



Charting the Journey to a Successful Outsourcing Relationship

A MapleWorks White Paper

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INTRODUCTION

How does one achieve a successful relationship with an outsourcer? If you're reading this white paper, then you're on the right path.

In successful outsourcing relationships, the journey is pivotal to arriving at the destination. To navigate both modular and co-development projects to success, engage an experienced outsourcer, then define and manage the relationship.

This white paper presents best practices to cement a well-defined and well-managed relationship with an outsourced software development service provider – specifically, an engineering outsourcing service provider. The result will be the sustainable value you are seeking.

BENEFITS OF OUTSOURCING

There are a number of scenarios that lead organizations to explore an outsourcing arrangement. One or more of these may resonate with you.

- **Time-to-market.** An organization needs to complement their internal development team to deliver applications or products on time or ahead of schedule.
- **Variable demand.** Outsourcing is the solution to efficiently deal with unpredictable demand for software development services; such as additional feature requirements.
- **Talent management.** An organization wants to outsource projects in order to free up internal staff to focus on core competencies.
- **Talent gap.** An organization is unable to find the right talent in-house, so fills that gap with specific technical expertise from an outsourcer. Or, perhaps the right talent is available, but the skill set won't be required once the project is completed. Outsourcing avoids the hiring and inevitable laying off cycle.
- **Specialized needs.** An organization can turn to an outsourcing provider when specialized expertise is required.
- **Cost reductions.** An organization has a mandate to save money.

ASK YOURSELF THE TOUGH QUESTIONS

Because a co-development arrangement is more involved than a modular arrangement, for the purpose of this white paper, we're presuming that you've decided to co-develop a project with an outsourcer. It's time to choose the outsourcer best matched to your unique requirements. To make that decision, consider the project you need co-developed and the areas of expertise required.

Ask yourself:

- Does the project have clear cut requirements or will we need the help of an outsourcer with deep industry experience to assist with discovery and establish the requirements?
- Do we need an outsourcer with proven experience in understanding customer requirements, and/or how to commercialize the product?
- Does it require software development only or does it require hardware development as well?

TYPES OF OUTSOURCING ARRANGEMENTS

- **Co-development:** Both client and outsourcer are working on the same project at the same time. This symbiotic relationship draws upon the outsourcer's specialized expertise and the client's deep business knowledge.
- **Modular:** In contrast to co-development, modular projects are separated and given in their entirety to an engineering outsourcing service provider.

- Does the outsourcer have in-house software; for example, a Test Automation Tool or a Network Management Framework, to jumpstart the project?
- Does it require specific domain knowledge or expertise, which is an important capability required of the chosen outsourcer?
- Does it require encryption technology that encompasses export restrictions, which defines geographical location of the outsourcer?

You're now ready to match your requirements to an outsourcer's capabilities.

ASK THE OUTSOURCER THE TOUGH QUESTIONS

Similar to planning an expedition, you're not going to have all of the answers from the outset. This is where the help of an experienced outsourcer is valuable – someone who's taken the trip many, many times before. An experienced outsourcer can bring clarity to your requirements – from technology, process and cost perspectives.

The initial meeting with a potential outsourcer can be facilitated quickly via web-based presentations and conference calls or at your site.

You should expect the outsourcer to cover the following topics in the initial meeting:

- High level view of who they are, their capabilities, experience, and value proposition;
- High level view of how they get projects done from a technology perspective and a process perspective;
- A drill down view of technology they've worked with and their domain expertise; and
- Their cost structure – because veteran outsourcers know that cost is always a point of interest.

And you should be prepared to discuss the following:

- The project you need to outsource, your requirements, and expectations;
- Time-to-market constraints;
- The expertise your organization has and the expertise it requires; and
- Any specific or unique resourcing needs.

If you are evaluating various engineering outsourcing service providers, you may find that each presents cost in a different way. To compare apples to apples, here is a checklist of cost considerations you should discuss with each service provider:

- Fixed price contract versus time and materials contract;
- Fixed monthly rate versus variable monthly rate;
- Blended rates versus tiered rates (based on the years of developer experience);
- Timeline of completion (lower rates of less experienced engineers may end up costing more by the completion of the project);
- Billing currency exchange rate implications (some contracts have clauses regarding exchange rate fluctuations);

BEST PRACTICES

- Sign a Mutual Non-Disclosure Agreement (MNDA) at the point that you're ready to share proprietary information with an outsourcer.
- If possible, bring the decision makers to the initial meeting to avert repeat meetings.
- Choose the "lead" project manager and have him/her attend the initial meeting and all subsequent meetings. This ensures no communications are lost in translation. An experienced outsourcer will do likewise.
- At the close of the initial meeting, establish the next steps and timeframes.

