

SAM – INFORMATION TECHNOLOGY
(California Technology Agency)

DEFINITIONS
(Revised 12/12)

4819.2

The following definitions of administrative and technical terms are provided to assist agencies in their application of information technology policy.

The primary source for technical definitions is the Information Processing Systems Technical Report, American National Dictionary for Information Processing Systems, developed by the American National Standards Committee, X3 Information Processing Systems. In some cases the definitions have been modified to meet state needs.

Agency: When used lower case (agency), refers to any office, department, board, bureau, commission or other organizational entity within state government. When capitalized (Agency), the term refers to one of the state's super agencies such as the State and Consumer Services Agency or the Health and Human Services Agency.

Baseline(d): An approved time phased plan for project work against which project execution is compared to measure and manage cost and schedule performance.

A project must be baselined in accordance with the milestones in the approved FSR. A project may not be re-baselined unless an approved SPR is available.

California Project Management Methodology. The California Project Management Methodology (CA-PMM) is a customized, orchestrated project management workflow derived from the Project Management Institute's process groups. The CA-PMM identifies 500 hours of effort to be the threshold for requiring CA-PMM project management disciplines. While smaller endeavors are not subject to the CA-PMM, they should still be planned and managed effectively.

Cloud Computing: 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.

Confidential Information: Information maintained by state agencies that is exempt from disclosure under the provisions of the California Public Records Act (Government Code Sections 6250-6265) or other applicable state or federal laws. See SAM Section 5320.5.

Continuing Costs: Costs associated with the operation and maintenance of an information technology system or application after development and implementation of the system.

Critical Application: An application that is so important to the state that the loss or unavailability of the application is unacceptable. With a critical application, even short-term unavailability of the information provided by the application would have a significant negative impact on the health and safety of the public or state workers; on the fiscal or legal integrity of state operations; or on the continuation of essential agency programs.

Data: A representation of facts, concepts, or instructions in a formalized manner suitable for communication, interpretation, or processing by humans or by automated means.

Data Processing: The systematic performance of operations upon data, e.g., handling, merging, sorting, computing. Synonymous with information processing.

Data Processing System: A system, including computer systems and associated personnel, that performs input, processing storage, output, and control functions to accomplish a sequence of operations on data.

Data/Information Storage: The retaining of data/information on any of a variety of mediums (i.e., magnetic disk, optical disk, or magnetic tape) from which the data can be retrieved.

(Continued)

SAM – INFORMATION TECHNOLOGY
(California Technology Agency)

(Continued)

DEFINITIONS

4819.2 (Cont. 1)

(Revised 12/12)

Data Transmission: The conveying of data from one functional unit to one or more additional functional units through the transmission of signals by wire, radio, light beam, or any other electromagnetic means. (Voice or video transmissions are not considered data transmission for the purposes of state policy.)

Development: Activities or costs associated with the analysis, design, programming, staff training, data conversion, acquisition, and implementation of new information technology applications.

Electronic and Information Technology (EIT or E&IT): Includes information technology and any equipment or interconnected system or subsystem of equipment that is used in the creation, conversion, or duplication of data or information. The term electronic and information technology includes, but is not limited to, telecommunications products (such as telephones), information Kiosks and transaction machines, World Wide Web sites, multimedia, and office equipment such as copiers and fax machines.

Emergency: A sudden, unexpected occurrence that poses a clear and imminent danger, requiring immediate action to prevent or mitigate the loss or impairment of life, health, property, or essential public services". SAM Section 6560 specifies that emergency expenditures cannot exceed \$25,000, unless approved by the Department of Finance.

Federated Data Center: A centralized Tier III-equivalent data center providing participating state departments the ability to operate their own environment with a degree of independence in the overall management of their server infrastructure. Federated Data Center (FDC) services will evolve to provide, at a minimum, shared network, storage, and backup infrastructures. Additionally, agencies can plan utilization of the FDC as a disaster recovery site.

Hardware: See IT equipment.

Information Processing: The systematic performance of operations upon data, e.g., handling, merging, sorting, computing. Synonymous with data processing.

Information Technology: Information technology means all computerized and auxiliary automated information handling, including systems design and analysis, conversion of data, computer programming, information storage and retrieval, voice, video, data communications, requisite systems controls, and simulation. The term "information technology" is commonly abbreviated as "IT".

