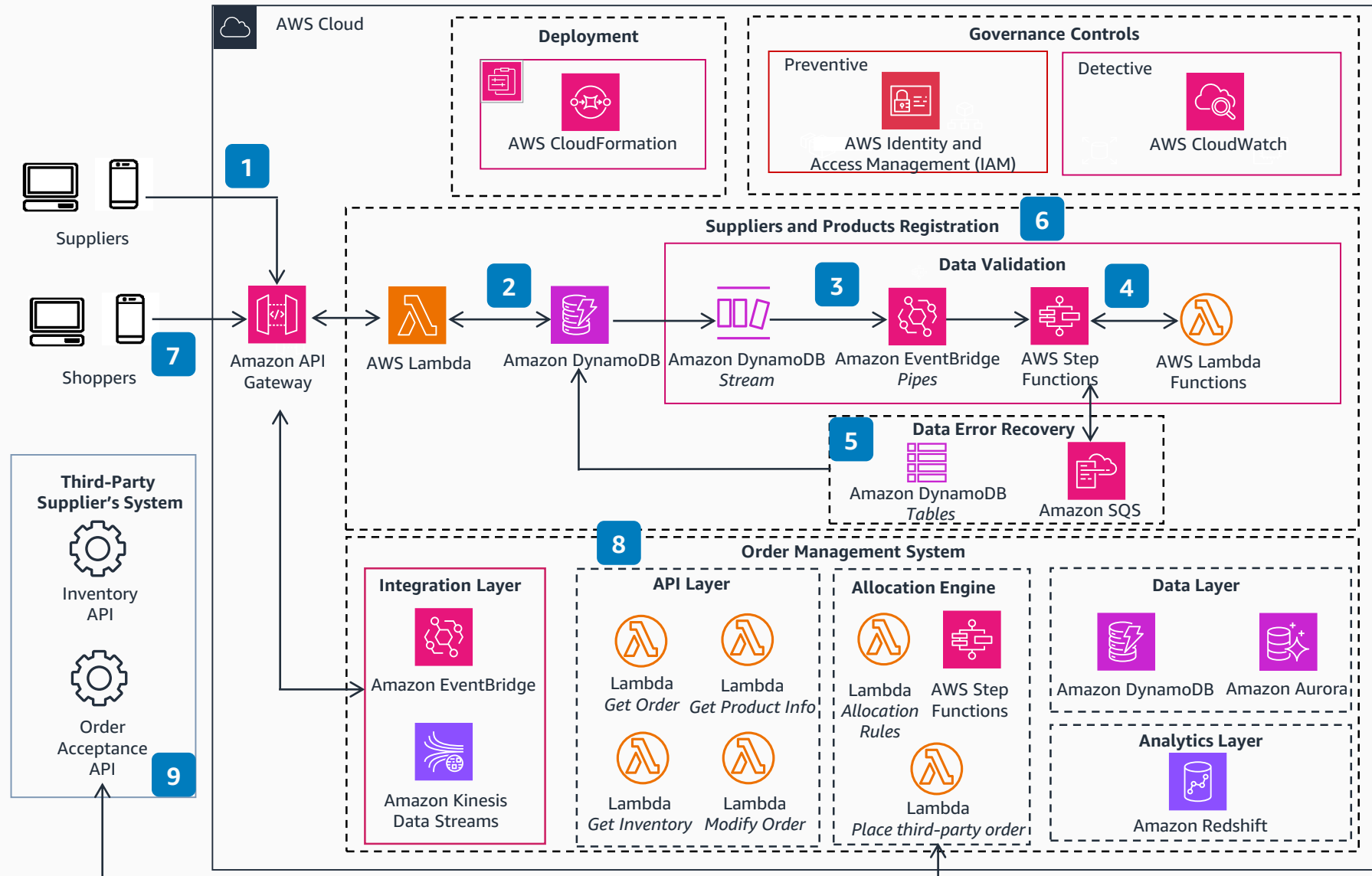


Guidance for Third-Party Marketplace on AWS

This architecture diagram demonstrates how retailers can onboard new suppliers and process orders of these suppliers' products, enabling the retailer to provide their customer with more product choices without higher inventory cost.



- 1 A new supplier uses **Amazon API Gateway** for onboarding the third-party marketplace by providing brand information.
- 2 **AWS Lambda** function stores the supplier's information in Amazon DynamoDB.
- 3 Any changes to the **DynamoDB** tables generates a **DynamoDB Stream**, which **Amazon EventBridge Pipes** use to invoke **AWS Step Functions**.
- 4 **Step Functions** verifies the modified supplier information through various custom validation steps, including calling several **Lambda** functions.
- 5 When an inconsistent data point is detected, the problematic record can either go through automated correction steps or be put in an **Amazon Simple Queue Service** (Amazon SQS) queue for manual review. Administrators from the retailer are able to modify the **DynamoDB** record with their corrections.
- 6 After successful onboarding, the suppliers are able to update their products following a similar process for product registration.
- 7 A shopper who is interested in a third-party supplier's product is able to place the order through the **API Gateway**.
- 8 The order management system (OMS) accepts the order through an integration layer, and processes it through an API layer.
- 9 The allocation engine is able to call the third-party supplier's provided Order Acceptance API to successfully process the placed order.