Increasing automation to reduce downtime in manufacturing.

How **ZESKMI** used Lenovo ThinkSystem SR630 and SR650 servers with NVIDIA® virtual GPU (vGPU) technology to enable a new era in manufacturing innovation.

Lenovo Infrastructure Solutions for The Data-Centered

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Background

Based in Krasnodar, Russia, Zavod ElektroSevKavMontazhIndustria LLC (ZESKMI) is a fast-growing manufacturing company that specializes in products for the construction industry, including construction and cable metalworks, tanks, vessels and heat-exchange equipment, and pipeline elements. Employing more than 800 people, the company is part of the Korporatsia AK Elektrosevkavmontazh group.

For over 30 years, ZESKMI has set the benchmark for innovation in its sector. The company was involved in the construction of almost all major nuclear facilities in Russia, and its parent group is now one of the largest corporations by revenue in the country. Alongside specialist metal and alloy cutting technologies, the company is introducing leading-edge techniques including hydro-abrasive cutting, plating, heat treatment, high-frequency welding, and hydraulic expansion.

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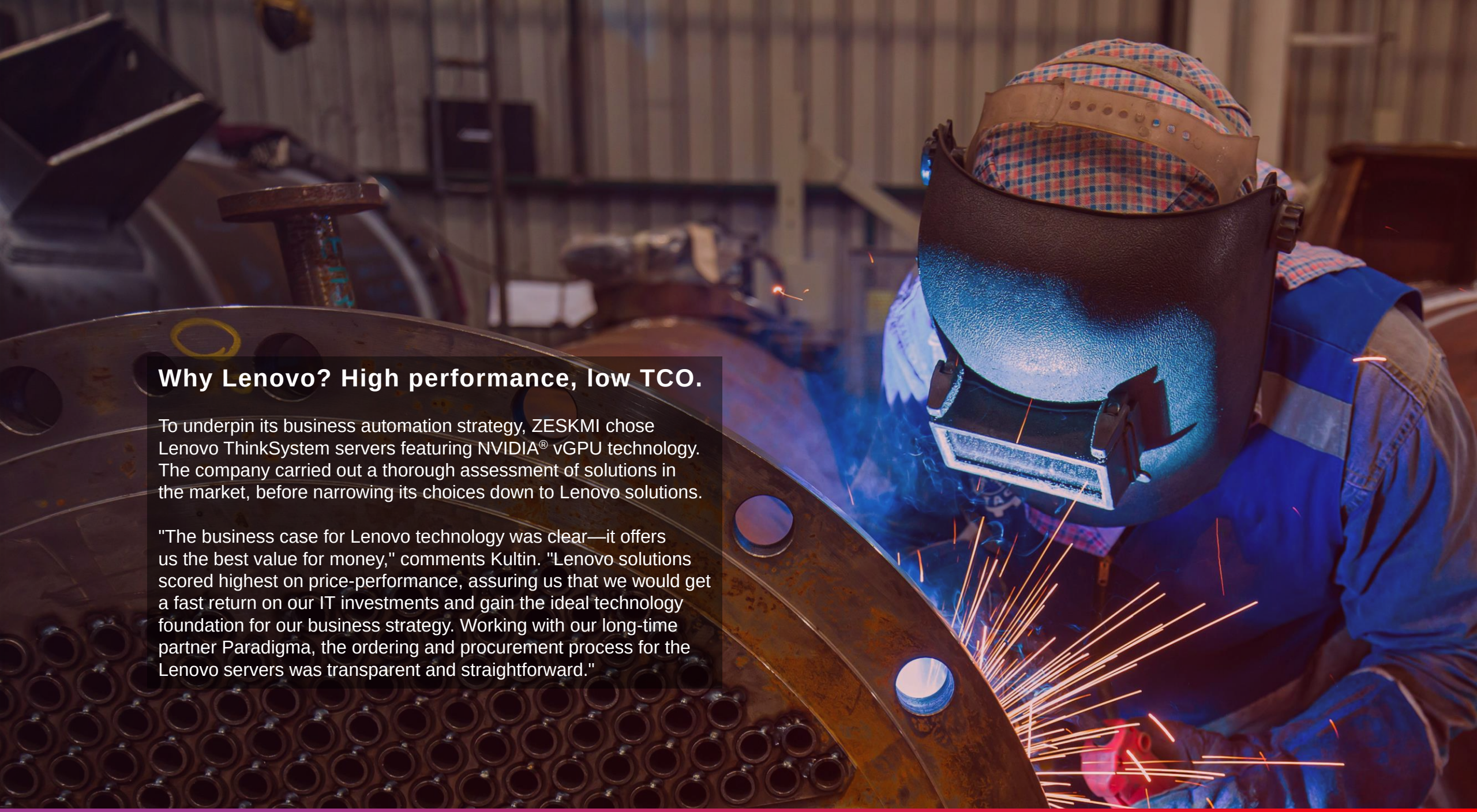
Challenge

