Arcanys

9 DEADLY SOFTWARE DEVELOPMENT TEAM EXTENSION MISTAKES (EXPLAINED)

The practice of extending a software development team with offshore resources has steadily been gaining steam as more tech-enabled businesses realize the benefits of maintaining one. Because really, once the organization understands the process of getting the best value for money from an augmented team, what's not to like? You are able to fill in the crucial 'missing pieces' in your core team while maximizing productivity and getting projects off the ground—and in a cost-effective manner, at that.

But while the right outsourcing partner is an invaluable asset to your business, approaching the extended team model with misaligned expectations and rushing into it unprepared can introduce substantial risks of failures, additional costs, and loss of time.

Let me tell you this: I am by no means providing a foolproof recipe for success in this eBook. But I believe that the knowledge and experience that ourmy company Arcanys has accumulated over the last 11 years in the software development space can certainly prove useful for anyone looking to assemble and maintain an offshore development team. After all, the more aware you are of common pitfalls and miscalculations, the better you can avoid them. Happy reading!

Frederic Joye, co-founder of Arcanys

9 Deadly Software Development Team Extension Mistakes (Explained)

1. Thinking a fixed-price project is the safest move
2. Thinking that the requirements can be built on the fly with no clear roadmap
3. Building your site on a tool developed and owned by your software provider
4. Not having access to your source code on a regular basis
5. Looking for an outsourcing vendor that will blindly execute software development
6. Believing that doubling the team size will double the output in a linear fashion
7. Treating the outsourced resources as a different team separate from your company
8. Confusing price with value
9. Funding special: Thinking that there is such a thing as a free lunch. Work for equity deals

Let's take them in turn.

1 THINKING A FIXED-PRICE PROJECT IS THE SAFEST MOVE

If a service company offers an attractive fixed price for a complex and poorly specified project, it probably is too good to be true.

A very common request we hear is: Read the requirements (a few lines in a word document) and please send us a timeline and a cost. This is an approach bound to fail, and here's why:

A. Fixed-price projects require clear-cut requirements leaving no stone unturned (spoiler: it doesn't exist)

In theory, a fixed-price project could work if the project scope and requirements are extremely clear and set in stone. In practice, however, this is never the case, especially with startups or innovative projects. Requirements are often somewhat vague with scenarios that are not thoroughly conceptualized. The thing is, **anytime a requirement isn't clearly spelled out, the developer is left to figure out the missing pieces** — and the results are usually not how the client had envisioned them, especially if the provider operates in a different country and culture from the client's. The scope and requirements often have to evolve based on new knowledge gathered during the course of development.

B. Estimating a project with a margin of error below 20% requires a crystal ball

If you insist on pushing your contractor to go for a fixed price, they'll have no choice but to try and estimate the risk and add significant padding to the project cost and pray it wasn't too underestimated.

Since the risk is capped, clients are usually less involved in the project because it's more or less the burden of the developers to figure things out. As the project moves along, the developers start discovering more and more unforeseen issues, pretty much to the point that he will start going over his estimations and buffer combined. The only solution left for the provider is to attempt to limit his losses.

C. Everyone is losing in a fixed cost project

How does the provider limit their losses? By cutting corners, and cutting on quality. They may remove their best team members for more interesting clients, and try to handle the project at the lowest cost. Code may not be as well handled as it should, documentation could be skipped, and important details can just be looked over. Undoubtedly, deadlines and quality don't matter anymore to the developers; their only worry is how to crash land their project while still meeting whatever was agreed in the contract.

Demos may be buggier, and it'll depend on the client to spend more time testing and finding bugs, and then junior developers will try to go about the project.

D. Fixed cost is limiting for all parties

Truth be told, clients asking for fixed-price are rarely strong technically, and instead are usually coming from the business side of things. This is one of the reasons why they are pushing for fixed-price, as a way to cap their risk for something they don't understand well.

