

Agile Offshoring:Not Just a Handoff

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I've noted a number of comments on Agile forums where I see practitioners dismissing offshoring by simply stating "don't do it, it is best to have the entire team collocated". Fortunately, there are some commenters who will come in and give the counterpoint that while having team co-location is the ideal for Agile software development, it is not always feasible for a variety of business reasons. I'm not going to detail the relative merits of offshoring vs. complete in-house development by a collocated team; instead I'll make some observations about what to look out for if you find yourself in a situation where offshoring is something you need to consider because of the realities of your business as well as things to keep an eye on to make it as effective as possible.

Keep in mind that when you enter into a relationship to augment your development/test with offshore resources, **it's not just a hand-off**. You are augmenting your in-house team and there are going to be inefficiencies introduced that you will need to work at to overcome and make work for you (as much as possible) instead of against you.

The first thing to consider is whether you are selecting a new company to enter into an offshoring partnership with or if you are trying to introduce Agile into an already existing relationship. In some respects, picking a new partner is a better situation because you can select based on the provider being a good fit for what you need to do (or even already having Agile practices trained among their staff). In either case, ensuring the offshore resources are effectively trained in the way you do Agile development is a task that you will need to actively work on if you want them to be augmenting your team as effectively as possible.



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People Are Your Greatest Asset

In Agile **people are not interchangeable cogs** where anyone can be swapped in and out on a regular basis; make sure the company you are working with understands this and embraces it. It is a yellow flag if the developers at the partner organization are frequently moved around to different projects and never form any attachment or commitment to a project. While not insurmountable, you'll need to work with management of your partner organization and make it clear that this is not a pattern you want repeated for your projects. You should try to build as dedicated a team as possible, within the normal constraints that people will quit and move to other jobs at times. Normal personnel churn does not

need to be compounded by the management of your consulting partner shuffling resources around between their different clients and disrupting your team composition. I have worked with some offshore providers that tried to swap people around between customers and projects on a regular basis.

You need to work your relationship with the management of your partner so they understand that this is detrimental to your projects and work to reduce this to the greatest degree possible. This sometimes takes a light touch and some negotiation skill; put a person with the right people skill mix in charge of building and maintaining the relationship with your offshore partner.



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If you're going to be working with an existing partner then it will be best if you outline your expectations and come up with a solid training plan to help roll out Agile practices. This is going to require an investment on your part. Members of your team will need to define and drive this training plan in conjunction with your offshore partner.

Communication is Essential

Good communication channels with your offshore partner are essential. It's a good idea to talk to some of the developers you'll be working with if possible. You want people who will become virtual members of your team and you'll need to treat them as such. Getting an Agile development environment delivering the best results possible is going to depend on them not feeling like "second class developers"; it may require some effort on your part with your in-house team to get this attitude off the ground.

Be aware of language barriers; verbal and written communication between members of the team onshore and offshore is critical. Whatever language is decided on as the primary language for communication, make sure that your virtual team members and in-house team members are at least moderately proficient in that language.

Select a time for the daily standup (conducted virtually) that works for all involved. This may require a bit of time shifting on one side or the other (or both) but it's worth it; make sure to keep work-life balance in mind. It is important not to over-stress either team, but someone may have to flex in order to come up with a common time when everyone is available for daily communication. In the last offshore situation I was working in we had a team on the West Coast of the United States and a team in China. 6PM in California was 9AM the next morning for our offshore team, so this seemed to work good as a daily standup time at the end of the work day for the in-house team and the beginning of the day for the offshore team. You can use something like the World Clock feature at timeanddate.com to help work out meeting times that are amenable for everyone.

Use tools to "virtually co-locate" (Skype, WebEx, GoToMeeting, etc.) Set up the communication infrastructure so that the communication between onsite and offshore is as seamless as possible. Make sure you have some kind of tooling infrastructure set up to allow for smooth tracking and collaboration across the geographically separated sites and which facilitates continuous integration.

This is a great time to take stock of the experience of both your engineering organization and your IT team. What productivity tools do people know about? Take stock of team experience and build out the infrastructure as early as possible. This is a great opportunity to treat building out your communication infrastructure as another Agile project.

These are only a few of the vital concerns that need to be worked out up front. Since your team is in multiple locations you need to remove as many barriers as you can.

