



## Adoption of models powered by AMD Ryzen™ PRO processors enables sourcing of “lower cost, yet faster” PCs

Significant upgrade of the corporate computer environment with the introduction of new Lenovo PCs with AMD Ryzen™ PRO



### INDUSTRY

Transportation

### CHALLENGE

PCs sourced from major domestic manufacturers were not cost-effective, and only models with older generation technology were available

### SOLUTION

New Lenovo notebook and desktop PCs powered by AMD Ryzen™ PRO processors, which are cost-effective and available in short delivery times

### RESULTS

Able to quickly respond to sudden demand for teleworking by sourcing PCs with superior performance within the same budget in a short period of time

### AMD TECHNOLOGY AT A GLANCE

AMD Ryzen™ PRO 5000 Series Processors

### TECHNOLOGY PARTNER

### PCs from domestic manufacturers feature good quality, but cost performance is an issue

Companies that operate public transportation systems, such as railroads and buses, not only provide people with a means of transportation, but also often play a central role in the economic activities of a region. This company, which operates a wide range of rail and bus services in a local city, is one such transportation company. In addition to managing one of the largest rail and bus networks in the region, the company has long supported local lifestyles and economies through its real estate business and other activities.

The company is now actively using IT to improve business productivity. PCs are used in every aspect of the company's operations, and approximately 700 PCs are in operation within the company. In addition, the company replaces about 100 PCs with the latest models every year so that employees can benefit from advanced technology as quickly as possible. By regularly introducing the latest PCs and encouraging employees to use them, the company aims to improve work productivity and achieve a flexible work style.

On the other hand, the company had been facing several issues related to PC sourcing for some time. The manager of the information systems division, who is in charge of all operations related to the purchase and operation of PCs at the company, explains the situation as follows:

“Until now, we have consistently used PCs made by a major Japanese manufacturer. However, I had always felt that the cost performance was not good enough.”

The bottleneck was the higher price compared to products with equivalent specifications made by foreign manufacturers. Also, the speed at which the latest technology was reflected in products was slower than that of foreign manufacturers. New technologies that were already commonplace in overseas products were often not yet introduced in the latest models, and the company had been considering the introduction of products from other manufacturers for some time.

In fact, the company even experimented with PCs

from foreign manufacturers on a trial basis. These products were certainly attractive in terms of price and catching up with the latest technology, but when the company actually used them, they found that the products were inefficient in many ways. The company found that the failure rate was clearly higher than that of PCs from domestic manufacturers, and the support service provided by the manufacturer was also unsatisfactory, so the company did not officially adopt the products.

“I wonder if we have no choice but to turn a blind eye to the poor cost performance and continue to use products made by domestic manufacturers...” says the IT manager of the transportation company.

Just as the company was about to give up on the idea, an outside partner company that they had requested to source PCs suggested that they use Lenovo PCs.

### Lenovo PCs equipped with cost-effective AMD Ryzen™ PRO processors

The manager of the company's information systems division had the following to say about his impression when Lenovo PCs were proposed to him: “We had never installed Lenovo PCs in our company before. However, we have had opportunities to touch, see, and hear Lenovo PCs outside of our business, and we have never heard any negative comments about them. Also, since Lenovo supplies to a major Japanese manufacturer, we thought that we could trust them for their quality. So, we decided to borrow an evaluation unit and verify its performance and usability.”

To evaluate the differences in usability and productivity between different sizes of notebook displays, several notebook models of different sizes were borrowed for verification. In addition, along with display size, another important evaluation item was the usability and stability of “CPU differences.” Lenovo has been actively using AMD Ryzen™ PRO processors in its products for some time, and its products were highly evaluated by many users for their high cost performance. The company was also interested in comparing products powered by AMD with products equipped with Intel CPUs.

AMD APU were always well received among the members of the information systems division. "The impression of AMD products used to be that they were Intel-compatible CPUs for home-built PCs, but in recent years they have been widely used in business applications, and their cost performance is as overwhelmingly high as in the past, so I felt they were well worth a try," says the manager of the information systems division.

Another major advantage of AMD APU was their short delivery time. At the time, Intel CPUs were in short supply around the world, and the delivery time for PCs equipped with Intel CPUs tended to be long. In contrast, PCs with AMD APU were delivered in a relatively short period of time and in a stable manner, which was also a major attraction.

In fact, the transportation company found that a comparison of the performance of the standard grade Intel-equipped machine and the AMD-equipped machine, measured by benchmark tests, showed that the AMD-equipped machine performed better.

