Ensuring zero disruption to the production of vital pharmaceutical supplies during the coronavirus pandemic.

How **Heinlein Plastik-Technik GmbH** used Lenovo ThinkAgile MX, powered by 2nd Gen Intel® Xeon® Scalable processors, to boost business resiliency, flexibility, and cost-efficiency—helping to keep critical manufacturing facilities running 24/7.

Lenovo Infrastructure Solutions for The Data-Centered

1

Background

Heinlein Plastik-Technik GmbH is a specialized manufacturer of high-quality plastic packaging closure and dosing systems for the pharmaceutical industry. The company, headquartered in Ansbach, Germany, employs 170 people and serves customers in 60 countries. An innovator in its field, Heinlein works closely with its customers to develop the next generation of pharma packaging, using its strong research and development (R&D) capabilities in combination with 60 cutting-edge injection moulding and assembly machines.

With the fourth generation of the Heinlein family now running the business, the company has developed a strong focus on sustainability that sets it apart from competitors. The company uses organic plastics from sustainable sources, such as sugar cane, and has a certified energy management system. Heinlein has also upgraded to an energy-efficient LED lighting system, and offers green incentives to employees, such as free e-bike charging and a fleet of electric cars.

2

Challenge

As a manufacturer of medicine packaging, Heinlein was strongly impacted by the global coronavirus pandemic. Stephan Scheurer, Head of IT at Heinlein Plastik-Technik GmbH, says: “We had to be very flexible to adapt to the evolving COVID-19 situation. We quickly had to reconfigure our assembly lines to prioritize products that suddenly were in high demand, while revenues in other segments declined rapidly. Most importantly, we had to keep our production facilities running around the clock to support our customers.”

Driven by its culture of continuous improvement, the company was also looking for ways to accelerate its digitalization initiatives. The company realized that its ongoing transformation projects—including connected manufacturing, Industry 4.0, and the industrial internet of things (IIoT)—could play an important role in strengthening its flexibility and improving its resilience to crises such as COVID-19.

In the past, Heinlein relied on a traditional, three-tier architecture to support its business systems. To help strengthen the availability of mission-critical systems and lay the foundation for future digitalization initiatives, Heinlein targeted a modern, high-performance infrastructure platform.

> “For us, innovation doesn’t stop in the R&D department. We also want to innovate in our business operations. This means that we constantly look for ways to increase efficiency, flexibility, and performance in all areas, including IT.”

Dominik Schmeisser
Systems Administrator, Heinlein Plastik-Technik GmbH

Why Lenovo? Outstanding quality, attractive pricing, and a trusted partner.

