CUSTOMER

السوق المفتوح
opensooq.com

INDUSTRY

Ecommerce/Classifieds

CHALLENGES

Providing infrastructure to reduce costs and improve performance while experiencing 10 percent growth in user numbers

SOLUTION

Deploy Amazon EC2 instances powered by AMD EPYC™ processors

RESULTS

10 percent reduction in cost with better performance, enabling deployment of new microservices

AMD TECHNOLOGY AT A GLANCE

Amazon EC2 C5a, C6a, R5a, and M5a instances

AMD EPYC™ CPUs with up to 64 cores

TECHNOLOGY PARTNER

aws

The switch from traditional print advertising to online classifieds unlocked new potential for many individuals and businesses. However, every market has specific needs. OpenSooq was founded in 2012 to provide users in the Middle East and North Africa (MENA) an easy-to-use online classifieds marketplace tailored to their region. It is now the market leader in MENA, operating in 20 countries and still growing fast.

"We are the number one destination for automobiles, real estate, electronics and fashion in the region," says Ossamah Basaita, VP of Product at OpenSooq. "We have over 10 million monthly active users, more than two billion page views, and these numbers have been growing by approximately 10 percent per month since the start of 2022. Every few seconds, an item is sold on our platforms."

But maintaining this level of growth without spiraling costs and experiencing significant performance impacts is a constant battle. OpenSooq found that deploying Amazon EC2 instances powered by AMD EPYC processors kept the company ahead of the curve, with room for new services for the future.

Infrastructure for 10 million monthly users

"It's not easy for a lot of traditional retailers to get a website up and running quickly in the MENA region," says Basaita. "We are providing a platform that makes it simple for them to have a digital presence and reach a lot of users. Any business can create their own shop on OpenSooq, personalize it with their logo, banners, and make the shop into a mini site where the buyers will only be able to see specific items, keeping them inside their shop. Those are services that our pro users like and use a lot."

"With AMD EPYC processors, the performance is good, and the latency is down. The performance is better at a lower price."

Ossamah Basaita, VP of Product at OpenSooq

The popularity of this approach has meant that OpenSooq still operates like a rapidly expanding startup. "Our main focus is to grow as fast as we can while keeping our costs low," says Basaita. "In order not to compromise our philosophy and approach, we leverage the tools that help us bring new features to our sellers quickly and seamlessly."

OpenSooq must also deliver a platform that can handle the volume of users its online shop owners attract. "Our value proposition for shops is to bring them the users, and with the number of traditional businesses going online, we have a lot of users that rely on OpenSooq," says Basaita. "However, we need to keep bringing customers to the shops efficiently. This means that whenever we want to expand our infrastructure, we must carefully consider how to provide sufficient performance to satisfy the volume of buyers at a low enough cost. That's a big challenge for us." This constant quest, for the most possible compute for the least money, led to Amazon EC2 instances powered by AMD EPYC processors.

10 percent cost saving, 15% better performance

OpenSooq had been using Intel-based Amazon EC2 instances, mainly C5, plus R5 and M5 for specific workloads. The company was considering a switch to an alternative CPU type, which represented the lowest cost VMs on the AWS platform. However, this would have meant considerable migration costs due to the non-x86 architecture, with unknown effects on performance. AMD EPYC processors provided another cost-effective option. "Through the What's New at AWS event, we learned EPYC processors were available," says Husam Abdullah, DevOps and Infrastructure Lead, OpenSooq.

"Since we are a customer-centric company, we're always searching for new solutions that can be implemented in a cost-efficient manner, and without affecting performance. This is the key consideration for OpenSooq, and EPYC processors gave us this opportunity. We saw that moving to the AMD instances wouldn't require a code change, so we chose them over a non-X86 option."

"When we migrate to any new service, we are always concerned not to negatively impact the main KPI (key performance indicator) for our business," says Abdallah. "With AMD, we did the migration without any loss or downtime. It was seamless. We chose the instance based on the tech stack that we are using. For the web workloads, we switched from C5 to AMD CPU-powered C5a, and now have 20 percent of our servers using AMD CPU-powered C6a. For general services, we now use AMD CPU-powered M5a. For database, especially for MongoDB, we use AMD CPU-powered R5a."

