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Testimonial

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REMOTE DATA CENTER MONITORING FOR FAIL-SAFE PERFORMANCE DURING A PANDEMIC

Amid the disruptive time of COVID-19 where working from home is now the norm for safety reasons, corporations face many challenges in such a difficult environment. They have to make sure that their businesses still function effectively and at a level similar, or higher, than before the pandemic hit. Besides dealing with reduced staff manning facilities and running operations, enterprises also have to comply with various regulations and measures imposed by the authorities to prevent spread of the disease.

One company taking this new situation in stride, and even gearing up to exceed its previous service expectations, is Unisys. The global IT services company provides high-performance, security-centric solutions for the most demanding businesses and governments, including digital workplace services, cloud and infrastructure services and software operating environments for high-intensity enterprise computing. How the corporation manages to raise the bar is through the help of some intelligent devices and committed support rendered by Raritan.

Glenn Robertson, APAC Data Center Services Manager, Cloud & Infrastructure Services, Unisys oversees the performance, governance and success of Unisys data centers in the region, and manages third-party providers for data center services across Asia Pacific. Housing many of the organization's most critical assets, the data centers represent the heart of the company in ensuring its continuous daily operations and services.

With a wide coverage of territories under his responsibility, Robertson constantly grapples with the daunting task of managing equipment, staff and partners spread across different time zones, with each geography having its own unique local requirements.

At the same time, as leader of Unisys' data center teams in Australia and New Zealand, he has to safeguard his team's welfare to minimize the risk of exposure to the coronavirus, while balancing the company's needs to run at an optimal level to cater to customers' needs.

Robertson admitted that in the data center environment, the biggest stumbling block that COVID-19 imposed on Unisys' operations came in the form of more stringent restrictions on physical access to racks and equipment in the data center.

OBJECTIVES

- Remotely monitor environmental parameters for every rack.
- Remotely control individual power outlets in each rack.
- Automated escalation and reporting of any environmental parameter that is not within normal operating specification
- Close integration of all tools and systems deployed to manage the environment and support service delivery

SOLUTION

- Raritan PX3-series Intelligent PDUs
- DPX/DX/DX2-series sensors
- PX3TS-series transfer switches

BENEFITS

- Seamless integration with Sunbird DCIM software, which is used to interface with Unisys' ServiceNow service management platforms for auto-ticketing and reporting
- PX3 PDUs are managed by a responsive iX7 controller that supports all of the required power monitoring and control functions
- Integrates broad range of environmental sensors and controls
- Raritan PX3TS-5191CR transfer switch has a hybrid design that was readily accepted and qualified by Unisys' co-location data center partners for use in their facilities

"Our data center facilities operate at minimum staffing levels while government-mandated working from home initiatives and travel restrictions are in force, with non-essential works deferred until coronavirus movement restrictions are eased," he underscored the problem.

Unisys upgraded hygiene protocols for more rigorous management of visitors, stepping up visitor screening, monitoring and tracking procedures to comply with and to assist government-mandated COVID-19 containment measures. Electronic monitoring of the site environment was also extended to compensate for fewer people on the premises to manage physical security and infrastructure performance.

Against this trying and tough setting, Robertson's team implemented a new equipment housing project to meet a growing surge in client services. This required remote monitoring of environmental parameters for every rack; remote control of individual power outlets in each rack; as well as automated escalation and reporting of any environmental parameter not within normal operating specification. This installation was to be housed within two co-located data center facilities to provide the new level of monitoring required. Furthermore, to guarantee 100% uptime, the data centers require intelligent power distribution units (PDUs) to constantly monitor real-time power utilization, to optimize deployment of critical resources.

RARITAN POWER PRODUCTS PREEMPT UNFORESEEN CRISES

After evaluating various products in the market, Unisys chose PDU specialist Raritan as its solution partner.

Unisys selected Raritan PX Intelligent Rack PDUs (iPDUs) for their trusted reputation, having been endorsed by Top 10 Fortune 500 technology companies worldwide. The equipment served as a centralized launch pad for real-time remote power monitoring, environmental sensors and data center infrastructure management.

The solution supports a variety of digital devices. Versatile USB ports in the PX line enable simultaneous connectivity to iPad, iPhone and Android interfaces, rapid configuration of PDUs, mass firmware updates, WiFi connectivity, and built-in webcam security features. To allow for future growth in activity, the interfaces will continue to expand the PDU's capabilities, with regular and free updates to the PDU onboard software.

