

# Fujitsu Global Defence Initiative



**Information**  
the real force multiplier

Fujitsu's Global Defence Initiative (GDI) enables us to harness our global information communication and technology (ICT) capabilities and defence experience to meet the specific needs of the Defence and National Security sector around the world. The result is a comprehensive suite of solutions specifically designed to meet the requirements of today's global battlespace.

Working in close partnership with defence departments across Europe, the Middle East, India, Africa, Asia Pacific, Canada and the USA, we demonstrate a portfolio of products and services extending from defence information infrastructure, through hosting and network services to Automated Identification Technology (AIT) and sensor technologies. Moreover, our commitment to military deployed infrastructure is unrivalled among ICT companies. Fujitsu provides the same high level of support to Defence and National Security customers wherever they are, be that in the office, at headquarters, on the road, on foot, at sea, in the air or in combat theatres.

Fujitsu's Global Defence Initiative (GDI) has two key elements:

- Firstly, it aims to harness the global capabilities, technologies and products from the Fujitsu group of companies which are defence related or have defence applications, and take them to market as appropriate to the rest of the world.
- Secondly, it has a global remit to lead Fujitsu's presence as a global provider of services and capability to the multinational Defence and National Security sector.

As a result of this initiative, Fujitsu has the capability to deliver cost effective, innovative solutions specific to the Defence and National Security sector. We do this either directly or in close partnership with Defence-specific vendors and Original Equipment Manufacturers (OEMs) utilising best of breed, commercial off-the-shelf (COTS) products. Our aim is to contribute to, and support, global security with stable, secure and innovative ICT solutions with full lifecycle support. In so doing we're enabling information to deliver a real Force Multiplier effect that dramatically increases the efficiency and effectiveness of limited assets and resources.

#### Fujitsu's global defence capability at a glance:

- Global community of 3,800 staff worldwide
- Operating in 36 countries
- Leveraging defence services, technologies and solutions from across the Fujitsu Group around the world via multiple Centres of Excellence
  - Japan
  - United Kingdom
  - Australia
- Fujitsu GDI customers include:
  - MODs/DODs
  - Intelligence Agencies
  - Homeland Security Agencies
  - Defence Contractors.



shaping tomorrow with you

**FUJITSU**

### **GDI Technologies and Solutions in action**

Here is a selection of some applications of our technologies and solutions currently being deployed for our Defence and National Security customers around the world:

#### **Rapidly deployable secure command information facility**

Fujitsu has developed a rapidly deployable secure command information facility (SCIF) as a robust alternative to tented operations. The unit can be pre-configured to exacting requirements and is based on a standard shipping container, making it easily transportable via land, air or sea. Once the container has been sited, it can be rapidly deployed into a fully functioning operational facility that provides significantly more flexibility, security and comfort than a tented operation. The ICT equipment installed is housed in a more appropriate environment, including a dedicated server room with built-in cooling requirements, ensuring it can work at its optimal performance.

#### **Sophisticated support for today's maritime operations**

The advent of the global battlespace and the dramatic rise in immigration issues have exacerbated the challenge for defence departments around the world to protect their national security. This landscape has placed a far greater level of importance in a nation's ability to protect its maritime space. In recognition of this challenge, Fujitsu has developed a range of sophisticated solutions to support modern-day maritime operations. Such solutions have the ability to enable information to significantly increase the efficiency and effectiveness of limited assets and resources.

##### ■ **Automatic Vessel Surveillance System (AVSS)**

Using infrared technology Fujitsu has developed an Automatic Vessel Surveillance System (AVSS) for use by military patrol aircraft (MPA) to identify ships and other surface vessels. Unlike line-of-sight capability, AVSS has the capability to identify and recognise vessels from a greater distance and through mist, fog and other adverse weather conditions. The technology picks up heat signatures that are given off by the vessels and their crew. This information is then collated against a database of known vessels by command and control to deliver an improved common operating picture for everyone involved in the mission.

##### ■ **Tactical Air-Operation Command System for Military Patrol Aircraft (TACS-M)**

Ensuring all parties involved in maritime operations have a shared view of the environment in which they are operating is a crucial requirement to support trusted decision-making. Fujitsu's Tactical Air-Operation Command System (TACS) for military patrol aircraft is an onboard command and control system that links the MPA with ground control. TACS enables the MPA to share mission data in real-time with both other surveillance aircraft, and command and control units to deliver a rich situational awareness. Pilots flying the surveillance missions and command and control personnel located on the mother ship, or thousands of miles away at a land base have secure access to the common operating picture.