This means, they also rarely foresee the biggest drawbacks of potentially huge delays, large time investments by themselves in quality control, and the absolute impossibility to change their product during development (the developers will certainly dig their feet into the ground before taking on any change orders).

At the end of the day, you end up with a project that doesn't fit your needs, that is grossly delayed, and that took you way more time than you expected, but yes… the bill was cheap.

E. The safer road to success is controlled flexibility through a trusted relationship

In a time and material-based project, it is the burden of the client to make sure the developer has everything they need to succeed, as quickly as possible — pretty much like in any company employing its own developers: it is just one team working together. With everyone sharing a common goal of pushing a project to completion, the collaboration is much closer and usually brings the best results. There is more pressure and time spent at the beginning to plan everything well, conceptualize the best product, help your outsourced team to do the best job they can – but the results are most often way more satisfying.

For a successful innovative project, make sure you:

- Avoid fixed-cost projects.
- Polish your requirements as much as possible so the provider may be able to evaluate your project as accurately as possible (keeping in mind he could still be 25-50% away from actual numbers).
- Ask for help from your provider or hire a professional agency if you have trouble with the requirements.
- Consider building non-working prototypes to get the validation of all potential users way before entering the beta phase.
- Be ready to ditch non-essential parts of your project to lower the scope of your first phase.
- Ask for demos every sprint (so every 1 to 2 weeks).

2 THINKING THAT THE REQUIREMENTS CAN BE BUILT ON THE FLY WITH NO CLEAR ROADMAP

Adhering to lean development principles is great, but there are limits to how flexible a team can be. Failing to prepare is preparing to fail.

As an integral part of the Agile software development methodology, lean software development is a concept that emphasizes optimizing efficiency and minimizing waste in the development of software. At Arcanys, everyone is trained in Agile practices, and it shows in our partnerships with clients: we are flexible, use a creative approach, and can provide incremental results every two weeks. **We work in a way where waste is avoided and removed, and we prefer to measure the value in terms of fitness for use rather than strict conformance to requirements.** We see short iterations as opportunities to speed up the learning process, communicating small sets of plans upfront, and allowing us to adapt to unforeseen circumstances.

But while it's true that organizations with the ability to complete fast and simple improvements in the shortest time frame can gain powerful decision-making benefits and put value into the hands of their customer faster, rushing into a project headlong and building all requirements on the fly is not something we would also advocate. **Just because you don't need to think too far in advance about future requirements doesn't mean you don't need discipline, focus, and a solid roadmap to make things work.** You need to make sure that you have enough work piled up for your team for the next one to two sprints at the very least, with a clear plan in mind. In some cases, you can get a UI/UX designer to clarify the vision (usually in highly visual projects or at the start of a new project), or utilize the expertise of a business analyst or the product owner (either on the provider's side or on your side) to help the team establish clear requirements and the specific work to be accomplished on sprints.

3 BUILDING YOUR SITE ON A TOOL DEVELOPED AND OWNED BY YOUR SOFTWARE PROVIDER

Unless there is a very, very good reason for your provider to choose a proprietary or custom framework, you'll always be better off running your business on a common framework.

We're used to rescuing failing projects. Unfortunately, a fair share of our clients have been struggling with their previous providers, and come to us with a hot potato that needs immediate attention. As we try to get control of the situation and carry on with development, we also assess what should've been done differently.

The hardest projects to rescue are the ones where the previous provider has started developing their custom CMS, framework, or platform to run the project. What's a custom CMS? For example, they've built their own interface to manage the content, rather than using well-established platforms like WordPress or Drupal.

So, at some point, some providers decide to build their own framework and handle all their projects there.

It makes it easier for training given that their employees just have to master that single framework, but it makes it very difficult for other software providers to take over. Essentially, we have to learn a new way of programming that could take weeks to learn, and then remain permanently trapped in it throughout the future development of the project.

Custom frameworks are hardly flexible, very scarcely documented, hard to maintain and upgrade, and lack the necessary community around them for continuous improvements which result in them using outdated technologies.

