Appendix 1: Detailed Options Appraisal

Options Appraisal

1. With Portfolio Holder support and following advice from the Council's Law and Governance and Strategic Procurement teams, a procurement-led open Request for Information (RFI) exercise was carried out during April 2022 aimed at the telecommunication industry. The purpose of the RFI exercise was to seek market insight, recommendations and proposals on the various possible delivery models (technical, operational and commercial) that would accelerate the deployment of affordable Gigabit fibre to almost every home, business and organisation across the BCP Council area.
2. Responders to the RFI were asked to consider the following strategic and operational objectives:

   Strategic Objectives:

   1) Gigabit fibre should be available across the whole of the BCP area.
   2) Gigabit fibre needs to be rolled out at pace.
   3) Gigabit fibre needs to be affordable to residents, businesses, public sector and the voluntary sector.
   4) To create a market which attracts widescale investment in gigabit fibre.

   Operational Objectives:

   1) All broadband connectivity should be available as a symmetric* service.
   2) Enhancing digital maturity and service take up.
   3) Wish to create the mechanisms, technically, operationally and commercially that allows the local region to create specific layer 2 networks.
   4) Create a vibrant ISP marketplace
   5) Solutions that allow the potential exploitation of any fibre deployed within the BCP area into a single aggregated solution.

   **Symmetric means that download and upload speeds are the same.*

3. Nine organisations responded to the RFI. Whilst a few responders were simply offering their consultancy services, meaningful responses were received, including from major telecommunications companies. On the basis of these responses the following options have been assessed as to their effectiveness in meeting the Council's objectives.

   Do Nothing Option

4. With the "Do Nothing" option, the status quo of commercially driven installation will continue. Whilst the region will continue to see connectivity gradually rise and coverage increase the level of connectivity will not differentiate BCP from anywhere else in the UK and the Big Plan objective of ensuring that BCP has the best connectivity in the country would not be achieved. Many households and businesses would still be without affordable connectivity and full realisation of

economic benefits such as increased productivity and new technology related commercial opportunities will not be achieved. Similarly improved social outcomes will not be fully delivered such as tele-healthcare and support for independent living, and more innovative public sector service delivery would also be inhibited.

Do Something Option 1 – Undertake an Open Market Review/Government Investment

5. This option would require further engagement with the market. Such exercises have previously been conducted around the UK and enable providers to enter into agreements with the Council to disclose commercially sensitive information. This enables the Council to have a clearer understanding of areas that have gigabit provision or will have within planned programmes.
6. Whilst this has resulted in some improvement, mainly in rural areas, this has often been dependent upon accompanying funding from government (DCMS) which in turn has been passed on to the network providers to build out networks in otherwise unviable areas.
7. This option has been discounted for the following reasons:
   i. BCP already has quite detailed information about the deployment of Gigabit fibre in the area and such an exercise is unlikely to provide any significant new insight.
   ii. To realise any benefits this option requires some form of external funding and DCMS have previously indicated that as an urban area BCP is already relatively well served by providers. It is highly unlikely that necessary funding would therefore be available from DCMS.
   iii. Whilst this option would help to meet some of BCP Council's Gigabit network objectives, particularly fuller roll-out, it is less certain how other wider objectives would be met. Therefore, even if funding were available this option is likely to lead to a sub-optimal solution for significant areas of the BCP region.
8. Whilst suggested by a consultancy it is worth noting that no operator responding to the RFI suggested this approach.

Do Something Option 2 - BCP Investment in further Gigabit network assets

9. This option examines BCP Council covering the additional cost of building the Gigabit fibre network to those areas that would otherwise not be covered by the commercial operators. This option recognises the unlikelihood of DCMS funding the network to unviable areas as described in Do Something Option 1. With this option there would be the need for the Council to comply with Subsidy Control legislation.
10. There are two sub-options as to how this could be deployed:
    1) Funding could be given to one of the incumbent wholesale telecommunications operators, currently operating within BCP, to augment their own network with the BCP funded one.

2) BCP could enter an arrangement with an alternative operator (AltNet) typically operating in the region, but generally not currently within BCP, to build a jointly owned network segment.

11. This option has been discounted for the following reasons:

    i. This option would require a significant financial outlay by BCP Council and whilst there would be general societal benefit it would be difficult to justify direct Council investment in real financial terms.

    ii. Whilst this option would help to meet some of BCP Council's Gigabit network objectives, particularly fuller roll-out, there remain uncertainties as to how the other wider objectives would be met. Therefore, even if BCP Council funding were available this is likely to lead to a sub-optimal solution for significant areas of the BCP region.

    iii. If sub-option 2, agreement with an AltNet, were to be pursued this would potentially open the Council up to various risks associated with operating a telecommunications network.

