

## **Cabinet**

**11 September 2013**



## **Digital Durham Programme Update and High Level Deployment Plan**

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### **Report of Corporate Management Team**

**Don McLure, Corporate Director Resources**

**Councillor Jane Brown, Cabinet Portfolio Holder for Corporate Services**

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### **Purpose of the Report**

1. This report is to:
  - (a) Update Cabinet of the Digital Durham superfast broadband programme's progress and builds upon previous reports to Cabinet dated 14 December 2011 and 6 February 2013.
  - (b) To seek approval for the Programme's high level Deployment Plan which has been drawn up in consultation with British Telecom, our strategic delivery partner.
  - (c) To advise that the information within this report will be disseminated as appropriate to the Members of the other Councils in the broadband partnership: Gateshead; Sunderland; Darlington; Hartlepool; Middlesbrough; Redcar and Cleveland; Stockton.

### **Background**

2. The Digital Durham Programme was set up with the vision to improve the economic and social wellbeing of all residents through the provision of superfast broadband access to all businesses, homes and communities in the Programme area.
3. The Local Broadband Plan (LBP) was approved by the Department of Culture, Media and Sport (DCMS) and Broadband Delivery UK (BDUK) on 6 March 2012. Durham County Council agreed to match BDUK funding of £6.93m within the Council's capital programme.
4. The programme is also coordinating fast speed broadband activities across Gateshead, Sunderland and the five Tees Valley authorities and a Memorandum of Understanding was signed between Durham County Council (on behalf of all Councils) and BDUK on 29 March 2012.

5. The Programme Board agreed to use the BDUK procurement framework and processes and British Telecommunications PLC (BT) was awarded the contract on 26 April 2013.
6. The Programme undertook a demand registration survey as an indicator of interest as well as a promotional tool. The survey was published via the Council's website, through key stakeholders including parents of school age children through schools and to local businesses. As a result approximately 10,000 questionnaires were returned which have been used to inform the programme.
7. To determine the areas of existing market failure in line with State Aid requirements, the Programme carried out an Open Market Review (OMR) to determine where the existing infrastructure and communication providers had broadband network provision or intended to extend their networks commercially in the next 3 years. This information was put out to public consultation.
8. The output of the OMR allowed the Programme to produce a map of the Programme area for superfast broadband (see Appendix 4) and published via the Council's website. A map was also produced of premises locations (see Appendix 5).
9. Areas on the map were indicated as:
  - (a) 'White' where there is current market failure and public funds could be used to subsidise improvements to broadband services. The white areas are known as the Intervention Area (IA).
  - (b) 'Grey' where there was one commercial operator with infrastructure available
  - (c) 'Black' where there were at least 2 commercial operators with infrastructure available.
10. Under state aid rules, public money can only be spent within the 'White' Intervention Area.

### **Highlights of the contract**

11. The high level outcome of the procurement is as follows.
12. Each authority area will see a proposed minimum of premises passed with superfast broadband in excess of 24 megabits per second (mbps) download speed:
  - (a) County Durham 96%
  - (b) Gateshead 95%
  - (c) Sunderland 95%
  - (d) Tees Valley 91%

13. The Tees Valley authorities requested that investment was prioritised on their Enterprise Zone areas and town centres rather than premises passed which has resulted in them having a lower overall percentage.
14. Premises passed refers to the number of premises that could connect to superfast broadband, that is a suitable connection is available. All premises need to elect to be connected and so the actual number of premises with superfast broadband will be lower than the number of premises passed.
15. The remainder of premises will receive a minimum of 2mbps download speed.
16. The contract with BT is for an open access network which means any Communication Provider (CP) such as: SKY, TalkTalk, BT Retail ,Redstone, Plusnet etc. will have access to the network and its services.
17. A Joint Programme office is now fully functional, based in the Education Centre in Spennymoor, which includes Digital Durham (Durham County Council staff), BT Group and BT OpenReach staff.
18. Programme mobilisation is now complete and the programme organisation, governance structure, programme roles and responsibilities and four jointly owned work-streams have been established, which are:
  - (a) Programme Management Office (PMO)
  - (b) Network
  - (c) Finance
  - (d) Communications/Marketing/ Demand Stimulation
19. The Council has also submitted an application to DEFRA for Rural Community Broadband Funding and this is in the final stages of approval. The application is for £1.98m and if successful, the funding will be ring fenced to Teesdale, Weardale, and Hamsterley. Due to the rural nature of these areas additional funding is being sort to ensure the maximum number of premises in these communities can have improved broadband services and wherever possible superfast.

