

DC MAG

MAGAZINE OF THE DC-DATACENTER-GROUP

Does
your heart
beat
IT?



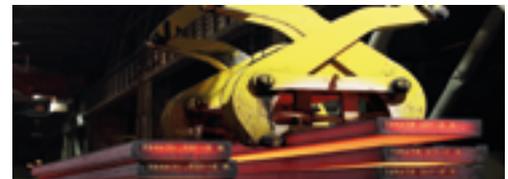
Data Center Operation at EDEKA

Convinced by RZservices
professional site management



“Digital Transformation in Hospitals“

Interview with co-publisher
Dr. Christian Stoffers



Great Team Effort

HKM on the safe side with outdoor
data center

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SHAPING THE FUTURE TOGETHER!

The data center market is always in motion, the digital transformation always presents new requirements and the location Germany faces new challenges and groundbreaking decisions in all disciplines.

We face those tasks together with the experts of our associate MVV AG.

Our customers' focus is on topics like security, sustainability and efficiency. Hence, we work on highly modern and efficient solutions with our customers and partners to answer all their questions.

The central issue is usually optimizing IT-infrastructures. We set new standards with our high-end products and make sure that our customers' requirements are always the focus of our work.

Facing challenges together

Currently, topics like 5G, edge and e-mobility define the market conditions. We think about the future and always keep an eye on change.

Our projects are multifaceted and reflect our diversified know-how in the areas of consulting, planning, constructing and operating of data centers. Highly modern and highly efficient IT-infrastructures are our passion true to the motto: Keep the approved and create something new!

Our customers' references are an example for how the tried and trusted and something new can meld. Among others, we give insight into the projects EDEKA (Würzburg), Arburg (Loßburg), and epay (Martinsried).

Moreover, we cover our business branch RZservices because our comprehensive consulting services regarding the service and operation of data centers are an important pillar of our work. Now and in the future.

As we promised in the last edition, we also talk about the progress of our project Leitwerk in Appenweier.

Giving direction to the future

In times of growing digitalization on the data center market, topics like energy, artificial intelligence and **machine learning** are important factors. The main topic **Digital Health** or **Health IT** is getting more and more relevant because of its high innovation potential and it also has a big influence on the entire data center industry domestically and abroad.

Hence, this topic is dealt with in more detail in this edition and the new book by Dr. Christian Stoffers "Digitale Transformation im Krankenhaus" (Digital transformation in hospitals) is presented. Dr. Christian Stoffers is coeditor of the book and marketer at the St. Marien hospital in Siegen. His book gives interesting insight into this topic. In an interview, Prof. Dr. Vincent Heuveline (University of Heidelberg) points out new requirements and possibilities of Health-IT because you can only act successfully on the market if you know what the future brings. We put our focus on the approved, will keep on improving and deliberately approach new markets.



With everything we do, we appreciate our team spirit, cooperation and the DCG-community.

We will face the challenges of the market together as a team and try to find the best possible solutions for our customers.

Best regards

Ralf Siefen
(Shareholder and Managing Director)



” The concerns, worries and needs of our patients should always be the focus of the digitalization process. “

Vincent Heveline
CIO, University of Heidelberg

Photo: © James Thew / stock.adobe.com

“DIGITALIZATION CAN SAVE LIVES”



■ In conversation with Prof. Dr. Vincent Heuveline, CIO of the University of Heidelberg, we learned about the digitalization process, the status quo, the future of medicine as well as the chances and challenges that come with it.

The digitalization of data (processing and compaction) is also steadily increasing in the health-care sector. What is your opinion about the status quo? How is Germany currently positioned? Where are we standing in an international comparison?

V. Heuveline: Medicine in Germany is facing big challenges. When it comes to doctors and the staff, I think that the understanding and awareness of digitalization are already sharpened. However, there are still a lot of insecurities on the patients' side in my opinion because the subject matter is very complex. It is important to regard digital transformation as a comprehensive and transdisciplinary process that needs communication and an exchange of views in the interest of a proper digitalization.

This process bears big challenges for infrastructures, organization and research. However, digitalization also offers the great chance to treat patients better, more individually and more specifically in the future. Here, security of data must take top priority. Yet, incredible added value can be created through the confident handling of data and its use for pattern detection. A comprehensive enlightening about the digitalization process is inevitable because digitalization can save lives. And the constantly growing amounts of data require the basis of a functioning IT-infrastructure.

The digital hospital. Is that a vision or already reality? Where are blank spaces and where do you see the highest optimizing potential?

V. Heuveline: The digital hospital is not reality yet. A lot still needs to be done. However, the processes are always getting better once the needs of the patients are addressed. The patient should be taken along to be part of the process. The introduction of new technologies and new systems can be frightening because something new can be disconcerting and lead to reservation.

The point of data protection is incredibly important in this regard. Most of all, the purpose is to find a well-balanced way. Doctors and patients must be involved in the process. The chances digitalization offers on all levels could be used ideally by improved information politics. The fear of something unknown and the resulting reservations must be faced with the already mentioned “proper digitalization”.

Nevertheless, a lot is already reality and lots of possibilities are in the realization phase. The goal of these developments is a new “personalized medicine” that minimizes side effects for the patients and hence, leads to a significantly higher quality of life. The new developments require a functioning infrastructure that is flexible and adjusted to the moving processes.



Prof. Dr. Vincent Heuveline, CIO of the University of Heidelberg



Which are specific challenges in the IT-area regarding a functioning structure? Which new challenges does that pose to future data center solutions (highest amounts of data, etc.)?

V. Heuveline: First of all, the challenges are infrastructural. On the one hand, there has to be a functioning and failure-resistant IT-infrastructure in operations that guarantees a smooth process.

On the other hand, there is interdisciplinarity. In this area is still a lot of potential for optimizing. Data of different sections should be exchanged in the best case and data aggregation could contribute to the progress.

If the different disciplines cooperate, the patient could be treated ideally. Thanks to the presence of data from different disciplines, a treatment can be guaranteed that is perfectly adjusted to the patient's needs. The process requires a constant exchange of the several levels. A proactive approach leads to mutual trust and new competences emerge.

Of course, it is inevitable to create commitment. This commitment is an important key element. IT-security is the basis of a functioning system. The complexity associated with it requires a comprehensive understanding to discover potentials and use them ideally.

Furthermore, another important key word in this context is capacity. An example: Every 18 months the worldwide computing power doubles. This incredibly fast development should be used sensibly. That is where functioning IT comes into play which ensures security and sustainability.



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„Medicine
of the future should
not do without humans“

Vincent Heuveline

What is the good of the medicine of the future (regarding operations, the exact adjustment of medication for patients, ...)?

V. Heuveline: The concerns, worries and needs of our patients should always be in the focus of the digitalization process. Digitalization in medicine enables a much better analysis of data and its transformation. This “proper digitalization” aims at creating a real added value for all involved parties because suitable treatment strategies can be deduced from collected and shared experience.

Creating planning certainty despite the dynamics of the market is another challenge because digital medicine allows for a significantly better and targeted analysis. This leads to a linkage: Collected data leads to knowledge, from which a targeted treatment can be deduced, which will enable a suitable treatment and reduce side effects.

In my opinion, machines will not replace humans in this process because mental factors play an important role and the face to face contact should not and cannot be replaced by the quickly increasing digitalization.

This is a crucial aspect: The support of the patients and the accompanying welfare should not be replaced by the digitalization process. The medicine of the future should not do without humans. It should leave the people more room for their own accomplishments and enable the staff a better time management. The wellbeing of humans is our focus. It is about creating added value for all.

