## 1 SERVICE AVAILABILITY

1.1 Reference in this schedule to the "Service" is a reference to both VDSL and Gfast, unless the clause or context specifically requires otherwise.

1.2 The Service will be available at those locations as notified by BT from time to time on the Openreach Website.

1.3 The Service will only be available within the locations as notified by BT from time to time to those End Customers premises which are served by the underlying copper access products provided by means of BT's Wholesale Line Rental ("WLR") or Metallic Path Facilities ("MPF") products at the time of order and during the period that the Service is provided. The Service will immediately be terminated at a particular End Customer premises if the WLR or MPF product is terminated to such premises.

1.4 If the Communications Provider wishes to order the Service on a line which then currently provides Shared Metallic Path Facilities ("SMPF"), the SMPF service will be terminated in accordance with the Revised Agreement for Access Network Facilities Services (RANFA) as it is not compatible with the Service.

1.5 The GEA-FTTC VDSL and Gfast product descriptions referred to in this Schedule 2B is are Ancillary Documents and are available on the Openreach Website at:

http://www.openreach.co.uk/orpg/home/products/super-fastfibreaccess/fibretothecabinet/fttc.do

## 2 SERVICE PROVISION

2.1 The Service uses a fibre to the cabinet network infrastructure architecture to provide connection between the Communications Provider's equipment installed in a BT Exchange at a point of handover within the BT exchange and the back-plate of the NTE located within the End Customer premises and is served by products delivered by means of BT's copper access Network. Delivery of the Service shall be by means of optical fibre cable between a handover frame within the BT exchange and the PCP in the BT Network and by means of an existing copper cable between the PCP and the End Customer premises There is no handover to the Communications Provider at or within the PCP (or any other intermediary point in the BT Network between the BT exchange and the End Customer premises). The Service requires a GEA Cablelink (under the provisions of Schedule 2A) within the BT exchange to be in place in advance of the Service Order. The Service terminates at the NTP.

2.2 The Communications Provider agrees to make the necessary arrangements so that the End Customer is aware that:

(a) the CP Service will fail in the event of mains power supply failure;

(b) the End Customer may need to upgrade existing or deploy new Customer Equipment for use with the CP Service;

(c) if BT requires access to the End Customer Site, the End Customer must be present during the period that the Service is to be provided and activated;

(d) to allow for service activation at the time of provision, the End Customer will experience a period of 'downtime' to all services provided on the chosen line including the underlying copper access products referred to in paragraph 1.3 above;

(e) ADSL and ADSL2+ modems are incompatible with VDSL2 technology; and

(f) ADSL, ADSL2+ and VDSL2 modems are incompatible with Gfast technology

2.3 BT shall provide the Communications Provider with:

(a) access to the Gateway; and

(b) training in the use of the Gateway.

2.4 If the Communications Provider orders an Engineer Install the BT engineer, on agreement with the End User, shall carry out the tasks associated with the type of Engineer Install ordered by the Communications Provider as described in the GEA FTTC VDSL or Gfast product description, as appropriate. The Communications Provider shall provide all elements of the network beyond the NTE including a CP Device, and the associated microfilters.

2.5 If the ordered Service is GEA FTTC Gfast, and the CP Device is not available to the BT engineer at the time of the appointment, BT will not provide the GEA FTTC Gfast Service. The Communications Provider will need to book a new appointment and shall pay an Abortive Visit Charge, as set out in the Openreach Price List.

2.6 The Services offer the line bandwidth variants set out in the relevant product description.

2.7 If, within 365 calendar days of the installation date of a GEA-FTTC VDSL or Gfast line, it is underperforming in accordance with and subject to the criteria for underperforming lines set out in the GEA-FTTC VDSL or Gfast product description, the Communications Provider may hand back that underperforming line to BT and if that underperforming line is handed back:

(a) within 90 calendar days of the installation date, the Communications Provider will be refunded the connection and rental charges. Cease charges for that line and early termination charges will be waived; or

(b) between 90 and 365 calendar days of the installation date, the Communications Provider will be refunded any cease charges for that line.

