



SURREY COUNTY COUNCIL

Improving cyber security through faster desktop patching with edge servers.

To guard against cyber threats without straining critical networking bandwidth, Surrey County Council deployed Lenovo ThinkSystem SE350 Edge Servers to deliver Microsoft Windows updates faster to 5,300+ client PCs and laptops across 20 offices locations.

Lenovo



Surrey County Council delivers essential citizen services including fire and rescue, education, and social services to 1.2 million residents across 10 local government districts in South East England. The council's objective is to make a practical and positive difference to the lives of people living and working in the county.

Pushing IT closer to users

Because it provides vital public services, keeping citizens' data secure at all times is a must for the council. With increasing threats against IT infrastructures, Surrey County Council needs to protect its desktop PCs and laptops to the highest standard.

"We strive to make Surrey a better and safer place to live for everyone," explains Ross Walker, Enterprise Architect Infrastructure Design at Surrey County Council. "This includes protecting our systems against external IT threats. We take cyber security very seriously, and always want to ensure employee workstations are up to date with the latest patches and updates."

Surrey County Council supports flexible and remote working. With 20 offices throughout the county, a number of employees often have to travel between sites. Many employees work from home all or some days of the week, only going into the office for meetings and catch-ups. Keeping this mobile workforce's laptops up to date was another key challenge, as a growing number of devices required a higher volume of patching within the estate.

Walker says: "We aimed to distribute critical security patches to hundreds of end clients simultaneously, and had two options. We could either substantially increase networking bandwidth between our offices and the data center—increasing cost and complexity at a time when building rationalization was underway—or move IT functions to the edge, where users are."



Leveraging purpose-built Edge servers for easy deployment

Surrey County Council worked with Lenovo to implement one Lenovo ThinkSystem SE350 Edge Server at each of its 20 offices. The servers feature Microsoft Hyper-V virtualization technology, which provides local Microsoft Windows Server domain controllers and Microsoft Windows Server Update Services at the remote offices.

“We selected Lenovo ThinkSystem SE350 Edge Servers because they are small, modular, robust and very versatile,” says Walker. “The quiet, yet powerful, purpose-built Edge compute servers are easy to deploy and manage—exactly what we were looking for.”

Designed specifically for operation outside of data centers, the Lenovo ThinkSystem SE350 Edge Server has a small hardware footprint with a 1U height, half width and short depth case that can be installed flexibly almost anywhere: in a lobby, under a cubicle desk, or even mounted to a wall.

As security is a pressing concern for decentralized IT infrastructure, the Lenovo ThinkSystem SE350 Edge Server comes with physical protections such as motion detection, intrusion switches and a range of modular options to reduce the risk of unauthorized access and tampering. This robust physical security is combined with disk encryption and configurable notifications to alert IT immediately to potential security breaches.

Why Lenovo? Deliver software updates faster, cost-effectively and reliably

Depending on the layout of each of its offices, the council’s Lenovo ThinkSystem SE350 Edge Servers are installed in server racks or simply sit under desks. The built-in WiFi connectivity enabled Surrey County Council to roll the new Edge servers out without the need for new network infrastructure.



“We were able to install the Lenovo ThinkSystem SE350 Edge Servers very quickly, as there is no need to provide networking ports or fit special power supplies,” confirms Walker. “We were the first organization in the UK to order this server model and everything was delivered within 14 days. We went into production just a couple of days later with the new Microsoft patching and update configuration.”

The council already uses Lenovo XClarity management software in its data center, which meant that it could easily integrate the new servers into its existing environment and start using the remote administration capabilities.

Walker comments: “As we can manage the Lenovo ThinkSystem SE350 Edge Servers centrally, we save a lot of time and resources on system administration and management. There’s no need for local IT specialists, since we are automatically alerted whenever faults occur. The self-diagnosis capabilities are especially helpful, allowing for a hands-off management approach.”

The Lenovo solution also supports Surrey County Council’s flexible working strategy. The domain controllers automatically authenticate and patch mobile workstations, such as laptops and notebooks, when employees enter an office. This ensures that remote workers or employees that travel between locations have a fully patched machine when they come on site.

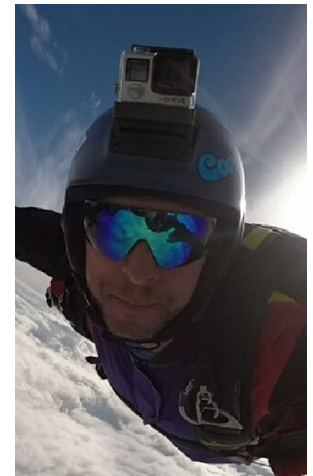
Crucially, patching performance across 5,300+ end clients has improved substantially thanks to the Lenovo ThinkSystem SE350 Edge Servers, helping to keep employee workstations protected against IT threats.

Walker concludes: “The Lenovo ThinkSystem SE350 Edge Servers are cost-effective, simple to deploy, and come with great security features. The servers are very portable which makes this solution highly adaptable to the needs of different locations. And the Lenovo solution offers flexibility for future expansion, as we can build up local clusters for high availability if necessary.”



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– Ross Walker, Enterprise Architect
Infrastructure Design, Surrey County Council



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