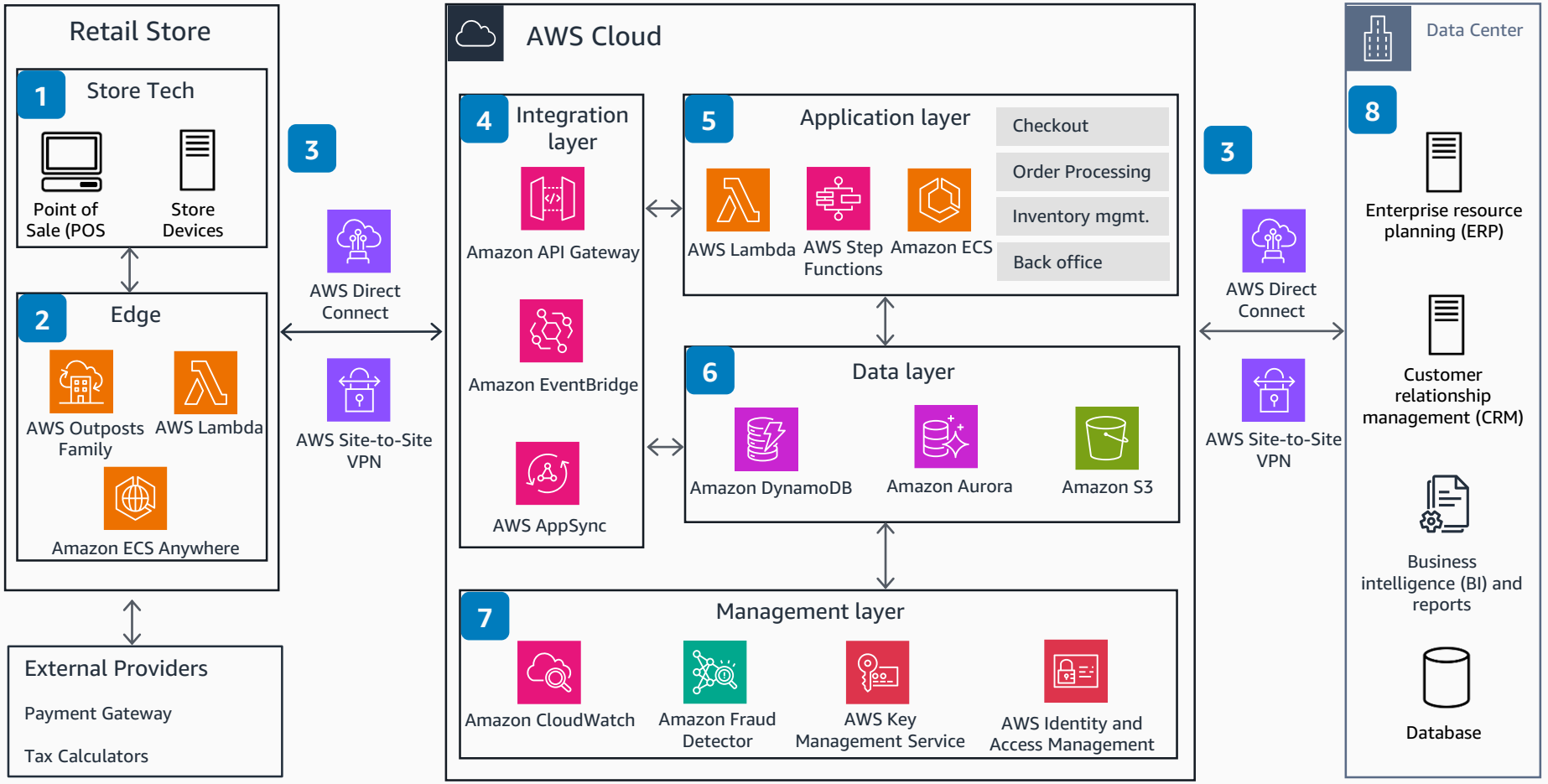
Guidance for Traditional POS Checkout on AWS

This diagram shows how to build a cloud-based point of sale (POS) system for retailers and merchants on AWS.



1. In-store card readers and point of sale (POS) terminals capture the transaction. **Amazon One**, a contactless identity service that scans a customer's palm, acts as an authentication mechanism.
2. **AWS Outposts Family** delivers AWS infrastructure and services to on-premises or edge locations. **Lambda@Edge** integrates with the payment gateways and other third-parties. **Amazon ECS Anywhere** runs containers with applications at the edge that require low-latency support.
3. **AWS Direct Connect** and **AWS Site-to-Site VPN** securely connect retail stores and the corporate data center to the AWS Cloud.
4. **Amazon API Gateway**, **Amazon EventBridge**, and **AWS AppSync** act as an integration layer, cascading the store transaction to the backend applications for processing and settlement.
5. **AWS Lambda**, **AWS Step Functions**, and **Amazon Elastic Container Service** (Amazon ECS) support the application layer. This includes custom functions for key business processes like checkout, order processing, inventory management, and back office functions.
6. **Amazon Aurora** is used for transactional data, while **Amazon DynamoDB** handles unstructured data, and **Amazon Simple Storage Service** (Amazon S3) is used as a data lake.
7. **Amazon CloudWatch**, **AWS Identity and Access Management** (IAM), **Amazon Fraud Detector**, and **AWS Key Management Service** (AWS KMS) monitor, secure, and protect data.
8. The corporate data center is connected to the AWS Cloud and integrated with systems and data sources supporting the POS.

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AWS Reference Architecture