

# Birmingham City Council

## Report to Cabinet

17<sup>th</sup> January 2023



**Subject:** A Digitally Connected City - Enabled for Future Growth

**Report of:** Peter Bishop, Director for Digital and Customer Services

**Relevant Cabinet Member:** Councillor Jayne Francis, Digital, Culture, Heritage and Tourism

**Relevant O &S Chair(s):** Saima Suleman, Economy and Skills Overview & Scrutiny Committee

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Are specific wards affected?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No – All wards affected
If yes, name(s) of ward(s):		
Is this a key decision?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
If relevant, add Forward Plan Reference: 010484/2022		
Is the decision eligible for call-in?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Does the report contain confidential or exempt information?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
<p>The following appendices are marked as confidential under 3. Information relating to the financial or business affairs of any particular person (including the council):</p> <ul style="list-style-type: none"><li>- commercially sensitive information contained within provided by 3<sup>rd</sup> Parties under commercial confidence</li><li>- disclosing the potential value of forthcoming procurements would give tenderers an advantage over the City Council to the extent that the Council would not be able to prove best value.</li></ul> <p>A – BCC Outline Business Case</p>		

B – BCC Outline Business Case Financial Model
C – BCC Outline Business Case Market Assessment
D – Procurement Approach
E – Resource estimate to support the development of the FBC [Final business case]

## 1. Executive Summary

- 1.1 The importance of the digital infrastructure is set out in The National Infrastructure Strategy which outlined the UK's plan to improve the quality of physical and digital infrastructure needed to boost growth and productivity, and enabling the UK to deliver its net zero emissions target by 2050. This was further re-enforced in the Government's Levelling up White Paper which set out the importance of new digital infrastructure establishing it as one of its key "Missions".
- 1.2 In recent years, the Government has initiated a number of programmes to accelerate digital infrastructure within the UK. In 2012 it launched the Superconnected cities initiative allocating £150 million to a number of local authorities to accelerate superfast broadband. In 2018, the Local Full Fibre Networks fund of £190million was announced to encourage private sector organisations to work with urban and rural local authorities to identify and accelerate opportunities to roll out full fibre digital networks in recognition that full fibre provided an ultrafast future proofed digital infrastructure.
- 1.3 In 2021, Government announced Project Gigabit, a £5billion investment to accelerate full fibre and ultrafast connectivity in hard to reach and predominantly rural areas. Unfortunately, this fund cannot be used to "infill" areas in urban locations even if there are no planned investments for full fibre deployment by the private sector.
- 1.4 The importance of creating future-proof ultrafast digital infrastructure networks has led to the establishment of numerous alternative networks in addition to the main two telecommunication providers, British Telecommunications Plc (BT) and VirginMediaO2 (VM02). These alternative network providers are often referred to as "altnets", the largest of the altnets is City Fibre and has been rolling out full fibre infrastructure across a number of Cities in the UK.
- 1.5 An analysis carried out by Hatch in March 2022- The Economic Impact of full fibre infrastructure reviewed the 285 locations where City Fibre had implemented full fibre and identified significant benefits for the deployment of full fibre. This included direct economic benefits and wider impacts:
  - (i) increased numbers of jobs in the construction supply chain leading to £1.4 billion in GVA
  - (ii) once implemented, an economic boost from 2026 of £22 billion GVA associated with a boost to productivity, business innovation and start ups

- (iii) full fibre is critical to the rollout of 5G, which could deliver a potential economic uplift of £53 billion in GVA
- (iv) it will accelerate the rollout of the Internet of Things which deliver economic benefits of £16 billion.

1.6 The availability of full fibre offers a number of opportunities for our City and the wider region. For example:

- (i) The West Midlands Tech Sector is expected to generate at least £2.7 billion for the local economy by 2025
- (ii) It is home to 18,394 start-ups and more incubators and accelerators than any other city outside London
- (iii) It has the fastest growing tech sector
- (iv) It has the largest 5G test bed across the UK.

1.7 Without the right infrastructure, there is a risk that Birmingham will not attract the level of investment outlined above and not achieve the economic returns available. Birmingham is already lagging behind other cities that have taken proactive action to support economic growth by developing their full fibre infrastructures (such as Sunderland, Coventry, Wolverhampton, Liverpool, Manchester etc.).

1.8 Extensive analysis has identified that Birmingham does not have the necessary levels of full fibre connectivity across the city to deliver the outcomes in the Council's Levelling Up Strategy, increasing the pace and scale of growth.

1.9 Access to full fibre has been identified as one of the key Digital Connectivity foundations with the Digital City Roadmap to deliver sustainable economic growth through increased productivity gains achievable by businesses. The availability of a full fibre digital infrastructure will deliver both faster speeds and lower costs, which in turn support access to a wider range of services for residents, especially for housebound and deprived households. The development of full fibre also enables SME growth and accelerates GVA growth, providing higher speeds at lower costs. Analysis presented to Cabinet in April 2022 suggested this GVA growth is estimated to be £760million based on increased productivity.