3 COMMON FINANCIAL ARRANGEMENTS:

- **Fixed Monthly Fee.** Benefits continuous relationships in which there is a fixed number of staff, days, etc.
- **Fixed Price Contract.** Benefits clients who have a set scope and set boundaries, and want a set price.
- **Royalty Sharing.** The outsourcer may reuse the technology under various arrangements; i.e. not to be used with the client's competitors. Royalty sharing is an opportunity to realize reduced development costs and possible residuals along the way.

- Billing terms, including interest and discounts;
- Licensing fees;
- Project-related communications costs, travel costs, living costs and management costs that may be “hidden” in offshore business arrangements;
- Project-related equipment purchases, including shipping and insurance; and
- Bonuses and penalties.

We’ve discussed the main dialog points between an outsourcing service provider and an organization. As information is shared, both parties will be assessing whether there’s a fit.

The outsourcer is assessing whether their capabilities can achieve your expectations, and determining your preferred development process (agile, waterfall, or hybrid – more on this later). The skilled project manager is already matching their engineers’ technical expertise to your requirements.

Concurrently, the outsourcer’s questions help both parties to conclude whether there’s a fit. The outsourcer’s goal is to achieve a mutually beneficial relationship 100% of the time because satisfied customers provide the opportunity for future business relationships, either through repeat business or referrals.

You are assessing that the outsourcer has the experience needed to achieve the project within your expectations. You’ll be drawing upon their specialized expertise, so make sure that they have the right capabilities, the right expectations, and the right governance processes to ensure a mutually beneficial relationship.

- Have they developed best practices?
- Have they developed reliable, scalable technical platforms?
- Have they invested in test automation so that they don’t need to reinvent the wheel with each code drop (thereby reducing time to market and cost of testing while improving quality)?
- Have they developed other valuable assets that allow them to improve service at reasonable costs?
- Do they have an approach to revisit and manage expectations?
- What is their development process – will you be able to work within a culturally similar development environment; for example, traditional process (waterfall), an iterative process (agile), or a flexible hybrid process?
- What is their approach to protecting your intellectual property (IP)?
- Do they have reference customers you can contact?
- Do you believe your organization will sustain value throughout the relationship?

Assuming both parties are arriving at the same conclusion – we are well matched – before committing to a relationship, an experienced outsourcer invites you to meet at their site. This allows you to observe the outsourcer team in their environment and get a direct feel for them.

MYTH-BUSTING

Many think that **fixed-price contracts** cap the expense of a project. In fact, fixed-price contracts open the door to risk rather than shutting it.

- Early in the engagement, detailed requirements define the fixed price; however, once the prototype or working code is available, a client has a better idea of what is wanted or not wanted. Change requirements to the scope put the project at risk of going over budget.
- Adopting an inflexible change order process avoids scope creep, so a client may end up paying the fixed-price, but walking away with product that does not meet their requirements. Time and money is wasted.
- Instead of taking an iterative approach to the development process, a serial approach is taken. While milestone reviews are helpful, it’s not until user-acceptance testing at the end of the project that the client knows if they gained value from the project.

The truth of the matter is that fixed-price contracts tend to create a phenomenon of increasing risk rather than decreasing risk. To decrease risk and gain value from a software development project, look to your internal project manager to direct the project vigilantly.

EXPERTLY SETTING EXPECTATIONS FOR THE JOURNEY AHEAD

Once you've decided to move ahead with an outsourcer, the outsourcer asks you to sign a **Master Agreement (MA)** which serves as the umbrella business arrangement between both parties.

The next step is a formal **Work Order (WO)**. An abstracted layer of the MA, a WO is prepared for each engineering development project. The WO sets the parameters of the project; for example, technical requirements, schedule and milestones, associated costs, and expectations. In some scenarios, an outsourcer sees the need to do early prototyping as part of the WO definition process. Take the time to read the WO thoroughly as you may need to align and negotiate the timeline and costs with business or other constraints.

The following activities should take place as soon as the WO is signed:

- The outsourcer forms their team, and roles and responsibilities are identified. Typically the team is comprised of a business development manager, a project manager or development manager, a technical lead, and a group of engineers. Accountability is set by function, by project, and by individual.
- Your organization forms an internal team with corresponding roles.
- The outsourcer sets up the infrastructure between themselves and your organization; for example:
 - Dedicated access or local lab equipment is made available for development and testing, as well as a firewall;
 - Virtual Private Network (VPN) access into systems for bug tracking, code management, and document management is provided; and
 - A regular backup schedule is created for data that is stored at the outsourcer's site and your site.

