Commonwealth of Virginia

Information Technology Resource Management

Glossary

(COV ITRM Glossary)

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Virginia Information Technologies Agency

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COV ITRM Glossary Updating

Publication Version Control

Questions related to this publication should be directed to VITA's *Enterprise Architecture* Division. *The division* will issue a change notice for new versions of this document, post releases on the VITA Web site.

Document Version History

Enterprise Information Architecture Report: Version History		
Version	**Date**	**Description**
1.0	1-15-2010	COV ITRM Enterprise Architecture, Security and Technology Management document glossaries where combined and updated to create the initial version of this document
1.1	11-10-2010	New and updated project management definitions added.
1.2	04-13-2011	Added new definitions to sections "E" and "F."
1.2.1	05-10-2011	Added new definition to sections "G" and "I."
1.3	11-10-2011	Added new definitions for Health IT Standard and Commonwealth Data Management Program. Also made minor editorial changes.
1.4	06-20-2012	Added new definitions for Configuration Management provided by IS Security and Project Management Office.
1.5	10-18-2012	Added new definition for IS Security Agreement.
1.6	01-08-2013	Added new definitions for Services Oriented Architecture (SOA) – sections "s" and "T."
1.7	12-30-2013	Added new definitions for IS Security -- sections "A" and "I" relating to interconnection authorization and agreements.
2.0	12-12-2016	Added definitions for Third-Party Use Services—sections "D," "I," "P" "S," and "T."
2.1	02-08-2017	Added definition for Social Media.
2.1.a	02/13/2017	Added definition for Commonwealth Data
2.2	06/07/2017	Removal of version number for Oracle database.
3.1.a	09/06/2018	Rename Information Technology & Enterprise Solutions (ITIES) to Enterprise Architecture Division; rename Policy, Practice, and Architecture (PPA) to Enterprise Architecture Division. Added new definition for Mission Critical and Mission Essential – section "M."
3.1.a.1	10/4/2018	Added definitions relating to IT Solution Hosting – see sections A, B, C, H, M, O, P, R, T

Identifying Changes in This Document

- See the latest entry in the revision table above
- Vertical lines in the left margin indicate the paragraph has changes or additions. Specific changes in wording are noted using italics and underlines; with italics only indicating new/added language and italics that is underlines indicating language that has changed.

The following examples demonstrate how the reader may identify requirement updates and changes:

Glossary Definition with No Change – The text is the same. The text is the same. The text is the same.

Glossary Definition with Revision – The text is the same. *A wording change, update or clarification is made in this text.*

Glossary Definition Example of New Definition – *This definition is new.*

Introduction

This glossary supports the content of COV ITRM documents. The intent is to replace individual glossaries in existing COV ITRM documents with a single comprehensive ITRM glossary that shall be referenced by those documents.

Much of the information within this document was liberally borrowed from a number of highly recommended Internet sources including:

- FOLDOC, the Free On-line Dictionary of Computing at http://foldoc.doc.ic.ac.uk/foldoc/
- The Internet Engineering Taskforce at http://www.ietf.org/home.html
- Loosely Coupled Glossary at http://looselycoupled.com/glossary/azindex.html
- Matisse Enzer's Internet Terms Glossary at http://www.matisse.net/files/glossary.html
- Network Computing, CMP Media LLC at http://www.networkcomputing.com/
- North Carolina Statewide Technical Architecture Lexicon at Whatis.com at http://whatis.techtarget.com
- The Open Group at http://www.opengroup.org/
- O'Reilly's at http://www.oreilly.com/reference/dictionary/tsearch.cgi
- Wikipedia, the free encyclopedia at http://en.wikipedia.org/wiki/Main_Page
- http://www.ncsta.gov/docs/Lexicon/Lexicon%20-%20Terms%20and%20Phrases.pdf
- The World Wide Web Consortium at http://www.w3.org/
- The NIST Definition of Cloud Computing athttp://nvlpubs.nist.gov/nistpubs/Legacy/SP/nistspecialpublication800-145.pdf

Context:

Several glossary entries have more than one meaning. "Authorization" means something from a Security perspective that is very different from what it means from a Project Management/Technology Management perspective. This document identifies the context of the entry when different meanings are depending on ITRM perspective. The different ITRM perspectives are documented as follows: "Context: ITRM perspective)." Example:

> ***Authorization***
>
> ***Context: Security).*** *The process of granting access to data or information system by the designated authority after proper identification and authentication.*
>
> ***Context: Technology Management).*** *The power granted by management to specified individuals allowing them to approve transactions, procedures, or total systems.*

Non-alpha

10GigE
10 Gigabit Ethernet Service

3GPP LTE (Long Term Evolution)
The name given to a project within the Third Generation Partnership Project to improve the UMTS mobile phone standard to cope with future technology evolutions. Goals include improving spectral efficiency, lowering costs, improving services, making use of new spectrum and reframed spectrum opportunities, and improving integration with other open standards. The LTE project is not a standard, but it will result in the new evolved Release 8 of the 3GPP specifications, including mostly or wholly extensions and modifications of the UMTS system. The architecture that will result from this work is called EPS (Evolved Packet System) and comprises E-UTRAN (Evolved UTRAN) on the access side and EPC (Evolved Packet Core) on the core side.

8-, 16-, 32-, and 64-Bit Architectures
A CPU is designed to carry out instructions on data that is in memory. The way it does this is significantly different for 8 bit and 64-bit architectures. The higher the number of bits, the more options there are that must be considered for how instructions are handled. Options include the complexity of the instruction set, the width of the data path, the number of registers, and the number of instructions that may execute per clock cycle. A program written for a 64-bit architecture may not be as fast as one written for a 32-bit architecture, but it may provide other advantages.

802.11a card
Wireless interface that provides up to 54 Mbps service using an Orthogonal Frequency Division Multiplexing (OFDM) modulation technique for signal transmission in the 5.5 GHz spectrum.

802.11b card
Wireless interface that provides up to 11 Mbps service using Frequency Hopping Spread Spectrum (FHSS) modulation technique for signal transmission in the 2.4 GHz spectrum; also called Wi-Fi. Interference from cordless phones and microwave ovens may be a problem.

802.11g card
Wireless interface that provides up to 54 Mbps service using an Orthogonal Frequency Division Multiplexing (OFDM) modulation technique for signal transmission in the 2.4 GHz spectrum. Backward compatibility is maintained with 802.11b. Interference from cordless phones and microwave ovens may be a problem.

A

Academic Instruction and Research Systems
Those systems used by institutions of higher education to provide instruction to students and/or by students and/or faculty for conducting research.

Acceptance Criteria
Those criteria, including performance requirements and essential conditions, which must be met before project deliverables are accepted (PMBOK 3RD EDITION).

Access
The ability to use, modify or affect an information system or to gain entry to a physical area or location.

Access Controls
A set of security procedures that monitor access and either allow or prohibit users from accessing information systems and data. The purpose of access controls is to prevent unauthorized access to information systems.

Accountability
The association of each log-on ID with one and only one user, so that the user can always be tracked while using an IT system, providing the ability to know which user performed what system activities.

ACMS
A transaction processing monitor from Compaq that runs on the open VMS operating system.

Acquisition Process
The process of acquiring personnel/goods/services for new or existing work within the general definitions of contracts requiring an offer and acceptance, consideration, lawful subject matter and competent parties.

Action Item Status
A list of problem issues, including a description, point of contact, and dates of action and resolution.

Action Plan
A plan that describes what needs to be done and when it needs to be completed. Project plans are action plans.

Active Directory Service Interfaces (ADSI)
ADSI abstract the capabilities of different directory services from different network vendors to present a single set of directory service interfaces for managing network resources

Active Projects
A project portfolio category for Commonwealth-level IT projects that have been granted Project Initiation approval by the appropriate approval authority.

Active Server Page (ASP)
A scripting environment for Microsoft Internet Information Server in which you can combine HTML, scripts and reusable ActiveX server components to create dynamic web pages.

Active X
Microsoft's answer to Java. ActiveX is a stripped-down implementation of OLE designed to run over slow Internet links.

Activity
An element of work performed during the course of a project. An activity normally has an expected duration, expected cost, and expected resource requirements. Activities are often subdivided into tasks.

Activity Definition
The process of identifying the specific schedule activities that need to be performed to produce the various project deliverables. (PMBOK 3RD EDITION)

Activity Duration
The time in calendar units between the start and finish of a schedule activity. (PMBOK 3RD EDITION)

Activity Duration Estimating
The process of estimating the number of work periods that will be needed to complete individual schedule activities. (PMBOK 3RD EDITION)

Activity Resource Estimating
Determining what resources (people, equipment, and materials) are needed in what quantities to perform project activities. (PMBOK 3RD EDITION)

Actual Cost (AC)
Total costs actually incurred and recorded in accomplishing work performed during a given time period for a schedule activity or work breakdown structure component. Actual cost can sometimes be direct labor hours alone, direct costs alone, or all costs including indirect costs. Also referred to as the actual cost of work performed (ACWP). (PMBOK)

Actual Cost of Work Performed (ACWP)
See "Actual Cost" (PMBOK)

Administrative Closure
Generating, gathering, and disseminating information to formalize project completion. (PMBOK)

Advanced Intelligent Tape (AIT)
A form of magnetic tape and drive using AME developed by Sony for storing large amounts of data. An AIT can store over 50 gigabytes and transfer data at six megabytes/second (in February 1999). AIT features high-speed file access, long head and media life, the ALDC compression algorithm, and a MIC chip. (FOLDOC)

Advanced Technology Attachment (ATA/ATA Disk)
The official name that American National Standards Institute group X3T10 uses for what the computer industry calls Integrated Drive Electronics (IDE). An ATA disk is a serial drive used for data storage, which may be used in a disk array. It is cheaper than the technology typically used in RAID. Also, a type of drive controller.

Agency

Any agency, institution, board, bureau, commission, council, or instrumentality of *the* Commonwealth of Virginia listed in the appropriation act. For the purposes of Enterprise Architecture standards, agency includes the administrative functions (does not include instructional or research functions) of institutions of higher education, unless exempted by language contained in a specific requirement/standard.

Agency Banner
For the purposes of the Commonwealth of Virginia Web template, an "Agency Banner " is the graphic used between the "Commonwealth Banner" and the main content (on the home page template) or the "Commonwealth Banner" and the lower breadcrumb bar (on the sub-page template). The image is 100 pixels high and should gracefully handle resolutions at least as wide as 1024 pixels.

Agency Head
The chief executive officer of a department established in the government of the Commonwealth of Virginia.

Agency-level Project
Projects with an Estimated Cost at Completion of less than $250,000 are considered to be agency-level projects, completely under the control of the agency's management.

Agency Management
A term that refers to those people who are responsible for the business operations of an agency.

Alert
Notification that an event has occurred or may occur.

Alignment
The degree of agreement, conformance, and consistency among organizational purpose, vision and values; structures, systems, and processes; and individual skills and behaviors. (GAO)

Alternative Analysis
Breaking down a complex situation for the purpose of generating and evaluating different solutions and approaches.

AMD Opteron
The AMD 8131 chipset, which improves connection speeds by employing two independent, high-performance PCI-X bus bridges, integrated with a high-speed HyperTransport technology tunnel. The tunnel function provides connection capability to other downstream HyperTransport technology devices, allowing greater system flexibility. (www.AMD.com)

American Standard Code for Information Interchange (ASCII)
"Human readable text." The first 128 character codes of any of the ISO 8859 character sets is always identical to the ASCII character set

Analog Mobile Phone Service (AMPS)
Defined in EIA/TIA-553 standards. In 2006, AMPS is still the most extensive wireless coverage available for nationwide service in the US. However, in 2002, the FCC made the drastic decision to no longer require A and B carriers to support AMPS cellular service as of March 1, 2008. Since the AMPS standard is analog technology, it suffers from an inherently

inefficient use of the frequency spectrum. All AMPS carriers have converted most of their consumer base to a digital standard such as CDMA or GSM and continue to do so at a rapid pace. Digital technologies such as CDMA support multiple voice calls on the same channel, superior call quality, enhanced features such as two-way text messaging, voicemail indicator, internet, and GPS services; whereas, AMPS can only support one call per channel and a basic one-way short message service. AMPS cellular service operates in the 800 MHZ FM band. In 1989, the Federal Communications Commission granted carriers an expansion from the current 666 channels to the now 832 (416 per carrier). The additional frequency was available in the upper 800 MHz band which also was home to UHF channels 70-83. This meant that these UHF channels could no longer be used for UHF TV transmission as these frequencies were to be used for AMPS transmission. (Adapted from Wikipedia.)

Analysis
The detailed study and examination of something, in order to discover more about it (from Cambridge International Dictionary of English). Analysis typically includes discovering parts of the item being studied, as well as how they fit together. An example is the study of schedule variances for cause, impact, corrective action, and results.

ANSI
A voluntary non-profit organization that coordinates and supports the U.S. voluntary consensus standards for the industry.

APPC LU6.2
Allows user written programs to perform transactions in a Client-Server IBM network to access a CICS, in MVS "batch" through APPC/MVS, in VM/CMS, in AIX on the RS/6000, and on the AS/400

Appliance
Generally a separate and discrete hardware device with integrated software (firmware), specifically designed to provide a specific computing resource. These are generally "closed and sealed" – not serviceable by the owner. The hardware and software are pre-integrated and pre-configured before delivery to the customer, to provide a "turn-key" solution to a particular problem. Unlike general purpose computers, appliances are generally not designed to allow the customers to change the software (including the underlying operating system), or to flexibly reconfigure the hardware.

Application
An automated solution (computer program) designed to fulfill one or more business functions. It may be a single program designed for a single business function, or it may be a multi-module/program or multi-sub-system entity with modules/programs/components that support multiple business functions. An Application may be purchased (COTS), custom-developed in-house, or reused from another entity.

Application Area
A category of projects that have common components significant in such projects, but are not needed or present in all projects. Application areas are usually defined in terms of either the product (i.e., by similar technologies or production methods) or the type of customer (e.g., internal vs. external, government vs. commercial) or industry sector (i.e., utilities, automotive, aerospace, information technologies). Application areas often overlap. (PMBOK 3RD EDITION)

Application Programming Interface (API)

An interface that a software program implements in order to allow other software to interact with it, much in the same way that software might implement a user interface in order to allow humans to use it. APIs are implemented by applications, libraries and operating systems to define how other software can make calls to or request services from them.[1][2][3] An API determines the vocabulary and calling conventions the programmer should employ to use the services. It may include specifications for routines, data structures, object classes, and protocols used to communicate between the consumer and implementer of the API. (Wikipedia)

Application System
An interconnected set of information resources under the same direct management control that meets a defined set of business needs. See also Application, Support System, and Information Technology (IT) System.

Approve
To accept as satisfactory. Approval implies that the item approved has the endorsement of the approving entity. The approval may still require confirmation by somebody else, as in levels of approval. In management use, the important distinction is between approved and authorized. See authorization.

ARDIS
A company that provides a cellular packet-switched radio data service in the U.S. Now completely owned by Motorola. (It used to be a joint venture with IBM.) Initially (1984), the network was designed by Motorola for IBM field service technicians. The radio protocol is proprietary (designed by IBM and Motorola). Has about 34,000 subscribers, about 10 times the number that RAM Mobile has. Data transmission is at 4,800 bits/s (using 240-byte packets, resulting in about 2,000 to 3,000 bits/s of user-data throughput) or 19,200 bits/s (in larger U.S. centers) using 512-byte packets, resulting in up to 8,000 bits/s of user-data throughput. Usage charges are per kbyte of data transferred. Sometimes called Datatac. Competes with RAM Mobile Data's Mobitex system and CDPD. Ardis is at http://www.ardis.com/. (Taken from O'Reilly)

Areas of Responsibility
Used to define the person or organizational entity responsible for specific policy areas, processes, and procedures as identified.

Arrow Diagramming Method (ADM)
A schedule network diagramming technique in which schedule activities are represented by arrows. The tail of the arrow represents the start, and the head represents the finish of the scheduled activity. Schedule activities are connected at points called nodes (usually drawn as small circles) to illustrate the sequence in which the schedule activities are expected to be performed. (PMBOK 3RD EDITION)

Asset
Any software, data, hardware, administrative, physical, communications, or personnel resource.

Assumptions
Factors that, for planning purposes, are considered to be true, real, or certain without proof or demonstration.

Assurance

Measurement of confidence in a control or activity.

Asynchronous Mirroring
Data to be stored are written synchronously (with acknowledgment to the application) to a cache resource and then written asynchronously (without acknowledgment) to a primary store and a mirrored (copy of the primary) store.

Asynchronous Transfer Mode (ATM)
A dedicated-connection switching technology that organizes digital data into 53-byte cell units and transmits them over a physical medium using digital signal technology. Individually, a cell is processed asynchronously relative to other related cells and is queued before being multiplexed over the transmission path. Because ATM is designed to be easily implemented by hardware (rather than software), faster processing and switch speeds are possible. The pre-specified bit rates are either 155.520 Mbps or 622.080 Mbps. Speeds on ATM networks can reach 10 Gbps. ATM may be used in LAN and WAN communications. (searchNetworking.com)

Asynchronous/Connectionless Communication
A program-to-program communication model that does not block any of the communicating partners and that allows for time independent interactions.

Athlon Chipset
AMD microprocessor, delivered in mid-1999, was the first to support a 200 MHz bus. In March 2000, AMD announced the first 1 gigahertz PC microprocessor in a newer version of the Athlon. The current AMD Athlon XP 3000+ performs better than the Intel Pentium 4 3.06 GHz chip in office productivity (PWC audit).

ATM/SONET
Asynchronous Transfer Mode cells carried over Synchronous Optical Network packets.

Attack
An attempt to bypass security controls on an information system in order to compromise the data.

Attribute
A specific characteristic that describes an entity (e.g., customer name, employer identification number, commodity code).

Audit
An independent review and examination of records and activities to test for adequacy of controls, measure compliance with established policies and operational procedures, and recommend changes to controls, policies, or procedures.

Authenticate
To determine that something is genuine. To reliably determine the identity of a communicating party or device.

Authentication
The process of verifying an identity of a user to determine the right to access specific types of data or IT system.

Authorization

Context: Security). The process of granting access to data or information system by designated authority after proper identification and authentication.
Context: Technology Management). The power granted by management to specified individuals allowing them to approve transactions, procedures, or total systems.

Authorization Boundary
All components of an information system to be authorized for operation by an authorizing official and excludes separately authorized systems, to which the information system is connected.

Authorized Work
An effort that has been approved by higher authority and may or may not be defined.

Author-specified Styles
Authors styles are style property values that come from content (e.g., style sheets within a document, that are associated with a document, or that are generated by a server).

Availability
Protection of information systems and data so that they are accessible to authorized users when needed without interference or obstruction.

B

Backbone
A high-speed computer network designed to interconnect lower-speed networks or clusters of dispersed user devices.

Backplane
An electronic circuit board containing circuitry and sockets into which additional electronic devices on other circuit boards or card can be plugged.

Backup
The process of producing a reserve copy of software or electronic files as a precaution in case the primary copy is damaged or lost.

Backward Pass
The calculations of late finish dates and late start dates for the uncompleted portions of all scheduled activities. Determined by working backward through the schedule network logic from the project's end date. The end date may be calculated in a forward pass or set by the customer or sponsor. (PMBOK 3RD EDITION)

Bandwidth
The carrying capacity of a circuit, usually measured in bits per second for digital circuits or hertz for analog circuits.

Bar Chart
A graphic display of schedule-related information. In the typical bar chart, schedule activities or work breakdown structure components are listed down the left side of the chart, dates are shown across the top, and activity durations are shown as date-placed horizontal bars. (PMBOK 3RD EDITION)

Base Image
Used in this report to indicate a starting point for a hard disk image that may be used as is or further modified to meet agency user needs with users placed in as large a group as possible based on commonality of requirements. All secretaries may have one base image and all programmers, another. The image is a copy of the configured operating system and software on the desktop, notebook or other device. Microsoft provides instructions for establishing, compressing and distributing such images: "Some organizations deploy a complete user system at one time, including Microsoft® Windows® software, device drivers, Microsoft Office 2003 applications, and custom settings. In this scenario, you install the entire system onto a test computer, and then you create an image of the hard disk to copy to users' computers. Installing Office with a complete user system is almost as fast as installing Office by itself. It is a particularly efficient way to configure new computers or to restore a computer to its original state. When you distribute the hard disk image to users, everything on the computer is replaced by your custom configuration, so users must back up any documents or other files they want to keep".

Baseline
The approved time-phased plan (for a project, a work breakdown structure component, a work package, or a scheduled activity), plus or minus approved project scope, cost, schedule, and technical changes. Generally refers to the current baseline, but may refer to the original or some other baseline. Usually used with a modifier (e.g., cost baseline,

schedule baseline, performance measurement baseline, technical baseline). (PMBOK 3RD EDITION)

Baseline Security Configuration
The minimum set of security controls that must be implemented on all information systems of a particular type.

Baselining
Obtaining data on the current process that provides the metrics against which to compare improvements and to use in benchmarking. (GAO)

Basic Object Adapter (BOA) protocol
Replaced by POA, Portable Object Adapter.

Benchmark
A measurement or standard that serves as a point of reference from which process performance is measured. (GAO)

Benchmarking
A structured approach for identifying the best practices from industry and government, and comparing and adapting them to the organization's operations. Such an approach is aimed at identifying more efficient and effective processes for achieving intended results, and suggesting ambitious goals for program output, product/service quality, and process improvement. (GAO)

Benefit
A term used to indicate an advantage, profit, or gain attained by an individual or organization. (GAO)

Best Practices
The processes, practices, or systems identified in public and private organizations that performed exceptionally well and are widely recognized as improving an organization's performance and efficiency in specific areas. Successfully identifying and applying best practices can reduce business expenses and improve organizational efficiency. (GAO)

Best Value
The overall combination of quality, price, and various elements of required services that in total are optimal relative to a public body’s needs, as predetermined in a solicitation. Best value concepts may be applied when procuring goods and nonprofessional services, but not construction or professional services. The criteria, factors, and basis for the consideration of best value and the process for the consideration of best value shall be as stated in the procurement solicitation (Code of Virginia, § 2.2-4301).

Biometrics
The science and technology of measuring and statistically analyzing biological data. In information technology, biometrics usually refers to technologies for measuring and analyzing human body characteristics such as fingerprints, eye retinas and irises, voice patterns, facial patterns, and hand measurements, especially for authentication purposes. Fingerprint and other biometric devices consist of a reader or scanning device, software that converts the scanned information into digital form, and wherever the data is to be analyzed, a database that stores the biometric data for comparison with previous records. When converting the biometric input, the software identifies specific points of data as match

points. The match points are processed using an algorithm into a value that can be compared with biometric data scanned when a user tries to gain access.

Blackberry
A brand of personal digital assistant hardware; an email service; or the company that offers the hardware and service. The hardware/OS, which was originally a RIM product, is called a Blackberry and comes in a variety of form factors. Most notably, the Blackberry has a small keyboard for data input and offers standard personal information management capabilities. The Blackberry service is a live push email service, which may be controlled by a local server or a Blackberry company server.

Block Service
A block is the unit in which data is stored and retrieved on disk and tape devices. Blocks are the atomic unit of data recognition (through a preamble and block header). A block service is the process of storing and retrieving blocks of data (as opposed to files).

Bluetooth
A telecommunications industry specification (IEEE 802.15) that describes how mobile phones, computers, and personal digital assistants (PDAs) can be easily interconnected using a short-range wireless connection. Using this technology, users of cellular phones, pagers, and personal digital assistants can buy a three-in-one phone that can double as a portable phone at home or in the office, get quickly synchronized with information in a desktop or notebook computer, initiate the sending or receiving of a fax, initiate a print-out, and, in general, have all mobile and fixed computer devices be totally coordinated. Bluetooth requires that a low-cost transceiver chip be included in each device. The transceiver transmits and receives in a previously unused frequency band of 2.45 GHz that is available globally (with some variation of bandwidth in different countries). In addition to data, up to three voice channels are available. Each device has a unique 48-bit address from the IEEE 802 standard. Connections can be point-to-point or multipoint. The maximum range is 10 meters. Data can be exchanged at a rate of 1 megabit per second (up to 2 Mbps in the second generation of the technology). A frequency hop scheme allows devices to communicate even in areas with a great deal of electromagnetic interference. Built-in encryption and verification are provided. The technology got its unusual name in honor of Harald Bluetooth, king of Denmark in the mid-tenth century. (Adapted from Whatis.com.)

Branch Office Box (BOB)
A server appliance that is optimized to provide distributed office support for simple utility functions that are required locally but difficult to provide over a WAN. BOB deployment is an alternative to having more complex servers and support provided locally for all needed utility applications such as email, printing, and file serving/caching, DNS, DHCP, HTML/XML, and encryption/decryption (e.g., HTTPS). When WAN connections are unreliable, a BOB may be used as part of a local business continuation solution. When WAN connections are reliable, a BOB may not be a cost-effective alternative to using protocol wrapping solutions (e.g., MPLS) to address WAN latency. BOBs are usually optimized for the type of protocol traffic the business uses most in communicating with its central office or data center and the type of persistent service needed locally in the event of a WAN disruption.

Bread Crumbs
Bread crumb navigation shows the users where they are and how the information is structured. Because users see the way the hierarchy is structured they can learn it more easily. By making each label a link, the users can quickly browse up the hierarchy. Bread

Crumbs take up minimal space on the page and leave most of the space for the real content.

Broadcast Domain
A logical part of a network (a network segment) in which any network equipment can transmit data directly to another equipment or device without going through a routing device (assuming the devices share the same subnet and use the same gateway.

Broad network access
Capabilities are available over the network and accessed through standard mechanisms that promote use by heterogeneous thin or thick client platforms (e.g., mobile phones, tablets, laptops, and workstations).

Budget
When unqualified, refers to an estimate of funds planned to cover a project or specified period.

Budget At Completion (BAC)
The sum of all the budget values established for the work to be performed on a project or a work breakdown structure component or a scheduled activity. (PMBOK 3RD EDITION)

Budgeted Cost of Work Performed (BCWP)
See "Earned Value" (PMBOK)

Budgeted Cost of Work Scheduled (BCWS)
See "Planned Value" (PMBOK)

Business Case Approval (BCA)
A project portfolio status for projects that have received approval of the project's investment business case from the appropriate approval authority. BCA authorizes the agency to expend funds in preparation for Project Initiation Approval.

Business Case
A structured proposal for business improvement that functions as a decision package for organizational decision-makers. A business case includes an analysis of business process performance and associated needs or problems, proposed alternative solutions, assumptions, constraints, and a risk-adjusted cost-benefit analysis. (GAO)

Business Function
A collection of related structural activities that produce something of value to the organization, its stakeholders or its customers. See also Essential Business Function.

