

Edition 14 | February 2021

# DC MAG

MAGAZINE OF THE DC-DATACENTER-GROUP

15  
YEARS



#### MAIN DC

DCG realizes one of the largest Data Centers in Germany in record time



#### DCG/MVV – Partner Network – Solution Provider



#### 15 years DATA CENTER GROUP –

Anniversary in the pandemic year 2020

# CONTENT

## 02 Preface

## 04 Chronology

2005 – 2020  
A chronology of the  
DC-Datacenter-Group GmbH

## 08 National Sales

The DCG sales team is  
repositioning itself nationwide

## 10 International Sales

International partner network  
for global expansion

## 12 References

- MAIN DC

## 15 Partnership

- DCG/MWV – Partner Network –  
Solution Provider

## 16 eProseed

## 18 References

- Netze Duisburg

## 20 Partnership

- telectron
- MVP TECH

## 28 SECURisk

Secure data center  
operation

## 31 RZingcon

The high-performance  
computing centre of tomorrow

## 32 Company News

- New employees
- Anniversaries
- Marriages
- Newborns
- Imprint

# STAYING TOGETHER - TOGETHER AGAINST CORONA

## Every crisis holds an opportunity for something new!

Dear readers, dear DCG team,  
dear business friends,

Much has changed since the last issue of our company magazine, and no one could have foreseen how hard the pandemic would hit us all. The past year has been different and often also frightening. But thanks to tireless medical research, we now know that soon we will have appropriate measures to control the Corona virus.

The year 2020 has been a great challenge for all of us in every respect and has reminded us that health and family comes first. Cohesion is one of the most important values of our company and confirms, especially in times like these: Let us stay together and you can overcome any crisis.

Of course, Corona also puts a strain on our company. But we soon realized that our relationship with our customers and our accessibility did not take lockdowns into account. That's why we switched to digital communications at a very early stage in order to be available for our customers at all times – also from our home office workstations.

However, and not without any pride I can say that the year 2020 was a fantastic year for us – yes – even one of the best since the DCG was founded in 2005. Our energetic and competent team, strong customers and a very good order backlog well into 2021 allow us to look ahead optimistically.

Thanks to a perfect teamwork and the lived partnership with our partners and customers we were able to achieve many well-known medium and large project successes.

With the opening of the Main DC Data Center, one of our largest prestige projects on October 30, 2020, the complete construction phase 2 and a total capacity of 25 MW, was handed over and ready for operation in November 2020 "in time" after a construction time of just 12 months to the complete satisfaction of the end user. For more detailed information please see the next pages.

With our successes and our growth, we are increasingly being asked how it fits together to remain down-to-earth as a global company at the same time. The answer is simple - we rely on the same principles that are lived in families: In addition to cohesion and stability, we allow ourselves the necessary freedom to go our own way and develop ideas, not only in times of crisis. In doing so, each individual bears a piece of the responsibility for the common success!

For this reason, we like to take this issue of the DC MAG as an opportunity to express our sincere thanks to our loyal customers and partners in these difficult times. Moreover, our special thanks also go to our employees, whose high level of commitment, stamina, dedication, flexibility, loyalty to the company and their cooperation as a team, albeit spatially separated from each other, have contributed significantly to DCG's success during this surreal and previously unprecedented period.

Together, we have seized the opportunity to sustainably expand our market position, especially in the year 2020. But we do not want to rest on our laurels, but rather do everything we can with full commitment to remain in the fast lane in the future.

But unfortunately, many things and events could not be realized in the past year. For example, the current situation did not allow us to celebrate our traditional summer party in conjunction with the anniversary celebration "15 years of DATA CENTER GROUP" as planned.

We also had to cancel our annual Christmas party with a heavy heart. Unfortunately, many cherished traditions could not be lived this year and appointments and events with our business partners and customers came far too short. However, with reliability, consistency and honesty in our dealings with each other, we will accept this challenge and make up for these events planned for 2020 as soon as possible and permissible. Therefore, let us look positively together at what we have achieved and what we will master together in the future.

Have a good time and stay healthy!

Yours



Ralf Siefen  
(Managing Shareholder)



15  
Years

# 2005 – 2020 CHRONOLOGY OF THE DC-DATACENTER-GROUP GMBH

In the course of the first edition of our DC MAG in 2020 and our 15th anniversary we are happy to present the chronology of today's DC-Datacenter-Group GmbH.

The foundation of the **proRZ Rechenzentrumsbau GmbH** on **1st of January 2005** in Betzdorf with 2 employees – including me – was also groundbreaking for the success story of today's DC-Datacenter-Group GmbH. Thanks to comprehensive know-how in the section of physical IT infrastructures and a great network we were able to realize a smaller project as well as a first large-scale project for the Arab Bank, Jordan, in the same year. Another important milestone was achieved in the process chain of the DCG by founding the holistic IT-consulting company **SECURisk** in 2005.

Already 1 year later - in **January 2006** – the Betzdorf-located office space rented at that time became too small due to the increasing number of successful projects and thus the increasing number of employees dedicated to the planning and construction of data centers. For this reason, a move to larger office space located at the IHK building in Kirchen was unavoidable.

To put the finishing touches to the business model of the proRZ, the **RZservices** offering maintenance and after sales service for IT security sections was founded in October 2006 and built up.



2005 – proRZ at its first, rented location.



Since 2015 – DCG's own administrative location at Wallmenroth.

The foundation of the **RZproducts** for development, production and marketing of IT product solutions in **August 2008** was the answer to increasing demands to IT certified security solutions – everything from one source – and completed the portfolio.

**September 2009** – The fast increase in realized project successes of the proRZ as well as the increasing number of employees – more than 50 at that time – required another change of office space. Thus, the company moved back to Betzdorf and rented 2 complete office floors in the administration building of Schäfer-Werke as well as a production hall to manufacture the RZproducts goods range.

The next step was the foundation of the proRZ-Group GmbH, as the holding company and owner of the proRZ, RZproducts, RZservices and SECURisk in **October 2009**.

**March 2010** – 5 years after its foundation the proRZ made its debut as an exhibitor at the CeBIT Hannover Messe.



2010 proRZ exhibiting at the CeBIT Hannover Messe for the first time.

**January 2013** – Renaming of the proRZ-Group GmbH into today's **DC-Datacenter-Group GmbH**. In October of the same year the property "In der Aue 2" in Wallmenroth was purchased for construction of an own administration building, including the production hall of the former Lampertz company.