The key to a successful project is setting up a collaborative team from the start. A skilled project manager schedules a kick-off meeting that establishes this collaborative tone. Everyone is invited. It can be via conference call, web-based, or in-person. The business leaders are organized and prepared having sent an advance agenda that sets the team's expectations.

You can typically expect the project manager to introduce individuals and their corresponding counterparts, give a recap of the WO contents, firm up expectations, and discuss the communications process and paths to escalation.

Knowledgeable outsourcers know the importance of regular and timely communications. They propose weekly, monthly, and quarterly approaches to communications, and discuss ad hoc communications.

- **Weekly.** Both technical and business issues should be covered weekly by way of written and current status reports.
 - A **written status report** is sent to the client stating what was accomplished in the previous week, what will be accomplished in the upcoming week, along with red flags, issues, schedule updates, and staffing information such as vacation and

TIP

Veteran outsourcers have been honing their best practices over many years. Tune into inferences during the matchmaking period; such as:

- They've implemented a simplified change order process. A lighter weight WO is all that's needed to document changes to quality, schedule, and cost.
- Outsourcers are an extension of the development team; however, veteran outsourcers know that they are held to a higher standard. They've embraced this and built in high quality code review steps that are completed before the code is sent to you.
- They have a continuously improving quality process that provides oversight, ideas, and direction.
- They have structured, consistent documents and templates.
- They have standardized approaches to effective and efficient communications on a weekly, monthly, and quarterly basis.
- They enforce client pre-approved travel costs, communications costs, and equipment purchasing processes to guarantee that the client sees no surprises when invoiced.
- Veteran outsourcers have a regular process to measure your satisfaction with the relationship and with their achievements (see page 6).

statutory holidays (that may be different between provinces and states).

- A **phone conversation** between the outsourcer and client recaps the written status report. A conversation enables the client to ask questions, discuss issues, discuss changes, and talk about how things are going. Ideally, the call is attended by both project managers (technical) and by both business managers (business). This keeps everyone in the loop on both sides.
- **Monthly.** When you have a remote development team, team members don't have the opportunity to engage in hallway conversations; therefore, a **monthly in-person** or at least a **face-to-face meeting** (video link) is recommended. The project manager presents the high level milestones that were accomplished in the previous month, those that will be accomplished in the upcoming month, issues, and personnel changes. Experienced outsourcers ask questions to ascertain client satisfaction with the relationship and achievements to date.
- **Monthly or quarterly satisfaction assessment.** Experienced outsourcers want to obtain a quantifiable pulse of the client on a monthly basis. That said, outsourcers are conscious of your time, so at a minimum, perform quarterly **customer satisfaction surveys**. The survey provides qualitative insight to manage trends, issues, and how the outsourcing team is meeting your expectations. It also provides quantitative insight into achieving deadlines, quality of code (defect level), tracking the number of test cases and pass/fail rate. The survey results produce statistical data for comparison from month to month and quarter to quarter. The goal is to avoid surprises. If an outsourcer can identify problems early, they can make course corrections to keep the project on track.
- **Ad hoc, day-to-day.** Experienced outsourcers want projects to stay on track, so their mantra is "go to the source" with any question. In general, they start with the baseline that the phone or Instant Messaging (IM) is used when an immediate response is necessary; email is used when an immediate response is not required. As the team solidifies, each member learns which communications style works best for their counterparts.

LIFT-OFF: DEVELOPMENT WORK BEGINS

Let's review what's happened so far. The outsourcer and client have signed a WO, and the team has been established and introduced by way of a kick-off meeting. Now, the development work begins.

The outsourcer team familiarizes themselves with your requirements and restates them back to you in the form of a **Functional Specification (FS)**. You are asked for your review, feedback, and then for your acceptance of the FS (signature).

Since the development work ramps up from here, now is a good time to talk about approaches to the development process. Waterfall is the traditional

BEST PRACTICES

- It's essential that business managers and development managers work together. If they are in sync, the project flows smoothly for the entire team.
- Don't allow project managers to be bottlenecks – allow engineers to work directly with each other.
- Provide the outsourcer with contacts in multiple areas within your organization, such as IT, finance and invoicing, to allow those counterparts to tackle problems without pulling team members away from their responsibilities.

development process which follows a linear approach to development. Agile is becoming more and more prevalent. It's an iterative process in which smaller portions of work are delivered incrementally and moving back and forth from one stage to another is allowed. A third approach is called "hybrid." Hybrid offers the most flexibility in that an outsourcer can work in almost any client's preferred development culture.

