BLACK BOX®

European Fire Department Solves Remote Work Technology Challenges Using Emerald® Remote App and Boxilla® Manager

BACKGROUND

To keep people safe in an emergency, a European Fire Department has a radio coordination center that services multiple professional and volunteer fire stations with more than 100 firefighters on duty 24/7.

CHALLENGE

The fire department operated a legacy KVM (Keyboard/Video/Mouse) switching system with direct connections between physical servers and users. As they experienced problems with workflow, learning, and licensing, the department needed to look into a new future-proof technology. Most physical servers were replaced by virtual machines (VMs). All operators work from remote locations and require reliable access to the virtual machines and remaining physical servers. The fire department needed a robust KVM access system that could support secure remote connections including VM access. The chosen system must support high-performance computing for efficient workflows and operation.

The fire department reached out to their system integrator (SI), whose first touch point was Black Box based on former successful projects with IP KVM for virtual machine access.

SOLUTION

The SI and Black Box discussed all requirements and identified the Black Box Emerald® IP KVM ecosystem as the perfect fit for the fire department. Emerald as an IP-based solution provides the needed flexible, remote access to virtual machines and physical servers from any location - even from a user's laptop - and secure VPN connectivity. The system's simplified architecture and performance resulting from Emerald's extremely low bandwidth usage were the convincing arguments for the fire department to choose Emerald.

The following Emerald architecture was deployed:

All remote users were equipped with the Emerald Remote App license, a software-defined solution that turns each user's laptop or PC into a KVM receiver, thus eliminating the need for additional hardware at the user's workspace. The remaining physical servers were connected via Emerald transmitters; virtual machines could be accessed directly over the Emerald IP network. The only hardware requirement in this installation was the Boxilla KVM Manager in a redundant configuration.

The complete system including user access management was configured through the Boxilla KVM manager from a central location. Boxilla is also used to monitor the complete system performance including alerts to IT admins in a predictive maintenance mode. The SI installed the new infrastructure connecting more than 100 remote users and the central management platform. A Black Box Senior Field Applications Engineer supported the SI remotely throughout the deployment to assist and ensure that the system was up and running without problems.

RESULTS

The fire department now has a fully functioning remote access solution, powered by Emerald® Remote App and centrally managed by Boxilla® KVM Manager. Each remote user can access up to nine concurrent connections and display those connection windows on the two monitors at his workspace. Remote App software runs reliably on their devices and provides authorized access to virtual and physical machines. One user at a time can access each virtual machine, and the virtual machines are instantly switchable among users. In addition, users also received smooth access to camera and video feeds.

The new remote access solution resolves all of the customer's previous problems with workflow, learning, and licensing. Emerald's extremely low bandwidth usage provides an exceptional user experience that is beyond the customer's expectations. They acknowledge Emerald IP KVM as a next-step technology. Experiencing the system live in action confirmed their decision to buy.

The fire department chief commented, *"I am pleased that our fire station now has an integrated remote access solution, allowing us to serve the public like never before with increased reaction time that enables us to put out fires fast, reducing the potential for human injury or loss of lives, and protecting property from fire and smoke damage."*

A Black Box Sales Manager added, "I am proud that we could help the fire department to take a step in the next level of work. In the time of remote work and lack of workforce, our solution helps the department to improve effectiveness of their workflow creating the possibility to work both locally in the office, as well as remote from any place that workers might want to use. This is only possible with an IP solution like our Emerald, and Emerald Remote App comes with such a low bandwidth demand that nearly any Internet connection can be used, as long as the traffic is secured by VPN."

GET IN TOUCH

For more information about our technology product solutions, visit **blackbox.com/publicsafety** or reach out to us at **contact@blackbox.com**. Our experts are happy to assist you.

ABOUT BLACK BOX

Black Box® TPS is a leading control room technology provider trusted by customers in mission-critical industries to master operations in the world's most demanding high-performance IT environments.