

SCHEDULE 6.5 – SERVICE DESCRIPTION
CORE CONNECT AND LANDING STATION SERVICE (CCLS)

1. THE SERVICE

Service Description

- 1.1 The Core Connect and Landing Station Service (CCLS) is a high-speed circuit that uses Dense Wavelength Division Multiplexing (DWDM) on the Access Provider's dedicated fibre within the Kingdom of Bahrain between:
- (a) two Access Seeker Core Sites; or
 - (b) (i) an Access Seeker's Core Site and (ii) a Landing Station.
- 1.2 The CCLS Service is provided with a bandwidth specified in Annex 1 of this Service Description.
- 1.3 The CCLS Service is available to Access Seekers holding an Individual Telecommunications License.
- 1.4 The CCLS Service is designed for an Access Seeker's own internal operations and not for provisioning a service to End Users. For example, it shall not be used to provide a service to any End User or where such service can be provided by another product in this Reference Offer, including but not limited to the Wholesale Data Connection (WDC) Service and/or the Mobile Data Service – Active (MDS-A).

2. DEFINITIONS

Capitalised terms not defined in this Service Description are defined in Schedule 8 - (Dictionary) of the Reference Offer. Terms defined in this Service Description are specific to it.

Access Seeker Core Site means a location in the Kingdom of Bahrain owned or controlled by the Access Seeker which hosts equipment for control functionality on its Network.

Landing Station means a location where international cables terminated inside the Kingdom of Bahrain, which provide cross-connection(s) between international carriers and Licensed Operators, are hosted.

CCLS Connection means an individual CCLS Service.

Customer Premises Equipment or **CPE** means that Equipment forming part of the CCLS at the Access Seeker Core Site or a Landing Station, respectively.

Minimum Service Period means an applicable minimum period of twenty-four (24) calendar months for which the CCLS Service shall be provided, such period commencing from the Service Commencement Date.

CCLS Amended Service means an CCLS Service that is amended by a Change Request.

CCLS Service means the service defined at paragraph 1 above.

CCLS Operations Manual means Annex 4 of this Schedule 6.5,

Renewed Minimum Service Period means an applicable minimum period of one (1) month for which the CCLS Service shall be provided, such period commencing from the expiry of a Service Period.

Service Period means the Minimum Service Period or Renewed Minimum Service Period.

3. TERMS

Use of Service

- 3.1 The CCLS Service shall only be made available to provide connectivity between (i) Access Seeker Core Sites, or (ii) a Landing Station and Access Seeker Core Site ,and not any End User. The Access Seeker may not resell the CCLS Service to another Licensed Operator.
- 3.2 Where the Access Provider reasonably suspects breach of paragraph 3.1, it may refer the matter as a complaint for investigation by the Authority.
- 3.3 Where the Authority establishes after an investigation under paragraph 3.2 that an Access Seeker is not using the CCLS Service in accordance with this Service Description, the Access Provider without prejudice to any other rights and remedies under the Supply Terms may by immediate written notice suspend or terminate the specific CCLS Connection and the Access Seeker shall be liable to pay the Access Provider liquidated damages calculated in accordance with CCLS Operations Manual.

Supply of Service

- 3.4 The Access Seeker shall submit a Service Request to the Access Provider to request supply of the CCLS Service in accordance with the process set out in the CCLS Operations Manual.
- 3.5 Subject to the Access Seeker fulfilling all of its obligations set out the CCLS Operations Manual, the Access Provider shall provide and the Access Seeker shall acquire the CCLS Service either within the standard timescales or by the Exceptional Delivery Date as appropriate.
- 3.6 The Service Level Terms shall apply to:
- (a) New CCLS Connection – provide a new CCLS Service as requested by the Access Seeker;
 - (b) Upgrade or Downgrade;
 - (c) Hot and Cold Migration – changing the End User address of an existing CCLS Connection, requiring disconnection and reconnection of the CCLS Connection end point, including “hot migration” which is when the CCLS Connection is not disrupted and “cold migration” which is when the CCLS Connection can be disrupted;
 - (d) Reconfiguration – reconfigure technical parameters of an existing CCLS Connection; or
 - (e) Cancellation – the Access Seeker requests the cessation of an existing CCLS Connection.
- 3.7 Further information relating to the applicable Service Level Terms and Service Level Penalties for the above is detailed in the Schedule 7 – (Service Levels) of the Reference Offer.

