STULZ

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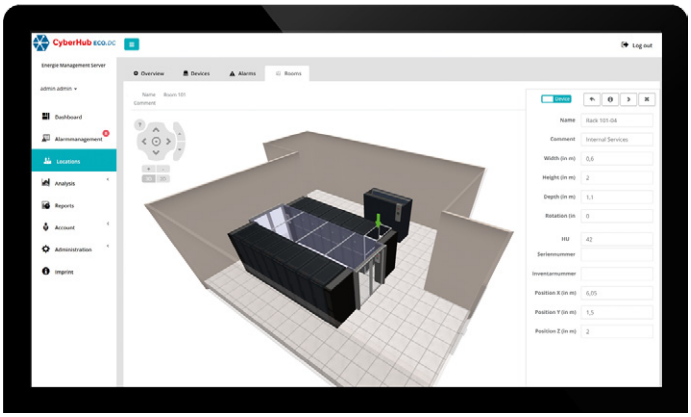


CyberHub ECO.DC

Maximum reliability and efficiency for small and medium-sized data centers with just one central software solution.

The complete range of air conditioning technology – from one source.

For over 50 years, the STULZ family-run company has been synonymous with precision air conditioning at the highest level.

Our solutions for the air conditioning of business-critical applications and sensitive systems have made us a leading company in our industry.

Whether for data centers, industry or communication technology, the STULZ portfolio has a tailor-made cooling solution to suit your requirements.

We guarantee adherence to our uncompromisingly high requirements and quality standards both at our factory in Hamburg and all our production sites around the globe. Moreover, we work hard not only to satisfy our customers' individual wishes, but also to make sure our air conditioning solutions offer maximum energy efficiency and a minimal CO_2 footprint.

Our portfolio extends from traditional room cooling and High Density Cooling to chillers, air handling units and container modules, all the way to micro data centers, service, and our self-developed monitoring software. An all-embracing quality assurance system monitors all the details in development, production, implementation, and service.

Today, STULZ has a presence in more than 140 countries. STULZ GmbH has 23 subsidiaries and eleven production sites in Europe, India, China, and North and South America. We also have partner agreements with numerous sales and service partners on every continent. Our network of highly qualified specialists is a reliable guarantee of the highest standards.

The combined wealth of our experience, values, performance and service is what defines us and is especially valued by our customers. Air conditioning solutions – custom tailored and from one source: **ONE STULZ. ONE SOURCE.**

Monitoring around the clock

Centralized software solution that monitors, analyzes and manages your data center

With CyberHub ECO.*DC*, information on air conditioning, energy consumption and the installed hardware is collected and can be analyzed in a central application. The monitoring solution helps you achieve three goals: Cutting operating costs, reducing the impact of unplanned downtime significantly, and ensuring quick response time to external influences or defects.

Energy consulting
With CyberHub ECO.*DC*, you have the possibility to optimize your air conditioning system to the maximum of its potential. If you need support in energy matters, STULZ is always available as your partner for energy advice. Our software provides the data and together we develop the ideal optimization options to ensure that your data center is as efficient and fail-safe as possible.

One central solution for your piece of mind

Security
CyberHub ECO.*DC* is an on-premises solution, so data is stored locally and not in the cloud. This gives you complete control over your data and processes.

Monitoring

Status reports

Alarm management

Usability

Analysis

Savings on operating costs
Precisely track down potential savings and implement them immediately.

Maximum reliability
Round-the-clock monitoring of measurement data (e.g. to avoid hot spots or energy overload).

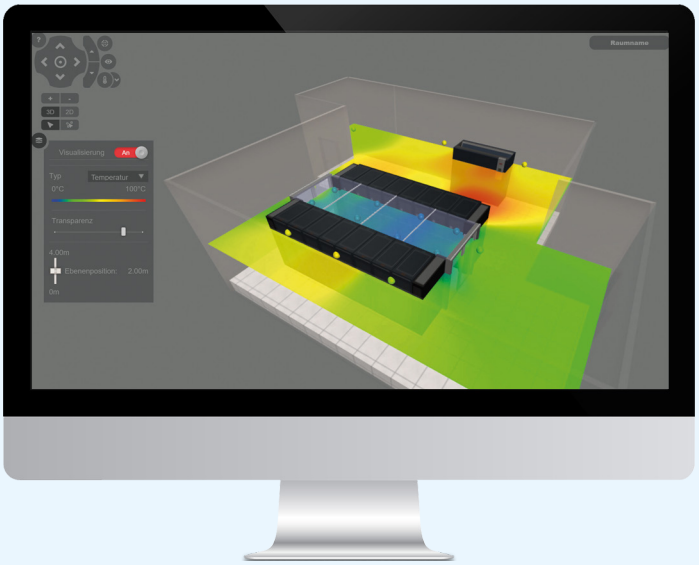
One system for all data
Collect measurement data from all energy consumers (e.g. electricity, gas, amount of heat or cold), and collectively analyze them for the entire data center.

