

Agile Task Order FFP Independent Government Cost Estimate (IGCE) Example

The important thing to remember when pricing out firm fixed price Agile software development is that, unlike waterfall contracts, it would be difficult to develop a fixed price that correlates directly to a set of released features or a developed system. Instead, think of the IGCE as establishing the investment that an agency is committing to make towards the continual delivery of product.

Under this type of task order, the deliverable is the repeated process which delivers a functional high quality product in accordance with the “Definition of Done”. For that reason, the Agile iteration (whether it’s Scrum, Kanban, XP, etc.) is the firm fixed price deliverable and what should be used as the basis for invoicing and payments.

Additionally, because Agile focuses on team accomplishment towards delivery and not individual “man hours”, alternative methods of calculation are necessary. The most common is Story Points related to User Stories.

Pricing an Iteration:

These are elements of a typical Agile project based on industry best practices for Agile deployments. These factors can be utilized in creating IGCE’s. Not all factors must be used, but the strategies surrounding the importance of the factors should be addressed when creating the IGCE, incentive strategy, or acquisition plan:

AGILE FACTORS:

- Size of Team: Range 6-12 Full-Time Employees (FTE)
- # of Teams*: based on need and scaling
- Type of Iterations included: Development, Discovery, Envisioning, Hybrid
- User Story Size: T-Shirt Sizes / Fibonacci / Planning Poker
- Method of Estimation: Fibonacci / Planning Poker / No Estimation
- Weeks of Iteration: 2-5 weeks
- Metrics: # of Story Points per Iteration / Throughput / Velocity / Time-to-Market
- Period of Performance: 12 months
- Incentives: Award/Incentive Fee or Award Term

*Additional questions that will help determine how many teams are necessary:

Is there a specific set of features that must be released by a fixed schedule date?

- Scheduled release dates are sometimes unavoidable and can either be mitigated by the amount of features required to be released by the fixed date or by the size of teams working on the overall effort

Can concurrent system work be conducted at the same time or must development happen sequentially?

- If the answer is yes, and funding is available for more than one team, factor this into the IGCE as either the high number, or provide a range for the IGCE which indicates more teams. Generally, avoid simply adding numbers of FTEs to Agile teams above 12, as the best practice is to keep the teams small and nimble. Note: For a more apples to apples pricing comparison, the government can pre-define some of the elements above. However, the more you lock in these elements, the less you allow the offerors to provide an innovative solution based on how they will execute the performance-based objectives.

Here is one example of an IGCE developed utilizing the factors above:

<u>Iteration: Scrum Sprint</u>	<u>Factor</u>
Size of Team	7
# of Teams	1
Types of Iterations	Discovery + Development
Weeks of Iteration	3
Performance Metrics	15-17 Story Points = Acceptable Quality Level 19+ Story Points = Excellent Quality Level

<u>Labor Category</u> (these figures are not from the negotiated BPA pricing)	<u>Hr Rate</u>	<u>Hrs</u>	<u>Price</u>
Project Manager	\$150.00	45	\$6750
Scrum Master	\$147.00	1920	\$28,2240
Business Analyst	\$120.00	940	\$11,2800
Developer -Level 1 (2)	\$140.00	3840	\$53,7600
Technical Architect/Sr. Developer	\$167.00	940	\$15,6980

Designer	\$156.00	1000	\$156,000
Total			\$1,252,370

Note: Not all labor categories have estimated a full-time effort for every proposed category. The ability of a company to bid on an Agile project is to understand the strength of their team and whether they are having staff fulfill more than one role, or that a higher paid developer may not need to be full time to be effective in the delivery of the increment.

It is important that there is a correlation between any estimations of labor hours based on an offeror's technical solution which discusses the methodology for the team composition. This will help evaluators determine best value and trade off.

Contract Line Item Number (CLIN) Structure:

BASE PERIOD: 6 months	
CLIN 0001, FFP - Completion - The Contractor shall provide services for the Government in accordance with the Performance Work Statement (PWS)	
Length of Iteration	3 Weeks
Number of Iterations	17 Sprints
Price Per Iteration	\$73,669
Period of Performance:	12 months
Firm Fixed Price (Completion):	\$1,252,370