



EICON MESH

EICON MESH is a versatile, extensible solution built on **EICON SEARCH**. Its primary purpose is to facilitate collaboration across disciplines by presenting a single unified view into all clinical research data.

This solution may be integrated with **EICON (REACH) EXPORT** and **EICON AI** as well as with the data collection module, **EICON COLLECT** (details below).

EICON MESH grew out of the need to enable highly responsive review and analysis capabilities for large volumes (multi-billion) of Radiology metadata. Designed originally as a DICOM Search solution for Radiology, **EICON MESH** has evolved into a powerful Search solution across multiple data types.

Key Features:

- Search across all metadata for multiple 'ologies. (This is enabled by indexing all metadata for Pathology, Radiology, ECG, Digital Photography and more into a set of highly efficient domain-specific indexes on a single Search fabric).
- A fully integrated User Interface for all medical image data
 - Secure, access based single signon to all medical image data systems
 - Powerful, intuitive Search, Review and Visualize using common Search attributes (e.g., Study, Subject, Visit, etc.) or domain-specific Search attributes (e.g., QTcB) or any combination of these Search criteria, e.g., find Radiology scans corresponding to outlier QT values in ECG
 - Domain-specific image data viewers for all integrated 'ologies
- Currently, out-of-the-box indexing for Radiology, ECG, Pathology, and Digital Photography
- Dataset Management for sharing, collaboration and downstream data review and processing
- Fully interoperable with EICON EXPLORER for data presentation in single or multi-ology dashboards
- Fully compatible with EICON COLLECT for automated indexing of both internal and external data as part of the data collection process. For external data, this can mean either Upload-Store-Index the data or simply Index with external references.
- Fully interoperable with EICON AI for automated AI algorithm management and execution

- IBIS can provide services to complete legacy data collection and Indexing for existing data, managed externally by third party partners

Key Benefits:

- Paradigm shift with many novel opportunities to share and collaborate across the clinical landscape
- Model for the future. A cross-ology platform with all the components necessary to enable comprehensive AI management and execution
- Notes on Technology:
 - All components of this solution are containerized (Docker)
 - Comprehensive Security
 - Regulatory Compliance

INTEGRATES WITH:

EICON COLLECT: EICON COLLECT simplifies the collection, storage, and management of clinical trials data from external partners/ third parties. **EICON COLLECT** is a specific configuration of the **EICON REACH** product.

Key Features:

- Simplify. At the Core Lab/CRO, a folder is designated into which the Core Lab/CRO will copy data that are ready for upload to the Sponsor. The CAN includes a Folder Watcher that senses the data in the folder and sends it in real-time to the HUB.
- Central control. All data collection is fully configured and managed in the EICON HUB.
- Flexibility. Each CAN is configured individually to address the specific topology of the third party whose data are to be collected using that particular CAN.
- Each CAN is deployed adjacent to the data source
- Once the CAN has been deployed, it can operate independently of the HUB
- Data flow from the data source to the CAN to the HUB
- Storage. The EICON COLLECT HUB can be configured to store the uploaded data using one of the following additional options:
 - Data can be automatically stored into existing back-end systems using system APIs, where they exist. (Out of the box integrations are included for EICON RADIOLOGY and EICON ECG).
 - A simple storage solution is available for data for which no storage/ management solution is currently available. (This will typically be implemented as part of a solution that includes EICON SEARCH, so that stored data can be indexed, searched, found, and reviewed.)
- Notes on Technology:
 - All components of this solution are containerized (Docker)

- Comprehensive Security
- Data upload is fully automated
- Full control over communication model – configurable to allow requests to originate only from HUB or only from CAN
- Regulatory Compliance

Key Features (additional options):

- Data QC. Quality specifications can be configured on the HUB and executed on the CAN. If a file fails a QC check, it is not uploaded, and the CRO/Core Lab is notified of the failure.
- **EICON SEARCH** can be integrated with **EICON COLLECT** and used to index all data collected into a common OpenSearch metadata repository for search and review.

Key Benefits:

- Model for the future. A single, uniform architecture enables the Sponsor to remove all complexity from the third-party data upload operation.
- Consistency across data types and data sources. A single, centrally controlled solution for all data upload operations.
- The separation of management from execution and the high level of configurability makes this an extremely scalable solution that can easily be adapted for enterprise-level data integrations with external partners.