"Despite the slightly lower price of the AMD-equipped machine, we found that its performance was conversely higher, and we realized once again its excellent cost performance. We had no problems at all with stability or software compatibility, and since they are highly regarded by the general public, we decided to officially adopt an AMD-based machine," says the manager of the information systems division.

### Prompt sourcing allows for quick response to remote work demands among the pandemic

The introduction of 135 Lenovo PCs with AMD APU took place in multiple installations in late 2019 and early 2020, including 38 ThinkPad notebook products with AMD Ryzen™ PRO processors and 97 Tiny desktop products.

The transportation company found that the installation process itself went extremely smoothly. Product delivery was carried out almost on schedule, with no delays, and the few initial defects that did occur were quickly resolved by Lenovo's support team. A member of the information systems division who was directly involved in the installation says, "Thanks to the prompt response of Lenovo's support team, the impact of the initial defects was minimized. Lenovo's support team has been very responsive to our needs on several occasions since then, and they have always been very helpful."

Both ThinkPad and Tiny have been operating stably since they were deployed to the site and began operation. The company reported that unlike the products of other foreign manufacturers, which clearly had more failures than domestic products, Lenovo PCs have extremely few failures, and they also have a good support system, which makes them very reliable. The company's employees who use the PCs in the field also comment on the "stylish chassis design" and the outstanding reputation of the PCs. Also, the users have not expressed any concern or confusion about the fact that the PCs are equipped with AMD Ryzen™

*"When I built my own PC using an AMD processor about 20 years ago, I remember that it seemed to follow Intel's lead and had some stability issues, but AMD products today are rather ahead of the technology curve and I don't seem to have any such concerns."*

PRO processors instead of Intel CPUs, which are widely known to the public with the local Japanese catchphrase "Intel Inside."

Meanwhile, the company is currently introducing remote work as a result of the pandemic. The newly introduced Lenovo PCs are proving to be very useful in providing a comfortable remote work environment for the company's employees.

"Employees who work from home connect to their company computer from their home remote desktop. Therefore, the performance and usability of the PC they use at work directly affect their productivity in the remote work environment. In this respect, the Lenovo PCs we have installed this time are far superior in performance compared to the previous models, and they have been of great help in realizing a comfortable remote work environment," says the manager of the information systems division.

When the company needed to set up a remote work environment within a short period of time in response to the state of emergency declared in the wake of the pandemic, the AMD-based models provided the advantage of being quickly sourced. Since this PC purchase was planned before the COVID disaster, more desktop PCs were used than notebook PCs, but in future they expect the ratio of notebook PCs to increase in consideration of usability in a remote work environment.

### Lenovo PCs with AMD APU will continue to be highly valued

Through this PC replacement, the members of the information systems division realized anew the advantages of AMD APU.

"AMD's mobile processors used to have a strong image of being used in desktop home-built PCs, and I honestly did not know that they were widely used in notebook PCs as well," says a team lead within the information systems division, "However, when we evaluated a ThinkPad equipped with an AMD APU and found that the benchmark results were better than those of a similar grade model equipped with an Intel CPU, we renewed our awareness of AMD products."

"When I built my own PC with an AMD processor about 20 years ago, I had the impression that it was following Intel's lead, and there were some stability issues. I remember that AMD products today are rather ahead of the technology curve, and I don't seem to have any such concerns at all," says the manager of the information systems division.

Based on the positive effects of this adoption, the company intends to actively consider the use of Lenovo and AMD technology-based products in its future PC purchase. The company plans to continue to select the most cost-effective and timely PCs for each procurement. "We are very satisfied with the price and performance of the Ryzen-equipped Lenovo PCs we purchased this time, and we will definitely use them in future PC procurements as long as the delivery date can be guaranteed," says the manager of the information systems division.



ThinkPad X13 Gen 2 (AMD)  
AMD Ryzen™ PRO Series with enhanced security

Superior processing and graphics performance for smooth operation

## About this company

The customer is one of the top local transportation provider in western Japan. It's business spans from railway transportation, track business, passenger/charter car business, real estate (residential land development, sale and lease of land and buildings) and advertisement. The customer wished to remain anonymous for the purposes of this case study.

## About Lenovo

Lenovo (HKSE: 992) (ADR: LNVGY) is a US\$60 billion revenue Fortune Global 500 company serving customers in 180 markets around the world. Focused on a bold vision to deliver smarter technology for all, we are developing world-changing technologies that power (through devices and infrastructure) and empower (through solutions, services and software) millions of customers every day and together create a more inclusive, trustworthy and sustainable digital society for everyone, everywhere. To find out more, visit <https://www.lenovo.com>

## About AMD

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