Paragraphs (a) and (b) of this paragraph 2.7 do not apply where the circumstances set out in paragraph 2.5 apply.

2.8 The GEA-FTTC VDSL Service offers the bulk modification tool in accordance with and subject to the criteria for bulk modification set out in the GEA-FTTC VDSL product description.

## 3 ORDER HANDLING

### 3.1 SERVICE AVAILABILITY

(a) The Communications Provider acknowledges that the bandwidth deliverable to an End Customer premises is dependent on a number of factors as set out in the relevant product description; and

(b) The Communications Provider will check the estimated potential Service performance prior to submitting an Order using the Enhanced Managed Line Checker ("eMLC") dialogue service and BT will respond to the Communications Provider with details of the service availability.

### 3.2 SERVICE PROVISION (INCLUDING MIGRATIONS FROM AN EXISTING GEA PRODUCT)

(a) The Communications Provider must place Orders using the Gateway and by following the process as notified by BT, including the provision of any order markers which are required on the ordering system when the Order is placed.

(b) The Communications Provider may submit a simultaneous provide Order for Service in conjunction with an order for WLR service or MPF service over a single metallic pair for the base-band voice service. The CCD can be the same date as the delivery date of the WLR or MPF service as set out in the GEA-FTTC VDSL and Gfast product description.

(c) An Order may be rejected if:

(i) there is a service or services which are incompatible with the Service;

(ii) the Communications Provider has cancelled its own Order;

(iii) any information is inaccurate, incomplete or incorrect or if it is a duplicate Order;

(iv) Where there is insufficient capacity in the BT Network to fulfil the Order;

If an Order is rejected, BT will notify the Communications Provider of the reason for the rejection. BT may charge a 'Cancel/Amend/Modify' charge (as set out in the Openreach Price List) in relation to any rejected order providing such rejection is not caused by a failure by BT.

(d) All orders received by BT will be Processed by BT in the order in which they are received.

(e) If the Communications Provider requires an earlier delivery date than that proposed by BT, the Communications Provider may request BT to expedite the Order. BT will use reasonable endeavours to allocate an earlier appointment. If accepted by the Communications Provider, the revised date will become the CCD and the Communications Provider will be liable to pay the expedite charge set out in the Openreach Price List in addition to the appropriate connection charge. If BT fails to deliver the Service on the revised CCD, the expedite charge will not be payable and the provisions of Schedule 4 will apply.

3.3 INSTALLATION BY BT

(a) The Communications Provider will perform a line rate estimation at the time of ordering using the eMLC dialogue service. If the eMLC dialogue service indicates that:

(i) the observed speed is, or the top downstream bandwidth of range A is estimated to be, 2Mbps or greater then the Communications Provider will be notified that GEA-FTTC VDSL is available to order;

(ii) the observed speed is, or the bottom downstream bandwidth of range A is estimated to be, 120Mbps or greater then the Communications Provider will be notified that Gfast is available to order; or

(iii) if the top downstream bandwidth of range A is estimated to be less than 2 Mbps, BT will inform the Communications Provider that (subject to paragraph 3.3(a)(i)) the Service is not available to order.

(b) BT will provide the Service to the Communications Provider on the Customer Confirmed Date ("CCD").

(c) BT will inform the Communications Provider when the Service is provided.

(d) for all connection variants that include an Engineer Install at the End Customer Site, if requested by the Communications Provider and provided the Communications Provider has delivered its

equipment and associated software to the End Customer Site prior to the date of provision, BT will install such equipment during the appointment for installation of the Service at the End Customer Site. BT will, as set out in the relevant product description, also connect End Customer equipment that was connected to the BT Network immediately prior to provisioning. The Communications Provider agrees to pay the charges as set out in the Openreach Price List. If the Communications Provider equipment is not available to the BT engineer at the time of the Site visit BT will carry out all other work and still charge the Communications Provider the applicable charge for Engineer Install as set out in the Openreach Price List. The Communications Provider acknowledges that BT cannot demonstrate a working Service if the Communications Provider equipment is not available at the time of the Engineer Install.

