

Optimizing and Automating Radiology Data De-identification Workflows



EICON REACH

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- Current de-identification solutions require a substantial human review component, which is
 - expensive
 - a constraint on data throughput
- Some default de-identification solutions can be overly aggressive, unnecessarily reducing the utility of the data for secondary use
- Basic needs for
 - User-friendly UI with configurability
 - Ease of deployment
 - Scalable performance (horizontal/vertical)

☰ OUR SOLUTION: EICON REACH DE-ID

- **GOAL:** Highly configurable, extensible platform for automation of the de-identification process and minimization of the need for human review
- Hub-and-spoke architecture
 - Cloud- or Enterprise-based Command/Configuration/Control
 - Execution at the Edge, adjacent to the data
- Combines Rules-based De-ID with AI-based De-ID into configurable workflows/pipelines
 - Rules-based: configurable, template-based
 - AI-based: Modality-specific algos (MR, CT, PT, US, XR, ++)
- Automates execution of De-ID pipelines
- Audits all user activity and pipeline execution
- Risk mitigation: AI-based uncertainty quantification to measure success and minimize human review requirement





REACH HUB



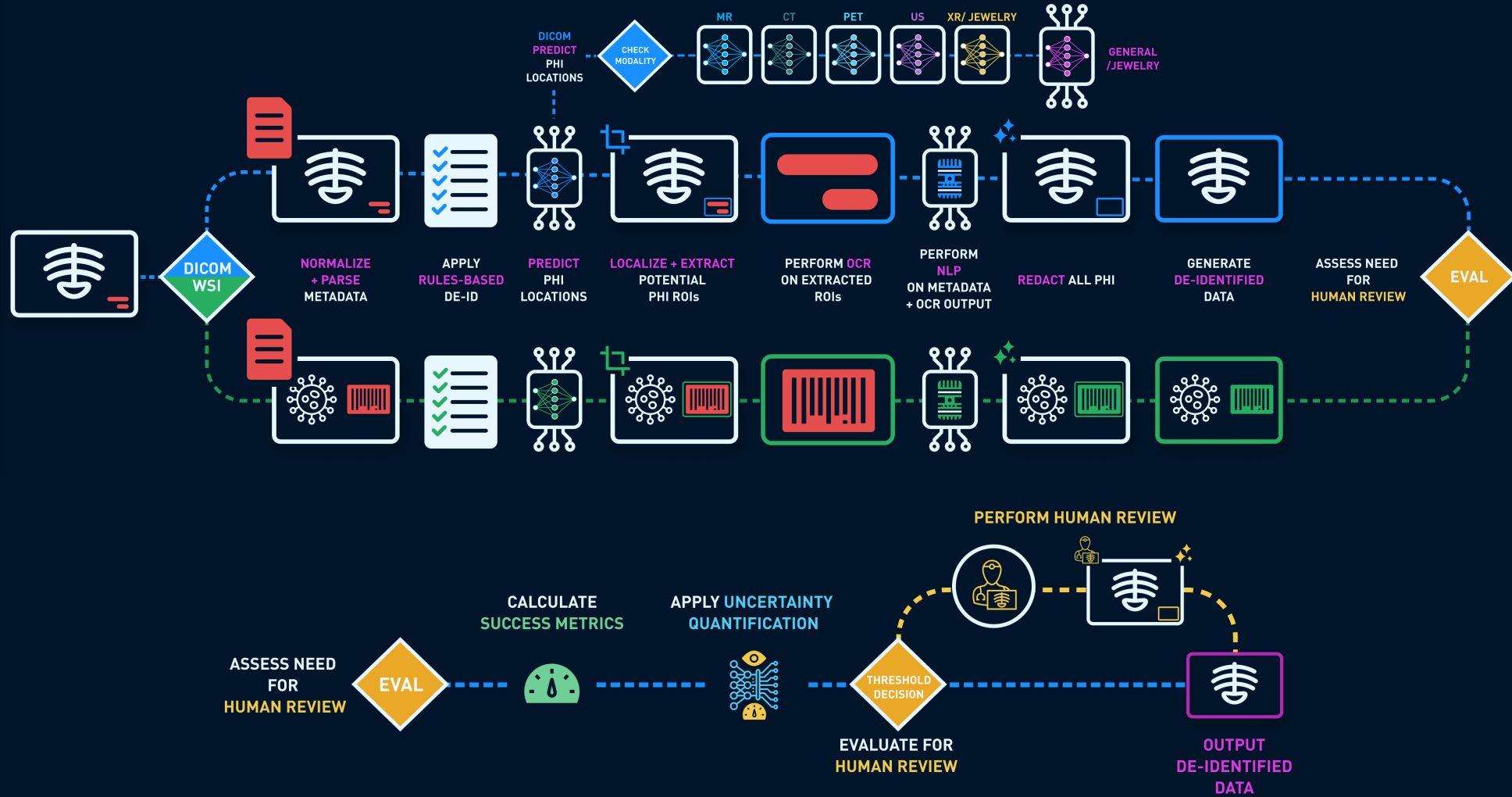
REACH CAN

- Centralized Command & Control, Configuration
- “Asset” Management & Pipeline Orchestration – algorithms, models, De-ID, QC, routing rules, data curation, etc.
- Web UI

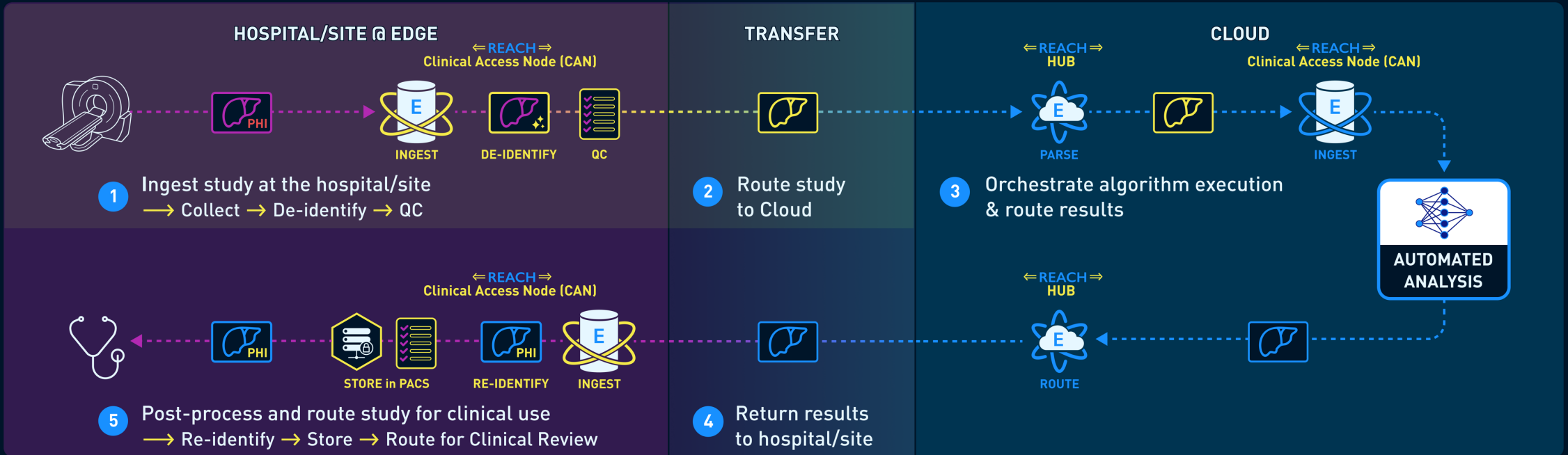
- Deploy Anywhere (Public Cloud, Customer/Partner VPC, On-Prem)
- Receive Assets, Pipelines & Instructions from **HUB**
- Receive Data over DICOM Protocol, API/HTTPS, File System watcher
- Execute Pipelines: perform De-ID, data QC, data routing, algorithm execution, etc.
- Communicate audit trail, status, etc. to **HUB**



→ EICON REACH DE-ID Pipeline



→ EICON REACH Algo Execution with De-ID



→ THANK YOU

