

# Connectivity



## Datrix Connectivity

When it comes to choosing the right connectivity solution for your organisation, you need to consider what best fits your needs; not just today but for years to come.

The ideal solution will strike a balance between upload and download requirements and will guarantee a quality of service that meets the demands of your business.

Big data, the mainstreaming of the public cloud, increased collaboration and the rise of the mobile worker have all motivated businesses to embrace bandwidth-intensive voice and data applications. So, the right connectivity for your organisation is determined by a balance of performance, availability and affordability. We also leverage our technical expertise to integrate services such as SIP, Internet and hosted services to deliver a cost-effective, quality service.

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Datrix is a trusted provider of a wide range of data connectivity solutions including ADSL, Fibre to the Cabinet (FTTC), Ethernet in the First Mile (EFM), Generic Ethernet Access (GEA), Leased Lines and Wireless connections.

#### **SIP Services**

SIP (Session Initiation Protocol) Trunking uses VoIP to connect your telephony system to the Internet and is used predominantly for converged voice and data networks. SIP offers a number of advantages over ISDN in terms of scalability, resilience and quality. Moreover, the ability to make "on network" calls can reduce telephony costs significantly.

Don't worry if you want to extend the useful life of your existing ISDN before migrating to SIP as, until 2025, ISDN will still have a role to play for many organisations. It is easy to maintain and still delivers a reliable, high-quality voice experience.

#### PSN and HSCN Services

Datrix is a trusted provider of connectivity services to public sector organisations across the UK. The PSN (Public Services Network) is the UK government's highperformance network, designed to help public sector organisations collaborate in a secure environment.

The HSCN (Health & Social Care Network) replaces N3 and provides a platform for digital transformation for health and care organisations in the UK.

HSCN connectivity has become the default standard for connectivity in the health sector and supports the emerging "Internet First" policy of improved collaboration and easy access to digital health services.

### Connectivity Options

Although there are several elements to consider when evaluating connectivity options, for most organisations it comes down to two key factors: bandwidth (throughput) and SLA.

#### ADSL2+

Ideal for smaller businesses, or those with more modest connectivity requirements, ADSL2+ (Asymmetrical Digital Subscriber Line) delivers download speeds of up to 24Mb/s and upload speeds of up to 2.5Mb/s. ADSL is the most cost-effective way to get connected.

However, as a contended (shared) service, it may be subject to performance degradation at certain times of the day when demand for Internet services is high. ADSL can also be used as a cost-effective failover solution.



Your Business

BT Exchange

Asymmetric FTTC (Fibre to the Cabinet) addresses some of the shortcomings of ADSL. By shortening the length of copper used in the service delivery it can offer significantly greater performance. FTTC is still a contended service but can deliver download speeds of up to 80Mb/s and upload speeds of up to 20Mb/s.

FTTC provides a good balance of performance versus cost-efficiency and is a popular choice for smaller businesses that do not require an SLA.





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#### EFM

EFM (Ethernet in the First Mile) is an entry-level option for businesses who would benefit from a symmetrical Internet connection. It's ideal for organisations that share large files, or store significant amounts of data in the cloud, but do not require the absolute bandwidth available from a full Ethernet connection. An uncontended service, EFM still utilises copper circuits and delivers symmetrical speeds of up to 40Mb/s.



Your Business

#### GEA

GEA (Generic Ethernet Access) is effectively a hybrid service delivering many of the benefits of a Leased Line but using FTTC technology. GEA provides a costeffective, uncontended business Internet connection of up to 20Mb/s (up and down) with a quicker install and lower monthly cost than an Ethernet leased line.



#### Leased Lines

Fibre Ethernet Leased Lines are the gold standard in business connectivity and are the preferred choice of enterprise-level businesses, or those with highbandwidth requirements. With symmetric download / upload speeds of up to 10Gb/s, the service is provided via a direct Ethernet link between the exchange and your business premises.

By doing away with public infrastructure, you are assured of scalable, resilient connectivity supported by a stringent SLA.



Upgrading to a Leased Line from standard Broadband will involve a greater level of investment; but for organisations with high-bandwidth requirements, or those that are dependent upon Internet connectivity for their operations, it's money seriously well spent.

Leased Line connectivity is uncontended and subject to an enhanced service level agreement (SLA) that guarantees 99.96% - 100% availability.

#### Wireless (Mobile) Internet

For organisations seeking rapid connectivity or a low-cost, low-bandwidth alternative to DSL, we also offer 4G and 5G connectivity solutions.

For challenging physical locations, such as remote site monitoring or IoT devices, 4G/5G can provide essential connectivity without the need to lay new cables.

4G or 5G can be used to provide a high-performance alternative to backup circuits, especially if you are seeking improved resilience by eliminating a single point of failure. The technology can provide on-site hot or cold standby for instant failover in the event of primary circuit outage.

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#### What connectivity is right for your organisation?

Different access methods offer different benefits – and very different capabilities, so it's essential to ensure that your access technology can answer the individual needs of your business. The table below provides a brief comparison overview of the technical capabilities of different access methods.

	ADSL2+	Wireless	FTTC <sup>1</sup>	GEA <sup>2</sup>	EFM	Leased Lines
Price	£	£	£	£££	£££	££££
Max Capacity	17Mb	50Mb	76Mb	20Mb	20Mb	10Gb
Coverage	National	National	National	National	National	International
SLA	n/a	n/a	n/a	98%	98%	99.9%
Guaranteed Time to Repair	n/a	n/a	n/a	7 hours	7 hours	5 hours
Suitable for WAN, Internet, Cloud	Yes	Yes	Yes	Yes	Yes	Yes
Suitable for Backup <sup>3</sup>	Yes	Yes	Yes	Yes	Yes	Yes
Suitable for SIP	No	No	No	Yes	Yes	Yes
QoS available	No	No	No	Yes	Yes	Yes
Symmetric bandwidth	No	No	No	Yes	Yes	Yes
Guaranteed latency⁴	No	No	No	Yes	Yes	Yes
High speed failover		No				Yes

- 1. Only available in OpenReach Fibre-enabled areas
- 2. Only available in OpenReach Fibre-enabled areas
- 3. FTTC and GEA are not suitable back-ups for the other
- 4. Depending on carrier

## smart. simple. secure

Established for over 25 years, digital transformation is the driving force behind the evolution of Datrix services and solutions. Our professional and technical services teams adopt a consultative, client-centric approach that sees us design, build and manage superior solutions.

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