

ITEM No ...15...

REPORT TO: CITY DEVELOPMENT COMMITTEE – 9 SEPTEMBER 2019
REPORT ON: PUBLIC WI-FI/5G PROJECT
REPORT BY: EXECUTIVE DIRECTOR OF CITY DEVELOPMENT
REPORT NO: 266-2019

1 PURPOSE OF REPORT.

- 1.1 To update Committee on the progress in delivering the public Wi-Fi / 5G project at Dundee Waterfront and adjacent areas.

2 RECOMMENDATION

- 2.1 It is recommended that the Committee:
- a Notes progress made towards delivery of the project.
 - b Remits the Executive Director of City Development to conclude a Heads of Terms agreement with the proposed academic research partner.

3 FINANCIAL IMPLICATIONS

- 3.1 Capital costs will be met from the Growth Accelerator Model (GAM) allocation for digital infrastructure.
- 3.2 The project will achieve revenue cost neutrality after the initial start-up phase.

4 BACKGROUND

CONTEXT

- 4.1 The Council's Digital Strategy has set out an ambition for the city to become a Smart City with the highest possible quality of digital connectivity to improve quality of life and economic development. This project seeks to develop the citywide infrastructure necessary to deliver that ambition.
- 4.2 The Council has successfully bid for Growth Accelerator Model (GAM) funding of £2 million from the Scottish Government and Scottish Futures Trust to invest in Digital Connectivity in and around the Central Waterfront Development and to support the future needs of SMART city management, Internet of Things and Wireless Communications.
- 4.3 Reference is made to Article X of the Minute of Meeting of the City Development Committee of 11th March 2019 where committee noted progress on delivery of the Digital Playpark and Waterfront Place. The Growth Accelerator funding for Digital Connectivity will deliver both the Digital Playpark and the 5G testbed and public Wi-Fi network within the Central Waterfront.
- 4.4 The project objectives are to:
- a Create a working testbed for 5G services within the Central Waterfront area
 - b Provide high quality free public Wi-Fi services within the Central Waterfront and future development areas

- 4.5 5G is short for 'fifth generation mobile networks'. It will provide much faster data download and upload speeds. 5G will offer connections that are up to twenty times faster than current connections, with average download speeds of around 1GBps expected as the technology evolves. The networks will help power a rise in Internet of Things technology, providing the infrastructure needed to carry very large amounts of data, allowing for a smarter and more connected world.
- 4.6 A number of testbeds for 5G have been established across the UK including the Orkney Islands, Liverpool, Bedford, Malvern, Cumbria, Inverness-shire and Perthshire. Use cases include smart farming, health care in the home, cyber security, increased manufacturing productivity, enhanced visual experience for tourists, patient care & monitoring and self-driving cars.
- 4.7 The development of a 5G testbed within Dundee will allow Dundee to position itself as Scotland's leading city in use of 5G. It is expected that 5G technology will transform the way in which public services are delivered in future years and will open up new economic opportunities for citizens, businesses and academic organisations. The 5G use cases could support the improved delivery of public services or support other channels of interest such as tourism, gaming or cyber-security.
- 4.8 Early work to progress the project has been recognised by the Scottish Government who announced an indicative £2 million for 5G testbeds in the Tay Cities Deal Head of Terms. An Outline Business Case is currently being prepared which, subject to approval, will attract over £2 million of additional investment to further develop the 5G testbed and ensure that learning is applied across the wider Tay Cities Region.
- 4.9 The second objective of the project is the provision of free public Wi-Fi in the Central Waterfront and surrounding development areas. This will provide citizens and visitors with access to high quality internet connectivity breaking down digital exclusion and contributing to the attractiveness of Dundee as a visitor destination.
- 4.10 The Public Wi-Fi service shall offer a high-quality end user experience encompassing good connection speeds (minimum 18Mbit/s download to each End User). It will be connected by fibre-optic cables and be connected by existing ducting & new fibre infrastructure, using existing and new street furniture. It will be designed and deployed to provide predictive performance and to ensure end user experience/quality of service will not degrade during the busiest periods. The service will be capable of being ramped up to support specific events such as concerts in Slessor Gardens. The service shall be able to facilitate the advertising of local and other information to end users. Decisions on the content would be made by Dundee City Council or other appropriate body as agreed by Dundee City Council. The Public Wi-Fi service shall have a content filtering capability which can block access to web sites by category. There are separate Wi-Fi solutions in the V&A and Train Station and the systems will be configured so that there is no interference
- 4.11 The Public Wi-Fi service will initially be deployed within the Central Waterfront area defined for GAM funding purposes and this service will be fully funded with GAM monies. The supplier will then be provided with access to Dundee City Council owned assets in Development Areas 1 and 1a to enable wider deployment of the Public Wi-Fi network and to investigate commercial opportunities. These area are defined in the map in appendix 1.
- 4.12 A key part of the procurement approach will be to seek cost neutrality in the medium term, through providing access to Dundee City Council assets (e.g. lighting columns), outside the Waterfront area, to offset any operational charges required to manage the 5G testbed and Public Wi-Fi within the Waterfront. This can be achieved by offering further Development Areas where successful initiatives, once tested within the 5G testbed, can be rolled out commercially.

