Chapter 6
Continuous Deployment
Transitions at Scale

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ABSTRACT

Predictable, rapid, and data-driven feature rollout; lightning-fast; and automated fix deployment are some of the benefits most large software organizations worldwide are striving for. In the process, they are transitioning toward the use of continuous deployment practices. Continuous deployment enables companies to make hundreds

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Continuous deployment is a software engineering process where incremental software changes are automatically tested and deployed to production environments without manual steps in the deployment pipeline (Rahman et al. 2015). Continuous deployment enables companies, such as Facebook (Savor et al. 2016), to make hundreds or thousands of software changes to live computing infrastructure every day, while maintaining service to millions of customers. Such ultra-fast changes create a new reality in software development.

Over the past four years, we have held the Continuous Deployment Summit, hosted at Facebook, Netflix, Google, and Twitter. Representatives from companies like Cisco, Facebook, Google, IBM, Microsoft, Netflix, and Twitter have shared the triumphs and struggles of their transition to continuous deployment practices—each year the companies press on, getting ever faster. In this chapter, the authors share the common strategies and practices used by continuous deployment pioneers and adopted by newcomers as they transition and use continuous deployment practices at scale.
Overview of Big Data-Intensive Storage and its Technologies for Cloud and Fog Computing

FogLearn: Leveraging Fog-Based Machine Learning for Smart System Big Data Analytics
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