



Telehealth Glossary

The following is a list of terms that are commonly used in Telemedicine and Telehealth.

- A -

ADSL (Asymmetrical Digital Subscriber Line)

Refers to a pair of modems connected by a copper line that yields asymmetrical transmission of data. The "asymmetric" in ADSL refers to the fact that the downstream data rate, or the data coming to your computer from the Internet, is traveling faster than upstream data, or the data traveling from your computer to the Internet.

Amplifier

Electronic devices that strengthen a signal as it passes along a communications channel.

Application Server Provider (ASP)

An ASP hosts a variety of applications on a central server. For a fee, customers can access the applications that interest them over secure Internet connections or a private network.

This means that they do not need to purchase, install and maintain the software themselves; instead they rent the applications they need from their ASP. Even new releases, such as software upgrades, are generally included in the price.

ARPA (Advanced Research Projects Agency)

Renamed DARPA in 1996, governed under the Department of Defense, this agency is involved with the use of telemedicine, its development, and continuing research.

DARPA is responsible for establishing the network, which later became known as the Internet.

Asynchronous

This term is sometimes used to describe store and forward transmission of medical images or information because the transmission typically occurs in one direction in time.

This is the opposite of synchronous.

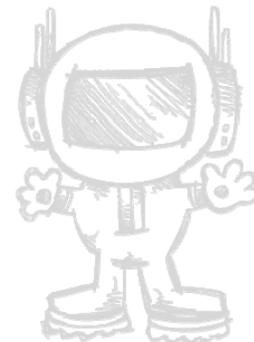
ATA

American Telemedicine Association

<http://www.americantelemed.org>

Authentication

A method of verifying the identity of a person sending or receiving information using passwords, keys and other automated identifiers.



- B -

Backbone Network

A high-speed, high capacity transmission facility created to interconnect lower speed distribution channels from smaller branches of the computer or telecommunication network.



Bandwidth

A measure of the information carrying capacity of a communications channel; a practical limit to size, cost, and capability of a Telemedicine service.



Baud rate

The term roughly means the speed that data is transmitted. The number of distinct symbol changes (signaling events) made to a transmission medium per second in a digitally modulated signal or a line code; sometimes called *modulation rate*.

Bluetooth Wireless

Bluetooth is an industrial specification for wireless personal area networks (PANs).

Bluetooth provides a way to connect and exchange information between devices such as: mobile phones, laptops, PCs, printers, digital cameras and video game consoles over a secure, globally unlicensed short-range radio frequency. The Bluetooth specifications are developed and licensed by the Bluetooth Special Interest Group.

Border Controller

The Border Controller is a key component of TANDBERG's Expressway™ firewall traversal solution. Used in conjunction with a TANDBERG Gatekeeper or TANDBERG traversal-enabled endpoints it allows calls to be made into and out of a secured private network.

Bridge

A term usually referring to a MultiPoint Control Unit (MCU) which is a device that can link multiple videoconferencing sites into a single video-conference.

Broadband

A very high speed, "always-on" internet service connection allowing large amounts of information to be conveyed quickly, such as data, graphics files or video.

Build-Out

Construction or improvement of facilities and equipment as specified in an application.

- C -



Circuit Switched Network

Also may be called *line switching* and *dial-up service*, this network temporarily links multiple channels between multiple points that permits the user to exclusive use of an open channel to exchange information.

Clinical Information System

Relating exclusively to the information regarding the care of a patient, rather than administrative data, this hospital-based information system is designed to collect and organize data.

Cloud Computing

Cloud computing describes computation, software, data access, and storage services that do not require end-user knowledge of the physical location and configuration of the system that delivers the services.



Codec

Acronym for coder-decoder. This is the videoconferencing device (e.g., Polycom, Tandberg, Sony, Panasonic, etc) that converts analog video and audio signals to digital video and audio code and vice versa. CODEC's typically compress the digital code to conserve bandwidth on a telecommunications path.

CODEC (Coder-Decoder)

A device that converts a digital signal to an analog signal at one end of transmission, and back again to a digital signal at the opposing end.

Community Anchor Institutions

Schools, libraries, medical and healthcare providers, public safety entities, institutions of higher education, and other community support organizations.

