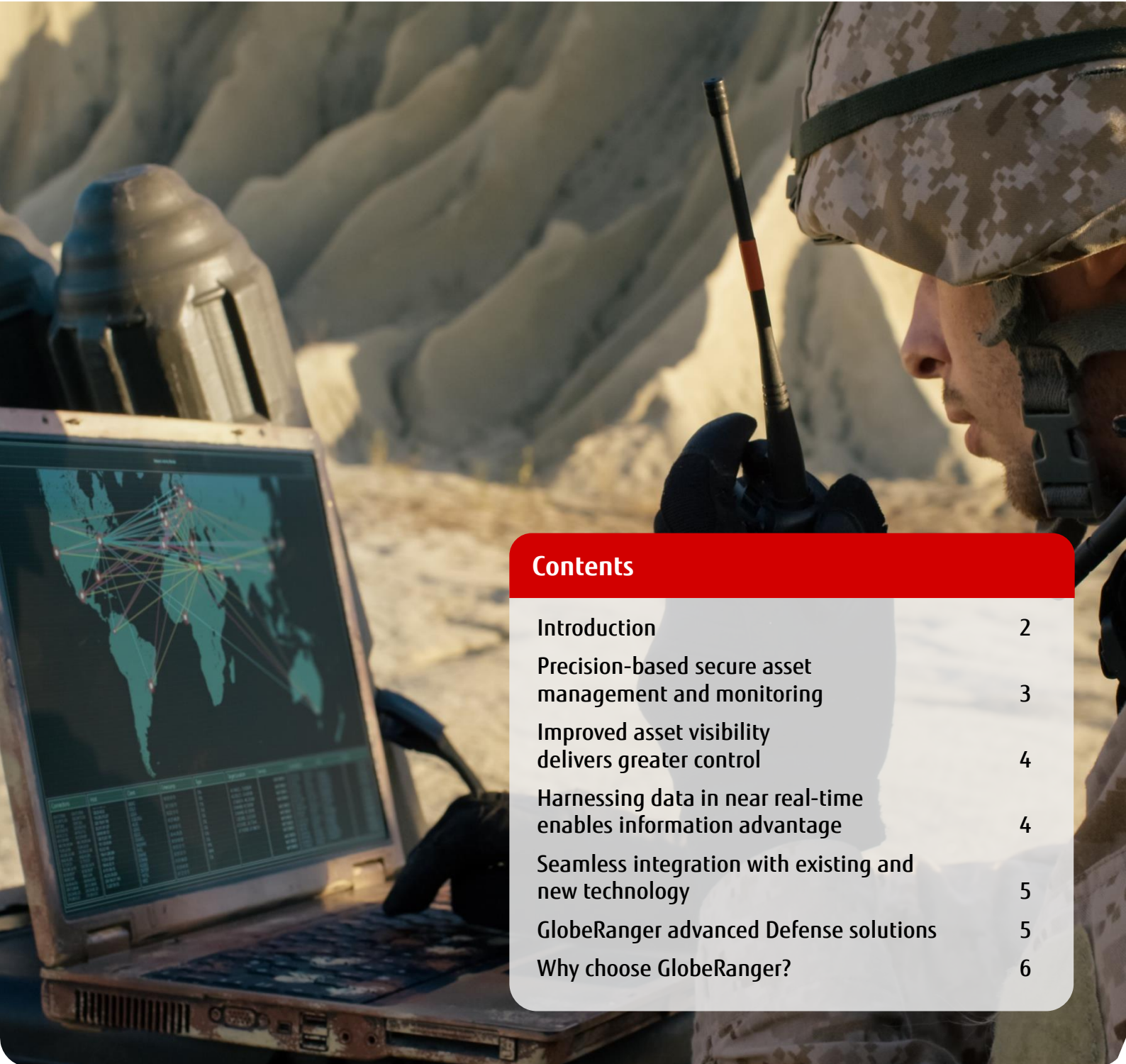


# Advanced Solutions for the Defense Industry

## Secure Asset Management and Storage



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## Near real-time monitoring enables the secure management and control of your most critical assets

The ability to securely manage and control assets like small arms stocks and other munitions and make them readily accessible to the correct people is a critical requirement for Defense and National Security. Regardless of whether your assets are stored singularly, in small batches in a locker or in larger stocks like formal Armories, you need the capability to track and control every asset.



