Challenges of Agile Development with an External Vendor: A Case Study

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October 16, 2013
Agenda

- Background
- Challenges and Potential Solutions
- Conclusions
- Q&A
Background

Vendor

Customer (Nike)

End product in Nike Stores

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Moving to Agile

- Grass root approach – team decision
- Rather quick – but good team support
- Approached vendor

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Vendor Scenario

Vendor:
- Responsible to deliver a significant amount of code
- Currently using Waterfall methodology
  - Core development team
  - Customization team
- Conscientious of Quality – only certified code delivered to customer
- Not co-located
- Needed testing infrastructure – special requirement

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Challenges

- Vendor using Waterfall Methodology
- Lack of co-location
- Incompatible QA Environment
- Scrum Activities

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Vendor Using Waterfall Methodology

Constraints/Concerns About Agile

- Customer Exposure to un-certified code – Quality
- Non-Alignment on customer stories – detail documentation vs. agile story line
- Lack of experience with agile resistance to change
- Long term co-location not feasible
- Commitment to on-going interactions with the customer
  - Daily scrum
  - Bi-weekly sprint review
  - Sprint planning
  - Demos
  - Retrospective

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Negotiations

- Code delivery every two sprints
- Uncertified code:
  - Story level testing
  - Story demo every sprint
  - No OR Limited Regression

<table>
<thead>
<tr>
<th>Week 1</th>
<th>Week 2</th>
<th>Week 3</th>
<th>Week 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning, Demo, Retro</td>
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<td>Vendor Release</td>
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<tr>
<td>Sprint 1</td>
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<td>Sprint 2</td>
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Negotiations and Compromises

- **Positives**
  - Early and Continuous exposure of vendor activity
    - Product progress
    - Product Quality

- **Negatives**
  - Defect accumulation
  - Velocity not up to par – story carry over to next sprint
  - Delayed Customer release validation

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Co-Location

Program Manager
Point of Contact

Vendor – Mid West

Roadblocks:
• No free exchange of ideas between developers
• Lack of clarity due to communication layers
• Multiple and frequent emails and phone calls
• Constant follow-up with the vendor
What did we do? - Direct communication

- Phone calls as needed directly to developers
- Webex sessions (most effective)
  - Defects/issues/functional demos
  - Access to test lab
- Follow up with emails
- Short term co-location to customer site
  - 1 week duration on need basis
  - Project manager, custom development lead/engineer
  - QA Engineer
  - Subject matter experts – performance, deployment
- Short term co-location to Vendor site
  - Sprint review/clarification

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QA Environment

Roadblocks:

- Incompatible Testing Environment – Separate networks
  - Differences in system configuration
  - Defect Reproduction
  - Defect Root Cause analysis

- Different defect tracking systems
  - Duplication of defect information
  - Timely availability of information
  - No leverage of fixing multiple related defects while working on the same code
To Remove Roadblocks:
- Replicated customer QA environment at vendor site
- Maintained compatibility
- Short term co-located testing at vendor site
- Provided defect details on daily basis
- Held daily defect triage and defect demos
- Monitored defect fix status to complete stories

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Scrum Activities

- **Sprint Planning**
  - Initially high level of participation - very effective
  - Customer allocated stories
  - Story estimation – 1\textsuperscript{st} time with agile, low confidence level
  - Unknown velocity

- **Still Challenges - Remediation**
  - Senior management collaboration conversations
  - Review vendor capabilities
  - Set our expectations accordingly
Daily Standups - conference calls.

- Representation by Program Manager
- Included Development supervisor as needed
- Vendor asked for help as needed – mostly demos of defects or technical clarification

Reasonably Well.
Scrum Activities (cont..)

- **Demos:**
  - Story demonstration over Webex
  - Stories met acceptance criteria and accepted
  - Any hardcopy artifacts shared as pdf files
  - Vendor was creative in making sure that the stories were demoed
  - Delivery

- **Retrospectives:**
  - Vendor did not participate in retrospectives at times
Conclusion

- LOVE HATE LOVE Situation – give and take
- Need alignment with your partners before changing your development methodology
- Facilitate vendor to successfully adopt
- Need to be creative and give success a chance
- May have to settle for less than optimal efficiency
- Vendor may not meet your requirements each sprint
Thanks!
Questions?

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