In addition, the developers working on those custom frameworks tend to get bored because they barely learn anything at all that will be helpful for their careers. Usually, it isn't even worth putting on your resume. So they can handle this for a few months but soon enough, they are likely to lose interest and performance may drop.

When the project is not too advanced and there is still a lot more to accomplish, we usually recommend starting all over again on an open-source, recent, maintainable, well-documented framework or CMS such as Laravel, WordPress, Contentful, etc. It is very easy to find developers everywhere on the planet who know these widely-used technologies and can take over a project with minimal hassle.

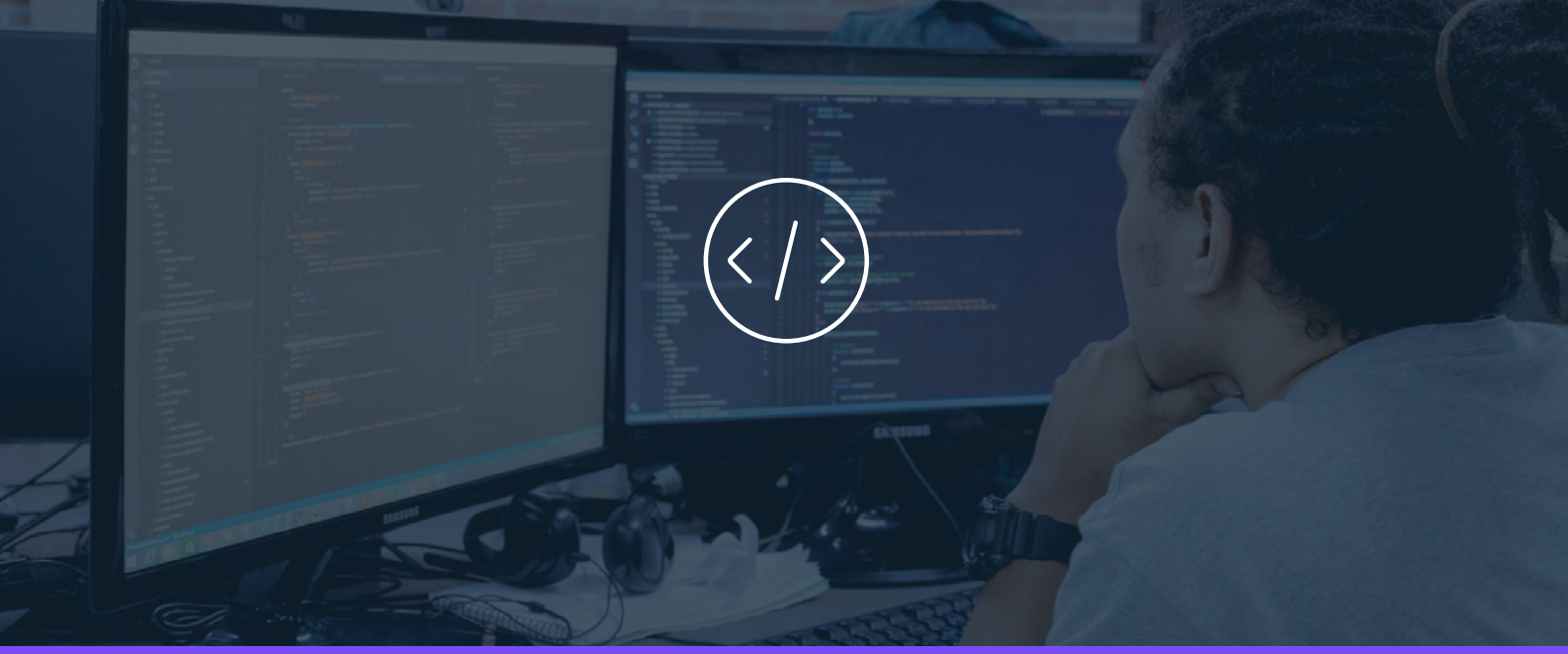
Whether you need to start from scratch or not is usually a funding-based decision: if you can't afford to start over, then try with what you have, until your project starts picking up.

