

Ampere® Altra® Processors Power a More Efficient Data Center for Plesk's WebOps Platform

SNAPSHOT

Organization: As one of the world's leading WebOps hosting platforms, Plesk helps organizations to run, automate, and grow applications, websites, and hosting businesses.

Challenge: Plesk customers need to simplify cloud development with an open hosting platform that includes a rich ecosystem of extensions. Developers, content managers, digital agencies, IT administrators, and other technology professionals need powerful processor platforms to be more productive, and they look to Plesk to create, secure, manage, and keep their sites up to date.

Solution: Ampere Altra processors satisfy the real-time data processing speeds required for Plesk's popular WebOps platform, especially the low energy consumption and low thermal characteristics needed for modern web and data center apps.

Results: Plesk customers now enjoy an expanding array of cloud-based infrastructure marked by low power consumption, low heat generation, and exceptional resource allocation.

INTRODUCTION

There are now more than 20 million cloud developers worldwide, many of whom are looking for access to faster, more secure, and more efficient software to conduct their work. Plesk fulfills their needs with a highly accessible WebOps platform that gives application developers a ready-to-code environment and the most complete, secure, and versatile toolkit to build, secure, and host highly scalable websites and eCommerce.

Half of the top 100 service providers and 1000's of web professionals worldwide partner with Plesk. Its popular software tools are currently running on more than 384,000 servers, automating more than 11 million websites, and powering more than 15 million mailboxes. These companies need powerful hardware platforms and cloud services to scale their web hosting activities. A growing number of them now run the Plesk environment on Ampere® Altra®-powered servers.

For example, when users on the Plesk UserVoice forum expressed interest in an Arm64-based platform, the Plesk engineering team decided to investigate this powerful architecture.

Some users wanted to manage websites on their Raspberry Pi devices, while others were interested in the price and performance benefits of using Ampere instances on cloud providers—such as Oracle Cloud Infrastructure (OCI)—for larger scale shared hosting and eCommerce environments.

|AN EASY PORT TO AMPERE

According to Hertig, Plesk decided to use the Ampere Altra processor for three primary reasons:

1. Ampere is “climate friendly,” owing to its better power management and a lower thermal design point (TDP) rating than x86 processors.
2. Ampere offers better price/performance than competing processor vendors.
3. Ampere provides better resource allocation, thanks to single-threaded cores that reduce the “noisy neighbor” effects of multi-threaded chip architectures.

According to Anton Akhtyamov, product manager at Plesk, the port to Ampere was relatively easy, since the core C++ code had already been adopted to support x86-64. “We just rebuilt our packages without any critical issues,” he recalls.

However, as a web console managing web infrastructure, Plesk has hundreds of dependencies on third-party software. For open source dependencies, the Plesk development team used packages rebuilt for Arm64 by vendors.

Plesk users aren’t alone in gravitating to Ampere’s high-performance, highly efficient processor platform. As Akhtyamov reported in a recent blog, interest in alternatives to x86 processors on the server market has “rocketed” over the last two years, owing to the fact that the latest Ampere Altra processors provide 57% better performance per watt. In summary, Ampere processors are designed to have the lowest possible energy consumption while maintaining high processing power.²

“Ampere is offering a 64-bit processor-powered server dedicated to cloud computing,” explained Akhtyamov. “It shows that cloud native providers can create competitive offerings to x86.”

|NEW SOLUTIONS FOR SMBs

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For 20 years, Plesk has simplified the lives of web developers, content managers, systems administrators, and DevOps professionals by adding value across multiple cloud services. Its software tools are available in more than 32 languages and are used by developers and content professionals in 140 countries. Plesk mostly targets the small and medium-sized business (SMB) market served by service providers and web professionals. Many of these firms don’t have large and diverse IT teams, so they are drawn to software that makes configuration, maintenance, and scale of secure web infrastructure as easy as possible. This includes management of DNS, adding caching to web software to allow it to scale under increased loads, and installing and managing popular web hosting infrastructure—such as WordPress or any website app using Laravel, Node.js, .Net, Ruby or Python.

A large cohort of Plesk users gained access to Ampere processors when Oracle partnered with Ampere to bring their Cloud Native Processors to Oracle Cloud Infrastructure (OCI). As Oracle announced, these impressive processors offer a “great alternative for developers to diversify and take advantage of hardware innovation.”³

Ampere’s instances provide developers in the Oracle ecosystem with outstanding price and performance benefits when compared to other x86 compute instances on a per-core basis—resulting in increased cost savings as they scale out.⁴

To meet the needs of a growing base of innovative developers, Plesk introduced Plesk on Ampere Altra using the latest Ubuntu operating system at Oracle Cloud in 2022.

The company launched 1,000 instances of the Plesk/Ampere solution as Plesk customers discovered the innate efficiency and performance of the solution. Oracle now offers Ampere Altra processors with flexible sizing from 1 to 80 OCPUs and 1 to 64 GB of memory per core.

“Since we have launched on OCI Ampere A1, we now have hosting partners who are coming to us and say they now want to migrate large, shared hosting or eCommerce environments to Ampere A1,” Hertig says.

| IMPROVING DATA CENTER EFFICIENCY

Plesk continues to work with Oracle and Ampere to promote the benefits of the Ampere Altra A1 shapes for its customers. Plesk released a production version of this offering at the beginning of September 2022. Within a month of its GA release, Plesk had more than 1,000 Ampere instances in production.

Hertig believes Plesk customers will see significant cost reductions from hosting their solutions on these OCI Ampere Altra A1 instances. Since Ampere Altra can deliver up to 80 cores per socket, cloud providers can use their datacenter space more efficiently, improving price and performance while reducing power costs.

Ultimately, these service providers can pass on those savings to customers, many of whom are becoming increasingly aware of the environmental impact of their computing minimizing their customers' carbon footprint," Hertig notes.

Ultimately, these service providers can pass on those savings to customers, many of whom are becoming increasingly aware of the environmental impact of their computing activities. "Organizations choose vendors who do a better job minimizing their customers' carbon footprint," Hertig notes.

These capabilities have become especially important in Europe, where the energy crisis has forced most European service providers to announce price increases in 2022 as a result of the increased electricity prices.

Akhtyamov agrees. "One of the main advantages of using Arm architecture is cost efficiency, as less power is consumed," he concludes. Ampere processors are designed to have the lowest possible energy consumption while delivering exceptional processing power.

About Ampere

Built for sustainable cloud computing, Ampere Computing's Cloud Native Processors feature a single-threaded, multiple core design that's scalable, powerful, and efficient.

[Learn more](#)

See our solutions for a variety of demanding workloads:

<https://amperecomputing.com/solutions>

Visit our Developer Center:

<https://amperecomputing.com/developers>

Footnotes

1. Built for the Sustainable Cloud, available [here](#).
2. "Trends Review: The Rise of Arm Architecture," Victor Kupriyanov, January 18, 2022, available [here](#).
3. Oracle Cloud Infrastructure Blog, "Compute and High-Performance Computing Roadmap Update," September 22, 2020, available [here](#).
4. Ampere A1 burstable VM instances take price performance to the next level, available [here](#).

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