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email: Harry@HarryNewton.com

personal web site: www.HarryNewton.com

business web site: www.InSearchOfThePerfectInvestment.com

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containing a 160-gigabyte hard drive that holds 100 movies, which is plugged into the back of a TV set. A charge also is assessed for each movie that is watched. A phone line must be plugged in to the box for billing purposes. In one market Disney will experiment with a \$29.99 activation fee as well.

The Moviebeam box will be regularly refreshed with new digital movies that are delivered to it not via digital cable, satellite or the Internet but through the old-fashioned pipeline of broadcast airwaves. Manufactured by Samsung Electronics, the receiver has a small but powerful antenna that resembles a tiny propeller. Through a process known as datacasting, Moviebeam perpetually transmits movies to the device's hard drive in tiny bits of data that travel alongside the normal broadcast stream of a local ABC or PBS station, without interfering with regular TV broadcasts. While the service currently uses the analog broadcast spectrum, it is equipped to take advantage of digital broadcasts when they become more common.

database A collection of data structured and organized in a disciplined fashion so that access is possible quickly to information of interest. There are many ways of organizing databases. Most corporate databases are not one single, huge file. They are multiple databases related to each other by some common thread, e.g. an employee identification number. Databases are made up of two elements, a record and a field. A record is one complete entry in a database, e.g. Harry Newton, 205 West 19 Street, York, NY 10011, 212-206-7140. A field would be the zip code field, namely 10011.

Databases are stored on computers in different ways. Some are comma delineated. They differentiate between their fields with commas—like Gerry's record above. A more common way of storing databases is with fixed length records. Here, all the fields and all the records are of the same length. The computer finds fields by index and by counting. For example, Gerry's first name might occupy the first 15 characters. Gerry's last name might be the next 20 characters, etc. Where Gerry's names are too short to fill the full 15 or 20 characters, their fields are "padded" with specially-chosen characters which the computer recognizes as padded characters to be ignored. The most important thing to remember about databases is that all the common database programs, like dBASE, Paradox, Rbase, etc. don't automatically make backups of their files like word processing programs do. Therefore, before you muck with a database file—sort it, index it, restructure it, etc. Please make sure you make a backup of the main database file.

database administrator 1. A person who organizes, designs, implements and runs the company's databases. Since I personally believe databases—especially of prospects and customers—are pretty well a company's most important asset, this job of database administrator is very important.

2. DBA. A computer at MCI Worldcom that maintains the master file of Vnet translation information. The master file is created when a customer begins service and can be changed at anytime through CIM. The updated copies of the database are downloaded each night to the DAPs.

database clustering Database clustering is a technology that allows a bunch of computers connected together to work as one and serve a single relational database. The idea is that together they can create a fault-tolerant, high performance, scalable solution that's a low-cost alternative to large, expensive servers. Database clustering is also called real application clustering (RAC). When I wrote this it was new and relatively unproven. There are two common methods of clustering relational databases, known as "shared-disk" and "shared-nothing" clustering. IBM's DB2 Universal Database (DB2 UDB) uses a shared-nothing approach. In this architecture, each node in the cluster holds only one segment of the database, and the node also handles all of the computational work that corresponds to the data it stores. A master server assesses the task at hand and then parcels it out, distributing a portion of the job to each node that contains data to be processed. The task is then executed by all of the nodes in parallel, and the master server reports the result. Oracle uses shared disk clustering—a design that's structured around a single large data store (for example, a disk array). Each node on the cluster has equal access to all of the information in the data store. Only the processing work is divided amongst them, and not the data itself. The result is particularly fault tolerant database. Even if one or more servers fails, all of the application data remains available to the other nodes. By comparison, if one node on a shared-nothing database crashes, all of the data stored on that node likewise goes offline, until a failover system can recover from the fault.

database dictionary A specific type of system table that stores information about the structure of a particular database. Primarily used in relational databases to store the names and data types of the tables and columns in a database. Can also be known as a Lookup Table.

database lookup A software program which allows telephone users to find information on someone calling via the LCD window on their phone. This information comes to the user via CLID (Calling Line Identification) or ANI (Automatic Number Identification). See also Class.

Database Management System DBMS. Computer software used to create, store, retrieve, change, manipulate, sort, format and print the information in a database. Database management systems are probably the fastest growing part of the computer industry. Increasingly, databases are being organized so they can be accessible from places remote to the computer they're kept on. The "classic" database management system is probably an airline reservation system.

database mining You have a database of your customers. You have information on your customers' buying habits. You slice and dice your database to find out which of your customers might be interested in purchasing new items and which items. For example, let's say you make clothes. 20% of your customers buy in "tall" mens sizes. Next time you make some tall mens' clothes, you may want to tell those customers—with an email or a direct mail catalog. That, in its simplest example, is called database mining or collaborative filtering.

database object One of the components of a database: a table, view, index, procedure, trigger, column, default, or rule.

database server A specialized computer that doles out database data to PCs on a LAN the way a file server doles out files. Where a traditional DBMS runs both a database application and the DBMS program on each PC on the LAN, a database server splits up the two processes. The application you wrote with your DBMS runs on your local PC, while the DBMS program runs on the database server computer. With a regular file server setup, all the database data has to be downloaded over the LAN to your PC, so that the DBMS can pick out what information your application wants. With a database server, the server itself does the picking, sending only the data you need over the network to your PC. So a database server means vastly less network traffic in a multi-user database system. It also provides for better data integrity since one computer handles all the record and file locking. See Server.

datablade Datablades are components for particular types of data that plug into a central database, similar to the way razor blades snap into a razor. Informix is rewriting some of its databases so other companies can produce datablades.

datagram A transmission method in which sections of a message are transmitted in scattered order and the correct order is re-established by the receiving workstation. Used on packet-switching networks. The Dow Jones Handbook of Telecommunications defines it as, "A single unacknowledged packet of information that is sent over a network as an individual packet without regard to previous or subsequent packets." Here's another definition I found. A finite-length packet with sufficient information to be independently routed from source to destination. In packet switching, a self-contained packet, independent of other packets, that carries information sufficient for routing from the originating data terminal equipment to the destination data terminal equipment, without relying on earlier exchanges between the equipment and the network. Unlike virtual call service, there are no call establishment or clearing procedures, and the network does not generally provide protection against loss, duplication, or misdelivery. Datagram transmission typically does not involve end-to-end session establishment and may or may not entail delivery confirmation acknowledgment. A datagram is the basic unit of information passed across the Internet. It contains a source and destination address along with data. Large messages are broken down into a sequence of IP datagrams. See Connectionless Mode Transmission.

datagram packet network The type of packet-switched network in which each packet is individually routed. This may result in a loss of sequence within a message because of alternate routing, or a loss of portions of a message because of packet elimination for congestion control. See Datagram.

DATAP The programmer and system house in Atlanta which provides several long distance carriers with value-added services—what Sprint calls its SCADA system manufacturer.

Datapak A packet-switched network run in Denmark, Sweden, Finland and Norway and operated by their respective governments.

Datapath A name that once was a data service that provided digital, full-duplex data transmission at speeds of 300 bps through 19.2 Kbps asynchronous and 1,200 through 64 Kbps synchronous. Datapath has built in autobaud and hand-shaking protocols.

datascope A diagnostic tool for monitoring and capturing data transmissions which