1.10 Currently Birmingham is served by two main tele-communications ("telco") providers, with no single commercial provider having ubiquitous coverage and many areas of Birmingham under the UK average of 40% full fibre coverage. Even with planned roll outs by the major providers this will not create a full fibre network across Birmingham.

1.11 Without intervention from BCC this is unlikely to change, and Birmingham could drop further behind the average coverage for major metropolitan UK cities as those cities intervene in this market.

1.12 Market expertise from Prism Consulting was sought to provide recommendations on how BCC could stimulate the market to deploy full fibre services at the rate required.

- 1.13 Following the production of an Outline Business Case (OBC) (Appendix A), it is proposed that Birmingham commercialises its current Wide Area Network contract (that provides connectivity between 500+ sites to the main BCC network to deliver IT services) to create a Joint Venture with a telco partner to accelerate the roll out of full fibre that will:
- utilise the existing BCC WAN spend of circa £1M per annum in an Anchor Tenancy Model through a Joint Venture Limited by Shares.
  - capitalise existing spend on WAN to enable investment into the joint venture that will be matched by a commercial partner.
  - target the roll out of full fibre services to the 8 constituencies that currently have under 50% full fibre coverage in the first phase.
  - in addition to providing the full fibre coverage to the areas of Birmingham that are currently underserved, over a 20-year period this will help deliver savings already built into the financial plan but could also provide opportunities for further savings/ financial efficiencies.
- 1.14 In order to take the proposal from OBC to Full Business Case (FBC) approval of £0.656M is sought to engage specialist procurement legal and technical expertise to:
- conduct the procurement for (but not limited to, based on market response) a joint venture partner
  - establish the appropriate governance and processes based on the outcome of the partner procurement
  - finalise the full business case, prior to contract award with the partner, for cabinet sign off.

## **2 Recommendations**

- 2.1 Notes the OBC attached at Appendix 1 and the current state of full fibre coverage across the City and supports an intervention from Council in order to address the speed and coverage of full fibre roll out in Birmingham where overall plans from providers do not address underserved areas.
- 2.2 In line with the recommended option from the OBC in Section 4, the Council commences a procurement analogous to competitive dialogue (subject to a further Cabinet award report) which targets, but is not limited to, a Joint Venture Limited by Shares to:
- 2.2.1 Build, deploy and commercialise a 'City Spine' full fibre network.
- 2.2.2 Targets the underserved constituencies with less than 50% full fibre coverage
- 2.2.3 Utilises the current BCC WAN spend, in partnership with the new partner over a 20-year period, enabling an economic uplift to Birmingham and a financial return to the Council.

- 2.3 Authorise the procurement and investment request of £0.656M to procure specialist resource to deliver:
  - 2.3.1 A compliant procurement process
  - 2.3.2 The development of a final business case which will come back to Cabinet for approval
  - 2.3.3 The development of a governance model and processes for the proposed Council oversight of any proposed JV/partnership arrangements.

### **3 Background**

#### **3.1 National Policy & Strategy**

- 3.1.1 The Government's target is for gigabit broadband (download speeds of at least 1 gigabit-per-second) to be available nationwide by 2030 and it has provided a Treasury allocation of £5 billion to support the network builders, of which £1.2 billion has been released to date. Gigabit-capable broadband can fuel the long-term post-Covid economic recovery; maintain the UK's competitive position post-Brexit; and ensure we are better prepared for any future lockdowns and pandemics. (ref Appendix A – BCC Outline Business Case, ref 2.3.1 National Policies and Strategies).
- 3.1.2 Research from CEBR[3] notes that the provision of ultrafast broadband could boost productivity by 3.2% in the UK.
- 3.1.3 The rollout of full fibre has gathered serious momentum over the last few years. There are many drivers for this, not least that the aged copper telephony networks are reaching end of life and the PSTN switch-off is set for 2025. With the Government's targets now settling on universal access to Gigabit capable broadband and 4/5G mobile connectivity by 2030, it is also one of its 12 missions to level up the UK.
- 3.1.4 The Government revealed its intentions for digital infrastructure deployment in the UK under the National Infrastructure Strategy (November 2020). [1-see page 21] Current predictions suggest that up to 60% of premises will have access to full-fibre connectivity by the end of 2021, up from 9% in 2019.[2-see page 21] Looking to the future, the Government was initially targeting 100% of UK premises to have access to full-fibre internet by 2025, however this target has now been revised down to 85% of households having access to gigabit-capable internet by 2025. It should be noted that gigabit speeds can be achieved without a full fibre network, however, it has been confirmed by market telecommunications expertise that full fibre deployment is the currently the only way to establish a future -proofed digital infrastructure.
- 3.1.5 The Levelling Up White Paper published in February 2022 set a new target for gigabit-broadband to be available nationwide by 2030. Nationwide coverage means "at least 99%" of premises. The core ambition of this strategy is to 'level-

up' the country through wider availability of gigabit-capable internet connectivity, as UK cities, towns and regions are currently lagging behind European counterparts[1-see page20].