But just keep one thing in mind: **even if your project succeeds with that custom framework, one day, you will need to start over, no matter what**. It may be 1 year or 2 years down the road, but eventually, various reasons will get you to start over, and the longer you wait, the more it will cost.

When starting a new project, make sure you check (i.e: put them in writing in the contract):

- The type of technologies involved
- The frameworks, CMS, or platforms and their version number
- The programming language
- How widespread the community is
- If the technologies involved in your project are suitable for your project

Sometimes, having an independent consultant to check the assumptions of your provider can be a good option. Two pairs of eyes are always better than one.



4 NOT HAVING ACCESS TO YOUR SOURCE CODE ON A REGULAR BASIS

Some outsourcing companies keep the source code until full final payment is made. Here's why you want to avoid that.

Will you have access to the source code once completed? The answer to this question should always be yes when you're paying for some software to be done specifically for you. But another important question you want to ask is: when?

Some outsourcing companies deliver the code only when full and final payments have been made for the entire project. But problems in projects usually arise before the project is finished, and sometimes the final payment is never made, or the cost just ends up much higher than initially expected (for various reasons, but most often due to poor requirements).

So, while incremental payments are released, **make sure that the source code is delivered throughout the project at regular intervals, preferably after each demo, or even on a weekly basis if someone on your side can review the code.**

Additional tips:

- Negotiate that your provider must deliver code on a regular basis, linking payments based on proper code deliveries.
- Verify that the code gets released on a regular basis.
- Create your own source code repository (for example on Git or Bitbucket or other providers) so that your provider must check their code into YOUR repository.
- Make sure you can see the progress of developers on a regular basis.
- Pay on regular intervals (e.g. monthly payments) when the provider is honoring his obligations. This is a two-way street and being a bad/late payer will also hurt the motivation of your provider.

5 LOOKING FOR AN OUTSOURCING VENDOR THAT WILL BLINDLY EXECUTE SOFTWARE DEVELOPMENT

Technical skills alone won't cut it: you want to partner with a tech talent provider who understands your challenges and objectives well enough to act as a genuine business partner and advisor.

Companies stepping into the process of team extension often fail to realize at the outset that outsourcing providers are not created equal. Software development firms actually vary in terms of function and intention: some act more as software vendors geared towards creating the actual software solutions; Other staffing providers are focused on meeting the required manpower and then leave it at that. For many enterprises, though, this is not the partnership they envisioned.

Instead, what most companies need is a healthy collaboration with a real software development team extension provider. What sets a software development company apart as an outsourcing provider is their **deep understanding of the broad picture. Being in the industry themselves, they know the whole development life cycle, can step in when issues arise** or when they see you taking the wrong path, and are able to give expert advice. And that changes everything.

It's also important to partner with a team augmentation provider that maintains the same high standards as you do so that both parties' expectations are aligned when it comes to running day-to-day operations, assessing skill levels, and evaluating the quality of the solution. Also, don't hire a firm that only offers software development. You want to make sure you choose a full-service outsourcing company that has the capability to understand your needs and turn them into requirements with business analysts, or into beautiful and user-oriented designs with designers and UI/UX experts. **Look for people who will not just blindly execute what you've laid down on paper, but will help your project evolve into the software product that you have in mind.**

Other key services that you should consider in your provider search are code reviews, manual QA, automated QA, SysOps, customer care, UI/UX design, among others. Keep in mind that developers are creative people, but they are not the best people to design a new interface or to understand the full picture of the business logic behind your choices. For these, you would need higher levels of IT talent. If you don't have the expertise of senior software architects, business analysts, or UI designers in your core team, make sure that the company you choose is able to add these crucial skills to your extended team.

6 BELIEVING THAT DOUBLING THE TEAM SIZE WILL DOUBLE THE OUTPUT IN A LINEAR FASHION

Let's ditch this misconception for good: No, adding more programmers to a project falling behind schedule won't get it back on track.

