

# Cloud Technologies Summary

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Cloud computing is basically using the internet to access computing resources instead of having physical hardware yourself. There are three main service types: IaaS (virtual machines), PaaS (development platforms), and SaaS (ready-to-use apps). You can deploy into clouds as public, private, or hybrid accessibility.

The biggest benefits are cost savings since you only pay for what you use, and scalability. Scalability comes in two forms - vertical (making one machine more powerful) and horizontal (adding more machines). Most real apps have irregular demand, so being able to scale up or down is super important for performance and cost optimization.

Availability measures how often a system is accessible, with "five 9s" (99.999%) being the gold standard.