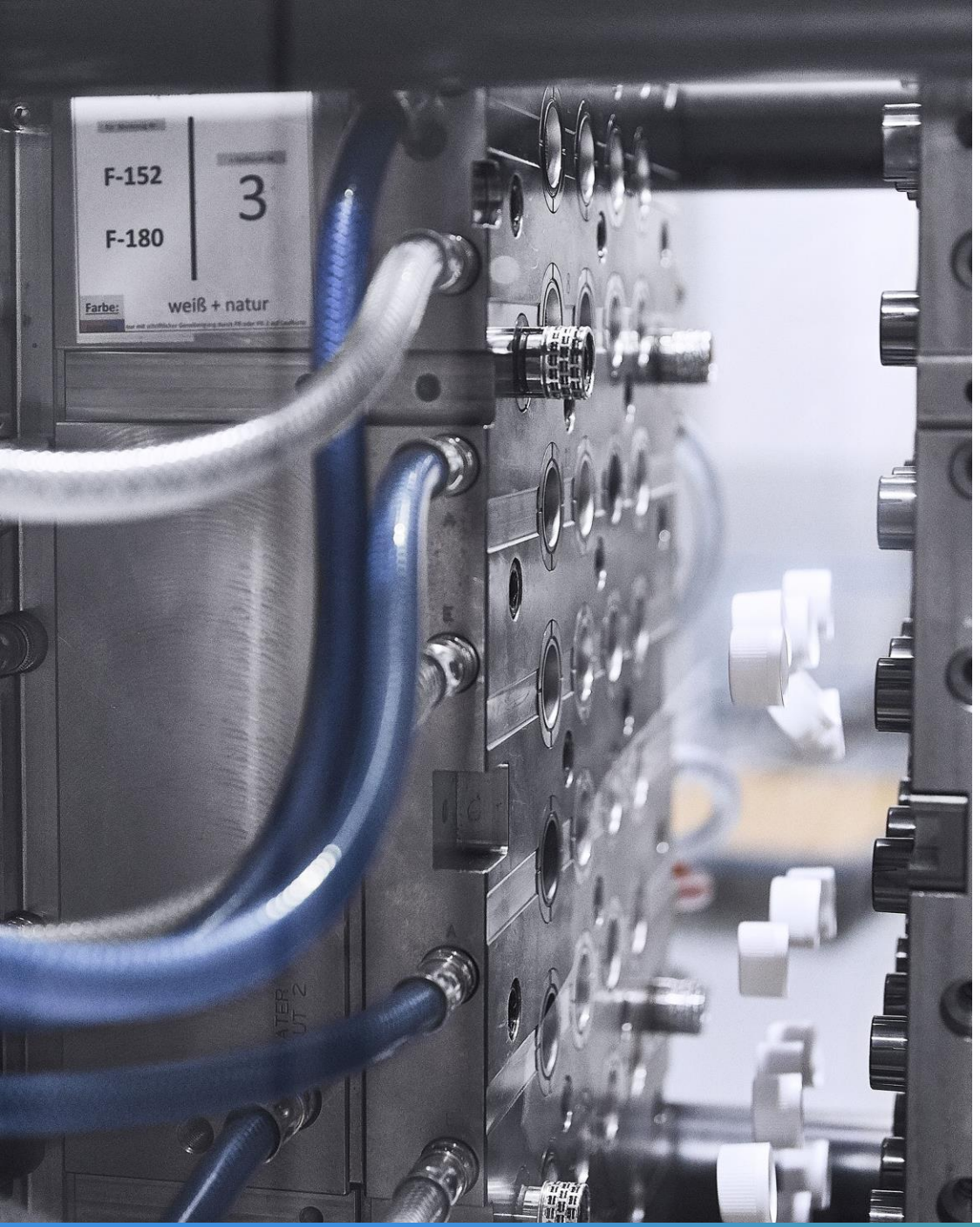
For almost 30 years, Heinlein has worked with trusted technology partner Kaiser Bürotechnik, a Lenovo Data Center and PC Gold level partner. When the company looked to upgrade its core IT infrastructure, it turned to Kaiser Bürotechnik for advice.

Dominik Schmeisser recalls: “When Kaiser Bürotechnik proposed a hyperconverged infrastructure [HCI] solution from Lenovo, we evaluated the different options together. Having recently moved to Lenovo notebooks and desktops, we already had first-hand experience of the quality and attractive pricing of Lenovo products and services.”

For several years, Heinlein has been using Lenovo ThinkPad T Series, Lenovo ThinkCentre Tiny desktops in its offices, and high-performance Lenovo ThinkStation P Series workstations for its engineering and computer-aided design (CAD) teams.

Dominik Schmeisser comments: “We’ve always been very impressed with Lenovo’s Intelligent Devices portfolio. The build quality is high, performance is good, and the keyboards are a pleasure to use—there aren’t really any comparisons on the market right now. While evaluating our HCI requirements, we quickly realized that as well as offering leading technology, the Lenovo project team was very responsive and backed up by a robust supply chain.”

Heinlein was particularly impressed by Lenovo’s agile and efficient project management. While other vendors were still preparing their offers, Lenovo had already delivered the solution in record time and Kaiser Bürotechnik was standing ready to install the systems in Heinlein’s server rooms. Heinlein’s longstanding relationship with partner Kaiser Bürotechnik was a key deciding factor, as was the company’s previous experience with Lenovo.



“We highly value the personal, direct support and guidance we receive from Kaiser Bürotechnik whenever we have any questions. Kaiser Bürotechnik and Lenovo have always been there for us to ensure we can make the best use of our IT solutions and keep operations running smoothly.”

Stephan Scheurer
Head of IT, Heinlein Plastik-Technik GmbH

Streamlining systems management with HCI.

