

SPARK

Where Elite Connectivity Meets Unmatched Intelligence. Powered by NVIDIA Jetson Orin.

The ultimate bridge between the field and the command center - with absolute certainty.

Draco-SPARK™ is not just another portable IP encoder - it is the ultimate solution for professionals who refuse to compromise on transmission quality, speed, or security, regardless of field conditions. Built specifically for mission-critical environments, the system combines ultra-low-latency bonding technology with advanced AI capabilities running directly on the device.



The Core Pillars of Excellence

1 Unbreakable Connectivity: 5 Channels in Parallel

Never lose a single frame. SPARK creates a resilient data pipeline by intelligently bonding five independent networks:

- 4 built-in high-speed cellular modems
- 1 Gigabit Wired LAN port

Regardless of the operational environment, SPARK maintains continuous connectivity.

2 Sub-200ms Latency: Real-Time Control

In critical situations, every millisecond matters. SPARK delivers smooth, stable transmission with less than 200ms latency (among the lowest on the market), enabling immediate, precise, and reliable response from the command center to the field.

3 Edge Intelligence

Powered by NVIDIA Jetson Orin, SPARK is a rugged supercomputer in a compact form factor.

The system performs advanced AI analytics in real time, directly on the device - with no dependency on the cloud.

Field-proven AI capabilities:

- **BodyPoseNET**: Real-time human pose estimation for behavior analysis
- **PeopleNET**: High-precision detection and tracking of individuals
- **LPRNET**: High-speed, lightweight license plate recognition
- **NANOOWL**: Cutting-edge open-vocabulary object detection
- **Whisper**: Robust, high-accuracy speech-to-text for audio intelligence

4 Encrypted Closed Network - AES-256 End-to-End

Your data is your most valuable asset. SPARK operates over a military-grade encrypted P2P network, ensuring that video streams and control channels remain completely secure, without external dependencies.

5 Technological Superiority

- High-quality output: Crystal-clear video and audio up to 4K at 60fps
- Continuous streaming under extreme conditions with a proprietary protocol
- Support for Open Protocols for Integration: RTSP, SRT, and MPEG-TS
- Dual tunneling: Bidirectional data and control transmission simultaneously
- Global mobility: Rugged, compact design for rapid field deployment
- Advanced architecture: Built on NVIDIA Jetson platform for limitless future expansion

6 Server-Side Management Interface

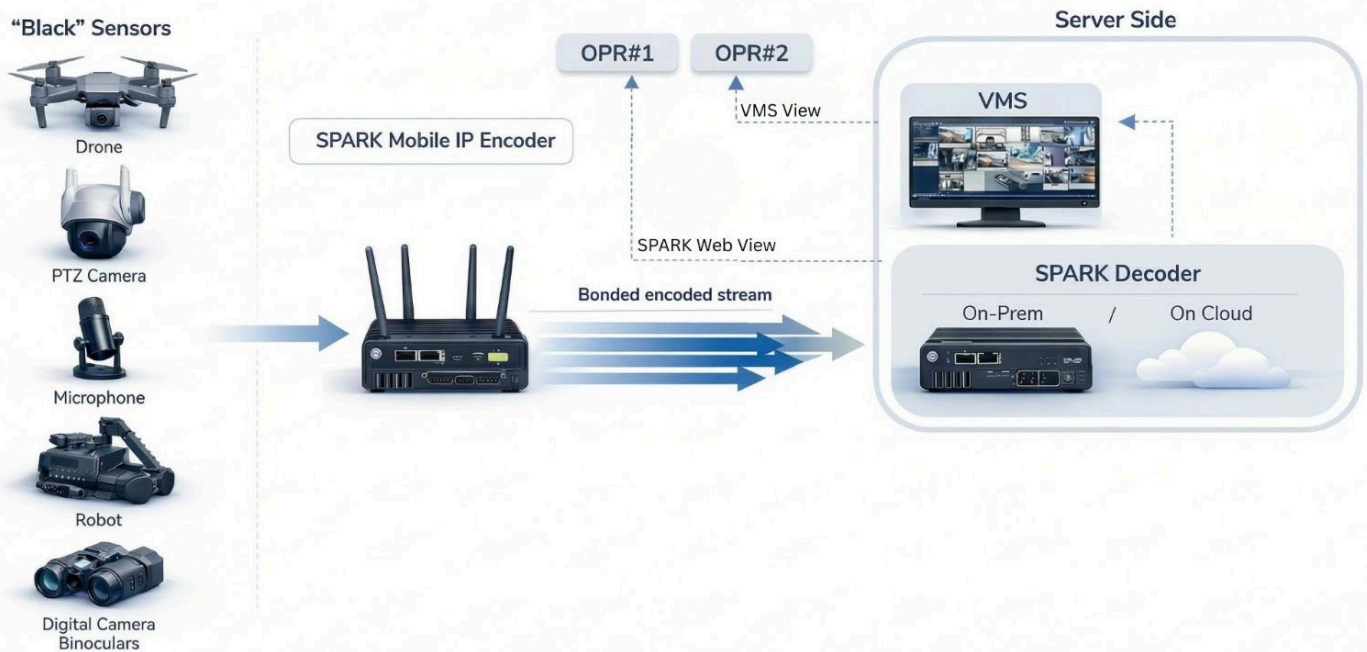
- Central control of edge units, users & permissions
- Real-time video & audio monitoring
- Smart insights from field operations
- Command streaming to field units
- Video recording for mission review

Process Flow

- 1 Sensor Connection**
The sensor (camera, microphone, drone, or other video source) connects to the SPARK Encoder unit via a dedicated video/audio interface.
- 2 Real-Time AI Analytics**
Real-time AI processing directly on the SPARK Encoder unit, including facial recognition, people tracking, scene analysis, speech-to-text, and more.
- 3 Transmission to SPARK Server**
The SPARK Encoder streams encrypted video, audio & analytics over a secure P2P protocol to the SPARK Server (Decoder). The SPARK Server can operate in the cloud or on local hardware (On-Prem), according to project requirements.
- 4 Monitoring & Control via Management Interface**
Content can be viewed and managed remotely via the server-side management interface.
- 5 Third-Party Platform Integration**
Seamless integration with external platforms (VMS, command & control systems, and more) for content display and operational workflows.

SPARK Flow

Real-time transmission from field areas



SPARK