Scalability for a secure ROI
CyberHub ECO.*DC* is individually adapted to the size of the data center and the required range of features. The software can be tested in small sections before installation.

Browser-based
Simple and intuitive handling in any standard browser.

Monitoring 24/7, 365 days a year

CyberHub ECO.*DC* monitors your data center – including servers, switches, UPS, air conditioner, PDUs, and the whole environment (temperatures, humidity, pressure, energy) – around the clock.
This not only greatly enhances reliability – it also reveals previously undiscovered potential savings and enables them to be harnessed. Almost no data is left unrecorded, thanks to the high degree of compatibility. CyberHub ECO.*DC* supports numerous industry standard protocols, and therefore functions as a higher-level system that can display and analyze a wide variety of information.



3D visualization – uncovering weak points!

The CyberHub ECO.*DC* software generates 3D thermal images of your data center with just a few clicks. This way, you can adapt your air conditioning immediately and flexibly to the current IT heat load.

- Operating costs can be reduced by up to 30 % without jeopardizing reliability.
- The static pressure in the raised floor can be measured for optimum cooling and to reduce power consumption.
- Alarm protection against overheating: The thermal image provides a constant overview of the servers' operating state. Hot spots are identified, and the air conditioning can be adapted immediately.

Monitoring the power supply – the ability to react fast!

- Maximum reliability: CyberHub ECO.*DC* helps ensure reliable data center operation.
- With the appropriate measuring equipment and associated protocol (Modbus, SNMP), the sources of errors can be displayed.
- Power shortages can be detected at an early stage.
- Integrated, intelligent PDUs (power distribution units) can determine and analyze server loads.
- Status reports can be relayed to different recipients.
- Thermal images are generated quickly and easily, and the integration of temperature sensor values renders thermal imaging cameras superfluous.

Status reports – individualized and automated

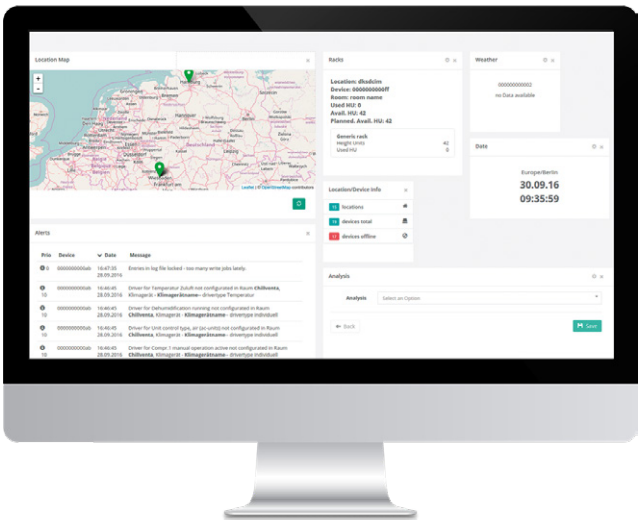
Individual status reports are created in the system, generated automatically or manually, and downloaded or sent. This saves you a lot of work, as it is no longer necessary to manually collect and prepare data.

