

Global Fabric Service Schedule

Part B – Service Description - Global Fabric Platform

Section A The Service

1. INTRODUCTION

1.1 This Part B describes the current available Standard and Optional Components of the Global Fabric platform. As the Global Fabric platform develops in the future, additional Standard and Optional Components may become available in the Global Fabric App:

- 1.1.1** if the Customer has ordered the Global Fabric App - Customer Managed or Co-Managed, the Customer may place an Order for any future additional Standard or Optional Component(s) using the Global Fabric App. The applicable service description for additional Standard or Optional component(s) will be presented to and accepted by the Customer Contact authorised to place Orders in the Global Fabric App; and
- 1.1.2** if the Customer has ordered BT Managed, BT will inform the Customer when such additional Standard or Optional components are available. The applicable service description for additional Standard or Optional component will be agreed in a written Order between the parties.

2. STANDARD COMPONENTS

The Global Fabric platform consists of the following Standard Components the Customer may select in accordance with the details set out in any applicable Order:

2.1 Ports.

The Service offers the Customer different Port types and the Customer will order at least one of the these Ports.

2.1.1 Customer Ports on the BT Network.

- (a)** The Customer Port is located on the Provider Edge Router ("**PE Router**") and is the point where the Customer is connected to the BT Network ("**Customer Port**").
- (b)** The Global Fabric platform offers the following Customer Port options which may vary according to the location of the Customer Site:
 - (i)** "**Customer Port Only**" – these are Customer Ports for point-to-point connections, located in BT Point of Presence ("**PoP**") buildings. For this Port type, the Customer provides the Access Line.
 - (ii)** "**Data Centre Connections**" – these are Customer Ports for point-to-point connections and are available within a predefined set of data centre Sites within proximity to the BT PoP. When a Customer Port with a Data Centre Connection is ordered, BT provides the Access Lines between the BT PoP and the data centre, as set out in paragraph 2.2 below.
 - (iii)** "**Customer Premise Connections**" – these are Customer Ports provided at BT PoPs that are connected via an Access Line to a Customer Site. The Customer Site does not have to be a data centre, it can be a Customer premise, e.g. a factory or an office. BT is responsible for providing the Access Line from the Customer Port at the BT PoP to the Customer Site as set out in paragraph 2.2 depending on the Customer premise proximity to the BT PoP.

2.1.2 The Port is not restricted to a specific Network Service Connection, which provides the Customer more flexibility to change from one Network Service Connection to another Network Service

Connection. The Port is first deployed and then associated with any of the available Network Service Connections.

- 2.1.3 The Network Service Connection can be removed from a Port without the Port being ceased to allow for other Network Service Connections to be subsequently provided, (i.e. the Customer may initially procure the BT IP VPN Network Service Connection on that Customer Premise Connection and then add or change to a BT Global Business Internet Network Service Connection).
- 2.1.4 The Customer may order different Port combinations to provide the required level of Resilience at the Site.
- 2.1.5 If the Access Line speed exceeds the Port speed, traffic shaping is used to limit the use of Access Line capacity to the Port speed.
- 2.1.6 The Customer acknowledges that Ethernet framing overheads will reduce the IP throughput of the "headline" Access Line speed. The reduction will depend on IP packet size utilised.

2.2 Access Line

- 2.2.1 The Customer Ports will be connected to a Site using the Access Line option selected in the Order.
- 2.2.2 Where "Customer Port Only" is ordered the Customer will be responsible for providing the Access Line (called "**Customer Provided Access**" or "**CPA**") to the Customer Port. The CPA can terminate either within the BT PoP data centre if the Customer is in that same data centre or it can terminate to an extended location (e.g., other data centre or Customer premise). In order to establish the connection between the CPA and the Service, a Letter of Authority ("**LOA**") may be required specifying the technical details for such connection. BT will provide a LOA within 2 Business Days after receiving the Order from the Customer.
- 2.2.3 Where the Customer has ordered a Data Centre Connection or a Customer Premise Connection, BT will provide the Access Line and BT or BT's supplier will arrange to connect the Site(s) to a BT PoP on the BT Network using the type of Access Line chosen by the Customer as set out in the Order.
- 2.2.4 The Access Line available options may vary according to the location of the Site. Not all options may be available at all Sites or all BT PoPs, and not all options may be suitable for all Customer applications.
- 2.2.5 The Access Line available options are:
 - (a) "**Cross Connect**". A Cross Connect is a dedicated point-to-point connection in a data centre environment between two different termination Sites (which may be in the same data centre). Cross Connect is only available with Data Centre Connections and the available options will vary depending on the data centre facility and the proximity to a BT PoP which only supports optical Cross Connects.
 - (b) "**Ethernet Access**". Ethernet Access is either:
 - (i) a point-to-point Access Line delivered by an Access Line supplier to a dedicated Customer Port, or
 - (ii) a point-to-aggregated Access Line delivered by an Access Line supplier to a shared aggregated Customer Port (Customer Premise Connections only).
 - (c) "**Optical Wavelength**". Optical Wavelengths are high capacity, dedicated point-to-point optical connections.

