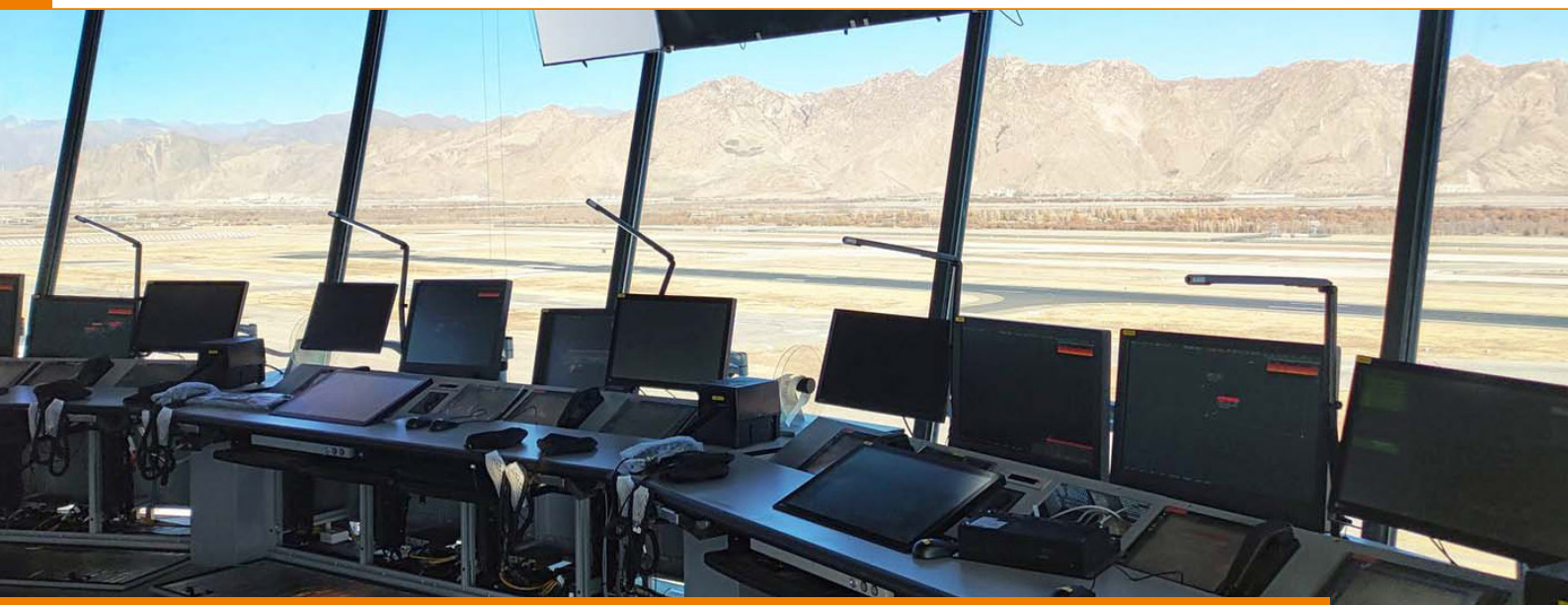


IHSE KVM TECHNOLOGY SUPPORTS AIR TRAFFIC CONTROL

AT HIGH-ALTITUDE AIRPORT IN CHINA

THE CUSTOMER

China has a large number of airports located on high plateaus, many of which are over 1,500 meters above sea level. including some that are over 2,500 meters above sea level. No other country has as many airports at these heights.
A new requirement for a construction project was recently presented for an airport located at a height of over 3,500 meters above sea level.

Air traffic control tower on a high plateau

THE CHALLENGE

Operating airports at a very high altitude presents significant challenges to Air Traffic Management and airport logistics. The combination of low air pressure, difficult terrain and geomorphological features, high winds, low cloud and extreme diurnal temperature differences pose complex requirements on equipment and systems that are not generally encountered in lower-level airports. These are in addition to the normal requirements for the highest levels of security and reliability that are essential in air traffic management systems.

