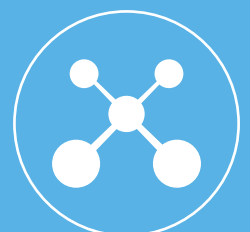


Connectivity

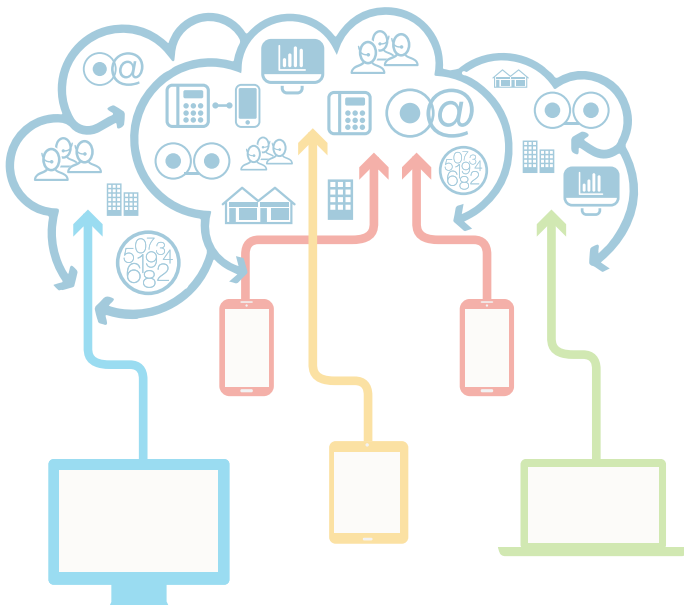


Overview

The following table provides an overview of the connectivity services available from Foehn. Please note all services are connected to our voice network ensuring an on net service can be provided with end to end monitoring and management.

The services highlighted in blue are most appropriate for voice services as these are uncontended and can have Quality of Service (QoS) applied.

	ADSL 2+	FTTC	GEA	EFM	LEASED LINE
On net service	Yes	Yes	Yes	Yes	Yes
Typical bandwidths available	Up 1.4 - 3.3Mb Down 4 - 24Mb	Up 10Mb - 10Mb Down 40MB - 80Mb	10/20Mb Sync	2mb to 35Mb	10Mb to 1Gb
Managed router included	Yes	Yes	Yes	Yes	Yes
Quality of Service	No	No	Yes	Yes	Yes
Available everywhere	Yes	Subject to postcode	Subject to postcode	Subject to postcode	Yes
Typical lead times	10 working days	10 working days	20 working days	15 working days	60-90 working days
Typical Install costs	£115	£210	£420	£480	£0 to £2300
Typical Monthly costs	£42	£80 - £100	£125 - £165	£155 upwards	£300 upwards



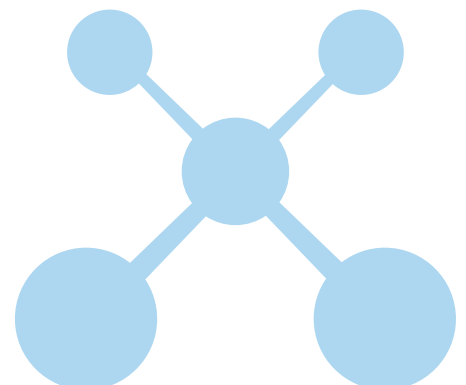
ADSL

Asymmetric Digital Subscriber Line (ADSL) is a data communications technology that enables faster data transmission over copper telephone wires. Utilising an analogue line it allows data and voice services at the same time but bandwidths are greater toward customer premise (downstream) than reverse, hence asymmetric. Typically, this can only be distributed over short distances from the telephone exchange, but business ADSL is ideal for connecting small offices, for remote working and as fail-over to a leased line etc.

	ADSL Anywhere	ADSL Standard	ADSL Premium
Available on all ADSL enabled exchanges	Yes	No	No
Requires 21CN / WBC enabled exchange	No	Yes	Yes
Rate adaptive service	Yes	Yes	Yes
Maximum upload	832Kbps	1Mbps	3Mbps
Maximum download	8Mbps	8Mbps	24Mbps
No download/upload limits	Yes	Yes	Yes
On network service	Yes	Yes	Yes
Elevated Best Efforts	Yes	Yes	Yes
Enhanced Care	Yes	Yes	Yes
Fully monitored and managed	Yes	Yes	Yes
Includes managed router – self install	Yes	Yes	Yes

Benefits

- Delivers up to 24Mbps downstream and 3Mbps upstream
- Low cost and easy to install
- Connects offices and remote workers to corporate networks
- Higher speed downstream ideal for internet access
- Resilience for leased lines
- Ultimate coverage
- On network service



Fibre To The Cabinet – FTTC

FTTC offers a cost effective, superfast broadband connection with download speeds of up to 80Mbps. A fibre overlay to the existing copper network between the exchange and the street cabinet, FTTC is widely used by businesses requiring enterprise grade bandwidth.



