

Jonah Aney 10/21/25 CSD380 Module-6.2 Assignment: Case Study: Strangler Pattern at Blackboard Learn (2011)

This case study is about Blackboard, a technology company in the education industry, and its transition from a monolithic code repository to a decoupled system. By 2010, it was clear to chief architect David Ashman, the build and test process had become complex with long lead times and errors. It was also getting worse as the product grew, and developer productivity was affected. The number of code commits decreased, yet the lines of code kept increasing. The architecture of the code was revised in 2012 using the Strangler pattern. The teams created building blocks that were modules decoupled (separated) from the code base and accessed through APIs. Now the developers had more autonomy and could work more independently with less coordination required among other developer teams.

As the developers worked on the project, the lines of code in the source code repository decreased as code was being moved to the building block module's source code repository. Eventually, a preference grew among developers to use the building block code base as it had more autonomy and safety.

The building blocks code base allowed developers to be more productive. Failures happened locally rather than at a global level and could be handled better. Teams had more independence and freedom, which resulted in faster work, better feedback, and better quality.

This case study shows that a system architecture needs to be analyzed and evaluated often. A company is dynamic, and as times change, things grow and shift. If technology isn't adaptable, it will become cumbersome and a source of frustration for your teams. Architecture that is modular and decoupled will be able to handle the changes a company will experience, giving developers a better system to work in and a better product for the customers.

Source:

Kim, G., Humble, J., Debois, P., & Willis, J. (2021). *The DevOps handbook: How to create world-class agility, reliability, & security in technology organizations* (2nd ed.). IT Revolution Press.