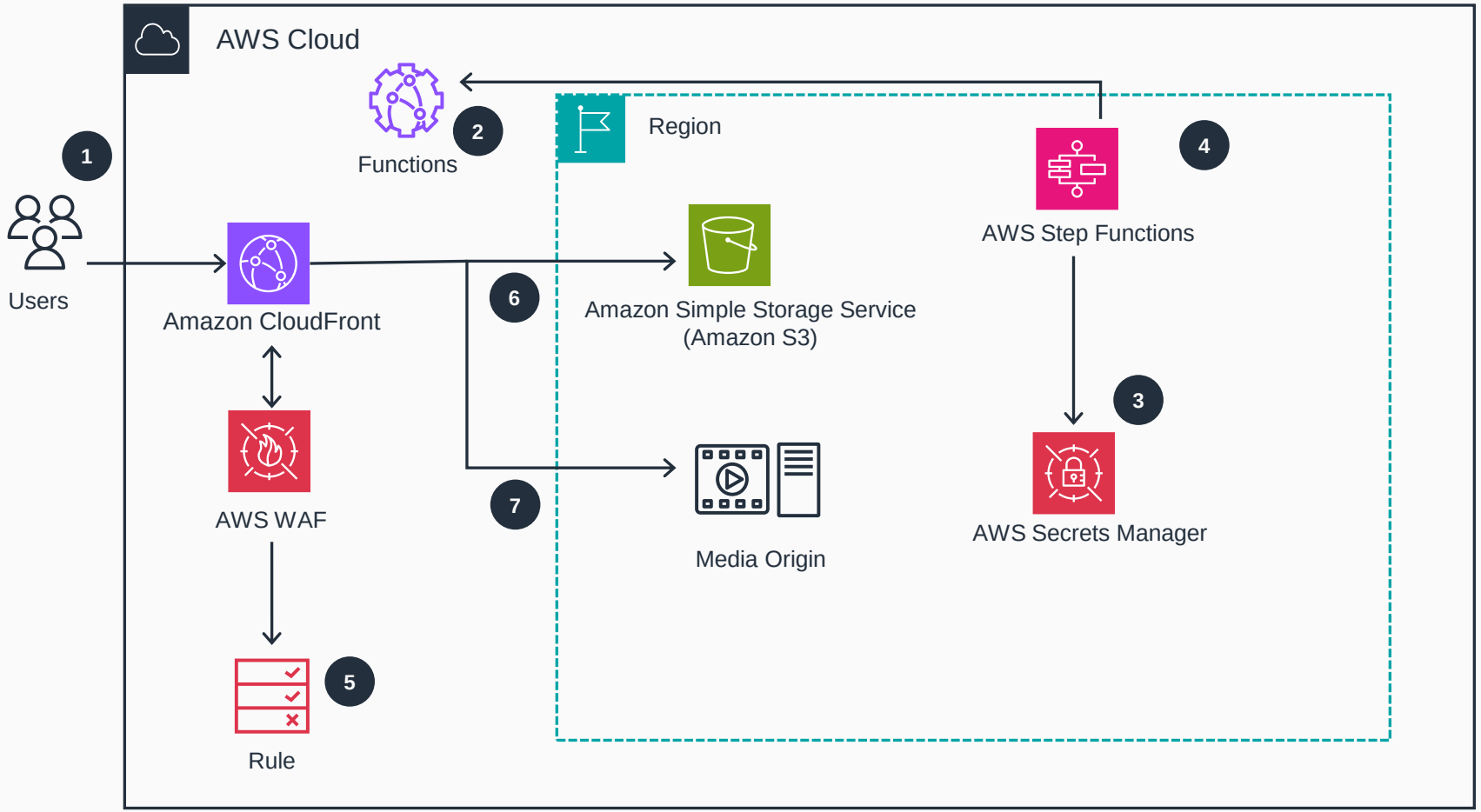
Guidance for Secure Media Delivery at the Edge on AWS

Base Module

This architecture diagram illustrates how to effectively support the core components of Secure Media Delivery at the Edge on AWS. It shows the key components and their interactions, providing an overview of the architecture's structure and functionality.



1. A user makes a request to Amazon CloudFront for video manifests and segments.
2. An Amazon CloudFront function validates secure tokens, permitting or denying access to video content.
3. AWS Secrets Manager stores signing keys for viewer token generation and validation.
4. An AWS Step Functions workflow coordinates key rotation.
5. An AWS WAF rule group blocks compromised playback sessions identified by the solution.
6. CloudFront delivers logs to Amazon Simple Storage Service (Amazon S3) for later analysis.
7. Allowed requests are forwarded to origin for non-cached objects.

