

SERVICE DESCRIPTION: WHOLESALE BITSTREAM SERVICE (WBS)

1. THE SERVICE

The Wholesale Bitstream Service (WBS) is an access product which enables the Access Seeker to provide high speed products and services to End Users via Connections over a digital pathway across the Access Provider's network and enables the Access Seeker to provide superfast (speeds from and above 20Mbit/s) products and services to End Users via Connections over a digital pathway across the Access Provider's GPON network. The digital pathway consists of one or more Connections, involving one or more Access Links between End User premises and one or more Aggregation Links.

Available To: Holders of an appropriate Individual Telecommunications or Class License.

Traffic: Traffic permitted by the licenses held by Access Seekers.

Reciprocal Service: Not required.

2. DEFINITIONS

Capitalised terms not defined in this Service Description are defined in the Dictionary. Terms defined in this Service Description are specific to it.

Access Seeker means a Licensed Operator.

Access Link means the digital point-to-point communications between an End User Premises and the OLT nearest to that End User Premises.

Aggregation Link means the logical or physical link between an Aggregation Point and an Access Seeker's Point Of Presence. For the avoidance of doubt, an Access Seeker must have Batelco establish at least one Aggregation Link before the implementation of the first Service Request.

Aggregation Point means the point on SE's network where the Aggregation Link is connected.

SE Exchange (BE) means an exchange which has OLTs installed at the time of the Service Request.

"Business" means an End User with a commercial registration where the Access Seeker pays non-residential WBS Charges.

Cancellation Request means a Service Request for discontinuing a WBS.

Connection means the digital pathway that provides one end-to-end connection between one specific End User premises and the Access Seekers POP.

End User means the ultimate recipient of a service who is a legal or natural person.

End User Consent means the written consent obtained by an OLO on behalf of an End User to receive a service by means of a WBS Service supplied to the Access Seeker in accordance with a WBS Service Request, which consent is provided to by or on behalf of the End User.

End User Management means all aspects of interface with the customer product support and billing of the End User by the Access Seeker in relation to each End User contracting with the Access Seeker for using the WBS Service and first line support by the Access Seeker in relation to maintenance issues related to the End User.

End User Premises Equipment means a splitter and modem, or other equivalent technology, necessary to support the End User ability to use a WBS Service.

Exceptional Delivery Date means the date defined at Annex 1 paragraph 4.1.

Existing End User means

- (i) an End User who already receives a broadband service over fibre;
- (ii) an End User who has an order pending for broadband service over fibre with another Licensed Operator on the date of the Service Request; or
- (iii) An End User who has ceased or terminated a broadband service over fibre with another Licensed Operator and who has been without such service for at least 14 days prior to the date of the Service Request.

GPON means gigabit passive optical networks, an access technology used by SE to provide a fiber based asymmetric connection at a fixed location.

Implementation Date means the date set out in a WBS Service Request, which shall be determined in accordance with the timescales set out in clause 7 upon completion of an active ONT at the End User Premises.

Invalid Transfer means a Service Request:

- (a) where the End User (or its/her/his agent) did not request the services that the Access Seeker intended to supply via a WBS Service;
- (b) where a valid written End User Consent cannot be produced by the Access Seeker to support the Service Request;
- (c) which resulted from a processing error;
- (d) where only a copper Connection is available to the End User
- (e) for an Existing End User;
- (f) where a valid address is not provided; and
- (g) where a Transfer Request is still subject to the Minimum Service Period the original Access Seeker.

IP means Internet protocol.

Mass Market means an End User that does not use a commercial registration to enter into a contract with the Access Seeker and where the Access Seeker pays the residential WBS Charges.

MPLS means multi-protocol label switching.

Network Boundary means for a fiber based Access Link, the ONT at the End User Premises.

New Connection Request means a Service Request for establishing a new WBS Connection for the provision of services to an End User at the premises of such End User.

Non-SE Equipment means any End User Premises Equipment which is not supplied and supported and maintained by SE and all equipment used by the Access Seeker.

OLT means optical line terminal, network equipment in SE Exchange used in the provision of a WBS Connection.

ONT means optical network terminal, network equipment in the End User Premises used in the provision of a WBS Connection. The ONT is supplied, supported and maintained by SE and SE reserves the right to change or replace the ONT at any given time.

