Title of Report: FFNI Update	Officer Presenting: Head of Business Author: Digital Services Manager

1 Purpose of Report/Recommendations

1.1 To update members on the progress of the FFNI project with BDUK

1.2 To update member on the outcome of the tender exercise and next steps

2 Background

2.1 Local Full Fibre Network (LFFN) - The Local Full Fibre Networks Programme is a capital funding pot managed by the Department for Digital, Culture, Media and Sport. It is intended to help local bodies harness public sector connectivity and aggregate private demand.

2.2 Running fibre into areas that have none to connect council premises, the project will allow Telco's to use the ducts to run their own fibre, making it accessible to business and citizens in that area that was previously without fibre and not in the plans for Telco's due to high fibre running costs and a poor return on investment.

2.3 The aim is to deliver the fastest and most reliable digital communications network available.

2.4 A key benefit to Council running its own fibre will be resulting savings on line rental costs per year for private WAN circuits, increased speed at each site and associated increases in efficiency.

2.5 Members previously approved the appointment of a telecommunications consultant, Authorisation to enter in the consortium agreement, Authorisation to launch procurement and Authorisation to award contract

3 Key Issues

3.1 Fibrus has been identified as the Preferred Bidder for the FFNI LFFN project.

3.2 FFNI has passed Checkpoint C approval and DCMS has confirmed the Grant Funding for the project and authorised FFNI partners to contract with Fibrus.

3.3 FFNI will use approximately £24 million of DCMS funds to enable Fibrus to deliver fibre broadband infrastructure across Northern Ireland.

3.4 Fibrus will connect public sector buildings by extending its own fibre broadband network and by commissioning Openreach to extend the Openreach fibre broadband network. Both approaches will directly increase the availability of fibre broadband to business and domestic premises close to the path of the network extensions. The Fibrus approach is also likely to bring increased competition to the NI broadband market, driving further economic benefits.

3.5 The project will connect 969 public sector buildings, ensuring that almost all Council, Health, Fire and Ambulance sites in Northern Ireland are connected with future-proofed fibre connectivity.

3.6 The commercial model for the Fibrus network infrastructure provides for connectivity with minimal revenue cost for the 35-year life of the fibre, and offers opportunities for substantial further network cost savings and service improvements through its design.

3.3 The Openreach network infrastructure provides a tried and tested approach to access connectivity from a wide range of service providers.

4 Financial, Equality, Legal, HR, Improvement, Rural Needs and other Implications

4.1 The project will deliver connectivity to 52 of the Council's sites.

4.2 In addition to the connections to public sector sites, it is estimated that the extension of both the Openreach and Fibrus networks will also make fibre connectivity available to an estimated 368,594 premises across Northern Ireland that are adjacent to the network routes.

4.3 In respect of its own network extension, Fibrus estimates that it will make its fibre available to around 128,951 additional premises.

4.4 The number of premises passed by the Openreach infrastructure is not available, and so it has been roughly calculated pro rata from the estimated Fibrus network extension figures, giving an estimate of up to 239,643 premises in Northern Ireland.

4.1 The Fibrus and Openreach networks are estimated to make fibre broadband available to around 31,492 premises in the Derry and Strabane Council area

4.2 By connecting public sector buildings, the project is expected to directly improve the availability of gigabit capable fibre for homes and businesses by accelerating fibre rollout, and by increasing the locations in scope for commercial fibre investment

4.3 In doing so the project will meet several strategic objectives and enable a range of benefits:

4.4 **Improved economic performance:** through better and more widespread digital infrastructure provision enabling more businesses to locate and grow, increasing sustainable employment opportunities, and attracting high value jobs for individuals who in turn make financial contributions into the local economy.

Related benefit:

- An improvement in GVA1 of £10,168,908 in the Council area's economy over the next 15 years.

4.5 **Improved individual wellbeing & community cohesion:** by enabling better and more digitally connected individuals, communities and society at large.

Related benefit:

- Reduced social exclusion as more individuals and groups typically in rural areas will have the ability to digitally connect with each other.

4.6 **Improved Public Sector service efficiency and delivery:** By enabling the council to work more efficiently and cost effectively, confident in the knowledge that the

council has enough bandwidth to support delivery, and citizens have enough bandwidth to receive the services.
Related benefits:

- Reduced operating costs by moving more council services available online.
- Improved quality and customer satisfaction by creating more accessible services for users, as well as improving the ways in which citizens can contact the council.
- Improved delivery and quality of council services such as Data and telephony, and future smart technologies, which are reliant on high quality bandwidth.

