

## ISDN.TXT

FileName : ISDN.TXT  
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You can take your modem and toss it in the garbage. It's obsolete, slow and incapable of keeping up with the race for faster and faster data rates. Just when you thought it was safe to buy a new high-speed modem someone had to come along and leapfrog modem technology itself.

Now there's a purely digital phone system just around the corner that may change telephone communications forever. It's called an Integrated Systems Digital Network (ISDN) and it differs from our current telephone system in one major way - it's digital instead of analog.

Telephones were created to allow people to talk to each other. When you talk into a phone, your voice vibrates the element inside a microphone. This microphone creates a change in voltage which is fed through wires to another telephone. This same voltage fluctuation goes into an amplifier which then vibrates a speaker, producing sound. This analog signal is fine for voice communication but not for computer data communication.

Computers use digital information, just ONs and OFFs, instead of voltage fluctuations, to convey information. ONs and OFFs just don't work very well over the phone, which is why we use a modem to convert digital information into sound before it is sent over the phone.

But data converted to analog form is prone to errors caused by noise and other technical problems. With more and more information now in digital form, phone companies all over the world decided that making a digital phone network (ISDN) would be a good idea. Instead of converting fax and computer data into sound, it can be sent directly out as a digital signal, and voice communication can then be digitized (converted into digital information) and sent over the very same lines. The result is higher quality, fewer errors and a faster data transfer rate than we have with our current phone system.

Apple Canada recently had ISDN service installed and is dreaming up numerous applications for this new technology.

"Since everything is digital, data compression systems can be used to make new things possible," says Andrew Scouler, networking product manager at Apple Canada. "ISDN will make the home office more useful and practical. Imagine calling up a co-worker and opening up a window containing a live video image of that person on the screen of your Mac. Then you can link both of your computers together, allowing both of you to see the rest of the windows on your screen".

"Anything you're doing in your word processor, database or anything else can be easily conveyed to the other person. If you have any hard copy to present, you can just hold it up to the camera and maybe open another window

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so you can see yourself and make sure the other person can see clearly."

ISDN will have a major impact on virtual reality, says Scouler.

"The virtual reality applications will be amazing. Imagine being linked to a series of cameras in a London art gallery and being able to browse through the pieces of art and being able to talk with other people there and make bids, all from your desk."

According to Scouler, Apple was a natural choice to work on the technology.

"Apple was chosen to be part of the testing because Bell wanted a non-phone company to work with them. And the Mac is an ideal platform for ISDN developments because of its graphical environment. More and more graphical information is being integrated with computer technology."

ISDN is beginning to be installed in places like Apple Canada but it won't be until 1993 that most consumers will be able to take advantage of the technology in their homes and businesses.

With ISDN there will be no modems. Instead we'll all have ISDN interface cards which go inside your computer and hook up to your ISDN wall jack. The ISDN card will have a telephone jack, allowing any regular telephone to be plugged into the system.

If you're talking to a modem user who's still on the older system you'll be able to emulate, say, a V.32 or an HST completely through software. You'll be limited to the baud rate of the modem at the other end, just as you are now when you call someone who has a slower modem.

Since everything is purely digital there's very little chance of line noise, especially since more and more fibreoptic cables are being used. For modem users, less time will be spent transferring files and faxes and more time will be spent on productive activities. Businesses and home office workers will benefit with ISDN because they'll have a faster and more powerful link to other computers and services.

"With more people working on home offices, companies can reduce costs by renting smaller offices," says Scouler. "Instead of having dozens of desks they could set up only a handful of general-purpose workstations for people who need to come into the office on occasion."

The services comes in two forms - Basic Rate Access (BRA) and Primary Rate Access (PRA). BRA will contain two 64-Kilobit per second lines (That's 64,000 bps) and one 16k bps line. The 64k bps lines can be used for voice or data communications, and the two lines can be combined, creating a speed of 128k bps. The 16k bps lines is used as a control line, allowing in-house phone line

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switching as well as a lower-speed data line.

PRA contains 23k to 64k bps lines and one 16k bps line and is designed for larger business installations. The lines could be combined for a total speed of 1.48 million bps. (That's 23 times 64, plus 16.)

For BBSers ISDN means we'll have the ability to play real on-line video games instead of simple ANSI or text-oriented games. We'll exceed our current modem speeds by a factor of five or maybe higher with new data compression systems. Electronic and voice mail will evolve into video mail.

As well, virtual reality will become a consumer commodity, bulletin boards and similar services will be as popular as cable TV and no one will want to buy my slightly used 300-baud acoustic modem.

File Typed By:

%% Silent Death / Temple of Terror %%

While I'm at it.. Let me just state one thing:

Temple of Terror will be going back up very shortly. The number HAS BEEN CHANGED. Please do not call the old number of the board. The new number will be given out shortly. It is just that the guy who is going to run the board has to get his 80mb hard drive still. He is only running on an 40mb MFM drive now I believe and I told him that when he gets the hard drive (sometime this week I believe), I will then let him run the board. Actually, the board might go up after the March Break since I will be gone for the week.. Haha.. I'm going to be nice and warm while you people can bask in the cold of TO.. Anyway, you will get a notice of when it's going up..

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