Business Impact Analysis
Identifies project constraints, alternatives, and related assumptions as they apply to the initiation phase.

Business Impact Analysis (BIA)
The process of determining the potential consequences of a disruption or degradation of business functions.

Business Owner

The functional stakeholder whose responsibilities are to identify and communicate business needs and knowledge for the project, and insure the business needs are appropriately addressed by the project.

Business Plan
Changed to Strategic Business Plan

Business Problem
A question, issue, or situation, about the business, which needs to be answered or resolved.

Business Process
A collection of related, structured activities--a chain of events--that produce a specific service or product for a particular customer or customers. (GAO)

Business Process Reengineering
In government, a systematic disciplined improvement approach that critically examines, rethinks, and redesigns mission-delivery processes and sub-processes within a process management approach. In a political environment, the approach achieves radical mission performance gains in meeting customer and stakeholder needs and expectations. (GAO)

Business Reference Model (BRM)
In a service-oriented architecture, all business services are defined in the business reference model (BRM). The BRM is part of the Enterprise Repository. One of the key principles behind SOA is to break down business services into reusable components that can be combined and shared across the enterprise. These shared components are called web services and they are defined in the service component reference model (SRM) which is also located in the Enterprise Repository. Both the BRM and SRM are hierarchical. The exact structure of the model will be determined at design time.

Business to Government (B2G)
Refers to a business process involving electronic interaction of business partners.

Business Vision
A description of what senior management wants to achieve with the organization in the future. A business vision usually addresses a medium to long-term period and is expressed in terms of a series of objectives. (GAO)

C

Cabinet Secretary
An officer of the Governor's Cabinet appointed to oversee the operations of a group of functionally related agencies.

Cable Modem
A cable modem provides variable speed transmission depending on the number of simultaneous users on the same cable.

Calendar Unit
The smallest unit of time used in scheduling the project. Calendar units are generally in hours, days, or weeks, but can also be in quarter years, months, shifts, are even in minutes. (PMBOK 3RD EDITION)

Capital Asset
Tangible property, including durable goods, equipment, buildings, installations, and land. (CCA)

Cascading Style Sheets (CSS)
An XML protocol used to control formatting of Web pages.

Cat 5e
Category 5e standard wiring.

Category 5e
Category 5e standard wiring. Also called Cat 5e.

CDPD
A wireless standard that provides two-way, 19.2 kbps packet data transmission over existing cellular telephone channels. A method proposed (1993) and developed by IBM and McCaw Cellular Communications, Inc. (now owned by AT&T) to more efficiently carry data on existing analog (AMPS) cellular radio systems. 138-byte packets of data are sent at 19,200 bits/s during gaps in conversations or on unused (no voice conversation established at that time) channels, using the full 30-kHz bandwidth of the channel. Voice always has priority. Actual air traffic consists of blocks of 63 (47 are information, 16 are forward error correction information) six-bit symbols, resulting in a user data rate of about 9,000 to 14,400 bits/s. The forward error correction can correct up to eight six-bit symbol errors. Advantages over Ardis and Mobitex include the following: use of the existing cellular radio infrastructure (CDPD overlays it), resulting in lower usage charges; built-in encryption and authentication; the land-line interface is TCP/IP; security, since the data for a conversation are carried over many cellular radio channels (according to whichever has spare capacity), so it would be difficult to monitor the communication; V.42bis data compression; multicasting (to subsets of users); and a full-duplex option. Will be an open specification that will compete with the proprietary systems from Ardis and Mobitex (RAM). Is a packet-oriented service, so the call setup time is fast (much faster than circuit-switched), charging is by the kilobyte of traffic carried, and it is best-suited to smaller transactions (up to 5 Kbytes of data--larger transfers are better handled by circuit-switched methods, such as analog cellular with modems). Promoted by five of the seven U.S. RBOCs and Motorola, Microcom, and some cable TV companies.

Certificate authority (CA)
A system for managing certified digital signatures. Manages the implementation of policies to authenticate, authorize and revoke the assignment of keys to users.

Change Control
Context: Security). A management process to provide control and traceability for all changes made to an application system or information system.
Context: Technology Management). Identifying, documenting, approving or rejecting, and controlling changes to the project baselines. (PMBOK 3RD EDITION)

Change Control Board (CCB)
A formally constituted group of stakeholders responsible for reviewing, evaluating, approving, delaying, or rejecting changes to the project, with all decisions and recommendations being recorded. (PMBOK 3RD EDITION)

Change Management Process
A set of tasks or procedures established to ensure that project performance is measured to the baseline and changes are reviewed, approved, or rejected and the baseline updated.

Chart of Accounts
Any numbering system used to monitor project costs by category (e.g., labor, supplies, and materials). The project chart of accounts is usually based upon corporate chart of accounts of the primary performing organization. (PMBOK 3RD EDITION)

Chief Information Officer of the Commonwealth (CIO)
Oversees the operation of the Virginia Information Technologies Agency (VITA) and exercises the powers and performs the duties conferred or imposed upon him by law and performs such other duties as may be required.

Chief Information Security Officer of the Commonwealth (CISO)
The senior management official designated by the CIO of the Commonwealth to develop Information Security policies, procedures, and standards to protect the confidentiality, integrity, and availability of information systems and data.

Chipset
A group of microchips designed to work together and which are sold as a unit. Colloquially, chipsets are referenced by brand name and version (e.g., Pentium 4). Example components are the bus controller (USB, PCI, etc.) and the processor (CPU).

CICS
IBM mainframe application server that provides industrial-strength, online transaction management for mission-critical applications. on MVS/ESA, OS/390, VSE/ESA and z/OS. Thirty years old but repackaged to turn mainframes into Web servers.

Clinical Document
A report that details patient-specific health care information.

Cloud Computing
Is a model for enabling ubiquitous, convenient, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and

services) that can be rapidly provisioned and released with minimal management effort or service provider interaction.

Cloud ready/Cloud readiness
An IT solution that is either already or can be hosted on a virtual x86 server using either Linux or Windows as an operating system and there are no software licensing or data issues with the solution consuming cloud-based hosting services.

Cloud Service Broker (CSB)
An entity (real or virtual) that manages the use, performance and delivery of cloud services, in addition to enabling the negotiations and relationships between cloud providers and cloud consumers. NIST defines CSB as an IT role and business model in which a company or other entity adds value to one or more (public or private) cloud services on behalf of one or more consumers of that service via three primary roles including aggregation, integration and customization brokerage.

Cloud Service Integrator (CSI)
Specializes in the integration of cloud hosted services (sometimes referred to as Integration-as-a-Service). For the extended hybrid cloud model some of the IT solutions, services and data are maintained locally, while others are served remotely via multiple cloud providers.

Cluster
1) In a computer system, a cluster is a group of servers and other resources that act like a single system and enable high availability and, in some cases, load balancing and parallel processing. See clustering. [Clustering has been available since the 1980's with VAX and is called Sysplex in the IBM S/390 world.]
2) In personal computer storage technology, a cluster is the logical unit of file storage on a hard disk; it's managed by the computer's operating system. Any file stored on a hard disk takes up one or more clusters of storage. A file's clusters can be scattered among different locations on the hard disk. The clusters associated with a file are kept track of in the hard disk's file allocation table (FAT). When you read a file, the entire file is obtained for you and you aren't aware of the clusters it is stored in. (Whatis.com)

Code division multiple access (CDMA)
Form of multiplexing where the transmitter encodes the signal using a pseudo-random sequence which the receiver also knows and can use to decode the received signal. Each different random sequence corresponds to a different communication channel. Motorola uses CDMA for digital cellular phones. Qualcomm pioneered the introduction of CDMA into wireless telephone services.

Code division multiple access (CDMA) 2000
Version of the IMT-2000 standard developed by the International Telecommunication Union (ITU). The CDMA2000 is third-generation (3-G) mobile wireless technology that can provide mobile data communications at speeds ranging from 144 Kbps to 2 Mbps. Deployment is in the planning stages.

Code of Accounts
Any numbering system used to uniquely identify each component of the work breakdown structure. (PMBOK 3RD EDITION)

Code Set

A set of codes used for encoding data elements, such as tables of terms, medical concepts, medical diagnostic codes, or medical procedure codes.

Collaboration Opportunity
A common business need that establishes the opportunity for organizations and/or political subdivisions to work together, in a substantive, mutually beneficial relationship, towards a common integrated solution. In preparation for the annual RTIP Report, agency IT investments are evaluated as potential Collaboration Opportunities.

Co-location
An organizational placement strategy where the project team members are physically located close to one another in order to improve communication, working relationships, and productivity. (PMBOK 3RD EDITION)

Colocation (COLO)
Context: Data Center Facility: *A data center facility in which a business can rent space for servers and other computing hardware. Typically, a colo provides the building, cooling, power, bandwidth and physical security while the customer provides servers and storage.*

Commercial off-the-shelf (COTS)
A term for software or hardware products that are ready-made and available for sale to the general public. They are often used as alternatives to in-house developments or one-off government-funded developments (GOTS). The use of COTS is being mandated across many government and business programs, as they may offer significant savings in procurement and maintenance. Commercial off-the-shelf. Wikipedia, The Free Encyclopedia. Retrieved 18:10, January 11, 2006 from http://en.wikipedia.org

Common Internet File System (CIFS)
A proposed standard protocol that lets programs make requests for files and services on remote computers on the Internet. CIFS uses the client/server-programming model. A client program makes a request of a server program (usually in another computer) for access to a file or to pass a message to a program that runs in the server computer. The server takes the requested action and returns a response. CIFS is a public or open variation of the Server Message Block Protocol (SMB) developed and used by Microsoft. The SMB Protocol is widely used in today's local area networks for server file access and printing. Like the SMB protocol, CIFS runs at a higher level than and uses the Internet's TCP/IP protocol. CIFS is viewed as a complement to the existing Internet application protocols such as the File Transfer Protocol (FTP) and the Hypertext Transfer Protocol (HTTP). CIFS lets you:

- Get access to files that are local to the server and read and write to them
- Share files with other clients using special locks
- Restore connections automatically in case of network failure
- Use Unicode file names

In general, CIFS gives the client user better control of files than the File Transfer Protocol. It provides a potentially more direct interface to server programs than currently available through the Web browser and its use of the HTTP protocol. CIFS is an Open Group standard, X/Open CAE Specification C209, and has been proposed to the Internet Engineering Task Force (IETF) as an Internet application standard. (Whatis.com)

Common Object Request Broker Architecture (CORBA)
OMG's open, vendor-independent architecture and infrastructure that computer applications use to work together over networks.

Common Program Interface (CPI)
IBM's Systems Application Architecture API.

Common Requirements Vision (CRV)
The document that presents the business case for the Commonwealth EA Initiative and represents the initial step in the evolution of the Enterprise Architecture (EA) process model. The CRV establishes the agreements reached between business and IT leaders regarding: the most significant, influencing trends on the enterprise; the enterprise business strategies that will drive the EA; the information required by the business decision makers to satisfy the enterprise business strategies; implications for application portfolio development; and the requirements for the technical architecture.

Commonwealth Asset Management
The process of planning, procuring, deploying, operating, maintaining, upgrading, and disposing of assets to achieve maximum return on investment over the life-cycle of the asset, in support of both Commonwealth and agency IT strategic plans.

Commonwealth Data:
Data maintained, transformed or stored by an agency or it's designee in the performance of Commonwealth business.

Commonwealth of Virginia (COV)
The government of the Commonwealth of Virginia, and its agencies and departments.

Commonwealth of Virginia Computer Incident Response Team (COV CIRT)
A function of the Incident Management division of the COV Security Services Directorate. The COV CIRT operates under the direction of the Incident Management Director~~,~~ and is primarily comprised of the Incident Management engineers, with additional resources to be drawn as needed on a per incident basis from IT Partnership technical, legal and human resources staff.

Commonwealth Project (CP)
A temporary endeavor, undertaken by a Commonwealth executive branch agency (or agencies), to deliver a unique product or service. Commonwealth projects are expected to follow project management best practices and comply with project management requirements identified in the Code of Virginia, Governor's Executive Orders, and COV ITRM policies, standards, and guidelines.

Commonwealth Project Management (CPM)
The application of knowledge, skills, tools, and techniques to meet or exceed stakeholder needs and expectations from a Commonwealth Project.

Commonwealth Technology Management (CTM)
In the Commonwealth of Virginia, it is the application of information technology investment management (ITIM) principles and practices in support of the business activities of state government.

Communications Services
Service that includes telecommunications services, automated data processing services and management information systems that serve the needs of state agencies and institutions. (§2.2-2001 of the Code of Virginia).

Community Cloud
The cloud infrastructure is provisioned for exclusive use by a specific community of consumers from organizations that have shared concerns (e.g., mission, security requirements, policy, and compliance considerations). It may be owned, managed, and operated by one or more of the organizations in the community, a third party, or some combination of them, and it may exist on or off premises.

Complex instruction set computer (CISC)
A processor type in which each instruction can perform several low-level operations such as memory access, arithmetic operations or address calculations. For example, the Intel Pentium is a CISC design. (Modified from www.FOLDOC.org)

Complexity
The technological and management characteristics of a project and the potential impacts, both positive and negative, that these characteristics could have on the project risks. Complexity is a Risk modifier in that it can exacerbate or mitigate the impact of Risk on the successful completion of the project.

Component
A readily accessible and observable aspect of a technology topic, such as Test Management is a component of the Software Engineering topic in the Application Domain. A component is not the individual pieces such as tables, SQL scripts, etc. and other many similar pieces which make up the component.

Component Object Model (COM)
A binary-interface standard for software component introduced by Microsoft in 1993. It is used to enable inter-process communication and dynamic object creation in a large range of programming languages. The term COM is often used in the software development industry as an umbrella term that encompasses the OLE, OLE Automation, ActiveX, COM+ and DCOM (distributed) and DOM+ technologies. (Wikipedia)

Computer Database
A structured collection of data or records residing in a computer.

Computing Devices
A computing device is a hardware component or system of components that allow a user to interact with a computer, a telephone system, or other electronic information system.

Concept
An imaginative arrangement of a set of ideas.

Conceptual Project Planning
The process of developing broad-scope project documentation from which the technical requirements, estimates, schedules, control procedures, and effective project management will all flow.

Condition
The principal circumstances, situations, etc., that are causing concern, doubt, anxiety, or uncertainty. In a risk statement, the condition phrase is the phrase at the beginning of the statement. (SEI)

Confidentiality

The protection of data from unauthorized disclosure to individuals or information systems.

Configuration Management
Context: Project Management: A technical and management process for establishing and maintaining consistency of a product's functional and physical attributes with its requirements, design, and operational information throughout its life. The major CM functions are Management and Planning; Configuration Identification; Configuration Change Management; Configuration Status Accounting; and Configuration Verification and Audit. (MIL-HDBK 61A, ANSI/EIA 649-B-2011).

Configuration Management
Context: Information Systems Security: A technical and management process for establishing and maintaining consistency of a product's functional and physical attributes with its requirements, design, and operational information throughout its life. The CM functions are Configuration Management Planning and Management; Configuration Identification; Configuration Change Management; Configuration Status Accounting; and Configuration Verification and Audit. (ANSI/EIA 649-B-2011).

A formal discipline that provides project team members and customers with the methods and tools that are used to identify the product developed, establish baselines, control changes to these baselines, record and track status, and audit the product.

Configuration Management System
A subsystem of the overall project management system. It is a collection of formal documented procedures used to apply technical and administrative direction and surveillance to: identify and document the functional and physical characteristics; record and report each change and its implementation status; and support the audit of the products, results or components to verify conformance to requirements. It includes the documentation, tracking systems and defined approved levels necessary for authorizing and controlling changes. In most application areas, the configuration management system includes the change control system. (PMBOK 3RD EDITION)

Consequence
The possible negative outcomes of the current conditions that are creating uncertainty. In a risk statement, the consequence phrase is the phrase at the end of the statement. (SEI)

Constraint
The state, quality, or sense of being restricted to a given course of action or inaction. An applicable restriction or limitation, either internal or external to the project that will affect the performance of the project or a process. (PMBOK 3RD EDITION)

Container
Context: Virtual Server: *A packaging format that encapsulates a set of software with its dependencies and runs in a virtual server environment with minimal OS. Therefore, it is a form of virtualization. The difference between VM's and containers is that each VM has its own full sized OS, while containers have a minimal OS.*

Containerization
Context: See container definition: *The encapsulation of an application in a container.*

Contingency Planning

The development of a management plan that identifies alternative strategies to be used to ensure project success if specified risk events occur.

Contingency Reserve
The amount of funds, budget, or time needed above the estimate to reduce the risk of overruns of project objectives to a level acceptable to the organization. (PMBOK 3RD EDITION)

Continuity of Operations Plan (COOP)
A set of documented procedures developed to provide for the continuance of essential business functions during an emergency.

Continuity of Operations Planning
The process of developing plans and procedures to continue the performance of essential business functions in the event of a business interruption or threat of interruption.

Contract
When used as a noun in this manual, contract refers to an agreement enforceable by law, between two or more competent parties, to do or not to do something not prohibited by law, for a consideration. A contract is any type of agreement or order for the procurement of goods or services. As a verb, contract has its usual legal sense, signifying the making of an agreement for consideration. (DGS, APSPM)

Contract Administration
The process of managing the contract and the relationship between the buyer and seller, reviewing and documenting how a seller is performing or has performed to establish required corrective actions and provide a basis for future relationships with the seller, managing contract related changes and, when appropriate, managing the contractual relationship with the outside buyer of the project. (PMBOK 3RD EDITION)

Contract Closure
The process of completing and settling the contract, including resolution of any open items and closing each contract. (PMBOK 3RD EDITION)

Contract, Cost-Plus-A-Fixed-Fee
A cost-reimbursement type contract that provides for the payment of a fixed fee to the contractor. The fixed fee, once negotiated, does not vary with the actual cost but may be adjusted as a result of any subsequent changes in the scope of work or services to be performed under the contract. (DGS, APSPM)

Contract, Cost-Plus-A-Percentage-Of-Cost
A form of contract which provides for a fee or profit at a specified percentage of the contractor's actual cost of accomplishing the work. Except in case of emergency affecting the public health, safety or welfare and for some insurance contracts, no public contract shall be awarded on the basis of cost plus a percentage of cost (Code of Virginia, § 2.2-4331). (DGS, APSPM)

Contract, Fixed Price
A contract that provides for a firm unit or total price to be established at the time of order placement or contract award. The contractor bears the full risk for profit or loss.

Contract, Fixed Price with Escalation/De-escalation

A fixed price type of contract that provides for the upward and downward revision of the stated contract price upon the occurrence of certain contingencies (such as fluctuations in material costs and labor rates) defined explicitly in the contract. (DGS, APSPM)

Control
Context: Security). Any protective action, device, procedure, technique or other measure that reduces exposures. Types of controls include preventative, detective, corrective, etc.
Context: Technology Management). Comparing actual performance with planned performance, analyzing variances, assessing trends to effect process improvements, evaluating possible alternatives, and recommending appropriate corrective action as needed. (PMBOK 3RD EDITION)

Control And Provisioning of Wireless Access Points (CAPWAP)
This protocol is under development within the IETF to enable an Access Controller (AC) to manage a collection of Wireless Termination Points (WTPs). CAPWAP aims at simplifying the deployment and control of large-scale, possibly heterogeneous, wireless networks.

Control Charts
A graphic display of process data over time and against established control limits, and that has a centerline that assists in detecting a trend of plotted values toward either control limits. (PMBOK 3RD EDITION)

Control Item
A project element that is considered a unit for the purpose of change and configuration management. This includes such items as software modules, versions of software systems, the project design document, the project plans, and so forth.

Control Objectives for Information and related Technology (COBIT)
A framework of best practices for IT management that provides managers, auditors, and IT users with a set of generally accepted measures, indicators, processes and best practices to assist them in maximizing the benefits derived through the use of information technology and developing appropriate IT governance and control.

Control System
A mechanism that reacts to the current project status in order to ensure accomplishment of project objectives.

Cookies
Information stored on a Website visitor's computer regarding a transaction with a Website that may be returned to that Website at each subsequent visit if requested by the Website.

Core Processes
Processes that have clear dependencies and that require the same order on most projects.

Corrective Action
Documented direction for executing the project work to bring expected future performance of the project work in line with the project management plan. (PMBOK 3RD EDITION)

Cost Avoidance
An action taken in the present design to decrease costs in the future.

Cost-Benefit Analysis (CBA)

An evaluation of the costs and benefits of alternative approaches to a proposed activity to determine the best alternative. (CCA)

Cost Budgeting
The process of aggregating the estimated costs of individual activities or work packages to establish a cost baseline. (PMBOK 3RD EDITION)

Cost Control
The process of influencing the factors that create variances, and controlling changes to the project budget. (PMBOK 3RD EDITION)

Cost Effectiveness Analysis (CEA)
A systematic quantitative method for comparing the costs of alternative means of achieving the same stream of benefits or a given objective. (CCA)

Cost Estimating
The process of developing an approximation of the cost of the resources needed to complete project activities. (PMBOK 3RD EDITION)

Cost of Quality
Determining the costs incurred to ensure quality. (PMBOK 3RD EDITION)

Cost Performance Index (CPI)
A measure of cost efficiency on a project. It is the ratio of earned value (EV) to actual costs (AC). CPI = EV divided by AC. A value equal to or greater than one indicates a favorable condition and a value less than one indicates an unfavorable condition. (PMBOK 3RD EDITION)

Cost Reimbursable Contracts
This category of contract involves payment (reimbursement) to the contractor for its actual costs. Costs are usually classified as direct costs (costs incurred directly by the project, such as wages for members of the project team) and indirect costs (costs allocated to the project by the performing organization as a cost of doing business, such as salaries for corporate executives). Indirect costs are usually calculated as a percentage of direct costs. Cost reimbursable contracts often include incentives for meeting or exceeding selected project objectives such as schedule targets or total cost. (SOM)

Cost Variance (CV)
A measure of cost performance on a project. It is the algebraic difference between earned value (EV) and actual cost (AC). CV=EV minus AC. A positive value indicates a favorable condition and a negative value indicates an unfavorable condition. (PMBOK 3RD EDITION)

Cost/Schedule Impact Analysis (CSIA)
The process followed to determine the cost and/or schedule impact of a specific change with a project.

Council on Technology Services (COTS)
An advisory council that assists in the development of a blueprint for state government IT planning and decision-making. The Council advises the Chief Information Officer of the Commonwealth on the services provided by the Virginia Information Technologies Agency (VITA) and the development and use of applications in state agencies and public institutions of higher education.

Countermeasure
An action, device, procedure, technique, or other measure that reduces vulnerability or the impact of a threat to an information system.

COVANET
A comprehensive array of communications services - voice long distance, data, and Internet services to local and county governments, state agencies, universities, and quasi-government agencies.

Crashing
A specific type of project schedule compression technique performed by taking action to decrease the total project schedule duration after analyzing a number of alternatives to determine how to get the maximum duration compression for the lease additional cost. Typical approaches for crashing a schedule include reducing schedule activity duration and increasing the assignment of resources on schedule activities. (PMBOK)

Crawlable Web site
A Web site whose content is accessible by search engines so the content can be indexed. (Alternative see "non-crawable" Web site)

Credential
Information, such as a user ID and password passed from an information system or information system user to an information system to establish access rights.

Critical Activity
Any schedule activity on a critical path in a project schedule. Most commonly determined by using the critical path method. Although some activities are "critical" in the dictionary sense, without being on the critical path, this meaning is seldom used in the project context. (PMBOK 3RD EDITION)

Critical Path
Generally, but not always, the sequence of schedule activities that determines the duration of the project. Generally, it is the longest path through the project. However, a critical path can end, as an example, on a schedule milestone that is in the middle of the project schedule and that has a finish-no-later-than imposed date schedule constraint. (PMBOK 3RD EDITION)

Critical Path Method (CPM)
A schedule network analysis technique used to determine the amount of scheduling flexibility (the amount of float) on various logical network paths in the project schedule network, and to determine the minimum total project duration. Early start and finish dates are calculated by means of a forward pass using a specified start date. Late start and finish dates are calculated by means of a backward pass, starting from a specified completion date, which sometimes is the project early finish date determined during the forward pass calculation. (PMBOK 3RD EDITION)

Critical Success Factors
The limited number of areas of performance that are essential for a project to achieve its goals and objectives. They are the key areas of activity in which favorable results are absolutely necessary to reach goals. Critical success factors are often referred to as "CSF". (SEI)

Cryptography
The process of transforming plain text into cipher text, and cipher text into plain text.

Current Finish Date
The current estimate of the point in time when a schedule activity will be completed, where the estimate reflects any reported work progress. (PMBOK 3RD EDITION)

Current Start Date
The current estimate of the point in time when a schedule activity will begin, where the estimate reflects any reported work progress. (PMBOK 3RD EDITION)

Customer
The person or organization that will use the project's product or service or results. (PMBOK 3rd Edition)

Customer to government (C2G)
Refers to a business process involving electronic interaction of citizens with government.

D

Data
An arrangement of numbers, characters, and/or images that represent concepts symbolically.

Data Breach
The unauthorized access and acquisition of unredacted computerized data that compromises the security or confidentiality of personal information. Good faith acquisition of personal information by an employee or agent of an individual or entity for the purposes of the individual or entity that is authorized to view the data is not a breach of the security of the system, provided that the personal information is not used for a purpose other than a lawful purpose of the individual or entity or subject to further unauthorized disclosure.

Data Classification
A process of categorizing data according to its sensitivity.

Data Communications
Includes the equipment and telecommunications facilities that transmit, receive, and validate COV data between and among computer systems, including the hardware, software, interfaces, and protocols required for the reliable movement of information. As used in this document, Data Communications is included in the definition of government database, herein.

Data Custodian
An individual or organization in physical or logical possession of data for Data Owners. Data Custodians are responsible for protecting the data in their possession from unauthorized access, alteration, destruction, or usage and for providing and administering general controls, such as back-up and recovery systems.

Data Date
The date up to or through which the project's reporting system has provided actual status and accomplishments. (PMBOK 3RD EDITION)

Data Dictionary:
A centralized repository of information about data such as meaning, relationships to other data, origin, usage and format. A data dictionary includes such items as complete and accurate definitions of entities and attributes, attribute domains, valid values, synonyms or aliases, default values, data type and length, required/not required constraints and other information.

Data Marshaling
The conversion of data between platform specific representations and the packaging according to the requirements of a particular network protocol in order to perform the data transport between different nodes.

Data Owner
An individual, who defines, manages and controls the use of data and ensures compliance with adopted standards within an agency. The Agency Head or designee designates the Agency Data Owner(s) for the functional/subject areas within their jurisdictional control or authority and ensures adequate resources for Agency Data Owner(s) to develop and

maintain their respective functional subject areas in support of the Commonwealth's Data Management Program.

