Managing Large Projects

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Agenda

Managing Large Projects Meeting

• Challenges
• Governance & Organizational Solutions
• Process Oriented Solutions
• Q & A
Typical Challenges

• Knowing what’s on your plate
• Projects vs. Maintenance activities *(keeping the lights on)*
• Externally Mandated Projects vs. Internal Projects
• Keeping up with contractors
Resource & Organizational Challenges

- Operational Areas are Not “Project Focused”
- Limited Resources/Limited Skill Sets
- Coordination & Governance (Communications among many participants)
- Conflicting Priorities Among Projects
- Competition Among Various Areas within the Projects
Process Challenges

- Understanding Project Interdependencies
- Visibility Into Each Project’s Progress & Challenges
- Increased Administrative Effort (more projects = more paperwork, more reports, etc.)
- Managing Risks & Issues Across Projects (need unified view – same problems may exist)
- Integration of Project Schedules & Tasks
Governance & Organizational Solutions

Aligning staff and decisions makers to assist in managing large projects.
• Prioritization can be a challenge
  – Competing interests between business units
  – Balancing operational improvements and compliance needs
Governance & Coordination

- Priority Setting
- Change Management
- Inclusion of All Operational & Administrative Areas
Creating a Project Oriented Organization

Understand if your organization is designed to flexibly handle projects of different sizes and needs...

- Government agencies are very operational focused, not project focused.
- Common skill sets and expertise are needed for many projects (requirements analysis, coding, testing, training).
- Common practitioners should be able to collaborate and support each other.
Create a Project Management Office

• Needs dedicated resources
• Reinforces the organization’s commitment to projects
• Supports communications downward and upward in the organization
• Many variations, many ways to start...
  – Standards Group
  – Mentor Group
  – Centralized Management Team
• Organizational location is critical
  – IT is typically project oriented
  – Operations must have equal participation
• How Indiana uses Project Management
  – PMO Director
    • 6 PMP certified project managers
    • 1 dedicated to STARS software releases
    • Manage external and internal resources
Treat each change as a project
   - Assign a Project Manager
      • Effective use of resources
      • More timely project completion
      • Higher quality of the final product
      • Increased investment in planning and documentation

Each request logged and tracked
   - Internally developed service request system
Using PM

• Each STARS release is a Project
  – Contains many service requests
  – Each treated as a project

Service Requests by STARS Build
• STARS is an example of Program Mgmt
  – Larger in scope than one project
  – Made up of several projects
  – Made up of a number of similar products
  – Programs tend to be more permanent
Success

• Project Management success
  – Must have Executive support
  – Directors have bought in to the project management structure

• Changed culture
  – Within IT
  – Outside IT as well
  – Deadlines are serious objectives
• Started in 2010
  – Changed approach for software releases
  – Released internally developed service request system
  – Changes require executive sponsorship
  – Process requires commitment from business units
Process Oriented Solutions

Processes, tools, and techniques that assist in managing large projects.
• Understand what you have
• Divide logical project components
• There can only be one #1
Formal Portfolio Management Process

• Identification
  – Collect detailed information on potential & ongoing project components for decision making

• Categorization
  – Each project component into one category - maintenance, enhancement, mandate, process change, etc.

• Evaluation
  – Compare & assess projects by size, duration, risk, cost, benefit, etc.

• Selection
  – Which project components should go forward & which are on hold

• Prioritization & Balancing
  – Determine priorities and develop a balance of projects that can be accomplished and yields the highest benefits
STARS Release Flow

Service Request System
- Director Submitted Service Request
  - Submitted Status
    - Manager Queue
      - Approved?
        - Requested Status
          - IT Approval for STARS Release Candidacy
            - Approved?
              - Candidate Status
                - STARS Release Candidate List

Planning
- Department Negotiations for Release
  - Working Scope of STARS Release
    - Analysis / Documentation Phase
      - Sponsor Signoff
        - Change Required
          - Final Scope of STARS Release (Baseline)
            - Change Management
              - Change Required
                - No Changes

Execution
- STARS Programming / Unit Testing
  - User Acceptance Testing (UAT)
    - ITD Regression Testing
      - Accepted?
        - Yes
STARS Release Flow

Service Request System

- Director Submitted Service Request
- Submitted Status
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STARS Release Flow

