

CUMBRIA COUNTY COUNCIL

Lot 2.2

SCHEDULE 2

SERVICE REQUIREMENTS

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SCHEDULE 2 – Service Requirement

1. BACKGROUND

This schedule 2 sets out the Service Description and Minimum Service Requirements for the Superfast Broadband Service for Cumbria.

1.1 There are three levels of requirements:

1.1.1 Solution Requirements – those requirements that define the Contractor Technical Solution based on Solution Components.

1.1.2 Solution Component Requirements – those requirements that relate to the Solution Components that underpin the Wholesale Access Products and Services and the Contractor Technical Solution.

1.1.3 Wholesale Access Products and Services Requirements – those requirements that define a minimum set of products and services that shall be retailed by Retail Service Providers.

2. SERVICE DESCRIPTION AND REQUIREMENTS

2.1 The Contractor Technical Solution shall be an Open Access Network which supports the UK's broadband policy objectives by providing Retail Service Providers with the Wholesale Access Products and Services through Solution Components that can support Take-up.

2.2 The Contractor Technical Solution shall provide wholesale access network services from Handover Points to End User network termination points, supporting the provision of Wholesale Access Products and Services in the Intervention Area.

2.3 The Contractor shall implement, operate and maintain the Contractor Technical Solution to provide:

2.3.1 Wholesale Access Products and Services delivering the level of Access Line Speed and Busy Hour Committed Rates to the agreed number of premises in each of the specified geographic areas within the Intervention Area as set out in the Evaluation Model;

2.3.2 Wholesale Access Products and Services at charges which allow Retail Service Providers to provide Affordable superfast and standard broadband services to End Users;

2.3.3 Wholesale Access Products and Services capable of providing Affordable Universal Service Commitment for 100% of residential premises in a Intervention Area; and

2.3.4 Wholesale Access Products and Services capable of delivering community solutions for identified communities in the Intervention Area.

2.4 The Contractor Technical Solution shall provide:

2.4.1 integrated network access and data transport to End User Premises that comply with the relevant NICC standards or achieve functions/performance levels that are equivalent to or better than those provided for by such standards as are necessary to ensure interoperability; and

- 2.4.2 integrated network access and data transport components to Handover Points that comply with the relevant NICC interconnect standards or achieve functions/performance levels that are equivalent to or better than those provided for by such standards as are necessary to ensure interoperability.
- 2.5 The Contractor shall mitigate and minimise, in accordance with Good Industry Practice, the number of single points of failure within the Network.
- 2.6 The Contractor Technical Solution shall be capable of enabling Symmetrical services for RSPs.
- 2.7 The Contractor shall consider potential future demand by itself and alternative operators in the infrastructure design of the Contractor Technical Solution and the deployment of physical assets, and shall design the Contractor Technical Solution accordingly in order seek to minimise the likelihood of further creation of infrastructure assets, including for example in the course of delivering publically-funded mobile infrastructure projects.

3. OPERATIONS

- 3.1 The Contractor shall provide the same Automated Retail Online Platform (capable of handling volume transactions) for use by all Retail Service Providers. Where the Contractor is developing new systems and associated processes, these shall align with an industry standard service management framework (e.g. FTM Framework, eTOM, ITIL).
- 3.2 The Contractor shall provide a Lead to Cash Process to support Retail Service Providers which as a minimum shall include the following:
 - 3.2.1 order entry;
 - 3.2.2 order fulfilment such as line testing; and
 - 3.2.3 distribution.
- 3.3 The Contractor Technical Solution shall include capabilities so as to be able to service MACDs.
- 3.4 The Contractor shall provide full OSS facilities to provide high quality and on-going operational management to Retail Service Providers, and which as a minimum shall include:
 - 3.4.1 maintaining network inventory (including both physical and logical);
 - 3.4.2 providing communications providers with location-based, capacity management information for all offered products on subsidised infrastructure;
 - 3.4.3 provisioning services;
 - 3.4.4 configuring network components;
 - 3.4.5 monitoring and managing faults;
 - 3.4.6 trouble-ticketing; and

