

**COMMONWEALTH OF PENNSYLVANIA  
Health and Human Services Delivery Center**

**INFORMATION TECHNOLOGY STANDARD**

Name of Guideline: <b>COTS, Transfer Technologies and Emerging Technology Evaluation &amp; Selection</b>	Number: <b>STD-EASS006</b>
Domain: <b>Architecture Review Board</b>	Category:
Date Issued: <b>04/28/2010</b>	Issued by Direction Of: <b>Health and Human Services Delivery Center</b>
Date Reviewed: <b>03/29/2019</b>	

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**Abstract:**

The purpose of this standard is to establish the process used by the Health and Human Services Delivery Center (HHSDC) to evaluate and select Commercial off the Shelf (COTS) products, transfer technologies and emerging technologies to deliver technology solutions providing value to our customers.

Adherence to these policies is mandatory. When an agency and/or Offeror believe there is a need to deviate from these standards/policies, the agency and/or Offeror must first receive written approval to do so from the HHSDC, Chief Information Officer (CIO, Contract Administrator, or designated HHSDC Director).

**General:**

The objective is for the HHSDC to deliver value-added solutions to effectively support the Department of Human Services (DHS), Department of Health, Department of Drug & Alcohol Programs, Department of Aging, Department of Military & Veterans Affairs – Program Office business needs. The HHSDC has established a COTS evaluation and selection process to provide a structured approach to research and conduct a detailed evaluation of enterprise level commercial software products as well as transfer technologies solution alternatives. In addition, this process assumes a holistic enterprise approach, taking into account many critical business and technical perspectives, requirements and needs to determine the best solution.

**Standard:****COTS, Transfer Technology or Emerging Technologies - Product Evaluation/Selection Process:**

HHSDC formulated an internal multiphase software evaluation/selection process. The intent was to create a standard detailed evaluation/selection approach that involves all the key stakeholders (e.g., Business Partner/Vendor, Technical, Program Office) while potentially leveraging existing processes, such as the Architecture Review Board (ARB) and the Change Control Board (CCB). HHSDC / Solutions Management Division (SMD) has the responsibility to facilitate this process with our customer to ensure the final selection is the most effective and best value-added solution from both business and technical perspectives. In the end, we need to ask and answer the following key questions:

- 1) Does this solution adequately satisfy all critical business functional requirements?
- 2) Does this solution adequately satisfy all critical technical non-functional requirements?
- 3) Will this solution completely and reliably support the day-to-day business operations?
- 4) Does this solution require extensive customization in order for it to successfully function in our environment?
- 5) Does this solution require extensive business process re-engineering (BPR) to be utilized successfully in our environment?
- 6) Has the vendor successfully demonstrated the scalability and capabilities of this solution operating in similar environments (e.g., technologies, scope, size, and complexity)?

- 7) Can this system be adequately supported and maintained utilizing external and/or internal resources?
- 8) Is the total cost of ownership (TCO) reasonable and realize value-added business outcomes and services?
- 9) Does this vendor have a solid position in the industry with a centric end-user and future strategic product focus?
- 10) Does the solution maintenance agreement and licensing model meet Commonwealth legal requirements?
- 11) How extensive is the level of effort required to fully implement this solution (e.g., stand-up, configure, BPR, training, and fully operationalize)?

This process involves seven phases: HHSDC management will determine if the evaluation requires all phases prior to executing the evaluation.