In **March 2014** the groundbreaking for the new administration building of the DCG at Wallmenroth took place, followed by the topping-out ceremony in June. In **December 2014** – after only 9 months of construction – the new DCG office building could already be occupied!



March 2014 – Groundbreaking with members of the state parliament, mayor of the city of Betzdorf, architects, planners and employees of the DCG.



Ralf Siefen holding the foundation stone of the new DCG administration building.



The 1st edition of the DC MAG.

In the event of the 10th anniversary the 1st edition of in-house company magazine DC MAG (Data Center Magazin) was published in **January 2015**.

In **September 2017** the new company structure was introduced. Due to the constantly increasing demand for high-professional IT infrastructures the companies proRZ Rechenzentrumsbau GmbH, RZservices GmbH, SECURisk GmbH and RZingcon GmbH were merged into today's **DC-Datcenter-Group GmbH**, a leading full-range provider for highest-available DC infrastructures in the German market. The RZproducts GmbH, a global provider of patented high-security solutions, remained an independent, 100 % subsidiary of the DCG company group.

**At the end of 2017**, it was decided that the Mannheim-based energy company MVV would acquire a stake in the DC-Datcenter-Group GmbH to bundle and complement competencies and solutions for data centers. The MVV acquired a 25,1 % stake in the internationally active DCG founded in 2005.

Together with its to date 170 employees and a generated annual sales of approximately 45 million euros DCG has planned and implemented more than 2,000 high-performance data centers in the past years and is thus one of the leading providers for data center services in Germany and Europe.

In **October 2018** a fundamental change within the DCG was decided. According to this decision and together with the shareholder MVV an adjustment in management and shareholder structure took place in **February 2019**. From this moment, I was solely responsible as managing shareholder for DCG's fortunes and the necessary reorientation coupled with further development in connection with the MVV.



June 2015 – Ralf Siefen holding a speech on the occasion of DCG's 10th anniversary.



Photo: © aerynrei/stock.adobe.com

Beside numerous positive project successes and required restructuring measurements in 2019 and at the beginning of 2020 we all have a reason to look positively into the future as at the beginning of **November 2019** DCG acquired a stake in the **MAIN DC Offenbach GmbH** and – as a general contractor - took over the planning and construction of a highly-available data center of the Main DC GmbH to respond to the increasing demand for service data centers. On a base area of around 7,800 sqm a building complex for approximately 3,300 racks was erected with a total investment volume of around 108 million euros. The first building section (building with interior fittings for the second building section) was ready for handover to the end customer in November 2020.

From **March 2020** the DCG drew consequences from the changing market and customer demands – Frank Ernst joined the DCG and strengthened its management in the sectors sales and marketing. Together, the company will be strategically positioned for the coming years and expanded for the future with a strong, innovative partner and shareholder MVV.

In summary, DCG has evolved from the hunter to the hunted and established itself as the leader in the national and international market over the past 15 years – beginning with the proRZ as the flagship and nucleus of the DCG. The company's success is solely based in the entrepreneurial groundedness and the know-how in the datacenter business environment!

This success would not have been achieved without the company's most important asset – our employees, who now number 200, our great partners as well as our satisfied customers who have been with us over the years in this very exciting market.

Yours Ralf Siefen



# DCG'S SALES TEAM PRESENTS NEW NATIONWIDE STRUCTURE

-  DCG locations  
Wallmenroth/Berlin
-  Your contact partners



■ In it's function of the face and link to the customer the team reflects the company's know-how and competence, while understanding our customer's demands has top priority. All around managing director Frank Ernst, Sales and Finance, our team is strategically setting up a fresh and future-oriented structure.

The combination of the necessary spirit and advanced technical know-how enables our team to provide the best solutions for data centers – our passion.



**Jörgen Venot**  
Head of Sales and Marketing



**Florian Hammer**  
Area Sales Manager  
Sales Region West



**Navina Schüler**  
Area Sales Manager  
Sales Region Central



**Martin Jung**  
Sales Engineer Key Account  
Nationwide



**Peter Cramer**  
Area Sales Manager  
Sales Region North



**Michel Düring**  
Area Sales Manager  
Sales Region East

## INTERNATIONAL PARTNER NETWORK FOR GLOBAL EXPANSION



Photo collage: © MimaCZ/shutterstock.com

■ Our main focus is to advise our global customers in choosing the best solutions for highly available and efficient products for data center environments and to render expert support regarding commissioning and maintenance worldwide. This service is ensured by our international partner network.

## DATA CENTER GROUP INTERNATIONAL SALES TEAM



**Jörgen Venot**  
Head of International Sales



**Arturo Arce**  
Senior Consultant &  
Market Expert for  
Chile and Latin America



**Carlos Silva**  
Senior Consultant &  
Market Expert for  
Mexico and Latin America



**Leonie Banzer**  
Senior Consultant &  
Market Expert for  
Dubai and Middle East



**Svetlana Yakovleva**  
Senior Consultant &  
Market Expert for  
Russia and Eastern Europe



As general contractor the DATA CENTER GROUP planned, constructed and certified the great high availability data center according to EN 50600 for the Main DC Offenbach GmbH, providing a PUE value < 1,2. This data center belongs to Germany's largest data centers.



## SPACE FOR AROUND 3300 RACKS

In redord time - DATA CENTER GROUP builds one of Germany's largest data centers

■ As general contractor the DATA CENTER GROUP planned and constructed a high availability data center for the Main DC Offenbach GmbH and thus serves the growing demand for data centers, offering space for rent to companies in times of digital transformation.

A base area of 7,800 sqm – gross floor area of 22,000 sqm – for computer and server scapes that provides spaces for around 3,300 racks.



(f. l.): Günther Weiß (Board of Directors Technology EVO AG), Dr. Georg Müller (Chairman of the Board MVV AG/Chairman of the Supervisory Board EVO AG), Donald Badoux (Managing Director Main DC GmbH), Dr. Felix Schwenke (Lord Mayor of Offenbach), Dr. Christoph Meier (Chairman of the Board EVO AG), Ralf Siefen (Managing Shareholder DCG).



Main DC – Emergency power supply unit on the roof.



Main DC – Front side / Entrance area prior to completion.



Main DC – Air conditioning and free cooling units lateral to the building.



View into the Data Hall.



**Fast and smooth**

In a joint venture and only within 12 months the DC-Datcenter-Group GmbH constructed a five-story data center building on EVO premises in Offenbach that was handed over to the MAIN DC GmbH on schedule.

**Sufficient data rooms and capacity**

12 data rooms build the centerpiece of the data center, providing a capacity of 25 megawatt. The customer's server cabinets are installed here which are reliably supplied with power and state-of-the-art fiber optic connections.