Point of Presence (POP) means an aggregation or network connection point in the Access Seeker's Network located at premises owned or shown to be leased by the Access Seeker or at a SE collocation facility, but for the avoidance of doubt cannot be at an End User Premises, cable station, earth station, manhole, power room, lead-in pipe, duct, outdoor cabinet, MDF, riser room or anywhere not on the main island of Bahrain unless connected by a permanent physical connection above sea level and accessible to the Access Provider.

Reconfiguration Request means a Service Request for reconfiguring the technical parameters of an existing Connection.

Reversal Request means a Service Request for returning a WBS Service to its setup or configuration prior to the most recent Service Request. For the avoidance of doubt this type of Service Request can either be made by the OLO (on behalf of the End User) to SE or by the End User directly to SE.

Ready for Test (RFT) Date means the date when all elements to the WBS Service have been successfully installed and ready for testing by SE.

Service Node means a technical building used by SE to house Equipment and to which the Useable Lines of a given geographical area are converging.

Service Qualification means the analysis carried out by SE via the Internet or manually to confirm whether the WBS Service can be provided on the SE network by checking:

- (b) line loss;
- (c) infrastructure availability; and
- (d) interference

Service Request means a formal request for a service of the WBS. Service Requests for the WBS include New Connection Request, Change Request, Reversal Request, Transfer Request, and Cancellation Request.

WBS Service Request means the request by the Access Seeker for a WBS Service.

Transfer Request means a Service Request for transferring an existing connection from one operator to another operator.

Upgrade/Downgrade Request means a Service Request to upgrade/downgrade the speed of an existing Connection, where a Connection is already provided by an OLO for the provision of services to an End User at the same location.

Useable Line means the fiber access line to the End User over which the End User is acquiring telecommunications services from any Licensed Operator.

3. SERVICE TERMS

- 3.1 The WBS Service shall only be made available to End Users who are not Existing End Users. For the avoidance of doubt, this preceding limitation will expire on the date full and effective separation is achieved. The Access Seeker shall ensure the WBS is not subdivided or split between multiple End User premises. Subject to being able to access

- the End User premises, SE reserves the right to inspect the End User premises to ensure the Connection is being provisioned in accordance with the terms of this paragraph 3.1.
- 3.2 For the avoidance of doubt, a minimum service period of 12 months per Connection (Minimum Service Period) shall be required for the WBS Service. In the event of termination cancellation, or move of any Connection to another speed/package, or default on payment before the end of the Minimum Service Period or any further fixed service period, the Access Seeker shall be liable to pay to SE liquidated damages calculated as the cumulative total of the full rental Charges that would otherwise have been payable from the date of early termination up until the end of the Minimum Service Period or subsequent fixed service period as identified. The Access Seeker shall not be liable to pay liquidated damages if the cancellation was directly caused by a breach by SE of one or more of its WBS obligations.
- 3.3 Where SE has reasonable objective grounds to consider that the Access Seeker is in material breach of an obligation under paragraphs 3.1 and 3.2 and after giving 20 Business Days written notice to the Access Seeker to remedy such breaches, if left unremedied, SE may:
- (a) suspend implementation by the Access Seeker of the WBS Service and/or
 - (b) take any other step contemplated by the Supply Terms to protect SE's network or other interests.
- 3.4 In respect of a breach of an obligation under paragraph 3.1, SE may immediately terminate the WBS Service Connection and penalty charges shall be applied, equal to the relevant monthly charge for the WLA speed equal to the WBS service speed for the Minimum Service Period.
- 3.5 In the event of material breaches by the Access Seeker of paragraphs 3.1 and 3.3, Batelco reserves the right to after giving 20 Business Days written notice to the Access Seeker to remedy such breaches, if left unremedied, terminate the WBS Service in its entirety, including all related Connections to the Access Seeker's End Users.

If SE terminates this service in whole, then each WBS Service will terminate.

4. END USER ACCESS

Useable Line

- 4.1 The Access Seeker acknowledges that Batelco only supplies a WBS Service in an area where SE has deployed GPON fibre and spare GPON fibre for WBS is available.