Do Something Option 3 – Neutral Host Operator Model - Market-Led

12. A further option to emerge from the RFI exercise is what is referred to as Neutral Host Operator (NHO) model.

13. Traditional practice with the UK telecommunications market is that the organisation that funds, installs and owns fibre networks will either run services over the infrastructure itself or will work in partnership with specific partners to do so, typically internet service providers (ISPs). In contrast the NHO model decouples the physical fibre infrastructure from the services delivered on it. The NHO, which manages and operates the network, provides a middle layer between the fibre owners and the ISPs running end-user services, in effect acting as a broker of the infrastructure.

14. The decoupling of the infrastructure from the services creates a wider market for fibre ownership beyond traditional telecom companies helping to encourage investment from non-telecom investors. The NHO model also lowers the barriers of entry to market for service providers. These service providers are not only providers of internet service (ISPs) but are those who require access to data networks to deliver a range of services such as mobile phone (5G) operators, wireless ISPs, security and CCTV through to education and health services. By providing open access to the fibre and by being 'neutral' as to who owns it, the focus falls on ensuring that the fibre is available irrespective of the owner's motive. This helps to ensure that services are available to solve the problems determined by the end users thereby creating an innovative, vibrant marketplace for service and solution providers.

15. Whilst not common within the UK the NHO model is used successfully overseas and responses to the RFI indicate that there is strong interest from telecommunication organisations in this model.

16. **There are two NHO options**. In this Do Something Option 3 – NHO Market-Led option there is no barrier to any Neutral Host Operator coming and establishing itself within BCP, working with existing and future asset owners and service providers. In this option the Council simply adopts a neutral welcoming position.

17. The Do Something Option 3 – NHO Market-Led option has been discounted for the following reasons:

    i. Whilst this option has significant potential in helping to deliver many of the Council's Gigabit fibre objectives there is less certainty when the market would be willing to move, which could delay the realisation of the significant societal and economic benefits.

    ii. The final outcomes are still likely to be sub-optimal.

    iii. The Council has limited influence over the timing and realisation of its Gigabit fibre objectives

    iv. The income generation potential for the Council is likely to be sub-optimal.

Do Something Option 4 – Neutral Host Operator Model - Working with BCP Council (Preferred Option)

18. This option is identical to 'Do Something Option 3', except in this NHO option the Council adopts a proactive approach to encourage the market to establish itself early within the BCP area. This option would require a formal open NHO procurement/selection process in order to comply with Subsidy Control legislation.

19. In this option the Council would typically:

    1) endorse the NHO initiative, including licencing the Council brand in association (with safeguards in place).

    2) provide finite supporting resources and expertise to help successfully establish the NHO within the BCP area.

    3) offer all or part of its fibre assets for use by the NHO, under a separate commercial agreement, similar to other potential fibre owners.

20. The NHO would typically be responsible for:

    1) operating and managing the core network as a wholesale telecommunication provider.

    2) negotiating access arrangements with other existing and future fibre owners within the BCP area.

    3) attracting further investment to build out other parts of the Gigabit network across BCP.

    4) creating the ISP marketplace and attracting ISPs to the platform.

    5) acquiring broadband market share

21. This 'NHO Model - working with BCP Council' option is the preferred option for the following reasons:

    i. This option has the greatest prospect of meeting the Council's Big Plan ambition of having the best digital connectivity in the country and delivering against its key Gigabit objectives as outlined in the RFI.

    ii. Financial commitment and commercial risks are minimised for the Council in meeting its Gigabit objectives.

    iii. Council involvement enables it to exercise greater influence over the delivery of its objectives.

iv. Council involvement helps to strengthen and build the market for the NHO.

v. Council involvement strengthens the Council's negotiating position in terms of income generation potential.

vi. This option opens up the opportunity for existing asset owners to open up, share and monetise their assets, which in turn may reduce the pressure to dig up the highway for 'duplicate' duct runs.

vii. Responses to the RFI indicate that the establishment of an NHO would give rise to provision of new and innovative services and offerings such as affordable broadband in deprived areas.

viii. Responses to the RFI indicate that there are companies willing and able to work with BCP to establish a NHO model, subject to due process.