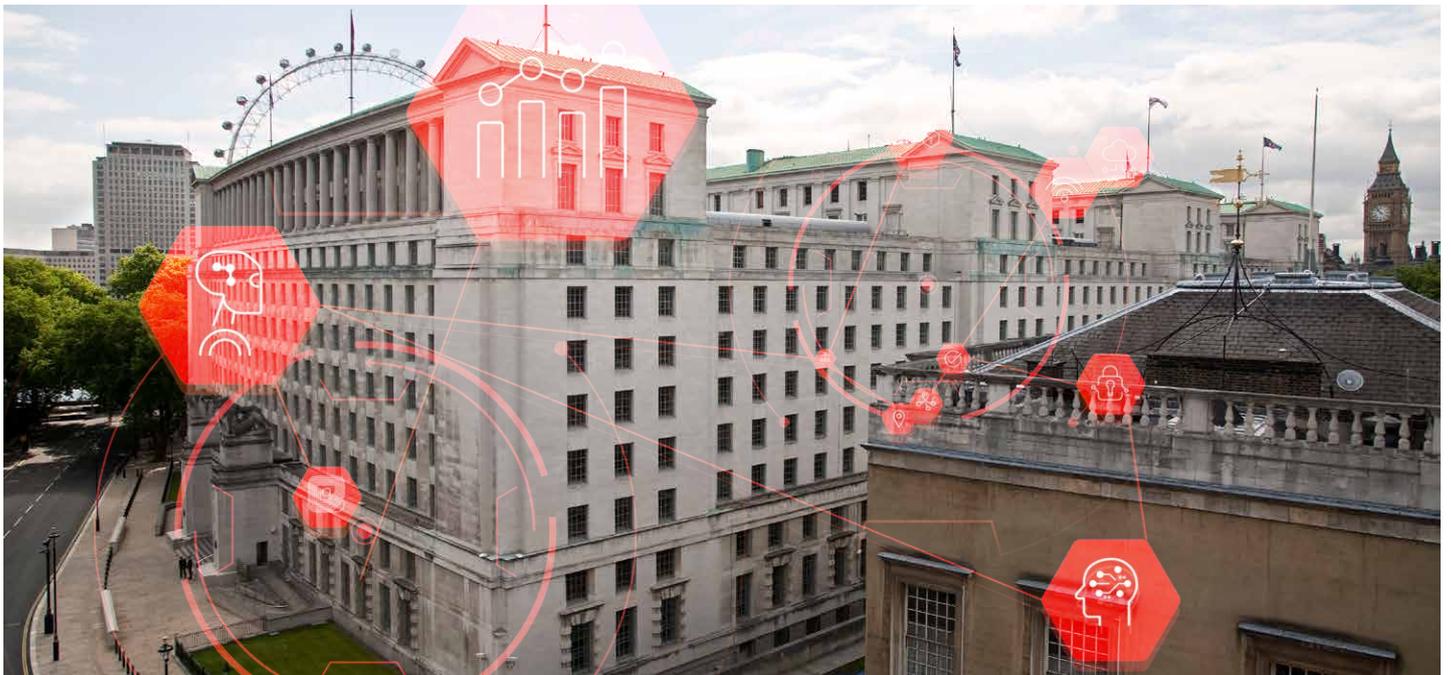


Fujitsu's Data Integration Approach

Providing decision makers with secure access to real-time, accurate data wherever they are

As the volume, variety and velocity of data associated with military platforms continues to grow exponentially, the value and importance we place on this data is also rising sharply. Accessing and sharing this data securely becomes increasingly important to enable accurate and informed decision making. This is particularly the case in the Defence & National Security (D&NS) space, where partners collaborate across boundaries on programmes of national and international importance.



