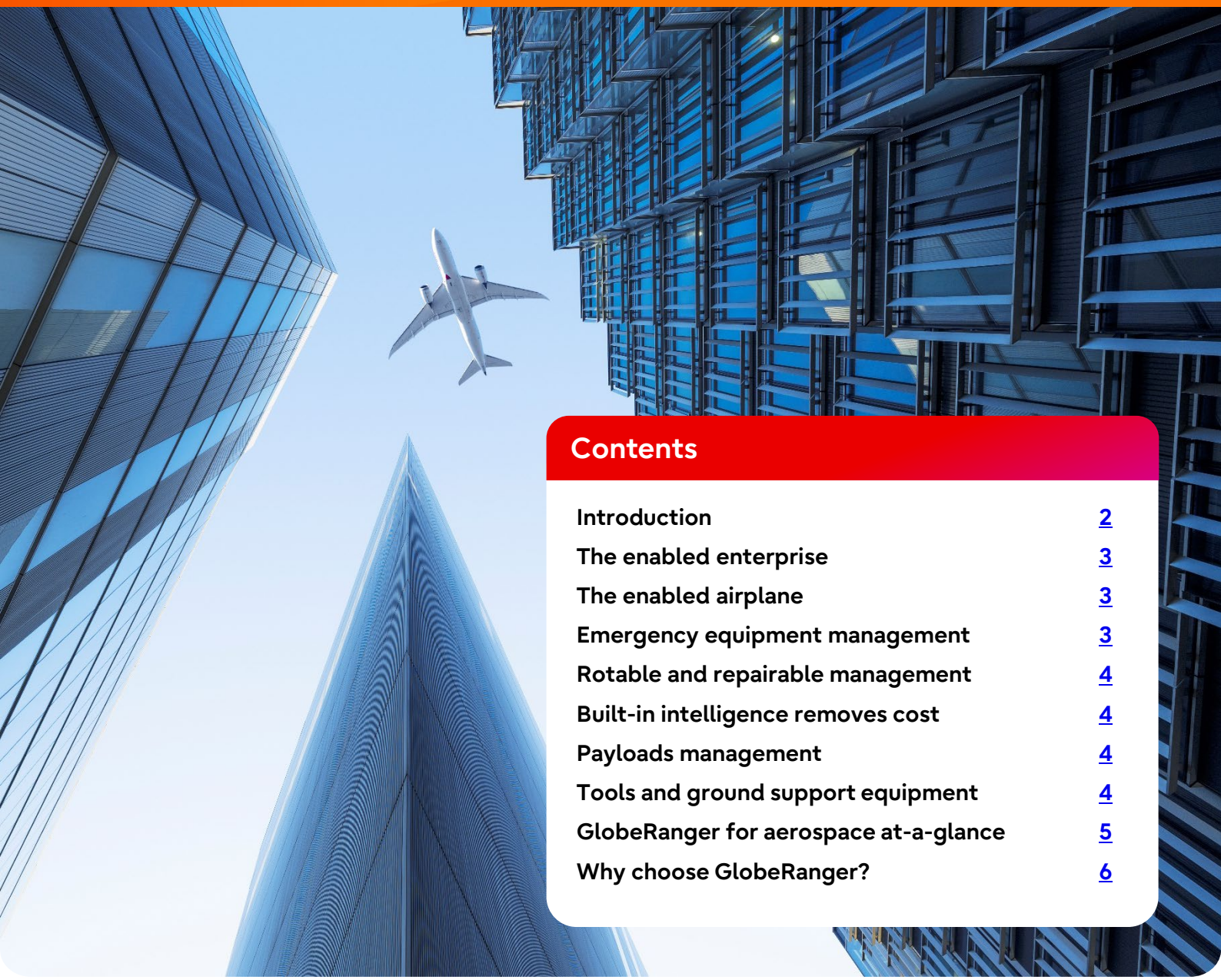
GLOBERANGER
a Fujitsu company

Advanced solutions for the aerospace industry delivering significant cost and efficiency improvements

Leveraging AIT and M2M-enabled business solutions for airlines, MROs and OEMs



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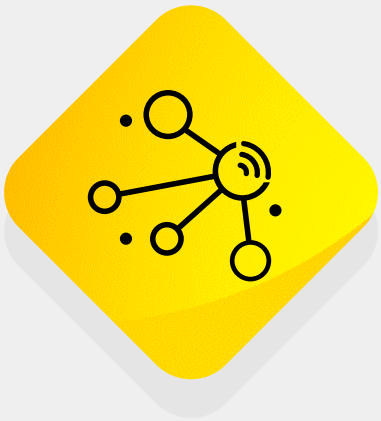
In an industry that depends on timely data and decision making to keep planes in the air, outdated and unreliable information systems can leave the fleet in an inefficient holding pattern.

GlobeRanger IoT and asset tracking solutions help the aerospace and aviation industry achieve unprecedented levels of efficiency and safety. Providing fast, accurate and reliable information, coupled with near real-time visibility drives this efficiency, while informed decision making realises significant cost improvements.



GlobeRanger's industry-leading **AIT** (Automatic Identification Technologies) solutions support all aspects of the aerospace industry including MRO, inventory management and supply chain integration. Here is how GlobeRanger is helping solve some of the most persistent and pressing problems across the aerospace and aviation industries on a day-to-day basis:

The enabled enterprise

Aerospace and aviation organisations are dealing with a growing inventory of rotable spares, expendables, consumables, and a general lack of visibility throughout the value chain. GlobeRanger's **iMotion™** IoT enablement 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™ helps optimise processes and eliminate redundant tasks, which significantly reduces lead times and labour costs for maintenance, inspection, reporting, inventory management and other day-to-day activities.

