

<b>DATE: 22<sup>nd</sup> February 2024</b>	<b>ITEM: 9</b>
<b>SEC Joint Committee</b>	
<b>Report Title: Digital Workstream</b>	
<b>Report of: Carol Thomas, Digital Lead</b>	
<b>Programme Implementation Director:</b>	
<b>Accountable Programme SRO: Alan Richards, Executive Director (Environment and Place)</b>	
<b>This report is public</b>	

## Executive Summary

### 1. Recommendation(s)

- 1.1 To note the progress in respect to the delivery of the South Essex Full Fibre Digital Infrastructure.
- 1.2 To note the outcomes being realised by the Local Authorities in respect to utilising the SEC Digital Infrastructure.
- 1.3 To note the progress and impending delivery of the South Essex IOT LoRaWAN Network
- 1.4 To note the current direct and indirect benefits being realised through the South Essex Digital Programme
- 1.5 To note the improvements in FTTP coverage being realised across South Essex through private sector investment.

### 2. Progress Update

#### 2.1 Fibre Network Delivery

- 2.1.1 The ASELA Digital Programme has rolled out more than 280km of full fibre Digital Infrastructure across South Essex since August 2020. This has been funded by grants from DCMS and MHCLG totalling £7.5m, which were successfully secured by the Digital Programme. This new Digital Infrastructure links around 230 public sector sites including libraries, sheltered accomodations, schools, fire stations as well as community and village halls.

In addition to this, we have joined up what were previously isolated areas across the region with fibre backhaul links. The full fibre Digital Infrastructure is available for use at no cost to the public sector irrespective of the bandwidths delivered for a period of 15 years.

- 2.1.2 The work has progressed to time and budget and significantly raised the profile of South Essex as a result of close working with DSIT and South Essex has received very positive feedback on the project rollout.
- 2.1.3 The South Essex Digital Programme secured further grant funding from Highways England's Lower Thames Crossing project (£900K) in September 2022 with part of this funding being used to connect the Brentwood area to the rest of the region via Basildon.
- 2.1.4 The ASELA Digital Programme has secured further grant funding from SELEP (£500K) to both connect Southend to the rest of the region as well as deliver fibre connections to public buildings predominantly within Southend, which is now nearing completion with a further circa 50 sites in being enabled.

## **2.2. Delivery of Services on the Dark Fibre Infrastructure**

- 2.2.1 South Essex Digital Programme supported Thurrock Council's wide area network (WAN) re-procurement to make use of the deployed SEC Full Fibre Digital Infrastructure to enable significantly increased bandwidths and significant cost savings. Thurrock Council WAN sites (80% of the total) are now running over the South Essex digital infrastructure.
- 2.2.2 Following a procurement and subsequent delivery which has now completed we have deployed a very cost effective and innovative solution (named the middle layer) to facilitate the delivery of an overlay internet service of 1 gigabit per second (Gbit/s) for both download and upload (ie symmetric) across the remainder of the connected public sector sites.
- 2.2.3 Following a further procurement and the award of a contract to hSO we are now in the process of delivering a 1Gbit/s internet service to public sector sites across Brentwood, Rochford, Basildon, Castle Point, Thurrock and Essex CC Libraries. It is anticipated that sites will be able to migrate over to the new service by March '24, providing tangible cost savings and service improvement.

Based on information shared by respective local authorities the following benefits should be realised:

- Savings of 50-75% in respect to current connectivity costs.
- Uplift in the connectivity currently available from in some cases below 50Mbit/s to 1Gbit/s being available to each site.
- Enhanced capability of each site to improve the delivery of public services.
- Inclusion of Essex Libraries and Essex Fire & Rescue.



We are currently working closely with all our local authority stakeholders and would wish to place on record our thanks for their contribution and support in respect to this procurement process.

## 2.3 South Essex IOT LoRaWAN Network

2.3.1 The South Essex Digital Programme secured funding from Highways England to deliver a South Essex Council owned IOT Long Range Wide Area Network (LoRaWAN) which will be leveraging the South Essex Digital Fibre Infrastructure and its connectivity into public sector buildings.

2.3.2 procurement has been completed and a delivery partner namely Abzorh has now been contracted to design and deliver this network.