Information Technology Activities: Any activity listed below, or any combination of these activities for a single information technology project, is to be considered an "information technology activity."

1. IT facility preparation, operation and maintenance.
2. Information management planning.
3. Feasibility determination, development and implementation of application systems or programs, or changes to application systems or programs to meet new or modified needs, or maintenance, including: feasibility study preparation, systems analysis, systems design, purchase and installation of software, programming, conversion of data or programs, documentation of systems and procedures, and project appraisal or assessment.

(Continued)

SAM – INFORMATION TECHNOLOGY
(California Technology Agency)

(Continued)

DEFINITIONS

4819.2 (Cont. 2)

(Revised 12/12)

4. Operation of application systems or programs including handling, assembling, or editing of input-output data or media where information technology equipment or information technology personnel are used.
5. Services or equipment received through an EDP Master Agreement (SAM Section 5207.5).
6. Acquisition, installation, operation, and maintenance of data processing equipment.
7. Other installation management activities including performance measurement, system tuning, and capacity management.
8. Preparation and administration of requests for proposals or bid solicitations for contracts for any of the above activities.
9. Preparation of contracts, interagency agreements, and purchase estimates for any of the above activities.
10. Employment of personnel in support of, or directly related to, any of the above activities, including: administration, technical services, clerical services, travel, training, and preparation of periodic and special reports.
11. Control functions directly related to any of the above activities.

Information Technology Expenditure: The expenditure of funds regardless of source by any state entity for information technology activities, equipment, facilities, personnel, services, supplies and the automated processing of information.

Information Technology (IT) Project Oversight Framework: Minimum requirements for IT project management, risk management and IT project oversight activities for departments and agencies. Description of control agency project reporting requirements and processes for assessing department and agency project management and oversight activities. See SIMM Section 45.

Information Technology Procurement: Any contract, interagency agreement or purchase estimate to conduct any activity listed below, or any combination of these activities is to be considered an "information technology procurement."

1. IT facility preparation, operation and maintenance.
2. Development and implementation of application systems or programs, or changes to application systems or programs to meet new or modified needs, or maintenance, including: feasibility study preparation, systems analysis, systems design, purchase and installation of software, programming, conversion of data or programs, documentation of systems and procedures, and project appraisal or assessment.
3. Operation of application systems or programs including handling, assembling, or editing of input-output data or media where information technology equipment or information technology personnel are used.
4. Services or equipment received through an EDP Master Agreement. SAM Section 5207.

(Continued)

SAM – INFORMATION TECHNOLOGY
(California Technology Agency)

(Continued)

DEFINITIONS

4819.2 (Cont. 3)

(Revised 12/12)

5. Acquisition, installation, operation, and maintenance of data processing equipment.
6. Other installation management activities including performance measurement, system tuning, and capacity management.
7. Employment of personnel in support of, or directly related to, any of the above activities, including: administration, technical services, clerical services, travel, training, and preparation of periodic and special reports.
8. Control functions directly related to any of the above activities.

Information Technology Project: An endeavor with a defined beginning and end, undertaken to meet unique goals and objectives that encompasses computerized and auxiliary automated information handling, including systems design and analysis, conversion of data, computer programming, information storage and retrieval, data transmission, requisite system controls, simulation, and related interactions between people and machines.

Input-Output Unit/Device: A unit or device in an IT system by which data may be entered into the system, received from the system, or both.

IT Equipment: Information Technology devices used in the processing of data electronically. The following are examples of IT equipment:

1. Mainframes and all related features and peripheral units, including processor storage, console devices, channel devices, etc.;
2. Minicomputers, midrange computers, personal computers, laptop, tablets, smart phones and all peripheral units associated with such computers;
3. Special purpose systems including word processing, Optical Character Recognition (OCR), bar code readers/scanners, and photo composition;
4. Communication devices used for transmission of data such as: modems, data sets, multiplexors, concentrators, routers, switches, local area networks, private branch exchanges, network control equipment, or microwave or satellite communications systems; and
5. Input-output (peripheral) units (off-line or on-line) including: display screens, optical character readers, magnetic tape units, mass storage devices, printers, video display units, data entry devices, plotters, scanners, or any device used as a terminal to a computer and control units for these devices.

