



Further Education Provider Addresses CyberEssentials Requirements and Closes Security Gaps with Ordr

Oaklands College spans multiple geographic locations in Hertfordshire, including St. Albans and nearby Welwyn Garden City and Borehamwood. Oaklands College is a further education school with a century long tradition that began as a center for agricultural studies. Today Oaklands College offers a strong STEM curriculum that includes agriculture, business, construction, engineering, health and social care, math, science, and IT, including courses in cybersecurity. The school boasts an annual enrolment of more than 10,000 students, including full-time, and adult and community education.

Oaklands College has embraced IT not only as a focus of research and training, but as a foundational element for operational excellence and in support of fulfilling the school’s educational mission. As part of the aspirational goal of the college, in addition to traditional IT and mobile IT devices, there are a wide variety of connected devices in the realm of the Internet of Things (IoT) and operational technologies (OT) that will allow students to engage with the college on their terms, but are also integral to collecting the data necessary to understand things like agricultural and human performance at a level of detail unimaginable just a few years ago.

Garod Barker, Oaklands College’s Head of Information Technology, runs an IT team that has embraced the challenges of running, maintaining, and securing a technology environment that is as varied, dynamic, and complex as any modern enterprise. The school’s motto is Take on the World, and Barker’s team is taking on an IT estate that must support a vast array of devices, including the full scope of BYOD for students and faculty, and some of the most sophisticated sensors and wearables available.

Embracing the Future of Education and Field Research

Oaklands College has embraced an educational curriculum that is fully engaged in Science, Technology, Engineering, and Mathematics (STEM), but it has not abandoned its legacy as a center for agricultural research, innovation, and education. In fact, the school maintains a farm and zoo, and both employ a wide variety of connected devices that include sensors for monitoring crops in the field and wearable devices for its animals and livestock. In addition, the school’s numerous sport academies use wearable devices to measure, monitor, and analyze human performance.

CUSTOMER PROFILE



Founded in 1920 as Hertfordshire County Council Agricultural Institute. Renamed Oaklands College in 1991 following merger with De Havilland College and St Albans City College.



Campus

Located in Hertfordshire, UK – St. Albans, Welwyn Garden City, and Borehamwood.



Courses of Study

Agriculture, Business, Construction, Engineering, Health and social care, IT, Math, Media, Science, Sport.

CHALLENGES



Address CyberEssentials Plus requirements



Asset inventory of heterogenous IT environment, from traditional IT and mobile devices to future IOT devices



Uncover attack surface and improve overall risk and security posture



Support ongoing IT and security operations with critical device insights

All those devices operate on the same infrastructure that supports building controls; student, faculty, and staff devices; CCTV and security systems; traditional IT; and many other scientific, healthcare, and consumer IoT, OT, and other devices are planned as a future initiative. Keeping track of thousands of heterogenous devices requires that each be discovered, identified, and monitored in real-time. A big driver for Oaklands College to gain visibility and security to these connected devices was to address cybersecurity requirements with the UK’s National Cyber Security Centre’s (NCSC) Cyber Essentials Plus program.

“Oaklands is one of the few colleges with cybersecurity certification under Essentials Plus,” Barker said.

Cyber Essentials Plus certification means that Oaklands College’s cybersecurity compliance is verified by an independent, accredited third party. Only organizations that are Cyber Essentials certified are eligible to receive contracts to work with certain governmental agencies, like the National Health Service (NHS).

Ordr Helps Protect Oaklands College from Cyber Threats – and Much More

Upon joining Oaklands College in 2021, and with a vision for how to manage and secure a complex educational IT estate, Barker evaluated Ordr for the task of improving the school’s cybersecurity.

When evaluating the market for suitable solutions, Ordr was identified as the most comprehensive platform that addressed the needs of the college. It was clear Ordr was a leader in this field with educational customers deploying the platform globally. Barker had also deployed Ordr in his previous role at another educational institution, so he knew what it could do with Ordr as a connected device security platform, to maintain an accurate and real-time device asset inventory, and for additional vulnerability and threat management, and for security policies.

