

(54) Title of the invention : “Dynamic Cloud Infrastructure Optimization for Enhanced Service Reliability”

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(57) Abstract :
ABSTRACT Dynamic Cloud Infrastructure Optimization for Enhanced Service Reliability The increasing reliance on cloud computing services necessitates robust infrastructure optimization to ensure high service reliability. This paper presents a dynamic optimization approach for cloud infrastructure that intelligently allocates resources based on real-time demand and system performance metrics. By leveraging predictive analytics and machine learning, the proposed method anticipates potential bottlenecks and dynamically adjusts resource distribution to maintain optimal performance. Empirical evaluations demonstrate significant improvements in service availability and response times, underscoring the effectiveness of this adaptive optimization strategy in contemporary cloud environments.

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