Network Services

Etherway Services

Schedule to the General Terms

Contents

Network Services

Where the Customer selects Etherway Services as detailed in the Order Form, the following terms shall apply:

1. Etherway Services

1.1 Etherway Standard

Etherway Standard includes two options:

a) Etherway Access Fibre; and

b) Etherway Access Copper.

Etherway Access (Fibre)

1.1.1 Service Description

The Service comprises one or more dedicated circuits connecting a Site to the BT Network, so providing connectivity between the Customer's Site and the BT Network.

1.1.2 Service Components

There are three configuration parameters for the Service:

a) Resilience

i) The protected resilience configuration provides two paths from the Customer Site to the BT Network. The primary path carries the Customer's traffic and the failover path carries the Customer's traffic in the event of failure on the primary path. If the primary path fails, traffic will automatically be re-routed via the failover path without any intervention from the Customer. The two paths are planned so that they are diversely routed. They are monitored to ensure the paths remain diverse, thus ensuring a single fibre loss will not result in a total loss of Service. However BT does not guarantee against duct failure and accepts no liability for a loss of Service due to duct failure. Both primary and failover paths will be the same speed and terminate on the same node. The protected resilience configuration is only available on the 100Mbit and 1Gbit options.

ii) The Customer accepts and acknowledges there could be up to a 50 milliseconds failover delay when switching between the primary and secondary fibre.

iii) The Customer must not use the failover path at any time other than during a failure of the primary path.

b) VLAN Configuration

i) In the VLAN Aware configuration, multiple EVCs of the BT Etherflow Service can route over the same Service. The EVCs are separated logically by VLAN tags in accordance with IEEE 802.1q, as specified in the IEEE 802.1q definition. The Customer can choose the VLAN IDs for each EVC or these can be allocated by BT.

ii) The number of EVCs that run over the same Service is limited as follows: 120 for the 100mb Etherway option and 400 for the 1000mb Etherway option.

c) Bandwidth

i) The Service is available in either 10Mb, 100Mb or 1Gb.

ii) The 10Mbit/s bandwidth option is provided with a 10 base T interface.

iii) The 100Mbit/s bandwidth option is provided with a 100 base T interface.

iv) For the 1Gbit/s bandwidth option the Customer has a choice of either a 1000 baseSX or 1000 baseLX interface.

Etherway Access (Copper)

1.1.3 Service Description

The Service comprises one or more dedicated circuits connecting a Site to the BT Network, so providing connectivity between the Customer's Site and the BT Network.

1.1.4 Service Components

a) Resilience

i) The standard resilience configuration gives a single physical path from the Site to the BT Network.

b) VLAN Configuration

i) In the VLAN Aware configuration, multiple EVCs of the BT Etherflow Service can route over the same Service. The EVCs are separated logically by VLAN tags in accordance with IEEE 802.1q, as specified in the IEEE 802.1q definition. The Customer can choose the VLAN IDs for each EVC or these can be allocated by BT.

ii) The number of EVCs that run over the same Service is limited as follows: 120 for the 100mb Etherway option and 400 for the 1000mb Etherway option.

c) Bandwidth

i) There are a range of Service bandwidth options available from 1meg to 10meg, all have a 10base T interface.

1.2 Etherway Diverse and Diverse+

1.2.1 Service Description

a) The Service is a bundled resilient Ethernet VPN Service which enables Customers to connect two or more Sites together to transmit data between them at a variety of speeds over the BT Network.

b) The Service is offered with Purchased Equipment, Project Management with Desk based Project Manager, Business Premium Care maintenance, Rapid Diagnostic Service or Standard or Enhanced Incident Management and SLA options of Ontime Delivery Service Level, Repair Service Level and Service Availability and Restoration Service Level Tier 1.

c) The Customer acknowledges and accepts that BT may not be able to provide Service where a Customer Site is not within a certain radial distance of a suitable PoP, as specified by BT from time to time.