Interior design of a Data Hall.



Generator tank system.

“ I am very proud of DCG's outstanding team and quality performance in this time window – we successfully managed to hand over the first building section – called BA2 – ready for operation in the overall building as the first construction stage – including the certification according to EN 50600 and with a PUE value < 1,2. This is another successful milestone for the great work of the Data Center Group. ”

Ralf Siefen  
Managing Shareholder DC-Datcenter-Group GmbH

**Some Key Facts**

- Due to the very special soil conditions approximately **2,500 supporting logs** were placed up to 5 meters deep into the soil.
- About **2,000 tons of steel** were used for the giant complex. Due to differing conditions of different customers who want to move in with their IT the overall concept was separated into 3 building sections.
- The project has followed the Standard **DIN EN 50600** to guarantee highest flexibility and energy efficiency.



**PARTNER-NETWORK**

Energy for your company – thought the holistic way

With the help of our MVV partner network we are able to bundle know-how in all sections of energy and energy efficiency. As a MVV Enamic customer we benefit from modular and flexible solutions from one single source – because we think energy the holistic way.

Thanks to our know-how and state-of-the-art technologies we can reduce your energy costs in the long term, make your company "greener" and thus ensure your competitiveness. The energy revolution needs bravery – what are we waiting for?



**Concentrated diversity for holistic results**

 <b>MVV Enamic GmbH</b> Energy & gas, steam, heat, cooling, district heat, e-mobility, contracting, photovoltaics & storage	 <b>BFE Institut für Energie und Umwelt GmbH</b> Energy consulting, climate protection management, energy audits, energy efficiency increase	 <b>econ solutions GmbH</b> Operational energy management, peak load and load capacity management, consumption optimization, measurement technology
 <b>luminatis GmbH</b> LED concepts for industry, logistics, commerce, trade & municipalities, LED conversion, reduction of light energy consumption	 <b>Qivalo GmbH</b> Digital reading of consumption media in residential and commercial real estate, automated billing of consumption costs, energy & process efficiency	 <b>DC-Datcenter-Group GmbH</b> Data center planning, implementation and financing, maintenance & servicing, warranty processing, cooling concepts

“ We are proud to be part of the solution house. ”

Ralf Siefen, Managing Shareholder



# EPROSEED, A NEW GLOBAL PARTNER FOR RZ-PRODUCTS

Offering Customers Comprehensive Turnkey Environments and New Value-Added Services



Jean-Luc Brach,  
Vice-President of Information Systems.



Jean-Philippe Quin,  
Head of IT Operations.



Xavier Hallard,  
Global Business Sales.

**Datacenter Group's specialized products subsidiary RZ-Products recently entered into a partnership with software publisher and service provider eProseed. By partnering with RZ-Products, eProseed is now able to offer specific customers, such as public authorities, regulators, or supervision and control bodies, comprehensive operational solutions that help them solve their most challenging issues. For its part, RZ-Products is in a position to provide clients with new value-added managed services.**

We met with Jean-Philippe Quin, Head of IT Operations, Xavier Hallard, Global Business Sales and Jean-Luc Brach, Vice-President of Information Systems, all three from eProseed, to discuss the reciprocal benefits of this partnership.

**Can you tell us about eProseed's activities and market positioning?**

**JLB:** „eProseed is an international ICT services provider and a RegTech software publisher headquartered in Luxembourg. We have offices on four continents through which we provide a wide range of ICT services along with government, business and industry software solutions designed to simplify IT complexity and enhance business agility. In particular, we design, implement and maintain RegTech and SupTech software solutions tailored to address

the specific needs of supervision authorities such as tax and customs authorities, central banks and financial institutions, healthcare supervision authorities, state municipalities and governmental agencies. Our solutions are developed in close collaboration with major industry actors and Big4. They are available as on-prem or as pure Solution-as-a-Service to ensure a faster time to production with low risk and reduced TCO.“

**What advantages do you draw from working in partnership with RZ-Products?**

**JPQ:** „RZ-Products' portfolio includes mini data centers, modular IT room systems, and fully autonomous containerized DC solutions. Their DC equipments are protected from dust, debris, fire, rain, extinguishing water, unauthorized access, and electrical or magnetic damage, which makes them particularly relevant in severe environments like the industrial ones or the jungle. Our global partnership with RZ-Products allows us to bring our industry solutions to customers located in areas with limited infrastructure, such as emerging and fast-growing economies in Africa and Asia. For example, collaborating with RZ-Products will allow us to deploy our eTax 360 software solution in secured mini data centers over 50 customs posts in a central African country, under very harsh environmental conditions.“

**XA:** „In mature markets, our collaboration allows us to offer our customers comprehensive, turnkey operational solutions integrating all necessary components and services, from hardware to software and installation to maintenance. Most models from RZ-Products are flexible and easily movable, making them also suitable for the setup of edge-infrastructures at industrial production sites or close to the data sources, or for organizations who need immediate deployment of new or additional capabilities. Knowing that they do not have to worry about hardware components, DC equipment, or system integration concerns, they can fully concentrate on their core tasks and competencies.“

**JLP:** „Our partnership with RZ-Products thus gave us the means to help an industrial customer confronted with the challenge of deploying a solution from their new parent company urgently, in the context of a post-merger and acquisition integration process. Everything can be prepared off-site and then deployed without the risk of a misinstallation.“

**In what manner and to what extent do eProseed's services complement RZ-Products' DC solutions?**

**XH:** „In addition to what we just mentioned, eProseed also provides a whole range of managed services through its Concierge Services. These services consist of expert technical support for IT infrastructure, delivered onsite or remotely, and framed by guaranteed SLAs.“

**JPQ** comments also that: „As many users will attest, interacting with external IT support can be challenging, especially when you must describe your issues to agents that are not aware of your infrastructure and often not located in your country. We make sure that our customers deal with local technical experts, who speak their language and are fully aware of their IT environment.“

Our Concierge Services (the name of the eProseed signature managed services holistic offering) allow businesses and organizations around the world to ensure up to 99.99 % uptime for their information systems, guarantee application continuity for their business, and enable them to focus their attention on their IT strategy rather than the day-to-day operations.“

**JLB:** „By partnering with eProseed, RZ-Products can now offer its existing or new customers an additional layer of value-added managed services on top of their DC solutions, bringing them security, agility, high operational performance, and business resilience without having to invest in dedicated resources.“

eProseed believes that technology and innovation are the main drivers for social, economic and environmental advancement. RZ-Products is providing us the capabilities to support developing countries governmental investment programs on top of the more classical industrial manufacturers clients.“

**» Facts**

- Offices in 13 countries
- 150+ customers
- 100 % privately-held
- 21 excellence awards
- 6 sectors served
- 1 Project successfully delivered every 2 weeks

**” Partnering with RZ-Products will allow us to deploy our eTax 360 software solution over 50 customs posts in a central African country under harsh environmental conditions. “**

**Jean-Luc Brach**  
VP Information Systems, eProseed



## 4.11.2020 – START OF ANOTHER GC-PROJECT OF THE DATA CENTER GROUP



[f. l.] Our DCG team Albert Gerhardus (site manager) and Dennis Spies (project manager) on site.