Data Security
Data Security refers to those practices, technologies, and/or services used to apply security appropriately to data.

Data Sensitivity
See Sensitivity

Data Steward
An individual assigned by an agency to represent the agency's interagency data needs and ensure that proposed standards meets those needs. Agency Data Steward(s) work on behalf of their Agency Data Owner(s) and should have a broad understanding of the agency's data, be able to research data usage, be empowered to obtain agreement from Data Owner(s) and have the requisite authority to address data issues for the agency.

Data Storage Media
A device used to store data. Examples of data storage media include floppy disks, fixed disks, CD-ROMs, and USB flash drives.

Database
A collection of logically related data (and a description of this data), designed to meet the information needs of an organization.

Decision Criteria
A documented set of factors that are used to examine and compare the costs, risks, and benefits of various IT projects and systems. These decision criteria consist of (1) screening criteria, which are used to identify whether new projects meet initial acceptance requirements and ensure that the project is reviewed at the most appropriate organizational level, and (2) criteria for assessing and ranking all projects. These ranking criteria weigh and compare the relative costs, risks, and benefits of each project against all other projects. (GAO)

Decision Tree Analysis
A diagram that describes a decision under consideration and shows the implications of choosing one or another of the available alternatives. This analysis incorporates probabilities and the costs of each logical path of events. (SOM)

Decomposing (Decomposition)
The process of breaking down activities and the work package to a manageable level.

Deflection
The act of transferring all or part of a risk to another party, usually by some form of contract.

Deliverable
Any unique and verifiable product, result or capability to perform a service that must be produced to complete a process, phase, or project. Often used more narrowly in reference to an external deliverable, which is a deliverable that is subject to approval by the project sponsor or customer. (PMBOK 3RD EDITION)

Delphi Technique
An information gathering technique used as a way to reach a consensus of experts on a subject. Experts on the subject participate in this technique anonymously. A facilitator uses a questionnaire to solicit ideas about the important project points related to the subject. The responses are summarized and are then re-circulated to the experts for further comment. Consensus may be reached in a few rounds of this process. The Delphi technique helps reduce bias in the data and keeps any one person from having undue influence on the outcome. (PMBOK 3RD EDITION)

Design Documents
Technical documents that lay out in detail the anticipated design of the project deliverable.

Desktop Productivity Tools Software
Software typically used by business professionals such as word processing, spreadsheets, presentation slides, web browsers, and plug ins. Also includes lesser used software such as personal database software, flowcharting, project management.

Detailed Project Planning
Activities required to complete a detailed project plan for project execution and control as specified in the Commonwealth Project Management Standard and Guideline.

Development
The actual work performed to accomplish, effect, or bring about the Information Technology Project.

Development Environment
A Non-production environment used to aid the development of software and interfaces. No real or unmasked production data should ever be stored here. Changes made by developers are deployed here so integration and features can be tested. This environment is rapidly updated and contains the most recent version of the application.

DevOps
DevOps is the practice of operations and development engineers participating together in the entire service lifecycle, from design through the development process to production support. DevOps teams use practices to automate processes that historically have been manual and required involvement from multiple groups. DevOps tools are technologies stack which help teams operate and evolve applications faster and independently through automation.

Digital Certificate
An electronic document attached to a file that certifies the file is from the organization it claims to be from and has not been modified from the original format.

Digital Linear Tape (DLT)
A form of magnetic tape and drive system used for computer data storage and archiving. A special compression algorithm, known as Digital Lempel Ziv 1 (DLZ1), facilitates storage and retrieval of data at high speeds and in large quantities. In the DLT drive, data is written on the tape in dozens of straight-line (linear) tracks, usually 128 or 208. Some cartridges can hold 70 gigabytes (GB) of data when compression is used. A variant of DLT technology, called SuperDLT, makes it possible to store upwards of 100 GB on a single cartridge. The SuperDLT drive can transfer data at speeds of up to 10 megabytes per second (Mbps). (searchStorage.com)

Direct Access Storage Device (DASD)
In mainframe computers and some minicomputers, a direct access storage device, or DASD is any secondary storage device which has relatively low access time for all its capacity. (Wikipedia)

Direct Inward Dialing (DID)
A service of a local phone company (or local exchange carrier) that provides a block of telephone numbers for calling into a company's private branch exchange (PBX) system. Using DID, a company can offer its customers individual phone numbers for each person or workstation within the company without requiring a physical line into the PBX for each possible connection. For example, a company might rent 100 phone numbers from the phone company that could be called over eight physical telephone lines (these are called "trunk lines"). This would allow up to eight ongoing calls at a time; additional inbound calls would get a busy signal until one of the calls completed or be able to leave a voice mail message. The PBX automatically switches a call for a given phone number to the appropriate workstation in the company. A PBX switchboard operator is not involved. A DID system can be used for fax and voice mail as well as for live voice connections. Compared to regular PBX services DID saves the cost of a switchboard operator, calls go through faster, and callers feel they are calling a person rather than a company.

Direct Sequence Spread Spectrum (DSSS)
A method of providing wireless connectivity as specified in IEEE 802.11b.

Disaster Recovery Plan (DRP)
A set of documented procedures that identify the steps to restore essential business functions on a schedule that supports agency mission requirements.

Discount Factor
The factor that translates expected benefits or costs in any given future year into present value terms. The discount factor is equal to 1/ (1 + i) t where i is the interest rate and t is the number of years from the date of initiation for the program or policy until the given future year. (CCA)

Discount Rate
The interest rate used in calculating the present value of expected yearly benefits and costs. (CCA)

Discrete Activity
A task that has a deliverable, is measurable, and has a definite start and finish. An item on the Work Breakdown Structure would be an example of a discrete activity.

Distributed Component Object Model (DCOM+)
A set of Microsoft protocols that enable software components to communicate directly over a network.

Distributed Computing Environment (DCE)
Includes Remote Procedure Call (RPC), the Cell and Global Directory Services (CDS and GDS), the Security Service, DCE Threads, Distributed Time Service (DTS), and Distributed File Service (DFS). [From Open Computing Group]

Document Standard

Context: Health IT Standard) A document that defines the structure of clinical documents. A standard can be defined by an international or national standard-developing organization (SDO), such as Health Level 7 (HL7), or by a particular agency, such as Centers for Disease Control and Prevention (CDC).

Document Type Definition (DTD)
An XML protocol for communicating tagging standards that will be used in an XML communication. The definition of a document type in SGML or XML, consisting of a set of mark-up tags and their interpretation.

Domain name system (DNS)
A general-purpose, distributed, replicated, data query service chiefly used for Internet communications for translating hostnames into IP addresses.

Domain, Enterprise Technical Architecture
The Enterprise Technical Architecture (ETA) is typically divided into logical groups of related technologies and components, referred to as "domains". The purpose of a Domain Architecture is to provide a combination of domain principles, best practices, reusable methods, products, and configurations that represent "reusable building blocks". Thus, the Domain Architecture provides the technical components within the Enterprise Architecture that enable the business strategies and functions. Note, the Conceptual Architecture serves as the foundation for the Domain Architectures, and ensures that they are aligned and compatible with one another. [COTS EA Workgroup, "Commonwealth of Virginia Enterprise Architecture – Common Requirements Vision", v1.1, December 5, 2000, p 26]

Downloadable Documents
Stand-alone documents that open an embedded process (e.g. Adobe PDF, a Microsoft PowerPoint presentation, a Microsoft Word document or equivalent). These documents will require a plug-in link be provided on the Web policy page and the page from which the document is accessed. (See also the WATG for information on making downloadable documents accessible.)

DS3
A signal with a transmission rate of 44.736 Mbps (672 voice channels) provided over T3.

Dummy Activity
A schedule activity of zero duration used to show a logical relationship in the arrow diagramming method. Dummy activities are used when logical relationships cannot be completely or correctly described with regular activity arrows. Dummy activities are generally shown graphically as a dashed line headed by an arrow. (PMBOK 3RD EDITION)

Duration
The total number of work periods (not including holidays or other non-working periods) required to complete a schedule activity or work breakdown structure components. Usually expressed as workdays or workweeks. Sometimes incorrectly equated with elapsed time. Contrast with effort. (PMBOK 3RD EDITION)

E

Early Finish Date (EF)
In the critical path method, the earliest possible point in time on which the uncompleted portions of a schedule activity (or the project) can finish, based on the schedule network logic, the data date, and any schedule constraints. Early finish dates can change as the project progresses and as changes are made to the project management plan. (PMBOK 3RD EDITION)

Early Start Date
In the critical path method, the earliest possible point in time on which the uncompleted portions of a schedule activity (or the project) can start, based on the schedule network logic, the data date and any schedule constraints. Early start dates can change as the project progresses and changes are made to the project management plan. (PMBOK 3RD EDITION)

Earned Value (EV)
The value of completed work expressed in terms of the approved budget assigned to that work for a schedule activity or work breakdown structure component. Also referred to as the budgeted cost of work performed (BCWP). (PMBOK)

ebXML
A set of specifications that together enable a modular electronic business framework. The vision of ebXML is to enable a global electronic marketplace where enterprises of any size and in any geographical location can meet and conduct business with each other through the exchange of XML based messages. ebXML is a joint initiative of the United Nations (UN/CEFACT) and OASIS, developed with global participation for global usage

Effort
The number of labor units required to complete a schedule activity or work breakdown structure component. Usually expressed as staff hours, staff days, or staff weeks. Should not be confused with duration.

Electronic Data Interchange (EDI)
Works by providing a collection of standard message formats and element dictionary that can be used by businesses to exchange electronically. EDI is used for electronic commerce. EDI interchanges use some variation of the ANSI X12 standard (USA) or EDIFACT (UN sponsored global standard).

Electronic Government Virginia (eVA)
The name for the procurement system used in Virginia government.

Electronic Industries Alliance (EIA)
A non-profit organization that functions as an association of other organizations, one of which is TIA, EIA's communications arm. The EIA is certified by ANSI to develop standards. The EIA is well known for having produced certain electrical wiring and data transmission standards. Standards are just one part of the organization's mission, however. The EIA often jointly recommends standards with the Telecommunications Industry Association (TIA). An example standard put forth by both groups is EIA/TIA-232 (also known as EIA-232 and RS-232). This standard establishes how two devices communicate—for example, via the 9 and 25 pin connectors still commonly used on PCs along with USB connectors.

Electronic Information
Any information stored in a format that enables it to be read, processed, manipulated, or transmitted by an information system.

Eligible Employees
Classified, appointed and hourly employees of the Commonwealth as well as Commonwealth vendors, contractors and consultants.

Emerging
Rating category used in this document to rate integration technologies. This technology requires additional evaluation in government and university settings. This technology may be used for evaluative or pilot testing deployments or in a higher education research environment. Any use, deployment or procurement of this technology beyond higher education research environments requires an approved Commonwealth Enterprise Technical Architecture Exception. The results of an evaluation or pilot test deployment should be submitted to the VITA Strategic Management Services: Policy, Practice and Architecture Division for consideration in the next review.

Employee to government (E2G)
Refers to a business process involving electronic interaction of citizens with government.

Encryption
The process or the means of converting original data to an unintelligible form so it cannot be read by unauthorized users.

End User
The final or ultimate user of a computer system. The end user is the individual who uses the product after it has been fully developed and marketed. The term is useful because it distinguishes two classes of users, users who require a bug-free and finished product (end users) and users who may use the same product for development purposes. Copyright 2010 Internet.com. All rights reserved. Reprinted with permission from http://www.internet.com.

Enhanced Specialized Mobile Radio (ESMR)
A wireless communication system in which numerous mobile/portable transceivers are linked in a network of repeaters. Each repeater has a range of approximately 5 to 10 miles. Operating frequencies are in the UHF (ultra-high-frequency) range, that is, between approximately 300 MHz and 3 GHz. Usually, the working band is near 900 MHz. ESMR can function like its fundamentally simpler cousin, SMR, but it can also offer features similar to those of a cellular telephone network. The PTT (push-to-talk), half-duplex mode can be used; in this case the operation resembles communications between old style two-way radios. Full-duplex mode can also be used, so either party can listen and talk at the same time. Interconnection with the telephone networks is commonly done. In addition to voice communication, an ESMR system can offer paging, wireless fax, and data transmission. ESMR systems use digital radio transmission. Spread-spectrum modes, such as frequency hopping, are common. In a well-designed ESMR system, connection is almost instantaneous, compared with the typical 15 to 20 seconds required to dial and set up a call in a public cellular network. The coverage of an ESMR system depends on the geographical distribution and needs of the users. Some systems are confined to single municipalities; others cover selected groups of metro areas; others operate over entire states or regions of a country. Examples of ESMR networks include Ericsson's EDACS (Enhanced Digital Access

Communications System), Motorola's IDEN (Integrated Dispatch Enhanced Network), and the Sprint Nextel System. (Adapted from Whatis.com).

Enterprise
An organization with common or unifying business interests. An enterprise may be defined at the Commonwealth level, the Secretariat level, or agency level for programs and projects requiring either vertical or horizontal integration within the Commonwealth, a Secretariat, or agency, or between multiple Secretariats, agencies and/or localities.

Enterprise Application Integration (EAI)
The use of technology to integrate the application programs, databases, and legacy systems involved in an organization's critical business processes.

Enterprise Architecture Division
A *division* within VITA; the publisher of all VITA external and internal policies, standards, and guidelines. *The division* develops architectural standards and the accompanying policies and procedures for the enterprise, and advises the CIO on architectural standards and exceptions. It also tracks emerging trends and best practices across the spectrum of technologies, including hardware, operating systems, networking and communications, security, and software applications.

Enterprise Architecture (EA)
A method or framework for developing, implementing, and revising business-focused Information Technology (IT) guidance. The resulting guidance describes how the enterprise can best use technology and proven practices to improve the way it does business. In the Commonwealth, EA is built on the business needs of state and local government agencies. EA is described in a series of documents that showcase the development and revision process, the involved parties, and the resulting guidance. The Commonwealth EA relies on a governance model (roles and responsibilities), business and technical inputs, and knowledge of how agencies presently do business to develop explicit policies, standards, and guidelines for information technology use.

Enterprise Architect (EA) Identifier
An unique identifier that maps all External Data Standards (EDS) to the Commonwealth Enterprise Architecture (EA) requirements (R) and recommended practices (RP). EA Identifier EDS-R-01 is the first EA requirement for External Data Standards.

Enterprise Program Management (EPM)
An Information Technology Investment Management-based methodology to manage programs and projects of enterprise significance. EPM focuses on the management of multiple related programs and projects that individually support the same mission or ongoing activity.

Enterprise Technical Architecture (ETA)
Enterprise Architecture has business and technical components. All of the technical components taken together are called the Enterprise Technical Architecture. In Virginia, the technical architecture is divided into eight domains, one of which is the platform domain.

Enterprise Technology Program
A group of related IT projects, aggregated for management purposes that support a defined enterprise.

Enterprise-wide technical architecture (EWTA)
Enterprise-wide technical architecture.

Entity:
A person, place, thing, event or concept identified by a user or an agency as having an independent existence and capable of being uniquely identified (e.g. Customer, Vendor, and Address).

Entity Relationship Diagram (ERD)
An abstract representation of structured data, which produces a conceptual data model of a system and its requirements. The actual model is frequently called an "Entity Relationship Model" because it depicts the entities and relationships existing in the data. An ERD (the diagram of the model) may also be referred to as an Entity Relationship Model (ERM) or a Logical Data Model (LDM).

Equivalent
Content is "equivalent" to other content when both fulfill essentially the same function or purpose upon presentation to the user. In the context of this document, the equivalent must fulfill essentially the same function for the person with a disability (in as feasible a manner as possible given the nature of the disability and the state of technology) as the primary content does for the person without any disability. For example, the text "The Full Moon" might convey the same information as an image of a full moon when presented to users. Note that equivalent information focuses on fulfilling the same function. If the image is part of a link and understanding the image is crucial to choosing the link target, an equivalent must also give users an idea of the link target.

ERwin
A database design and optimization tool from Computer Associates.

ESCON (Enterprise Systems Connection)
A marketing name for a set of IBM and vendor products that interconnect S/390 computers with each other and with attached storage, locally attached workstations, and other devices using optical fiber technology and dynamically modifiable switches called ESCON Directors. In IBM mainframes, the local interconnection of hardware units is known as channel connection (and sometimes as local connection to distinguish it from remote or telecommunication connection). ESCON's fiber optic cabling can extend this local-to-the-mainframe network up to 60 kilometers (37.3 miles) with chained Directors. The data rate on the link itself is up to 200 Mbps (million bits per second) and somewhat less when adapted to the channel interface. Vendor enhancements may provide additional distance and higher amounts of throughput. ESCON may be used for a SAN. (search390.com)

Essential Business Function
A business function is essential if disruption or degradation of the function prevents the agency from performing its mission as described in the agency mission statement.

Estimate
A quantitative assessment of the likely amount or outcome. Usually applied to project costs, resources, effort, and duration and is usually preceded by a modifier (i.e.,) preliminary, conceptual, feasibility, order of-magnitude, definitive). It should always include some indication of accuracy (e.g. + percent). (PMBOK 3RD EDITION)

Estimate at Completion (EAC)
The expected total cost of a schedule activity, a work breakdown structure component, or the project when the defined scope of work will be completed. EAC is equal to the actual cost (AC) plus the estimate to complete (ETC) for all of the remaining work. EAC=AC plus ETC. The EAC may be calculated based on performance to date or estimated by the project team based on other factors, in which case it is often referred to as the latest revised estimate. (PMBOK 3RD EDITION)

Estimate to Complete (ETC)
The expected cost needed to complete all the remaining work for a schedule activity, work breakdown structure component, or the project. (PMBOK 3RD EDITION)

Ethernet
A local-area network (LAN) protocol that is specified in IEEE 802.3 and that uses CSMA-CD to provide 10 Mbps service over copper. Switched Ethernet provides faster service (e.g., 100 Mbps Ethernet, 10GigE). Gigabit (GB) and 10 GB Ethernet service are now possible. GB Ethernet is used mainly for backbone services and wide area networking.

Ethics
In the conduct of their operations, state organizations and their employees will employ information technology in a legal and ethical manner consistent with government statutes, rules, and regulations. Information technology will not be used for purposes that are unrelated to the state organization’s mission or violates state or federal law. Contract provisions, including software licensing agreements, will be strictly enforced.

Evaluation
Procedures used in the analysis of security mechanisms to determine their effectiveness and to support or refute specific system weaknesses.

Everything over IP (EoIP)
Everything over IP

Exception Report
Document that includes only major variations from the plan. (PMBOK 3RD EDITION)

Expected Monetary Value Analysis
A statistical technique that calculates the average outcome when the future includes scenarios that may or may not happen. A common use of this technique is within decision tree analysis. Modeling and simulation are recommended for cost and schedule risk analysis because it is more powerful and less subject to misapplication than expected monetary value analysis. (PMBOK 3RD EDITION)

Explicitly Parallel Instruction Computing (EPIC)
Intel’s Itanium 2 processor uses this instruction set rather than CISC.

Extended Binary Coded Decimal Interchange Code (EBCDIC)
IBM's 8-bit extension of the 4-bit Binary Coded Decimal encoding of digits 0-9 (0000-1001).

Extended SMTP (ESMTP)
Initially defined in RFC 1869 and extended thereafter

Extensible

Quality of a system that allows new features and functions to be added to it.

Extensible Markup Language (XML)
Extensible Markup Language

Extensible Markup Language (XML) Schema
XML Schemas express shared vocabularies and allow machines to carry out rules made by people. They provide a means for defining the structure, content and semantics of XML documents.

Extensible Stylesheet Language (XSL)
Extensible Stylesheet Language

External Information System
An information system designed and intended for use by external agency customers and/or by the public. COV employees, contractors, and business partners may also use such systems. See also Information System and Internal Information System.

External Standard
Context: Commonwealth Data Management Program). *A standard defined and maintained by a Standards Development Organization to improve the ability to share electronic data and ensure semantic interoperability. Generally may apply to services, documents, vocabularies (i.e., reference terminologies) and/or messages. Includes extending (e.g., adding data elements or codes to) an existing external standard to accommodate requirements specific to the Commonwealth.*

Extranet
A web site or web site area created for use by a select group. The group is usually the company's employees, clients, and/or select members of the public. An extranet allows for secure exchange of information within the select group - generally about a particular topic. It can also contain forms and applications relevant to the group's needs. For purposes of determining if a website, website area, or application must comply with the Web Site Standard, an "extranet" refers to any online area where access is restricted to a select group of users (by IP address, authentication, VPN, or other technical means). Note that all online material (even extranets and intranets) must comply with the Accessibility Standard.

F

Fabric
A term used to reference a switching system such as a SAN system, and ATM system or a Frame Relay system. The term, fabric, is used to indicate the complex interplay of hardware and software in the switching process that may involve numerous paths.

Facilitating Processes
Interactions among processes that are more dependent on the nature of the project

Fast Tracking
A specific project schedule compression technique that changes network logic to overlap phases that would normally be done in sequence, such as the design phase and construction phase, or to perform schedule activities in parallel. (PMBOK 3RD EDITION)

Feasibility Study
A formal document that analyzes and discusses a possible solution to a technical or business issue and determines if the solution is practical, reasonable and doable.

Federated Data
An architecture which defines the architecture and interconnects databases that minimize central authority yet support partial sharing and coordination among database systems. McLeod and Heimbigner (1985). "A Federated architecture for information management". ACM Transactions on Information Systems, Volume 3, Issue 3. pp. 253-278.

Fiber Channel Arbitrated Loop (FC-AL)
A fast serial bus interface standard intended to replace SCSI on high-end servers. FC-AL has a number of advantages over SCSI. It offers higher speed: the base speed is 100 megabytes per second, with 200, 400, and 800 planned. Many devices are dual ported, i.e., can be accessed through two independent ports, which doubles speed and increases fault tolerance. Cables can be as long as 30 m (coaxial) or 10 km (optical). FC-AL enables self-configuring and hot swapping and the maximum number of devices on a single port is 126. Finally, it provides software compatibility with SCSI. Despite all these features FC-AL is unlikely to appear on desktops anytime soon, partly because its price, partly because typical desktop computers would not take advantage of many of the advanced features. On these systems FireWire has more potential. (FOLDOC)

Fiber Connectivity (FICON)
A high-speed input/output (I/O) interface for mainframe computer connections to storage devices. As part of IBM's S/390 server, FICON channels increase I/O capacity through the combination of a new architecture and faster physical link rates to make them up to eight times as efficient as ESCON (Enterprise System Connection), IBM's previous fiber optic channel standard. FICON channel features include:

- A mapping layer based on the ANSI standard Fibre Channel-Physical and Signaling Interface (FC-PH), which specifies the signal, cabling, and transmission speeds
- 100 Mbps bi-directional link rates at distances of up to twenty kilometers, compared to the 3Mbps rate of ESCON channels at distances of up to three kilometers.
- More flexibility in terms of network layout, because of the greater distances
- Compatibility with any installed channel types on any S/390 G5 server

- Bridge feature, which enables support of existing ESCON control units
- Requires only one channel address
- Support for full-duplex data transfer, which enables simultaneous reading and writing of data over a single link-multiplexing, which enables small data transfers to be transmitted with larger ones, rather than having to wait until the larger transaction is finished (searchStorage.com)

Fibre Channel Internet Protocol (FC-IP)
A Fibre Channel Block wrapped in an IP packet.

File Service
The process of storing and retrieving files (as opposed to blocks of data).

File Transfer Protocol (FTP)
A client-server protocol that allows a user on one computer to transfer files to and from another computer over a TCP/IP network. Also, used to reference the client program that the user executes to transfer files. It is defined in STD 9, RFC 959. (FOLDOC)

Financial Audit
A thorough examination of a project by an evaluation team that includes a detailed overview of the project's financial procedures, budgets, records, etc. It may deal with a project as a whole or the separate individual parts of a project

Financial Closure
The process of completing and terminating the financial and budgetary aspects of the project being performed. It includes both (external) contract closure and (internal) project account closure.

Firewall
Traffic-controlling gateway that controls access, traffic, and services between two networks or network segments, one trusted and the other untrusted.

FireWire
A high performance serial bus (or IEEE 1394). FireWire is a 1995 Macintosh/IBM PC serial bus interface standard offering high-speed communications and isochronous real-time data services. 1394 can transfer data between a computer and its peripherals at 100, 200, or 400 Mbps, with a planned increase to 2 Gbps. Cable length is limited to 4.5 m but up to 16 cables can be daisy-chained yielding a total length of 72 m. It can daisy chain together up to 63 peripherals in a tree-like structure (as opposed to SCSI's linear structure). It allows peer-to-peer device communication, such as communication between a scanner and a printer, to take place without using system memory or the CPU. It is designed to support plug-and-play and hot swapping. Its six-wire cable is not only more convenient than SCSI cables but can also supply up to 60 watts of power, allowing low-consumption devices to operate without a separate power cord. Some expensive camcorders have included this bus since autumn 1995. It is expected to be used to carry SCSI, with possible application to home automation using repeaters. (FOLDOC)

Fixed Price or Lump Sum Contracts
This category of contract involves a fixed total price for a well-defined product. Fixed price contracts may also include incentives for meeting or exceeding selected project objectives such as schedule targets.

Flash Memory
A non-volatile memory device that retains its data after the power is removed. (www.crucial.com)

Float
The amount of time that a schedule activity can be delayed without delaying the early start of any immediately following schedule activities. Also called slack, total float, and path float. (PMBOK 3RD EDITION)

Forward Pass
The calculation of the early start and early finish dates for the uncompleted portions of all network activities. (PMBOK 3RD EDITION)

Four-Year Investment Cost
The planned project and ongoing support costs for the current and following budget biennium in which the project is authorized.

Frame Relay
A data communications interface that provides high speed transmission with minimum delay and efficient use of bandwidth. It does not have error detection or error control and it assumes that connections are reliable.

Frames
In creating a Web site, frames is the use of multiple, independently controllable sections on a Web presentation. This effect is achieved by building each section as a separate HTML file and having one "master" HTML file identify all of the sections. When a user requests a Web page that uses frames, the address requested is actually that of the "master" file that defines the frames. The result of the request is that multiple HTML files are returned, one for each visual section. Links in one frame can request another file that will appear in another (or the same) frame. A typical use of frames is to have one frame containing a selection menu and another frame that contains the space where the selected (linked to) files will appear.

FRASI
Frame Relay to Asynchronous Transfer Mode (ATM) service internetworking

Free Float (FF)
The amount of time a schedule activity can be delayed without delaying the early start of any immediately following schedule activities. (PMBOK 3RD EDITION)

Freedom of Information Act (FOIA)
A chapter of the Code of Virginia. 2.2-3700, which addresses a citizen’s right to access state government information.

Frequency Hopping Spread Spectrum (FHSS)
A method of providing wireless connectivity as specified in IEEE 802.11.

