

HCLTech | aws

PriorAuth

Revolutionizing prior
authorization for insurers

Overview

PriorAuth is a transformative Agentic AI solution that automates and revolutionizes the entire Prior Authorization verification process for insurance payers. By leveraging Agentic AI, natural language processing and machine learning, our solution drastically reduces manual effort, increases accuracy, aligns with CMS Interoperability Regulations of 2027 and accelerates document processing by reducing processing time from hours to minutes.

Our cutting-edge solution leverages Amazon Bedrock Agents to revolutionize Prior Authorization (PA) processing through an advanced Agentic AI architecture. Leveraging sophisticated multi-agent collaborative AI, the solution autonomously ingests and verifies complex medical documentation, including EDI 270/271 transactions, medical necessity documents and historical member data.

It also assesses confidence scores and autonomously generates recommendations (approve, reject, manual review) accompanied by detailed reasoning.

The solution transforms labor-intensive workflows through automation, reducing processing time, minimizing human error and addressing evolving regulatory requirements such as the upcoming CMS Prior Authorization interoperability mandates (of January 2026-27).

Key components:

In contrast to conventional Prior Authorization workflows that rely on manual processes, our AI-powered solution streamlines and automates key activities, including:

- Completeness check of prior authorization documents
- Entity Extraction from submitted documents
- Validation of 5 major stages comprising 25+ sub-stages
- Verification against Insurers' Internal / Backend systems to provide an actionable response
- Confidence Score Generation for each verification phase
- Insight generated from historic approved prior authorizations
- Data Driven Decision – Approval / Reject / Manual Review Recommendation
- Comprehensive Summarization
- Intelligent Conversational Bot (ICB) for each prior authorization
- Sharing the 'reviewer's mindset' by analyzing past adjudications for similar cases

Benefits:



Productivity Improvement by **>75%**



Turn Around Time Improvement by **> 70%** (data exchange and workflow between payers and providers, high turnaround time)



Regulatory Compliance of CMS Prior Authorization interoperability requirements



Agentic AI-based Decision (approve/reject/manual review recommendations) with explanation.



Better Customer Satisfaction score

Highlights:

Leverages a multi-agent architecture to automate 30+ complex validations across eligibility, provider, service, fraud and document checks.

Orchestrator Agent coordinates specialized agents, performing granular validations with confidence scoring. Enables intelligent auto-decision making based on comprehensive validation results.

Addresses upcoming CMS Prior Authorization interoperability requirements by Jan'2026-27 through an advanced AI solution.

Automatically handles regulatory compliance, supports data exchange standards and ensures error-free processing of prior authorization requests while meeting evolving healthcare regulatory mandates.

Utilizing multi-agent AI architecture, the solution automates document verification, entity extraction and decision-making across 25+ sub-stages.

Enables faster, error-free processing with intelligent insights, reducing manual intervention and accelerating insurance authorization on workflows.

AWS services used:

Amazon Textract

Amazon Bedrock Agentic AI

Amazon API Gateway

Amazon Simple Queue Service (SQS)

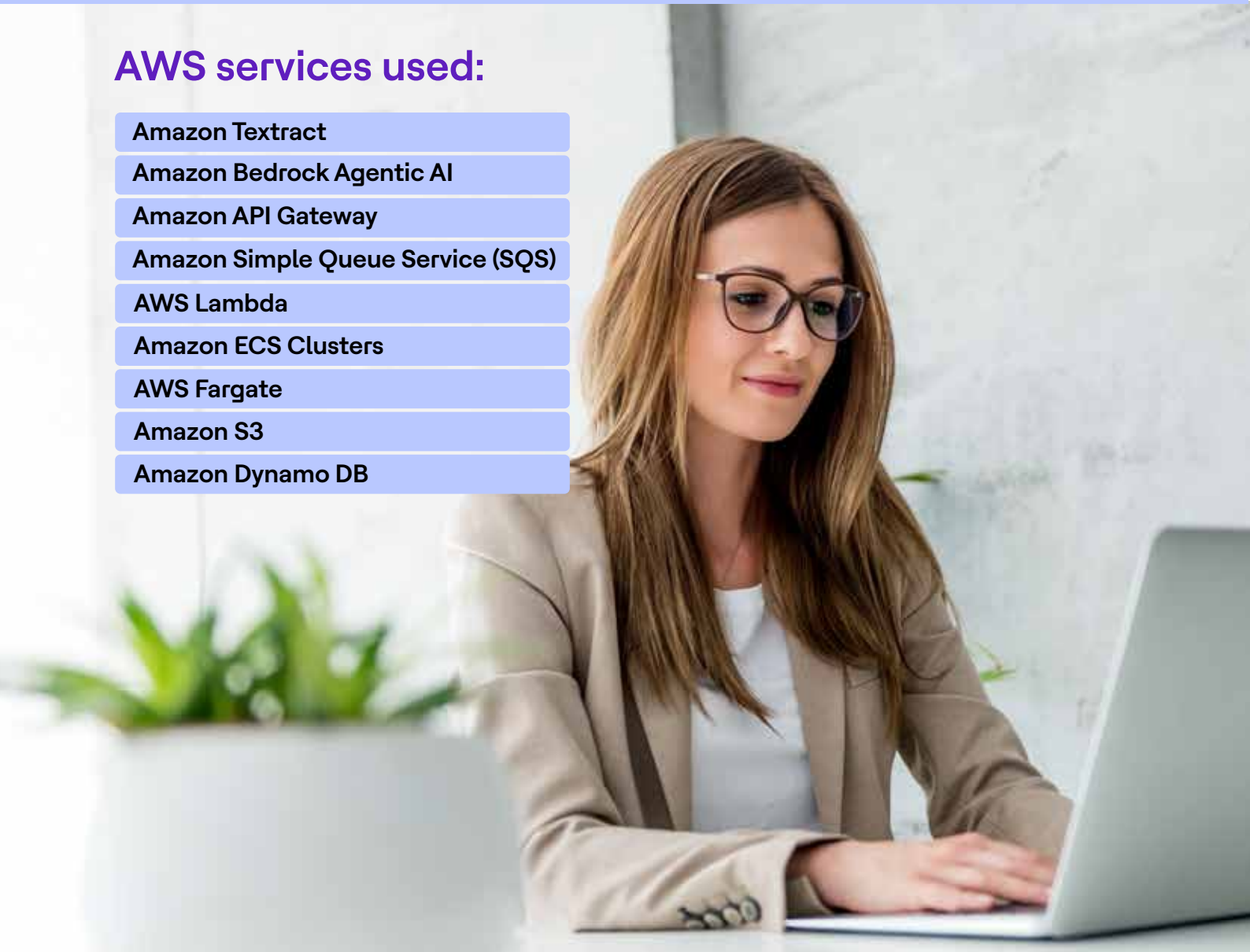
AWS Lambda

Amazon ECS Clusters

AWS Fargate

Amazon S3

Amazon Dynamo DB



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