Compressed Video

Video images that have been processed to reduce the amount of bandwidth needed to capture the necessary information so that the information can be sent over a telephone network.

Computer-based Patient Record (CPR)

An electronic form of individual patient information that is designed to provide access to complete and accurate patient data.

Connectivity

The ability to send and receive information between two locations, devices, or business services.

- D -



DARPA (Defense Advanced Research Projects Agency)

Governed under the Department of Defense, this agency is involved with the use of telemedicine, its development, and continuing research. This agency also worked with several firms to create the first computer network (ARPANET) in the 1960's, linking four distant sites for data and resource sharing. This network eventually grew into what we now call the Internet.

The original four ARPANET sites were the Stanford Research Institute; the University of California, Los Angeles (UCLA); the University of California, Santa Barbara (UCSB); and the University of Utah.

Data Compression

A method to reduce the volume of data by using encoding to reduce image processing, transmission times, bandwidth requirements, and storage space requirements.

Some compression techniques result in the loss of some information, which may or may not be clinically important.

Dedicated Line

A permanent telephone line reserved exclusively for one patient, accessible all hours of the day. These lines usually offer better quality than standard telephone lines, but may not significantly augment the performance of data communications. May also be known as "leased," or "private" lines.



DFA

Department of Finance and Administration.

- Arkansas
- Tennessee
- Mississippi

Diagnostic Equipment (Scopes, Camera, & Other Peripheral Devices)

A hardware device not part of the central computer (e.g., digitizers, stethoscopes, or camera) that can provide medical data input to or accept output from the computer.

Digital Camera (Still Images)

A digital camera is typically used to take still images of a patient. General uses for this type of camera include dermatology and wound care. This camera produces images that can be downloaded to a PC and sent to a provider/consultant over a network.

Digital Imaging and Communication in Medicine (DICOM)

A standard for communications among medical imaging devices; a set of protocols describing how images are identified and formatted that is vendor-independent and developed by the American College of Radiology and National Electronic Manufacturers Association.

Digital Signal

An electrical signal in the form of discrete voltage pulses. These signals transmit audio, video, and data as bits, which are either on or off, differing from analog signals, which are continuously varying. Communications signals may be compressed using digital technology, allowing efficient and reliable transmission rates.

Digitize

The process by which analog, or continuous, information is transformed into digital, or discrete, information. Because most computers are only capable of processing digital information and visual information is inherently in analog format, this process is essential in computer imaging applications.

Direct Costs

Costs identified specifically with a particular project or activity.

DIS

Department of Information Systems

Disease Management

A continuous coordinated health care process that seeks to manage and improve the health status of a carefully defined patient population over the entire course of a disease (e.g., CHF, DM.)

The patient populations targeted are high-risk, high-cost patients with chronic conditions that depend on appropriate care for proper maintenance.

Distance Education

A learning activity which occurs when students and instructors are separated by geographic distance or by time, often supported by interactive video conferencing.



Distance Learning

The incorporation of video and audio technologies, allowing students to "attend" classes and training sessions that are being presented at a remote location.

Distance learning systems are usually interactive and are a tool in the delivery of training and education to widely dispersed students, or in instances in which the instructor cannot travel to the student's site.

Distant Site

The distant site is defined as the Telehealth site where the provider/specialist is seeing the patient at a distance or consulting with a patient's provider.

Other common names for this term include: hub site, speciality site, provider/physician site and referral site. The site may also be referred to as the consulting site.

Document Camera

A camera that can display written or typed information (e.g., lab results), photographs, graphics (e.g., ECG strips) and in some cases x-rays.

Download

The process of transferring files or software from another computer to your computer.

DSL (Digital Subscriber Line)

DSL is the medium for transferring high bandwidth data over regular phone lines and can be used to connect to the Internet.

However, like a cable modem, a DSL circuit is much faster than a regular phone connection.

- E -

Electronic Data Interchange (EDI)

The sending and receiving of data directly between trading partners without paper or human intervention.

Electronic Patient Record

An electronic form of individual patient information that is designed to provide access to complete and accurate patient data, alerts, reminders, clinical decision support systems, links to medical knowledge, and other aids.

