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CSD380

Module 8 Assignment

The Dangers of Change Approval Processes

Change approval processes are structured systems that organizations use to manage changes to IT services, infrastructure, or applications. These processes typically involve reviews and authorizations intended to minimize operational and security risks associated with changes.

Effective change approval processes facilitate reliability and security. They mitigate risk by ensuring changes meet quality requirements through documented approvals that enable changes to be reviewed and tracked.

Despite their benefits, change approval methods can have their own challenges. DORA's research indicates that formal approvals, done by centralized boards, often negatively impact software delivery. Heavy reliance on these approvals results in slower delivery times, and increased change failure rates due to infrequent deployment resulting in large, complex changes. Centralized review boards are often a few steps removed from direct operational understanding and may lack necessary insights potentially increasing risk instead of mitigating it.

Developers frequently perceive bureaucratic processes as impediments. The inefficiency can frustrate talented developers, decrease productivity and morale, potentially reducing talent retention.

Organizations can mitigate these challenges through:

- **Peer Reviews:** Implement peer review processes at the team level. This fulfills the review process without introducing significant delays and keeping reviews done by those closest to the code.
- **Automation:** Employ continuous testing, integration, and monitoring to rapidly detect and correct problematic changes, reducing manual intervention and increasing reliability and agility.
- **Continuous Improvement:** Regularly review and optimize the change management process using performance metrics like lead times and change failure rates.

Implementing peer-driven approvals, automated testing (CI/CD), and continuous improvement practices can help organizations achieve greater agility, reduced risk, and higher overall performance in software delivery.

Sources

1. <https://dora.dev/capabilities/streamlining-change-approval/>
2. <https://launchdarkly.com/guides/reconciling-change-management-and-continuous-delivery/the-downsides-of-heavy-change-management/>
3. <https://www.cmwlab.com/blog/approval-management-benefits-hidden-dangers/>