Challenges in Aerospace IT: The CIO Perspective

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Agenda

• Motivation

• Research Methodology

• Key Findings

• Going Forward
Motivation

Industry
• Aerospace and Defense (A&D) IT budgets for 2007 will consume an estimated 6.1% of total revenue.
  

Government
• DOD systems overly complex and error-prone.
  
  Source: GAO 06-658

• Fiscal 2007 – DOD request - $16 billion
  
  Source: GAO 07-451

How do we design, implement and sustain IT systems to enable lean enterprise transformation?

More importantly

How do we do it in a lean manner?

Research Methodology

Executive Board Charter (April 2006)
- How do we efficiently and effectively leverage IT to enable lean enterprise transformation?

Preliminary Interviews
- 15 CIOs Interviewed
  - Semi-structured interviews (60-90 minutes)
  - 9 from Industry (Rockwell Collins, Lockheed Martin, BAE Systems, Boeing IDS, Northrop Grumman, Pratt & Whitney, Sikorsky, Textron Systems, Hamilton Sundstrand)
  - 6 from Government (Air Force, Navy, DCMA)

CIO Roundtable (Jan 2007)
- Held at MIT bringing together 7 senior IT leaders
  - 6 from Industry (Boeing IDS, BAE Systems, Bell Helicopter, Northrop Grumman, LM Space, Pratt & Whitney)
  - 1 from Government (DCMA)
Preliminary Interviews

- 12 questions partitioned into 2 broad areas
  - Understanding the organization
  - Understanding the execution
- Understanding the organization
  - IT enables both efficiency and effectiveness, but is not yet a “driver” of strategy
  - Change management is key to successful IT systems implementation

- Understanding the Execution
  - Project delivery is key
  - Getting customer buy-in is about relationships management
  - Projects will slip, but team members have to keep customers informed
  - Project nature
    - Cowboy projects
    - Long term projects
  - Funding control is critical
Aligning IT Strategy to Enterprise Strategy

• “We are currently undergoing a paradigm/culture shift, where we are going to a space in which we haven’t played before … We are now expected to add value – internal to the organization as well as on the customer side” – Industry CIO

• “Our strategy has not changed a lick in the last three years” – Government CIO

• “It is very very important for the analysts in the world to give numbers – so leaders can apply intuition to the facts” – Colin Powell
Successful Execution Matters!

• Benefits
  – Once we delivered the first module, then all of a sudden it went from “this is never going to happen” to “Oh! Oh! this is going to happen and we many need to get involved”

  – We are “fighting” with the customer on a daily basis to say this is what the systems does, work with it.. Our customers are like fighter pilots – they want it done their way – we are still listening to comments like “the screen doesn’t look the way it used to” and “I don’t do it that way”
Enabling Successful Execution

• Getting customer buy-in
  – I knew the leader drove a BMW- so I said, ‘can you imagine going to a BMW dealer, and saying I don’t like where the speedometer and I want it moved. You are asking us to take a COTS product, and in essence asking us to move the speedometer’

• Building an effective implementation team
  – “I have taught my team that I can take bad news, I just need it early”
  – “If the project has not delivered its capability within six months to a year, I pull the plug”
CIO Roundtable

• 3 discussion sessions
  – Strategy, People, Change Management

• 6 key challenges
  – Aligning IT to enterprise strategy
  – Identifying and articulating the business value of IT
  – Managing change after IT systems implementation
  – Enabling lean initiatives through the use of IT
  – Managing and leveraging the Gen-X talent base
  – Using IT to enable knowledge management within the enterprise
Articulating Business Value of IT

• “It is wrong headed to ask me about the business value of IT – The role of IT is to provide trusted information to the customer to enable quick decision making”
  - Industry CIO

• The benefits of IT systems are often “unintentional”

• Large amounts of cost data, but there is no true understanding of actual system costs

• Traditional metrics
  – Cost per employee
  – # of application systems

• Heuristics
  – Seamless information flow
  – Connecting people
  – Bridging cultures
Going Forward

“Everyone has a system, so WHAT?”

Align IT Strategy to the Enterprise Strategy
- Extend EVSMA process to include IT architecture mapping and analysis

Managing the Change Process
- Case studies at LAI member sites to understand the challenges associated with implementing a new IT System

Value of IT
- Extend heuristics into metrics that can be used to guide enterprise transformation
QUESTIONS?

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