Encryption

A system of encoding data on a Web page or e-mail where the information can only be retrieved and decoded by the person or computer system authorized to access it. Often used on the web to protect financial data.

Endpoint

The term endpoint is used in many standards specifications to describe an entity that can initiate and receive communication. In audio-visual communication, an endpoint is a video system (video conferencing or telepresence), a telephone handset, or a soft client.





Environmental Assessment

Report that provides evidence that a construction project meets or exceeds the National Environmental Policy Act (NEPA) environmental protection regulations.

Ethernet

The most popular interface (physical and data link layer) used in Local Area Networks, and now also deployed in access networks.

- F -

Fee for Service (FFS)

In health care, a payment mechanism in which a provider is paid for each individual service rendered to a patient.

Fiber

Cables made from bundles of glass or plastic fibers for high-bandwidth data transfer; provides the fastest available Internet speeds.

Firewall

Computer hardware and software that block unauthorized communications between an institution's computer network and external networks.

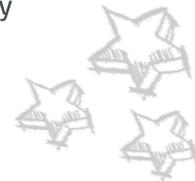
FPO

Federal Program Officer

fps (frames per second)

Frequency with which video frames appear. Broadcast quality video generally consists of 30 frames per second.

Full motion videoconferencing typically offers video in the range of 10 to 15 frames per second. At very low bandwidths, such as 56 or 112 Kbps, the frame rate may be lower.



Full-motion Video

This describes a standard video signal that allows video to be shown at the distant end in smooth, uninterrupted images.

- G -

Gatekeeper

A Gatekeeper is a central part of an H.323 infrastructure. It provides address translation and controls access to the network for H.323 terminals, Gateways and MCUs.

The Gatekeeper also provides other services to the terminals, Gateways and MCUs such as bandwidth management and locating Gateways.

Guideline

A statement of policy or procedures by which to determine a course of action, or give guidance for setting standards. (Loane & Wootton, 2002).



- H -

H.320

This is the technical standard for videoconferencing compression standards that allows different equipment to interoperate via T1 or ISDN connections.

H.323

This is the technical standard for videoconferencing compression standards that allow different equipment to interoperate via the Internet Protocol.

H.323 is comprised of the following standards: H.225, H.245, G.711, G.722, G.723.1, G.728, G.729



H.324

This is the technical standard for videoconferencing compression standards that allow different equipment to interoperate via Plain Old Telephone Service (POTS).

Hard Drive

The storage device within a computer used to save data, files, and programs.

HDTV

High-definition television. A television system with 1125 lines of horizontal resolution, with the ability of creating high quality video images.

Health Information Technology (HIT)

The comprehensive management of health information and its secure exchange among consumers, providers, government and quality entities, and insurers.

Health Level-7 Data Communications Protocol (HL-7)

This communication standard guides the transmission of health-related information. HL7 allows the integration of various applications such as: bedside terminals, radiology imaging stations, hospital census, order entries, and patient accounting, into one system.



High Definition

Refers to a video system of higher resolution than standard-definition (SD) video, most commonly at display resolutions of 1280×720 (720p) or 1920×1080 (1080i or 1080p). High definition (HD) refers to an the increase in display or visual resolution of television formats (HDTV), high definition video (used in HDTV broadcasting, digital film and computer HD video film formats), high definition multimedia interface (HDMI), an all-digital audio and video interface capable of transmitting uncompressed streams and other formats for recording and transmitting visual and audio communications

HIPAA

Acronym for Health Information Portability Accountability Act.

The Office for Civil Rights enforces the HIPAA Privacy Rule, which protects the privacy of individually identifiable health information; the HIPAA Security Rule, which sets national standards for the security of electronic protected health information; and the confidentiality provisions of the Patient Safety Rule, which protect identifiable information being used to analyze patient safety events and improve patient safety.



Home Health Care & Remote Monitoring Systems

Home health care is provided to individuals and families in their place of residence for promoting, maintaining, or restoring health; or for minimizing the effects of disability and illness, including terminal illness.

In the Medicare Current Beneficiary Survey and Medicare claims and enrollment data, home health care refers to home visits by professionals including nurses, physicians, social workers, therapists, and home health aides.