### **High Level Deployment Plan**

20. The deployment plan at Appendix 3 is for the whole programme area of Durham; Gateshead; Sunderland; Darlington; Hartlepool; Middlesbrough; Redcar and Cleveland; and Stockton and is based on the Speed and Coverage Template (SCT) which formed part of the procurement documentation and the contract with BT. The SCT sets out BT's solution in terms of speed and coverage down to post code sector level and is also a contractual commitment to the number of premises which will be able to access their extended network due to this public investment.
21. BT has designed a high level deployment plan based on 9 phases of work commencing April 2014 and ending September 2016. The first 8 phases all relate to development of their fibre infrastructure. Phase 9 deals with the remaining premises which require a minimum of 2 mbps download speed.

22. The deployment plan was approved by the Digital Durham Strategic Board on 18 July 2013 after further consideration by Councillors Brown and Foster as the cabinet portfolio holders for Corporate Services and Economic Regeneration.
23. The deployment plan has taken into consideration:
  - (a) Existing BT OpenReach infrastructure and their planned commercial deployment plan
  - (b) Best value for money
  - (c) Areas of greatest potential demand including new business parks and housing developments
  - (d) A reasonable spread of work across each of the eight authorities within the programme.
24. The majority of the solution will be fibre to the cabinet (FTTC) where optical fibre is from the BT exchange to a roadside cabinet which would normally be positioned within 50 metres of the existing telephone cabinets. The two cabinets are linked and the end user receives the broadband service via the copper telephone line.
25. Areas within County Durham however have a high proportion of exchange only lines where the premise is directly connected to the exchange. BT proposes wherever possible to provide FTTC to these premises as it is the most cost effective solution.
26. A small proportion of premises will obtain fibre to the premise (FTTP) but this is expensive and will only be used in exceptional circumstances where FTTC cannot be provided.
27. The remaining premises (approximately 6,100 in the programme area) will be guaranteed a minimum download speed of 2Mbps.
28. BT is in the process of scheduling work in their planning systems to commence surveying work on their ducts and infrastructure as well as upgrading their exchanges. Details of the key stages in building a superfast broadband network are shown in Appendix 2.
29. The high level deployment plan is attached in Appendix 3. Detail is given at BT exchange level only. Due to the independent regulator and competition authority for the UK communications industries (Ofcom) rules, cabinet level detail and therefore property level detail can only be made once the cabinets are live and the Communication Providers have been notified.
30. The plan has been designed to maximise coverage by deploying in the most cost effective manner. However it must be stressed there are a number of caveats on the plan, which is subject to change due to factors such as:

- (a) Structural surveys. For example if ducts have collapsed or become damaged which may result in work being rescheduled into later phases in order for BT to meet their contractual obligations.
- (b) Highway, planning or way-leave considerations which delay work relating to a specific cabinet and therefore the work needs to be re-phased.
- (c) BT encounters difficulties in getting power to a proposed new fibre cabinet.

**Recommendations and reasons**

31. Cabinet is recommended to:

- (a) Note the content of this report and the progress made with the Digital Durham Programme implementation
- (b) Approve the recommended high level Deployment Plan
- (c) Agree to receive progress reports on a six monthly basis.

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## **Appendix 1: Implications**

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**Finance** – The council has set aside £6.9 million to deliver this programme as part of its capital programme which will be required from 2015/16.

**Staffing** – None

**Risk** – A risk log is maintained by the Programme and is discussed at each Strategic Board meeting.

**Equality and Diversity / Public Sector Equality Duty** - None

**Accommodation** - None

**Crime and Disorder** - None

**Human Rights** - None

**Consultation** – Public consultation has been carried out on the intervention area as required by State Aid regulations. A strategic board meets regularly comprising members and senior officers from each of the councils in the programme.

