

Enterprise Architecture – Healthcare

Service Category: Cloud Migration Planning, Cloud Support Services

About Our Service

We deliver strategic blueprints for integrated health and social care, aligning technology, data, and processes with NHS standards. Enable interoperability using UK Core FHIR, SNOMED CT, and openEHR. Provide governance, clinical safety compliance, and secure data architectures to support digital transformation, legacy rationalisation, and improved patient outcomes across care systems.



Service Features

Target operating models for integrated health and social care

Alignment with NHS Service Standard and Technology Code of Practice

Interoperability using UK Core FHIR and SNOMED CT

Data architecture leveraging openEHR and IHE profiles

Spine integration patterns for PDS, EPS, eRS, and MESH

Clinical safety compliance under DCB0129 and DCB0160

Information governance aligned to UK GDPR and Caldicott Principles

Security architecture aligned to NCSC CAF and cloud principles

Accessibility meeting WCAG 2.1 AA and NHS guidelines

Architecture governance with boards, stage gates, and assurance

Service Benefits

Safer clinical services through mandated risk management practices

Faster interoperability across providers and suppliers

Reduced legacy complexity and clearer rationalisation roadmaps

Improved patient outcomes via joined-up care pathways

Stronger information governance and privacy by design

Better investment decisions with auditable, evidence-based architectures

Enhanced resilience, continuity, and tested disaster recovery

Consistent accessibility and inclusive digital health experiences

Clear accountability through structured boards and checkpoints

Sustainable change with reusable patterns and knowledge transfer

Detailed Service Definition

Our Enterprise Architecture service provides a strategic blueprint for aligning technology, processes, and organisational goals within health and social care, enabling integrated care delivery and digital maturity across Integrated Care Systems, NHS Trusts, Primary Care, and Local Authority social care.

Service objectives

- Create an end-to-end, business-led architecture that accelerates safe, interoperable digital transformation.
- Rationalise legacy estates while protecting continuity of clinical operations and patient safety.
- Embed governance, assurance, and clinical safety practices mandated in UK health and social care.
- Deliver measurable improvements aligned to What Good Looks Like, the NHS Service Standard, and ICS priorities.

Detailed Service Definition (continued)

Key features

- Development of target operating models for integrated health and social care spanning ICS, ICB, providers, and local authority partners.
- Alignment with NHS England architecture principles, UK Core FHIR profiles, SNOMED CT terminology, and open standards for interoperability.
- Roadmaps for digital transformation and legacy system rationalisation, focusing on Spine integration, Shared Care Records, and care coordination.
- Governance frameworks for architecture compliance, stakeholder engagement, and clinical safety case management.
- Reference architectures for open systems, synchronised across organisations to achieve strategic coherence.
- Multi-disciplinary integration combining systems engineering, programme management, and clinical informatics for scalable delivery.

Detailed Service Definition (continued)

Methodology and alignment

- Enterprise architecture is a systems engineering discipline for complex organisations. We tailor standards to specific healthcare challenges to enable cost-effective stakeholder engagement and change.
- Our consultants are experienced in TOGAF and ArchiMate, and we are active members of The Open Group, including leadership of an architecture framework mapping working group.
- Enterprise architecture complements programme management. MSP Vision Statements and Blueprints are views of the TOGAF Architecture Landscape. We use EA standards to describe reference architectures from open system initiatives and to synchronise them across organisations for strategic coherence.
- We integrate business architecture, implementation governance, and architecture change management to address platform ownership, shared accountability, and funding models across ICS partners.

Detailed Service Definition (continued)

UK policies, standards, and conventions

Architecture and delivery:

- NHS England Enterprise Architecture principles and UK technology standards.
- Government Service Standard and Technology Code of Practice for service design and technology choices.
- Cabinet Office Open Standards principles for interoperability and data portability.
- PRSB Core Information Standard for shared care records and clinical documentation consistency.
- NHS Service Manual for design, content, accessibility, and inclusive service delivery.
- Crown Commercial Service frameworks for procurement, including G-Cloud and Digital Outcomes and Specialists.

Detailed Service Definition (continued)

Interoperability and identifiers:

- HL7 FHIR R4 UK Core profiles for messaging and APIs, applied consistently across providers and suppliers.
- SNOMED CT as the mandated clinical terminology, with ongoing release management and local subsets.
- NHS Data Model and Dictionary for consistent data structures and definitions.
- NHS Number as the unique patient identifier and ODS codes for organisations and sites.
- NHS Spine integration patterns, including PDS, eRS, EPS, and MESH for secure messaging.
- IHE profiles, including XDS for registry and repository models in shared care records.
- openEHR for vendor-neutral clinical data persistence in appropriate use cases.

Detailed Service Definition (continued)

Clinical safety and regulation:

- DCB0129 clinical risk management for manufacturers and DCB0160 for deployers, with clinical safety case documentation and hazard management.
- MHRA guidance for medical devices and Software as a Medical Device, including UKCA marking requirements.
- NICE Evidence Standards Framework for Digital Health Technologies to underpin benefit realisation and evaluation.

