" Achiziționarea lucrărilor de instalare a sistemului de paza tehnica"

CAIET DE SARCINI

Obiectele care urmează a fi construite:

1. Sistemul de monitorizare paza tehnică filiala "Anenii Noi Gaz" (Baza Veche)

• Descrierea tehnica si echipamentul necesar

Denumirea	Descrierea	Cantitatea
32 de canale, 2 HDD, înregistrare video de rețea cu elemente AI cu detectare inteligentă a mișcării și cip AI încorporat	 Smart H.265+/H.265/Smart H.264+/H.264/MJPEG decoding format. Access, storage or forwarding at 256 Mbps (180 Mbps when AI function enabled). Max. decoding capability: 16 × 1080p@30 fps. Supports adaptive decoding. AI by NVR: 1-channel face detection and recognition; 2-channel perimeter protection; up to 10 face databases and 20,000 face images; 4-channel with smart motion detection and built-in AI chip. AI by Camera: Face detection and recognition, perimeter protection; smart motion detection and built-in AI chip; people counting; stereo analysis; heat map. Connected to the third-party network cameras. Security baseline 2.3. 	1 buc.
Hard disk-ul de supraveghere este optimizat pentru DVR- uri și NVR-uri și reglat pentru sarcini de lucru 24x7, cu capacități de până la 8 TB	Form factor 3.5' SATA III interface Drive capacity 8.0TB Data transfer rate: at least 6 Gbps Spindle Speed 5900 RPM Maximum noise level 21dB Buffer capacity: at least 64 MB Maximum power consumption 3.68W MTBF: at least 1.0 million hours Physical dimensions, weight 147 x 101.6 x 20 mm, 415 g Manufacturer's warranty: at least 36 months.	2 buc.
Cameră de rețea intelectuală Bullet cu focalizare fixă, cu descurajare activă, de 4MP, cu elemente AI	 AMP, 1/2.7" CMOS image sensor, low illuminance, high image definition Outputs max. 4MP (2688 × 1520) @30 fps H.265 codec, high compression rate, low bit rate Built-in warm illuminator, and the max. illumination distance: 40 m SMART H.264+/H.265+, flexible coding, applicable to various bandwidth and storage environments Intelligent detection: Intrusion, tripwire (support the classification and accurate detection of vehicle and human) Abnormality detection: Motion detection, video tampering, scene changing, audio detection, no SD card, SD card full, SD card error, network disconnection, IP conflict, illegal access, and voltage detection. Supports sound and light alarm linkage. When an alarm is triggered, the camera links sound alarm and light flashing. Supports one-tap disarming. You can disarm the events of alarm output, sending email, audio, and light in the configured period. Alarm: 1 in, 1 out; audio: 1 in, 1 out; supports max. 256 G Micro SD card, built-in Mic and speaker 12V DC/PoE power supply IP67 protection smart motion detection and built-in AI chip Red and blue flashlight alarm 	2 buc.

		r
Cameră de rețea intelectuală Bullet Smart Dual Light, cu focală fixă, de 5 MP, cu elemente AI	 5-MP 1/2.7" CMOS image sensor, low luminance, and high definition image. Outputs max. 5 MP (2960 × 1668) @20 fps, and supports 2688×1520 (2688 × 1520) @25/30 fps. H.265 codec, high compression rate, ultra-low bit rate. Built-in warm light and IR LED, the max. IR light distance is 60 m and max. warm light is 50 m. ROI, SMART H.264+/H.265+, flexible coding, applicable to various bandwidth and storage environments. Rotation mode, WDR, 3D NR, HLC, BLC, digital watermarking, applicable to various monitoring scenes. Intelligent monitoring: Intrusion, tripwire (the two functions support the classification and accurate detection of vehicle and human). Abnormality detection: Motion detection, video tampering, audio detection, no SD card, SD card full, SD card error, network disconnection, IP conflict, illegal access, and voltage detection. Alarm: 1 in, 1 out; audio: 1 in, 1 out; supports max. 256 G Micro SD card; built in MIC. 12 VDC/PoE power supply, easy for installation. IP67, IK10 (optional) protection. 	10 buc.
Cameră de rețea Eyeball IR de 5MP cu focală fixă	 5MP 1/2.7" CMOS image sensor, low luminance, and high definition image. Outputs max. 5MP (2880 × 1620) @20 fps and supports 2688 × 1520 (2688 × 1520) @25/30 fps. H.265 codec, high compression rate, and ultra-low bit rate. Built-in IR LED, and the max. illumination distance is 30 m. ROI, SMART H.264 +/H.265+, flexible coding, applicable to various bandwidth and storage environments. Rotation mode, DWDR, 3D NR, HLC, BLC, digital watermarking, ap plicable to various monitoring scenes. Abnormality detection: Motion detection, video tampering, audio detection, network disconnection, IP conflict, and illegal access. Built-in MIC. 12 V DC/PoE power supply. IP67 protection. 	2 buc.
Switch PoE administrat Gigabit cu 16 porturi 100 Mbps + 2 porturi	 Intelligent PoE Hi-PoE port supports 90W IEEE802.3bt Web management with friendly interface and easy operation 250 m long distance PoE transmission PoE watchdog Plug and play Manufacturer's warranty: 36 months 	1 buc.
Router Wi-Fi	 Wandracturer's warranty. 30 months High performance processor- at least: IPQ-4018 716 MHz, 4 cores Radio Interface-2.4 GHz 802.11b/g/n, MIMO 2x2; 5 GHz 802.11a/n/ac, MIMO 2x2 Antenna pattern width-360° Connection interface- 1x micro-SIM for modem; 1x miniPCI-e 1 Wan-port, at least 1 Lan-port RAM size - at least 128 MB Storage size - at least 16 MB Storage type FLASH Operating temperature -30°C to 60°C 	1 buc.
Dulap de distribuție montata pe perete 600*400*200	 Plastic case, wall-mounted. IP66 protection. The case door is lockable. 	1 buc.
Dulap metalic de distributie montat pe perete 650x500x220	 Distribution cabinet. Robust enclosure for use in adverse weather and industrial environments. Metal enclosure with removable mounting plate. The enclosure door is lockable. The lock key has a single secret. 	1 buc.
CamBox pentru Camera de rețea	 Neat & Integrated design Material: Aluminum IP66 junction box 	16 buc.
Surge Protector 5 Sockets	Surge Protector 5 Sockets, 5.0m, flame-retardant material	2 buc.

Canal radio inteligent hub-HAB. Monitorizează funcționarea senzorilor și releelor radio și trimite instantaneu un semnal de alarmă proprietarului și biroului de securitate.	Radio-channel, intelligent concentrator-hub The device must support motion, breakage, door status and other types of simple and combined sensors and instantly sends an alarm signal to the owner and the security console. Shall support photo verification of alarms Classification: Radio channel concentrator with GSM and Ethernet modules, Wi-Fi, LTE with a range of at least 1700m. Installation type: Indoor Connected devices - 200, Users - 200, Guard groups - 25 Must support the connection of radio signal repeaters - to increase the range of operation in difficult conditions Support mobile applications iOS 11.0 and above / Android 4.4 and above Communication channels - at least 2 SIM cards 2G (900/1800 MHz) / 3G (WCDMA 900/2100 (B8/B1) / Wi-Fi 2.4 GHz (802.11 b/g/n) / Ethernet Switching between 2G and 3G Instantly / Switching between SIM cards Signal delivery time - no more than - 0.15 s Types of notifications - SMS, call, push / Communication with security console Contact ID, SIA Power supply 110 - 240 V mains or 12 V Built-in backup battery Li-Ion 2 Ah, at least 14 hours of autonomous operation Power consumption from mains - up to 10 W Operating frequencies - 868.0 - 868.6 MHz, Two-way communication between devices Sensor polling period - 12-300 seconds Operating temperature range -10°C to +40°C Anti-sabotage / Anti-tampering / Jamming alert / Tamper on opening and breakaway Video surveillance: At least 9 cameras and video recorders	1 buc.
Panou de control fără fir	Wireless keypad with support for secure proximity cards and key fobs. Range of at least 700 metres Security modes must be controlled by common and personal passwords, cards or key fobs Must support: tamper on opening and tear-off, code on compulsion, protection against password selection. Operating temperature range: -10°C to +40°C Built-in battery: keeps working - up to 4.5 years Warranty of at least 2 years.	2 buc.
Modul de integrare fără fir pentru conectarea senzorilor cu fir și a dispozitivelor terțe la sistemul de securitate	The wireless radio module, integration and alarm module, must be integrated with outdoor or indoor vibration, motion, glass break, opening detectors, thermal relays, IR barriers, gas and water leakage sensors, as well as with other security system devices from different manufacturers. It must transmit signals to the hub via radio protocol over a distance of up to 2000 meters. Must have at least 18 wired zones. All 18 wired zones must be configured in the mobile application. Sensors connected to zones can operate around the clock in security mode with a delay for entry or exit, and, if necessary, participate in automation scenarios and activate sirens. The maximum length of the detector cable connection is at least 350 m. The radio integration module can be a power source for the connected device - 12 V DC up to 1 A for all detector power outputs. When the connection with a wired device is lost, a custom alarm will be reported immediately. Configuration and testing of the wireless integration module should take place in the mobile application. Connection to the security system is carried out after scanning the QR code on the device body. When connecting wired devices, you do not need to know the value of the resistors. If the device was connected incorrectly, the security system should warn about the error. All notifications and alarms are sent to the alarm owner's mobile phone via SMS messages or push notifications. Five types of alarms must be provided: fire alarm, gas alarm, intrusion, emergency, panic button. The alarm type can be configured for each wired device. This information is indicated in the alarm notification and is also sent to the security company's control panel under a code. This increases the information content of messages, since the user will know exactly where and what happened.	2 buc.
POWER Baterie cu plumb acid 12V 7Ah	 Battery requirements Battery with efficient energy system to provide improved electrical flow. Efficient power system to provide improved electrical flow. Durability due to the higher resistance of the gratings to corrosion. Created in accordance with international quality standards. High starting power. POWER Baterie cu plumb acid 12V 7Ah (Wx151mm Hx100mm Dx65mm) Initial current: 2.10A MAX Cycle use: 14,4-14,9V Standby use: 13,6-13.8V Weight 2.45kg . 	2 buc.

	• Warranty at least 1 year	
Detector de spargere a sticlei cu imunitate la animale de companie	Alarm contact and tamper switch Digital signal analysis Exceptional white light immunity Pet immunity up to 25 kg (55 lbs) Technology for sharp analysis of body dimensions and differentiation from backgrounds and pets Separate PIR and glassbreak sensitivity adjustment independent relay outputs for glassbreak and PIR alarm signals	20 buc.
Suport pentru detector de spargere a sticlei cu imunitate la animale de companie	Suport detectors	20 buc.
Contacte magnetice - Magnetic Sensor	Magnetic contacts for window and door use. • Surface mounting with screws or twin adhesive tape • N/O for closed loop systems • Contact distance – up to 20-25mm • Lead wires length – 400mm	6 buc.
Semnalizator	Blinker Flashing flashers belong to one of the varieties of special warning lights.	2 buc.
Releu fără fir	Low current remote control relay with dry contacts. Operates in pulse and bistable modes.	2 buc.
Adaptor de alimentare 12V 2A	 12V 2A Power Adapter Easy installation With indicator light working Support -30°C~+70°C wide-range temperature operation, and the full load efficiency of the power supply can be up to 100% at these temperatures Accurate overcurrent, overvoltage protection Fully Meets ERP.COMMISSION REGULATION (EU)2019/1782 Requirement 	3 buc.
Controler de canal radio pentru controlul de la distanță a aparatelor electrice conectate	Radio channel controller for remote control of household appliances. Used for switching on and off irons, garage doors, water heaters.	1 buc.
Difuzor exterior	Weatherproof outdoor speaker	1 buc.
Mini amplificator de sunet - cu două canale	Mini sound amplifier - two-channel	1 buc.
Sursă de alimentare neîntreruptibilă, interactivă în linie. UPS 1500VA/1050W, 24Vdc, 15A cur. de încărcare max., Doar baterie externă, 2*Schuko Sock	 Uninterruptible power supply, line-interactive Intelligent UPS with pure sine wave designed to work with external high-capacity batteries or external battery packs. Linear-interactive technology with pure sine wave output voltage. Microprocessor control LCD display with a set of operation indicators Sinusoidal output waveform in all operating modes - allows connection of equipment with pulse and transformer (inductive load) power supplies Automatic voltage regulator Long autonomy time by connecting external 12V batteries Improved battery management to extend battery life Output short circuit and overload protection (circuit breaker) Automatic charging of batteries when switched off USB communication port 	1 buc.
Baterie 12V 100Ah 830A (R+)	Battery requirements •Mesh plate design: •Using special plates made using a mesh structure. •R+ technology: •PowerFrame Technology: •Durable materials: •Design with highly protective technology: •This battery must be designed to minimize the risk of acid leakage, ensuring safety and extending battery life • Voltage (V) 12 • Capacity (Ah) 100 • Starting current (A) 830	2 buc.

