

Glossary of Terms

Application – A program designed to perform a specific function directly for the user or, in some cases, for another application program. Examples of applications include word processors, database programs, web browsers, development tools, drawing, paint, and image editing programs, and communication programs.

Architecture – A term applied to both the process and the outcome of designing and specifying the overall structure, logical components, and the logical interrelationships of enterprise, information, technology, application, network, security, or development.

ASP (Application Service Provider) --Application Service Providers (ASPs) are third-party entities that manage and distribute software-based services and solutions to customers across a wide area network from a central data center. In essence, ASPs are a way for companies to outsource some or almost all aspects of their information technology needs. ASPs may be commercial ventures that cater to customers, or not-for-profit or government organizations, providing service and support to end users.

Asset Management – The process whereby a large organization collects and maintains a comprehensive list of the items it owns, such as hardware and software. This data is used in connection with the financial aspects of ownership, such as calculating the total cost of ownership, depreciation, licensing, maintenance, cost of proposed upgrades, and insurance.

Authentication --The process of identifying an individual, usually based on a username and password. In security systems, authentication is distinct from authorization, which is the process of giving individuals access to system objects based on their identity. Authentication merely ensures that the individual is who he or she claims to be, but says nothing about the access rights of the individual.

Browser – A program that provides a way to look at, read, and even hear information on the web. The word “browser” is a generic term for user interfaces that let you browse text files online.

CGI – Abbreviation of Common Gateway Interface, a specification for transferring information between a World Wide Web server and a CGI program. A CGI program is any program designed to accept and return data that conforms to the CGI specification. The program could be written in any programming language, including C, Perl, Java, or Visual Basic. CGI programs are the most common way for web servers to interact dynamically with users.

Client –The client part of a client-server architecture. Typically, a client is an application that runs on a personal computer or workstation and relies on a server to perform some operations. For example, an email client is an application that enables you to send and receive email.

Compression --Storing data in a format that requires less space than usual. Data compression is particularly useful in communications because it enables devices to transmit the same amount of data in fewer bits. There are a variety of data compression techniques, but only a few have been standardized. The CCITT has defined a standard data compression technique for transmitting faxes (Group 3 standard) and a compression standard for data communications through modems (CCITT V.42bis). In addition, there are file compression formats, such as ARC and ZIP.

Configuration – The way a computer is set up, which includes the hardware (type of CPU, peripherals), operating system, and application software.

Content Management System (CMS) -- Software that allows web page content to be created, edited, and removed. More sophisticated software limits user access, generates reports with site changes, and determines when content can be displayed.

Data Dictionary – A collection of descriptions of the data objects or items in a data model for the benefit of programmers and others who might need to refer to them. First, each data object or item is given a descriptive name.

Then its relationship is described (or it becomes part of some structure that implicitly describes relationship), the type of data (such as text or image or binary value) is described, possible predefined values are listed, and a brief textual description is provided.

Data Modeling – The analysis of data objects that are used in a business or other context and the identification of the relationships among these data objects. A simple approach to creating a data model is to draw a square (or any other symbol) to represent each individual data item (for example, a product or a product price). Then, relationships between each of these data items can be expressed with words such as “is part of” or “is used by” or “uses” and so forth.

Database Management System (DBMS) – A complex set of programs that controls the organization, storage, and retrieval of data for many users. Data is organized in fields, records, and files. A database management system must also control the security of the database. Examples of database management systems are Oracle and SQL Server.

Desktop Computer – In its more general usage, a computer designed for use by one person at a time. Prior to the PC, computers were designed for (and only affordable by) companies who attached terminals for multiple users to a single large computer whose resources were shared among all users. Beginning in the late 1980s, technology advances made it feasible to build a small computer that an individual could own and use.

Desktop Publishing – A category of program that results in a brochure, newsletter, or other type of publication that requires a more detailed layout than an ordinary document.

Development (dev) Server – A secure environment for web development that emulates the production site. The dev server supports upgrades and new components as they're created and modified. This environment also allows real-time creation, testing, and maintenance of web pages, graphics, images, business logic, navigation, and other components of website development.

Digital Signature - A digital signature (not to be confused with a digital certificate) is an electronic signature that can be used to authenticate the identity of the sender of a message or the signer of a document, and possibly to ensure that the original content of the message or document that has been sent is unchanged. Digital signatures are easily transportable, cannot be imitated by someone else, and can be automatically time-stamped.

Disaster Recovery Plan – A set of formal procedures that determines how data and applications will be recovered in the event of a disaster, such as flooding, fire, lightning, power outage, and computer failure.

Disk Operating System (DOS) – The name of a number of operating systems that include facilities for storing files on disk. Such a system must handle physical disk I/O, the mapping of file names to disk addresses, and protection of files from unauthorized access (in a multi-user system).

DNS – Short for Domain Name System (or Service), an Internet service that translates domain names into Internet Protocol (IP) addresses. For example, the domain name www.example.com might translate to http://198.105.232.4.

