

Protect & Stream

Autonomous multi-stream real-time encryption interface

Use Cases

Confidentiality of internal communications

End-to-end encryption for internal videoconferencing as well as for the exchange of sensitive data or classified documents

Satellite and terrestrial communications

Secure and resilient transmission over high-latency networks or variable topologies

Drone systems

Simultaneous securing of multiple sensor and command streams, without reliance on external infrastructure

Key Features

Encryption of audio, video, control, transmission and telemetry streams

Multistream et multithread

A single and unified interface to secure all real-time streams

Automatable Translate Key

Dynamic modification of cryptographic signatures during transmission, without impacting the incoming stream

Actionable time-stamped logging

Trace function that can be enabled or disabled during an active session

Native synchronisation across streams

Resilience in mobile or degraded environments

Automatic adjustment in the event of IP address changes or network switching

Preservation of embedded clock integrity across streams

Performance

System

Low latency < 15 ms

Overhead < 2%

No bandwidth constraints

Operation ensured from a few kbit/s

No inherent range limitation

Operation guaranteed depending on the transmission medium used

Power consumption

3.5 W at 35°C

Sequential packet numbering

Ensures discontinuity detection and automatic retransmission of interrupted streams

In case of non-acknowledgement and/or absence of acknowledgement, the source immediately triggers packet retransmission

Architecture

Modular architecture integrating the INES* encryption engine and an independent transport layer

*French-developed solution capable of rapidly encrypting large volumes of data, resistant to brute-force and post-quantum type attacks

Integrable into existing systems via API

Compatible with network gateways, embedded equipment and control stations

Operates in standalone mode or integrated within a real-time processing chain

Technical Specifications

INES encryption French dynamic and randomised symmetric cryptography solution with high performance

Modes • MUX POLYMORPHIC
• MUX MONOMORPHIC

Control interface .ini File
Command line interface

Required plugin None

Stateless processing No temporary data stored

Protocols Agnostic

Resilience Transport layer 4 (ISO)

Operating systems Windows / Linux / iOS