Full tunneling
All network traffic goes through the tunnel to the organization.

Function
A purpose, process, or role.

Function Point
Unit of measure to quantify the overall size and complexity of a computer application.

Functional Manager
Someone with management authority over an organizational unit within a functional organization. The manager of any group that actually makes a product or performs a service. (PMBOK 3RD EDITION)

Functional Organization
A hierarchical organization where each employee has one clear superior, staff are grouped by areas of specialization, and managed by a person with expertise in that area. (PMBOK 3RD EDITION)

Functional Requirements
What the systems/products are, do, or provide from the customer’s point of view.

Fuzz Testing
This is a software testing technique that provides random data ("fuzz") to the inputs of a program. If the program fails (for example, by crashing, or by failing built-in code assertions), the defects can be noted.

G

GAGAS Yellow Book

The **Generally Accepted Government Auditing Standards** (**GAGAS**), commonly referred to as the "**Yellow Book**", are produced by the Government Accountability Office (**GAO**). The standards apply to both financial and performance audits of government agencies

Gantt Chart
See bar chart. (PMBOK 3RD EDITION)

General Packet Radio Services (GPRS)
A packet-based wireless communication service that promises data rates from 56 up to 114 Kbps and continuous connection to the Internet for mobile phone and computer users. The data rates will allow users to take part in video conferences and interact with multimedia Web sites and similar applications using mobile handheld devices as well as notebook computers. GPRS is based on Global System for Mobile (GSM) communication and will complement existing services such circuit-switched cellular phone connections and the Short Message Service (SMS). In theory, GPRS packet-based service should cost users less than circuit-switched services since communication channels are being used on a shared-use, as-packets-are-needed basis rather than dedicated only to one user at a time. It should also be easier to make applications available to mobile users because the faster data rate means that middleware currently needed to adapt applications to the slower speed of wireless systems will no longer be needed. As GPRS becomes available, mobile users of a virtual private network (VPN) will be able to access the private network continuously rather than through a dial-up connection. GPRS will also complement Bluetooth, a standard for replacing wired connections between devices with wireless radio connections. In addition to the Internet Protocol (IP), GPRS supports X.25, a packet-based protocol that is used mainly in Europe. GPRS is an evolutionary step toward Enhanced Data GSM Environment (EDGE) and Universal Mobile Telephone Service (UMTS). (Modified from Whatis.com)

Geographic Information System (GIS)
Captures, stores, analyzes, manages, and presents data that is linked to location. Technically, a GIS is a system which includes mapping software and its application to remote sensing, land surveying, aerial photography, mathematics, photogrammetry, geography, and tools that can be implemented with GIS software. Still, many refer to "geographic information system" as GIS even though it doesn't cover all tools connected to topology. (Wikipedia)

Gigabyte (GB), Gigabit (Gb)
GB - Gigabyte (1 billion bytes), Gb - Gigabit (1 billion bits)

Global Directory Services (GDS)
Such as DNS and GDS (X.500), grew out of the computer industry's need to reference objects in distributed networks across an entire enterprise and worldwide.

Goods
Material, equipment, supplies, printing, and automated data processing hardware and software (Code of Virginia, § 2.2-4301).

Governance

The development and management of consistent, cohesive policies, processes, and decision-rights for a given area of responsibility.

Government Database
For the purposes of this document, the term government database includes both databases that contain COV data and data communications that transport COV data. This definition applies irrespective of whether the COV information is in a physical database structure maintained by COV or a third-party provider. However, this definition does not include databases within Agencies that have been determined by the Agencies themselves to be non-governmental. See also Database and Data Communications.

Government to Customer (G2C)
Refers to a business process involving electronic interaction of government with citizens.

Grade
A category or rank used to distinguish items that have the same functional use (e.g., "hammer") but do not share the same requirements for quality (e.g., different hammers may need to withstand different amounts of force.) (PMBOK 3RD EDITION)

Grant
Funds given to Commonwealth agencies by foundations, businesses, governments, or individuals.

Grant Notification
An entry in an agency IT Strategic Plan indicating that the agency has applied for a grant.

Graphical Evaluation and Review Technique (GERT)
A network analysis technique that allows for conditional and probabilistic treatment of logical relationships (i.e., some activities may not be performed.)

Group
A named collection of information system users; created for convenience when stating authorization policy.

Group-based Access
Authorization to use an information system and/or data based on membership in a group.

Groupe Spéciale Mobile (GSM)
1) The European standards group for wireless connectivity
2) Digital cellular telephone standard developed by the European Telecommunications Standards Institute's (ETSI) Groupe Spécial Mobile. Also used in some Middle Eastern countries and parts of Australia. The frequencies allocated to the service are divided into 200-kHz blocks, each of which supports eight simultaneous users (by using a form of TDMA that lets a handset transmit a few bytes of data or digitized voice, 217 times per second).

Guest Account
A default set of permissions and privileges given to non-registered users of a system or service.

Guest Network

A section of an organization's computer network designed for use by temporary visitors. This segmented section of an organization's network often provides full Internet connectivity, but it also strictly limits access to any internal (Intranet) Web sites or files.

Guidance Standard
Context: Commonwealth Data Management Program). *A standard that provides guidance, context, methodology or background information that can be reviewed prior to creating an implementation specification.*

Guidelines
Are directives and specifications, similar to standards, but advisory in nature. In essence, guidelines constitute recommendations which are not binding on agencies and institutions of higher education. (COV ITRM STANDARD GOV2000-01.1)

H

Hammock
An aggregate or summary activity (a group of related activities is shown as one and reported at a summary level). A hammock may or may not have an internal sequence.

Hanger
An unintended break in a network path. Missing activities or missing logical relationships usually causes hangers.

Harden
The process of implementing software, hardware, or physical security controls to mitigate risk associated with COV infrastructure and/or sensitive information systems and data.

Heading Elements
The six heading elements, H1 through H6, denote section headings. Although the order and occurrence of headings is not constrained by the HTML DTD, documents should not skip levels (for example, from H1 to H3), as converting such documents to other representations is often problematic. Example of use:
<H1>This is a heading</H1>
Here is some text
<H2>Second level heading</H2>
Here is some more text.
Typical renderings are:
1) Bold, very-large font, centered. One or two blank lines above and below.
2) Bold, large font, flush-left. One or two blank lines above and below.
3) Italic, large font, slightly indented from the left margin. One or two blank lines above and below.
4) Bold, normal font, indented more than H3. One blank line above and below.
5) Italic, normal font, indented as H4. One blank line above.
6) Bold, indented same as normal text, more than H5. One blank line above.
(For further information see the XHTML Quick Reference Guide:
http://www.mit.edu/~ddcc/xhtmlref/heading.html)

Health Insurance Portability and Accountability Act (HIPAA)
Enacted in 1996 to help protect health insurance coverage for workers and their families when employees change or lose their jobs. Provisions of HIPAA also address the security and privacy of health data.

High Availability
A requirement that the information system is continuously available, has a low threshold for down time, or both.

High Speed Downlink Packet Access (HSDPA)
A UMTS packet-based broadband data service feature of the WCDMA standard. HSDPA provides an improved downlink for the UMTS data service. It improves speed and system capacity by making better use of the bandwidth. Data transmission speeds are up to 8-10 Mbps over a 5 MHz bandwidth or more than 20 Mbps for systems that use multiple transmitters and receivers (Multiple Input Multiple Output or MIMO systems (802.11n)). The high speeds of HSDPA are achieved through techniques including 16 Quadrature Amplitude Modulation, variable error coding, and incremental redundancy. HSDPA use requires

technology upgrades to sending and receiving devices in UMTS networks. This broadband service is provided by Cingular in limited locations in 2006.

High-end Server
Defined as servers with a greater than 16-processor scale-up limit and typically costing more than $250,000.

Home Page
For a Web user, the home page is the first Web page that is displayed after starting a Web browser like Netscape's Navigator or Microsoft's Internet Explorer. The browser is usually preset so that the home page is the first page of the browser manufacturer. However, you can set the home page to open to any Web site. For example, you can specify that "http://www.yahoo.com" be your home page. You can also specify that there be no home page (a blank space will be displayed) in which case you choose the first page from your bookmark list or enter a Web address. For a Web site developer, a home page is the first page presented when a user selects a site or presence on the World Wide Web. The usual address for a Web site is the home page address, although you can enter the address (Uniform Resource Locator) of any page and have that page sent to you.

Host
The term "host" is used in several contexts, in each of which it has a slightly different meaning:
1) In Internet protocol specifications, the term "host" means any computer that has full two-way access to other computers on the Internet. A host has a specific "local or host number" that, together with the network number, forms its unique IP address. If you use Point-to-Point Protocol to get access to your access provider, you have a unique IP address for the duration of any connection you make to the Internet and your computer is a host for that period. In this context, a "host" is a node in a network.
2) For companies or individuals with a Web site, a host is a computer with a Web server that serves the pages for one or more Web sites. A host can also be the company that provides that service, which is known as hosting.
3) In IBM and perhaps other mainframe computer environments, a host is a mainframe computer (which is now usually referred to as a "large server"). In this context, the mainframe has intelligent or "dumb" terminals (or emulation) attached to it that use it as a host provider of services. (The server/client relationship is a programming model independent of this contextual usage of "host.")
4) In other contexts, the term generally means a device or program that provides services to some smaller or less capable device or program. (Whatis.com)

Hosted Environment
Is a data center not owned or leased by the Commonwealth of Virginia (COV).

HTTP MPOST and HTTP POST
A SOAP request can use HTTP's POST verb. In fact, however, the protocol requires that the first request to a server is made using M-POST. M-POST is a new HTTP verb defined using the HTTP Extension Framework (http://www.w3.org/Protocols/HTTP/ietf-http-ext). If a request made using M-POST fails, the client can try again using a standard POST request. (In this case, future requests can also use POST because the server obviously doesn't support M-POST.) M-POST allows sending HTTP headers that can't be sent via the standard POST verb, providing more flexibility for SOAP users. Firewalls can even force the use of M-POST if desired, by simply refusing all HTTP POSTs with a content type of "text/xml-SOAP".

Hub
A LAN wiring concentrator that connects cables from numerous network devices. An intelligent hub can monitor and report on network activity, typically using SNMP.

Hybrid cloud
The cloud infrastructure is a composition of two or more distinct cloud infrastructures (private, community, or public) that remain unique entities, but are bound together by standardized or proprietary technology that enables data and application portability (e.g., cloud bursting for load balancing between clouds). The COV hybrid cloud will consist of at least one private cloud, more than one public (utility) cloud, more than one community (gov/FedRAMP)) cloud, and integration between these cloud hosting services.

Hypertext
Text that contains links to other text

HyperText Markup Language (HTML)
A subset of SGML. A W3C standard for formatting Web pages.

HyperText Transfer Protocol (HTTP)
The protocol used on the World-Wide Web for the exchange of HTML documents. It conventionally uses port 80.

Hyper-threading
A term used by Intel to describe multithreading functionality in a chipset that may be turned on and off. Some argue that an enterprise should turn the capability off until they are able to determine whether it results in a performance boost or drop for the type of processing they need. The following definition is from Intel: Hyper-Threading Technology allows two threads (or parts of a software program) to execute simultaneously on a single Pentium 4 processor. A Hyper-Threading Technology-aware operating system such as Microsoft Windows* XP Professional "sees" two virtual processors, instead of a single physical Pentium 4 processor. By using resources that might otherwise sit idle, the Pentium 4 Processor with Hyper-Threading Technology delivers noticeable performance increases over current software in a multitasking environment, no code modifications needed.

Hypervisor
A controlling operating system or virtualization manager for multiple virtual servers. The hypervisor enables the division of resources for particular processor architecture. Each server partition may be running identical or different operating systems.

I

IAOC
Internal Agency Oversight Committee. The IAOC is appointed by the Secretary of Technology/CIO on a project by project basis, upon recommendation of the Agency, as prescribed in the Project Management Standard. The membership is specified in the Project Charter. Generally, all stakeholders identified in the charter are represented on the IAOC. The IAOC provides oversight and direction to the project for which it was chartered.

I/O
Input/Output

IANA
1) The central registry for various "assigned numbers": Internet Protocol parameters, such as port, protocol, and enterprise numbers; and options, codes, and types. The currently assigned values are listed in the "Assigned Numbers" document STD
2) To request a number assignment, e-mail <iana@isi.edu>.

IIA Red Book
The Standards, commonly referred to as the "**Red Book** are issued by the Institute of Internal Auditors and are used in conjunction with standards issued by other authoritative bodies, internal audit communications may also cite the use of other standards, as appropriate. In such a case, if inconsistencies exist between the Standards and other standards, internal auditors and the internal audit activity must conform with the Standards, and may conform with the other standards if they are more restrictive.

Identification
The process of associating a user with a unique user ID or login ID

Identified for Preliminary Planning (IPP)
A project portfolio status for projects that address an agency business need, but which require additional effort by the agency or further review before the expenditure of funds will be authorized.

Impact
The loss or effect on the project, program, or enterprise if the risk occurs. Impact is one of the three attributes of a risk. (SEI)

Impact Statement
A cause and effect report generated at the manager level to show the impact that new projects will have on current schedules and resources as they enter the work stream.

Implementation
Occurs when products that have completed testing are moved into production or into their working environment. Normally used as a term on Information Technology projects.

Improve the Business
A project portfolio category for projects that support business functionality, deliverables, or processes by enhancing existing assets. These projects can introduce new processes.

Incident Response Capability (IRC)

The follow-up to an incident including reporting, responding and recovery procedures.

Incident Response Team
An organization within an Agency constituted to monitor IT security threats and prepare for and respond to cyber attacks.

Independent Project Oversight
A process that employs a variety of quality control, inspection, test measurement, and other observation processes to ensure that project objectives are achieved in accordance with an approved plan. Project oversight is usually done by an independent entity (separate from the project team) trained or experienced in a variety of management and technical review methods. Project oversight includes both technical and management oversight.

Independent Verification and Validation (IV&V)
A review (or audit) that is performed by an organization that is technically, managerially, and financially independent of the development organization. A quality assurance process carried out by an independent third party.

Industrial, Scientific and Medical (IMS)
Radio spectrum bands that can be used by anyone without a license. Multiple bands are set aside for this use. Some commonly used bands are 902 to 928MHz, 2.4 to 2.4835GHz, and 5.725 to 5.850GHz.

Infrastructure as a Service (IaaS)
The capability provided to the consumer is to provision processing, storage, networks, and other fundamental computing resources where the consumer is able to deploy and run arbitrary software, which can include operating systems and applications. The consumer does not manage or control the underlying cloud infrastructure but has control over operating systems, storage, and deployed applications; and possibly limited control of select networking components (e.g., host firewalls).

InfiniBand (IB)
An emerging standard intended as an interconnect for processor and I/O systems and devices (see the InfiniBand Trade Association web site at http://www.InfiniBandta.org for details). IP is one type of traffic (and a very important one) that could use this interconnect. InfiniBand would benefit greatly from a standardized method of handling IP traffic on IB fabrics. It is also important to be able to manage InfiniBand devices in a common way. The InfiniBand working group (http://www.ietf.org/html.charters/ipoib-charter.html) has two tasks:
1) Specify the protocols and encapsulations to transport IPv4/v6 over an InfiniBand fabric.
2) Specify a set of management information base or MIB objects to allow management of the InfiniBand fabric itself.

Inflation
The proportionate rate of change in the general price level, as opposed to the proportionate increase in a specific price. Inflation is usually measured by a broad based price index, such as the implicit deflator for Gross Domestic Product or the Consumer Price Index. (CCA)

Information
Too often the words information and data are used interchangeably which leads to confusion. Data is unstructured, lacks context and may not be relevant to the recipient. When data is correctly organized, filtered and presented with context it can become

information because it then has "value" to the recipient. [Information is not data. Wikipedia, The Free Encyclopedia. Retrieved 21:33, January 25, 2006 from http://en.wikipedia.org.]

Information Security (IS) Policy
A statement of the information security objectives of an organization, and what employees, contractors, vendors, business partners, and third parties of the organization must do to achieve these objectives.

Information Security Agreement (ISA)
ISA is used to document the technical security requirements needed to protect the exchange sensitive data between two systems under the administrative control of two separate entities. The ISA documents and formalizes the interconnection arrangements between "Organization A" and "Organization B". The ISA is used to specify any details that may be required to provide overall security safeguards for the systems being interconnected. A system that is approved by an ISA for interconnection with one organization's system should meet the protection requirements equal to, or greater than, those implemented by the other organization's system.

Information Security Breach
The violation of an explicit or implied security policy that compromises the integrity, availability, or confidentiality of an information system or data.

Information Security Controls
The protection mechanisms prescribed to meet the security requirements specified for an IT system.

Information Security Incident
An adverse event or situation, whether intentional or accidental, that poses a threat to the integrity, availability, or confidentiality of an IT system.

Information Security Incident Response Team
An organization within an agency constituted to monitor information security threats and prepare for and respond to cyber attacks. See also Computer Emergency Response Team Coordination Center (CERT/CC) and United States Computer Emergency Response Team (US-CERT).

Information Security Logging
Chronological recording of system activities sufficient to enable the reconstruction, review, and examination of the sequence of events and activities surrounding or leading to an operation, a procedure, or an event in a transaction from its inception to its final results.

Information Security Officer (ISO)
The individual designated by the Agency Head to be responsible for the development, implementation, oversight, and maintenance of the agency's information security program.

Information Security Program
A collection of security processes, standards, rules, and procedures that represents the implementation of an organization's security policy.

Information Security Requirements
The types and levels of protection necessary to adequately secure a system or data.

Information Security Safeguards
See Information Security Controls

Information Security Standards
Detailed statements of how employees, contractors, vendors, business partners, and third parties of an organization must comply with its information security policy.

Information System
The organized collection, processing, transmission, and dissemination of information in accordance with defined procedures, whether automated or manual. Information systems include non-financial, financial, and mixed systems. (GAO)

Information Technology (IT)
The hardware and software operated by an organization to support the flow or processing of information in support of business activities, regardless of the technology involved, whether computers, telecommunications, or other. In the Commonwealth of Virginia, Information Technology means telecommunications, automated data processing, databases, the Internet, management information systems, and related information, equipment, goods, and services.

Information Technology (IT) Asset
Technology component of a business-driven process used to support the flow or processing of information (i.e. automated applications, information technology facilities, data, digital and paper records, IT infrastructure, IT human resources, etc.)

Information Technology (IT) Contingency Planning
The component of Continuity of Operations Planning that prepares for continuity and/or recovery of an organization's IT systems and data that support its essential business functions in the event of a business interruption or threat of interruption.

Information Technology (IT) Portfolio Management
A management process used to identify (pre-select), select, control, and evaluate investments within and across asset and project portfolios. The primary focus of IT portfolio management is to ensure alignment between business goals and IT investments.

Information Technology (IT) Security
The protection afforded to IT systems and data in order to preserve their availability, integrity, and confidentiality.

Information Technology (IT) Security Architecture
The logical and physical security infrastructure made up of products, functions, locations, resources, protocols, formats, operational sequences, administrative and technical security controls, etc., designed to provide the appropriate level of protection for IT systems and data.

Information Technology (IT) Security Audit
The examination and assessment of the adequacy of IT system controls and compliance with established information security policy and procedures.

Information Technology (IT) Security Auditor

CISO personnel, agency Internal Auditors, the Auditor of Public Accounts, or a private firm that, in the judgment of the agency, has the experience and expertise required to perform IT security audits.

Information Technology (IT) Security Breach
The violation of an explicit or implied security policy that compromises the integrity, availability, or confidentiality of an IT system.

Information Technology (IT) Security Controls
The protection mechanisms prescribed to meet the security requirements specified for an IT system.

Information Technology (IT) Security Incident
An adverse event or situation, whether intentional or accidental, that poses a threat to the integrity, availability, or confidentiality of an IT system.

Information Technology (IT) Security Requirements
The types and levels of protection necessary to adequately secure an IT system.

Information Technology (IT) Security Safeguards
See Information Technology (IT) Security Controls

Information Technology (IT) Strategic Plan
A document which aligns IT strategy and investments with organizational business priorities, goals, and objectives.

Information Technology (IT) Strategic Planning (ITSP)
An ITIM-based planning methodology that looks at IT resources and projects as capital investments and forms a foundation for the selection, control and evaluation of IT resources and projects as part of a business-driven technology portfolio.

Information Technology (IT) Support Services
IT support services is a range of services providing assistance with technology products such as mobile phones, computers, or other electronic or mechanical goods. In general, technical support services attempt to help the user solve specific problems with a product rather than providing training, customization, or other support services.

Information Technology (IT) System
An interconnected set of IT resources under the same direct management control. See also Application System and Support System.

Information Technology (IT) System Sensitivity
See Sensitivity

Information Technology (IT) System Users
As used in this document, a term that includes COV employees, contractors, vendors, third-party providers, and any other authorized users of IT systems, applications, telecommunication networks, data, and related resources.

Information Technology Infrastructure Library (ITIL)
A framework of best practice processes designed to facilitate the delivery of high quality information technology (IT) services. A publication developed by the Central Computer and

Telecommunications Agency (CCTA) of the Office of Government Commerce (OGC) of the United Kingdom which documents best practices and a comprehensive process model for IT service management.

Information Technology Investment Management (ITIM)
A management process that provides for the identification (pre-selection), selection, control, and evaluation of (business driven) IT investments across the investment lifecycle. ITIM uses structured processes to minimize risks and maximize return on investments. ITIM is the basis for the Commonwealth's approach to technology management in the Commonwealth Technology Management Policy.

Information Technology Resource Management (ITRM)
Identifier used to indicate official IT policies, standards, and guidelines permitted by the Virginia General Assembly for the control and management of IT resources in the Commonwealth.

Infrared
Electromagnetic waves in the frequency range just below visible light corresponding to radiated heat.

Infrared Data Association (IrDA)
An industry-sponsored organization set up in 1993 to create international standards for the hardware and software used in infrared communication links. An IrDA port is an infrared port. In this special form of radio transmission, a focused ray of light in the infrared frequency spectrum, measured in terahertz, or trillions of hertz (cycles per second), is modulated with information and sent from a transmitter to a receiver over a relatively short distance. Infrared radiation (IR) is the same technology used to control a TV set with a remote control. Infrared data communication is playing an important role in wireless data communication due to the popularity of notebook computers, personal digital assistants (PDAs), digital cameras, mobile telephones, pagers, and other devices. Infrared communication involves a transceiver (a combination transmitter and receiver) in both devices that communicate. IR can be also be used for somewhat longer interconnections and is a possibility for interconnections within local area networks. The maximum effective distance is somewhat less than 1.5 miles and the maximum projected bandwidth is 16 megabits per second. Since IR is line-of-sight light transmission, it is sensitive to fog and other atmospheric conditions. (searchMobileComputing.com)

Initial Risk Identification
The process during the initial concept phase of identifying risks that might impact a project. The risk identification process is recommended for agencies to evaluate a project.

Initiating Processes
Those processes performed to authorize and define the scope of a new phase or project or that can result in the continuation of halted project work. (PMBOK 3RD EDITION)

Institute of Electrical and Electronics Engineers, Inc (IEEE)
A standards group for communications. www.ieee.org

Intangible Benefits
Benefits that are difficult to measure and quantify. Intangible benefits include such things as customer retention, employee retention, and improved customer service.

Intangible Costs
Costs that are difficult to measure and quantify. Intangible costs include such things as lost performance and efficiency while the users are getting acquainted with the new system.

Integrated Services Digital Network (ISDN)
A set of communications standards allowing a single wire or optical fiber to carry voice, digital network services and video

Integrity
The protection of data or information system from intentional or accidental unauthorized modification.

Intel Centrino
A technology package from Intel that provides built-in wireless support for notebook computers while making it possible to run a notebook all day (up to seven hours) without a battery recharge. Through Centrino, Intel hopes to encourage corporations and users to replace their current notebooks with a newer, more mobile version. Analysts suggest that a more mobile notebook may in time replace the desktop computer as well. The Centrino package consists of:

- The Pentium M processor
- The 855 chipset Family
- The PRO/Wireless network connection

In addition to a 400 MHz system bus and a 1 MB L2 cache, the M processor has the ability to use only the voltage that applications demand. The 855 Chipset supports up to 2 GB of double data rate (DDR) memory and USB 2.0 for faster data transfer. The PR/Wireless connection supports Wi-Fi (802.11b) and power functions designed to maximize battery life.

Intel Itanium Chipset
Intel's first microprocessor that is based on the 64-bit architecture known as IA-64. Developed under the code name of Merced, Itanium and its underlying architecture are expected to provide a foundation for the next-generation of software for the server and high-end workstation markets. Intel plans to follow Itanium with additional IA-64 microprocessors, which have the code names of McKinley, Madison, and Deerfield. In addition to supporting a 64-bit processor bus and a set of 28 registers, the 64-bit design allows access to a very large memory (VLM). In addition, the architecture exploits features in Explicitly Parallel Instruction Computing (EPIC), a joint Intel and Hewlett-Packard development effort. These provide advances in the parallel processing handling of computer instructions known as predication and speculation. An additional Itanium feature includes a Level 3 (L3) cache memory, to supplement the current L1 and L2 cache memories found in most of today's microcomputers. Most applications in use today are based on a 32-bit microprocessor architecture, and are designed for up to 4 gigabytes of memory. However, with application access to ever-larger databases becoming more important, many of the leading software and hardware suppliers in the computer industry have already begun to develop systems and applications for the Itanium and its ability to handle 64-bit address space. One feature of Itanium is its use of a "smart compiler" to optimize how instructions are sent to the processor. This approach allows Itanium and future IA-64 microprocessors to process more instructions per clock cycle (IPCs). (IPCs can be used along with clock speed in terms of megahertz (MHz) to indicate a microprocessor's overall performance). (Whatis.com)

Intel Xeon

Processor family designed specifically for mid-tier servers performing key business functions such as collaboration, application serving, enterprise resource planning, and business intelligence. The Intel® Xeon™ processor MP features Hyper-Threading technology, Integrated Three-Level cache architecture and Intel® NetBurst™ micro architecture. The Intel® Xeon™ Processor is designed for dual-processor server and workstation platforms. It does not have the three-level cache.

Interconnection Security Agreement
An agreement established between the organizations that own and operate connected IT systems to document the technical and security requirements of the interconnection.

Interface Definition Language (IDL)
Defined by OMG is a language for describing the interfaces of software objects. Various Vendors have their own version of IDL (e.g., MIDL by Microsoft).

Interface Repository
Part of object-oriented integration. It contains the definitions of all the services that objects can provide. The definitions form the contract by which a client can invoke requests upon a server object.

Internal Standard
Context: Commonwealth Data Management Program). *A standard defined by one or more Commonwealth agencies where external standards do not exist and approved by the Secretary of Technology.*

Internal IT System
An IT system designed and intended for use only by COV employees, contractors, and business partners. See also IT System and External IT System.

