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Intelligent Systems

A Turnkey Solution for the Smart Grid

Unprecedented levels of reliability, efficiency and security.

The Smart Grid provides the energy industry with the opportunity to reach unprecedented levels of reliability, efficiency and security in serving consumers. The digital technology of the Smart Grid enables two-way communication between utilities and customers, and sensors that can monitor transmission lines. With this technology, electricity can be restored quicker after disturbances; costs can be decreased for both utilities and customers; and consumers can better control how much electricity they use, when they use it, and how much it costs – among other benefits.

Similar to the Internet, the Smart Grid consists of a vast number of parts that work together, including computers, power lines, devices, technologies and equipment. Tantalus, a Smart Grid technology company based in Raleigh, North Carolina, provides an integral part of that system: Tantalus Utility Network (TUNet) , a network that enables utilities to monitor, control and respond to events anywhere, at any time. TUNet serves as the backbone for two-way data communications networks for electric, water and gas utilities. Its technology enables a utility to conduct more efficient operations, to have more accurate billing and to provide a higher level of customer service. The heart and brain of TUNet is the TUNet Control Center (TCC). This software application manages the network communications and all the data retrieved from intelligent endpoints across TUNet.

Since 2010, Tantalus has leveraged the partnership of Hewlett Packard Enterprise Original Equipment Manufacturer Program (HPE OEM) and Arrow Intelligent Systems (AIS) to deliver the hardware that powers its network. HPE OEM provides the hardware including racks, high-speed cabling, Ethernet switches, servers, disks, arrays and power bars. Arrow acquires the hardware from HPE OEM, assembles the entire system, loads the software, does the initial configuration and documentation of the software, and ships it to Tantalus' customers.

"HPE brings a solid, reliable and reputable enterprise-grade product to the solution," says Harold Hankel, vice president of manufacturing at Tantalus. "And because of the purchasing power and the relationship that Arrow has with HPE OEM, Arrow is able to help us meet both our schedule and our customers' needs."

Contact our dedicated HPE team at <u>intelligentsystems@arrow.com</u>.

> Tantalus achieves efficiency and reliability with Hewlett Packard Enterprise and Arrow Intelligent Systems.

Tantalus

Hewlett Packard Enterprise

Solid Hardware Foundation

TUNet provides closed-loop communications to the end metering devices deployed by utilities. With Advanced Metering Infrastructure (AMI), TUNet enables the utilities to remotely read billing data and receive power quality and outage data from electrical meters. The system can also support non-electric utilities and communicate with third-party water and gas meters. Utilities customers can take power consumption into their own hands, monitoring their energy usage and decreasing it during peak hours when the cost might be higher.

Tantalus hardware and software enables utilities to utilize the collected data within their own corporate assets.

"With TCC, utilities get hourly or even 15 minute power consumption reads, as opposed to the monthly or bimonthly meter readings they would receive manually," says Hankel. "So you now have much more granularity, while decreasing the labor costs required to get that data."

TCC consists of a collection of servers with additional disk storage. The typical configuration is three servers — a database, application and presentation server — plus an external storage drive array. The hardware is 100 percent HPE, says Hankel.

"HPE's quality products are well recognized among our customers," he says. "We also receive ongoing technical and warranty support, which provides us with the reliability our customers need."

Resource and Time Savings

Originally, Tantalus selected Arrow to supply the HPE hardware, as a premier distributor of HPE OEM. Eventually, Tantalus employed Arrow to assemble and ship the entire TCC system to customers as well. Arrow also manages the warranty submissions between the customer and HPE.

"Not only was Arrow an authorized HPE distributor at the original equipment

manufacturer reseller pricing, but their team also had the capability to do the integration, testing and shipping," says Hankel. "It's a turnkey solution for us — that's the real power that Arrow brought to us."

Hankel says leaving the assembly of the systems to Arrow saves Tantalus considerable time and resources that would be required if the company had to do the work itself.

"It took a lot of work off of our shoulders and left it to people who build these systems day in and day out with the right tools, processes and procedures. They also have multiple people trained, so we don't get interruption of supply when someone has to take a vacation, for example," says Hankel. "They're used to this type of work and are well-positioned to manage it."

A Trusted Partner

Hankel values the efficiency of talking to one vendor for the entire procurement process. He has weekly meetings with a dedicated Arrow team to manage orders. "I don't have to talk to ten different vendors. I've got a single interface and we've got a very good working relationship," says Hankel. "Arrow has been very supportive and helpful in solving problems and helping us deliver a quality, cost-effective solution to our end customers."

Hankel says Arrow also helps Tantalus' customers get their products faster.

"We have seen that cycle times are better — Arrow is able to expedite getting the hardware because of their relationship with HPE OEM," says Hankel. "There's a big benefit to getting these systems ordered, built and shipped in a timely fashion. It's very important for us to work with someone who is able to make a commitment to a ship date and hold to it."

Hankel's trust in Arrow's ability to deliver ultimately means that he can allocate his internal resources to other value-generating projects.

Next Steps

Hankel hopes to expand the benefits Tantalus has received working with Arrow to other parts of the business. In the near future, he plans to utilize Arrow's expertise to help build and ship an industrial computer system in the Tantalus network.

"I'd like to utilize Arrow to provide me with turnkey solutions for other parts of our business," says Hankel. "Arrow has the relationship with HPE that a smaller company would not. So whether there's a commercial issue or a technical issue, Arrow has the right expertise and contacts to help us solve our problems faster."

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