(e) The GEA-FTTC VDSL PCP Only connection variant does not include an Engineer Install at the End Customer Site and will be provided any time on the Customer Confirmed Date. The CCD will be determined in accordance with paragraph 2.2(b) of Section A of Schedule 4. Notwithstanding this, if requested in the Order submitted by the CP, BT will commence the PCP Only task within the relevant appointment slot in the Order (i.e. the CP Requirement Date) and the CP will pay the charges as set out in the Openreach Price List. The PCP Only connection variant is not available for Gfast.

3.4 CESSATIONS AND CANCELLATION

(a) If the Communications Provider cancels an Order, or any part of it before 18:00 on the working day before the CCD, the Communications Provider shall pay the cancellation charge as set out in the Openreach Price List.

(b) After provision of the Service, the Communications Provider may place Orders for cessation of the Service by following the process set out in the relevant product description.

3.5 VISITS

(a) If an installation or repair appointment is agreed with BT for work at the Site, and BT is unable to carry out the work at, or gain access to, the Site due to an act or omission by the Communications Provider or End Customer or the appointment is broken by the Communications Provider or End Customer, BT may charge the Communications Provider an Abortive Visit Charge set out in the Openreach Price List. If such a failure is due to an event which is classified as a non-chargeable incomplete reason code as set out in the 'EMP Response Codes' document published on the BT Website then no Abortive Visit Charge will apply.

(b) If the Communications Provider has failed to agree with BT an installation appointment date within 15 days from the previously agreed appointment date, BT may, where BT is not at fault, cancel any work at an End Customer's premises. If BT cancels the request for work at an End Customer's premises in accordance with this paragraph, the Communications Provider must pay the cancellation charges as set out in the Openreach Price List.

(c) For GEA-FTTC VDSL PCP Only connection variants, if the installation is unsuccessful or the line is not stable for reasons which are not attributable to the acts or omissions of BT, the Communications Provider may raise a fault to have the service upgraded as set out in the GEA-FTTC VDSL product description. The Communications Provider will be charged for the applicable Visit Assure or the Time Related Charges as specified in the Openreach Price List.

## 4 USE OF CP DEVICES

### 4.1 BACKGROUND

(a) The Communications Provider shall exercise the reasonable skill and care of a competent communications provider in fulfilling its obligations in this paragraph 4.

(b) Other than BT Network Upgrades (which BT shall notify in accordance with paragraph 4.8(a) notification of network improvements will be announced within the Copper and Fibre Products Commercial Group and appropriate technical forum (and if not announced via these methods they shall be notified to the Communications Provider's Nominated Contact in writing). The timeline for test and deployment of these changes will be provided when the changes are notified.

(c) The Communications Provider shall:

(i) ensure that all CP Devices that it provides to its End Customers for use on the BT Network; and

(ii) use all commercially reasonable endeavours (by way of, without limitation, including a term in its End Customer contracts restricting modems that End Customers can connect to the BT Network) to ensure that any third-party modems the Communications Provider's End Customers choose to connect to the BT Network,

conform to BT SIN498 (for GEA-FTTC VDSL modems) or SIN520 (for Gfast modems), which can be verified by, either:

(d) Submitting a modem to BT for Verification Testing as set out in this paragraph 4; or

(e) Selecting a modem to supply to End Customers that has previously passed Verification Testing.

4.2 BT will have no liability to the Communications Provider or any End Customer for any loss or damage whatsoever that might result from a loss of service due to the operation of or a failure of a CP Device or any third-party equipment that might be connected to the BT Network

4.3 VERIFICATION TESTING

(a) If the Communications Provider wishes to submit a CP Device for Verification Testing, the Communications Provider shall follow the process set out for submission in the GEA FTTC VDSL or Gfast Product Description, as appropriate.

(b) BT shall upon receipt of a correctly completed application for Verification Testing from the Communications Provider allocate the Communications Provider a testing date.

