

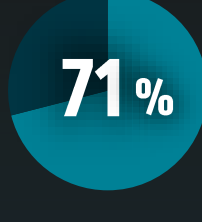


together we advance_

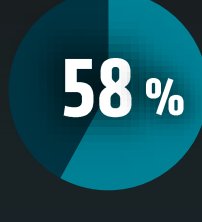
THE NEW ECONOMICS OF CLOUD COMPUTING

HOW TO SUPPORT GROWING WORKLOADS WHILE KEEPING COSTS IN CHECK

Cloud environments now support diverse workloads across hybrid and multi-cloud environments, from web and application tiers to databases, analytics, and AI. But costs can't keep rising as demand grows. Organizations need infrastructure that can keep up without driving up operating expenses (OpEx).



71% of IT leaders say optimizing cloud spend is a top priority.¹



58% of organizations plan to move more workloads to the cloud year over year (YoY).¹

WHY CLOUD COSTS KEEP CLIMBING

The challenge is no longer adding capacity. It's delivering predictable performance without runaway costs.



AI WORKLOADS ARE RESOURCE-INTENSIVE

Organizations must maintain existing infrastructure while preparing for new AI workloads that demand more compute and resources.



DEMAND IS RISING FASTER THAN BUDGETS

As workloads expand, cloud budgets can't keep pace, making efficiency essential.



UNPREDICTABLE WORKLOADS DRIVE WASTE

Unpredictable demand makes capacity planning difficult and can lead to overprovisioning and wasted resources.

COMPUTE BUILT FOR CLOUD EFFICIENCY

Reducing cloud costs starts with choosing the right compute foundation. AMD EPYC™ server CPUs run enterprise, data, and AI workloads side by side, delivering strong performance per dollar, improved energy efficiency, and built-in security.

LOWER OPEX ACROSS LEADING CLOUD PLATFORMS



AMAZON WEB SERVICES (AWS)

Up to **~30%**

OpEx savings (vs. M7i)²



MICROSOFT AZURE

Up to **~31%**

OpEx savings (vs. Edsv5)³



GOOGLE CLOUD

Up to **~17%**

OpEx savings (vs. C3)⁴

PERFORMANCE AND EFFICIENCY IN ACTION



THE MAHINDRA GROUP

BETTER PERFORMANCE,

40% LESS COST⁵

The AMD EPYC™ server CPU-based ⁶ virtual machines are more cost-effective and deliver greater application performance. Why pay more than you need to?

Abhishek Sukhwai, Head of Infrastructure, [the Mahindra Group](#)



SWISSCOM

24% LESS POWER USAGE,

55% FEWER WATTS PER vCPU⁶

It's amazing the amount of power you can save and the ease of management of single NUMA nodes with AMD EPYC™ processors.

Rainer Meier, System Architect, [Telco Cloud Infrastructure, Swisscom](#)

READY. SET. SCALE.

Learn how to build the compute foundation that delivers the performance, efficiency, and cost control your cloud demands.

[READ THE EBOOK](#)

SEE CLOUD ECONOMICS IN ACTION

Explore how organizations like yours are improving performance and efficiency with AMD EPYC™ server CPUs.

[LEARN MORE](#)

¹Flexera™, State of the Cloud Report, 2024.

²SP5C-003: AWS M7a 4xlarge max score and Cloud OpEx savings comparison to M6i 4xlarge running six common application workloads using on-demand pricing US-East (Ohio) Linux® as of 10/9/2023. FFmpeg: ~2.5x the raw_vp9 performance (40.2% of M6i runtime) saving ~52% in Cloud OpEx. NGINX™: ~1.9x the WRK performance (52.9% of M6i runtime) saving ~36% in Cloud OpEx. Server-side Java® multi-instance max Java OPS: ~1.6x the ops/sec performance (63.3% of M6i runtime) saving ~24% in Cloud OpEx. MySQL™: ~1.7x the TPROC-C performance (57.5% of M6i runtime) saving ~31% in Cloud OpEx. SQL Server: ~1.7x the TPROC-H performance (58.1% of M6i runtime) saving ~30% in Cloud OpEx. Redis™: ~2.4x the SET rps performance (42.4% of M6i runtime) saving ~49% in Cloud OpEx. Cloud performance results presented are based on the test date in the configuration. Results may vary due to changes to the underlying configuration, and other conditions such as the placement of the VM and its resources, optimizations by the cloud service provider, accessed cloud regions, co-tenants, and the types of other workloads exercised at the same time on the system.

³AMD, Microsoft Azure VMs Powered by AMD EPYC™ Processors, 2026.

⁴SP5C-006: MySQL™, Redis™, NGINX™, server-side Java multi-instances, and FFmpeg™ comparison of Google Cloud C3D-standard 16 vCPU to N2-standard 16 vCPU based on AMD testing on 11/02/23. Cloud OPEX savings calculated based on on-demand pricing at <https://cloud.google.com/compute/vm-instance-pricing> for us-central1 (Iowa) as of 11/01/2023. Configurations both with 64GB running Ubuntu 22.04.3 LTS.

Comparisons MySQL 8.0.28 HammerDB4.2 TPROC-C (~1.2x tpm, 22% Cloud OPEX savings), Redis 7.2 get/set: (~1.4x rps, 32% Cloud OPEX savings), NGINX 1.19-2 WRK 4.2: (~1.2x ops/sec, 23% Cloud OPEX savings), server-side Java® multi instances max-OPS (~1.7x OPS, 45% Cloud OPEX savings) FFmpeg 4.4.2.0 Ubuntu 22.04.1 h264-vp9, raw_h264, raw_vp9, vp9_h264 at 1080p (~1.4x frames/hr, 32% Cloud OPEX savings).

Cloud performance results presented are based on the test date in the configuration. Results may vary due to changes to the underlying configuration, and other conditions such as the placement of the VM and its resources, optimizations by the cloud service provider, accessed cloud regions, co-tenants, and the types of other workloads exercised at the same time on the system.

⁵AMD, Mahindra Group Case Study, 2025.

⁶AMD, Swisscom Case Study, 2025.