

Prophesea

Maximising the availability and value of your critical assets

Digital
Intelligence

BAE SYSTEMS

The challenge of asset availability

Over the past 10-20 years, there has been an ever-increasing requirement within Defence to do more with less whilst maintaining operational readiness. However, to achieve this, large complex assets such as aircrafts and ships need to be readily available to deploy.

Asset availability is key to our national defence, but current asset management processes within Defence are typically hindered by a lack of system integration and optimisation – limiting the ability to unlock strategic advantage in the most demanding environments.

A shift towards through life support, real-time data integration, predictive analytics and a central view of asset health is needed to fully support and enhance availability and readiness.

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What is Prophesea?

A systems and data integration solution that delivers integrated product support.

Designed and built by BAE Systems using open architectures, internationally based standards and our 20+ years of engineering expertise, Prophesea delivers one cohesive and holistic view of asset health.

Drawing from a suite of commercial off the shelf applications, Prophesea is a scalable solution that allows customers to invest at their own pace. It's easily configurable and can seamlessly integrate with existing and third-party technologies - providing new capability while maximising previous investments.



How Prophesea works

The data an organisation needs to support strategic decisions often exists in siloed, disorganised sets across multiple systems. By providing a central platform that pulls all relevant data together, Prophesea empowers organisations to manage and optimise their critical assets.

Prophesea creates a digital outline of each asset to enhance through-life maintenance and support. Data sets are pulled from existing legacy and third-party systems to formulate a co-ordinated asset view. Through predictive maintenance and continuous management, Prophesea ensures asset availability is maintained.



Siloed and disorganised

The data an organisation needs to support strategic decisions often already exists in siloed, disorganised sets across multiple systems.

Enhance and organise

By providing a central platform that pulls all relevant data together, Prophesea enhances visibility into an organisation's assets.



Create a digital outline

By creating a digital outline of each asset, Prophesea is able to provide through-life maintenance and support.

Data and assets

Data sets are pulled from existing legacy and third-party systems to formulate a co-ordinated asset view.



Optimised platforms

Through predictive maintenance and continuous management, Prophesea ensures asset availability is maximised.

How Prophesea works

The Prophesea solution consists of three elements:

1. The robust Data Management Platform: the backbone that ensures secure information storage and exchange



2. The User Gateway: an easy-to-use, secure single-entry point to the integrated data environment

3. The recommended Baseline Modules: an essential set of capabilities that encompass Product Lifecycle Management, Secure Collaboration and Analytics and Business Intelligence

In addition to the above, customers have the option to integrate their existing operational systems, new third-party applications or additional modules from the Prophesea catalogue.

Together, all these components form what we refer to as the Prophesea stack.

The benefits to our customers



Enhance decisions:

Get 360° visibility of your assets, enabling better and faster decision-making across the support enterprise



Increase availability:

Through delivering this enhanced view, alongside predictive analytics, we help optimise the availability of your assets



Maximise value:

By optimising the availability of your assets, they continue to deliver a return on investment throughout their lifecycle



Affordable solutions:

Using forward-thinking and agile designs, our solution seamlessly integrates with legacy and third-party technologies



Providing assurance:

We have been delivering game changing Integrated Product Support into some of the most secure environments for over 20 years

The Module catalogue

The core elements



Data Management Platform

Organises, stores, retrieves and safeguards information, ensuring data accuracy, accessibility, compatibility, security and compliance.



Secure Collaboration

Facilitates secure collaboration across organisational boundaries, ensuring seamless sharing of sensitive and classified information.



Analytics and Business Intelligence

Leverages an organisation's data to create insights, enabling informed decision-making and helping to define data-driven strategies and performance improvements.



User Gateway

Manages all user access to provide enhanced security and user experience within the Prophesea suite.



Product Lifecycle Management

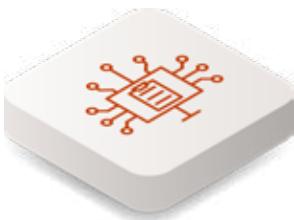
Manages product development, design and collaboration. This module manages the lifecycle of all technical documentation.

