Adapting Venture Capital Concepts to Enterprise System Acquisitions

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Problem

- Long-standing, well-publicized federal acquisition challenges
  - Takes too long and costs too much... often to buy the wrong thing

- Acquisition of information systems in an enterprise environment poses additional challenges
  - Rapidly changing missions and new operational challenges → uncertainty in requirements
  - Need for more agile acquisition
Background

Government-funded VC firms

“Buying a network “is not like buying a tank,” [LTG] Yakovac said. “How do we evolve those processes to a whole new era?”

Emerging recognition that a new acquisition process is needed for IT

VCs manage uncertainties and nurture success

Federal acquisition regulations encourage flexibility and tailoring
Objective

- Explore the hypothesis that venture capital methods work in managing uncertainty in the commercial sector and offer opportunities to address federal IT acquisition challenges.

- Conduct field research to determine:
  - How VC practices can be adapted to federal IT acquisition.
  - Under what circumstances they might work and make a difference.
  - What needs to change to make it happen.
Activities

- Characterize and compare the VC and federal acquisition environments
- Establish a framework to explore applicability of VC practices to federal IT acquisition
- Conduct mini-case studies of VC-like acquisition practices
- Design a pilot program to test a VC-based enterprise systems acquisition approach
Highlight: Emerging Framework

Evolution of Requirements:
- More Stable Requirements
- More Evolving Requirements

More Mature Technologies:
- Business system (e.g., payroll)
- IT infrastructure
- Weapon Platform (structure)

More Disruptive Technologies:
- User Facing Services
- Core Services
- ERP Solutions
- "Embedded" RT SW
- Networks
- Commodity (PC, PDA...)
- Mashups

VC Opportunity Space
Core Portfolio Space
Highlight: VC Strategies

VC Strategies to Manage Uncertainty

Selection
- Market focus
- Syndication
- Due diligence

Diversification
- Portfolio of “many small bets vs. few large ones”
- Rapid start and stop

Agility
- Speed to market with feedback
- Flexible, opportunistic financing
- Funding tied to achieving milestones

Emerging Acquisition Strategy Patterns

If Many Small Bets?
- Integrating Architecture
- Portfolio of Projects
- Project Business Model

Multiple contracts
Incremental funding
Incentives to deliver

Diversification Example
Impacts

- Develop within MITRE a rich understanding of enterprise systems acquisition as a complement to the evolving enterprise systems engineering discipline

- Develop a set of acquisition patterns tailored to the particular circumstances of the acquisition

- Contribute to the realization of effective agile acquisition practices
Future Plans

Staged Financing

Portfolio of Services
- Acquisition challenge
- VC-like practice
- Lessons learned

Mini-case studies

Acquisition Strategy Patterns

VC-like practices database

Preliminary Validation/Early Pilots