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Networking (AIN). GSF applies the principles of object-oriented programming to DMS SuperNode software, and delivers enhancements that simplify feature development and reduce testing needs. The GSF has three distinct elements:

1. Call Separation - The new architecture uses separate software data and processes to handle the two "halves" of a call (originating and terminating).
2. GSF Agent Interworking Protocol (AIP) - The AIP uses a standardized set of instructions to allow the two call halves to communicate.
3. Event-Driven Call Processing (EDCP) - Just as the AIP mediates communications between call halves, EDCP handles communications within each call half. EDCP also uses a standardized set of instructions to simplify messaging.

Generic Top Level Domain see gTLD and Domain.

Genlock Circuitry that synchronizes video signals for mixing. The video circuitry determines the exact moment at which a video frame begins. Genlock allows multiple devices (video recorders, cameras, etc.) to be used together with precise timing so that they capture a scene in unison. A genlock display adapter converts screen output into an NTSC video signal, which it synchronizes with an external video source.

GEO Geosynchronous Earth Orbit. A term for a satellite which is placed in a geosynchronous, or geostationary, orbital slot. Such orbits are always equatorial; the satellites are placed at altitudes of approximately 22,300 miles (or 35,888 kilometers). As a result, they are synchronized with the rotation of the earth, maintaining their relative position to the earth's surface. In other words, they always appear to be in the same spot. See also Geostationary Satellite. Contrast with LEO and MEO.

Geographic Information Systems GIS. Computer applications involving the storage and manipulation of electronic maps and related data. Applications include resource planning, commercial development, military mapping, etc.

Geographic Interface First there was the ASCII interface - a screen containing nothing but ASCII letters. You saw them on airline reservation terminals. Just plain boring green type against a dark, unlit, black background. Then you got the GUI - the Graphical User Interface. Windows is the most famous GUI. It used icons to represent actions. An eraser to indicate you could remove something. A calendar to indicate that you could enter your day's schedules, etc. Now there is the "Geographic Interface." It attempts to depict objects from the real world - or at least some circumscribed part of it, like your office. The first of these products was Magic Cap from General Magic. Another was the opening screen for Apple's eWorld on-line service. Another is Novell's Corsair technology. Click on a filing cabinet to get to its database contents. Click on a bloodhound find something. One idea behind these geographic interfaces is that there should be a libraries of objects. A set useful for an auto mechanic. Another set useful for a bond trader. The idea is that everyone gets to choose the bits and pieces of the geographic interface that he or she is most comfortable with. Some of these new geographic interfaces are endearing. Some are tiresome. We'll see if they endure.

Geographic North North based upon some geographic grid system which may or may not correspond to "true north."

Geographical Portability The ability to take your New York phone number to Boston, including the area code. In short, geographical portability is the ability to take all your phone number (i.e. all its 10-digits) with you wherever you go - anywhere in North America. No timetable has been set for geographical portability in North America. See LNP (Local Number Portability) and 800 Service.

Geographical Redundancy A level of redundancy that involves more than one system's serving a given geographical area. Geographical redundancy is a step above physical redundancy. Physical redundancy involves a backup system (e.g., router) in the same physical location as the primary system. In the event of a failure in the primary system, the backup system automatically activates. Geographical redundancy provides an additional measure of protection through another system, or set of primary and backup systems, in another physical location. While each set of systems has primary responsibility for a given geographical area, each can assume responsibility for others in the event of a catastrophic failure affecting a given physical location. The term most commonly applies to Internet access.

Geolocation Technology Also known as Position Determination Technology (PDT). A technology used to determine the geographic coordinates of a radio-equipped mobile device, e.g., a cellular handset. See Position Determination Technology.