- 3.1.6 The Government says it remains committed to meet 85% of premises by 2025. The 'nationwide-by-2030' target therefore puts a timeline for connecting the remaining 15% of premises, which will mostly require public funding support.
- 3.1.7 Current predictions suggest that up to 60% of premises will have access to full-fibre connectivity by the end of 2021, up from 9% in 2019.[2-see page 21] Already in Birmingham, there is approximately 40% full fibre coverage as a result of investments made by Openreach.
- 3.1.8 The changing of this target, along with the softening of the language away from 'full fibre' connectivity, highlights the need for more action and innovative solutions to provide access to digital connectivity.
- 3.1.9 The Government's policy is that gigabit-broadband infrastructure will be mostly built using private investment. BDUK, the Government Agency for gigabit delivery and responsible for achieving the targets, has published in its 2022 Summer Update, that trends in build to date indicate that 80% of the 2025 85% target will be built without government subsidy.
- 3.1.10 Private companies decide when and where to build infrastructure based on commercial factors. There are many companies building new networks including small operators focusing on particular geographical areas.
- 3.1.11 The Government has pledged that the Treasury funding described above will be utilised to deliver gigabit-broadband to properties not reached by the commercial market (around 15-20% of the UK). These properties are mostly in rural areas, although many 'pockets' of digital deprivation are also appearing in urban locations.
- 3.1.12 In recent years, DCMS launched the local full fibre network scheme. This was a government funded programme to accelerate full fibre across the UK available to urban and rural areas. It encouraged a number of different models to attract full fibre investment including anchor tenancy models, extension of wan services, etc. This enabled a number of urban areas to attract public and private investment within the localities.
- 3.1.13 As a result of Government funding and private sector investment a number of alternative network providers have been established often referred to as "altnets". The largest of these is CityFibre and it has invested in deploying full fibre infrastructure in 285 locations across the UK. An analysis led by Hatch and published in March 2022, identified the direct economic and wider impacts the full fibre can enable:
  - (i) increased numbers of jobs in the construction supply chain leading to £1.4 billion in GVA

- (ii) once implemented, an economic boost from 2026 of £22 billion GVA associated with a boost to productivity, business innovation and start ups
- (iii) full fibre is critical to the rollout of 5G, which could deliver a potential economic uplift of £53 billion in GVA
- (iv) it will accelerate the rollout of the Internet of Things which deliver economic benefits of £16 billion.

### **3.2 Regional Full Fibre Network Programmes**

- 3.2.1 The issue of poor connectivity has been acknowledged at both a regional and local level. In its Digital Roadmap for 2021 – 2026, the West Midlands Combined Authority recognised the importance of digital connectivity for economic growth and innovation and has outlined 5 Missions
- (i) Securing access for everyone to digital opportunities, particularly those in poverty
  - (ii) Sharing and using data to improve people's lives
  - (iii) Becoming the UK's best-connected region
  - (iv) Realising the potential of digital to transform our economy and build economic resilience
  - (v) Using digital public services to build a fairer, greener, healthier region.
- 3.2.2 The availability of full fibre is instrumental in the deployment of 5G and WM5G are working with local authorities to develop plans to further accelerate full fibre in economic growth areas across the region. These plans are still being formalised.
- 3.2.3 Several locations within the West Midlands have already initiated their full fibre deployments following public-private investments. For example, Wolverhampton, Coventry, Solihull and Warwickshire were all successful in gaining funding through the Local Full Fibre Network programme and are currently deploying their full fibre network with digital infrastructure providers.

### **3.3 Local Level**

- 3.2.4 Birmingham and the wider region have a thriving tech sector which is expected to generate at least £2.7 billion for the local economy by 2025. The Region has the highest number of emerging tech companies (2,946), second in the UK behind London for the region with the highest number of tech and creative companies.
- 3.2.5 In order to maximise these opportunities, Birmingham's Digital City Roadmap, which was approved by Cabinet Committee in April 2022, recognised that digital affects every layer of life in Birmingham, from the underlying connectivity required to attract businesses and enable access to digital services, to providing people with the skills required to successfully participate in the digital economy. It identified hyperconnectivity as a key element in delivering inclusive economic

growth opportunities for businesses and citizens estimating that this could deliver an economic uplift of £760million for the City.

- 3.2.6 As demonstrated from Birmingham's Digital City Roadmap, which highlighted in the WCMA work and validated through this outline Business Case, at the local level Birmingham's current fixed connectivity levels are poor, both in the city centre and in outlying districts, and whilst 5G connectivity is growing, there are certain areas of the city that will not achieve required fixed and mobile connectivity levels with current private investment methods.
- 3.2.7 During the development of the Birmingham Digital City Roadmap, stakeholders across the City said the provision of full fibre would be a significant gamechanger for the City. Many cities and regions have intervened in the full fibre market to improve access for businesses, and Central Government continues to invest in rural areas, but Cities are missing out.
- 3.2.8 The proposed hyperconnectivity projects within the scope of the Digital City Roadmap were estimated to add over £760m of gross monetary value (GVA) in the form of increased productivity across the business and consumer sectors. The projects within the Digital City Roadmap support the Council to deliver a comprehensive set of digital connectivity foundations, accelerating the deployment of both fixed and wireless connectivity technologies across the city and ensuring that no area is left behind. This will focus on the following areas:
- Increasing levels of inward investment due to the city becoming more attractive to businesses with intensive digital requirements.
  - Full Fibre enables SME growth by giving them access to higher speeds at prices 50-75% cheaper as well as the capacity and capability to innovate and develop new applications and solutions.
  - Creating additional direct jobs in digital infrastructure delivery.
  - Increasing the value of redevelopment/regeneration areas, eg Smithfield, could gain an additional £13million of productivity uplift in accordance with CEBR national analysis.
  - Providing better access to education services and employment opportunities.
  - Delivering various benefits to the public sector through enabling the delivery of more services digitally.
  - Full fibre technology enables access to a wider range of services at home especially for housebound and deprived households, closing the digital divide:
    - Medical / health-based applications
    - Video consultations