IT Personnel: All state personnel employed in IT or telecommunications classifications as defined by the Department of Personnel Administration or by the Trustees of the California State University and Colleges, and all personnel of other classifications in state agencies who perform information technology activities for at least 50 percent of their time. Users of personal computers and office automation are not included in this category unless they are in information technology classifications or spend at least 50 percent of their time performing information technology activities.

(Continued)

**SAM – INFORMATION TECHNOLOGY
(California Technology Agency)**

(Continued)

DEFINITIONS

4819.2 (Cont. 4)

(Revised 12/12)

IT Supplies: All consumable items and necessities (excluding equipment defined as IT equipment) to support information technology activities and IT personnel, including:

1. Documents (such as standards and procedures manuals, vendor-supplied systems documentation, and educational or training manuals);
2. Equipment supplies (such as printer forms, punch card stock, disk packs, "floppy" disks, magnetic tape, and printer ribbons or cartridges); and
3. Furniture (such as terminal tables and printer stands).

Life Cycle: The anticipated length of time that the information technology system or application can be expected to be efficient, cost-effective and continue to meet the agency's programmatic requirements. Synonymous with operational life system.

Maintenance: Activities or costs associated with the ONGOING UPKEEP of operational applications of information technology. Maintenance includes correcting flaws, optimizing existing systems or applications, responding to minor changes in specified user requirements, renewal of equipment maintenance agreements, and meeting normal workload increases using substantially the same equipment, facilities, personnel, supplies and software.

Mobile Web: Mobile Web refers to browser-based access to the Internet or Web applications using a mobile device, such as a smart phone, connected to a wireless network.

Network Equipment: Equipment facilitating the use of a computer network. This includes routers, switches, hubs, gateways, access points, network bridges, modems, firewalls, and other related hardware and software.

One-Time Costs: Costs associated with the analysis, design, programming, staff training, data conversion, acquisition, and implementation of new information technology applications. See State Information Management Manual (SIMM) Section 20 (Economic Analysis Workbook Package).

Open Source Software: Software that includes distribution terms that comply with the following criteria provided by the Open Source Initiative: (The open source definition used here is from the Open Source Initiative and is licensed under a Creative Commons Attribution 2.5 License (<http://creativecommons.org/licenses/by/2.5/>))

1. Free Redistribution: The software can be given as part of a package with other applications;
2. Source Code: The code must either be distributed with the software or easily accessible;
3. Derived Works: The code can be altered and distributed by the new author under the same license conditions as the product on which it is based;
4. Integrity of the author's source code: Derived works must not interfere with the original author's intent or work;
5. No discrimination against persons or groups;
6. No discrimination against fields of endeavor: Distributed software cannot be restricted in who can use it based on their intent;
7. Distribution of license: The rights of the program must apply to all to whom the program is re-distributed without need for an additional license;
8. License must not be specific to a product; Meaning that an operating system product cannot be restricted to be free only if used with another specific product;

(Continued)

**SAM – INFORMATION TECHNOLOGY
(California Technology Agency)**

(Continued)

DEFINITIONS

4819.2 (Cont. 5)

(Revised 12/12)

9. License must not contaminate other software; and
10. License must be technology-neutral.

Operational Life: See life cycle.

Operations: Activities or costs associated with the CONTINUED USE of applications of information technology. Operations includes personnel associated with computer operations, including network operations, job control, scheduling, key entry, and the costs of computer time or other resources for processing.

Peripheral Unit/Device: With respect to a particular processing unit or device, any equipment that can communicate directly with that unit or device.

Power Management: A feature of some electrical appliances, especially copiers, computers and computer peripherals such as monitors and printers, which turns off the power or switches the system to a low-power state when inactive.

Previously Approved Effort/Project: An information technology activity or project previously approved by the Technology Agency (or the Office of the State Chief Information Officer (OCIO) prior to January 1, 2011, or Finance prior to January 1, 2008) or the agency's executive officer in accordance with SAM Section 4819.3. Qualification of an activity as a previously approved effort requires an approved Feasibility Study Report (FSR) AND an approved Post-Implementation Evaluation Report. Applicable activities include meeting modified needs, improving the effectiveness of the activity, program or system maintenance, or extension of existing services to new or additional users performing essentially the same functions as those that the project was designed to support. A previously approved effort/project must use substantially the same equipment, facilities, technical personnel, supplies and software to meet substantially the same requirements or to meet normal workload increases. : (Note: "Substantially the same equipment" does not include the addition, upgrade or replacement of a central processing unit.)