(c) BT shall use its reasonable endeavours to meet the CP Device development timescale specified in the Communications Provider's Verification Testing application, but the Communications Provider acknowledges that a limited number of test spots are available, which might prevent BT meeting the Communications Provider's timescales. If the Communications Provider fails to provide all information required by BT in a timely fashion, it is likely that BT will not meet the Communications Provider's timescales.

(d) BT may in its sole (but reasonable) discretion reject the Communications Provider's request for a device testing slot if the Communications Provider has made multiple requests, and such rejection is necessary to manage capacity of the Verification Testing service and ensure that all communications providers have equal access to the testing service.

(e) If BT is unable to allocate the Communications Provider a Verification Testing slot, BT may (if requested by the Communications Provider) accept the CP Device for gatekeeper testing in accordance with clause 4.3(h) below. If the CP Device passes all gatekeeper tests BT shall (subject to the Communications Provider having complied with clause 4.3(f) below) place the CP Device on a standby list for any full Verification Testing slots that become available.

(f) The Communications Provider shall provide a minimum of three identical CP Devices to BT by the end of the week before the start of the gatekeeper testing period set out in clause 4.3(h) below and a further two CP Devices immediately on successful completion of the gatekeeper testing. If BT has not received the CP Devices by the required date there might be insufficient time to complete Verification Testing and BT may reschedule the CP Device Verification Testing to the next available slot.

(g) The Communications Provider shall ensure that any CP Device when submitted to BT for Verification Testing is in its default configuration, as the Communications Provider would supply to its End Customers. The Communications Provider shall not make any changes to the CP Devices (either hardware or firmware) during the Verification Testing period. Under normal conditions Verification Testing will usually take 2 weeks.

(h) CP Devices must pass one of the two stages of preliminary gatekeeper tests (as described in the relevant GEA FTTC Product Description) before BT will commence full Verification Testing. If a CP Device fails both gatekeeper tests BT shall explain why the CP Device has failed and give the Communications Provider one opportunity to rectify the issue, after which BT will re-run the failed gatekeeper tests again. If the CP Device fails the gatekeeper tests a second time BT will reject the CP Device and the Communications Provider will lose its booked testing slot.

(i) BT shall during the Verification Testing period provide weekly updates to the Communication Provider updates on the progress of the Verification Testing.

(j) As part of the weekly updates, BT shall notify the Communications Provider of any issues identified during Verification Testing. These will be categorised as "major" or "minor", by BT (acting reasonably), as follows:

(i) Minor issues are such that continued Verification Testing is feasible, enabling the CP Device to continue to a "Conditional Pass" of the Verification Test and low-volume testing of the CP Device on the BT Network. A CP Device given a "Conditional Pass" must be re-presented for Verification Testing when a fix has been put into place subject to any reasonable exclusions or limitations set out by BT in its test report. It is expected that any devices in the BT Network with a "Conditional Pass" status will be remotely upgraded or swapped out when the final production device/firmware is available;

(ii) Major issues are such that continued Verification Testing is not technically feasible. If there is a major issue, BT may cease all Verification Testing on the CP Device and the Verification Testing will be recorded as a "Fail". It is the responsibility of the Communications Provider to rectify any issue(s) identified and to submit a corrected device for a complete re-test when available.

(k) On completion of Verification Testing, BT shall provide the Communications Provider with a Verification Testing report specifying whether the CP Device has received either:

(i) "Full Pass" to connect a production CP Device to the BT Network, other than for the purposes of testing;

(ii) "Conditional Pass" to connect a pre-production CP Device to the BT Network for testing, provided that such connection may be subject to reasonable and specified limitations set out in the Verification Testing report; or

(iii) If BT has identified major issues, Failure of Verification Testing, including the reasons for such failure.

The report provided by BT pursuant to this clause 4.3(k) will (where relevant) specify the reasons why a Conditional Pass has been granted or a CP Device has failed Verification Testing.

(l) If a CP Device fails Verification Testing, the Communications Provider must submit a new application for Verification Testing once it has rectified the problems identified by BT. If a CP Device has failed Verification Testing, BT shall (subject to availability of test slots) accept up to two further applications (i.e. three attempts in total) for testing of the same CP Device. Each further application will be charged at the rate set out in the Openreach Price List.