2.3.3 Delivery of the LoRaWAN Network will commence in early February 2024 with an anticipated completion in early September 2024

2.3.4 Delivery of a SEC IOT LoRaWAN is likely to attract significant investment into the region. It will provide a digital platform to:

- Support the delivery of public services through the deployment of council owned and managed sensors which will be a key component in collecting data across South Essex (environmental, transport, independent care). Workshops are being arranged with local public sector stakeholders across South Essex to identify potential needs and user cases.
- Enable South Essex to share data with other public bodies and academia which will inform future policies and strategies – environmental, transport, health.
- Enable South Essex to share data with centres of education – support local coding initiatives and promote digital skills amongst young people.
- Stimulate digital innovation and economic growth, providing local businesses with a test bed to pilot innovative ideas and solutions that can benefit communities.
- Develop opportunities to collaborate with other public sector bodies who own and operate LoRaWAN Networks including Norfolk and Suffolk County Councils in the East of England.
- Leverage opportunities to work with the likes of Highways England and the Thames Freeport
- The delivery of this network by South Essex Councils will continue to enable and support Essex CC's efforts in securing funding for future IOT/5G initiatives across the County of Essex. For South Essex this will be important as this will have a direct impact and benefit on local businesses, future 5G investment and through collaboration strengthen our strategic engagement with key stakeholders such as Highways England and the Thames Freeport.

If considered appropriate we would welcome the opportunity to undertake a presentation to elected members which would outline this project in more detail.



## **2.4 Direct and Indirect Benefits**

### **2.4.1 Sheltered Housing – Wellbeing and Digital skills**

The South Essex (ASELA) Digital Programme secured funding to leverage the full fibre now rolled out to all 29 Thurrock sheltered sites to address wellbeing and digital skills. A trial of the technology and its uses has been completed and all 29 sites have now been enabled. Trials involving representatives of the NHS, local Colleges and internal departments are still ongoing including utilisation of the connectivity to deliver on line interactive courses for residents, and NHS virtual messaging and communication to residents. The service is expected to be launched in the spring 2024.

Considerable interest has already been expressed in this project from Essex County Council and National Government.

### **2.4.2 Creating a Public Sector Network across South Essex**

As part of the Full Fibre Digital Infrastructure project we have been able to fund the provision of fibre point to point connections between Council main offices across the SEC region allowing each council to use for their own purposes and at no cost for the next 15 years.

Outcomes to this provision could include enabling shared services and aggregation and examples of this collaboration are already starting to emerge around the delivery of Public Realm CCTV), however further work is required to make all stakeholders aware of this capability which has the potential to create one public sector network across South Essex with significant savings for SEC authorities..

### **2.4.3 Village Halls and Community Centres**

The SEC Full Fibre Digital Infrastructure rollout has provided full fibre gigabit Connectivity to circa 20 Village Halls and Community Centres the South Essex region.

As a result of a revenue share model negotiated by the SEC Digital Programme as part of our MOU with ITS we are now funding free connectivity to all these sites for the first year. This funding will enable us working with our local council partners and Digital Essex to develop these sites as community digital hubs and focus on digital inclusion, digital skills and develop a sustainable model around creating these sites as local public service hubs.

The Social Value sites covered are as follows:

1	Ashingdon & East Hawkwell Memorial Hall	Ashingdon Road, Ashingdon	SS4 3HF
2	Bishop Hall Community Centre	Elizabeth Road, Pilgrims Hatch	CM15 9NP
3	Blackmore Village Hall	Nine Ashes Road, Blackmore	CM4 0QW
4	Hawkwell Village Hall,	Main Road, Hawkwell	SS5 4EH
5	Hockley Parish Hall,	58 Southend Road, Hockley	SS5 4QH
6	Hullbridge Community Centre,	Pooles Lane, Hullbridge, Hockley	SS5 6PA
7	Ingatestone and Fryering Community Association,	7 High Street, Ingatestone	CM4 9ED
8	Laindon Community Centre,	Aston Road, Laindon	SS15 6NX
9	Ashingdon Pavillion,	Ashingdon Road, Ashingdon	SS4 3HF
10	Mountnessing Village Hall,	Roman Road, Mountnessing	CM15 0UG
11	Rawreth Village Hall,	Church Road, Rawreth	SS11 8SH
12	Stambridge Memorial Hall,	Stambridge Road, Stambridge	SS4 2AR
13	Tipps Cross Rememberance Halle,	Blackmore Road, Doddinghurst	CM15 0DT
14	Shotgate Community Hall	7 Bruce Grove, Wickford	SS11 8QZ
15	Hockley Community Centre	Westminster Drive, Hockley	SS5 4XD
16	South Ockendon Village Hall	65, North Road, South Ockendon	RM15 6QH
17	East Tilbury Village Hall	Linford, East Tilbury	RM18 8YP
18	Essex Hackspace	Clements Hall Pavillion, Park Gardens, Hockley.	SS5 4HF

#### 2.4.4 Business Park Investment

The Full Fibre Digital Infrastructure deployed across South Essex is now Leveraging investment from the commercial sector who are looking to extend at their own cost the fibre connectivity into poorly served business parks.

