

Distributed/Dual-Shore Agile Software Development – Is It Effective?

Michael Hall, Three Beacons

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Today's Webinar Discussion

- Business case for Dual-Shore development
- Business case for Agile
- Can Dual-Shore and Agile be combined effectively?
- Challenges
- Best Practices
- Synerzip Introduction



Dual-Shore Organizational Models

Various dual-shore models of organization exist

"Turnkey"



"Hybrid"



"Sub-Contract"



Dual-Shore Business Case

Dual-Shore is now a proven model

- Used since mid-90s
- Successfully for the last 5 years +
- Most large/med/small companies now using
- Typical savings of 20 – 40%* when managed effectively
- Technical talent infusion
- Requires different approach to development
- Riskier, but rewards are worth it



* Several sources: Gartner Group outsourcing report, Ventoro research report, and my personal experiences at Nortel and Samsung

Agile Methods

Agile Methods are a radical shift in how to develop software

- Not top dressing!
- The only thing that matters: delivery of working software
- Deliver business value as early as possible, early ROI
- Iterative – 2 to 4 week time-boxed iterations, functional slices
- Encourage requirements change
- Emphasize people/team aspects – collaboration, trust, self-organization, etc.
- Inspect and adapt
- Ruthless prioritization



Agile Business Case

Agile Methods are now a proven model

- Used since 2001
- Extremely successful in delivering ROI early
- Many companies now using
- Typical savings of 30 – 40%*
- Typical productivity increases of 15 – 20%*
- Requires different philosophical approach to development
- Rewards are so worth it



*Note: white paper "The Business Case for Agile" on www.threebeacons.com

The Big Question

“Can I combine both Dual-Shore outsourcing with Agile Methods to derive an even greater benefit?”



Challenges

People

- Trust
- Language & culture
- Pain threshold / value
- Establishing single team identity



Agile is all about trust, self-organizing teams, and accountability. How can this work if the development team is halfway around the world?

Challenges

Information Sharing / Communication

- Communication
- Shared project vision, context
- Visibility of status and issues
- Synchronization
- Customer presence



Agile is all about co-location, collaboration, synchronization, and instant visibility.
How can this work if the development team is halfway around the world?

Challenges

Project Organization

- New roles
- New responsibilities
- Different work hours
- Required activities for collaboration



Agile is all about an onsite customer, coaches, product owners, and ScrumMasters. How can this work if the development team is halfway around the world?

Best Practices - Preparation

Prepare for the project (1 of 3)

- Assess offshore capabilities
 - Understanding of Agile
 - Server/network/desktop infrastructure
 - Communication capabilities
- Align with proven companies, or adjust your offshore team
- Provide team-based Agile training
- Meet face-to-face, build trust
- Establish shared project vision



Best Practices - Preparation

Prepare for the project (2 of 3)

- Establish TDD (test driven development) across all sub-teams
- Establish CI (continuous integration) across all sub-teams
- Establish multi-site replicated development environment
 - Source repository
 - Compilers
 - Debuggers
 - Frameworks
 - Bug tracker
 - Quality tools
 - Hardware platforms
 - Build machine
 - Etc.
- Establish synchronization and communication plan



	A	B	C	D
1	decimal	roman	function	test
2		1		PASS
3		2 boo		FAIL
4		3 ll		PASS
5		4 lv		PASS
6		5 v		PASS
7		6 vi		PASS



Best Practices - Preparation

Prepare for the project (3 of 3)

- Establish rigorous quality plan* up front and get remote team buy-in
 - Coding standards
 - Code reviews
 - Code purification requirements
 - Complexity analysis
 - Consensus-based designs
 - Definition of "done"
 - Source control philosophy
 - Defect tracking mechanism
 - Etc.
- Double-check project budget
 - Account for heavy travel
 - Account for face-to-face discussions for iteration 1 and release planning
 - Account for regular recurring facilitator visits to remote location

*Note: white paper "The 3 Beacons of Software Project Success" on www.threebeacons.com



Note: many of these prep activities are appropriate for an "Iteration 0"

Best Practices - Execution

Execute the project (1 of 5)