South side 1st floor.

### Some Key Facts:

■ Netze Duisburg, vorm. DCC Duisburg City.Com.  
On this building site of approx. 3,000 sqm, DCG is constructing a further CC project in the form of an IT outdoor data centre with 4 DC-ITRooms QuartzlTe according to EN 50600 (VK3/SK3) in a 2-storey building construction with integrated technical rooms and a usable area of approx. 900 sqm in the first construction phase. Further expansion areas are available on the upper floor. The data centre has a highly innovative "hot water cooling" air-conditioning solution with feed into the district heating network. Power output of the stand-by system 2.5 MW, air-conditioning output 2.6 MW in the final stage. Comprehensive fire alarm extinguishing system, security technology with burglar alarm system and access control, video surveillance, integrated separation locks for security rooms. Construction period: October 2020 - end of September 2021



West side 1st floor.



Top view 1st floor.



Profil: [linkedin.com/in/leonie-martina-banzer-4a3750b3/](https://www.linkedin.com/in/leonie-martina-banzer-4a3750b3/)

■ RZproducts' GCC country group, consisting of the United Arab Emirates, Saudi Arabia, Qatar, Kuwait, Bahrain and Oman, is headed by Leonie M. Banzer since February 2020. Ms. Banzer has been Strategy Director for the Middle East of our partner Cloud&Heat Technologies since 2019, enabling us to develop the GCC market together in a complementary and more effective way as she is based in Dubai. Ms Banzer studied in Dresden, California and Dubai and was born in Germany. She is a member of the Dubai Business Woman Council and various other Chambers of Commerce and Industry for the Middle East region.



## TELECTRON COMPANY HISTORY

■ Telectron started as a single man operation in 1974 (3 Years after the UAE was formed) in Abu Dhabi and has now proudly developed into a mid-size Family Business of 120 members. We distinguish ourselves as Specialized in System Engineering & Distribution, offering the capability to design, install, commission, and maintain any system we interact with.

Our organization consists of the following departments: Renewable Power Solutions, Fire & Security, Integrated Solutions, Instrumentation & Control and Telecom. Each department is unique in its product offerings and capabilities; simultaneously able to offer turnkey solutions to our clients. We represent some of the most reputable principals in our trade.

Built on an outstanding reputation, Telectron understands that excellence is built over time and longevity is not inherited overnight. As a result, we work extremely hard to sustain our values and are confident enough to say we are leaders in our respective fields. We are determined and committed to growth and excellence taking this into the next decades. The quality of a professional organization can in large be measured & gauged by the quality of its clients. Telectron is a TUV ISO9001 and OHSAS 18001 accredited organization and prides itself with being prequalified with leading players in the Oil & Gas and Telecommunication Industry. In addition to Telectron's head office in Abu Dhabi, Telectron has offices in Dubai and Sharjah. Our facilities include a state-of-the-art warehouse with an integration facility in the industrial zone of Abu Dhabi.