(m) If a CP Device has not successfully completed testing by the end of the test period, BT may (subject to availability) provide up to an additional one week of testing in the next available slot.

(n) If after three attempts (as set out in paragraph 4.3(l) above) a CP Device receives a "Fail" during Verification Testing, the Communications Provider may request additional tests. If requested, BT shall allocate the next available testing slot and the Communications Provider will be charged at a fixed rate per test as set out in the Openreach Price List.

(o) Verification Testing is a high-level, limited review of the CP Device against the prevailing version of the network interface specification through which BT shall verify that the CP Device should not cause network harm when connected to the BT Network, will pass traffic through the BT Network and will operate within the GEA-FTTC Service parameters set out in the BT SIN498.Regardless of the outcome of the Verification Testing, due to the complexity of the GEA-FTTC Services, BT makes no assertions as to the accuracy of reporting parameters, or the correctness of the CP Device's performance when connected to GEA-FTTC Services.

(p) The Communications Provider shall use its reasonable endeavours to provide a 12 month rolling forecast (including a list of the relevant CP Device(s) which might be a device reference or name, if known, and the Communications Provider's preferred timescales) to BT when it notifies BT of its intention to use a CP Device for the first time and thereafter on each anniversary of 1 April 2014 and 1 October 2014.

(q) Once a CP Device has received a "Full Pass" the Communications Provider shall on a continuing basis assess the requirement for further Verification Testing and, if applicable, present the CP Device for Verification Testing at the appropriate point in its development process. If the Communications Provider makes changes to the CP Device and believes that further Verification Testing is not necessary, the Communications Provider may apply for an exemption. It will be in BT's sole (but reasonable) discretion whether to accept such application.

(r) The Communications Provider agrees that BT may with agreement from the Communications Provider from time to time publish on a suitable publicly available website a list of specified CP Devices that have passed Verification Testing.

(s) BT will not enable the Communications Provider in the EMP system for the Services until such time as it has either selected a previously approved modem in accordance with clause 4.1(c), or the CP Device has successfully completed Verification Testing with at least a Conditional Pass.

4.4 CHANGES TO BT SIN498 and SIN520

(a) BT shall raise any proposed changes to BT SIN498 or SIN520 with communications providers at the appropriate industry forum for consultation. If the relevant industry forum decides that the proposed change to BT SIN498 or SIN520 is a major change, BT will also:

(i) raise the proposed change with NICC and undertake consultation on the proposed change;

(ii) work with the communications providers to agree corrective action(s) and timescales for such action(s);

(iii) use its reasonable endeavours to delay or alter its rollout plan in accordance with such corrective actions and/or timescales outlined in paragraph 4.4(a) above.

(b) BT will notify any changes to BT SIN 498 or SIN520 on 12 (twelve) months' notice.

(c) BT will regression test changes to BT SIN498 or SIN520 against the Modem Bank If as part of the regression testing BT identifies issues which will cause the CP Device in the Modem Bank to receive a Conditional Pass or fail regression testing, BT will contact the Communications Provider nominated contacts as identified during Verification Testing and, in accordance with paragraphs 4.9(c) and 4.9(d), review the potential impact on the BT Network and respond to the Communications Provider as soon as reasonably practicable to agree a corrective plan. If

more than one communications provider is using the same device, BT will report issues to all communications providers recorded as using that device.

4.5 MODEM BANK

(a) A CP Device must have received a Verification Testing "Full Pass" from BT before it will be considered for inclusion in the Modem Bank.

(b) The Communications Provider shall in writing notify BT if the Communications Provider makes any changes to either the hardware or firmware of a CP Device that is included in the Modem Bank, and shall ensure BT has the most recent version of all such reference devices in the Modem Bank.

