**Module 8.2 Assignment**

CSD 380 – DevOps

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The Change Approval process has two main goals; to reduce the risk of making a change to software and to comply with regulatory requirements (dora.dev). While this is important to maintaining the security and stability of the software, there are many pitfalls that can make this process difficult for the development team. These changes often need to be approved by someone other than the code’s author, which can prompt development teams to rely on external change advisory boards or CABs to approve their changes (dora.dev). While using a CAB can solve the issue of needing an external source to approve changes, it also causes issues. One common issue created by solely relying on a CAB is delayed approval. This slows down the release of changes, causing larger batches to be released at one time, creating more risk for the software. Using a CAB is also likely to cause more risk on its own, since it is separate from the development team and might not have the knowledge to understand how the changes would relate to the rest of the software’s code (dora.dev).

Topdesk.com outlines a solution to this problem. They explain that by implementing an impact score, you can quickly assess whether a change should be approved without sending it through the final approval process (TOPdesk, 2022). To do this, the impact of the change needs to be scored based on multiple criteria. These criteria can include affected customers, cost, security risks, and regulations (TOPdesk, 2022). Next score the change on each of the criteria as either low, medium, or high impact. The highest score given on any given criteria is that change’s impact score. This score determines how the change should be approved. High impact should be approved by a CAB, medium should be approved by a change manager, and low impact should be able to be released without approval (TOPdesk, 2022). This can greatly streamline the approval process, saving a lot of time by reducing the number of changes needed to be approved by a CAB.

An article by Michael Stahnke also outlines some common issues software development teams have with the change approval process. The first issue that he mentions is outdated approval methods. Stahnke explains that many software development teams require approval from large committees and multiple levels of management in order for a change to be approved (Stahnke, 2021). This can demotivate the team, resulting in the team being nine times more inefficient than teams that require fewer approvals. Another common pitfall is the approval methods being inefficient (Stahnke, 2021). If the approval process is too complex, it can make the approval process take longer, which also makes each change submitted riskier. Poor communication can also cause issues (Stahnke, 2021). Poor communication between the development team and those responsible for approval can cause issues, resulting in delays.

**References**

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