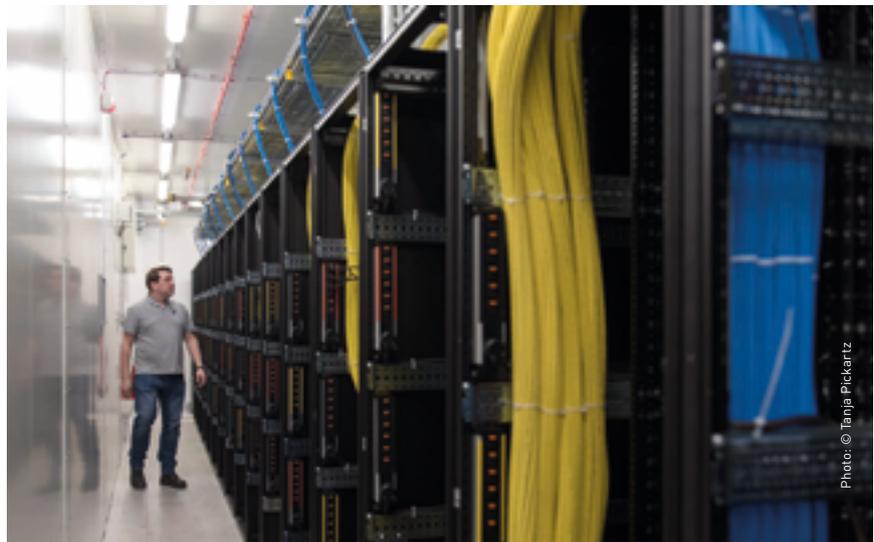


STAHL.
DAS SIND WIR. 

ON THE SAFE SIDE WITH OUTDOOR DATA CENTER

Trustful and competent cooperation
at eye level

■ “Stahl. Da sind wir.“ Hüttenwerke Krupp Mannesmann (HKM) as an integrated ironworks stands for many years of experience and a comprehensive know-how. It is a modern steel company with technically and economically optimized production stages, working conditions, and environmental protection measures.



Patrick Komfort examining the rack wiring.

“Nowadays, the IT is more important for our company than ever. Even where there is seemingly no work done on computers, IT-systems control the respective processes from the background. The dependence on IT-availability is accordingly high”, stresses Patrick Komfort, project manager at HKM. Data centers 1 and 2, which are redundant, were mostly responsible for this availability as Komfort says. However, if both failed, there would be a standstill. For several days in the worst case.

Such a worst-case scenario could not be ruled out because both data centers are only ten meters apart. Events like a large fire in the maintenance or a crack in the clarifying basin on the other side of the street would have affected both data centers equally and brought the mill to a standstill. Hence, during the last months, the new data center X, which is closing this gap, was built and started operating on April 1st, 2019. HKM was looking for a reliable and competent partner for the construction of this data center and found the DataCenterGroup.

Ambitious schedule

Even though the external view was important, Patrick Komfort did not solely rely on it. Instead, he chose a competent team and with the DataCenterGroup a reliable partner. Under careful consideration of all aspects, it was decided that the construction of a new data center was the most sensible solution because this way, costs would be reduced to a minimum in the midterm and risks permanently. “We settled to finish the new building until the end of 2018 and start operating April 1st, 2019”, says Patrick Komfort.



Photo: © Hüttenwerke Krupp Mannesmann GmbH

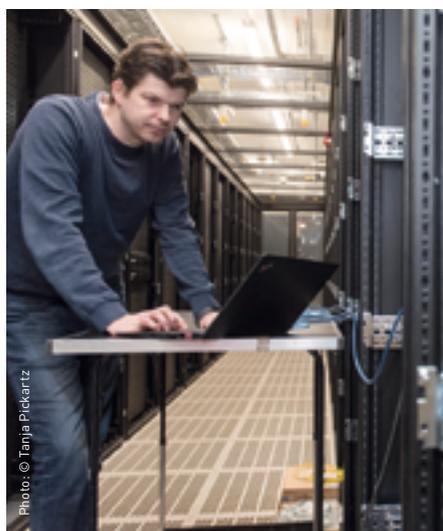


Photo: © Tanja Pickartz



Photo: © Uwe Müller

Patrick Komfort and Markus Böhmer (2.f.l.), project manager of DataCenterGroup with technical planners of ibmu.de, Ronald Hille, Falko Müller and Uwe Müller (f.r.)

“Non-specialist” project manager

However, it was not as easily done as it seems. Unfortunately, in the IT-area (CI), the budget for a disaster recovery site was approved as an alternative center initially. It was supposed to take over the basic functions of the IT in the worst case.

In fall 2017, Patrick Komfort became the new project manager. He had been at CI from 2004 until 2010 and has been working in controlling since 2010 for the area project management and basic issues.

Hence, as a trained IT-specialist, business graduate and MBA, he is familiar with both worlds, the IT as well as controlling. He was an insider and was also able to look at things from the outside. Moreover, he was there when data center 2 was built in 2007 and knew: “Even back then, the close distance to data center 1 was not the ideal location, but it could not be realized on the mill in any other way.”

An ambitious goal. After all, the preparation of the specifications and the tendering of the several crafts as well as the regulatory building permission were still pending. The final permission for the new building by the supervisory committee was only given at the end of the second quarterly period in 2018. Eventually, everything intertwined perfectly and even the building authority played along, as if it was part of the team.

And since the DataCenterGroup, that was taken aboard in the middle of July 2018 as a general contractor, also signaled to finish in time, the starting signal for data center X was given October 8th, 2018. The DataCenterGroup had already constructed data center 2 and stayed in contact with HKM through the years so that HKM already knew they had a reliable and competent partner.

Absolutely fit for the future

The new data center stands exemplarily for the compatibility of established mill standards and modern industrial standards. Hence, the new building was built after the international data center standard DIN EN 50600 from 2016, is therefore absolutely fit for the future and reaches class three of four in the availability scale. "There are just two structural extensions missing to reach the highest class on the scale", explains Patrick Komfort. However, there is already room for installing them later.

The new building shows huge differences compared to the outdated precursor, data center 1, that was renovated in 1999. Both technically and in terms of security and energy efficiency. Thus, there is not a single 1-error-event that could lead to a breakdown in the computer room.

Among others, this is because the new data center includes most things twice, e. g. the cooling technology, and because the data center is connected to the two network groups Mühlheim and Krefeld. Both would have to break down for the emergency power to turn on. And even that could keep the operation going for 48 hours.

Great team effort

Generally, data center X is well prepared for several scenarios with its broad output reserve. The high bandwidth is necessary regarding sustainability, just like everything in this new building is state-of-the-art. The 38 km long optical fibers, being installed throughout the entire mill, contribute to an interruption-free linkage of all HKM-areas to the new data center. That is also why most people did not notice much of the relocation from data center 1 into data center X. "It was almost completely noiseless", says Patrick Komfort.

The team reached their goal of building the best data center for HKM. Not least because of the fair and trustful cooperation with the DataCenterGroup and because the entire team, intern and extern, did so much more than what was expected and they really outdid themselves. All just to ensure that HKM will be on the safe side regarding IT-availability in the future.

STAHL.
DAS SIND WIR. 