- Short iterations (2 – 3 weeks)
- Build trust!
 - Learn cultural differences, acknowledge diversity
 - “Seed Visits”
 - Cross-pollinate development teams and rotate every 2 months
 - Execute iteration 1 with entire team at one site
- Focus on “individuals and interactions”
 - Customer voice
 - Adjust work hours (if necessary) to insure at least 1 hour overlap
 - Dedicate this hour each day to “interactions”
 - Share “pain” equally
 - Insure remote location has an onsite ScrumMaster / Agile evangelist
 - Embed an Agile coach on each sub-team
 - Never end an iteration on Friday if offshore team is more than 6 hours away



Best Practices - Execution

Execute the project (2 of 5)

- Information Share – facilitate the gaps

- Project status

- Wiki pages: iteration theme, start/stop dates, user story names, story board pictures, burndown chart, team member names, pics, email ids, IM ids, etc.
- Digital pictures
- Excel spreadsheets
- Electronic story board
- Collaboration tools: ScrumWorks, AgileTrac, Rally, etc.



- Iteration planning, review/demo, retrospective

- Entire team
- Adjusted hours (if necessary)
- Share the pain



- Combine iteration review, retrospective, and iteration planning

- Plan for longer meetings due to overhead

- Release planning

- At least once a quarter
- Entire team face-to-face

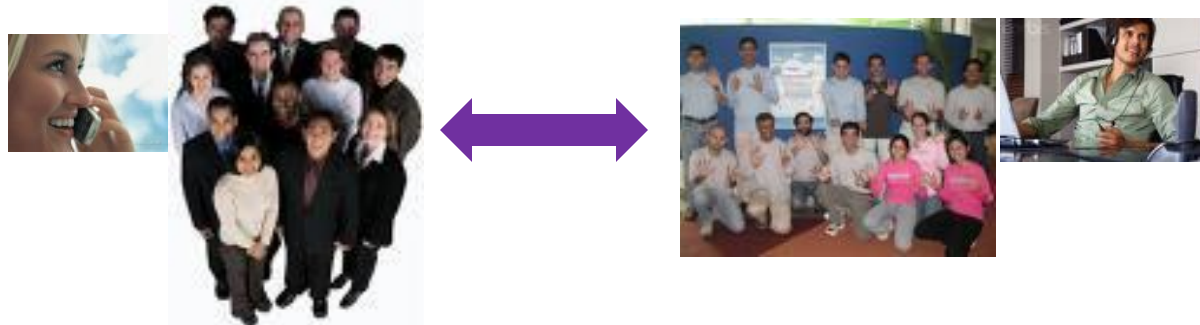


Best Practices - Execution

Execute the project (3 of 5)

- Synchronization

- Daily combined sync (via work overlap)
 - Videoconference or teleconference remote team
 - Alternate speaking across sub-teams
- ScrumMaster at each location
 - Works impediments raised by their sub-team
 - Sync notes on the wiki
 - Syncs with ScrumMaster and Facilitator at other location



Best Practices - Execution

Execute the project (4 of 5)

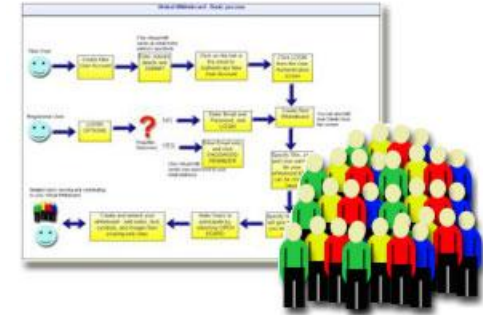
- Communication – facilitate the gaps
 - Teleconferences, direct phone calls
 - Invest in headsets
 - Avoid speakerphones
 - Skype – internet phone calls
 - Video conferences
 - WebEx
 - MS NetMeeting remote desktop
 - Adobe Connect
 - Watch body language!
 - Video record
 - Project vision, key design ideas, user story workshops
 - Email
 - Use group email id for communication involving more than 1 or 2
 - IM
 - Presence



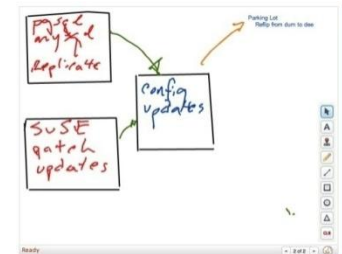
Best Practices - Execution

Execute the project (5 of 5)

