Datel Services

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Datel Services provide rapid communication between computers and remote data stations. Using appropriate British Telecom circuits, they allow instant access to a computer, regardless of distance.

A Datel Service includes the modulators/demodulators (modems) to translate the data into a form suitable for transmission, before presentation to the computer or terminal.

What are the benefits to business?

Computers represent enormous capital investment. A better return on that investment comes from more effective use of the computer's facilities. Datel can make these facilities available to more people in more locations.

Scientists, engineers and designers benefit increasingly from the information storage and problem-solving capabilities. Datel can put them on-line.

Remote offices can be linked to a central computer, saving in overheads connected with payroll, personnel and other administrative functions. Use Datel.

Over-production and storage of merchandise uses money which could be employed elsewhere. High-speed computerised production and stock control can lower operational margins – liberating capital. Datel can help to make it possible.

In a competitive business environment, up-to-the-minute management information is vital to effective decision making. The speed and accuracy of computer analysis is useful only when the information reaches the right place at the right time. Datel provides a way of doing this.

For those organisations without their own computer power, Datel can provide the link with shared computer services or time-sharing bureaux.

Every business is different; these brief examples are only an indication of the possible applications of Datel.

Which Datel service should you use?

There is a range of Datel Services to meet different requirements as to the application, speed and volume of data transmission. This leaflet describes briefly the facilities of each service.

Datel 200

Offers serial data transmission over telephone type circuits (either the Public Switched Telephone Network – PSTN – or private circuits) at speeds up to 300 bit/s.

Duplex working is available for simultaneous incoming and outgoing transmission.

As an alternative to the full facility modem used with this service, the miniaturised Modem 13 which fits under the telephone, may be adequate for simpler applications.

Datel 600

A serial data transmission service over telephone type circuits (either private or PSTN). Two operational modes offer
a) Transmission at speeds up to 600 bit/s
b) Transmission at speeds up to 1200 bit/s
An optional 75 bit/s backward channel is available.

Datel 1200 Duplex

Enables data to be transmitted at 1200 bit/s simultaneously over a single exchange line. The modem includes a number of local and remote test facilities.

Datel 2412

This service provides for transmission of data at 2400 bit/s over 4-wire private circuits or single exchange lines.

It also offers an optional backward channel at 150 bit/s. An alternative speed of 1200 bit/s is available when the maximum speed cannot be achieved on the PSTN. Test facilities are provided as a standard feature.

Datel 4800

Provides serial data transmission at speeds of 4800 bit/s or 2400 bit/s over 4-wire private circuits and the PSTN. When working over a private circuit duplex transmission is possible.

Test facilities are provided for use when connected to a private circuit or the PSTN.

Datel 4832

Provides duplex transmission of data at 4800 bit/s or 3200 bit/s over 4-wire private circuits, with PSTN standby over two exchange lines. Multipoint and international working are also available. Diagnostic facilities include remote testing of modems.

Datel 9600

Provides speeds of 9600, 7200 or 4800 bit/s over a 4-wire private circuit (point to point or multipoint) or two exchange lines. A multiport option enables up to four channels in various speed combinations to operate over the 9600 bit/s circuit. Diagnostic facilities include remote testing of modems.

Datel 48K

Provides duplex transmission facilities at fixed rates of 40.8 Kbit/s, 48 Kbit/s, and 50 Kbit/s, operating over specially engineered circuits.

International Datel services

International Datel 200, 600 and 2400 services provide for the transmission of data over the PSTN to most of Europe, the USA and many other countries.

Additional facilities

Automatic Calling

Data Control Equipment No. 1 (DCE 1) provides for the automatic origination of calls over the PSTN. It is available for use in conjunction with Datel 200, 600 and 2412 Services.

Automatic Answering

Automatic answering is available as a standard facility on Datel Services. International calls using Datel 200 and 600 Services require the provision of a Data Control Equipment No. 2 (DCE 2) for automatic answering. International Datel 2400 will not require a DCE 2 as these facilities will be provided as a standard feature.

Midnight line

For a fixed annual rental, an unlimited number of STD inland calls can be made over an exchange line between midnight and 6 am. Savings may result, especially where the service is used in conjunction with automatic calling facilities (see above).

Datel Network Control Systems (DNCS)

DNCS are available for use with most Datel Services.

Specially equipped racks, housed in an attractive cabinet, provide the termination point for the circuits, and hold the modems, control units and other necessary equipment.

The systems are modular; as the user's needs increase, more 'building bricks' are added to it.

Where a customer uses more than one Datel Service, DNCS may contain a mixture of these different services.

Racking

Racks are available to house large numbers of modems. The rack 73B-1 is enclosed in a grey cabinet with a stainless steel door, and occupies only four square feet of floor space. The number of modems mounted in the rack varies with their size; for example up to 36 Datel 200 modems or 16 Datel 2412 modems can normally be fitted.

Private circuits

Multipoint Circuits for Data Transmission

In addition to point to point circuits data may also be transmitted over a multipoint circuit. This allows from two to twelve terminals to be connected to a central station and enables the transmission of data from the central station to any terminal and from terminals to the central station. Direct communication between terminals is not possible.

International data transmission

The transmission of data internationally can be arranged over privately leased circuits, whether or not the International Datel Service is available to the country concerned.

Datel services
at a glance

Service	Signal Path	Transmission Speed – bits per second	Operating Mode	Remarks
Datel 200	Public Telephone Network	300	Asynchronous	300 bit/s may not always be attainable with older equipment.
	Private Circuit	300	Asynchronous	
Datel 600	Public Telephone Network	600	Asynchronous	Speeds of up to 1200 bit/s are also possible.
	Private Circuit	1200	Asynchronous	4-wire private circuits are required for duplex working.
Datel 1200 Duplex	Public Telephone Network	1200	Synchronous or Asynchronous	
Datel 2412	Public Telephone Network	2400	Synchronous	Over some connexions it may be necessary to switch to 1200 bit/s.
	Private Circuit	2400	Synchronous	A 4-wire private circuit is required.
Datel 4800	Public Telephone Network	4800/2400	Synchronous	Over some connexions it may be necessary to switch to 2400 bit/s.
	Private Circuit	4800/2400	Synchronous	A 4-wire private circuit is required.
Datel 4832	Private Circuit	4800/3200	Synchronous	A 4-wire private circuit is required.
	Public Telephone Network (Standby)	4800/3200	Synchronous	PSTN only operation is not available.
Datel 9600	Private Circuit	9600/7200/4800	Synchronous	A 4-wire private circuit is required.
	Public Telephone Network	9600/7200/4800	Synchronous	
Datel 48K	Wideband Circuit	40.8K 48K 50K	Synchronous	