

Update on the roll out of digital infrastructure in Surrey

Purpose of report: To provide an update on the delivery of improvements to digital infrastructure across Surrey, including changes introduced by Central Government to the way in which public subsidy is administered to support digital connectivity. This update report focuses on those interventions which will drive the greatest improvement in connectivity, in what is a complex system for the delivery and operation of broadband, 4G Long Term Evolution (Lte)/5G and other wireless technologies.

The report sets out the activities and collaborative action by various organisations across the public and private sector which are driving rapid improvements in digital connectivity, to support the everyday activities of communities in Surrey and to create the conditions for businesses to thrive.

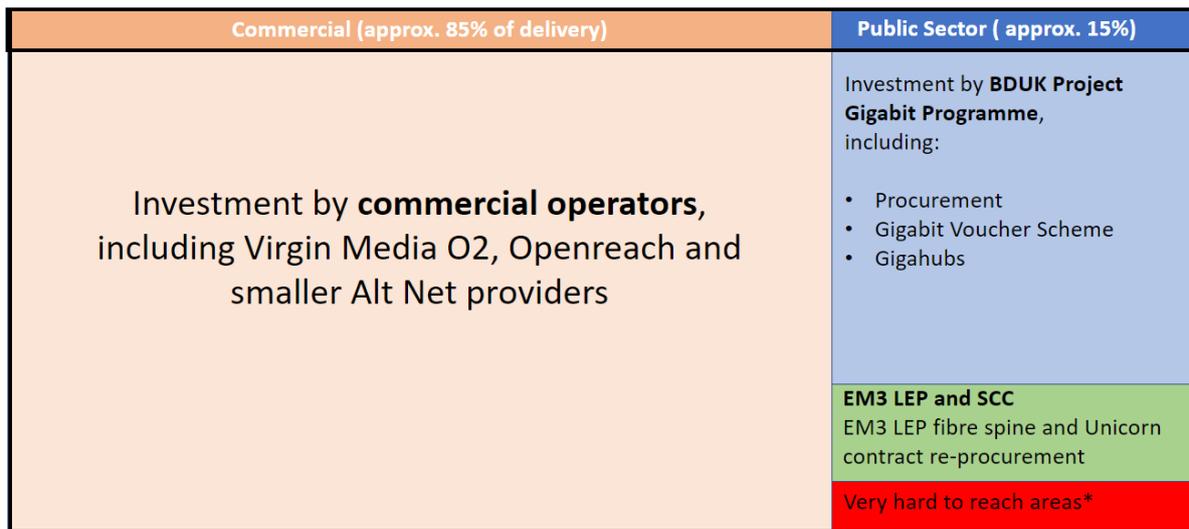
Introduction:

1. Currently more than 98 per cent of residents and businesses in Surrey can access Superfast broadband speeds of 30 Megabits per second (Mbps) +. Surrey County Council's (SCC) Superfast Surrey Programme made a large contribution to these improvements by providing upgrades to more than 84,000 premises between September 2012 and December 2020.
2. The technology has since developed and, by 2025, Government's ambition is for 85 per cent of the UK to be able to access, faster, gigabit-capable (1000Mbps+) speeds, increasing to 'nationwide' coverage by 2030. This increase in speeds will predominantly be achieved through laying full fibre to homes and business premises, although other technologies such as 4G Lte, 5G and satellite will also play a part for the very hard to reach areas.
3. The delivery of gigabit-capable infrastructure in Surrey is currently being driven predominantly by the private sector, with SCC playing a role alongside other partners in championing investment and helping to reduce the barriers to infrastructure deployment.
4. The new wave of investment in gigabit-speed connectivity differs from the former superfast broadband programme in that the administration of public subsidy and measures to support connectivity in harder to reach areas are

being delivered directly by Building Digital UK (BDUK), rather than the funds being administered by local authorities.

- This report provides an update on the activities of various organisations in what is a very complex landscape and system for the delivery of improvements in digital connectivity. Figure 1 provides an illustration of the various organisations and interventions involved in the delivery of the next stage of gigabit speed infrastructure delivery

Figure 1 – Delivering gigabit speeds



*Options are currently being explored by BDUK to connect those 1 per cent of premises in the hardest to reach areas by alternative means such as satellite technology/ 4G/5G etc.

