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Decoding the Cloud Giants: A Comparison of AWS, Azure and GCP

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Abstract: *The adoption of cloud services by companies and organizations is increasingly becoming essential for enhancing competitive performance in today's business environment. Cloud services represent a relatively new technological advancement. However, selecting the optimal cloud service to meet specific requirements remains one of the most significant challenges. Major commercial entities, including Amazon AWS, Microsoft Azure, and Google Cloud, provide a variety of cloud services through dedicated, reliable, and cost-effective web applications. These cloud services attract a diverse range of users and organizations across various sectors, such as healthcare, business, and education. This article aims to introduce cloud customers to the most prominent cloud services. Additionally, we explore the concept of cloud computing, defined as the delivery of computing resources over the Internet. Leading cloud service providers such as Microsoft Azure, Amazon Web Services (AWS), and Google Cloud Platform (GCP) offer on-demand cloud solutions, including processing power, memory, and databases, alleviating the need for users to invest in, operate, and maintain physical computers, hardware, and servers. This study compares the performance and services of three major cloud platforms—Google Cloud Platform, Amazon AWS, and Microsoft Azure—as well as their architectures and types of cloud services. Cloud technology allows resources to be dynamically scaled without the need for significant changes in infrastructure, additional staffing, or new software development.*

Keywords: Cloud Computing, Cloud Services, Cloud Providers, Cloud Infrastructure, Cloud Security, Cloud Scalability, Cloud Optimization, Amazon Web Service (AWS), Google Cloud Platform (GCP), Microsoft Azure