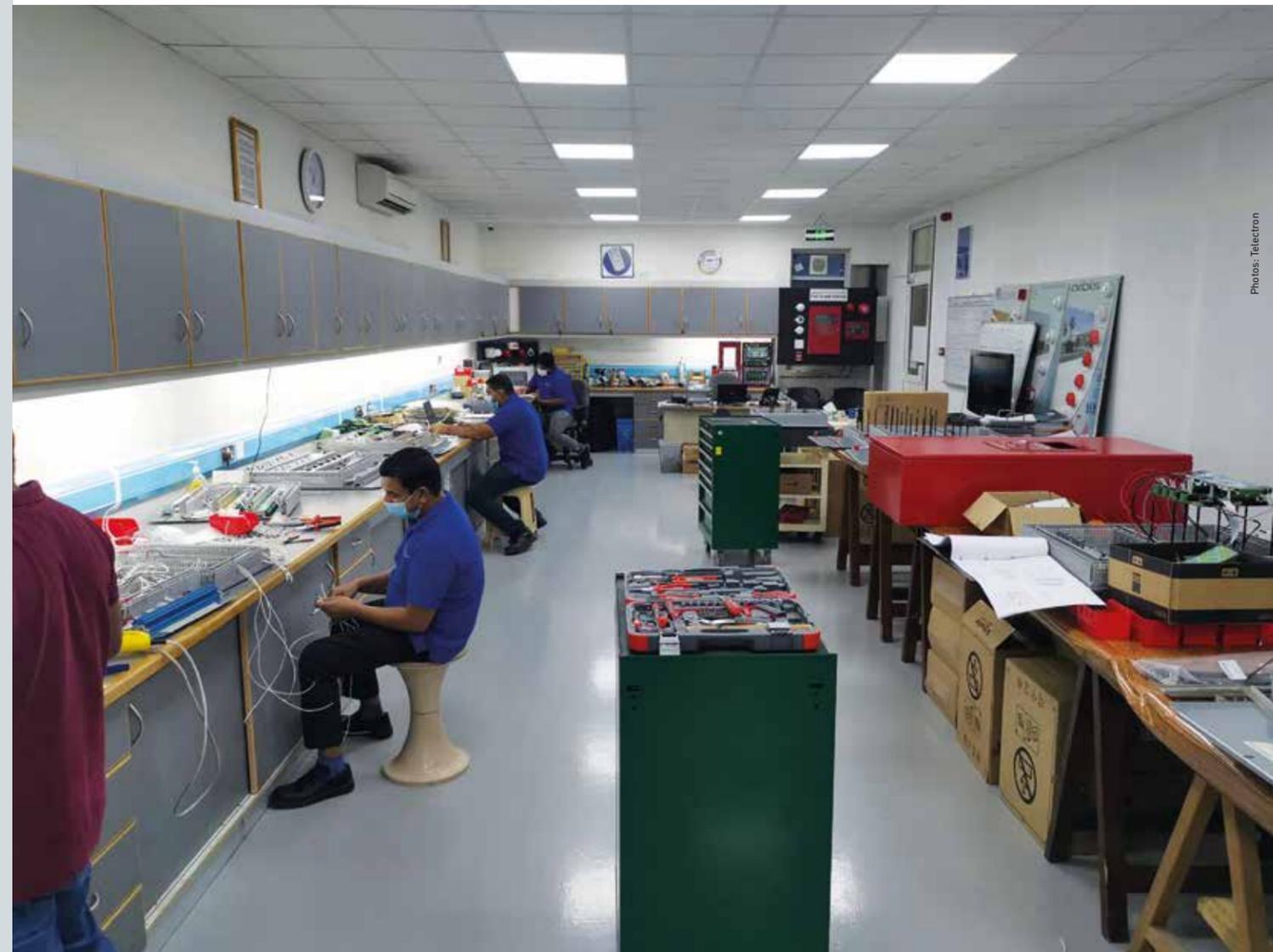


**Oil & Gas Expertise**

Since 1974, Telectron has been operating in the Oil & Gas industry in the UAE. Today, Telectron is proudly an approved vendor & contractor for the ADNOC Group of Companies. The ADNOC Group of Companies is comprised of over numerous entities catering to the Upstream, Midstream & Downstream sector of the industry. In addition, Telectron was one of the first entities to adopt the In-Country Value (ICV) program introduced which showcases Telectron's commitment to promoting local content. Telectron's facilities are regularly visited by members of the industry where we showcase our latest systems.

**Expertise in Installation, Maintenance and Customer Support**

Telectron is "A" rated company (highest rating) by the UAE Civil Defence and is approved to carry out complete Installation & Maintenance works. Stringent regulations issue by the local authorities require Telectron to have an in-house team of engineers' and technicians that are factory trained and approved. The UAE Civil Defence authority operates under the UAE Ministry of Interior and is on a perpetual mission to protect lives, properties, and the national wealth of the country.



Photos: Telectron



**Partnership**

Telectron experience for over four decades in Fire Protection systems for the Oil & Gas industry and RZproducts deep expertise in developing high quality IT security products for sensitive applications has outlined immediate synergies for both organizations to capitalize on in the Oil & Gas industry.

**Top 3 References**

- Abu Dhabi National Oil Company (ADNOC) Group and its subsidiaries
- Dubai Petroleum
- Etisalat
- Abu Dhabi Water & Electricity Authority and its subsidiaries
- Dubai Electricity & Water Authority and its subsidiaries



## I. MVP TECH HISTORY

■ Since its inception in 2003 MVP Tech has embarked on a mission to revolutionize the security & IT systems integration industry in the Middle East. Entering a security market once synonymous with analog technology and closed platform operations, MVP Tech's founders thought to change the perception of system integration providers.

With an unrelenting focus on engineering and a commitment to deliver cutting-edge technology that will serve the ever-changing needs of their clients, MVP Tech has become a leading player in the security & IT systems integration world.

The company has grown exponentially over the last 15 years, experimenting and working with AI (Artificial Intelligence) and Video Analytics, developing real-world applications of these technologies in both the private and public sectors.

Representing global manufacturers from the U.S, Europe, Australia and other leading world markets, the company has proactively introduced unique technologies, with few or no alternatives in the market, deploying change-making security technologies in market faster than anyone else in the GCC region.

MVP Tech has proudly served hundreds of clients within the government, military, and private sectors, extending the reach of their operations across the GCC.





Photos: MVP Tech

**II. Integration**

As a leading provider of award-winning specialized security & IT systems, MVP Tech has continued to set the standard for next generation intelligence and interconnectivity, evident in such developments as the launch of its new Cyber Security division, Critical Infrastructure Defence and Global Command Centre models.

Providing a 360-degree partnership from sales, installation, maintenance and customer support, MVP tech envisions a future of hyper-connected and fully automated entities, operating across territories, increasing the level of productivity and efficiency exponentially.

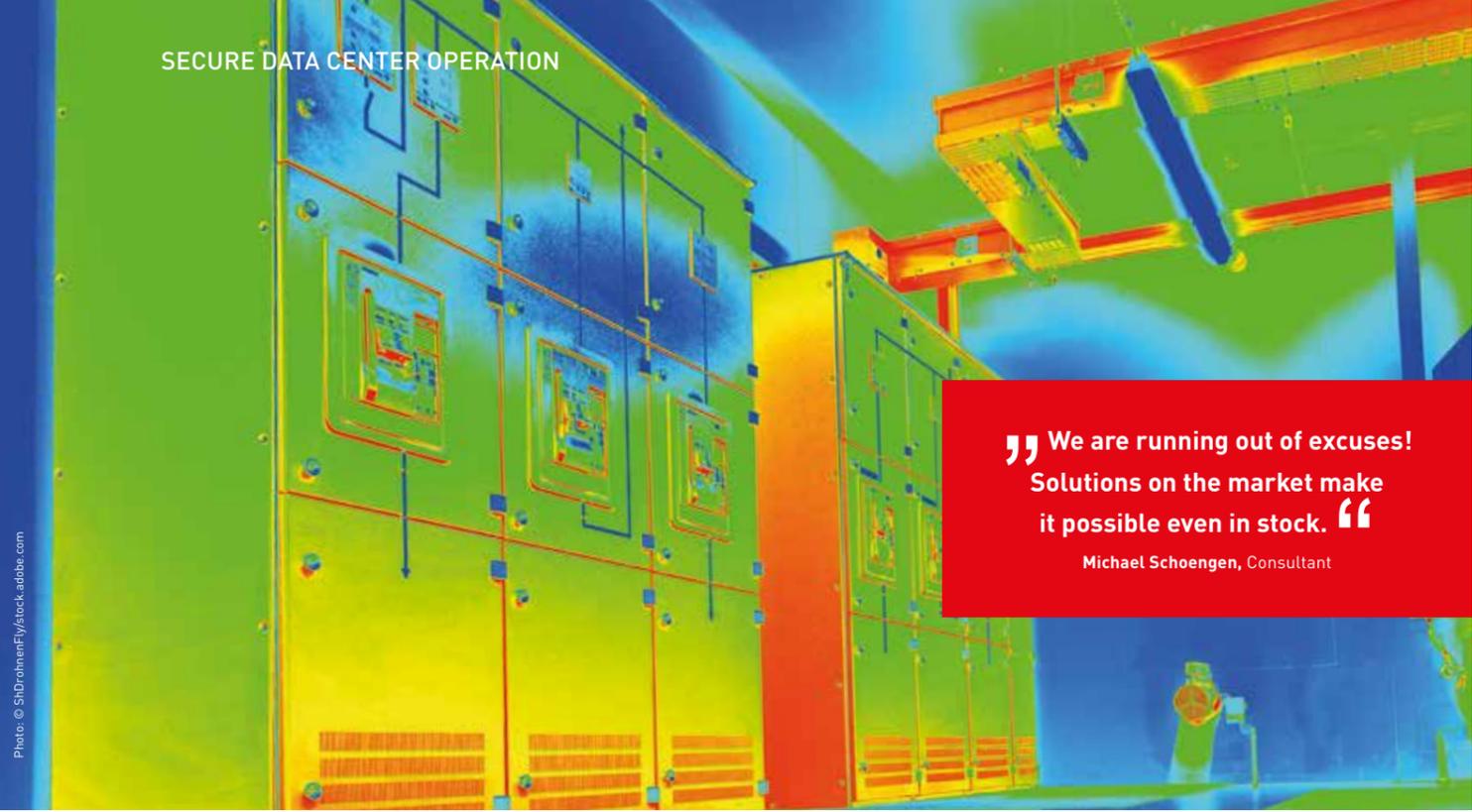
Utilizing its vast know-how and experience, MVP Tech is moving towards building fully integrated platforms that allow for the in-depth analysis of combined data sources, creating the opportunity for strategic, centralized intelligence at a single location.

