

A long-range UAV with a white fuselage and long, thin wings is flying in a clear blue sky over a vast, arid desert landscape. In the foreground, a ground station antenna with a camouflage-wrapped cylindrical body and a tall black antenna is mounted on a metal pole. The background shows a valley with some buildings and distant mountains under a bright blue sky.

SMARTDEC SHIELD

“AI” sensors linked to UAV systems.
Complete situation awareness.



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About

We are an Estonian company with **unique AI powered and UAV integrated border security solution - Smartdec SHIELD.**

Smartdec System in service in **30+ countries** around the world.

We have provided over **50 million hours of border protection** with “Smartdec” situational awareness system detectors.

We are a **leader in** the field of distributed **sensor networks** for border security and critical infrastructure.

Offices in Tallinn, Washington, DC, Kiev and London.
Manufacturing in Estonia.

Preferred vendor for multiple **USG Prime Defense contractors.**

Part of programs and projects in US: **DTRA, CN>, EXBS.**





Smarted (government) business





SMARTDEC SHIELD

AI sensors linked to UAV systems



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SMARDEC SHIELD

Drone integrated

Battery powered cameras trigger UAV missions

Radio based ground sensor perimeter monitoring

UAVs trace and track intruders

Centralised Border Security

Flexible intruder detection with relocation

Land and sea/river/lake surveillance with UAV

Long distance communication via SATcom or radio