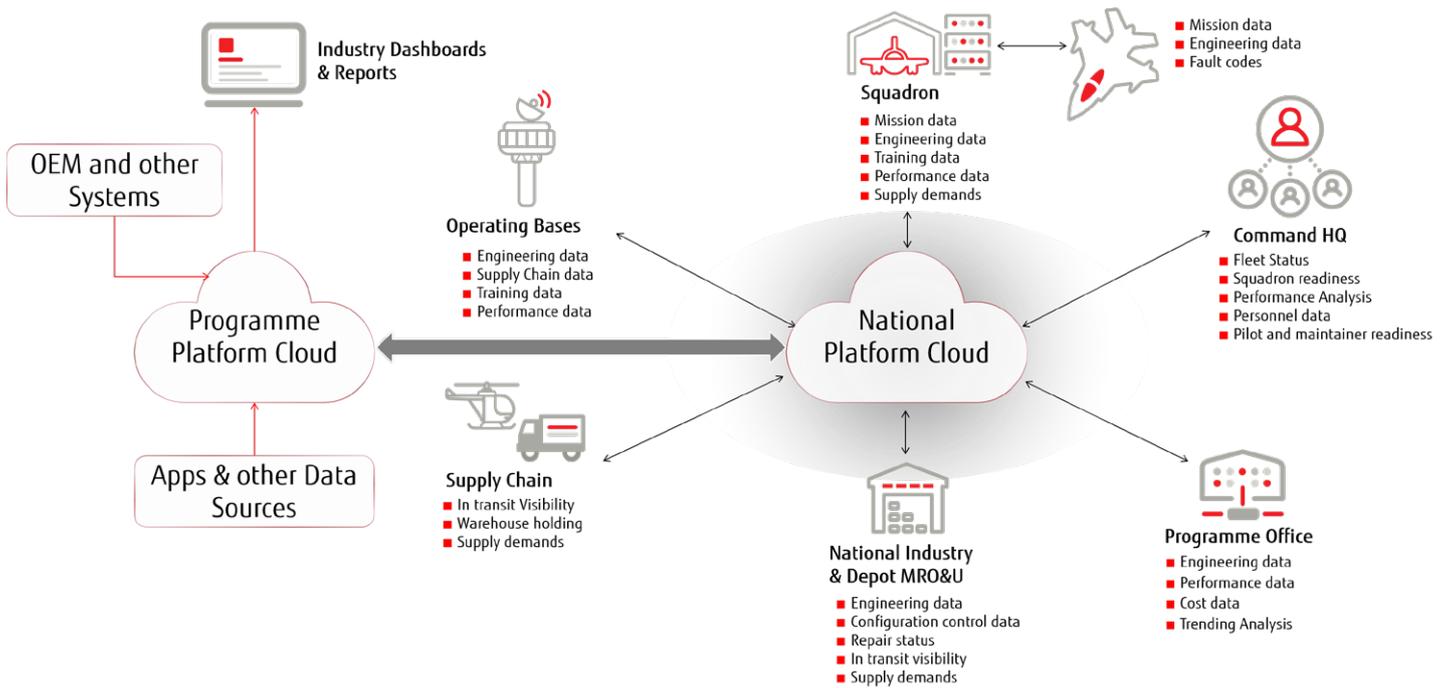
Fujitsu understands this rising importance of data. But we also acknowledge the unique challenges faced in the military environment as new military systems are data rich but remain non-interoperable and are neither designed with, nor supported by, a global data management environment. This results in there being no coherent view of the data available, caused by 'gaps':

- Within the individual programmes between the various elements of industry and government
- At the edge between national or legacy systems and the industry and government platform support solution.

Co-creation underpins data integration vision

Bringing over 50 years' experience in providing secure solutions to D&NS organisations, Fujitsu is working in close collaboration with national industry partners to deliver tailored local solutions to greatly improve data integration. As the provider of the Global Connectivity Service to the UK Ministry of Defence, Fujitsu is at the forefront in providing high-speed secure network connectivity and integration solutions.

Utilising Fujitsu's global capability with a presence on every continent, along with our extensive business, technical and security expertise, we are the only IT partner capable of delivering this comprehensive data integration vision. The Fujitsu approach is underpinned by an innovative co-creation strategy that pulls together an evolving ecosystem of collaborative inputs and insights from all related stakeholders. This enables the secure integration of programme-specific data platforms with national data platforms, as required.



Where possible, we will always harness and integrate existing capabilities, but can also offer our own leading-edge capabilities, if required, whilst maintaining a holistic enterprise perspective. The ultimate aim being to create a tailored integrated data management environment that encourages interoperability between data consumers, and meets client’s specific critical knowledge needs whilst minimizing the need for standalone systems and apps.

Creating and integrating a secure data management environment

Fujitsu’s unique approach provides any programme with information to support decision making by creating and integrating a data management environment that can accessed by users in any location on any device. Depending on the client’s needs the direct benefits can be quantified in terms of:

- **Efficiency** – reduced manual workload through increased automation capabilities in both data collection and decision making
- **Effectiveness** – easier access to timely and accurate data allows quicker, more pro-active management
- **Economics** – improved data access and quality for analysis and modelling informs both operational and procurement decisions.

At the highest level, this approach can be broken down into 4 coherent stages:



Stage 1: Connect & Integrate the Data

The volume and array of data being created in the digital age is increasing at a vast rate. So, the first stage of the process identifies the most important data that is required to support decision makers, and identify where this data resides. Once the data requirements have been established and prioritised, we can build a secure network to establish the required connectivity between the relevant stakeholders and their various locations, both at programme and national level.

Data integration can be provided across all security levels with interfaces into existing legacy solutions, using innovative Internet of Things (IoT) platform tools such as Fujitsu's iMotion™ capability. As the provider of the Global Connectivity Service to the UK Ministry of Defence, Fujitsu is ideally placed to provide high-speed software defined network connectivity harnessing best of breed tools.