**III. DC-ITSafe / RZproducts**

This June 2020, MVP Tech has strategically established its Data Center department with RZproducts GmbH, the fully owned subsidiary of the German DATA CENTER GROUP, Germany's most successful DC developer.

In partnership with the award-winning German engineering company, MVP Tech aims to deliver high-quality IT security products and physically protect critical IT infrastructure by introducing innovative data center solutions such as the DC-ITSafe. The ideal edge micro datacenter solution enables clients to determine the location of their own DC-ITSafe on premise, in an office or even in an industrial environment. Tested and certified by independent institutes, the DC-ITSafe also ensures protection against fire, water, dust and burglary. The DC-ITSafe is now made available in Dubai and GCC through MVP Tech.





**“ We are running out of excuses! Solutions on the market make it possible even in stock. ”**  
 Michael Schoengen, Consultant



# SECURE OPERATION OF DATA CENTRES

■ **The topic of electrical safety in the data centre is unloved by operators. When we talk about "safe" operation, we are not talking about availability, but first and foremost about the safety of the employees. Every day, data centre operators are confronted with the problem of orchestrating a multitude of electrical consumers - guaranteeing availability to customers and at the same time ensuring the operational reliability of their facility. But this does not have to be a conflict.**

Picture 1

Contractual obligations towards energy suppliers, the technical connection conditions (german abbr. TAB), which define limit values for consumers. The operators must adhere to the maximum unbalanced load, the proportion of harmonics and the reactive power fed back into the system. In addition to these electrotechnical requirements, property insurers also have requirements with regard to fire protection. Not only firefighting, e.g., by means of smoke aspiration systems (abbr. VESDA) and automatic extinguishing, but also proactive fire prevention should be mentioned in this context.

In the course of the inspection with reference to the so-called fire protection clauses, the insured person must prove the condition of his electrical installation - i.e., the technical fire protection. The parameter that is used here, among other things, is the insulation resistance (german abbr. ISO ). This value describes the ohmic resistance between conductors, firstly to each other and secondly to the earth potential, and is thus an indication of an operationally safe and intact power supply. The measurement procedure requires the electrical system to be switched off and thus results in a loss of availability for your data centre. If you cannot prove the measurement of the ISO, you should be aware that insurance benefits will be reduced or denied in the event of a claim.

The following instance is formed by directives and standards. The regulations of the German Social Accident Insurance (german abbr. DGUV) describe and define methods for testing the operational safety of electrical systems with the aid of the applicable standards for fixed and mobile equipment and systems.

In regulation number 1, a hazard assessment, which must be available for every installation, forms the basis - i.e., the operator must be aware of the hazards and introduce suitable measures and processes to prevent accidents. Section 3 describes specifically what is to be tested and according to which methodology. Section 5 clearly states that the operator must ensure that his installation is inspected regularly and in the event of significant changes to ensure that it is in proper condition.

This rises following questions: Which standard is to be used for the inspection and what does regular mean? First of all, the electrical system must be assessed by an appointed electrician (german abbr. EFK). This can categories the system to be tested by means of a risk assessment in accordance with the technical rules for operational safety (german abbr. TRBS) - fixed or mobile. Provided that the criteria for a fixed installation are plausibly documented, the repeat inspection must be carried out every four years in accordance with DIN VDE 0105 Part 100. In contrast, portable equipment must be tested every year in accordance with DIN VDE 0701-0702. The ISO must also be measured during the required initial test (DIN VDE 0100 Part 600, international IEC 60364-6:2016) and a frequently repeated test to maintain the proper condition. Thus, here too, we first have the conflict - safety vs. availability. However, the DGUV offers a way out here! The requirement for fixed installations is also fulfilled if the operator ensures that his installation is constantly - i.e., continuously - maintained by an EFK AND the condition of the system is monitored by means of metrological measures.

Picture 2

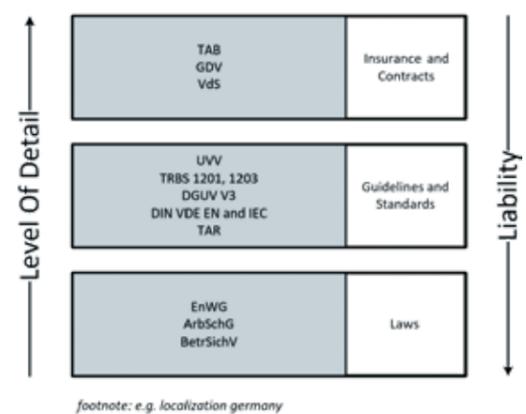
If such protective devices are not provided, since 2007 final circuits that can be used by laypersons must be protected by residual current devices (RCDs). These switch off the abnormal circuit when the tripping current is reached. In stationary systems, RCDs must be checked for proper functioning every 6 months by the user by actuating the test device. The affected circuit is then de-energised.

The Occupational Health and Safety Act (german abbr. ArbSchG) describes the basic duties of the employer - All necessary measures must be taken with regard to the safety and health of his employees. For this purpose, reference is made to a risk assessment in accordance with TRBS and that initial and repeat inspections are to be carried out in order to keep equipment and systems in a safe condition.

