Summary of the Case Study: Strangler Fig Pattern at Blackboard Learn (2011)

The case study from Chapter 13 of "The DevOps Handbook" details the re-architecting project at Blackboard Inc. in 2011, using the Strangler Fig Pattern. Blackboard, a major provider of educational technology, faced significant challenges due to its legacy J2EE codebase dating back to 1997. The main points include:

1. Legacy Codebase Issues: The monolithic architecture led to complex and error-prone build, integration, and testing processes. Feedback from the integration process could take up to thirty-six hours, negatively impacting developer productivity.

2. Implementation of Strangler Fig Pattern: In 2012, the team, led by chief architect David Ashman, adopted the Strangler Fig Pattern to replace the legacy codebase incrementally. This approach involved creating "Building Blocks," which allowed developers to work in separate, decoupled modules accessed through fixed APIs.

3. Developer Autonomy and Productivity: The Building Blocks enabled developers to work with greater autonomy, increasing productivity and reducing errors. The transition decreased the monolithic codebase size and exponential growth in the Building Blocks code repository.

**Lessons Learned**

The transformation at Blackboard Learn offers several important lessons:

- Incremental Transition: The Strangler Fig Pattern allows for a gradual and manageable transition from a monolithic to a modular architecture, reducing risk and maintaining system stability.

- Increased Developer Autonomy: By decoupling modules, developers can work more independently and efficiently, leading to faster and safer code deployment.

- Improved Code Quality: Modular architecture and fixed APIs contribute to better code quality and maintainability, as changes in one module have minimal impact on others.

Work Cited

Kim, Gene, et al. *The DevOps Handbook: How to Create World-Class Agility, Reliability, & Security in Technology Organizations*. 2nd ed., IT Revolution Press, 2021.