Working with Kaiser Bürotechnik, Heinlein deployed a three-node HCI cluster based on Lenovo ThinkAgile MX Certified Nodes, equipped with 2nd Gen Intel® Xeon® Scalable processors and running Microsoft Azure Stack HCI. Each node is deployed in a separate server room to increase business resiliency, and the solution is managed centrally with the integrated Microsoft Windows Admin Center and Lenovo XClarity Administrator solutions.

Heinlein runs about 50 production systems with Windows Server on the new Lenovo ThinkAgile MX solution. These mission-critical applications range from basic file servers to Microsoft Exchange collaboration tools, Microsoft SQL Server databases, and the central ERP system, as well as QlikView for business intelligence and advanced data analytics. The ongoing digitalization and integration of its manufacturing processes means that Heinlein relies on 24/7 availability of the Lenovo solution.

Heinlein also modernized its backup and recovery processes by deploying a Lenovo TS4300 Tape Library. Using Veeam Backup & Replication software, the company leveraged the performance of the Lenovo solution to further increase backup and snapshot frequency, lowering business risk.

Furthermore, the company used this infrastructure expansion as an opportunity to move to Microsoft Windows Remote Desktop Services.

Stephan Scheurer elaborates: “We implemented remote desktops on Lenovo ThinkAgile MX with Microsoft Azure Stack HCI at just the right time. A few months after we completed the deployment, the coronavirus pandemic hit, and many employees had to work remotely. Virtualized desktops helped us to keep the business running throughout this period of disruption. Thanks to the powerful performance of the 2nd Gen Intel® Xeon® Scalable processors, our employees enjoy a smooth user experience whether they’re working in the office or at home.”

“The implementation went very smoothly thanks to the expert advice and configuration services from Kaiser Bürotechnik and Lenovo. With the extended three-node Lenovo ThinkAgile MX cluster, we gained flexibility for our business operations. Building on the Microsoft Hyper-V hypervisor, we can balance our load easily, and we also benefit from the great performance of the 2nd Gen Intel® Xeon® processors while keeping costs in check.”

Stephan Scheurer
Head of IT, Heinlein Plastik-Technik GmbH

3

Results

With the Lenovo ThinkAgile MX solution, Heinlein achieved higher business resiliency—cutting the risk of costly interruptions to its manufacturing lines. Improved reliability also reduces the threat of delays for pharmaceutical customers, who rely on the company's precision parts to ensure the reliable supply of medicines to people in need.

Heinlein has also reduced long-term IT costs with simplified maintenance processes for IT staff. Dominik Schmeisser says: "A huge benefit for us is the fully automated Microsoft Azure Stack HCI update feature, which allows us to apply patches to applications on the Lenovo cluster with no impact on production workloads. We no longer need to coordinate with various business departments to schedule maintenance windows, and we can complete all tasks during standard working hours. Weekend shifts are no longer required, which makes a big difference for the IT team."

Delivering 1.2 million input/output operations per second (IOPS), the Lenovo ThinkAgile MX cluster is 1.5 times faster than the previous infrastructure. The Lenovo and Intel technology cuts provisioning times for new instances by 50%[1], enabling Heinlein to respond more rapidly when new business requirements emerge.

Dominik Schmeisser adds: "The Lenovo laptops, desktops, and workstations enable all our employees, from office staff to designers, to work efficiently and effectively."

Thanks to its new HCI platform, the company is confident that it has the solid foundation to pursue its digitalization initiatives—including major transformation projects around IIoT and Industry 4.0.

heinlein PLASTIK-TECHNIK

- **Increases resiliency, minimizing business risk**
- **50% faster provisioning for new server instances**
- **40% faster performance for data warehouse and analytics workloads**

[1] Data provided by Heinlein Plastik-Technik GmbH.

“Working with great partners like Kaiser Bürotechnik and Lenovo helps us to keep our business on track. Together, we implemented a reliable and cost-efficient HCI solution that delivers outstanding performance, helping us to run our production lines 24/7. This ensures that we can always produce and deliver to the pharmaceutical industry, supporting public health around the world.”

Stephan Scheurer
Head of IT, Heinlein Plastik-Technik GmbH

What will you do with Lenovo software-defined infrastructure solutions?

Harness the value of Lenovo smarter infrastructure solutions, powered by Intel® Xeon® Scalable processors, and Lenovo laptops, desktops, and workstations.

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