	• Polarity R+	
	 Dimensions (mm) 353x175x190 Ca/Ca technology 	
	Maintenance Maintenance Free	
	Euro case format Euro terminal thickness	
	• Weight (kg) 21.9	
	Warranty at least 2 year	
FTP CAT 5e 4*2*24 AWG outdoor + cable	 Shielded twisted pair with a conductor made of high-purity oxygen-free copper with a diameter of 0.51 mm (24 AWG). The outer covering material is PE (Polyethylene). 	700 м.
+ power supply	• Equipped with an additional self-supporting cable and two power conductors.	
Cablu UTP CAT5e	 305 m (1000 ft)/carton UTP CAT5e, power over Ethernet, compatible with one cable High-purity oxygen-free copper conductor Customized PVC outer sheath; CE CPR Eca flame retardant class certified 10-year warranty 	50 м.
Cablu electric PVS	Electric cable PVS	35 м.
Cablu SVVP 2*0,75	SHVVP wire is a flat and flexible electrical cable coated with PVC plasticate.	15 м.
Cablu-canal 25x16x2000mm	Plastic channel: size 25x16mm. Cut length 2 metres.	150 м.
Cablu Alarm 6 CU Italy	6*0,22 stranded, screen. Must comply with European Directive 2002/95/CE RoHS.	540 м.
Furtun metalic din PVC	PVC-insulated metal hose made of galvanised metal tape is designed for mechanical protection of electrical or data cables in pipe cable routing systems of high flexibility.	70 м.
Priza 220V	• Double surface-mounted socket with grounding, 220V (250V), 16A, 50 Hz, IP20.	2 buc.
CUTIE DE DISTR. IP65 150*150*70A	DISTRIBUTION BOX IP65 150*150*70A	3 buc.
Kit de montare MEDIU	Mounting kit includes dowels, screws, nuts, washers, ties, duct tape.	2 buc.
Costuri de transport	Costurile de deplasare la site-ul proiectului clientului.	234 km
Instalarea rețelelor de cablu	Lucrări la pozarea rețelelor de cabluri, a aparatelor de distribuție și a elementelor de iluminat.	1 serv.
Instalarea echipamentului de sistem	- Instalarea profesională a echipamentelor conform cerințelor proiectării sistemului.	1 serv.
Instalarea echipamentelor sistemului de securitate	- Instalarea profesională a echipamentelor conform cerințelor proiectării sistemului.	1 serv.
Lucrări la punerea în funcțiune și punerea în funcțiune a sistemului de securitate	- Lucrări la punerea în funcțiune și punerea în funcțiune a sistemului de Securitate.	1 serv.
Lucrări la pornirea si punerea in funcțiune a sistemului de supraveghere video	- Verificarea liniilor de conectare, pornirea și monitorizarea performanței dispozitivului, testarea, reglarea și asigurarea funcționării în comun interconectate a proiectării sistemului video preconizat.	1 serv.
Configurarea analizei sistemului de supraveghere video	- Programarea echipamentelor cu instalarea setărilor si scenariilor necesare pentru adaptarea sistemului video la nevoile utilizatorului in vederea creșterii eficientei funcționarii	1 serv.

2. Sistemul de monitorizare paza tehnică filiala "Anenii Noi Gaz" (baza Nouă)

• Descrierea tehnica si echipamentul necesar

Denumirea	Descrierea	Cantitatea
32 de canale, 2	 Smart H.265+/H.265/Smart H.264+/H.264/MJPEG decoding format. Access, storage or forwarding at 256 Mbps (180 Mbps when AI function enabled). 	
HDD,	• Max. decoding capability: $16 \times 1080 \text{ p}@30$ fps. Supports adaptive decoding.	
înregistrare	• AI by NVR: 1-channel face detection and recognition; 2-channel perimeter protection; up to 10	
video de rețea	face databases and 20,000 face images; 4-channel with smart motion detection and built-in AI	
cu elemente AI	chip.	1 buc.
cu detectare	• AI by Camera: Face detection and recognition, perimeter protection; smart motion detection and	
inteligentă a	built-in AI chip; people counting; stereo analysis; heat map.	
mișcării și cip	· Connected to the third-party network cameras.	
AI încorporat	· Security baseline 2.3.	
	Form factor 3.5'	
Hard disk-ul de	SATA III interface	
supraveghere	Drive capacity 8.0TB	
este optimizat	Data transfer rate: at least 6 Gbps	
pentru DVR-uri	Spindle Speed 5900 RPM	
și NVR-uri și	Maximum noise level 21dB	2 buc.
reglat pentru	Buffer capacity: at least 64 MB	
sarcini de lucru	Maximum power consumption 3.68W	
24x7, cu	MTBF: at least 1.0 million hours	
capacități de	Physical dimensions, weight 147 x 101.6 x 20 mm, 415 g	
până la 8 TB	Manufacturer's warranty: at least 36 months.	
4MP 25×	· 1/2.8" 4Megapixel STARVIS™ CMOS.	
Cameră PTZ	· 25× optical zoom.	
panoramică de	· Starlight technology.	
rețea cu lumină	• Max. 25/30 fps@2560 × 1440	
dublă	· IR distance up to 200 m.	
inteligentă +	· Auto-tracking.	1 buc.
Cameră PTZ	· Perimeter protection.	
SMART-	· Face detection.	
LINKAGE și	· IP66.	
PANORAMIC	· Sound and light alarm.	
А	· 180° panoramic splicing.	
	· 4MP, 1/2.7" CMOS image sensor, low illuminance, high image definition	
	· Outputs max. 4MP (2688 × 1520) @30 fps	
	· H.265 codec, high compression rate, low bit rate	
	· Built-in warm illuminator, and the max. illumination distance: 40 m	
	· SMART H.264+/H.265+, flexible coding, applicable to various bandwidth and storage	
	environments	
	· Intelligent detection: Intrusion, tripwire (support the classification and accurate detection of	
Cameră de rețea	vehicle and human)	
intelectuală	· Abnormality detection: Motion detection, video tampering, scene	
Bullet cu	changing, audio detection, no SD card, SD card full, SD card error, network disconnection, IP	
focalizare fixă,	conflict, illegal access, and voltage detection.	2 buc.
cu descurajare	• Supports sound and light alarm linkage. When an alarm is triggered, the camera links sound alarm	
activă, de 4MP,	and light flashing.	
cu elemente AI	• Supports one-tap disarming. You can disarm the events of alarm	
	output, sending email, audio, and light in the configured period.	
	· Alarm: 1 in, 1 out; audio: 1 in, 1 out; supports max. 256 G Micro SD card, built-in Mic and	
	speaker	
	· 12V DC/PoE power supply	
	· IP67 protection	
	- smart motion detection and built-in AI chip	
0 1	· Red and blue flashlight alarm	
Cameră de rețea	• 5-MP 1/2.7" CMOS image sensor, low luminance, and high definition	
intelectuală	image.	0.1
Bullet Smart	· Outputs max. 5 MP (2960 × 1668) @20 fps, and supports 2688×1520	9 buc.
Dual Light, cu focală fixă, de 5	(2688 × 1520) @25/30 fps. · H.265 codec, high compression rate, ultra-low bit rate.	
	LE H (DA COMPACE NIGH COMPRESSION FOR UITED LOW bit roto	

MP, cu	· Built-in warm light and IR LED, the max. IR light distance is 60 m and	
elemente AI	max. warm light is 50 m.	
	· ROI, SMART H.264+/H.265+, flexible coding, applicable to various	
	bandwidth and storage environments.	
	· Rotation mode, WDR, 3D NR, HLC, BLC, digital watermarking, applicable	
	to various monitoring scenes.	
	· Intelligent monitoring: Intrusion, tripwire (the two functions support the	
	classification and accurate detection of vehicle and human).	
	· Abnormality detection: Motion detection, video tampering, audio detection, no SD card, SD card full, SD card error, network	
	disconnection, IP conflict, illegal access, and voltage detection.	
	· Alarm: 1 in, 1 out; audio: 1 in, 1 out; supports max. 256 G Micro SD	
	card; built in MIC.	
	· 12 VDC/PoE power supply, easy for installation.	1
	· IP67, IK10 (optional) protection.	
	- smart motion detection and built-in AI chip	
	4MP IR Fixed-focal Dome Intellectual Network Camera	
	> 4 MP 1/2.9" CMOS image sensor, excellent low luminance performance and high definition of	
	images.	
	> Outputs max. 4 MP (2688×1520) @25/30 fps.	
	 > H.265 codec, high compression rate, ultra-low bit rate. > Built-in IR LED, max. IR distance: 30 m. 	
	> SMART H.264 +/H.265+, AI H.264/H.265. flexible coding, applicable to various bandwidth	
Cameră de rețea	and storage environments.	
Dom IR cu	> Rotation mode, WDR, 3D NR, HLC, BLC, digital watermarking, applicable to various	1 buc.
focal fixă de	monitoring scenes	i buci
4MP	> Intelligent detection: Intrusion, tripwire (support the classification and vaccurate detection of	
	vehicle and human).	1
	> Abnormality detection: Motion detection, privacy masking, scene changing, audio detection, no	1
	SD card, SD card full, SD card error, network disconnection, IP conflict, illegal access, and	
	voltage detection.	
	> Alarm: 1 in, 1 out; audio: 1 in, 1 out; max. 256 G Micro SD card. built-in Mic.	
	> 12 VDC/PoE power supply facilitates installation.	
	> IP67, IK10 protection.	
	\cdot 5MP 1/2.7" CMOS image sensor, low luminance, and high definition image.	
	 Outputs max. 5MP (2880 × 1620) @20 fps and supports 2688 × 1520 (2688 × 1520) @25/30 fps. H.265 codec, high compression rate, and ultra-low bit rate. 	1
	· Built-in IR LED, and the max. illumination distance is 30 m.	1
	· ROI, SMART H.264 +/H.265+, flexible coding, applicable to various bandwidth and storage	1
Cameră de rețea	environments.	
Eyeball IR de	· Rotation mode, DWDR, 3D NR, HLC, BLC, digital watermarking, ap plicable to various	2 buc.
5MP cu focală fixă	monitoring scenes.	
11Xa	· Abnormality detection: Motion detection, video tampering, audio	
	detection, network disconnection, IP conflict, and illegal access.	
	· Built-in MIC.	
	· 12 V DC/PoE power supply.	
	· IP67 protection.	
Switch PoE	• Intelligent PoE	
administrat	Hi-PoE port supports 90W IEEE802.3btWeb management with friendly interface and easy operation	
Gigabit cu 16	• 250 m long distance PoE transmission	1 pcs.
porturi 100	• PoE watchdog	T hes
Mbps + 2	• Plug and play	
porturi	• Manufacturer's warranty: 36 months	
	10-Port Unmanaged Desktop Switch with 8-Port PoE	
0 1 1 1	> Intelligent PoE	
Switch desktop	> 8-pin assignment PoE power supply	
10 porturi cu 8	> Long distance PoE	1 buc.
	> PoE watchdog	
PORULLIOE	> Wide working temperature	

