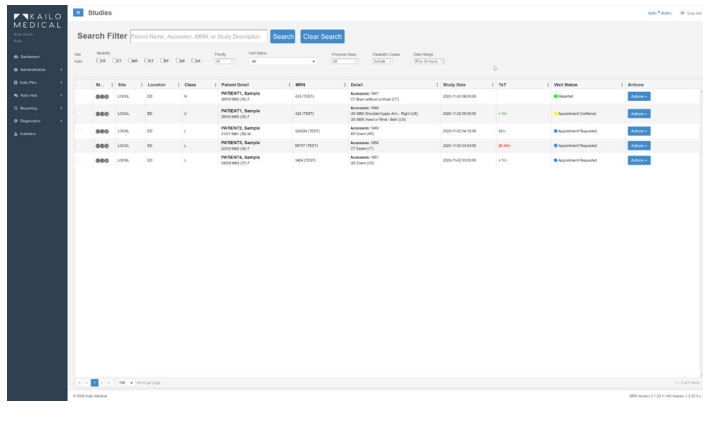


KailoHub

A centralized hub containing all the information you need at your fingertips will make your job easier, and better outcomes possible. That's what KailoHub does - and does it well. You'll have a single access point to images, orders, reports and data to make the right decision for your patients. KailoHub, now in its fourth generation, was born out of the need to integrate disparate medical systems. The system is highly configurable and scalable; it is used as the backbone of some of the largest Radiology groups in the world.



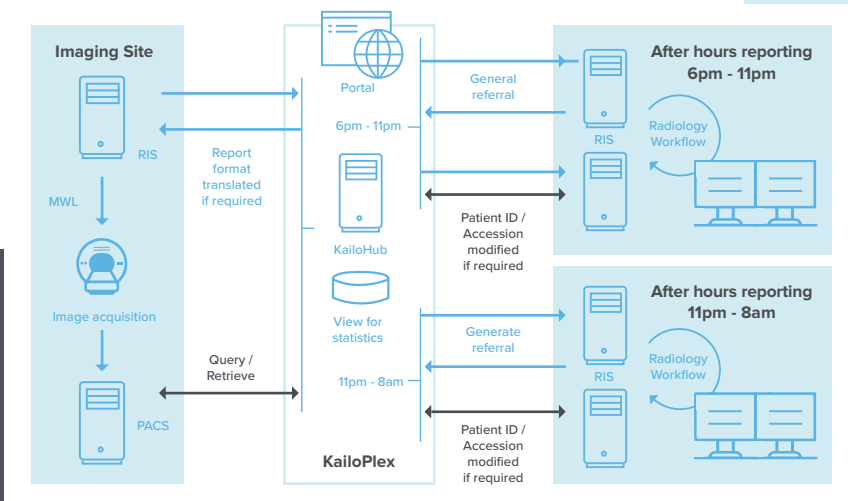
How KailoHub works

KailoHub is an enterprise grade integration platform specialising in HL7 and DICOM, SOAP and REST APIs, as well as XML and other Flat Files. It runs behind the scenes monitoring, guiding and assisting the flow of information between systems and devices located within and outside the enterprise. It can be used in a number of different scenarios such as:

SEAMLESS MEDICAL IMAGE ROUTING :

KailoHub facilitates retrieval of current and prior images from disparate systems, in order to put the right information into the right care giver's hands at the right time. Combining custom relevancy rules with business logic around coverage windows, report turnaround times and radiologist credentialing, KailoHub can retrieve and route the required imaging data to the correct destination.

- Eliminate switching between multiple reporting systems
- Ensure reporting SLAs are met
- Provide a consistent reporting environment across different jurisdictions
- Facilitate teleradiology and other remote reporting workflows



The diagram below depicts an imaging centre that reports their own studies from 8 AM - 6 PM and then has two different radiology groups remotely cover their after hours reporting. Using KailoHub, order messages from the imaging site RIS are forwarded to the first After Hours reporting site starting at 6 PM. A corresponding referral is generated in the After Hours reporting site's RIS system. Images are routed to the reporting site's PACS and any modification/transposition of patient and study identifiers is done at that time. Once the report is complete, it's routed back to the imaging centre's RIS system in the appropriate format. At 11 PM this whole scenario is repeated to the second After Hours reporting site.

