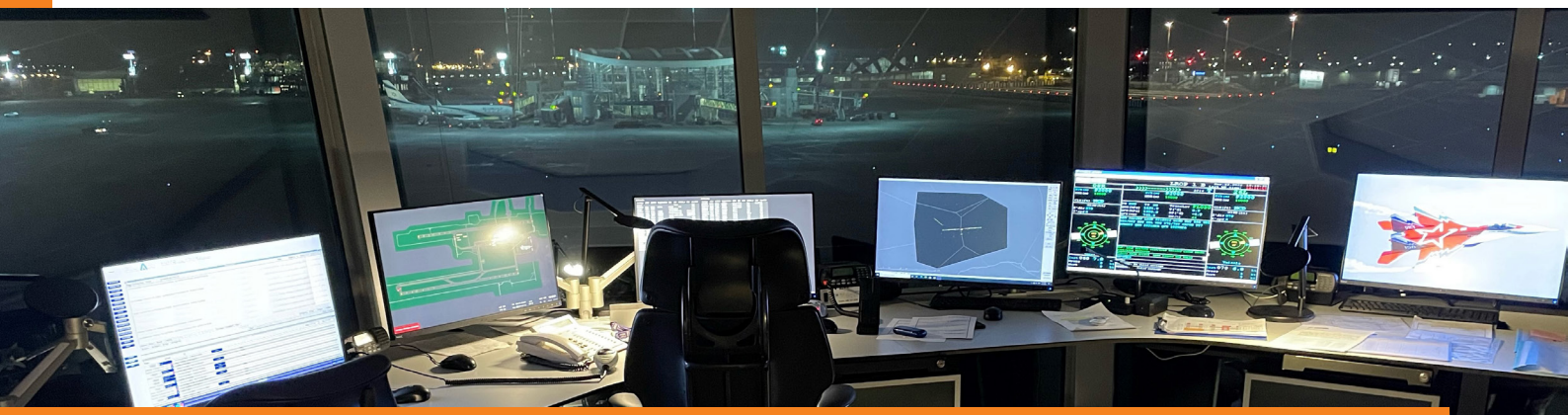


A FLEXIBLE KVM SYSTEM FOR AIRPORT OPERATIONS

MODERNIZATION OF BUCHAREST'S MAJOR AIRPORT

THE CUSTOMER

Henri Coandă Airport, the major airport in Bucharest and the largest in Romania, manages approximately 500 flights per day. The ground control tower, originally built in 2001, required a redesign to meet modern standards and technological advancements.

THE CHALLENGE

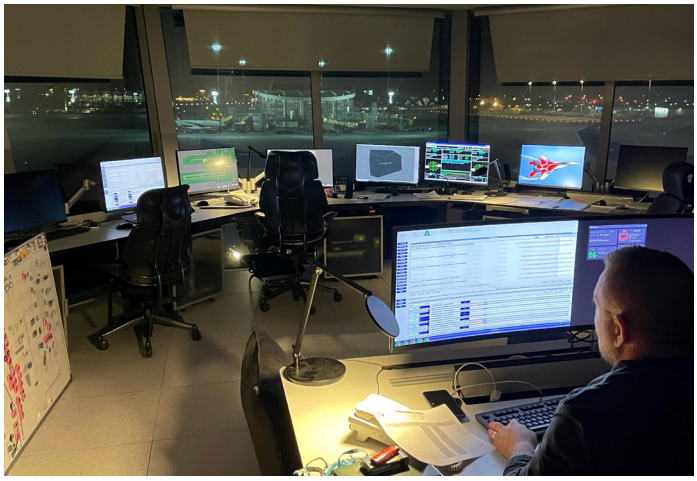
Romanian system integrator Tradeco was tasked with redesigning the ground control tower. In addition to upgrading the entire interior, including flooring, ceiling, windows, and cable infrastructure, there was a need for a new KVM system to enhance workplace efficiency and ergonomics. The tower required six computers running simultaneously to display data from various platforms, alongside easy access to monitoring cameras and the airport's management system for all planes and other vehicles within the airport grounds. A flexible KVM switching system was essential for smooth switching between multiple data sources.

THE SOLUTION

A KVM switching system connects the air traffic controllers' workstations in the visual control room at the top of the control tower with the remote computers, located in lower levels within the tower. All endpoints (source computers and user workstations) are directly connected to MX Matrixline extenders, which are linked to a standard 24-port network switch comprising 24 Cat X ports (1G) and 2 SFP+ ports (10G), which routes the signals.

Eight workstations, each of them consisting of a keyboard/ mouse set and a 27" NEC Multisync EA271Q monitor, are directly connected to MX Matrixline Extender CON units, mounted under the desks. Additionally, two large 4K TV screens for video surveillance are connected to 4K Ultraline UVX Extender CON units.