1.2.2 Service Components

The Service comprises of two Etherway fibre access circuits, a primary circuit and a back-up (secondary) circuit which are diversely routed from the Customer Site to the BT Network. In the event of a major outage on the primary circuit traffic is automatically diverted to the secondary circuit. Traffic is only diverted to the secondary circuit in the event of failure on the primary circuit. If the primary circuit fails, traffic will automatically be re-routed via the secondary circuit without any intervention from the Customer. The two circuits are planned so they are diversely routed, thus ensuring that a single fibre loss will not result in a total loss of Service. Each circuit can be provided with a different bandwidth speed.

1.2.3 Service Options

The Service offers two options:

a) Etherway Diverse

Under this option both circuits are provided to the same BT Exchange and presented at the Customer site on separate NTEs.

b) Etherway Diverse+

Under this option both circuits are provided to separate BT Exchanges and presented to the Customer Site on separate NTEs. The level of resilience is increased under this option as it utilises 2 separate BT Exchanges.

c) Configuration Parameters

The Service has two configuration parameters, which will be selected by the Customer and set out on the Order Form:

i) Traffic Class (Premium and Standard)

The premium traffic class is designed to support delay sensitive business voice and data applications where low end to end delay with minimal packet loss is a requirement. Premium traffic class is an uncontended Service which is configured so that the committed data rate ("CDR") is equal to the peak data rate ("PDR"), which is equal to the Service bandwidth. All the traffic within the Service has equal priority and the full bandwidth rate can be utilized. Frames will only be discarded if traffic exceeds this limit.

The standard traffic class is designed to support less time critical applications, such as e-mail and web browsing and make good use of the available bandwidth. Standard traffic class is configured so that the CDR is set at 20% of the PDR, and PDR is equal to the Service Bandwidth. Traffic exceeding the CDR rate will be allowed into the BT Network up to a maximum value of PDR, dependent upon availability of space used by all equivalent traffic.

The Service includes the premium traffic class as standard, however the standard traffic class is available on request. The Customer may choose to have a mixture of premium and standard EVCs running over the same Etherway access circuits.

ii) Service Bandwidth

There are a range of Service bandwidth options available for the Etherway access circuits. Service bandwidth upgrades are permitted at any-time, however Service bandwidth downgrades shall only be effective where the Customer has retained their current bandwidth for at least thirty days.

Any change to the bandwidth speed may require a CPE configuration change.

The Service is available in either 10Mb 100Mb or 1Gb.

The 10Mbit/s bandwidth option is provided with a 10base T interface.

The 100Mbit/s bandwidth option is provided with a 100 base T interface.

For the 1Gbit/s bandwidth option the Customer has a choice of either a 1000 baseSX or 1000 baseLX interface.

d) The Service will be provided by a BT IL3 Accredited Service Centre.

Field engineer Site visits will be subject to rules regarding government security clearance:

i) SC (or higher) clearance is not required for engineers attending a Customer Site to work on the access circuit up to and including the BT NTE .

ii) SC (or higher) clearance is required for engineer attending a Customer Site to work on the CE (Customer Edge) router or beyond into the Customer Site.

1.3 Etherway Exchange Connect ("EEC")

1.3.1 Service Description

a) The EEC Service provides a link between the Customer's managed WAN and Customer-equipment located within a BT Exchange. This link facilitates the simpler arrangement of multiple individual service connections to a managed WAN. The Service will allow the managed WAN to be designed in a way to use a wider range of access options. The Service will also allow a simpler network design using multiple direct links between Customer-equipment located within a BT Exchange and the BT Network. Both the Customer's managed WAN Service and Customer equipment must be located in the same BT Exchange.

b) The Service is provided via a 1Gbit or 10Gbit access circuit (depending on the option selected) which provides the link described above.

c) The Service is offered with Purchased Equipment, Project Management with Desk based Project Manager, Business Premium Care maintenance, Rapid Diagnostic Service or Standard or Enhanced Incident Management and SLA options of Ontime Delivery Service Level, Repair Service Level and Service Availability and Restoration Service Level - Tier 1.

