Change Control Board and Baselines

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MIS576: Project Management

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June 21, 2020

Abstract

Dell Technologies is a leading global technology company that provides technology solutions and services ranging from infrastructure to software and devices (Dell EMC, n.d.). As an intern at Dell Technologies, I got the opportunity to work on an interesting development project along with three other interns for twelve weeks. In the midst of our project, my team and I experienced a potential scope change suggested by our full-time teammates that could have negatively affected the deliverable. Having a Change Control Board (CCB) and established baselines could have helped alleviate the issue immediately and effectively.

Introduction

Dell Technologies, founded by current Chief Executive Officer (CEO) Michael Dell, is comprised of a family of businesses including Dell, Pivotal, RSA, Secureworks, Virtustream, VMware, and the recently acquired EMC in 2016, which marked the biggest tech deal in history (Dell Technologies, n.d.). These organizations are a collective force of innovative efforts with a strong presence in 180 countries worldwide. Dell Technologies provides infrastructure for organizations to expand on their digital assets, transform the Information Technology (IT) industry, as well as protect information (Dell EMC, n.d.). Their mission is to advance human progress by providing greater access to technology for people around the world (Dell Technologies, n.d.).

As an undergraduate student studying Computer Science at Worcester Polytechnic Institute, I got the unique opportunity to pursue a software engineering internship at Dell Technologies in the Storage Department, specifically on the Test Automation and Enablement team. The team works on high-performance storage systems and delivers next-generation tools to improve the efficiency of development operations as well as quality using advanced technologies, tools, and software engineering methodologies.

Three other college interns and I worked on a project to design and develop a website for quality assurance analysts to execute and analyze test cases for various storage projects that are underway for release. During the middle of the development phase, some full-time teammates suggested a scope change. The situation itself could have been avoided had we established clear baselines at the beginning of implementation. Baselines are usually used to set project plans, budgets, timelines, and more. They establish expectations of a particular project which can be

used to assess the project progress (Wermann, 2020). In addition, my intern teammates and I thought it would have been easier and effective to consult a CCB since this was a fairly large project. A CCB is a group that reviews all change requests to a project. The board is authorized to approve or reject the change according to the organization and its policies. Furthermore, the CCB members could include project team members, managers, as well as others who are not connected to the project. The organization enforces better planning, requirement gathering, communicating and execution of the project (Fernandes, 2014).

Discussion

Project Methodology Background

The intern team and I followed the Software Development Life Cycle (SDLC) that involves planning, design, implementation, testing, and deployment. Throughout the duration of the project, we followed the Scaled Agile Framework (SAFe) methodology, a top-down method to project management and decision-making. We spent about two weeks on the planning phase. Next, we designed a prototype of the website as well the database which we presented to the rest of the team. We got approval of our design and split up the feature implementation among our intern team. After this stage, we tested our website and deployed it in a production environment so that it was ready to use for our internal customers.

The Situation

During the development phase of the website, my team and I presented our demo and updates during our second sprint which was midway through our internship. Some features took longer to implement than previously planned so we mentioned that it was a work in progress. However, some teammates wanted to add on more features, that they thought would be useful for users, to both the database design and the website that we neither discussed nor got approval during the Agile SDLC phases. The changes were large and would detour the route of the project. Making these changes would also mean that my team and I would not have time to finish the project, leading to a lack of quality of the website by leaving approved features unfinished.

Implementation of CCB and Baselines

Using baselines at the beginning of the internship could have avoided the issue of introducing new last minute changes to the project. Instead of spending a lot of time on the planning phase as suggested by our team and project manager, we could have started the design and implementation phase because of our limited time. We also could have gotten more clarification on necessary requirements from users so that last minute changes would not have to be made rapidly. To overcome these challenges, my team, I, and the project manager could have set a list of expectations or performance goals. Setting goals could have helped us track our achievements, manage our time according to the set timeline, and know the expected results of the project beforehand.

In addition to establishing a baseline, a CCB would have helped alleviate the confusions and problems. An effective change control process can increase transparency around project changes, introduce a procedure for reporting issues, create a standardized process to resolve issues, as well as give team members a reassurance that requests are taken seriously (TechInsurance, n.d.). My intern team and I especially felt that a more streamlined process to take care of proposed changes could have made us feel more at ease and also not have to spend time reorganizing our timeline and speaking to the project manager. In other words, the issue could have been resolved more quickly. In addition, all of our teammates would be on the same page about our project including the project manager. Although we did follow a highly Agile methodology, potential scope changes still arose which could have been avoided by implementing baselines and a CCB.

Conclusion

My intern teammates and I encountered a unique situation in which we were faced with implementing certain changes to our project that could alter our timeline and presenting a successful product. By having baselines and a CCB, the project could have had the issue resolved faster and alleviated the situation for myself and my team. Overall, being presented with this issue made us realize the importance of these procedures as well as become more aware of when and how to implement them in the future.

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