Currently the primary focus is on Basildon but this initiative is likely to be extended to other parts of South Essex in the coming year.

## 2.5 South Essex Fibre to The Premise (FTTP) Commercial Investment

### 2.5.1 Current Status of FTTP in South Essex

Area	Full Fibre coverage (%)		
	July 2021	August 2022	January 2024
England	21.9	37.7	61.46
Essex	19.5	36.5	58.81
Basildon	27.6	44	62.41
Brentwood	37.2	55	76.46
Castle Point	2.3	4.5	25.15
Rochford	8.1	33.4	60.86
Southend-on-Sea	23.7	51.5	91.38
Thurrock	13.6	48.1	76.20

Source: [Think Broadband](#)

### 2.5.2 Analysis

Most areas have seen coverage move from below national average to above national average (c61%). Factors in achieving this has been increased market activity thanks to a raised profile for the area due to the South Essex Digital Programme.

The South Essex Full Fibre Digital Infrastructure delivered through funding secured from DCMS (now DSIT), SELEP and Highways England has directly stimulated investment in the likes of Brentwood and Ingatestone and is now being considered as transit into Rayleigh.

South Essex has generally outperformed comparable areas, which have not seen anywhere near the level of uplift over this period. Due to the current economic uncertainty some investment plans are being deferred which may have a knock on effect in South Essex.

However, in noting the encouraging overall progress particular reference must be made to Castle Point which despite some progress is the one borough which still lags behind. Further to our most recent report in October 2023 it should be noted that Openreach have now announced a major FTTP investment for Canvey Island which is most welcomed. However, timescales for deployment are still to be confirmed. Such an investment will contribute to a significant uplift in FTTP levels for Castle Point.

Despite this Openreach announcement as a Digital Programme we will continue to work closely with Castle Point Borough Council with a view to raising the profile of the Borough and in doing so hope to attract private sector investment. As part of this approach, we are also looking to leverage the South



Essex Network as a means of providing more accessible means of transit for interested parties.

### **2.5.3 Not Spots**

The South Essex Digital Programme has a target to achieve 100% full fibre coverage across the region by 2025 (Government target is 85% access to gigabit capable networks). The biggest issue to achieving this is likely to be in addressing 'not spots,' where businesses and residents can't get a 'decent broadband connection', defined by Ofcom as 10 Mbit/s download speed 1 Mbit/s upload speed (includes Urban as well as Rural). We continue to work with Digital Essex to raise this issue with DSIT and are continuing to explore potential funding options to make a more focused intervention.

### **2.5.4 Commercial Investment**

To note the following FTTP commercial investment which has already been delivered, is being delivered or is planned across South Essex:

- ITS – extending the Full Fibre Digital Infrastructure into Business Parks in Basildon/Southend
- Openreach – Canvey Island, Leigh on Sea, Grays, Purfleet Wickford & Billericay
- Digital Infrastructure (Be Fibre) – Brentwood and Ingatestone
- Netomnia – Grays/Stanford Le Hope & Purfleet potentially Basildon
- Full Fibre - Wickford
- Lit Fibre – Basildon
- City Fibre – Southend, Great Wakering, Rochford and Wickford
- VMo2 – Fibre Upgrade of existing DOCIS Network by 2028

## **3. Next Steps**

- To note the findings of this Report
- To ensure that the One Public Sector Network is promoted across South Essex with a view to supporting the shared service agenda.
- To endorse and actively support the delivery of the South Essex LoRaWAN Network

## **4. Reasons for Recommendation**

- 4.1 Continuing recognition of the importance of digital connectivity and the key enabling role that it has in driving and supporting other important strategies and initiatives within South Essex including Housing, Planning, Transport, Health and the Environment



**5. Consultation (if applicable) - N/A**

**6. Impact on policies, priorities, performance and community impact (if applicable) - N/A**

**7. Implications**

7.1. **Financial – .**

7.2. **Legal –**

7.3. **Other implications (where significant) – N/A**

**8. Appendices to the report – N/A**