

AMD EPYC™ 7Fx2 Processors in the Cloud: Gaming Performance on IBM Cloud™ Bare Metal Servers

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Run Enterprise Applications on AMD EPYC Processors

AMD is committed to industry standards, offering you a choice in x86 architecture. x86 compatibility means you can run your applications on AMD EPYC instances in the cloud. The new high frequency processors with high per-core performance are optimized for frequency sensitive and single-threaded workloads.

Leadership Architecture

Based on the AMD Infinity Architecture, the AMD EPYC™ 7Fx2 Processors offer the series' highest base and boost frequencies⁴, along with very high L3 cache per core enabling exceptional per core performance.

Leadership Performance

The new 2nd Gen AMD EPYC™ 7Fx2 Processors power high performing x86 servers for the modern data center with amazing per core performance across major industry benchmarks and applications.

Leadership Security

Based on AMD Infinity Guard, the new 2nd Gen AMD EPYC™ 7Fx2 Processors feature advanced security features including Secure Memory Encryption and Secure Encrypted Virtualization.

Flexible Cloud Solutions

IBM Cloud brings you the flexibility to choose CPUs, storage, networking, security and more. The high core count from AMD EPYC CPUs brings more choice and flexibility to IBM Cloud with customizable bare metal server.

Seamless Workload Migration

Migrate applications currently running on other existing cloud instances to AMD EPYC processor-based IBM Cloud instances with little to no modification.

AMD EPYC™ Processors: Cost-Effective Computing for Cloud-Based Applications

Increasingly, companies of all sizes are taking advantage of the benefits offered by public cloud providers. The reasons are many and varied: flexible pricing structures, ease of setup, optimization of both staffing and capital budgets, economies of scale, agility, and the ability to go from local to global instantly, are just some of the many benefits.

IBM Cloud now features 2nd Gen AMD EPYC high-frequency processor-based servers to power its bare metal cloud instances of various types and sizes. The AMD EPYC processor-based instances are compatible with existing x86-based applications. They provide additional options for customers, offering a choice for many workloads matching compute resources to application needs at low cost.

Gaming Performance on IBM Cloud¹

IBM Cloud™ offers Game Hosting on dedicated AMD-powered Bare Metal Servers and has a high-speed IBM Cloud Network backbone. Users have the freedom to customize hardware requirements according to their needs. Dedicated hardware allows your gaming platform to stay well balanced, while connecting a large number of players with virtually non-existent lag. Get extensive control over the setup of your gaming environments. You can tailor rules, install modifications, isolate players and teams, get high-ping and more. Control nearly every moment with full administration and root access, plus remote options. Manage your need to quickly scale for unexpected player demands. With IBM Cloud, you can scale up or out, in real time, by adding more memory, processing power, gaming servers, software applications, and more.

Phoronix Test Suite Benchmark

The Phoronix Test Suite is a comprehensive testing and benchmarking platform that provides an extensible framework for which new tests can be easily added. The software is designed to effectively carry out both qualitative and quantitative benchmarks in a clean, reproducible, and easy-to-use manner. The Phoronix Test Suite can be used for simply comparing your computer's performance with your friends and colleagues or can be used within your organization for internal quality assurance purposes, hardware validation, and continuous integration / performance management.

AMD engineers ran the Phoronix Test Suite's Benchmarks to get a holistic view on the server's performance for Game Hosting on IBM Cloud AMD EPYC™ 7F72 Bare Metal Server. The gaming benchmarks selected cover aspects that affect Gaming performance which include encoding, compilation, Disk I/O, cryptography, compute, memory, JAVA®, eSpeak and POV-Ray. The performance results shown indicate a high-level and very consistent performance across the board which makes IBM Cloud's AMD EPYC™ 7F72 Bare Metal Server a very good choice for Gaming.

