

Integrated Health Information Systems (IHIS)

The customer

Integrated Health Information Systems (IHIS) was formed in Singapore in 2008 as a cohesive approach to the development and management of IT systems in public healthcare. Today, IHIS supports the operations of 46 public healthcare institutions including acute hospitals, specialty centers, and polyclinics, as well as over 1,400 partners such as community hospitals, nursing homes, general practitioner clinics and voluntary welfare organizations.

In just over a decade, IHIS has received more than 80 awards for innovations that continue to deliver significant positive impact to the health and wellbeing of Singaporeans. As part of one of the world's highest ranked healthcare systems, they are renowned for their industry-leading use of clinical informatics, computer science, data science, mechatronics, standards-based IT that enables information exchange and cross boundary workflows, analysis, statistical and machine learning techniques.

The organization's objectives are closely aligned to the priorities of Singapore's Ministry of Health, and their ultimate aim is to improve the population's health and health administration by integrating intelligent, highly resilient and cost-effective technologies.

Customer Name	Integrated Health Information Systems (IHIS)
Location	Singapore
Website	www.ihis.com.sg
Organisation Type	HealthTech agency for acute hospitals, specialty centers, polyclinics, and much more throughout all of Singapore.
Staff	Over 2000 technologists and knowledge professionals
Product Implemented	Lyniate Rhapsody® (On-Premises)

The challenge

IHIS needed a more robust, resilient, and comprehensive out-of-box solution in order to support its digitalization and automation initiatives while having cost effective interoperability platform to manage and facilitate realtime data exchange and enable administrative, patient or clinical information to be shared among various systems and stakeholders in healthcare.

Before implementing Lyniate Rhapsody, IHiS used four physical instances of a legacy enterprise service bus (ESB) to enable the interfacing of EMRs and allow data to be exchanged with National Electronic Health Records.

There were some challenges with the ESB:

1. Architecturally complex three tier architecture with limited scaling capability
2. Limited out-of-box functionality to support some of the integration patterns
3. Complexity in customization and also over reliance on GUI without a good plugin capability. Hence, simple localization deployment and implementation were made complex and required substantial effort
4. With many components, its software license support and maintenance were considerably costly

Curious how Lyniate can help you share health data in your ecosystem?

The solution

Rhapsody was successful in IHiS' RFP process and officially awarded the contract to enable the consolidation and rationalization of the various ESBs. In January 2018, the award-winning HealthTech agency successfully migrated to Rhapsody, which enables IHiS to rapidly deploy its integration needs, with greater robustness, better resiliency while reducing costs.

Rhapsody is now implemented within 29 Public Healthcare Institutions in Singapore, using 1600 communication points to handle 232 unique data types (including Admission, Discharge and Transfer (ADT), Appointments, Clinical Notes, ED/OT Notes, Clinical Ancillary Order and Result, Patient Medication List, Patient Vital signs, etc.).

Since the implementation, IHiS has increased the scope of their integration strategy and are now planning to migrate from other interoperability platforms to Rhapsody. They intend to utilize the platform as one of the core components in their Application Infrastructure Architecture Standard (AIAS) implementation and on-board new National Systems and Public Healthcare Institutions.

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