Internal IT System User
A member of the agency workforce who uses an IT system in any capacity to perform the duties of their position.

Internal Network
An internal network is a private computer network used to securely share any part of an organization's information or operational systems with its employees.

International Standards Organization (ISO)
International Standards Organization

International Telecommunication Union (ITU)
An intergovernmental organization through which public and private organizations develop telecommunications.

Internet
An external worldwide public data network using Internet protocols to which COV can establish connections.

Internet Engineering Task Force (IETF)
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. IETF is generally recognized as the standards organization for the Internet.

Internet Engineering Taskforce (IETF)
A standards group that works on Internet architectural issues.

Internet Inter-ORB Protocol (IIOP)
A protocol that defines a way for Remote Procedure vendor to map messages to the TCP network communication protocol.

Internet Message Access Protocol (IMAP)
It permits a "client" email program to access remote message stores as if they were local.

Internet Protocol (IP)
A network addressing protocol. Two versions are defined: IPv4 and IPv6. A communications protocol, which routes packets of data from one address on the Internet to another. IPv4 routes each packet based on a 32-bit destination address called an IP address (e.g., 123.122.211.111).

Internet Small Computer System Interface (iSCSI)
A protocol for transmitting a SCSI block wrapped in an IP packet.

Internet-working
A term used by Cisco, BBN, and other providers of network products and services as a comprehensive term for all the concepts, technologies, and generic devices that allow people and their computers to communicate across different kinds of networks. (searchNetworking.com)

Intranet
A trusted multi-function (data, voice, video, image, facsimile, etc.) private digital network using Internet protocols, which can be developed, operated and maintained for the conduct of COV business.

Intrusion Detection
A method of monitoring traffic on the network to detect break-ins or break-in attempts, either manually or via software expert systems.

Intrusion Detection Systems (IDS)
Software that detects an attack on a network or computer system. A Network IDS (NIDS) is designed to support multiple hosts, whereas a Host IDS (HIDS) is set up to detect illegal actions within the host. Most IDS programs typically use signatures of known cracker attempts to signal an alert. Others look for deviations of the normal routine as indications of an attack.

Intrusion Prevention Systems (IPS)
Software that prevents an attack on a network or computer system. An IPS is a significant step beyond an IDS (intrusion detection system), because it stops the attack from damaging or retrieving data. Whereas an IDS passively monitors traffic by sniffing packets off of a switch port, an IPS resides inline like a firewall, intercepting and forwarding packets. It can thus block attacks in real time.

Investment Business Case

A justification for a potential IT project used to determine investment priority.

Invitation for Bids (IFB)
A document, containing or incorporating by reference the specifications or scope of work and all contractual terms and conditions, that is used to solicit written bids for a specific requirement for goods or nonprofessional services. This type of solicitation is also referred to as an Invitation to Bid. (DGS, APSPM)

IP address
An identifier for a computer or device on a TCP/IP network. Networks using the TCP/IP protocol to 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. Within an isolated network, you can assign IP addresses at random as long as each one is unique. However, connecting a private network to the Internet requires using registered IP addresses (called Internet addresses) to avoid duplicates.

IP Multimedia Subsystem (IMS)
A next-generation network for carriers from the 3GPP that uses the IP protocol as its foundation. IMS supports data, video, SIP-based voice over IP (VoIP) and non-SIP packetized voice, such as H.323 and MGCP. IMS was designed to integrate with the PSTN and provide traditional telephony services such as 800 numbers, caller ID and local number portability. (Adapted from PCMag.com).

IPv4
Four octet 32 bit IP address in the form 255.255.255.255

IPv6
Sixteen octet 128 bit IP address. For a discussion and comparison with IPv4 see NCS http://www.ncs.gov/n6/content/tibs/html/tib97_1/sec5_0.htm.

ISO/IEC
A series of IT security standards published by the International Organization for Standardization (ISO) and the International Electrotechnical Commission (IEC), providing best practice recommendations on IT security management for use by those who are responsible for initiating, implementing or maintaining information security management systems.

J

Java
Portable language from Sun designed to run on any machine with a Java Virtual Machine interpreter.

Java 2 Enterprise Edition (J2EE)
The distributed version of Sun's Java platform. with Enterprise JavaBeansTM (EJBTM), JavaServer PagesTM (JSPTM) and Java Servlet API component technologies.

Java Database Connectivity (JDBC)
A standard SQL database access interface. It comes with an ODBC bridge.

Java Directory Access Protocol (JDAP)
An implementation of the Lightweight Directory Access Protocol.

Java document object model (JDOM)
A way to represent an XML document for easy and efficient reading, manipulation, and writing.

Jaz Drive
Iomega Corporation's drive, which takes removable one or two gigabyte disk cartridges that contain conventional hard disks.

Just a Bunch of Disks (JBODS)
A storage subsystems using multiple independent disk drives, as opposed to one form of RAID or another.

K

Key
A sequence of data used in cryptography to encrypt or decrypt information.

Key Fob
A type of security token: a small hardware device with built-in authentication mechanisms. Just as the keys held on an ordinary real-world key chain or fob control access to the owner's home or car, the mechanisms in the key fob control access to network services and information. The key fob (and similar devices, such as smart cards) provide two-factor authentication: the user has a personal identification number (PIN), which authenticates them as the device's owner; after the user correctly enters their PIN, the device displays a number which allows them to log on to the network. Because a key fob is a physical object, it is easy for the owner to know if it has been stolen. In comparison, a password can be stolen (or guessed) and used for an extended period before -- if ever -- the theft is detected. (searchSecurity.com)

L

Lag
A modification of a logical relationship that directs a delay in the successor activity. For example, in a finish-to-start dependency with a 10-day lag, the successor activity cannot start until ten days after the predecessor activity has finished. (PMBOK 3RD EDITION)

LambdaRail
National LambdaRail is a high-speed national computer network infrastructure in the United States that runs over fiber-optic lines, and is the first transcontinental Ethernet network. The name is shared by the organization of research institutions that developed the network, and, to date, plans to continue developing it. LambdaRail is similar to the Abilene Network, but LambdaRail permits deeper experimentation than Abilene does. It is primarily oriented to aid terascale computing efforts and to be used as a network testbed for experimentation with next-generation large-scale networks. National LambdaRail is a university-based and -owned initiative, in contrast with Abilene and Internet2, which are university-corporate sponsorships. This gives universities more control to use the network for these research projects. National LambdaRail also supports a production layer on its infrastructure. Links in the network use dense wavelength-division multiplexing (DWDM), which allows up to 32 or 40 individual optical wavelengths to be used (depending on hardware configuration at each end). At present, individual wavelengths are used to carry a 10-gigabit Ethernet signal. Erv Blythe is the Chair of the LambdaRail Board of Directors. In 2004, LambdaRail completed its first main "phase".

Late Finish Date (LF)
In the critical path method, the latest possible point in time that a schedule activity may be completed based upon the schedule network logic, the project completion date, and any constraints assigned to the schedule activities without violating a schedule constraint or delaying the project completion date. The late finish dates are determined during the backward pass calculation of the project schedule network. (PMBOK 3RD EDITION)

Late Start Date (LS)
In the critical path method, the latest possible point in time that a schedule activity may begin based upon the schedule network logic, the project completion date, and any constraints assigned to the schedule activities without violating a schedule constraint or delaying the project completion date. The late start dates are determined during the backward pass calculation of the project schedule network. (PMBOK 3RD EDITION)

Lead
A modification of a logical relationship that allows an acceleration of the successor activity. For example, in a finish-to-start dependency with a ten-day lead, the successor activity can start ten days before the predecessor has finished. (PMBOK 3RD EDITION)

Leadership
The way in which the project manager influences the project team to behave in a manner that will facilitate project goal achievement.

Least Privilege
The minimum level of data, functions, and capabilities necessary to perform a user's duties.

Lessons Learned

The learning gained from the process of performing the project. Lessons learned may be identified at any point. Also considered a project record, to be included in the lessons learned knowledge base. (PMBOK 3RD EDITION)

Level of Effort (LOE)
Support-type activity (e.g., seller or customer liaison, project cost accounting, project management, etc.) that does not readily lend itself to measurement of discrete accomplishment. It is generally characterized by a uniform rate of work performance over a period of time determined by the activities supported. (PMBOK 3RD EDITION)

Life-Cycle Cost
The overall estimated cost for a particular object over the time corresponding to the life of the object, including direct and indirect initial costs plus any periodic or continuing costs for operation and maintenance. (GAO)

Light Weight Access Point Protocol (LWAPP)
A yet-to-be ratified standard of the IETF (see CAPWAP) that defines interactions between wireless termination points and wireless access controllers. Ratification is expected in mid-2006.

Lightweight Directory Access Protocol (LDAP)
A protocol for accessing on-line directory services. LDAP was defined by the IETF to encourage adoption of X.500 directories. The Directory Access Protocol (DAP) was seen as too complex for simple Internet clients to use. LDAP defines a relatively simple protocol for updating and searching directories running over TCP/IP.

Line Manager
1) The manager of any group that actually makes a product or performs a service.
2) A functional manager.

Linear Tape Open (LTO)
An open standard for a backup tape system, which provides formats for both fast data access and high storage capacity, developed jointly by Hewlett-Packard, IBM, and Seagate. IBM released the first LTO products in August, 2000. Like existing tape systems, LTO uses a linear multi-channel bi-directional format. LTO adds to existing technologies timing-based servo (a device that automates a process of error correction for a mechanism), hardware data compression, enhanced track layouts, and efficient error correction code. LTO was developed in two different formats - one for fast data access and another for greater storage capacity. The Accelis format uses 8mm-wide tape on a two-reel cartridge that loads at the mid-point of the tape to provide fast data access, specifically for read-intensive applications, such as online searches and retrieval functions. The Ultrium format uses a single reel of half-inch wide tape to maximize storage capacity, specifically for write-intensive applications, such as archival and backup functions. Early products using the Accelis format offer a 25 gigabyte capacity for uncompressed data, while Ultrium based-products offer a 100-gigabyte capacity. Both formats provide transfer rates of 10 - 20 Mbps. While these figures are not unheard of in other technologies, LTO specifications include plans for expected increases that will double current rates with each of the next three generations of products.

Linux
A UNIX-like operating system that was designed to provide personal computer users a free or very low-cost operating system comparable to traditional and usually more expensive

UNIX systems. Linux has a reputation as a very efficient and fast-performing system. Linux's kernel (the central part of the operating system) was developed by Linus Torvalds at the University of Helsinki in Finland. To complete the operating system, Torvalds and other team members made use of system components developed by members of the Free Software Foundation for the GNU Project. Linux is a remarkably complete operating system, including a graphical user interface, an X Window System, TCP/IP, the Emacs editor, and other components usually found in a comprehensive UNIX system. Although copyrights are held by various creators of Linux's components, Linux is distributed using the Free Software Foundation's copyleft stipulations that mean any modified version that is redistributed must in turn be freely available. (searchEnterpriseLinux.com)

Load Balancing
Requests from clients are distributed across available servers to achieve better utilization of computing resources. In general, load balancing can be based on network traffic, CPU load, relative power of the server, size of the server’s request queue, a simple round robin method, or other mechanisms.

Local Area Network (LAN)
A private computer network generally on a user's premises and operated within a limited geographical area.

Logical Relationship
A dependency between two project schedule activities, or between a project schedule activity and a schedule milestone. The four possible types of logical relationships are: Finish-to-start, Finish-to-finish, Start-to-start, and Start-to-finish. (PMBOK 3RD EDITION)

Logon ID
An identification code (normally a group of numbers, letters, and special characters) assigned to a particular user that identifies the user to the information system.

Loosely Coupled
Architectures based on publish/subscribe communications can provide a lightweight and resilient foundation for applications that do not require tight coordination.

M

MagStar
A family of IBM proprietary tape equipment and products.

Mail User Agent (MUA)
Primary entry and exit point for an e-mail system. Also called an e-mail client.

Major IT Project
Major IT Projects are defined in the Code of Virginia (§ 2.2-2006) as "any state agency information technology project that (i) meets the criteria and requirements developed by the Secretary of Technology pursuant to § 2.2-225 or (ii) has a total estimated cost of more than $1 million." The designation of a project as a Major Information Technology Project drives certain reporting requirements defined in the Code of Virginia. However, the governance and oversight of information technology projects is primarily driven by the Risk/Complexity level determined using the Commonwealth Project Governance Assessment.

Malicious Code
Harmful code (such as viruses and worms) introduced into a program or file for the purpose of contaminating, damaging, or destroying information systems and/or data. Malicious code includes viruses, Trojan horses, trap doors, worms, spy-ware, and counterfeit computer instructions (executables).

Malicious Software
See Malicious Code

Management Control
A set of mechanisms designed to manage organizations to achieve desired objectives.

Management Reserve
A separately planned quantity used to allow for future situations, which are impossible to predict (sometimes called "unknown unknowns"). Management reserves may involve cost or schedule. Management reserves are intended to reduce the risk of missing cost or schedule objectives. Use of management reserve requires a change to the project's cost baseline.

Mandatory Projects
Projects that support legal or regulatory requirements such as Executive orders, state legislation, or Federal mandates.

Master Schedule
A summary-level project schedule that identifies the major deliverables and work breakdown structure components and key schedule milestones. (PMBOK 3RD EDITION)

Matrix Organization
Any organizational structure in which the project manager shares responsibility with the functional managers for assigning priorities and for directing the work of persons assigned to the project. (PMBOK 3RD EDITION)

Message

A character string that contains data encoded according to a particular set of encoding rules. Encoding rules determine how (i.e. using what syntax) data elements are stored within messages. (http://www.ringholm.com/docs/00200_en.htm)

Measured service
Cloud systems automatically control and optimize resource use by leveraging a metering capability at some level of abstraction appropriate to the type of service (e.g., storage, processing, bandwidth, and active user accounts). Resource usage can be monitored, controlled, and reported, providing transparency for both the provider and consumer of the utilized service.

Message Oriented Middleware (MOM)
Delivers messages from one software module to another. Modules do not have to execute on the same machine. Analogous to the US Mail. The mail is typically delivered when you're at work; you pick it up at your convenience.

Messaging Standard
A standard to define the structure and content of messages that are exchanged between systems. A standard can be defined by an international or national Standards Development Organization (SDO), such as American National Standards Institute (ANSI), or by a particular agency, such as Centers for Disease Control and Prevention (CDC).

Message Transfer Agent (MTA)
The internal component of an e-mail delivery system, responsible for mail collection from and distribution to MUAs, and relay of mail between e-mail post offices. Also called e-mail server.

Messaging Application Programming Interface (MAPI)
A protocol used to write components that connect to different mail servers, provide access to custom address books and provide rich storage facilities.

Meta Data Coalition (MDC)
Meta Data Coalition

Metadata (also Meta data)
Data about data that makes the process of finding and using data easier.

Methodology
The processes, policies, and guidelines that are included as part of the framework for project management.

Metropolitan Area Network (MAN)
A network that interconnects users with computer resources in a geographic area or region larger than that covered by even a large local area network (LAN) but smaller than the area covered by a wide area network (WAN). The term is applied to the interconnection of networks in a city into a single larger network (which may then also offer efficient connection to a wide area network). It is also used to mean the interconnection of several local area networks by bridging them with backbone lines. The latter usage is also sometimes referred to as a campus network. (Adapted from Whatis.com).

Midrange to Low-end Servers

Servers costing $50,000 or less are typical midrange to low-end servers. These servers would usually have one to four processors, but could have as many as 8 or 16 processors. When the midrange computer is a scaled-down version of a high-end server, it may cost substantially more.

Midrange to Small Server
Servers costing $50,000 or less are typical midrange- to small-servers. These servers would usually have one to four processors, but could have as many as 8 or 16 processors. When the midrange computer is a scaled-down version of a high-end server, it may cost substantially more.

Milestone
A significant point or event in the project. (PMBOK 3RD EDITION)

Milestone Schedule
A summary-level schedule that identifies the major schedule milestones. (PMBOK 3RD EDITION)

Mirroring
Writing the same data in two locations.

Mission Statement
A concise statement, usually one paragraph, summarizing the purpose and goals of a project.

Mission Critical
Mission critical system consists of the IT solutions that support an agency or department mission essential business function or back office function (including infrastructure, people, resources, process and data) for the organization that must be continued throughout, or resumed rapidly after, a disruption of normal day to day activities. It also includes statutory business functions required by law or mission of the department or agency. A mission critical system is also known as mission essential equipment or mission critical application.

Mission Essential
Mission essential functions (MEFs) are the limited set of department or agency level government functions that must be continued throughout, or resumed rapidly after, a disruption of normal operations. Mission essential functions also include statutory business functions required by law or mission of the department or agency.

Mitigate
Dealing with a risk by developing strategies and actions for reducing (or eliminating) the impact, probability, or both, of the risk to some acceptable level. It may also involve shifting the timeframe when action must be taken. (SEI)

Mitigation
Taking steps to lessen risk by lowering the probability of a risk event's occurrence or reducing its effect, should it occur.

Mitigation Approach
The approach taken to deal with a risk. This can be to accept, research, watch, or mitigate.

Mitigation Plan
An action plan for risks that are to be mitigated. It documents the strategies, actions, goals, schedule dates, tracking requirements, and all other supporting information needed to carry out the mitigation strategy.

Mobile
The ability to move around, it also refers to anything that can be moved around (or transported) and still function properly. It usually describes handheld devices, such as PDAs and cell phones (that is, mobile phones), but it can also refer to notebooks or other portable devices. (netlingo.com)

Mobile Asynchronous Communications (MASC) protocol
The standard form of communicating between a Mobitex wireless data subscriber device and the computing platform. MASC allows applications developed on the computing device to provide high levels of control and management of the wireless modem. The MASC protocol is used when developing highly efficient, commercial wireless application software.

Mobitex
Ericsson's Eritel subsidiary's cellular land-radio-based packet-switched data communication system. Used by RAM mobile data. The raw data transmission bit rate was originally 8,000 bits/s (using 512-byte packets) for all installations, which provides a user data throughput of about 2.4 to 5 kbits/s, but this has been upgraded to 19,200 bits/s in some larger cities. Usage charges are per kilobyte. More open that the competing Ardis system, since all specifications are developed by the Mobitex Operators Association. Was designed by L.M. Ericsson and Swedish Telecom. Uses 896 to 901 MHz and 935 to 940 MHz. Cantel offers the service in Canada. Available in about 11 countries, but different frequencies are used, so roaming is complicated. L.M. Ericsson server is http://www.ericsson.nl/. (Taken from O'Reilly.)

Model
A representation of a set of components of a process, system, or subject area. A model is generally developed for understanding, analysis, improvement, and/or replacement of the process. (GAO)

Monitor
Collect project performance data with respect to a plan, produce performance measures, and report and disseminate performance information. (PMBOK 3RD EDITION)

Monitoring
Listening, viewing, or recording digital transmissions, electromagnetic radiation, sound, and visual signals.

Monolithic Application
An application that is entirely installed on one machine.

Monte Carlo Analysis
A technique that computes, or iterates, the project cost or project schedule many times using input values selected at random from probability distributions of possible costs or durations, to calculate a distribution of possible total project cost or completion dates. (PMBOK 3RD EDITION)

Mozilla

The original code name for the product that came to be known as Netscape Navigator, and later, Netscape Communicator. Later, it came to be the name of Netscape Communications Corporation's dinosaur-like mascot. Netscape Communications Corporation holds trademarks on the names Netscape, Navigator, and Communicator; it has not yet been decided what, if any, restrictions Netscape will place on the use of those names. Now, they use the name "Mozilla" as the principal trademark representing the Foundation and the official releases of Internet client software developed through our open source project. This organization produced Firefox, Bugzilla, Camino (Mac browser), Thunderbird (email), Mozilla Suite, and is also working on a Calendaring solution. (adapted from Mozilla.org)

Multiple input multiple output (MIMO)
The use of multiple antennas at both the transmitter and receiver to improve communication performance

Multiprotocol Label Switching (MPLS)
A communications technology for speeding up wide-area network traffic flow and making it easier to manage. This technology is typically a backbone technology provided by a carrier. MPLS involves setting up a specific path for a given sequence of packets, identified by a label put in each packet, thus saving the time needed for a router to look up the address to the next node for packet forwarding. MPLS is called multiprotocol because it works with the Internet Protocol (IP), Asynchronous Transport Mode (ATM), and frame relay network protocols. With reference to the standard model for a network (the Open Systems Interconnection, or OSI model), MPLS allows most packets to be forwarded at the layer 2 (switching) level rather than at the layer 3 (routing) level. In addition to moving traffic faster overall, MPLS makes it easy to manage a network for quality of service (QoS). (Adapted from Whatis.com)

Multipurpose Internet Mail Extensions (MIME)
An official Internet standard that specifies how messages must be formatted so that they can be exchanged between different email systems.

Multi-station Access Unit (MAU)
A central hub in a Token Ring local area network. (Adapted from PCMag.com).

Multi-threaded
Sharing a single CPU between multiple tasks (or "threads") in a way designed to minimize the time required to switch threads.

N

Naming Service
Refers to the ability of application programs to locate application components offered by other applications in a distributed environment. Typical naming service should support registration of services in the naming service and their subsequent location through the naming service.

NAS Engine
The controller portion as opposed to the storage portion of a NAS system.

NAS Head/Gateway
The hardware that performs the NAS control functions is called a NAS head or NAS gateway.

National Institute of Standards and Technology (NIST)
Formerly, the National Bureau of Standards. A United States governmental body that helps to develop standards.

Near Critical Activity
A schedule activity that has low total float. (PMBOK 3RD EDITION)

Net Present Value
The difference between the discounted present value of benefits and the discounted present value of costs. This is also referred to as the discounted net. (CCA)

Netware Directory Services (NDS)
A hierarchical, class-based directory structure for accessing network resources.

Network
1) A configuration of data processing devices and software connected for information interchange.
2) A group of two or more computer systems linked together.

Network File System (NFS)
A client/server application that lets a computer user view and optionally store and update files on a remote computer as though they were on the user's own computer. The user's system needs to have an NFS client and the other computer needs the NFS server. Both of them require that you also have TCP/IP installed since the NFS server and client use TCP/IP as the program that sends the files and updates back and forth. (However, the User Datagram Protocol, UDP, which comes with TCP/IP, is used instead of TCP with earlier versions of NFS.) NFS was developed by Sun Microsystems and has been designated a file server standard. Its protocol uses the Remote Procedure Call (RPC) method of communication between computers. NFS has been extended to the Internet with WebNFS, a product and proposed standard that is now part of Netscape's Communicator browser. WebNFS offers what Sun believes is a faster way to access Web pages and other Internet files.

Network Interface Card (NIC)
A hardware device used to connect computers to a wired or wireless network.

Network-Attached Storage (NAS)

Hard disk storage that is set up with its own network address rather than being attached to the department computer that is serving applications to a network's workstation users. File requests are mapped by the main server to the NAS file server.

Node
One of the defining points of a schedule network; a junction point joined to some or all of the other dependency lines. See also arrow diagramming method and precedence diagramming method. (PMBOK 3RD EDITION)

Non-crawlable Web site
A Web site whose content is not accessible by search engines so the content cannot be indexed. (Alternative see “crawable” Web site)

Non-sensitive Data
Data of which the compromise with respect to confidentiality, integrity, and/or availability could not adversely affect COV interests, the conduct of Agency programs, or the privacy to which individuals are entitled.

Nonvolatile Memory
Memory that retains information if power is removed and then reapplied. SRAM or static random access memory and flash memory are examples of nonvolatile memory. (www.crucial.com)

N-tier
N-tier architecture (often referred to as multi-tier architecture) describes a method of dividing an application into three or more physical or logical tiers to provide for ease of maintenance and flexibility. Any architecture that utilizes a 3-tier architecture (presentation, application/business logic and database layers), which componentized one or more of the logical tiers is said to be n-tier. Typically this componentization occurs in the business rule tier, however this is not a requirement. An n-tiered application is designed to integrate a diverse collection of reusable, component based services into a unified system. The layers may operate in multiple configurations, using any number of physical systems. This architecture provides a flexible and scalable solution for meeting the State's current and future requirements. Example: an application that uses middleware to service data requests between a user and a database.

O

Object Linking and Embedding (OLE)
The software capability that enables the creation of a compound document that contains one or more objects from one or more applications. Objects can be linked or embedded in the compound document. Changes to linked objects are reflected in the source and vice versa. Embedding objects breaks all links.

Object Management Group (OMG)
A consortium aimed at setting standards in object-oriented programming.

Object Request Broker (ORB)
A software tool that enables the location of and access to objects in a distributed system.

Obsolescent
Rating category used in this document to rate integration technologies. This technology may be waning in use and support, and/or has been evaluated and found not to meet current Commonwealth Technical Architecture needs. Agencies shall not make any procurements or additional deployments of this technology. Agencies currently using this technology should plan for its immediate replacement with "strategic" technology to avoid substantial risk. The migration or replacement plan should be included as part of the Agency's IT Strategic Plan.

Off-premise
Context: Hosting Options:
Any IT application hosting option that is not provided within an on-premise or colocation solution. The hosting site and environment is not under full control of the commonwealth or its designees (ex. public cloud suppliers).

Off-site Storage
The process of storing vital records in a facility that is physically remote from the primary site. To qualify as off-site, the facility should be geographically, separately and distinct from the primary site and offer environmental and physical access protection.

OLE-DB
Microsoft's interface to data. OLE-DB is an open specification designed to build on the success of ODBC by providing an open standard for accessing all kinds of data.

On-demand self-service
A consumer can unilaterally provision computing capabilities, such as server time and network storage, as needed automatically without requiring human interaction with each service provider.

On-premise
Context: Hosting Options: – *A site or portion of a site (colocation) that is fully under control of the commonwealth or its delegated representatives. It may be either at a centralized COV datacenter facility, an agency datacenter/location or co-located (caged, etc.). Full control would include servers, storage, switches, the building, cooling, power, bandwidth physical security, etc.*

Ongoing Support Cost
The periodic and continuing cost to operate and maintain the product or service delivered by the project.

Online Review and Comment Application (ORCA)
A web based application managed by VITA to allow public comment and review of proposed policies, standards, and guidelines. ORCA may be accessed through the Commonwealth Project Management Web page or by pointing your Web browser to the URL http://apps.vita.virginia.gov/publicORCA.

Open Data Base Connectivity (ODBC)
Based on Call-Level Interface and was defined by the SQL Access Group. Microsoft was one member of the group and was the first company to release a commercial product based on its work (under Microsoft Windows) but ODBC is not a Microsoft standard.

Open Group
A standards development and product approval consortium. "The Open Group's Mission is to offer all organizations concerned with open information infrastructures a forum where we can share knowledge, integrate open initiatives, and certify approved products and processes in a manner in which they continue to trust our impartiality."