GlobeRanger can help build the **foundation for improved visibility** by AIT-enabling parts, components, tools, equipment and other assets. We have a complete range of AIT sensors, readers and supporting software specifically engineered for aerospace industry requirements, including high-memory tags that support Spec 2000 data formats for parts tracking. We also offer complete tagging and consulting services and can configure our software solutions to run independently or integrate with your existing IT infrastructure.

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 organisation's value chain. Flexible data collection and processing at the edge allows organisations to filter input so they can manage by exception and receive near real-time notification when user-determined thresholds are neared or breached.

Your business rules determine what you want to monitor, what data you receive, when it should be reported and the automated responses and alerts the system should make. Having actionable information can make the difference between planned and unplanned downtime and associated costs.

The enabled airplane

GlobeRanger's ATA Spec 2000 compliant asset tagging and management solutions enable individual or groups of aircraft components to communicate identity, location, serviceability, maintenance history and other information. As a result, elimination of wasteful maintenance processes and an increase in throughput are achieved. AIT-enabled maintenance replaces lengthy manual and visual processes to enable Instructions for Continued Airworthiness (ICA) compliance. iMotion-supported applications and devices can function whether or not there is network connectivity, allowing completion of assigned tasks at anytime.

Emergency equipment management

GlobeRanger's solution makes inspecting emergency equipment a hands-off process. Instead of manually handling each piece of equipment, technicians can simply walk through the aircraft with a mobile RFID reader. It will automatically confirm that emergency equipment is present and serviceable, alerting if anything is missing. The solution reduces emergency equipment management time from hours to minutes.

Rotable and repairable management

GlobeRanger's rotable and repairable management solution enables near real-time locating and chain of custody tracking of serialised rotable components, and other high-value aircraft parts. From the removal of the component to its reinstallation on the aircraft, every handoff in the value stream is captured, timed and reported to give unprecedented supply chain visibility.

GlobeRanger drives maintenance process efficiency by creating a 'pull' production system. When a part is removed from the aircraft, messages are sent to stakeholders alerting them of status changes, as required. This enables maximum utilisation of required assets, and the disposition of those that are not needed.

Built-in intelligence removes cost

GlobeRanger's aerospace solutions are a culmination of 10 years of collaboration with major airlines, aircraft and component OEMs, technology standards organisations and aviation regulatory authorities. Our real-world experience along with our highly configurable and scalable software solutions and tools enables solutions to be created and integrated very quickly, which minimises deployment cost.

To enable quicker deployment and time to value, GlobeRanger offers a suite of prebuilt applications and development tools. GlobeRanger's Visual Device Emulator simulates real-world behaviour of tags, readers and sensor devices providing the ability to model actual deployment scenarios prior to equipment purchase. This eliminates the dependence on physical hardware for development, testing and integration of RFID systems.

Payloads management

Tracking tens of thousands of items of passenger luggage and other aircraft payloads from the first change in custody to delivery back to the customer is accurately and effectively managed. Custom notifications can include the customer in every step of the process.

Tools and ground support equipment

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 authorise self-service checkout and provide automated, near real-time location tracking.

GlobeRanger aerospace solutions can provide location and status of required items, issue alerts, track utilisation and optimise inventory, process improvement and sustained operational efficiency. 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 optimise 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.

GlobeRanger for aerospace at-a-glance

Advanced solutions for the aerospace and aviation industries that leverage AIT and M2M-enabled business solutions for airlines, MROs and OEMs, delivering significant cost and efficiency improvements:

- **Optimise facilities with better visibility of key inventory and asset utilisation**
  - Enable better logistic decision support
  - Maximise facility and resource utilisation
  - Optimise asset and material inventories
- **Maintain the aircraft and its configuration more efficiently at lower cost**
  - Improve maintenance efficiency
  - Built-in intelligence removes cost

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GlobeRanger simplifies and speeds up the development, deployment and management of Asset Tracking Solutions to connect organisations to the Internet of Things in weeks, even days.

Our story from pioneer of Automated Identification Technologies in 1999 to market leader in IoT-enabled Asset Tracking, Management and Decision-making Solutions today has at its heart a simple but proven principle.

The digital evolution of our customers' organisations doesn't have to be complex, time-consuming, risky or costly – it simply starts with knowing where their assets are.

Using our proprietary iMotion™ platform and suite of applications, we choose best-of-breed devices, sensors and RFID tags and draw on our global experts to connect our customers' physical assets to their digital systems.

Then we help them turn their organisations into flexible, scalable and reliable connected ecosystems that deliver unexpected value.

In the short term, our focus is on early wins to meet their business case and ROI targets. In the longer term, our aim is to help them evolve in a carefully structured risk, cost- and time-managed way to take their share of the fast-growing IoT market, estimated to be worth $25 trillion by 2025.

Today that means delivering to our customers real-time visibility of their assets, more efficient end-to-end operations, optimisation of their processes, and proven accountability.

Tomorrow, that means enabling deeper organisational insight through asset data collection and analysis, opportunity mapping to transform the organisation, faster connectivity by integrating 5G, automated decisioning by integrating AI and unalterable ESG reporting by integrating blockchain.

After all, with the backing of Fujitsu, one of the world's largest technology groups, GlobeRanger has the financial strength, worldwide support and access to a $1.6 billion a year R&D budget we need to invent the future of your connected organisation, every day.

Welcome to your digital evolution

To find out where to start, and where your connected business can take you, visit GlobeRanger.com

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