LeVonte Abercrombie

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Assignment 6

The case study on Blackboard Inc. in chapter 13, highlights the challenges and subsequent transformation of their Learn product's development process. In 2011, Blackboard's development team struggled with a legacy JEE codebase from 1997, which included obsolete Perl code. This led to increasing complexity and extended build, integration, and testing times.

The chief architect, David Ashman, noted that the convoluted processes and expanding codebase negatively impacted productivity and customer satisfaction. Metrics from their code repository indicated a decline in code commits despite the growth in lines of code, signaling mounting difficulties in implementing changes.

To address these issues, Ashman led a re-architecturing initiative in 2012, using the strangler pattern to create 'Building Blocks.' These modules, decoupled from the monolithic codebase and accessed via fixed APIs, empowered developers to work with greater autonomy and efficiency. As code was migrated to the Building Blocks, the monolithic repository's size decreased, and developers experienced a sense of relief, knowing that they now had enhanced freedom and reduced risk of systemic failures.

The new modular architecture fostered significant productivity and code modularity improvements, enabling more agile and independent development. The lessons learned from this case study emphasize the importance of addressing technical debt and the benefits of modular architecture. Organizations can enhance developer productivity, reduce risk, and improve overall product quality by transitioning to a more flexible and decoupled system. The case also underscores the value of continuous evaluation and adaptation of development processes to meet evolving needs and challenges.

Sources:

Kim, G., Humble, J., Debois, P., Willis, J., & Allspaw, J. (2016). *The DevOps Handbook: How to Create World-Class Agility, Reliability, & Security in Technology Organizations* (2nd ed., pp. 260-263). IT Revolution Press.