

Open Architecture - Healthcare

Service Category: Cloud Migration Planning, Cloud Support Services

About Our Service

The service enables seamless integration of health and social care systems through modular design, open standards like HL7 FHIR and OpenEHR, and secure APIs. Supports interoperability, patient-centred care, population health, and research while ensuring compliance with UK GDPR, NHS Data Security Toolkit, and PRSB standards for structured clinical information exchange.



Service Features

**HL7 FHIR support
for clinical data
interoperability**

**OpenEHR for
structured health
record management**

**Modular
architecture for
flexible system
integration**

**Vendor-neutral
design to avoid
supplier lock-in**

**Scalable API
delivery for health
and social care
systems**

**Microservices for
agile digital health
solutions**

**Secure data sharing
across care
organisations**

**Seamless
integration of cloud
and on-premise
components**

**NHS interoperability
and governance
standards
compliance**

**Evolution of
architecture for
future healthcare
needs**

Service Benefits

Improves interoperability across health and social care systems

Reduces dependency on proprietary vendor solutions

Enhances patient-centred care through integrated data access

Supports population health analytics and research initiatives

Ensures compliance with UK GDPR and NHS security standards

Enables cost-effective system upgrades and enhancements

Accelerates digital transformation in healthcare organisations

Promotes technical and commercial flexibility for providers

Improves resilience and sustainability of digital health services

Facilitates innovation through open and adaptable architecture

Detailed Service Definition

Our Open Architecture service promotes interoperability and flexibility by leveraging open standards and modular design, enabling health and social care organisations in the UK to integrate systems seamlessly and innovate rapidly. This approach aligns with NHS digital transformation objectives and supports compliance with UK-specific policies and standards.

Key Features

- Adoption of open standards such as HL7 FHIR (Fast Healthcare Interoperability Resources) and OpenEHR for clinical data exchange, in line with NHS Digital and PRSB (Professional Record Standards Body) guidelines.

Detailed Service Definition (continued)

- Modular architecture design supporting vendor-neutral solutions, reducing dependency on proprietary systems.
- APIs and microservices for scalable integration across health and social care ecosystems, supporting NHS interoperability frameworks.
- Facilitation of data sharing for population health, research, and patient-centred care, consistent with UK GDPR and NHS Data Security and Protection Toolkit requirements.

UK healthcare policies and standards:

- NHS Interoperability Standards: HL7 FHIR mandated for electronic patient record exchange.
- PRSB Standards: Structured clinical documentation for shared care records.
- NHS Data Security and Protection Toolkit: Compliance for data handling and system security.
- UK GDPR and Data Protection Act 2018: Legal framework for patient data privacy.
- NHS Cloud First Policy: Encourages adoption of secure, scalable cloud services.
- NHS Information Governance Framework: Ensures confidentiality, integrity, and availability of health data.

Detailed Service Definition (continued)

Frazer-Nash approach

Frazer-Nash is an independent consultancy providing advice to healthcare and public sector clients across a wide variety of technical and operational capabilities. We specialise in open systems architectures, which are essential for delivery of agile, interoperable systems that support technical and commercial flexibility. Our independence and technical neutrality enables us to support and critique architectures regardless of the chosen technology or methodology.

Open architecture is a modular approach to specifying, developing, acquiring and integrating hardware, software, services and capabilities which drives flexibility and reduced whole-life cost by using widely shared and supported agreements, standards, and interfaces.

Frazer-Nash's open systems architecture offering provides a proven aid to any client who is looking to move away from the lock-in of single prime integrators whilst retaining the cohesive capabilities of an integrated system that includes cloud systems, applications and networks. This approach overcomes the limitations created by current integrated solutions which initially appear to meet all of a client's needs, but as a digital service gets increasingly complex and more difficult to sustain. In addition, this approach alleviates the very common problem of a proprietary systems lock-in to a supplier or vendor, restricting the ability and increasing the cost of future enhancements as a client's needs change.

Detailed Service Definition (continued)

We have the capability to provide an interoperability framework for service components to be defined by and to adhere to on an ongoing basis. Potential service component technical solutions can then be identified and, should any of these contain any proprietary internal capabilities, they can be accommodated in the overall system solution, providing they conform to this wider open architecture, such as including on site and cloud elements into one system. This approach allows components to function as a whole, despite different origination. It also allows architectures to evolve over time, as structure can be defined, but not designed. An initial lower level of architecture input can be added to with capabilities added subsequently, in-line with the target architecture.

Key features of Frazer-Nash offering:

- Functionality, role and interactions of components are clearly defined.
- Interfaces between component blocks are clearly defined.
- Interfaces are classed as open interfaces.
- The architecture design is open to all parties to understand.