"Now 90 percent of our instances are powered by AMD CPUs," "We plan to migrate all our servers to AMD eventually. We also plan to run any new microservices on AMD instances."

Husam Abdullah, DevOps and Infrastructure Lead, OpenSooq

"After we moved to EPYC processors, we noticed a cost saving of approximately 10 percent," says Abdallah. "At the same time, our traffic increased, and we introduced new microservices to our platform. But the infrastructure size was the same as before. We achieved 15 percent better performance alongside the cost reduction. The EPYC processor saved us from going beyond our Reserved Instances, so we got the 10 percent discount without any extra commitment."

Capacity for future microservices

"Currently we are running marketing campaigns, so we are attracting more users and more traffic," adds Basaita. "We have been able to continue using the same infrastructure. With AMD EPYC processors, the performance is good, and the latency is down. The performance is better at a lower price in our opinion."

"Our move to AMD cost us zero developer or admin time. No downtime, no change in the tech stack, no interruption or disruption with the servers or our service. Everything was smooth."

Husam Abdullah, DevOps and Infrastructure Lead, OpenSooq

This extra capacity has provided the opportunity for OpenSooq to implement the new microservices. "We now use EPYC instances for the chat system, for image processing, for text processing and for the identification service," says Abdallah. "These microservices are based on different technology stacks like PHP, Node.js, Java and Python. The chat system performance increased by 20 percent after we moved to the R5a instance type for its non-sequence database, without changing the VM size. Our move to AMD cost us zero developer or admin time. No downtime, no change in the tech stack, no interruption or disruption with the servers or our service. Everything was smooth."

The results have been so positive that OpenSooq is running almost all its 250-server infrastructure on AMD EPYC processor-powered instances. "Now 90 percent of our instances are powered by AMD CPUs," says Abdallah. "We plan to migrate all our servers to AMD eventually. We also plan to run any new microservices on AMD CPU-powered instances."

OpenSooq is exploring the benefits of AI-powered services for functions such as automatic correction of product category listings. "The seller might upload a car image and list it incorrectly under another category," says Abdallah. "Our image processing will identify that this is a car and will categorize it under the automotive category. This helps us a lot in the content moderation process." In OpenSooq's experience, the savings from running AI applications on AMD CPU-powered instances will be considerable. "AMD instances for AI are at least 20% more cost-efficient than other competitors. AMD will allow OpenSooq to roll out these features in a cost-effective way."

Overall, Amazon EC2 instances powered by AMD EPYC CPUs have delivered what OpenSooq wanted to accommodate its rapid growth. "If you want to increase your performance cost effectively, AMD is the best choice in our opinion," concludes Abdallah. "It's serving us perfectly to grow the business and our platform. AMD helped us a lot with our cost and performance, which are the main KPIs in running our infrastructure."

Sell Anything on OpenSooq — Cameras - Photography, Clothes, Mobiles, Video Games, TVs - Screens

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About OpenSooq
Launched in 2012, OpenSooq.com is a leading mobile classifieds marketplace operating across the Middle East and North Africa region (MENA), connecting millions of buyers and sellers together without intermediaries. OpenSooq.com has over 120 categories and sub-categories such as automotive, real estate, electronics, furniture, jobs, as well as a variety of different products and services, according to the statement. For more information visit opensooq.com.

About AWS
Amazon Web Services began offering cloud computing IT infrastructure services in 2006, enabling businesses to replace up-front capital infrastructure expenses with low variable costs that scale with their business. Today, Amazon Web Services provides a highly reliable, scalable, low-cost infrastructure platform in the cloud that powers hundreds of thousands of businesses in 190 countries around the world. The company had $62 billion in revenue in 2021, with over 40,000 employees and over a million users worldwide. For more information visit aws.amazon.com.

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