

RAIDIX FOR CITY VIDEO SURVEILLANCE



RAIDIX-based data storage for centralized video surveillance system in large Russian city

Centralized video surveillance system is one of the major technological tools used to maintain megapolis safety environment. Such system has been deployed in a large Russian city and is intended for crime detection, car accident capturing and traffic monitoring in the busiest road sections.

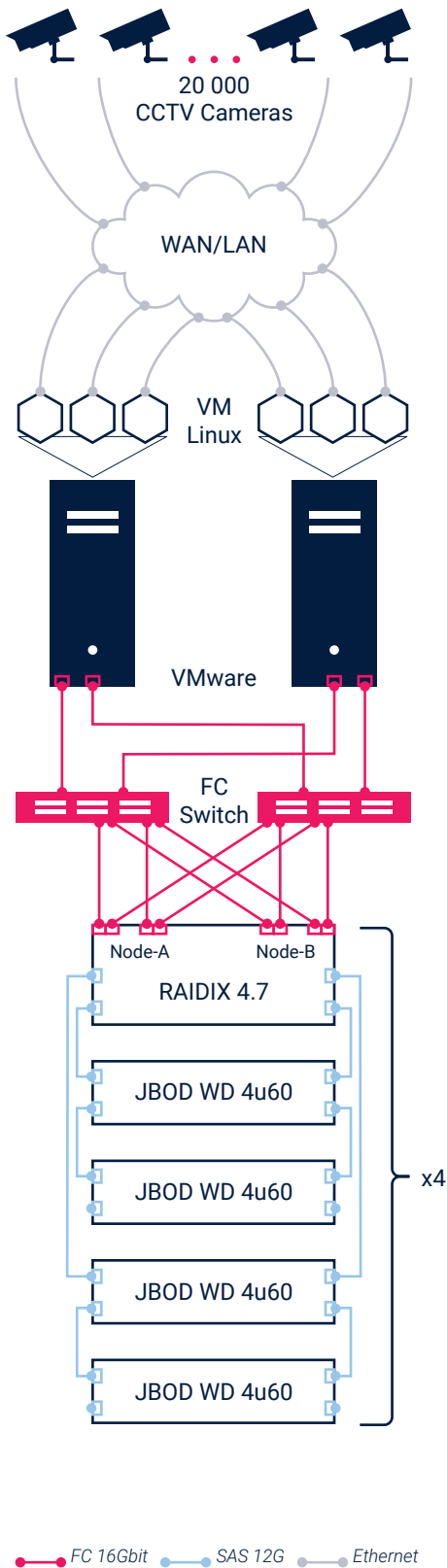
Video records from surveillance cameras are transferred to the remote operator console for event registration in a real-time mode. At the same time, records go to video servers for analytics and further archiving. Video data archive is available for the city police and traffic police departments, law enforcement services and for the citizens, involved in particular accidents.

Challenge

The video surveillance system has more than 20 000 cameras installed in the city, covering road infrastructure, public places (parks, squares, alleys) and regular neighborhoods. Surveillance works in 24/7 mode and has 10 days data retention period.

Current cameras network generates large number of concurrent parallel video streams with total average rate at 80Gbit/s, which requires high performance storage with fast array rebuild.

Moreover, project environment claims easy integration with given network and virtual infrastructure, followed by further scaling according to the archive growth.



Solution

Video archive within the project consists of 4 high-availability storage systems powered by RAIDIX 4.7. Hardware platform is presented by AIC HA401-LB2 servers and Western Digital Ultrastar Data 60 JBODs.

Each storage works with VMware hypervisors, processing records from all installed cameras.

Business Impact

RAIDIX-based storage provides stable workflow for storage subsystem within city surveillance network with 20 000 cameras. This infrastructure has always-on processing of high amount of data, gathering evidence for accidents, crimes and traffic situation.

High throughput of every storage system enables intensive sequential workloads, remaining enough resources for unpredictable rate raising in case of emergency. Software RAIDIX technologies deliver high data availability even during intensive write operations. It provides fast and smooth access to video archive for every user.

Specification

	For Single Storage System
OS	RAIDIX 4.7
Server Platform	1x AIC HA401-LB2
CPU	4x Intel Xeon Processor E5-2683 v4
Memory	16x DDR432Gb DIMM
FC Target Ports	8x 16Gbit
JBOD	4x HGST 4U60 with 60x10TB HDD