**Procurement** – Procurement has been part of a nationally agreed process.

**Disability Issues** - None

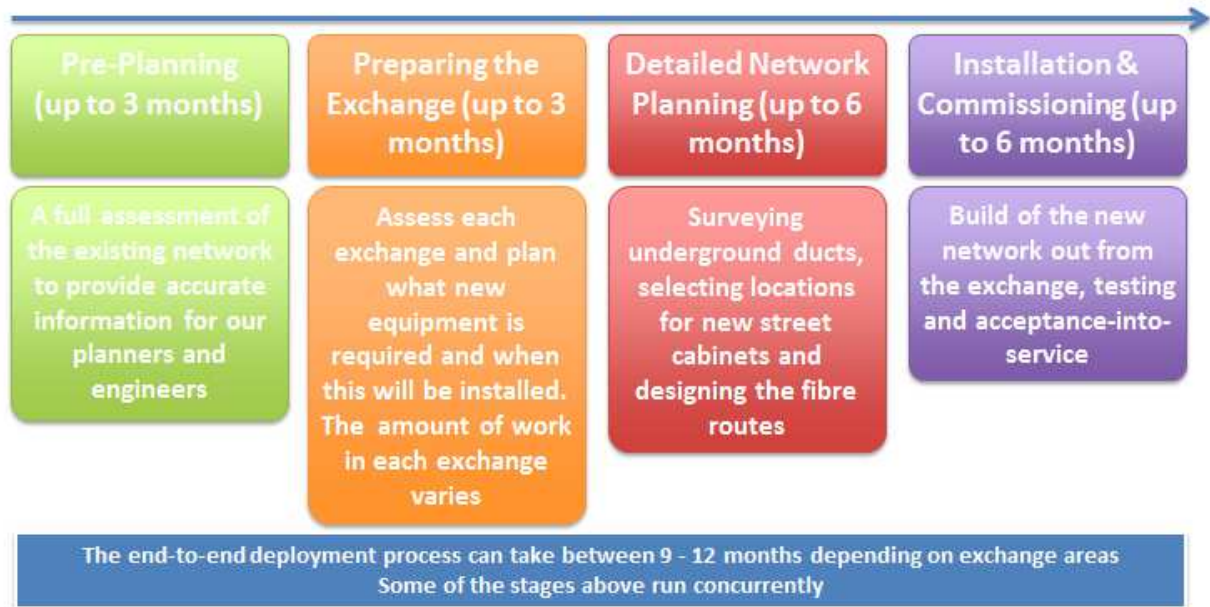
**Legal Implications** – All legal implications have been considered by the Council's legal team prior to contract signature.

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## Appendix 2: Key stages in building a superfast broadband network

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### The key stages in building a Superfast Broadband network



### Appendix 3: High level deployment plan across all eight local authority areas included in the programme

Exchanges are listed in phases and may have already been partially enabled as part of BT's commercial programme.

An exchange can appear in more than one phase due to the requirement to deploy different technologies within the same exchange area.

The total intervention area is 133,573 premises. This programme is funded to deliver fibre access to circa 101,000 premises with the remainder receiving a minimum of a 2Mbps service where this is not currently available.

There will be various iterations of the deployment plan throughout the life of the programme based on the most efficient and effective methods of building the network at least cost. For this reason, work in exchange areas has been planned across a number of phases.

<b>Phase 1</b>	<b>April – June 2014</b>
<b>Contracted delivery</b>	8,811 premises
<b>Candidate Exchange Areas for Survey</b>	Commercial build already taken place or planned in exchange area
<b>Bishop Auckland</b>	Yes
<b>Cockfield</b>	
<b>Consett</b>	Yes
<b>Durham</b>	Yes
<b>Sacrison</b>	
<b>Sherburn Hill</b>	
<b>Sildon</b>	Yes
<b>Spennymoor</b>	Yes
<b>Staindrop</b>	
<b>Thornley</b>	
<b>West Auckland</b>	
<b>Willington</b>	

<b>Phase 2</b>	<b>July – September 2014</b>
<b>Contracted delivery</b>	12,295 premises
<b>Candidate Exchange Areas for Survey</b>	Commercial build already taken place or planned in exchange area
<b>Beamish</b>	Yes
<b>Burnopfield</b>	
<b>Coxhoe</b>	Yes
<b>Crook</b>	Yes
<b>Dipton</b>	
<b>Lanchester</b>	Yes
<b>Meadowfield</b>	Yes
<b>New Brancepeth</b>	Yes
<b>Peterlee</b>	Yes
<b>Ryton</b>	
<b>Sedgefield</b>	
<b>Stanley</b>	Yes
<b>Trimdon</b>	
<b>Washington</b>	Yes
<b>Wellfield</b>	Yes