Installation or Transfer of End User Access

- 4.2 For each WBS Service Request the Access Seeker shall inform the End User that:
- (a) the installation and operation of the WBS Service may require changes to the placement of existing telecommunications devices or changes of equipment.
- 4.3 In respect of each WBS Service, the Access Seeker releases SE from all liability to the End User or the Access Seeker, and indemnifies SE, subject to SE using all reasonable endeavours to mitigate against the effect of the occurrence of the indemnified event, against all costs, expenses, liability, loss or damage incurred or suffered by SE in conjunction with any claims, actions or proceedings against SE (including third party claims or claims by an End User) arising out of the following (to the extent that the liability is caused by the testing, qualification, enquiry regarding, provision, transfer or cancellation of a WBS Service):
- (a) suspension or cancellation of the WBS Service where the Access Seeker is at fault; and

(b) termination in accordance with Section 3 of this Service Description where the Access Seeker is at fault.

4.4 Data transport using the WBS Service between an OLT and a SE Aggregation Point are available for the range of products identified in Annex 2.

4.5 Maximum attainable WBS speed shall be subject to the physical distribution of the bandwidth of the splitter and the contention ratio set out at Annex 2 may be applied. Multiple VLANs and multicasting features are not offered as part of the WBS Service.

4.6 The Access Provider reserves the right to reject an order if the Useable Line cannot support the requested speed or the operational line is copper based.

5. MAINTENANCE

5.1 SE will provide network maintenance and support services to ensure that all of the network elements used to provide the WBS Service are provided to the Access Seekers at the same level of quality of service and availability as provided for the equivalent WBS service elements supplied to Batelco retail.

6. EQUIPMENT

6.1 The provision of a WBS Service or the implementation or transfer of the WBS Service does not include the provision of any cabling or any customer premises equipment.

6.2 The Access Seeker must ensure that Non-SE Equipment connected to the WBS Service:

(a) meets the specifications and requirements defined by relevant international telecommunications and engineering standards; and

(b) is equipment approved under Article 38 Telecommunications Law.

7. CONNECTION

7.1 SE will use its reasonable endeavours to connect the WBS Service by the relevant Implementation Date. SE will notify the Access Seeker when the connection has been effected in accordance with the WBS Service Request procedures set out in Annex 1 to this Service Description. Except for any service credit specified in this Service Description, SE will not be liable for any inconvenience, loss or damage suffered by Access Seeker or an End User if SE does not connect the WBS Service by the Implementation Date.

8. WBS TRANSFER PROCESS

8.1 SE and the Access Seeker must comply with this clause 8 and Annex 1 of this Service Description when carrying out any WBS Service Request.

8.2 The Access Seeker must establish robust procedures to ensure an appropriate End User Consent is received and properly recorded before any WBS Service Request is notified to SE.

8.3 The Access Seeker must provide SE with a copy of the End User Consent.

9. CHARGES

9.1 The Access Seeker must pay to SE the relevant Charges set out in Annex 3.

9.2 All Charges and sums due from one party to the other under this Agreement are exclusive of VAT. Any VAT shall be charged in accordance with the relevant regulation in force at

the time of making the taxable supply and shall be paid by the paying party following receipt from the billing party of a valid VAT invoice.

- 9.3 For the Minimum Service Period and recognizing the aim to increase new WBS Service Requests in the market and to encourage sustainable competition amongst Licensed Operators, the Access Seeker acknowledges and agrees it shall not charge the End User less than the WBS Charges for the relevant package.

