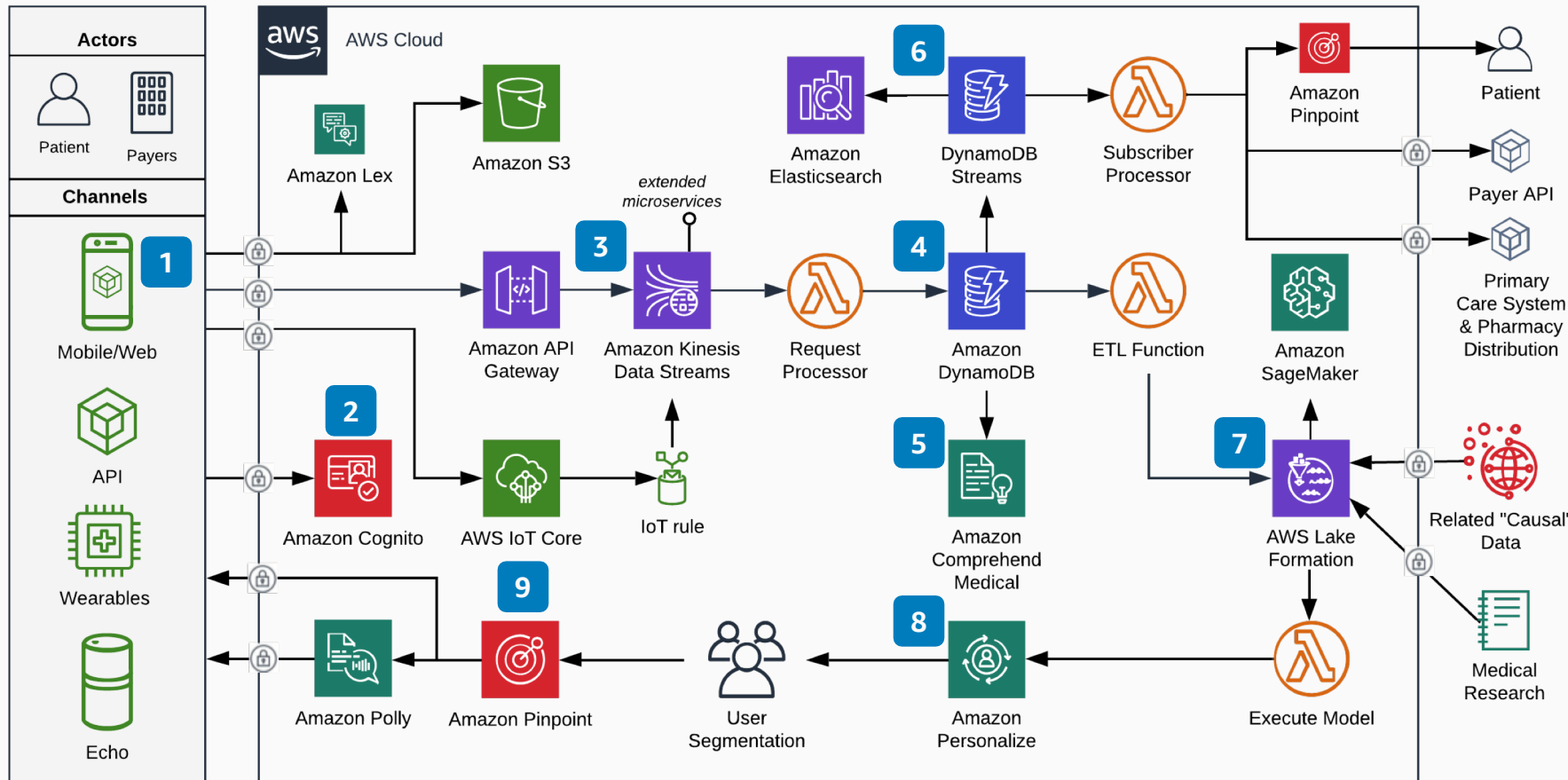


# Patient Engagement with Amazon Pinpoint and Amazon Personalize

## Targeted and meaningful patient engagement on AWS



- For ease of interaction, patients and payers can use a number of optimized channels in this solution, with this example describing how mobile apps, digital therapeutics devices, chatbots, or voice-enabled devices can be used for key interactions such as **patient registrations, appointments, payer status alerts, prescriptions, medicine distribution wellness advice**, etc.
- Amazon Cognito** uses Web-Identity Federation authentication to grant access to the system using familiar methods like a patient's Facebook, Amazon, or Google credentials.
- Amazon Kinesis Data Streams**, a scalable and durable real-time streaming service, decouples the system, provides event-driven messaging, and supports an extended microservices architecture.
- Patient data, attributes, transactions and session state are encrypted at-rest and securely managed in the high-performance and scalable **Amazon DynamoDB NoSQL** datastore.
- Patient symptoms and medical notes are analyzed and tagged for automated decision making by **Amazon Comprehend Medical** supporting next best actions.
- Amazon DynamoDB Streams** triggers an **AWS Lambda** function that sends notifications to subscribers via an API or via **Amazon Pinpoint**. **Amazon ElasticSearch** enables the analysis and visualization of data across the solution.
- Raw and curated data generated through every channel is ingested into the **AWS Lake Formation** data lake for processing and analytics, allowing for combined external datasets and finding causation and correlation in data using **Amazon SageMaker** ML models.
- Amazon Personalize** trained model is executed against any new patient behaviors or insights in real-time to place patients in a more suitable segmentation in real-time.
- After a patient is segmented into one or more groups, **Amazon Pinpoint** engages patients with relevant content on their preferred channel.

