

# End-to-End Support Chain Visibility

## Delivering End-to-End Visibility Across Military Support Chains

Achieving a single, trusted, view of your available assets is a huge challenge, given the complexities involved in military support chains. Delivering comprehensive and effective end-to-end visibility depends on the timeliness and quality of data. It also relies upon how this data is appropriately shared between stakeholders, with unambiguous performance measurement and diagnostics. Fujitsu can deliver this capability using its proven Edgware technology.



Developed by GlobeRanger, a wholly-owned subsidiary of Fujitsu in the United States, Edgware harnesses data about real world events and transactions occurring at the edge of traditional ICT environments. It automates data capture from Automated Identification Technology (AIT) readers and sensors, such as barcodes, RFID tags or IoT devices that are attached to assets. Legacy AIT devices can be utilised so there is no need to discard investment in existing data acquisition devices.

### **Agile, cost-effective pathway to sharing error-free data**

Edgware connects the AIT devices, records transactions and routes them to an end-to-end data repository and other stakeholders' systems. Allowing the same information to be written once but used many times provides an agile, cost-effective pathway to sharing error-free data critical to support chain stakeholders. Automated capture and translation of this data into insightful information with military context delivers real-time intelligence that enables highly informed operational and support chain decision-making.

Fujitsu's end-to-end data repository stores the data and builds a comprehensive record of relevant support chain transactions, effectively time-stamping every asset on its journey. The data is analysed and presented via user-defined support chain performance metrics. Alternatively, the data can be routed to existing business intelligence tools and systems, protecting investment in both systems and intellectual property.

### **Satisfying mutual interest in successful support chain outcomes**

The provision of end-to-end support chain visibility is intended for use whenever the military and its service providers have a mutual interest in successful support chain outcomes. But in the past, the expense of investing in new infrastructure and applications, the cost and complexity of ERP and middleware solutions, poor data quality and implementation risks have created significant barriers to achieving this end-to-end view.

The increase in partnering agreements and the advent of more advanced contracting mechanisms such as Contracting for Availability (CfA), Contracting for Capability (CfC) and Performance Based Logistics (PBL) makes the business case to overcome these issues far more compelling. Poor data quality adds risk to the service provider which is then reflected in higher contract prices. Issues with data accuracy and timeliness undermine trust and good decision making, thereby diverting management attention from performance improvement.

### **Enabling a single, trusted view of your entire support chain network**

Military support chains are complex. There are many stakeholders, each of whom will be the owner of data and information needed to provide a holistic view of the distribution and performance of the assets within the support chain. So, while each stakeholder will have a clear view of assets in its own domain, a trusted and incontestable end-to-end view of status and performance is still needed for support chain partners to deliver their objectives.

In such arrangements, trust and confidence in the support chain data is paramount if risk premiums are to be reduced and valuable management time is not to be diverted to reconciling performance inconsistencies or managing the contract. Fujitsu's end-to-end support chain visibility solution protects any existing investments in ICT infrastructure as changes to legacy systems are not required. The software platform seamlessly integrates existing and new technologies, preserving past investments while enabling new edge applications.

Meanwhile, automated, real-time data capture addresses the data quality issue, ensuring error-free data that is shared with stakeholder systems right across the support chain – not just within an enterprise. The result is a single version of the truth, accessible and acceptable to all support chain stakeholders.

### **Enabling effective environmental monitoring of equipment and munitions**

Asset managers need to be able to assess the condition of the items which they are managing. In general, pieces of equipment have a specified set of storage conditions under which they are expected to retain maximum effectiveness for the full term of their design life. These conditions will typically include temperature and humidity. Breaching these conditions can have an impact ranging from a slightly reduced life, through a significantly increased risk of malfunction, to an absolute loss of capability. Similarly, pieces of equipment will have transport related conditions to be adhered to, like vibration and shock limits.

Without a monitoring system in place, in many cases Asset Managers have to take a "worst case" view which can lead to higher through-life costs, as items are withdrawn from service prematurely to safeguard against equipment failures. Making use of Fujitsu Edgeware technology to compare an asset's environmental history with predefined exposure limits allows the asset to be continually monitored over time, and for checks to be made and alerts raised at times of transition, or as part of normal inspection routines.

Utilising Edgeware technology, a robust combined sensor, data storage and RFID package can be mounted inside the shipping and storage container for a particular asset. This will be subject to the same environment that the asset experiences. The environmental history is automatically read at any time of scanning the container and the user notified of any alerts generated if certain parameters are breached. The collected data is sent to a central Asset Management System to allow the Asset Manager to review the situation and inform decisions as a result of real exposure history data.

### **Dynamic asset management, from factory to battlespace**

Such dynamic asset management enabled by Edgeware is a key component in providing the end-to-end view of the military support chain, from the factory to the battlespace. Linking together trusted information relating the material flow of assets as well as their maintenance and condition, enables both financial accounting and strategic planning decisions to be taken with confidence.

This dynamic approach to asset management not only provides information on condition monitoring and support, current location and movement of traditional assets, but now also includes high value living assets such as military personnel. The end result is a lower cost of ownership of all military assets and resources throughout the support chain.

### Delivering end-to-end visibility across military support chains

Fujitsu's Edgware-based approach provides a single picture of the military and industry support chain landscape based on accurate and timely data, drawing on events as they occur. This end-to-end visibility enables information and data to be shared with support chain stakeholders across the industry while protecting commercial confidentiality:

- Automated **real-time** data capture from a wide range of AIT readers and sensors, like barcodes, RFID tags and IoT devices improves data timeliness and accuracy
- Existing ICT investments are protected by utilising legacy AIT devices while seamlessly **integrating** with existing infrastructure, software and systems
- Data repository stores the data and builds a **comprehensive** record of relevant support chain transactions, effectively time-stamping every asset
- Creates a **single version** of the truth based on the common data, visible to all support chain stakeholders, both within the military and the wider industry
- Improved data **accuracy** and **timeliness** enables better decision-making and reduces contract risk and associated costs
- Improved data **quality** allows management effort to concentrate on improving **performance** rather than reconciling different views of the support chain.

## Why Fujitsu?

For over 50 years we have innovated with the MOD, Government Departments and intelligence communities, co-creating new technologies and capabilities. As a result, Fujitsu has around 4,000 security cleared staff and the experience to deliver and manage both generic industry offerings and those tailored to specialist needs at OFFICIAL, SECRET and ABOVE SECRET classifications.

### Enabling Your Information Advantage

In today's complex, digital operational environment, never before has information been such a key asset in securing operational advantage. Fujitsu's vision is to provide customers with the means to translate complex data into useful information upon

which to base critical decisions and actions. Transforming this ever-increasing pool of data into meaningful, useful information through analytics, automation and genuine Artificial Intelligence is critical to achieving this goal.

Fujitsu is fully committed to working closely with our customers, and through the use of co-creation will seek to enhance capability both through the acceleration of existing processes, and also through the delivery of truly new capabilities and ways of working. Our approach is based upon maximising both existing investment and best-in-class innovation, delivering the full spectrum of capabilities needed to enable your information advantage.

Human Centric Innovation

Driving a Trusted Future

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