Open Network Computing Remote Procedure Call (ONC+ RPC)
A remote procedure call or function call protocol developed by Sun.

Open Standards
Standards that are available for all vendors to use in product development.

Open System
A system whose characteristics comply with standards made available throughout the industry. (A desirable but often unachievable computing architecture state.) A system built using open rather than proprietary standards. A product based on widely implemented vendor-neutral standard which can be connected to other systems complying with the same standards.

Open System Interconnection (OSI)
Open System Interconnection

Open Systems Interconnect (OSI) Reference Model
Seven layer model. A model of network architecture and a suite of protocols (a protocol stack) to implement it, developed by ISO in 1978 as a framework for international standards in heterogeneous computer network architecture. The OSI architecture is split between seven layers, from lowest to highest: 1 physical layer, 2 data link layer, 3 network layer, 4 transport layer, 5 session layer, 6 presentation layer, 7 application layer. Each layer uses the layer immediately below it and provides a service to the layer above. In some implementations, a layer may itself be composed of sub-layers.

Operational Controls
Information security measures implemented through processes and procedures.

Operational Data Store

According to Bill Inmon, an operational data store (ODS) is a subject-oriented, integrated, volatile, current-valued, detailed-only collection of data in support of an organization's need for up-to-the-second, operational, integrated, collective information. (Wikipedia.com)

Operational Project
Project which modifies or enhance an existing process.

Operational Risk
The possibility of a loss from events related to technology and infrastructure failure, from business interruptions, from staff related problems and from external events such as regulatory changes.

Order of Magnitude
An estimate made without detailed data usually produced from cost data. This type of estimate is used during the formative stages of an expenditure program for initial evaluation of the project.

Organic Light-Emitting Diode (OLED) Displays
Monochrome and color displays with no backlight and thus more power efficient. It is a display technology, pioneered and patented by Kodak, based on the use of organic polymer material as the semiconductor material in light-emitting diodes (LEDs). A polymer can be a natural or synthetic substance and macro or micro in size. Examples of organic polymers include proteins and DNA. OLED displays are used in cellular phones, digital video cameras, digital versatile disc (DVD) players, personal digital assistants (PDAs), notebooks, car stereos, and televisions. OLED displays are thinner and weigh less because they do not require backlighting. OLED displays also have a wide viewing angle up to 160 degrees even in bright light, and they use only two to ten volts to operate. New technologies that build on the OLED include FOLED (flexible organic light-emitting display), which promises to make highly portable, roll-up displays possible within the next few years.

Organizational Breakdown Structure (OBS)
A hierarchically organized depiction of the project organization arranged so as to relate the work packages to the performing organizational units. (PMBOK 3RD EDITION)

Organizational Planning
Identifying, documenting, and assigning project roles, responsibilities, and reporting relationships.

Outcome
The ultimate, long-term, resulting effect--both expected and unexpected--of the customer's use or application of the organization's outputs. (GAO)

Overall Change Control
Coordinating changes across the entire project.

Oversight
Management by overseeing the performance or operation of a person or group.

Oversight Committee
A body chartered by the Chief Information Officer, a Cabinet Secretary, or an Agency Head to review and make recommendations regarding IT projects within that Secretariat or Agency.

P

Packet
A collection of payload data and transport information that is transmitted as a bundle across a network connection.

Packet Switching
The process of routing and transferring data by means of addressed packets so that a channel is occupied only during transmission of a packet. On completion of the transmission, the channel is made available for transfer of other packets.

Parametric Estimating
An estimating technique that uses a statistical relationship between historical data and other variables (e.g., square footage in construction, lines of code in software development) to calculate an estimate for activity parameters, such as scope, cost, budget, and duration. This technique can produce higher levels of accuracy depending upon the sophistication and the underlying data built into the model. (PMBOK 3RD EDITION)

Pareto Chart
A histogram, ordered by frequency of occurrence, that shows how many results were generated by each identified cause. (PMBOK 3RD EDITION)

Password
A unique string of characters that, in conjunction with a logon ID, authenticates a user's identity.

Path
A set of sequentially connected activities in a project network diagram.

Path Convergence
The merging or joining of parallel schedule network paths into the same node in a project schedule network diagram. Path convergence is characterized by a schedule activity with more than one successor activity. (PMBOK 3RD EDITION)

Path Divergence
Extending or generating parallel schedule network paths from the same node in a project schedule network diagram. Path divergence is characterized by a schedule activity with more than one successor activity. (PMBOK 3RD EDITION)

Payback Period
The number of years it takes for the cumulative dollar value of the benefits to exceed the cumulative costs of a project. (CCA)

PC Card
PCMCIA device or slot.

PCI Express (PCI X)
Developed by the PCI-SIG industry group to extend the PCI bus to meet the present and future computing and communications interconnect requirements, PCI Express is suitable for both chip-to-chip and add-in card implementations. The packetized protocol and layered

architecture of the standard enables attachment to copper, optical, or emerging physical signaling media.

Penetration testing
A penetration test is a method of evaluating the security computer system or network simulating an attack by a malicious user.

Percent Complete (PC)
An estimate, expressed as a percent, of the amount of work that has been completed, on an activity or a work breakdown structure component. (PMBOK 3RD EDITION)

Performance Gap
The gap between what customers and stakeholders expect and what each process and related sub processes produces in terms of quality, quantity, time, and cost of services and products. (GAO)

Performance Measurement
The process of developing measurable indicators that can be systematically tracked to assess progress made in achieving predetermined goals and using such indicators to assess progress in achieving these goals. (GAO)

Performance Reporting
The process of collecting and distributing performance information. This includes status reporting, progress measurement, and forecasting. (PMBOK 3RD EDITION)

Performing Organization
The enterprise whose personnel are most directly involved in doing the work of the project. (PMBOK 3RD EDITION)

Peripheral Component Interconnect (PCI)
A standard for connecting peripherals to a personal computer or components within a computer, designed by Intel and released in 1993. PCI is supported by most major manufacturers. The technology is usually called a bus but is in fact a bridge.

Persistence Service
Defines a service when an object state can be preserved in a persistent media such as an object database.

Personal Area Network (PAN)
A PAN or Wireless Personal Area Network (WPAN) is the set of transmission technologies used by a person for interconnecting devices they use in a home, in a workplace, in the car, in the gym, or in a mobile setting. Typically, a wireless personal area network uses one or more technologies that permit communication within about 10 meters - in other words, a very short range. One such technology is Bluetooth, which is the basis for IEEE 802.15. A PAN could interconnect all the ordinary computing and communications devices that many people have on their desk or carry with them today - or it could serve a more specialized purpose such as allowing the surgeon and other team members to communicate during an operation. (Adapted from Whatis.com).

Personal Communications Services (PCS)
Sprint’s Personal Communications Services. It operates in the 1.9 MHz band. It is not a cellular service. (600mhz, 900mhz)

Personal Computer Memory Card International Association (PCMCIA)
A PC Card. An international trade association and the standards they have developed for devices, such as modems and external hard disk drives that can be plugged into notebook computers. A PCMCIA card is about the size of a credit card.

Personal Computing
Devices and device components for desktop computers, notebooks and handheld computers including operating systems, hardware components, productivity software, and security software.

Personal Digital Assistant (PDA)
A digital device, which can include the functionality of a computer, a cellular telephone, a music player and a camera.

Personal Identification Number (PIN)
A short sequence of digits used as a password.

Personal Information (PI)
"Personal information" means all information that describes, locates or indexes anything about an individual including his real or personal property holdings derived from tax returns, and his education, financial transactions, medical history, ancestry, religion, political ideology, criminal or employment record, or that affords a basis for inferring personal characteristics, such as finger and voice prints, photographs, or things done by or to such individual; and the record of his presence, registration, or membership in an organization or activity, or admission to an institution. "Personal information" shall not include routine information maintained for the purpose of internal office administration whose use could not be such as to affect adversely any data subject nor does the term include real estate assessment information. Code of Virginia § 2.2-3801.

Personnel
All COV employees, contractors, and subcontractors, both permanent and temporary.

PERT Chart
A specific type of project network diagram. See Program Evaluation and Review Technique.

Phishing
A form of criminal activity characterized by attempts to acquire sensitive information fraudulently, such as passwords and credit card details, by masquerading as a trustworthy person or business in an apparently official electronic communication.

Plan
An intended future course of action.

Planned Value
The authorized budget assigned to the scheduled work to be accomplished for a schedule activity or work breakdown structure component. Also referred to as the budgeted cost of work scheduled (BCWS). (PMBOK)

Platform Architecture
Defines the personal and business computing hardware systems to be used by agencies. The platforms may include servers (e.g., high-end servers and midrange to small servers),

storage systems, personal computing devices (desktops, notebooks, and hand-held computing devices), and other hardware (e.g., printers). In addition to platform hardware, the Platform Architecture addresses operating systems, configurations, network and device-to-device interfaces, and selected peripherals (e.g., floppy drives). In the instance of personal computing devices, the architecture also addresses base productivity software, security software, and utilities that are necessary to make the hardware useful to users. The architecture addresses decision criteria and best practices for the acquisition and deployment of platforms. The architecture also identifies management and remote access components, which are critical to platform use. Details regarding management components are addressed in the Systems Management Domain.

Platform as a Service (PaaS)
The capability provided to the consumer is to deploy onto the cloud infrastructure consumer-created or acquired applications created using programming languages, libraries, services, and tools supported by the provider. The consumer does not manage or control the underlying cloud infrastructure including network, servers, operating systems, or storage, but has control over the deployed applications and possibly configuration settings for the application-hosting environment.

Platforms
Personal computing devices, servers, and/or storage systems.

Policy
Are general statements of direction and purpose designed to promote the coordinated planning, practical acquisition, effective development, and efficient use of information technology resources. (COV ITRM STANDARD GOV2000-01.1)

Portability
1) The ability to pick-up, store and delivery messages everywhere.
2) The ease with which a piece of software (or file format) can be "ported", i.e. made to run on a new platform and/or compile with a new compiler.

Portable Object Adapter (POA) standard
An adapter written using IDL.

Portfolio
A collection of projects or programs and other work that are grouped together to facilitate effective management of that work to meet strategic business objectives. The projects or programs of the portfolio may not necessarily be interdependent or directly related. (PMBOK 3RD EDITION)

Portfolio Management
The centralized management of one or more portfolios, which includes identifying, prioritizing, authorizing, managing, and controlling projects, programs, and other related work, to achieve specific strategic business objectives. (PMBOK 3RD EDITION)

Post Implementation Report
Documents the successes and failures of a project and suggest follow up actions. It provides a historical record of the planned and actual budget and schedule. Other selected metrics on the project can also be collected, based upon state organization procedures. The report also contains recommendations for other projects of similar size and scope.

Post Office Protocol version 3 (POP3)
The most common protocol used by MUAs to retrieve mail from a central message store (messaging server). Most commercial Internet Mail post office products include a POP3 server. IMAP is typically a better choice than POP3 for unified messaging.

Post-implementation Review (PIR)
An evaluation tool that compares the conditions before the implementation of a project (as identified in the business case) with the actual results achieved by the project. (GAO)

Power-over-Ethernet (PoE)
A technology for wired Ethernet LANs that allows the electrical current, necessary for the operation of each device, to be carried by the data cables rather than by power cords. For PoE to work, the electrical current must go into the data cable at the power-supply end, and come out at the device end, in such a way that the current is kept separate from the data signal so that neither interferes with the other. The current enters the cable by means of a component called an injector. If the device at the other end of the cable is PoE compatible, then that device will function properly without modification. If the device is not PoE compatible, then a component called a picker or tap must be installed to remove the current from the cable. This "picked-off" current is routed to the power jack. To minimize the possibility of damage to equipment in the event of a malfunction, the more sophisticated PoE systems employ fault protection. This feature shuts off the power supply if excessive current or a short circuit is detected. (Adapted from Whatis.com).

Precedence Diagramming Method (PDM)
A schedule network diagramming technique in which schedule activities are represented by boxes (or nodes). Schedule activities are graphically linked by one or more logical relationships to show the sequence in which the activities are to be performed. (PMBOK 3RD EDITION)

Precedence Relationship
The term used in the precedence diagramming method for a logical relationship. In current usage, however, precedence relationship, logical relationship, and dependency are widely used interchangeably regardless of the diagramming method used. (PMBOK 3RD EDITION)

Predecessor Activity
The schedule activity that determines when the logical successor activity can begin or end. (PMBOK 3RD EDITION)

Primary Key
An attribute that uniquely identifies each instance of the entity. For example, for each vendor, the vendor's location must be identifiable as a location and therefore each location has a unique identification number.

Principles
High-level fundamental truths, ideas or concepts that frame and contribute to the understanding of the Enterprise Architecture. They are derived from best practices that have been assessed for appropriateness to the Commonwealth Enterprise Architecture. [COTS EA Workgroup, "Commonwealth of Virginia Enterprise Architecture – Conceptual Architecture", v1.0, February 15, 2001, p 5.]

Priority

The imposed sequences desired with respect to the scheduling of activities within previously imposed constraints.

Privacy
The rights and desires of an individual to limit the disclosure of individual information to others.

Private cloud
The cloud infrastructure is provisioned for exclusive use by a single organization comprising multiple consumers (e.g., business units). It may be owned, managed, and operated by the organization, a third party, or some combination of them, and it may exist on or off premises. Private cloud options include: (Microsoft Cloud Services Foundation Reference Model (CSFRM)

- ***Self-hosted Private Cloud -*** *a Self-hosted Private Cloud provides the benefit of architectural and operational control, utilizes the existing investment in people and equipment, and provides a dedicated on-premises environment that is internally designed, hosted, and managed.*
- ***Hosted Private Cloud -*** *a Hosted Private Cloud is a dedicated environment that is internally designed, externally hosted, and externally managed. It blends the benefits of controlling the service and architectural design with the benefits of data center outsourcing.*
- ***Private Cloud Appliance -*** *a Private Cloud Appliance is a dedicated environment procured from a supplier that is designed by that supplier with provider/market driven features and architectural control, is internally hosted, and externally or internally managed. It blends the benefits of using predefined functional architecture and lower deployment risk with the benefits of internal security and control.*

Privacy Officer
The privacy officer, if required by statute (such as HIPAA) provides guidance on the requirements of state and federal Privacy laws; disclosure of and access to sensitive data; and security and protection requirements in conjunction with the information system when there is some overlap among sensitivity, disclosure, privacy, and security issues.

Private Branch Exchange (PBX)
A premises voice switch.

Probability
The likelihood the risk will occur. Probability is one of the three attributes of risk. (SEI)

Procedure
A collection of steps that the organization is responsible for implementing to ensure that policies and process requirements are met. The agency may use guidelines to develop these procedures.

Procurement
The procedures for obtaining goods or services, including all activities from the planning steps and preparation and processing of a requisition, through receipt and acceptance of delivery and processing of a final invoice for payment. (DGS)

Procurement Cost

The total estimated cost of the goods or services being purchased.

Product
General terms used to define the result of a project delivered to a customer.

Product Description Statement
A non-formal, high-level document that describes the characteristics of the product/process to be created.

Product Standards
Are specifications for the use of specific hardware and software relative to the particular component.

Productivity Software
Software typically used by business professionals such as word processing, spreadsheets, presentation slides, web browsers, and plug ins. Also includes lesser-used software such as personal database software, flowcharting, project management.

Program
A group of related projects managed in a coordinated way to obtain benefits and control not available from managing them individually. Programs may include elements of related work outside of the scope of the discrete projects in the program. (PMBOK 3RD EDITION)

Program Evaluation and Review Technique (PERT)
An event-oriented network analysis technique used to estimate project duration when there is a high degree of uncertainty with the individual activity duration estimates. PERT applies the critical path method to a weighted average duration estimate

Program Manager
A centralized coordinated management of a program to achieve the program's strategic objectives and benefits. (PMBOK 3RD EDITION)

Progress Analysis
The evaluation of progress against the approved schedule and the determination of its impact. For cost, this is the development of performance indices.

Project
A temporary endeavor undertaken to create a unique product, service or result. (PMBOK 3RD EDITION)

Project Administration
Making Project Plan modifications; may result from such things as: new estimates of work still to be done, changes in scope/functionality of end-product(s), resource changes, and unforeseen circumstances. It includes monitoring the various Execution Phase activities, monitoring risks, status reporting, and reviewing/authorizing project changes as needed.

Project Business Objective
A desired result produced by a project that answers or resolves a business problem.

Project Category

The grouping of Commonwealth IT projects into four categories for project management governance and oversight purposes. The categories are based on current project risk and complexity, and they determine:

- Project documentation requirements
- Approval levels
- IV&V requirements
- Status reporting requirements
- Oversight committee requirements
- Scope, schedule, budget accuracy thresholds

Post-Implementation Review requirements

Project Charter
A document issued by the project initiator or sponsor that formally authorizes the existence of a project, and provides the project manager with the authority to apply organizational resources to project activities. (PMBOK 3RD EDITION)

Project Communications Management
Includes the processes required to ensure timely and appropriate generation, collection, distribution, storage, retrieval, and ultimate disposition of project information. (PMBOK 3RD EDITION)

Project Concept Document (PCD)
The document that is the foundation for making a decision to initiate a project. It describes the project purpose and presents a preliminary business case for pursuing the project. It gives decision makers the opportunity to determine project viability.

Project Cost
The total cost to provide the business driven, technology-based product or service. The costs include the hardware, software, services, installation, management, maintenance, support, training, and internal staffing costs planned for the project. Internal staffing costs are the apportioned salaries and benefits of the project team members.

Project Cost Management
Includes the processes involved in planning, estimating, budgeting, and controlling costs so that the project can be completed within the approved budget. (PMBOK 3RD EDITION)

Project Description
An initial, high-level statement describing the purpose, benefits, customer(s), general approach to development and characteristics of a product or service required by the organization.

Project Duration
The elapsed time from project start date through to project finish date.

Project Human Resource Management
Includes the processes that organize and manage the project team. (PMBOK 3RD EDITION)

Project Initiation
The conceptual development phase of a project. A process that leads to approval of the project concept and authorization (through a charter) to begin *Detailed Planning*. In the Commonwealth of Virginia Project Initiation is also referred to as "Project Planning" or "planning for the project" not to be confused with the Detailed Project Planning.

Project Initiation Approval (PIA)
A project portfolio status for projects that have received approval of the project's detailed business case (Project Charter) from the appropriate approval authority. PIA authorizes the agency to begin the Detailed Planning phase of the Commonwealth Project Management lifecycle.

Project Integration Management
Includes the process and activities needed to identify, define, combine, unify and coordinate the various processes and project management activities within the Project Management Process Groups. (PMBOK 3RD EDITION)

Project Life Cycle
A collection of generally sequential project phases whose name and number are determined by the control needs of the organization or organizations involved in the project. A life cycle can be documented with a methodology. (PMBOK)

Project Management (PM)
The application of knowledge, skills, tools, and techniques to project activities to meet the project requirements. (PMBOK 3RD EDITION)

Project Manager
The person assigned by the performing organization to achieve the project objectives. (PMBOK 3RD EDITION)

Project Measures of Success
The measurable, business-oriented indicators that will be used to assess progress made in achieving planned project objectives.

Project Oversight
A process that employs a variety of quality control, inspection, test measurement, and other observation processes to ensure that planned project objectives are achieved in accordance with an approved plan. Project oversight includes both technical and management oversight. Project oversight is usually done by an independent entity (separate from the project team) trained or experienced in a variety of management and technical review methods.

Project Phase
A collection of logically related project activities, usually culminating in the completion of a major deliverable. (PMBOK 3RD EDITION)

Project Plan
A formal, approved document used to guide both project execution and project control. The primary uses of the Project Plan are to document planning assumptions, decisions and project baselines; facilitate communication among stakeholders; and, essentially describe how the project will be executed and controlled.

Project Planning
Activities to conduct effective initial analysis of business needs and potentially useful technologies required for development of a detailed business case, incorporating a comprehensive definition of scope and supported by sound financial and cost based analysis.

Project Portfolio Category
The grouping of Commonwealth IT projects into a number of broad categories based on the products or end results being produced by the projects. An item may be placed in more than one category.

Project Procurement Management
Includes the processes to purchase or acquire the products, services, or results needed from outside the project team to perform the work. (PMBOK 3RD EDITION)

Project Quality Management
Includes the processes and activities of the performing organization that determine quality policies, objectives, and responsibilities so that the project will satisfy the needs for which it was undertaken. (PMBOK 3RD EDITION)

Project Risk Management
Includes the processes concerned with conducting risk management planning, identification, analysis, responses, and monitoring and control on a project. (PMBOK 3RD EDITION)

Project Schedule
The planned dates for performing schedule activities and the planned dates for meeting schedule milestones. (PMBOK 3RD EDITION)

Project Schedule Network Diagram
Any schematic display of the logical relationships among the project schedule activities. The Diagram is always drawn from left to right to reflect project chronology. (PMBOK)

Project Scope
The work that must be performed to deliver a product, service, or result with the specified features and functions. (PMBOK 3RD EDITION)

Project Scope Management
Includes the processes required to ensure that the project includes all the work required, and only the work required, to complete the project successfully. (PMBOK 3RD EDITION)

Project Sponsor
An individual, usually part of the organization management team, who makes the business case for the project. This individual usually has the authority to define project goals, secure resources, and resolve organizational and priority conflicts.

Project Team Members
The individuals that report either part time or full time to the project manager and are responsible for the completion of project tasks.

Project Time Management
Includes the processes required to accomplish timely completion of the project. (PMBOK 3RD EDITION)

Project Transition Checklist
A document that ensures that the activities of a project phase have been finished, reviewed, and signed off so that the project may move into the next Phase.
Projectized Organization

Any organizational structure in which the project manager has full authority to assign priorities, apply resources, and to direct the work of persons assigned to the project. (PMBOK 3RD EDITION)

Proponent Secretariat Oversight Committee (PSOC)
The PSOC provides oversight for Information Technology Projects as prescribed by the Project Management Standard. The PSOC validates proposed project business cases and makes recommendations to the CIO on Information Technology Projects proposed for initiation approval. The committee also reviews and recommends Change Control Requests and can accept escalated issues from the IAOC to consider and resolve, or forward their recommendations to the CIO for final resolution.

Proprietary Specification
A specification that restricts the acceptable product(s) or service(s) to that of one or more manufacturer(s) or vendor(s). A common example would be the use of a "brand name" specification that would exclude consideration of proposed "equals." Although all sole source specifications are proprietary, all proprietary specifications are not sole source. Proprietary items may be available from several distributors through competitive bidding.

Protocol
A set of rules. For example, network protocols are rules that enable connectivity and communication.

Protocol Stack
A software subsystem that manages the flow of data on a communications channel according to the rules of a particular protocol, for example the TCP/IP protocol. Called a "stack" because it is typically designed as a hierarchy of layers, each supporting the one above and using the one below.

Public Broadcasting Services
Public telecommunications are non-commercial educational or cultural radio and television programs and related instructional or informational material that may be transmitted by means of electronic communications (see also "Telecommunications Services").

Public cloud
The cloud infrastructure is provisioned for open use by the general public. It may be owned, managed, and operated by a business, academic, or government organization, or some combination of them. It exists on the premises of the cloud provider.

Public Key Infrastructure (PKI)
A way to distribute security and encryption keys.

Public Switched Telephone Network (PSTN)
The worldwide voice communications system.

Public web site
A public web site is the most visible and readily accessible to the average Web user. A site on the Web that is accessible by anyone with a Web browser and access to the Internet.

Publish & Subscribe
1) Providers of information can publish it for consumption by information consumers, without any logical connection between the participating applications.

2) Software or protocols that enable publishing and subscribing.

Push Email
Email service that sends new email to a device when it is received rather than waiting for the user to request store and forward email.

Q

Quality
A composite of attributes (including performance features and characteristics) of the product, process, or service required to satisfy the need for which the project is undertaken.

Quality Assurance (QA)
1) The process of evaluating overall project performance on a regular basis to provide confidence that the project will satisfy the relevant quality standards.
2) The organizational unit that is assigned responsibility for quality assurance.

Quality Control (QC)
1) The process of monitoring specific project results to determine if they comply with relevant quality standards and identifying ways to eliminate causes of unsatisfactory performance.
2) The organizational unit that is assigned responsibility for quality control.

Quality Management
A collection of quality policies, plans, procedures, specifications, and requirements is attained through quality assurance (managerial) and quality control (technical).

Quality of Service
1) Reliable message delivery (no messages are lost in case of system failure).
2) Guaranteed message delivery (messages are delivered within a defined time limit, even in the case of network or system unavailability). 3) Assured message delivery (messages are delivered at most once).

Quality of Service (QoS)
The performance of a network service such as throughput, delay, and priority. Some protocols allow packets or streams to include QoS requirements (e.g., ATM).

Quality Planning
The process of identifying which quality standards are relevant to the project and determining how to satisfy them. (PMBOK 3RD EDITION) The process of monitoring specific project results to determine if they comply with relevant quality standards and identifying ways to eliminate causes of unsatisfactory performance.

R

RAC (Real Application Cluster)
A component of the Oracle database product that allows a database to be installed across multiple servers. According to Oracle, RAC's shared disk method of clustering databases: increases scalability because servers can easily be added or subtracted to meet current needs, lowers costs because companies don't have to buy high-end servers, and improves availability because if one server fails, another can assume its workload. RAC's shared disk architecture is an unusual approach to database clustering.

Most competing database products (such as Microsoft's SQL Server and IBM's DB2 for Windows and Unix environments) use the alternative, which is known as "shared nothing" architecture. Shared nothing architecture partitions data and only gives each server access to its own disk subsystem, while shared disk architecture gives all servers access to the entire database.

This adds failover capacity to the database, because all servers have access to the whole database. Proponents claim that this capacity increases Oracle's reliability and availability significantly. British Telecom, for example, reported that deploying the product enabled them to cut their failover time from a typical 20 minutes to between 10-60 seconds.

RAM Mobile Data
A wireless service. A company jointly owned by RAM Broadcasting, Inc., Ericsson, and BellSouth Corp. that provides a cellular-radio-based packet data service called Mobitex. Competes with Ardis and CDPD. Ericsson encourages others to manufacture compatible equipment (people prefer an open standard). (Taken from O'Reilly.)

Rapid elasticity
Capabilities can be elastically provisioned and released, in some cases automatically, to scale rapidly outward and inward commensurate with demand. To the consumer, the capabilities available for provisioning often appear to be unlimited and can be appropriated in any quantity at any time.

Recommended Practices
Are activities which are normally considered leading edge or exceptional models for others to follow. They have been proven to be successful and sustainable and can be readily adopted by agencies. They may or may not be considered the ultimate "best practice" by all readers but for this place and time they are recommended practices and should be used and implemented wherever possible.