4.7 **Greater environmental benefit:** Through a reduction in the need to travel for work purposes.
Related benefit:

- A reduction in CO2 emissions, which has not been quantified at this time.

4.8 The FFNI contract will also enable Fibrus, a Northern Ireland based company, to support the creation of new jobs in Northern Ireland throughout its supply chain.

4.9 The project is an economic development priority and Local Government in Northern Ireland has a key role to play in bringing fibre to our region.

4.10 In order to determine the possible cost implications of integrating the FFNI infrastructure into the Council's network arrangements, three scenarios were considered in detail. We considered the costs of the current network provision, the cost of the new network provision that would be implemented if FFNI infrastructure were not available, and the cost of the same new network provision based on FFNI infrastructure.

4.11 The most appropriate comparison is between these latter two options. That is, the cost of a new network work using FFNI infrastructure, compared with the cost of what the Council would otherwise do.

4.12 **Current Network:** The current network is an Atlas MPLS solution for smaller sites on Openreach infrastructure, with some point to point Openreach connections and an Eir internet connections.
Most sites are on a rolling contract. CPE is generally due for renewal and some sites will require upgraded equipment. The total current network cost is approximately £70,650 per year.

4.13 **Replacement Network:** Council wILL re-procure using the same model as currently, on a like for like basis, based on similar infrastructure to the current network. The council would re-procure WAN and VOIP services at the same time. The estimated cost of a new network is £472,504 over 5 years on a like for like basis.

4.15 Replacement Network on FFNI infrastructure: Under the FFNI arrangements, the council would move to a new FFNI infrastructure delivered by Fibrus.

- In order to make use of the FFNI infrastructure, the Council would continue on rolling contracts to allow time for the construction of the new FFNI connection.
- The Council would then procure a replacement WAN incorporating the new infrastructure. There could be some advantage to using a shared framework procured by an FFNI Consortium Member, but the Council is likely to run its own combined WAN and VOIP procurement. In any case, the cost and effort of procuring a network based on FFNI infrastructure is very similar to that of procuring an alternative.
- Most network costs would remain unchanged. In general, there is no reason to expect that the new WAN Supplier's design, installation and project management costs would be different for a network based on FFNI infrastructure.
- There are no expected additional costs for Routers, Switches and related connectors. The equipment necessary to operate with FFNI infrastructure is not materially different from that required for an alternative.
- There could be upwards pressure on backhaul costs because of the increase in bandwidth capacity for site connections. However, since the additional capacity itself does not increase network traffic, it should be possible in the WAN procurement to avoid such increases by various means.
- In most WAN replacement projects, there is a charge for installing replacement infrastructure connections. In FFNI, these costs are met from grant funding, either through the Fibrus charges, or through a separate grant claim for WAN supplier infrastructure costs.
- It is estimated that a small number of sites will require power and containment upgrades to provide a location suitable for fibre connectivity. The modest cost of this will be met by DCMS grant funding.
- We expect that the new WAN supplier may make a charge for service management and contractual onboarding of Fibrus as an infrastructure provider, and for the technical and physical work of connecting to the Fibrus network. These costs will be met from DCMS grant funding. Such costs are unlikely for the sites that are to be connected with Openreach infrastructure.

- Migrating to full fibre will make it necessary to replace the arrangements for telephony for any sites that use the data connection bearer for analogue telephony. However, the cost of doing so is not material.
- The estimated total 5-year cost of a replacement network incorporating the FFNI infrastructure is £454,803.

4.16 **Conclusion** Over 5 years, the effect of using the FFNI infrastructure is estimated to cost £17,701 less than the alternative replacement network. Significant further savings are likely to be made possible as a result of the increased capacity and future proofing of the infrastructure supporting the Council's network. Examples may include lower cost internet connectivity, support for public Wi-Fi and CCTV, lower cloud service connection costs and other opportunities. These have not been quantified at this time.

4.17 The details of the comparative analysis are shown in the DCSDC BC Analysis Spreadsheet.

4.18 **Other cost implications:** No other costs are expected, other than those related to staff costs and FFNI Operations Team contributions, which have been previously identified separately.

5 Recommendations

5.1 Member approve the award of the contract to Fibrus following the successful tendering process.

5.2 Members agree for Officers to initiate the project and bring regular updates to committee.

5.3 Officers develop a clear plan for the migration of WAN to the new infrastructure

Background Papers

None.