

Adam Hatherly Curriculum Vitae

Profile

An experienced senior enterprise and solution architect, with experience of designing large-scale enterprise applications, as well as providing architectural governance and consultancy across a wide range of problem domains in both the private and public sector. My current work leading the re-development of our product as a truly cloud-native platform allows Graphnet to leverage the power of modern cloud services, and make use of new technologies to cut costs and introduce innovative new services. The rich data platform, linked with our remote monitoring capabilities, and Population Health analytics allow NHS trusts to identify health interventions, implement them, and track their effectiveness, which has the potential to transform the way care is delivered in the NHS.

I bring a wealth of experience from my roles in the finance and health sectors, delivering large scalable enterprise solutions through web and mobile channels, leveraging the latest cloud and big data techniques. I also have a strong focus on system integration and standards, using messaging and ReSTful API approaches, as well as event-based processing to implement solutions that are flexible and support agility and innovation.

Experience

Graphnet Health

Aug 2024 - Present: Chief Architect

- Developing and leading the implementation of technology strategy to enable the integration of the Docobo remote monitoring solution into the strategic Graphnet technology stack, as well as the re-development of legacy native mobile offerings using cross-platform technologies to reduce cost and increase productivity.
- Continuing to lead the implementation of cloud native microservices to allow us to decommission our legacy monolithic product, and realise cost savings, as well as improved scalability, performance, and zero-downtime automated deployments.

Apr 2020 – Aug 2024: Technical Director

- Moved into the technical director role during the Pandemic, taking responsibility for leading the development, architecture, DevOps and internal IT functions.
- Led the rapid development of a National Immunisation Management Service, under contract from NHS England. This service was used to identify eligibility for vaccinations during the Pandemic, issue invite letters and emails via mailing partners, and maintain details of all Flu and Covid vaccinations, including adverse vaccine reactions across England.
- Led the design and delivery of a modernised, cloud-native platform for the Graphnet shared record, including the adoption of modern, scalable event processing capabilities using NServiceBus and autoscaling containers in AKS, as well as big data processing using Azure DataBricks and Data Lakes.
- Established a very successful internal “hackathon” to foster innovation across teams, experiment with new technologies, and generate new ideas for taking our products forward. This has been especially important in helping improve collaboration across teams when most teams are now primarily home-based (post-pandemic).

Feb 2019 – Apr 2020: Lead Interoperability Architect

- Introduced and chair a Graphnet Architecture Governance Group to govern key architectural decisions and principles to build the strategic architecture runway for delivery of new services.
- Developed the strategic approach for delivery of new APIs, conforming to the HL7 FHIR standard and UK CareConnect profiles, and managed the delivery through development teams.

- Implemented a new API Management solution to allow Graphnet to publish and manage APIs for external consumers, facilitating integration with third party clinical systems and “apps”.
- Designed and managed the implementation of an event management solution to provide publish/subscribe messaging flows using FHIR message payloads to allow real-time notifications and feeds of data between Graphnet and SystemC components, third party systems, and directly to clinicians and patients via email or SMS.
- Chair the INTEROPen Architecture Subgroup to foster collaboration amongst the INTEROPen members.
- Attended numerous “hackathons” to promote and demonstrate the use of our product in a range of innovative new ways, working with peers in other supplier and NHS organisations.

NHS Digital

Aug 2016 – Feb 2019: Senior Architect - Interoperability

- Leading a small team of technical architects to define an overall architecture for national services to support interoperability across health and social care, including developing the approach for new services such as the National Record Locator Service, National Events Management Service, the NHS Identity platform and API Management.
- Acting as technical lead and SME alongside in-house agile teams to ensure key architectural decisions are recorded and ratified through governance processes, and the solutions align with sound architectural principles and functional/non-functional requirements.
- Own the development of organisation-wide policies around interoperability, and responsible for reviewing and signing off interoperability aspects of all new projects going through architectural governance processes.
- Working closely with standards bodies, and industry bodies such as INTEROPen to shape the technical aspects of the standards for APIs for health and care, including the development of "Care Connect" APIs.
- Active member of the national group developing the overall approach for delivery of Local Health Care Record Exemplars (LHCREs), including working with colleagues in NHS England and LHCRE sites to develop definitions of key capabilities needed to deliver regional information sharing platforms.
- Chair of a FHIR policy working group to bring a consistent approach to the adoption of HL7 FHIR standards across all programmes in NHS Digital.
- Represented NHS Digital at HL7 international working group meetings and FHIR Dev Days, to align the work in the NHS with wider initiatives across the world, and to influence the development of the standard itself.
- Own and manage the NHS Developer Network and the wider cloud-based platform used to deliver online reference implementations and the NHS FHIR Reference Server.

Sep 2014 – Aug 2016: Enterprise Architect

- Developing an enterprise architecture practice within HSCIC as part of a small central architecture team.
- Leading the development of policies across a range of cross-cutting areas including development, service management, networks, technology selection, usability, and many more, including establishing and chairing SME groups in each area.
- Leading the development of tooling within HSCIC to support the EA practice, including a knowledge base, work tracking and planning tools, architectural modelling tools and collaboration tools - using an integrated blend of in-house and commercial tools.
- Led the development of an interoperability strategy to move the health and social care system away from its historical reliance on paper, and towards the vision of integrated digital health and care records.
- Leading the technical delivery of an open source middleware solution for the NHS as part of the CIAO project.

