

BAE Systems Interoperability Services

Interoperability Service Definition Document

1 BAE Systems Interoperability

1.1 Introduction

Launched at the beginning of 2022, Digital Intelligence brought together the digital capabilities from across BAE Systems Group including our Defence Information and Applied Intelligence teams.

We have a long history of innovation and home to 5,000 world-class data, digital, cyber and intelligence experts offering a truly diverse portfolio of experience.

We work collaboratively to deliver digital expertise to our customers, partners and colleagues across the Group. Working in partnership with us, governments, nation states, armed forces and commercial businesses can unlock their digital advantage and tackle the evolving challenges of the digital age.

We are proud to have the best skills and digital services in the market which allow us to undertake even the most challenging and complex of requirements within the UK and Internationally.

The interoperability services offered by Digital Intelligence can individually be tailored to each assignment or combined to provide complementary services.

2 Interoperability Service Design

Our team of agile, experienced, security cleared designers, engineers and security architects have a wealth of experience delivering challenging and complex digital IT requirements and solutions, while maintaining a professional and collaborative approach to achieve real results and key milestones for our customers. The breadth of our business allows us unique access to a wide range of specialists, allowing us to provide the most appropriate support whether its on a small or large scale and for a short or long duration.

We have a wide range of designers, architects and engineers who work with our customers in the agile design and build of new interoperability services, maximising the benefit to the organization and promoting information sharing and collaboration.

2.1 Features

- Extensive experience of designing and delivering cross domain interoperability services.
- Designs aligned to HMG and NCSC architectures and patterns.
- Support a variety of secure platforms, including cloud, containerised/kubernetes.
- Agile design/development of modular, flexible architectures and services.
- Extensive domain and market knowledge of interoperability service and products.
- Unbiased, technology and vendor agnostic approach.
- SC and DV Cleared Designers and Architects.
- Support for rapid prototyping, and demonstrators

2.2 Benefits

- Expertise and SME's in air, land, maritime and space environments.
- Collaborative approach, shared common goals, knowledge transfer, coaching and upskilling.
- Diverse range of project and technical expertise.
- Established capability and subject matter experts.
- Extensive pedigree of interoperability system design for HMG.
- Work with multiple agencies or stakeholders.
- Support connectivity and interoperability to international or external partners.

3 Interoperability Service Security Architecture and Assurance

In today's climate ensuring your information systems are secure has never been more important. BAE Systems has a wealth of experience in delivering secure systems and continues to offer a world-class cyber security and information assurance service, which can be tailored to your needs to help protect your data from both today's and tomorrow's threats.

Our team of highly skilled NCSC Certified Cyber Professionals, operating as Information Assurance Architects and Security and Information Risk Advisors, deliver business enabling cyber security and Information Assurance Consultancy services by ensuring customers have a clear picture of how to address cyber-threats through a tailored blend of technical, procedural and personnel security controls.

Our practitioners are highly skilled and experienced in helping customers counter cyber-threats across all classifications from Official through to Above Secret. The team has an impressive portfolio of success stories across MoD and HMG, and continues to offer a world-class IA Consultancy service tailored to customer needs through its strong links with Government IA stakeholders such as the NCSC IA Architects and the MoD's Cyber Security Assessment and Advisory Services (CySAAS).

3.1 Features

- Security strategy / vision and roadmaps
- Security threat / risk models and remediation
- Security architectures, methodologies and information assurance
- Security policies, standards and publications
- Aligned to HMG / NCSC approved architectures and standards
- High-level (HLD) and Low Level (LLD) security design
- Network vulnerability, ITHC and CTAS testing and cyber health remediation
- Standards based network security baselines
- Collaborate with existing security teams, HMG security professionals
- Cross Domain Interoperability Services, Zero Trust and Data Centric Security

3.2 Benefits

- Expertise and SME's in air, land, maritime and space environments
- Collaborative approach, shared common goals, knowledge transfer, coaching and upskilling
- Flexible and scalable approach to minimise expenditure
- Highly qualified security specialists with extensive defence / HMG experience
- Adherence to HMG / NCSC security frameworks and architectures
- Delivering secure connectivity to international / external partners
- Reduce the risk of potential vulnerability exploitation and breach
- Unbiased, technology and vendor agnostic approach

4 Interoperability Service Rapid Prototype

Our engineers and project teams have a wealth of experience delivering challenging and complex digital IT requirements and solutions, while maintaining a professional and collaborative approach to achieve real results and key milestones for our customers. The breadth of our business allows us unique access to a wide range of specialists, allowing us to provide the most appropriate support whether its on a small or large scale and for a short or long duration.

We provide a wide range of integration services to advise and facilitate the integration of complex software and hardware subsystems into secure environments to ensure they maximise benefit to the organization.

Our team of agile, experienced, security cleared designers, engineers and security architects have a wide breadth of knowledge of software, systems; hardware and enterprise architectures.

We can work alongside your existing engineering teams to rapidly understand your concept, requirements or ideas, then develop interoperability services designs, aligned to HMG and NCSC architectures. We can then quickly undertake rapid prototyping of new innovative interoperability services using industry leading hardware guards or gateways from a number of leading vendors.

We recommend an agile, flexible approach to prototyping, utilizing an established DevOps CI/CD capability, which facilities high degrees of automation and re-use, enabling rapid development of modular, loosely coupled containerised, or VM based services which are API driven to provide a highly flexible, agile solution which can be rapidly adapted or evolved into production services.