Using remote monitoring and interactive devices allows the patient to send in vital signs on a regular basis to a provider without the need for travel.

Hub and Spoke

Network design in which larger "hub" sites facilitate the movement of data via broadband to the smaller "spoke" sites.

Hub Site

The Hub site is defined as the Telehealth site where the provider/specialist is seeing the patient at a distance or consulting with a patient's provider.

Other common names for this term include: Distant site, speciality site, provider/physician site and referral site. The site may also be referred to as the consulting site.

- I -

IETF (Internet Engineering Task Force)

The Internet Engineering Task Force (IETF) is a large open international community of network designers, operators, vendors, and researchers concerned with the evolution of the Internet architecture and the smooth operation of the Internet. It is open to any interested individual.

Website: <http://www.ietf.org/>

Informatics

The use of computer science and information technologies to the management and processing of data, information and knowledge.

Integrated Services Digital Network (ISDN)

This is a common dial-up transmission path for videoconferencing. Since ISDN services are used on demand by dialing another ISDN based device, per minute charges accumulate at some contracted rate and then are billed to the site placing the call.

This service is analogous to using the dialing features associated with a long distance telephone call. The initiator of the call will pay the bill. ISDN permits connections up to 128Kbps.

Interactive Video/Television

This is analogous with video conferencing technologies that allow for two-way, synchronous, interactive video and audio signals for the purpose of delivering Telehealth, Telemedicine or distant education services. It is often referred to by the acronyms - ITV, IATV or VTC (video teleconference).



Internet Protocol

The Internet Protocol (IP) is the protocol by which data is sent from one computer to another on the Internet. Each computer on the Internet has at least one address that uniquely identifies it from the other computers on the Internet.

IP is a connectionless protocol, which means there is no established connection between the end points that are communicating. The IP address of a videoconferencing system is its phone number.



Interoperability

Interoperability refers to the ability of two or more systems (computers, communication devices, networks, software, and other information technology components) to interact with one another and exchange data according to a prescribed method in order to achieve predictable results.

There are three types of interoperability: human/operational, clinical, and technical.

IRU

Indefeasible Rights of Use

ISDN Basic Rate Interface (BRI)

This is an ISDN interface that provides 128K of bandwidth for videoconferencing or simultaneous voice and data services. Multiple BRI lines can be linked together using a multiplexer to achieve higher bandwidth levels.

For instance, a popular choice among Telehealth networks is to combine 3 BRI lines to provide 384k of bandwidth for videoconferencing.

It should be noted that BRI services are not available in some rural locations. One should check with their telecommunications providers on the availability of BRI service before ordering video-conferencing equipment that uses this type of service.

ISDN Primary Rate Interface (PRI)

This is an ISDN interface standard that operates using twenty-three (23) 64k channels and one 64k data channel. With the proper multiplexing equipment the ISDN PRI channels can be selected by the user for a video call.

For instance, if the user wants to have a video-conference at 384k of bandwidth then they can instruct the multiplexer to use channels 1 through 6 ($6 \times 64k = 384k$). This is important because the user typically pays charges based on the number of 64k channels used during a video-conference. The fewer channels used to obtain a quality video signal the less expensive the call.

ISO

International Organization for Standardization. Comprised of national bodies elected to set standards, this non-treaty organization is involved in illustrating norms for all communications fields except electrotechnical.

ISP

Internet Service Provider. A company that offers its customers access to the Internet.



- J -

JCAHO

Acronym for Joint Commission on Accreditation of Healthcare Organizations.

- K -

Kbps (Kilobits per second)

Kilobits per second. A measure of bandwidth and rate of data flow in digital transmission. One Kbps is 1,024 bits per second.

- L -

LAN (Local Area Network)

A local area network (LAN) supplies networking capability to a group of computers in close proximity to each other such as in an office building, a school, or a home.

A LAN is useful for sharing resources like files, printers, or other applications. A LAN in turn often connects to other LANs, and to the Internet or other WAN.

Most local area networks are built with inexpensive hardware such as Ethernet cables, network adapters, and hubs.

Latency

Delay in the response of far end participants, often a result of network congestion and geographic distance.

Leased Circuit

A service contract between the broadband vendor and customer, whereby the vendor provides a telecommunications line connecting two or more locations in exchange for a monthly rent.