Recovery
Activities beyond the initial crisis period of an emergency or disaster that are designed to return information systems and/or data to normal operating status.

Recovery Point Objective (RPO)
The measurement of the point in time to which data must be restored in order to resume processing transactions. Directly related to the amount of data that can be lost between the point of recovery and the time of the last data backup.

Recovery Time Objective (RTO)

The period of time in which systems, applications or functions must be recovered after an outage.

Redundant Array of Independent Disks (RAID)
A method of organizing small format disk devices to drastically increase I/O bandwidth and improve data availability.

Relationship
Context: Commonwealth Data Management Program). *An association between entities that is relevant to the constraints, rules and policies of an agency. Relationships can be thought of as verbs, linking two or more nouns. Examples: A owns relationship between a company and a computer(s), A supervises relationship between a manager and a subordinate(s), A performs relationship between an employee and a task(s), A proved relationship between a mathematician and a theorem (s), an employed relationship between an employee and a job position(s).*

Remaining Duration (RD)
The time in calendar units, between the data date of the project schedule and the finish date of a schedule activity that has an actual start date. This represents the time needed to complete a schedule activity where the work is in progress. (PMBOK 3RD EDITION)

Remote Access
Remote access is the ability to get access to a computer or a network from a remote distance.

Remote Control
Remote Control is a technology or protocol that displays the screen of another computer (via Internet or network) on the remote user's own screen. The program allows the remote user to use a mouse and keyboard to control the other computer remotely.

Remote Method Invocation (RMI)
A J2EE RPC.

Remote Procedure Call (RPC)
An external form of communication that allows a client to invoke a procedure in a server.

Remote User
A user who accesses a computer or a network from a remote distance

Repository
A repository is a collection of resources that can be accessed to retrieve information. Repositories often consist of several databases tied together by a common search engine.

Repudiation
Denial that one did or said something.

Request for Information (RFI)
An informal document issued when an agency is not aware of the products available in the market which may satisfy its requirements. The use of an RFI does not require a purchase requisition, however a RFI may result in the development of a requisition, or the issuance of an IFB or RFP after an agency determines the types of products that are available which will satisfy its requirements. An RFI cannot be made into an agreement. (DGS - APSPM)

Request for Proposals (RFP)
All documents, whether attached or incorporated by reference, utilized for soliciting proposals; the RFP procedure requires negotiation with offerors (to include prices) as distinguished from competitive bidding when using an Invitation for Bids. (DGS - APSPM)

Requirement(s)
Context: Enterprise Architecture). Numbered statements that provide mandatory Enterprise Architecture direction (example: NET-R-01) and strategic components of the Commonwealth's Enterprise Technical Architecture Technical Component Standards tables which are acceptable activities for current deployments and must be implemented and used for all future deployments.
Context: General). A statement or set of statements that define what the user(s) of a product want that product to do. Generally, it defines what capabilities a product needs to have, based on the needs of the users.

Requirements Document
A formal document that consists of a statement or set of statements that define product functions and capabilities as set by the end user.

Reserve
A provision in the project management plan to mitigate cost and/or schedule risk. Often used with a modifier (e.g., management reserve, contingency reserve) to provide further detail on what types of risk are meant to be mitigated. The specific meaning of the modified term varies by application area.

Residual Risk
The portion of risk that remains after security measures have been applied.

Resource
Skilled human resources (specific disciplines either individually or in crews or teams), equipment, services, supplies, commodities, material, budgets, or funds. (PMBOK 3rd Edition)

Resource Leveling
Any form of schedule network analysis in which scheduling decisions (start and finish dates) are driven by resource constraints (e.g., limited resource availability or difficult-to-manage changes in resource availability levels.) (PMBOK 3RD EDITION)

Resource Loading Profiles
Detailed staffing plan including number of personnel by type over time.

Resource-Limited Schedule
A project schedule whose schedule activity, scheduled start dates and scheduled finish dates reflect expected resource availability. (PMBOK 3RD EDITION)

Resource Planning
Determining what resources (people, equipment, materials) are needed in what quantities to perform project activities.

Responsibility Assignment Matrix (RAM)

A structure that relates the project organizational breakdown structure to the work breakdown structure to help ensure that each component of the project's scope of work is assigned to a responsible person. (PMBOK 3RD EDITION)

Resource pooling
The provider's computing resources are pooled to serve multiple consumers using a multi-tenant model, with different physical and virtual resources dynamically assigned and reassigned according to consumer demand. There is a sense of location independence in that the customer generally has no control or knowledge over the exact location of the provided resources but may be able to specify location at a higher level of abstraction (e.g., country, state, or datacenter). Examples of resources include storage, processing, memory, and network bandwidth.

Restoration
Activities designed to return damaged facilities and equipment to an operational status.

Retainage
A portion of a contract payment that is withheld until contract completion to ensure full performance of the contract terms. (PMBOK 3RD EDITION)

Return on Investment (ROI)
A figure of merit used to help make capital investment decisions. ROI is calculated by considering the annual benefit divided by the investment amount. (GAO)

Reusable Component
A sub-object derived from an object or a class of objects by taking advantage of inheritance properties. The derived object inherits the instance variables and methods of the super class but may add new instance variables and methods.

Risk
Context: Security). The potential that an event may cause a material negative impact to an asset.
Context: Technology Management). An uncertain event or condition that, if it occurs, has a positive or negative effect on a project's objectives. (PMBOK 3RD EDITION)

Risk Acceptance
A risk response planning technique that indicates that the project team has decided not to change the project management plan to deal with a risk, or is unable to identify any other suitable response strategy. (PMBOK 3RD EDITION)

Risk Analysis
Context: Security). A systematic process to identify and quantify risks to information systems and data and to determine the probability of the occurrence of those risks.
Context: Technology Management). A technique to identify and assess factors that may jeopardize the success of a project or achieving a goal. The technique also helps define preventive measures to reduce the probability of these factors from occurring and identify countermeasures to successfully deal with these constraints when they develop. (GAO)

Risk Assessment (RA)
Context: Security). The process of identifying and evaluating risks to assess their potential impact. Context: Technology Management). Review, examination, and judgment of whether or not the identified risks are acceptable.

Risk Avoidance
A risk response planning technique for a threat that creates changes to the project management plan that are meant to either eliminate the risk or to protect the project objectives from its impact. (PMBOK 3RD EDITION)

Risk Control
Involves executing the Risk Management Plan in order to respond to risk events over the course of the project.

Risk Event
A discrete occurrence that may adversely or favorably affect the project.

Risk Identification
The process of determining which risks might affect the project and documenting their characteristics. (PMBOK 3RD EDITION)

Risk Management
Context: Security). Identification and implementation of information security controls in order to reduce risks to an acceptable level.
Context: Technology Management). The process of identifying, analyzing, and responding to risk factors throughout the life of a project and in the best interests of its objectives. The art and science of identifying, analyzing, and responding to risk factors throughout the life of a project and in the best interests of its objectives.

Risk Management Plan
The document describing how project risk management will be structured and performed on the project. (PMBOK 3RD EDITION)

Risk Mitigation
Context: Security). The continuous process of minimizing risk by applying security measures commensurate with sensitivity and risk.
Context: Technology Management). A risk response planning technique associated with threats that seeks to reduce the probability of occurrence or impact of a risk to below an acceptable threshold. (PMBOK 3RD EDITION)

Risk Statement (also known as Statement of Risk)
A description of the current conditions that may lead to a loss or a description of the loss or consequence. (SEI)

Roles and Responsibility
Roles represent a distinct set of operations and responsibilities required to perform some particular function that an individual may be assigned. Roles may differ from the individual's business title.

Router
1) An attaching device that connects two LAN segments, which use similar or different architectures, at the reference model network layer.
2) (IRM) The combination of hardware and software that links LANs and WANs together.

Run the Business

A project portfolio category for projects that support business functionality, deliverables, or processes by correcting or modifying existing assets. These projects do not introduce new functionality.

S

Scalability
The ability to expand as higher and higher volumes occur due to high volume operations with a parallel engine.

Scale-out server solution
From an application standpoint (e.g., email), the scale-out solution increases resources to the application by adding servers to the cluster of real or virtual servers. The addition of servers increases the number of operating systems supporting the solution.

Scale-up server solution
1) From an application perspective, a scale-up solution is one that permits the adding of more resources to the application by adding resources from within a single platform and without increasing the number of operating systems used in supporting the application.
2) For the consolidation of multiple applications, the scale-up solutions will provide the ability to add resources to more than one application from within the platform without increasing the number of operating systems used in supporting the application.

Schedule Compression
Shortening the project schedule duration without reducing the project scope. (PMBOK)

Schedule Development
The process of analyzing schedule activity sequences, schedule activity durations, resource requirements, and schedule constraints to create the project schedule. (PMBOK 3RD EDITION)

Schedule Performance Index (SPI)
The measure of schedule efficiency on a project. IT is the ratio of earned value (EV) to planned value (PV). The SPI = EV divided by PV. An SPI equal to or greater than one indicates a favorable condition and a value of less than one indicates an unfavorable condition. (PMBOK 3RD EDITION)

Schedule Network Analysis
The technique of identifying early and late start dates, as well as early and late finish dates, for the uncompleted portions of project schedule activities. See also Critical Path Method, Program Evaluation and Review Technique, and Graphical Evaluation and Review Technique. (PMBOK)

Schedule Variance (SV)
A measure of schedule performance on a project. It is the algebraic difference between the earned value (EV) and the planned value (PV). SV = EV minus PV. (PMBOK 3RD EDITION)

Scope
The sum of the products, services, and results to be provided as a project. (PMBOK 3RD EDITION)

Scope Change
Any change to the project scope. A scope change almost always requires an adjustment to the project cost or schedule. (PMBOK 3RD EDITION)

Scope Creep
Adding features and functionality (project scope) without addressing the effects on time, costs, and resources, or without customer approval. (PMBOK 3RD EDITION)

Scope Definition
The process of developing a detailed project scope statement as the basis for future project decisions. (PMBOK 3RD EDITION)

Scope Planning
The process of creating a project scope management plan. (PMBOK 3RD EDITION)

Scope Statement
A document capturing the sum of products and services to be provided as a project. The Scope Statement is part of the Project Plan.

Scope Verification
The process of formalizing acceptance of the completed project deliverables. (PMBOK 3RD EDITION)

S-Curve
Graphic display of cumulative costs, labor hours, or other quantities, plotted against time. The name derives from the S-like shape of the curve (flatter at the beginning and end, steeper in the middle) produced on a project that starts slowly, accelerates, and then tails off.

Search Sitemap
A specific XML file format used by the state-wide search feature, the agency wide search feature and public Web sites. The search sitemap XML file is utilized by search engines to index content on your website, especially dynamically generated content. The sitemap XML schema standard is located on the WATG site (http://www.vadsa.org/watg/).

Secure
A state that provides adequate protection of information systems and data against compromise, commensurate with sensitivity and risk.

Secure Digital (SD)
A tiny memory card used to make storage portable among various devices, such as car navigation systems, cellular phones, eBooks, PDAs, smartphones, digital cameras, music players, camcorders, and personal computers. An SD card features a high data transfer rate and low battery consumption, both primary considerations for portable devices. It uses flash memory to provide nonvolatile storage, which means that a power source is not required to retain stored data. An SD card is about the size of a postage stamp and weighs approximately two grams. It is similar in size to a MultiMediaCard (MMC), but smaller than older memory card types such as the SmartMedia card and the CompactFlash card. Both MMC and SD cards provide encryption capabilities for protected content to ensure secure distribution of copyrighted material, such as digital music, video, and eBooks, but SD cards are available with storage capacities as high as 128MB, with a 512MB SD card expected to be available by late 2002. SD cards are more rugged than traditional storage media. They have an operating shock rating (basically, the height you can drop them from and still have them work) of 2,000 Gs, compared to a 100-200 G rating for the mechanical drive of the typical portable computing device. This translates to a drop to the floor from 10 feet, as compared to a single foot for the mechanical disk drive. Both MMC and SD cards use metal

connector contacts, instead of the traditional pins-and-plugs, so they aren't as prone to damage during handling. The SD card was jointly developed by Matsushita, SanDisk, and Toshiba.

Security Service
Compared to monolithic environments, distributed systems create new challenges for the implementation of security. Integrated systems must provide authentication, auditing, authorization, and encryption services that allow a client to conduct a secure communication with a server.

Segment
1) verb, to isolate traffic on a LAN;
2) noun, the LAN devices and media isolated.

Sensitive
See Sensitivity

Sensitive Data
Any data of which the compromise with respect to confidentiality, integrity, and/or availability could adversely affect COV interests, the conduct of Agency programs, or the privacy to which individuals are entitled.

Sensitive IT Systems
COV IT systems that store, process, or transmit sensitive data.

Sensitivity
A measurement of adverse affect on COV interests, the conduct of agency programs, and/or the privacy to which individuals are entitled that compromise information systems and data with respect to confidentiality, integrity, and/or availability could cause. information systems and data are sensitive in direct proportion to the materiality of the adverse effect caused by their compromise.

Sensitivity Classification
The process of determining whether and to what degree information systems and data are sensitive.

Separation of Duties
Assignment of responsibilities such that no one individual or function has control of an entire process. It is a technique for maintaining and monitoring accountability and responsibility for information systems and data.

Serial Advanced Technology Attachment (ATA) device
A new standard for connecting hard drives into computer systems that is based on serial signaling technology, unlike current IDE (Integrated Drive Electronics) hard drives that use parallel signaling. SATA has several practical advantages over the parallel signaling (also called Parallel ATA or PATA) that has been used in hard drives since the 1980s. SATA cables are more flexible, thinner, and less massive than the ribbon cables required for conventional PATA hard drives. SATA cables can be considerably longer than PATA ribbon cables, allowing the designer more latitude in the physical layout of a system. Because there are fewer conductors (only 7 in SATA as compared with 40 in PATA), crosstalk and electromagnetic interference (EMI) are less likely to be troublesome. The signal voltage is much lower as well (250 mV for SATA as compared with 5 V for PATA). SATA creates a point-to-point

connection between devices. Transfer rates for SATA begin at 150MBps. One of the main design advantages of Serial ATA is that the thinner serial cables facilitate more efficient airflow inside a form factor and also allow for smaller chassis designs. In contrast, IDE cables used in parallel ATA systems are bulkier than Serial ATA cables and can only extend to 40cm long, while Serial ATA cables can extend up to one meter. (Combined from Whatis.com and www.techimo.com definitions)

Server
Context: Hardware). A computer that provides some service for other computers connected to it via a network.
Context: Software). In general, a server is a computer program that provides services to other computer programs in the same or other computers. The computer that a server program runs in is also frequently referred to as a server (though it may contain a number of server and client programs). In the client/server programming model, a server is a program that awaits and fulfills requests from client programs in the same or other computers. A given application in a computer may function as a client with requests for services from other programs and also as a server of requests from other programs. Specific to the Web, a Web server is the computer program (housed in a computer) that serves requested HTML pages or files. A Web client is the requesting program associated with the user. The Web browser in your computer is a client that requests HTML files from Web servers.

Server Message Block (SMB)
Message protocol used by DOS and Windows to share files, directories and devices. (webopedia.com)

Service-Component Reference Model (SRM)
Service component-based framework that can provide—independent of business function—a "leverage-able" foundation for reuse of applications, application capabilities, components, and business services.

Service-Oriented Architecture
An architectural approach that presents a set of reusable software components that align with the agency's business goals and the Commonwealth's strategic objectives. The services are highly cohesive, loosely coupled, discoverable software components that are decoupled from hardware and network dependencies and that encapsulate the complexities of the underlying implementation.

Service Offering and Support Center (SOSC)
The state SOSC is maintained and operated by the Virginia Information Technologies Agency (VITA). The SOSC provides people, processes, and resources to ensure enterprise efficiencies and help agencies meet business and technical needs.

Service Providers and Consumers
In general, entities (people and organizations) offer capabilities and act as service providers. Those with needs who make use of services are referred to as service consumers.

Services
Any activities performed by an independent contractor wherein the service rendered does not consist primarily of acquisition of equipment or materials, or the rental of equipment, materials and supplies (Code of Virginia, § 2.2-4301).

Session
A series of interactions between two communication end points (typically a client and a server) that occur during the span of a single connection.

Session Initiation Protocol (SIP)
A signaling protocol developed by the IETF. The SIP protocol has not yet been ratified as a standard. SIP is primarily used for voice over IP (VoIP) calls but also may be used for other communications including video, instant messaging, and gaming. SIP is a text-based protocol that is based on HTTP and MIME. SIP is used as one part of a protocol stack that is intended to provide seamless, continuous, end-to-end communications similar to what is provided by the PSTN. SIP is responsible for setting up and taking down the connection. SIP also provides services such as dialing a number, causing a phone to ring, and providing ring back tones or busy signals. SIP is included as part of the IMS subsystem.

Shared Accounts
A logon ID or account utilized by more than one entity.

Shared Utility Service
In this report, the term is used to connote a function or activity typically provided by an IT unit, which may be separated from IT work requiring business knowledge, and which may be provided by a central enterprise service (in-sourced) or by an external business (outsourced). An example would be web site hosting. You can provide hosting and WC3 accessibility levels without knowing the business of the agency or understanding the content of the website.

Simple Access Object Protocol (SOAP)
A minimal set of conventions for invoking code using XML over HTTP

Simple Mail Transfer Protocol (SMTP)
Documented in RFC 821, SMTP is Internet's standard host-to-host mail transport protocol.

Simple Network Management Protocol (SNMP)
The Internet standard protocol, defined in STD 15, RFC 1157, developed to manage nodes on an IP network. It is a simple and expandable protocol designed to give the capability to remotely manage a computer network by polling, setting terminal values, and monitoring network events. It is comprised of three elements, an MIB, a manager, and the agents. The manager is located on the host computer on the network. Its role is to poll the agents and request information concerning the networks status. Agents run off each network node and collect network and terminal information as specified in the MIB.

Simultaneous Multithreading (SMT)
A processor design that combines hardware multithreading with superscalar processor technology to allow multiple threads to issue instructions each cycle. Unlike other hardware multithreaded architectures (such as the Tera MTA), in which only a single hardware context (i.e., thread) is active on any given cycle, SMT permits all thread contexts to simultaneously compete for and share processor resources. Unlike conventional superscalar processors, which suffer from a lack of per-thread instruction-level parallelism, simultaneous multithreading uses multiple threads to compensate for low single-thread ILP. The performance consequence is significantly higher instruction throughput and program speedups on a variety of workloads that include commercial databases, web servers and scientific applications in both multiprogrammed and parallel environments. (http://www.cs.washington.edu/research/smt/index.htm)

Slack
Term used in PERT or arrow diagramming method for float. (PMBOK 3RD EDITION)

Slippage
The tendency of a project to exceed original estimates of budget and time.

Small Computer System Interface (SCSI)
Small Computer System Interface

Smartcard, also Smart Card
A small electronic device about the size of a credit card that contains electronic memory, and possibly an embedded integrated circuit (IC). Smart cards containing an IC are sometimes called Integrated Circuit Cards (ICCs). Smart cards are used for a variety of purposes, including:

- Storing a patient's medical records
- Storing digital cash
- Generating network IDs (similar to a token)

To use a smart card, either to pull information from it or add data to it, you need a smart card reader, a small device into which you insert the smart card. (webopedia.com)

SmartMedia
A card (originally called a solid-state floppy disk card, or SSFDC) is a memory card developed by Toshiba that uses flash memory to store data and to make it portable among devices, such as digital cameras, personal digital assistants (PDAs), and other handheld devices. At 45 X 37 mm and less than 1 mm thick (about as big as a matchbook), SmartMedia is similar in size to the CompactFlash card (although significantly thinner), but larger than the newer, postage stamp-sized alternatives, MultiMediaCard and Secure Digital (SD card). SmartMedia cards are available with storage capacities ranging up to 128MB, with higher capacities corresponding to higher prices. Unlike CompactFlash, SmartMedia doesn't have an on-board controller. Compliant devices have a controller built into the units' slots. The main advantage that SmartMedia cards have over the other memory cards is that because they read, write, and erase memory in small blocks of data (256 or 512 bytes at a time), you can more precisely select what data you want to save. However, SmartMedia cards aren't as sturdy as the other formats, and so require more careful handling and storage.

Snapshot
A backup facility provided by several companies. For example:
1) A function of Tivoli Storage Management (TSM) that backs up the entire TSM database to media that can be taken off-site. The database snapshot does not interrupt any database backup series and cannot have incremental database backups associated with it. (Tivoli.com)
2) SNAZ InstaView™ is optional Snapshot Software available with SNAZ SVA. SNAZ InstaView provides point-in-time volume imaging and presents a virtually unlimited number of views of the data. Each view can be individually allocated, on a read only or read/write basis, to any server. Data replication and data rollback are also offered as part of SNAZ InstaView functionality. Key benefits of SVA InstaView include:

- Backup and operations can be completed in background while volumes remain on-line

- Multiple views can be created and accessed simultaneously without copying data. There is no need to replicate data for each view, saving significant amount of storage and improving performance
- Ability to maintain several versions of data
- Ability to run several applications in parallel, using the same data
- Ability to create a view of the data at any specific time for later use (www.snia.org)

SOA-based Services
Modular, swappable function, separate from, yet connected to an application via well defined interfaces to provide agility. Often referred to as 'services' throughout this document, they:

- *Perform granular business functions such as "get customer address" or larger ones such as 'process payment.*
- *Are loosely coupled to a new or existing application.*
- *Have capability to perform the steps, tasks, and activities of one or more business processes.*
- *Can be combined to perform a set of functions - referred to as 'service orchestration.*

SOA Steering Committee
This entity provides the strategy and leadership to approve recommended Tier One services for enterprise use and ensure they are implemented in ways to achieve targeted benefits.

SOA Technical Advisory Group (SOA) TAG
This entity recommends and ensures services are and remain Tier One compliant.

Social media

Though many definitions exist, it is consistently characterized as the collection of Web tools that facilitate collaboration and information sharing. Web-based communities and hosted services include social-networking sites, video and photo sharing sites, wikis, blogs, virtual worlds and other emerging technologies.

- *The Virginia Department of Human Resource Management (DHRM) defines social media as a "(f)orm of online communication or publication that allows for multi-directional interaction. Social media includes blogs, wikis, podcasts, social networks, photograph and video hosting websites, crowdsourcing and new technologies as they evolve.*

Sockets
Virtual connections between processes. They can be of two types, stream (bi-directional) or datagram (fixed length destination-addressed messages). The socket library function socket() creates a communications end-point or socket and returns a file descriptor with which to access that socket. The socket has associated with it a socket address, consisting of a port number and the local host's network address.

Software

A general term that refers to all programs or instructions that are used to operate computer hardware. Software causes computer hardware to perform activities by telling a computer how to execute functions and tasks.

Software as a Service (SaaS)
The capability provided to the consumer is to use the provider's applications running on a cloud infrastructure. The applications are accessible from various client devices through either a thin client interface, such as a web browser (e.g., web-based email), or a program interface. The consumer does not manage or control the underlying cloud infrastructure including network, servers, operating systems, storage, or even individual application capabilities, with the possible exception of limited user-specific application configuration settings.

Software Developer's Kit (SDK)
Software Developer's Kit; Software Development Kit

Sole Source
A product or service which is practicably available only from one source. (DGS – APSPM)

Source code auditing
A software (source) code audit is a comprehensive analysis of source code in a programming project with the intent of discovering bugs, security breaches or violations of programming conventions. It is an integral part of the defensive programming paradigm, which attempts to reduce errors before the software is released.

Specification Documents
Documents that provide specific information about the project deliverable characteristics.

Split tunneling
Routing organization-specific traffic through the VPN tunnel, but other traffic uses the remote user's default gateway.

Spy-ware
A category of malicious software designed to intercept or take partial control of a computer's operation without the informed consent of that machine's owner or legitimate user. While the term taken literally suggests software that surreptitiously monitors the user, it has come to refer more broadly to software that subverts the computer's operation for the benefit of a third party.

Stakeholder
Persons and organizations such as customers, sponsors, performing organization and the public, that are actively involved in the project, or whose interests may be positively or negatively affected by execution or completion of the project. (PMBOK 3RD EDITION)

Standard Generalized markup Language (SGML)
HTML and XML are subsets of SGML.

Standards
Are specific and, where applicable, technical documents containing directives and mandatory specifications governing the management, development, and use of information technology resources. (COV ITRM STANDARD GOV2000-01.1)

Standards Development Organization (SDO)
Context: Health IT Standard). A domestic or international organization that plans, develops, establishes or coordinates voluntary consensus standards using procedures that incorporate the attributes of openness, balance of interests, due process, an appeals process and consensus in a manner consistent with the Office of Management and Budget Circular Number A–119, as revised February 10, 1998. (Article I, Public Law 108–237).

State
See Commonwealth of Virginia (COV).

State agency or agency
Any agency, institution, board, bureau, commission, council, or instrumentality of state government in the executive branch listed in the appropriation act.

State SOA Backplane
Shared, common infrastructure for lifecycle management such as a services registry, policies, business analytics; routing/addressing, quality of service, communication; development tools for security, management, and adapters.

Statement of Work (SOW)
A narrative description of products, services or results to be supplied. (PMBOK 3RD EDITION)

State-wide search
Functionality utilized by the Commonwealth of Virginia is a custom search engine and has the ability to search all state agency Web sites for the term(s) the user enters into the search box.

Status Reports
A report containing information on a specific project, indicating if the project is ahead of schedule, on schedule, or behind schedule in relation to the project plan.

Storage
The holding of data in an electromagnetic form for access by a computer processor. Primary storage is data in random access memory (RAM) and other "built-in" devices. Secondary storage is data on hard disks, tapes, and other external devices.

Storage Area Network (SAN)
A storage model typically characterized by a use of switching and transmission facilities that are separate from the local area network where the server of data to be stored and retrieved resides. As IP and Ethernet protocols become used in SANs, the model and/or name may change.

Store and Forward
A term used in message processing where a message is saved and then delivered.

Strategic
Rating category used to rate technologies. This technology is considered a strategic component of the Commonwealth's Enterprise Technical Architecture. It is acceptable for current deployments and must be used for all future deployments.

Strategic Business Plan

A plan developed by an agency that sets clearly defined objectives, strategies, and actions for achieving agency and Commonwealth long term goals and initiatives.

Structured Query language (SQL)
An industry-standard language for creating, updating, and querying relational database management systems.

Structured Transaction Definition Language (STDL)
A high-level language for developing portable and modular transaction processing applications in a multi-vendor environment.