- Education
- E-commerce

3.3.8 Public services administered by local government in Birmingham could also benefit from cost and time savings in the delivery of key activities as a result of heightened connectivity, including efficiencies associated with data collection, local highway management and maintenance refuse collection, social care support and online services amongst others. By promoting increased economic activity, local authorities can also benefit both directly through additional business rate income.

3.3.9 The Digital City Programme targets 5 outcomes:

- A future proofed digital infrastructure that accelerates entrepreneurship and innovation
- Improved digital inclusion and connectivity for citizens and businesses
- Increase digital investment in the City for inclusive economic opportunities
- Maximise the use of City Data – improved collaboration and partnership work
- Establishing Birmingham as a leading international digital city.

3.3.10 The 5 Digital City Outcomes support the wider objectives of the council in the following areas:

- BCC Levelling Up Accelerator, delivering the Green and Digital Infrastructure
- City Partnership – Delivering the City's Grand Challenges and the Councils Corporate Plan 2022-26.

3.3.11 The Digital City programme was shaped through extensive stakeholder engagement in order to identify key activities that City needed to undertake to deliver economic growth. This enabled the establishment of the Digital City Roadmap which brought together a number of themes which could deliver benefits of over £1 billion economic uplift based on:

- Future generation digital infrastructure
- Enabling ecosystems of infrastructure and data for innovation and transforming services
- Increased productivity benefits for businesses
- Improved access to open city data
- Creation of high value jobs and employment impacts (open access data)
- Reduction in CO2 emissions, reduced residential and business utility bills and improved well being
- Residential social value/ wellbeing benefits.

3.3.12 A key enabler is the provision of full fibre to the residents and businesses in Birmingham.

- It has long been identified that there are several underserved areas within Birmingham that is slowing the pace of digital take up and growth.
- Many other cities such as Sunderland, Coventry, Wolverhampton, Liverpool and Manchester have taken proactive action to support economic growth by developing their full fibre infrastructures based on their economic analysis.

3.3.13 Birmingham has an opportunity to take similar action as other major cities with the impending renewal of the Council's Wide Area Network (WAN) contract in 2025. The Birmingham Councils WAN connects in excess of 500 council and partner sites across Birmingham to provide connectivity to the main council network at a cost of circa £1M per annum. A revised WAN contract could potentially be commercially structured to provide a means to attract wider inward investment to drive/ expediate the roll out of full fibre services across Birmingham. Given the complexity of the underlying market that provides these services, Prism Consulting were engaged to provide market expertise and develop evidence-based options for accelerating full fibre across the City through the creation of an Outline Business Case.

### **3.4 Outline Business Case**

Prism Consulting were engaged across both internal BCC stakeholders and the external market to understand the level of interest, commercial avenues open to Birmingham and viability of using the WAN to stimulate inward investment for full fibre roll out following the Green Book approach. Please refer to Appendix C – BCC Outline Business Case Market Assessment for the detailed research.

3.4.1 The report confirms full fibre coverage in Birmingham is known to be problematic.

- No single commercial provider has ubiquitous coverage of Birmingham
- Several providers have partial coverage and some plans to expand
- Even with the planned coverage, Birmingham could drop further below the average coverage for major metropolitan cities in the UK. Liverpool, Manchester and Leeds already have substantial fibre build schemes in place