FTTC Business Standard

Rate adaptive service
 Maximum upload is 10 Mbps
 Maximum download is 40 Mbps
 No download/upload limits
 On network service
 Fully monitored and managed
 Includes managed router – self install
 Requires a PSTN Line to be ordered



FTTC Business Premium

Rate adaptive service
 Maximum upload is 20 Mbps
 Maximum download is 80 Mbps
 No download/upload limits
 On network service
 Fully monitored and managed
 Includes managed router – self install
 Requires a PSTN Line to be ordered



FTTC Enterprise

FTTC Enterprise
 Rate adaptive service
 Maximum upload is 20 Mbps
 Maximum download is 80 Mbps
 Guaranteed up to 20Mbps symmetrical bandwidth
 No contention on the guaranteed symmetrical bandwidth
 On network service
 Fully monitored and managed 7 hour carrier SLA
 Includes managed router – self install
 PSTN Line is included within the service pricing and delivery

Main Benefits

- Up to 80Mbps download speeds and 20Mbps upload speeds
- High speed services and competitive pricing
- Fast installation

Generic Ethernet Access (GEA)

Generic Ethernet Access is a highly cost effective form of connectivity for businesses looking for a lower price Ethernet alternative to a traditional leased line or EFM, providing a synchronous and uncontended service when predictability and reliability is important.

Like FTTC (Fibre to the Cabinet), GEA is delivered via a single copper pair to the cabinet, then over fibre to the exchange. However, unlike FTTC, traffic then passes onto an Ethernet network rather than a contended broadband one.

This product is available at a large number of fibre enabled exchanges and offers businesses symmetrical Ethernet speeds from 2Mbps to 20Mbps. Lead time for install can be as little as 14 days.

GEA is often chosen by organisations seeking greater reliability at reduced cost. GEA reduces monthly rental and install costs by utilising existing copper infrastructure.

Key features

- Dedicated connection across the Ethernet network
- 2, 5, 10, 15 and 20Mbps symmetric speed options
- Installation in as little as 14 working days
- Availability across UK
- Low installation costs
- 100%, end-to-end SLA
- Quality of Service available

Ethernet First Mile

Benefits

- Ideal upgrade for ADSL or SDSL
- Up to 35Mbps availability
- Symmetrical bandwidth – equal upload and download speeds
- Lower cost alternative to leased line
- Increased productivity with fully uncontended bandwidth so performance not affected by other users on same exchange
- Improved SLA similar to leased line service levels
- On network service
- Quality of Service available

Ethernet First Mile (EFM) provides high performance, business grade connectivity using bonded copper wires to deliver a fast, reliable service for business critical applications such as voice, video and cloud services. EFM delivers the identical upload and download speeds needed to support VoIP and hosted solutions and is ideal for businesses that are looking for greater bandwidth than standard broadband but don't want the cost and commitment of high speed full fibre Ethernet.



Leased Lines

Ethernet fibre leased line solutions provide dedicated, high bandwidth guaranteed connectivity that will support busy networks, large data transfers and multimedia applications. With speeds up to 1Gbps, fibre based solutions are fast, reliable, scalable and easily managed.

Main Benefits

- Dedicated, fast, reliable technology – 99.9% SLA
- Proven, future-proof technology, ideal for high bandwidth applications such as VoIP, data, video conferencing and streaming
- Ethernet reduces operational costs with a single connection for voice and data services
- Uncapped and uncontended full traffic and bandwidth control with QoS options
- Flexible, scalable bandwidth from 2Mbps – 1Gbps
- Symmetrical service where equal download and upload speeds allow rapid transfer of large files
- Allows LAN infrastructure to be easily extended and provides secure networks for multi-site operations
- Simplified network management and administration with a suite of online reporting tools
- On network service
- Quality of Service available

MPLS

MPLS (MultiProtocol Label Switching) delivers resilient, secure, any-to-any multipoint connections across any type of transport medium using any protocol. They support a wide range of access technologies such as voice, data, video, internet and hosted services and give ability to control how traffic is routed on the network, manage capacity, prioritise services and prevent congestion.

Benefits

- Ability to support multiple service types
- Flexible, resilient and secure networking environment
- End to end control with quality of service
- Enterprise-wide connectivity with global reach
- Traffic management
- Scalable with bandwidth on demand and intelligent routing
- Centralised internet gateways Resilient connectivity options
- Direct connection to on network service