Computer Services

Higher performance, lower power consumption

Cyllene

Lenovo and AMD worked together to help a leading managed service provider in France to maintain high performance while reducing energy consumption at its new data centers.

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Who is
Cyllene?

Headquartered in Paris, France, Cyllene supports businesses in their transition to the digital economy. The company delivers a comprehensive range of IT services, including consulting, hosting and managed services, application and web technology deployment, data analytics, and more. Cyllene operates three data centers and over 10,000 servers, supporting more than 1,500 clients.

C:YLLENE

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The
Challenge

Cyllene, a leader in e-commerce hosting services, operates three managed data centers in the Greater Paris area, delivering exceptional performance for its customers.

Leading cloud providers like Cyllene make a tempting target for cyber criminals, and the company is continually upgrading its systems to stay ahead of potential threats. At the same time, Cyllene's virtualized infrastructure must remain as open and flexible as possible to meet the needs of its customers.

To strengthen data center security, Cyllene developed ALTER cloud: a new, high-security platform that will enable it to meet future e-commerce requirements.

Based on Lenovo servers powered by AMD EPYC™ processors, the infrastructure platform for ALTER cloud offers high-performance data encryption and interoperability with Cyllene's chosen open-source software stack. In addition, the Lenovo and AMD solution delivers exceptional per-watt performance.

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"Rising energy costs mean that gone are the days when data center managers didn't have to worry about energy consumption."

Nicolas Mahé
Solutions Expert, Lenovo Infrastructure Solutions Group

"What our customers like about us is that we have end-to-end control over our solutions."

Olivier Morel
Strategic Alliance and Partnerships Manager, Cyllene

Proving
the concept

Lenovo adopted a holistic approach to designing the new infrastructure. Choosing AMD EPYC™ processors enabled Lenovo to replace the cloud provider's existing 150-watt per CPU dual-core processors with single-core 200-watt processors. The result is a smaller data center footprint with identical compute performance.

During the proof-of-concept phase, Lenovo provided Cyllene with measurement tools—enabling them to visualize the energy savings in real time as the new equipment was installed. The company was also able to verify the reliability of the new solution, even under high CPU loads.

"**"Cyllene's software ecosystem proved to be perfectly compatible with AMD EPYC™ processors, as there are no core restrictions with their chosen open-source software. When you factor in the license cost-savings with open-source software, the performance per watt is even more cost-effective."**

Cyril Laurie
IT Technology Expert, AMD

> "We wanted to be able to measure and monitor the new performance per watt ratio from the very first stages of the migration."

Nicolas Mahé
Solutions Expert, Lenovo Infrastructure Solutions Group

Beyond security

Working closely with Cyllene, Lenovo deployed the new infrastructure solution on time. Crucially, Lenovo helped Cyllene meet its robust corporate social responsibility objectives.

Cyllene has placed energy efficiency at the heart of its design philosophy for all new data center facilities. For example, the company installed solar panels at all its sites, bringing it closer to carbon neutrality.

To meet Cyllene's ambitious environmental targets, Lenovo and AMD delivered an innovative, high-performance solution that delivers outstanding per-watt performance.

More than a server solution

In addition to optimizing energy consumption in the data center, Cyllene targeted a platform that would be compatible with its open-source stack.

Nicolas Mahé comments: "It was vital for us to show that the proposed Lenovo solution would fully support Cyllene's requirements—including multitenant management capabilities, which are essential for managed service providers."

" "Every component has an impact when it comes to energy consumption. So, it's vital to evaluate all aspects of a server to find the most-energy efficient solution. With the rising cost of energy, it's more important than ever to find a high-performance server that is also highly energy efficient."

Cyril Laurie
IT Technology Expert, AMD

> "The AMD engraving capacity has also helped reduce total energy consumption in the motherboard. Smaller CPUs mean optimized component distribution and, therefore, faster cooling."

Cyril Laurie
IT Technology Expert, AMD

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Results

Cyllene had clear requirements: provide its virtualized servers with maximum memory capacity, fast networking and memory, and high CPU bandwidth—all with high levels of energy efficiency.

Lenovo selected AMD EPYC™ processors based on the precision of the AMD chip manufacturing process. AMD is the only company to provide seven nanometer transistors that can operate 64 cores with the thermal envelope for the data center.

✓ 30% lower power consumption

✓ 30% reduction in heat emissions

✓ 40% increase in application performance

Less is **more**

Cost was also an important consideration for Cyllene. By using AMD EPYC™ processors, Lenovo designed a server solution with a dense data center footprint—helping the company to keep the project within budget.

Since migrating to the Lenovo and AMD platform, Cyllene has measured a 40% increase in application performance despite reducing its total number of CPUs.

Cyllene serves many e-commerce companies, which means it must accommodate peak periods such as Black Friday. With AMD EPYC™ processors, the company can handle increased load during retail holidays with ease.

By taking a holistic approach to Cyllene's requirements—performance, security, and cost—Lenovo delivered a solution that met all the company's needs.

> "Thanks to Lenovo, our new infrastructure has allowed us to cut our data center power consumption and heat emissions by 30%."

Olivier Morel
Strategic Alliance and Partnerships Manager, Cyllene

How can managed service providers improve energy efficiency?

Cyllene worked with Lenovo and AMD to maintain high performance while reducing energy consumption at its new data centers.

Watch the video

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