Router Wi-Fi	High performance processor- at least: IPQ-4018 716 MHz, 4 cores Radio Interface-2.4 GHz 802.11b/g/n, MIMO 2x2; 5 GHz 802.11a/n/ac, MIMO 2x2 Antenna pattern width-360° Connection interface- 1x micro-SIM for modem; 1x miniPCI-e 1 Wan-port, at least 1 Lan-port RAM size - at least 128 MB Storage size - at least 16 MB Storage type FLASH Operating temperature -30°C to 60°C	1 buc.
Dulap de distribuție montata pe perete 600*400*200	 Plastic case, wall-mounted. IP66 protection. The case door is lockable. 	2 buc.
Dulap metalic de distributie montat pe perete 650x500x220	 Distribution cabinet. Robust enclosure for use in adverse weather and industrial environments. Metal enclosure with removable mounting plate. The enclosure door is lockable. The lock key has a single secret. 	1 buc.
CamBox pentru Camera de rețea	 Neat & Integrated design Material: Aluminum IP66 junction box 	2 buc.
Protector de supratensiune 5 prize	Surge Protector 5 Sockets, 5.0m, flame-retardant material	3 buc.
Canal radio inteligent hub- HAB. Monitorizează funcționarea senzorilor și releelor radio și trimite instantaneu un semnal de alarmă proprietarului și biroului de securitate.	Radio-channel, intelligent concentrator-hub The device must support motion, breakage, door status and other types of simple and combined sensors and instantly sends an alarm signal to the owner and the security console. Shall support photo verification of alarms Classification: Radio channel concentrator with GSM and Ethernet modules, Wi-Fi, LTE with a range of at least 1700m. Installation type: Indoor Connected devices - 200, Users - 200, Guard groups - 25 Must support the connection of radio signal repeaters - to increase the range of operation in difficult conditions Support mobile applications iOS 11.0 and above / Android 4.4 and above Communication channels - at least 2 SIM cards 2G (900/1800 MHz) / 3G (WCDMA 900/2100 (B8/B1) / Wi-Fi 2.4 GHz (802.11 b/g/n) / Ethernet Switching between 2G and 3G Instantly / Switching between SIM cards Signal delivery time - no more than - 0.15 s Types of notifications or 12 V Built-in backup battery Li-Ion 2 Ah, at least 14 hours of autonomous operation Power consumption from mains - up to 10 W Operating frequencies - 868.0 - 868.6 MHz, Two- way communication between devices Sensor polling period - 12-300 seconds Operating temperature range -10°C to +40°C Anti-sabotage / Anti-tampering / Jamming alert / Tamper on opening and breakaway Video surveillance: At least 9 cameras and video recorders	1 buc.
Panou de control fără fir	Wireless keypad with support for secure proximity cards and key fobs. Range of at least 700 metres Security modes must be controlled by common and personal passwords, cards or key fobs Must support: tamper on opening and tear-off, code on compulsion, protection against password selection. Operating temperature range: -10°C to +40°C Built-in battery: keeps working - up to 4.5 years Warranty of at least 2 years.	2 buc.
Modul de integrare fără fir pentru conectarea senzorilor cu fir și a dispozitivelor terțe la sistemul de securitate	The wireless radio module, integration and alarm module, must be integrated with outdoor or indoor vibration, motion, glass break, opening detectors, thermal relays, IR barriers, gas and water leakage sensors, as well as with other security system devices from different manufacturers. It must transmit signals to the hub via radio protocol over a distance of up to 2000 meters. Must have at least 18 wired zones. All 18 wired zones must be configured in the mobile application. Sensors connected to zones can operate around the clock in security mode with a delay for entry or exit, and, if necessary, participate in automation scenarios and activate sirens. The maximum length of the detector cable connection is at least 350 m. The radio integration module can be a power source for the connected device - 12 V DC up to 1 A for all detector power outputs. When	3 buc.

 the connection with a wired device is lost, a custom alarm will be reported immediately. Configuration and testing of the wireless integration module should take place in the mobile application. Connection to the security system is carried out after scanning the QR code on the device body. When connecting wired devices, you do not need to know the value of the resistors. If the device was connected incorrectly, the security system should warn about the error. All notifications and alarms are sent to the alarm owner's mobile phone via SMS messages or push notifications. Five types of alarms must be provided: fire alarm, gas alarm, intrusion, emergency, panic button. The alarm type can be configured for each wired device. This information is indicated in the alarm 	
notification and is also sent to the security company's control panel under a code. This increases the information content of messages, since the user will know exactly where and what happened.	
Battery requirementsBattery with efficient energy system to provide improved electrical flow.Efficient power system to provide improved electrical flow.Durability due to the higher resistance of the gratings to corrosion.POWERBaterie cuPlumb acid 12VPOWER Baterie cu plumb acid 12V 7Ah (Wx151mm Hx100mm Dx65mm)7AhInitial current: 2.10A MAXCycle use: 14,4-14,9VStandby use: 13,6-13.8VWeight 2.45kg .Warranty at least 1 year	3 buc.
Detector de spargere a sticlei cu imunitate la animale de companieAlarm contact and tamper switch Digital signal analysis Exceptional white light immunity Pet immunity Technology for sharp analysis of body dimensions and differentiation from backgrounds and pets Separate PIR and glassbreak sensitivity adjustment independent relay outputs for glassbreak and PIR alarm signals	12 buc.
Suport pentru detector de spargere a sticlei cu Suport detectors imunitate la animale de companie	12 buc.
Contacte Magnetic contacts for window and door use. magnetice - • Surface mounting with screws or twin adhesive tape Magnetic • N/O for closed loop systems Sensor • Contact distance – up to 20-25mm • Lead wires length – 400mm	5 buc.
Semnalizator Blinker Flashing flashers belong to one of the varieties of special warning lights.	3 buc.
Releu fără fir Low current remote control relay with dry contacts. Operates in pulse and bistable modes.	3 buc.
Adaptor de12V 2A Power Adapter • Easy installationAdaptor de alimentare 12V• With indicator light working • Support -30°C~+70°C wide-range temperature operation, and the full load efficiency of the power 	4 buc.
Controler de canal radio pentru controlul de la distanță a aparatelor electrice conectate	3 buc.
Difuzor exterior Weatherproof outdoor speaker	1 buc.

Mini amplificator de sunet - cu două canale	Mini sound amplifier - two-channel	1 buc.
Sursă de alimentare neîntreruptibilă, interactivă în linie. UPS 1500VA/1050 W, 24Vdc, 15A cur. de încărcare max., Doar baterie externă, 2*Schuko Sock	 Uninterruptible power supply, line-interactive Intelligent UPS with pure sine wave designed to work with external high-capacity batteries or external battery packs. Linear-interactive technology with pure sine wave output voltage. Microprocessor control LCD display with a set of operation indicators Sinusoidal output waveform in all operating modes - allows connection of equipment with pulse and transformer (inductive load) power supplies Automatic voltage regulator Long autonomy time by connecting external 12V batteries Improved battery management to extend battery life Output short circuit and overload protection (circuit breaker) Automatic charging of batteries when switched off USB communication port 	1 buc.
Baterie 12V 100Ah 830A (R+)	Battery requirements •Mesh plate design: •Using special plates made using a mesh structure. •R+ technology: •PowerFrame Technology: •Durable materials: •Design with highly protective technology: •This battery must be designed to minimize the risk of acid leakage, ensuring safety and extending battery life • Voltage (V) 12 • Capacity (Ah) 100 • Starting current (A) 830 • Polarity R+ • Dimensions (mm) 353x175x190 • Ca/Ca technology • Maintenance Maintenance Free • Euro case format • Euro terminal thickness • Weight (kg) 21.9 • Warranty at least 2 year	2 buc.
FTP CAT 5e 4*2*24 AWG outdoor + cable + power supply	 Shielded twisted pair with a conductor made of high-purity oxygen-free copper with a diameter of 0.51 mm (24 AWG). The outer covering material is PE (Polyethylene). Equipped with an additional self-supporting cable and two power conductors. 	950 м.
Cablu UTP CAT5e	 · 305 m (1000 ft)/carton UTP CAT5e, power over Ethernet, compatible with one cable · High-purity oxygen-free copper conductor · Customized PVC outer sheath; CE CPR Eca flame retardant class certified · 10-year warranty 	80 м.
Cablu electric PVS	Electric cable PVS	110 м.
Cablu SVVP 2*0,75	SHVVP wire is a flat and flexible electrical cable coated with PVC plasticate.	200 м.
Cablu-canal 25x16x2000m m	Plastic channel: size 25x16mm. Cut length 2 metres.	80 м.
Cablu Alarm 6 CU Italy	6*0,22 stranded, screen. Must comply with European Directive 2002/95/CE RoHS.	660 м.

Furtun metalic din PVC	PVC-insulated metal hose made of galvanised metal tape is designed for mechanical protection of electrical or data cables in pipe cable routing systems of high flexibility.	240 м.
Priza 220V	• Double surface-mounted socket with grounding, 220V (250V), 16A, 50 Hz, IP20.	3 buc.
CUTIE DE DISTR. IP65 150*150*70A	DISTRIBUTION BOX IP65 150*150*70A	5 buc.
Kit de montare MEDIU	Mounting kit includes dowels, screws, nuts, washers, ties, duct tape.	4 buc.
Costuri de transport	Costurile de deplasare la site-ul proiectului clientului.	234 km
Instalarea rețelelor de cablu	Lucrări la pozarea rețelelor de cabluri, a aparatelor de distribuție și a elementelor de iluminat.	1 serv.
Instalarea echipamentului de sistem	- Instalarea profesională a echipamentelor conform cerințelor proiectării sistemului.	1 serv.
Instalarea echipamentelor sistemului de securitate	- Instalarea profesională a echipamentelor conform cerințelor proiectării sistemului.	1 serv.
Lucrări la punerea în funcțiune și punerea în funcțiune a sistemului de securitate	- Lucrări la punerea în funcțiune și punerea în funcțiune a sistemului de Securitate.	1 serv.
Lucrări la pornirea si punerea in funcțiune a sistemului de supraveghere video	- Verificarea liniilor de conectare, pornirea și monitorizarea performanței dispozitivului, testarea, reglarea și asigurarea funcționării în comun interconectate a proiectării sistemului video preconizat.	1 serv.
Configurarea analizei sistemului de supraveghere video	 Programarea echipamentelor cu instalarea setărilor si scenariilor necesare pentru adaptarea sistemului video la nevoile utilizatorului in vederea creșterii eficientei funcționarii 	1 serv.

3. Sistemul de monitorizare paza tehnică filiala "Criuleni Gaz"

• Descrierea tehnica si echipamentul necesar

Denumirea	Descrierea	Cantitate a
32 de canale, 2 HDD, înregistrare video de rețea cu elemente AI cu detectare inteligentă a mișcării și cip AI încorporat	 Smart H.265+/H.265/Smart H.264+/H.264/MJPEG decoding format. Access, storage or forwarding at 256 Mbps (180 Mbps when AI function enabled). Max. decoding capability: 16 × 1080p@30 fps. Supports adaptive decoding. AI by NVR: 1-channel face detection and recognition; 2-channel perimeter protection; up to 10 face databases and 20,000 face images; 4-channel with smart motion detection and built-in AI chip. AI by Camera: Face detection and recognition, perimeter protection; smart motion detection and built-in AI chip; people counting; stereo analysis; heat map. Connected to the third-party network cameras. Security baseline 2.3. 	1 buc.

Hard disk-ul de supraveghere este optimizat pentru DVR-uri și NVR-uri și reglat pentru sarcini de lucru 24x7, cu capacități de până la 10 TB	The surveillance hard drive is optimized for DVRs and NVRs and tuned for 24x7 workloads in capacities up to 10TB. helps to minimize dropped frames and downtime with a workload rating 3× that of desktop drives while supporting up to 64 HD cameras. SATA 6Gb/s, 256MB cache memory, 10TB.	2 buc.
Cameră de rețea intelectuală Bullet cu focalizare fixă, cu descurajare activă, de 4MP, cu elemente AI	 4MP, 1/2.7" CMOS image sensor, low illuminance, high image definition Outputs max. 4MP (2688 × 1520) @30 fps H.265 codec, high compression rate, low bit rate Built-in warm illuminator, and the max. illumination distance: 40 m SMART H.264+/H.265+, flexible coding, applicable to various bandwidth and storage environments Intelligent detection: Intrusion, tripwire (support the classification and accurate detection of vehicle and human) Abnormality detection: Motion detection, video tampering, scene changing, audio detection, no SD card, SD card full, SD card error, network disconnection, IP conflict, illegal access, and voltage detection. Supports sound and light alarm linkage. When an alarm is triggered, the camera links sound alarm and light flashing. Supports one-tap disarming. You can disarm the events of alarm output, sending email, audio, and light in the configured period. Alarm: 1 in, 1 out; audio: 1 in, 1 out; supports max. 256 G Micro SD card, built-in Mic and speaker 12V DC/PoE power supply IP67 protection smart motion detection and built-in AI chip Red and blue flashlight alarm 	2 buc.
Cameră de rețea intelectuală Bullet Smart Dual Light, cu focală fixă, de 5 MP, cu elemente AI	 5-MP 1/2.7" CMOS image sensor, low luminance, and high definition image. Outputs max. 5 MP (2960 × 1668) @20 fps, and supports 2688×1520 (2688 × 1520) @25/30 fps. H.265 codec, high compression rate, ultra-low bit rate. Built-in warm light and IR LED, the max. IR light distance is 60 m and max. warm light is 50 m. ROI, SMART H.264+/H.265+, flexible coding, applicable to various bandwidth and storage environments. Rotation mode, WDR, 3D NR, HLC, BLC, digital watermarking, applicable to various monitoring scenes. Intelligent monitoring: Intrusion, tripwire (the two functions support the classification and accurate detection of vehicle and human). Abnormality detection: Motion detection, video tampering, audio detection, no SD card, SD card full, SD card error, network disconnection, IP conflict, illegal access, and voltage detection. Alarm: 1 in, 1 out; audio: 1 in, 1 out; supports max. 256 G Micro SD card; built in MIC. 12 VDC/PoE power supply, easy for installation. IP67, IK10 (optional) protection. 	8 buc.
Cameră de rețea Eyeball IR de 5MP cu focală fixă	 SMP 1/2.7" CMOS image sensor, low luminance, and high definition image. Outputs max. 5MP (2880 × 1620) @20 fps and supports 2688 × 1520 (2688 × 1520) @25/30 fps. H.265 codec, high compression rate, and ultra-low bit rate. Built-in IR LED, and the max. illumination distance is 30 m. ROI, SMART H.264 +/H.265+, flexible coding, applicable to various bandwidth and storage environments. Rotation mode, DWDR, 3D NR, HLC, BLC, digital watermarking, ap plicable to various monitoring scenes. Abnormality detection: Motion detection, video tampering, audio detection, network disconnection, IP conflict, and illegal access. Built-in MIC. I2 V DC/PoE power supply. IP67 protection. 	6 buc.