Lossless

A format of data compression, typically of an order of less than 2:1, in which none of the original data information is lost when the image is reproduced.

Lossy

A process of data compression at a relatively high ratio, which leads to some permanent loss of information upon reconstruction.

- M -

Mbps (Megabits per second)

A measure of bandwidth and rate of data flow in digital transmission. One Mbps is equivalent to one million bits per second.

Medical/Nursing Call Center

A call center is a centralized office that answers incoming telephone calls from patients. Such an office may also respond to letters, faxes, e-mails and similar written correspondence.





Usually staffed by nurses, call centers provide basic health information and instructions to callers but do not provide an official diagnosis of conditions or prescribe medicine. Call centers act as an initial triage point for patients.

Middle Mile

Sites where broadband services are provided from one or more centralized facilities to an Internet point of presence.



Mobile Telehealth

The provision of health care services with assistance of a van, trailer, or other mobile unit in which the health care provider might provide patient services at a distance from a normal medical facility.

Services may also be provided through mobile technologies that allow a mobile vehicle equipped with medical technologies to attach to an existing health care facility, such as mobile CT, MRI, or TeleDentistry.

Modem

A device that translates digital signals to pulse tone (analog) signals to enable transmission over telephone lines and reconverts them to digital form at the point of reception, thus permitting a computer to communicate with another computer over a regular telephone line.

Multi-point Control Unit (MCU)

A device that can link multiple videoconferencing sites into a single video-conference. An MCU is also often referred to as a "bridge".

Multi-point Teleconferencing

Communication between more than two sites. Multipoint conferences may be established internally within a video endpoint, or through an external dedicated device such as a Conference Bridge.

Multi-point teleconferencing requires a MCU or bridging device to link multiple sites into a single videoconference.

Multiplexer (MUX)

A device that combines multiple inputs (ISDN PRI channels or ISDN BRI lines) into an aggregate signal to be transported via a single transmission path.



- N -

Network

A network is a collection of computers and devices connected to each other. The network allows computers and their users to communicate with each other and to share resources and information over a variety of connection methods.

Network Integrators

Organizations specializing in the development of software and related services that allows devices and systems to share data and communicate to one another.

NTIA

National Telecommunications and Information Administration

<http://www.ntia.doc.gov/>



- O -

ONCHIT

Office of National Coordinator for Health Information Technology.

Operating System

The underlying system software which enables a computer to operate. Common operating systems include DOS, Windows, and Macintosh.

Originating site

The originating site is where the patient and/or the patient's physician is located during the Telehealth encounter or consult.

Other common names for this term include: spoke site, patient site, remote site, and rural site.

- P -

Patient Exam Camera (Video)

This is the camera typically used to examine the general condition of the patient.



Types of cameras include those that may be embedded with set-top videoconferencing units, handheld video cameras, gooseneck cameras, camcorders, etc. The camera may be analog or digital depending upon the connection to the videoconferencing unit.

Peripheral Devices

Any device that is attached to a computer externally. Scanners, mouse pointers, printers, keyboards; and clinical monitors such as pulse oximeters, weight scales, are all examples of this.

Pharmacy Solutions

The use of electronic information and communication technology to provide and support comprehensive pharmacy services when distance separates the participants.

PIP

Provider Incentive Program

Program that provides Eligible Practitioners/Providers (EPs) incentives after the purchase of Certified EMR/HER products. These incentives are in the form of Medicaid or Medicare reimbursements.

Pixel

Stands for picture element. This is the smallest piece of information that a monitor/CRT is able to display, and is symbolized by a numerical code in the computer. Pixels appear on the monitor as dots of a specific color or intensity. There are many, many pixels in a single image.

Point-to-Point video conference

Peer-to-peer video conferences use a computer network to connect participants for user communications as well as file or content sharing.

P2P conferencing can transmit audio, video, data or any digital format as well as real-time telephony traffic.



POTS

Acronym for Plain Old Telephone Service.

PPO

Preferred Provider Organizations.

PPP

Point to Point Protocol. A type of computer protocol used by modems for online communication.

