BT Optical Connect Global
Service Annex to the General Service Schedule

BT Reference No. **-**** -*****

1. Definitions

The capitalised terms in this Service Annex will have the following meanings and in the case of conflict between these defined terms and the defined terms elsewhere in the Agreement, these defined terms will take precedence for the purposes of this Service Annex:

"**Access Line**"	means a private dedicated Circuit connecting a Site to the BT Optical Connect Global Network.
"**Aggregate Interface**"	means an interface to the Customer over which multiple BT Global Optical Connect Services are or can be provided.
"**BT Optical Connect Global Network**"	means the core network infrastructure owned or leased by BT used to provide the BT Optical Connect Global Service.
"**BT Optical Connect Global Service**"	means the Service, as described in paragraph 3.1.
"**Business Hours**"	means the local working hours in a Business Day in the country or region where a Site is located (as specified in the Order unless otherwise advised to the Customer by BT.
"**Circuit**"	means any line, conductor, or other conduit between two terminals by which information is transmitted, and that is provided as part of the Service.
"**Core Component**"	has the meaning given to it in paragraph 3.2.2.
"**Customer Committed Date**" ("**CCD**")	means the date provided by BT on which delivery of a Service (or each part of a Service, including to each Site) is due to commence.
"**Digital Distribution Frame** ("**DDF**")	means the physical unit or rack used to cross-connect, distribute, arrange and protect the digital cables.
"**End-End**"	has the meaning given to it in paragraph 3.1.3 (a).
"**End-POP-POP**"	has the meaning given to it in paragraph 3.1.3 (b).
"**Gbps**"	means giga bits per second.
"**GPOP**"	means global POP.
"**Incident**"	means an unplanned interruption to, or a reduction in the quality of, the Service or particular element of the Service.
"**Internet Protocol**" **("IP")**	means a network layer/protocol offering a connectionless internet network service.
"**Network Terminating Unit**" ("**NTU**")	means the socket where the Customer's wiring, equipment or existing qualifying data service is connected to the Access Line.

"**Optical Distribution Frame**" ("**ODF**")	means the unit or rack used to connect, distribute, and arrange the optical fibres.
"**POP**"	means point of presence, a geographical location where BT has a BT-operated facility/set of equipment which forms the demarcation point between the BT Optical Connect Global Network and the Access Line.
"**POP-POP**"	has the meaning given to it in paragraph 3.1.3 (c).
"**PSTN**"	means Public Switched Telephone Network, which is the concentration of the world's public circuit switched telephone networks.
"**Service Credit**"	means any remedy for failure by BT to meet a Service Level as set out in the Schedule.

2. Introduction

2.1 This Service Annex sets out the description of the BT Optical Connect Global Services that will be provided by BT.

3. Service Description

3.1 Overview

3.1.1 The BT Optical Connect Global Service provides dedicated, point to point links, capable of transmitting voice, data and IP traffic that connect two sites delivered. The BT Optical Connect Global Service is available as a domestic service and as an international service. The BT Optical Connect Global Service comprises as one of the following:

a) an end-to-end offering between the selected Sites;
b) hand-off at BT GPOP location as a wires only option; or
c) a combination of the two preceding options;

as specified in the applicable Order(s).

3.1.2 The BT Optical Connect Global Service includes the following features:

a) a range of standard line speeds starting from 1Gbps upwards;
b) speeds higher than 10Gbps which are available as multiples of 10Gbps, 40Gbps or 100Gbps; and
c) standard single connection, protected access or dual diverse routed connections subject to local availability of connectivity options.

3.1.3 The BT Optical Connect Global Service offers three terminating options:

a) <u>End-End:</u>

The BT Optical Connect Global Service connects one BT POP to another BT POP and an Access Line is provided at each end of the BT Optical Connect Global Service in order to complete the connections to the Customer's premises.

b) End-POP-POP:

The BT Optical Connect Global Service connects the BT POP to BT POP service with the Customer's premises at one end connected via an access Circuit and the other end is handed over at the ODF in the BT POP location associated with connecting to the site. One Access Line is provided by BT.

c) POP-POP:

The BT Optical Connect Global Service connects one BT POP to another BT POP, in this scenario the service is handed over to the Customer at the ODF at each BT GPOP location. No Access Lines are provided by BT.

3.2 Service Components

3.2.1 Access

An Access Line connects a Site to the BT Optical Connect Network. The Access Line is terminated on a POP.

The Access Line is as standard provided via a single route from the POP to the Customer's Site.

If requested by the Customer and included in the Order, the BT Optical Connect Global Service can be delivered with protected/diverse access if option is available. The BT Optical Connect Global Service will route over one Access Line to the POP, and should that Access Line fail, it would automatically be re-routed onto the redundant Access Line.

BT will support the interfaces on the Access Line components in accordance with the applicable local in-country technical standards.

BT or another operator on behalf of BT can provide the Access Line.

