2011) showed that 90% of all business surveyed in Central Bedfordshire have access to broadband. Almost three in ten businesses overall (28%), have plans to access broadband or increase its speed in the next 2 years. However, 3% of business surveyed who responded to the question, rated poor internet speeds as the worst aspect of Central Bedfordshire as a business location.

Next Generation Broadband (NGB)

The Analysys Mason forecast of the NGB coverage in Central Bedfordshire by 2015 shows the areas that will not receive improved broadband services offered by commercial NGB operators. This will affect 26.2% of the total premises of Central Bedfordshire

(29,259 premises) consisting of 28,137 residential premises (96%) and 1,122 business premises (4%). These areas are less attractive to private investors due to the high costs involved in deploying NGB to less populated areas, particularly the more rural areas of Central Bedfordshire. There is also a factor associated with the long term level of demand and the revenues that such investment will attract. Therefore, unless there is intervention to encourage private investment in such areas, we will continue to experience this shortfall from meeting our strategic objectives.

A4 Scope of Project

A4.1 Summary

Central Bedfordshire has ambitious plans to support sustainable housing and jobs growth in the area, with plans for over 26,000 new homes and 27,000 new jobs by 2026. Providing high speed NGB connectivity is recognised as a key requirement to delivering this growth. Our Broadband project, reflecting the pressing need to support those communities with no access, will bring direct intervention to 1,113 post codes, covering 29,259 residential and business premises in Central Bedfordshire that under current commercial plans would not have access to NGB, ensuring 90% of premises have at least one operator by 2015.

This will be achieved through a competitive procurement process to seek a minimum of 100% match funding to any public sector funds. We would seek to put in place an open access system, and would be technology neutral, but we would expect Fibre Optic infrastructure to be a significant component of any solution (we would seek as minimum fibre to the cabinet (FTTC) technical solution and will aspire to extending this fibre to the premises (FTTP) technology). We will consider alternative technologies, particularly in the last 10% of premises not receiving an NGB solution and to achieve the USC objective.

A4.2 Broadband objectives

Central Bedfordshire Council and partners are committed to delivering the following objectives through the local broadband plan:

- Deliver NGB to **at least 90%** of premises in Central Bedfordshire by 2015. The technology should be future proofed, innovative, cost effective and flexible for upgrade.
- Deliver improved standard universal broadband (At least 2Mbits/s) to all premises in CBC area by 2015. The broadband should be reliable, robust and future proofed using a cost effective solution

- In-line with the need to support the effective operation of the market, seek to increase choice of broadband services and suppliers of services for Central Bedfordshire residents.

A4.3 Geographical and coverage scope of the broadband project

As stated in our broadband objective, our broadband project will ensure all premises in Central Bedfordshire receive broadband coverage (minimum 2Mbits/s) and at least 90% of premises in Central Bedfordshire receive NGB coverage by 2015. See Annex A for maps.

A4.4 The Central Bedfordshire Broadband Partnership

The Central Bedfordshire Broadband Partnership (CBBP) is established by Central Bedfordshire Council for the purpose of enabling and supporting the roll out of next generation broadband across the Central Bedfordshire area. The aims of the partnership are to:

- Inform and provide guidance to the development of the Local Broadband Plan (LBP) for Central Bedfordshire
- Foster and promote partnership and involvement with the LBP of all Central Bedfordshire's communities (business and residential) and public service and voluntary and community sector organisations
- Identify potential demand aggregation and demand notification opportunities within Central Bedfordshire
- Promote and support the take up of next generation broadband across the Central Bedfordshire area

Membership of the CBBP encompasses a wide range of organisations and viewpoints. The sectors to be represented should include as a minimum:

- Education
- Private Sector and Industry
- Public Service Agencies
- Voluntary or community organisations- Bedfordshire Rural Communities Charity, South Bedfordshire Voluntary and Community Action.
- Local Government (Town and Parish councils)

In addition to the work of the CBBP, the Council is working with South East Midlands Local Enterprise Partnership (SEMLEP) to ensure alignment of activities across the SEMLEP area. Within Central Bedfordshire, we will work with local business ambassadors (100 of the leading business in Bedfordshire) and other partners of the CBBP to promote support for, and stimulate demand and uptake of, NGB.

We will work specifically with Central Bedfordshire Together (the Local Strategic Partnership) partners, including the local Primary Care trust and Police to maximise wide public sector engagement and service delivery through the project. This will also include specific partners such as Jobcentre Plus on supporting the Digital Inclusion agenda.

