

BUILD VERSUS BUY DECISION

When planning for software implementation projects, agencies determine if the planned software should be developed from scratch or bought and configured using available commercial-off-the-shelf (COTS) software. Agencies are strongly encouraged to research relevant available COTS products in order to leverage proven and affordable options. This research begins in the Concept Development Phase as part of the alternatives assessment after high-level business and architectural requirements are identified. Although COTS options frequently present cost-effective solutions, agencies should thoroughly assess the benefits, risks, and costs associated with building and buying to select the approach most beneficial to the State.

Implementing a COTS software solution may provide agencies with the following benefits:

- COTS software may provide agencies with faster implementation of proven functionality.
- COTS software costs may be less than costs for custom development because less effort is required for design, development, and maintenance.
- COTS software may provide agencies with improved business processes.
- COTS software may provide higher quality software because it has already been implemented and tested for other customers.
- Agencies may benefit from continued improvements in new COTS software releases.

Disadvantages to COTS software may include:

- Customers have less control over software functionality and support.
- COTS software may not easily scale.
- COTS vendors may not provide adequate software documentation.
- COTS software components may not be easily reused.
- COTS software vendors may provide diminishing product support over time.

When considering COTS options, agencies should take care to ensure that the solution is actually a fully developed and implemented COTS software solution that does not require significant customization.

Custom development may be more suitable than a COTS solution under the following conditions:

- The agency has specific requirements that cannot be compromised, and no COTS software exists that meets the requirements without significant customization (altering of code).
- The agency's business need is unique.
- COTS integration effort would be significantly complex, taking more time, effort, and money than custom development would.
- The agency requires complete control of software.

Agencies should thoroughly evaluate the possibility for improved business processes. Resistance to change can sometimes prevent organizations from differentiating between true need and perceived need. Agencies should be careful not to proceed with custom development because of an unwillingness to consider alternative business processes that may meet the business need in a better way.