Presenter (Patient Presenter)

Telehealth encounters require the distant provider to perform an exam of a patient from many miles away. In order to accomplish that task an individual with a clinical background (e.g., LPN, RN, etc) trained in the use of the equipment must be available at the originating site to "present" the patient, manage the cameras and perform any "hands-on" activities to successfully complete the exam. For example, a neurological diagnostic exam usually requires a nurse capable of testing a patient's reflexes and other manipulative activities. It should be noted that in certain cases, such as interview based clinical consultations such as Telemental Health or Nutrition Services, that a licensed practitioner such as a RN or LPN, might not be necessary, and a non-licensed provider such as a support staff, could provide telepresenting functions.

Prospective Payment System (PPS)

A Prospective Payment System (PPS) is a method of reimbursement in which Medicare payment is made based on a predetermined, fixed amount.

The payment amount for a particular service is derived based on the classification system of that service (for example, diagnosis-related groups for inpatient hospital services). CMS uses separate PPSs for reimbursement to acute inpatient hospitals, home health agencies, hospice, hospital outpatient, inpatient psychiatric facilities, inpatient rehabilitation facilities, long-term care hospitals, and skilled nursing facilities.

Protocol

A system of guidelines and procedures, applying to both hardware and software, that oversees communications between two computer devices. They are primarily concerned with three aspects of the communication process: how data are symbolized and coded, how data are transmitted, and, in file transfer protocol, how errors and failures are recognized and corrected.

- R -

RAM

Random Access Memory. The temporary memory area on a computer that permits the user to run software, process images, and store information. The amount of RAM needed varies according to the application. Increasing the amount of RAM in a computer can improve computer performance. Information stored in the RAM is lost when the power is shut off.

Repeater

A bi-directional instrument used to amplify or regenerate signals

Resolution

A measure of sharpness or clarity on a display.



RHIO

RHIO is a group of organizations with a business stake in improving the quality, safety, and efficiency of healthcare delivery. RHIO's are the building blocks of the proposed National Health Information Network (NHIN) initiative at the office of the National Coordinator for Health Information Technology (ONCHIT).

Regional Health Information Organization (RHIO) and Health Information Exchange (HIE) are often used interchangeably.

Router

This device provides an interface between two networks or connects sub-networks within a single organization. It routes network traffic between multiple locations and it can find the best route between any two sites. For example, PCs or H.323 videoconferencing devices tell the routers where the destination device is located and the routers find the best way to get the information to that distant point.

- § -

Server

A computer designated to provide specific services to other computers. For example, print servers only accept, store, and print out documents sent to them by other computers, and nothing else. Web servers permit users from around the world to access the Web sites and documents stored on them.

SIP (Session Initiation Protocol)

Session Initiation Protocol (SIP) is a protocol developed by the IETF MMUSIC Working Group as an alternative to H.323.

SIP features are compliant with IETF RFC 2543, published in March 1999. SIP equips platforms to signal the setup of voice and multimedia calls over IP networks.

Spoke Site

The spoke site is where the patient and/or the patient's physician is located during the Telehealth encounter or consult.

Other common names for this term include: Originating site, patient site, remote site, and rural site.

Standard

A statement established by consensus or authority, that provides a benchmark for measuring quality, that is aimed at achieving optimal results.

Store and Forward (S&F)

Store and Forward is a type of Telehealth encounter or consult that uses still digital images of a patient for the purpose of rendering a medical opinion or diagnosis.

Common types of S&F services include radiology, pathology, dermatology and wound care. Store and Forward also includes the asynchronous transmission of clinical data, such as blood glucose levels and electrocardiogram (ECG) measurements, from the Originating Site to the Distant site.



Switch

A switch in the videoconferencing world is an electrical device that selects the path of the video transmission. It may be thought of as an intelligent hub because it can be programmed to direct traffic on specific ports to specific destinations. Hub ports feed the same information to each device.

Synchronous

This term is sometimes used to describe interactive video connections because the transmission of information in both directions is occurring at exactly the same period.

System/Network Integration

The use of software that allows devices and systems to share data and communications to one another.

- T -



T1/DS1

A digital carrier or type of telephone line service offering high-speed data, voice, or compressed video access in two directions, with a transmission rate of 1.544 Mbps.