Xerus, the Raritan technology platform common in all its intelligent products (PDUs, business continuity management, transfer switches, sensors and inline meters), makes the day-to-day work of a data center manager easier and more efficient. The ultra-secure hardware and software provide an open and flexible architecture for collecting data, alarm alerts, and communicating to operators and infrastructure software systems. The smart monitoring features of the series spot problems in advance, helping system technicians and administrators in pinpointing and pre-empting the troubles before they happen. A benefit of the product's intelligence is its ability to automatically notify the administrator of an event and react to a change in conditions – or built-in 'event rules', which cannot be deleted.

The PX's physical design elements adapt to tough conditions promise to protect a data center's critical load under any circumstances. Various sensors detect the ambient temperature, humidity, airflow, air pressure, and contact closure support for use with third-party sensors, a major requirement by Unisys. The carefully engineered design offers a simple user experience for seamless physical deployment, configuration, commissioning, monitoring and power delivery.

Moreover, hundreds of models and configurations are available to suit the Unisys team's special needs, with broad-ranging options encompassing outlet switching, individual outlet metering, high power, multiple connectivity options and 400V three-phase power distribution.

With a proven track record of 1.5 billion hours of runtime, the iPDUs have been shown to help eliminate human error, which is critical while only a only limited number of Unisys staff can man the data centers. Remote access of PX power data from anywhere, via an easily navigated PX web graphical user interface, allows off-site administrators and users to conveniently log-in from a desktop, mobile device or tablet. Color indicators display clear updates on the current state of monitoring thresholds, improving efficiency.

SEAMLESS INTEGRATION AND MANAGEMENT OF A HETEROGENOUS ENVIRONMENT

A must-have for Robertson is close integration of all tools and systems deployed to manage the environment, as well as support for service delivery. Known for its extensive data center infrastructure management solution (DCIM) interoperability, Raritan's PX3 PDUs works seamlessly with Sunbird's DCIM Suite software installed in Unisys' systems. The power units are managed by a responsive iX7 controller that supports all of the power monitoring and control functions needed.

A comprehensive range of environmental sensors and controls are easily incorporated into the solution. They function well with Sunbird's DCIM Suite, which had been configured to interface with Unisys' ServiceNow service management platforms for auto-ticketing and reporting, as well as to provide management tools (3D visualization, rack diagrams, cable schedules, capacity management, heat maps, etc.).

Robertson liked the flexibility offered by Raritan's devices. "The Raritan PX3TS-5191CR transfer switch is a hybrid design that was readily accepted and qualified by our co-location data center partners for use in their facilities," he said.

STAYING ON TOP OF TECHNOLOGY AND FUTURE NEEDS

Uncertainties on the future demand for data center capacity, functionality and performance are some of the issues that keep Robertson up at night. Typical data center facilities today are still essentially conditioned secure shelters for IT equipment, he feels. As more companies reduce or eliminate their on-premise IT equipment footprint, there is increasing pressure for data center operators to become directly involved in, to facilitate and/or to lead migration and integration activities.

"It is no longer sufficient for a data center manager to focus solely or primarily on operating and maintaining a modern sophisticated data center facility; it is now necessary to expand knowledge and competency to prepare for implementation and delivery of a much broader range of IT support services to very demanding clients," he pointed out.

Robertson expressed doubt that anyone can really stay on top of the technology curve, especially in a fast-changing world. However, his team strives to constantly improve operating efficiency and reduce operating costs while achieving the highest possible availability.

"Not all new technology can be economically implemented within an existing operational data center facility. Thus we endeavour to adapt or to replicate innovative functionality or performance improvements, to extend or expand the capabilities of our facilities, and thereby deliver greater value for our clients," he explained.

His advice: watch and obsere industry trends, keep in touch with technology partners, listen to clients' aspirations and priorities, and ongoing self-education are all key to weighing up the pros and cons of implementing new technology, and to get a glimpse of what is in development for tomorrow.

Even though the fast-changing technology trend spells uncertainty, Raritan's rack power distribution hardware has been engineered for future-proofing to remain in place through multiple technology refresh cycles, often for a decade or more. PX iPDUs support both current and longer-term growth demands with the most advanced technology and highest power densities available in the market. These assurances should allay some of the risks in Unisys' scalability path.

BEST-IN-CLASS SERVICES

Robertson is happy with Raritan's solutions and services. "From the first enquiry all the way through to our continuing relationship today, Raritan has been responsive, listened to and understood our goals, objectives and priorities, and worked very closely with us to develop and to implement a solution that have met or exceeded every functional and performance requirement. I have no reservations about recommending Raritan to anyone looking for a reliable, modern, high-performance DCIM solution," he said

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