Expected improvements in digital connectivity

- In recent years there has been a marked improvement in digital connectivity across many parts of Surrey, particularly in the more urban areas. It seems that Surrey is broadly on track to meet the Government’s target for 85 per cent of UK premises to be able to access gigabit-capable broadband by 2025. Connectivity in Surrey is now slightly above the national average of 68.9 per cent, with 73.5 per cent of premises in Surrey being able to access gigabit speeds. This is a stark contrast to the position in November 2020 when only 16 per cent of premises were able to access gigabit speeds.
- This dramatic increase in speeds has mainly been achieved through investment by the private sector and is predominately due to the recent upgrades by Virgin Media O2. Improvements by Openreach and smaller network operators (Alt-Nets) have also contributed to this considerable shift in position.

8. Investment is also underway by Mobile Network Operators to increase access to 5G. Government set a target for “the majority of the population” to have access to 5G signal by 2027 and extensive investment by EE has meant that more of than 50 per cent of the population can already access EE’s 5G network.
9. Whilst the data shows marked improvements in digital connectivity within Surrey over the last two years, there is still more to do to ensure that all residents and businesses across Surrey can benefit from these improvements.
10. Reflecting SCC’s ambition to be on the front foot in promoting investment in digital infrastructure within the county, SCC has developed a Digital Infrastructure 2030 Vision Statement, as set out below.

“By 2030, the residents and economy of Surrey will benefit from a digital infrastructure and network with widespread provision of gigabit speeds and 5G wireless technologies. Excellent digital connectivity will act as an enabler to unlock the potential of new technologies for our communities, support sustainable growth, facilitate innovation and enable businesses to thrive”.

Private Sector – Future Investment Plans

11. Government’s expectation is that commercial network suppliers such as Openreach, Virgin Media O2 and other smaller infrastructure providers will deliver up to 85 per cent of the nationwide fixed network gigabit coverage over the next eight years.
12. Openreach’s network, which serves nearly 97 per cent of Surrey premises is now upgrading its network to a full fibre solution to enable gigabit speeds. Its current plans include the upgrade of at least 75 per cent of homes and businesses on 46 exchanges in Surrey by 2026. Information about the specific sites to be upgraded can be found on the Openreach website - [Where and when we’re building Ultrafast Full Fibre broadband | Openreach](#)
13. Virgin Media O2 has completed internal network reconfiguration works over the last two years to enable 60 per cent of premises in Surrey to access gigabit-capable speeds. Further improvements are now underway to future-proof the Virgin Media network, with the whole network being upgraded to full fibre by 2028.
14. Smaller network operators (Alt-Nets) are now also deploying gigabit-capable broadband infrastructure to Surrey residents. These Alt-Nets, such as Box Broadband, Broadband for Surrey Hills (B4SH), Netomnia, F&W (Hey

Broadband), Swish Fibre, Toob and Trooli and others primarily target market towns such as Bagshot, Camberley, Cranleigh, Dorking, Farnham and Godalming. The [SCC website](#) includes a list of all locations that have been announced by commercial operators.

15. The substantial investment by private operators is welcomed news, but for the most part, all of these upgrades and plans involve installing infrastructure on, under and over the Highway. Whilst some activities will use existing infrastructure such as ducts and will be almost seamless, other works such as installing new poles, chambers and cabinets or clearing/replacing that require associated traffic management will create more disruption.
16. To mitigate impacts, SCC Highways and Streetworks teams hold regular joint meetings with communication providers to highlight SCC's expectations of their work, identify possible conflicts with other works taking place and support clear communication with residents on any impact whilst the works are underway.
17. The Government has made substantial changes to planning legislation over the past few years, which impacts the installation of digital infrastructure. Some infrastructure can now be installed under Permitted Development Rights. Where planning permission is required, such as for the installation of large masks, this is considered by the local planning authority (i.e., the borough and district authorities).
18. As Openreach deploys more and more full fibre infrastructure into Surrey, it is its existing copper-based phone service is gradually being shut down and this will be completed by the end of 2025. This impacts all telephones that are plugged directly into a wall socket (i.e., not via a router), security alarms, lift alarms, card readers and medical pendants. Further information about these changes can be found on the British Telecom (BT) website [All-IP products and services \(btwholesale.com\)](#).

Government Intervention

19. It is expected that commercial operators will provide gigabit-capable speed connectivity to approximately 85 per cent of premises within the UK. However, for those areas which are not considered to be commercially viable, public-sector intervention and subsidy may be required. The way in which this support is being administered differs from the former Superfast Broadband Programme.
20. To connect premises that are not included in any commercial plans, Building Digital UK (BDUK), a specialist delivery Executive Agency of the Department for Digital, Culture, Media and Sport (DCMS), has developed a series of demand-side and supplier-side interventions that form part of the £5 Billion Project Gigabit Programme.

