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Top 10 Data Center Solution Providers - 2019

As organisations are adopting new technologies, the need to upgrade, expand, and reconstruct IT infrastructures are rising as well. As a result, organisations are turning to data centres designed and equipped to meet their high-density computing needs. Through a data centre, an organisation can reap benefits such as around-the-clock operations at lower costs, rapid deployment of applications, maintenance needed to sustain business functions, and consolidation of computing resources.

Data centres benefit organisations, but even they have to evolve and keep pace with technological innovations as data needs are rising at the speed of light. For this, a lot of data centres use AI for IT operations, also known as AIOps, which combines big data, artificial intelligence, machine learning, and virtualisation. Besides, data centres are transforming into cloud data centres that offer redundancy to clients by creating multiple facilities. However, multiple data centres mean

the operators have to maintain infrastructures such as power distribution, uninterruptable power supplies, power backup, cooling systems, and ventilation. Therefore, they are extensively using DCIM software to get a holistic view of a data centre's performance so that energy, equipment, and floor space are used as efficiently as possible.

With technological advancements in data centres and a multitude of solution providers, choosing the right partner in the market creates complications for an organisation. To assist the top decision-makers in identifying and selecting most advanced and trustworthy companies in the data centre space, CIO Applications Europe has selected a handful of leading data centre solution providers. We have considered factors such as expertise in the domain, skills, competencies, and the impact of the solution on the business.

We present to you CIO Applications Europe's "Top 10 Data Center Solution Providers – 2019."

Bender UK

recognized by **CIO Applications** magazine as

CIO Applications TOP 10
DATA CENTER
SOLUTION PROVIDERS - 2019

An annual listing of 10 companies that are at the forefront of providing data center solutions and transforming businesses



Joe Phillip
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Company:

Bender UK

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Description:

Provides continuous power monitoring systems to remove the need for power shutdowns and meet the demand for advanced data center availability and resilience



Eliminating Data Center Power Shutdowns to Ensure Maximum Availability

Even the smallest service outage is not acceptable to data center operators and their customers; it can lead to major service issues and undermine confidence in the resilience of the services they provide.

Tier 3 and 4 data centers are designed with redundant power from source to socket, to counter single failures. But power outages in data centers can still occur. Redundant designs are deemed to be concurrently maintainable but switching off systems even for periodic inspection, and testing carries with it the restart risk.

Continuous power monitoring systems from Bender are designed to remove the need for power shutdowns and meet the demand for advanced data center availability and resilience. Residual current monitoring (RCM) systems provide early warning of problems and enable predictive maintenance to deal with problems before they arise, effectively eliminating unscheduled shutdowns.

Importantly implementing continuous monitoring enables data centers to fulfil the requirements for regulatory checks without shutting down the power. That enables the data centers to provide continuous, reliable service to customers and removes the risks that accompany even the most meticulously planned restart.

Power shutdown during periodic inspection and testing is intrusive and provides only a snapshot of the status of a power system. All other tests during periodic inspection and testing can be carried out either with power on or with minimum disruption at circuit level.

The nature of the loads installed in data centers means residual current devices (RCDs) are not suitable because of the nuisance disruption caused by the devices tripping out. That increases the risks associated with insulation faults because the fault currents can become dangerously high.

It is particularly important to examine the detail of power system performance; to detect and evaluate fault currents, equalising currents and insulation faults in a finely granulated way. Insulation faults, stray currents, overloaded N conductors due to harmonics or asymmetrical loads, interruptions of PE and



N conductor and also EMC influences can interfere with the entire current supply system and impact the operation.

That impact can range from triggering several protective devices, and unexplainable malfunctions of protection or IT systems, to fire damage or even personnel injury.

“The advantages of Bender RCM technology are proven by its use in large data centers in Europe to deliver safer and more reliable systems and greater availability through advance warning of developing insulation faults. It can also pinpoint the locations of earth faults,” remarks Lisa Hudson, Marketing Manager, Bender.

Technical managers at the Regional Data Center Erlangen (RRZE) are meeting today’s challenges by employing Bender RCM technology to record energy consumption and residual currents in a large number of installations.

Head of RZ Domestic Engineering Stephan Heinrich explains: “I now see all the changes since they are automatically recorded and any abnormalities immediately lead to an automatic message. This way, even small disturbances can be detected early and do not cause a failure. Errors that do not constantly occur might not have been noticed otherwise. However, they are now detected by permanent measurement.”

Continuous residual current monitoring enables delivers real-time health check on the health of the power infrastructure, including cables and UPS systems, and monitors the status of connected equipment, including servers and printers. Various values are measured in real time at essential nodes in the power supply and recorded for subsequent evaluation

Residual current monitoring provides peace of mind and instantly alerts the control center if a problem begins to develop, equipping the operators to take action before the problem becomes critical. **CA**