Switch PoE administrat Gigabit cu 16 porturi 100 Mbps + 2 porturi	 Intelligent PoE Hi-PoE port supports 90W IEEE802.3bt Web management with friendly interface and easy operation 250 m long distance PoE transmission PoE watchdog Plug and play Manufacturer's warranty: 36 months 	1 buc.
Router Wi-Fi	High performance processor- at least: IPQ-4018 716 MHz, 4 cores Radio Interface-2.4 GHz 802.11b/g/n, MIMO 2x2; 5 GHz 802.11a/n/ac, MIMO 2x2 Antenna pattern width-360° Connection interface- 1x micro-SIM for modem; 1x miniPCI-e 1 Wan-port, at least 1 Lan-port RAM size - at least 128 MB Storage size - at least 16 MB Storage type FLASH Operating temperature -30°C to 60°C	1 buc.
CamBox pentru Camera de rețea	 Neat & Integrated design Material: Aluminum IP66 junction box 	14 pcs
Protector de supratensiune 5 prize	Surge Protector 5 Sockets, 5.0m, flame-retardant material	2 buc.
Canal radio inteligent hub- HAB. Monitorizează funcționarea senzorilor și releelor radio și trimite instantaneu un semnal de alarmă proprietarului și biroului de securitate	Radio-channel, intelligent concentrator-hub The device must support motion, breakage, door status and other types of simple and combined sensors and instantly sends an alarm signal to the owner and the security console. Shall support photo verification of alarms Classification: Radio channel concentrator with GSM and Ethernet modules, Wi-Fi, LTE with a range of at least 1700m. Installation type: Indoor Connected devices - 200, Users - 200, Guard groups - 25 Must support the connection of radio signal repeaters - to increase the range of operation in difficult conditions Support mobile applications iOS 11.0 and above / Android 4.4 and above Communication channels - at least 2 SIM cards 2G (900/1800 MHz) / 3G (WCDMA 900/2100 (B8/B1) / Wi-Fi 2.4 GHz (802.11 b/g/n) / Ethernet Switching between 2G and 3G Instantly / Switching between SIM cards Signal delivery time - no more than - 0.15 s Types of notifications - SMS, call, push / Communication with security console Contact ID, SIA Power supply 110 - 240 V mains or 12 V Built-in backup battery Li-Ion 2 Ah, at least 14 hours of autonomous operation Power consumption from mains - up to 10 W Operating frequencies - 868.0 - 868.6 MHz, Two- way communication between devices Sensor polling period - 12-300 seconds Operating temperature range -10°C to +40°C Anti-sabotage / Anti-tampering / Jamming alert / Tamper on opening and breakaway Video surveillance: At least 9 cameras and video recorders	1 buc.
Panou de control fără fir	Wireless keypad with support for secure proximity cards and key fobs. Range of at least 700 metres Security modes must be controlled by common and personal passwords, cards or key fobs Must support: tamper on opening and tear-off, code on compulsion, protection against password selection. Operating temperature range: -10°C to +40°C Built-in battery: keeps working - up to 4.5 years Warranty of at least 2 years.	2 buc.
Modul de integrare fără fir pentru conectarea senzorilor cu fir și a dispozitivelor terțe la sistemul de securitate	The wireless radio module, integration and alarm module, must be integrated with outdoor or indoor vibration, motion, glass break, opening detectors, thermal relays, IR barriers, gas and water leakage sensors, as well as with other security system devices from different manufacturers. It must transmit signals to the hub via radio protocol over a distance of up to 2000 meters. Must have at least 18 wired zones. All 18 wired zones must be configured in the mobile application. Sensors connected to zones can operate around the clock in security mode with a delay for entry or exit, and, if necessary, participate in automation scenarios and activate sirens. The maximum length of the detector cable connection is at least 350 m. The radio integration module can be a	3 buc.

	power source for the connected device - 12 V DC up to 1 A for all detector power outputs. When the connection with a wired device is lost, a custom alarm will be reported immediately. Configuration and testing of the wireless integration module should take place in the mobile application. Connection to the security system is carried out after scanning the QR code on the device body. When connecting wired devices, you do not need to know the value of the resistors. If the device was connected incorrectly, the security system should warn about the error. All notifications and alarms are sent to the alarm owner's mobile phone via SMS messages or push notifications.	
	Five types of alarms must be provided: fire alarm, gas alarm, intrusion, emergency, panic button. The alarm type can be configured for each wired device. This information is indicated in the alarm notification and is also sent to the security company's control panel under a code. This increases the information content of messages, since the user will know exactly where and what happened.	
POWER Baterie cu plumb acid 12V 7Ah	 Battery requirements Battery with efficient energy system to provide improved electrical flow. Efficient power system to provide improved electrical flow. Durability due to the higher resistance of the gratings to corrosion. Created in accordance with international quality standards. High starting power. POWER Baterie cu plumb acid 12V 7Ah (Wx151mm Hx100mm Dx65mm) Initial current: 2.10A MAX Cycle use: 14,4-14,9V Standby use: 13,6-13.8V Weight 2.45kg . Warranty at least 1 year 	3 buc.
Detector de spargere a sticlei cu imunitate la animale de companie	Alarm contact and tamper switch Digital signal analysis Exceptional white light immunity Pet immunity up to 25 kg (55 lbs) Technology for sharp analysis of body dimensions and differentiation from backgrounds and pets Separate PIR and glassbreak sensitivity adjustment independent relay outputs for glassbreak and PIR alarm signals	32 buc.
Suport pentru detector de spargere a sticlei cu imunitate la animale de companie	Suport detectors	32 buc.
Contacte magnetice - Magnetic Sensor	Magnetic contacts for window and door use. • Surface mounting with screws or twin adhesive tape • N/O for closed loop systems • Contact distance – up to 20-25mm • Lead wires length – 400mm	4 buc.
Dulap de distribuție montata pe perete 600*400*200	 Plastic case, wall-mounted. IP66 protection. The case door is lockable. 	1 buc.
Dulap metalic de distributie montat pe perete 650x500x220	 Distribution cabinet. Robust enclosure for use in adverse weather and industrial environments. Metal enclosure with removable mounting plate. The enclosure door is lockable. The lock key has a single secret. 	1 buc.
Semnalizator	Blinker Flashing flashers belong to one of the varieties of special warning lights.	2 buc.
Releu fără fir	Low current remote control relay with dry contacts. Operates in pulse and bistable modes.	2 buc.
Adaptor de alimentare 12V 2A	 12V 2A Power Adapter Easy installation With indicator light working Support -30°C~+70°C wide-range temperature operation, and the full load efficiency of the power supply can be up to 100% at these temperatures Accurate overcurrent, overvoltage protection Fully Meets ERP.COMMISSION REGULATION (EU)2019/1782 Requirement 	2 buc.

Controler de canal radio pentru controlul de la distanță a aparatelor electrice conectate	Radio channel controller for remote control of household appliances. Used for switching on and off irons, garage doors, water heaters.	1 buc.
Difuzor exterior	Weatherproof outdoor speaker	1 buc.
Mini amplificator de sunet - cu două canale	Mini sound amplifier - two-channel	1 buc.
Sursă de alimentare neîntreruptibilă, interactivă în linie. UPS 1500VA/1050 W, 24Vdc, 15A cur. de încărcare max., Doar baterie externă, 2*Schuko Sock	 Uninterruptible power supply, line-interactive Intelligent UPS with pure sine wave designed to work with external high-capacity batteries or external battery packs. Linear-interactive technology with pure sine wave output voltage. Microprocessor control LCD display with a set of operation indicators Sinusoidal output waveform in all operating modes - allows connection of equipment with pulse and transformer (inductive load) power supplies Automatic voltage regulator Long autonomy time by connecting external 12V batteries Improved battery management to extend battery life Output short circuit and overload protection (circuit breaker) Automatic charging of batteries when switched off USB communication port 	1 buc.
Baterie 12V 100Ah 830A (R+)	Battery requirements •Mesh plate design: •Using special plates made using a mesh structure. •R+ technology: •PowerFrame Technology: •Durable materials: •Design with highly protective technology: •This battery must be designed to minimize the risk of acid leakage, ensuring safety and extending battery life •Voltage (V) 12 •Capacity (Ah) 100 •Starting current (A) 830 •Polarity R+ •Dimensions (mm) 353x175x190 •Ca/Ca technology •Maintenance Maintenance Free •Euro case format •Euro terminal thickness •Weight (kg) 21.9 •Warranty at least 2 year	2 buc.
FTP CAT 5e 4*2*24 AWG outdoor + cable + power supply	 Shielded twisted pair with a conductor made of high-purity oxygen-free copper with a diameter of 0.51 mm (24 AWG). The outer covering material is PE (Polyethylene). Equipped with an additional self-supporting cable and two power conductors. 	140 м.
Cablu UTP CAT5e	 305 m (1000 ft)/carton UTP CAT5e, power over Ethernet, compatible with one cable High-purity oxygen-free copper conductor Customized PVC outer sheath; CE CPR Eca flame retardant class certified 10-year warranty 	860 м.
Cablu Alarm 6 CU Italy	6*0,22 stranded, screen. Must comply with European Directive 2002/95/CE RoHS.	685 м.
Cablu electric PVS	Electric cable PVS	20 м.
Cablu SVVP 2*0,75	SHVVP wire is a flat and flexible electrical cable coated with PVC plasticate.	100 м.

Cablu-canal 25x16x2000m m	Plastic channel: size 25x16mm. Cut length 2 metres.	70 м.
Furtun metalic din PVC	PVC-insulated metal hose made of galvanised metal tape is designed for mechanical protection of electrical or data cables in pipe cable routing systems of high flexibility.	55 м.
Priza 220V	• Double surface-mounted socket with grounding, 220V (250V), 16A, 50 Hz, IP20.	2 buc.
CUTIE DE DISTR. IP65 150*150*70A	DISTRIBUTION BOX IP65 150*150*70A	4 buc.
Kit de montare MEDIU	Mounting kit includes dowels, screws, nuts, washers, ties, duct tape.	2 buc.
Costuri de transport	Costurile de deplasare la site-ul proiectului clientului.	240 km
Instalarea rețelelor de cablu	Lucrări la pozarea rețelelor de cabluri, a aparatelor de distribuție și a elementelor de iluminat.	1 serv.
Instalarea echipamentului de sistem	- Instalarea profesională a echipamentelor conform cerințelor proiectării sistemului.	1 serv.
Instalarea echipamentelor sistemului de securitate	- Instalarea profesională a echipamentelor conform cerințelor proiectării sistemului.	1 serv.
Lucrări la punerea în funcțiune și punerea în funcțiune a sistemului de securitate	- Lucrări la punerea în funcțiune și punerea în funcțiune a sistemului de Securitate.	1 serv.
Lucrări la pornirea si punerea in funcțiune a sistemului de supraveghere video	- Verificarea liniilor de conectare, pornirea și monitorizarea performanței dispozitivului, testarea, reglarea și asigurarea funcționării în comun interconectate a proiectării sistemului video preconizat.	1 serv.
Configurarea analizei sistemului de supraveghere video	- Programarea echipamentelor cu instalarea setărilor si scenariilor necesare pentru adaptarea sistemului video la nevoile utilizatorului in vederea creșterii eficientei funcționarii	1 serv.