Reviewed for technical accuracy October 20, 2025

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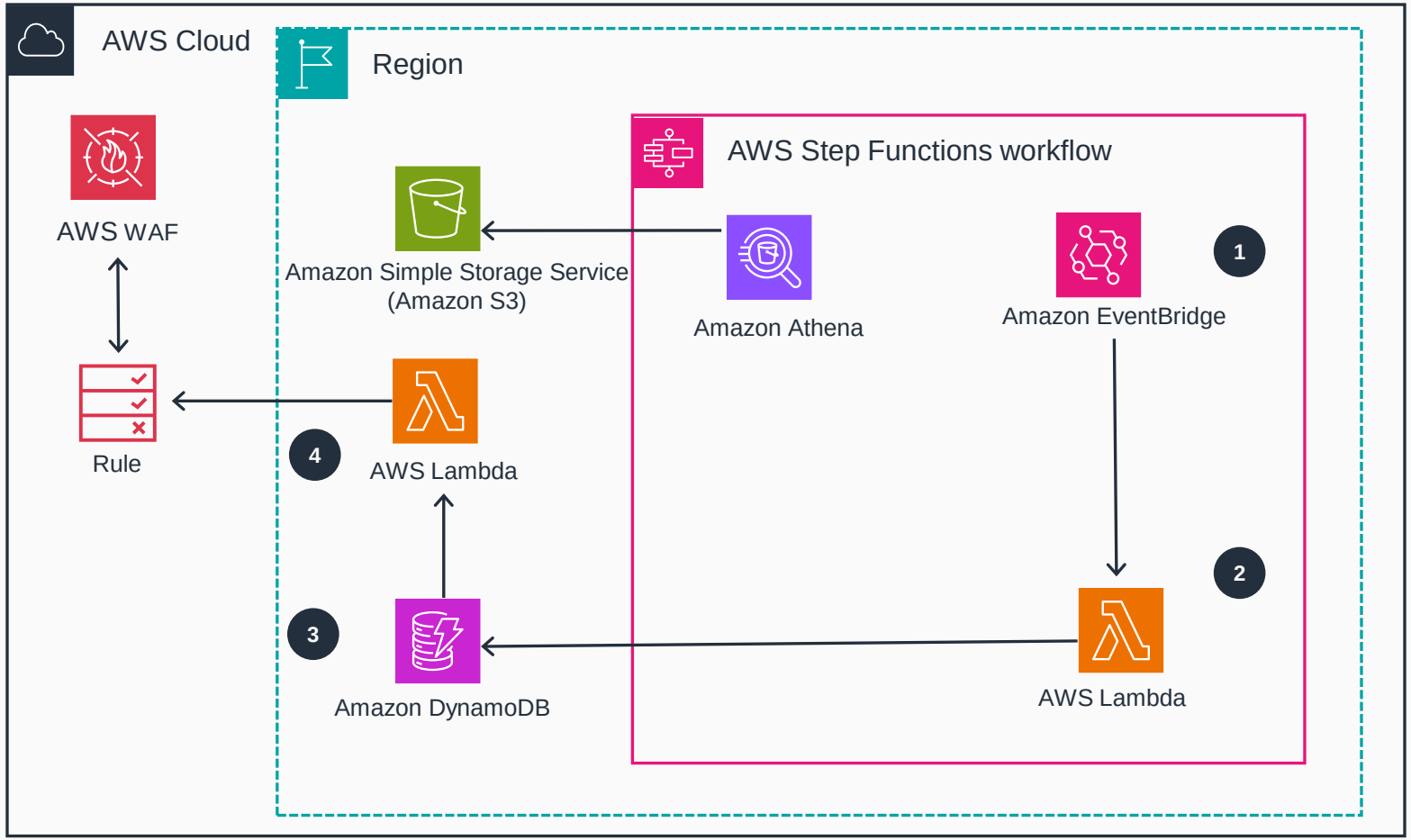
AWS Reference Architecture

Guidance for Secure Media Delivery at the Edge on AWS

Auto Session-Revocation Module

This architecture diagram illustrates how to effectively support the Auto Session-Revocation components of Secure Media Delivery at the Edge on AWS. It shows the key components and their interactions, providing an overview of the architecture's structure and functionality.



1. An Amazon EventBridge rule runs periodically to invoke the session revocation workflow in **Step Functions**.
2. A **Lambda** function generates SQL queries to Amazon Athena to obtain analysis and insights from the stored access logs.
3. An Amazon DynamoDB table stores IDs and additional information associated with suspicious sessions to be revoked.
4. A Lambda function compiles a final list of the playback sessions marked for blocking. It then updates the AWS WAF rule group with the appropriate rules matching selected sessions.