Stage 2: Store & Protect the Data

We then need to provide a secure data hosting and storage solution at the requisite security levels dictated by the programme, ensuring adequate cyber protection for the data environment. Our approach also provides sovereign data protection capability while providing a suitable data archive solution which allows timely recall. Drawing on Fujitsu's global experience of delivering cloud-based technologies, and based on our next generation digital infrastructure, Fujitsu's High Security Cloud Service gives an organisation the digital transformation platform they demand, in a highly secure environment to SECRET and ABOVE.

The service enables the migration of legacy environments to a modern cloud-based infrastructure, delivering the benefits of a more efficient and effective hosting environment. As part of this service delivery approach, we are also able to utilize existing capabilities and expertise in to one 24x7x365 operation known as the Secure Network Operations Centre (SNOC). The SNOC is a unique, purpose-built facility based on NATO design, and an existing investment that can be leveraged today, rather than having to start from scratch.

Stage 3: Visualise & Share the Data

Creating the capability to visualise and share the data provides all verified users with real-time data access from a single source of truth, irrespective of location or device. With this access, users can access the data structure to allow drill down, investigation and interrogation of the data, commensurate with their role and responsibility and associated security clearance. We can also identify what outgoing legal or national data requirements need to be satisfied, relating to the agencies or stakeholders involved with a specific programme. Building accredited data access rules into the data structure will provide greater levels of assurance and thus reduce compliance scrutiny.

Types of data

- Support systems data
- Air system performance
- Contract performance
- Cost data
- OEM technical data
- Supply chain data
- Repair status data
- Configuration data
- SE management
- Training systems data

Effectively, we are providing a single version of the truth for all stakeholders. Moreover, all users are supported by Fujitsu's single point of contact (SPOC) helpdesk which operates 24x7 and is manned by 120 agents providing support to 222,000 users, generating 80,000 contacts every month. So, wherever users are in the world, they have unlimited access to expert support.

Stage 4: Analyse & Model the Data

With the data management environment created, users can then harness and fully exploit the data. Detailed data analysis capability can be applied using machine learning methods and data automation using Artificial Intelligence (AI) to allow trending and diagnosis which will enable predictive modelling capability. By analysing KPI metrics such as operational output, systems performance and technical failures allows applications of predictive modelling to be created to help inform future planning and decision making in areas like supply chain, budget setting and contractual arrangements, for instance.

Providing programmes with access to secure data in this way generates real-time information for users regardless of their location or the device they are accessing the information from. Such capability supports accurate decision-making at demonstrable best value reducing through-life costs for any programme.

Proven security and information assurance

Our ability to deliver services and solutions at heightened security levels is well proven. Fujitsu's approach to data integration provides decision makers with secure access to real-time, accurate data wherever they are, on any device and is fully compliant with or exceeds relevant Government Security Classifications.

Fujitsu's approach is unique to the industry and builds on our extensive global experience of delivering highly secure solutions for numerous Government services that operate at SECRET or ABOVE SECRET classifications. In the UK, Fujitsu is certified for Cyber Essentials Plus and is also certified to ISO 27001, an independent international information security management standard.

Fujitsu will work closely with customers to ensure our information security standards meet the customer's own security and risk management requirements. In addition, Fujitsu shall adhere to all requirements stipulated by industry regulators, including the Defence Cyber Protection Partnership, and HMG Security Policy Framework and supporting Security Policies.

Why Fujitsu?

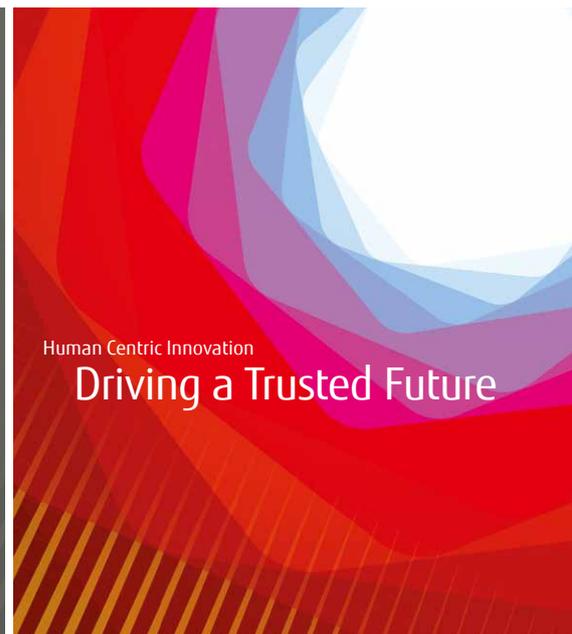
For over 50 years we have innovated with the MOD, Government Departments and intelligence communities, co-creating new technologies and capabilities. As a result, Fujitsu has around 4,000 security cleared staff and the experience to deliver and manage both generic industry offerings and those tailored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



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