Content:
All the relevant key performance indicators, diagrams or alarm histories of the past period

Design:
Customized company design

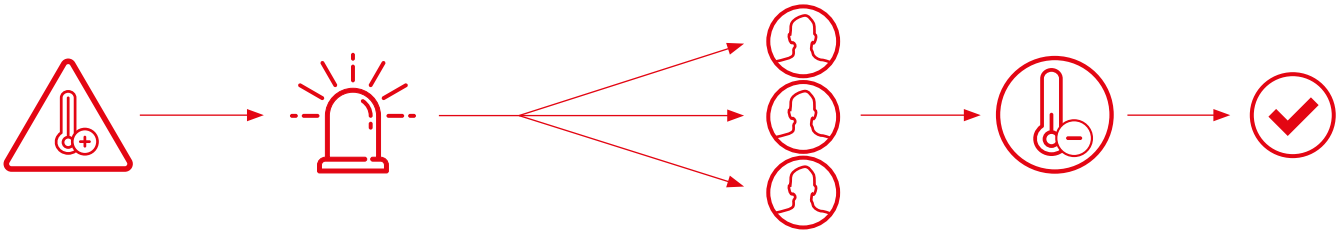
Distribution list:
Selected internal and external recipients

This feature is especially useful for colocations, where customers expect individual proof of compliance with their SLAs (Service Level Agreements).



Alarm management

With the aid of the alarm manager, you can individually configure limit values for warnings and alarms, and so determine when to trigger a warning, and when to trigger an alarm. Notifications are sent automatically via e-mail or SMS.



In addition, limit values can be defined for selected warnings. If the values exceed or drop below a defined limit, the system issues a warning so that action can be initiated quickly and critical situations averted.
To make sure that a warning or alarm does not go unnoticed, the alarm manager offers an escalation stage and acknowledgment feature.

After a set time without the user acknowledging the warning or alarm, the system also notifies various other entities. This ensures that each warning and alarm is noted, and the data center can continue to operate reliably.

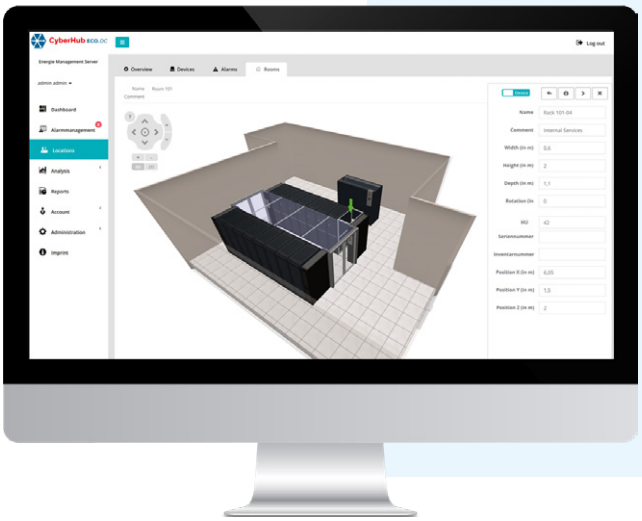
Usability: user-friendly at all times

The software is browser-based, and displays data via any common browser regardless of the operating system. Thanks to its user-friendly interface, customers are able to configure the system without external support (after a short training period). Complete installation and de-installation without structural changes – fast, flexible and uncomplicated systems.

Room planning included – Easy and fast planning of racks and servers

CyberHub ECO.*DC* enables you to find suitable spaces for servers very easily. It also checks how many height units are available in a server installation.

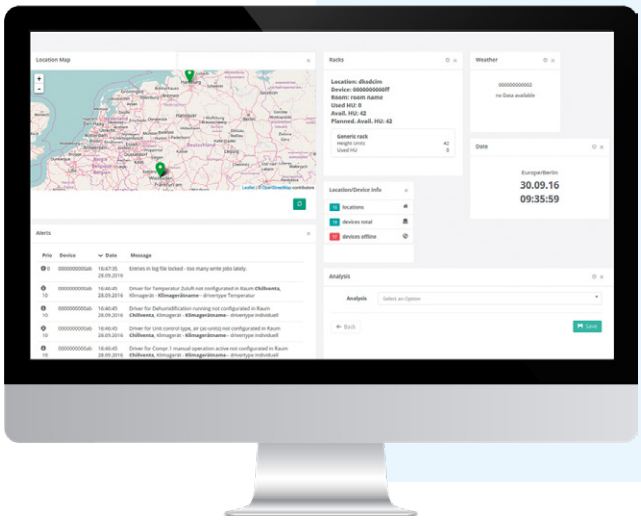
Continuous monitoring also helps to ensure fast, uncomplicated planning, e. g. by keeping an eye on phase utilization in the data center, so that server loads can be distributed between the appropriate phases.