4. Sistemul de monitorizare pază tehnică filială "Strășeni Gaz"

• Descriere tehnică și echipament necesar

Denumirea	Descrierea	Cantitate
32 de canale, 2 HDD, înregistrare video de rețea cu elemente AI cu detectare inteligentă a mișcării și cip AI încorporat	 Smart H.265+/H.265/Smart H.264+/H.264/MJPEG decoding format. Access, storage or forwarding at 256 Mbps (180 Mbps when AI function enabled). Max. decoding capability: 16 × 1080p@30 fps. Supports adaptive decoding. AI by NVR: 1-channel face detection and recognition; 2-channel perimeter protection; up to 10 face databases and 20,000 face images; 4-channel with smart motion detection and built-in AI chip. AI by Camera: Face detection and recognition, perimeter protection; smart motion detection and built-in AI chip; people counting; stereo analysis; heat map. Connected to the third-party network cameras. Security baseline 2.3. 	a 1 buc.

Hard disk-ul de supraveghere este optimizat pentru DVR-uri și NVR-uri și reglat pentru sarcini de lucru 24x7, cu capacități de până la 10 TB	The surveillance hard drive is optimized for DVRs and NVRs and tuned for 24x7 workloads in capacities up to 10TB. helps to minimize dropped frames and downtime with a workload rating 3× that of desktop drives while supporting up to 64 HD cameras. SATA 6Gb/s, 256MB cache memory, 10TB.	1 buc.
Cameră video IP PTZ de exterior 2MP cu elemente AI	Outdoor dome PTZ IP video camera 2MP with AI elements 1/2.8" CMOS; motorized lens 5.0~80mm (16x); mechanical IR filter; WDR(120dB); sensitivity 0.005lx(color)@F1.6; compression: H.265+, H.265, H.264+, H.264, MJPEG; 3 streams up to 2MP@25fps; video analytics: - smart motion detection and built-in AI chip; perimeter security, face detector; IR illumination up to 100m; alarm input/output: 2/1; audio in/out: 1/1; MicroSD up to 512GB; protection: IP66, lightning protection 6kV; power supply: 12V(DC), PoE+	1 buc.
Cameră de rețea intelectuală Bullet cu focalizare fixă, cu descurajare activă, de 4MP, cu elemente AI	 4MP, 1/2.7" CMOS image sensor, low illuminance, high image definition Outputs max. 4MP (2688 × 1520) @30 fps H.265 codec, high compression rate, low bit rate Built-in warm illuminator, and the max. illumination distance: 40 m SMART H.264+/H.265+, flexible coding, applicable to various bandwidth and storage environments Intelligent detection: Intrusion, tripwire (support the classification and accurate detection of vehicle and human) Abnormality detection: Motion detection, video tampering, scene changing, audio detection, no SD card, SD card full, SD card error, network disconnection, IP conflict, illegal access, and voltage detection. Supports sound and light alarm linkage. When an alarm is triggered, the camera links sound alarm and light flashing. Supports one-tap disarming. You can disarm the events of alarm output, sending email, audio, and light in the configured period. Alarm: 1 in, 1 out; audio: 1 in, 1 out; supports max. 256 G Micro SD card, built-in Mic and speaker 12V DC/PoE power supply IP67 protection smart motion detection and built-in AI chip Red and blue flashlight alarm 	2 buc.
Cameră de rețea intelectuală Bullet Smart Dual Light, cu focală fixă, de 5 MP, cu elemente AI	 5-MP 1/2.7" CMOS image sensor, low luminance, and high definition image. Outputs max. 5 MP (2960 × 1668) @20 fps, and supports 2688×1520 (2688 × 1520) @25/30 fps. H.265 codec, high compression rate, ultra-low bit rate. Built-in warm light and IR LED, the max. IR light distance is 60 m and max. warm light is 50 m. ROI, SMART H.264+/H.265+, flexible coding, applicable to various bandwidth and storage environments. Rotation mode, WDR, 3D NR, HLC, BLC, digital watermarking, applicable to various monitoring scenes. Intelligent monitoring: Intrusion, tripwire (the two functions support the classification and accurate detection of vehicle and human). Abnormality detection: Motion detection, video tampering, audio detection, no SD card, SD card full, SD card error, network disconnection, IP conflict, illegal access, and voltage detection. Alarm: 1 in, 1 out; audio: 1 in, 1 out; supports max. 256 G Micro SD card; built in MIC. 12 VDC/PoE power supply, easy for installation. 	4 buc.

	 · IP67, IK10 (optional) protection. - smart motion detection and built-in AI chip 	
	- smart motion detection and built-in Ai emp	
Cameră de rețea Eyeball IR de 5MP cu focală fixă	 5MP 1/2.7" CMOS image sensor, low luminance, and high definition image. Outputs max. 5MP (2880 × 1620) @20 fps and supports 2688 × 1520 (2688 × 1520) @25/30 fps. H.265 codec, high compression rate, and ultra-low bit rate. Built-in IR LED, and the max. illumination distance is 30 m. ROI, SMART H.264 +/H.265+, flexible coding, applicable to various bandwidth and storage environments. Rotation mode, DWDR, 3D NR, HLC, BLC, digital watermarking, ap plicable to various monitoring scenes. Abnormality detection: Motion detection, video tampering, audio detection, network disconnection, IP conflict, and illegal access. Built-in MIC. 12 V DC/PoE power supply. IP67 protection. 	3 buc.
Switch PoE administrat Gigabit cu 16 porturi 100 Mbps + 2 porturi	 Intelligent PoE Hi-PoE port supports 90W IEEE802.3bt Web management with friendly interface and easy operation 250 m long distance PoE transmission PoE watchdog Plug and play Manufacturer's warranty: 36 months 	2 buc.
Router Wi-Fi	 Manufacturer's warranty: 36 months High performance processor- at least: IPQ-4018 716 MHz, 4 cores Radio Interface-2.4 GHz 802.11b/g/n, MIMO 2x2; 5 GHz 802.11a/n/ac, MIMO 2x2 Antenna pattern width-360° Connection interface- 1x micro-SIM for modem; 1x miniPCI-e 1 Wan-port, at least 1 Lan-port RAM size - at least 128 MB Storage size - at least 16 MB Storage type FLASH Operating temperature -30°C to 60°C 	1 buc.
CamBox pentru Camera de rețea	 Neat & Integrated design Material: Aluminum IP66 junction box 	11 buc.
CamBox pentru Camera de rețea	 Material: SECC & SUS304 Pole mount bracket Aesthetic design Load Bearing 10.0kg 	1 buc.
Protector de supratensiune 5 prize	Surge Protector 5 Sockets, 5.0m, flame-retardant material	3 buc.
Canal radio inteligent hub- HAB. Monitorizează funcționarea senzorilor și releelor radio și trimite instantaneu un semnal de alarmă proprietarului și biroului de securitate.	Radio-channel, intelligent concentrator-hub The device must support motion, breakage, door status and other types of simple and combined sensors and instantly sends an alarm signal to the owner and the security console. Shall support photo verification of alarms Classification: Radio channel concentrator with GSM and Ethernet modules, Wi-Fi, LTE with a range of at least 1700m. Installation type: Indoor Connected devices - 200, Users - 200, Guard groups - 25 Must support the connection of radio signal repeaters - to increase the range of operation in difficult conditions Support mobile applications iOS 11.0 and above / Android 4.4 and above Communication channels - at least 2 SIM cards 2G (900/1800 MHz) / 3G (WCDMA 900/2100 (B8/B1) / Wi-Fi 2.4 GHz (802.11 b/g/n) / Ethernet Switching between 2G and 3G Instantly / Switching between SIM cards Signal delivery time - no more than - 0.15 s Types of notifications - SMS, call, push / Communication with security console Contact ID, SIA Power supply 110 - 240 V mains or 12 V Built-in backup battery Li-Ion 2 Ah, at least 14 hours of autonomous operation Power consumption from mains - up to 10 W Operating frequencies - 868.0 - 868.6 MHz, Two- way communication between devices Sensor polling period - 12-300 seconds	1 buc.

		1
	Operating temperature range -10°C to +40°C Anti-sabotage / Anti-tampering / Jamming alert / Tamper on opening and breakaway Video surveillance: At least 9 cameras and video recorders	
Panou de control fără fir	Wireless keypad with support for secure proximity cards and key fobs. Range of at least 700 metres Security modes must be controlled by common and personal passwords, cards or key fobs Must support: tamper on opening and tear-off, code on compulsion, protection against password selection. Operating temperature range: -10°C to +40°C Built-in battery: keeps working - up to 4.5 years Warranty of at least 2 years.	1 buc.
Modul de integrare fără fir pentru conectarea senzorilor cu fir și a dispozitivelor terțe la sistemul de securitate	The wireless radio module, integration and alarm module, must be integrated with outdoor or indoor vibration, motion, glass break, opening detectors, thermal relays, IR barriers, gas and water leakage sensors, as well as with other security system devices from different manufacturers. It must transmit signals to the hub via radio protocol over a distance of up to 2000 meters. Must have at least 18 wired zones. All 18 wired zones must be configured in the mobile application. Sensors connected to zones can operate around the clock in security mode with a delay for entry or exit, and, if necessary, participate in automation scenarios and activate sirens. The maximum length of the detector cable connection is at least 350 m. The radio integration module can be a power source for the connected device - 12 V DC up to 1 A for all detector power outputs. When the connection with a wired device is lost, a custom alarm will be reported immediately. Configuration and testing of the wireless integration module take place in the mobile application. Connection to the security system is carried out after scanning the QR code on the device was connected incorrectly, the security system should warn about the error. All notifications and alarms are sent to the alarm owner's mobile phone via SMS messages or push notifications. Five types of alarms must be provided: fire alarm, gas alarm, intrusion, emergency, panic button. The alarm type can be configured for each wired device. This information is indicated in the alarm notification and is also sent to the security company's control panel under a code. This increases the information content of messages, since the user will know exactly where and what happened.	3 buc.
POWER Baterie cu plumb acid 12V 7Ah	 Battery with efficient energy system to provide improved electrical flow. Efficient power system to provide improved electrical flow. Durability due to the higher resistance of the gratings to corrosion. Created in accordance with international quality standards. High starting power. POWER Baterie cu plumb acid 12V 7Ah (Wx151mm Hx100mm Dx65mm) Initial current: 2.10A MAX Cycle use: 14,4-14,9V Standby use: 13,6-13.8V Weight 2.45kg . Warranty at least 1 year 	3 buc.
Detector de spargere a sticlei cu imunitate la animale de companie	Alarm contact and tamper switch Digital signal analysis Exceptional white light immunity Pet immunity up to 25 kg (55 lbs) Technology for sharp analysis of body dimensions and differentiation from backgrounds and pets Separate PIR and glassbreak sensitivity adjustment independent relay outputs for glassbreak and PIR alarm signals	31 buc.
Suport pentru detector de spargere a sticlei cu imunitate la animale de companie	Suport detectors	31 buc.
Contacte magnetice - Magnetic Sensor	Magnetic contacts for window and door use. • Surface mounting with screws or twin adhesive tape • N/O for closed loop systems • Contact distance – up to 20-25mm • Lead wires length – 400mm	11 buc.

Dulap de distribuție montata pe perete 600*400*200	 Plastic case, wall-mounted. IP66 protection. The case door is lockable. 	2 buc.
Dulap metalic de distributie montat pe perete 650x500x220	 Distribution cabinet. Robust enclosure for use in adverse weather and industrial environments. Metal enclosure with removable mounting plate. The enclosure door is lockable. The lock key has a single secret. 	1 buc.
Semnalizator	Blinker Flashing flashers belong to one of the varieties of special warning lights.	2 buc.
Releu fără fir	Low current remote control relay with dry contacts. Operates in pulse and bistable modes.	3 buc.
Adaptor de alimentare 12V 2A	 12V 2A Power Adapter Easy installation With indicator light working Support -30°C~+70°C wide-range temperature operation, and the full load efficiency of the power supply can be up to 100% at these temperatures Accurate overcurrent, overvoltage protection Fully Meets ERP.COMMISSION REGULATION (EU)2019/1782 Requirement 	3 buc.
Controler de canal radio pentru controlul de la distanță a aparatelor electrice conectate	Radio channel controller for remote control of household appliances. Used for switching on and off irons, garage doors, water heaters.	3 buc.
Difuzor exterior	Weatherproof outdoor speaker	1 buc.
Mini amplificator de sunet - cu două canale	Mini sound amplifier - two-channel	1 buc.
Sursă de alimentare neîntreruptibilă, interactivă în linie. UPS 1500VA/1050 W, 24Vdc, 15A cur. de încărcare max., Doar baterie externă, 2*Schuko Sock	 Uninterruptible power supply, line-interactive Intelligent UPS with pure sine wave designed to work with external high-capacity batteries or external battery packs. Linear-interactive technology with pure sine wave output voltage. Microprocessor control LCD display with a set of operation indicators Sinusoidal output waveform in all operating modes - allows connection of equipment with pulse and transformer (inductive load) power supplies Automatic voltage regulator Long autonomy time by connecting external 12V batteries Improved battery management to extend battery life Output short circuit and overload protection (circuit breaker) Automatic charging of batteries when switched off USB communication port 	1 buc.
Baterie 12V 100Ah 830A (R+)	Battery requirements •Mesh plate design: •Using special plates made using a mesh structure. •R+ technology: •PowerFrame Technology: •Durable materials: •Design with highly protective technology: •This battery must be designed to minimize the risk of acid leakage, ensuring safety and extending battery life • Voltage (V) 12 • Capacity (Ah) 100 • Starting current (A) 830 • Polarity R+ • Dimensions (mm) 353x175x190 • Ca/Ca technology	2 buc.

