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Assignment 8.2

The Dangers of Change Approval Processes

In traditional IT environments, change approval processes aim to minimize risk by ensuring that all system changes, such as software updates and infrastructure modifications, are carefully reviewed, adequately documented, and formally approved before deployment. These processes are commonly guided by frameworks such as ITIL, which establish Change Advisory Boards and mandate formal Request for Change documentation. While these procedures aim to strengthen oversight and prevent disruptions, studies increasingly reveal that traditional change approval methods may hinder progress and prove inefficient in today’s DevOps environments.

A primary concern with traditional change approval processes is the substantial delay they introduce. In their book Accelerate, research by Nicole Forsgren, Jez Humble, and Gene Kim highlights that manual approval methods, including Change Advisory Boards, often consume much time. Additionally, these methods hurt system performance. Research shows that these methods do not reduce the risk of change failures. Instead, they often lead to longer lead times and less frequent deployments. The DevOps Research and Assessment (DORA) team’s findings reinforce this conclusion, revealing that team’s dependent on external approvals experienced poorer performance in speed and reliability than those that used automated or peer-reviewed approaches.

Another problem is the inefficiency of treating all changes the same way. Requiring every change, no matter how low risk, to go through a lengthy approval process wastes time and causes delays even for minor fixes or routine updates. This method not only hampers development speed but may also raise the risk. To reduce the required approvals, developers might group several changes, amplifying the potential damage if an issue occurs. In addition, excessive dependence on manual approvals can lead to engineer frustration, lower morale, and higher employee turnover, since developers tend to favor environments that emphasize speed, trust, and efficient workflows.

What is even more alarming is the false confidence these traditional processes can give. Approval through scheduled meetings or documentation alone does not guarantee that a change will be safe or effective. In contrast, modern DevOps practices rely on real-time validation through automated testing, monitoring, and feedback loops. These methods are faster and more effective at detecting issues early. Frequent, small deployments with built-in safeguards are now considered safer than infrequent, heavily reviewed ones.

Many DevOps teams are turning to solutions that better support agility and continuous delivery to overcome these issues. A common practice is peer review within version control platforms like Git, allowing team members to assess and approve changes before merging and deployment. This approach meets numerous compliance standards, such as segregation of duties, without causing additional external delays. Automated pipelines are essential because they incorporate testing, security scanning, and rollback capabilities into deployment. In addition, many organizations classify changes according to their risk, allowing routine, low-risk modifications to be pre-approved using standard templates, while reserving manual reviews for high-risk or unusual changes.

It is important to recognize that modern change management methods can still satisfy compliance and auditing demands. DevOps enhances this by offering more reliable and transparent processes through automation. Organizations can monitor every code modification, environmental change, and user activity using detailed logs, cryptographic hashes, and observability tools.

While traditional change approval processes are meant to minimize risk, they frequently cause unnecessary slowdowns, increase complexity, and contribute to a higher likelihood of failure in rapidly evolving DevOps environments. Research supports shifting from rigid approval structures to more flexible, automated, and collaborative approaches. Organizations can accelerate delivery and boost system reliability through automation, peer reviews, and risk-focused triage, achieving superior results without sacrificing control or compliance.

Reference:

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