Driver – A program that controls a device. Every device, whether it is a printer, disk drive, or keyboard, must have a driver program. Many drivers, such as the keyboard driver, come with the operating system. For other devices, you may need to load a new driver when you connect the device to your computer. A driver acts like a translator between the device and programs that use the device. Each device has its own set of specialized commands that only its driver knows. In contrast, most programs access devices by using generic commands. The driver, therefore, accepts generic commands from a program and then translates them into specialized commands for the device.

Enterprise Network – A network for a large business enterprise. This kind of network may comprise a number of local area networks (LANs) that have to interface with each other as well as a central database management system and many client workstations. Major organizations connect their LANs to a WAN (wide area network).

Facsimile (Fax) – A document sent over telephone lines. The transmission was originally by means of a special facsimile machine that scans a document and transmits electrical signals to print a copy of the document on the other end. Now computers can send faxes with fax software and a modem, so a fax can be sent from computer to fax machine, from fax machine to computer, or from computer to computer without requiring a printout.

Firewall – An electronic boundary that prevents unauthorized users from accessing certain files on a network; also a computer used to maintain such a boundary.

Forms Engine – A program that uses a CGI script to process information sent online via Internet forms. The forms engine could, in turn, generate an email or place the information in an internal database.

FTP – File Transfer Protocol, or FTP, is a protocol used to upload files from a workstation to a FTP server or download files from a FTP server to a workstation. It is the way that files get transferred from one device to another in order for the files to be available on the Internet.

Geographic Information System (GIS) – A software application category that enables a user to envision the geographic aspects of a body of data. Basically, it lets the user query or analyze a database and receive the results in the form of a map. Since many kinds of data have important geographic aspects, a GIS can have uses in mapping for fire or police departments, public works details, population forecasting, and land use planning, to name a few.

Help Desk – One or more applications that support technical problem solving by technicians. These applications include call tracking and monitoring, alerts to technicians and users, database storage, knowledgebase availability, and service statistics.

HTML Editor – A program, such as HomeSite™, used to create and edit Hypertext Markup Language (HTML) documents for the World Wide Web.

Imaging – A process of scanning and storing pictures in digitized form.

Interface – A shared boundary where two or more systems meet. An interface can be between hardware and hardware (such as sockets and plugs, or electrical signals), hardware and software, software and software, and human and computer (such as a mouse or keyboard and display screen).

Internet – A group of networks interconnected via routers. This worldwide information highway comprises thousands of interconnected computer networks, and reaches millions of people in many different countries. The Internet is made up of a large backbone of networks and smaller networks that link to them.

Intranet – A network based on TCP/IP protocols (an internet) belonging to an organization, usually a corporation, accessible only by the organization's members, employees, or others with authorization. An intranet's websites look and act just like any other websites, but the firewall surrounding an intranet fends off unauthorized access.

IP (Internet Protocol) Address – An identifier for a computer or device on a TCP/IP network. Networks using the TCP/IP protocol route messages based on the IP address of the destination. The format of an IP address is a 32-bit numeric address written as four numbers separated by periods. Each number can be zero to 255. For example, 1.160.10.240 could be an IP address.

ISP (Internet Service Provider) – Short for Internet Service Provider, a company that provides access to the Internet. For a monthly fee, the service provider gives you a software package, username, password and access phone number. Equipped with a modem, customers can then log on to the Internet and browse the World Wide Web and USENET, and send and receive email.

JavaScript – A scripting language developed by Netscape to enable web authors to design interactive sites. Although it shares many of the features and structures of the full Java language, it was developed independently. JavaScript can interact with HTML source code, enabling web authors to spice up their sites with dynamic content. JavaScript is endorsed by a number of software companies and is an open language that anyone can use without purchasing a license. It is supported by recent browsers from Netscape and Microsoft, though Internet Explorer supports only a subset, which Microsoft calls Jscript.

KB (Kilobyte) – Short for kilobyte. When used to describe data storage, KB usually represents 1,024 bytes. When used to describe data transfer rates, KB represents 1,000 bytes.

Knowledge-Base System (KBS) – A computer system that is programmed to imitate human problem-solving by means of artificial intelligence and reference to a database of knowledge on a particular subject.

Language Recognition Software – Software that recognizes the sentence structure of other languages. Most language recognition software has the ability to translate from one language to another.

Legacy Products – A product in which a company or organization has already invested considerable time and money. Typically, legacy applications are database management systems (DBMS) running on mainframes or minicomputers. An important feature of new software products is the ability to work with a company's legacy applications, or at least be able to import data from them.

Local Area Network (LAN) – A network that connects computers that are close to each other, usually in the same building, linked by a cable.

Modem – Short for modulator-demodulator. A modem is a device or program that enables a computer to transmit data over telephone lines. Computer information is stored digitally, whereas information transmitted over telephone lines is transmitted in the form of analog waves. A modem converts between these two forms.

Monitor – Also called a display, this device displays text and graphics generated by a computer.

Multimedia –The use of computers to present text, graphics, video, animation, and sound in an integrated way. Long touted as the future revolution in computing, multimedia applications were, until the mid-90s, uncommon due to the expensive hardware required. With increases in performance and decreases in price, however, multimedia is now commonplace. Nearly all PCs are capable of displaying video, though the resolution available depends on the power of the computer's video adapter and CPU.

