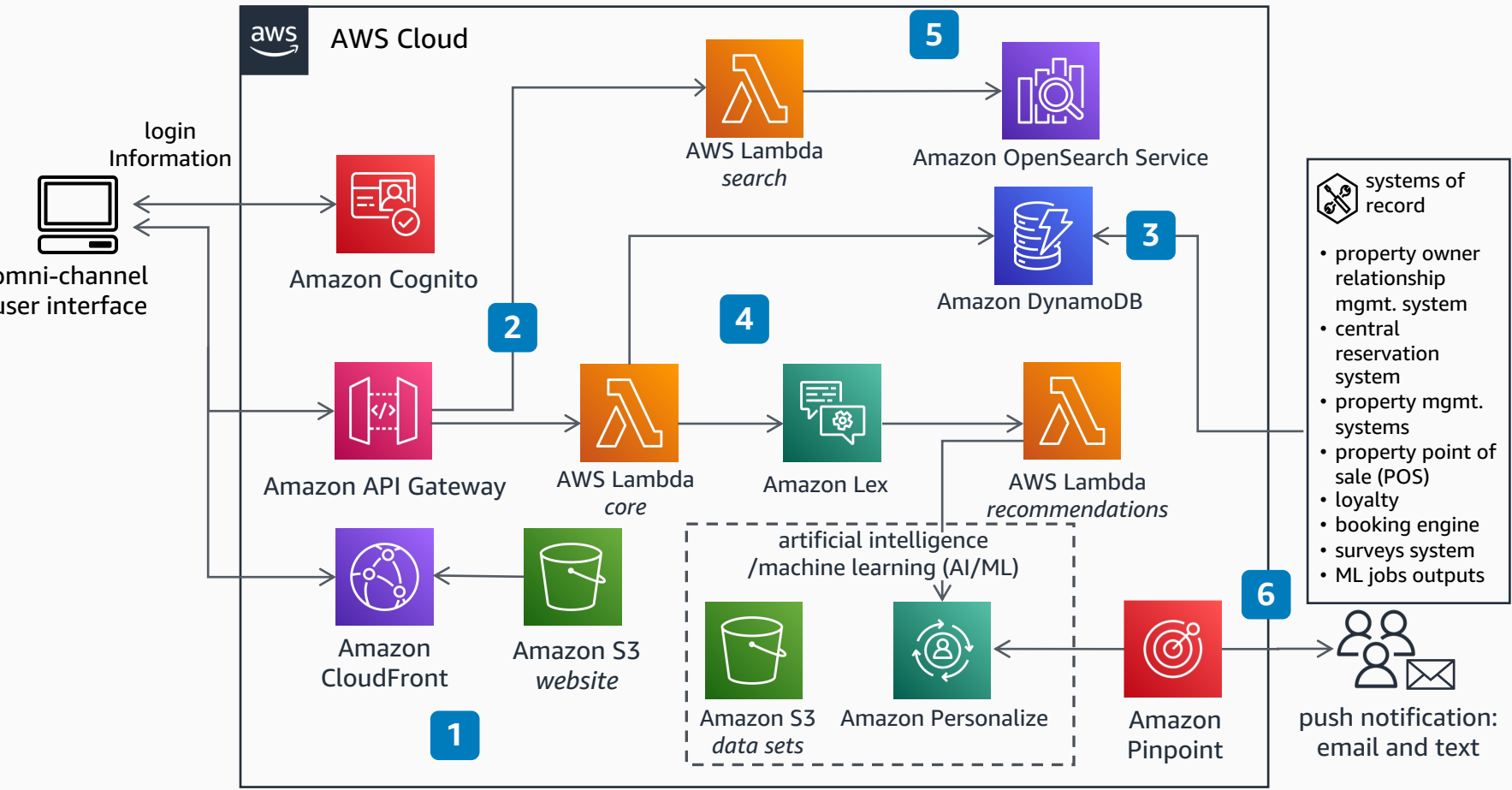# Omni-channel Customer Engagement for Lodging

This reference architecture provides a unified user interface for customer service teams (both centralized and on location) at Travel and Hospitality (T&H) companies to provide personalized customer service across all channels, at every stage of their customer's journey.

1 Use **Amazon Simple Storage Service (Amazon S3)** to store website and configuration files, and **Amazon CloudFront** to serve the unified user interface.

2 Invoke **AWS Lambda** to provide personalized recommendations for guests and data through **Amazon API Gateway.** API access is controlled through **Amazon Cognito**.

3 A serverless database architecture runs on **Amazon DynamoDB** to collect key guest 360 data from several sources, including data processing workload outputs and systems of records.

4 Use a chatbot powered by **Amazon Lex** to ask guest input data, and automate the delivery of personalized user interactions and recommendations.

5 Use a search service powered by **Amazon OpenSearch Service** to recommend available products in the data bank index.

6 Use a mail or mobile push notification service to send recommendations to guests. Schedule the notifications using **Amazon Pinpoint.**

AWS Reference Architecture