Innovation that enriches university life

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Enriching living, teaching and learning

Universities operate in a unique environment where individuals from diverse backgrounds come together to practice critical thinking, openness and curiosity, leveraging the latest technologies to help enrich that culture of innovation.

But a changing competitive landscape, evolving student expectations, increasing cyber threats and growing financial challenges, all raise the question: what more can technology do for us?

Strategic goals remain the same: to enhance student experience, drive academic excellence, attract top researchers and secure research funds, but universities have new priorities with which to grapple – most notably sustainability and achieving ambitious Net Zero targets.

Meeting these goals depends on robust digital foundations that allow you to scale, grow and develop new initiatives. Adopting emerging technologies is critical: advancements in artificial intelligence (AI), data and automation will help universities transform at scale, to create new, personalised experiences for students and richer, more collaborative capabilities for academics.

The success will depend on making the right decisions about their digital infrastructure at the right time.

For most universities, that time is now.

Working together to evolve and transform

Technology is a powerful enabler of change but it's only part of the jigsaw.

At Roc Technologies, we bring together the people and expertise to drive digital transformation in the HE sector. We have long term partnerships with some of the UK's leading universities, including the University of Manchester, Newcastle University, Bristol University and the University of Reading, and our team support over 200,000 students, academics and staff every day.

Roc Technologies can help you make the right decisions and strategically foster innovation, security and sustainability, providing a platform for innovation for your students, academics and staff.

"Partnering with Roc for our network transformation programme has allowed us to bring in experts to build our reference architecture and ensure successful direction was achieved."

**Kevin Mortimer, Head of Operations,
The University of Reading**

Student experience: supporting living and learning

Creating an environment where students can get the most from their university experience is critical. It's about promoting wellbeing and welfare, ensuring student safety and giving students the tools they need to learn. Internet access* plays a critical role not just for online learning and research, but for relaxing, and helping students keep in close contact with parents and loved ones whilst they are away from home. In fact, a recent study from the University of Manchester found that WiFi access was the highest priority for students, above both food and heating!
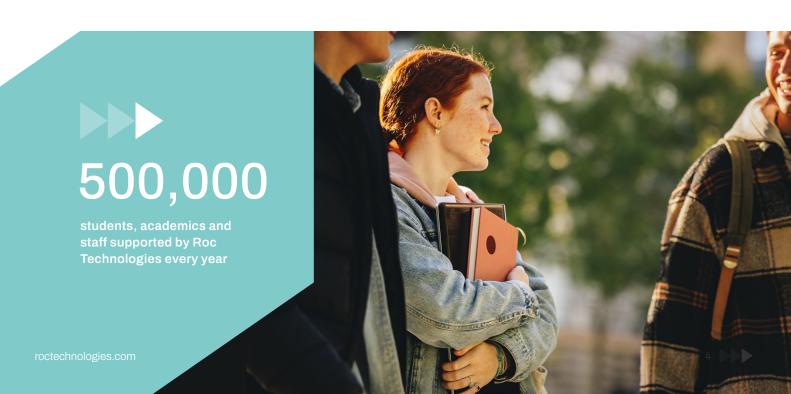
At Roc, we deliver networks empowered with AI, allowing IT teams to completely reshape how their connectivity supports students.

For example, with the number of devices owned by each individual growing, availability remains a challenge. AI-enabled networks gather and analyse network health data in realtime, meaning the IT team can proactively manage the network to pinpoint and sort stresses or capacity issues before they impact service.

This means students and staff stay connected across the campus even during peak exam times or exceptional library usage.

AI-driven network analysis tools can also be applied to support student welfare. As an example, they enable universities to combine data points such as lecture attendance, library visits, campus movements and society membership into a single dashboard that provides an overall view of the student's experience.

These dashboards can be used to detect changes in user habits, helping to identify potential issues for the student services team so that interventions can be in place for a positive outcome. And the data analysis also includes location services, which can be used to improve student safety and security, and support student welfare services.

500,000

students, academics and staff supported by Roc Technologies every year

Security: A pragmatic approach that can scale with your needs

Universities provide the perfect target for cyber criminals: highly complex networks with multiple vulnerabilities that hold a unique combination of critical personal information and highly valuable research data. The loss of either wouldn't just damage brand reputation, but revenue too.

Many universities try to implement a Zero Trust stance, locking down data with increasing levels of authentication and verification, yet this risks stifling the essential critical thinking, innovation and collaboration on which academia thrives.

Security strategies must strike the right balance between enabling innovation and protecting IP. It's not an easy balance to strike, especially when small IT teams are expected to manage the risk on behalf of thousands of students and staff.

At Roc, we seek a pragmatic approach, protecting what's most important and offering tailored layers of resource to support your team. Alongside industry leading security infrastructure, our portfolio includes cyber readiness assessments and vulnerability testing to help you identify and mitigate risks within your estate.