Facts:

SALES:
Ralf Siefen

PROJECT MANAGEMENT:
Markus Böhmer

- DATA CENTER:
- IT-outdoor-container solution incl. crafts, 160 m²
 - Performance in computer room 150 kW
 - Propane-reciprocator chiller
 - ESPS
 - Gaseous extinguishing system

DURATION OF CONSTRUCTION:
October 2018 until March 2019

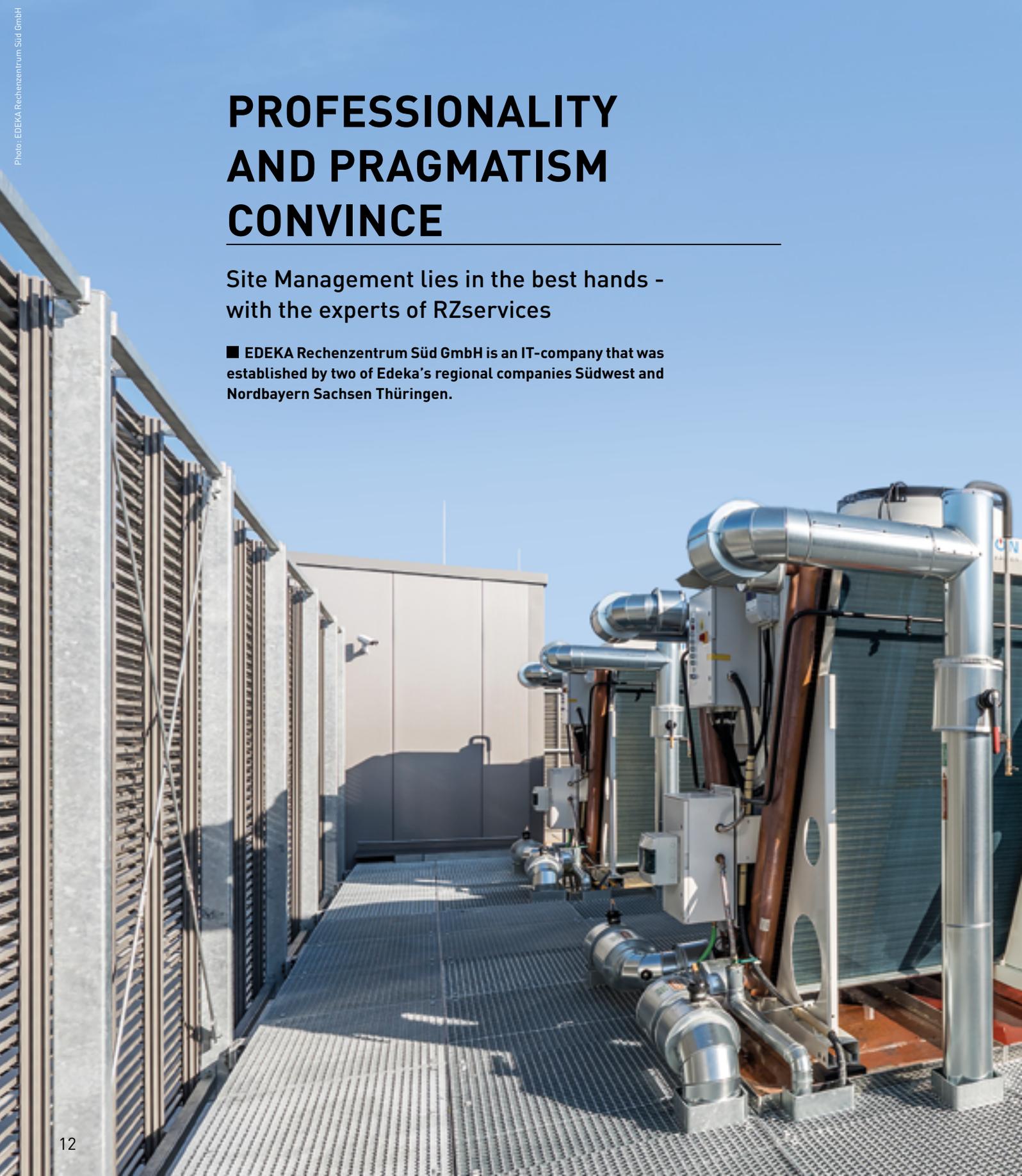




PROFESSIONALITY AND PRAGMATISM CONVINCE

Site Management lies in the best hands -
with the experts of RZservices

■ EDEKA Rechenzentrum Süd GmbH is an IT-company that was established by two of Edeka's regional companies Südwest and Nordbayern Sachsen Thüringen.



Four years ago, EDEKA Rechenzentrum Süd GmbH started looking for a partner at eye level for the construction of new data centers and found it in the data center expert in Wallmenroth. As a general contractor, proRZ planned and realized mirror-image data centers for two regional companies of EDEKA.

However, after the construction is before the operation, which was supposed to lie in the hands of experienced experts in DC-service. Hence, the team around Andreas Schmich (manager DC-operation, EDEKA Nordbayern-Sachsen-Thüringen Verwaltungsgesellschaft mbH) and Stefan Gernert (area manager IT-technology, EDEKA Nordbayern-Sachsen-Thüringen Verwaltungsgesellschaft mbH) already started looking for a partner for maintaining the data center towards the end of construction.

“The building phase was very professional and targeted,” says the manager. After construction, the team around Andreas Schmich and Stefan Gernert wondered: How will it go on? The requirements were clearly defined: To ensure availability, efficiency and security, the operation of the new data center should be in the hands of experts. This also includes the continuation of operation and support with service and maintenance.

There were four points in the center of consideration: energy efficiency, service and maintenance, solutions for operation, operation and emergency manuals as well as several questions regarding DC-security. The most important component was the constant and performance-based exchange regarding optimized DC-operation and support by the data center experts from Wallmenroth.



**„ We knew the DCG-team.
And they knew our IT-infrastructure
in return. Hence, it made sense to speak
to the experts for maintenance and
operation of data centers,
the RZservices. “**

Andreas Schmich
Manager DC-operation, EDEKA

NATIONAL REFERENCES

"The services of the DataCenterGroup regarding the construction of data centers were already honest, harmonic and target-oriented during the construction phase," describes Schmich. And the rest of the cooperation with RZservices also proceeded this way.

The focus of process management has always been on energy management because sustainability, efficiency and security are important topics for the work of a site manager. This way, the energy consumption was reduced thanks to the new data center concept and EDEKA showed how important it is to think about the future. With this new data center, EDEKA is fit for it.

These days, two employees of RZservices are on site for two days a week to support the team around Andreas Schmich. The site managers are competent contact persons and are available for all questions regarding the operation of data centers. Next to a regular examination of infrastructures, like cooling-systems, UPS, fire detection and extinguishing system or ESPS, the site manager also coordinates maintenance work. Hence, it can be intervened for seasonal events or load peaks to make sure that the ecological and economical goals defined by EDEKA can be kept.



„ We are looking forward to a good cooperation, especially because of the individual process management that is well adjusted to our customer's needs. It is our duty to ensure the data center's physical availability and efficiency. “

Andree Jud

Team lead service – computer service centers,
DataCenterGroup



Photo: DCG

Helmut Schunk (RZservices) at work.



“For us, the project is an incredible jump ahead because apart from an improved time management, the energy consumption has also decreased noticeably”, stresses the area manager.

They draw a positive conclusion: “It is a very target-oriented and fair exchange at eye level. We are fit for the future with our new data centers and site management lies in the best hands with the experts of RZservices. The connection of pragmatism and professionalism really impressed us during the entire process”, say Schmich and Gernert.



Tasks of the site management

- Control and documentation of infrastructure-components
- Operation of industrial manufacturing equipment
- Examination of equipment regarding defects and damages
- Examination of physical and operational security
- Inventory and configuration management
- Maintenance
- DC-MonIToring for analyses, surveillance and identification of savings potential
- Support with performance and redundancy tests for examining the integral system
- Contact person for the customer regarding all questions about data centers

“I WAS AMAZED BY THE PROJECT MANAGEMENT”

Fit for the future thanks to DC-ITSafe

■ For half a century, the Albrecht Bäumer GmbH & Co. KG has been pioneering in special machines for the processing of polyurethane foam. Today, Bäumer stands for advanced products with traditionally high quality. The entrepreneurial thinking and leading is guided by traditional values like sovereignty, stability, innovation and consistency, which makes the vision become reality. In 2018, Bäumer acquired a DC-ITSafe by RZproducts for the IT.

“Technically, the need has been there for quite a while, but it just had not been realized yet”, explains IT-manager Michael Stöhr. Towards the end of the nineties, the current data center had been a paper storeroom with two servers. Later, it became an exclusive data center with many servers. However, out of historical and structural reasons, it had several holes and some heating pipes that naturally posed danger. Consequently, the IT-team started thinking about a solution to face this danger and the DC-ITSafe seemed to be a good option.