PROJECT PROGRESS

- 4.13 To successfully procure a project of this nature, officers have identified the need for early and ongoing engagement with potential bidders:
- a As part of early scoping work, an industry day was held on November 29th 2018 to outline the project objectives, raise industry awareness and inform scoping work for the project
 - b Specialist legal and procurement advice concluded that a competitive dialogue route should be used to enable dialogue with short-listed bidders that will shape how best to deliver the project outputs. The process involves a number of stages. The pre-selection of bidders, the issuing of an Invitation to Participate in Dialogue (ITPD), a dialogue process with selected bidders, followed by the issuing of an Invitation to Submit Final Tender (ISFT). The procurement process can take up to 1 year or longer to conclude.
- 4.14 The pre-selection process took place in May/June 2019. Officers are preparing the ITPD in advance of the dialogue phase taking place in September / October 2019. It is anticipated that, subject to satisfactory conclusion of the procurement stages, and selection of a preferred bidder, the contract will be awarded in early 2020 with initial works within the Central Waterfront taking place in the first half of 2020.
- 4.15 Enabling infrastructure work will be required in advance of the main contract. There may be a requirement to replace some lighting columns, to address load weighting issues, but this and other works will depend on the solution put forward by the preferred bidder. Works will be planned with the aim of minimising disruption and will be scheduled to avoid conflict with the events programme within Slessor Gardens. Should existing lampposts require replacement these will be stored with the aim of re-use in other parts of the city.
- 4.16 In order to deliver 5G use cases and ensure that the project has effective and strong links with the wider digital work being undertaken across the city, officers have sought to secure a research partner for the project. Work is ongoing to conclude a Heads of Terms agreement with the School of Design & Informatics at Abertay University. The School will offer access to expertise in Cybersecurity, Internet of Things and Mobile Games Development through existing R&D centres through 'use case' proposals. The School will also:
- Provide access to the Janet network to provide network access to the proposed 5G Testbed & Public Wi-Fi located in Slessor Gardens
 - Host server and locate antennae on Abertay estate
 - Act as data processor in relation to user data collected during 'Use Case' R&D activities.
 - Provide yearly revenue costs for the above from Year 2 to the end of the 7 year contract.

5 POLICY IMPLICATIONS

- 5.1 This report has been subject to an assessment of any impacts on Equality and Diversity, Fairness and Poverty, Environment and Corporate Risk. There are no major issues.

6 CONSULTATIONS

- 6.1 The Council Management Team were consulted in the preparation of this report.

7 BACKGROUND PAPERS

7.1 None.

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26 August 2019



