London SDE/AIC Programme: Introduction and Proposed Use-Cases

Dr. Joe Zhang   Prof. James Teo   Dr. Jorge Cardoso

Jawad Chaudhry   Sigal Hachlili

Version 0.5 (last updated 2024 Apr 7)

Introduction

The London AI Centre (AIC) has been commissioned to join the London Secure Data Environment (SDE) programme for its latest phase: to build on existing infrastructural work, and extend AI technologies and advanced analytics capabilities to stakeholders and environments across London. This *living document* summarises the latest state of planning for the programme, as a transparent aid to internal stakeholders, and collaborators in Integrated Care Boards and the wider London NHS ecosystem.

What is the London SDE?

The London Secure Data Environment (SDE) programme is part of a national effort to enable secure and more powerful analytics for NHS, academic, and commercial users. Uniquely amongst regional peers, the London SDE does not focus on a single research platform. Rather, it places a focus on developing pan-London data infrastructure and capabilities that can deliver value to patients, care providers, and commissioners. This is in addition to building data environments that support commercial research and development partnerships.

The SDE is presently led by **OneLondon**, as part of an overarching London Health Data Strategy, coalescing around three components (Figure 1).

(1) **London Data Service (LDS)**: hosted in North-East London, the LDS serves as a data engineering and service layer for pan-London primary care and secondary care data. It handles data extraction and linkage, and provisions data warehouses and secure analytics environments for both research and NHS users.

(2) **DiscoverNOW Research/Analytics Environment**: run by Imperial College Healthcare Partners, DiscoverNOW supports governance and operation of secure research environments for academic, commercial, and NHS research and analytics.

(3) **London AI Centre (AIC)**: a national centre of excellence for applied data science and AI, the AIC provides frontier technology for data enrichment, federated analytics, and deployment of machine learning tools, as well as expertise in health data and advanced analytics.

Source: Article Notebook

Technology and objectives
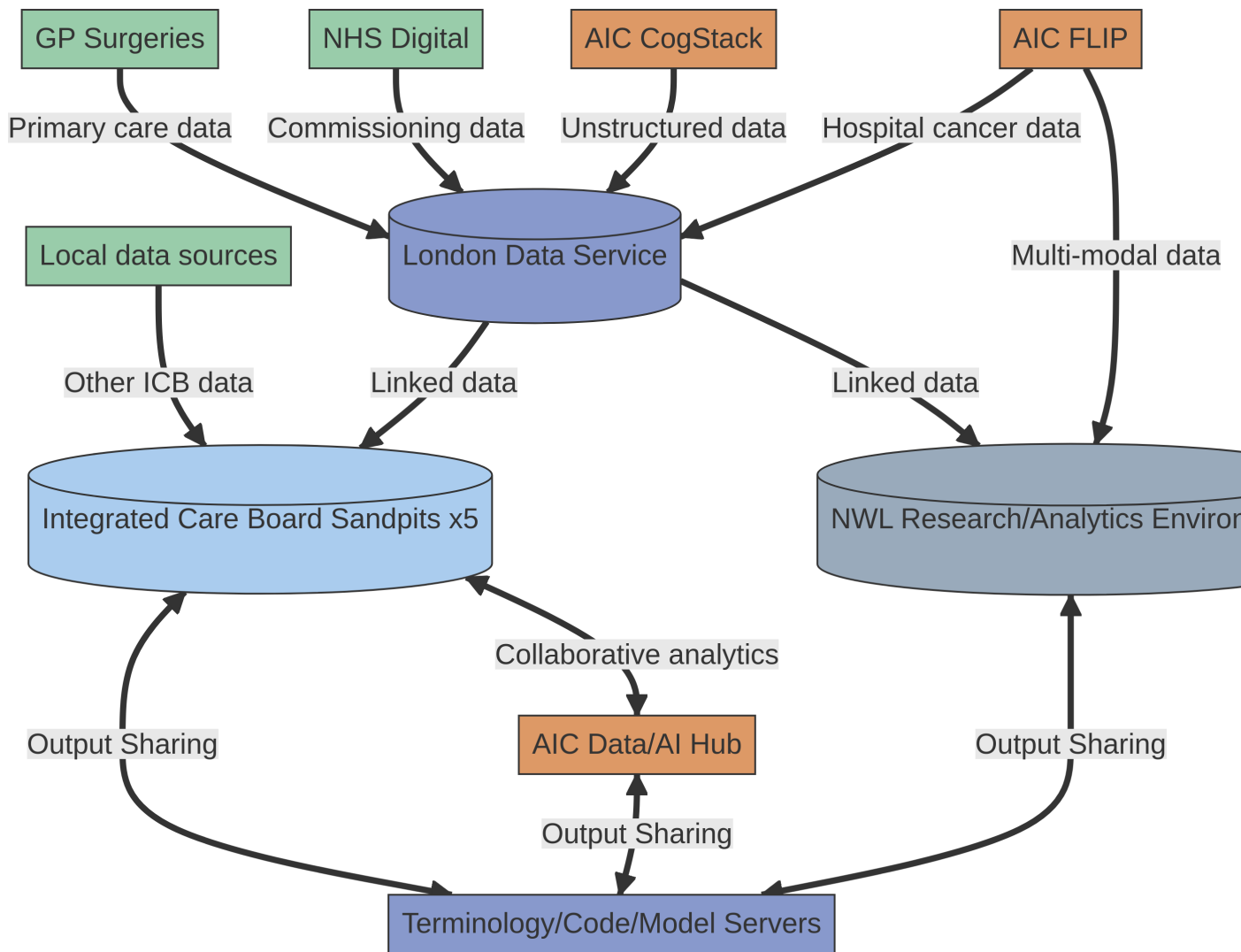
Proposed use-cases

Figure 1: Summary of SDE components and data flows. Each London ICB is provisioned with its own data/analytics environment through the LDS. FLIP = Federated Learning and Interoperability Platform.