Successor Activity
The schedule activity that follows a predecessor activity, as determined by their logical relationship. (PMBOK 3RD EDITION)

Super Digital Linear Tape (SDLT)
A variant of DLT technology, called SuperDLT, makes it possible to store upwards of 100 GB on a single cartridge. The SuperDLT drive can transfer data at speeds of up to 10 megabytes per second (Mbps). (searchStorage.com)

Support for Standard Management Platforms
Management of large-scale distributed application environments requires appropriate tools. These tools should be based on standards (e.g. SNMP), so that the management of applications can be integrated with popular management platforms like OpenView in order to provide a consolidated picture of the state of network, operating system and application components.

Support System
An interconnected set of IT resources under the same direct management control that shares common functionality and provides services to other systems. See also Application System and Information Technology (IT) System.

Switch
1) noun, a circuit switching hub. Network device that filters, forwards, and floods frames based on the destination address of each frame. The switch operates at the data link layer of the OSI model. A fabric switch may have significant management and security functionality in addition to switching protocol choices. (modified Cisco definition).
2) verb, A communications paradigm in which a dedicated communication path is established between the sender and receiver along which all packets travel. The telephone system is an example of a circuit switched network. Also called connection-oriented.

Synchronous
Two or more processes that depend upon the occurrences of specific events such as common timing signals. This term has two distinct meanings in networking: 1) a network communication, which requires a reply for completion or 2) a type of network transmission that uses start and stop bits to establish precise clocking.

Synchronous Data Link Control (SDLC)
An IBM/SNA communications protocol. HDLC, high level data link control was derived using SDLC. SDLC manages synchronous (i.e., uses timing bit), code-transparent, bit-serial communication which can be duplex or half-duplex; switched or non-switched; point-to-point, multipoint, or loop.

Synchronous Optical Network (SONET)
1) A new and growing body of standards that define all aspects of transporting and managing digital traffic over fiber-optic facilities in the public network.
2) A network communication technology offering fiber optic transmission system for high-speed digital traffic.

Synchronous/Connection Oriented Communication
The implementation of a request/reply model for communication, i.e. the client program transfers data and control to the server with each call and it is blocked until a reply is returned.

Sysplex (from System and Complex)
A computer image that consists of the multiple computers (the systems) that make up the complex. A sysplex is designed to be a solution for business needs involving any or all of the following: parallel processing; online transaction processing (OLTP); very high transaction volumes; very numerous small work units - online transactions, for example (or large work units that can be broken up into multiple small work units); or applications running simultaneously on separate systems that must be able to update to a single database without compromising data integrity. According to IBM, the Parallel Sysplex is the end result of IBM large systems' developments over the years, from the single system uniprocessor, to tightly-coupled multiprocessors, to loosely-coupled configurations, to the sysplex, and finally to the Parallel Sysplex. A single system uniprocessor consists of a single central processor complex (CPC) - which consists of a single central processor (CP) and all associated system hardware and software, controlled by a single copy of the operating system. Tightly coupled multiprocessors consist of a number of CPs added to a CPC that share central storage and a single copy of the operating system. Work is assigned to an available CP by the operating system and can be rerouted to another if the first CP fails. A loosely coupled configuration has multiple CPCs (which may be tightly coupled multiprocessors) with separate storage areas, managed by more than one copy of the operating system and connected by channel-to-channel communications. A sysplex is similar to a loosely coupled configuration, but differs in that it has a standard communication mechanism (the cross-system coupling facility, or XCF) for MVS system applications that enables communication between application programs on one or multiple computers. The sysplex is made up of a number of CPCs that collaborate, through specialized hardware and software, to process a work load. This is what a large computer system does in general; a sysplex, through XCF, increases the number of processing units and operating systems that can be connected. The Parallel Sysplex, IBM's latest method of configuration for CPCs, is a clustering architecture that has improved communication capabilities and supports more connected CPCs and more copies of the operating system. There are several areas of improvement over the base sysplex. The Parallel Sysplex Coupling Facility is a new processor that stores crucial system information, usually configured on a separate device. Use of the coupling facility increases the capacity for data sharing among systems and subsystems. Because it is used through both systems and subsystems, it also ensures data integrity and consistency throughout the sysplex. Another feature of the new technology is the Workload Manager (WLM), part of OS/390 that is in each system in a Parallel Sysplex configuration. WLM manages resources more responsively than the earlier schedule-based methods through dynamic workload balancing and prioritization according to user-set criteria. The data- sharing capability enables simultaneous, multiple-system access to data. (Whatis.com)

System
See Information Technology (IT) System

System Administrator
An analyst, engineer, or consultant who implements, manages, and/or operates a system at the direction of the System Owner, Data Owner, and/or Data Custodian.

System Image
The current contents of memory, which includes the operating system and running programs. For effective management, a cluster of computer systems may be organized as a single system image, in which all systems appear as one. See virtual server and Sysplex.

System Owner
An agency Manager, designated by the Agency Head or Information Security Officer, who is responsible for the operation and maintenance of an agency IT system.

Systems Networking Architecture (SNA)
IBM's SNA provides a structure for transferring data between a variety of computing platforms.

T

T1
An AT&T Bell Labs term originally used in 1962 for the first digitally multiplexed transmission system for voice signals. Present day use indicates a digital carrier facility used to transmit a digital signal 1 or DS1 formatted digital signal at 1.544 megabits per second. This is equivalent to 24 analog lines. T1 transmission uses a bipolar Return To Zero alternate mark inversion line coding scheme.

Tangible Benefits
Benefits that can be measured and quantified. Tangible benefits include savings that result from improved performance and efficiency.

Tangible Costs
Costs that can be measured and quantified. Tangible costs include costs for hardware, software, people, and supplies for both the development process and ongoing operations.

Tape Library, Automated (ATL)
A robotic media handler capable of storing multiple pieces of removable media and loading and unloading them from one or more drives in arbitrary order.

Tape Silo
An automated tape Library

Task
Well defined components of project work. Often a task is referred as a work package.

TCP/IP
1) Transmission Control Protocol over Internet Protocol
2) The TCP/IP Suite of protocols

Technical Architecture
In enterprise architecture, business and technical computing specifications are considered. The technical architecture includes specification for only technical dimensions or components. In Virginia's enterprise architecture, the technical domains include: integration, security, platform, networking and telecommunications, application, database, enterprise systems management, and information architecture.

Technical Controls
Information security measures implemented through technical software or hardware.

Technical Specifications
Specifications that establish the material and performance requirements of goods and services.

Technology Infrastructure
Means telecommunications, automated data processing, word processing and management information systems, and related information, equipment, goods and services.

Technology Investments

Assets such as business-driven applications, data, facilities, IT human resources, infrastructure, services, operations and processes used to support the flow or processing of information for business activities.

Technology Portfolio
A management tool comprised of essential information about technology investments, structured to facilitate the evaluation of investment alternatives in support of an agency's overall strategic business plan.

Technology Standard
A specific and, where applicable, technical document containing directives and mandatory specifications governing the management, development, and use of information technology resources. (COV ITRM STANDARD GOV2000-01.1)

Telecommunications
Any origination, transmission, emission, or reception of signals, writings, images, and sounds or intelligence of any nature, by wire, radio, television, optical or other electromagnetic systems.

Telecommunications Equipment
Defined as, but not limited to: channel service units, data compression units, line drivers, bridges, routers, and Asynchronous Transfer Mode switches (ATM), multiplexers and modems. Also, private branch exchanges (PBX), Integrated Services Digital Network (ISDN) terminal equipment, voice mail units, automatic call distribution (ACD), voice processing units and key systems. Video communications products such as: coders, multipoint conferencing units and inverse multiplexers.

Telecommunications Facilities
An apparatus necessary or useful in the production, distribution, or interconnection of electronic communications for state agencies or institutions including the buildings and structures necessary to house such apparatus and the necessary land.

Telecommunications Industry Association (TIA)
A standards body. An association that sets standards for communications cabling.

Telecommunications Services
These services include, but are not limited to; data communication services, such as point-to-point and multipoint circuits, Internet, Frame Relay SMDS, ATM, and dial up lines, and voice communications services such as Centrex, business/private lines and WATS lines including 800 services, tie and access lines, long distance services, voice mail, pay phones, wireless communications and cellular services (see also "Public Telecommunications Services").

Template
A partially complete document in a predefined format that provides a defined structure for collecting, organizing and presenting information and data. Templates are often based upon documents created during prior projects. Templates can reduce the effort needed to perform work and increase the consistency of results. (PMBOK 3RD EDITION)

Temporary Files
Those files that are created as an application executes, but upon application termination, are no longer required for processing; nor are they part of the final representation of data.

Examples may include, but are not limited to temporary Internet Browser files, Browser Cookies, temporary MS Office files and temporary Setup files.

Testing
The actual test of the products or processes created within the development phase of an Information Technology project.

Test Environment
An Environment for quality assurance; this provides a less frequently changed version of the application which testers can perform checks against. This allows reporting on a common revision so developers know whether particular issues found by testers have already been corrected in the development code. This environment will be closer to your production environment but will house no production data.

Third-Party Provider
A company or individual that supplies IT equipment, systems, or services to COV Agencies.

Threat
Any circumstance or event (human, physical, or environmental) with the potential to cause harm to an information system in the form of destruction, disclosure, adverse modification of data, and/or denial of service by exploiting vulnerability.

Tier Definitions
Tier One – Services across/among agency systems; Tier Two – Services within an agency; and Tier Three – Sub-agency level.

Time Division Multiple Access (TDMA)
Time Division Multiple Access

Timeframe
The period when action is required to mitigate the risk. Timeframe is one of the three attributes of risk. (SEI)

Time-Scaled Network Diagram
Any project schedule network diagram drawn in such a way that the positioning and length of the activity represents its duration. Essentially, the diagram is a bar chart that includes network logic. (PMBOK)

Token
A small tangible object that contains a built-in microprocessor utilized to store and process information for authentication.

Token Ring
An IEEE 802.5 standard for media access. Conflicts in the transmission of messages are avoided by the granting of "tokens" which give permission to send.

Topic
Simply a logical subdivision of the domain. All components relevant to the Commonwealth's Technical Architecture are included within one of the identified topics. Within the Information domain topics include Reporting, Data Management, Business Intelligence and Knowledge Management.

Total Cost
The sum of all cost (fixed and variable) for a particular item or activity over a specified period.

Total Cost of Ownership (TCO)
A calculation of the fully burdened cost of owning a component. The calculation helps consumers and enterprise managers assess both direct and indirect costs and benefits related to the purchase of IT components. For the business purchase of a computer, the fully burdened costs can also include such things as service and support, networking, security, user training, and software licensing.

Traditional
Context: Hosting Options: *Traditional hosting services include physical and virtual servers that do not meet the five NIST characteristics defined above. These services can be provided on-premise or off-premise (eGov). Implementation of a hybrid cloud model could be extended to cover these type of services within the service and management model*.

Transaction Processing (TP)
Transaction Processing or Transaction Processing Monitor

Transaction Service
Guaranteed "all-or-nothing" execution of update requests against multiple (heterogeneous) resources.

Transform the Business
A project portfolio category for projects that support business functionality, deliverables, or processes by changing the way an organization does business.

Transformational Projects
Projects that change the way an organization does business.

Transitional
Rating category used in this document to rate integration technologies. This technology is not consistent with the Commonwealth's Enterprise Technical Architecture strategic direction. Agencies may use this technology only as a transitional strategy for moving to a strategic technology. Agencies currently using this technology should migrate to a strategic technology as soon as practical. A migration or replacement plan should be included as part of the Agency's IT Strategic Plan. New deployments or procurements of this technology require an approved Commonwealth Enterprise Technical Architecture Exception.

Transmission Control Protocol. (TCP)
An OSI layer 4 protocol

Triggering
Application components are dispatched automatically based on a predefined event condition. The definition of the event concept varies between the different types of integration technologies, e.g. request for certain elements in a database, arrival of a message in a queue, or method invocation request for an object that is managed by a ORB.

Triggers

Indications that a risk has occurred or is about to occur. Triggers may be discovered in the risk identification process and watched in the risk monitoring and control process. (PMBOK 3RD EDITION)

Triple Constraint
A framework for evaluating competing demands. The triple constraint is often depicted as a triangle where one of the sides or one of the corners represents one of the parameters being managed by the project team. (PMBOK 3RD EDITION)

Trojan horse
A malicious program that is disguised as or embedded within legitimate software.

Trusted System or Network
An IT system or network that is recognized automatically as reliable, truthful, and accurate, without continual validation or testing.

U

Ultra Mobile Broadband (UMB)
The brand name for the project within 3GPP2 to improve the CDMA2000 mobile phone standard for next generation applications and requirements. The system is based upon Internet (TCP/IP) networking technologies running over a next generation radio system, with peak rates of up to 280 Mbit/s. Its designers intend for the system to be more efficient and capable of providing more services than the technologies it replaces. Commercialization is unlikely as Qualcomm, its main developer, 3GPP2 and major CDMA carriers are concentrating on LTE instead. To provide compatibility with the systems it replaces, UMB supports handoffs with other technologies including existing CDMA2000 1X and 1xEV-DO systems. However 3GPP2 added this functionality to LTE, allowing LTE to become the single upgrade path for all wireless networks. According to the technology market research firm ABI Research, Ultra-Mobile Broadband might be "dead on arrival." No carrier has announced plans to adopt UMB, and most CDMA carriers in Australia, USA, China, Japan and Korea have already announced plans to adopt HSPA or LTE.

Uniform Resource Locator (URL)
An address, usually for locating Web pages. (e.g., FTP//:abc.org). The part before the first colon specifies the access scheme or protocol. Commonly implemented schemes include: ftp, http (World-Wide Web), gopher or WAIS. The "file" scheme should only be used to refer to a file on the same host. Other less commonly used schemes include news, telnet or mailto (e-mail). The part after the colon is interpreted according to the access scheme. In general, two slashes after the colon introduce a hostname (host:port is also valid, or for FTP user:passwd@host or user@host). The port number is usually omitted and defaults to the standard port for the scheme, e.g. port 80 for HTTP.

Unit Price Contracts
The contractor is paid a preset amount per unit of service (e.g., $70 per hour for professional services or $1.08 per cubic yard of earth removed) and the total value of the contract is a function of the quantities needed to complete the work.

Universal Serial Bus (USB)
A standard for connecting devices.

Universal Service Ordering Code (USOC)
Universal Service Ordering Code

Unlicensed National Information Infrastructure bands (U-NII)
Designated by the FCC to provide short-range, high-speed wireless networking communication at low cost. U-NII consists of three frequency bands of 100 MHz each in the 5 GHz band: 5.15-5.25GHz (for indoor use only), 5.25-5.35 GHz and 5.725-5.825GHz. The three frequency bands were set aside by the FCC in 1997 to help schools connect to the Internet without the need for hard wiring (Adapted from Wi-Fi Planet).

USB Flash Drive
A small, lightweight, removable and rewritable data storage device.

User ID
A unique symbol or character string that is used by an IT system to identify a specific user. See Logon ID.

Utility Service
In this report, the term is used to connote a function or activity typically provided by an IT unit, which may be separated from IT work requiring business knowledge, and which may be provided by a central enterprise service (in-sourced) or by an external business (outsourced). An example would be web site hosting. You can provide hosting and WC3 accessibility levels without knowing the business of the agency or understanding the content of the website.

V

Validation
The technique of evaluating a component or product during or at the end of a phase or project to ensure it complies with the specified requirements. Contrast with verification. (PMBOK 3RD EDITION)

Validator
A service or system that verifies that a page meets this Standard. (See: WATG)

Variance
A quantifiable deviation, departure, or divergence away from a known baseline or expected value. (PMBOK 3RD EDITION)

Vendor Independent Messaging (VIM)
A standard API for applications to integrate with e-mail on Windows 3.x, proposed by Lotus, Borland, IBM & Novell (CC:Mail.) in the early 1990s. Its main competitor was Microsoft's MAPI, which was the eventual winner of the MAPI v. VIM war. (Wikipedia)

Verification
The technique of evaluating a component or product at the end of a phase or project to assure or confirm it satisfies the conditions imposed. Contrast with validation. (PMBOK 3RD EDITION)

Version Control
The management of changes to documents, programs, and other data stored as computer files.

Virginia Department of Emergency Management (VDEM)
A COV department that protects the lives and property of Virginia's citizens from emergencies and disasters by coordinating the state's emergency preparedness, mitigation, response, and recovery efforts.

Virginia’s Council on Technology Services (COTS)
A stakeholder-driven body, representing the interests and needs of the enterprise as a whole, including the Executive, Legislative, and Judicial branches of state government. The purpose of the Council is to advise the Chief Information Officer of the Commonwealth on the services provided by the Virginia Information Technologies Agency (VITA) and the development and use of applications in state agencies and public institutions of higher education (http://www.vita.virginia.gov/cots/).

Virtual Host
On the Web, a server that contains multiple Web sites, each with its own domain name. As of the first version of the Web protocol (HTTP 1.0), each Web site on a virtual host must be assigned a unique IP address. HTTP Version 1.1 eliminates this requirement. See also virtual server.

Virtual Machine
A software emulation of a physical computing environment. The term gave rise to the name of IBM's VM operating system whose task is to provide one or more simultaneous execution environments in which operating systems or other programs may execute as though they

were running "on the bare iron", that is, without an enveloping Control Program. A major use of VM is the running of both outdated and current versions of the same operating system on a single CPU complex for the purpose of system migration, thereby obviating the need for a second processor. (FOLDOC)

Virtual Private Network (VPN)
A communications service that affords various levels of privacy over public or private infrastructure. Secure VPNs may use cryptographic tunneling protocols to preventing snooping, sender authentication to preventing identity spoofing, and message integrity (preventing message alteration) to achieve the privacy intended. Trusted VPNs do not use cryptographic tunneling. Instead, they rely on the security of a single provider's network to protect the traffic. Multi-protocol label switching (MPLS), layer 2 forwarding, and layer 2 tunneling are commonly used to build trusted VPNs.

Virtual Server
1) Same as virtual host. (http://content.techweb.com/encyclopedia/)
2) A configuration of a World-Wide Web server that appears to clients as an independent server but which is actually running on a computer that is shared by any number of other virtual servers. Each virtual server can be configured as an independent web site, with its own hostname, content, and security settings. The Domain Name System or DNS maps the hostnames of all virtual servers on one physical server to its IP address. The web server software then uses the "Host" header in the HTTP request to determine which virtual server the request was for, and then processes the request using that virtual server's configuration. (foldoc.org)
3) Multiple servers that appear as one server, or one system image, to the operating system or for network administration. (http://content.techweb.com/encyclopedia/)

Virtual Storage
The storage space that may be regarded as addressable main storage by the user of a computer system in which virtual addresses are mapped into real addresses. The size of virtual storage is limited by the addressing scheme of the computer system and by the amount of auxiliary storage available, not by the actual number of main storage locations. (www.ibm.com)

Virtual Tape
The use of a special storage device that manages less-frequently needed data so that it appears to be stored entirely on tape cartridges when some parts of it may actually be located in faster, hard disk storage. The programming for a virtual tape system is sometimes called a virtual tape server (VTS). Virtual tape can be used with a hierarchical storage management (HSM) system in which data is moved as it falls through various usage thresholds to slower but less costly forms of storage media. Virtual tape may also be used as part of a storage area network (SAN) where less-frequently used or archived data can be managed by a single virtual tape server for a number of networked computers. A virtual tape system offloads from the main computer the processing involved in deciding whether data should be available in the faster disk cache or written onto a tape cartridge. The virtual tape system also can manage data so that more of the space on a tape cartridge is actually used. (searchStorage.com) IBM and Storage Technology are well-established vendors of virtual tape systems. Sutmyn Storage sells a product that provides a virtual interface to existing IBM and other systems.

Virus
See Malicious Code

Vital Record
A document, regardless of media, which, if damaged or destroyed, would disrupt business operations.

Vocabulary
A code set, nomenclature system or identifier list maintained by an organization to standardize a particular domain (e.g., human genes, clinical terminology, provider identification).

Voice over Internet Protocol (VoIP)
A service that permits voice connections and the transmission of voice conversations using IP packets that are sent over public and private cabled infrastructure. A set of equipment and protocols is required to accomplish quality voice communications using VoIP. A major advantage of VoIP and Internet telephony is that it avoids the tolls charged by ordinary telephone service. VoIP derives from the VoIP Forum, an effort by major equipment providers, including Cisco, VocalTec, 3Com, and Netspeak to promote the use of ITU-T H.323, the standard for sending voice (audio) and video using IP on the public Internet and within an intranet. The Forum also promotes the user of directory service standards so that users can locate other users and the use of touch-tone signals for automatic call distribution and voice mail. Using VoIP, an enterprise positions a "VoIP device" at a gateway. The gateway receives packetized voice transmissions from users within the company and then routes them to other parts of its intranet (local area or wide area network) or, using a T-carrier system or E-carrier interface, sends them over the public switched telephone network.

Voice over Wi-Fi (Vo-Fi) or wireless VoIP.
This is used successfully in hospitals or areas when no hand offs are needed.

Voice over Wireless LAN (VoWLAN)
An implementation of Voice over IP using wireless rather than wired infrastructure.

VPN
A network that uses a public telecommunication infrastructure, such as the Internet, to provide remote offices or remote users with secure access to their organization's network.

Vulnerability
A condition or weakness in security procedures, technical controls, or operational processes that exposes the system to loss or harm.

W

WAN optimization controller (WOC)
Recently called a WOC by Gartner

Web 2.0
A marketing term that is loosely used to represent a second generation of Web/Internet technologies generally involving new methods of 2-way communication, content (value) contribution from users and interactivity with the user. Examples of items that may be considered "Web 2.0" include are RSS feeds, social networks, wikis, interactive interface items that utilize AJAX, and blogs.

Web Accessibility and Training Guide (WATG)
To assist developers in using the template and meeting accessibility standards, the WATG was developed. It is an online resource that provides guidance on achieving Section 508 and WCAG Level A or better accessibility and uses current research in usable design and human engineering trends to assist Webmasters in ensuring that their Web site is the best it can be. (See: http://www.vadsa.org/watg).

Web Application
In general a web application is an application that is accessed with a Web browser over a network such as the Internet or an intranet. Specifically a web application is a software program that uses HTTP for its core communication protocol and delivers Web-based information to the user in the HTML language. Also called a Web-based application.

Web Content Accessibility Guidelines (WCAG)
Version 1.0 is part of a series of accessibility guidelines published by the Web Accessibility Initiative. The series also includes User Agent Accessibility Guidelines ([WAI-USERAGENT]) and Authoring Tool Accessibility Guidelines ([WAI-AUTOOLS]).

Web services
A standardized way of integrating Web-based applications using open standard interfaces over an Internet protocol backbone. Used for businesses to communicate with each other and with clients, Web services allow organizations to communicate data without intimate knowledge of each other's IT systems behind the firewall.

Web Site
A related collection of World Wide Web (WWW) files that includes a beginning file called a home page.

Wide Area File Services (WAFS)
A storage tool for improving central data access speeds over WANs and the Internet.

Wide Area Network (WAN)
1) A network that provides communication services to a geographic area larger than that served by a local area network or a metropolitan area network, and that may use or provide public communication facilities.
2) A data communications network designed to serve an area of hundreds or thousands of miles; for example, public and private packet-switching networks, and national telephone networks.

3) (IRM) A computer network that links multiple workstations and other devices across a large geographical area. A WAN typically consists of multiple LANs that are linked together.

Wide-band Code-Division Multiple Access (WCDMA)
A 3G technology that increases data transmission rates in GSM systems by using the CDMA air interface instead of TDMA. WCDMA is based on CDMA and is the technology used in UMTS. WCDMA was adopted as a standard by the ITU under the name "IMT-2000 direct spread". (Adapted from Wi-Fi Planet.)

Wi-Fi
A brand logo of the Wi-Fi Alliance used in their certification of products as compliant with the 802.11 wireless connectivity standards. The Wi-Fi Alliance was originally called WECA or the Wireless Ethernet Compatibility Alliance. The term Wi-Fi is widely used in common parlance to refer to all things wireless. Wi-Fi does not stand for Wireless Fidelity. (Adapted from Wikipedia).

Wireless Local Area Network (WLAN)
Wireless Local Area Network

Work Breakdown Structure (WBS)
A deliverable-oriented hierarchical decomposition of the work to be executed by the project team to accomplish the project objectives and create the required deliverables. It organizes and defines the total scope of the project. Each descending level represents an increasingly detailed definition of the project work. The WBS is decomposed into work packages. The deliverable orientation of the hierarchy includes both internal and external deliverables. (PMBOK 3RD EDITION)

Work Package
A deliverable or project work component at the lowest level of each branch of the work breakdown structure. The work package includes the schedule activities and schedule milestones required to complete the work package deliverable or project work component. (PMBOK 3RD EDITION)

Workaround
A response to a negative risk that has occurred. Distinguished from contingency plan in that a workaround is not planned in advance of the occurrence of the risk event. (PMBOK 3RD EDITION)

Workstation
A terminal, computer, or other discrete resource that allows personnel to access and use IT resources.

World Wide Web Consortium (W3C)
Http://www.w3.org is a forum for information, commerce, communication, and collective understanding. W3C develops interoperable technologies (specifications, guidelines, software, and tools) to lead the Web to its full potential. W3C is a forum for information, commerce, communication, and collective understanding.

Worldwide Interoperability for Microwave Access (WiMAX)
A logo used by the WiMAX Forum for certifying product compatibility with the IEEE 802.16 standard. The 802.16 working group of IEEE specializes in point-to-multipoint broadband wireless access. IEEE 802.16 or WiMAX is a standard for wireless technology that provides

high-throughput broadband connections over long distances. WiMAX can be used for a number of applications, including "last mile" broadband connections, hotspots and cellular backhaul, and high-speed enterprise connectivity for business. (Adapted from Whatis.com).

Write Once Read Many (WORM)
Write Once Read Many times medium

X

X.400
International Telegraph and Telephone Consultative Committee (CCITT), now known as the ITU Telecommunication Standardization Sector, completed the first release of the X.400 message handling system standard. The standard provided for the exchange of messages in a store-and-forward manner without regard to the user's location or computer system.

X.500
An ISO OSI Directory Service with an information model, a namespace, a functional model, an authentication framework, and a distributed operation model. X.500 directory protocol is used for communication between a Directory User Agent and a Directory System Agent. To allow heterogeneous networks to share directory information, the ITU proposed a common structure called X.500. However, its complexity and lack of seamless Internet support led to the development of Lightweight Directory Access Protocol (LDAP), which has continued to evolve under the aegis of the IETF. Despite its name, LDAP is too closely linked to X.500 to be "lightweight".

X.509
Standards for PKI or Public Key Infrastructure (e.g., Digital Signatures)

X/A
An application program interface (API) specification between a global Transaction Manager and Database.

Y

No glossary terms

Z

Zero-day (zero-hour) attack or threat
A computer threat that tries to exploit computer application vulnerabilities which are unknown to others, undisclosed to the software vendor, or for which no security fix is available.