In the Energy Industry Act (german abbr. EnWG), part 6-Safety and Reliability of energy Supply, Section 49 specifically refers to compliance with the generally recognized rules of technology as defined by the German Association for Electrical, Electronic & Information Technologies (german abbr. VDE) and the German Institute for Standardization (german abbr. DIN). This circumstance undermines the recommendatory character of this standard. A violation therefore also has legal consequences.

**Exception: permanently monitored (e.g. residual current monitoring with residual current monitoring system according to EN 62020) and effective management system with visual and acoustic signalling (abbr. RCMS).**

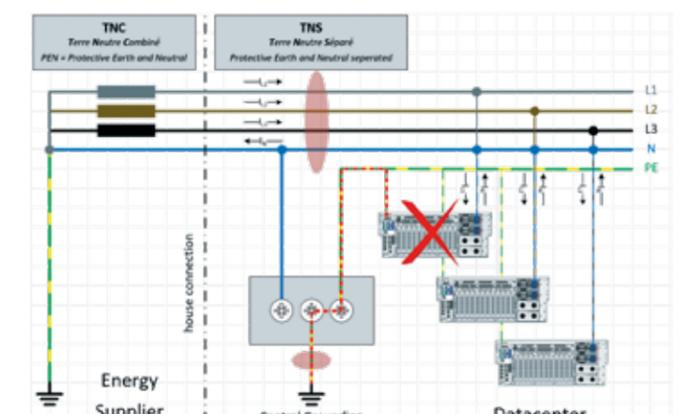
Picture 1



footnote: e.g. localization germany

Picture 1: Detail vs. liability

Picture 2



Picture 2: Leakage vs. fault currents

The solution was presented to data centre operators at the DGUV. Continuous monitoring via residual current monitoring with RCM sensors in accordance with EN 62020 gives you the decisive information advantage to prevent a shutdown and thus the loss of availability. RCM sensors at rack level detect the smallest leakage and fault currents and thus make it possible to initiate a process chain if limit values are exceeded. This ensures personal, fire and system protection. The change in status is indicated locally visually and acoustically. Only in the event of an acute fault - imminent danger - the EFK have to manually shut down the affected part of the system. This increases their availability, as it enables a fault clearance that can be implemented in change management processes and can therefore be planned.

**Picture 3 and 4**

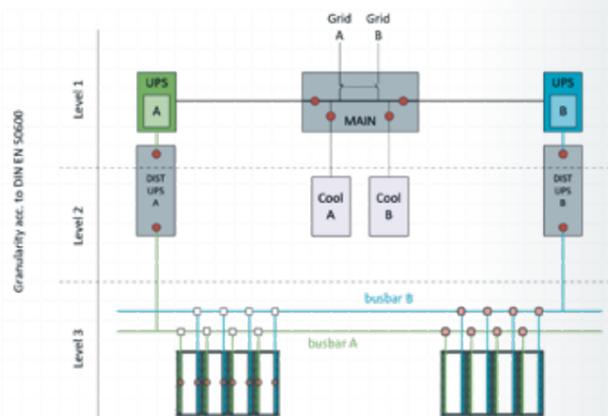
As Data Center Group, we are able to support you with our know-how in your individual solution, both with technical solutions, such as RCM measuring technology that can be retrofitted without shutting down, including signaling and the necessary interfaces to your building technology, and with professional testing services in accordance with DGUV. Please contact us!

<https://datacenter-group.com/de/leistungen/rz-betrieb/dguv-pruefung/>

If you have any questions on the subject of residual current monitoring in data centres and testing in accordance with DGUV, please contact our consultant:

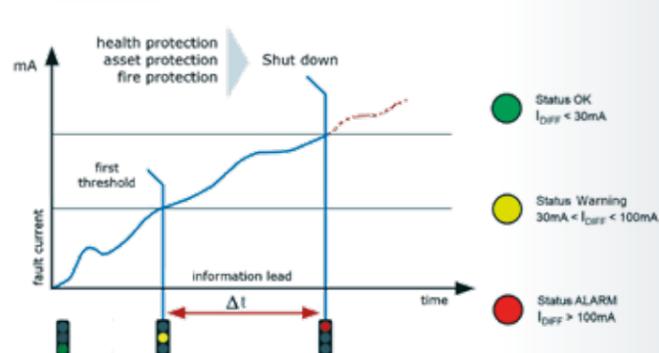
Dipl.-Ing. (FH) Michael Schoengen  
 michael.schoengen@datacenter-group.com  
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**Picture 3**



Picture 3: RCM measurement concept according to DIN EN 50600

**Picture 4**



Picture 4: Status RCM

**Summary**

- A risk assessment forms the basis of all measures
- The repeat test of an electrical system is legally unavoidable
- Constant - continuous monitoring makes shutdown obsolete



**60 kW Performance per rack is no longer a pipe dream.**



# THE HIGH-PERFORMANCE OF TOMORROW

■ DCG created the module for the high-performance data centre of tomorrow for a customer project. This is an exclusive solution to supply a server rack with 47 height units with a total of 60 kW power. This makes the system suitable for the latest generation of GPU servers of 2 kW per U with a utilisation of 75 %.

**The electrical supply**

The electrical supply is provided by means of a redundant A/B path. On each path, 60 kW of power can be drawn off via two 5-pole 63A CEE sockets. This means that 4 CEE sockets are installed per rack. A total of 4 PDU's (power distribution units) per rack supply the IT components. All IT systems are supplied by a battery-backed undervoltage supply.

This enables IT hardware to be connected and disconnected without special equipment, without shutting down and by any IT specialist, without the formation of a water drop. CDUs (cooling distribution units) are used to ensure that the standard cooling network and the special IT cooling network are kept clean. The CDUs are supplied with a water temperature of up to 40°C, so that free cooling is possible almost all year round.

**The cold supply**

The problem with the very high-power density is the dissipation of the generated heat. In order to be able to dissipate the power of 60 kW per rack, directly water-cooled server systems are provided. These water-cooled systems can dissipate 45 kW per rack. The remaining 15 kW are heat losses generated by the air-cooled server power supply units. This 15 kW is tempered by a rear cooling door on the server cabinet. In order to enable a water-cooled server system, special heat exchangers are required that form an interface between infrastructure and IT. These heat exchangers are called manifolds. These manifolds are divided into a warm and a cold side (supply/return).

**The rack installation**

The racks are installed on a rack frame developed by DCG. This can support IT loads of up to 1.5t with safety supports. This rack is flexibly expandable and allows media to be installed on the floor below the racks, leaving a clean image of the server room.