Next to the DC-ITSafe, there was also the option to relocate the data center into a different area or adjust the existing room to minimal standards. Both would have involved great effort and cost because heating pipes cannot just be relocated. Hence, the use of IT-safes became more and more likely.

Stöhr: “The contact to the DataCenterGroup came about through classical letter mailing. Back then, I was surprised by the proximity to our location in Freudenberg. In our first conversation, we talked about the facts and parameters to get a feeling for the necessary investment volume. The cost-benefit ratio within reason so I followed that path with my team.”

After several options were coordinated internally, there was a long and extensive consultation. Problems and goals were discussed to submit an offer that was individually adjusted to the company’s needs.

“ We are perfectly set for the future. ”

Michael Stöhr
IT-manager, Bäumer



To judge the requirements a little bit better, the DataCenterGroup was visited in their headquarters in Wallmenroth and an insight was given into the production of the IT-security-safes. This way, any open questions were dealt with and the glimpse into the inside of a safe was interesting and convincing. It was decided on a DC-ITSafe with UPS, cooling, fire extinguishing system and monitoring.

Stöhr: "We as IT-people have a good feeling about the physical security. Thanks to the certification of the security safe, the latest audits regarding ISO 9001-2015 and others bore a lot less trouble than in the past. And I am sure that the impressive and trustworthy appearance of the DC-ITSafe also contributes to this."

The goals regarding physical security were reached and the decisions were just right for the company. This way, the company would be well set for the future, as the IT-manager stresses.

Stöhr: "The problem of non-physical risks through the more and more sophisticated attacks via bits and bytes on the internet and possibly also the internal ones can unfortunately not be solved by the IT-safe. At this point, what can help minimizing risks, are technical means and trainings, sensitizing of employees and processes that help keeping the risks to a minimum. This will stay a long-term task."



Michael Stöhr

According to Michael Stöhr, another big advantage was the upkeep of the former room so that none of the existing glass fiber and network cables had to be relocated. The rest of the room is now used as storage for spare machines. Since a control room for the fire detection system was also installed last year, there are always engineers and other people around the data center area. "However, this does not bother us anymore now because there is no potential access to the hardware."

Planning and assignment happened in spring 2018. The setup of the IT-safe began in August. "I am truly amazed by the project management. The requirements regarding delivery and floor space were communicated in advance. Luckily, the unloading and in-house transport via forklifts were not a problem for us as machine builders. The DataCenterGroup kept the appointments and both setup and start-up happened in mid-August as planned. At the start of September, we converted the servers on one weekend and activated the IT-safes entirely. After a few small trivialities in the first weeks, which were readjusted quickly, everything is running smoothly now", summarizes a content Michael Stöhr.



Facts

SALES:
Florian Hammer

PROJECT MANAGEMENT:
Frank Knoll

- DATA CENTER:
- DC-ITSafe 56 HU
 - Redundant rack inverter cooling system 2 x 1,6 - 4,5 kW
 - 19"-UPS with degassing function
 - DC-MonIToring, Type Detection



“WE WERE CONVINCED RIGHT AWAY”

Four DC-ITSafes protect the IT
of injection molding machine manufacturer Arburg

■ The German machine builder Arburg belongs to the leading machine builders for plastics processing worldwide. The company produces solely in Löffburg, Northern Black Forest, but it has locations all over the world. Among others, the product portfolio includes hydraulic, hybrid and electric injection molding machines and a system for additive manufacturing. Arburg is a pioneer in production efficiency, industry 4.0 and digitalization in the international plastics branch. Security, efficiency and sustainability also take top priority for the company.

Hence, Arburg was looking for an innovative and future-oriented solution for its new data center. The decision makers wanted to find a partner that understands company culture and values to offer an individual solution. “We wanted all services to be from a single source to bring our data center up to date so we asked ourselves the question: Where are we and where do we want to be? This is a process which characterizes our entire company culture because we keep on evolving. And that is what we expect of our partners”, says Florian Schmitz, area manager building technology.

Photos: ARBURG

“We went deeply into the subject matter and diligently got information on the market,” adds Frank Himmelsbach, team leader communication and media. “During our research, we found the DataCenterGroup that quickly convinced us with the holistic concept its experts works with.”

It all began with a risk analysis by SECURisk, the consulting section of the DataCenterGroup. This analysis, conducted by a security expert, revealed optimizing potential in the IT-area. Afterwards, measures were presented to improve both security and energy efficiency of Arburg’s IT-infrastructure. Another argument for the use of a DC-ITSafe was that the reconstruction of existing data centers could happen quickly and without a lot of construction measures.

“The implementation of the project happened without any interruptions,” says Himmelsbach about the process. “We got the best and at the same time a very individual solution for

our company with the DC-ITSafe,” he adds. “We were impressed by the quality of this miniature data center straight away. The new data center solution convinces with its quality made in Germany and offers the best possible protection for our IT.”

“The cooperation with the DataCenterGroup was also very pleasant. It was an open, honest and target-oriented communication and the new data center is pointing the way ahead for our company,” summarizes Schmitz.

The solution which Arburg chose consists of four linked DC-ITSafes by RZ-Products GmbH. They offer the best protection in the smallest space and can always grow with the requirements of the Arburg-IT due to their modularity. An automatic fire detection and extinguishing system provides even more protection. The redundant cooling concept ensures constant ideal temperatures for the hardware inside the safe. If, however, the defined limit values for temperature or relative humidity were exceeded, the DC-MonIToring agent DCM Agent would immediately send a fault report to the person in charge.



Facts

SALES:
Marco Müller
Stephan Sequens

PROJECT MANAGEMENT:
Frank Knoll

- DATA CENTER:**
- DC-ITSafe 62 HU, linkage of four DC-ITSafes
 - Redundant rack inverter cooling system ITS-DX-R, 4,9 -11,6 kW
 - Automatic fire detection and extinguishing system
 - DC-MonIToring DCM Agent and DCM Extension

“ We were convinced by the holistic concept that is worked with. ”

Frank Himmelsbach
Team leader communication and media
ARBURG



Florian Schmitz (head of department building services engineering) and Frank Himmelsbach.

FAIR COOPERATION WITH A PERSPECTIVE

Flughafen Berlin Brandenburg GmbH benefits from long-term experience of DC-specialists



■ Flughafen Berlin Brandenburg GmbH (FBB) operates the airport in Schönefeld and through its subsidiary BFG also the airport in Tegel. In the year 2018, about 34.7 million passengers had been transported at the airport in Berlin. That makes Berlin the third largest airport location in Germany. Currently, the new airport in Berlin-Brandenburg “Willy Brandt” is coming into being at the location in Schönefeld to ensure capacities for the future. This way, the entire air transport of the German capital region is supposed to be concentrated in the southeast of Berlin.

Andreas Heinze has been working at FBB as an IT system planner since April 2006. In this function, he supervises the data centers of FBB and is the contact person for all technical and organizational questions regarding data centers.

The fair cooperation between the DataCenter Group and the operating company of the airports in Berlin (FBB) has existed for several years due to some projects for FBB that had been successfully completed by the experts of the DataCenterGroup, as the system planner reports.

Thanks to RZservices, a business branch within the DataCenterGroup that specializes in maintenance and operation, FBB is competently supported.

To detect possible risks, the standard compliance examination was agreed upon in 2017 for the data centers DC-North and DC-South at the airport BER by SECURisk according to DIN EN 50600.

The DataCenterGroup developed examination catalogues based on long-term experience that includes more than 744 examination criteria to detect every possible risk, record it and prioritize it. Generally, a good condition of the equipment was attested.

Heinze draws a positive conclusion: "I am happy about the competent support by the DataCenterGroup and I am looking forward to our further cooperation. Communication and coordination worked very well."

