

“The benefits we were promised the new Fujitsu infrastructure would bring have all been realized. The project completely fulfilled my expectations.”

Andreas Freund  
Head of IT  
Krallmann Group

The Krallmann Group increases the performance and reliability of its IT systems by distributing its capacities across three modern Fujitsu servers.

#### At a glance

Country: Germany  
Industry: Toolmaking/plastics processing  
Founded: 1969  
Website: [krallmann.de](http://krallmann.de)

#### Challenge

Some of the Krallmann Group's old hardware could no longer keep up with its requirements, and as it had only one data center, there was a higher risk of failure. This prompted the company to invest in a new storage and server infrastructure.

#### Solution

Distributing the load across three modern servers provides better performance and greater reliability. All the components in the storage attached network are also now connected with fast fiber switches.

#### Benefit

- The new infrastructure allows the company to move its virtual machines around more quickly and has accelerated its backup process
- The system can be restored more rapidly in the event of a failure as the new backup server has a large amount of internal storage



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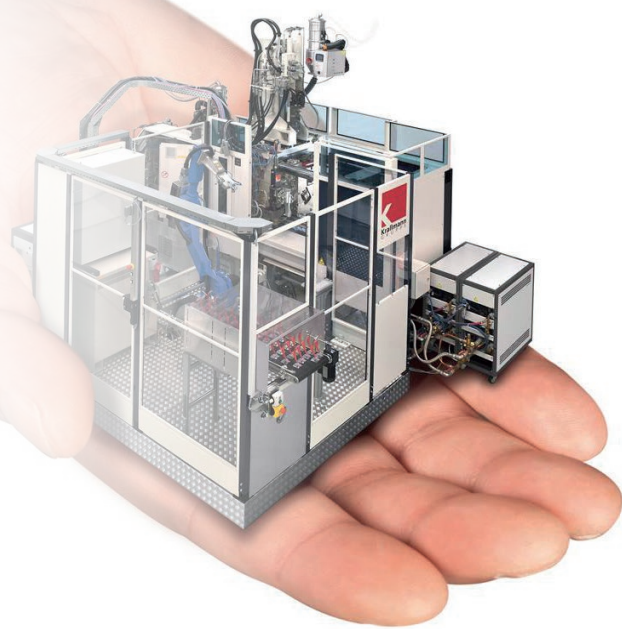


## Customer

The Krallmann Group is a leading provider of complete solutions in the fields of plastics processing, toolmaking and start-up processes – covering everything from product development to mass production. It offers its customers a range of high-quality services and products designed to make them more competitive. A high degree of professionalism and being able to meet deadlines at every stage of the project are critical factors when it comes to making a collaboration successful. Approximately 150 staff are employed at its site in Hiddenhausen, Germany.

## Products and Services

- FUJITSU Storage ETERNUS DX200
- 3 x FUJITSU Server PRIMERGY RX2560 as ESX servers
- 1 x FUJITSU Server PRIMERGY RX2560 as a backup server
- 2 x Brocade 6505 fiber switches
- 2 x 3kVA UPS
- 2 x 5kVA UPS



## Challenge

The Krallmann Group's existing system had eight terabytes of storage, of which 6.5 terabytes were occupied at the time of the migration. This was sufficient to keep the business running smoothly, but the IT department always came under pressure when creating backups, as Head of IT Andreas Freund explains: "We had to juggle things around to make sure the storage was distributed correctly." In the end, two key factors prompted him to invest in a completely new storage and server infrastructure. Firstly, some of the old hardware was no longer covered by maintenance support, and secondly, the system did not have a distributed infrastructure. This meant that if there were a failure at one site, the entire infrastructure could go down.

## Solution

"The optimum solution would have been two redundant data centers. However, our infrastructure isn't so critical that we have to make sure it is up 100 percent of the time. In our case, it is enough for us to have a third server capable of taking over the load of all the machines if there is a failure at one of the data centers," explains Andreas Freund when asked about his approach to designing the new IT landscape. If a server needs to be taken out of the network for maintenance, or is down due to a defect, the two remaining servers bear the load.

Where the company once had two servers at one site, there are now three main servers and a backup server split across two locations, which are separated by a road. When developing the concept, Freund drew on the expertise of Erkrath-based Heilein Computer Service. "It took a lot of work. Heilein developed the project with Fujitsu, I then decided which concept we would implement." Heilein Computer is a Fujitsu SELECT Partner that specializes in PRIMERGY and ETERNUS solutions. Freund advises other medium-sized enterprises planning to migrate to new storage solutions to seek advice from an experienced service provider. The decisive factors that led Freund to choose Fujitsu were its concept for the structure of the two data centers and the technology it suggested to use within them. "Fujitsu impressed me with its complete package of servers, storage and support," he explains. Another critical element was the high level of reliability provided by distributing the load across three modern and robust servers.

The system currently runs 23 virtual servers and more than 120 clients. The company also needs to back up data from a very diversified software infrastructure. This is due to the different fields it works in, which it covers with sector-specific ERP systems.

## Benefit

The new IT infrastructure has reduced the amount of administration the IT team has to do, primarily because the virtual machines no longer have to be moved around to create enough space for the backup processes to run. The storage buffer is also considerably larger. To take full advantage of the benefits of the new infrastructure, which now includes a transparent failover if the system goes down, Andreas Freund has started using different technology for the company's backups. Previously, he used two backup programs. One worked via VMware for the system partitions, which were backed up to NAS. Another program was used to backup data to tapes. Now, the backups are created using Veeam software on a dedicated, high-capacity backup server. And it is not only the company's storage space that has been increased. It has also prepared for a new, powerful LAN structure by installing 10GB network cards on all of its servers. The SAN infrastructure now runs redundantly using 16GB Brocade FC switches.

As well as simpler administration processes, the new system has also brought with it significant time savings when it comes to creating backups. A full backup now takes a maximum of one and a half hours, where before it would take half a day. This has had the added benefit of enabling the company to run its backups more frequently, so if it does have to restore, the data is now more recent. "Previously, we only had one daily backup. Now, we back up some parts of the servers incrementally throughout the day. This means that we only lose a very small amount of data if there is a failure," says Freund, happily. He is very satisfied with the results of the project, adding that it went much more smoothly than he had imagined. "The benefits we were promised the new Fujitsu infrastructure would bring have all been realized. The project completely fulfilled my expectations." Once the hardware and technicians arrived on site, the operative phase went very quickly.

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