# The Role of Cloud Computing in Modern IT Infrastructure: Opportunities and Risks

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**Abstract**: *With cloud computing, businesses and organizations may now use computer resources on-demand over the internet, making it a crucial invention in the field of information technology. It has redefined IT infrastructure by offering scalable, flexible, and cost-effective solutions that transform the way data and applications are managed. However, while the benefits are numerous, cloud computing presents challenges, particularly concerning security, privacy, and legal issues. This paper aims to explore the role of cloud computing in modern IT infrastructure, highlighting its opportunities and risks. The paper will cover cloud computing's architecture, service models, and deployment types, followed by a detailed discussion on its advantages and potential drawbacks, including security, privacy, and compatibility concerns.*

**Keywords:** Cloud Computing, IT Infrastructure, Service Models, Opportunities, Risks, Security, Privacy