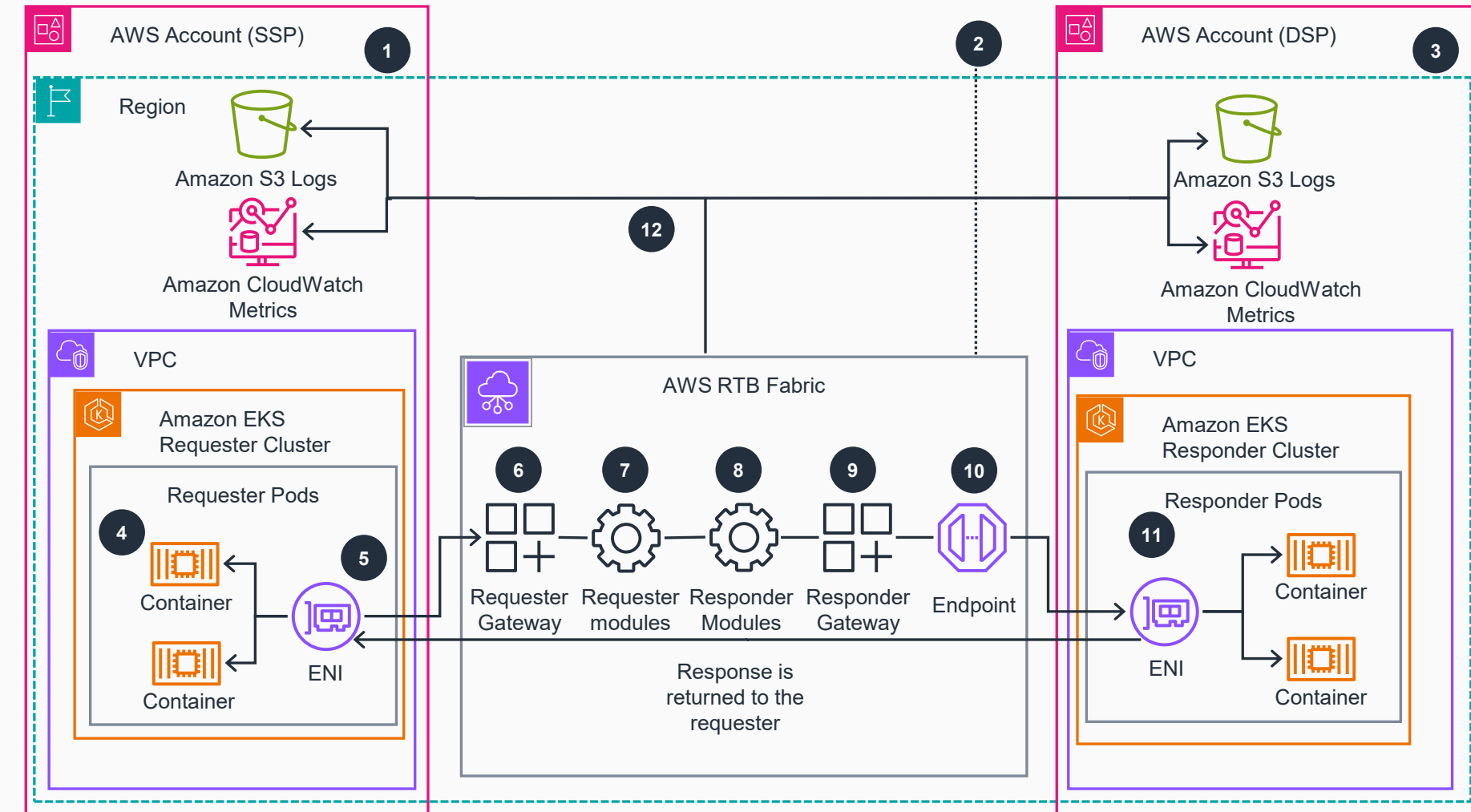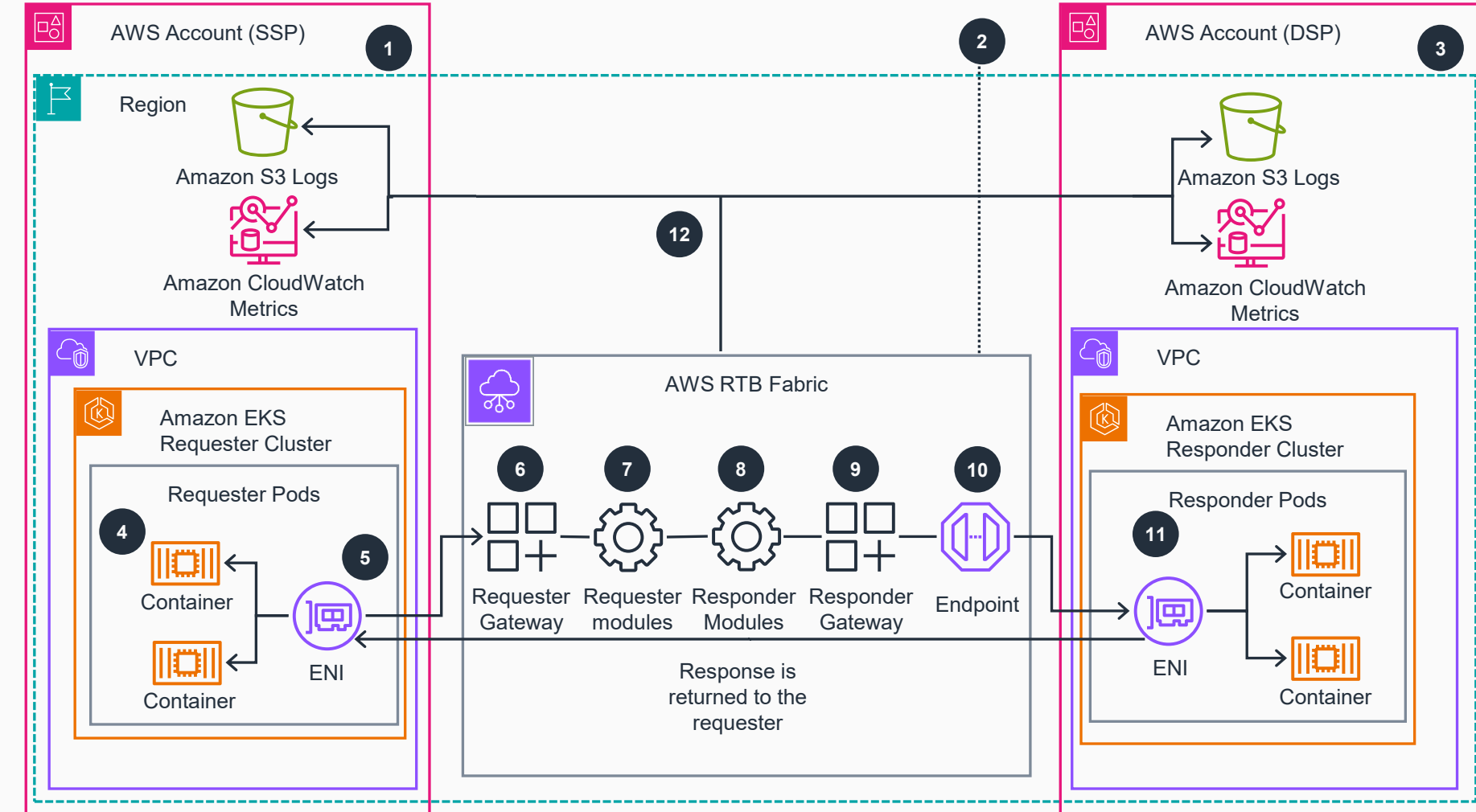# Guidance for AWS RTB Fabric with Real-Time Bidding Workloads on AWS

