

Excellent Technology, Efficiency and Quality

Service 4.0 for the opportunities of tomorrow

A photograph of two men in business attire and hard hats shaking hands in front of a background of high-voltage power lines and towers under a blue sky. The scene is backlit by the sun, creating a silhouette effect.

360°

Proactive 360° service
to secure business-critical processes –
tailored to the requirements of Industry 4.0

Ensuring the Continuity of Operational Processes Today and in the Future



Terms like the "Internet of Things", "Industry 4.0" or innovative mobile communication technologies like the 5G network stand for the opportunities of tomorrow. As these technologies include or are used for critical processes, secure and economic strategies aiming at highest availability are required.

Ensuring the Continuity of Operational Processes

Today, business and operational processes strongly depend on uninterrupted power supplies because even failures lasting only a few seconds might have serious consequences for the productivity, reputation and profitability of a company.

In a study carried out by Forrester Research and Disaster Recovery Journal in 2010, 44 % of the IT managers and CEOs surveyed stated that the biggest damage resulted from operational interruptions due to power failures.

This highlights that energy availability and quality are the most crucial factors with regard to the continuity of operational processes.

Failures or disturbances of the power grids are virtually inevitable. The downtimes resulting from this, however, will not only cost the affected companies time and money, but might also have an impact on the companies' reputation or result in customers being dissatisfied.

Detecting risks and eliminating them pro-actively

In order to prevent such damages, a high-quality preventive service and maintenance concept is required.

Among other things, "preventive" or "pro-active" means that your power supply system can be monitored and controlled continuously via remote access.

In case of any anomalies, it might be sufficient to make some system settings via remote access or to install firmware updates.

If an impending potential problem cannot be corrected, a service technician will be sent automatically and pro-actively on the customer's behalf – without a phone call being necessary – who will carry out corrective maintenance, observing specified response and arrival times to restore system operation on site.

Why choose BENNING's 360° services?

• lower risk	... through pro-active services
• increased availability	... through preventive maintenance and service concepts
• no over-investment / full cost control	... through various and flexibly customizable service packages (contract options) meeting your individual requirements
• rapid response times and easy access to support	... through customer proximity thanks to a global service network with more than 25 subsidiaries worldwide
• easy communication (clear agreements)	... thanks to one single partner for all your power supply requirements
• quick and assured ROI	... through maximum system availability and minimized downtimes

High availability provides safety ... and enhances profitability



Your power supply system can be monitored continuously and controlled preventively via remote access.



Effective high-availability strategies must be based on a thorough risk analysis. Subsequent cost-benefit analyses then provide a basis for the operator to decide on the measures to be taken.

A holistic approach is of process-critical significance

Understandably, companies often try to achieve the highest possible availability with the lowest possible support costs. For this reason, companies tend to train their own staff to carry out simple service work.

Generally, however, these measures and the available technical know-how are not sufficient to ensure completely safe and reliable operation. Moreover, companies often ignore the fact that the assignment of their own staff can also mean a considerable effort with regard to time, personnel and costs.

To minimize or even to completely avoid such failures right from the beginning, companies need a holistic approach including hardware and software support. This is because both pro-active prevention and elimination of failures are of process-critical significance.

Cost-effective implementation of high-availability strategies

For this reason, an effective high-availability strategy must be based on a thorough risk analysis. The classification of risks based on problems that have already occurred, a possible loss of sales or expected damages regarding the company's reputation should result in the prioritization of possible measures to be taken in order to prevent these risks.

For quantitative risk assessment, this prioritization then can be provided with a cost-benefit analysis in order to define the measures to be taken to prevent the risks.

This is why BENNING's service strategies combine planning, prevention and corrective maintenance to ensure continuous operation.

Today's typical service approaches need to be changed

status quo of current service strategies

- many different service partners for each individual subsection of the entire infrastructure
- reduction of system failures and shorter downtimes
- service contracts linked to the corresponding subsection

service for high-availability strategies in the age of Industry 4.0

- integrated holistic approach for the entire process-critical infrastructure with one single partner
- preventive maintenance and use of options aimed at an optimized performance
- flexible SLAs focusing on individual risk requirements and operational demands

With BENNING your processes are perfectly prepared for the challenges of today...

... and for the opportunities of tomorrow



What does service for high-availability strategies have to include?

