




## Chaucer School

### Sector:

 Education

### Products:

 Meraki MT15 IoT Air Quality Sensors

Meraki MT Sensors are cloud-managed sensors that monitor indoor environments. Parameters can be set to monitor air pollution including PM2.5 particulate matter used to detect vaping.

### Highlights:

- Meraki IoT Sensors highlight a huge undetected problem with vaping at Chaucer School.
- Following a summer install, the Sensors picked up 700+ daily vaping incidents with real-time detection alerts going constantly.
- With the Meraki IoT Sensors and the existing CCTV Chaucer's on-call staffing team was able to identify the vaping culprits and take corrective action.
- Daily vaping incidents reduced from 700 per day to five in three days and zero by the end of the week.
- The Meraki Sensors have eradicated vaping at Chaucer School and provided a safe learning environment for students and staff.
- Antisocial behaviour and classroom toilet breaks have been greatly reduced.
- Redway Networks delivered a great service and the IoT Sensors are a great compliment to the school's Meraki wireless network.

## Chaucer School protects its environment and eradicates vaping incidents with Cisco Meraki IoT Vape Sensors

Chaucer School has eliminated vaping incidents on school premises and is providing a healthier environment for students and staff with Cisco Meraki's cloud-managed sensors from Redway Networks.

By monitoring the air quality and detecting the presence of carbon dioxide, the school has been able to protect students from vaping incidents which reduced from 700 on the first day the sensors were installed to zero today.

Chaucer School, part of the Tipton School Academy Trust, is a mixed secondary school with 800 students. Like many secondary schools in the UK, Chaucer was experiencing students vaping on school premises and with vapes not emitting obvious odours like cigarettes, they were easy for pupils to conceal when being used.

For Chaucer School, it was important to get the right technology in place to reduce vaping incidents in high-risk areas, such as the toilet blocks. Chaucer was already using Cisco Meraki WiFi which had been designed and installed by Redway Networks, so a plan was put in place to evaluate Meraki's sensors and add them to the cloud-managed network.

Alex Treadwell, Network Manager at Chaucer School says: "We were seeing an increase in antisocial behaviour around the toilet blocks and high levels of vape particles in the air. The vaping problem was becoming a difficult issue for staff to manage as tracking down the students who were causing the most problems was a real challenge so Meraki's air-quality sensors ticked a big box for us."

## Meraki IoT Sensors integrate with Meraki WiFi

Redway Networks had designed Chaucer's Meraki wireless network which was being installed during the school's six-week summer holidays. The Meraki Sensors were onboarded to the network using the wireless access points as the gateway and installed easily by the school's IT team.

Alex says: "The Meraki sensors were exceptionally easy to configure and deploy so we were able to fit them in hours. Nine were installed in high-risk vaping areas such as the toilet blocks and one in our server room to monitor and alert us on temperate conditions and ensure our IT equipment is running efficiently."

The sensor alert profiling is easy to set up with customisable parameters to monitor and measure carbon dioxide and PM2.5 airborne particles. All the data analytics are measured in the Meraki dashboard or on-the-go with the Meraki mobile app.



Cisco Meraki's highest performing cloud-managed Air Quality Sensor with carbon dioxide monitoring

Alex says: "I really like the fact that the Meraki MTs are cloud managed like the Meraki WiFi so we can combine our sensor data with our WiFi analytics and gain complete network visibility across the school - from the network devices to the air quality."

## MT Sensors highlight a huge undetected problem with vaping

With the students returning for the September term and the Meraki sensors up and running, Chaucer School was in for a shock.

Alex says: "On the first day back to school the sensors were going off constantly all day and staff received over 700 alerts. This made us aware of the severity of the situation and highlighted how big our vaping problem really was."

Chaucer School was determined to reduce the number of alerts. It used its existing CCTV system to record footage of the areas where the sensors had detected vape gas in that space. An immediate SMS or email alert was then sent to the school's on-call mobile staffing team who could look at each camera at the exact time of the alert.

## MT Sensors eradicate vaping on school premises

Alex says: "With the vape gas parameters set in Meraki's environmental alert profiles, the data was easy to collect and the analytics invaluable in enabling our staff to identify the vaping culprits and take corrective action. Within three days our vape alerts had gone down from 700 plus a day to just five."

"They continued to reduce and within a week we were down to zero and we haven't had one alert since. I'm really impressed with the Meraki sensors and how they are taking control of our school environment by proactively addressing issues before they begin. For example, we had an issue with the air conditioning in our server room which meant the room temperature had increased. This could have had a detrimental effect on our network, but with the sensor alert I was able to sort out the issue immediately so the value from MT is more than just collecting vaping data."

## Chaucer is now benefitting from a safe environment

Chaucer School can now rest easy knowing that its pupils and staff are protected and looked after on site by the careful eye of the Meraki MT sensors.

Alex says: "With the Meraki sensors in place antisocial behaviour has been greatly reduced and pupils are more confident going into the toilet blocks. The sensors have also helped with learning outcomes as it has reduced the number of students asking to go to the toilet during lesson times. We didn't know we had such a huge vaping problem, and the Meraki IoT sensors were able to identify and eradicate the issue, so they've been invaluable to our school. If any school is concerned about their level of

anti-social behaviour or vaping, I would 100% recommend the MT Sensors. The service we received from Redway Networks from start to finish was fantastic and we will definitely be working with Redway on future projects."

"The Meraki Sensors have been invaluable to our school in eradicating vaping and creating a safe and healthy environment for students and staff."

Alex Treadwell, Network Manager, Chaucer School