

Reflection

The most underutilized component in my laptop is storage, with more than 70% of its capacity unused. This shows that while I paid for a large amount of storage, most of its cost is not actively creating value. Similarly, CPU and RAM usage remain low for everyday tasks like browsing and word processing. This illustrates the inefficiency of upfront hardware investment, where a significant portion of resources sit idle most of the time.

For businesses, this issue is magnified when they purchase on-premises hardware (CapEx). Large servers and storage systems may only run at partial capacity, leading to waste like my laptop example. Cloud computing solves this problem by allowing companies to pay only for the resources they use (OpEx). If I ran a company with 20 employees on similar laptops, the wasted value would exceed \$8,000 across the organization. This is also an example of why shifting to the cloud makes financial and operational sense.