10. RESPONSIBILITIES

- 10.1 From the time of the completion of the WBS Transfer Process, the relevant End User will no longer be a customer of the previous Licensed Operator for those services supplied by the Access Seeker using the WBS Service, but instead the customer of the Access Seeker for those services.
- 10.2 From the time of completion of the WBS Transfer Process, the Access Seeker must provide End User Management to support the WBS Services. However, if requested by an End User or the Access Seeker, SE will provide technical support in relation to problems End Users may report with services supplied to End Users using the WBS Service, including fault management, and support and maintenance for which the Access Seeker must pay the charges set out in Annex 3.
- 10.3 The Access Seeker will contact SE for all maintenance replacement or repair of the WBS Service and the network on the Access Provider's side of the Network Boundary and will pay SE the Charges at the rate specified (or if not specified, on a time and materials basis) for all such work.
- 10.4 The Access Seeker is responsible for billing the customer for the services supplied to End Users using the WBS Services provided since the date of the completion of the WBS Service Request.
- 10.5 In respect of each WBS Service Request submitted by the Access Seeker to SE, Access Seeker must ensure that:
- (a) the Access Seeker has a valid End User Consent authorizing the transfer or implementation (which consent is not more than 30 days old from the date the WBS Service Request was submitted to SE);
 - (b) the Access Seeker retains records of the End User Consent and the retention is in accordance with the reasonable requirements notified to the Access Seeker by SE from time to time;
 - (c) the Access Seeker has used its reasonable endeavors to ensure that the information in the WBS Service Request is complete and correct;
 - (d) the processing of each WBS Service Request, at the time it is lodged, does not breach any party's contractual or other rights (but, for the avoidance of doubt, a valid End User Consent shall be deemed to be a valid notice to SE to terminate the relevant SE services);
 - (e) the Access Seeker has used its reasonable endeavors to provide the End User with sufficient information to make an informed choice about transferring the End User's internet service provider, including informing the End User that:
 - (i) the End User remains liable for the amount of any pre-existing charges and possible termination expenses; and

(ii) the Access Seeker has complied with any relevant legislation or other industry code of practice.

10.6 Upon notification to the TRA, SE may investigate whether the Access Seeker has acted in compliance with the obligations given under this Service Description. On reasonable request, the Access Seeker must provide SE with evidence that the Access Seeker has acted in compliance with this Service Description.

10.7 The Access Seeker shall in respect of this WBS Service comply in all respects with its obligations under Article 78 Telecommunications Law and any regulation or decision issued by the Regulator in relation to lawful access.

11. BILLING PERIOD

11.1 The Billing Period in respect of the Service shall be 30 days. The Billing Period shall commence on the date of the first billing date of the SE billing cycle after installation and may include billing on a pro rata time basis for the period between the WBS Service Request to the next billing cycle to ensure compatibility with the SE billing cycle

12. AGGREGATION LINK

12.1 Following a request from the Access Seeker, THE Access Provider will provide a 10Gbit/s WBS Service Aggregation Link at the Charges set out in Schedule 3A.

ANNEX 1 – WBS SERVICE REQUEST PROCESS

1. WBS Service Request

- 1.1 The Access Seeker must make a WBS Service Request for the provision of a WBS Service to allow the Access Seeker to supply a new or existing service to an End User.
- 1.2 SE shall send the Access Seeker an acknowledgement of the Service Request within 15 minutes of receipt of the Service Request. If the Service Request is done outside working hours, SE shall acknowledge the service request within 15 minutes following the start of the first working hour after receipt of the Service Request.
- 1.3 A WBS Service Request must be in the format notified by SE from time to time and be submitted by electronic mail to the address notified by SE from time to time.
- 1.4 SE will, within 1 Working Day of receipt of any WBS Service Request, notify the Access Seeker whether the WBS Service Request is:
 - (a) accepted; or
 - (b) rejected.

SE shall provide written reasons for rejection to the Access Seeker.

- 1.5 SE may reject a WBS Service Request if it:
 - (a) is incomplete or incorrect or illegible or cannot reasonably be understood;
 - (b) does not properly identify the End User (including such identification in line with paragraph 3.1 of Section 3), or provide information which does not enable SE to identify the Useable Line;
 - (c) is not submitted in accordance with paragraph 3 of this Annex 1;
 - (d) requests the Transfer of a WBS Service which has different transmission characteristics from any existing WBS Service being provided (if any), without also requesting a Service Qualification with regard to the Useable Line over which the new WBS Service is to be provided; or
 - (e) requests the WBS Service for provision of services to a customer or potential customer of the Access Seeker who is not an End User at the date of submission of the WBS Service Request;
 - (f) it is an Invalid Transfer; or
 - (g) has any other defect notified by SE to the Access Seeker at the time of rejection.
- 1.6 SE may in its sole discretion elect to accept any WBS Service Request notwithstanding that there is any defect in that WBS Service Request if SE considers that such defect does not have a material effect on SE's ability to process the WBS Service Request and provide the WBS Service.
- 1.7 SE will within 2 Working Days from the acceptance of the Service Request provide the Access Seeker with notice of the Expected RFT and RFS Dates.