2.3 Network Service Connections

- 2.3.1 Network Service Connections are logical connections to a Customer Port to enable the support of higher layer Network Service Connections like BT's Global Business Internet or Global IP VPN. The different variants of Network Connections are as set out in the separate Part Bs of this Service Schedule.
- 2.3.2 Where the Customer has more than one Network Service Connection, then each Network Service Connection is mapped to an individual virtual local area network ("**VLAN**") at the Customer Port

and is achieved through the use of 802.1q VLAN standards, issued by the Institute of Electrical and Electronics Engineers Standards Association.

- 2.3.3** The bandwidth for each Network Service Connection is allocated individually per VLAN within the limits of overall Customer Port capacity.

2.4 Global Fabric App - Reporting

- 2.4.1** Using the Global Fabric App, the Customer will have access to the following digital reports:

- (a)** Global Fabric platform reports where the following Port information will be available:
 - (i)** Port status (up/down);
 - (ii)** overall Port utilisation (average, minimum percentage, maximum percentage and 95th percentile);
 - (iii)** capacity trending (e.g., historic and forecast capacity);
 - (iv)** notifications of upgrade and downgrades needed;
 - (v)** errors and drops; and
 - (vi)** Customer specified thresholds and alerting.
- (b)** Network Service Connection reports providing the following:
 - (i)** utilisation (average, minimum %, maximum % and 95th percentile) for each Network Service Connection on a Port;
 - (ii)** capacity trending for each Network Service Connection on a Port; and
 - (iii)** Customer specified thresholds and alerting (e.g., within Global Fabric App and options for text/email).
- (c)** Network performance reports related to any Network Service Connection provided (like round trip delay, packet loss and jitter).

2.5 Global Fabric App – Customer Managed.

Once available the Customer Contact may order online and manage the changes to the following Service Components via the Global Fabric App:

- 2.5.1** Ports;
- 2.5.2** Access Lines; and
- 2.5.3** Network Service Connections

Implementing new Service Components and changes to the Service may be carried out by BT where the Customer has ordered the BT Managed or Co-Managed Optional Component below.

3. OPTIONAL COMPONENTS

BT will provide the Customer with any of the following options in accordance with the details set out in any applicable Order:

3.1 Customer Port Resilience options

- 3.1.1** The Customer may select one of the following Customer Port options to achieve their required level of resilience as set out in the Order:
- (a) “Non-Diverse”** – BT will provide a single non-resilient Customer Port at the BT PoP with a single Access Line (where applicable) into the Site.
 - (b) “Diverse - Same PoP”** – BT will provide a pair of Customer Ports within the same BT PoP. Each Customer Port will be connected onto different PE Routers and (where applicable) a pair of diverse Access Lines with separate NTEs will be provided at the same Site.
 - (c) “Diverse - Dual PoP”** – BT will provide a pair of Customer Ports in different BT PoPs. Each BT PoP can either be in the same or different cities. A pair of diverse Access Lines (where applicable) with separate NTEs will be provided at the Site.

3.1.2 Diverse - Same PoP and Diverse - Dual PoP can also be ordered for two Customer Sites with different addresses (e.g., different campus buildings).

3.1.3 Where a Customer has ordered a Diverse Customer Port Resilience option, each Customer Port and Access Line (where applicable) may be of unequal bandwidth and the Network Service Connections on each Customer Port do not need to be mirrored.

