

NHS Digital

“A lesson in Enterprise Architecture best practices...”



Introduction

NHS Digital provides information, data and IT systems for the NHS in England. These systems include managing patient data, the secure sharing of information between different parts of the NHS, the Electronic Prescription Services, Summary Care Record and Electronic Referral Service.

In addition, NHS Digital collects health and social care information and produces 260 statistical publications each year and runs the NHS website.

NHS Digital uses iServer for a wide variety of use cases, including improving the delivery of services, managing technical debt, optimizing departmental mergers and as a technical reference model.



Structured Approach

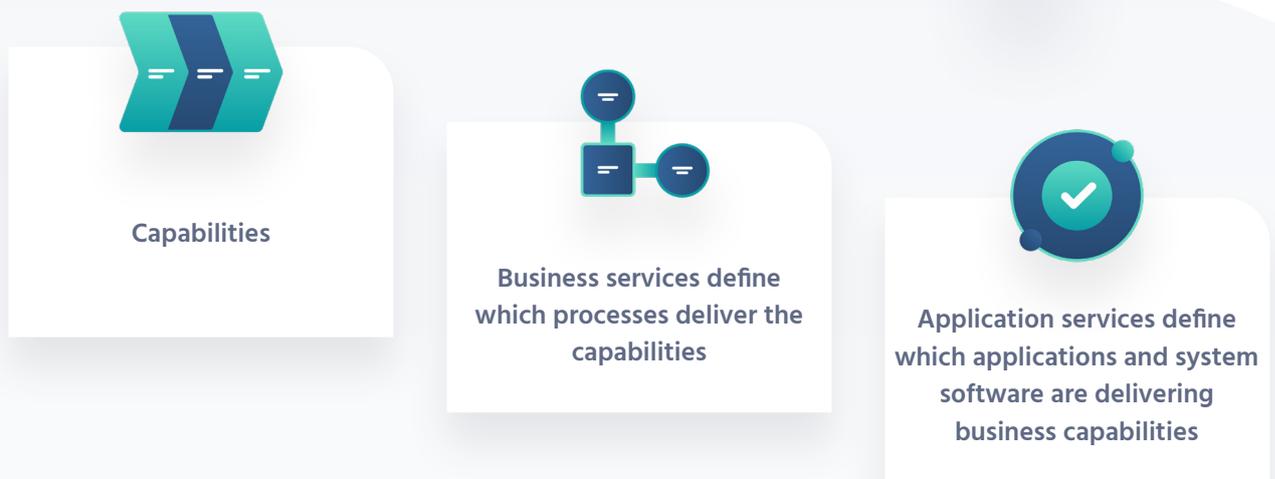
NHS Digital identified that it is not necessary – or even desirable – to collect hundreds of random attributes and store them in the iServer repository without a plan detailing what they would do with them.

They realized that by storing hundreds of attributes, they would be wasting resources capturing the data and maintaining it regularly.

Over the past 12 months, NHS Digital has implemented a plan to ensure that they only collect and store information in iServer required to answer business questions. In addition to making ongoing maintenance easier, this approach significantly increases the buy-in from stakeholders as they quickly understand the business reasons why the data is required and that it is not just contributing to a data collection exercise.

NHS Digital uses a simplified version of ArchiMate in its metamodel. As a best practice, before making changes to their core metamodel or drawing new views, they carefully consider the wider implications of any changes to maintain the model's simplicity and understandability.

To allow stakeholders to understand the metamodel, they base the metamodel structure on a pyramid with the following layers:



This structure allows all stakeholders to quickly understand how capabilities are delivered and which applications contribute to delivering business capabilities.



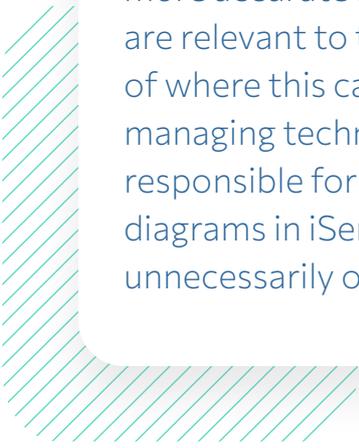
Standard Views are Critical to Productivity

NHS Digital realized that standardizing views is critical to ensure that new users to iServer can become productive quickly. To achieve this, they created a guide on drawing elements and relationships in views and how to read the diagrams.

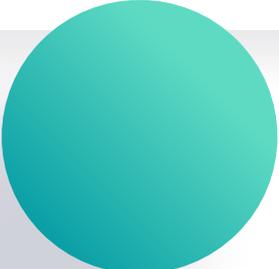
This short document describes the mandatory attributes which must be included before views are signed off.

Having standardized views is particularly important for contractors who need to become productive quickly as they may only be working on a project for six months and cannot afford to spend three months getting up to speed. Consultants can learn the structure of the standardized views quickly using the best practices guide and transfer this knowledge to all views in iServer.

NHS Digital has standardized diagrams for all the strategic portfolio applications they provide to other parts of the NHS. This means that anyone who can read one diagram can read and understand all the diagrams associated with these critical applications. In addition, anyone who makes changes to these diagrams will use the standard best practices ensuring consistency of the diagrams in the future.



Diagrams are categorized in layers so that specialists only see the ones relevant to them. This allows the EAs to get more accurate and timely information as the diagrams are relevant to the individual stakeholders. An example of where this categorization has been useful is when managing technical debt. As the engineering teams are responsible for technical debt, they can view the relevant diagrams in iServer, but the information does not appear unnecessarily on diagrams used by other users.



How is the Data in iServer Used?

NHS Digital uses the data stored in iServer for various stakeholders to help improve the speed and accuracy of decisions made across a variety of disciplines.



Optimizing Delivery of Services

As a result of growing organically, the delivery of services is not optimized and cost-effective in many cases.

Program teams are using the information in iServer to determine whether they should deliver services on a national or local level to maximize efficiency. Where it makes sense, providing services nationally could provide economies of scale, resulting in significant savings across the entire NHS.



Managing Technical Debt

NHS Digital engineers use iServer to analyze the implications of technical debt within the NHS. As a result, they have been able to justify investments to reduce the risks and inefficiencies associated with technical debt.



Optimizing Merger of NHSX and NHS Digital

iServer is playing a pivotal role in the merger of NHSX and NHS Digital into a **NHS E & I** which is part of a broader initiative to create a more coherent approach to digital transformation within the NHS. This project will allow the NHS to 'rapidly and consistently adopt new models of care that exploit the full potential of digital technologies.'¹

NHS Digital has started to create capability models in iServer based on standard models from other government areas. These models are based on its standard Capabilities/Business Services/Application Services pyramid structure to ensure consistency with their existing metamodel.

By modelling business capabilities and processes, the EA team is gaining a good understanding of how they deliver different business functions. This knowledge will help NHS Digital explain what they provide and how the services are delivered. This will be significantly beneficial during the merger process as the wider organization will understand where there are overlaps and where they can reuse existing services quickly to provide capabilities across a wider userbase.



iServer as the Technical Reference Model

NHS Digital uses iServer as their technical reference model to define allowed systems software and which software they will phase out due to no longer being required.

iServer is used to define the 5-year roadmap for the applications within NHS Digital. This roadmap clearly defines whether each application will be maintained, rehosted on a different platform, upgraded, replaced or retired. NHS Digital uses an iServer template that allows stakeholders to scroll through a timeline to see the transformation of applications over time. This view of the roadmap helps individuals clearly understand the roadmap over time.

¹ 2022/23 Priorities and Operational Planning Guidance



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