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* The Dangers of Changed Approval Processes

According to our textbook (DevOps), it stated that the incident involving Knight Capital stands as a notable example of a significant software deployment mistake in recent history, and a mere fifteen-minute glitch led to a trading loss of $440 million, during which the software development teams were unable to halt the live services. As I continued reading, I learned that the financial blow threatened the company's operations and necessitated its sale over the weekend to ensure it could continue functioning without endangering the entire financial infrastructure.

A gentleman named John Allspaw noted that following high-profile events like the Knight Capital software deployment mishap, there are usually two alternative explanations for what caused the incident. Our Textbook chapter 18 also reveals that the first explanation is that the incident was a result of a failure in change control, which appears plausible as it's conceivable that improved change control procedures could have identified the issue earlier and stopped the deployment from occurring.

Alternatively, if that weren’t possible, measures could have been put in place to facilitate quicker detection and recovery. The second explanation is that the incident was a failure in testing. This also seems plausible: with enhanced testing methods, the risk could have been identified earlier, leading to the cancellation of the deployment, or at the very least, steps could have been taken to ensure faster detection and recovery. The unexpected truth is that in settings characterized by low trust and a command-and-control culture, the effectiveness of these change control processes is often compromised.

The following pitfalls are common to change approval processes:

**Reliance on a centralized Change Approval Board (CAB)**

To identify mistakes and give the green light for modifications. This method often leads to delays and mistakes. Change Advisory Boards (CABs) excel at spreading the word about changes, but those who are distant from the change might not grasp the consequences of these modifications. **Treating all changes equally.**

When every modification is subjected to the same approval procedure, the process of reviewing changes becomes slow and inefficient, leaving little room for those that demand focused attention due to variations in risk level or schedule.

**Failing to apply continuous improvement.**

Like any procedure, it's important to focus on key performance indicators such as lead time and change failure rate to enhance the effectiveness of change management, including equipping teams with the necessary tools and training to better manage it.

**Responding to problems by adding more process.**

Frequently, companies implement extra processes and stricter approvals when encountering stability issues in production. However, research indicates that this strategy can exacerbate the problem as it increases lead times and batch sizes, leading to a negative feedback loop. Instead, focus on streamlining and improving the process to make it both faster and safer for making changes.

**REFERENCE**

DORA: <https://dora.dev/capabilities/streamlining-change-approval/>

DevOps Handbook: Kim. (2016). DevOps Handbook (2nd ed.). National Book Network.