- Disciplined development
 - Collaborative designs
 - Virtual whiteboard
 - Desktop sharing, WebEx sessions
 - Wiki pages
 - Document “key design ideas” consensus
 - Estimate user stories as a team
 - Split iteration commitments along user story lines
 - Hold needed technical discussions immediately after daily sync
 - Update iteration backlog immediately after technical discussions
 - Verify adherence to rigorous quality plan
 - Buddy code reviews
 - Assign local buddy to remote buddy and vice-versa
 - Done means “done”, nothing less



Virtual Whiteboard provides a visually interesting and captivating learning experience for classroom environments.



Best Practices - End

End the project

- Metrics
 - Ratio of local/offshore resources
 - Capture features delivered
 - Time to market
 - Others
- Perform special dual-shore cost analysis
 - Comparison versus all in-shore
 - Track dual-shore costs separately
 - Travel
 - Additional infrastructure
 - Communication
 - Etc.
- Lessons learned
 - Dual-shore practices that worked & did not work
 - For continuous improvement
- Celebrate
 - Together if possible, separate locations at minimum



Dual-Shore Agile – Business Case

Effective Dual-Shore Agile is emerging

- Used since 2003 with mixed results
- Has matured well in the last 2 – 3 years
 - Challenges well known
 - Best practices well known
 - Expertise growing
- Many companies now exploring this as viable delivery model
- Typical savings of 40 – 50% can be achieved*
 - Requires a few projects / years to get there
 - Align with companies that specialize in Dual-Shore and Agile
- Requires different and flexible approach
- Rewards are worth it



* Based on early data and my experiences.

Conclusion

Take-Aways

- Hard data evidence exists for Dual-Shore outsourcing business case
- Hard data evidence exists for Agile Methods business case
- Initial Dual-Shore / Agile combo data shows a viable business model
- Best practices are now known!

BUT

- Requires specialized expertise
- Requires extra effort and new ways of thinking



In many ways, Agile Methods are a ***"natural solution"*** for the extra risks and challenges associated with offshore outsourcing.

Questions?



Agile Software Product Development Partner

www.synerzip.com

Hemant Elhence, hemant@synerzip.com

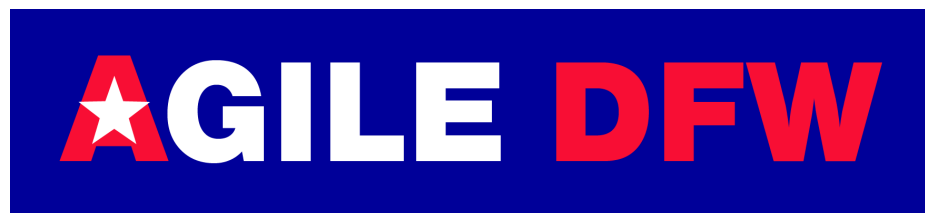
469.322.0349



www.threebeacons.com

Michael Hall, mike@threebeacons.com

214.783.3936



Synerzip in a Nut-shell



1. Software development **partner** for small/mid-sized technology companies
 - ◆ Focus: small/mid-sized technology companies
 - ◆ Deep experience in product development, testing, & deployment
 - ◆ Handles full software development life cycle
 - ◆ Technology and industry domain agnostic
2. Actually **reduces risk** of development/delivery
 - ◆ Experienced software management team
 - ◆ Brings in appropriate level of engineering discipline
 - ◆ Practices **Agile** development – responsive, yet disciplined
3. **Reduces cost** – dual-shore team, 50% cost advantage
4. Offers long term **flexibility** – allows (facilitates) taking offshore team captive

Our Clients - Examples



Thank You!

Call Us for a Free Consultation!



Agile Software Product Development Partner

www.synerzip.com

Hemant Elhence, hemant@synerzip.com

469.322.0349



www.threebeacons.com

Michael Hall, mike@threebeacons.com

214.783.3936

The logo for Agile DFW features the word "AGILE" in white, bold, sans-serif font and "DFW" in red, bold, sans-serif font. A white star is positioned inside the letter "A" of "AGILE". The entire logo is set against a dark blue rectangular background.