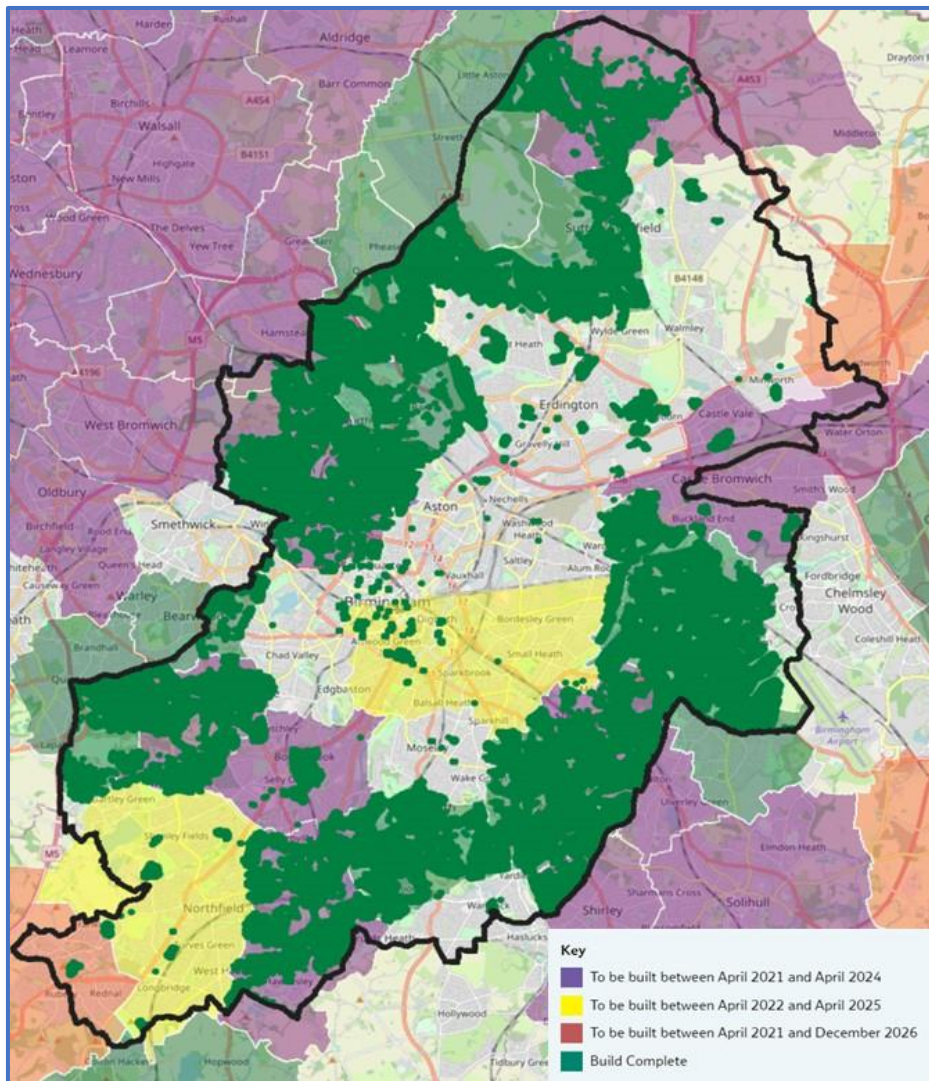
3.4.2 Birmingham is clearly suffering from pockets of 'urban connectivity deprivation'. These 'pockets' are generally caused by three factors:

- a) An area having a particularly high level of business compared to residential premises. This makes the area less commercially attractive to fibre providers, the majority of whom drive their business cases on 'high volume' residential take-up.

- b) Central urban and metropolitan areas can sometimes have higher levels of social deprivation. This leads to lower take-up of FTTP services, with lower Average Revenue Per User (ARPU). This further deflates the value of a commercial residential business case for the providers.
- c) Telecom providers protecting 'leased line' revenues. Prior to pervasive rollout of FTTP, businesses often had to take expensive leased line services to ensure sufficient bandwidth and reliability. These services are often between 8 – 12 times more expensive than an FTTP counterpart providing the same bandwidth (although potentially with less consistency or performance reliability). Providers are reluctant to dilute their revenue and profits and currently there is no regulatory obligation on them to do so.

3.4.3 Central Birmingham, in particular, suffers from all three of these factors, resulting in the poor existing fibre coverage and lack of defined plans for rollout before 2026-2030. More detailed supporting evidence of this is given in the market analysis reported separately. An example of this is shown in the planned rollout map from open reach in Figure 1:

Figure 1 – Birmingham Current & Planned Full Fibre Roll Out to 2026 (Openreach)



3.4.4 The telecoms market, particularly fixed fibre operators, have been consulted from three specific perspectives for this case:

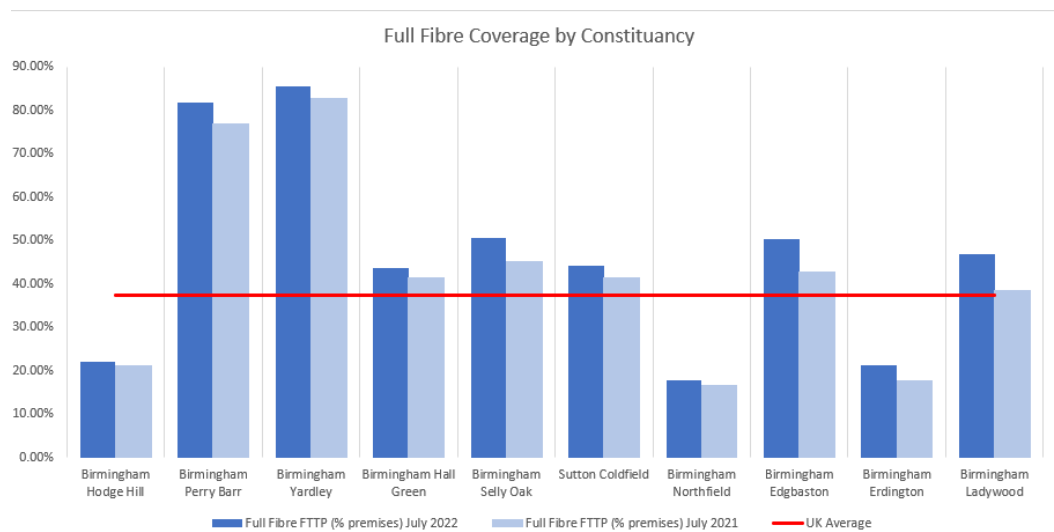
- 1) The extent of their existing fibre and FTTP/FTTH/FTTB rollout within Birmingham
- 2) Their plans for rollout between 2022 and at least 2026
- 3) Their interest in and the attractiveness of BCC's WAN to their plans