Fabian Buda, consultant at SECURisk, is also happy about the good cooperation with the team around Andreas Heinze. The result of the examination serves as a guideline for FBB for the next years to keep on improving the already well-functioning IT.

He says: "We are very proud to have been aboard this project and are looking forward to further exchange."



Facts

PROJECT MANAGEMENT:
Fabian Buda

DC-CONSULTING MANDATE:
Standard compliance examination according to DIN EN 50600

PROJECT DURATION:
January 2018 until January 2019

„ I am happy about the competent support by the DataCenterGroup and I am looking forward to our further cooperation. “

Andreas Heinze
IT-system-planner, FBB



Photo: © sdecoret / stock.adobe.com



“THE FEELING WITH THE DATA CENTER GROUP WAS RIGHT FROM THE START.”

New data center for epay: Data center specialists prove highest professionalism despite time pressure

■ **epay is a leading full-service provider for prepaid and voucher solutions as well as payment processing in Europe. According to its figures, epay processed 1.15 billion transactions in 2018 and has now a network of 719,000 point-of-sales in 45 countries, connecting the largest brands with consumers around the world.**

epay has a comprehensive portfolio of gift cards, business incentives and payment solutions for the omnichannel trade and is currently one of the TOP 100 most innovative German medium-sized companies. epay is part of Euronet Worldwide, Inc., a Kansas-based company with 6,600 employees serving customers in around 165 countries. “We are a forward-thinking company and are constantly growing. That’s why we attach great importance to a functioning IT infrastructure”, reports Sebastian Ochsenkühn (director of infrastructure and production). In the course of an impending building renovation and the associated necessary relocation of the old data center, it was decided to build a new, more modern data center at

the Martinsried site. However, a sustainable and functioning IT infrastructure is indispensable for the company, which is a DK-licensed electronic cash network operator with its own PCI-certified data centers and self-programmed host software as well as a BaFin-certified payment institution. Sustainability and efficiency as the basis for planning were therefore top priorities for epay.

The contact with the DataCenterGroup had already been established a few years earlier. “The feeling with DCG was right from the start. And in addition to the planning perfectly tailored to our needs, we were also convinced by the price. We had great confidence in the DCG experts right from the start and were not disappointed.” The detailed planning convinced the customer and led to the order. A glance at the construction schedule gives an insight into the tight timeframe within which action had to be taken. Only three months (May to August) passed from coordination to completion and handover to the customer.

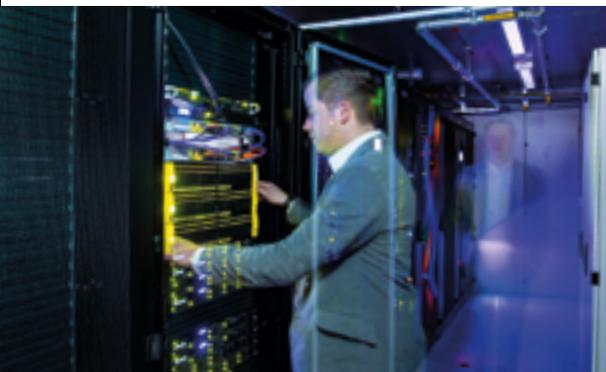
A particular challenge in the project was the extremely tight timeframe in which consulting, planning and construction had to be carried out. The move out of the former computer center building was fixed and the move had to be carried out during ongoing operations.

The DataCenterGroup team mastered this to the complete satisfaction of the customer, as IT manager Ochsenkühn reports. "The tight deadlines set the course right from the start and adjustments had to be made again and again during the course of the project, but everything went smoothly. The cooperation with the experts of the DataCenterGroup was very professional and impressed us", he emphasizes.

The ECB-S tested room-in-room system DC-ITRoom GranlTe with 9 racks (43 HU) forms the basis of the new data center solution and ensures extensive security. The modular IT security room system with the highest available level of physical protection consisting of modular wall, ceiling and floor elements contains an early fire detection system for complete room monitoring by means of a highly sensitive laser smoke aspiration system. A NOVEC 1230 fire extinguishing system with fire alarm system completes the concept. A warm aisle enclosure ensures the most effective and temperature-homogeneous warm air removal from the rack systems.

A separate technical room adjoins the server room. To protect this sensitive area as well, the modular security panels of the DC-ITRoom QuartzITe were used. In addition to the cooling system, it also houses the fire alarm extinguishing system and a UPS system (2 x 40 kVA) as well as an emergency power supply system. The DCM Extension, the "multi-collector" in the monitoring portfolio of RZproducts, as an integrated monitoring solution with redundant transmission units via Ethernet and GPRS, ensures continuous monitoring of fault and status messages. A comprehensive video surveillance system provides additional security.

"The new data center with a power capacity of 30KW was realized exactly according to our ideas and contains special racks with double authentication, which is indispensable for our visa certification in particular. Everyone involved pulled together and worked together competently. With our new data center, we are ready for the future and can look forward calmly to the advancing digitalisation and the growing volume of digital payment transactions", Ochsenkühn sums up.



Sebastian Ochsenkühn is extremely satisfied with the new data center solution.



A NOVEC 1230 fire extinguishing system with fire alarm system completes the comprehensive safety concept.



epay, located in Martinsried, is a leading full service provider for prepaid and voucher solutions as well as payment processing in Europe.



Facts

SALES:
Gabriele Hetzner
Stephan Sequens

PROJECT MANAGEMENT:
Dennis Spies

- DATA CENTER:**
- Room-in-room System DC-ITRoom, GranlTe, 38,5 m²
 - Room-in-room-system DC-IT-Room, QuartzITe, (F90-Protection), 14,8 m²
 - Monitoring-Solution DCM Agent / DCM Extension

DURATION OF CONSTRUCTION:
May until August 2018

COOPERATION WITH PERSPECTIVE

Construction works are running at full speed

■ The construction work for the first of two planned data centers for LEITWERK Rechenzentren Appenweier GmbH is running at full speed.

Previously, there was already a trustful and successful cooperation with the DataCenterGroup. This cooperation is now being continued with the current project, as the two managers of LEITWERK Rechenzentren Appenweier GmbH, Jürgen Thoma and Ralf Schaufler report. The first location is supposed to be finished towards the

end of 2019. “The construction work is going well and we are perfectly in time,” says Dennis Spies (Project manager DataCenterGroup).

Both are regularly at the construction site to keep track of the progress. Jürgen Thoma and Ralf Schaufler are happy about the construction process and are looking forward to finishing the new data center, which will set new standards for energy efficiency, sustainability and security.





SEVEN QUESTIONS FOR...

Jochen Domesle,
Department manager technology & infrastructure,
ORDAT

In the current edition of our DC MAG we will start with the new series "Seven questions for...". From now on, IT-managers and experts will talk about everything regarding data centers and they will give insight into their work.

Which three words spontaneously come into your mind when you hear „data center“?

- Security, availability and cloud

What is a typical workday for an IT-manager?

- There is no typical workday. Next to e-mails and meetings, there are always new challenges to face.

Why did you choose the profession IT-manager?

- Sometimes I am asking myself the same thing ...
Joke apart, I want to find out of which use IT can be for people and companies.
IT is not a self-purpose.

What do you think the future of IT looks like? Which technology will prevail and what will not be there for much longer?

- The "as-a-service" trend will continue. What began in the software sector will continue with hardware.

What is an especially good day in IT?

- A day without "impacts".

What would be a worst-case scenario and how would you face it?

- Absolute breakdown of the IT and a broken coffee machine at the same time.
Tackle the problem and reactivate. Chin up when the water is up to your neck.

What is your headline for 2019?

- Support IT-future through the "eyes of the user" – AI, digitalization, blockchain, ...



„ Constant transfer of knowledge and mutual input are crucial for being successful in the market. “



“WE CANNOT TELL THE SAME STORY FOR HUNDREDS OF YEARS”

■ In an interview, Dr. Dieter Thiel, senior consultant of the business area SECURisk, talks about his tasks, visions and future trends on the market.

