



For Surrey and Sussex Police, Connectivity Is a Public Service

Industry

Government

Strategic priorities

- Increase connection speeds to cloud services and to local networks
- Save staff time and cost by eliminating legacy networks and equipment
- Optimize for Microsoft 365 through VMware as a certified Microsoft 365 Network Connectivity Partner
- Modernize computing to align with national standards

Partners

Breeze Networks is a cloud-based network connectivity and security provider for modern and progressive enterprises.

Softcat is a leading provider of technology solutions and services to organizations in both private companies and public sector organizations in the UK.

VMware footprint

- VMware SD-WAN™

The police forces of Surrey and Sussex counties in southeast England are leading the way to secure, streamlined technology systems based on Microsoft 365 and Microsoft Azure. The organizations needed application performance, security, and cloud connectivity, with less complexity and lower costs. For faster, resilient network connections, an easier method to administer the network, and more flexible operations, these police forces turned to VMware SD-WAN.

About the customer

Surrey Police and Sussex Police have over 8,300 officers and staff serving more than 2 million people in two of the UK's most densely populated counties. The two police forces work in collaboration in a number of areas including specialist crime and operations to deliver even greater efficiency and effectiveness, improving services and resilience at a reduced cost.

“VMware SD-WAN is a very powerful platform to help us get to the heart of any faults and repair them more quickly.”

Dr. Steve Conn, Technical Project Manager of Connectivity and Security, Surrey and Sussex Police Forces

Policing in the cloud

Cloud services provide better and more cost-effective infrastructure for policing technologies such as body-worn video, digital interviews, and digital evidence management. The combined police forces of Surrey and Sussex counties in the United Kingdom are working to comply with a national program that will standardize technology platforms on Microsoft Azure and Microsoft 365 for police programs across the UK.

Dr. Steve Conn, Technical Project Manager of Connectivity and Security for the combined Surrey and Sussex forces, is helping Surrey and Sussex Police realize that vision. “The move to cloud services was a big push for Surrey and Sussex to look at new technology, to help us roll out a new service that can be scaled, flexible and manageable to grow with the business,” said Dr. Conn.

Any cloud service, however, is only as good as your connection to it. Slow connectivity with low quality of service can affect employees’ productivity and experience on the job. In the case of police forces, slow connections can affect their ability to protect citizens and catch criminals.

The Surrey and Sussex network was based on an aging WAN service with expensive support contracts. A complex environment made it difficult for skilled engineers to maintain it, prevented scalability, and was inflexible.

The platform used to manage content from officers’ body-worn video cameras required large amounts of bandwidth. Uploading and downloading footage was a difficult, multi-step process. Officers had to take their body-worn camera into the office, put the equipment into a cradle, burn the video onto a DVD, and then upload it into the system. This was an extremely complex process that took officers away from their operational policing duties.

The switch to SD-WAN

Dr. Conn and his team decided that VMware SD-WAN would be the right choice to provide a modern cloud and application networking fabric. “We were looking for something that was secure, stable, and had the right price point,” said Dr. Conn. “VMware SD-WAN was chosen as it is the best in class to support our ongoing operational business needs.”

VMware SD-WAN increased network speed by a minimum of 10x, built in resilience, and reduced yearly operational costs by up to 50 percent.

VMware SD-WAN not only provides fast and secure connectivity to cloud services, it solved operational challenges that were slowing local processing and preventing police officers and staff from performing their duties.

Body-worn video can now be prioritized and allocated the required bandwidth based on business policies, reducing upload time. VMware Dynamic Multipath Optimization™ (DMPO) monitors and adapts to changes in the underlying WAN transport in real time, to enable fast and smooth packet transmission even in low-bandwidth conditions. DMPO speeds both local network processing and the organizations’ connectivity to Microsoft Azure.

Increased network visibility with the VMware SD-WAN Orchestrator also meant that Surrey and Sussex IT staff can quickly identify networking issues. “We found that the upload problem was actually a limitation of the body-worn video equipment,” not their own network, said Dr. Conn. He noted that they were able to use this information to resolve the problem. “With the power of SD-WAN, we’re able to troubleshoot and fix things quickly.”

The Surrey and Sussex forces successfully implemented VMware SD-WAN across 107 sites and 176 circuits in 238 working days during the pandemic.

Surrey and Sussex were able to remove legacy point-to-point networks and implement connection diversity over multiple broadband and MPLS links.

Further benefits of SD-WAN have been realized. Carbon footprint and noise pollution have been significantly reduced. “A lot of little things make a big difference,” said Dr. Conn.

Rapid deployment, no disruption

The Surrey and Sussex teams have been able to migrate between ten to fifteen sites a week to SD-WAN.

At the peak of pandemic restrictions, the team managed to complete the project in record time. “One of the biggest improvements is that we can have a service desk person install the Edge devices. It can be simple if you get your planning right up front,” Dr. Conn said.

The network team advocates for VMware SD-WAN, said Dr. Conn. It’s easy to implement, providing increased network visibility and the ability to automate application policy provisioning across the entire network from a single pane of glass. The SD-WAN Orchestrator gives Surrey and Sussex Police “The best management tool we’ve seen in a very long time,” said Dr. Conn.

Whenever the team would migrate a site, officers did not even notice a change, except for their applications and the network running faster. “If I can deliver something without them knowing that we actually delivered it, I think it’s quite a good place to be. It’s really making a big difference in how we are supporting the operational officers,” Dr. Conn noted.

Partnerships for improved connectivity and cost savings

To assist with the migration to VMware SD-WAN, Dr. Conn and his team turned to VMware partner Softcat, a longtime technology provider and trusted advisor to the Surrey and Sussex forces. Their industry lead, Gez Hatton, attested to the success of VMware’s collaboration with Softcat in partnership with Breeze Networks, noting that it has been effective in using business policies to prioritize critical applications. “The SD-WAN service will provide the networking platform to transition services to Microsoft 365” according to national guidelines, Hatton said.

Matthew Lea, CTO of VMware partner Breeze Networks and technical architect for SD-WAN deployment, also spoke to the success of the solution and increased productivity. “That was one of their key frustrations: things took a very long time to get done. If they wanted a change in business policy, previously, this would be chargeable and take between two to six weeks to implement. Now, it’s free and they can roll it out within a matter of minutes,” Lea said.

“When people move to VMware SD-WAN they either have a DIY solution where they run it themselves, or they have a fully managed service from service providers,” said Lea.

“We sit in the middle of the two. They have full access to the entire Orchestrator and can run the service themselves with role-based access control, but they also have Breeze Networks in the background. It gives them the best of both worlds: the security of a managed service with the control of doing it themselves.”



Driving toward a mobile future

Dr. Conn, his team and VMware are testing a project with VMware SD-WAN Edges that could greatly improve mobile communications for police and emergency vehicles. “I had this idea,” said Conn. “Why don’t we drop an Edge device in a police car, connect it to our body-worn video, and stream live video while traveling at speed?” The idea had a successful test drive. With some additional engineering, said Conn, “We could have an ‘office on wheels,’ while also reducing cost and reducing footprint size.”

The project has the potential to augment officers’ mobile capabilities, bringing policing further out of government offices and closer to the people they serve.