Other key representative agencies we will work with include the third sector forum (representing the voluntary and third sector organisations of Central Bedfordshire) and Bedfordshire Rural Communities charity, reflecting the rural nature of much of Central Bedfordshire and the unique challenges this raises.

A4.5 Constraints and exclusion

There are no noted exclusions to the project over and above the key requirement to only intervene where the market will not invest in delivering next generation infrastructure. This will be further tested through a market consultation to verify market expectations and plans.

A number of project risks relate to the delivery of the project. It is intended to put in place a comprehensive project management system to manage risks, including procurement and delivery risks.

SECTION B – CUSTOMER AND COMMUNITY ENGAGEMENT

Summary

As a democratically accountable organisation, effective engagement is central to the way Central Bedfordshire Council operates. The council has a range of channels and mechanisms which ensure that we are able to regularly relate to our customers, partners and stakeholders, in order to understand their experience, opinions and needs. Examples of these mechanisms include:

- Regular local public meetings on issues defined as relevant by our communities. These “Let’s Talk” events enable face to face engagement with the council and other organisations.
- Market research – qualitative and quantitative techniques are used with all audiences
- Social networking is used to engage as well as to inform. The council is active on Twitter, Facebook and has its own social network site, “Let’s Talk Central”.
- Central Bedfordshire Council’s recently enhanced website is the preferred access channel for many customers and the council is committed to a channel shift project to greatly increase on line engagement.
- Stakeholder engagement techniques include regular conferences with groups such as Town and Parish Councils, a system of Business Ambassadors, to strengthen our connectivity with the commercial sector and a highly effective local strategic partnership, Central Bedfordshire Together.

We have deployed all of these opportunities to engage with the residents and businesses to ensure we build a local broadband plan that delivers added value to our citizens. We are continually engaging with the residents and businesses in our area in order to gain understanding of their broadband needs and issues, and give them a greater involvement in the decision making process of the broadband project. Further to this, the Council has recently launched an extensive demand registration program and is actively promoting digital champions in the area to support the take up of broadband services.

We have carried out a wide range of consultation activities to date with businesses and the wider community based on the principles outlined in our Community Engagement Strategy document. These activities will give people in Central Bedfordshire opportunities to influence decisions on the broadband project by strengthening the link between project decision-makers and local people. We want to give our residents a greater role in

deciding how the project should be delivered in their area; appropriate to the locality issue around broadband provision.

B1 Demand stimulation

There will be a particular need to ensure that Central Bedfordshire's businesses and residents benefit from the broadband project, hence promoting the demand for services delivered by NGB will be an important consideration for Central Bedfordshire Council. The result of the EEDA EREBUS project (an online resource for public and private business and individuals to register their desire for Broadband) shows that of all the responses in the region only 3% have been from Bedfordshire.

However, initial responses to the Central Bedfordshire demand survey, have been positive with over 800 responses over the month to February 2012.

B1.1 Funding and delivery for demand stimulation approach

The council is investigating the opportunity to bid for funding from the European Regional Development Fund (ERDF), and other sources, to support demand stimulation activities. The East of England ERDF fund aims to support SMEs to exploit the benefits of high speed broadband and, the council and our partners are considering alignment with any BDUK applications to stimulate both demand and supply of NGB.

In line with the need to maximise private sector leverage, we are also working with local businesses on the potential for demand aggregation activities to further raise the commercial viability of roll out schemes. The Council is also investigating the use of other opportunities to stimulate the roll out of NGB. For example through masterplanning and planning policy initiatives to consider providing both NGB directly or at least facilitating through up front consideration commercial roll out.

The Council has also identified a limited level of revenue funding to support demand stimulation and will work with partners to develop a communications plan and deliver activities to promote take up from our residents and businesses.

B2 Demand registration

We have launched a demand survey exercise to understand the importance of broadband provision to our residents and businesses. This is being conducted through our public facing website and via a targeted paper based survey and our libraries network. The evidence gathered from this demand survey will help further demonstrate the real local demand for broadband services among our residents and businesses. We will capture information such as the level of demand for NGB services, the expected benefits of NGB and the level of interest in improved broadband provision. The outputs

from our demand survey exercise will inform our engagement with bidders during the procurement exercise

B3 Stakeholders

In addition to the CBBP, Central Bedfordshire will continue to engage with a range of stakeholders in the community to ensure we are able to deliver the expected outcomes of the broadband project. We regularly meet with the Partnership board where we share and discuss ideas detailed in this local broadband plan. We also regularly meet with BDUK representatives to discuss and understand any issues that could potentially affect the delivery of the local broadband plan.