- 1) **Business Feasibility & Research Phase:** (Define business needs, requirements, and Charter; identify plausible solution alternatives). This phase could leverage the ARB I process to discuss the business needs, requirements and solution approach, as well as technical considerations and/or alternatives, standards, etc.
- 2) **Solicitation/Information Gathering Phase:** (Query vendors and solicit information via RFI, direct contact, or other means) Making use of feedback from Step #1, to establish criteria, questions, etc.
- 3) **Preliminary Evaluation/Selection Phase:** (Perform an initial review and narrow the field identifying the best potential candidates). This phase involves a business technical review team (BTR) consisting of a select multidisciplinary team of business and technical representatives to qualify vendors ensuring they meet the minimal business and technical requirements. The results of this evaluation may also leverage the ARB II process.
- 4) **Detailed Evaluation/Selection Phase:** (Perform a detailed review and assessment of the final solution alternatives using the predefined weighted matrix and engaging the vendors in formal but structured product demonstrations). This phase uses a refined business technical review team (BTR) to perform a detailed review and assessment of the final solution alternatives to qualify vendors ensuring they completely satisfy or exceed all the business and technical requirements. The results of this evaluation may also leverage the ARB II process.
- 5) **Assessment and Recommendations Phase:** (Perform the comparative analysis, summarize results, and rank vendors). Record final results, outcomes, and recommendations in an Executive Summary Document for next phase. Evaluation team validates and forms consensus on final rankings and recommendations. Finalize this document for executive management and potential ARB III review and approval.
- 6) **Approval and Authorization Phase:** (Present final Executive Summary Document to program sponsors/executive management and legal for their review and approval to

move forward with final recommendations); this phase may leverage ARB IV and CCB processes.

- 7) **Procurement and Implementation Phase:** (Outline a detailed implementation plan to procure and then operationalize the approved solution); this phase leverages ARB IV and CCB processes.

Please reference the COTS Evaluation/Selection flow diagram on page 5.

## Process in Action:

This section outlines the main tasks under each phase to better understand the steps involved and associated deliverables.

- 1) Business Feasibility & Research Phase:
  - a. Program defines business needs and works with HHSDC Business Relationship Managers (BRM) to outline high level requirements, business case, establish priority, funding, and then develop a Charter.
  - b. With the approved charter, coordinate with HHSDC to further define/refine and understand requirements. This process could include requirements gathering (Business/Technical) resulting in an approved Requirements deliverable.
  - c. Conduct some preliminary research to identify plausible solution alternatives (COTS, Transfer Technologies, etc) and approaches.
  - d. Phase may include conducting an ARB I meeting to discuss the business needs and requirements and discuss potential solution approach and alternatives.
- 2) Solicitation Phase:
  - a. Solicit information directly from vendors using approved letter format and/or via RFI process with DGS based on the predefined business and technical requirements. Establish a final submission date for vendor responses.  
Note: This can be extended in the event responses are few or not as expected. In some cases, the solution alternatives have already been identified or mandated but still require some level of inquiry.
  - b. Establish a listing of the potential candidates (e.g. COTS vendors or Transfer Technology considerations), direct contact or other means).
  - c. Formulate and finalize the weighted evaluation matrix (M.S. Excel workbook template) to be used in the following phases.
- 3) Preliminary Evaluation/Selection Phase:
  - a. Form the multidisciplinary evaluation team.
  - b. Establish the preliminary evaluation worksheets to be used by the preliminary BTR (Business and Technical Requirements) team evaluation team. This worksheet will be used to assist the evaluation team members in prequalifying vendors ensuring they meet the minimal business and technical requirements.

