

MYNET REENERGIZES JAPAN'S FAVORITE MOBILE GAMES WITH AMD AND OCI

AMD EPYC™ processors help power a new business model that attracts engagement and profitability to classic mobile games

AMD
EPYC

CUSTOMER



INDUSTRY

Mobile gaming and entertainment

CHALLENGES

Extend the profitability of MyNet's portfolio of legacy mobile games by prioritizing cost-efficiency in its operating strategy

SOLUTION

AMD EPYC™ processors powering Oracle OCI cloud instances provide a high-density data center solution that helps to keep MyNet's cost in check and enables the company to adapt better to changing requirements

RESULTS

MyNet reduced its server costs by \$30,000/month, using more than 2000 AMD EPYC vCPUs across a variety of Oracle OCI instances to support a high-performance, adaptable gaming solution for gamers

AMD TECHNOLOGY AT A GLANCE

AMD EPYC 7002 processors

AMD EPYC 7003 processors

Oracle OCI E4 instances powered by AMD EPYC 7J13 processors

TECHNOLOGY PARTNER

ORACLE

MyNet is known for its unique approach to the mobile gaming market in Japan. Instead of creating games from scratch, the company focuses on acquiring already released and developed games, reenergizing legacy titles so players can enjoy them for years to come.

This allows MyNet to offer a wide variety of games, from simulations to strategy RPGs and sports titles to music rhythm games. MyNet offers free-to-play games with the option for players to purchase in-game items such as booster boxes, generating revenue from its user base. The games are available on smartphones and tablets, allowing gamers to play their favorite titles on the go.

To achieve longevity and profitability from its portfolio of legacy mobile games, MyNet prioritizes cost-efficiency in its operating strategy. This requires the company to continuously and rigorously evaluate the cost of various cloud service providers to ensure MyNet is getting the best value for its investment. One key factor in MyNet's cost efficiency is its focus on server processor density. Servers with higher processor density enable MyNet to run more games and handle more players on the same server, reducing overall costs. This allows MyNet to provide players with a high-quality gaming experience while maintaining profitability.

Digging into the Numbers: MyNet Compares Cloud Service Providers

In 2018, MyNet first evaluated and explored Oracle's OCI Gen 2 instances, powered by AMD EPYC™ 7000 series processors, as an alternative to its then primary cloud service provider, AWS. MyNet conducted benchmarking and cost calculations between OCI E2 and AWS EC2 m4 as well as OCI X7 instances and found that OCI E2 exceeded the other options in

terms of cost efficiency for its purposes. In fact, in MyNet's experience, OCI E2 was a quarter of the cost of AWS EC2 m4, saving MyNet approximately \$30,000/month (US dollars). MyNet had also evaluated using ARM technology for its servers but ultimately decided to adopt AMD as it believed that migrating from its then current technology, Intel x86-64, would have been difficult and time-consuming.

Yuki Horikoshi, head of engineering at MyNet, said, "The AMD CPU-based OCI instances were a quarter of the cost of other options. This means we can quadruple the number of servers with the same cost if our number of users increases,

and we provide four times the number of servers to those users. We couldn't adopt aggressive server expansion strategies in the past due to cost constraints.

Now we can increase our number of servers as needed to serve our customers because of the cost

savings delivered by OCI's AMD CPU-powered instances. Alternatively, we could keep the number of servers the same when not needed to increase our profit."

The AMD EPYC 7000 series processors offer a range of benefits for businesses looking to maximize computing performance. These processors can deliver up to 32 cores and 64 threads per processor, providing immense scalability and multi-tasking capabilities. Featuring PCI Express 4.0, secure encrypted virtualization, and 128 PCIe lanes, the AMD EPYC 7000 series is a great choice for enterprise-grade datacenter applications.

Keys to a trouble-free migration

After concluding its comparisons, MyNet decided to use OCI E2 in scaling and production phases of its rollout. As newer versions of OCI were released, MyNet migrated from OCI E2 to E3 to E4.

Today, all of the OCI instances used by MyNet are powered by AMD. Overall, MyNet found that the performance of E3/E4 instances exceeds that of E2, further adding to the impact of its choice to migrate to OCI.

In addition to its choice of server technology, MyNet also had to consider the requirements of its web application environment. Since MyNet games are already fully developed, it needs a host environment to support all the technologies that went into the original design of those titles. The backend of MyNet's game server application environment combines Apache HTTP, nginx, PHP, Java, C#, MySQL, and PostgreSQL. This architecture allows for efficient and reliable performance of MyNet's wide-ranging game applications and ensures that the company always provides a high-quality experience to its users.

"When we were considering migrating to OCI, we wanted to make sure that there were no potential issues with moving our applications to AMD," explains Horikoshi. "We asked OCI if they had encountered any challenges with other clients during this process. They said they had no reports of any issues, so we were confident to proceed with the migration. After three years, we are happy to say that we have not faced any problems related to using AMD. Many in the gaming industry were unaware of just how compatible AMD is with other platforms and how smoothly migrations can go."

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Yuki Horikoshi, head of engineering at MyNet

Flexibility and scalability to meet changing user demand

On average, MyNet uses about 2,000 AMD EPYC vCPUs across its OCI instances. However, MyNet also closely monitors usage patterns for each of its titles. For example, a simulation-type game where users create towns sees relatively stable usage throughout the day.



About MyNet

MyNet, based in Japan and founded in 2006, specializes in extending the life of popular mobile game titles by acquiring them and optimizing their operations. This ensures that these games remain available to dedicated fans and new fans alike, while maximizing MyNet's return on investment. MyNet's portfolio encompasses 26 titles ranging from town simulations to sports, which are popular among young players in Japan, North America and beyond. MyNet strives to create a community where gamers can connect with each other and enjoy their favorite games. For more information, visit mynet.co.jp.

However, gamer activity can surge during planned special events, putting more demand on MyNet's servers. Other games feature guilds or groups competing against each other, which can lead to significantly fluctuating user activity throughout the day. It is not unusual for a game that typically requires ten servers to need 150 servers for a brief period suddenly. To address this, MyNet increases server numbers during peak times like battle events and decreases them during non-peak periods.

"Thanks to AMD and OCI, we can adjust server numbers without cost implications...we can plan accordingly and scale out extra resources as needed, which helps us better manage our server strategy for each title."

Yuki Horikoshi, head of engineering at MyNet

Horikoshi said, "Thanks to AMD and OCI, we can adjust server numbers without cost implications. Because we know when in-game battles occur in advance, we can plan accordingly and scale out extra resources as needed, which helps us better manage our server strategy for each title."

A bright future for long-time favorite games

Horikoshi said, "MyNet has found that using OCI in conjunction with AMD provides substantial cost, performance, and density benefits. We appreciate that Oracle passes those benefits along to its customers. This is one of the reasons why we choose to use OCI along with other cloud providers, and we believe that it highlights the efficiency and cost-effectiveness of using AMD. I think more cloud providers and game services in Japan should look closely at the approach adopted by OCI. MyNet is proud to utilize this technology to provide our users the best possible gaming experience."

MyNet now uses AMD CPU-powered OCI instances for the majority of its games. MyNet also continues to monitor technological advancements, including the upcoming OCI E5 instances, but not limited to AMD and OCI, to ensure it utilizes the most cost-efficient and performant option for its servers.

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