Ordr integrated easily with other networking and security technologies Oaklands College was already using, like Aruba LAN and WLAN infrastructure, Fortigate firewall, and Microsoft Intune. With planned upgrades and new technology investments on the horizon, Barker liked that Ordr would also play well with the systems they planned to purchase in the future. But what really impressed Barker was how Ordr immediately demonstrated its value upon deployment.

“Right away I had visibility across the entire attack surface in the college, including a traffic analysis display in my office,” Barker said. “We were able to identify and locate several connected devices running obsolete operating systems including mobile devices with outdated Android operating systems.”

ORDR RESULTS AND USE CASES



Maintain compliance with CyberEssentials Plus requirements



Immediate and comprehensive asset visibility with ability to scale for future devices



Measurable risk reduction through attack surface visibility of devices with vulnerabilities and outdated operating systems



Threat detection insights to support ongoing security operations and penetration testing program



Device utilization insights to better optimize operations and assets



Zero Trust and network segmentation to isolate at-risk systems

KEY INTEGRATIONS

FORTINET

Fortinet Fortigate firewalls

aruba

Aruba LAN/WLAN infrastructure

Microsoft Intune

Microsoft Intune

With a complete understanding of connected devices connected to the Oaklands College network, Barker and his team used Ordr to mitigate threats associated with vulnerable devices by implementing network segmentation to isolate at-risk systems, and through dynamic policy generation and enforcement. They were also able to leverage the rich device detail available from the Ordr Data Lake for more precise threat detection through deterministic behavioral analysis. Ordr also complemented Oaklands’ ongoing penetration testing program.

“Ordr gave us a deeper look into the devices and applications we had operating, allowing us to better understand and mitigate our risks and vulnerabilities, and also support ongoing security and operations.”



- Garod Barker, Head of Information Technology, Oaklands College



Beyond Mere Device Security to Device Utilization

By using Ordr to detect and track device utilization, Oaklands College was able to maximize its available asset inventory. For example, knowing how often the school’s desktops are logged into helps them to identify older or potentially problematic equipment that might need service or replacement. And knowing which spaces were being used, and how often, helps to make the school’s use of technology and its facilities more cost-efficient. And the granularity of device insights Ordr provides gave Oaklands the ability to implement an unexpected policy need.

“When the potential for in-class cheating using AI tools arose, Ordr allowed us to identify device ownership so that we could block access to ChatGPT for students, while still allowing it for staff,” Barker said.

Conclusion

Using Ordr to discover and track every device operating on Oaklands College’s IT infrastructure has proven its worth in a highly variable technology environment. The rich device insights available through the Ordr Data Lake means that, whether students and faculty are studying in class with their personal devices, are (literally) in the field with sensors to measure and monitor crop growth and conditions, or are gathering data from devices worn by animals in the school’s on-campus zoo, or by humans in one of their many sport academies, Oaklands College’s now has the ability to See, Know, and Secure the full spectrum of connected devices and identify the attack surface necessary to “take on the world” of today’s modern educational IT infrastructure.

About Ordr

Ordr makes it easy to SEE, KNOW, and SECURE every connected device in your network—in real-time. Using a “whole enterprise” philosophy and the Ordr Data Lake, populated with a rich and growing library of millions of detailed device profiles, Ordr identifies every IT, IoT, IoMT, and OT asset, maps its attack surface, and protects each device with dynamic policies and automated enforcement. Ordr makes it easy to SEE, KNOW, and SECURE every connected device in your network—in real-time. Using a “whole enterprise” philosophy and the Ordr Data Lake, populated with a rich and growing library of millions of detailed device profiles, Ordr identifies every IT, IoT, IoMT, and OT asset, maps its attack surface, and protects each device with dynamic policies and automated enforcement. Organizations worldwide trust Ordr to provide complete asset inventory, address risk and compliance, and accelerate Zero Trust initiatives.