All air traffic controller workstations have real-time access to six PCs with Full HD output and four with VGA video output; all located in the remote server room, interconnected to the KVM switching system via equivalent MX Matrixline Extender CPU



units. kvm-tec's Switching Manager software enables seamless switching between PCs from the user stations. The additional 4K Multiview Commander software allows the display and switching of 4 Full HD video signals.

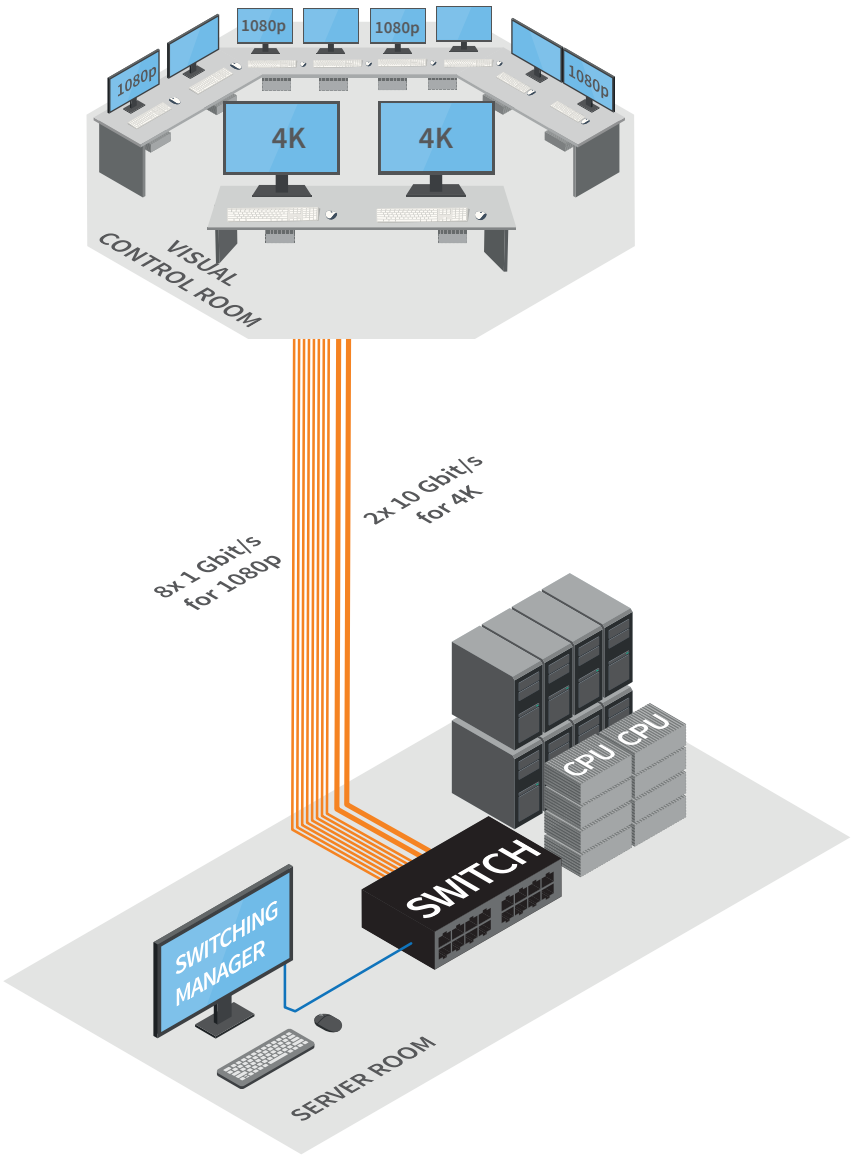
The supervisor workstation allows the display and management of up to eight Full HD video signals simultaneously on two 4K screen, using the 4K Multiview Commander.

THE BENEFIT

The flexible kvm-tec system maximizes the operational space in the restricted environment of the tower's control room. The air traffic controllers benefit from increased flexibility with efficient and reliable real-time switching between various sources and the display of multiple sources on a single monitor.

The computer equipment is vital to the safe functioning of the airport. The placement of computers in a protected and access-restricted server room helps ensure the reliable and secure functioning of critical systems. By doing so, the airport minimizes the risk of unauthorized access, technical failures, or security breaches. This setup also supports efficiency and ergonomics for the air traffic controllers. Since they rely on real-time data and high-performance systems, having a secure, well-managed server infrastructure enhances their ability to maintain full control, communicate effectively, and manage airport operations with precision.

FUNCTIONAL DIAGRAM



KVM-TEC PRODUCTS IN USE

- MX Matrixline CPU
- MX Matrixline CON
- UVX Ultraline CON
- Multiview Commander
- Switching Manager Software

CONTACT

kvm-tec Electronic Gmbh
Gewerbepark Mitterfeld 1A
2523 Tattendorf
+43 2253 81912
office@kvm-tec.com