d) The Customer must have a BT Locate Rack with capacity to connect to the EEC Service.

e) The Customer will not have access to the physical EEC Service or BT Locate Rack as they will be located within a secure enclosure in a BT Exchange.

f) Only a maximum of four EEC access circuits can be ordered between BT's Network and the Customer Equipment in the BT Exchange.

g) The Service is currently only available with a port speed of 1Gbit terminating on fibre patch panel mounted in a BT Locate Rack.

1.4 Etherway Superfast GEA

1.4.1 Service Description

a) Etherway Superfast GEA comprises one or more dedicated circuits connecting a Site to the BT Network, so providing connectivity between the Customer's Site and the BT Network.

b) The Service is delivered over either a fibre connection to the Customer premises ("FTTP") or over a PSTN line connection from the nearest equipped cabinet served by fibre from the exchange ("FTTC"); the delivery option is determined by BT depending on the Customer location and BT can advise this at the time of Order. The PSTN line is supplied separately to the Service. FTTP lines are delivered independently of a PSTN connection.

c) The Service is offered with BT Purchased Equipment, Project management with Desk Based Project Manager, Standard Care Maintenance for the FTTC option or Business Care for the FTTP option, Rapid Diagnostic Service or Standard or Enhanced Incident Management, and SLA options of On-time Delivery, and Repair, and Service Availability and Restoration Tier 1.

1.4.2 Service Components

a) VLAN Configuration

i) In the VLAN Aware configuration, multiple EVCs of the Managed Etherflow Service can route over the same Service. The EVCs are separated logically by VLAN tags in accordance with IEEE 802.1q, as specified in the IEEE 802.1q definition. The Customer Equipment must be capable of supporting this feature. The Customer can chose the VLAN IDs for each EVC or these can be allocated by BT.

ii) The number of EVCs that run over the same Service is limited as follows: 120 for the 100mb Etherway option and 400 for the 1000mb Etherway option.

b) Bandwidth

i) In the case of an FTTC connection the Customer will be advised of the operational speed of the connection to facilitate ordering of traffic connections. FTTP connections have a range of bandwidth options.

ii) The FTTC option does not operate at fixed speeds. The downstream and upstream speeds are not guaranteed and will vary depending on various factors which include:

- proximity of the Customer Site to the BT Local Exchange;
- the length and quality of any internal wiring;
- the processing speed of the router or modem being used;
- the speed of the connection between the computer and the router/modem;
- time of day; and
- levels of congestion on the BT Network.

iii) The Customer acknowledges and agrees that specific speeds are not guaranteed as part of the Service and BT will have no liability to the Customer for failing to reach specific speeds.

The actual rates that can be supported on any individual line will be influenced by the following:

- distance of the copper connection from the User Site to the cabinet; and

- the number of Users using the common cable which will determine cross-talk noise impact.

iv) Either of these two factors may result in the User experiencing a drop in the original speed achieved. The Customer acknowledges and agrees that this does not qualify as a fault in the Service.

v) The downstream throughput achieved on the Service will include a small element of bandwidth used to support traffic management.

vi) Dynamic Line Management will occur to stabilise the line at the most appropriate speed and may result in short outages (lasting several seconds). The Customer acknowledges and agrees that such outages are not faults in the Service, and BT will only accept faults in where the Customer experiences a continuous loss of Service exceeding 3 minutes.

vii) The Customer can choose to relinquish some of the downstream speed for more stability.

viii) Where a Customer wishes to change an existing access type to the Etherway Superfast GEA Service a cease and re-provide order will be necessary. Where a Customer wishes to change an existing bandwidth on the Service, the Customer must place a re-grade order.

c) Class of Service

There are 2 class of service schemes:

i) Default Cos

Units of Ethernet Layer 2 data ("Frames") are carried across a single BT core network queue.