3.4.5 The results of these consultations are described in detail in the separate reports associated with this Outline Business Case (OBC) (see Appendix A) but in summary indicate that:

- a) There are areas of Birmingham that are currently significantly under-served with regards to fibre / FTTP provision, particularly towards the central Birmingham area (see figure 1). This includes three constituency areas

where the average coverage is well below the UK average and a further five that are ‘borderline’:

**Figure 2 – Full Fibre Coverage by Constituency**



b) There are no stated plans to commercially rollout fibre / FTTP to these areas until at least 2026 and there is little imperative to do so without intervention or enticement of some form.

c) There is significant interest in providing BCC with an upgraded WAN and using this as ‘anchor tenancy’ for further fibre deployment. Sufficient providers interviewed showed a willingness to consider a Special Purpose Vehicle (SPV) / Joint Venture (JV) partnership with BCC as a sound commercial arrangement to enable this. There is a high level of confidence that between 4 and 7 operators would bid either independently or in consortium for such a procurement.

#### 3.4.6 BCC’s Wide Area Network

- The WAN network affects the majority of council IT Services and is fundamental to linking Council sites together and allowing staff to connect back to both line of business and corporate IT systems i.e. Internet access, telephony services, Revenues & Benefits systems, Housing systems, Waste Management systems etc.
- BCC’s current WAN solution is undergoing a ‘tactical’ refresh in order to support wider corporate programmes such as New Ways of Working (to support the exit of Lancaster Circus) and remove core network dependencies on Council Properties to provide flexibility and support future building consolidation, while also providing a more secure and robust delivery of core networking services. The

tactical refresh and associated contracts run through to June 2025 with an option for two further single year extensions (+1, +1 options).

- In readying itself for a re-competition for a new corporate WAN, BCC has undertaken Soft Market Testing for the intended scope of c.537 sites. In doing so, apart from satisfying the PCR2015 and its Finance, Procurement and Contract Governance Rules, BCC shall be obliged to seek out the following benefits:

- Reduce cost over the medium term
- Improved reliability and responsiveness
- Improved performance
- Improved edge to edge security
- Improved connectivity and traffic prioritisation
- Network agility with improved provisioning times
- Higher quality data transfer
- Improved speed
- Operational flexibility and
- Streamlining of operational activity.

- In a straight-forward procurement against an outcome-based set of requirements, vendors will almost certainly bid an alternative technology to BCC's, the technology of which is becoming outdated, to take advantage of Software Defined WAN (SDWAN) in line with wider market technology best practices. Therefore, a more extensive rework will be required.

- The current contract value of the WAN is circa £1M per annum (including smaller network connectivity sub-contracts) and so represents a significant revenue outlay to the council. However, this also provides the opportunity to use the WAN contract to leverage commercial opportunities that aid in addressing the wider market failings for full fibre coverage in Birmingham and support the Digital agenda.

- BCC Requirements offer significant anchor tenancy, providing a substantial basis for a fibre network build

- 500+ location AND 600-800 CCTV sites
- 213 MDUs plus Central Renewal Areas
- 200 other 'commercial locations'

### 3.4.7 Intended Strategic Outcomes

Supporting the wider Digital City Outcomes, the following intended outcomes should be targeted/ enabled based on the output from the Prism report:

- Accelerate deployment of a 'City Spine' to enable fibre connectivity throughout Birmingham by end 2026
- Enable operators to increase full-fibre coverage of all relevant business and residential premises within Birmingham to (nearly) 100%
- Support the development of smart city, 5G and other applications that will facilitate or underpin the Future City initiatives
- Enable Birmingham's ambition as a digital city to have competitive advantage over other metropolitan areas through demonstrable and evidential public / private collaboration and commitment.
- Be underpinned by realistic and achievable contributions and support from BCC
- Adopt a model that ensures effective use of BCC's contribution, in terms of governance and higher benefits return versus cost
- Convert current substantial costs of renting fibre circuits to form the council's WAN and connection services into a capital investment.

## **4 Options considered and Recommended Proposal**

### **4.1 Do Nothing – do not upgrade the Council's WAN and do not intervene in the Market**

#### **4.1.1 Do nothing has been ruled out as it is not a viable option.**

- BCC cannot continue with the current WAN contract beyond 2027. The current 3-year contract runs until 2025 with the option to extend via two +1's until 2027. Continuing beyond this point will put BCC in breach of procurement regulations.
- Continuing the current WAN network, even if valid from a procurement perspective, would leave BCC running legacy technology.

