Consolidation and Capacity Planning

Nlyte Energy Optimizer infrastructure software helps a US government agency consolidate an aging, nearing-capacity data center into a modern, energy efficient facility.

MEGAWATTS OF POWER: 5
NUMBER OF POINTS MONITORED: 1,100
WHITE SPACE SQUARE FOOTAGE: 8,000
NUMBER OF LOCATIONS: 1

THE BUSINESS SITUATION

The customer, a large US government agency, had an older data center which they considered dangerously near capacity. It contained a variety of equipment, some of it aging and inefficient. After careful analysis, the agency determined that it would be more cost-effective in the long run to move to a larger, newer site than to expand the current facility. Their goals for the new site included maximizing energy and space efficiency and preparing for future expansion and growth. In addition, the agency had a priority to simplify and streamline its operation, with one comprehensive DCIM solution.

ENTER: NLYTE ENERGY OPTIMIZER

Nlyte Energy Optimizer, (formerly FieldView) a part of the Nlyte suite of data center solutions, is a software solution that helps all types of data centers run at peak efficiency. It provides real-time information about all the critical systems in a data center -- both IT and Facilities systems -- in an easy-to-use format that empowers management to make great decisions based on facts, not guesses. Users get the most out of the equipment and space available, reduce energy and cooling consumption and proactively plan for future expansion.

The solution is an open platform, able to speak a variety of languages and protocols, enabling clients to free up data that might otherwise be siloed and inaccessible. The real-time energy reports allow consolidation without overload.

THE RESULTS

The customer selected Nlyte from a wide range of possible solutions, with the decision made based on the solution’s comprehensive nature. They knew that for their move to be truly successful, consolidation required a real-time view into IT power usage as well as management and facilities equipment.

To ensure that the new facility was loaded as efficiently as possible, the solution was installed early on in the consolidation process. As new servers were purchased and older servers were moved from the old facility, Nlyte Energy Optimizer made the selection of their location, their installation and power management simple and straightforward with its easy-to-use and easily navigable dashboards. Because the solution is hardware and vendor neutral, it can communicate easily with whatever equipment a client already has, no matter what its manufacturer or the protocol it speaks – this even includes legacy equipment.
So connecting and monitoring the great variety of equipment of different ages that the agency owned was no problem. The customer referred to Nlyte Energy Optimizer as “infinitely flexible” adding that it is “not tied to any particular piece of hardware.”

The solution’s real-time reporting of energy usage allowed the customer to consolidate the white space in the facility and more closely manage circuits and understand where the power and cooling limits were and how close the data center was to those limits.

“Nlyte allowed us to get more out of our circuits. Capacity utilization can now go up.”

With the help of smart power strips, instead of keeping all server circuits at 30% of rated capacity to insure redundancy, Nlyte’s window into server power management allowed the addition of new equipment to the center with maximum utilization and efficiency, with only a few clicks of a mouse.

Because of Nlyte Energy Optimizer’s comprehensive environmental monitoring capabilities, as servers were added, the heat load was observed in real-time, with a full suite of graphics, alarming and other notifications. Wasting resources through over-cooling was no longer an issue.

With the solution’s full complement of reports and alarms, managers from both IT and Facilities are now able to coordinate their energy usage. Clients have reported energy savings of 10-25% after installing the solution. The comprehensive view of the data center that it provides makes possible both big picture planning and drill-down monitoring all the way to the individual circuit.

The customer got what they had hoped and planned for – a larger data center, with a smaller environmental footprint than prior to the migration. Now they are able to operate a data center that’s simpler to manage, more efficient and streamlined, with plenty of room to grow. And since Nlyte Energy Optimizer is massively scalable, the solution is ready to grow, right along with the customer.

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