

KING'S CASINO: RAIDIX STORAGE FOR VIDEO SURVEILLANCE



King's is Europe's largest poker club and casino, located on the border of the Czech Republic and Germany. In addition to the games rooms, the complex includes a hotel, Spa and Wellness center, two restaurants and halls for various events. Since 2017, King's hosts the World Series of Poker Europe (WSOPE).

RAIDIX-based storage is used for video surveillance system in the largest poker club in Europe

King's interiors were influenced by the luxurious casinos of Las Vegas, with the event hall being the crown jewel of the hotel: design, inspired by Faberge's works, was awarded at the Design Excellence Awards in 2018.

King's Casino team is well-known for providing the guests with the first-class service and convenience, ensuring the safety of the visitors, as well as the staff of the complex, operating around the clock.

Challenge

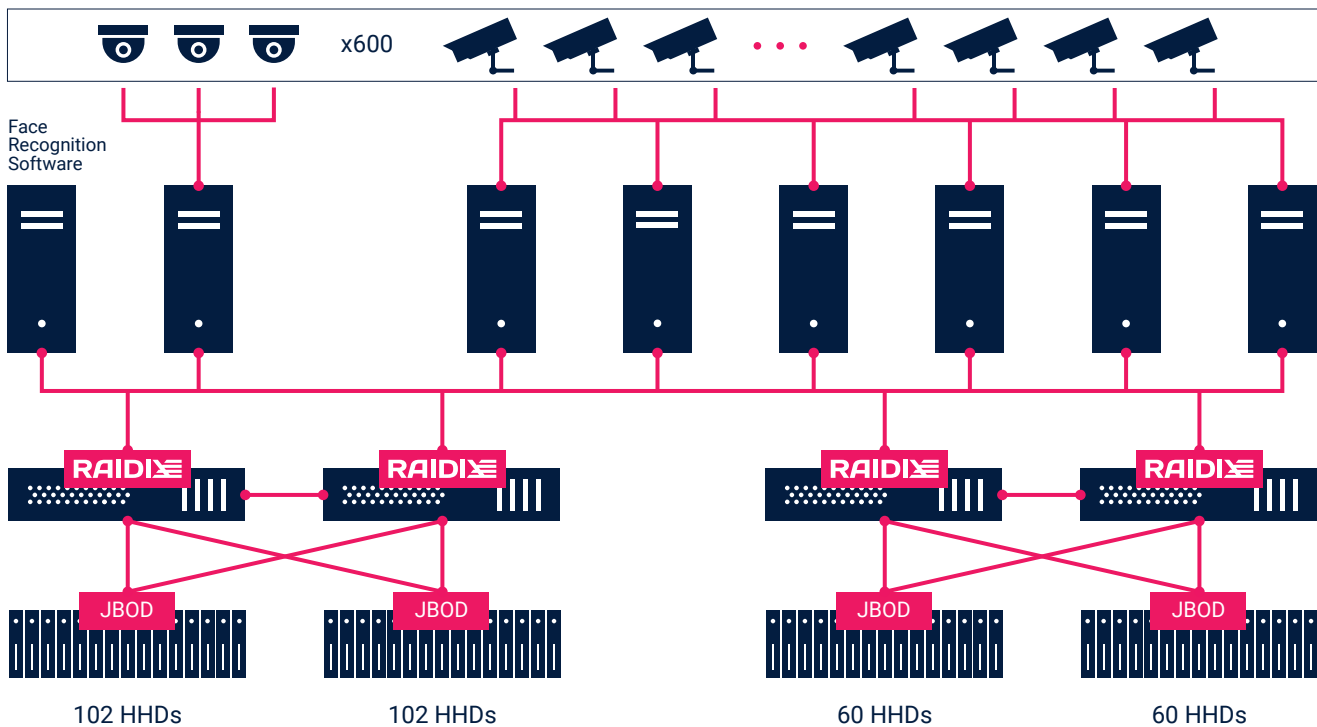
Video surveillance system in the Casino complex as an effective tool to detect and prevent probable offenses and malpractices. Casino team uses a set of high resolution and high frame rate cameras, able to capture any fraudulent activity, the video is recorded 24/7. These records are then used by security to analyze misconduct and resolve conflicts. According to internal safety regulations, the shelf life of video materials is 2 years.

The video surveillance system consists of 600 fixed and rotary cameras, which provide full coverage of the entire area of the complex. Security service pays special attention on the gaming area, with additional fixed cameras installed above each table.

Solution

Two dual-controller RAIDIX-based storage systems were deployed for reliable storage of video materials. **Supermicro 6048R-DE2CR24L** servers, as well as **Western Digital Ultrastar Data60** and **Western Digital Ultrastar Data102** drives enclosures were used as a hardware platform.

The video surveillance system includes 8 video servers including two, dedicated for the facial recognition system and for rotary cameras. The remaining 6 servers handle streams from the fixed cameras. Each storage is connected to all 8 servers via 10Gb iSCSI/Ethernet network. The average stream rate from each video server is approximately 1Gbit/s, 5-6Gbit/s (625MB/s) in peak load mode.



Each of the two RAIDIX-based storage systems provides up to 17GB/s bandwidth for read and write operations. This is almost **three times more** than the total peak load from 8 video servers (about 5GB/s).



Two drives enclosures are connected to each storage system. Drives enclosure of the first system includes 204 drives of 12TB each, with a total capacity of 2448TB (with 1 drive for SparePool). The second system uses 120 drives of 10TB each, with a total capacity of 1180TB (with 1 drive for SparePool). This volume is enough to store videos from all cameras, recording 24/7, with 2 years data retention period.

Specification

	System 1	System 2
VMS	TRASSIR	TRASSIR
File System	NTFS/REFS	NTFS/REFS
Server Platform	Supermicro 6048R-DE2CR24L	Supermicro 6048R-DE2CR24L
CPU	Intel Xeon E5-2609V3 1.90GHz	Intel Xeon E5-2609V3 1.90GHz
RAM	256GB	128GB
Drives Enclosure	2x Western Digital Ultrastar Data102 Hybrid Storage Platform	2x Western Digital Ultrastar Data60 Hybrid Storage Platform
Number of Drives	228x HDD	144x HDD
Raw Capacity	2700TB	1410TB

Partner

VTK SVYAZ (www.vtk.eu) – Czech provider of telecommunication equipment and network components (cameras, video conferencing systems, video recorders, communication devices) took over design and implementation of the video surveillance infrastructure in the Casino complex. Company provides setup services and technical support of IT solutions.

VTK SVYAZ company also develops, designs and maintains security systems, fire and security alarm systems, access control systems, centralized multimedia audiovisual complexes for private and corporate clients.

Results

This volume of the storage is enough for all videos from all cameras, operating 24/7, with 2 years data retention period. Productive storage makes it possible to record high-quality data with no lost shots, providing King's Casino security service with full access to all events throughout the Casino complex.

Dual-controller mode of the storage ensures the necessary level of protection against equipment failures, eliminating even the shortest system downtime and loss of important video data.

RAIDIX software minimizes the risk of data loss when recording and storing video footage from surveillance cameras at King's Casino. With the solution, Casino security service gets quick access to the archive with no worries about the safety of the footage.