Management – simple and uncomplicated

All components (e.g. racks or servers) are assigned certain names, comments, serial numbers and inventory numbers, because monitoring calls for good organization. You remain flexible at the same time because the entire system can easily and quickly be extended to include new components. Servers, UPSs, switches and NAS can be linked to your browser console, and therefore opened directly from the program.

The result: Manage the entire infrastructure with just one system.

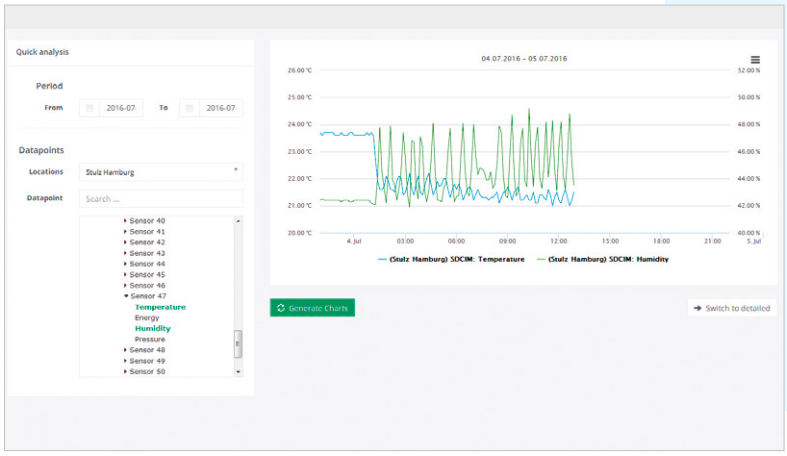


Dashboards – important key performance indicators and values immediately at a glance.

- Recognize shortages: Dashboard of all relevant measurement data to prevent shortages.
- Reliability in detail: Dashboard of values from individual rooms in the data center quickly indicates whether normal operation is assured.
- Gain an overview: The dashboard can be fully customized by each user and provide an individual overview.

Analysis: Protect and make savings with big data

CyberHub ECO.*DC* continually collects data and uses them to create easily comprehensible diagrams. You will therefore be able to recognize and minimize risks that pose a threat to data center reliability.



At the same time, it reveals potential savings that were previously hidden from view. Appropriately measured, the energy consumption of each energy consumer can be individually checked – helping to lower operating costs in the case of new investments. The payback time for new investments can also be rapidly calculated and backed up by a before/after comparison of measurement data.

Service – even simpler and more efficient

Make use of our services, which can assist you with installation and during ongoing operation – and make your work easier.

Software installation
Complete or partial installation: You decide which information is relevant for you. We take care of installation and setting up all the required features:

Option 1: Software installation

Option 2: Software installation incl. setting up rooms and servers

Option 3: Complete installation including a varied range of measuring modules and sensors, and setting up CyberHub ECO.*DC*

Optimized air conditioning, site energy analysis
Your air conditioning systems work efficiently if they are adapted to the actual demand of your IT.

Increases in room temperature, reduced airflow rates, etc. – our Service Team flags up energy savings without jeopardizing your IT's operational reliability.

After consultation, we take the necessary optimization measures together with you. Potential energy savings of up to 30 % can be achieved, guaranteeing a short investment payback time.

CyberHub at a glance

Operational reliability
CyberHub ECO.*DC* runs on standard hardware and software and therefore keeps system maintenance simple. Our Service Team will be happy to help you at any time.

Energy efficiency
Continuous monitoring optimizes processes in the data center and reduces energy consumption.

Compatibility
Thanks to web technology, CyberHub ECO.*DC* can be used on many different platforms. The system runs on the Linux operating system, and displays data via any common browser.

Independent
CyberHub ECO.*DC* is not dependent on any particular make or manufacturer, and uses the most popular protocols for communication.

Integration
CyberHub ECO.*DC* can easily be integrated in existing systems. Of course, our team is at your disposal for support and help with installation.

Intuitive handling
Installation of the software is simple, and the clear layout makes it user-friendly at all times.

Scalability
Only use those modules and features of CyberHub ECO.*DC* that you actually need.

Made-to-measure installation
You decide how much support you need for installing the software. We will be happy to help you all the way to complete installation.

CLOSE TO YOU AROUND THE WORLD

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