3.1.4 Not all Customer Port Resilience options are available in all locations.

3.2 Access Resilience options.

3.2.1 The Customer may select one of the following Access Resilience options to achieve the required level of Resilience as set out in the Order:

- (a)** Diversity means the provision of Access Lines that have more than one route to connect a Site to the BT PoPs ("**Diversity**"), and such Access Lines may share common underground ducting and cabinets, especially as they get closer to the Site; or
- (b)** Separacy means the provision of Access Lines that have more than one route to connect a Site to the BT PoPs ("**Separacy**"), and such Access Lines do not share a transmission medium, underground ducting or cabinets and therefore should have fully separate routes from the Sites to the BT PoPs.

3.2.2 For Customer Port options with dual Access Lines, the Access Lines, where available, can be delivered with Diversity and Separacy based on the Access Line options available into the Site.

3.3 Site Service Level Category options

The table below sets out the available configuration options for each Site Service Level Category:

Site Service Level Category	Minimum Service Configuration	
	Customer Port	Resilience
CAT A++	Customer Port Only	<ul style="list-style-type: none"> Non-Diverse Diverse-Same PoP Diverse-Dual PoP
	Data Centre Connection (with full Access Line Separacy)	<ul style="list-style-type: none"> Diverse-Same PoP Diverse-Dual PoP
	Customer Premise Connection (with full Access Line Separacy)	<ul style="list-style-type: none"> Diverse-Dual PoP
CAT A+	Data Centre Connection	<ul style="list-style-type: none"> Diverse-Same PoP and at least one access supplier availability is $\geq 99.99\%$ Diverse-Dual PoP and at least one access supplier availability is $\geq 99.99\%$
	Customer Premise Connection	<ul style="list-style-type: none"> Diverse-Dual PoP and at least one access supplier availability is $\geq 99.99\%$
CAT A	Data Centre Connection	<ul style="list-style-type: none"> Diverse-Same PoP Diverse-Dual PoP
	Customer Premise Connection	<ul style="list-style-type: none"> Diverse-Dual PoP
CAT B	Customer Premise Connection	<ul style="list-style-type: none"> Diverse-Same PoP

Site Level Category	Minimum Service Configuration	
	Customer Port	Resilience
CAT C	Not applicable	
CAT D	Data Centre Connection	• Non-Diverse with supplier availability $\geq 99.8\%$
	Customer Premise Connection	• Non-Diverse with supplier availability $\geq 99.8\%$
CAT E	Data Centre Connection	• Non-Diverse with supplier availability $\geq 99.7\%$
	Customer Premise Connection	• Non-Diverse with supplier availability $\geq 99.7\%$
CAT F	Data Centre Connection	• Non-Diverse with supplier availability $\geq 99.5\%$
	Customer Premise Connection	• Non-Diverse with supplier availability $\geq 99.5\%$
CAT G	Data Centre Connection	• Non-Diverse with supplier availability $\geq 99\%$
	Customer Premise Connection	• Non-Diverse with supplier availability $\geq 99\%$
CAT H	Data Centre Connection	• Non-Diverse with supplier availability $\geq 98\%$
	Customer Premise Connection	• Non-Diverse with supplier availability $\geq 98\%$
CAT I	Data Centre Connection	• Non-Diverse with supplier availability $\geq 97\%$
	Customer Premise Connection	• Non-Diverse with supplier availability $\geq 97\%$

3.4 Global Fabric App – Co-Managed.

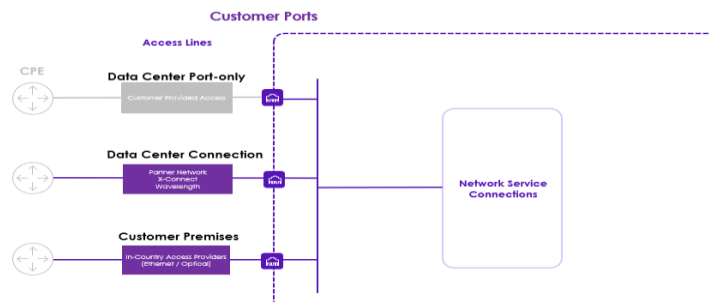
Where the Customer orders the Co-Managed option, BT will implement the Service Components of the initial Order(s) on the Service. Once the implementation of the initial ordered Service Components by BT is accepted in accordance with paragraph 6, BT will do a handover to the Customer and the Customer Contact will be responsible for ordering any subsequent changes to Service Components as set out in paragraph 2.5.