T3/DS3

A carrier of 45 Mbps.

Tb (Terabyte)

A measure of computer memory and the quantity of storage capacity available on a computer. One Tb is equivalent to one trillion bytes, or ten to the twelfth power bytes. See also gigabyte, kilobyte, and megabyte.

TCP/IP (Transmission Control Protocol/Internet Protocol)

The underlying communications rules and protocols that allow computers to interact with each other and exchange data on the Internet.

Telecommunication Providers

An entity licensed by the government (the Federal Communications Commission in the U.S.) to provide telecommunications services to individuals or institutions.

Teleconferencing

Interactive electronic communication between multiple users at two or more sites which facilitates voice, video, and/or data transmission systems: audio, graphics, computer and video systems.

Telehealth and Telemedicine

Telemedicine and Telehealth both describe the use of medical information exchanged from one site to another via electronic communications to improve patient's health status.

Although evolving, Telemedicine is sometimes associated with direct patient clinical services and Telehealth is sometimes associated with a broader definition of remote healthcare services.



Telematics

The use of information processing based on computer in telecommunications, and the use of telecommunications to permit computers to transfer programs and data to one another.

Telementoring

The use of audio, video and other telecommunications and electronic information processing technologies to provide individual guidance or direction. An example of this help may involve a consultant aiding a distant clinician in a new medical procedure.

Telemonitoring

The process of using audio, video, and other telecommunications and electronic information processing technologies to monitor the health status of a patient from a distance.

Telepresence

A technology that enables highly life-like, face-to-face interactions to occur between individuals and groups over distance. Characterized by high definition video, audio, and content.

Teleradiology and Picture Archiving and Communication Systems (PAC's)

The electronic transmission of radiological images, such as x-rays, CT's, and MRI's, for the purposes of interpretation and/or consultation. Digital images are transmitted over a distance using standard telephone lines, satellite connections, or local area networks (LAN's).

Teleradiology also is beginning to include the process of interfacing with the hospital information systems/radiology information systems (HIS/RIS) in the transport of digital images.

PAC's provide centralized storage and access to medical images over information systems.

Trace Route

A trace route is a computer network tool used to determine the route taken by packets across an IP network.

- U -

Ultrasound

A device that uses high-frequency sound waves to examine structures inside the body. It can rapidly detect tumors and other abnormalities, often right in the physician's office.

Universal Service Administrative Company (USAC)

The Universal Service Administrative Company administers the Universal Service Fund (USF), which provides communities across the country with affordable telecommunication services. The Rural Health Care Division (RHCD) of USAC manages the telecommunications discount program for health care.

- V -



Videoconferencing

Real-time, generally two way transmission of digitized video images between multiple locations; uses telecommunications to bring people at physically remote locations together for meetings. Each individual location in a videoconferencing system requires a room equipped to send and receive video.



Videoconferencing Systems

Equipment and software that provides real-time, generally two way transmission of digitized video images between multiple locations; uses telecommunications to bring people at physically remote locations together for meetings. Each individual location in a videoconferencing system requires a room equipped to send and receive video.

VPN (Virtual Private Network)

A virtual private network (VPN) is a computer network that uses a public telecommunication infrastructure (such as the Internet) to provide remote offices or individual users with secure access to their organization's network.

VPN networking is commonly used for organizations of all types to secure the communications and transmissions into and out of an intranet

- W -



WAN (Wide Area Network)

A wide area network (WAN) is a computer network that covers a broad area such as a state, province or country.

This is in contrast with personal area networks (PANs), local area networks (LANs), campus area networks (CANs), or metropolitan area networks (MANs) which are usually limited to a room, building, campus or specific metropolitan area respectively.

The world's most popular WAN is the Internet.

Wi-Fi

Originally licensed by the Wi-Fi Alliance to describe the underlying technology of wireless local area networks (WLAN) based on the IEEE 802.11 specifications. It was developed to be used for mobile computing devices, such as laptops, in LANs, but is now increasingly used for more services, including Internet and VoIP phone access, gaming, and basic connectivity of consumer electronics such as televisions and DVD players, or digital cameras.



Telehealth 101: *it's not rocket science, it's telehealth!*

glossary