ISDN

Introduction

The Integrated Services Digital Network (ISDN) is a high speed public data network. ISDN has 2 x 64kbits/sec channels used for data transfers and 1 x 16 kbits/sec used mainly, but not exclusively, for signalling. The advantages of ISDN are high speed, low error rates, rapid call set up and the fact that it a public network supporting, voice, data and other teleservices. For intermittent high volume or time critical data transfers it is an economical and effective data transfer mechanism.

The additional costs associated with ISDN come from the installation of a new line, and the purchase of new equipment as call charges are equivalent to the ordinary telephone network (in UK at least). Equipment costs are marginally more than the cost of very high speed modems. Savings are made because the higher data rates means shorter calls for the same amount of data transferred.

There are in fact two routes to ISDN, asynchronous and synchronous. The asynchronous route is in effect a modem for ISDN and allows the use of existing communications software running standard protocols. However, the standard for this type of transfer is only 38.4 kbits/sec. Synchronous transfer rates are higher but the software may not allow you to run existing communications software. By replacing the device driver WISDN is capable of using both synchronous and asynchronous equipment.

WISDN and ISDN

The original version of WISDN was specifically designed to take advantage of two important technologies, the Windows 3 environment and the Integrated Services Digital Network (ISDN). The ISDN combines the convenience and flexibility of the telephone network with the speed and performance to provide services which are more usually associated with Local Area Networks. Fully compatible with the existing telephone network and providing high speed data transmission, the ISDN is the ideal tool for teleworking, desk top conferencing and other forms of voice and data communications which need to be flexible, fast and interactive. WISDN is written mainly as Dynamic Link Libraries (DLL's) so that new applications, or device drivers, can be developed quickly and implemented easily. Multitasking within WISDN means that a number of applications can share the same connection. WISDN initially provides a fast interactive file transfer application.

WISDN was designed specifically for the Integrated Services Digital Network(ISDN) and can take advantage of both 64kbits/sec B channels and can also make use of the signalling information provided by the D channel. For example, calling line identification (CLI) can be used for security purposes. WISDN provides:

- Audio telephony both over the ordinary telephone system and ISDN.
- Data Transfer over the ISDN
- Rate adaption for US Market
- Simultaneous audio and data call
- Simultaneous data calls to one or more sites
- Call Status signalling information
- Use of Call Line Identification, where available, for security.
- Device independent. WISDN will work with different ISDN devices.

Upgrading from the ordinary telephone system to ISDN or using both ISDN and can be achieved by upgrading the software and hardware.

For further information on WISDN:

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