<b>Phase 3</b>	<b>October – December 2014</b>
<b>Contracted delivery</b>	<b>14,271 premises</b>
<b>Candidate Exchange Areas for Survey</b>	<b>Commercial build already taken place or planned in exchange area</b>
<b>Beamish</b>	<b>Yes</b>
<b>Bishop Auckland</b>	<b>Yes</b>
<b>Blaydon</b>	
<b>Burnopfield</b>	
<b>Cockfield</b>	
<b>Coxhoe</b>	<b>Yes</b>
<b>Crook</b>	<b>Yes</b>
<b>Dipton</b>	
<b>Dunston</b>	<b>Yes</b>
<b>Durham</b>	<b>Yes</b>
<b>Easington</b>	<b>Yes</b>
<b>Ebchester</b>	<b>Yes</b>
<b>Edmundbyers</b>	
<b>Felling</b>	
<b>Gateshead</b>	<b>Yes</b>
<b>Hylton</b>	
<b>Lanchester</b>	<b>Yes</b>
<b>Meadowfield</b>	<b>Yes</b>
<b>New Brancepeth</b>	<b>Yes</b>
<b>Peterlee</b>	<b>Yes</b>
<b>Piercebridge</b>	<b>Yes</b>
<b>Rushyford</b>	
<b>Sedgefield</b>	
<b>Sherburn Hill</b>	
<b>Shildon</b>	<b>Yes</b>
<b>Washington</b>	<b>Yes</b>
<b>Witton - le - Wear</b>	

<b>Phase 4</b>	<b>January – March 2015</b>
<b>Contracted delivery</b>	<b>15,173 premises</b>
<b>Candidate Exchange Areas for Survey</b>	<b>Commercial build already taken place or planned in exchange area</b>
<b>Cotherstone</b>	<b>Yes</b>
<b>Croft</b>	<b>Yes</b>
<b>Ebchester</b>	<b>Yes</b>
<b>Eston Grange</b>	
<b>Hetton-le-Hole</b>	<b>Yes</b>
<b>Loftus</b>	
<b>Middlesbrough</b>	
<b>Middleton - in - Teesdale</b>	
<b>Redcar</b>	<b>Yes</b>
<b>Rushyford</b>	
<b>Ryhope</b>	<b>Yes</b>
<b>Ryton</b>	
<b>Sacriston</b>	
<b>Saltburn</b>	
<b>Seaham</b>	<b>Yes</b>
<b>Skelton</b>	
<b>Stainton</b>	<b>Yes</b>
<b>Stillington</b>	<b>Yes</b>
<b>Stockton</b>	<b>Yes</b>
<b>Sunderland Nth</b>	<b>Yes</b>
<b>Tow Law</b>	
<b>West Auckland</b>	
<b>Whickham</b>	<b>Yes</b>
<b>Whitburn</b>	
<b>Willington</b>	
<b>Witton - le -Wear</b>	

<b>Phase 5</b>	<b>April – June 2015</b>
<b>Contracted delivery</b>	12,166 premises
<b>Candidate Exchange Areas for Survey</b>	Commercial build already taken place or planned in exchange area
Barnard Castle	Yes
Chester - le - Street	Yes
Consett	Yes
Darlington	Yes
East Herrington	Yes
Frosterley	
Gainford	
Gateshead	Yes
Ingleby Barwick	
Low Fell	Yes
Middleton-in-Teesdale	
Ryhope	Yes
Spennymoor	Yes
Staindrop	
Stanley	Yes
Stillington	Yes
Stockton	Yes
Thornley	
Tow Law	
Whitburn	

<b>Phase 7</b>	<b>October – December 2015</b>
<b>Contracted delivery</b>	15,963 premises
<b>Candidate Exchange Areas for Survey</b>	Commercial build already taken place or planned in exchange area
Fencehouses	Yes
Rowlands Gill	Yes
Wearhead	

<b>Phase 9 - Infill</b>	<b>April - June 2016</b>
<b>Contracted delivery</b>	6,108 premises
<b>N/A</b>	

<b>Phase 6</b>	<b>July – September 2015</b>
<b>Contracted delivery</b>	11,727 premises
<b>Candidate Exchange Areas for Survey</b>	Commercial build already taken place or planned in exchange area
Aycliffe	Yes
Barnard Castle	Yes
Barningham	
Birtley	Yes
Bowes	
Chester - le - Street	Yes
Cotherstone	
Dunston	Yes
Ferryhill	Yes
Gainford	
Greatham	
Hartlepool	Yes
Hetton - le - Hole	Yes
Houghton-le-Spring	Yes
Low Fell	Yes
Rowlands Gill	Yes
Seaham	Yes
Sunderland	Yes

<b>Phase 8</b>	<b>January – March 2016</b>
<b>Contracted delivery</b>	10,765 premises
<b>Candidate Exchange Areas for Survey</b>	Commercial build already taken place or planned in exchange area
Eastgate	
Fencehouses	Yes

# Appendix 4: Intervention area map