2. WBS Change Request

- 2.1 The Access Seeker must, to initiate a WBS Change to an existing WBS Service used by the Access Seeker to supply a service to an End User, provide SE with a properly

completed WBS Change Request, in the format notified by SE from time to time, submitted by electronic mail to the address notified by SE from time to time.

2.2 SE will, within 1 Working Days of receipt of any WBS Change Request, notify the Access Seeker whether the WBS Change Request is:

- (a) accepted; or
- (b) rejected.

SE shall provide written reasons for rejection to the Access Seeker.

2.3 SE may reject a WBS Change Request if it:

- (a) is incomplete or incorrect or illegible or cannot reasonably be understood;
- (b) does not properly identify the End User, or provide information which does not enable SE to identify the Useable Line;
- (c) is not submitted in accordance with paragraph 3 of this Annex 1;
- (d) requests a WBS Change which cannot reasonably be provided for practical or operational reasons; or
- (e) has any other defect notified by SE to Access Seeker at the time of rejection.

2.4 SE may in its sole discretion elect to accept any WBS Change Request notwithstanding that there is any defect in that WBS Change Request, if SE considers that such defect does not have a material effect on SE's ability to process the WBS Change and provide the WBS Service.

3. Batches

3.1 The Access Seeker must submit WBS Service Requests to SE in batches of no more than 10 Service Requests. Batches must be:

- a) submitted to the address notified by SE from time to time;
- b) submitted by authorised personnel of the Access Seeker;
- c) made up of only WBS Service Requests that comply with the requirements of this Service Description and the Supply Agreement;
- d) identified by a unique batch number generated by the Access Seeker.

3.2 SE will only accept batches of WBS Service Requests that:

- a) comply with the requirements set out in paragraphs 1 and 2;
- b) do not exceed the maximum number of two (2) batches per day.

3.3 If any batch of WBS Service Requests contains one or more Requests that contains one or more defects, SE will:

- a) reject the defective WBS Service Requests by returning them to Access Seeker; and
- b) continue to process the valid WBS Service Requests within the same batch.

4. Completion of Request

4.1 If SE notifies the Access Seeker that the WBS Service Request is accepted, then SE shall subject to the exceptions, limitations and conditions specified by this Service Description and/or Supply Terms, endeavour to provision and deliver the WBS Service on or before the standard time scales summarised below in Clause 7. The Parties acknowledge and accept that exceptional circumstances, such as those set out below, may give rise to delays in any

stage of the acceptance, provisioning and delivery of a Service Request. If the occurrence of any of the events below takes place, SE shall communicate an alternative date for delivery ("the **Exceptional Delivery Date**") to the Access Seeker and shall not be held liable for the Service Level Penalties or for damages under these Supply Terms. The exceptional circumstances shall comprise:

- (i) a Force Majeure Event or a Regulatory Event (Schedule 9 clause 16);
- (ii) planned maintenance (Schedule 6 para 6);
- (iii) events either caused by or which are under the reasonable control of the Access Seeker or its retail end-customer; and
- (iv) any breach of the Access Seeker's obligations under this Service Description or otherwise under these Supply Terms.

4.2 SE shall not be obliged to further process a WBS Service Request where:

- a) the relevant WBS Service cannot meet Service Qualification; or
- b) an authorised person from the End User or the Access Seeker is not available to provide further information when requested.

5. Notification of Completion of Request

5.1 SE must, within 2 Working Days of completion of a WBS Service Request or a WBS Change Request, notify the Access Seeker of completion.

5.2 SE is entitled to rely on a Request as evidence that the relevant End User:

- a) in the case of a WBS Service Request:
 - i. has given a valid End User Consent in relation to the requested WBS Service Request; and
 - ii. in the case of a WBS Change Request understands and has requested the WBS Change.

6. Reversal of a WBS Service Request

6.1 At any time following the successful completion of a WBS Service Request, either:

- (a) the relevant End User; or
- (b) the Access Seeker;

may make a request to SE to reverse the WBS Service Request.