This architecture diagram illustrates how to use AWS RTB Fabric for cross-account near real-time bidding between two customers on AWS. It shows the key components and their interactions, providing an overview of the architecture's structure and functionality.

1 The Requester's AWS account for a supply-side platform (SSP) produces bid requests through its Real-Time Bidding (RTB) application.

2 The AWS RTB Fabric Service facilitates communication from requesters to responders providing request/response orchestration.

3 The AWS account of the demand-side platform (DSP) account receives bid requests from one or more requesters.

4 The SSP requester application hosted in **Amazon Elastic Kubernetes Service (Amazon EKS)** initiates a bid request.

5 The SSP bid request routes through AWS RTB Fabric's cross-account elastic network interface (ENI) to the RTB Flow Orchestrator.

6 The AWS RTB Fabric service identifies the requester RTB gateway and selects the appropriate link configuration for the target responder.

7 The AWS RTB Fabric service executes requester modules that customize bid processing through plugins or customer-specific extensions.

8 The AWS RTB Fabric service then invokes responder-side modules to prepare the request for specific DSP requirements.

9 The AWS RTB Fabric service locates the responder RTB gateway and identifies its managed **Amazon EKS** endpoint.

10 The request is then routed to the managed EKS endpoint, delivering the request directly to the DSP responder pods with load balancing and Availability Zone (AZ) awareness of the originating request.

AWS Reference Architecture

Guidance for AWS RTB Fabric with Real-Time Bidding Workloads on AWS

This architecture diagram illustrates how to use AWS RTB Fabric for cross-account near real-time bidding between two customers on AWS. It shows the key components and their interactions, providing an overview of the architecture's structure and functionality.

AWS Account (SSP) — 1

2

AWS Account (DSP) — 3

Region

Amazon S3 Logs

Amazon CloudWatch Metrics

12

VPC

Amazon EKS Requester Cluster

Requester Pods

4

Container

5

Container

ENI

AWS RTB Fabric

6 Requester Gateway
7 Requester modules
8 Responder Modules
9 Responder Gateway
10 Endpoint

Response is returned to the requester

Amazon S3 Logs

Amazon CloudWatch Metrics

VPC

Amazon EKS Responder Cluster

Responder Pods

11

ENI

Container

Container

11 DSP responder pods process the bid request and return responses or no-bid decisions back through the AWS RTB Fabric service to the requester gateway.

12 Throughout the RTB flow AWS RTB Fabric participant-specific metrics are delivered to **Amazon CloudWatch** and debug logs are delivered to **Amazon Simple Storage Service (Amazon S3)** buckets through CloudWatch vended logs maintaining data isolation.

AWS Reference Architecture