B3.1 Business stakeholder engagement

The key stakeholders in this group are the Bedfordshire and Luton Chamber of Commerce, the Federation of Small Business and the Bedfordshire and Luton Business Ambassadors. Likewise through the council's engagement with key local businesses we are keeping them up to speed with project developments.

B3.2 Community stakeholder

In addition to the membership of the CBBP, the council has promoted the project through a series of Let's Talk events, held in the local community to discuss and promote local issues. These have been well attended by our communities. Further to this we have engaged with our town and parish council's network to ensure their input and support for the project.

B3.3 Public sector stakeholders

In addition to CBBP membership we will engage with public partners including the Police, Fire Service, Jobcentre Plus and through Central Bedfordshire Together (Local Strategic Partnership) to promote the project. The LSP has supported the project directly through a GBP200,000 capital contribution.

B3.4 Stakeholder engagement delivery

As a minimum, as detailed in our Community Engagement Strategy document, we have a stakeholder engagement delivery plan to ensure we deliver the added value to our residents and to ensure we have the full support of the different stakeholders in our community. This includes the use of forum panels, surveys and consultation to capture feedbacks, complaints and petitions from our residents and business groups. The Community Engagement Strategy plan covers the key activities that need to be carried out, the communication and consultation approach to be used and the milestones for delivery of expected outcomes. We will review our stakeholder engagement model

regularly to ensure that our partnership strategies target the delivery of our objectives effectively and efficiently.

Our stakeholder engagement plan will also ensure we communicate clearly the strategic benefits of our broadband projects to our business communities and residents. We will ensure that we regularly engage with the local planning authorities (such as Land Planning authorities) in order to avoid any constraints due to planning issues.

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SECTION C –COMMERCIAL INFORMATION

C1 Commercial Case

Central Bedfordshire has considered all available options to deliver this project and decided to adopt the gap funded option because of the following benefits, to name a few:

- The level of initial public intervention funding is minimised.
- The network ownership and operational risks are transferred to the private sector.
- The public sector is not exposed to financial losses.
- The financing arrangements are less complex.
- The claw-back mechanism prevents 'excess profits' being made by the private sector.

C2 Market Engagement

The Council has historically engaged with telecom infrastructure providers in an attempt to maximise provision in the area. In line with emerging state aid requirements the Council will undertake a full public market consultation using both a direct consultation process and the Central Bedfordshire Council website to maximise market awareness of the Council's intentions.

C3 Procurement strategy

The preferred commercial option by Central Bedfordshire is to use a gap funded approach which can be delivered using a number of procurement route options, including the BDUK framework. Having explored these different procurement route options, our preferred option is to run a mini-competition to procure a single delivery partner under the BDUK framework. We believe that this option will help us maximise potential supplier interest in the procurement process and will best meet BDUK's contractual requirements around local procurements.

SECTION D – DELIVERABILITY

D1 Expected Strategic Benefits

The quantified socio-economic benefits of the Local Broadband Plan are as follows:

- **Increased productivity** – it is expected that NGB will increase the productivity of employees and will have a direct impact on GVA. Only businesses in the intervention area are considered in this modelling and at the end of 15 years it is expected that **50%** of those intervention businesses will experience increased productivity for their employees. The assumed productivity increase per employee due to NGA availability is **1.21%**
- **Knowledge-based economy** – it is assumed that availability of NGB will help promote a knowledge-based economy, which will, in time, create more high-value jobs and some current employees within the region will move into this sector with higher salaries. Salary increase for a high-value job over average salary is assumed to be **2%** yearly in the model
- **Flexible working (including teleworking)** – it is assumed that more employees will be able to adopt flexible working due to availability of NGB (**5%** increase in flexible working used in the model). NGB availability also creates opportunities for people who are otherwise economically limited or inactive (e.g. the disabled, people over pension age and parents with young children). Flexible working generates potential benefits for existing employees and employers in the form of mileage savings, reductions in carbon dioxide emissions, and time savings. Flexible working could also lead to a reduction in employee absenteeism (**5%** reduction is assumed in the model).
- **Consumer surplus** – it is expected that a consumer surplus will be generated for both business and residential premises taking NGB. Only intervention premises are considered in the model and it is assumed that each residential premises will enjoy a **GBP2 per month** consumer surplus (conservative assumption given that a survey carried out in Northern Ireland for their NGA project showed an average consumer surplus of EUR10 per month).
- **Telehealth** – it is expected that by deploying telehealth services for remote monitoring it will be possible to increase service quality and efficiency, leading to cost savings. In the model, a **5%** saving in residential care cost per person has been assumed. Note that we have not quantified this

benefit for all people in CBC and there may be an opportunity to deploy telehealth facilities to all people in the future.