Dr. Thiel, you are a senior consultant at the DataCenterGroup. What exactly is your work area, where is your focus and what does your portfolio include?

D. Thiel: My focus is especially on topics like energy efficiency and sustainability and how to achieve that without losing sight of profitability. On the one hand, it is about implementing these demands in the projects, but on the other hand, it is about integrating them into external working groups, our initial workshops and university cooperation.

The energy consumption of data centers in Germany lies at around 2 percent of the overall energy consumption. And counting. Data centers are very energy-intensive working areas. When comparing the energy consumption of a data center with that of an “ordinary” administration building, the data center uses up to 400 times as

much energy. However, that does not mean that the infrastructure for operating a data center costs 400 times as much. Every cent the customer invests into energy-saving measures can be refinanced after three to six years through the lower energy consumption cost.

How is your area of deployment defined? What do work processes look like? What is the top priority of your work for the DataCenterGroup?

D. Thiel: The team of SECURisk is active in the entire federal territory. The team members are constantly exchanging because a constant transfer of knowledge and mutual input are crucial for being successful on the market. My focus is the area of energetic optimization regarding the reduction of operational cost and the support for certification-conform planning. This is mostly work on site and among others, we offer initial workshops.

Moreover, there are further working areas that aim for the future. Among others, I am a member of the strategic platform IKT of the Federal Ministry of Education and Research and in the expert circle "Blauer Engel" of the Federal Environmental Agency. At the same time, we are involved in two research projects. One of them deals with so-called "rebound" effects. Through our monitoring, we assess the energy consumption in data centers and reveal weak spots in the actual operation.

Nevertheless, the efficiency-raising measures are partially tied to investments. Together with our partner MVV, we offer "Smart Cooling Efficiency", which is a financing model for energy-saving investments around data centers, generally focused on cooling as this is usually the biggest "screw" that can be turned in order to become more sustainable.

How would you describe the current developments and tendencies on the data center market?

D. Thiel: There is a certain development within Germany at the moment where many large data center operators relocate to non-resident locations. Usually to cooler regions but also to countries with lower energy prices like Scandinavia.

However, the latency times increase with increasing distance from the location of application. This is, in some way, counterproductive as demanding applications require a very short reaction time. Hence, locations within the region seem to be the better solution. We can offer appropriate and energy-efficient solutions "Made in Germany".

Another important factor are energy prices. In Germany, we are "number one" with our high prices, which makes a customized and correct construction of the DC-infrastructure even more important.

Our newly developed expert tool DC Meteo is of high importance in that case. With that, we have constant access to current weather data and can predict the meteorological development for specific locations.

The data center market is always changing. How do you react to the constantly changing challenges and which input do you want to give with your work? Where do you see future trends on the market and what is the new headline?

D. Thiel: Until a few years ago, security was the defining headline for constructing a project. Physical and technical security are two things that we can guarantee by now thanks to well-engineered technology. The factors that we still pay lots of attention to are operational cost and the increasing demand on sustainability. In this area is a lot of optimizing potential and this is where our solutions come into play.

The exponential growth of data increases the demand for data centers. More and more local authorities, municipal utilities or institutions, that towns have a share in, want their own data centers. There, the quality standards are especially high: Planning conformity with DIN EN 50600 and suitable for certification. Implementation of the requirements for "Blauer Engel" 2019. Computer service centers are also interesting in this context.

We are very well set by the synergy of our five business units of the DATA CENTER GROUP and realize our customers' solutions efficiently and future-oriented.



Dr. Dieter Thiel

Family status married, 3 daughters
Carrier studied machine engineering
 building services planning
 engineer and management of F&E
 Schmidt Reuter Integrale Planung
 und Beratung
 co-partner Deerns Deutschland
 GmbH
 associate professor RWTH Aachen
Hobbies motorbikes, bicycles, tennis

THE DC-ITROOM CONSTRUCTION KIT

Secure - highly-available - modular
Security rooms protect the heart of every company from physical dangers



■ The principle is ingenious. With the presented standard-elements, the DC-ITRoom can be planned and implemented very easily. If needed, the room can be increased or reduced in size. Next to the premium solution GranITe according to EN 1047-2 with ECB-S-certification, the DataCenterGroup also offers the solutions QuartzITe 9.3 (EI90 plus) and 9.0 (EI 90). For smaller or decentralized requirements, the miniature data center DC-ITSafe rounds off the portfolio.

1 Ceiling elements

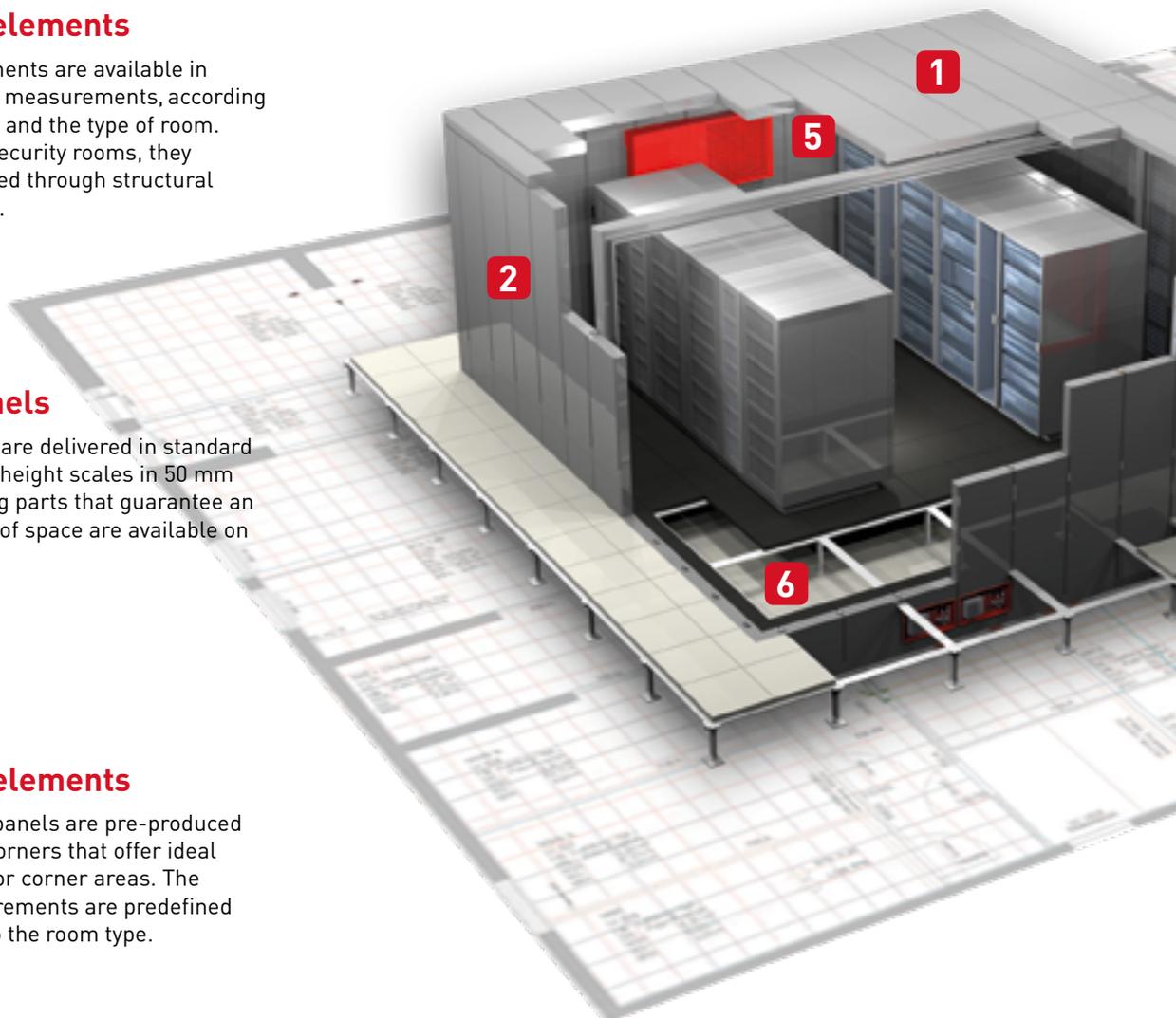
Ceiling elements are available in defined grid measurements, according to geometry and the type of room. For larger security rooms, they are connected through structural engineering.