6.2 SE will, within 2 Working Days of completion of a Reversal Request notify the Access Seeker that the Reversal Request has been processed.

7. Service Level Agreement

7.1 SE shall provide the WBS Service in accordance with the Service Level framework set out below. The Service Levels for the WBS Service Requests are defined and described in the table below with the associated deliverables, actual measures of performance, Service Level Terms and Service Level Penalties. Defined terms are capitalised in the table below or in Schedule 8 (dictionary) in accordance with clause 4.

Service Levels	Service Level Terms	Service Level Penalties
◆ Service request process		
◆ Service Request Acknowledgment	<p><u>Maximum Time for Service Request Acknowledgment:</u></p> <p>During working hours: 15 minutes following receipt of the Service Request</p> <p>◆ Outside working hours: 15 minutes after the start of the first working hour following receipt of the Service Request</p>	
◆ Service Request Confirmation	<p>◆ <u>Maximum Time for Service Request Confirmation:</u> 3 WD</p>	<p><u>Penalties for Service Request Confirmation:</u></p> <p>◆ 5 Service Credits ('SC') for each WD after the Maximum Time for Service Request Confirmation until such time as the OLO receives the confirmation.</p>
◆ Service delivery process		
◆ Notification of Expected RFT and RFS Dates	<p><u>Maximum Time for Notification of Expected RFT and RFS Dates:</u> 2 WD</p> <p>For a Cancellation Request, Batelco shall only provide the Maximum RFS Date, which shall be the expected date of cancellation, taking into account the required notice period for cancellation.</p>	<p>◆ Penalties for Notification of Expected RFT and RFS Dates: 5 Service Credits ('SC') for each WD after the Maximum Time for Notification of Expected RFT and RFS Dates until such time as the OLO receives the notice.</p>
◆ Service Level for RFS Date	<p>◆ <u>Maximum Delivery Time:</u> 7 WD</p> <p>◆</p> <p>◆ In cases of Transfer Requests, SE shall coordinate the deactivation and activation of the Connection on the same day to ensure minimum service disruption.</p> <p>◆ <u>Maximum Validation Time:</u> 2 WD</p>	<p>◆ Penalties for RFS Date: 20 SC for failure to meet the Maximum RFS Date and 10 SC for each additional working day thereafter until the OLO receives the RFS Certificate.</p>
◆ Acceptance Criteria	◆ N/A	
◆ Service quality management		
◆ QoS Parameters	◆ N/A	
◆ Fault management process		
◆ Fault Acknowledgment Time	<p>◆ <u>Maximum Fault Acknowledgment Time:</u> 1 hour</p>	

Service Levels	Service Level Terms	Service Level Penalties
♦ Response Time	♦ <u>Maximum Response Time: 5 working hours during working hours and 12 hours outside working hours</u>	
♦ Restoration Time	♦ <u>Maximum Restoration Time: 48 hours</u>	♦ Penalties for Restoration Time: 10 SC for failure to meet the Maximum Restoration Time + 5 SC for every 4 hours exceeding the Maximum Restoration Time ♦ Maximum Monthly Penalty Cap: 300 SC per Connection and per month

ANNEX 2 – WBS PRODUCT LIST

WBS Access Speeds
(Contention Ratio 1:15 residential)
20Mbit/s downstream / 2.048Mbit/s upstream
30Mbit/s downstream / 5.048Mbit/s upstream
40Mbit/s downstream / 5.048Mbit/s upstream
80Mbit/s downstream / 10.048Mbit/s upstream
100Mbit/s downstream / 10.048Mbit/s upstream
500Mbit/s downstream / 50.048Mbit/s upstream
Aggregation Link 1Gbits/s
Aggregation Link 10 Gbits/s (on request)

Data Type Handling

The data type handling capability provided over the WBS Service is a Layer 2 MPLS service. End User services provided by the Access Seeker will be limited only by the capability of the Access Seekers themselves within the boundaries of the Access Provider's network.

ANNEX 3 – WBS CHARGES

The Access Seeker shall pay the relevant Charges for the WBS Service as specified under the WBS Service in Schedule 3A.

ANNEX 4 –WBS Service – Technical Diagram

