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## ***Power System Reliability Modeling Aims To Reduce Downtime In Data Centers***

[Infineon Technologies'](#) Power System Reliability Modeling addresses the increasing challenges faced by data centers and telecom infrastructures due to power supply failures in the system. The offering consists of an algorithm running on a digital power controller, thus integrating software and hardware. Target applications of the solution include dc-dc converters, ac-dc rectifiers and IBC modules utilized in data centers, AI servers, GPUs, and telecom networks.

Power System Reliability Modeling acts as a bridge between component and system reliability. It enables real-time power supply health monitoring of the system and lifetime estimation based on dynamic system operating parameters, a power supply system model, and a reliability prediction procedure in digital power controllers by Infineon.

According to Infineon, this solution ensures improved device utilization and data-driven maintenance recommendations, translating into enhanced profitability and reduced total cost of ownership (TCO). Customers benefit from real-time system diagnostics for their power supply as well as powerful system reliability-based decisions and quality assurance. The solution is easy to use and integrate into existing designs, says the vendor. See the figure.

With 39% of downtimes attributed to power outages and an average cost of \$687,700 per downtime, the need for seamless operations and mitigation of financial impact is urgent. By integrating Infineon's power monitoring solution, organizations can enhance operational resilience, reduce their carbon-footprint and achieve substantial cost savings, according to the vendor.

"The Power System Reliability Modeling represents a pivotal step for Infineon and its customers towards reliable and stable power supply in data centers," said Adam White, division president Power & Sensor Systems at Infineon.

"Following our Product to System approach, the solution focuses on delivering hardware integrated with advanced software capabilities. This approach not only expands product capabilities and scope, but also empowers our customers to create more value and scale their operations faster."

Further information about the solution is available at [www.infineon.com/reliabilitymodeling](http://www.infineon.com/reliabilitymodeling).



*Figure. Power system reliability modeling by Infineon is offered as pivotal step towards reliable and stable power supply operation in data centers. The offering consists of an algorithm running on a digital power controller, thus integrating software and hardware. It enables real-time power supply health monitoring of the system and lifetime estimation based on dynamic system operating parameters, a power supply system model, and a reliability prediction procedure in digital power controllers by Infineon.*