2 Side panels

Side panels are delivered in standard widths. The height scales in 50 mm steps. Fitting parts that guarantee an ideal usage of space are available on request.

3 Corner elements

Those side panels are pre-produced 90 degree corners that offer ideal protection for corner areas. The side measurements are predefined according to the room type.



” Due to the modular construction, the DC-ITRoom can be easily expanded or reduced in size because our DC-ITRoom solutions are well adjustable to our customers’ needs. So is the DC-ITSafe. “

Martin Hüsch
Technical Director, RZproducts



DC-ITSafe

4 Cable and pipe duct

Cable and pipe ducts can be delivered as hard and soft fittings. The position must be determined exactly and on site by experts depending on the room type.

5 Slider and flap systems

Depending on the room type, both slider and flap systems are used for ventilation or overpressure bypasses of extinguishing systems.

6 Flooring systems

Depending on the room type and location, the room system is equipped with different floor systems which are installed on the EI-90 raw floor on site.

7 Door systems

For every type of room there is also a suitable security door system with different lock versions in various sizes and escape door examinations.



“WE WILL CONTINUE THE SUCCESS STORY”

Jörgen Venot and Martin Hüscher are the leading duo of RZproducts

■ Since March, Jörgen Venot has overseen sales worldwide and completes the leading team of RZproducts. The subsidiary of the DataCenterGroup is specialized in development and production of highly-available security products. Jörgen is a manager with 20 years of experience in international business development for data centers and in the global ICT-industry. Together with Martin Hüscher, who manages the areas technology and product management, Jörgen Venot will shape the future of RZproducts. In an interview, the two of them talk about their teamwork and the future of RZproducts.



„ We will set new standards for security, energy efficiency and sustainability. “

Jörgen Venot
Director international sales
RZproducts

What will the team of RZproducts look like from now on?

M. Hüsch: Our team is constantly evolving and will be extended by new experts who can influence our products with their extensive know-how and their passion. From now on we are a leading duo because we got Jörgen on board as an expert in the international DC-industry. During his time as CEO Northern Europe at Etix Everywhere, he initiated and participated in several European projects that aimed at colocation and blockchain implementations. He brings extensive know-how in global market shaping, joint-venture partnerships and partner management. Now we are even better positioned internationally thanks to Jörgen.

Which blind spots can you see in your team? Which goals do you have for 2019?

J. Venot: We focus on extending existing partnerships and creating new partnerships. We want to create more technical support for project management to help our new partners with winning projects since only the ones who really understand their customers can act in line with the market.

What is your headline for 2019? Where is your focus?

M. Hüsch: Both edge and blockchain are two important topics at the moment and will increasingly influence our planning. It is all about observing the market conditions and finding niches. Doing so, it is important to be a step ahead at all times. We think internationally and will continue to write the story of success for RZproducts

Which innovations can be expected?

J. Venot: We will certainly expand our product portfolio. We always have an eye on current trends in the market and focus on future-oriented concepts and models. We will set new standards for security, energy efficiency and sustainability.



Jörgen Venot and Martin Hüsch talk about their teamwork and the future of RZproducts in an interview.



Gathering in Wallmenroth for the international RZproducts partner meeting in Villa Lampertz. Motto: "Back to the roots, with new energy".

„THE CREDO FOR SUSTAINABLE GROWTH: KEEP THE APPROVED AND CREATE SOMETHING NEW“

■ **Gerd Simon is an acknowledged industry-expert for data centers and digital infrastructures who has both a large national and international network thanks to 25 years of experience. He is a close partner of the DataCenterGroup. Now he informs about the latest developments in the market and the effects of digital transformation on the data center industry.**

Digital infrastructures shape the technological progress and therefore stimulate the future performance of organizations and regions and play an important role in their sustainability. Almost everything which is produced and used daily depends on functioning digital infrastructures. Usable, digital infrastructures are a distinguishing feature in the international competition. It is about the settlement of companies, enhancement of the economic growth and the productivity of manpower. Since digitalization of every area of life and work is increasing, digital infrastructures and their usage are basic elements to support the immigration and the stay of highly qualified workers in a region during a competition of talents.

Even though prognoses about the assessment of data center usage vary, the data center market will surely keep on growing. Not only the constantly growing number of interconnected and integrated terminal devices but also the developments in the data center market Germany influence it. Currently, we do not have mega data centers with at least 100 MW at a single location. The major part of data centers lies in service classes from 10 MW to 20 MW, 1 MW to 10 MW and lower. Lately, we already talk

about more than 200,000 data center locations, whereas more than 10,000 data centers are used at locations with more than 300 kW of power. With 5G, IoT and many more new initiatives, we are only at the beginning of a development which will radically change our life, work and economizing and give rise to more data centers.

Finding and exploiting potential

The current news on the DC-market are shaped by the fact that data needs a home like we do. Let us think about "digital households" that need power, water and cooling like us. Fiberglass-infrastructures, data centers and the connections to internet exchange points allow for these households to become entrenched with us so that a knock-on effect is the result. It does not matter whether it is a new investment, a renovation or a DC-consolidation. It does not matter whether it is a cloud, hosting, colocation or owner operation. With the competence and expertise of the DataCenterGroup, we create added values through technical services that are attested by reference customers. The customer is always the center of our thinking and acting.



„ With 5G, IoT and many more new initiatives, we are only at the beginning of a development which will radically change our life, work and economizing. “

Keep the approved and create something new

This approach describes the future role of the DataCenterGroup as an innovator for the customers who expect that their situation is examined on a partnership basis, that their demands are covered and that therefore future developments and usage scenarios are considered at a target-aimed conception of solutions. Next to planning, construction and turnkey-projects, the DataCenterGroup will be challenged more and more to position both itself and its customers into selective markets through further innovative solutions. Joint, pragmatic and sensible acting is always to be chosen over the theoretically possible.

In this case, the DataCenterGroup benefits from being close to the market and its customers. This enables the company to offer approaches from different points of view to its customers so that the best possible potential can be reached both individually and fitting exactly. In the market, it is important to be focused and act quickly.

Creating (added) values together

Investments in infrastructures are technically worth nothing. Only the usage creates added values like the example of Raiffeisen: If we look at basic infrastructures like streets, they have, if used on a long-term basis, created visible added values in the regions. It is the same with the supply of power, gas and water in communes and towns. And it is the same with data centers. They offer a secure home for data. From there, it can travel the world. In this sense, there cannot be enough usable and digital infrastructures and data centers.

Gerd Simon

Age	55
Family status	married, 3 children
Hobbies	stamina training, dancing, reading
International activities	leader of jury for Global DataCloud Awards, supervisory committee 3U Energy AG, program counselor Hosting & Service Provider Summit



**Marien
Gesellschaft
Siegen**

“THE WAY TO A DIGITAL HOSPITAL IS PREDETERMINED!”

■ In an interview, Dr. Christian Stoffers (coeditor “Digital transformation in hospitals”) talks about the challenges and chances that medicine of the future brings.

Dr. Christian Stoffers is marketer in a hospital and author of expert articles about clinic-marketing. Stoffers studied economics at the university of Bonn and earned his PhD in faculty 3 (business studies) at the university of Siegen. He has been running the managing department communication and marketing of the St.-Marien-Krankenhaus Siegen gGmbH and then of the Marien Gesellschaft Siegen gGmbH. As an author, he wrote more than 100 articles about marketing for specialist books and magazines about health economy.