UAV

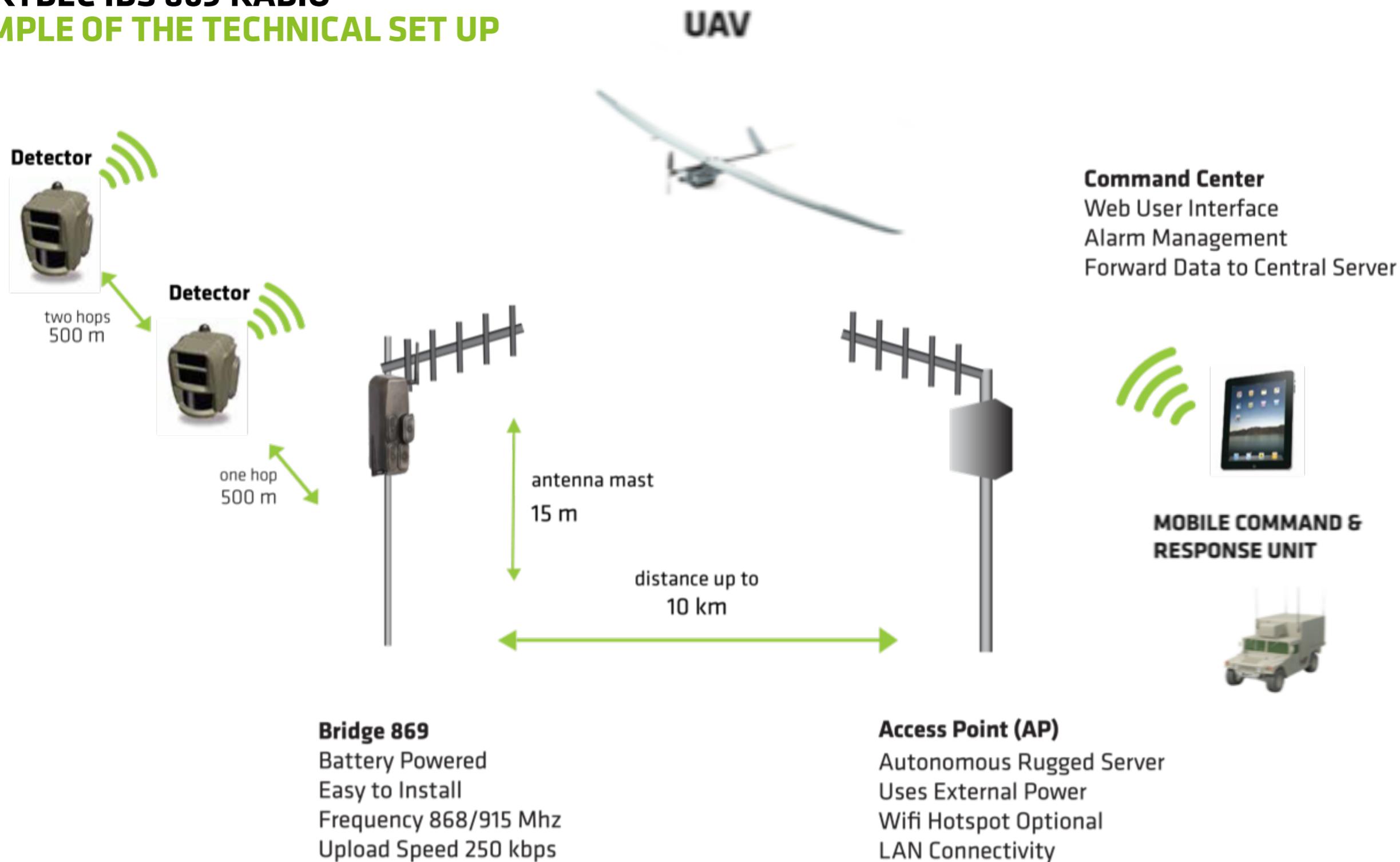


MULTIROTOR



SMARTDEC SHIELD (GSM/ 869Mhz/915Mhz)

SMARTDEC IDS 869 RADIO EXAMPLE OF THE TECHNICAL SET UP



Bridge 869
 Battery Powered
 Easy to Install
 Frequency 868/915 Mhz
 Upload Speed 250 kbps

Access Point (AP)
 Autonomous Rugged Server
 Uses External Power
 Wifi Hotspot Optional
 LAN Connectivity



SMARTDEC **DETECTOR**

DETECTOR HDR



- DETECTION RANGE: 35 m
- TEMPERATURE RANGE: -45C TO +60C
- BATTERY: 400 DAYS / up to 50,000 ALARMS
- IR FLASH (940 nm)
- HD semi-motion video (**3 FRAME/sec**)
- HDR capability
- Resolution
 - Day camera 2048x1536
 - Night camera 1280x960
- Car plate recognition
- Configurable photo resolution
- **Capture time 0.5 sec**
- INTERNAL MEMORY: 2,000 IMAGES (1 image up to 4MB)
- 2.4 GHz RADIO COMMUNICATION
- 500 M LINE OF SIGHT
- RE-TRANSMISSION (UP TO 8 HOPS)
- BANDWIDTH: 115 kbps
- ELLIPTIC CURVE CRYPTOGRAPHY (secp160r1)
- AES 128 OR 256 BIT KEYS (=RSA 1024 BIT KEYS)

Smart, using neural network algorithms

Longest battery *life*



Fastest setup and installation





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SMARTDEC SHIELD

UAV

PERFORMANCE: 2h flight time
Operational 1500m AGL
50...100km/h

Dual EO/IR sensor
EO: 30x zoom / 2x digital
IR: 640x512, 35mm lens

Over 20km LOS
Mesh network available
AES-256 encryption
Voice, video, data

Plug and play payload
Aerial mapping less than 2cm/px
24 MP

ISR 720HD Live streaming
ISR reporting tool, KLV metadata, selectable recording



SMARTDEC SHIELD

AI sensors linked to UAV systems



SMARTDEC SHIELD (GSM/ 869Mhz)

