Can we do that here?
DevOps at the Speed of Government
Agenda

- Government Environment
- Adopted Practices
- Is that enough?
# Government Environment: FITARA

## Common Baseline for IT Management

<table>
<thead>
<tr>
<th>Section</th>
<th>Budget Formulation</th>
<th>Budget Execution</th>
<th>Acquisition</th>
<th>Organization &amp; Workforce</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Visibility</strong></td>
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<tr>
<td>A1, A2</td>
<td>Visibility of IT resource plans/decisions to CIO</td>
<td>Visibility of IT expenditures reporting to CIO</td>
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<tr>
<td><strong>Planning</strong></td>
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<tr>
<td>B1, B2</td>
<td>CIO role in pre-budget submission for programs</td>
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<tr>
<td>C1, C2</td>
<td>CIO role in planning program management</td>
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<tr>
<td><strong>Governance</strong></td>
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<tr>
<td>H1, H2</td>
<td>CIO role on program governance boards</td>
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<tr>
<td>F2</td>
<td>Participate with CIO on governance boards</td>
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<tr>
<td>J1</td>
<td>CIO role in modification, termination, or pause of IT</td>
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<tr>
<td>G1</td>
<td>CIO defines IT processes and policies</td>
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<td><strong>Program Collaboration</strong></td>
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<tr>
<td>E1, E2</td>
<td>Ongoing CIO engagement with program managers</td>
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<tr>
<td><strong>Certifications &amp; Approvals</strong></td>
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<tr>
<td>D1, D2</td>
<td>CIO reviews and approves major IT investment portion of budget request</td>
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<tr>
<td>L1, L2</td>
<td>CIO approval of reprogramming requests</td>
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<tr>
<td><strong>K1</strong></td>
<td>CIO review and approval of acquisition strategy and acquisition plan.</td>
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<tr>
<td><strong>M1</strong></td>
<td>CIO approval of new bureau CIOs</td>
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</tbody>
</table>

**Q1**: CIO reports to agency head (or to Deputy/COO)

**N1, N2**: CIO role in ongoing bureau CIOs’ evaluations

**O1, O2**: Bureau IT leadership Directory
Government Environment

- DHS
  - ICCB
  - PARM
  - Operational Test
  - Authority to Operate
  - MD 102
<table>
<thead>
<tr>
<th>Business Objective:</th>
<th>Improve quality and reduce the time taken to deliver business value.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improve Process Consistency:</td>
<td>Use the same process when promoting from environment-to-environment from development to production</td>
</tr>
<tr>
<td>Increase Automation:</td>
<td>Speed the delivery process without adversely impacting quality</td>
</tr>
<tr>
<td>Support Incremental Changes:</td>
<td>Deploy only the components that need to be changed and leave the remainder intact</td>
</tr>
<tr>
<td>Increase Organizational Synergy:</td>
<td>Development, test, oversight, and operations work as one delivery team</td>
</tr>
<tr>
<td>Continuous Monitoring:</td>
<td>Problems are detected and resolved earlier</td>
</tr>
</tbody>
</table>
Path through for USCIS

8 Practices (2013)
- RPR
- Continuous Test
- PO
- Frequent Releases
- Timeboxes
- User Stories
- Iteration Reviews
- Retrospectives

Team Managed Deployments (2015)
- Code in USCIS Repository (GHE)
- Automated Builds
- Automated Testing
- Automated Deployment
- Deployment Recovery
- Approved Pipeline
- Frequent Deployments
- Deployment History and Consistency
- Ongoing Security Compliance
- Ongoing Section 508 Compliance

<table>
<thead>
<tr>
<th>Value Driven Development</th>
<th>Collaboration</th>
<th>Planning /Adapting</th>
<th>Testing</th>
<th>Software Design</th>
<th>Key Off Principles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuous Delivery</td>
<td>Kanban</td>
<td>Retrospectives *</td>
<td>Iteration Reviews *</td>
<td>Test Driven Development</td>
<td>DevOps</td>
</tr>
<tr>
<td>Time-based Rotations * (~4 weeks)</td>
<td>Frequent Delivery * (Quarterly)</td>
<td>Product Owner *</td>
<td>Release Planning *</td>
<td>Automated Acceptance Testing</td>
<td>Continuous Integration</td>
</tr>
<tr>
<td>Frequent Delivery *</td>
<td>Product Owner *</td>
<td>User Stories *</td>
<td>Continuous Testing *</td>
<td>Automated Unit Testing</td>
<td>Automated Builds</td>
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<td>Frequent Check-in of Code</td>
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</tbody>
</table>

**Individuals and Interactions**
- Working Software
- Customer Collaboration
- Responding to Change

**Agile Values**
16 Pipeline Toolsets Facilitate Frequent Releases
I DON'T ALWAYS BUILD EVERYTHING

BUT WHEN I DO I USE MICRO SERVICES

Modern Technologies
Cloud

Automation

OPEN SOURCE

OPEN ACCESS
SOFTWARE

COPYRIGHT

PUBLIC

CONTENT

INFOSOURCE

TECHNOLOGY

COMMUNITY

DEVELOPMENT

CULTURE

CODE
Government Environment Redux

- **DHS**
  - MD 102-01
  - PARM
  - Operational Test
  - Authority to Operate
  - ICCB

- **We did what?**
  - Rewrite SELC
  - Value Delivery Register
  - Continuous Test
  - Automation
  - Ongoing Authorization
  - Ongoing CR
  - Stop CR Process
Measures in Evaluating Projects

People
- competency

Process
- capability

Technology
- Level of Automation
I lied (Kind of)

I   IT

WE   ITS
Questions?

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