

KVM Expertise



Tower Baggage Handling Air Traffic Control Centres

Leading the way in digital KVM





KVM Extenders | Switches | Matrix Switches

KVM products for Air Traffic Control

KVM in the control tower > Improving the controllers' concentration



The mission-critical applications of the control tower require air traffic controllers' absolute and constant concentration. That's why it is so important to provide the very best possible working conditions with no diversions or disturbances. In the limited space of the tower, the noise and heat generated by the powerful processors of the computer system creates an unwanted disturbance. However, thanks to KVM products such as KVM extenders and KVM matrix switches, the computers can be moved out of the tower to another location a good distance away.

This solution not only saves space in the tower but reduces the costs of air conditioning and climate control. In a dedicated server room, computer maintenance is made easier too, with

> no unwanted distractions from maintenance personnel. KVM extenders transmit computer signals in real-time over long distances with no loss in quality. Controllers can set about their tasks without even realizing they are operating their computers remotely. With KVM matrix switches, the operation of multiple computers can be decentralized via multiple consoles.

How KVM works in the tower

KVM products are an essential part in towers. Once the computers had been removed to a central equipment room, they were connected to a KVM matrix switch, e.g. ControlCenter-Digital 288. The extender feature of said matrix switches established connections to offices, the test room and finally up to the flight station with all working positions. All workstations can access any computers that are connected through KVM technology.

Even in the crisis room, users can access and view all computers. The computer signals are even further extended to the safety-sensitive flight station. In a separate testing room, employees inspect any IT equipment thoroughly. And even from here, technicians with specially assigned user rights can access and maintain the computers.





KVM in Air Traffic Control Centres > Preventive monitoring, Redundancy and Fallback



Coordinating departures and arrivals and controlling overflying traffic requires the maximum reliability of all IT components. Air Traffic Control Centres are sensitive security areas that can enjoy major benefits through deploying a KVM extender such as DL-Vision. This allows computers to be removed from the control centre, improving working conditions and enabling preventative monitoring and event reporting.

Regulatory safety demands can be met by integrating the Dev-Con-Center. This provides centralized proactive monitoring and configuration of network-capable G&D devices. Depending on results or predefined thresholds, the DevCon-Center triggers and sends a message to the system administrator, allowing them to react before any failures occur.

> Redundant and fallback systems are essential for the controller's work. To prevent a total breakdown, three independent systems (primary, redundant, and fallback) are applied to the controller's desk. Each system consists of a computer and a KVM extender line. By pressing a button at a KVM switch installed next to the desk, switching between systems is made easy.

Customer benefits using KVM - Full safety thanks to redundancy and fallback

The unlikely event of a system breakdown despite preventive monitoring requires a concept that allows controllers to continue their work safely and intuitively in their familiar environment.

This requires a redundant system that is safeguarded by another fallback system. Now two functional lines are still available even if the primary connection fails.

Three independent but identical systems per controller desk serve for a primary, a redundant and a fallback system. Each of these three systems consists of a computer and a KVM extender line. The controller only needs to switch between the three systems by simply pressing a button on the KVM switch, e.g. DL-MUX4.

Screen freeze function "freezes" the image last displayed on the monitor. Users are provided with the information last received before switching to a redundant system.



KVM products for Air Traffic Control

Baggage Handling Increasing efficiency and remote access to all connected computers



Screening, unloading, sorting, storing, transporting, uploading – a baggage handling system runs in a continuous cycle. That's why efficiency and reliability are so crucial.

The baggage handling control room continuously monitors and controls all the processes involved in the task cycle. Inside this room, operators are working with multiple computers, 24 hours a day, 7 days a week. As a result, the environment can become a very hot and noisy place. However, by implementing a KVM matrix switch such as the DVICenter DB64, the computers can be removed from the room and the operators access multiple computers from different user consoles.

> The matrix switch and the computer modules are placed in the server rack from where infrastructure cables bridge the distance to the controller's desk. Here, keyboard, monitor and mouse are directly connected to the user modules (DVI-CON). Additional special computer modules enable the implementation of VGA and DisplayPort computers into the matrix switch.

How KVM improves Baggage Handling?



In the baggage handling section all computers were removed from the control centre and stored into a separate equipment room. Here, they were placed in clearly arranged server racks and connected to a KVM matrix switch DVICenter. Now several users are able to access a large variety of computers remotely. After the matrix switches had been grouped, they were connected to a master switch, which enables users to configure and operate all connected devices. Some computers, however, could not be connected to the matrix switch, because they were assigned to particular employees. In such cases, KVM extender systems extend computer signals directly to the corresponding desks.

By applying G&D's KVM products, computers can be maintained directly in the equipment room, thus helping employees remain focused on their work instead of being distracted by maintenance workers



General Control Centres at Airports ► Reducing noise level and heat emissions



Supervising important processes on the ground and in the air, General Control Centres ensure the prompt departure of all airplanes. To maintain and manage these complex traffic processes requires multiple employees working with powerful computers combined with multi-monitor user consoles as well as multi-screen-walls.

In order to make the working conditions for the staff most efficiently, all the computers are removed from the control room and connected to a KVM matrix switch in a separate technical area. Without the associated heat and noise, operators can continuously access their computer and switch between different computers – in real time and without any latency.

> With the intuitive CrossDisplay-Switching users can switch seamlessly between computers by using the mouse. The mouse acts as if it's on a "virtual desktop" moving across all connected displays.

Discover the new CrossDisplay-Switching!



How KVM works in General Control Centres at Airports?



To make working in mission-critical environments more efficient and ergonomic, computers are separated from users and stored in central server rooms, where they are airconditioned, safe and easy to maintain.

With the installed KVM products, users can still operate their computers in real time. A KVM matrix switch enables the access to multiple computers that users can operate from different desks.

The **Push/Get feature** of the matrix switch even lets users push the screen content from one monitor to another or to a video screen. It is also possible to get the screen content from there to edit it at another monitor. This solution does not only require fewer computers.

Now that employees can share their tasks, it also improves the communication, flexibility and general work-flow within the team.



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From professionals to professionals:

Trust in our professional solutions - from planning through to aftersales support.





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