The digitalization of data is also constantly increasing in the health-care sector. What is your opinion about the status quo?

C. Stoffers: The digital transformation in hospitals did not only start yesterday. There are several hospital-information-systems for gathering treatment data and they are used for medical decisions. And digital medical portal imaging systems are also used by doctors and specialists in hospitals. Next to the new technologies, especially hospitals need simpler processes to make automated digital procedures possible.

The digital transformation in hospitals is the headline of your forthcoming book. How did you get the idea for this book? Can you give a brief overview about the content?

C. Stoffers: I have been dealing with the digital transformation of companies for the last 20 years. There are about 30 people involved in the project and the book is supposed to support readers with the development of an individual digitalization strategy for their hospital. The

book exemplarily demonstrates approaches and concepts of successful projects and documents the current degree of digitalization in the field. Out of this, fields of action come about for the development of a digital hospital on site.

It is expected of hospitals to focus on high-class and highly complex services and always work efficiently. The potential for improvement can only be exploited though, when the financial resources are provided. The biggest potential lies therefore in the connection of treatment and care processes within the hospital by means of cyber-physical systems, the IoT and services as supporting systems.



Dr. Christian Stoffers, leader of managing department communication and marketing of the St.-Marien-Krankenhaus Siegen gGmbH



Photo: © adam121 / stock.adobe.com

Where are specific challenges in the individual disciplines?

C. Stoffers: The biggest challenge results from the complexity of digital transformation because it requires very specific knowledge from different information and communication technologies. The clinics, the staff at the patients' bed and most of all the employees in the IT-departments are facing a big challenge. Moreover, digitalization also requires new services, thorough planning and strategy from the start.

What is the good of medicine of the future? What does this process mean for hospitals?

C. Stoffers: The digital transformation can change the processes in hospitals. The networked hospital can perform efficient solutions for the provision of highly qualitative patient care. The true value, however, lies in the identification of patterns based on data from different sources.



OPERATING PERFORMANCE AND SERVICES FOR SERVER ROOMS AND DATA CENTERS

■ RZservices assists operators of data centers with meeting the constantly increasing legal and regulatory demands as well as the individual requirements on the IT-operation. The RZservices portfolio “DC-as-a-service” offers a range of classical, individual and

adjustable models that cover maintenance and services from partial areas to the entire DC-infrastructure. This way, a qualified service and support management emerges, which is an important component of your economical and future-oriented data center.



Our services

- Operational management
- inventory and configuration management
- maintenance strategies
- capacity management
- service-hotline
- NOC (network operations center)
- performance and redundancy test
- SLA (service level agreement)

” All questions regarding DC-cooling and refrigeration are currently of high importance to our customers because within the scope of refrigerant conversion by the f-gas regulation, natural cooling agents are gaining ground. We plan future-proof. “

Ulrich Mickler
Chief technical officer
RZservices



Professional maintenance of data center infrastructure

For highly complex IT-infrastructure like data centers and server rooms, the IT-security is only secured by regular maintenance because even the failure of a single component can lead to a chain reaction that might cause a total breakdown in the worst case.

1 INSPECTION

For the inspection, a comprehensive examination of the equipment and of the establishment is carried out. The current state is both recorded and documented and function, setting and values are checked. The goal of the inspection is the examination of equipment and establishment for a proper, secure and impeccable state.

2 MAINTENANCE

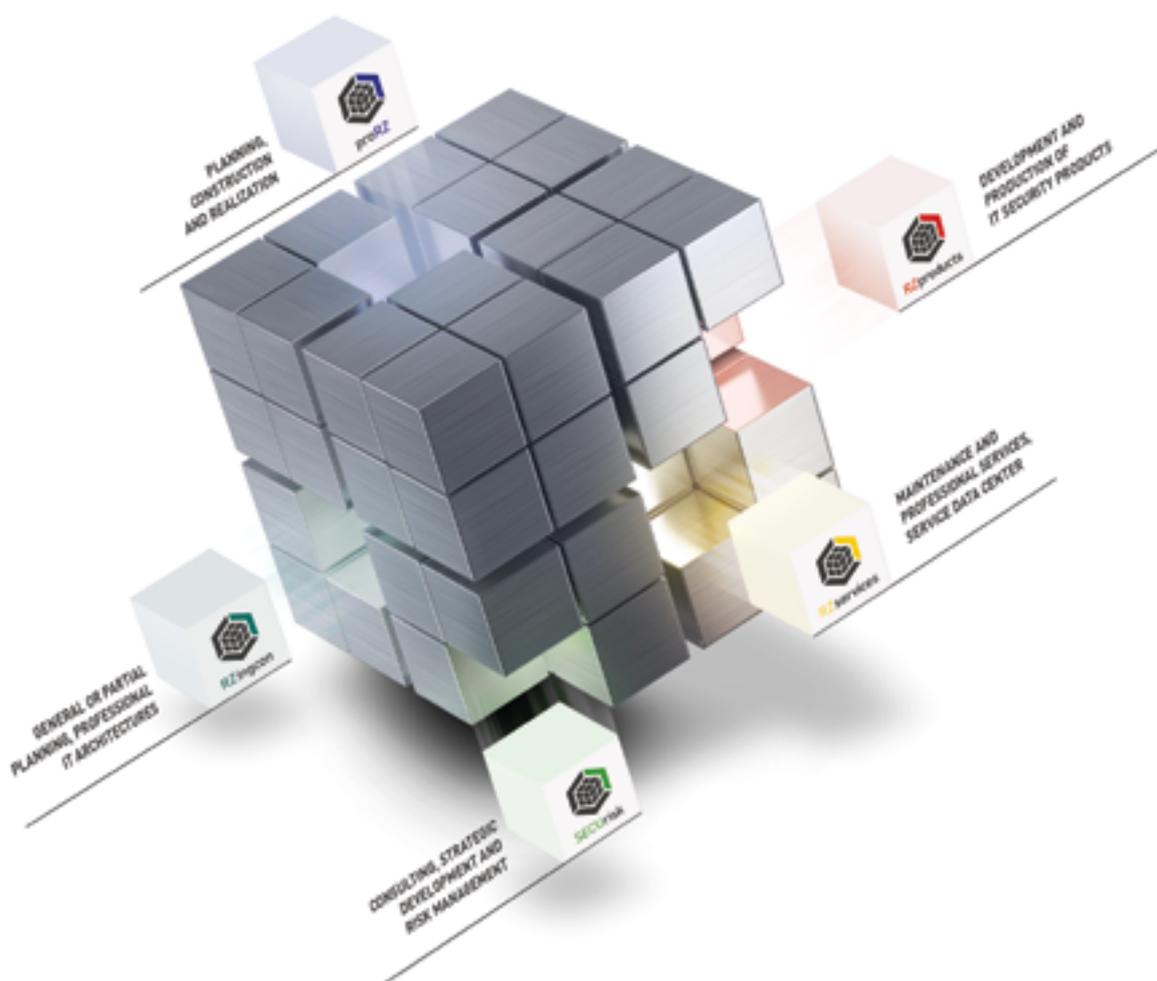
The maintenance covers all tasks that ensure the functionality of the equipment or machine. This includes inspection, maintenance and repair as well as the optimization of operation and examination for weak spots. RZservices is guided by DIN 31051 which regulates the maintenance progress via standards.

3 OPERATIONAL MANAGEMENT

The longest phase in the cycle of a data center is without doubt the operational phase. It is important to maintain the normal operation of the data center and operate the structural and technical equipment in an ideal state. To this end, there are services needed which are sustainable and geared to each other.

WE PROTECT IT!

DC MAG – A MAGAZIN OF THE DC-DATACENTER-GROUP GMBH



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