Amendment to the CCLS Service

- 3.8 The Access Seeker and Access Provider shall comply with the specific process set out for the Amendment to the CCLS Service in the CCLS Operations Manual. This covers scenarios whereby the Access Seeker requests an internal shift, Relocation, or an external shift. These processes shall be applicable to existing CCLS Services only.

Access Seeker Obligations

- 3.9 The Access Seeker shall provide the Access Provider with suitable space for, and access during Working Hours to, any Access Provider's Equipment required to be located in any building in which the CCLS Service is located within the control of the Access Seeker. If consent is required from a third party, the Access Seeker shall procure such consent. The Access Provider is not required to pay the Access Seeker for the preparation or use of, or access to, space provided pursuant to this sub-paragraph.
- 3.10 When provisioning a Service Request requiring new Duct build, the Access Provider is responsible for construction of the Duct on public land up until the demarcation point being the boundary of the plot where the Access Seeker Core Sites / Landing Station is located. The Access Seeker is responsible for construction of the lead-in Duct or in-building Duct or conduit from the demarcation point to the Access Seeker's Core Sites / Landing Station.
- 3.11 If the Access Provider's Equipment requires electricity supply and electricity connection points, they shall be supplied, in the location specified by the Access Provider, to the Access Seeker at the Access Seeker's expense according to the equipment specification. Such electricity shall be available at the same level of supply, protection and continuity as that available to the Access Seeker's Equipment, as appropriate.
- 3.12 The Access Seeker shall be solely responsible for any loss, theft or destruction of, or damage (reasonable wear and tear excepted) to the Access Provider's Equipment required to be located in the building where the CCLS Service is provided and which is within the control of the Access Seeker, occurring any time and howsoever caused (unless caused by the Access Provider or its agents).
- 3.13 The Access Seeker shall provide the Access Provider and any authorised employee, agent, affiliate or contractor of the Access Provider with all information and assistance that such person may reasonably require to design, test, commission and maintain the CCLS Service (which may include participation in testing procedures as and when reasonably requested by the Access Provider).
- 3.14 The Access Seeker may require their agent to be present during the installation, testing or commissioning done by the Access Provider but not so as to affect the Service Commencement Date.

Maintenance and Support

- 3.15 The Access Provider shall provide maintenance and support services in respect of the CCLS Service in accordance with the Schedule 7 – (Service Levels) of the Reference Offer and according to the processes set out in the CCLS Operations Manual.

Protection

- 3.16 The Access Seeker may procure a full geo-redundant link as protection. The geo-redundant link is considered as a separate CCLS Connection and charged at the applicable MRC representing a new CCLS Connection as set out in Schedule 3 of the Reference Offer. For the avoidance of doubt, the protection at core network level is not charged to the Access Seeker and it is only provided for information purposes and may be changed at the Access Provider's sole discretion.

- 3.17 The provision of the full geo-redundant link as protection is subject to availability, feasibility study and subject to the Access Seeker obtaining any relevant approval, including but not limited to access approvals, any relevant landlords and/or Government authority as long as the Access Provider made all reasonable efforts to obtain them, including making the relevant applications in a timely manner, notifying the Access Seeker of such requirement and keeping the Access Seeker updated on the progress.
- 3.18 During the provisioning of a CCLS Connection for which a full geo-redundant link as protection is required, the Access Provider shall provide the Access Seeker with the technical details regarding the protection solution, including the following:
- (a) the service configuration;
 - (b) the relevant acceptance tests for both the primary and secondary end-to-end CCLS Connections at RFS (after provisioning).

4. CHARGES

- 4.1 The Access Seeker shall pay to the Access Provider the relevant Charges determined in accordance with Schedule 3 – (Pricing) of the Reference Offer.
- 4.2 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.

5. SERVICE LEVELS

- 5.1 The Access Provider shall provide the CCLS Service in accordance with the Service Levels specified in Schedule 7 – (Service Levels) of the Reference Offer.

