DCG Software Value (DCG) recently completed an engagement with a large global banking corporation, which provides a range of financial solutions to a customer base of more than six million individual and business accounts. The company works with a number of third-party vendors in order to complete key projects in an efficient manner, offering optimal service to its customers.

The company has an ongoing engagement with a particular vendor for various IT projects. One such project involved a migration effort to port functionality from one application platform to another, new platform. The company and the vendor developed and agreed on a project timeline and associated budget. However, at the end of the allocated time, the vendor reported that the migration could not be completed without additional time and money.

The company was reasonably concerned about the success of the project and wanted more information as to why the vendor was unable to complete the project within the agreed-upon parameters. As a result, the company brought DCG on board to size and evaluate the work that had been completed to-date, resulting in an estimation of how long that piece of work should have taken.

The objectives of the engagement were to:

- Provide a detailed accounting of all functions and features that were included in the software being evaluated
- Calculate the expected labor hours by activity, along with a probability report (risk analysis) for the selected releases

Ultimately, for the company, the goal of the engagement was to evaluate the current software migration/conversion project and ensure that the vendor was properly utilizing its resources to complete the project as successfully as possible.

DCG Utilizes Function Point Analysis for Industry-Standard Sizing Estimate and Evaluation

Throughout the engagement, DCG representatives worked closely with both the company and the vendor to get the necessary data to perform the sizing and project evaluation.

DCG used an industry standard best practice sizing technique, Function Point Analysis. Function point sizing considers the functionality that has been requested by and provided to an end user. The functionality is categorized as pertaining to one of five key components: inputs, outputs, inquiries, interfaces and internally-retained data. Each of the components is evaluated and given a prescribed weighting, resulting in a specific function point value.

When complete, all functional values are added together for a total functional size of the software deliverable.

In addition to the sizing, the process for completing the project involved gathering key data relating to the practices, processes and technologies used during the development of the selected project releases, as identified by the company.

DCG analyzed the various project attributes using a commercial software tool (SEER SEM from Galorath), assessing the expected level of effort that would be required to build the features and functions that had been coded and tested by the vendor, as well as a series of outputs that described the complexities associated with the software releases and the anticipated levels of effort, along with probability indices.
**Evaluation Reveals Key Differences in Reported Versus Estimated Project Size**

DCG’s initial estimate was much lower than what the vendor was billing for that same piece of work. With such a significant difference in the totals, it was clear that something was off. DCG investigated the issue with the vendor to explore what data could be missing from the estimate, including a review of the assumptions made in the estimate regarding:

- Size of the job
- Degree of complexity
- Team’s ability to perform

The vendor felt that some of the assumptions were inaccurate; as such, DCG re-set the project parameters and ran the estimate again.

Some of the specific, final assumptions for the estimate included:

- Estimate includes full lifecycle costs. This includes Business and Functional requirements development through User acceptance testing (pre-production)
- Primary Language: COBOL and other 3GL variants (EGL tool, etc.)
- Staffing: new staff for initial two releases then staffing stabilizes.

As a precaution, the vendor chose to have the sizing reviewed by its own team, familiar with IFPUG function point sizing. The vendor had no complaints, and all parties were in agreement about the validity of the deliverable size.

**Estimation Results in Better Control of Vendor Relationship**

In the end, the company and the vendor accepted the analysis and utilized that information internally to resolve any issues relevant to the project.

This engagement highlighted a typical business problem wherein projects do not meet agreed-upon parameters. In cases such as these, Function Point Analysis proves to be a useful tool in measuring and evaluating software projects, providing solid data on how long a project should realistically take. Thus, estimation helps in keeping vendors accountable for the work they are producing. Quantitative estimates on project length allow companies to better manage their vendor relationships with increased oversight and an enhanced understanding of expected outcome.