The Hartford

The Hartford is an insurance company operating as a 213-year-old startup, bringing the **power** and **scale** of leading-edge technologies to **shape the future** of insurance for our customers.

We are deeply committed to sustainability; know that a diverse, equitable and inclusive culture drives business outcomes; and use our knowledge, data, people and resources to make positive contributions to society.

> **AWARDS AND RECOGNITION**

2023 WORLD'S MOST ETHICAL COMPANIES® ETHISPHERE 14-TIME HONOREE

2023 CATALYST AWARD *winner*

JUST AMERICA'S MOST JUST COMPANIES #CNBC 2023

DEI BEST PLACE TO WORK FOR DISABILITY INCLUSION 2022 100% DISABILITY EQUALITY INDEX

MILITARY FRIENDLY 2023 EMPLOYER

Bloomberg Gender-Equality Index 2023

The Hartford ranks — No. 174 — in the 2023 Fortune 500

BEST PLACES TO WORK 2022 for LGBTQ+ Equality 100% CORPORATE EQUALITY INDEX
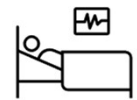
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Business Context

Claim handling staff manually analyze, review and process millions of medical records on an annual basis.
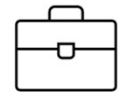
These records are critical to the evaluation and processing of a claim as they inform current and upcoming claim adjudication decisions, which impact everything from:

how promptly our injured claimants receive care

how quickly they get back to work

when and how long they receive income replacement

Business Objective

Digitize, extract, and better visualize data from medical record images, enhancing accuracy and completeness of data captured to provide a holistic picture of claimant's health to our claim handlers
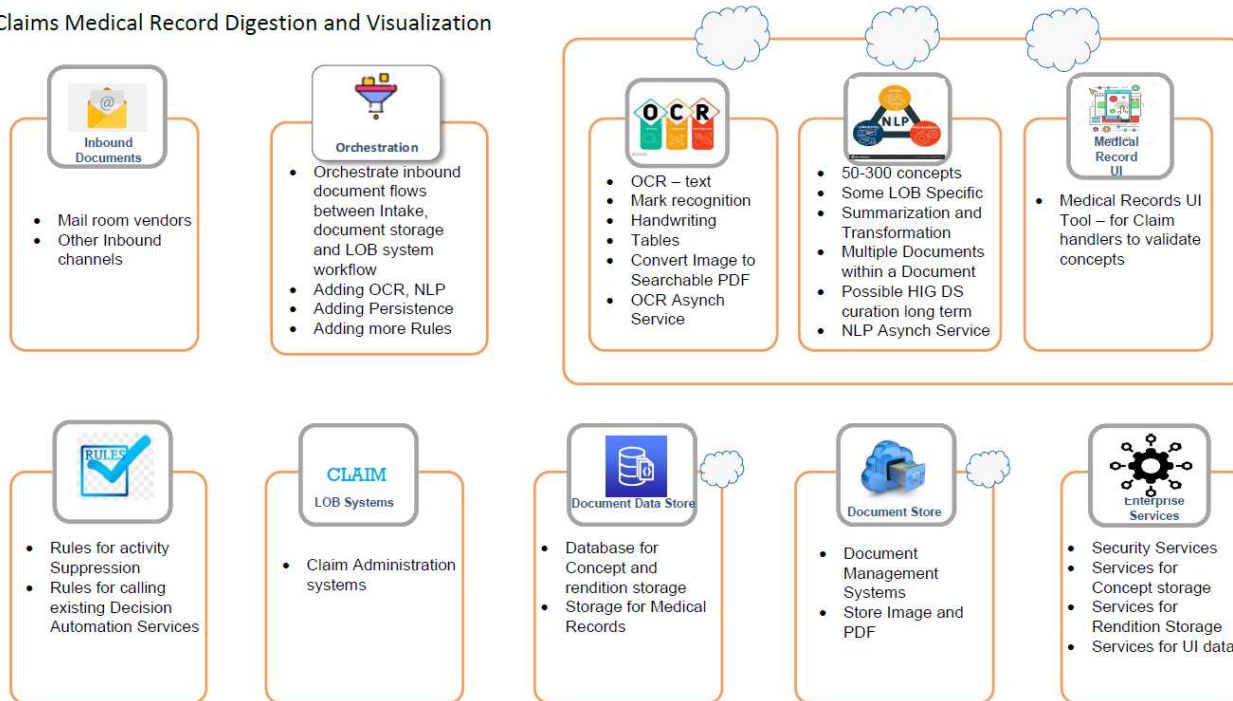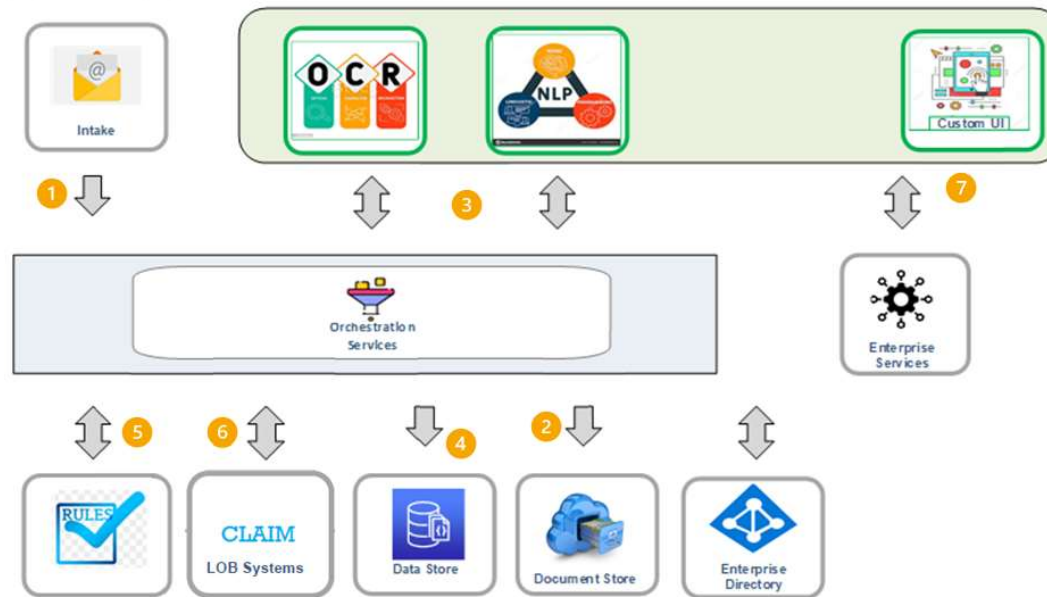
Architecture Components