Geometric Dilution of Precision GDOP or DOP (Dilution of Precision). In systems employing position determination technology such as Enhanced 911, GDOP refers to the phenomenon that causes the calculated position's accuracy to be a factor of the rel-

ative geometry of the involved units. For example, in an angle of arrival system, two fixed units measure the angle to a mobile unit. The resulting lines intersect in a point defining the mobile's position. If each measured angle has some uncertainty, the intersection is no longer a point, but say, a quadrilateral. In this case, the mobile is known only to be within the area of the quadrilateral. Depending on where the mobile is in relation to the fixed measurement units, the area and shape of the quadrilateral (and therefore the accuracy of the calculated position) may be larger or smaller. GDOP also affects time difference of arrival systems.

Geostationary Arc The part of the geostationary orbit that can be "seen" by, and consequently the orbital positions that can be accessed by an observer at any particular latitude and longitude on Earth.

Geostationary Orbit Also called Geostationary Earth Orbit (GEO); a particular type of Geosynchronous Orbit that nominally is circular and lies within the plane of the Earth's equator, with a radius of 26,200 miles (22,237 miles above the Equator). Satellites are launched into orbits to move in the same direction as the Earth revolves to have a period equal to the sidereal day of 23 hours, 56 minutes and 4.091 seconds. Ideally, as seen from Earth, the satellite remains fixed at an Orbital Position and consequently seems to be stationary in space, which gives the orbit its name. However, in practice, there are no purely geostationary orbits, principally because a satellite in orbit is subject to three forces that disturb its orbit. First, the Earth is an imperfect sphere, so its gravitational field is asymmetrical. This causes longitudinal drift of the orbital position, toward positions where the drift is zero, at 102°W and 76°E latitude. Second, the sun and the moon exert gravitational force on a satellite, which tip its orbit at an inclination to the equatorial plane at a rate of about 0.8" per year. Finally, the sun exerts radiation pressure on the satellite, accelerating it during one half of its orbit and decelerating it during the other half, with the result that the orbit becomes elliptical. If left to itself, the satellite would be moved by these forces and would gradually depart from its orbit, most likely to one of the libration points between the Earth and the Moon where forces balance and gravity is zero. Hence, keeping a satellite in geostationary orbit requires exerting some force, which in turn requires energy, which is both expensive and must be stored on board. So orbits are designed to minimize the use of energy stored on board satellites by routinely accepting deviations from the geostationary ideal. The satellite is not "stationary", but moves about in a defined box, or window determined by Station Keeping. See Geostationary Satellite.

Geostationary Satellite A satellite with a period of revolution of one sidereal day. A satellite in geostationary orbit, also called geosynchronous orbit. A satellite placed in an geosynchronous orbit - 22,300 miles (or 35,888 kilometers) directly over the earth's equator - will appear to be stationary in the sky, turning synchronously with the earth. This means you can plant a satellite receiving/transmitting antenna on the ground, and point it at that one place in the sky to receive signals from and transmit signals to "the bird", as satellites are sometimes called. Most communications satellites are in geostationary or geosynchronous orbit. The Russians have some satellites that orbit the earth and require antennas which move. These satellites are used to transmit to far northern communities which are difficult to reach with normal geosynchronous satellites.

Geostationary Satellite Orbit GSO. A satellite orbit 23,000 miles (35,888 kilometers) over the equator with an orbit time exactly 24 hours. Thus a satellite in a Geostationary Satellite Orbit appears motionless to an earth station which can receive it with a stationary antenna. One drawback is that a two-way communication channel through a geostationary satellite incurs a one-way delay, due to the finite speed of light (186,000 miles per sec) or about one-quarter second. This can be annoying because, after a pause in the conversation, the two users may start talking at about the same time and "collide" with each other, due to the fact that each started talking within a quarter second of each other.

Geosynchronous Orbit Synchronous with the Earth. An orbit 22,300 miles (or 35,888 kilometers) above the earth's equator where satellites circle at the same rate as the earth's rotation, thereby appearing stationary to an earth-bound observer. See also Geostationary Orbit.

Geotech Geotechnical Report. Soil boring to determine soil classification (rock, clay, etc) prior to installing the foundation for a site. See also SHPO, State Historic Preservation Officer.

