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The Dangers of Change Approval Processes

In the world of DevOps, change approval processes are often put in place to control and manage the flow of changes into production. While these processes aim to ensure system stability and reduce risks, they can sometimes cause more harm than good. In fact, many organizations are now recognizing that traditional change approval methods can lead to bottlenecks, unnecessary delays, and even reduced productivity.

One major danger of rigid change approval processes is the bottleneck effect. Traditional change approval boards (CABs) require multiple stakeholders to review and approve every change. Although this is intended to catch errors early, it can become a slow, bureaucratic process where changes pile up. Developers spend more time waiting for approvals than actually working on meaningful improvements. Research from the DevOps Research and Assessment (DORA) group shows that organizations with fewer manual change approvals have higher deployment frequencies and lower failure rates. By clinging to these outdated processes, teams may actually increase their risk of falling behind competitors.

Another issue is the false sense of security created by these approval mechanisms. Organizations assume that just because a change has been reviewed and approved by multiple people, it is safe. But, in reality, this lengthy approval doesn't necessarily add value or reduce risk. Gene Kim, author of The Phoenix Project, argues that manual reviews often lack the technical depth needed to identify potential issues. For example, if a reviewer doesn't have hands-on experience with a specific system, they might overlook critical bugs. Instead of relying on CABs, many leading companies are shifting towards automated testing and continuous integration to catch issues early and consistently.

Moreover, change approval processes can also lead to loss of accountability. When every change must pass through a committee, individual developers feel less ownership over their work. If something breaks, the blame often shifts to the process or the approval team, rather than focusing on what went wrong and how it can be improved. This diffusion of responsibility can erode a culture of learning and continuous improvement, which are essential for successful DevOps implementation.

Another consequence of burdensome approval processes is the lack of agility. In today's fast-paced tech landscape, the ability to deploy small, incremental changes quickly is a competitive advantage. When changes are subjected to excessive reviews, it forces teams to batch them together to make the review process "worth it." This increases the size and complexity of releases, making them riskier and more prone to failure. According to a report by Gartner, organizations that streamline or eliminate change approval processes are more likely to succeed in their digital transformations and reduce time to market.

Some organizations have responded by adopting the change advisory board (CAB) in name only, conducting "rubber-stamp" reviews just to say they've followed protocol. This defeats the original purpose and results in wasted time and resources. To counteract these issues, companies like Amazon and Netflix have embraced a "you build it, you run it" model. Teams are given full control and responsibility over their code, from development to production. This not only removes bottlenecks but also fosters a sense of ownership and accountability.

The solution isn't to eliminate change control altogether, but to reimagine it. Automated testing, continuous integration, and deployment (CI/CD) pipelines are far more effective than manual reviews at ensuring code quality. Tools like Jenkins, GitLab, and CircleCI can run thousands of tests in seconds, providing feedback that manual approvals can't match.

In conclusion, traditional change approval processes may have served their purpose in the past, but they're not equipped for the demands of modern software development. Organizations need to shift their focus from rigid manual reviews to more agile, automated processes. By doing so, they can eliminate bottlenecks, improve code quality, and create a more engaged, accountable workforce.

References:

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2. Gene Kim, The Phoenix Project: A Novel About IT, DevOps, and Helping Your Business Win.

3. Gartner Research. “Streamlining Change Management to Enable Digital Transformation.”