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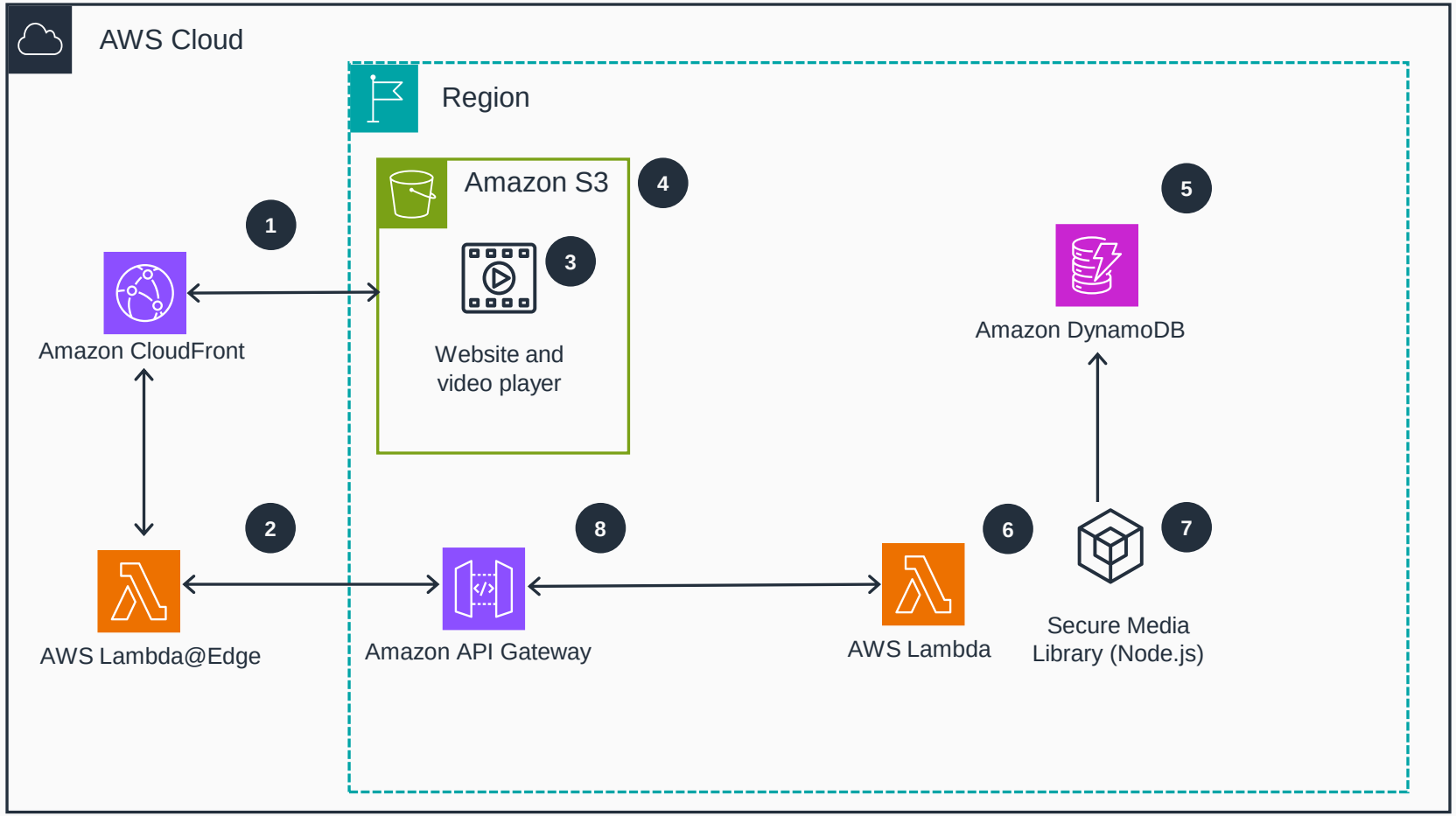
AWS Reference Architecture

Guidance for Secure Media Delivery at the Edge on AWS

Website / API Demo Module

This architecture diagram illustrates how to effectively support the demo website and demo API components of Secure Media Delivery at the Edge on AWS. It shows the key components and their interactions, providing an overview of the architecture's structure and functionality.



1. A **CloudFront** distribution to deliver the traffic from Amazon API Gateway and deliver demo website (optionally, if enabled).
2. A **Lambda@Edge** function that signs outgoing requests towards **API Gatewa**y according to SigV4 specification (for security).
3. A demo website (when activated) with an embedded video player.
4. An **Amazon S3** bucket stores static assets for the demo website, and an auto session revocation module.
5. A **DynamoDB** table stores metadata about video assets and corresponding parameters used to generate the tokens.
6. An AWS Lambda function associated with **API Gateway** generates the token for video playback based on the retrieved metadata about the video assets and token parameters.
7. The Lambda function leverages a solution-provided library containing the necessary methods to generate the tokens.
8. An **API Gateway** public API processes requests to generate the tokens for video playback, and to manually revoke specified playback sessions.

Reviewed for technical accuracy October 20, 2025

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