Today, service for high-availability strategies of process-critical systems have to focus on the requirements of tomorrow and thus must include the following:

- flexible service options and levels which can be adjusted to your budget and your individual requirements
- one single partner for standardized services worldwide
- quick access to specialists having first-class technical know-how
- remote system monitoring for pro-active control in order to minimize or even to prevent interruptions at an early stage already
- access to a comprehensive and worldwide available repair and spare parts management with clearly defined services for replacing parts and components quickly and efficiently
- creating a basis for companies to develop their power supply infrastructure step by step in order to improve reliability, performance and profitability
- pointing out potential savings related to the product life cycle taking into consideration the corresponding service level and the desired availability

Today, BENNING offers pro-active 360° services

- | | |
|--|---|
| <ul style="list-style-type: none"> • minimizing downtimes and risks through: | <ul style="list-style-type: none"> • comprehensive maintenance on a regular basis • pro-active checks (also via remote access) • preventive and pro-active measures and services • quick response in case of service required |
| <ul style="list-style-type: none"> • reducing operating costs through: | <ul style="list-style-type: none"> • performance and life cycle management • retrofitting measures |
| <ul style="list-style-type: none"> • ensuring required availability through: | <ul style="list-style-type: none"> • flexible and expandable service levels • Individual maintenance and service concepts tailored to your business and operational processes |



Close to our customers thanks to our global service network

Our service and training centre is located in Bocholt (Germany). A global network of BENNING subsidiaries offers installation, commissioning and maintenance services around the world.

Maintenance and Service Concepts Tailored to your Business

Today's working life and - even more - that of the future are characterized by highly dynamic processes. This is why service contracts must be flexible and customizable to meet these ever changing demands. The resulting flexibility ensures costs are minimised. Flexible support concepts take into consideration operational innovations and - at the same time - ensure optimized system availability. As one of the leading manufacturers of AC and DC power supplies, BENNING provides comprehensive service and maintenance contracts tailored to your individual needs.

Helpdesk - service according to our customers' demands

Even if you don't opt for the all-round service of BENNING's hotline, you may use the BENNING helpdesk. The helpdesk is a phone service which is available for our customers 24 hours a day and 365 days a year free of charge. It offers professional and competent help via the phone for all our customers. The targeted questions of our multi-lingual staff will help you to give a precise description of your problem as fast as possible. In order to ensure optimum support for our customers, our helpdesk staff has permanent access to all data sheets, circuit diagrams, project folders and other documents.

Reliable Spare Parts Management

BENNING's device and spare parts management will ensure optimum support of your products throughout their entire lifetime. For this, the most sophisticated testing and measuring methods are available to our qualified technicians. This guarantees a quick analysis of the occurring faults and ensures proper corrective maintenance. The resulting flexibility and time saving help you to maximise system availability. Furthermore, we ensure the prompt supply of spare parts by means of modern logistics. This service allows you to minimize your own spare parts stock and thereby to save costs.

Remote Monitoring – detecting faults before a damage occurs

If you wish to monitor your system constantly in order to increase operational safety and reliability or to protect your investment, it is possible to realize an online monitoring (hotline) of your system via the central BENNING control center. Hence, faults are prevented before major damage occurs. If the control centre detects a problem that requires a service call the control centre will coordinate this service using one of BENNING's subsidiaries.

A reliable partner for your process-critical infrastructure

The time and costs required for managing different service partners quickly put into perspective the service benefits involved. BENNING is your competent partner for all operationally relevant subsections.

You will benefit from an in-depth expertise, which BENNING has gained in many decades of experience in various market sectors such as industry, telecommunications, medical engineering or data centres.

Due to this experience, BENNING is pleased to offer a vast portfolio of individual industry solutions ranging from the planning and development of individual power supply concepts, their installation and maintenance to helpdesk services with regard to reliability issues.

360°

By placing your trust in a BENNING system you have decided on a high-quality product from a world leader in the production of AC and DC power supplies.

Benning offers a reliable, globally orientated service structure that provides the best possible support for your requirements. You have access to high-quality support, spare parts and expert knowledge – wherever and whenever you require them.

With a Benning service contract you can rely on a high standard of service with reliable delivery dates and rapid delivery of spare parts. With its pro-active services BENNING can help you secure the maximum availability of your current supply – helping you meet the challenges of today and the opportunities of tomorrow.

BENNING – more than 25 company-owned subsidiaries



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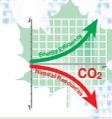
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