(c) BT currently maintains the Modem Banks for Gfast and GEA-FTTC CP Devices in three separate locations. Each copy of the Modem Bank will be identical and comprise a maximum of 50 devices (i.e. 50 Gfast devices and 50 GEA-FTTC Devices) in total. The Communications Provider shall ensure that BT has three of each CP Device that is to be included in the Modem Bank. Until the Modem Bank is full, each communications provider will be entitled to a minimum of one (1) CP Device and a maximum of five (5) devices included in the Modem Bank, save where more than one communications provider is using the same device, in which case that device will only be admitted once.

(d) The Communications Provider may require the substitution of any of its own CP Devices in the Modem Bank for an alternative CP Device, provided the CP Device to be replaced isn't also the device of another communications provider and that the alternative CP Device has received a Verification Testing "Full Pass". BT will periodically contact the Communications Provider to provide a list of the Communications Provider's CP Devices that are in the Modem Bank and to check whether those should all continue in the Modem Bank.

(e) When the Modem Bank is full, BT will determine whether a device is to remain included in the Modem Bank based on a reasonable assessment of the proportional representation of such device in the BT Network against any other device submitted to be included. On notification of regression testing, BT will review the Modem Bank and will, if appropriate and prior to commencing regression testing, notify the relevant communications provider(s) of BT's intention to replace or remove a device from the Modem Bank for the submitted device based on the proportional representation of each device in the BT Network using data collected by BT. If the Communications Provider does not agree with BT's assessment of the proportional

representation of a CP Device, the Communications Provider may provide an alternative assessment with supporting evidence for discussion between the parties.

(f) BT will notify the Communications Provider whether its CP Device(s) is included in the Modem Bank each time a network firmware upgrade is being introduced for regression testing. Any CP Device, including any CP Device not included in the Modem Bank, may be tested by the Communications Provider using the test facilities provided by BT provided that the Communications Provider has given notice of their intention to test in accordance with the *Conditions for NGA Network Test Facilities*.

4.6 FIRST OFFICE APPLICATION TESTING

(a) If a CP Device has passed Verification Testing with a Full Pass the CP may request BT to include that CP Device in its First Office Application testing ("FOA1") environment. BT shall accept the Communications Provider's request, subject to FOA1 environment capacity; currently this is capped at 540 devices.

(b) If BT accepts the CP Device into the FOA1 environment, the Communications Provider shall provide BT with such number of CP Devices as BT may reasonably request; typically this will be between 5-10 CP Devices, which all must be in identical default configuration as would be supplied to End Customers.

(c) The Communications Provider shall in writing notify BT of any updates to its CP Devices that are included in the FOA1 environment and ensure that such updates are either installed automatically or made available to BT for installation on the CP Devices.

(d) If the FOA1 environment is full, BT may (based on a reasonable assessment of the proportional representation of such devices in the BT Network as against any other device submitted for inclusion in the FOA1 environment) remove those devices that are least commonly in use on the BT Network to make space for new devices. BT will notify the Communications Provider if its CP Device is removed from the FOA1 environment. If the Communications Provider does not agree with BT's assessment, the Communications Provider may provide an alternative assessment with supporting evidence for discussion between the parties.

(e) If BT observes any behaviour that contravenes SIN498 or SIN520 (as applicable) on a CP Device in the FOA1 environment, BT shall notify the Communications Provider. The Communications Provider shall take prompt action to rectify such defect to ensure ongoing conformance with SIN498 or SIN520, as applicable.

(f) The Communications Provider may withdraw a CP Device from the FOA1 environment at any time.

4.7 PERFORMANCE TESTING OF THE CP DEVICE

(a) Performance testing of the CP Device is the CP's end to end testing of its services to ensure they operate consistently across the relevant Service.

(b) The Communications Provider is responsible for the performance of a CP Device connected to the the Service. The Communications Provider should undertake any performance testing on the BT Network prior to mass production of a CP Device and/or the CPE firmware build that has undergone appropriate testing, which may include Verification Testing.

(c) Performance testing of the CP Device may be undertaken anywhere in the BT Network following a "Conditional Pass" or "Full Pass" at Verification Testing or on provision to BT of a statement of conformance to BT SIN498 or SIN520 (as applicable) from a third party provider.

