

Digital Innovation and Efficiency Committee

Item No.

Report title:	Results of the Mobile Telephony Review
Date of meeting:	06 March 2018
Responsible Chief Officer:	Tom McCabe – Executive Director, Community and Environmental Services, Simon George – Executive Director, Finance and Commercial Services
Strategic impact <p>While the successful Better Broadband for Norfolk Programme has dramatically improved the availability and performance of fixed internet connectivity, the coverage of good mobile voice and data connectivity lags some way behind.</p> <p>The availability of ubiquitous, fast, reliable mobile voice and data coverage would provide significant benefits for economic development and improved quality of life for the people who live, visit and work in Norfolk.</p> <p>The committee is committed to working with mobile network operators to improve coverage. A mobile voice and data coverage audit has been commissioned and completed in order to better inform this dialogue and also to provide high quality up-to-date information to Norfolk's residents and businesses.</p>	

Executive summary

The focus of Norfolk County Council and its partners on broadband provision in the county has seen Superfast coverage improve from below 50% just a few years ago to 91% today, with firm plans to rise to at least 95% by April 2020. The council is also pursuing opportunities to increase availability of Ultrafast connectivity via fibre to the premise (FTTP) and working to support alternative network providers.

Meanwhile mobile telecommunications facilities have failed to improve at anywhere near the same pace, not least because government funding has only been available to support fixed broadband.

In November 2017 the committee agreed to commission an independent study of mobile coverage across the county. The tender process was completed in January and a specialist supplier called AWTG was the successful bidder. The work has now been completed and this report summarises the findings and next steps proposed to improve coverage where it is most needed.

The survey process covered over 5,000km of Norfolk's roads and 30 sites on foot, capturing over 6 million data points. This provided coverage maps for all 4 mobile network operators across 2G, 3G and 4G services.

The headline results are that where coverage is available the quality of service is good, so there does not appear to be a need to invest in replacing existing equipment. However, there are significant gaps in coverage across all 4 providers such that one call in 5 placed will currently fail.

The table below shows how often the signal strength matches the mobile network operators minimum target and that of Ofcom (the regulator). When using a regular phone the latter figure would be the one which would relate to a good user experience.

Metric	Summary of Main Findings
2G Coverage	<ul style="list-style-type: none"> • 98.83% Service availability on test handset based on MNOs defined threshold • 74.28% Service availability on test handset based on Ofcom defined threshold
3G Coverage	<ul style="list-style-type: none"> • 89.74% Service availability on test handset based on MNOs defined threshold • 65.68% Service availability on test handset based on Ofcom defined threshold
4G Coverage	<ul style="list-style-type: none"> • 98.92% Service availability on test handset based on MNOs defined threshold • 83.38% Service availability on test handset based on Ofcom defined threshold
Voice	<ul style="list-style-type: none"> • Voice performance acceptable when user is within the coverage area. <ul style="list-style-type: none"> • 82% call attempt success rate and 98% call completion rate. • Average voice quality is 3.93 out of 5 • Average call setup time is 3.27 seconds
Data	<ul style="list-style-type: none"> • Data performance acceptable when user is within the coverage area. <ul style="list-style-type: none"> • 14.54Mbps average DL speed / 7Mbps average UL speed • Average download time for webpage is 6.86 seconds • 86.46% of web browsing tests completed successfully • 84.90% of video streaming tests completed successfully

Suitable county council structures are available for use in many locations which currently have poor coverage so there is reason to believe the council will be able to assist in improving coverage.

Recommendations:

1. That the committee note the information provided by the survey.
2. To approve the public release of the coverage maps and associated data via the council's website.
3. To work with the Mobile Network Operators to facilitate early access to council owned assets to improve coverage as soon as possible.
4. That the committee note the impact of code powers on charges.
5. To implement the new, lower code powers based rental rates without delay.
6. To consider the proposal to repeat the survey process for poor coverage areas only in 12 months' time to show what progress has been made.

1. The Background and Context

- 1.1. The current mobile phone coverage levels across Norfolk leave much to be desired and are a source of considerable frustration to residents, visitors and local businesses

Norfolk county council therefore wishes to use its assets and its influence to improve the consistency and quality of mobile voice and data coverage across the county.

The survey and engagement with the four main suppliers along with a review of charges is intended to enable use of council and other public sector structures to host equipment to fill current gaps in coverage. Where possible, fibre backhaul will also be provided to improve mobile data network capacity.

2. Scope of the completed and proposed activities

- 2.1. The survey has now been completed and the council is now in possession of a wealth of data with which to engage in well informed dialogue with the Mobile Network Operators (MNOs). The data will help to determine where they need to site additional equipment and where we have existing county council structures or can facilitate dialogue with other local public sector organisations such as the Police and district councils.

The MNOs have confirmed that they welcome the data and the approach of the Council in making more potential sites available, and that it is something they wish to explore. However, they have highlighted that the economics of deploying infrastructure, particularly in rural areas, remains challenging for operators

It has become apparent that the limited coverage in areas like Hunstanton has been exasperated by the high fees previously demanded to site equipment.

The full report provided by AWTG is proposed to be published along with the online maps and associated data on the council's website.

The locations of the most suitable Norfolk County Council assets (including fire towers) is included at appendix 1.

2.2. Timing

The survey results have been shared with the MNOs and calls set up to discuss the results and answer any queries.

The results are planned to be published immediately after Digital Committee meeting, subject to members approval.

Officers are now ready to schedule meetings with the MNOs to discuss site access requirements, including an appropriately reviewed schedule of rates and legal agreements in line with the new code powers and members direction with regards charging principles.

It is proposed that the survey exercise is repeated in 12 months time to assess the degree to which improvements have been made. However, the scope of the survey should be restricted to the areas which currently lack sufficient coverage (to minimise the cost of the exercise).

3. Financial Implications

- 3.1. The council currently generates £47k PA of income from telecommunications equipment placed on fire towers and £14K across the rest of the council's property estate. This income, though important to the council is small in relation to the potential economic development and community benefits provided by improving mobile voice and data coverage.

The income is expected to reduce at least in the short term, due to the Electronic Communications Code (schedule 1 of the Digital Economy Act) which came into force on the 28th December 2017. This code will affect renewals or new contracts due to the way rentals are evaluated. While this may be negative in terms of the council's income it does mean that some sites which were not previously financially viable for MNOs may become suitable and therefore provide new opportunities to improve coverage. The precise value of any reduction and the associated timescale is not fully understood at this time as new rates are being established over time in light of code powers.

It is proposed that the council moves swiftly to assess the new rates and apply them for any new rentals, this should assist MNOs to commit to new sites sooner and make more rural sites economically viable. However, it should be noted that although the rates will reduce, they must still be in line with market rates in order to avoid state aid issues.

In the medium to longer term overall rental income is likely to increase as demand for 4G (and eventually 5G) causes the MNOs to require many more sites.

The cost of repeating the mobile network review in 12 months' time will be subject to tender and can be minimised by reducing the scope to the areas with the worst coverage.

4. Issues, risks and innovation

- 4.1. There are no specific risks arising as a result of this item.

Officer Contact

If you have any questions about matters contained in this paper or want to see copies of any assessments, e.g. equality impact assessment, please get in touch with:

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