	Maintenance Maintenance Free]
	Maintenance Maintenance Free Euro case format	
	• Euro terminal thickness	
	• Weight (kg) 21.9	
	• Warranty at least 2 year	
FTP CAT 5e 4*2*24 AWG outdoor + cable + power supply	 Shielded twisted pair with a conductor made of high-purity oxygen-free copper with a diameter of 0.51 mm (24 AWG). The outer covering material is PE (Polyethylene). Equipped with an additional self-supporting cable and two power conductors. 	200 м.
Cablu UTP CAT5e	 305 m (1000 ft)/carton UTP CAT5e, power over Ethernet, compatible with one cable High-purity oxygen-free copper conductor Customized PVC outer sheath; CE CPR Eca flame retardant class certified 10-year warranty 	630 м.
Cablu Alarm 6 CU Italy	6*0,22 stranded, screen. Must comply with European Directive 2002/95/CE RoHS.	932 м.
Cablu electric PVS	Electric cable PVS	150 м.
Cablu SVVP 2*0,75	SHVVP wire is a flat and flexible electrical cable coated with PVC plasticate.	90 м.
Cablu-canal 25x16x2000m m	Plastic channel: size 25x16mm. Cut length 2 metres.	140 м.
Furtun metalic din PVC	PVC-insulated metal hose made of galvanised metal tape is designed for mechanical protection of electrical or data cables in pipe cable routing systems of high flexibility.	90 м.
Priza 220V	• Double surface-mounted socket with grounding, 220V (250V), 16A, 50 Hz, IP20.	3 buc.
CUTIE DE DISTR. IP65 150*150*70A	DISTRIBUTION BOX IP65 150*150*70A	3 buc.
Kit de montare MEDIU	Mounting kit includes dowels, screws, nuts, washers, ties, duct tape.	3 buc.
Costuri de transport	Costurile de deplasare la site-ul proiectului clientului.	180 km.
Instalarea rețelelor de cablu	Lucrări la pozarea rețelelor de cabluri, a aparatelor de distribuție și a elementelor de iluminat.	1 serv.
Instalarea echipamentului de sistem	- Instalarea profesională a echipamentelor conform cerințelor proiectării sistemului.	1 serv.
Instalarea echipamentelor sistemului de securitate	- Instalarea profesională a echipamentelor conform cerințelor proiectării sistemului.	1 serv.
Lucrări la punerea în funcțiune și punerea în funcțiune a sistemului de securitate	- Lucrări la punerea în funcțiune și punerea în funcțiune a sistemului de Securitate.	1 serv.
Lucrări la pornirea si punerea in funcțiune a sistemului de supraveghere video	- Verificarea liniilor de conectare, pornirea și monitorizarea performanței dispozitivului, testarea, reglarea și asigurarea funcționării în comun interconectate a proiectării sistemului video preconizat.	1 serv.

5. Sistemul de monitorizare paza tehnica filiala "Ialoveni Gaz"

• Descriere tehnică și echipament necesar

Denumirea	Descrierea	Cantitatea
32 de canale, 2 HDD, înregistrare video de rețea cu elemente AI cu detectare inteligentă a mișcării și cip AI încorporat	 Smart H.265+/H.265/Smart H.264+/H.264/MJPEG decoding format. Access, storage or forwarding at 256 Mbps (180 Mbps when AI function enabled). Max. decoding capability: 16 × 1080p@30 fps. Supports adaptive decoding. AI by NVR: 1-channel face detection and recognition; 2-channel perimeter protection; up to 10 face databases and 20,000 face images; 4-channel with smart motion detection and built-in AI chip. AI by Camera: Face detection and recognition, perimeter protection; smart motion detection and built-in AI chip; people counting; stereo analysis; heat map. Connected to the third-party network cameras. Security baseline 2.3. 	1 buc.
Hard disk-ul de supraveghere este optimizat pentru DVR-uri și NVR-uri și reglat pentru sarcini de lucru 24x7, cu capacități de până la 10 TB	The surveillance hard drive is optimized for DVRs and NVRs and tuned for 24x7 workloads in capacities up to 10TB. helps to minimize dropped frames and downtime with a workload rating $3 \times$ that of desktop drives while supporting up to 64 HD cameras. SATA 6Gb/s, 256MB cache memory, 10TB.	2 buc.
4MP 25× Cameră PTZ panoramică de rețea cu lumină dublă inteligentă + Cameră PTZ SMART- LINKAGE și PANORAMIC A	 1/2.8" 4Megapixel STARVIS[™] CMOS. 25× optical zoom. Starlight technology. Max. 25/30 fps@2560 × 1440 IR distance up to 200 m. Auto-tracking. Perimeter protection. Face detection. IP66. Sound and light alarm. 180° panoramic splicing. 	1 buc.
Cameră de rețea intelectuală Bullet cu focalizare fixă, cu descurajare activă, de 4MP, cu elemente AI	 4MP, 1/2.7" CMOS image sensor, low illuminance, high image definition Outputs max. 4MP (2688 × 1520) @30 fps H.265 codec, high compression rate, low bit rate Built-in warm illuminator, and the max. illumination distance: 40 m SMART H.264+/H.265+, flexible coding, applicable to various bandwidth and storage environments Intelligent detection: Intrusion, tripwire (support the classification and accurate detection of vehicle and human) Abnormality detection: Motion detection, video tampering, scene changing, audio detection, no SD card, SD card full, SD card error, network disconnection, IP conflict, illegal access, and voltage detection. Supports sound and light alarm linkage. When an alarm is triggered, the camera links sound alarm and light flashing. Supports one-tap disarming. You can disarm the events of alarm output, sending email, audio, and light in the configured period. Alarm: 1 in, 1 out; audio: 1 in, 1 out; supports max. 256 G Micro SD card, built-in Mic and speaker 12V DC/PoE power supply IP67 protection 	6 buc.

	 smart motion detection and built-in AI chip Red and blue flashlight alarm 	
Cameră de rețea intelectuală Bullet Smart Dual Light, cu focală fixă, de 5 MP, cu elemente AI	 5-MP 1/2.7" CMOS image sensor, low luminance, and high definition image. Outputs max. 5 MP (2960 × 1668) @20 fps, and supports 2688×1520 (2688 × 1520) @25/30 fps. H.265 codec, high compression rate, ultra-low bit rate. Built-in warm light and IR LED, the max. IR light distance is 60 m and max. warm light is 50 m. ROI, SMART H.264+/H.265+, flexible coding, applicable to various bandwidth and storage environments. Rotation mode, WDR, 3D NR, HLC, BLC, digital watermarking, applicable to various monitoring scenes. Intelligent monitoring: Intrusion, tripwire (the two functions support the classification and accurate detection of vehicle and human). Abnormality detection: Motion detection, video tampering, audio detection, no SD card, SD card full, SD card error, network disconnection, IP conflict, illegal access, and voltage detection. Alarm: 1 in, 1 out; audio: 1 in, 1 out; supports max. 256 G Micro SD card; built in MIC. IP67, IK10 (optional) protection. smart motion detection and built-in AI chip 	16 buc.
Cameră de rețea Eyeball IR de 5MP cu focală fixă	 SMP 1/2.7" CMOS image sensor, low luminance, and high definition image. Outputs max. SMP (2880 × 1620) @20 fps and supports 2688 × 1520 (2688 × 1520) @25/30 fps. H.265 codec, high compression rate, and ultra-low bit rate. Built-in IR LED, and the max. illumination distance is 30 m. ROI, SMART H.264 +/H.265+, flexible coding, applicable to various bandwidth and storage environments. Rotation mode, DWDR, 3D NR, HLC, BLC, digital watermarking, ap plicable to various monitoring scenes. Abnormality detection: Motion detection, video tampering, audio detection, network disconnection, IP conflict, and illegal access. Built-in MIC. 12 V DC/PoE power supply. IP67 protection. 	3 buc.
Switch PoE administrat Gigabit cu 16 porturi 100 Mbps + 2 porturi	 Intelligent PoE Hi-PoE port supports 90W IEEE802.3bt Web management with friendly interface and easy operation 250 m long distance PoE transmission PoE watchdog Plug and play Manufacturer's warranty: 36 months 	1 buc.
Switch FE PoE+ 16 porturi Gigabit Combo PoE	 Compliant IEEE 802.3, IEEE 802.3u, IEEE802.3ab, IEEE802.3x standards Supports IEEE802.3af, IEEE802.3at, Hi-PoE standards Supports normal working mode, port isolation (VLAN) mode, monitoring mode, network extend mode. Supports Store-and-Forward 16*10/100Mbps ports, 1*Gigabit Combo port, support port auto flipping (Auto MDI / MDIX) Port 1-2 support the maximum power of 60W, PoE output total power up to 135W Supports IEEE802.3x flow control for Full-duplex Mode and backpressure for Half-duplex Mode 4K entry MAC address table with auto-learning and auto-aging LED indicators for monitoring power, link and activity 	1 buc.

Switch desktop negestionat cu 10 porturi cu 8 porturi PoE	10-Port Unmanaged Desktop Switch with 8-Port PoE > Intelligent PoE > 8-pin assignment PoE power supply > Long distance PoE > PoE watchdog > Wide working temperature	1 buc.
Router Wi-Fi	High performance processor- at least: IPQ-4018 716 MHz, 4 cores Radio Interface-2.4 GHz 802.11b/g/n, MIMO 2x2; 5 GHz 802.11a/n/ac, MIMO 2x2 Antenna pattern width-360° Connection interface- 1x micro-SIM for modem; 1x miniPCI-e 1 Wan-port, at least 1 Lan-port RAM size - at least 128 MB Storage size - at least 16 MB Storage type FLASH Operating temperature -30°C to 60°C	1 buc.
Dulap de distribuție montata pe perete 600*400*200	 Plastic case, wall-mounted. IP66 protection. The case door is lockable. 	3 buc.
Dulap metalic de distributie montat pe perete 650x500x220	 Distribution cabinet. Robust enclosure for use in adverse weather and industrial environments. Metal enclosure with removable mounting plate. The enclosure door is lockable. The lock key has a single secret. 	1 buc.
CamBox pentru Camera de rețea	 Neat & Integrated design Material: Aluminum IP66 junction box 	30 buc.
CamBox pentru Camera de rețea	 Material: SECC & SUS304 Pole mount bracket Aesthetic design Load Bearing 10.0kg 	1 buc.
Protector de supratensiune 5 prize	Surge Protector 5 Sockets, 5.0m, flame-retardant material	4 buc.
Canal radio inteligent hub- HAB. Monitorizează funcționarea senzorilor și releelor radio și trimite instantaneu un semnal de alarmă proprietarului și biroului de securitate.	Radio-channel, intelligent concentrator-hub The device must support motion, breakage, door status and other types of simple and combined sensors and instantly sends an alarm signal to the owner and the security console. Shall support photo verification of alarms Classification: Radio channel concentrator with GSM and Ethernet modules, Wi-Fi, LTE with a range of at least 1700m. Installation type: Indoor Connected devices - 200, Users - 200, Guard groups - 25 Must support the connection of radio signal repeaters - to increase the range of operation in difficult conditions Support mobile applications iOS 11.0 and above / Android 4.4 and above Communication channels - at least 2 SIM cards 2G (900/1800 MHz) / 3G (WCDMA 900/2100 (B8/B1) / Wi-Fi 2.4 GHz (802.11 b/g/n) / Ethernet Switching between 2G and 3G Instantly / Switching between SIM cards Signal delivery time - no more than - 0.15 s Types of notifications - SMS, call, push / Communication with security console Contact ID, SIA Power supply 110 - 240 V mains or 12 V Built-in backup battery Li-Ion 2 Ah, at least 14 hours of autonomous operation Power consumption from mains - up to 10 W Operating frequencies - 868.0 - 868.6 MHz, Two- way communication between devices Sensor polling period - 12-300 seconds Operating temperature range -10°C to +40°C Anti-sabotage / Anti-tampering / Jamming alert / Tamper on opening and breakaway Video surveillance: At least 9 cameras and video recorders	1 buc.