GET The standard method by which a Web browser gets information from a server. See Browser.

Get A Life What your kids say to you when you start talking too much about the information superhighway, or the Internet, or fiber optic, or something that doesn't interest them.

nection to multiple desktop devices.

Port Scanning Port scanning is the technique of attempting to find listening TCP or UDP ports on an IP device and abstracting from the listening ports as much information as possible about the device. Port scanning in and of itself is not usually harmful but it lets potential crackers fingerprint your systems, learn everything they can about your possible vulnerabilities and set themselves up for a later intrusion. For example, if a port scan shows that the device is listening on port 23, the cracker knows that Telnet is likely enabled on the device and can attempt a brute force password guessing attack later.

Port Selector Another name for a dataPBX. Since the advent of LANs (local area networks) these devices have been getting a bad rap. Not fair. These gadgets are really great at transmitting and switching huge number of low-speed asynchronous lines. If you put this sort of traffic on a LAN, you could severely mess up its performance. Some port selectors have data throughput in excess of 20 million bits per second.

Port Sharing 1. A system which connects multiple lines to a single port by means of a manual or automatic line selection method.

2. In frame relay, where multiple virtual connections share the same port connection.

Port Sharing Device A system which connects multiple lines to a single port by means of a manual or automatic line selection method.

Port Switching According to 3Com, port switching is merely an electronic patch panel function, not the genuine switching capability that provides a performance boost. Port switching lets administrators configure their networks, allocating any port to any backplane on their hub. Unlike true switching, it doesn't increase the bandwidth available to the network manager.

Portability 1. The ability of a customer to take his telephone number from place to place and, for 800 numbers, from one long-distance company to another.

2. The ability of software designed for one computer system to be used on other systems. Little software outside MS-DOS software for IBM and IBM clone computers is portable. UNIX software is portable to an extent.

Portable A one-piece, self-contained cellular telephone — easily carried in a brief case or purse. Portables normally have a built-in antenna and rechargeable battery and operate with six-tenths of one watt (0.6 watt) of power. Car cellular phones operate with three watts.

Portable Cellular Phone Also known as a "hand-held phone". Refers to a lightweight, compact cellular handset that incorporates a battery power supply, and can be used without any peripheral power or antenna. See Portable.

Portable Teletransation Computers PTC. These are typically hand-held devices used for retail (inventory), healthcare (tracking supplies), mobile field repair (reporting fixes), insurance (visiting car wrecks and other disasters), etc. The devices typically have telecommunications capabilities, sometimes wireless, sometimes landlines. And they typically include microprocessors, memories, displays, keyboards, touchscreens, character recognition software, barcode readers, printers, modems and local and/or wide area data radios.

Portal Site The classic definition of a portal is a door, gate, or entrance, especially one of imposing appearance, as to a palace. In the Internet / World Wide Web, a portal is a site, which the owner positions (through marketing and heavy promotion) as an entrance to other sites on the Internet. The concept is that he convinces visitors to the Internet to visit his site first, and savor the advertising on his site (his major way of making money). A portal typically has, at minimum, search engines, free email, instant messaging and chat, personalized home pages and Web hosting. In the past, companies like America Online and CompuServe would have been called portals. Many browsers (e.g., Netscape Navigator and Internet Explorer) point you to a Web site — their own Web site, which they are endeavoring to position as a "portal." Once there, you might then want to use a search engine (e.g., AltaVista, Excite, Infoseek, Lycos, Yahoo). You are then taken to their Web site. These sites serve as your secondary portal, or point of entry, into the Web. At each of these Web sites you are assailed with advertisements. Also, cookies are embedded in your computer so they can track your movement and activities on the Web to get a feel for your viewing and buying preferences and, ultimately, develop a profile on you for purposes of targeted on-line advertising. You can change your initial portal, if you like, perhaps pointing your browser to the Web site of favorite financial information provider (e.g., Bloomberg or Nasdaq), rather than that of Netscape or Internet Explorer. Portals are BIG business. In July 1998, Walt Disney Co. offered \$900 million for 43 percent interest in Infoseek, a 4-year old startup with fewer than 200 employees and annual sales of about \$35 million. At the time, Infoseek had never made a profit. See also Portal

Service.