The optional modules



Maintenance Management

Minimise asset downtime and reduce costs by streamlining equipment upkeep, optimising schedules and ensuring efficient operations and task tracking.



Technical Information

Compiles, organises, verifies and disseminates critical technical data that complies with the S1000D standard.



Platform Management

Streamlines how an organisation executes operational processes, optimising the allocation of resources against tasks.



Predictive Maintenance

System Information Exploitation, or SIE, processes and analyses big data to monitor the health of an asset's equipment.



Existing Operational Systems

Any existing customer applications can be seamlessly integrated.



New Applications

Additional applications can be seamlessly integrated at the appropriate time.

A legacy of excellence

Prophesea in action with the Royal Navy

Data integration is central to the Royal Navy achieving its 2030 digital vision, and in turn supporting the UK MOD's long-term goal to create a 'digital backbone' across all defence domains – air, sea, land, cyber and space.

To make its vision a reality, the Royal Navy knew it needed to centralise the management of the vast amounts of data essential to supporting and maintaining its complex warships. But bringing together two decades worth of disparate, legacy databases was not a simple task. The sheer scale of it required a new data management solution – and the Royal Navy needed a trusted industry partner to help. As BAE Systems Digital Intelligence had experience in providing this capability to an international government, we were well-placed to support.

We helped reduce overdue maintenance across the Royal Navy's fleet by 58% with our Prophesea insights and analytics service. Our solution provided the Royal Navy with greater visibility of its assets. This enabled its team to quickly identify, analyse and resolve issues which were preventing maintenance from being conducted and, in turn, boost asset availability of the fleet.

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Prophesea in action with NATO Defence

With 95% of Defence decision makers saying that technology advancements are blurring the lines between physical and digital domains, enhancing the management of data is more crucial than ever to optimising decision-making around assets. Faced with this challenge, a NATO country's Defence department sought to deliver a data centralisation programme for its Navy frigates – the backbone of its naval fleet.

The nation required one system that connected fragmented frigate data, making the information necessary to design and maintain the ships more accessible, transparent and easy to control. This way, it could improve processes, increase the efficiency of communication and reduce the risk of error for people using the data to elevate the availability of the frigates.

We worked closely with the in-service support enterprise to deliver an Integrated Data Environment programme for its frigate data. Crucially, this was the first solution to be deployed onto a new, restricted Azure cloud environment – a project running in tandem to create the Defence department's first classified government-owned and operated cloud service.

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Why choose BAE Systems?

The digital landscape is continuously evolving and digital transformation is here to stay. Organisations that wish to benefit from this revolution, and optimise the use of their valuable finite resources, need to engage in and maintain a cycle of continuous transformation.

For many organisations, finding answers to all the challenges which arise can seem overwhelming. Partnering with an organisation that specialises in data and digital transformation - and has done it all before, many times and at scale - can make all the difference.

Four decades of working alongside government and commercial organisations have given BAE Systems Digital Intelligence significant expertise in turning ideas into solutions, and challenges into opportunities.

We are a leading supplier of cyber, intelligence and security capabilities to governments, and a growing supplier of cyber and network security capabilities to commercial customers.

We provide engineering services that help our clients plan, build and operate their mission-critical business systems. With a rich heritage in working in high-trust sectors over many decades, BAE Systems is able to provide the skills, experience, capacity and capability to design, manage, build and run large scale software engineering projects for high assurance organisations.

We are Digital Intelligence

Digital Intelligence is home to over 4,700 digital, cyber and intelligence experts across 16 countries. We operate at the cutting edge of digital innovation and at the heart of organisations that keep vital infrastructure running, national security protected and armed forces prepared. Launched in 2022, Digital Intelligence is part of BAE Systems and has a rich heritage in helping to defend nations and businesses around the world from advanced threats.

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