- 3.4.7 service assurance.
- 3.5 The Contractor's OSS shall be designed so as to be capable of being scaled to manage increased Take-up delivered by Retail Service Providers as necessary to achieve the Minimum Service Requirements. All OSS/BSS Contractor systems that are not as at the Agreement Date capable of dealing with large volumes of operations shall be upgraded as part of the Services as necessary to support the Project.
- 3.6 The Contractor shall provide full BSS facilities, which as a minimum shall include the following B2B processes:
- 3.6.1 RSP contact service;
 - 3.6.2 customer relationship management;
 - 3.6.3 order management;
 - 3.6.4 order fulfilment;
 - 3.6.5 service activation; and
 - 3.6.6 billing and invoicing.
- 3.7 The Contractor's BSS must be designed so as to be capable of being scaled to manage increased Take-up delivered by Retail Service Providers whilst continuing to meet at least the Minimum Service Requirements.
- 3.8 The Contractor shall provide a service management model to address disputes with and complaints from Retail Service Providers.
- 3.9 The Contractor must have standard OSS and BSS processes and procedures for Retail Service Providers. These shall, as applicable, comply with the relevant NICC standards or achieve functions/performance levels that are equivalent to or better than those provided for the purpose of such standards.
- 3.10 The Contractor shall enable RSPs using it to adhere to Ofcom's Approved Code of Practice for Complaints Handling as the same may be amended, updated or replaced from time to time.

4. **PROJECT DELIVERY**

- 4.1 The Contractor will roll out its Wholesale Broadband Products and provide the Services in accordance with the Implementation Plan and the Project Plan which shall:
- 4.1.1 adopt a standard document project management approach; and
 - 4.1.2 meet and communicate with the Authority team as appropriate.
- 4.2 The Contractor shall meet standards required by ERDF for reporting and branding as set out in schedule 5.4 (Additional Funding) during the Term of the Contract.
- 4.3 The Contractor, if requested by the Authority, shall confirm in the Contractor Technical Solution the extent that it will reuse those Authority assets identified in schedule 4.2 (Existing Infrastructure) to reduce implementation costs.

- 4.4 At any time during the Term the Contractor shall provide reasonable assistance to the Authority which may include:
- 4.4.1 providing test validation reports;
 - 4.4.2 site visits;
 - 4.4.3 systems/records review;
 - 4.4.4 field strength measurements and surveys;
 - 4.4.5 witnessing line testing;
 - 4.4.6 End User visits; and
 - 4.4.7 other technology-specific tests.

5. **PUBLIC SECTOR AND COMMUNITY NETWORK REQUIREMENTS**

- 5.1 The Contractor shall be capable of maintaining the separation, bandwidth and integrity of wholesale traffic if the Network is used by any RSP to provide a Public Enterprise Network or Enterprise Network, subject to non-duplication and other conditions stated in the State Aid Clearance.
- 5.2 The Contractor shall ensure that for Cabinet Office Public Sector Networks that traffic separation practices and security on individual data streams are implemented.
- 5.3 The Contractor shall, in accordance with a Change Control, provide a network access and data transport component service, as agreed with the Authority, to communities requesting the extension of Wholesale Access Products and Services connectivity and to increase line speeds, beyond the Contractor's originally planned Solution provided that such change falls within the terms of the State Aid approval.
- 5.4 At the Contractor's discretion, the Contractor may also support extensions to its NGA proposals by offering and supporting a Community Build and Benefit Scheme, a Community Partnership Scheme and/or a Community Concession Scheme where the business case does not support delivery of a standard offering from the Contractor as part of the Solution.
- 5.5 The Contractor shall provide, subject to any Change Control, a network access and data transport components service, as agreed with the Authority, to communities requesting the extension of Wholesale Access Products and Services connectivity and to increase line speeds beyond the Contractor's originally planned Solution provided that such change falls within the terms of the State Aid approval and where the business case does not support delivery of a standard offering from the Contractor as part of the Solution or delivery of a build and benefit solution.
- 5.6 Nothing under paragraphs 5.3 to 5.5 (inclusive) shall prevent a local community from sourcing services that are available outside of the Agreement that are capable of achieving similar objectives for the local community.

6. **SUSTAINABILITY**

- 6.1 The Contractor Technical Solution shall as a minimum:

- 6.1.1 roll out services to drive a sustainability plan, with compliance to meet or better the UK Government sustainability targets, including SOGE and 'Greening Government ICT'; and
- 6.1.2 ensure compliance with environmental legislation, in association with the Authority, develop, implement and operate the Contractor's plans to meet the Authority targets, as agreed with the Contractor, for sustainability when developing the Contractor Technical Solutions.