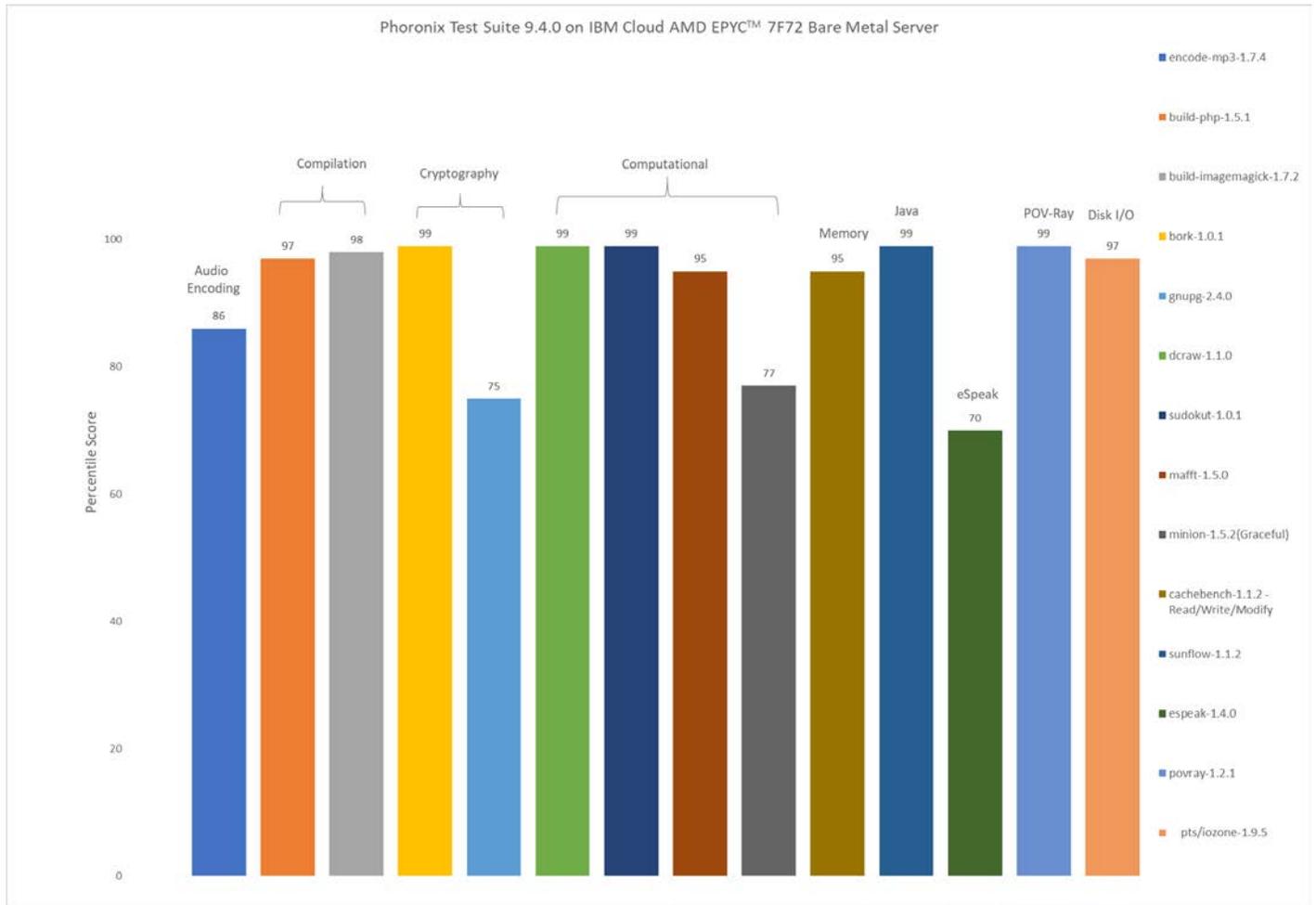


Figure 1 Phoronix Test Suite Performance Results

Conclusion

AMD EPYC 7F72 Processor based servers can deliver great performance and brings you a true flexibility of choice for cost efficient Cloud requirements which is ideal for dynamic gaming needs while giving users global player coverage.

References

- Game Hosting on IBM - <https://www.ibm.com/cloud/bare-metal-servers/game-hosting> *
- Phoronix Test Suite - <https://www.phoronix-test-suite.com/> *
- AMD EPYC™ powered IBM Cloud Bare-Metal Servers - <https://cloud.ibm.com/docs/bare-metal?topic=bare-metal-about-bm#amd-cpu-support> *
- Build your own EPYC™ 7642 processor-based server - <https://cloud.ibm.com/catalog?category=compute> *

*Links to third party sites are provided for convenience and unless explicitly stated, AMD is not responsible for the contents of such linked sites and no endorsement is implied.

FOOTNOTES

1. Game Hosting on IBM - <https://www.ibm.com/cloud/bare-metal-servers/game-hosting> *
2. Phoronix Test Suite - <https://www.phoronix-test-suite.com/> *
3. Configuration: 2 x AMD EPYC 7F72 Processors (48Cores), 512 GB memory, NPS1, SMT off, Red Hat® Enterprise Linux Server 7.8, Linux® Kernel 3.10.0-1127.el7.x86_64 (x86_64), Software - Phoronix Test Suite 9.4.0
4. Max boost for AMD EPYC processors is the maximum frequency achievable by any single core on the processor under normal operating conditions for server systems. EPYC-18

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