Network Operating System (NOS) – An operating system that makes it possible for computers to be on a network and manages the different aspects of the network.

Network Server – A central computer that stores files for a network.

Network Interface Card (NIC) – A computer circuit board or card that is installed in a computer so that it can be connected to a network. Personal computers and workstations on local area networks (LANs) typically contain a network interface card specifically designed for the LAN transmission technology, such as Ethernet or Token Ring. Network interface cards provide a dedicated, full-time connection to a network.

Open Database Connectivity (ODBC) – A standard or open application programming interface (API) that allows you to access files in a number of different databases.

Off-the-shelf – Also known as COTS (commercial off-the-shelf). Describes ready-made products that can be purchased from a vendor and used out of the box.

Open System or Architecture – A system that adheres to a publicly known and generally accepted standard set of interfaces.

Operating System (OS) – The low-level software that schedules tasks, allocates storage, handles the interface to peripheral hardware, and presents a default interface to the user when no application program is running.

Optical Character Recognition (OCR) software – Software that analyzes scanned text images and then translates the character image into character codes that become the text in a file.

PDF – Short for Portable Document Format, a file format developed by Adobe Systems. PDF captures formatting information from a variety of desktop publishing applications, making it possible to send formatted documents and have them appear on the recipient's monitor or printer as they were intended. To view a file in PDF format, the user needs Adobe Acrobat Reader, a free application distributed by Adobe Systems

Peripheral – Any part of a computer other than the CPU or working memory, e.g., disks, keyboards, monitors, mice, pointers, and scanners.

Production Server (live) - The server that supports live content on the District portal.

Project Management – The process of planning, organizing, staffing, directing, and controlling the production of a system.

Quality Control (QC) Server – The server acts as the final checkpoint between development of new content and live publishing on the production server.

Query – A customer (or agent) request for information, generally as a formal request to a database or search engine.

Random Access Memory (RAM) – The electronic holding place for instructions and data that your computer's microprocessor can reach quickly. When your computer is in normal operation, its memory usually contains the main parts of the operating system and some or all of the application programs and related data that are being used. RAM is called "random access" because data is placed in and obtained from memory in a nonsequential fashion.

Resolution – The maximum number of picture elements (pixels) that can be displayed on a monitor, expressed as (number of horizontal pixels) x (number of vertical pixels), e.g., 1024x768. The sharpness and clarity of the picture increase as the number of pixels increases.

Scripting Language – Languages such as JavaScript. These languages are different from HTML in that they allow web developers to extend more useful features to the web page.

Server – In general, a computer in a network that is used to provide services (as access to file or a shared peripheral, or the routing of email) to other computers on the network.

Small Computer System Interface (SCSI – pronounced SKUH-zee) –Method of connection between two devices that uses ANSI standard electronic interfaces. A SCSI interface allows personal computers to communicate with peripheral hardware such as disk drives, tape drives, CD-ROM drives, and scanners.

Smart Card – A plastic card with an embedded microchip that can be loaded with data, used for telephone calling, electronic cash payments, and other applications, and then periodically "recharged" for additional use.

SPAM – Electronic junk mail or junk newsgroup postings. Some people define spam even more generally as any unsolicited email. However, if a long-lost brother finds your email address and sends you a message, this could hardly be called spam, even though it's unsolicited. Real spam is generally email advertising for some product sent to a mailing list or newsgroup.

System Administrator – An individual responsible for maintaining a multi-user computer system, including a local area network (LAN).

User ID – A name used to gain access to a computer system. Usernames, and often passwords, are required in multi-user systems. In most such systems, users can choose their own usernames and passwords.

Video Conferencing – A discussion between two or more people who are in different places but can see and hear each other using electronic communications. The telecommunications network carries pictures and sound and such conferences can take place across the world.

Virus – A program or piece of code that is loaded onto your computer without your knowledge and runs against your wishes. Viruses can also replicate themselves. All computer viruses are manmade. A simple virus that can make a copy of itself over and over again is relatively easy to produce. Even such a simple virus is dangerous because it will quickly use all available memory and bring the system to a halt. An even more dangerous type of virus is one capable of transmitting itself across networks and bypassing security systems.

VPN – Short for virtual private network, a network that is constructed by using public wires to connect nodes. For example, there are a number of systems that enable you to create networks using the Internet as the medium for transporting data. These systems use encryption and other security mechanisms to ensure that only authorized users can access the network and that the data cannot be intercepted.

Wide Area Network (WAN) – Distinguishes the broader telecommunications structure from a local area network (LAN).

World Wide Web (the web) – A body of software, protocols, and conventions that allows people to connect to a large number of computers to view web pages. Through the use of hypertext and multimedia techniques, the web can access computers all over the world via the internet and obtain information and services.

Website – A related collection of web files that includes a beginning file called a home page. A company or an individual tells you how to get to their website by giving you the address of their home page. From the home page, you can get to all the other pages on their site.

XML – Short for Extensible Markup Language, a specification developed by the W3C. XML is a pared-down version of SGML, designed especially for web documents. It allows designers to create their own customized tags, enabling the definition, transmission, validation, and interpretation of data between applications and between organizations.