Application Case:
Cybersecurity Leader Tackles Downtime Problem with Raritan PDUs
New PDUs significantly improve power management in factories and main lab

Mention power distribution units (PDUs) and the majority of people would think of data centers. But PDUs are used in other settings as well. In manufacturing, PDUs are used in several areas. In development and test labs, they are used to provide reliable and high-quality power to a diverse mix of equipment. On the factory floor, they power up (or down) machines and other equipment used in production and testing lines.

Semiconductor manufacturing is especially challenging, with a myriad of processes using complex machinery in a 24×7, clean room environment. Multiple types of equipment from a variety of suppliers must be configured, maintained and efficiently utilized, and be provided with power at specific moments in time. Voltage, current, and power quality monitoring are critical to ensure that equipment work optimally.

Costly downtime

In such a setting, downtime is very costly. The Taiwan arm of a US-based cybersecurity solutions manufacturer found out just how disruptive and expensive unplanned production halts can be several years ago when the relays in the PDUs it was using in its factories started failing.

Each PDU was used for one testing line and turned power outlets on/off 50 times per day; each line conducted tests on 5-10 pieces of equipment. Each time a PDU relay failed to function properly technical staff would source for the replacement part and install it. The replacement relays typically worked for 3-6 months before acting up every 2-3 months, each time bringing the testing process to a stop.

Given that the enterprise operates 20 factories, each with multiple testing lines, such disruptions added up to a lot of production downtime and affected the business's ability to deliver end-products in a timely manner. With business growing steadily this was not tolerable and the enterprise decided in 2018 to replace its problematic PDUs with new ones.

The Raritan Choice

After careful consideration, the enterprise chose to use Raritan PDUs. Not surprisingly, the quality and reliability of the relays in the PDUs were very important requirements and the enterprise was very satisfied with the test and approval reports for the relays used in the Raritan models.

The Raritan PDUs offer real-time remote unit-level power monitoring of current, voltage, power, power factor and energy consumption with ISO/IEC +/- 1% billing-grade accuracy via a user-friendly Web browser GUI. They also support individual outlet switching and multiple units can be daisy chained using a USB connection.

As at the end of 2021, Raritan has implemented more than 600 PDUs in the enterprise's 20 factories and main development and test lab in Taipei. Replacement work is still in progress, with the pace set to increase to match a significant surge in orders to be delivered in 2022.

Clear Benefits

Among the benefits the cybersecurity solutions manufacturer has realized from the Raritan PDUs are significantly improved power management, enhanced system reliability, higher performance and efficiency in its factories and main development and test lab and, of course, zero unplanned downtime.

Going forward it is exploring the use of Raritan Serial Console Server to auto test its products as part of outgoing quality control testing, the final process before delivery. The server provides anytime, anywhere serial-over-IP access and control of serial devices such as servers, rack PDUs, networking devices, security appliances, wireless/telecom equipment, and virtual hosts.

Ready to find out more? Contact Raritan today.
Call +65 6817 9017 or visit www.raritan.com/ap

Raritan®
A brand of **legrand**®