Program: A sequence of instructions suitable for processing. See information processing or data processing.

Programming: The designing, writing, testing, debugging, and documentation of programs.

Project: An endeavor with a defined beginning and end (usually time-constrained, and often constrained by funding or deliverables), undertaken to meet unique goals and objectives, typically to bring about beneficial change or added value. (See information technology project.)

Project Oversight: An *independent* review and analysis to determine if the project is on track to be completed within the estimated schedule and cost, and will provide the functionality required by the sponsoring business entity. Project oversight identifies and quantifies any issues and risks affecting these project components.

Proprietary Software: Computer programs which are the legal property of one party, the use of which is made available to a second or more parties, usually under contract or licensing agreement.

Public Facing Applications: Any web-facing application designed and delivered with the intent of access by individuals or organizations over the public internet. Public facing applications are exposed to the broadest base of potential users (e. g. citizens), and are accessed via a web-browser.

(Continued)

SAM – INFORMATION TECHNOLOGY
(California Technology Agency)

(Continued)

DEFINITIONS

4819.2 (Cont. 6)

(Revised 12/12)

Public Information: Any information prepared, owned, used or retained by a state agency and not specifically exempted from the disclosure requirements of the California Public Records Act (Government Code Sections 6250-6265) or other applicable state or federal laws.

Sensitive Information: Information maintained by state agencies that requires special precautions to protect it from unauthorized modification or deletion. See SAM Section 5320.5. Sensitive information may be either public or confidential (as defined above).

Server Room: Any space that houses computer operations. Such computer operations could utilize mainframes, servers, or any computer resource functioning as a server.

Shutdown: Turning the power off in a controlled manner.

Software: Programs, procedures, rules, and any associated documentation pertaining to the operation of a system. (Contrast with hardware.)

Statewide Information Management Manual (SIMM): The Statewide Information Management Manual (SIMM) as structured by the Technology Agency contains instructions and guidelines as well as samples, models, forms and communication documents that state agencies either must use, or will find helpful to use, in complying with established state policy relating to IT. For clarity, references in SIMM to "Department of Finance" that are not related to budget documents such as Budget Change Proposals or Finance Letters, should be read as references to the "California Technology Agency".

System Standby: A low power mode for electronic devices such as computers, televisions, and remote controlled devices (aka "sleep mode"). These modes save significant electrical consumption compared to leaving a device fully on and idle but allow the user to avoid having to reset programming codes or wait for a machine to reboot.

Technology Letter: Letters issued by the Technology Agency conveying official communications regarding state information technology (IT), announcing new (or changes to existing) IT policies and procedures, or announcing new (or changes to existing) state IT services or standards.

Telecommunications: Includes voice and data communications, the transmission or reception of signals, writing, sounds, or intelligence of any nature by wire, radio, light beam, or any other electromagnetic means.

Tier III-Equivalent Data Center: Data Center facility consisting of multiple active power and cooling distribution paths; however, only one path is active. The facility has redundant components and is concurrently maintainable providing 99.982% availability.

Validation: The process of evaluating software during or at the end of the development process to determine whether it satisfies specified requirements. [IEEE-STD-610]

Verification: The process of evaluating software to determine whether the products of a given development phase satisfy the conditions imposed at the start of that phase. [IEEE-STD-610]

(Continued)

**SAM – INFORMATION TECHNOLOGY
(California Technology Agency)**

(Continued)

DEFINITIONS

4819.2 (Cont. 7)

(Revised 12/12)

Virtualization: A framework or methodology of dividing the resources of a computer into multiple execution environments, by applying one or more concepts or technologies such as hardware and software partitioning, time-sharing, partial or complete machine simulation, emulation, quality of service, and many others.

Workload Increase: Employing substantially the same resources (equipment, facilities, personnel, supplies, software) to process a greater volume of the same or similar information. The results of the processing are the same or similar outputs distributed to comparable users.