(d) A CP Device that does not have at least a Conditional Pass at Verification Testing must not be connected to the BT Network.

(e) The Communications Provider may use the test facilities provided by BT to performance test any CP Device, including at BT's sole discretion a CP Device that has not received a Full or Conditional Pass at Verification Testing, against:

(i) (a) the current version of the BT Network; and

(ii) (b) any new network build currently in development by BT.

(f) BT provides test facilities subject to *Network Test Facilities* documents.

4.8 BT NETWORK UPGRADES

(a) It is BT's responsibility to assess the requirement for testing of a BT Network Upgrade and, if applicable, to notify the proposed BT Network Upgrade and rollout plan to industry via the appropriate technical forum no less than three (3) months before the proposed BT Network Upgrade is due to be regression tested by BT ("Network Upgrade Notice"). Notwithstanding this, BT shall issue a Network Upgrade Notice where the proposed BT Network Upgrade might be relevant to the interoperability of the CP Device(s) that are included in the Modem Bank.

(b) Subject to paragraph 4.8(c) below, BT, shall prior to any BT Network Upgrade being deployed to the BT Network, conduct regression testing against any CP Device that has a Full Pass at Verification Testing and has been admitted to the Modem Bank.

(c) BT shall regression test against all devices in the Modem Bank that are deployed in the BT Network as at the date of the Network Upgrade Notice. In respect of those CP Devices that are not currently deployed in the BT Network, BT shall notify the Communications Provider and shall not be required to perform regression testing against those devices unless the Communications Provider informs BT that the relevant device(s) are in the process of being, or are proposed to be, in mass production.

(d) BT's regression testing will be limited to the scope set out in the relevant regression testing plan. Regression testing will be performed against the candidate network release as if it were the live version. The regression testing plan will be provided to the Communications Provider during the BT Network Upgrade notification period.

(e) If BT finds an issue as part of the regression testing, BT will contact the Communications Provider's nominated contacts as identified during Verification Testing. If more than one communications provider is using the same device, BT will report issues to all communications providers recorded as using that device.

(f) BT will make the candidate network release available via the test facilities as described in paragraph 4.5(f) above.

(g) Subject to paragraph 4.8(h), unless there is an Emergency or for other exceptional circumstances BT will, provide a period of four (4) weeks' for the Communications Provider to carry out its own testing within the test facilities before the BT Network Upgrade is deployed to the BT Network and BT will include such period in its roll-out plan.

(h) The Communications Provider will indicate its intention or interest to use the test facilities in response to any Network Upgrade Notice within ten (10) Working Days of the date of Network Upgrade Notice. If no testing is required, BT will continue to roll out following its planned regression testing.

(i) If a BT Network Upgrade requires a firmware change to a device in order to maintain connectivity, any such changes to the CP Device shall be the responsibility of the Communications Provider.

(j) During regression testing of a CP Device within the Modem Bank, BT will share the output of regression testing with the Communications Provider and with any other communications provider that has notified BT that it uses the same device. Any issues found during the testing will be discussed with the Communications Provider to enable corrective action and timescales for action to be agreed in accordance with paragraph 4.9(c).

(k) If a BT Network Upgrade is proposed by BT in response to an issue with another communications provider's device, BT shall ensure that it provides a Network Upgrade Notice and that the proposed BT Network Upgrade is regression tested against the Modem Bank in accordance with paragraph 4.9(b).

4.9 ESCALATION AND DISPUTE RESOLUTION OF TECHNICAL ISSUES

(a) If the Communications Provider identifies an interoperability issue between the CP Device installed by the Communications Provider and the BT Network, the Communications Provider should raise such issues with the relevant representative as set out in the Customer Service Plan (CSP) who will engage the relevant technical contacts within BT to discuss the issue and provide consultancy to identify the root cause of the issue and possible corrective action. Any additional support or consultancy provided by BT, other than in accordance with this paragraph 4.9(a) is not included in the scope of this Contract.