21. As part of the Project Gigabit Programme, BDUK are leading the delivery of procurement processes to target investment at premises that are not included in commercial rollout plans. In August 2021, the Government announced that Surrey would benefit from significant investment estimated at between £101 million and £171 million to connect approximately 100,000 premises. The exact number, location and cost of these premises is still being determined. The latest information from BDUK indicates that the improvements will commence following the award of the procurement contract in December 2023.
22. An Open Market Review and Public Review has been completed to determine where commercial operators are intending to deploy gigabit capable infrastructure. Those areas that are not included in the commercial deployment plans will be the target for investment through the Project Gigabit Programme. More information on the initial findings from the Open Market Review and Public Review can be found in Annex 1.
23. One of the other interventions included within the Project Gigabit Programme is the Project Gigabit Voucher Scheme. SCC has played an active role in helping to promote the scheme and more than 3,700 residents and businesses across Surrey have already benefitted from the scheme, with a total of £6.7 million having been made available towards the cost of delivering gigabit infrastructure in their communities. However, the Gigabit Voucher Scheme in Surrey will be completely paused by BDUK on 15 July 2022 for four to nine months while the Project Gigabit procurement activity is underway.

Enterprise M3 Local Enterprise Partnership (LEP) Fibre Spine

24. Enterprise M3 (EM3) LEP are proposing to build a 94km fibre spine in an S Shape between Basingstoke and Guildford that will connect several locations in Surrey and Hampshire. The fibre spine will complement measures by the private sector and will provide capacity for commercial operators to connect their networks to homes and businesses along the route.
25. Formal market engagement is currently underway to inform the final specification and delivery approach for the scheme, with the intention of taking forward the delivery once a suitable delivery mechanism has been agreed.

SCC role

26. Over the last two years, the commercial providers have been the main driver of the considerable improvements in digital connectivity. BDUK investment will increasingly be deployed alongside the private investment to support those areas which may otherwise be missed from the commercial deployment plans.

In comparison, SCC has a relatively limited role and does not have the financial resource to provide public subsidy in the way that BDUK can through its £5billion Project Gigabit Programme.

27. SCC does, however, have an active role to play as an enabler, to support and promote Surrey for investment by the private sector and BDUK. Specifically, SCC is currently looking at ways in which SCC owned assets can be used to support 5G and other wireless technologies, through installing devices on existing infrastructure such as streetlights. In doing so, SCC will not only increase the pace and ease of 5G roll out, but it may also create a modest source of income generation for the authority.
28. Project feasibility work is now underway to explore the use of local authority assets further, including the development of appropriate pricing structures and legal agreements. The scope of the project will be considered for approval by the Cabinet Member for Transport and Infrastructure in September 2022.
29. In a similar vein, SCC is also exploring how to maximise the benefits from the re-procurement of the SCC BT Unicorn services contract. The BT Unicorn contract provides critical Wide Area Network (WAN) and Wi-Fi services to Council sites, expires in August 2024. The new contract will see the investment of £8.23 million to provide gigabit capable connectivity to all Council sites.
30. Through the social value contribution by the selected supplier there is an opportunity to connect more premises to gigabit capable infrastructure. The provision of full fibre infrastructure to SCC sites will enable, a further six residential or business premises (on average) to be connected in the vicinity of the SCC site. This is expected to result in around 1,020 additional connections being achieved. In addition, free fibre connection and free broadband connectivity will be provided for up to 21 SCC managed care homes for a 3-year term.

Conclusion - Impact for residents and businesses

31. Given the considerable improvements to digital infrastructure across Surrey, Surrey residents and businesses are starting to benefit from access to gigabit speeds. These improvements will continue as large and small suppliers alike continue to future proof their network and invest considerable sums in gigabit capable infrastructure.
32. The improvements will not only support existing technological capabilities, such as telecommuting, but will enable innovation across communities and businesses. Sectors within the economy, such as the gaming cluster and cyber cluster will benefit from faster download and upload speeds and new technologies will emerge and be adopted across Surrey as a result of the

improved infrastructure. In doing so, this will contribute to a growing Surrey economy and improve the quality of life for communities.

Recommendations:

33. The Select Committee are asked to:

- Note the update report on the delivery of digital infrastructure

Next steps:

A report will be presented to the Cabinet Member for Transport and Infrastructure in September 2022 to seek approval for the SCC project to make available SCC's assets to support the roll out 5G and other wireless technologies.

Written briefing notes will be produced to provide members with updates on the roll out of digital infrastructure across the County, as and when appropriate. The [SCC website](#) is also kept up to date with information about digital infrastructure coverage across Surrey.

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Sources/background papers

Annex 1 – Open Market Review and Public Review

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