Acquisition Practices: Good and Bad

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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
Our Comparison

Selected two projects

First-hand experience with both

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


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
Transition to Support

A:
- No evidence of a plan for transition or support

B:
- Integrating contractor supports the system for the next 10 years
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
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
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
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)
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
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
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
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.
For More Information

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