(b) Further to paragraph 4.9(a), if corrective action is identified within the BT Network, BT will review the potential impact on the BT Network and respond to the Communications Provider as soon as reasonably practicable on BT's plan to put the corrective action in place. BT shall issue a Network Upgrade Notice and consult with all participating communications providers on the proposed BT Network Upgrade in accordance with paragraph 4.8(k). Following such consultation, and provided no issues are identified with other devices in the Modem Bank or remain unresolved, BT shall confirm with the Communications Provider that BT will proceed with the BT Network Upgrade.

(c) If the Communications Provider identifies corrective action on the CP Device, the Communications Provider shall use its reasonable endeavours to correct the issue with the CP Device and notify BT in writing of such corrective action including, but not limited to, the provision of potential timescales and the resulting impact, if any, of the network upgrade being deployed into the BT Network in accordance with the roll-out plan notified by BT pursuant to a Network Upgrade Notice.

(d) If, having followed the procedure set out in paragraphs 4.9(a) to 4.9(c) above, BT determines that a device (whether a CP Device or any other device) is continuing to cause harm to the BT Network or to other End Customers' experience of the BT Network, BT may (if reasonably deemed necessary by BT) disconnect such device from the BT Network to protect its integrity.

(e) Further to paragraph 4.9(d), BT shall:

(i) use reasonable endeavours to amend or otherwise alter its network firmware roll-out plans as a result of such notification from the Communications Provider; and

(ii) permit the Communications Provider a reasonable period to deploy its change before the BT Network deployment will recommence. The length of such period shall be subject to BT's agreement, not to be unreasonably withheld or delayed.

(f) If BT notifies the Communications Provider of a BT Network Upgrade in accordance with this Schedule 2B and the Communications Provider fails to implement such reasonable changes to the CP Device pursuant to paragraph 4.9(c):

(i) BT will not be liable for any damages or loss howsoever caused as a result of such failure by the Communications Provider; and

(ii) The Communications Provider will be liable to BT for any loss of or damage to the BT Network caused by such failure to implement.

## 5 MINIMUM PERIOD OF SERVICE

5.1 The minimum period of service for the Service to an individual Site is one (1) month commencing on the date of provision of the Service to the Communications Provider. Subject to paragraph 5.2 below, if the Communications Provider terminates the Service before the end of the minimum period of service (other than under clause 2.8 of the Conditions), the Communications Provider shall pay BT an early termination charge which is based on the rental (being the rental charge by BT at the time when the CP terminates the Service to that individual Site) for the unexpired portion of the minimum period of service.

5.2 BT shall not charge the losing communications provider in a communications provider to communications provider migration an early termination charge.

## 6 BT LIAISON WITH END CUSTOMERS

6.1 As part of providing the Service under this Contract, BT may need to contact End Customers either via the Communications Provider, or directly in the following circumstances:

(a) in relation to operational or Emergency reasons incidental to or arising from BT's service management of the BT Network;

(b) where the Communications Provider has requested BT to contact the End Customer directly;

(c) where necessary in relation to all appointments, changes to appointments and access arrangements with the End Customer for engineering visits;

(d) in the interests of the health and safety of the BT engineer; and

(e) to assist with provision of the Service and/or maintenance or repair as appropriate.

6.2 Openreach may explain the respective roles and obligations of Openreach, BT and the Communications Provider in relation to the provision of the Service and the CP Service to End Customers. In these circumstances, BT will comply with any regulatory obligation or agreed code relating to its conduct in communications with End Customers.

6.3 The Communications Provider shall not without BT's prior consent publish or give to any End Customer contact details for any BT personnel.

6.4 Nothing in this clause covers communications between BT and End Customers for any other purposes.

## 7 SERVICE ASSURANCE AND PROBLEM MANAGEMENT

7.1 The Service will be maintained in accordance with Schedule 5.

7.2 The Communications Provider may order SuperFast Visit Assure, as set out in the GEA-FTTC VDSL and Gfast product descriptions. The Communications Provider accepts and will procure that the End Customer accepts that such service(s) may not resolve the issue encountered by the End Customer.