7. **DELIVERING TAKE UP**

7.1 The Contractor in conjunction with the Authority shall provide Demand Stimulation to drive End User customer take-up, and as a minimum:

7.1.1 the Contractor shall create and deliver within the timescales specified in the Implementation Plan a detailed marketing strategy and programme which supports the maximum Take-Up during the Term. As a minimum the Contractor's Marketing Sales Plan will provide for:

- (a) white label generic unbranded marketing to encourage maximum business and residential take-up;
- (b) the establishment of a marketing and account team to support Take-Up;
- (c) a range of marketing communications channels (example: web, newspaper, radio, local community presentations, brochures, etc.) to promote maximum coverage of information during the broadband implementation;

7.1.2 the Contractor shall provide quarterly reports on the adoption by RSPs of Wholesale Access Products and Services during the Term to the Authority in order to enable it to monitor the success of the Marketing Sales Plan;

7.1.3 the Contractor, together with the Authority, shall engage with local businesses, residents and communities to discuss an engagement and resourcing plan for Demand Stimulation in the identified target area and shall agree such plan with the Authority; and

7.1.4 the Contractor shall conduct such additional Demand Stimulation activities as may be requested and funded (in whole or in part as agreed with the Contractor) by the relevant Authority.

8. **SOLUTION COMPONENT REQUIREMENTS**

The following requirements relate to the Solution Components as detailed in the Contractor Technical Solution.

8.1 The Compliance Matrix shall set out the Contractor's compliance statement against paragraphs 8.2 to 8.8 of this schedule 2.

8.2 The Solution Components shall have a lifespan and an upgrade path for the Term.

8.3 The Solution Components, including data transport components, shall be upgradable so as to support increasing access line speeds throughout the Term.

- 8.4 The Solution Components when configured together shall be capable of providing Wholesale Access Products and Services that underpin the broadband products and services offered by Retail Service Providers in the marketplace as at the Effective Date of this Agreement.
- 8.5 The Solution Components shall support the following ALA (as defined in ALA ND 1644) classes of service:
- 8.5.1 (except satellite based access Solution Components) Class A Real time, delay sensitive, applications (e.g. voice);
 - 8.5.2 (except satellite based access Solution Components) Class B Streaming applications (e.g. video);
 - 8.5.3 Class C Internet Data; and
 - 8.5.4 Class D Guest or 3rd party access,
- having taken account of the packet loss, delay, round trip delay, jitter and wander characteristics inherent in the Contractor Technical Solution. For QoE and QoS harmonisation, NICC ND 1530 recommendations will be used as a guideline.
- 8.6 Throughout the term the Contractor shall ensure all Solution Components comply with the applicable Codes and Standards or achieve function/performance levels that are equivalent to or better than those provided for in terms of the purpose of such Codes and Standards including:
- 8.6.1 all Solution Components whether independent or integrated as part of the Contractor Technical Solution shall comply with all relevant ITU, IETF, NICC, Broadband-Forum (BBF), and IEEE standards appropriate to achieving a high quality data transport infrastructure capable of achieving the Minimum Service Requirements;
 - 8.6.2 all non-fixed line Solution Components (including radio, satellite or mobile broadband) shall comply with all relevant IEEE, ITU-T or 3GPP standards for the delivery of the data transport infrastructure. Solution Components using radio spectrum shall have the relevant certificates proving the right to use; and
 - 8.6.3 all Ethernet based Solution Components shall, as part of a Contractor Technical Solution, comply with the relevant NICC - ALA profiles and NICC B2B specifications.
- 8.7 The Solution Components shall independently, and as part of a Contractor Technical Solution, be capable of meeting the requirements of the acceptance criteria detailed in the Test Strategy proposed by the Contractor. These shall include, as a minimum:
- 8.7.1 interoperability tests;
 - 8.7.2 operations tests, including end to end testing of BSS, OSS and Network;
 - 8.7.3 performance tests;
 - 8.7.4 operations readiness tests, including monitoring, failovers; and
 - 8.7.5 other relevant technology-specific tests.