Information governance and data protection:

- UK GDPR and Data Protection Act 2018, including lawful basis, DPIAs, and data minimisation.
- Caldicott Principles for safeguarding confidentiality and enabling appropriate data sharing.
- NHS Data Security and Protection Toolkit for organisational assurance.
- NHS Records Management Code of Practice for Health and Social Care for retention and disposal schedules.
- National Data Opt-out for patient preferences regarding secondary use.

Detailed Service Definition (continued)

Security and resilience:

- NCSC Cyber Assessment Framework, Cyber Essentials Plus, and alignment to the NCSC Cloud Security Principles.
- NIS Regulations for operators of essential services where applicable.
- Zero trust architecture patterns, secure-by-design defaults, secure configuration, and continuous monitoring.

Accessibility and inclusion:

- Public Sector Bodies Accessibility Regulations 2018, conforming to WCAG 2.1 AA or better.
- Inclusive design and accessibility testing following NHS Service Manual guidance.

Detailed Service Definition (continued)

Interoperability and data architecture:

- Design API-led and event-driven integration using UK Core FHIR, Spine patterns, SNOMED CT, and IHE profiles.
- Establish canonical data models and shared ontologies for federated analytics and population health.
- Define master data management for patients, organisations, locations, practitioners, medicines, and devices.
- Ensure information lifecycle management aligned to Records Management Code of Practice.
- Build consent, preference, and opt-out management into data flows across ICS partners.

Clinical safety and information governance:

- Maintain clinical safety management systems with DCB0129 and DCB0160 compliance, documented safety cases, and safety sign-off.
- Embed IG reviews, DPIAs, and data-sharing agreements from discovery through live service.

Detailed Service Definition (continued)

Clinical safety and information governance continued:

- Apply Caldicott and data minimisation by design to all architecture decisions.
- Implement role-based access control, attribute-based access control, and privacy-preserving data processing where appropriate.

Security, resilience, and risk:

- Align to NCSC CAF and cloud security principles, with threat modelling and secure reference architectures.
- Deploy layered defence, encryption in transit and at rest, vulnerability management, and security operations integrated with clinical risk management.
- Design for resilience and business continuity, including RTO and RPO objectives, and tested disaster recovery.
- Monitor supplier controls via DSPT and contractual obligations, ensuring end-to-end assurance across the supply chain.

Detailed Service Definition (continued)

Governance and assurance:

- Architecture Review Board with clear decision rights, covering business, data, application, technology, and security domains.
- Compliance checkpoints aligned to MSP stage gates and NHS Service Standard assessments.
- Traceability from strategic outcomes to architecture requirements, designs, and releases.
- Benefits tracking aligned to What Good Looks Like capabilities, patient outcomes, clinician experience, and operational efficiency.
- Continuous architecture change management and configuration control for live services.
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Detailed Service Definition (continued)

Deliverables

- Target Operating Model for integrated health and social care, including processes, roles, and shared platforms.
- Current and target architecture views in ArchiMate and UML, with mapping to MSP artefacts.
- Reference architectures for shared care records, virtual wards, outpatient transformation, diagnostics, and citizen services.
- Interoperability specifications using UK Core FHIR, SNOMED CT, IHE profiles, ODS codes, and NHS Number conventions.
- Security architecture, data protection impact assessments, clinical safety cases, and records management plans.
- Roadmaps, portfolio prioritisation, and legacy rationalisation plans with clear investment cases.
- Governance frameworks, decision logs, and compliance evidence for DSPT, DCB, and accessibility regulations.

Detailed Service Definition (continued)

Engagement approach

- Discovery and assessment of business strategy, clinical pathways, data flows, and technology estate across ICS partners.
- Definition of architecture principles, patterns, and guardrails tailored to local context and national standards.
- Co-design of reference architectures and delivery roadmaps with clinical, operational, and digital leaders.
- Iterative delivery with measurable outcomes and formal assurance checkpoints for clinical safety, IG, security, and accessibility.
- Knowledge transfer through playbooks, standards libraries, and reusable models to embed capability in client teams.

Detailed Service Definition (continued)

Example transformation roadmap

- Months 0 to 3: Discovery, baseline architecture, IG and clinical safety planning, gap analysis against WGLL and Service Standard.
- Months 3 to 6: Target architecture, reference patterns, FHIR and SNOMED design, Spine integration approach, governance mobilisation.
- Months 6 to 12: Pilot services, data platform enablement, shared care record enhancements, accessibility and security hardening, safety case evidence.
- Months 12 to 24: Scale across ICS, legacy rationalisation, optimisation of clinical workflows, continuous assurance, benefits realisation.

Detailed Service Definition (continued)

Why this matters for UK health and social care

- Aligns local delivery to national policy and standards while respecting ICS autonomy.
- Protects patient safety and privacy through mandated clinical safety and IG practices.
- Enables interoperability and shared care, reducing duplication and improving outcomes.
- Provides a disciplined, evidence-based approach to transformation that is auditable and sustainable.

About our capability

- We continue to develop capabilities in architecture standards. Our consultants are experienced in TOGAF and ArchiMate notation.
- We are active members of The Open Group and lead activity in architecture framework mapping.
- Our emphasis on multi-disciplinary integration provides flexible and extendable services that adapt as needs evolve across the health and social care system.

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