### **4.2 Upgrade the Councils WAN Only**

4.2.1 This option involves a re-tendering of the existing WAN contract on a similar basis to the current WAN contract

4.2.2 This will provide the following benefits to BCC:

- New more efficient technology introduced
- Potential improved service levels and performance for the BCC core WAN

- Potential cost reductions of circa £100k to £150k per annum (£2M to £3M over a 20-year period) based on soft market test responses

4.2.3 This option **will not** contribute to the Digital City Roadmap and Outcomes, and in particular does not drive investment for full fibre to address the significantly underserved areas with regards to full fibre provision identified in section 3.3 which the market currently has no plans to address in published roll out plans to 2026.

4.3 **Recommended Option:** Utilise the Council's WAN and Spend to improve full fibre connectivity across the City via a Special Purpose Vehicle - Joint Venture.

Based on the analysis and market engagement performed by Prism Consulting at Outline Business Case stage, the most advantageous option for BCC to pursue is indicated to be a Joint Venture in order to bring direct market investment to deploy full fibre to underserved areas while also providing the BCC WAN Services. This option will be tested during the procurement phase.

This approach addresses the lack of full fibre roll out plans by the market to deliver the fibre to underserved areas and supports the wider Digital City Outcomes and wider corporate strategy objectives that the other options do not.

4.3.1 A Joint Venture Limited by Shares, is indicated at outline business case stage, as in principle it provides a better understood structure with tighter controls that enables more direct returns than alternate models such as Contractual Ventures, Limited Liability Partnerships and General Partnerships.

4.3.2 The approach will:

- Convert current BCC Opex Spend on WAN into Capital to create an Anchor Tenancy with matched funding from a partner
- The special purpose vehicle will build and commercialise a Full Fibre Core Network (the City Spine) connecting all WAN sites and capable of providing commercial connectivity
- The City Spine will target 95% utilisation of Open Reach Physical Infrastructure wherever possible and target a limit of 5% "new build" with an emphasis on re-using assets wherever possible.

4.3.3 The initial Roll Out (in line with Scenario 2 in the OBC) will focus on areas currently underserved with fibre. This limits the initial roll out to the 8 constituencies with fibre coverage below 50% and no main operator expansion plans before 2026. 70% of business premises in these constituencies will be within 250m of the City Spine, making connections to them affordable to service providers.



- 4.3.4 This option requires an investment from BCC current WAN spend Over a 20-year period it is expected that this option will help deliver savings already built into the financial plan, but could also provide opportunities for further savings/ financial efficiencies which will be confirmed in the FBC.
- 4.3.5 In order to follow the recommended approach above an initial investment of £0.656M is required in order to procure specialist skills to:
- Manage procurement of the partner (see section 8)
  - Establish the appropriate governance and processes through the procurement process
  - Input into technical design of the BCC network components with the partner for a Jan 2025 roll out
  - The finalisation of the procurement activities will provide the Full Business Case for cabinet approval prior to establishment of the special purpose vehicle in line with the procurement outcome.

## **5 Consultation**

- 5.1 The following consultation was undertaken by the Digital City Roadmap prior to the engagement of Prism. Approximately 40 stakeholders were engaged and consulted on the development of the Digital City Roadmap. A list of these stakeholders is included within the Main Report - The Digital City Roadmap - March 2022.
- 5.2 The Corporate Leadership Team and the relevant Cabinet Members have been consulted in developing this proposal, including the Chair of Economy O&S.
- 5.3 A number of senior officers from the Chamber of Commerce, WMCA, WM5G and the WMGrowth Company were consulted.
- 5.4 The following internal consultation was undertaken by Prism Consulting in the production of the OBC.
- Housing
  - Places, Prosperity and Sustainability
  - City Operations
  - Adult Social Care
  - Digital and Customer Services
  - Children's Trust
- 5.5 External consultation with Telco and Full Fibre providers to gauge market interest. In addition, a soft market test was issued by BCC to inform the market and provide input into the Prism Business Case.

## **6 Risk Management**

- 6.1 While market engagement has proved positive, the final outcomes and costs can only be validated once the necessary procurement activities have taken place in the next phase. As such the full business case sign off will be sought once the procurement has completed and before contract signature to de-risk commercial exposure to BCC.
- 6.2 The existing WAN contract has the option to extend from 2025 to 2027. As such, should the procurement exercise prove not to be viable, BCC have time to re-contract its core WAN services and implement these before the existing contract expires to keep service continuity.
- 6.3 Similar commercial mechanisms to those being recommended to BCC have been followed at Manchester and Liverpool, with these areas currently in the deployment phase. Further due diligence will be conducted as part of the next phase to build lessons learned into the contract structure as part of the procurement approach.
- 6.4 The commercial modelling has followed a prudent approach to addressable business market and growth.