While having more people on board may sound logical for other industries, this just is not the solution in the software development space. In fact, it may even be counterproductive, delaying the project even further. This observation was explained by Frederick Brooks in his 1975 book The Mythical Man-Month. According to Brooks, there is an incremental person who, when added to a project, makes it take more time, not less. This is similar to the general law of diminishing returns in economics which states that increasing one factor of production while holding all other factors constant will, at some point, result in lower returns.

In software development, at least three factors can explain this:

- There is a "ramp up" time for any new team member; meaning, it takes some time for the people added to a project to become productive in any software project.
- Communication overheads increase as the number of people increases. When team members need to communicate with more people, they get less productive work done.
- Most software development tasks are not divisible. This is in contrast with other tasks like cleaning a room, for example, where adding more people to the job hastens its completion. The man-month model does not work here.

In software development, the ideal team size is about 4 to 5 people. Past this threshold, the work process would no longer be as efficient. The best solution in projects where more individuals are involved is to create multiple independent teams of 4 to 5 people. Thus, four 5-person teams, as opposed to a single team with 20 members, would have higher productivity with less bottleneck in communication channels.

7 TREATING THE OUTSOURCED RESOURCES AS A DIFFERENT TEAM SEPARATE FROM YOUR COMPANY

Nothing derails a software development project like keeping your outsourced team in the dark.

Depriving the outsourced team members of knowledge of your business builds a dangerous gap between you and them. One crucial ramification of this is that your extended team would not have a comprehensive view of the business and the project at hand, potentially resulting in unoptimized or inappropriate solutions. In addition, **the perceived lack of trust and feeling of alienation could also bring down their morale, motivation, and in effect, productivity.**

That's why it is important to take care of the extended team members in the same way that you would your own people. Your efforts in this aspect will greatly factor in the success of your projects and company over the long term. See to it that you are heavily involved in the day-to-day updates with a senior lead on the client-side, send over the work with the needed information, and answer questions to guide the developers.

This is what you would normally do with your core team, and I can never overemphasize the advice that you should treat your extended team no different than yours.

Lastly, paying them a visit maybe once or twice a year (if possible) would bring about a very positive impact on the global output. We've experienced it ourselves and so have our clients.

8 CONFUSING PRICE WITH VALUE

Measuring the benefits of your outsourcing investment goes way beyond the price tag. Get to grips with assessing the full impact of your outsourcing contract.

It's common for company executives to automatically look at the bottom line when faced with a business proposition: How much will this cost? While keeping tabs on expenses is a given in any business, it becomes a problem when companies fixate on the cost and not on the overall value of a deal. It should come as no surprise that many organizations choose the less expensive option when given a choice. But because of the unfortunate results they often end up with, lower rates don't always mean you're getting the better end of the bargain.

This is where the approach of looking at value for money comes into play. Yes, a certain provider may not offer the lowest rates, but considering their significant portfolio and the level of expertise of their developers, perhaps the higher costs would translate to higher chances of getting your projects to completion. And then perhaps, you'll find an even better bang for your company's buck when you get an offshore team based in a country with a lower cost of living. Chances are, you'll find developers whose skills match those of their counterparts in developed countries, but at lower rates. Just take a look at the Arcanys track record and portfolio, and see for yourself that these are not empty claims.

So how do you measure value for money? **Consider your potential teams using the three E's as the guide factors in your assessment: Economic—how competitive the rates are?; Effective—how high the chances for project completion are?; and Efficient—given the provider's capacity and range of services, will you get your investment's worth back and then some?** It's all about balancing the quality of work with the cost, rather than simply looking at the price at face value.

9 FUNDING SPECIAL: THINKING THAT THERE IS SUCH A THING AS A FREE LUNCH. WORK FOR EQUITY DEALS

For companies who have yet to find funding, using stock options to 'pay' for the initial software development seems like an easy alternative. But there are some risks associated with this approach.

