



# ***DataCenter Solutions***

*Solutions for computer centers and server farms*



**euromicron**  
Group



***Availability***



***Security***



***Structure***



***Performance***



## **Your challenge**

- + Secure data, always available
- + Optimum structure, minimum cost
- + High performance, always under control
- + Competent service, reliability by quality
- + High modularity, greater flexibility



# Solutions for computer centers and server farms



***Network management***



***Competence***



***Service***



***Building technology***



## **Our solution**

- + We offer a vendor-independent solution for your specific problem
- + We ensure reliable data backup, access control, emergency power supply, danger alarm and fire extinguishing systems and control centers
- + We are your partner for modular installations, flexible extensions and space-saving conversions
- + We maintain and support your entire system, with the aim of ensuring minimum intervention and immediate fault rectification.



# Availability

Power supply, backed up several times



- **99% availability still means an annual downtime of some 88 hours or 15 minutes a day!**
- **The public power supply network is out of action for around 1 hour a year or 10 seconds a day – meaning “only” 99.988% availability!**
- **A server fails after 30 milliseconds and therefore needs availability of at least 99.9999%!**

Consequently, a data center needs an uninterruptible power supply (UPS) system – without one, there would be loss of data and malfunctions and software programs would crash!

Your data processing system should be protected in such a way that even the smallest of power disruptions from the public network is filtered out by digitally controlled UPS systems and, in the event of a power failure, power is supplied by batteries and emergency generators.

euromicron offers a tailor-made full-line range of powerful devices and systems for the uninterrupted supply of power from 250 VA to 4800 kVA:

- Medium- and low-voltage switchgear
- Transformer stations
- Emergency power generators
- UPS systems
- Overvoltage protection
- Lighting systems
- Potential equalization and earthing systems

The entire systems engineering complies with the latest standards and the regulations defined by the VDE, VGB and UVV.

You benefit from the experience and product independence of euromicron, whether you wish to create a new system or modernize or expand existing ones. euromicron plans and installs technology tailored specifically to your needs. euromicron makes the process of obtaining the necessary approvals easier and quicker for you by ensuring proper submissions. Faithfulness to deadlines, installation and a leading-edge system structure guarantee many years of fault-free, energy-conscious and cost-saving use.

**euromicron means: Availability!**

# Security

Protection by quality and systematic approach



- **Unauthorized access to your data?**
- **Hackers, viruses, dialers?**
- **Burglary, theft, lack of surveillance?**
- **Fire and smoke blowout at your data center?**

You can trust in euromicron: we plan and implement means of physical protection, such as access control and time data entry systems for all buildings, plants and systems to be controlled as well as logical data protection systems, such as firewalls, VPN tunnel, anti-virus protection and intrusion detection. In conjunction with video surveillance systems, intercom systems and integration in security management systems and IT infrastructure, we deliver complete turnkey solutions from a single source. We offer vendor-independent services, using high-quality products from well-known manufacturers.

We plan and install intrusion and fire alarm systems individually or as a networked system with fire detectors and door and window contacts and connect them up to a security management system. It goes without saying that we assume responsibility for maintaining and repairing the entire danger alarm system. The documentation for the system, escape routes and fire brigade plans, fire brigade assignment maps and the fire alarm indicator panels is created professionally on leading-edge CAD systems and in compliance with the latest regulations.

We implement video surveillance, access control and intercom systems for all grounds, buildings, plants and systems to be monitored and link these with time data entry and danger alarm to create an efficient all-round solution. As a system house with many years of experience in electrical engineering and data, communications and security technology, we have the ability required to combine these different systems.

Our expertise as an IT system house does not give any chance to hacker and anyone trying to intrude into your data network.

