

# **Serverless Computing and its Impact on Cloud Infrastructure and Application Development**

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**Abstract:** *Serverless computing and its impact on cloud computing infrastructure and application development is a comprehensive area that touches upon both technical and operational. Serverless computing has become a disruptive force in cloud computing that is redefining the deployment and application development process. This research paper explores the many impacts of serverless computing on cloud computing infrastructure and application development methods. This study explores changes in architecture, development, and resource efficiency from serverless platforms. A full analysis of the impact of developing the business is made by examining the impact of the development of the developer and the application. This study investigates the problems caused by cold starting and suggests ways to reduce latency related problems. Additionally, the integration of serverless computing with microservices and event-driven architectures is examined, highlighting their synergies and potential challenges. Cost, security implications, and compliance considerations in a serverless environment are being explored to provide an optimal solution. Through this research, we gained a detailed understanding of the impact of the evolution of serverless computing on cloud infrastructure and application development, providing a better understanding of the evolution cloud*

**Keywords:** Infrastructure, Cloud, Serverless computing, Integration, Latency, Security Implication