##### ■ **PRIMETUNE Servers**

Fujitsu has developed its PRIMETUNE range of high performance, compact servers specifically for confined spaces, like the maritime environment. The PRIMETUNE range are half the size of

conventional servers, yet still deliver the same high performance and high levels of reliability of comparable models. Available in rack mounted and blade configurations, PRIMETUNE servers are rugged, robust systems built to withstand the high levels of shock and vibration, as well as large variations in temperature and humidity that they are likely to encounter in the maritime environment. Yet their low power consumption means they have reduced cooling requirements compared with conventional servers.

##### ■ **Gallium Nitride (GaN)**

Fujitsu is developing the use of Gallium Nitride (GaN) chips as a replacement for silicon. GaN is a wide-band-gap semiconductor that has excellent features, such as high frequency, high power output and high temperature operation, compared with other materials. It possesses an excellent and compact solid state power amplifier (SSPA) that enhances radar, electronic warfare and communication systems by up to 25%.

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

In an era of shrinking budgets and reducing inventory levels confidence in the military supply chain is vital. But achieving a single, trusted, unambiguous view of this supply chain is a huge challenge, given the complexities involved. Delivering comprehensive and effective end-to-end visibility in military supply chains depends on the timeliness and quality of data appropriately shared between stakeholders, with unambiguous performance measurement and diagnostics. Fujitsu has developed a range of solutions to enhance logistics and supply chain performance with beneficial Force Multiplier effects on inventory and cost, while minimising risk to military output.

##### ■ **Real-time intelligence to enable better support chain management**

Capturing and sharing error-free data and translating it in to insightful information with military context delivers real-time intelligence that enables highly informed decision-making. Fujitsu's Edgware technology automates data capture from a wide range of Automated Identification Technology (AIT) readers and sensors, like barcodes, RFID tags or contact memory buttons. These tags can be encrypted to protect sensitive data from compromise as the asset moves through the supply chain. The result is improved efficiency in supply chain management, reducing costs as resources can be deployed faster, and more effectively.

##### ■ **End-to-end munitions management enables trusted decision-making**

Keeping track of the full breadth of munition stocks requires a complete, end-to-end system capable of delivering through-life controls and support for optimal performance of these high-value assets. Fujitsu's specialised munitions management system COMSARM (Computer Systems Armaments) enables the management of a wide variety of explosive ordnance and associated technical assets providing a single source of truth for ordnance planning and reporting. Data capture and information provision can further be enhanced using Fujitsu's Edgware capability, delivering an integrated munitions management capability that we call YEOMAN.

■ **Environmental Monitoring**

Fujitsu's Edgware technology enables an asset's condition to be closely monitored throughout its useful life. A robust RFID sensor can be mounted inside the shipping container storing a particular asset. The sensor will be subjected to the same environment that the asset experiences. Alerts can be set to monitor certain environmental conditions, like temperature, humidity and shock levels during storage and transit. The provision of such detailed environmental data enables informed decisions to be taken with regards to any relevant corrective action required, and ongoing maintenance schedules. Such intelligence also prevents the unnecessary write-off of expensive munitions, greatly reducing costs.

■ **Combatting counterfeit parts in the military supply chain**

Fujitsu is working closely in partnership with Defence and National Security OEMs to manage counterfeiting practice, and Edgware is at the heart of the solution. Edgware recognises the complex nature of the end-to-end military support chain in which there are many stakeholders. Each stakeholder will be the owner of data and information needed to provide a holistic view of the distribution and performance of the supply chain. It provides a low-cost pathway to sharing error-free data that is critical to such collaborative working as combatting counterfeiting parts. In so doing, it gives operators and supervisors at the workplace real-time information on the end-to-end status of the supply chain, protecting safety, performance, revenue and reputation.

**Why Fujitsu**

**Enabling information to be the real Force Multiplier**

Fujitsu understands the modern-day complexities and challenges facing military organisations and intelligence communities. As a result of our work across Defence and National Security, and other large Government departments around the world we have an excellent insight in to the challenges of joining up information seamlessly, often across organisational boundaries. That's why partnering with Fujitsu can help to improve the quality of your information and how you use it. By exploiting such a wide range of ICT-based solutions we enable this information to deliver a real Force Multiplier effect, dramatically increasing the efficiency and effectiveness of limited assets and resources.

Fujitsu's Global Defence Initiative will enhance our customer's defence capabilities that enable a secure international community, and provide the capabilities that can respond in an agile manner to various operations including:

- International and National operations
- Protecting National Security
- Peacekeeping operations and Disaster Relief missions

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