

# VIDEO MONITORING SERVICES BY GOOD LINE



**Good Line Company is the major telecom provider in Eastern Siberia. One of the most booming company's services is a video monitoring for businesses and private households.**

For home video surveillance Good Line proposes "Safety Sensor" service and smart wireless cameras with 24/7 motion detection. All system features are managed with the help of mobile application: real-time video, cameras' status and position and access to video archive during up to 48 hours after the record.

"Online Watch" is a complex security service for home and courtyard for each habitant: detailed video surveillance for common area, remote access to doors and gate locks. Clients have an easy access to video records during 7 days from everywhere in the world. "Online watch" mobile application is integrated in "Digital City" project which is intended to increase public safety in the region.

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*For b2b clients, video monitoring services help to secure and facilitate efficiency of major business procedures with no additional costs.*

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At the moment, more than 5000 cameras are working for Good Line business customers: monitor labor discipline, keep order at gates and checkpoints, secure retail and restaurants areas for theft and vandalism.

The feature of video monitoring service is specific architecture, when cameras can be allocated at any place like offices, houses, courtyards, manufacturing facilities, but other components of the infrastructure are delivered via cloud, hosted on provider's platform. Thanks to high-bandwidth network access, clients are able to watch real-time video streams from all over the world.

Archive data retains from 2 to 30 days. Usually, this time is enough to reconstruct event the smallest details and chronology. With the cloud distribution model, services are protected from deliberate damage and accidental loss.

## Challenge

High demand to video monitoring services create the need in additional storage capacities, in order to aggregate data from the cloud video servers. General requirements for upcoming storage systems are the ability to perform fast, as well as sustainable write of streaming data to storage devices.

According current solution architecture, each storage system has 30 video servers as clients with total data stream about 4-5Gbit/s. At the time, each video server processes up to 150 IP cameras with bitrate from 1.5 to 3.5 Mbit/s. These requirements drive Good Line's engineers to search data storage with high throughput and sustainable performance in multi-thread mode.

Additional search option comes from current hardware environment: because of existing Supermicro server platforms the solutions should be software-defined storage.

## Solution

To get the final selection, RAIDIX storage software has successfully finished all stages of pilot operation on the client's side. Now video monitoring services are based on three data storage systems in HA configuration. Each storage has iSCSI connection with 30 virtual video servers at provider's cloud.

Productivity for sequential workloads in RAIDIX software comes from developed RAID engine algorithms. It ensures storage high throughput and reduces performance penalty from drive failures.

Due to redundant hardware in Active-Active configuration, Partial Reconstruction technology and Silent Data Corruption Protection, RAIDIX storage shows high level of availability and data protection.

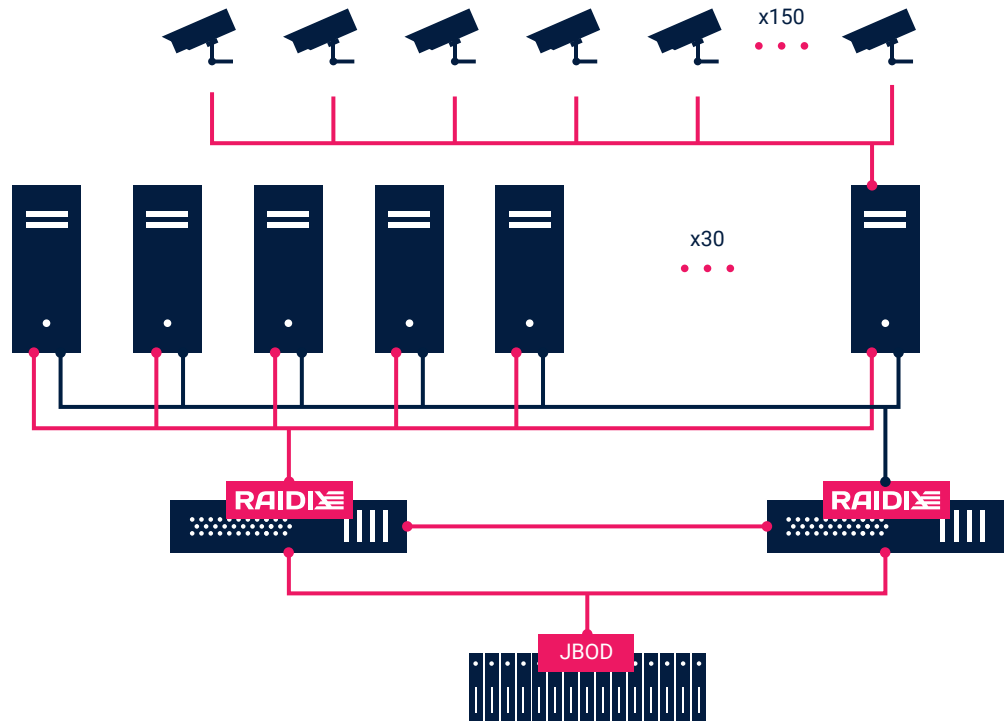


### Brief Specification

	Storage 1	Storage 2	Storage 3
Server Platform	Supermicro SuperServer 1029TP-DC0R	2x Supermicro SuperServer 1029P-WTR	Supermicro SuperServer 1029TP-DC0R
RAID level	RAID 7.3i	RAID 7.3i	RAID 7.3i
CPU	Intel Xeon Gold 5122 Skylake	Intel Xeon Gold 5122 Skylake	Intel Xeon Gold 5122 Skylake
RAM	256GB per node	256GB per node	256GB per node
JBOD	4x Supermicro SuperChassis 847E2C	4x Supermicro SuperChassis 847E2C	4x Supermicro SuperChassis 847E2C
Drives	176x HDD	176x HDD	176x HDD
Capacity	1.75PB	1.75PB	1.75PB

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## Business Impact

Good Line Company successfully uses RAIDIX software for back-end storage of video monitoring service for its b2b and b2c clients. Data storage features enable desired level of customer service: smooth access to archive with no drops and interruptions, low latency level and guaranteed data retain up to 30 days.

High storage throughput prevent any performance loss during many concurrent streams from virtual servers. Moreover, storage system helps to keep data integrity and availability delivering high level of customer satisfactions about company's services.

Hardware-software solution powered by RAIDIX helps Good Line to create trusted and comfortable video surveillance platform for personal and public security at home, office, production and retails areas.