At Arcanys, we are very often asked to do development for equity, or to massively lower our rates because, well… They don't have a lot of funding to start with, that's a reality. Before they get to the first few-hundred-thousand-funding round, it's normal for these new companies to save as much cash as possible and make sure that the available financial resources are wisely spent. In this situation, however, you need to **be careful in choosing the software development partner you are going to work with, and how you will structure the deal.**

For one, never forget that everyone must earn some money to eat (and for companies, pay their staff). Software services providers working 'for free' will rarely prioritize this job when paying customers come knocking at their door to get some work done.

This could significantly slow down the development course, or lower the quality of your product as the outsourcing partner entrusts the project to junior developers. This practice is risky for entrepreneurs because **it puts the project in a state of uncertainty, particularly in terms of time to market** and perceived quality for the very important early adopters of the product.

Through its tech resources investment program Arcanys Ventures, our company does actually partner up with promising companies to fuel their software delivery teams in exchange for equity stakes. But just as these funding companies have to be cautious when choosing a software development partner, we also do our due diligence. When both sides have been working together for a while and both parties deliver on their respective promises, then it could be high time to get into a more serious relationship and talk about work for equity, if the opportunity makes sense for both parties. Even then, work for equity deals are always partial; funds still need to come in to cover some of the costs, as this is the only way to have sustainable "co-owned" projects.

Ideally, before an investment occurs, both parties have to work together through a regular client-provider relationship. This would help the partners determine if there is an alignment in values and if the teams can collaborate efficiently. We call this dating before getting married. This is, for example, what we did with ThinkItTwice, Payment Logic, Register Now, or Medulla, among others.

Any deal that seems too easy for any of the parties is usually no good as there might be surprises hidden down the road. Having a software development outsourcing firm onboard is key to faster and cheaper product building, but this requires serious consideration. What the outsourcing partner provides goes way beyond cash investment; it's an incredible added value for the founding teams to work with technology experts with proven track records and experience. With the right outsourcing partner, startups and scaleups can accelerate their journey to success.

Summary

Here's the summary of the most important mistakes made when looking for or working with an outsourced software provider:

- Thinking a fixed-price project is the safest move
- Thinking that the requirements can be built on the fly with no clear roadmap
- Building your site on a tool developed and owned by your software provider
- Not having access to your source code on a regular basis
- Looking for an outsourcing vendor that will blindly execute software development
- Believing that doubling the team size will double the output in a linear fashion
- Confusing price with value
- Funding special: Thinking that there is such thing as a free lunch. Work for equity deals You've been informed.

Conclusion

Nobody ever said that managing and onboarding an extended team was easy. But with all relevant factors considered and the most common mistakes learned before you engage in a partnership, then you're in the best position to succeed. Find the right outsourcing partner for your unique needs, manage your expectations, maintain great communication, and go places (even literally) with your extended team.

Don't let your business ambitions die before you give them a chance to become a winner on the market. Use a professional software development team extension firm to hire the best talent for your needs and take your software product to greater heights. If you are interested in knowing more about how to make your outsourcing initiative a success story or simply get a free strategic analysis of your project, contact me at fred@arcanys.com or on LinkedIn.

Cheers!

About the author

Fred had been working on IT and operational projects in the finance and software industry in Switzerland for 10 years before co-founding Arcanys in 2010. He carefully negotiated with and managed outsourcing suppliers as a corporate buyer on the one hand, and led delivery teams as an internal provider to operational departments at an executive level of listed companies in Switzerland, on the other. With over 20 years of experience in the industry in Switzerland, Hong Kong, and the Philippines, Fred is now leading the worldwide sales and marketing efforts of Arcanys.

View on Linkedin

About Arcanys

Arcanys is a Swiss technology company specialized in building highly skilled development teams for startups and established businesses in need of robust software solutions.

Run by a team of successful entrepreneurs, our dedicated development center in the Philippines provides project-ready tech experts that work in full compliance with your needs and objectives.


Arcanys