

Meeting Minutes

Agenda:	Roundtable on Fixed Price Projects
Date:	September 9, 2006
Start Time:	5:15 pm
End Time:	6:30 pm
Participants: (Name and Organization)	Kabir Ahmed, Metatude Asia Ltd. Tahmidul Islam, Relisource Tech Ltd. Syed Shabbir Husain, Uniqa BDC Ltd. Sajjadul Hakim, Uniqa BDC Ltd. Munim Rashid, Independent University Bangladesh
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Scribe:	Sajjadul Hakim

A fixed price contract between a provider and a customer defines the scope, features, planning, timing and price of a software project. The purpose of this roundtable was to identify the risks of undertaking these projects and how to mitigate the risks. Some of the points of this roundtable were based on a recent post in SQABD mailing list: http://groups.yahoo.com/group/sqa_bangladesh/message/457

Scenarios

A vendor (Software Company) may discover a potential project through its sales and marketing team or a “Request For Proposal” (RFP) document submitted by the government or others. Sometimes customers or the RFP specify the technology to be used. Should the vendor pursue the project if the vendor has no past experience in working with the technology?

The easy answer would be, no; since the vendor does not have enough experience to estimate the project or managing similar projects within the fixed price limitations. However, a vendor needs to sustain itself, and to do that it needs projects for revenue. Usually customers cannot be convinced to follow an agile contract. Sometimes the vendor would deliberately pursue a new technology since their past experience is solely on a deprecated technology; i.e. if the vendor works with VB and wants to move on to .Net technology. So if the vendor is desperate or it is part of the vendor’s business model, the project should only be undertaken when the risks are known and mitigated. Most of the risks may not be apparent while creating the technical proposal for the project before the contract is signed.

Risks

1. With no experience in the technology the estimates for the technical proposal will have a higher probability of failing.
 - a. Can technology properties, such as cost, complexity etc. be considered accurately?
2. If the vendor wins the project, he will have to train his existing engineers or hire new engineers or both, so that they can work with the new technology.
 - a. Are there enough skilled engineers readily available for hiring?

- b. Will the existing engineers work effectively and efficiently with the new technology?
 - c. Hiring and training is time and cost, that will in turn raise the cost of the project.
 - d. Will the new hires get along with the existing hires or do effective team work?
3. Can the existing technical managers of the vendor manage a project based on this new technology?
 - a. Technical managers will need to resolve issues while working with the new technology.
 - b. Will the technical managers be able to monitor the schedule when they lack the expertise for reviewing the solutions based on the new technology?

Mitigating Risks

1. Hire a technology specialist as a consultant for creating the technical proposal.
 - a. This will make the estimates more accurate since the technology specialist will consider the properties of the technology, such as cost, complexity etc.
 - b. This will add to the cost of creating the technical proposal. What if the vendor is not eventually awarded the project, since it has to go through a bidding process or the price is too high? Very few vendors will be willing to go through this initial investment without any guarantees or high probability of getting the project.
2. If no technology specialist is hired as a consultant for creating the technical proposal, then keep a bigger buffer than usual.
 - a. There is a possibility you will underestimate, since the technology complexity will not be considered by experts. The buffer is needed to make up for that.
3. Keep a buffer for hiring engineers or training existing engineers to work on the new technology.
 - a. The buffer will be required when enough engineers could not be hired, and more work will be done by fewer engineers.
 - b. When existing engineers are trained they will need more R&D time to do the same work, since they will not be familiar with solutions to issues faced with the new technology. Consultancy by a technology specialist may come in handy in such scenarios.
4. The vendor should promote the technology they have worked with. All technologies have pros and cons. Outline the advantages of using this particular technology. Highlight performance, security, cost, availability of skilled engineers, development complexity etc. The technical proposal should include these details.
5. Subcontract the project to other vendors who have past experience in the technology.
 - a. Subcontract to local vendors or outsource.
 - b. This will increase communication risks.
 - c. The vendors must have prior subcontracting experience with each other. Otherwise it will create new risks.
 - d. This will add to the cost of creating the technical proposal and also to the total project cost.

- e. Need to create a direct communication channel for the vendors with the customer for creating the technical proposal. This will help in reducing misunderstandings and misinterpretations.
6. Even though the existing technical managers of the vendor do not have past experience with the new technology, they can monitor and review the project with help of some of the new hires.
 - a. Hire senior engineers who will work closely with the technical managers. Once these senior engineers are in place, then engineers with less experience can be hired. Training can also be conducted by these newly hired senior engineers.
 - b. The reliability of the senior engineers and other engineers will be more predictable if they are hired based on references.
7. Do not consider working overtime as a way of mitigating risks of underestimation. However, overtime may sometimes be unavoidable. Whatever the case, understand that working overtime for prolonged periods increases fatigue and stress and reduces effectiveness of engineers.
8. Since the cost of creating the technical proposal requires considerable time and resources, the vendor can charge the customer for doing the project feasibility study.
 - a. The customer needs to be educated on the importance of doing this.
 - b. This is not always possible when there is a vendor selection process. However even in such scenarios the vendor can help the customer create a detailed RFP document with a feasibility study, and charge for its services.

Conclusion

Understanding the risks involved will enable the vendor to make informed decisions. The discussions on this topic will not end here. More scenarios will be addressed in the later roundtables to cover this topic in detail.