THE SOLUTION

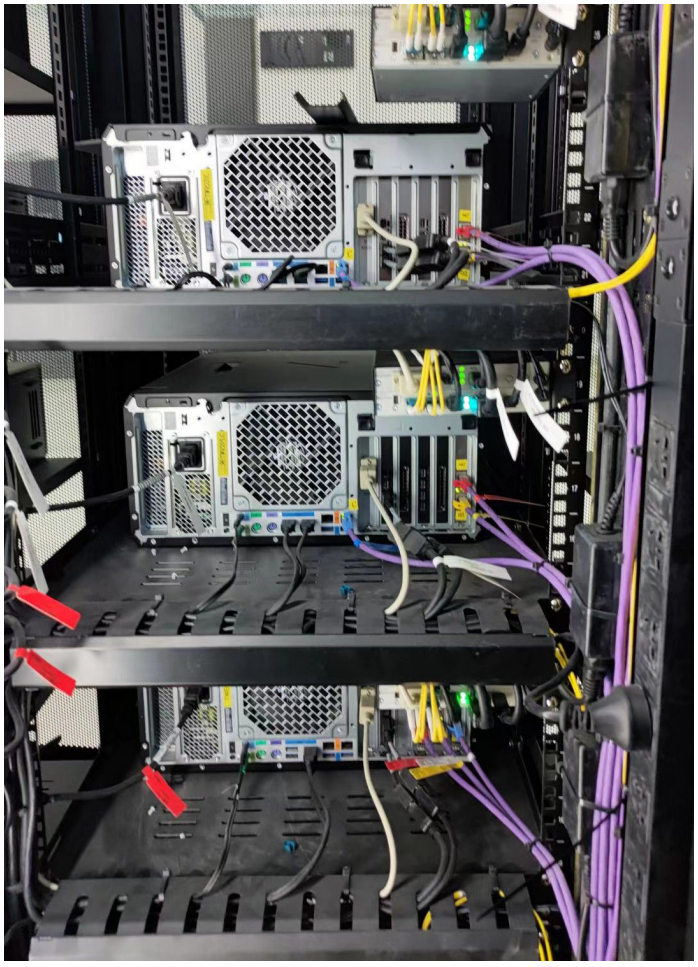
In order to provide the most reliable and robust solution to meet the stringent requirements of this new installation, a KVM network system was chosen that is based around IHSE Draco tera flex KVM switches, with multiple switches and fiber routing to offer sufficient operational redundancy to ensure continuous 24/7 operation.
The main system is split between 8-port and 64-port Draco tera KVM switches to deliver information from a wide range of remote air traffic management host computers and devices to controllers located in the main ATC tower. Connection is by optical fiber which ensures the highest reliability interconnection over the distances encountered in the installation.
An additional 128-port KVM Draco tera KVM switch provides back up to the main switches and acts as a hot standby unit so that in the unlikely event of a main system switch failure, it automatically takes over the connection configuration and switching role. This ensures continuous, uninterrupted and unnoticed swapover and enables the controllers to continue their tasks without error.

> „The additional stress and demand placed upon computer equipment by high-altitude installation had to be considered during the specification stage. IHSE Draco switches fulfil the design brief and successfully meets the objectives and parameters imposed on the KVM network."
>
> Alan Wang, sales executive, IHSE China.

THE BENEFITS

- All-weather uninterrupted operation: The optical fiber KVM matrix delivers 24/7 operation for continuous data access. The KVM host, signal transmitter and signal receiver have dual redundant power supplies. Dual connection links ensure continuation of connection in the event of cable break or damage.

- Redundant hot standby: Should a KVM switch fail, a new route through the secondary, hot standby switch is instantly invoked. Switchover does not result in a black screen and the whole process does not affect the normal operation of the controller.
- Instant switching: Users can switch between multiple data sources with keyboard operation from their own workstation with no delay. Data can be shared between several displays across multiple workstations.
- Workstation group management: Individual controllers can be grouped with others. Individual operators can be assigned different access level clearance for switching control and port viewing permissions.
- Multi-interface and multi-system support: Draco tera KVM switch and extension technology is compatible with various third-party devices required by air traffic control. It is compatible with different computer-based systems such as Window, Linux, and UNIX. It supports DVI-D, DVI-I, DisplayPort, VGA and other signals, and can provide 4K and beyond video display resolution.
- Centralized monitoring and O&M: The running status of KVM hosts and monitoring servers, KVM host ports and switches in each KVM matrix can be monitored in real time.



Computers and Draco vario extenders (CPUs units)

Draco tera flex matrix switches in operation

KVM PRODUCT IN USE

- Draco tera flex KVM matrix switches
- Draco vario extenders

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