Agile and DevOps Transformation

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Traditional View

Origins in the manufacturing and construction industries

Requirements → Planning → Analysis → Design → Implementation → Testing

Maintenance ← System
Challenges

1. Sequential
   - Difficult to make changes once the cycle is underway
   - Next phase dependent on previous phase

2. Inflexible
   - Partitioning in predefined phases
   - Difficult to respond to changes

3. Need Stability and Clarify
   - Requirements clarity is must

4. Big Design Up Front
   - Dynamic environment; less stable requirements

5. High Cost of Failure
   - Non-iterative
   - High cost of rework
   - Learnings applicable to next project

Governance
- Mutually agreed estimation template
- Operational Flow

* Work jointly with IT and Business to define controlled outcome
Transition to Agile

- Embrace and welcome change
- Device a training plan at all levels in the organization
- Communicate and address concerns on the ground
- Start with small hybrid approaches if it makes transition easier (e.g., use hours instead of points)
- Global delivery teams
- Change in team or organization structures
Agile – Important Aspects

- Work breakdown
- Manageable tasks
- Incorporate feedback
- Minimal Marketable Feature
- Increase speed to market
Agile to DevOPS

Cyclical Collaboration

Inception → Plan → Code → Build → Test → Release → Deploy → Operate

DevOps

Continuous Delivery

Continuous Integration

Agile Development

Shift Left

Development/Testing
- Agility
- Continuous testing
- Continuous feedback
- Test driven development
- Test Automation

- Continuously validate acceptance criteria
- Automation environment management
- Monitoring
- Diagnostics
Agile to DevOPS

Consider using Behavior Driven Development

Consider adding NFRs to product backlog

Potentially utilize release automation tools in conjunction with Chef/Puppet to automate the deployment

Using MBT and test automation tools automate testing by creating models prior to development beginning

Consider adhering to stringent Definition of Ready and Definition of Done alleviating the need for separate UAT and E2E cycles
Let us Share Experiences

- Dependencies
  - Large organization
  - Traditional KPIs
- Partial implementation

- How do we overcome challenges?
Thank You