ANNEX 1

CIRCUIT BANDWITH, DEFINED INTERFACES, MEDIA AND TOPOLOGY

Service element	Interface	Connector	Topology	Access
CCLS Connection terminating at Access Seeker Core Site / Landing Station	5G, OTU2/10G, 25G, OTU3/40G, 50G and OTU4/100G	SFP/XFP, LC/PC	Point-to-point	Fibre

The CCLS Service is provided in accordance with the ITU-T recommendation G.709

ANNEX 2

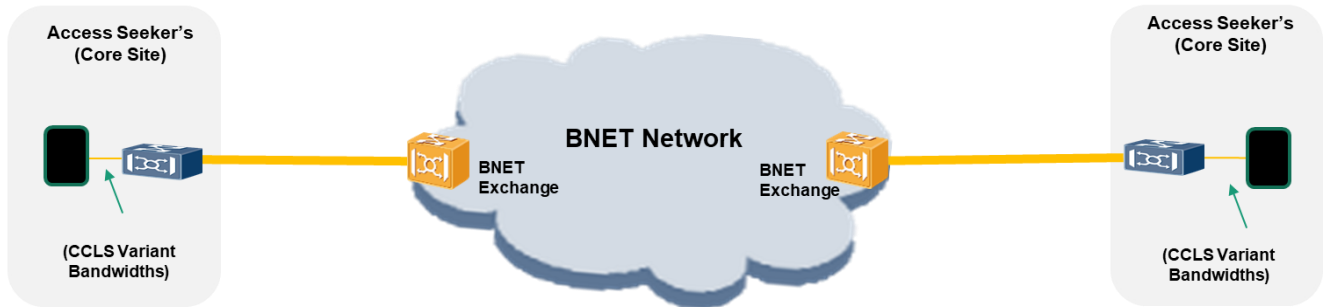
PROVISIONING VALIDATION TEST

Provisioning Validation Test	
Testing Methodology	ITU-T G.709/ ITU-T Y.1564
Testing Mode	Testers simulates with setting of 5G, OTU2/10G, 25G, OTU3/40G, 50G and OTU4/100G levels of required Bandwidth and also tester simulates CPE.
Parameters tested	Frame loss, BERT, Throughput
Tester Setting	CCLS Bandwidth Variants
Test Results	Copy provided to the Access Seeker upon request at time of testing

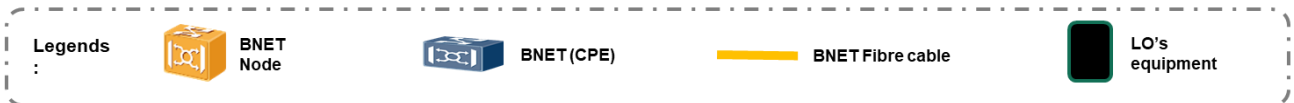
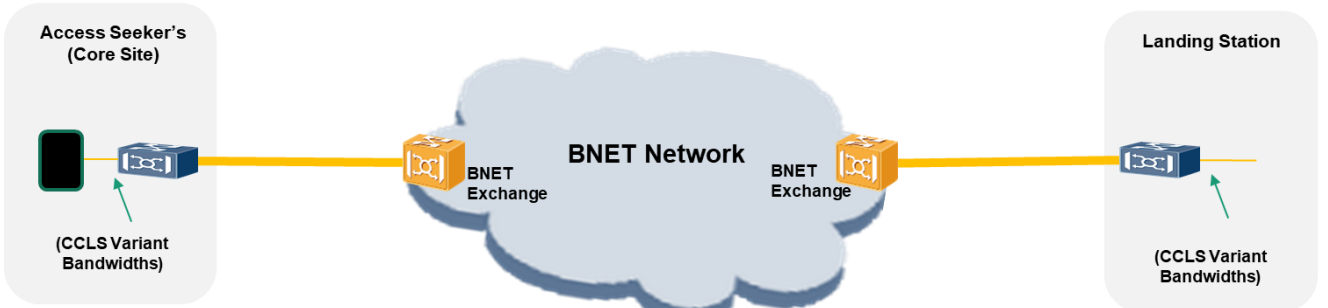
ANNEX 3
CCLS SERVICE DIAGRAMS

The diagrams below are simple representation of the Access Provider BNET Network used to deliver the CCLS Service.

CCLS Service between two Access Seeker's Core Sites



CCLS Service between Access Seeker's Core Site and Landing Station



Core Layer (For information purposes only)

- BNET's network enhancement now enables Ethernet VPN (EVPN), allowing the deployment of traffic balancing and flexible deployment on Ethernet.
- The EVPN data is transported through Segment Routing over IPv6 (SRV6) technology on SRV6, ensuring that BNET's core network is able to provide the redundancy and protection required on multiple nodes in a single or multiple (GEO) physical sites.
- As such, this allows BNET to mitigate any single point of failure on its core network by allowing the traffic to be dynamically routed in case of any outage.