3.2.2 Core Component.

The Core Component is the BT Optical Connect Global Network located between the POPs in each country nearest to the Customer's Sites. Where services provided on a protected core network, there is a working path and a protection path between the POPs. In the event that the working path fails, traffic will automatically be re-routed to the protection path.

3.3 Service Limitations

3.3.1 If the Customer orders a non-restorable BT Optical Connect Global Service, the BT Optical Connect Global Service will be provided using non-restorable (and unprotected) Access Lines and Core Components as respectively described in paragraphs 3.2.1 and 3.2.2 above. If any part of the BT Optical Connect Global Service fails it will not be automatically or manually restored or re-routed and the Customer will experience loss of the Service which BT will rectify as soon as practicable. The Service Levels stated in paragraph 10 of the Schedule will apply.

3.3.2 Synchronisation. BT does not provide synchronisation with BT Optical Connect Global Services. The Customer must provide framing overhead bytes on any wavelength Service, even though BT provides the BT Optical Connect Global Service with transparency.

3.3.3 Temporary restoration. If BT agrees to the Customer's request to provide the BT Optical Connect Global Service on a specific transmission medium (cable or satellite), BT reserves the right to restore service temporarily on an alternative medium if a fault occurs.

4. Service Delivery

4.1 BT will install the Core Component and the required Access Line(s) by the Customer Committed Date and confirm to the Customer that the BT Optical Connect Global Service is operational and ready for testing before billing will commence after seven calendar days.

4.2 BT does not perform end-to-end tests on any BT Optical Connect Global Service terminating at an Aggregate Interface. Additional Charges will apply, if the Customer requests such a measurement, and is subject to if it is technically possible to make such a measurement.

4.3 BT will start to monitor the BT Optical Connect Global Service and provide repair and reporting when the Customer has contacted the Service Centre and confirmed that:

4.3.1 testing has been completed;

4.3.2 all the Customer Equipment has been connected to the BT Optical Connect Global Service; and

4.3.3 the BT Optical Connect Global Service has been accepted by the Customer, subject to clause 4.1.

5. Service Management Boundary (SMB)

5.1 For BT Global Optical Connect End-End Services, The SMB is at the Network Terminating Unit of the Access Line provided by BT. This includes provisioning and maintenance of all elements up to this Service Management Boundary.

5.2 For BT Optical Connect Global Services with a terminating end in a BT POP (e.g. POP-POP or End-POP) – the Service Management Boundary for the POP side of the BT Global Optical Connect Service is at the connector at the drop side of the multiplexer in the BT POP or at the applicable ODF/DDF. In the event that BT has an existing interconnection with the Customer or any other Access Line provider the Customer is using, the existing demarcation point with such other operator will apply, provided that it is specified in the Order(s) at the time of placing the Order.

6. The Customer's Responsibilities

6.1 Some Services may require the Customer to provide a PSTN or broadband line(s). The Customer will pay all Charges related to provision and use of and report any Incidents in such lines directly to BT of the PSTN or broadband service. The lines may only be used in connection with the BT Optical Connect Global Service.

6.2 The Customer acknowledges that if no loop-back equipment is fitted, the Customer will assist BT in providing line loops for testing purposes, both during the BT Optical Connect Global Service delivery and if a fault occurs. If the Customer cannot provide such loop, this may lead to extended outages and any such outage will not contribute to Downtime nor the measurement of Service Levels and Service Credits if applicable.

7. Charges and Payment Terms

7.1 The Charges for the BT Optical Connect Global Service will comprise some or all of the following components, depending on the option selected and the pricing in the Order:

Pricing Component	One-time Charge	Recurring Charge
BT Optical Connect Global Network	Installation/De-installation	Monthly Charge

Access Line	Installation/De-installation	Monthly Charge
BT Equipment	Installation/De-installation	Monthly Charge

7.2 The BT Optical Connect Global Service Charge is based on the speed of the BT Optical Connect Global Service and the country/city pair where or/between which the BT Optical Connect Global Service is provided.

7.3 The Access Line Charge is normally included in the BT Optical Connect Global Network Charge but may be listed separately if an Aggregated Interface is used. This Charge is based on the speed of the BT Optical Connect Global Service, the country where the Optical Connect Global Service is provided and the Local Contracted Business Hours.

8. Termination of the BT Optical Connect Global Service

8.1 The Termination Charges stated in paragraph 6.1 (a) – (c) of the Schedule will not apply if an individual BT Optical Connect Global Service is terminated and replaced with another BT Optical Connect Global Service, as long as:

8.1.1 the order value of the new Service is the same or more than the order value of the replaced Service; and

8.1.2 the Minimum Period of Service for the new BT Optical Connect Global Service (which starts on the Operational Service Date of the new BT Optical Connect Global Service) must be equal to or greater than the Minimum Period of Service of the replaced Service.

8.2 Any charges which BT has to pay as a result of the termination or changes to Access Lines or services provided by a supplier will be passed on to the Customer.