A smarter network for Bournemouth University

Intelligent connectivity for a brighter future

Collaboration. Bournemouth University (BU) believes this is the key to encouraging learning, advancing knowledge and enriching society. "We believe that we can do this best by bringing together research, education and practise to create something greater than the sum of its parts," says Dave Dawson, BU's IT project manager. One example of this is the university's animation school, which blends creativity and innovation to stay at the forefront of Hollywood visual effects.

"The network is a keystone service that underpins the delivery of [this] fusion," says Dave. But to support this vision for the years ahead, BU needed to upgrade. So, we helped them achieve a UK-first: a mass-deployed Cisco SD-Access network.

A network fit for future demand

The university's network had remained relatively unchanged for over 10 years. Although it still performed well, it was taking up more and more of the IT team's time to maintain and manage. Time that they could better use on critical projects.

The network also wasn't agile enough to keep up with growing digital demands. Students, researchers and lecturers – all using more devices than ever before – wanted to get online instantly and work flexibly. But even switching a class to a different room could take weeks to organise. It was stifling BU's collaborative spirit.

The new network was expected to handle current demand, reduce carbon emissions and remain flexible as the campus expanded. It had to become more agile and Cisco SDA has enabled it to be so.

"We want to be enablers for whatever the university wants to do. Our goal is to facilitate innovation and agility and remove technology blockers."

Mark Woods,
Communications Architect,
Bournemouth University

Trailblazing a UK-first solution

The university's IT team thought they'd need to build a bespoke network from scratch. But we knew one already existed, it just hadn't come to market yet: SD-Access. This is a software-defined LAN (local area network) made up from modular, programmable components. It's secure. It's fast. It can be scaled up easily to meet increasing demand. And the entire wireless network is managed from one central console.

With the help of procurement frameworks, BU became the UK's first institution to be installed with Cisco SD-Access. As this was a brand new product, there were a lot of unknowns. So we invested in a replica for our development lab, to test the impact of changes before rolling them out live to the university.

We worked very closely with BU's IT team during implementation, even sharing a joint action log. And we were uniquely positioned to liaise between Cisco and BU. We could highlight any bugs our tests uncovered, and fast-track feedback from the university directly to Cisco's engineers, helping to shape the product.

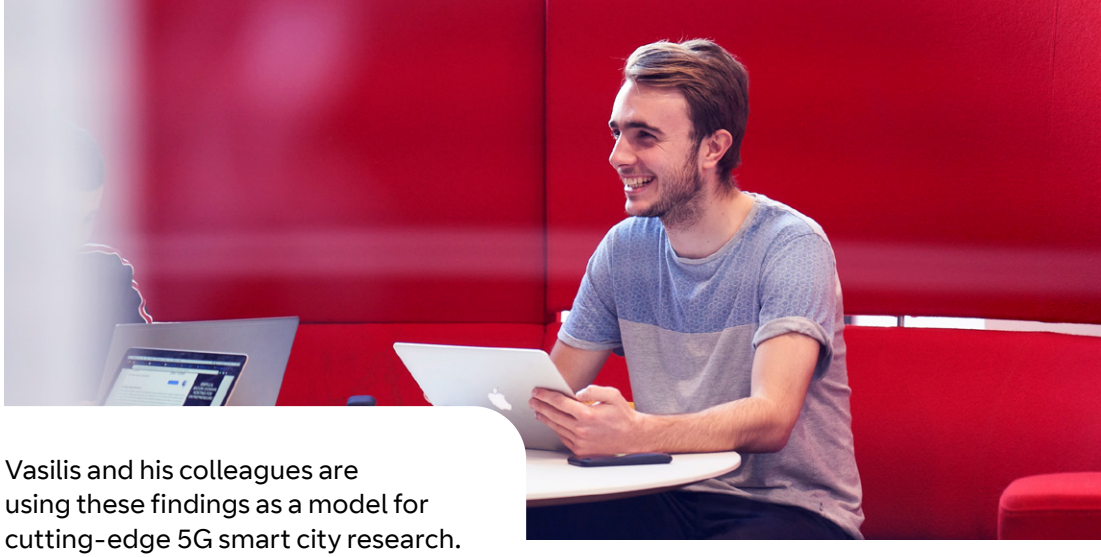
Reaping the benefits of a smarter network

Bournemouth University now has a fast and agile network. The IT team can set up virtual networks for students, researchers and lecturers in minutes, not weeks. They can easily apply policies to meet the needs of the expanding campus. It's no longer a drain on resources; it's making the most of them.

SD-Access comes with a cloud-based portal, which provides a single pane of glass to manage the network from. The IT Team can quickly make changes from anywhere; freeing up their time to focus on key projects.

This end-to-end visibility is also benefiting the university's researchers. For one thing, it's helping them win funding. "When we apply for European funding schemes, we now make direct reference to this state-of-the-art architecture," says Vasilis Katos, BU's professor of cybersecurity. "It's a real leveraging point."

They're also using SD-Access as a research tool. It's integrated diagnostic tools compare wired and wireless activity.



Vasilis and his colleagues are using these findings as a model for cutting-edge 5G smart city research.

As always, security is a priority. Smarter authentication means only the right people get access to the applications they need. And the network's segmented: if a breach should happen in one area, data in other areas stays protected.

Building on the successful delivery of SD-Access, new projects to refresh the campus wireless network and deploy new next-generation firewalls were implemented. Each bringing fast, secure connections for everybody's mobile devices. Helping people across the University work even better together. And supporting BU's vision of delivering collaborative learning that's fit for the future.

"With SD-Access, our infrastructure is more secure and easier to scale. It means our staff and students can embrace new ways of working, from the cloud to the Internet of Things, helping us offer a world-class learning experience."

Dave Dawson
IT project manager,
Bournemouth University

For more information
Visit: **bt.com/btop**

June 2020