To retain its position at the forefront of the Russian manufacturing industry, ZESKMI is evolving into a high-tech business that partners with international companies. For example, ZESKMI is developing cable-support and bearing metalworks in collaboration with Mounting Systems and Schneider Electric, and combine harvesters with CLAAS.

ZESKMI decided to refresh its IT infrastructure to ensure it could support these new initiatives and power ongoing growth. Top of the company's priority list: automate business processes to free up its employees and boost accuracy. At the same time, ZESKMI sought to maximize IT availability to avoid interruptions to 24/7 manufacturing lines.

“Creating a high-tech business is only possible with cutting-edge IT solutions. By introducing the right IT technology, we knew that we could drive greater efficiency and operational resilience.”

Valentin Kultin
Head of Information Technology Department, ZESKMI



Why Lenovo? High performance, low TCO.

To underpin its business automation strategy, ZESKMI chose Lenovo ThinkSystem servers featuring NVIDIA® vGPU technology. The company carried out a thorough assessment of solutions in the market, before narrowing its choices down to Lenovo solutions.

"The business case for Lenovo technology was clear—it offers us the best value for money," comments Kultin. "Lenovo solutions scored highest on price-performance, assuring us that we would get a fast return on our IT investments and gain the ideal technology foundation for our business strategy. Working with our long-time partner Paradigma, the ordering and procurement process for the Lenovo servers was transparent and straightforward."

Designing a super-resilient infrastructure.

ZESKMI teamed up with Lenovo Platinum partner Paradigma to build a new IT infrastructure based entirely on Lenovo technology. The company chose to deploy Lenovo ThinkSystem SR630 and SR650 servers and a Lenovo ThinkSystem DS4200 storage array in a high-availability cluster.

At present, ZESKMI uses 10 Lenovo servers and one storage system to support more than 300 workstations. The company runs its Lenovo virtual desktop infrastructure (VDI) solution on the environment, taking advantage of NVIDIA vGPU technology for high performance.

NVIDIA vGPU technology consists of NVIDIA data center GPUs installed in Lenovo servers, combined with NVIDIA RTX Virtual Workstation (vWS) software. NVIDIA vWS software enables the GPUs on the server to be shared across multiple virtual workstation users, delivering performance that is on par with a native workstation.

"Paradigma is a systems integrator with a high degree of professionalism," says Kultin. "With their specialist support, we standardized on Lenovo solutions, achieving a smooth transition from the old technology to the new."

“We now have ultra-resilient IT infrastructure in place to meet current needs, which will also scale easily to satisfy future requirements.”

Valentin Kultin
Head of Information Technology Department, ZESKMI

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Results

By deploying IT infrastructure based on Lenovo technology, ZESKMI has dramatically reduced its total cost of ownership (TCO) while driving up performance and capacity. The company's IT maintenance requirements have dropped substantially, while its engineers can use data-intensive applications without supplementary hardware thanks to the high-performance NVIDIA’s vGPU solution.

ZESKMI's employees benefit from faster response times, enabling them to work more efficiently. The company is successfully rolling out greater automation supported by the Lenovo solutions, boosting productivity.

With the highly resilient, fault-tolerant Lenovo environment in place, ZESKMI minimizes unplanned downtime. This helps the company to keep manufacturing lines running 24/7.

- **92% faster response times for key applications – from 5 minutes to just 25 seconds**
- **5-10% cost saving through lower maintenance and hardware requirements**
- **35% less time spent on routine administration**
- **Reduces unplanned downtime by maximizing IT infrastructure availability**

“Lenovo ThinkSystem solutions enable rapid access to data, empowering our employees to work to their full potential. Next on the agenda, we plan to expand our Lenovo server and storage fleet to support the latest phase in our development. With Lenovo, we can keep pushing the boundaries of manufacturing innovation.”

Valentin Kultin
Head of Information Technology Department, ZESKMI

What will you do with Lenovo client virtualization solutions?

The Data-Centered unlock dramatic improvements in performance and efficiency with Lenovo smarter infrastructure solutions, powered by NVIDIA®.

Explore Lenovo Client Virtualization Solutions