How KailoHub works (Continued)

IMAGING STUDY ANONYMISATION

KailoHub can be used to manipulate DICOM tags within imaging data whether it be morphing them or stripping them prior to storing the images locally or routing them to another destination. This can also include obfuscation of burned in pixel data that includes identifiable patient information.

- Anonymise studies for research purposes or training AI algorithms
- Morph DICOM tags so that patient and study identifiers match the receiving PACS system

AUTOMATED POPULATION OF REPORT TEMPLATES

Most imaging exams generate data whether it be measurements acquired during an ultrasound exam or dose data during a CT. Rather than transcribing this data into paper worksheets and re-dictating it into the report, KailoHub can process these values and populate them directly into the radiologist report.

- Improves accuracy of the report
- Eliminates redundant work for the technologists and radiologists
- Ensures a more consistent report for the referrers
- Addresses multi-vendor DICOM SR differences
- Supports private DICOM SR tags

The system is highly configurable and scalable allowing you to create, manage and maintain new interfaces.

KailoHub features:

The system is highly configurable and scalable allowing you to instantly create, manage and maintain new HL7 and DICOM interfaces.

WEB-BASED PORTAL

Clinical staff are enabled to:

- instantly see total number of images on the PACS
- view priority
- view turn-around time
- view current status of the study

Technical staff are enabled to:

- edit the interface configuration
- instantly create new interface solutions
- view current status of the study
- search, view, edit and resend HL7 messages
- search, view and send DICOM
- access a dashboard highlighting system status, details on current messaging volumes as well as usage and events over customizable time periods

HL7 & DICOM COEXISTING

- The one system can trigger events and actions across standards

CONFIGURABLE ACTIONS

Kailo Actions (know as a KAL) can be configured to perform any RIS/PACS integration function

WORKFLOW STATE TRACKING

Finite state engine (Plex) tracking all workflow states with associated triggers and actions

AUDIT HISTORY

Full audit history of all actions

SELF-MAINTENANCE

Automated data retention policies based on configured parameters

ALERTING

- Automated alerting based on customisable triggers/events
- For example alerting on low disk space
- Alerts based on queue inactivity or queue depth
- Service monitoring
- Alerts can be sent via email, Slack and are viewable on the KailoPortal Dashboard

AI INTEGRATION

- Vendor interface for integration with one or more AI algorithms.
- For example, study priority can be increased on a Radiologist worklist in the case of an adverse finding.



DICOM Features

ROUTING

- One-to-One, One-to-Many, One-to-Many Round Robin

HEADER PSEUDONYMISATION

- DICOM Header Pseudonymisation (GDPR and HIPAA Compliant)
- Separately stored key required to reidentify

HEADER ANONYMISATION

- DICOM Header Anonymisation (One-Way)
- Can support AI initiatives

IMAGE REDACTION

- Burned-in identifiable information is blacked-out based on predefined rules

DICOM TO HL7

- HL7 Order generation

TAG MORPHING

- Tag morphing/stripping based on rules

QUEUE

- DICOM Query/Retrieve queues

SYNCHRONISATION

- Unidirectional and Bidirectional PACS synchronisation

PARKING

- DICOM study caching and forwarding based on events/triggers

NORMALISATION

- DICOM Header can be stripped of custom tags

MEASUREMENT PARSING

- DICOM Header and Structured Report can be parsed for both standard and custom tags

RELEVANT PRIOR MATCHING

- Relevant prior matching and routing based on any DICOM/HL7 field including Body Part, Modality and Study Age

HL7 Features

TRANSLATION

- HL7 Version-to-Version translation

NORMALISATION

- HL7 format from multiples sources can be normalised

PSEUDONYMISATION

- HL7 Message Pseudonymisation (GDPR and HIPAA Compliant)
- Separately stored key required to reidentify

ANONYMISATION (ONE-WAY)

- HL7 Anonymisation (One-Way)
- Can support AI initiatives

ROUTING

- One-to-One, One-to-Many, Many-to-one



A centralized hub containing all the information you need at your fingertips will make your job easier, and better outcomes possible.