

Secure Motion Imagery Gateway

Exploiting and sharing motion
imagery across security domains

BAE Systems' new cross domain capability — the **Secure Motion Imagery Gateway (SMIG)** will enable line rate import or export of NATO STANAG 4609. Compliant with motion imagery data standards across security domains with intelligent metadata modification, redaction, and full frame rate video and audio.

At the heart of SMIG is BAE Systems' Field Programmable Gate Array (FPGA), which utilizes multi-level protocol break by terminating all network connections and directing transformed data through a secure processing pipeline. Globally deployed, the FPGA processing pipeline has multiple redundant, independent, non-bypassable filters applied to the dataflow. All of this is delivered in a single appliance.



Features and benefits

- SMIG supports a wide range of collaboration and motion imagery exploitation use cases for improved sharing across security domains.
- Interoperability within a unit enables customers to reduce rack space.
- SMIG offers full log and audit meeting Raise the Bar requirements.
- SMIG allows the sharing of motion imagery from a sovereign network to allies and coalition partners.
- Users can view motion imagery from a variety of sources on a sovereign network.
- Forward-deployed personnel can access motion imagery data from the U.S Government or coalition network.
- The sharing of motion imagery between government agencies and civilian emergency services or disaster recovery agencies is enabled through SMIG with real-time line rate metadata filtering.
- Secure collaboration and sharing of motion imagery between networks which have previously been air-gapped and siloed.

Version 1.0 features currently in development

Environment and connectivity:

- SFP modules (copper or fiber)
- 10/100/1000 Ethernet with auto-negotiation
- 1U 19" rack-mount
- 100 – 240V AC
- <200W
- CE and FCC (part 15) compliant
- Active tamper protection

Functionality:

- Import and export variants available
- Metadata inspection, modification, and redaction

Standards:

- STANAG 4609 (MPEG 2 with KLV metadata)
- Metadata conforming to MISB ST 0601.15 (Unmanned Air System)

Number of concurrent streams:

Resolution/ frame rate	60fps	50fps	30fps	25fps	24fps
FHD - 1920 x 1080	2	3	3	6	6
HD - 1280 x 720	3	6	6	6	6
ED - 720 x 576	6	6	6	6	6
ED - 720 x 480	6	6	6	6	6
ED - 720 x 483	6	6	6	6	6
SD - 640 x 480	6	6	6	6	6

Video resolutions (roadmap):
4k - 4096 x 2160 (60/30 fps)
8k - 8192 x 4320 (60/30 fps)

Supported codecs:

- H.264
- MPEG-2 Video
- MPEG-2 Audio (roadmap)
- H.265 (roadmap)

Supportability:

- Remote configuration, software and firmware upgrade

For more information contact:

BAE Systems
11487 Sunset Hills Road
Reston, VA 20190

T: 703 563 8149

E: cybersecurityproducts@baesystems.com

W: baesystems.com/csp

Cleared for open publication on **07/20**

Disclaimer and copyright

This document gives only a general description of the product(s) and service(s) and, except where expressly provided otherwise, shall not form any part of any contract. From time to time, changes may be made in the products or the conditions of supply.

BAE SYSTEMS is a registered trademark of BAE Systems plc.
©2020 BAE Systems. All rights reserved.

ES-C4ISR-072020-0142
CS-20-D08