Face-to-Face is Key

Even though you are off-shoring some or all of your development, you will need to consider what degree of actual face-to-face interaction will be possible:

- Get an understanding for a travel budget.
- Make sure you get a handle on logistics like passports and visas.
 - Someone needs to stay on top of this; you don't want to find yourself in a position where a needed person is unable to travel because of some missing document after plans have been made.
 - This needs to be taken care of for partner employees traveling to your office as well as for your employees traveling to the partner location.
 - This is something that bit us on a project I was working on, when we discovered there was an unusually long wait time to get a Visa to visit the US from China. People we needed to come here that had not applied for a Visa well in advance of need were not able to visit in the timeframe that was required.
- Ensure people clear their calendars and are available for face-to-face work
 - Set specific goals for face-to-face interactions

You will want to have several of your key people visiting the partner in their offshore location. They need to be there long enough to get to know everyone who will be on the offshore team, with a particular emphasis on building relationships with the key members of the organization. As an aside, you may want to check to see if there are any risks associated with physically traveling to the location of a potential outsource partner. The US Government maintains a list of travel warnings and alerts which is good to check in advance of making travel plans; in fact, check out any countries you'll be traveling to before you enter into a relationship with a partner to make sure there is not going to be a known problem down the road.

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Build a seed team at your partner organization that will be fully on the same page as your on-shore development team.

- Pick a couple of developers in the partner organization who are good communicators and also great developers.
- Bring them onsite and make them part of your team for a few sprints.
- Make them part of your team, treat them fully like any other team member and have them learn how you work while delivering user stories.

These developers will be the core of your seed team when you send them back to their home office. Then **keep the rotation going on a regular basis**, people from your office visiting the off-shore facility and developers from offshore working in your office.

Effective offshoring is enhanced by relationships built in person and the reinforced daily over the phone, video chat, and in chat rooms/e-mail. All this personal interaction has an expense associated with it, but you should see the benefits in increased productivity, quality, team cohesion, and morale. This is something I have seen work first hand, the personal connections benefit everyone on the team.

Security Considerations

Information security is something you need to be aware of and go into with your eyes open, but it is not a topic that's particularly unique to Agile. I'll touch on some of the key areas you need to be sure to look out for, but there is far more to talk about in each of these areas:

- Security of your Intellectual Property Make sure that your outsource partner is aware of any rules and regulations you have about sharing your information. I have seen developers share requirements and code on internet forums while seeking advice on how to address a problem or roadblock they are facing. This may not be a problem for your company, but then again it may when fragments of your possibly proprietary code start floating around the internet. Be sure you set down what is and is not permissible and ensure both your team and your partners are aware of the rules (this should also include a review of physical and IT security at your partner's offshore facility).
- Security of your infrastructure Ensure that appropriate passwords, rights, and privileges are associated with any of your shared code repositories, collaboration tools, team rooms, chat rooms, etc.
- Free and Open Source Software (FOSS) Be aware that developers will often grab snippets of code or even entire functions/libraries off the internet. They do this for efficiency, but in this "free" software often has a license attached to it that you really need to understand. For instance, some FOSS licenses state that you are free to use the associated code; but any code they are embedded in must also be made freely available for others to use. Perhaps not an issue, but maybe it is if you're developing commercial software.

- Copyright Infringement Outside the realm of FOSS software, you need to make sure your
 offshore partner is not illegally using copyrighted material. Perhaps not an issue if copyright
 laws in their country are not as strict as they are where your home office is. You will be the one
 responsible for any problems if you ship a software product that ends up having some kind of
 copyright or licensing violation.
- Security concerns related to standards you must comply with Do you need to comply with an ISO standard, HIPPA, SOX, etc.? Make sure that your use of an offshore contractor does not get you into a state of non-compliance against any of the standards you need to work with.
- Flow-down of security requirements from your customers Make sure that if you are delivering software to a customer that has imposed security requirements on you that you flow-down those requirements to your offshore partner.
- **Business Continuity Planning** You need to ensure that your outsourcing partner is featured in your BCP, if you have one (if you don't, you should). You should cover both what will happen if there is a problem at your site as well as problems that could occur at the partner site. This should also include Disaster Recovery.

The bottom line for security:

Make sure your needs are clearly spelled out in the contract between yourself and your offshore partner.

In Conclusion

I've only scratched the surface here. Every situation is unique, you will need to look at your own situation and determine what your primary goals for outsourcing are and then build a plan that will help you meet those goals. Keep in mind that the teamwork necessary for fully functioning Agile development does not come for free, you need to work at it, but the benefits should be worth the effort and expense.



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