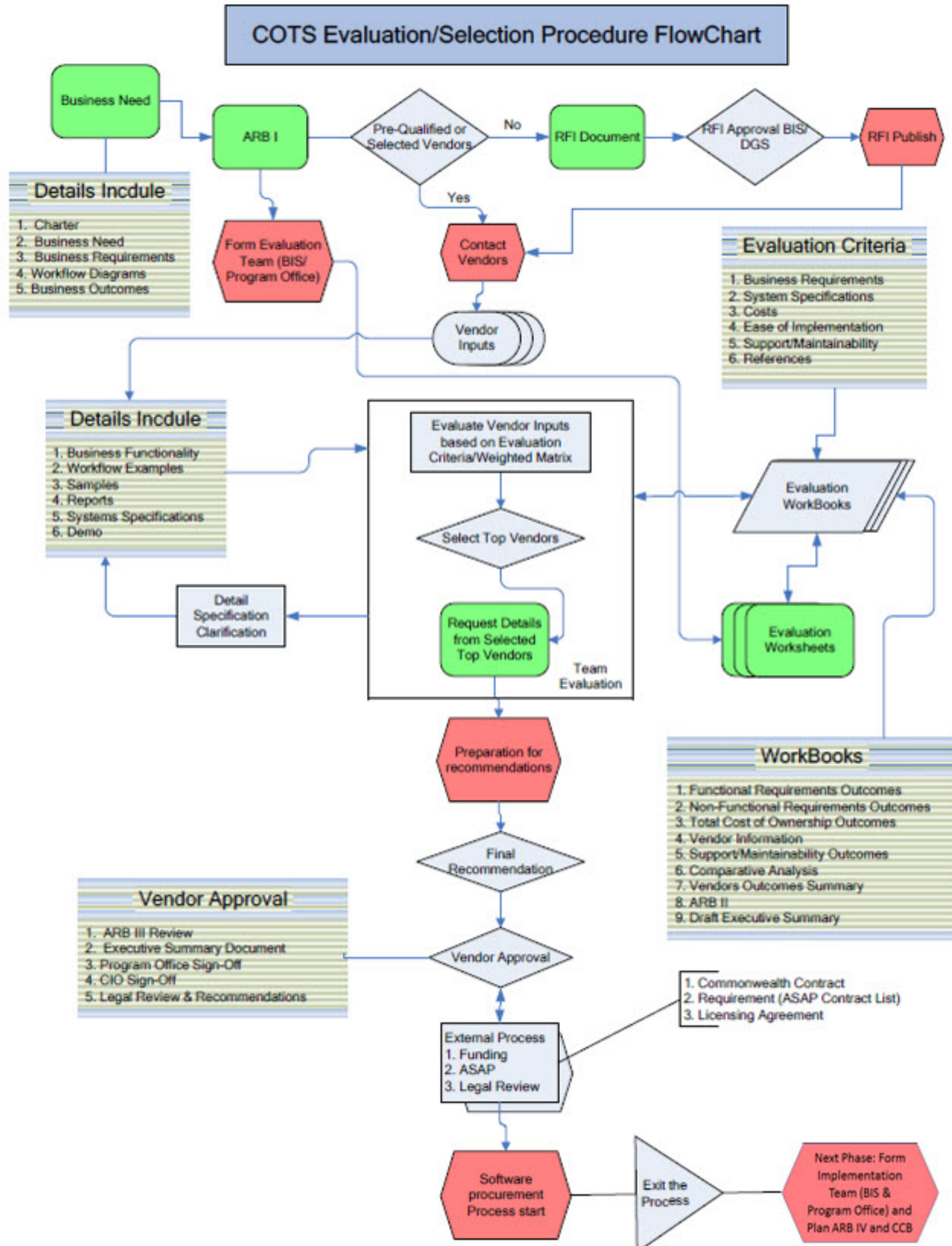
- c. Conduct an initial review BTR to narrow the field identifying the best potential candidates. Evaluation team members shall review each vendor responses and complete and submit the preliminary evaluation worksheets for each vendor.
  - d. Summarize and validate results to determine the final list of qualified vendors who will be provided an opportunity to move on to Detailed Evaluation/Selection Phase, conducting a detailed review and evaluation and possible ARB II presentation base on BTR team preliminary evaluation results.
  - e. Finalize and send form letters to vendors participating in detailed evaluation/selection process (Phase IV).
- 4) Detailed Evaluation/Selection Phase:
- a. Establish the multidisciplinary evaluation team. Perhaps a broader team composition will/should be required extending to financial and business end users/SMEs (Subject Matter Expert). A diverse multidisciplinary evaluation team will be necessary to qualify vendors ensuring they completely satisfy or exceed all the business and technical requirements.
  - b. Establish the detailed evaluation worksheets to be used by the BTR evaluation team based on the approved weighted matrix. This worksheet will be used to assist the evaluation team members in qualifying vendors ensuring they completely satisfy or exceed all the key/critical business and technical requirements during the vendor product demonstrations.
  - c. Establish vendor demonstration meeting schedule based on vendor and BTR evaluation team and resource availability.
  - d. BTR team evaluates vendor demonstrations for each vendor to identify the best potential solution. Perform a detailed review and assessment for each solution alternatives using the predefined worksheets and weighted matrix while participating in formal structured product demonstrations with the vendors. During the demonstrations, each evaluation team member shall assess, score, and document vendor responses (for their respective areas of expertise) using the evaluation worksheet documents for each vendor. Solicit further clarifying information from vendor if required.
  - e. Submit final worksheets to HHSDC project team lead.
- 5) Assessment and Recommendations Phase: Perform the comparative analysis, summarize results, and rank vendors. Record final results, outcomes, and recommendations in an Executive Summary Document for next phase. Finalize this document for executive management and possible ARB III review and approval.
- a. Summarize and validate results to determine the final list of qualified vendors. Each BTR team member worksheet results will be entered into the weighted evaluation matrix.
  - b. A comparative analysis will be conducted to qualify and rank vendors then summarize detailed evaluation results.
  - c. Evaluation team validates and forms consensus on final rankings and recommendations.