Repetitor de semnal radio pentru sistem de securitate.	Security system radio signal repeater. For a security alarm system with support for photo verification of alarms. Must work with MotionCam and MotionCam Outdoor motion sensors. Supported by Hubs. Wireless. Installation method Indoors. Compatibility Works with all Hubs. Power supply 110 - 240 V from the mains or 12 V from 12V. Built-in backup battery Li-Ion 2 Ah. Dimensions 163 x 163 x 36 mm. Weight 330 g. Operating temperature range From -10°C to +40°C. Warranty 2 years.	1 buc.
Panou de control fără fir	Wireless keypad with support for secure proximity cards and key fobs. Range of at least 700 metres Security modes must be controlled by common and personal passwords, cards or key fobs Must support: tamper on opening and tear-off, code on compulsion, protection against password selection. Operating temperature range: -10°C to +40°C Built-in battery: keeps working - up to 4.5 years Warranty of at least 2 years.	2 buc.
Modul de integrare fără fir pentru conectarea senzorilor cu fir și a dispozitivelor terțe la sistemul de securitate	The wireless radio module, integration and alarm module, must be integrated with outdoor or indoor vibration, motion, glass break, opening detectors, thermal relays, IR barriers, gas and water leakage sensors, as well as with other security system devices from different manufacturers. It must transmit signals to the hub via radio protocol over a distance of up to 2000 meters. Must have at least 18 wired zones. All 18 wired zones must be configured in the mobile application. Sensors connected to zones can operate around the clock in security mode with a delay for entry or exit, and, if necessary, participate in automation scenarios and activate sirens. The maximum length of the detector cable connection is at least 350 m. The radio integration module can be a power source for the connected device - 12 V DC up to 1 A for all detector power outputs. When the connection with a wired device is lost, a custom alarm will be reported immediately. Configuration and testing of the wireless integration module should take place in the mobile application. Connection to the security system is carried out after scanning the QR code on the device body. When connecting wired devices, you do not need to know the value of the resistors. If the device was connected incorrectly, the security system should warn about the error. All notifications. Five types of alarms must be provided: fire alarm, gas alarm, intrusion, emergency, panic button. The alarm type can be configured for each wired device. This information is indicated in the alarm notification and is also sent to the security company's control panel under a code. This increases the information content of messages, since the user will know exactly where and what happened.	6 buc.
POWER Baterie cu plumb acid 12V 7Ah	Battery requirements • Battery with efficient energy system to provide improved electrical flow. • Efficient power system to provide improved electrical flow. • Durability due to the higher resistance of the gratings to corrosion. • Created in accordance with international quality standards. • High starting power. • POWER Baterie cu plumb acid 12V 7Ah (Wx151mm Hx100mm Dx65mm) • Initial current: 2.10A MAX • Cycle use: 14,4-14,9V • Standby use: 13,6-13.8V • Weight 2.45kg . • Warranty at least 1 year	6 buc.
Detector de spargere a sticlei cu imunitate la animale de companie	Aalarm contact and tamper switch Digital signal analysis Exceptional white light immunity Pet immunity up to 25 kg (55 lbs) Technology for sharp analysis of body dimensions and differentiation from backgrounds and pets Separate PIR and glassbreak sensitivity adjustment independent relay outputs for glassbreak and PIR alarm signals	56 buc.
Suport pentru detector de spargere a sticlei cu imunitate la	Suport detectors	56 buc.

animale de companie		
Contacte magnetice - Magnetic Sensor	Magnetic contacts for window and door use. • Surface mounting with screws or twin adhesive tape • N/O for closed loop systems • Contact distance – up to 20-25mm • Lead wires length – 400mm	18 buc.
Semnalizator	Blinker Flashing flashers belong to one of the varieties of special warning lights.	5 buc.
Releu fără fir	Low current remote control relay with dry contacts. Operates in pulse and bistable modes.	5 buc.
Adaptor de alimentare 12V 2A	 12V 2A Power Adapter Easy installation With indicator light working Support -30°C~+70°C wide-range temperature operation, and the full load efficiency of the power supply can be up to 100% at these temperatures Accurate overcurrent, overvoltage protection Fully Meets ERP.COMMISSION REGULATION (EU)2019/1782 Requirement 	5 buc.
Controler de canal radio pentru controlul de la distanță a aparatelor electrice conectate	Radio channel controller for remote control of household appliances. Used for switching on and off irons, garage doors, water heaters.	3 buc.
Difuzor exterior	Weatherproof outdoor speaker	1 buc.
Mini amplificator de sunet - cu două canale	Mini sound amplifier - two-channel	1 buc.
Sursă de alimentare neîntreruptibilă, interactivă în linie. UPS 1500VA/1050 W, 24Vdc, 15A cur. de încărcare max., Doar baterie externă, 2*Schuko Sock	 Uninterruptible power supply, line-interactive Intelligent UPS with pure sine wave designed to work with external high-capacity batteries or external battery packs. Linear-interactive technology with pure sine wave output voltage. Microprocessor control LCD display with a set of operation indicators Sinusoidal output waveform in all operating modes - allows connection of equipment with pulse and transformer (inductive load) power supplies Automatic voltage regulator Long autonomy time by connecting external 12V batteries Improved battery management to extend battery life Output short circuit and overload protection (circuit breaker) Automatic charging of batteries when switched off USB communication port 	1 buc.
Baterie 12V 100Ah 830A (R+)	Battery requirements •Mesh plate design: •Using special plates made using a mesh structure. •R+ technology: •PowerFrame Technology: •Durable materials: •Design with highly protective technology: •This battery must be designed to minimize the risk of acid leakage, ensuring safety and extending battery life • Voltage (V) 12 • Capacity (Ah) 100 • Starting current (A) 830 • Polarity R+ • Dimensions (mm) 353x175x190 • Ca/Ca technology • Maintenance Maintenance Free • Euro case format	2 buc.

	Euro terminal thicknessWeight (kg) 21.9	
	Warranty at least 2 year	
FTP CAT 5e 4*2*24 AWG outdoor + cable + power supply	 Shielded twisted pair with a conductor made of high-purity oxygen-free copper with a diameter of 0.51 mm (24 AWG). The outer covering material is PE (Polyethylene). Equipped with an additional self-supporting cable and two power conductors. 	940 м.
Cablu UTP CAT5e	 305 m (1000 ft)/carton UTP CAT5e, power over Ethernet, compatible with one cable High-purity oxygen-free copper conductor Customized PVC outer sheath; CE CPR Eca flame retardant class certified 10-year warranty 	840 м.
Cablu electric PVS	Electric cable PVS	200 м.
Cablu SVVP 2*0,75	SHVVP wire is a flat and flexible electrical cable coated with PVC plasticate.	150 м.
Cablu-canal 25x16x2000m m	Plastic channel: size 25x16mm. Cut length 2 metres.	200 м.
Cablu Alarm 6 CU Italy	6*0,22 stranded, screen. Must comply with European Directive 2002/95/CE RoHS.	2 085 м.
Furtun metalic din PVC	 Requirements for metal hose Must be in PVC (polyvinyl chloride) insulation with a broach (probe). made of galvanized metal tape, designed for mechanical protection of electrical or information cables in highly flexible cable laying pipe systems. Must withstand temperatures from -40 to +50 degrees Celsius Protection degree IP65 UV resistance 	300 м.
Priza 220V	• Double surface-mounted socket with grounding, 220V (250V), 16A, 50 Hz, IP20.	4 buc.
CUTIE DE DISTR. IP65 150*150*70A	DISTRIBUTION BOX IP65 150*150*70A	12 buc.
Kit de montare MEDIU	Mounting kit includes dowels, screws, nuts, washers, ties, duct tape.	5 buc.
Costuri de transport	Costurile de deplasare la site-ul proiectului clientului.	81 km.
Instalarea rețelelor de cablu	Lucrări la pozarea rețelelor de cabluri, a aparatelor de distribuție și a elementelor de iluminat.	1 serv.
Instalarea echipamentului de sistem	- Instalarea profesională a echipamentelor conform cerințelor proiectării sistemului.	1 serv.
Instalarea echipamentelor sistemului de securitate	- Instalarea profesională a echipamentelor conform cerințelor proiectării sistemului.	1 serv.
Lucrări la punerea în funcțiune și punerea în funcțiune a sistemului de securitate	- Lucrări la punerea în funcțiune și punerea în funcțiune a sistemului de Securitate.	1 serv.
Lucrări la pornirea si punerea in funcțiune a sistemului de	 Verificarea liniilor de conectare, pornirea şi monitorizarea performanţei dispozitivului, testarea, reglarea şi asigurarea funcţionării în comun interconectate a proiectării sistemului video preconizat. 	1 serv.

supraveghere video		
Configurarea analizei sistemului de supraveghere video	- Programarea echipamentelor cu instalarea setărilor si scenariilor necesare pentru adaptarea sistemului video la nevoile utilizatorului in vederea creșterii eficientei funcționarii	1 serv.

6. Sistemul de monitorizare pază tehnică filială "Dubăsari Coșnița Gaz"

• Descriere tehnică și echipament necesar

Denumirea	Descrierea	Cantitatea
32 de canale, 2 HDD, înregistrare video de rețea cu elemente AI cu detectare inteligentă a mișcării și cip AI încorporat	 Smart H.265+/H.265/Smart H.264+/H.264/MJPEG decoding format. Access, storage or forwarding at 256 Mbps (180 Mbps when AI function enabled). Max. decoding capability: 16 × 1080p@30 fps. Supports adaptive decoding. AI by NVR: 1-channel face detection and recognition; 2-channel perimeter protection; up to 10 face databases and 20,000 face images; 4-channel with smart motion detection and built-in AI chip. AI by Camera: Face detection and recognition, perimeter protection; smart motion detection and built-in AI chip; people counting; stereo analysis; heat map. Connected to the third-party network cameras. Security baseline 2.3. 	1 buc.
Hard disk-ul de supraveghere este optimizat pentru DVR-uri și NVR-uri și reglat pentru sarcini de lucru 24x7, cu capacități de până la 10 TB	The surveillance hard drive is optimized for DVRs and NVRs and tuned for 24x7 workloads in capacities up to 10TB. helps to minimize dropped frames and downtime with a workload rating 3× that of desktop drives while supporting up to 64 HD cameras. SATA 6Gb/s, 256MB cache memory, 10TB.	1 buc.
Cameră de rețea intelectuală Bullet cu focalizare fixă, cu descurajare activă, de 4MP, cu elemente AI	 4MP, 1/2.7" CMOS image sensor, low illuminance, high image definition Outputs max. 4MP (2688 × 1520) @30 fps H.265 codec, high compression rate, low bit rate Built-in warm illuminator, and the max. illumination distance: 40 m SMART H.264+/H.265+, flexible coding, applicable to various bandwidth and storage environments Intelligent detection: Intrusion, tripwire (support the classification and accurate detection of vehicle and human) Abnormality detection: Motion detection, video tampering, scene changing, audio detection, no SD card, SD card full, SD card error, network disconnection, IP conflict, illegal access, and voltage detection. Supports sound and light alarm linkage. When an alarm is triggered, the camera links sound alarm and light flashing. Supports one-tap disarming. You can disarm the events of alarm output, sending email, audio, and light in the configured period. Alarm: 1 in, 1 out; audio: 1 in, 1 out; supports max. 256 G Micro SD card, built-in Mic and speaker 12V DC/PoE power supply IP67 protection SMD Plus Red and blue flashlight alarm 	2 buc.
Cameră de rețea intelectuală Bullet Smart Dual Light, cu focală fixă, de 5 MP, cu elemente AI	 Ked and blue hashight alarm 5-MP 1/2.7" CMOS image sensor, low luminance, and high definition image. Outputs max. 5 MP (2960 × 1668) @20 fps, and supports 2688×1520 (2688 × 1520) @25/30 fps. H.265 codec, high compression rate, ultra-low bit rate. Built-in warm light and IR LED, the max. IR light distance is 60 m and max. warm light is 50 m. ROI, SMART H.264+/H.265+, flexible coding, applicable to various bandwidth and storage environments. Rotation mode, WDR, 3D NR, HLC, BLC, digital watermarking, applicable 	8 buc.