8.8 The Contractor shall maintain, and when appropriate publish to Retail Service Providers a technical release schedule for each Solution Component which supports new software and hardware changes to continue service delivery with equal or higher quality and/or performance.

9. **WHOLESALE ACCESS PRODUCTS AND SERVICES**

9.1 The Wholesale Product Template shall set out the Contractor's range of Wholesale Products and Services which will be available to the Retail Service Providers, including the access products set out at paragraph 9.4.

9.2 Wholesale Access Products and Services shall support Retail Service Providers in gaining Take-up, excluding the impact the Retail Service Provider may have on the retail products and services consumed by the End User.

9.3 The Contractor shall develop and configure new or existing Wholesale Access Products and Services on a regular basis throughout the Term in line with reasonable Retail Service Provider requirements and the goal of maximising Take-up.

9.4 The Contractor shall meet the following minimum access requirements for the Term in order to meet State Aid Clearance:

9.4.1 Active layer: The Contractor shall offer wholesale products suitable to allow communication providers, including mobile communication providers to obtain effective bit stream access to the Contractor Technical Solution (whether access or backhaul components) on Affordable terms and consistent with the State Aid Clearance in regard to its commitments to open access. The Contractor shall document how multiple communication providers can use this and how capacity is managed between multiple communications providers.

9.4.2 Physical assets: The Contractor shall offer wholesale products suitable to allow communication providers, including mobile communication providers to obtain effective access to various physical assets on commercially acceptable Affordable terms and consistent with the State Aid Clearance, in regard to its commitments to open access. This obligation shall, as a minimum, apply to all infrastructure assets that have been subsidised by State Aid. The Contractor shall document how multiple communication providers can use the physical assets and how capacity is managed between multiple communications providers.

9.4.3 Duct space: In the event of State Aid funding for NGA broadband being used to build new, or augment existing, duct the relevant network operator will consider potential future demand for duct space, by itself and from alternative operators, and will design the size of the duct accordingly in order to minimise the likelihood of further duct enhancements being required.

9.4.4 Additional unbundling: The Contractor shall also provide other forms of wholesale access if and to the extent Ofcom has mandated it as a regulatory remedy pursuant to a full market review in the product and geographic markets where the subsidised infrastructure is situated. Other forms of access may include (without limitation) dark fibre access or splitter access, if required. If Ofcom mandates other forms of wholesale access in this way ("**Additional Wholesale Access Products**"), the Contractor shall provide

such access on all existing and future infrastructure in receipt of public subsidy under the State Aid Clearance. At the Effective Date of this Agreement it is anticipated that Ofcom would provide that:

- (a) all reasonable costs of providing the Additional Wholesale Access Products would be met by access seekers;
- (b) the products shall be used for the primary purpose of supplying broadband services; and
- (c) the availability of the Additional Wholesale Access products in the area covered by the subsidised infrastructure would be required in Ofcom's reasonable opinion to deliver sustainable competition in broadband services.

The additional access product requirements set out in this paragraph 9.4.4 shall continue for as long as the Ofcom remedy is in place.

10. SERVICE LEVEL CATEGORY

10.1 The Contractor Technical Solution shall at all times meet or exceed the following Service Levels which together constitute the Minimum Service Requirements:

10.2 The Contractor shall provide minimum network availability and support for its Retail Service Providers which shall include:

- (a) [redacted]

10.3 The Contractor Technical Solution shall enable the Retail Service Providers to provide End Users with order, installation and availability service levels, including as a minimum a provisioning order installation timescale of [redacted] of all orders completed in [redacted], unless otherwise agreed with the RSP and to be calculated on a monthly basis.

10.4 In order to enable the Retail Service Providers to support the End User experience, the Contractor shall back up the achievement of the Service Levels set out in paragraph 10.2 with appropriate service credits or similar mechanisms to compensate the Retail Service Providers in the event that the Contractor fails to achieve any of the Minimum Service Requirements.

11. CLAW BACK OF PUBLIC INVESTMENT

11.1 The Contractor shall provide financial information which will support the level of gap funding required to deliver the percentage of required coverage.

11.2 The Contractor will provide regular updates on performance of the Network and the impact such progress has on the gap funding requirement.