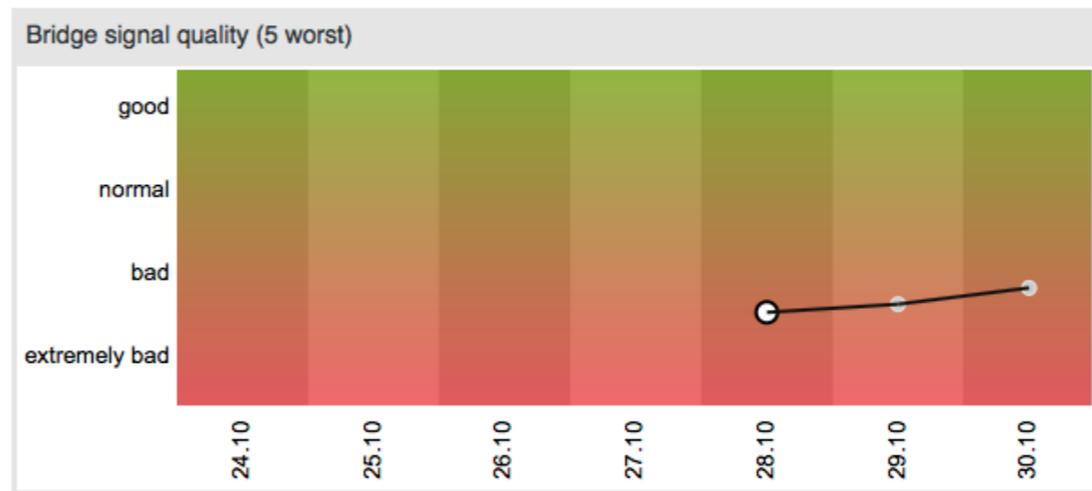
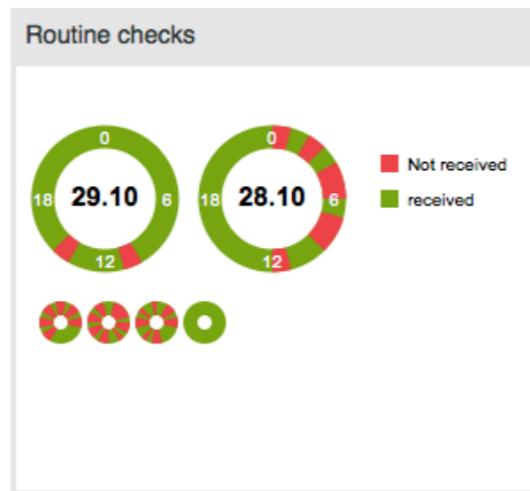
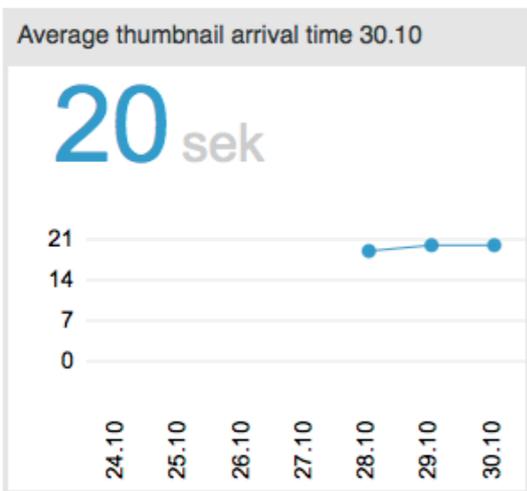
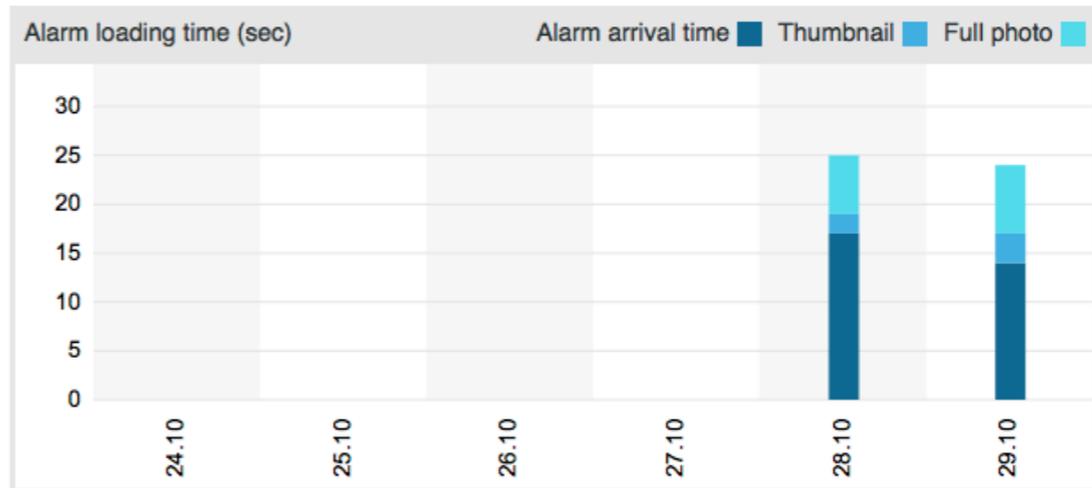
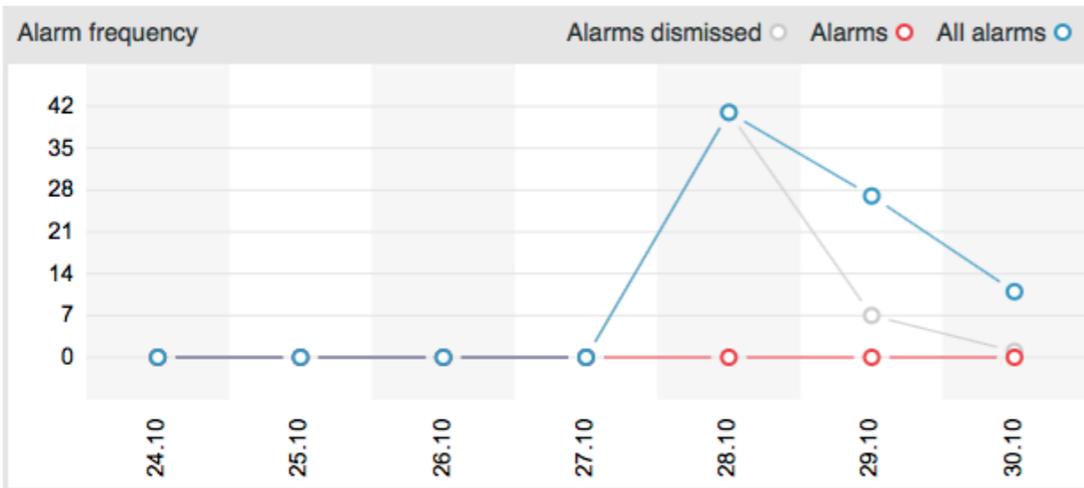
USER INTERFACE DASHBOARD