Planning

1. Department Negotiations for Release
2. Working Scope of STARS Release
3. Analysis / Documentation Phase
4. Sponsor Signoff
5. Final Scope of STARS Release (Baseline)
6. Change Management

Change Required
Executing

STARS Release Flow

Execution:

- STARS Programming / Unit Testing
- User Acceptance Testing (UAT)
- Accepted? (Yes/Rejected)
- ITD Regression Testing
- Accepted? (Yes/Rejected)
- STARS Production Build
Create an Overall View/Dashboard

• Need to be able to view and communicate the big picture...
  – Status
  – Progress
  – Challenges
  – Overall Work Effort
  – Assignments
  – Issues
Create an Overall View/Dashboard

- Need to be able to see trends and patterns...

<table>
<thead>
<tr>
<th>Project</th>
<th>Lead</th>
<th>Overall Status</th>
<th>Comment</th>
<th>Sched.</th>
<th>Issues</th>
<th>Risks</th>
<th>Staffing</th>
<th>Quality</th>
<th>Reqs/Design</th>
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<tr>
<td>Queuing System</td>
<td>Curt</td>
<td>Red</td>
<td>Schedule is RED due to A, B, and C.</td>
<td>Red</td>
<td>Yellow</td>
<td>Yellow</td>
<td>Yellow</td>
<td>Green</td>
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<tr>
<td>CDLIS Mod.</td>
<td>Larry</td>
<td>Yellow</td>
<td>Team is working on...</td>
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<td>Green</td>
<td>Yellow</td>
<td>Yellow</td>
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<td></td>
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<td>Green</td>
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<td>New Plate Search</td>
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<td>Blue</td>
<td>In Production</td>
<td>Blue</td>
<td>Blue</td>
<td>Blue</td>
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<tr>
<td>New Law Web</td>
<td>Bob</td>
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<td>Requirements completed</td>
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<tr>
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<td>Waiting on Software Contract Issues</td>
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<td>System Patches</td>
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<td>Yellow</td>
<td>Green</td>
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<tr>
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<td>Planned for holiday weekend</td>
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<td>Green</td>
<td>Yellow</td>
<td>Green</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Dashboards can contain many variations and topics – they need to address your needs
Resource Management

- Find and manage the hidden efforts
- Use time tracking to understand actual work efforts
- Have each staff member manage their planned and actual time commitment
- Periodically review the time estimates for each assignment compared to actual effort

<table>
<thead>
<tr>
<th>Resource</th>
<th>Project/Task</th>
<th>Assignment</th>
<th>Completion Date</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>Jun</th>
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<td>Jim</td>
<td>CDLIS Mod</td>
<td>Project Manager</td>
<td>9/1/2012</td>
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<td>10%</td>
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<tr>
<td>Jim</td>
<td>Planning</td>
<td>Manager</td>
<td></td>
<td>10%</td>
<td>10%</td>
<td>10%</td>
<td>10%</td>
<td>10%</td>
<td>10%</td>
</tr>
</tbody>
</table>

|   |   |   |   | 80% | 90% | 100% | 100% | 100% | 90% |
Consistency and common language make it easier to collect and assess large projects.

### What...
- Schedule
- Cost
- Scope
- Quality
- Procurement
- Risk
- Communications
- Resources
- Integration/Coordination

### How...
- Standardized Checklists
- Standardized Project Phases
- Standardized Status Reports & Reporting Cycles
- Standardize Issue & Risk Tracking

The more you formalize this effort the closer you get to creating a PMO.
Tools like SharePoint can be a universal solution for...

- Document Repository
- Issue & Risk Tracking
- Team Calendar
- Project Schedules
- Communications
- Deliverables
This SharePoint Home Page is used to track many project activities and artifacts.
Support tools can range from home-grown to sophisticated software products.
Delivery Fundamentals

- Initial Planning
- Scope Definition & Management
- Requirements Analysis
- Design Documentation
- Coding and Implementation
- Testing
- Configuration Management
- Training & Rollout
Concentration on Fundamentals

Typical Project Challenges x Number of Projects = Headaches!

- Scope creep and a lack of discipline is problematic with regular projects – it becomes compounded with large projects...
  - Acknowledge both SDLC & PMLC
    (system development v. project management life cycles)
  - Set Standards
  - Educate
  - Assign Mentors
  - Quality Management
  - Enforce
Questions, Discussion
Contact Information

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