Oct 2011 – Sep 2014: Solution Architecture / Consultancy

- Engaging with a wide range of NHS organisations to understand local business priorities and targets, with a specific focus on using digital technology to support commissioning and provision of care for patients with long term conditions, and those approaching the end of their life.
- Providing consultancy and best practice, as well as technology "enablers" to help local teams overcome digital technology challenges. This includes guidance and standards in areas such as architectural design patterns, system integration, information governance, supplier engagement, non-functional design, etc.

Sep 2008 – Oct 2011: Senior Solutions Architect

- Technical design assurance of all supplier design deliverables as part of the CSC LSP (Local Solution Provider) contract, including contract negotiations for renewals and changes to the £3bn contract.
- Technical expert for systems delivered into all NHS care settings (GP, Acute Services, Community Services, Child Health, Prison Health, Ambulance, Theatres, Maternity).
- Architectural change/risk management, non-functional design assurance, co-ordinate the review of design documents with relevant parties within the NHS.
- Helping non-technical reviewers to understand the content of design documents so they are able to provide meaningful review comments, escalating significant issues and working closely with the supplier to agree pragmatic approaches where required.

GE Money UK

Sep 2002 – Sep 2008: Senior Technical Specialist

- Subject matter expert on e-Business and new accounts systems, providing retailer-branded store cards, credit cards and loans via systems running in retailer stores, GE call centres and on-line. I worked on design, development and testing for various large projects as well as providing technical consultancy for numerous other projects.
- Conceived, Designed and Developed the capability to add content management into several GE Money transactional web applications using an open-source content repository (Jackrabbit). This reduced the cost of rolling out new client brands in our web applications from £15k to approx. £1k per client brand.
- Technical Lead on eBusiness project to provide instant on-line credit decisions GE customers over the Internet. Managed teams of developers in both India and Hungary to build and test the solution that communicated with an IBM mainframe back-end system. The project was delivered on-time and within budget and won a Mastercard award for "Best Use of Technology".
- Implemented tools and processes to incorporate continuous integration and code quality controls into the development process. Developed a long-term strategy to consolidate multiple GE web-based systems by moving to a service-oriented architecture based on an in-house developed SOA framework.
- Acted as an employee representative during GE redundancy proceedings. Attended consultation meetings with employees and management to minimise the impact on employees while meeting business needs.

Jul 2000 – Aug 2002: Information Management Leadership Programme

- After graduating I worked for two years on GE's information management leadership programme, with four 6-month placements in various European GE businesses including GE Money in Leeds, GE Insurance Holdings in Ireland, Penske Logistics in the Netherlands and GE Capital Bank in Switzerland.

Skills & Qualities

- **Integration:** Good understanding of the challenges of very large-scale integration projects, including the development of interoperability standards to facilitate data flows across systems from multiple suppliers and systems
- **Cloud:** Deep understanding (and hands-on experience) of cloud and container-based deployment approaches and dev-ops tooling to support robust "infrastructure as code" approaches
- **DevOps:** Experience of managing offshore development teams in India, China and Hungary, as well as working closely with on-site agile delivery teams
- **Communication:** Can communicate complex topics clearly, pitched at the right level for the audience
- **Problem Solving:** Enjoy taking on difficult problems and consistently come up with innovative solutions that fit with the business need
- **Engagement:** Working directly with clients, potential clients and 3rd parties to agree technical solutions
- **Architecture:** Strong understanding of key architectural principles such as Object Orientation, Service Orientation, Enterprise Integration, Application Design Patterns
- Experience using a wide range of technologies and tools - for example:
 - Standards: OpenID Connect, OAuth2, HL7 FHIR, HL7v3 and CDA, XDS, ebXML, J2EE, W3C, OWASP, XML/XSL/XSLT

- Development: Jenkins, Ansible, Java, Python, Javascript, PHP, Wordpress, Swing, Eclipse, Maven, JUnit, HTTPUnit
 - Services: AWS, Azure, OpenAM, Keycloak, Java App Servers, Nginx, HAProxy, MongoDB, MySQL
 - Frameworks: Docker, Spring, Hibernate, OpenESB
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Education

1997 – 2000: University of Manchester Institute of Science & Technology

- BSc Computing Science (Hons) - First class degree awarded

1995 – 1997: Barnfield College, Luton, Bedfordshire

- BTEC National Diploma in Computer Studies - Distinction awarded

1992 – 1995: Harlington Upper School, Bedfordshire

- 10 GCSEs at Grade A-C; Five "A" grades including Maths and Science
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Training and Certifications

- AWS Certified Solution Architect - Associate
 - PEAf - Pragmatic Enterprise Architecture Framework, Certified Professional
 - MongoDB Certified Developer Associate
 - TOGAF 9 Certified Enterprise Architect
 - Sun Certified Enterprise Architect for Java Platform Enterprise Edition Technology
 - Member of the British Computer Society
 - GE Six-Sigma "Green Belt" Quality Certified
 - Positive Influencing, Management Skills and Interviewing Courses
 - GE Information Management Leadership Programme (IMLP)
 - GE Training on Financial Principles and Due Diligence
 - Technical Training courses on a range of topics including: Service Oriented Architectures, ESBs, Java, Spring and Hibernate, Data Warehousing
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Hobbies and Interests

- Building Lego Raspberry Pi robots
- Woodwork
- Photography