



STATE OF MARYLAND
DEPARTMENT OF PUBLIC SAFETY & CORRECTIONAL SERVICES

<p align="center">Information Technology &</p>  <p align="center">Communications Division</p>	<p>Information Technology and Communications Division Policy #: ITCDP05-07</p>
	<p>TITLE: Software Standards-Commercial Off-The-Shelf (COTS)</p>
	<p>EFFECTIVE DTAE: April 20, 2005</p>
	<p>APPROVED: Chief Information Officer (CIO)</p> 

I. PURPOSE:

The purpose of this policy is to guide the acquisition and support of Commercial Off-the-Shelf (COTS) software by the Department of Public Safety and Correctional Services (DPSCS). This policy is to be implemented upon the acquisition of new software. However, it is recognized that the acquisition of new software may require a phase-in period for full compliance because of compatibility and other impacts of replacing or upgrading legacy software. This policy is not a contract and may be modified at any time.

II. REFERENCES:

None.

III. SCOPE:

This policy applies to DPSCS and its customer community.

V. POLICY:

It is the policy of DPSCS to maintain standards for the acquisition and use of COTS software that will ensure compatibility with the current systems that are in place, optimize resource management and meet user needs to the maximum extent possible. COTS software shall be considered before custom developed systems and applications are developed. If a COTS software product is available that meets the DPSCS requirements, it shall be used rather than custom developed systems. However, if significant modifications to a COTS software product are required, that COTS product shall not be used. It is the policy of DPSCS to appropriately replace and upgrade COTS software consistent with users' needs and agency goals.

VI. RESPONSIBILITIES:

A. The Chief Technology Officer of the Information Technology and Communications Division (ITCD) will review and update the Software Standards – COTS Policy annually no later than July 1st. The policy version number and a change history shall be explicitly documented in each policy update.

B. ITCD is responsible for implementing and enforcing this policy within the Department.

VII. PROCEDURES:

The following are the considerations:

- A. COTS software configurations should be based on Agency requirements.
- B. Where appropriate, COTS software should be defined in terms of open standards rather than specific products.
- C. Where open standards are not applicable, specific COTS software products may be identified.
- D. In developing the minimum IT software configuration standards, the following criteria shall be considered. In addition, the configuration standards should consider existing or legacy software and the costs and impacts of replacing or upgrading software that is not in conformance with the configuration standards.
 - **Total lifecycle cost.** This criterion encompasses all cost including initial costs such as purchase, installation, and training, plus the on-going costs of maintenance and support. IT software costs shall be estimated for an Agency specified time period (e.g., a 3-year replacement cycle).
 - **Maintainability.** This criterion addresses the ability to administer and perform corrective, adaptive, or preventative maintenance on the COTS product within defined tolerance for cost and service, using vendor and/or internal support. This criterion includes minimal operational disruptions and downtime, the ability to tune the software to improve efficiency and effectiveness, and the costs and effort to upgrade to improved versions of the software product. The Criterion also seeks the assurance that the COTS Software remains supported by the vendor and runs on a supported version of Operating System platform. Software support and maintenance shall be required for all COTS products used in the performance of the DPSCS business functions.
 - **Interoperability.** This criterion seeks to minimize the additional support required to integrate the COTS product as a functioning component in the DPSCS IT portfolio. As an example, the exchange of information between potentially heterogeneous systems can be facilitated through open standards or non-proprietary protocols (e.g., TCP/IP, XML). Interoperability should include flexibility in supporting changes over time and among multiple State Agencies and systems. The conformance of the COTS product with industry standards such as published by ANSI/NIST or NCIC, is a significant criterion of interoperability. Interoperability standards affecting more than one Agency should be mutually determined and consistent with all higher-level (e.g., Statewide) standards.
 - **Portability.** This criterion addresses the ability of an existing software component to move from one physical or logical position in the IT infrastructure with minimum impact on cost and service. Platform and database independence are significant factors in this criterion.
 - **Scalability.** This criterion ensures that the acceptable COTS software products enhance the ability of the system to support future growth and increased throughput necessary to meet the DPSCS goals. This objective can be achieved through excess capacity or the flexibility to easily modify and/or enhance the system as needed. Factors to be considered under this criterion

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include: application performance or transaction processing speed, forward and backward compatibility, modularity, and capacity limits, in terms of volume of data, volume of transactions, number of users, number of locations, etc.

- **Availability.** This criterion seeks to maintain a system's operational readiness and required level of service without disruption from software failure. This can be achieved through robust and/or redundant (e.g., high availability) software. Operational readiness will include the ability of users and operators to access the system, in a timely fashion, to perform its intended functions.
- **Accessibility.** This criterion sets standards that at a minimum comply with the Americans with Disabilities Act (ADA) of 1990 and other Federal and State laws related to universal access.
- **Reusability.** This criterion addresses the ability to make repeated use of the COTS software product for additional requirements with minimum additional cost.
- **IT Architecture.** This criterion seeks to ensure that the COTS product is designed to fit within the IT Architecture Policy.
- **Functionality and Performance.** This criterion seeks to guarantee that the DPSCS operational requirements, especially its mission critical requirements intended to be performed by IT systems, can be achieved effectively and efficiently with the specified COTS software. It includes the properties of efficient software/hardware integration that affects the ability of the overall system to perform adequately to meet operational requirements. It also includes the "user friendly" aspect allowing users to perform their jobs using this software intuitively as a helpful tool.
- **Security.** This criterion addresses the need to protect system data and the operational environment from loss, compromise, or unauthorized access. It includes the ability of the COTS software to prevent malicious as well as non-malicious security breaches. The criterion also addresses the need that users or administrator of the COTS software should not require local or domain admin privileges in order to use the COTS software. The COTS software must be LDAP compliant and not require a separate user ID administration.
- **Network Impact.** This criterion seeks to ensure that the COTS software product will not negatively affect any production system or significantly degrade the network performance.
- **Other Specific Criteria.** Other criteria used for selecting an acceptable COTS Software product include: Vendor Viability, Licensing Restrictions, Product Market Share, Customer Recommendations, and Product Volatility (e.g., frequency of upgrades and potential obsolescence). These criteria should be included if they are necessary to meet State Agency's goals and objectives of the specific project for which the COTS Software is being considered.

VIII. APPENDICES:

None.

IX. RESCISSIONS:

None.