- d. The BTR team will confirm that the vendors remain interested in providing the product(s) and will conduct required vendor reference checks.
  - e. A draft Executive Summary Document (ESD) is created.
  - f. Finalize ESD for ARB III team (if needed) for review and concurrences.
- 6) Approval and Authorization Phase:
- a. Present final Executive Summary Document to program sponsors/executive management and legal for their review and approval to move forward with final recommendations); this phase may leverage ARB IV process.
- 7) Procurement and Implementation Phase: (Outline a detailed implementation plan to procure and then operationalize the approved solution); this phase leverages ARB IV and CCB processes.

### **Key Steps:**

- 1) Form the multidisciplinary evaluation team. Communicate the process and associated logistics.
- 2) Evaluation team review vendor response. Complete and submit the preliminary evaluation worksheets for each vendor.
- 3) Summarize results to determine the qualify vendors ensuring they meet the minimal business and technical requirements. Share and validate results with the BTR team members.
- 4) Establish the final listing of vendors who will be provided an opportunity to move on to Phase IV.
- 5) Finalize and send letters to vendors participating in detailed evaluation/selection process (Phase IV).
- 6) Establish the Phase IV BTR evaluation team members.
- 7) Establish demonstration meeting schedule based on alignment of availability of stakeholders and resources.
- 8) Conduct detailed evaluation/selection process using worksheets, solicit further clarifying information if required, and enter final results into weighted evaluation matrix. Perform comparative analysis based on evaluation matrix results.
- 9) Draft Executive Summary Document (ESD) for Phase IV evaluation team validation and form consensus on final rankings and recommendations. Finalize ESD for ARB III team review and concurrences.
- 10) ESD submission, presentation, and approvals.

Please reference the COTS flow diagram on next page.





**Exemptions from this Standard:**

There will be no exemptions to this standard.

**Refresh Schedule:**

All standards and referenced documentation identified in this standard will be subject to review and revision annually or upon request by the Health and Human Services Delivery Center Information Technology Standards Team.

**Standard Revision Log:**

<b>Change Date</b>	<b>Version</b>	<b>Change Description</b>	<b>Author and Organization</b>
04/28/2010	1.0	Initial creation	Thomas King
08/27/2014	1.1	Added vendor interest confirmation and required reference checks	Qiuyan Yang
03/29/2019	1.2	Updated version	Ul-Haque, Ijaz Kulgavin, Natalie