## Precision-based secure asset management and monitoring

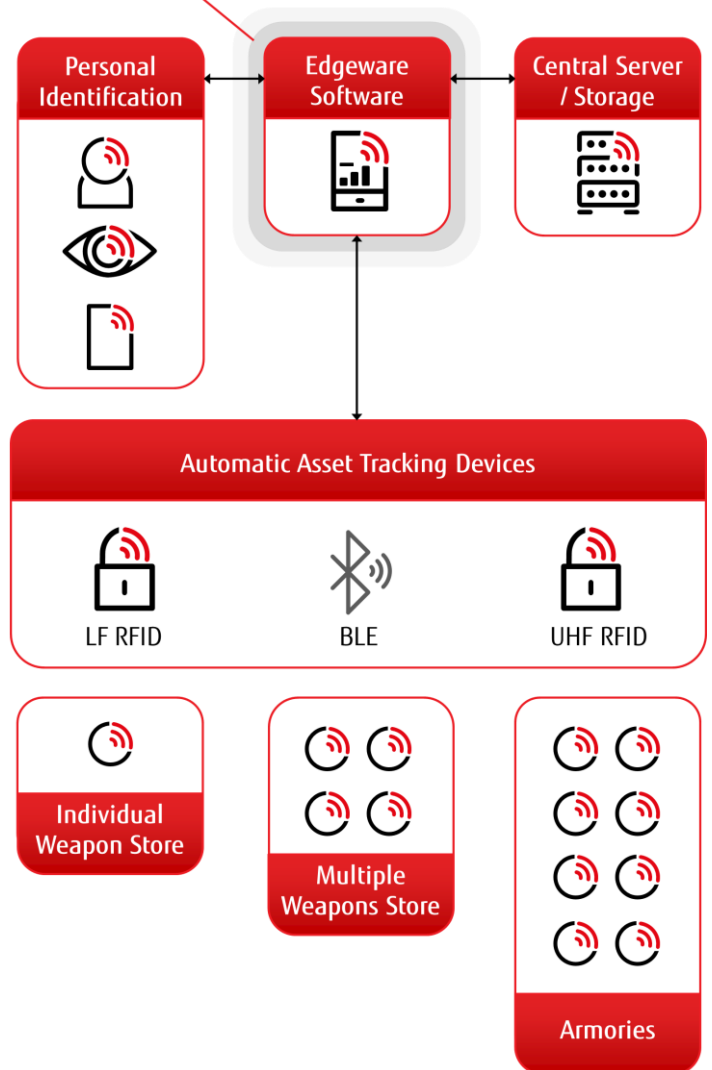
GlobeRanger understands this environment intimately. Our iMotion™ IoT enablement and asset tracking platform can help to improve the visibility of assets throughout the supply chain by managing data from multiple sources, including RFID tags, M2M devices, IoT (Internet of Things) enabled devices, ERP and other enterprise applications.

iMotion enables precision-based, near real-time monitoring and secure management of assets, so you can be confident that every asset issued is in the hands of the correct person and can be accurately tracked and traced until it is returned. GlobeRanger iMotion provides a completely reliable audit trail, delivering the capability to:

- Collect information from devices and sensors monitoring assets, like small arms
- Apply appropriate context to generate meaningful information
- Provide a multitude of secure weapon monitoring / management solutions
- Audit any asset inventory at any time
- Provide a highly secure, ruggedized locker storage facility, if required
- Integrate with existing systems across different security domains.

GlobeRanger's highly configurable iMotion platform lets you choose what data will be communicated back to your host systems for analysis and archiving. iMotion gathers, filters and processes data from this sophisticated network of devices and sensors located on assets throughout your organization's value chain. Flexible data collection and processing at the edge allows organizations to filter input so they can manage by exception and receive near real-time notification when user-determined thresholds are neared or breached.

Combination of User ID and Weapon ID tested.  
Weapon not released if test fails



## Improved asset visibility delivers greater control

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GlobeRanger's iMotion solution seamlessly matches the individual's identity details to their personal access level, as defined by your business rules and parameters. This ensures the right assets are allocated to the correct individuals on production of their identification. In doing so, the management of assets becomes more streamlined and precise, particularly in the allocation of small arms and weapons. Small arms managers have much greater visibility and can perform an audit at any time. They instantly know exactly where every weapon is, to whom it has been issued and where it has been.

Where assets are stored in single storage lockers, only the appropriate locker can be unlocked for access to take or return an asset by individuals on production of their identification. In the case of small arms, where a multiple weapon store or Armory is used, the weapon taken or returned is validated with the identified user. Once verified, an issue or return record (as appropriate) is generated, providing a complete audit trail for that weapon.

This issue or return activity can be initiated simply by the user, either by presenting their ID card or by using biometric validation, such as palm vein or finger-print recognition. A combination of both can also be used to further strengthen security. The system will then know the range of actions the user is authorized for, based on their current profile, and offer a return and/or issue activity. In the event of an unauthorized person attempting to gain access to a particular locker or store, an alert is generated to prevent the action continuing.

As well as the tracking solution software and devices, GlobeRanger can also provide a highly secure, ruggedized and networked locker storage solution, delivered as a fully managed service. The container is highly configurable and can be tailored to a customer's specific requirements, which may be determined by the nature of the assets being stored and traced.