	 to various monitoring scenes. Intelligent monitoring: Intrusion, tripwire (the two functions support the classification and accurate detection of vehicle and human). Abnormality detection: Motion detection, video tampering, audio detection, no SD card, SD card full, SD card error, network disconnection, IP conflict, illegal access, and voltage detection. Alarm: 1 in, 1 out; audio: 1 in, 1 out; supports max. 256 G Micro SD card; built in MIC. 12 VDC/PoE power supply, easy for installation. IP67, IK10 (optional) protection. 	
Cameră de rețea Eyeball IR de 5MP cu focală fixă	 5MP 1/2.7" CMOS image sensor, low luminance, and high definition image. Outputs max. 5MP (2880 × 1620) @20 fps and supports 2688 × 1520 (2688 × 1520) @25/30 fps. H.265 codec, high compression rate, and ultra-low bit rate. Built-in IR LED, and the max. illumination distance is 30 m. ROI, SMART H.264 +/H.265+, flexible coding, applicable to various bandwidth and storage environments. Rotation mode, DWDR, 3D NR, HLC, BLC, digital watermarking, ap plicable to various monitoring scenes. Abnormality detection: Motion detection, video tampering, audio detection, network disconnection, IP conflict, and illegal access. Built-in MIC. 12 V DC/PoE power supply. IP67 protection. 	3 buc.
Switch PoE administrat Gigabit cu 16 porturi 100 Mbps + 2 porturi	 Intelligent PoE Hi-PoE port supports 90W IEEE802.3bt Web management with friendly interface and easy operation 250 m long distance PoE transmission PoE watchdog Plug and play Manufacturer's warranty: 36 months 	1 buc.
Router Wi-Fi	High performance processor- at least: IPQ-4018 716 MHz, 4 cores Radio Interface-2.4 GHz 802.11b/g/n, MIMO 2x2; 5 GHz 802.11a/n/ac, MIMO 2x2 Antenna pattern width-360° Connection interface- 1x micro-SIM for modem; 1x miniPCI-e 1 Wan-port, at least 1 Lan-port RAM size - at least 128 MB Storage size - at least 16 MB Storage type FLASH Operating temperature -30°C to 60°C	1 buc.
Dulap de distribuție montata pe perete 600*400*200	 Plastic case, wall-mounted. IP66 protection. The case door is lockable. 	1 buc.
Dulap metalic de distributie montat pe perete 650x500x220	 Distribution cabinet. Robust enclosure for use in adverse weather and industrial environments. Metal enclosure with removable mounting plate. The enclosure door is lockable. The lock key has a single secret. 	1 buc.
CamBox pentru Camera de rețea	 Neat & Integrated design Material: Aluminum IP66 junction box 	11 buc.
Protector de supratensiune 5 prize	Surge Protector 5 Sockets, 5.0m, flame-retardant material	2 buc.
Canal radio inteligent hub- HAB. Monitorizează funcționarea senzorilor și releelor radio și	Radio-channel, intelligent concentrator-hub The device must support motion, breakage, door status and other types of simple and combined sensors and instantly sends an alarm signal to the owner and the security console. Shall support photo verification of alarms Classification: Radio channel concentrator with GSM and Ethernet modules, Wi-Fi, LTE with a range of at least 1700m. Installation type: Indoor	1 buc.

trimite instantaneu un semnal de alarmă proprietarului și biroului de securitate.	Connected devices - 200, Users - 200, Guard groups - 25 Must support the connection of radio signal repeaters - to increase the range of operation in difficult conditions Support mobile applications iOS 11.0 and above / Android 4.4 and above Communication channels - at least 2 SIM cards 2G (900/1800 MHz) / 3G (WCDMA 900/2100 (B8/B1) / Wi-Fi 2.4 GHz (802.11 b/g/n) / Ethernet Switching between 2G and 3G Instantly / Switching between SIM cards Signal delivery time - no more than - 0.15 s Types of notifications - SMS, call, push / Communication with security console Contact ID, SIA Power supply 110 - 240 V mains or 12 V Built-in backup battery Li-Ion 2 Ah, at least 14 hours of autonomous operation Power consumption from mains - up to 10 W Operating frequencies - 868.0 - 868.6 MHz, Two- way communication between devices Sensor polling period - 12-300 seconds Operating temperature range -10°C to +40°C Anti-sabotage / Anti-tampering / Jamming alert / Tamper on opening and breakaway Video surveillance: At least 9 cameras and video recorders Wireless keypad with support for secure proximity cards and key fobs. Range of at least 700 metres Security modes must be controlled by common and personal passwords, cards or key fobs	
Panou de control fără fir	Must support: tamper on opening and tear-off, code on compulsion, protection against password selection. Operating temperature range: -10°C to +40°C Built-in battery: keeps working - up to 4.5 years Warranty of at least 2 years.	2 buc.
Modul de integrare fără fir pentru conectarea senzorilor cu fir și a dispozitivelor terțe la sistemul de securitate	The wireless radio module, integration and alarm module, must be integrated with outdoor or indoor vibration, motion, glass break, opening detectors, thermal relays, IR barriers, gas and water leakage sensors, as well as with other security system devices from different manufacturers. It must transmit signals to the hub via radio protocol over a distance of up to 2000 meters. Must have at least 18 wired zones. All 18 wired zones must be configured in the mobile application. Sensors connected to zones can operate around the clock in security mode with a delay for entry or exit, and, if necessary, participate in automation scenarios and activate sirens. The maximum length of the detector cable connection is at least 350 m. The radio integration module can be a power source for the connected device - 12 V DC up to 1 A for all detector power outputs. When the connection with a wirel device is lost, a custom alarm will be reported immediately. Configuration and testing of the wireless integration module should take place in the mobile application. Connection to the security system is carried out after scanning the QR code on the device body. When connecting wired devices, you do not need to know the value of the resistors. If the device was connected incorrectly, the security system should warn about the error. All notifications and alarms are sent to the alarm owner's mobile phone via SMS messages or push notifications. Five types of alarms must be provided: fire alarm, gas alarm, intrusion, emergency, panic button. The alarm type can be configured for each wired device. This information is indicated in the alarm notification and is also sent to the security company's control panel under a code. This increases the information content of messages, since the user will know exactly where and what happened.	2 buc.
POWER Baterie cu plumb acid 12V 7Ah	Battery requirements Battery with efficient energy system to provide improved electrical flow. Efficient power system to provide improved electrical flow. Durability due to the higher resistance of the gratings to corrosion. Created in accordance with international quality standards. High starting power. POWER Baterie cu plumb acid 12V 7Ah (Wx151mm Hx100mm Dx65mm) Initial current: 2.10A MAX Cycle use: 14,4-14,9V Standby use: 13,6-13.8V Weight 2.45kg . Warranty at least 1 year	2 buc.
Detector de spargere a sticlei cu imunitate la animale de companie	Alarm contact and tamper switch Digital signal analysis Exceptional white light immunity Pet immunity up to 25 kg (55 lbs) Technology for sharp analysis of body dimensions and differentiation from backgrounds and pets Separate PIR and glassbreak sensitivity adjustment independent relay outputs for glassbreak and PIR alarm signals	17 buc.

Suport pentru detector de spargere a sticlei cu imunitate la animale de companie	Suport detectors	17 buc.
Contacte magnetice - Magnetic Sensor	Magnetic contacts for window and door use. • Surface mounting with screws or twin adhesive tape • N/O for closed loop systems • Contact distance – up to 20-25mm • Lead wires length – 400mm	3 buc.
Semnalizator	Blinker Flashing flashers belong to one of the varieties of special warning lights.	1 buc.
Releu fără fir	Low current remote control relay with dry contacts. Operates in pulse and bistable modes.	1 buc.
Adaptor de alimentare 12V 2A	 12V 2A Power Adapter Easy installation With indicator light working Support -30°C~+70°C wide-range temperature operation, and the full load efficiency of the power supply can be up to 100% at these temperatures Accurate overcurrent, overvoltage protection Fully Meets ERP.COMMISSION REGULATION (EU)2019/1782 Requirement 	2 buc.
Controler de canal radio pentru controlul de la distanță a aparatelor electrice conectate	Radio channel controller for remote control of household appliances. Used for switching on and off irons, garage doors, water heaters.	2 buc.
Difuzor exterior	Weatherproof outdoor speaker	1 buc.
Mini amplificator de sunet - cu două canale	Mini sound amplifier - two-channel	1 buc.
Sursă de alimentare neîntreruptibilă, interactivă în linie. UPS 1500VA/1050 W, 24Vdc, 15A cur. de încărcare max., Doar baterie externă, 2*Schuko Sock	 Uninterruptible power supply, line-interactive Intelligent UPS with pure sine wave designed to work with external high-capacity batteries or external battery packs. Linear-interactive technology with pure sine wave output voltage. Microprocessor control LCD display with a set of operation indicators Sinusoidal output waveform in all operating modes - allows connection of equipment with pulse and transformer (inductive load) power supplies Automatic voltage regulator Long autonomy time by connecting external 12V batteries Improved battery management to extend battery life Output short circuit and overload protection (circuit breaker) Automatic charging of batteries when switched off USB communication port 	1 buc.
Baterie 12V 100Ah 830A (R+)	 Battery requirements Mesh plate design: Using special plates made using a mesh structure. R+ technology: PowerFrame Technology: Durable materials: Design with highly protective technology: This battery must be designed to minimize the risk of acid leakage, ensuring safety and extending battery life Voltage (V) 12 Capacity (Ah) 100 Starting current (A) 830 Polarity R+ Dimensions (mm) 353x175x190 	2 buc.

	• Ca/Ca technology	
	Maintenance Maintenance Free	
	• Euro case format • Euro terminal thickness	
	• Weight (kg) 21.9	
	• Warranty at least 2 year	
FTP CAT 5e 4*2*24 AWG outdoor + cable + power supply	 Shielded twisted pair with a conductor made of high-purity oxygen-free copper with a diameter of 0.51 mm (24 AWG). The outer covering material is PE (Polyethylene). 	290 м.
+ power suppry	• Equipped with an additional self-supporting cable and two power conductors.	
Cablu UTP CAT5e	 305 m (1000 ft)/carton UTP CAT5e, power over Ethernet, compatible with one cable High-purity oxygen-free copper conductor Customized PVC outer sheath; CE CPR Eca flame retardant class certified 10-year warranty 	80 м.
Cablu electric PVS	Electric cable PVS	30 м.
Cablu SVVP 2*0,75	SHVVP wire is a flat and flexible electrical cable coated with PVC plasticate.	30 м.
Cablu-canal 25x16x2000m m	Plastic channel: size 25x16mm. Cut length 2 metres.	26 м.
Cablu Alarm 6 CU Italy	6*0,22 stranded, screen. Must comply with European Directive 2002/95/CE RoHS.	530 м.
Furtun metalic din PVC	PVC-insulated metal hose made of galvanised metal tape is designed for mechanical protection of electrical or data cables in pipe cable routing systems of high flexibility.	75 м.
Priza 220V	• Double surface-mounted socket with grounding, 220V (250V), 16A, 50 Hz, IP20.	2 buc.
CUTIE DE DISTR. IP65 150*150*70A	DISTRIBUTION BOX IP65 150*150*70A	3 pcs
Kit de montare MEDIU	Mounting kit includes dowels, screws, nuts, washers, ties, duct tape.	2 buc.
Costuri de transport	Costurile de deplasare la site-ul proiectului clientului.	234 km.
Instalarea rețelelor de cablu	Lucrări la pozarea rețelelor de cabluri, a aparatelor de distribuție și a elementelor de iluminat.	1 serv.
Instalarea echipamentului de sistem	- Instalarea profesională a echipamentelor conform cerințelor proiectării sistemului.	1 serv.
Instalarea echipamentelor sistemului de securitate	- Instalarea profesională a echipamentelor conform cerințelor proiectării sistemului.	1 serv.
Lucrări la punerea în funcțiune și punerea în funcțiune a sistemului de securitate	- Lucrări la punerea în funcțiune și punerea în funcțiune a sistemului de Securitate.	1 serv.
Lucrări la pornirea si punerea in funcțiune a sistemului de	 Verificarea liniilor de conectare, pornirea şi monitorizarea performanţei dispozitivului, testarea, reglarea şi asigurarea funcţionării în comun interconectate a proiectării sistemului video preconizat. 	1 serv.

supraveghere video		
Configurarea analizei sistemului de supraveghere video	- Programarea echipamentelor cu instalarea setărilor si scenariilor necesare pentru adaptarea sistemului video la nevoile utilizatorului in vederea creșterii eficientei funcționarii	1 serv.