Detailed Service Definition (continued)

Expertise

Frazer-Nash has expertise in industry-leading architectural frameworks such as MODAF, TOGAF and modelling languages such as ArchiMate and UML, and experience in the industry-leading software tools that provide support to it, such as MOOD and ArchiMate.

Why Frazer-Nash Consultancy?

Frazer-Nash Consultancy is an independent engineering and technology consultancy with over 35 years' experience delivering high-quality digital and cloud-enabled solutions. We support organisations operating in complex and regulated environments through our collaborative approach and deep expertise in digital engineering, software development and systems integration.

We are **solution and technology-agnostic**. We assess our clients' requirements and provide impartial advice and design solutions based solely on their needs. This independence enables us to select the most appropriate cloud technologies and architectures to deliver secure, resilient and value-for-money outcomes.

Our cloud solutions are informed by experience gained across multiple platforms, sectors and use cases. We combine proven engineering discipline with a strong understanding of integration and whole-system design to support and enable cloud adoption while managing risk and ensuring long-term sustainability.

Our Commitment to Quality

Frazer-Nash is committed to delivering consistently high-quality services and outputs that **often exceed customer expectations**. Quality is embedded throughout our ways of working, from engagement and communication through to delivery and assurance.

We actively monitor progress using our robust, proportionate controls, ensuring key decisions are subject to appropriate challenge. Each project is allocated a dedicated Project Manager, a Project Supervisor who independently reviews and approves monthly reports, and a Project Auditor for ongoing quality assurance.

We ensure accuracy and suitability for purpose of all deliverables, with independent verification by two reviewers. Our Quality Management System is certified to **ISO 9001 and TickITplus** (for software development), providing customers with confidence that our quality standards are externally assured and continuously maintained.

Our Security

Frazer-Nash operates robust security processes and controls suitable for handling sensitive and classified information **above OFFICIAL** up to and including **Top Secret**. Security is embedded across our people, processes and systems, ensuring information is protected throughout delivery.

We support sensitive and critical programmes across government and national infrastructure by applying strict information-segregation controls, including team separation to address security, or conflict-of-interest considerations

All 1500 staff hold **BPSS clearance as a minimum**, with the majority cleared to **SC** and over 225 consultants holding **DV clearance**.

Our IT systems are certified to **ISO 27001** and **Cyber Essentials Plus**, providing assurance that information security risks are proactively managed in line with recognised industry standards.

Our Approach to Subcontracting

Frazer-Nash primarily delivers services through our large base of permanent staff, supplementing this capability where required with trusted partner organisations to provide additional flexibility, specialist expertise and scale while retaining full delivery control.

We are experienced in engaging and managing subcontractors across the full project lifecycle, ranging from sole traders to large multinational organisations. Our structured approach ensures the right supplier is selected for each requirement and integrated effectively into the delivery team.

Our subcontracting processes focus on robust supplier identification and assessment, clear definition of scope, appropriate flow-down of contractual terms and conditions, and proactive risk management. All subcontractors are subject to proportionate commercial and technical due diligence to ensure they meet our standards for security, quality and delivery, enabling us to deliver outcomes on time, within budget and to the required quality.



Resourcing

Frazer-Nash employs over **1,500 technical specialists** across all grades, from **Follow to Set Strategy**, providing depth, continuity and scalability across a wide range of disciplines, backgrounds and experience levels.

To support agile and flexible delivery, our people are organised into defined **technical delivery areas** (including Information Systems, Cyber, Modelling and Software), which are deployed across multiple sectors such as central and local government, policing, health and energy. This structure, combined with strong portfolio, programme and project management (P3M), enables us to actively monitor demand and adapt resourcing throughout the project lifecycle.

We deliver complex requirements efficiently, consistently and at pace by forming tailored, multi-disciplinary teams led by a single accountable Project Manager.

Our consultants regularly work across different sectors, enabling us to cross-pollinate ideas, tools and best practice between domains. Drawing on in-house expertise, such as information security and human factors, we ensure effective and responsive delivery for every client.



Our Commercial Approach

Frazer-Nash adopts a flexible and transparent commercial approach to ensure best value and a model that aligns to each client's specific requirements. We collaborate with customers to clearly define the scope of services and agree a commercial structure that is predictable, proportionate and aligned to your required outcomes and effective delivery.

Depending on the requirement, this may include a **fixed-price model for clearly defined scopes**, or **time and materials using agreed day rates** where flexibility is required to accommodate evolving needs.

For longer-term or ongoing service requirements, and where we have control over resource flexibility, we can also offer a **single blended day rate** covering a range of grades. This provides simplicity, transparency and ease of management while maintaining access to the appropriate skills at the right time.

Next Steps

To discuss your requirements in more detail or request an order for services, please contact ccs@fnc.co.uk

