HOW KIWI.COM ACHIEVED SIGNIFICANT COST SAVINGS WHILE OPTIMIZING PERFORMANCE

Migrating to Google Cloud virtual machines powered by AMD EPYC[™] processors enabled Kiwi.com to grow faster while effectively managing costs.



CUSTOMER



INDUSTRY Travel technology

CHALLENGES

To optimize infrastructure performance and lower platform running costs.

SOLUTION

Migrate Kiwi.com workloads from Intel-based virtual machines to AMD EPYC[™] CPU-based virtual machines.

RESULTS

Moving to Google Cloud virtual machines (VMs) powered by AMD EPYC[™] processors immediately improved performance across Kiwi.com's infrastructure. At the same time, the switch reduced Kiwi.com's electricity consumption and enabled larger workloads.

Kiwi.com saw a 20% cost reduction after originally switching to N2D VMs. These savings allowed them to get the best value for their applications and deliver an improved customer experience. They realized further savings transitioning to C2D VMs and later, T2D VMs.

AMD TECHNOLOGY AT A GLANCE N2D VMs C2D VMs T2D VMs 3rd Gen AMD EPYC[™] Processors Kiwi.com is an online travel technology company launched in 2012. It aims to simplify the global flight industry and develop innovative ways to make air travel better and cheaper for customers.

The company experienced steady growth, and then COVID disrupted the travel industry, making

In early 2020, air travel was significantly

disrupted around the world. The ultimate

Kiwi.com's management was to keep the

platform running as efficiently and cost-

Miloš Vyletel is the principal engineer

at Kiwi.com overseeing the platform

examining their existing infrastructure

solutions that could handle growing

company's operational costs.

workload demands while reducing the

and exploring more efficient cloud-based

and managing vendors. He began

goal during this tumultuous period for

it critical to find ways to optimize infrastructure and reduce running costs.

CHALLENGE

To quickly identify areas for cost reduction across the Kiwi.com platform

effectively as possible.

"We'd been growing pretty steadily, and did not have the need to make changes in the infrastructure or optimize anything. As our business model is selling flight tickets, when COVID happened and the whole travel industry was paralyzed, our sales sharply dropped and we needed to try to optimize everything we could."

The Kiwi.com platform was running on a mix of cloud and non-cloud services at that time, with bare metal servers from various providers.

Kiwi.com's cloud and non-cloud environments and the connections between them were identified as potential

areas for significant cost savings.

SOLUTION

Migrating workloads to Google Cloud T2D VMs powered by AMD EPYC processors

Kiwi.com started by migrating their bare metal servers

from the competition's processors to AMD processors in 2020, allowing them to significantly reduce their amount of servers. Miloš knew the performance on AMD processors was excellent, and pushed for AMD adoption to extend into their cloud computing workloads.

Kiwi.com migrated their Google Cloud VMs from the competition's N1 and N2 VMs to AMD-based N2D VMs.

Then, when T2D and C2D launched in 2021 and 2022 respectively, Milos was able to get even better price/performance.

AMD + KIWI.COM CASE STUDY



During the evaluation process for adopting new technology, it was also crucial for Kiwi.com to consider the environmental impact of their cloud and non-cloud services.

They needed to look at solutions that lowered costs and enabled them to reduce their electricity consumption and related emissions. AMD 3rd Gen EPYC processors ticked all of these boxes.

Partnering with DoiT for a smooth migration experience

Kiwi.com partnered with Google Cloud migration specialists, DoiT, to get their new machines and infrastructure up and running smoothly.

DoiT is one of AMD and Google Cloud's top partners for cloud migration. They were instrumental in helping Kiwi.com get access to Google Cloud technology as a smaller company. Miloš notes that "the migration process was smooth and the continuing cooperation works well." "We have only had positive experiences with AMD. As well as translating to a lower cost, from an environmental point of view, we're running the same workload on AMDs that we did on Intel, without using as much electricity."

"We had great results moving to AMD. We have been able to replace five servers from the competition with one AMD server."

Switching to different VM families within the AMD EPYC and Google Cloud product portfolio also helped optimize resource allocations and improve system latencies and overall operational efficiency. This meant that the company could support the same workloads with fewer VMs.

"I learned about T2D, which is kind of a hidden gem for high performance workloads," said Miloš. "With the T2Ds, you can get twice as many physical cores for the same price as N2Ds, for instance."

> When transitioning from C2D to T2D VMs in 2021, Kiwi.com moved from 33 C2D high CPU machines to 21 T2D standard machines. This improved latency and saved the company an average of \$10,000 per month in running costs.

RESULTS

Immediate cost savings with no performance issues

Transitioning to the new AMD processor-powered VM instances resulted in an immense improvement in the performance-to-cost ratio for Kiwi.com. "Our infrastructure is fully automated using Terraform and our applications run on Kubernetes," noted Miloš. "Thanks to this, we could see the performance impact in real time and cost-saving results essentially the next day."

The substantial cost savings in moving to Google Cloud VMs have been instrumental in helping the company manage their budget effectively. This enabled Kiwi.com to sustain their business during the economic downturn caused by the 2020 disruption to air travel. What's more, the transition to AMD processor-based VMs allowed them to continue on a healthy growth trajectory as the flight industry recovered. Overall, the strategic move to AMD EPYC processors and Google Cloud VMs has allowed Kiwi.com to reduce its infrastructure costs while improving performance significantly. Making the switch to AMD processor-based VMs was a crucial lever in navigating the cost challenges brought on by the air travel industry's struggles.

MAKING AIR TRAVEL ACCESSIBLE FOR EVERYONE

As tech innovators, Kiwi.com's mission is to optimize customer experience processes while running in a cost-effective way that drives growth.

Switching to Google Cloud VMs powered by 3rd Gen AMD EPYC processors has enabled all this and more. It has allowed Kiwi.com to break down the barriers to low-cost travel further and deliver innovative, engaging experiences for their customers.

ABOUT KIWI.COM

Kiwi.com is a leading global travel tech company headquartered in the Czech Republic. Kiwi.com's innovative algorithm enables users to find better route options and prices other search engines can't see, performing billions of price checks per day across 95% of global flight content. 100 million searches are carried out every day on Kiwi.com's website and partner channels. On average over 50,000 seats are sold daily.

ABOUT AMD

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and cutting-edge scientific research facilities around the world rely on AMD technology daily to improve how they live, work, and play. AMD employees worldwide are focused on building great products that push the boundaries of what is possible. For more information about how AMD is enabling today and inspiring tomorrow, visit www.amd.com/epyc. AMD, the AMD logo, EPYC, and combinations thereof are trademarks of Advanced Micro Devices, Inc.

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