The Customer can mark each Frame with 2 priority markings. Up to 20% of the Customer's Frames can be marked with the higher priority; the Cos Option is specified at the time the order is taken. The Customer carries out marking as part of its network management processes.

ii) Multi Cos

Frames are carried across 3 BT core network queues according to their priority markings. The Customer can mark each Frame with one of 5 priority markings. The Cos Option is specified at the time the order is taken. The Customer carries out marking as part of its network management processes.

The Customer may have a mixture of CoS Services over the dedicated circuits.

1.4.3 Service Delivery

a) The Customer must ensure that there is a suitable BT PSTN line termination within 1m of the required location for the Service. During delivery of Super-fast access using FTTC, the BT engineer will install all necessary BT Equipment. Superfast FTTC connections are terminated on a 10/100base T interface.

b) FTTP connections are terminated on an optical network termination. The Customer interface is one of four Ethernet ports presented as10/100/1000 Base T interfaces.

c) BT will configure the Service and conduct a set of standard commissioning tests to ensure that the configuration at a Site is functioning correctly. The Service Start Date for a Site occurs on successful completion of the tests at that Site.

d) If during commissioning tests BT determines that it is not possible to deliver Superfast, BT will advise the Customer accordingly. In these circumstances the Customer agrees that BT reserves the right to cancel the order without any charge to the Customer and without any further liability on BT's part.

1.4.4 Customer's Responsibilities

a) In addition to any other responsibilities out lined in this Contract, the Customer is also responsible for the provision of 2 x 13A power sockets within 1m of the location of the Access Line. In the case of delivery over FTTC the Customer must make provision for a BT PSTN line which can either be an existing line or which the Customer has ordered separately to be provisioned and installed prior to acceptance of the Super-fast order.

1.4.5 The terms of paragraph 2 of this Service Schedule shall apply to the Etherway Superfast GEA Service.

2. ADSL/Broadband Services

2.1 The terms of this paragraph shall apply to the Etherway Superfast GEA Service.

2.2 BT will provide a managed ADSL Service under this Contract, which includes an ADSL access, router and value add services.

2.3 Access requests may be subject to survey. If the Access request is rejected, BT will notify the Customer of the reasons for the rejection and indicate whether the survey indicates that the supply of Service is not technically feasible, or if other circumstances beyond BT's reasonable control prevent BT from carrying out the survey.

2.4 BT will accept or reject each access request. The Customer acknowledges that the acceptance of an order and the installation of BT Equipment or CPE does not mean that an access can be successfully activated in respect of the Service.

2.5 The Customer acknowledges and accepts that there may be some technical limitations and issues within the BT Network that may not become apparent until after the Service has been installed. In such circumstances, and at BT's sole discretion, the Service for some individual Users may need to be withdrawn, down-graded to a lower speed or replaced with an alternative Service. Where appropriate, BT will refund any Charges paid in advance by the Customer. Where the Service is being downgraded to a lower speed or replaced with an alternative Service BT will notify the Customer of the appropriate charges associated with the new Service.

2.6 Except in respect of a refund referred to in paragraph 2.5 above, BT will have no liability to the Customer relating to the provision of the Service (or BT's inability to provide the Service), the performance of the Service, its effect on other services or equipment or the withdrawal of the Service.

2.7 All PSTN Lines which are provided as part of an ADSL/Broadband provision for data use only as part of a WAN or IP network will be provided with outgoing call barring with 999 access, unless the Customer specifies otherwise. The Customer is responsible for the payment of all applicable usage Charges that may accrue on all of their PSTN lines. The Customer is also responsible for use of all of their PSTN lines including any potential fraudulent use that may occur.

2.8 The Customer must have a contract for the use of a BT provided analogue direct Exchange Line which terminates on a BT public switched telephone network master socket forming part of the BT Network for the duration of the Contract.

