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Acquisition Practices: Good and Bad

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Sponsored by the U.S. Department of Defense

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Introduction

The use of commercial off-the-shelf (COTS) products is an increasingly popular approach to the acquisition of major systems throughout the government

Results are mixed

- Some succeed
- Some don’t
- Others have a lot to learn

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Our Comparison

Selected two projects

First-hand experience with both

Using the Software Acquisition Capability Maturity Model as a basis for comparison

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The SA-CMM

Level 2:	Software Acquisition Planning
	Solicitation
	Requirements Development and Management
	Project Management
	Contract Tracking and Oversight
	Evaluation
	Transition to Support
Level 3:	Process Definition and Maintenance
	User Requirements
	Project Performance Management
	Contract Performance Management
	Acquisition Risk Management
	Training Program Management
Level 4:	Quantitative Process Management
	Quantitative Acquisition Management
Level 5:	Continuous Process Improvement
	Acquisition Innovation Management

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The Projects

Both:

- U.S. Federal agencies that fund others
- Acquisition, tailoring, and deployment of a financial management package
- Subject to political pressures

Project A:

- Implementation over last four years
- Brought vendor on-board, in production
- Agency operates the system

Project B:

- Implementation over last year
- Engaged system integrator, ready for pilot testing soon
- ASP operates the system

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Software Acquisition Planning

A:

- Minimal results of acquisition strategy/planning
- Reliance on GSA contracts
- No dedicated acquisition organization in-house
  - no in-house documented procedures
- No agency-wide vision for overall automation or this part of it

B:

- Planning based on TSPR-like model
- Use of JFMIP list
- No dedicated acquisition organization in-house
  - no in-house documented procedures
- High-level buy-in for concept of overall automation
  - externally operated
  - resistance at lower levels

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Solicitation

A:

- Reliance on GSA for much of this expertise
  - GSA ran the solicitation
  - very positive relationship and results

B:

- Performed by in-house program office

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Rqts Development and Management

A:

- Agency developed a very detailed set of functional requirements
  - based on another agency's successful solicitation requirements
  - liability in COTS acquisition
- Less attention to non-functional requirements, stakeholder involvement, and requirement traceability

B:

- Agency developed a detailed set of functional requirements
  - developed by a contractor
  - needed further refinement
- Significant attention to non-functional requirements, stakeholder involvement, and requirement traceability

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Project Management

A:

- Very weak area
  - no team
  - insufficient resources
  - leader had functional expertise, not software or project management
- Haphazard attention to issues or problems
  - purely reactive
- Overall lack of leadership

B:

- Strong program management
  - strong PM with technical and functional expertise
  - ability to choose team
  - resources available as needed
- Careful planning with ability to react to unforeseen circumstances
- Strong leadership

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Contract Tracking & Oversight

A:

- Three confused contracts:
  - product vendor
  - infrastructure integrator
  - domain consultant
- Often follow, not lead the contractors
- Incoherent contract change management
- No one in agency experienced in contract management
- Few plans to track against
- No systematic recording or tracking of problems

B:

- Single contractor
  - experienced integrator with significant experience in the product
- Considerable direction given to contractor
- Close management of contractor
- PM had previous acquisition experience
- Tasks closely tracked

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Evaluation

A:

- No evidence of any evaluation requirements or plan
- Unclear how they decided acceptance

B:

- Evaluation requirements existed
- Contractor was best match to requirements

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Transition to Support

A:

- No evidence of a plan for transition or support

B:

- Integrating contractor supports the system for the next 10 years

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User Requirements

A:

- Only real involvement of “end users” in requirements determination: the guy in charge has always been a functional
- No organized recording of user requirements
- No organized tracking of user requirements

B:

- Requirements discussed with representatives of end users
- User requirements managed using requirements tracking system

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Project Performance Management

A:

- No process
- No team and no plan
- No reviews
- No risk management
- No project management

B:

- No formal process
- Strong team and plan
- Weekly reviews
- Risk management diffuse, but strong
- Strong project management

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Contract Performance Management

A:

- Different members of different parts of the agency have fairly good relations with at least one contractor
- No evidence of contractor process appraisals, evaluation of their performance, or proposals for change

B:

- Good relationship between agency and contractor PMs
- Agency organized structure to match contractor

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Acquisition Risk Management

A:

- No risk management
- Not even any backup or contingency plans – a necessity for COTS-based systems

B:

- Many different sources of risk identification
- Strong risk mitigation plans
- Program relied on agency-based risk management (plus PM's hot list)

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Software Acquisition Planning

A:

- No acquisition management training
  - have been content to let GSA provide all expertise

B:

- Experience with previous acquisitions
  - intent to do everything

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Practices Not Discussed

Insufficient information to compare the following practice:

- Process Definition & Maintenance

The following practices are not applicable:

- Quantitative Process Management
- Quantitative Acquisition Management
- Continuous Process Improvement
- Acquisition Innovation Management

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Overall

Agency A never saw itself as an acquisition organization

- No acquisition organization, process, or plans
- No vision
- No project management
- Grasped at COTS products
  - on rebound from disastrous custom implementation

Agency B also not an acquisition organization, BUT

- Experienced people
- Clear vision
- Strong project management
- Careful use of COTS products
  - filling vacuums in enterprise processes

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Reflections

SA-CMM has provided a useful vehicle for comparing two acquisitions.

Observation:
SA-CMM does not consider the future operational state.
But the future state was important to the acquisition concept, strategy, and planning for Project B.

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