

Unit 1 – Comparison of CSP

Amazon Web Services (AWS) and Microsoft Azure, leading cloud providers, present distinct service models for enterprise needs. Both offer extensive Infrastructure-as-a-Service (IaaS), Platform-as-a-Service (PaaS), and serverless computing.

Flexibility

AWS, with its mature and expansive service catalogue, provides deep customisation and a vast array of purpose-built tools, ideal for diverse workloads and organisations requiring granular control (Pykes, 2024). Azure excels in PaaS, offering strong integration with Microsoft ecosystems and robust hybrid cloud capabilities via Azure Arc, favouring businesses with existing Microsoft investments (Ahmad, 2025).

Pricing

Both operate on consumption-based models, yet billing granularity differs; Azure typically uses minute-based billing, while AWS historically used hourly, though this is evolving (Muñoz, 2025). Both offer Reserved Instances and Savings Plans. Azure uniquely provides the Hybrid Benefit for leveraging existing Windows Server and SQL Server licenses, optimising costs for Microsoft-centric clients (Pykes, 2024).

Specific Use Cases

AWS is preferred for high-demand, compute-intensive applications, and large-scale, globally distributed deployments due to its performance and extensive feature set (Rajendran et al., 2023; Huang and Fang, 2024). Azure is well-suited for seamless integration with enterprise applications, hybrid cloud strategies, and data analytics, often appealing to organisations valuing its user-friendly portal and Microsoft-centric advantages (Ahmad, 2025). The optimal choice depends on an organisation's existing infrastructure, workload demands, and strategic cloud objectives.

Word count: 212

References:

Ahmad, N. (2025) *AWS vs. Azure vs. Google Cloud: Cloud Services Compared 2025*. Available at: <https://www.channelinsider.com/infrastructure/cloud-and-hybrid/aws-vs-azure-vs-google-cloud/> (Accessed: 29 July 2025).

Huang, R., and Fang, S. (2024) 'Comparative analysis of cloud service providers', *International Journal of Cloud Computing and Database Management*, 5(1), pp 13-16. Available at: <https://doi.org/10.33545/27075907.2024.v5.i1a.55>

Pykes, K. (2024). *AWS vs Azure: An In-Depth Comparison of the Two Leading Cloud Services*. Available at: <https://www.datacamp.com/blog/aws-vs-azure>

Rajendran, P., Maloo, S., Mitra, R., Chanchal, A., and Aburukba, R. (2023) 'Comparison of Cloud-Computing Providers for Deployment of Object-Detection Deep Learning Models', *Applied Sciences*, 13(23), 12577. Available at: <https://doi.org/10.3390/app132312577>

Muñoz, A. (2025). *AWS vs Azure Pricing: A Complete Comparison*. Available at: <https://blog.nachonacho.com/tech/aws-vs-azure-pricing/> (Accessed: 29 July 2025)

Peer Response 1