



... experts in Field Controls

Newham College

CASE STUDY

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Success for Sontay SIP at Sixth Form College

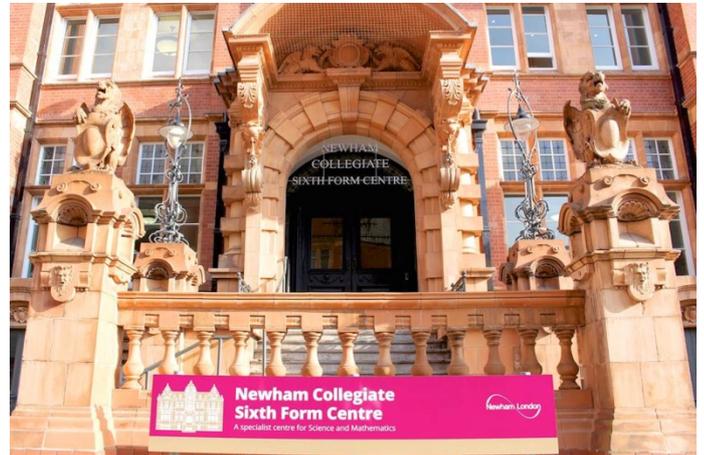
The newly formed Newham Collegiate Sixth Form Centre in East London is reaping the rewards from a sophisticated Building Management System (BMS) that incorporates the innovative SonNet Powered by SIP wireless sensing system from Sontay.

Created following the amalgamation of an old technical college, former planning office and public library, the Grade II listed building is now able to lower energy usage and make cost savings. Installed by Uxbridge based system installer, TRI Controls Systems Ltd the BMS system allows the college to monitor space temperatures for the purpose of controlling the under floor heating manifolds. The construction of the new college was undertaken by BAM Construction and its internal M&E services provider BAM Services Engineering.

For this project, TRI needed a flexible solution that could work within the historic site. The company chose to install seven wireless SonNet sensors from Sontay, alongside the new SIP interfaces, allowing SonNet to work alongside a Trend BMS.

The multi-million pound project features nine new science laboratories, including a particle physics lab; a biomedical science lab and a bio-diversity lab. A student and tutorial centre has also been installed, which includes a newly equipped library and learning resource centre, a student social centre and café. The SonNet sensors have been installed in six of the labs and in the lobby area.

SonNet offers system integrators, building consultants and end-users the opportunity for smarter measurement and control without the need to install cabling. With the new addition of the RF-IOM-4A-4U Input/ Output Module, SonNet can take any 0-10Vdc, 4-20mA, resistive or VFC signal from wired devices in the field and transmit them to a SonNet RF-RXS receiver. This in turn can be read by a controller through the intelligent SIP interface. The strategy within the controller uses this information to calculate control values, which are then passed back through the I/O module to alter damper positions and other output connections in the field.



“SIP technology is tried and tested in the UK BMS industry. This coupled with the simplicity of the SonNet site survey equipment and its subsequent results, we felt the solution was ideal for the application. The building is Grade II listed, so the use of wireless technology came into its own due to the usual difficulties involved in installing electrical cables and containment in such buildings.”



The SIP range easily interfaces between the Sontay SonNet Wireless Receiver and the Trend BMS. The product developed by the Sontay and Synapsys partnership, used in conjunction with a Trend or BACnet BMS, helps ensure that a building complies with latest Part L2 Building regulations. The coming together of such influential companies in the industry can only create better solutions for the building controls market. Suitable for a range of applications and protocols, SonNet powered by SIP provides system integrators, contractors and consultants with more flexibility on their projects.

“SIP technology is tried and tested in the UK BMS industry,” says Neville Cockburn, Sales Director at TRI Control Systems Limited. “This coupled with the simplicity

of the SonNet site survey equipment and its subsequent results, we felt the solution was ideal for the application. The building is Grade II listed, so the use of wireless technology came into its own due to the usual difficulties involved in installing electrical cables and containment in such buildings.”

The battery powered SonNet devices are designed around a robust 2.4 GHz, 802.15.4 self-healing tree topology. This eliminates concerns with reception and reliability often associated with existing ‘point-to-point’ wireless systems. If a sensor detects a problem with the signal, it will automatically re-route to find the strongest available path to the receiver. Interference with other radio devices in the same frequency spectrum also been addressed through a proprietary algorithm which continually adapts to site conditions.

“The SonNet range is cost effective and easy to install and the new additions broaden the range of applications it can be used for, especially for listed buildings such as East Ham Sixth Form College,” says Sandy Damm, Managing Director at Sontay. “The new Trend and BACnet interfaces of SonNet Powered by SIP increase the Sontay wireless offering and the range of applications it can be used for.”



The temperature and humidity within the Newham Collegiate Sixth Form Centre is being closely monitored and controlled. SonNet Powered by SIP proved to be the perfect choice

Sontay ... project key facts

The Project

- Newham Collegiate Sixth Form Centre was created following the amalgamation of an old technical college, former planning office and public library
- The multi-million pound project features nine new science laboratories, including a particle physics lab; a biomedical science lab and a bio-diversity lab
- The BMS system allows the college to monitor space temperatures for the purpose of controlling the under floor heating manifolds

The Requirement

- The Grade II listed building needed to lower energy usage and make cost savings.
- Wireless would allow sensors to be located anywhere without the need for structural alterations

Sontay Products Used

- Sontay's SonNet Powered by SIP – the SonNet sensors have been installed in six of the labs and in the lobby area.
- The SIP range easily interfaces between the Sontay SonNet Wireless Receiver and the Trend BMS.

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