



"Our team had specific requirements in mind at tender but having access to the NETGEAR team throughout helped drive true added value that bolstered our knowledge, and ensured a smooth implementation."

**Company name:**  
Tyne Coast College

**Company size:**  
800 staff and 15,809 students

**Industry:** Education

**Company website:**  
<http://tynecoast.ac.uk>

**Geographic region:**  
Tyneside, England

## Tyne Coast College chooses networking solution designed to sail the seven seas and beyond

### BACKGROUND

Created from a merger of South Tyneside College and Tyne Metropolitan College, Tyne Coast College offers a new and exciting vision for education and training in the North East of England. It offers students a range of vocational and technical qualifications, and is home to the South Shields Marine School, recognised as one of the world's foremost maritime training centres. The college has a particular focus on engineering, design and manufacturing/construction – all driven by the need for high spec technology.

### PROBLEM/OBJECTIVE

With upgrades and refurbishments happening across the college, Tyne Coast College reviewed its existing infrastructure to ensure it was ready for the changes in the years to come. Ambitious expansion plans meant that demands on the network were likely to increase dramatically.

The college is continually working to strengthen its internationally recognised specialism in maritime training, and has a state of the art simulator onsite. Its bridge simulator includes the SeaView R5, a visual system which provides the simulator with the power to present the highest fidelity, most realistic visualisation of vessels and exercise areas available in simulation training. This world's most advanced navigational bridge simulator, complete with 320° panoramic view, needs technology that keeps up pace.

The merger in 2017 also saw the campus extend to six sites – with 4,000+ computers and portable devices connecting to the network. The wireless network, the performance of which students comment on the most, was also required to cover at least 80% of the total campus. It also needed to be designed in such a way that the students could move between sites all linked to the one network, and use it for social networking as well as study.

Finally, college life meant that the window for implementation was squeezed into a short few months during term breaks and holidays. Another reason to ensure the implementation process was as smooth and straightforward as possible.

[www.netgear.co.uk](http://www.netgear.co.uk)

"The installation of NETGEAR's products meets our needs for today, as well as safeguarding us for the future."

## SOLUTION

The college initiated a tender process in 2016 driven by key performance characteristics as well as overall value for money. This was overseen by Head of IT & Soft Services, Craig Scott. He evaluated the current system and worked with NETGEAR to identify any areas to build on and the right products fit for the needs now, and into the future.

A key part of the decision making process was focused on pre-empting future needs or issues, and as such updating the infrastructure to future proof before these problems arose. The current core switches, especially those within Tyne Met College, required an upgrade in order to transition to a 10GbE environment, and the required bandwidth. NETGEAR's ProSAFE M4300 was selected as a cost effective solution for midsize server/storage and dependable core. Also perfect for wireless access, unified communications and IP video, the NETGEAR M4300 Switch Series is ready for the future, with Software-defined Network (SDN) and OpenFlow 1.3 enabled.

In order to ensure the campus wide coverage required, the NETGEAR ProSAFE® Business 2 x 2 Dual Band Wireless-AC Access Points were also chosen. They are designed to support an aggregate throughput of up to 1.2 Gbps – perfect for the high volume of traffic needed across the college. The NETGEAR ProSAFE® WC9500 Premium Wireless Controller, with its ability to manage up to 200 Access Points, was the optimum solution too.

As expansion was at the heart of the decision making process, NETGEAR's lifetime warranty and technical support was another key driver for choosing its products.

### Products installed as part of the upgrade included:

- 27x NETGEAR ProSAFE® M4300 10G and 1G - Stackable L3 Managed Switch
- 76x NETGEAR ProSAFE® Business 2 x 2 Dual Band Wireless-AC Access Point (WAC720)
- 1x NETGEAR ProSAFE® WC9500 Premium Wireless Controller

## RESULTS

Due to the older technology previously in situ, the Tyne Met campus has seen the biggest impact and is now ready for the future. By upgrading at the core to facilitate a 10GbE environment, the bandwidth has extended as needed ensuring that the college can meet the ever expanding needs on the network. Problems have been identified before they have arisen, meaning that issues have been almost eliminated.

The performance of the new deployment has enabled the college to maintain its expansion plans. The NETGEAR ProSAFE WAC720 Access Points ensure the network continues to facilitate the 400+ devices connecting to it, and is ready for this to increase in the future too. While the NETGEAR ProSAFE WC9500 Premium Wireless Controller is stackable, with up to three controllers in a cluster, and has the potential to support up to 600 Access Points. Its ease of use will mean that, even as the network increases, managing issues is simple and quick.

Craig and his team feel incredibly confident in the new network and its ability to withstand changes as the estate extends further again. Staff and students at Tyne Coast College have a fast, resilient and reliable network which ensures they are connected as needed, and their studies are supported to the highest level. It also means the college is equipped to run the next generation of simulators, ready to train the world's future maritime cadets.