2.9 Where a NTE Device is being provided as part of the Service it requires local mains power directly from a wall mounted socket or an appropriately approved mains extension lead which is the responsibility of the Customer to provide. The Customer must provide a dedicated 240v mains power supply for the broadband router. High current electrical equipment should not be used on the same mains power

supply. In the event that power noise occurs on the mains power supply, the Customer shall be responsible for resolving the power noise by using either a mains conditioner or UPS system.

2.10 Some ADSL/Broadband services use advanced 'Rate Adaptive' broadband technology (Dynamic Line Management). This type of technology does not run at fixed speeds. The speed of the Service will be the fastest speed that the Customer's analogue direct exchange line can support.

2.11 Where the Customer has either selected the ADSL1 option or has a router that can only support ADSL1, downstream speeds will be restricted to up to 8M and upstream speeds will be restricted to 416K.

2.12 The Customer acknowledges and accepts that the downstream speeds outlined above are not guaranteed and BT will have no liability to the Customer for failing to reach specific speeds.

2.13 ADSL/Broadband downstream and upstream capabilities will vary depending on various factors which include proximity of the Customer Site to the BT Local Exchange, the length and quality of any internal wiring, the processing speed of the router or modem being used, the speed of the connection between the computer and the router/modem, time of day, levels of congestion on the BT Network and electrical interference noise in the Customer environment.

2.14 The Customer acknowledges and accepts that the downstream and upstream performance of the Service will vary depending on factors outlined in the paragraph above.

2.15 The Customer acknowledges and accepts that Repetitive Electrical Impulse Noise (REIN) or other types of noise generated within, or near the Customer's Site, does not constitute a fault in the Service.

2.16 Following provision of an ADSL/Broadband Service, dynamic line management will occur on the Service to stabilize the line at the most appropriate speed. Dynamic line management may last for up to 10 days and may result in short outages (lasting several seconds) of the Service. Short outages as a result of dynamic line management can also occur regularly as part of normal operation of the Service. This does not constitute a service failure. Intermittent Service loss can occur up to 3 times in a 24 hour period where the Super-stable option has been configured. A Service failure is a continuous loss of Service to the Site. The Customer accepts and acknowledges that such outages will not be deemed as a fault in the Service by BT, and BT will only accept faults in the Service where the Customer experiences a continuous loss of Service.

2.17 It may be possible that the Customer's chosen ADSL/Broadband Service cannot be used effectively by the Customer for their specific application. In these rare cases, service settings may be adjusted on request to the Service Desk. This does not constitute a fault in the Service. Service speed can be traded off against service stability, error performance and latency. A higher service speed with a higher risk of errors (standard mode) or a lower service speed with a lower risk of errors (super stable mode) can be set on request. This is however dependent on the Service being provided.

2.18 Where the Customer has ordered a fixed rate ADSL option, these Services are not Rate Adaptive (in the downstream direction). The speed ordered is the speed that the Customer can expect to receive. The speed can only be changed in life by ordering a different speed option as no dynamic line management will occur on the Service. Class of Service is supported on fixed rate access options.

2.19 From time to time the UK broadband network is affected by planned engineering works. These outages are usually for a short duration, and normally take place between 12am and 6am and affect a small geographic area.

2.20 Unless agreed otherwise by the Parties, BT will not follow the Broadband Notification of Transfer switching process in relation to ADSL or Broadband services provided as part of the Service. The Customer may terminate a Service under the Contract by giving Notice to BT as set out in paragraph 18 of the General Terms.

3. Network Services - Customer Responsibilities

3.1 All Customer Equipment and any access circuits leased by the Customer directly from a Third Party shall be the sole responsibility of the Customer and are not included as part of the Service.

3.2 Unless otherwise stated, the Customer is responsible for providing suitable computer hardware, Software and telecommunications equipment and services necessary to access and use the Service.