Claims Medical Record Digestion and Visualization

Inbound Documents
- Mail room vendors
- Other Inbound channels

Orchestration
- Orchestrate inbound document flows between Intake, document storage and LOB system workflow
- Adding OCR, NLP
- Adding Persistence
- Adding more Rules

OCR
- OCR – text
- Mark recognition
- Handwriting
- Tables
- Convert Image to Searchable PDF
- OCR Asynch Service

NLP
- 50-300 concepts
- Some LOB Specific
- Summarization and Transformation
- Multiple Documents within a Document
- Possible HIG DS curation long term
- NLP Asynch Service

Medical Record UI
- Medical Records UI Tool – for Claim handlers to validate concepts

RULES
- Rules for activity Suppression
- Rules for calling existing Decision Automation Services

CLAIM LOB Systems
- Claim Administration systems

Document Data Store
- Database for Concept and rendition storage
- Storage for Medical Records

Document Store
- Document Management Systems
- Store Image and PDF

Enterprise Services
- Security Services
- Services for Concept storage
- Services for Rendition Storage
- Services for UI data

Solution Architecture

1. Scan and index incoming mail, email and FAX

2. Store document images into Document Management repository

3. Perform OCR and NLP

4. Store extracted contents

5. Apply rules to filter Medical Records

6. Notify Claim LOB system

7. Through UI, display claim and medical data along with the document

Implementation Team

Claims Business Team	Leadership Team	Enterprise Architects	Vendor Management Team
Claims IT Team	Enterprise Cloud Office	OCR SaaS Vendor	Law Office
Document Management Team	Business Process Management Team	Natural Language Processing SaaS Vendor	Compliance Team
Shared Services Team	Enterprise Data Office	Information Security Office	Data Science Team
Enterprise Middleware Integration Team	Performance Engineering Team	User Experience Team	Quality Assurance Team

Thank you

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