## **7 Compliance Issues:**

### **7.1 How are the recommended decisions consistent with the City Council's priorities, plans and strategies?**

- Supports the Council's Be Bold statements by enhancing Birmingham's drive to be a prosperous city.
- It delivers against the City's grand challenges of increasing the opportunities for greater employment, skills and economic growth.
- It supports BCC's Levelling Up Strategy key accelerator commitment to establish the green and digital infrastructure.
- It supports the delivery of the Digital City Roadmap approved by Cabinet Committee in April 2022.

### **7.2 Legal Implications**

- 7.2.1 The City Council will carry out this work under its General Power of Competence Section 1 of the Localism Act 2011. The use of a joint venture limited by shares, as recommended in this report, is a tried and tested method of contracting that gives BCC greater levels of control and the ability to generate returns back into the city when compared to alternatives such as outsourcing the WAN service. The legal team will work with the project team through the next phase of the project to secure a Joint Venture Partner and finalise the full business case through a process analogous to competitive dialogue. The use of, specialist, external legal counsel will be required and budget has been provisioned to enable this.

### **7.3 Financial Implications**

7.3.1 An investment of £0.656M is required from the Place, Prosperity, Sustainability Delivery Fund in order to secure specialist market expertise to:

- Run the procurement analogous to competitive dialogue which targets, but is not limited to, based on market response, a Joint Venture and its subsequent establishment
- Achieve confirmation of the full business case at the end of the procurement phase to substantiate the outline business case prior to the finalisation of contracts

7.3.2 The Joint Venture will require an estimated capital investment in line with BCC current WAN spend from BCC with matched funding from the partner to create the initial network. A prudent approach has been taken to the financial modelling with only businesses considered in the market analysis with a 15% take up of the addressable market (see section 6 Risk Management for further assumptions). The financial model developed in the OBC is covered in Appendix B.

7.3.3 Over a 20 year period it is expected that this will help deliver savings already built into the financial plan, but could also provide opportunities for further savings/ financial efficiencies, that will be confirmed in the FBC.

### **7.4 Procurement Implications**

7.4.1 The procurement of external consultancy services to support the wider partner procurement can be undertaken through existing compliant frameworks within IT&D for specialist resource.

7.4.2 The procurement approach is outlined in Appendix D, summarised as:

- Establishment of Joint Venture - PCR 2015 Governance
- Telecoms network is both a Works and a Service
- PCR 2015 Explicitly excludes telecom (Regulation 8)
- Directive 2002/21/EC of the European Parliament and of the Council F69 prevailed whilst the UK was part of the EU however the Electronic Communications and Wireless Telegraphy (Amendment) (European Electronic Communications Code and EU Exit) Regulations 2020 defines an electronic communications network so it falls into the Regulation 8 of PRC 2015.

7.4.3 The recommended approach is to adopt a process analogous to Competitive Dialogue as most suited to establishing a JV and the design, build of a network for SD-WAN and FTTP uses.

### **7.5 Human Resources Implications (if required)**

7.5.1 None identified at this stage. This will be assessed as part of the next phase of work as the Joint Venture is procured /established and will be addressed in the FBC.

## **7.6 Public Sector Equality Duty**

7.6.1 An initial screening for an Equality Analysis (EA) is being undertaken. It is unlikely that a full EA is required at this time, with no adverse impacts on the protected groups and characteristics under the Equality Act 2010. The reference number of the EA is EQUA1032.

## **7.7 Environmental and Sustainability Implications**

7.7.1 The deployment of full fibre will provide a key enabler for the Digital City Programme which includes a Net Zero Transitions work stream with projects covering Digital Sustainability Pilots and Monitoring and Pro-active maintenance.

7.7.2 In addition, the gigabit services are transformational for video (either communication or streaming) and so supports home working and distance learning.

## **8 Appendices**

A – BCC Outline Business Case

B – BCC Outline Business Case Financial Model

C – BCC Outline Business Case Market Assessment

D – Procurement Approach

E – Resource estimate to support the development of the FBC [Final Business Case]

F – Equality Impact Assessment EQUA1032

G – Environment and Sustainability Assessment

## **9 Background Documents**

- Report to Cabinet Committee 26<sup>th</sup> April 2022: “Digital City Programme and Roadmap”
- Summary Roadmap: Digital City Programme “Delivering the Aspirations for a Digital Birmingham”
- Main Report: “Delivering the Aspirations for a Digital Birmingham”: Digital City Programme Final Report January 2022
- Birmingham City Council Levelling Up Strategy (Birmingham.gov.uk)
- The Corporate Plan 2022- 2026

## 10 Text References

[1] <https://www.gov.uk/government/publications/national-infrastructure-strategy>

[2] <https://www.gov.uk/government/news/pm-and-digital-secretary-welcome-broadband-jobs-boom>

[3] <https://www.computerweekly.com/news/252499915/UK-full-fibre-broadband-could-deliver-25bn-boost-to-productivity#:~:text=The%20report%20also%20showed%20how,to%20%C2%A359bn%20by%202025.&text=%E2%80%9CAnd%20this%20updated%20report%20highlights,people%20back%20.>