Dashboard **Alarms 765** Map **Devices 70** Management



- Low voltage: **2**
- No routine check received: **56**
- Over 100 unwatched alarms: **3**
- Active devices: **61**
- Inactive devices: **40**
- Picture error: **7**
- Long picture upload events: **4**

kontor Last 6 days



SMARTDEC **SHIELD** (GSM/ 869Mhz)

COMMAND CENTRE SOFTWARE

- **COLLECTS** AND STORES ALARM INFORMATION AND PHOTOS
- EASY TO USE **WEB-BASED** USER INTERFACE
- **SECURE** DATA TRANSMISSION
- ALARM FILTERING
- **UAV** MISSION LAUNCH
- INDTURDER **TRACE AND TRACK**
- ADJUSTABLE ALARM PHOTO PARAMETERS
- ALARM COORDINATES
- ADJUSTABLE USER GROUPS AND ACCESS LEVELS
- **ALARM SOUND**
- **MACHINE LEARNING POWERED AI**
- **AUTOMATIC CLASSIFICATION**
- EASILY INTEGRATABLE WITH OTHER SYSTEMS
- MOBILE COMMAND CENTER OR/AND SURVEILLANCE TOWERS



SMARTDEC SAVES TIME AND MULTIPLIES FORCES

RADIO BASED, WITHOUT WIRES

BATTERY OPERATIONAL CYCLE ONE YEAR FOR VISUAL VERIFICATION (CAMERAS)

LIGHTWEIGHT DEVICES, LESS THAN 1 KG PER DEVICE (WITH BATTERY)

LOW REQUIREMENT FOR CAMERA BANDWIDTH, MAX 150 KBPS

ZERO ADDITIONAL INVESTMENTS

HD SEMI-MOTION VIDEO

EASY TO (RE)LOCATE

UP AND RUNNING IN 2 MINUTES

ENCRYPTED DATA TRANSMISSION

NO CONFIGURATION OR CALIBRATION REQUIRED DURING DEPLOYMENT AND FIELD OPERATION

INSTANT DETECTION IF INTRUDER HAS REACHED THE SURVEYED AREA (LESS THAN 10 SECONDS)

CENTRALIZED SYSTEM AND DATA MANAGEMENT

NO WIRES AND ON COMPACT DEVICE, WHICH MAKES INSTALLATION HASSLE AND MISTAKE FREE



THANK YOU!