3.5 Global Fabric App - BT Managed.

Where the Customer orders the BT Managed option, BT will implement the Service Components of the initial Order(s) on the Service and manage, on behalf of the Customer, any changes on the Service the Customer has ordered via a signed Order. When an order is placed, BT will provide the Customer with a delivery date.

4. SERVICE MANAGEMENT BOUNDARY

4.1 Depending on the Service Components the Customer orders, BT's responsibility to provide and manage the Service is physically and logically limited to the following service management boundary as set out in purple (Data Centre Connection and Customer Premises) within the diagram below and further described in this paragraph 4.1 ("**Service Management Boundary**").





- 4.2 Where BT provides the Access Line, the Service Management Boundary is the NTU of the Access Line that BT provides. This includes provisioning, maintenance and management of all elements up to this point.
- 4.3 Where BT does not provide the Access Line, the Service Management Boundary is the Customer Port handoff as specified on the BT provided LOA and excludes the Access Line.
- 4.4 With the exception of Access Line termination equipment, the Service is an unbundled Service without equipment. Where BT provides the Customer with any managed equipment, this will be subject to separate terms and conditions and is not included in the Service Management Boundary of this Service.
- 4.5 BT will have no responsibility for the Service outside the Service Management Boundary.
- 4.6 BT does not make any representations, express or implied, about whether the Service will operate in combination with any Customer equipment or other equipment and software.

5. ENABLING SERVICES

- 5.1 The Customer will have in place Customer equipment, physical or virtualised, necessary for the Service to function, such as routers or SD-WAN devices, either purchased from BT under separate terms or from a third-party provider (an “Enabling Service”).

6. COMMISSIONING OF THE SERVICE

- 6.1 Before the Operational Service Date, BT will:
 - 6.1.1 deliver the Service;
 - 6.1.2 confirm delivery of the Access Line (where applicable) and connection to the Port(s); and
 - 6.1.3 on the date that BT has completed the activities in this paragraph 6.1, confirm the Operational Service Date to the Customer.

Section B Service Management

7. SERVICE MANAGEMENT

- 7.1 The Service Management Schedule, as referenced in the Order, shall apply to this Service, subject to the following amendments:
 - 7.1.1 Regarding Monitoring and Event Management:

All assets of the Global Fabric network, with monitoring capability are proactively monitored to detect and pre-empt issues early. If an issue is detected through proactive monitoring that impacts a core network component or multiple customers, an incident ticket is automatically generated on BT's incident management system for initial investigation.

(a) For Customer Managed;

If an issue is detected through proactive monitoring that impacts a single customer, the Customer is notified via the Global Fabric App and telemetry streaming (if enabled). A proactive Incident ticket will not be raised and the Customer can elect to raise an Incident with BT when appropriate. The Customer can select to have SMS and/or email notifications via the App or API for their events.

(b) For BT Managed;

If an issue is detected through proactive monitoring that impacts a single customer, an Incident ticket is automatically generated on BT's incident management system for initial investigation.
 - 7.1.2 Regarding Incident Creation; this will include reference to reporting Incidents to the BT Service Desk using the Global Fabric App.
 - 7.1.3 Regarding Inventory Management;

A key enabler to delivering all ITIL practices offered at the standard level of service is the existence of an accurate and up-to-date inventory and configuration, whether this be a Customer end site or hosted service. The Customers Service Inventory will be available to view via the Global Fabric App or Portal.

7.1.4 Regarding Request Catalogue, following is added:

- (a)** the service request catalogue will be available through the Global Fabric App;
- (b)** these requests are pre-defined and pre-authorised. These service requests will include ordering of new ports and access, disabling ports, and ordering network services;
- (c)** these service requests are chargeable, a quote will be generated via the Global Fabric App.
- (d)** the request fulfilment will be automated where possible e.g., Port Type A will be deployed automatically; and
- (e)** Availability/feasibility checks will be required for access requests with suppliers; whereby:
 - (i) For Customer Managed;**
The Customer will be responsible for placing the service requests via the Global Fabric App (orders, amendments, ceases etc).
 - (ii) For BT Managed;**
BT will be responsible for placing the service requests via the Global Fabric App (order, amendments, ceases etc) on behalf of the Customer.