4.1 Features

- Rapid delivery of innovative, new prototype interoperability services
- Investigate new ideas, concepts or technologies
- Agile design, development and integration of modular API driven services
- Extensive experience integrating cross domain interoperability services
- Designs aligned to HMG and NCSC architectures and patterns
- Established Agile, DevOps CI/CD pipeline capability and services
- Support workshops and trials
- Unbiased, technology and vendor agnostic approach
- Support open source, bespoke, COTS applications and services
- SC and DV Cleared Platform and DevOps Engineers

4.2 Benefits

- Expertise and SME's in air, land, maritime and space environments
- Collaborative approach, shared common goals, knowledge transfer, coaching and upskilling
- Flexible and scalable approach to minimise expenditure
- Rapidly prototype or develop new idea or service
- Established capability and subject matter experts
- Quickly de-risk and develop new ideas and services
- Reduce costs and standardise deployments utilizing infrastructure automation services
- Support connectivity and interoperability to international or external partners

5 Interoperability Service Integration

Our engineers and project teams have a wealth of experience delivering challenging and complex digital IT requirements and solutions, while maintaining a professional and collaborative approach to achieve real results and key milestones for our customers. The breadth of our business allows us unique access to a wide range of specialists, allowing us to provide the most appropriate support whether its on a small or large scale and for a short or long duration.

We provide a wide range of integration services to advise and facilitate the integration of complex software and hardware subsystems into secure environments to ensure they maximise benefit to the organization.

Our team of agile, experienced, security cleared integration engineers and specialists have a wide breadth of knowledge of software, systems; hardware and enterprise architectures. They can work alongside your existing engineering teams to understand your requirements, investigate options and work with you to integrate software and hardware subsystem components. They are able to assist in troubleshooting complex problems and help to devise suitable solutions particularly where multiple agencies or stakeholders are involved.

We also have a wealth of knowledge and experience in infrastructure automation and orchestration to enable the rapid delivery of new capabilities and services, using common roles and operations, to streamline deployment, upgrade and ongoing management of services and systems.

5.1 Features

- Integration of COTS, bespoke or open source services and components
- Build and integration of flexible, modular API driven containerised services
- Extensive experience integrating cross domain interoperability services
- Support a variety of secure platforms, including cloud, containerised/kubernetes
- Aligned to Agile / DevOps CI/CD principles and technologies
- Support automated deployment and testing of new services
- Ongoing support, management and upgrade or evolution of services
- Work collaboratively throughout the delivery lifecycle to ensure successful outcome

5.2 Benefits

- Expertise and SME's in air, land, maritime and space environments
- Collaborative approach, shared common goals, knowledge transfer, coaching and upskilling
- Diverse range of project and technical expertise
- Established capability and subject matter experts
- Reduced onboarding overhead that allows rapid programme momentum
- Reduce costs and standardise deployments utilizing infrastructure automation services
- Support connectivity and interoperability to international or external partners

6 Interoperability Engineering and Interface Onboarding

Our interoperability engineering services enables our customers to reliably maintain or introduce interfaces and network connections to wide range of external or internal customers at all levels of classification and caveats.

Whether this is a new service or data type or extending an established capability Digital Intelligence has the experience across Land, Air, Navy and Space domains, Medium and High Assurance Gateways, Partners of Choice (POC) and C4ISR to deliver secure multi-domain integration and information advantage.

6.1 Features

- Detailed interface specifications to enable rich data exchange
- Secure designs and plans that meet security patterns and standards
- Experienced in rapid onboarding of new network connections
- Expertise with onboarding high-side and low-side user communities
- Continual service improvements and releases, proactively combating evolving threats
- Integration of emerging future interoperability services
- Tailored through life support and guidance

6.2 Benefits

- Highly experienced and proven teams
- Robust low-risk plans to meet deadlines first time
- Continual horizon scanning to address for emerging threats
- Operate on customer sites or through own List X facilities
- Collaborative and inclusive approach achieving common goals
- Experience with transitioning from legacy providers
- Evolves with policies and security patterns to remain relevant
- Innovation, design and build activities
- Alpha/beta/live service deployment outcomes
- Diverse SC and DV cleared team members

7 Interoperability Service Management – 2nd and 3rd Line Support

Our interoperability service management teams have a wealth of experience supporting complex secure digital solutions whether cloud or traditional hardware based, ensuring operational availability is maximised for the user communities whether they are UK based or international.

We bring realism and understanding to day to day service operations, ensuring a collaborative can-do approach to proactively maintaining a capability, while having the expertise to transition and sustain from legacy providers using low risk approaches.

7.1 Features

- Individuals or teams that operate at 2nd and 3rd lines
- Customer site working or within industry List X facilities
- Scalable teams that adapt to the service demand
- Operate service up to 24/7, including callout service
- Bring proven approaches to maintain high availability services and solutions
- Suitable for new service requirements or legacy sustainment
- Fixed and deployed service support wrap, including break/fix
- Knowledge management, change management and release management
- Continual improvement to all aspects of service

7.2 Benefits

- Collaborative and inclusive approach to achieving common goals
- Skills covering bare metal solutions, cloud, networking, virtualisation and wintel
- Automated or manual approaches tailored to achieve service requirements
- Track record of service wraps, ITIL, SIAM, SIEM, GOSCC, JCU
- Operating at OS, SECRET and above
- Experience and knowledge of Land, Air, Sea and Space domain
- Experience with transitioning from legacy service providers
- Diverse SC and DV cleared team members