- **Cloud computing** – it is expected that NGB will promote more widespread use of cloud computing. For many users, this approach leads to a marked decrease in the processing power needed to complete computing tasks, allowing much simpler (and lower cost) computers to be used. End users can enjoy potential savings on the purchase of new computers and their maintenance and power usage and it is assumed that a **10%** reduction of computer costs is achievable.
- **Remote learning** – NGB can support enhanced distance learning, as lectures with video conferencing facilities become more widespread. It can, therefore, be expected that there will be an increase in the number of students (both part-time and full-time) registering with remote learning centres. Remote learning will likely increase number of highly skilled workers, which will have a positive impact on the local GVA. Remote learning could also generate benefits for employees / students in the form of mileage savings, reductions in carbon dioxide emissions, and time savings.

In addition, there are other socio-economic benefits that can be achieved through NGA and some of them are outlined below:

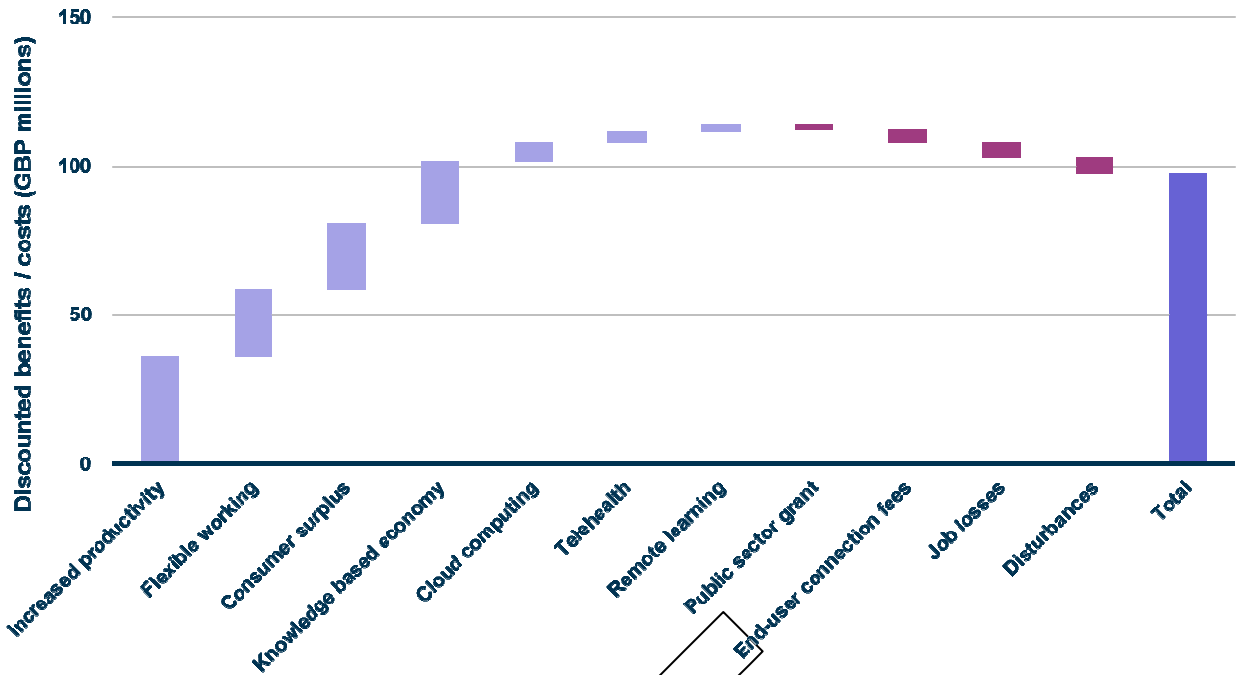
- NGA can provide an opportunity for greater innovation, increased access to new markets and greater consumer choice, compared to that experienced with current-generation broadband.
- Faster connectivity, greater consistency, higher quality and improved reliability of service from NGA is very useful for back-up arrangements as it will facilitate vital data back-up and multiple, real-time, high-definition data transmissions.
- Using e-government and telehealth initiatives in the near future can potentially reduce administration, resulting in government savings.
- Improved employee retention rates can be achieved by increasing employee satisfaction through flexible working, which means that companies could potentially reduce their recruitment spend.
- There could be a reduction in traffic congestion due to fewer vehicles being on the road during peak times, as a result of more people adopting flexible working and remote learning.
- There could be a reduction in air and noise pollution due to the increased adoption of flexible working and remote learning.