Any outsourcer that has been working in the industry for a length of time is using a fluid, hybrid development process like the one charted below, yet can manage a project in either a pure waterfall or a pure agile environment depending on the client's needs.

STAGE 1 Document and negotiate FS	Client	Outsourcer
Provide relevant documentation	■	
Subject matter expert interviews	■	■
FS		■
Acceptance Test Procedure (ATP)		■
Review FS and ATP and provide input; approve Client Acceptance Agreement	■	

STAGE 2 Software prototype	Client	Outsourcer
Software prototype		■
Review and provide input; approve Client Acceptance Agreement	■	

STAGE 3 Architecture and design	Client	Outsourcer
High-level engineering design		■
Review and provide input; approve Client Acceptance Agreement	■	

STAGE 4 Build, document, Quality Assurance (QA) testing	Client	Outsourcer
Code reviews		■
Development testing		■
QA test results		■
Beta software		■
Review and provide input; approve Client Acceptance Agreement	■	

STAGE 5 Transfer of IP and acceptance test	Client	Outsourcer
Software installation at your site for testing; support		■
Training		■
Documentation		■
Review and provide input; approve Client Acceptance Agreement	■	

Key principles to look for when you agree to any development process include the following:

- Are client feedback loops built in?
- Do you require smoke tests and/or regression tests?
- Are clear and agreed upon acceptance criteria established before code, documentation, and other deliverables are handed to you?

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- Provide the outsourcer with contacts in multiple areas within your organization, such as IT, finance and invoicing, to allow those counterparts to tackle problems without pulling team members away from their responsibilities.

- Are overall quality checks and balances built in to ensure that the outsourcer is accountable for what they deliver?

At the end of the development work, the experienced outsourcer arranges a knowledge transfer at your site. The outsourcer walks you through the code and documentation, discusses the testing process, and answers all of your team members' questions.

You're at the arrival gate when you've accepted the final product, which meets your requirements.

ARRIVING AT YOUR DESTINATION

This white paper outlined best practices to create highly successful outsourced relationships that deliver sustainable value. Your outsourced relationship will be successful when your project is well-defined and well-managed. That's because both you and your outsourcer have a vested interest in attaining a successful project. Clients want to achieve sustainable growth and reinforce their reputations; outsourcers are motivated by future business with you and positive referrals. That's why a veteran outsourcer doesn't position itself on cost alone – they're looking to be the only company that you consider calling for the next project, the next project, and the next project.

THE AUTHOR OF THIS WHITE PAPER

The author of this white paper, MapleWorks Technology, is an experienced source of **software development services** for developers of **networking and communication products** for both the service provider and enterprise markets.

MapleWorks offers clients the following value:

- Rich communications DNA
 - Average of 15 years experience in the network communications domain
 - Located in Silicon Valley North, their staff has experience from Nortel, Mitel, Siemens, RIM, etc.
 - Staff is technology focused and invest in staying on top of emerging technologies
- Factors contributing to MapleWorks' proven track record of bringing products to market on time and on budget are the company's expert engineers and a proprietary **fluid, hybrid development process called MapleWorks OnTrack™**
- Business practices
 - IP protection is respected and is the same as in the USA
 - Onshore service provider; therefore, visas are not required
 - Face-to-face knowledge transfer at client's site
 - Management philosophy is one of minimal handholding, operating in a fluid environment, and successfully adapting to each client's development processes

- Business environment
 - Development culture is the same as the USA
 - English is the primary language
 - Close proximity to the Ottawa International Airport enables day trips or single overnight stays
 - Similar time zone
 - Geopolitical stability means no risk to client projects
- Variable development cost is 30-40% less than in the USA

MapleWorks holds membership with each of the following industry associations:

- Massachusetts Technology Leadership Council (MTLC) – www.masstlc.org
- Massachusetts Network Communications Council (MassNetComms) – www.massnetcomms.org
- Canadian Advanced Technology Alliance (CATA) – www.cata.ca
- Ottawa Centre for Research and Innovation (OCRI) – www.ocri.ca

If you have questions about your outsourcing project, we invite you to contact us by phone at 781.897.1727 or send email to info@mapleworks.com



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MAPLEWORKS

CANADIAN OFFICE

(Development Center)
 MapleWorks Technology
 200 Montcalm Street
 Suite 100
 Gatineau, PQ J8Y 3B5
 Phone: 819.776.6066

USA OFFICE

12 Alfred Street
 Suite 300
 Woburn, MA 01801
 Phone: 781.897.1727

info@mapleworks.com
www.mapleworks.com