If you are interested in HPC projects, please contact the project manager:  
 Fabian Buda  
 fabian.buda@datacenter-group.com  
 +49 175 4812347



Photo: © REDPIXEL/stock.adobe.com

## WELCOME TO TEAM DCG

We are constantly expanding our expertise and happy to welcome the following new colleagues:

### From May 2020

Navina Schüller Area sales manager

### From June 2020

Dusan Krepelka Project manager TGA  
Nicolas Treu Project manager MSR

### From July 2020

Alexander Wichelhaus Electrical planner

### From August 2020

Rafael Seitz Trainee  
Luca Weitz Trainee  
Ergin Sarac Refrigeration/air conditioning planner  
Bernd Gattermann Technical office service  
Jörg Moeck Project manager TGA/  
Electrical engineering  
Katja Lützenkirchen Commercial clerk

### From September 2020

Sara Becker Controllerin  
Stefan Chatzidimitriou Project manager  
Florian Lindinger Draftsman

### From October 2020

Mario Martin Müller Assembly manager  
Anja Heiligenstadt CAD designer

### From November 2020

Michel Düring Area sales manager  
Peter Cramer Area sales manager  
Olga König Cleaning staff  
Monika Ruthardt Assistant to the BM

### From January 2021

Tino Buchholz Project manager TGA/  
Site manager  
Michael Benner Financial accountant  
René Peter Wende Service technician  
Stefan Krämer Division manager TGA  
Andrei Bese Project manager HLSK  
Margarethe Vierschilling Technical system planner  
HLSK  
Michael Wanie Technical system planner  
Electro  
Michael Wöllenstein Technical system planner  
HLSK

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## ANNIVERSARIES

### Congratulations

#### 10-year company anniversary 2020

Sieglinde Schlosser  
Bernd Schmidt (Retirement)  
Albert Gerhardus  
Peter Gerhardus  
Stefan Schäfer  
Peter Zöllner  
Ina Nauroth  
Daniel Weibler

#### 15-year company anniversary 2020

Markus Böhmer  
Dorothea Mockenhaupt  
Klaus-Peter Schuhen  
Thomas Pfeiffer

The DataCenterGroup team says thank you for the great commitment and wishes you much success furthermore!

#### Married 2020

Nadine Schlösser (born Weibler) & Michel Schlösser  
Jaqueline Schnorr (born Jung) & Marcell Schnorr  
Jonas Schukowski & Frauke Schreiber  
Anna Muizis & Dmitri Kemenev

#### Newborns 2019/2020/2021

Levi Constantin Artz  
Leonard Pfeil  
Elise Gerhardus

„Difficult times allow us to develop determination and inner strength.“

(Dalai Lama)

## IMPRINT

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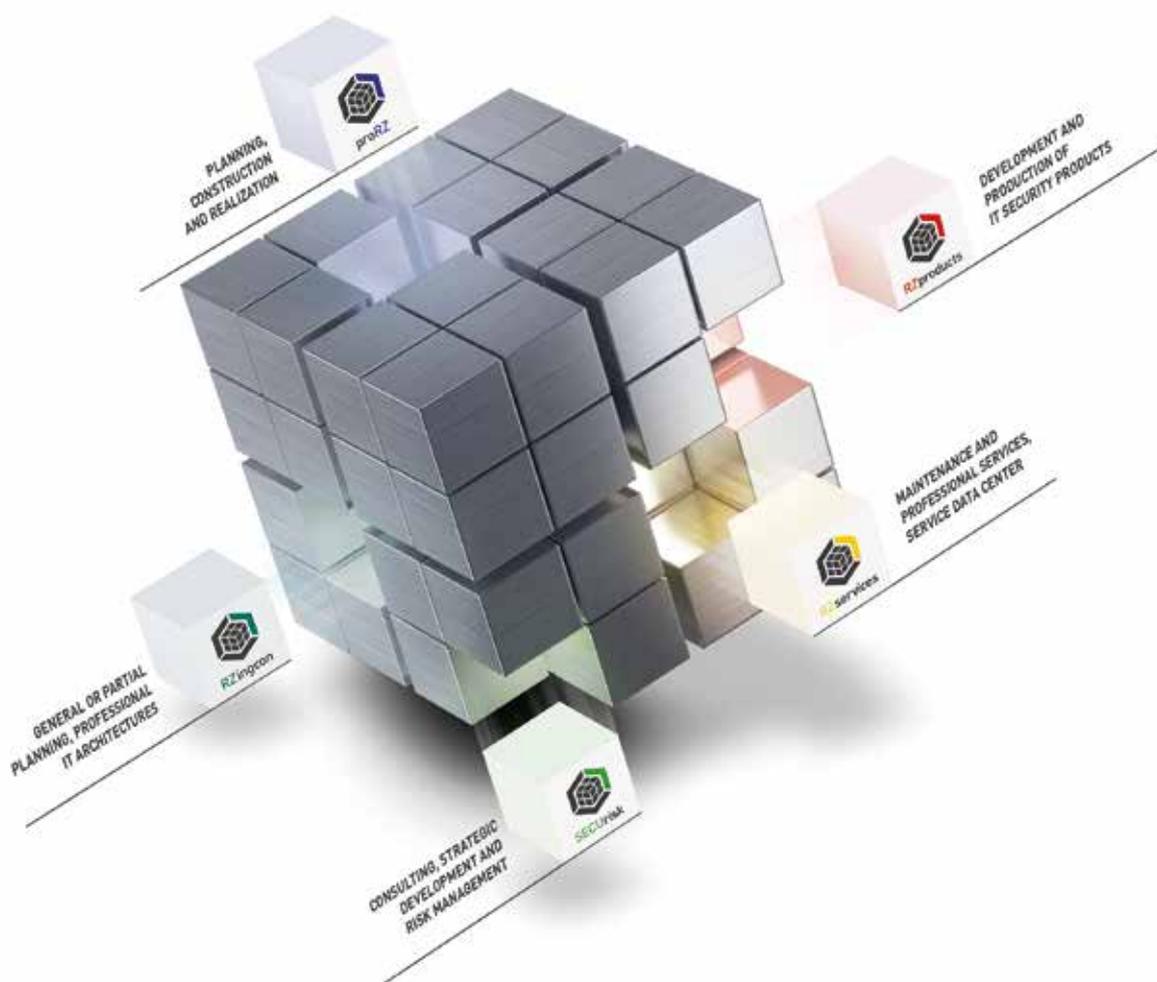
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# WE PROTECT IT!

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