

Nexor ISTAR Gateway

Force Protection is a key objective for the MOD today. The ability to connect disparate networks – often belonging to different coalition forces – and share information securely is a major enabler to meeting the objective by increasing commanders' situational awareness and informing the decision making processes.

Successfully accredited for demonstration as part of the UK MOD Force Protection programme at Empire Challenge 2009 and 2010, the Nexor ISTAR Gateway enforces security policy at the domain boundary. The EAL7+* Nexor Data Diode guarantees one way transfer of information from a lower classified domain, for example RESTRICTED, into a higher classified domain, such as MISSION SECRET. The diode ensures no information is released back from high to low. The information that flows from low to high is controlled using the Nexor Guardian data guards, which can check a variety of contents such as video clips, still images and track data to ensure the content is formatted correctly and does not include any malicious data.

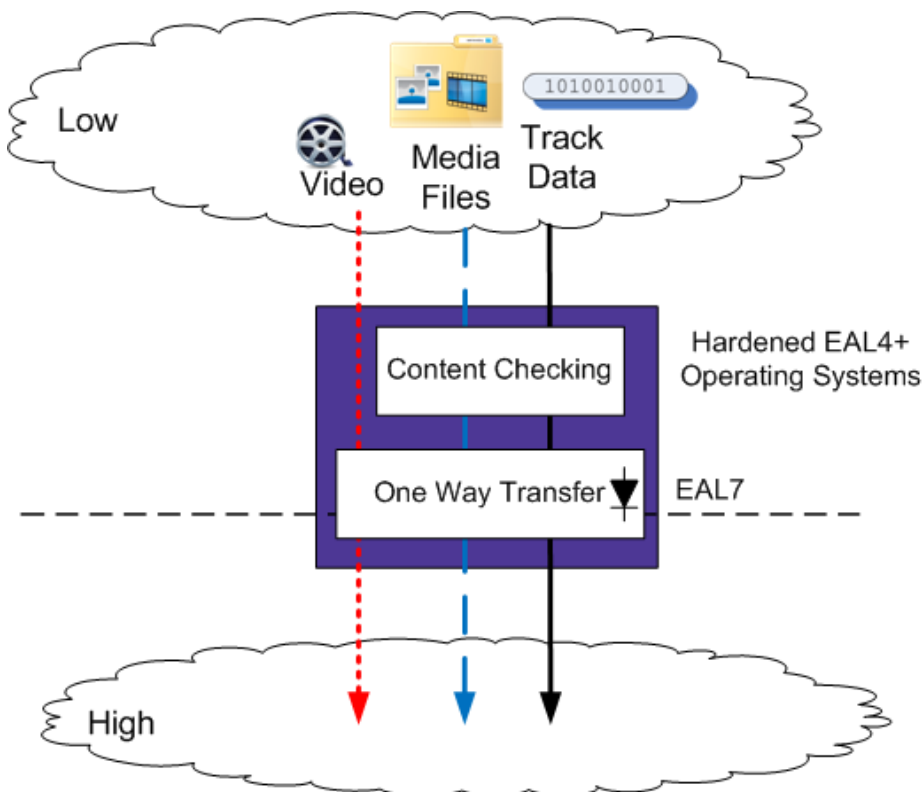


Figure 1: The Nexor ISTAR Gateway Architecture
Guaranteed one-way data transfer with content checking

Accreditation

Implementing this form of interoperability capability brings with it the requirement to assure the confidentiality, integrity, availability, authentication and non-repudiation of information (Information Assurance, or IA). It is essential to meet the stringent IA requirements to gain the accreditation necessary to deploy the systems. Nexor's track record in developing accreditable, deployable solutions relies on IA being built in from the early design stages in close co-operation with the accreditors.

Benefits

- Secure cross-domain interoperability:
 - Enhanced situational awareness
 - Improved decision-making.
- Scalable and flexible functionality to suit specific local requirements
- Developed with accreditation in mind
- Tried and tested on exercises in harsh conditions.

* EAL7+certificate issued by TNO in The Netherlands

connect transform protect

NEXOR®

“Exemplary performance at Empire Challenge 2010.”

John Dickinson, DES PTG-TD-C4ISTAR2

Data Handling

At a detailed level, the Nexor ISTAR Gateway handles:

Full Motion Video	Multiple live video streams
	H.264 video wrapped with Predator meta data
Secure File Transfer	Multiple destination file transfer across the gateway using Secure Copy (scp)
	Detailed content checks of the file
MPEG video clips	H.264 video clip with Predator meta data
	Meta data checked for valid content
JPEG Stills	JPEG with MMS meta data
	Meta data checked for valid content
Streamed Track Data	Multiple live track data streams
	Cursor on Target (XML) format
	Track data checked for valid format and content

Deployment Profile

The Nexor ISTAR Gateway is a self-contained solution delivered in a ruggedized flight case incorporating a series of appliances including the Nexor Data Diode and Nexor Guardian data guards.



Figure 2: The Nexor ISTAR Gateway
A robust, integrated solution combining Nexor guard and diode technology

Nexor Solution Service

Nexor provides a fully managed project service to:

- Assess and document the requirements for the ISTAR Gateway
- Design the architecture and select appropriate components
- Work with the accreditor and satisfy accreditation requirements
- Integrate existing technology components and interfaces
- Develop new interfaces for new 3rd party products
- Develop new content checks where no product exists
- Conduct factory and user acceptance tests.

Contact info@nexor.com for further details.

www.nexor.com