## Harnessing data in near real-time enables information advantage

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GlobeRanger's iMotion platform has been designed to truly enable an organization's business processes and decision-making. Capturing and sharing error-free data and translating it into insightful information with context delivers near real-time intelligence that enables trusted and highly informed decision-making.

iMotion automates data capture from a wide range of Automated Identification Technology (AIT) readers and sensors, like barcodes, RFID and NFC (near-field communication) tags or IoT devices that are associated with each individual asset. These tags are small, discrete, and can be applied to practically any small asset that is considered important enough to be tracked and traced.

Any type of sensor technology can be implemented, to suit the individual assets being tracked ensuring a comprehensive infrastructure to control devices, manage networks and transform data to optimize business processes. The solution is completely hardware independent and can implement readers and devices from any supplier to match the specific requirements of an asset. They can be encrypted to protect sensitive data from compromise as the asset moves through the support chain. Here are just three potential applications of iMotion:

- **Personnel tracking and weapons association**  
Deployed troops can be associated with specific weaponry, and the two items tracked simultaneously. If the associated items become separated by a certain distance, an alert can be sent to Command and Control for them to take corrective action. Likewise, contractors working on secure sites can also be tracked to ensure they do not stray from their permitted work area.
- **Audit trail for confidential documentation or evidence**  
The discrete nature of the GlobeRanger tagging devices enables Intelligence Services to accurately track and trace confidential documentation and supporting evidence. Important documents and items of evidence can be stored in secure lockers and only released to personnel with the requisite identification. This ensures Intelligence Services have the capability to understand precisely who has taken and returned the items, providing a reliable, rigorous audit trail.
- **Effective environmental monitoring of munitions**  
By monitoring the environment of munitions in storage and in transportation it is possible to move from a relatively crude maintenance regime to a more advanced on-condition or even pre-emptive maintenance scheme based on environmental data received from tracking devices. Making use of GlobeRanger iMotion technology enables an asset's environmental history to be compared with predefined exposure limits, allowing the asset to be continually monitored over time.

## Seamless integration with existing and new technology

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Safety and efficiency depend on knowing where essential assets, tools and supplies are at all times. GlobeRanger provides customers with the key components and experience needed to identify and track all types of items in a wide range of operating conditions. RFID tags can be embedded or attached to assets, tools and equipment to authorize self-service checkout and provide automated, near real-time location tracking.



## GlobeRanger advanced Defense solutions: Near real-time monitoring enables the secure management and control of your assets

GlobeRanger's iMotion solution provides a single, scalable platform to enable you to easily track and manage any assets, delivering the capability to provide near real-time accountability and end-to-end visibility:

- » Precision-based secure asset management and control ensures the right assets are allocated to the correct individuals on production of the appropriate identification
- » Assets can include any items of importance that can be easily tagged using any one of a wide range of Automated Identification Technology (AIT) readers and sensors
- » Easily incorporates asset management information into your existing legacy systems and business operations providing accountable visibility
- » Easily create business processing rules, trigger notifications and alerts, manage exceptions and generate a wide range of near real-time reports
- » Provide an end-to-end view of both inbound and outbound transactions within your weapon storage facilities
- » Seamlessly integrates existing and new technologies, preserving past investments while enabling new edge applications.

## Why choose GlobeRanger?

GlobeRanger IoT and asset tracking solutions are flexible and scalable, and our end-to-end implementation service means you can start small and realize value early in the solution deployment. And being hardware independent, we match best-of-breed devices, sensors and RFID tags to your requirements.

GlobeRanger delivers rapid time-to-value. Our patented emulation technology allows us to architect, design and implement solutions in days or weeks. By focusing on our customer's specific needs and requirements we can create early wins that enable our customers to meet or exceed their business case and ROI expectations.



### GlobeRanger – improving the visibility of our customer's operations since 1999

GlobeRanger was founded in 1999 to help organizations improve the visibility of their business operations. Using a combination of our technology platform and years of specialist experience, we simplify the development, deployment, and management of IoT technology and sensor-based solutions. Today, we are widely recognized as an industry leader in IoT enablement and RFID-based asset tracking solutions. As an end-to-end solution provider, we work with our customers across a broad range of industries to deliver the most reliable, scalable, and flexible enterprise edge solutions, at the lowest cost of ownership.

Our innovative approach was strengthened further in 2014 when GlobeRanger was acquired by Fujitsu.

GlobeRanger's solid grounding in IoT enablement and asset tracking solutions now benefits from the backing of one of the world's largest technology firms. Worldwide support and access to a \$1.6 billion annual R&D budget has helped us to retain our agility to move quickly and spearhead the latest industry developments.

Leveraging Fujitsu's global footprint and financial strength, Fujitsu and GlobeRanger collaborate to bring best-in-class solutions for industrial IoT and manufacturing, distribution and logistics, aviation, defense and many other industries. The combination of Fujitsu's financial strength and industry knowledge combined with GlobeRanger's IoT and RFID expertise bring our customers the high value, low risk solutions they need to transform their organizations.

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