

# **Case Study**







# **University Of Bolton**

**Industry**: Education

**Location**: Bolton, Greater Manchester

Profile: The University of Bolton is a public university in Bolton, Greater Manchester, England. It has approximately 14,000 students across all sites and courses, with 700 academic and professional staff.

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Brian Shawa, Graduate Intern IT project leader, University of Bolton University offers free routers to freshers. More than 500 TP-Link routers rolled out in halls of residence to date.

#### **Fast Facts**

- Individual wireless solution chosen over complex managed wireless system
- 98% of students very satisfied with solution
- Simple to install and support
- Provides students flexible connection options

The University of Bolton is a local institution with an international reach consistently winning the highest ratings possible from the Government's quality control agency. Established in 1824, the university prides itself on its modernity and strong industry links, which have allowed the university to provide a large number of professionally accredited courses through partnerships including several Chartered Institute organisations, the British Psychological Society and the Nursing and Midwifery Council. With 192 academic staff members of whom 130 hold PhD degrees, the University of Bolton offers its 11,000 students a wide ranging academic portfolio including undergraduate certificates, diplomas, degrees and postgraduate masters and doctorates.

#### The Need For Wireless

The University of Bolton offers about 500 students a home away from home on campus. Students therefore have certain minimum requirements including reliable wireless to keep in touch with family, friends and of course access learning resources hosted online.

The university's five-strong Networks IT team was tasked with finding a way of wireless enabling the halls of residence. Led by Brian Shawa, Graduate Intern IT project leader, he explains: "Most students now have at least one wireless device without an Ethernet port to connect to the university network. They browse the web, check Twitter, WhatsApp, Instagram, access emails and play games. Many, especially international students, use services like Skype and Google Hangouts to stay in touch with friends and family around the world. Students are online all the time, so a reliable wireless network in the halls of residence is essential."

### Affordable, Easy-To-Use Solution

The University of Bolton needed a solution that was effective, easy-to-use and affordable. With the idea of giving each and every resident student free wireless connectivity upon arrival, the university needed a plug and play solution that wouldn't put unnecessary strain on the university's resources and require bringing in additional staff. Critically, the high-speed wireless solution needed to overcome the thick, solid walls in the halls of residence. Plus it needed to be sufficiently robust to enable on average 350 students to connect several devices at the same time, without lags or delays. Consequently, instead of installing a complex wireless infrastructure across the halls of residence, the university opted for an individual solution that could be deployed by students to provide a secure private wireless network within their room.



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Brian Shawa, Graduate Intern IT project leader, **University of Bolton** 

## Straightforward, Compact & Excellent Signal Strentgth

Taking into account technical features, signal strength, availability and cost effectiveness, the university's IT department considered several connectivity products, including Cisco solutions. However, the thick walls prevented them from working properly. Finally, after testing each product themselves, the IT team agreed that the TP-LINK Wi-Fi Pocket Router TL-WR710N was the best solution because it was easy for students to deploy, full of useful features and provided wired, wireless and USB connection options from a single device. Before the beginning of term, the university invested in more than 400 units from BT Business Direct ensuring there were sufficient units available for the new intake. In some rooms the plug socket location meant the WR710N was not a good fit so the IT team sourced 140 units of the 150Mbps Wireless N Nano Router TL-WR702N instead.

Brian explains: "We looked for products that were easy-to-use, compact and that would enable students to connect more than one device, including laptops, tablets and games consoles, to our wireless network. I tested both the Wi-Fi Pocket Router/AP/ TV Adapter/Repeater TL-WR710N and 150Mbps Wireless N Nano Router TL-WR702N personally and thought they were the easiest to use and most reliable of the bunch. Both nano routers are very straightforward to use and provide excellent signal speed and strength. They're ideal for the university."

### A Quality Experience

TP-LINK's routers provide wireless connectivity up to 150Mbps enabling students to easily play games online or stream videos. With residents connecting at least two devices simultaneously, students can access online resources including eBooks, lecture videos, and online university applications from the comfort of their own rooms. They can also relax and talk to their families and friends online, share files and stream films and TV shows. The routers are compact and secure, providing a worry free online experience. Both routers support a range of WEP and WPA encryptions, plus provide each student

with their own IP address and SSID, ensuring online security and optimising wireless performance. To gauge the project's success, the team assessed direct and indirect costs associated with the roll out and ongoing support plus carried out a student satisfaction questionnaire asking about their quality and ease of use. 98% of students were very satisfied with the products and none had any complaints.

Brian concludes: "TP-LINK routers have provided excellent results and fit the university's environment perfectly. The fact they are small, discrete, attractive and portable are major benefits. They've ticked all the boxes, including value for money. More importantly, they're helping to enhance the students' learning and research experience, plus they can now wirelessly access the tools/services they need through their range of wireless devices, without relying on wired only connections."

#### Plug & Play

As part of the welcome pack, students received a free router and a set of simple instructions enabling them to set up their devices and access the wireless network. It was only if students encountered problems that the IT department got involved. Because the products are so reliable, the university only needs one person to handle support calls. At the beginning of term, while students were settling in, the IT department received an average of two or three calls about Internet access per day. Each call took less than a minute to fix and the majority of the issues stemmed from end user devices settings rather than the TP-LINK routers.

Brian notes: "We didn't need to optimise the wireless connection at all. We simply handed the router to students and off they went. It saved us loads of time and energy, which is quite brilliant, especially as we're a small IT team. Even students who aren't technically minded used the Quick Installation Guide to connect the routers first time. It's literally plug and play." As well providing wireless the router has an Ethernet connection as well to connect laptops and other devices including printers that have an Ethernet port.





