Portal Service First, read my definition for Portal above. Then add these words. Portal Service is a whole architectural concept surrounding and including a point of entry. Portal Service introduces the concept of service on which other Internet services could be built. Such services provide an entry point on which other applications and services can be built, customized and enhanced to suit an envisaged deployment of any new services as a library of building blocks.

Portrait Most computer screens are horizontal, i.e. they are wider than they are high. In the new language of computer screens, this is called "landscape." When a computer screen is higher than it is wide, it's called "portrait." Some computer screens can actually work both ways. Some even have a small mercury switch in them that determines which way the screen is standing (portrait or landscape) and will adjust their image accordingly. See also Portrait Mode.

Portrait Mode 1. In facsimile, the mode of scanning lines across the shorter dimension of a rectangular original. ITU-T Group 1, 2 and 3 facsimile machines use portrait mode.

2. In computer graphics, the orientation of a page in which the shorter dimension is horizontal. The opposite is called landscape mode. See also Portrait.

POS 1. Point Of Service. Also called Point of Presence. See Point of Presence.

2. POS Device. A point of sale device such as a credit card scanner used for authorization when a purchase is made.

3. Packet Over SONET. A high-speed means of transmitting data over a SONET fiber optic transmission system through a direct fiber connection to a data switch or router. POS is a point-to-point, dedicated leased-line approach intended purely for high-speed data applications. Where a point-to-point approach is possible, POS offers significant advantages when compared to ATM's cell-switching approach. Specifically, POS allows a user organization to pass data in its native format, without the addition of any significant level of overhead in the form of signaling and control information. For example, POS allows Ethernet frames to be packed into STS-1 (Synchronous Transport Signal-1) frames of 810 bytes, with only 36 bytes of overhead — an overhead factor of less than 1% — and then sent over an OC-1 (Optical Carrier-1) frame at 51.84 Mbps. For higher capacity applications, SONET supports example rates of approximately 155 Mbps, 622 Mbps, 2.4 Gbps and 10 Gbps — all with the same low level of overhead, or inefficiency. ATM, on the other hand, is a cell-switching approach that segments each data frame into small cells of 53 octets, of which 5 octets are overhead — an inefficiency, or overhead, factor of approximately 11% ATM, on the other hand, will support voice, video, fax and any other form of traffic, as well as true data traffic.

4. Personal Operating Space. As defined by the IEEE 802.15 Working Group, which is engaged in the development of WPAN (Wireless Personal Area Network) standards, the POS covers a range of 10 meters. Within that space, low power, low data rate WPAN technologies can operate on a fixed, portable or mobile basis. See also 802.15.

POS-PHY Packet Over SONET-PHYsical layer. A specification for Packet over SONET, with SONET running at the Physical Layer (Layer 1) of the OSI Reference Model. See also OSI Reference Model, SONET, and POS.

POSI Promoting Conference for OSI. Consists of executives from the six major Japanese computer manufacturers and Nippon Telegraph and Telephone. They set policies and commit resources to promote OSI.

Position A telephone console at a switchboard manned, oops, staffed by an attendant, or operator, or agent, or whatever the latest PC-correct word is.

Position Calculation Method The location estimate is performed by a Position Calculation Function (PCF) located in the network or, if the MS has the capability, in the MS itself. With the same network architecture, MS functions, LMU functions and measurement inputs, the PCF can be based on one of two possible variants of E-OTD; known as 'circular' and 'hyperbolic'. See Position Determination Technology and Location Services.

