

Managed services provider reduces data centre PUE and hotspots across global sites.



Executive Summary

Customer Name: Options
Industry: Financial Services technology infrastructure service provider
Location: London and worldwide
Company size: 70 staff

Challenge

- Ability to monitor, alert and report on power utilisation across global data centre estate
- Optimise power and rack space utilisation
- Integrate management solution with multi-vendor infrastructure
- Balance power loads to increase efficiencies

Solution

- Automated, real-time power monitoring with InSite
- Global view of all facilities down to rack level
- Web-based business reporting anytime and anywhere

Results

- Reduced PUE
- Load balanced power draw across data centre
- Automated reports
- Visual representation of all data centres delivered through secure web portal
- 6 month RoI

Challenge

Options Technology is a premium technology infrastructure service provider operating exclusively in the Financial Services sector. It provides services globally to over 130 firms including leading hedge funds, broker/dealers, proprietary trading firms, funds of funds and private equity houses. Options' clients operate 24x7 and transact \$billions across its PIPE® platform. Critical to its success are high reliability and low latency.

Options runs its own data centre in London and delivers services from over 20 colocation facilities worldwide. With a rapidly growing business, a focus on reliability and an acute awareness of growing energy prices the company sought ways to optimise its data centre and rack layouts in order to balance loads, increase densities and maximise efficiencies. What Options lacked was a suitable tool to enable this, a challenge made harder by the multi-vendor nature of its infrastructure – ranging from the chillers to the UPS to the rack PDUs (Power Distribution Units). It needed a DCIM (Data Centre Infrastructure Management) solution that could cope with such a dynamic environment.

Seeking a solution, Options reviewed several products, including the latest release of the incumbent APC solution, but was particularly struck by InSite's ease of use and flexibility compared to other products. ***“Too many DCIM products on the market are over-complicated, are not intuitive to use and come with a price tag that makes them unattractive”***, says John Bryant, CTO.

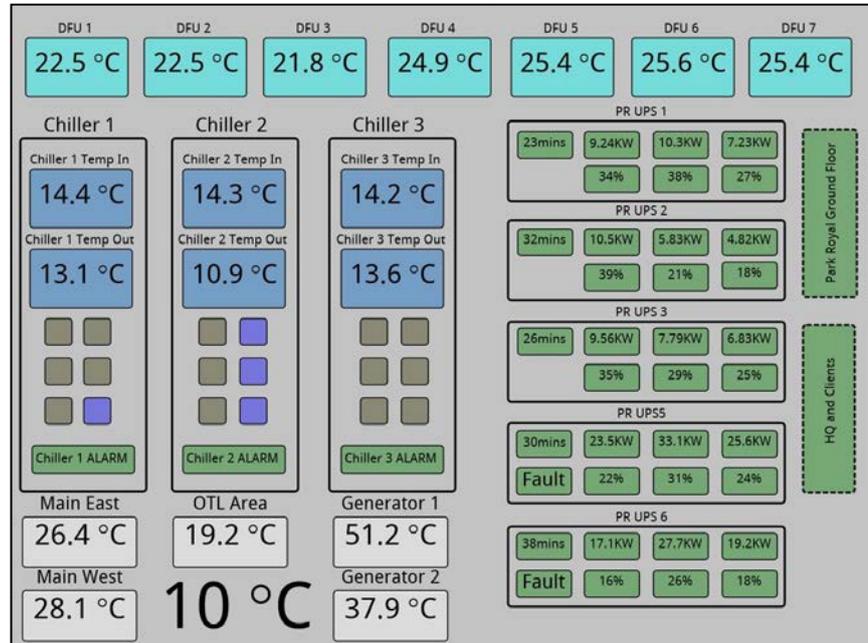
Solution

Following the product trials, Options decided that InSite offered the best value solution for its complex, multi-site environment. It became quickly apparent to Glenn Selby, Data Centre Manager, that InSite offered the solution he needed:

“InSite provides the real-time monitoring we need combined with an in-depth reporting suite which provides detailed analysis on rack-level power consumption and other key operational variables.”

Each Options rack is fitted with two metered PDUs (mostly single phase but some 3-phase, too) which are connected to an IP management network.

Fig 1. HTML5 Dashboard in Options NOC showing power and environmental



For each rack, Glenn wanted to be able to see individual and combined PDU power data in real-time as well as being able to set alarm thresholds, again for individual and combined PDUs. For example, he wanted to be notified if a specific group of, say, 4 racks pulled more than a certain number of kW.

Fig 2. HTML5 Dashboard in Options NOC showing Global View with UK Fault



In addition to the rack PDUs, the sites contained a number of UPS, chillers and AHUs (Air Handling Units) which needed to be monitored. Furthermore, Options wanted to monitor its sites’ PUE values. All the devices supported SNMP.

A VMware ESX virtual machine was configured and the InSite software deployed. Supported by AdInfa, the Options team configured a variety of dashboards and reports in InSite to provide access to the information that different staff and executives within the business needed.

Operations staff view live infrastructure maps which allow them to drill down to floorplans and individual racks to see precisely what is happening.

Senior managers review automated reports which show power consumption data by site, customer and rack. Reports are visible online via the InSite web portal and are also emailed automatically.

Fig 3. HTML5 Dashboard from Insite Demonstration site showing example Rack



“We have improved the monitoring of our power estate, ... reduced PUE and seen a return on our investment within 6 months”

– John Bryant, CTO, Option

Results

“Before implementing InSite we were spending hours each month accumulating power usage data from each site, aggregating it and creating spreadsheets – all done manually. Now it is done automatically in the background by InSite”, says Glenn Selby.

In addition to saving man hours each month, AdInfa has enabled Options to detect high power draw hotspots and to load balance those by placing lower draw racks in adjacent areas.

“We have improved the monitoring of our power estate, delivered power load balancing, reduced PUE and have seen a return on our investment within 6 months”, says John Bryant.

For More Information

To find out more about AdInfa and InSite, visit <http://www.adinfa.com>
To find out more about Options, visit <http://www.options-it.com>