3.3 The Customer shall be responsible for providing a suitable IP addressing scheme (that must be at least a /24 address block) that is registered with an approved Internet registration authority, otherwise it will not be accepted by BT. The Customer shall ensure that it has a single IP address within the Customer Network. Unless the Customer has selected the Configuration Management option, the Customer shall also be responsible for devising any IP addresses which may be required for the purposes of WAN, LAN or both as appropriate, network management.

3.4 If the Customer accesses the Service via a LAN, the Customer is responsible for:

(a) providing and maintaining a suitable LAN and IP router capable of interfacing satisfactorily with the Service; and

(b) configuration of the IP router.

3.5 The Customer shall be responsible for the creation, maintenance and design of all Customer Information.

3.6 The Customer warrants that it will comply with all consumer and other legislation, instructions or guidelines issued by regulatory authorities, relevant licences and any other codes of practice which apply to the Customer or BT and which relate to the provision of Customer Information provided that BT has given notice to the Customer of those which apply to BT.

3.7 Where appropriate, the Customer must specify the volume of traffic required for each CoS level.

3.8 The Customer must adhere to the recommended bandwidth, access rate or specified volume of traffic as specified by BT for each CoS level. The Customer acknowledges that if it exceeds such recommended bandwidth, access rate or specified volume of traffic, then this may result in service degradation for which BT will not be liable.

3.9 To enable BT to provide a CoS level, classification of traffic must be carried out. Unless the Customer has requested to carry out classification of traffic via Professional Services such classification will be the sole responsibility of the Customer

4. Network Services - General

4.1 Where an IP address or Domain Name is allocated to the Customer, it may only be used in connection with the Service. Except where expressly registered in the Customer's name, all BT based IP addresses and domain names made available on the Customer's behalf in connection with the Service shall at all times remain the property of BT and shall be non-transferable. The Customer shall have no right to use such IP addresses or domain names upon termination of the Service, at which time they will revert to BT.

4.2 Where the Customer has requested network address translation, BT will configure the Service in accordance with the details specified in the design summary. Where the Customer subsequently requests BT to make a change to the network address configuration, the Customer shall pay BT's reasonable Charges for the work carried out.

4.3 The Customer will give BT as much notice as possible if it intends to use the Service or to encourage or require the use of the Service in such a way as to distort users natural usage patterns, including, by way of example, running promotions which require users to log on within a short space of time or on a "first come, first served" basis.

4.4 The Customer acknowledges that the quality of the Service may be impaired by the uploading and downloading of data when using an ADSL enabled Line.

5. Service Management Boundary

4.5 BT will provide and manage the WAN Services up to the bridge router interface to the Customers LAN and will not extend beyond the Customer LAN ("Service Management Boundary").

6. Defined Terms

In addition to the defined terms in the General Terms and the Managed Service from BT Schedule to the General Terms, the following defined terms apply in this Schedule (and in the case of conflict between these defined terms and the defined terms in the General Terms and the Managed Service from BT Schedule to the General Terms, these defined terms will take precedence for the purposes of this Schedule):

"Access Line" means a circuit connecting a Site to the BT Network.

"Device" means any laptop, personal digital assistant smartphone, mobile phone, tablet, netbook or other piece of equipment with Wi-fi connectivity.

"Etherflow Virtual Connection ("EVC")" means a virtual connection which is configured to provide a virtual path over the BT Network between the Customer's selected Sites.

"Link" or **"Links"** means any hypertext, graphic, button and/or similar function provided by the Customer capable of linking to other websites including non-BT websites.

"Marks" means a trademark, service mark, trade name, logo or other indicia of origin that serves to identify a Party, its products or services.

"Mbit" means a unit of information equal to 1,000,000 bits.

"VLAN" means the name of the feature which allows the network transport to be separated logically by VLAN tags in accordance with IEEE 802.1q.

"VLAN Aware" means the name of the feature which allows the Managed Etherflow Service to be separated logically by VLAN tags in accordance with IEEE 802.1q, enabling multiple EVCs to run over the Service.

"Wi-fi" means a wireless fidelity network.