**euromicron: Security by quality!**



# Structure

Optimization cuts costs



- **Your data center needs a change, but you want to change as little as possible?**
- **Your backbone cabling is to remain neat and tidy, but any reconfiguration creates “cable spaghetti”!**
- **You can only allow for minimum downtime for new installations and reconfiguration, but you need time to ensure secure installation?**
- **You need room for active equipment, but not for distribution cabinets and infrastructure components?**
- **The product cycles of your active equipment are short, but the infrastructure should remain adaptable to the replaced equipment!**

“**YoU aRe Modular**” is the name of the solution from euromicron, a flexible and modular fiber optic infrastructure system:

- The **URM** system gives you up to 80% investment protection thanks to universal, connection-independent and reusable backbone cabling.
- The **URM** system generates time savings of up to 75% thanks to clear preliminary device cabling.
- And by eliminating distribution cabinets and other space requirements, you save up to 60% in space thanks to the huge packing density of the **URM** system.

**URM** is the answer to cutting operating expenses and increasing operational reliability!

- Significantly reduce fire prevention and air-conditioning requirements by slashing weights and volumes.
- Optimization of CPU utilization due to reliable data transfer.
- Minimization of the maintenance overhead thanks to plug & play solutions.

**URM** enables you to minimize lifecycle costs at your data center, strike an ideal balance between capital and operating expenses and at the same time create a structured and clear backbone infrastructure with a high packing density at your data center.

**euromicron: Competence goes Solution!**

# Performance

Formula 1 at your data center



- **You expect performance? We deliver it!**
- **Your data center is to deliver performance? We make sure it does!**
- **You want to increase your computing power? We know how to!**

We have highly qualified graduates in engineering and technicians who have the following manufacturer certification

- Alcatel
- CISCO
- Enterasys
- 3COM

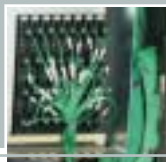
boast know-how in the fields of our partners

- Hitachi Data Systems
- McData
- Comparex

and provide the following services in the area of data center solutions

- Vendor-independent conception and design of networks with the latest technology at the physical and logical level.
- Product selection and installation of active system technology for newly planned or existing network structures, tailored to the customer's specific requirements and applications used
- Concept for the logical network layers in the area of switching (layer 2) and routing (layer 3), including IP concepts with high availability, redundancy and quality of service requirements for all data, voice and video applications
- Professional project planning and handling on time and within budget – from design, assembly, configuration and documentation to acceptance and commissioning.

**euromicron: And you will always be in pole position!**



# Network management

Control that assures your overall view



- **Your data center has to run optimally, around the clock, with the very best performance, excellently configured.**
- **You need an overview, in real time, permanently, at one workstation with an ergonomic design so that you are relaxed while monitoring the status at your data center and can intervene in a considered and selective manner if and when required.**

But do you have your “finger on the pulse” and how do you ensure that you are always aware of the status and performance of your system in real time?

euromicron’s vendor-independent network management system (NMS) detects all the devices in the network, along with their physical and logical connections, and presents the information on a graphical interface in accordance with your current status. euromicron’s NMS monitors the availability and performance of system and network services and components. Important performance data is shown on real-time monitors. It can be analyzed as long-term statistics in order to optimize your network’s performance. In the event of a problem, the system issues an alarm, providing detailed status and error information by the quickest communication channel.

Input and output devices of the network management system are integrated in a workstation system that unites various requirements demanded of process control station systems. The newly developed process control station system ELABO TaCom impresses with its ergonomic design and modularity, enabling flexible modeling of the network management concept. A stand-alone solution with one monitor level can evolve gradually into an interconnected solution in a circular segment arrangement and with monitors at two and three levels, to reflect changing requirements.

We offer you the perfect, all-round solution for managing heterogeneous networks at your data center, one that is unsurpassed in terms of clarity and efficiency – so that your data center is and remains highly available, bottlenecks are detected promptly and disruptions are identified and rectified on the spot.