- Reduction of in-person visits from home healthcare workers can lead to time savings and reduction in carbon dioxide emissions.
- Provision of NGB in CBC will promote greater social equity and further reduce the probability of having a digital divide.

The quantified socio-economic costs for this study are as follows:

- **Disturbances** – the deployment of network infrastructure will involve increased noise pollution and traffic delays (including the knock-on economic impact of delays on business travel). It is expected that there will be disturbances for the construction work period only (**3 years** is assumed in the model because the size of the intervention area is not very significant).
- **End-user connection fees** – it is assumed that there will be a one-off connection fee (**GBP25** is assumed in the model) for each connected customer.
- **Public-sector grant** – Local authorities' funding (together with BDUK funding) is another cost that has been considered. The total public sector grant is **GBP1.82m**.
- **Job losses** – it is assumed that there will be some job losses (**0.1%** of current employees is assumed in the model) due to automation and optimisation of systems, which will happen during the initial years (**first 4 years**) of NGB availability.

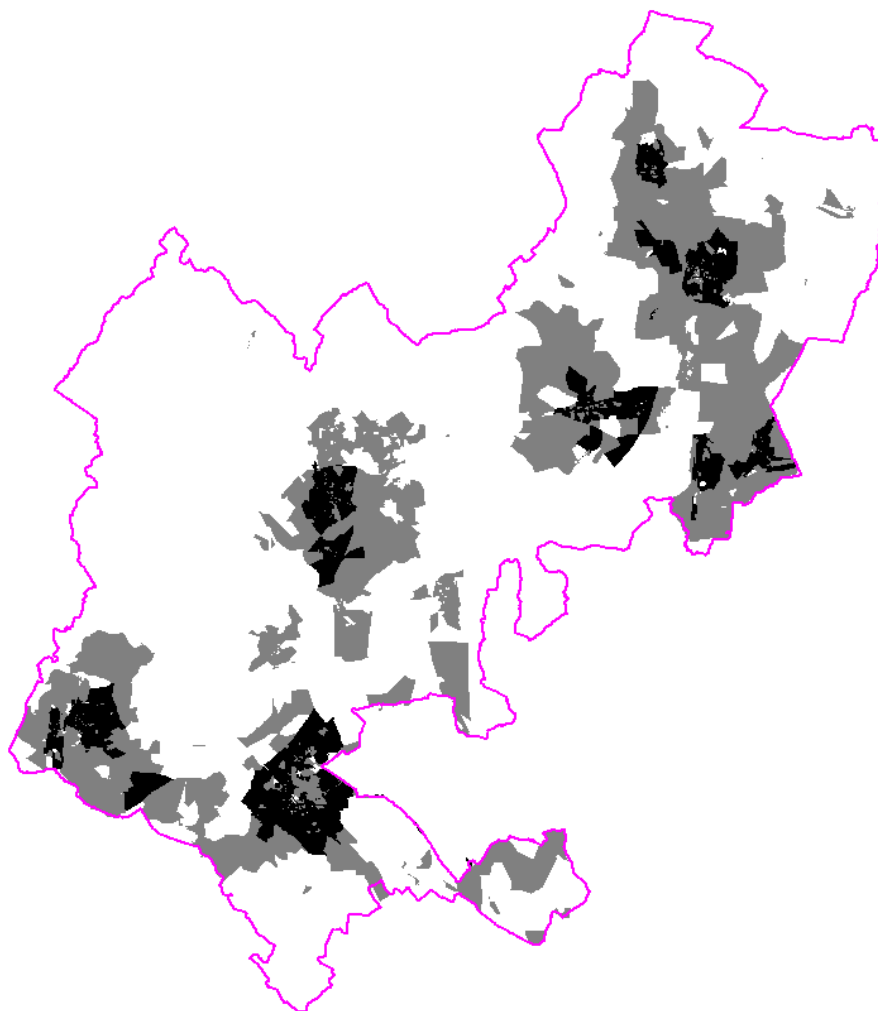
The total net socio economic benefit to Central Bedfordshire is demonstrated in figure 0.5 below.



Socio-economic analysis shows that there will be a net GVA uplift of circa **GBP98 million** (discounted value) over a period of 15 years with the availability of NGB in CBC. This represents a very positive outcome considering only GBP1.82 million needs to be invested using public funds and has a **benefit to cost return ratio of 7-1**.

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Appendix A: Central Bedfordshire White Area Map



Area type	No. of premises	% of premises
Black	52,521	46.9%
Grey	30,088	26.9%
White	29,259	26.2%
Total	111,868	100%