11.3 In the event that assumptions made by the Contractor are exceeded and the gap funding requirement is reduced then the impact on the funding shall be confirmed by the Authority.

11.4 Subject to any Funding Conditions that the Authority agrees, any excess funds shall be returned to the Authority and the Authority shall decide at its discretion to either:

- 11.4.1 return the funds to the Funder; or

11.4.2 recycle the funds which are to be matched by the Authority in order to increase the percentage coverage of the Network.

12. **CALCULATION OF COVERAGE**

12.1 Coverage of the Intervention Area shall be measured as set out in the speed coverage table in schedule 5.1 Appendix 8 basis.

12.2 The Contractor will produce information of the individual properties by phase, as per the speed coverage table and the asymmetrical and symmetrical Access Line Speeds that can be delivered to those properties.

12.3 Premises can be counted in the above list where a service can be purchased on standard terms and conditions from at least two internet service providers.

13. **REPORTING**

13.1 The Contractor will comply with the terms of any Funding Conditions as agreed by the Authority prior to the Effective Date.

13.2 The Contractor shall provide information to the Authority as set out in schedule 6.4 (Reports):

13.2.1 The Authority will sample the information provided under paragraphs 13.1 and 13.2 in line with the Agreement.

APPENDIX 1- WHOLESALE PRODUCT TEMPLATE

Each wholesale product is to be documented in a set of tables of the following form. The Bidder shall replace the Description text with their response. The Bidder may provide a spread sheet if more convenient.

Item	Description / Response
Product Family	[Optional] field used to group related products together (eg by technology)
Product Code*	[Required] Unique code to identify the product across all products offered by the wholesaler, not just within the Product Family. This code to be used to refer to the products in the reports that are to be generated during the term of the Agreement.
Product Name	[Optional] Short name of the product. To be used in addition to the Product Code where appropriate.
Product Bandwidth*	[Required] The advertised bandwidth of the product, both downstream (towards the End user) and upstream. It is not required for the Product Bandwidth to be equal to the Access Line Speed.
Bandwidth Certainty	[Required] Either the word 'Guaranteed' or the word 'Upto'. Guaranteed means that the delivered bandwidth for the product will be the stated Product Bandwidth and will be the same for all premises that take the service. 'Upto' means that the delivered bandwidth may be less than the Product Bandwidth for some end users.
Description	[Optional] A short description of the service (1 or 2 sentences) where service functionality not obvious from the Product Name. Eg Value Add services (eg Enhanced SLA) and for services needed at Handover location. Handover Products should state how many such products* would be needed to cover the entire Intervention Area.
	[Required] State any commercial usage restrictions that are / would be in place for this product. State 'none' if there are no such restrictions.
	[Required] Service level agreement or service level guarantee, whichever is applicable. At a minimum, the T2R (trouble to resolve) and L2C (lead to cash) times will be specified. If an existing product, fuller description can be provided by an attached file or a web link.
	[Required] The industry framework that applies for referencing your QoS (Quality of Service) enforcing policies and mechanisms. Eg: Proprietary, TR-101, ND 1644
Wholesale Installation charge*	[Required] The one-off charges needed to install the service and make operational at the wholesale level.
Wholesale Recurrent charge*	[Required] The ongoing wholesale recurrent charges (per <u>month</u>).

Minimum Term	[Required] The period of time, in months, during which there will be charges made for the cancelation of the service. If there is no minimum term required, state 'none'.
Details of Variable Costs	[Required] Description of any additional non-fixed Installation or Recurrent Charges related to the installation or ongoing operation of the service that may apply. If there are no additional variable charges state 'none'.
Required Dependent Products	[Required] Provide a list of Products/Services that are a pre-requisite for this service to be installed / delivered <u>including</u> any products / services that are not provided by the contractor eg line rental. If there are no required dependencies, state 'none', although a Handover Product will most likely be needed
Optional Value-add Products	[Required] Provide a list of Products that an RSP may optionally purchase as a value add service on top of this Product (eg enhanced SLA). If there are no option products, state 'none'.

* - These Fields to be used in the Pricing tabs in the Evaluation and Delivery Matrix.

APPENDIX 2 - STATE AID CLEARANCE

[Note: this shall be populated upon satisfaction of the conditions set out in clause 2 of the Agreement]

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