# Post Office Telecommunications

**Datel Services** 



DLZ9

### What does Datel do?

Datel Services provide rapid communication between computers and remote data stations. Using appropriate Post Office 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 problemsolving capabilities of powerful computers. 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 your requirements according 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 a speed of 200 bit/s. In some instances speeds of up to 300 bit/s may be possible.

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 2400**

Provides serial data transmission at a speed of 2400 bit/s over 4-wire private circuits, with an optional 75 bit/s backward channel. Alternative working over the PSTN is available, at a speed of 600 bit/s and, in many cases, 1200 bit/s.

#### Datel 2400 Dial Up

Provides for serial data transmission over the PSTN at 2400 bit/s. Alternative speeds of 600 bit/s and 1200 bit/s are available when the maximum speed cannot be achieved.

#### Datel 2412

This service combines the higher transmission speeds of the Datel 2400 and 2400 Dial Up Services, 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 48K

Provides duplex transmission facilities at fixed rates of 40.8Kbit/s, 48Kbit/s, and 50Kbit/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, 2400, 2400 Dial Up 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).

#### **Control systems**

Control systems are available for use with Datel 200, 600, 2400 and 2412 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, control systems 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, but normally 18 modems No. 2 can 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.

#### At a glance...

| Service               | Signal Path                           | Transmission Speed –<br>bits per second | Operating Mode | Remarks  |
|-----------------------|---------------------------------------|---|----------------|--|
| Datel 200             | Public Telephone<br>Network           | 200                                     | Asynchronous   | Speeds of up to 300 bit/s<br>may also be achieved over the<br>PSTN and private circuits. |
|                       | Private Circuit                       | 200                                     | Asynchronous   | r STN and private circuits.  |
| Datel 600             | Public Telephone<br>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 2400            | Private Circuit                       | 2400                                    | Synchronous    | A four wire private circuit is required.   |
|                       | Public Telephone<br>Network (Standby) | 600                                     | Synchronous    | Speeds of 1200 bit/s are also possible.  |
| Datel 2400<br>Dial Up | Public Telephone<br>Network           | 2400                                    | Synchronous    | Where 2400 bit/s is not possible the modem can be switched to 600/1200 bit/s.            |
| Datel 2412            | Public Telephone<br>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 48K             | Wideband Circuit                      | 40.8K<br>48K<br>50K                     | Synchronous    |  |

#### **Datel Sales Enquiry Points: Telephone Numbers**

Aberdeen Aberdeen (0224) 24009

Bedford (0234) 52241

Belfast (0232) 33576

Birmingham 021-262 2757

Blackburn Blackburn (0254) 666387

Bournemouth Bournemouth (0202) 24990

Bradford Bradford (0274) 20974

**Brighton** Brighton (0273) 202090

Bristol Bristol (0272) 296507

Cambridge Cambridge (0223) 61816

Canterbury Canterbury (0227) 60034

Cardiff Cardiff (0222) 24749

Chester (0244) 20192

Colchester Colchester (0206) 41331

Coventry Coventry (0203) 22905

Dundee (0382) 302201

Edinburgh 031-345 4480

Exeter (0392) 75030

Glasgow 041-220 2899

Gloucester Gloucester (0452) 25451

Guildford Aldershot (0252) 27546 International 01-432 5407

Lancaster Lancaster (0524) 88207

Leeds (0532) 37893

Leicester (0533) 534111

Lincoln (0522) 26651

Liverpool 051-229 3961

LONDON Centre 01-437 8060 Ext 352

City 01-921 8754

East 01-553 7228

North 01-340 8060 Ext 7143

North Central 01-829 4405

North West 01-864 4347

South 01-760 7400

South Central 01-261 4622

South East 01-290 2494

South West 01-879 2444

West 01-579 8771

MANCHESTER Central 061-863 6438

North 061-863 8261

South 061-863 5478

Middlesbrough Middlesbrough (0642) 248636 Newcastle upon Tyne Newcastle (0632) 613364

Norwich Norwich (0603) 25282

Northampton Northampton (0604) 39171

Nottingham Nottingham (0602) 56869

Oxford Oxford (0865) 812312

Peterborough Peterborough (0733) 69664

Plymouth Truro (0872) 4224 Ext 230

Portsmouth Portsmouth (0705) 813411

Preston Preston (0772) 55989

Reading Reading (0734) 52598

**Scotland West** 041-242 2068

Sheffield Sheffield (0742) 732377

Shrewsbury Shrewsbury (0743) 3388

Southampton Southampton (0703) 33270

Southend (0702) 47099

Stoke-on-Trent Stoke (0782) 28296

Swansea Swansea (0792) 52870

**Taunton** Taunton (0823) 87172

Tunbridge Wells Tunbridge Wells (0892) 24511

West Midland 021-262 2609

York York (0904) 57220

For further or up-to-date information please contact the special services representative of your Local Telephone Sales Office. The telephone number is shown above.

If you have difficulty obtaining information from the numbers listed please call the operator and ask for Freefone 2170 or dial 01-432 1813. Your local Sales Office will be pleased to give you the Postal address of any of our area offices.

#### Please note

We do our best to supply our customers with the apparatus they ask for but we may have to provide apparatus which does not accord exactly with the descriptions in this leaflet.