We can offer accreditation support – for example helping universities secure the Cyber Essentials Plus. We'll even help run anti-phishing campaigns, to help raise awareness amongst staff and students.

Our offering is underpinned by our managed SOC, which delivers 24/7/365 support. Uniquely, our SOC uses our defence level facilities, meaning universities can provide the most rigorous levels of security support.

And if a breach does occur, Roc can deliver comprehensive critical incident support, from onsite technical experts working side by side with your teams, to corporate crisis management, ransomware negotiation and data recovery services.

24/7/365
The Roc in-house SOC offers 24/7/365 support services delivered by engineers cleared to a minimum SC level

97%
of HE establishments experienced an attack or breach in 2023. Only financial services suffered more.

Keeping your focus on innovation

Managing the digital structure of any university is an unenviable task. University campuses support retailers, banks, researchers, major entertainment and event destinations, cutting-edge research facilities, thousands of domestic residents, and, of course, learning facilities on a huge scale. In addition, very few organisations need to cope with the vast scale of user turnover, with thousands of student users joining and leaving every year.

Add to this the control of corporate and academic network access; protection of data; the provision of ISP services as a domestic operator; the support of retailers and other entities; not to mention operating as a support desk for the thousands of academics, students and staff onsite, and there can be no doubt that the singular nature of managing IT within HE calls for significantly more specialist resource than a traditional corporate environment.

But how do you manage all this and ensure that you continue to drive innovation across your campus.

At Roc, we can deliver both the infrastructure and the expertise to manage the day to day, whilst your team drives strategic priorities.

Our AI-powered networking portfolio can identify and remediate many network issues before they impact service, dramatically reducing downtime. They also deliver meaningful information and actionable insights for the IT team, enabling them to proactively manage the network and pinpoint stresses or capacity issues before they happen. And where users do need support, AI Ops capability empowers the front-line support staff to troubleshoot and resolve more problems on their own without having to escalate issues to network engineering.

Our automation team can work with you to understand, simplify and automate manual or clunky processes, saving hundreds of man hours.

And, most importantly, we offer a comprehensive portfolio of managed services through our in-house 24/7/365 NOC and SOC, delivering expert support that can be scaled according to your needs. We can even provide dedicated onsite support to take care of the day to day, whilst your team focuses on strategic development.

Sustainability: Demonstrable and data-driven impact

Students today recognise the interconnectedness of social progress and environmental sustainability and expect their chosen university to demonstrate commitment to both – indeed sustainability is fast becoming a key differentiator for students and academics alike.

With many universities setting ambitious Net Zero targets far ahead of government goals, Roc can help leverage both existing and emerging technologies to help you accelerate progress.

AI is already a game changer. When embedded into network management platforms, it can detect when fewer users and devices are connected to the Wi-Fi network and will automatically reduce the power to the access points, reducing energy consumption and cutting both costs and carbon.

But universities don't need to overhaul their entire network to see results – there are simpler steps they can take.

Roc's unique Network Navigator tool is designed to help you better understand your network environment, for example by identifying zombie infrastructure that can be turned off, as well as opportunities for hardware consolidation, saving both money and significantly reducing your carbon footprint.

We can also help you assess broader opportunities within your campus. For example, we can analyse your networking data across your campus sites to assess occupancy, building usage and utilisation by times and dates, to identify when lights and HVAC can be turned off, reducing energy costs and improving carbon footprint. The same data can also be used to identify empty spaces to allocate as required to expand offerings for research and staff and students, for better building utilisation.

According to the latest QS Student Pulse Survey, more than 80% or prospective students evaluate a university's performance on social issues during their application process.[1]

Roc Technologies
Securing your digital future

Roc Technologies are uniquely positioned and proven in the market, with the scale, expertise and partnerships to move forward securely and at speed. We are a trusted partner to a diverse client base across sectors including Government, Defence, Professional Services, Retail and Higher Education.

Our people host a wealth of cross-industry experience, advising, monitoring, securing and building resilient digital infrastructures for our customers, as well as safeguarding their valuable assets.

We also understand that every organisation's infrastructure and system requirements are unique, which is why we tailor your solution to your organisation's specific requirements, employing best practice methodologies that deliver measurable, tangible outcomes along the way.

Why Roc?

24/7/365 In house MSOC	100% UK coverage	70+ highly trained engineers	100% engineers SC or DV cleared
CYBER ESSENTIALS PLUS accredited	ISO9001 accredited	ISO14001 accredited	ISO27001 accredited

Whether you're expanding, modernising, or transforming how your people work, a resilient, intelligent cloud infrastructure is critical to success. It's not just about keeping the lights on—it's about powering what's next.

Contact us today to find out how Roc can support your organisation.
Visit **roctechnologies.com** for further information.