Position Determination Technology PDT, also known as Geolocation Technology. A technology used to determine the geographic coordinates of a radio-equipped mobile device, e.g., a cellular handset. Generally refers to technology that allows the device's position to be monitored remotely, such as by an emergency service operator in the case of a wireless E-911 call. "Position" is preferred in some circles to avoid confusion with the use of "location" in reference to cellular system roaming. Three general classes of PDT are as follows.

● Network-based. Fixed-site network infrastructure (e.g., collocated or consolidated with the cellular base station) determines device's position based on received signal measurements. Includes Angle of Arrival and Time Difference of Arrival technologies. See Angle of

Arrival.

- **Handset-based.** The mobile device determines its own position (e.g., from an integral Global Positioning System receiver) and reports it to the network.

- **Handset-assisted.** A hybrid approach wherein the mobile device collects some measurements from its environment that are reported to the network infrastructure which in turn uses them to derive the mobile's position.

See also Position Calculation Method and Location Services.

Positive Action Digit A digit that must be dialed before a PBX will advance a call to a higher-cost route. The WATS lines are busy. Time on the queue is over. It's time to move the call to the more expensive direct distance dial. Before it can go that route, the caller must punch in a positive action digit. This affirms that the user knows he is now making a more expensive call. It causes him to think twice, allegedly.

Positive Trapping Use of a notch filter to trap out an interfering carrier inserted in the channel in order to deny service to non-subscribers.

POSIX Portable Operating System Interface uniX. A proposed universal UNIX interface to user-created application programs that would run on all vendor equipment, thereby improving system interoperability.

Post 1. A method of uploading files to a Web server from a HTML-capable (HyperText Markup Language. HTTP (HyperText Transfer Protocol) specifies both POST and PUT. POST performs a permanent action, such as the uploading of an order or the response to a form, or is used which a significant amount of data must be input. POST must be handled by a program or script, which must already exist. PUT can be used to update information on the server, if only a single data item is required. PUT also can be directed at a resource (e.g., program or data element) which does not yet exist. See also HTML and HTTP.

2. To compose a message for an Internet Usenet newsgroup and then send it out for others to see.

3. Power-On Self-Test

Post Dial Delay PDD. The time from when the last digit is dialed to the moment the phone rings at the receiving location.

Post Office Any part of an e-mail system that directs or delivers mail. But, says PC Magazine's David Stone, to refer to a particular level of mail handling, the term post office needs a modifier. A local post office or host post office is the module on a LAN that users directly interact with to send and receive mail. A domain post office is the module that controls the mail delivery within a domain of multiple hosts on a single network.

In Windows 95, the postoffice is a temporary message store, holding the message until the recipient's workstation retrieves it. The postoffice exists as a directory structure on a server and has no programmatic components.

Post Office Act In 1969, in the U.K. this act began the process of removing telecommunications from direct government control. See also the British Telecommunications Act.

Post Pay A method of coin phone operation characterized by the operation of a lever or button that causes the collection of deposits after the called party answers. This method of "A" and "Buttons" is still used on coin phones overseas, especially in Great Britain.

Post production The editing process after the video footage has been shot.

Post Restante Address A standard attribute in a postal address indicating that physical delivery at the counter is requested. It may also carry a code.

Post Tensioned Concrete A type of reinforced concrete construction in which the steel is put under tension and the concrete under compression, after the concrete has hardened.

Postage Money paid for conveyance by mail. Mailing a building has been illegal in the U.S. since 1916, when a man mailed a 40,000-brick house across Utah to avoid high freight charges.

Postal Telephone and Telegraph PTT. The official government body that administers and manages the telecommunications systems in many European countries.

Postalize To structure rates or prices so that they do not vary with the distance you're speaking, but depend on other factors (such as duration of a call, etc.) See also Postalized.

Postalized Long distance phone calls were traditionally billed based on a costing algorithm which considered the distance between the originating and terminating points, call duration, and time of day. U.S. carriers, for the most part, currently no longer consider distance in the costing algorithm for domestic calls. In other words, long distance calls are subject to "postalized" charging — from the fact that Post Office also charges a flat rate irrespective of how far it carries the mail (within the country). Charges for circuit-switched data calls (e.g., Switched 56/64 Kbps), for the most part, also are postalized.

