Chapter 2
Auditing Agile Release Management:
Balancing Speed and Control

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ABSTRACT

The management of software releases is a significant element for most businesses. However, many organizations suffer from poor release management due to rapid demand for the back-to-back release of services or products. An efficient release management procedure can support frequent releases with minimal risks. Therefore, auditing a release management process is critical to ensure the changes are delivered consistently every time and with the same level of quality. The method introduced in this chapter identifies different risks companies encounter due to poor release management. The solution to this issue is to present a control activity lifecycle that involves auditors to detect vulnerabilities at each level of the agile development cycle and offer solutions to the risks discovered during the assessment. Adopting this control activity lifecycle for agile release management will significantly decrease exposure to risks that can harm agile projects, protecting the firm's business applications, guaranteeing quality, and enhancing its reputation.

1.INTRODUCTION

1.1 Background Information

IT audit and information system security services identify and analyze potential risks and their mitigation or removal to maintain the functioning of the information system and the organization's overall business (Deloitte, n.d.). IS Auditing includes evaluating all IT assets in an organization and checking if they align with the organization's strategy, mission, and vision.

In today's world, where IT Systems support organizations to reach their goals, it is prevalent for organizations to have a continuous plan for constant improvement of their processes and applications, given the competition. A technique for getting a product out to users is called software release management. Planning, software creation, testing, and deployment occur before the software becomes functional (Saddam, 2022). The process of ensuring that software releases can be successfully planned, scheduled, and delivered to live environments is called release management. The release management process involves a great deal of automated computer system configuration and collaboration. Therefore, consider all release elements before deploying them to the live environment to create a new release and investigate potential concerns (Amir et al., 2013). Release management also aims at making the user experience as smooth and efficient as possible.

While deploying releases, the release and deployment management process aims to provide services and protect the integrity of the organization's IT production environment (Rana, 2005). Release and deployment management's primary goal is to establish practical service usage and deploy successful releases into production to add value for users or customers. However, there are numerous instances of low-quality releases that come at a high cost to the company because of the complexity of application tiers and infrastructure environments growing, the volume and frequency of application releases increasing, the lack of control over the release processes, the DevOps disconnect between teams, manual deployments, etc. (Shanmugasundaram & Sarojini, 2018). Any software business can suffer significantly from an ineffective release management strategy since it results in a lack of control over the delivered changes and their quality. Therefore, having a well-considered end-to-end release management process has many benefits (Kajko-Mattsson, 2005). An application release also targets upgrading a current application, aiming to make it faster, with better user-friendly features and aesthetics.

The Agile Release Train (ART) is a long-lived team of Agile teams, which, along with other stakeholders, incrementally develops, delivers, and, where applicable, operates one or more solutions in a value stream (Knaster, 2021). Many organizations must realize that when releases are inadequately planned, they can sometimes lead

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