**euromicron: And you have your “finger on the pulse”!**

# Competence

Network solutions from experience

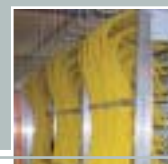
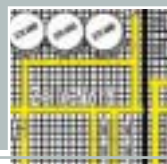
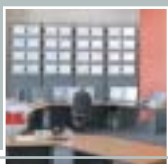


- **Complex structures like that of a data center require a clearly structured, transparent, modular and flexible design.**
- **Performance and availability parameters must be considered and planned with expertise in dimensioning of the fiber optic infrastructure, emergency power supply, monitoring, fire and danger alarm system and air-conditioning.**
- **Redundancy, quality, the latest technology and standards, ease of maintenance, and capital and operating expenses are important premises in planning and pay off significantly in terms of investment and subsequent operation given competent consulting.**

euromicron not only relies on theoretical planning approaches, but leverages its extensive wealth of experience as a developer and manufacturer of fiber optic components and as an integrator and service provider for complete data center solutions. References from well-known customers testify to this:

- Neue Deutsche Börse
- Dresdner Kleinwort Wasserstein
- Handelsblatt
- Deutsche Bank
- Vodafone
- BASF
- Itergo
- UBS
- HSBC
- Volkswagen Bank
- AOK Schwalmstadt
- Thüringer Landesverwaltung Erfurt
- ...

**euromicron: Network competence!**



# Service

Reliability by constant maintenance



- Do you want your access control to be “water-tight”?
- Should your fire alarm trigger off only when there is a fire?
- Are your servers to run reliably?
- Is your software always up-to-date?
- Is your emergency power supply ready for operation when needed?
- Do you only have a few minutes for repairs during a “pit stop”?
- Have you thought of prophylaxis through maintenance, inspection and check-up?
- Do you expect a competent hotline that you can reach?
- And if rapid action is demanded: remote access!

We take service seriously. After all, the better your system is maintained, the more reliably it runs. The less intervention, the more stable its performance. We carry out preventive maintenance for your system so that emergencies remain a rare occurrence. We monitor your system permanently so that bottlenecks are detected promptly.

Admittedly: technique remains technique. And technique can fail. With “network competence”, our preventive maintenance begins with proper laying of the fiber optic cabling: tensile forces, bending radiuses, clean connector surfaces, acceptance measurements and handover records – you can see experts are at work here. So that quality and reliability are given the very highest importance from the outset.

By analyzing the existing networks in regular cycles using cutting-edge measurement technology, we examine the efficiency and reliability of your network.

The same goes for the system technology. It is configured and documented carefully. Regular maintenance is a must for fire and danger alarm systems!

And if a server or alarm system happens to fail: we rectify the fault quickly in a competent and qualified manner.

Put your trust in euromicron here, too: we deliver quality, in our service work as well. Be it consulting, maintenance, fault rectification or replacement. We can be reached globally and locally on the ground. Nationwide. In the briefest of times.

**euromicron: We take service seriously!**



# Building technology

Top-class air-conditioning for your data center



- Do you like working in overheated rooms?
- Does your performance slump and your water consumption soar when it gets hot?
- Do you then long for air-conditioned rooms?

Then you should also create ideal operating conditions for your data center.

Air-conditioning at data centers is thus vital to ensuring a reliable and constant temperature for IT equipment.

Since IT systems have to be switched off if the air-conditioning at a data center fails, this system should be designed to be highly available.

The specific power of 500 W to 2,000 W per square meter of machinery room has a great impact on the design of air-conditioning for IT systems.

Detailed and proper planning of the powers that are consumed and have to be dissipated is therefore indispensable for optimum dimensioning of the air-conditioning along with the necessary redundancy.

We provide you with competent consulting and air-conditioning solutions for electronic data processing that are tailored to your needs.

Choose between different cooling systems, external or internal compressors and variable means of ventilation.

Air-conditioning, refrigeration and ventilation systems

Fire extinguishing systems

Block-type thermal power stations

In all areas of building technology, you can now find

**Solutions made by euromicron!**



# Contact



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### QUALITÄTS- MANAGEMENT

Wir sind zertifiziert

Regelmäßige freiwillige  
Überwachung nach ISO 9001:2000



Anerkannter  
Errichter  
DIN 14675



DKE/VDE: Working party  
„Data center infrastructure“