Postalized Rates Refers to the way the post office prices their delivery services, namely one price to anywhere in the United States. See Postalized.

Posting An individual article sent to a USENET news group on Internet; or the act of sending an article to a USENET news group.

Postlink A program used by a RIME bulletin board system made in place of mailer software.

Postmaster A postmaster could be the person responsible for taking care of mail problems, answering queries about users, and performing similar work for a given site. It could also be an alias for a mail server (i.e. computer) for routing and handling of electronic mail within an organization.

Post Office Any part of an email system that stores or delivers mail. The term post office needs a modifier. A local post office or host post office is the module on a network that users directly interact with to send and receive mail. A domain post office is the module that controls the mail delivery within a domain of multiple hosts on a single network. For a full explanation, see POP3.

Post Office Protocol See POP3.

Postpay See Post Pay.

Postscript 1. PostScript is a popular format used to create World Wide Web screens and send documents over the Internet.

2. PostScript by Adobe Systems Inc. is the standard page description language for desktop computer systems. It describes type, graphics and halftones as well as the placement of each on the page. The big advantage of PostScript is that it is device independent. Thus if you create a postscript image (text and/or photo and/or drawing), you can print it to a relatively cheap, low quality printer like a laser printer or a magazine quality printer like a Linotronics. PostScript is a printer language, much the same that BASIC is a computer language. By sending your PostScript printer a series of commands, you can make it do almost anything from printing text in a circle to printing foot-high letters to printing halftones. If you need PostScript, buy a printer that has built-in PostScript. If your printer doesn't have built-in PostScript, you may be able to get an external software interpreter but that interpreter will slow down your printer and tie up your computer while printing. See Outline Font.

POT 1. Techie-slang for potentiometer.

2. Point Of Termination. The point of demarcation within a customer designated premises at which the telephone company's responsibility for the provision of access service ends.

POT Bay The POT Bay, or Point-Of-Termination bay, is a device placed between a competitor's network and the natural point of connection to the local exchange carrier (LEC) network. It is located between a LEC's main distribution frame (MDF), which directs traffic to proper channels for distribution throughout the LEC network and the interconnector's collocated equipment. The POT Bay, according to most new local phone companies (i.e. ones that are not a Bell operating company), is an unnecessary obstacle that adds to the costs of interconnection, serves no necessary engineering function, can degrade quality, and is nothing more than a latter-day "protective coupling arrangement."

Potato 1. Also called Aerial Service Wire Splice. A tool used to splice aerial service wire.

2. Potatoes were banned in Burgundy, France in 1910 because it was believed that frequent indulgence resulted in leprosy. Fortunately that madness didn't last long and Burgundy now sports many McDonalds' restaurants.

Potemkin Village In 1787, Catherine the Great tours Crimea and other lands newly taken from Turks. The problem was that war had ravaged the areas. But when the Empress is in the areas, she sees only apparently prosperous villages. These villages, however, were in fact mere facades erected by her principal adviser (and lover), Prince Grigori Aleksandrovich Potemkin. He put them up to fool her into believing in the great progress of the New Russia. Potemkin Village now means pretentious fakery.

Potential The difference in voltage between one point and another. One point is usually ground.

Potential Revenue A call center term. The revenue value per call times the number of calls forecast for a given period.

Potentiometer A variable RESISTOR, such as the ubiquitous volume control.

Potting In many European countries, the local regulatory authorities are very strict about voice boards that are attached to phone lines. Because phone lines have high voltage for ringing — 90 volts AC and higher — the authorities feel that the phone lines may cause an electrical short and possibly a fire. As a result, the authorities insist that the area of the voice boards which receives the high voltage be covered with some protective non-flammable material. Covering your board is called potting.

POTS Plain Old Telephone Service. Pronounced POTS, like in pots and pans. The basic