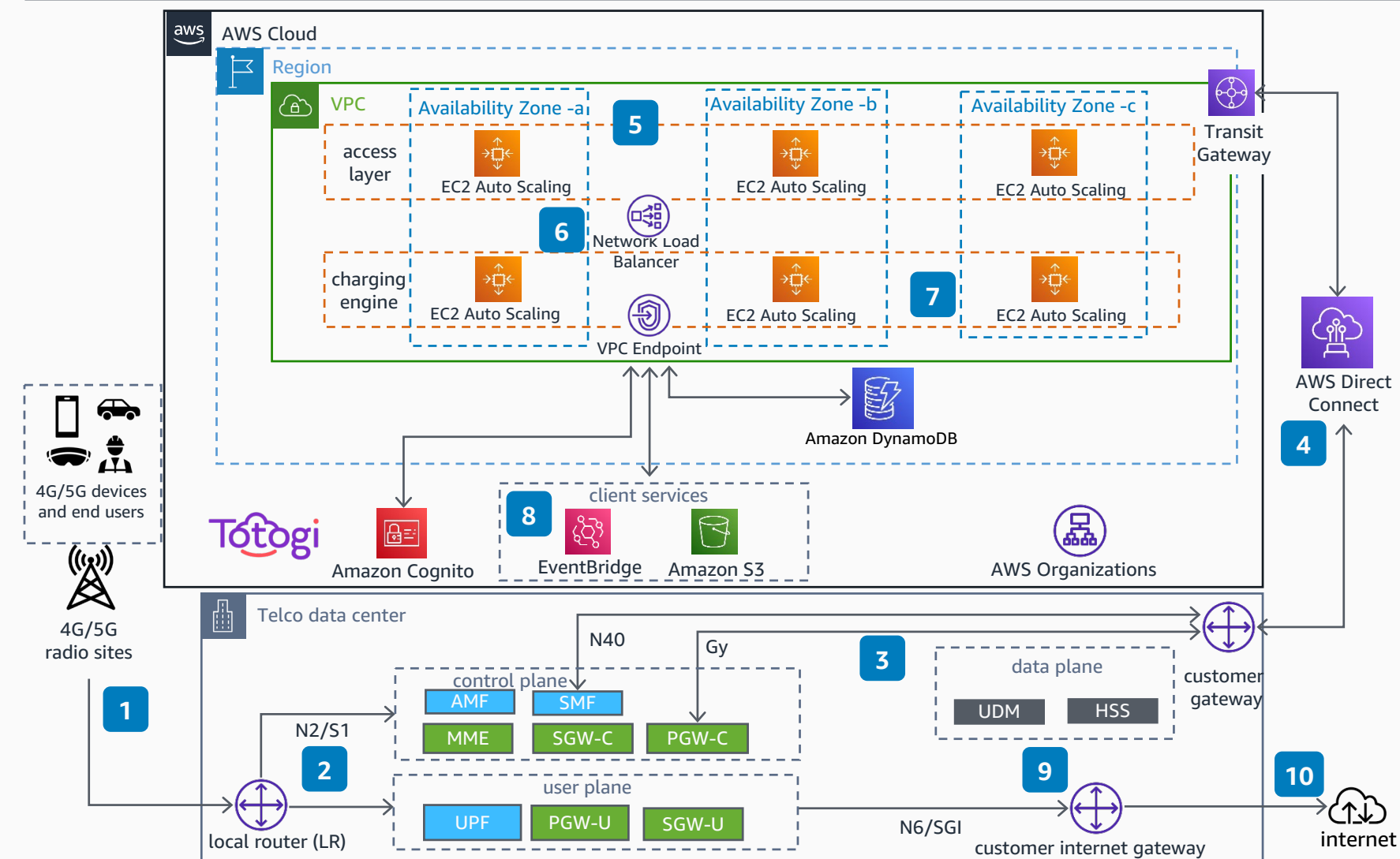


Totogi Charging-as-a-Service for On-Premises 4G/5G

Connect your on-premises 4G/5G network to Totogi Charging-as-a-Service, the AWS-native multi-tenant 4G/5G charging engine, and a plan-design tool that enables telecom operators to instantly connect and monetize their core network. Totogi is available in [AWS Marketplace](#).



- 1 4G/5G network devices connect through the radio access network (RAN) to the telco data center.
- 2 The core network control plane registers the subscriber over the N2 interface for 5G and S1 for 4G subscribers.
- 3 4G/5G charging validates over N40 (5G REST) and Gy (4G Diameter) towards the multi-tenant Totogi charging engine on AWS.
- 4 Connect to AWS through **AWS Direct Connect** to the **AWS Transit Gateway** in the virtual private cloud (VPC) that is hosting the tenant Totogi charging engine.
- 5 Deploy the Diameter adapter on **Amazon Elastic Compute Cloud (Amazon EC2) Auto Scaling** to transform requests and responses between 5G REST and 4G Diameter protocols.
- 6 The **Network Load Balancer** directs 5G REST requests to decision engines, which get the tenant ID from the **Amazon Cognito** access token.
- 7 The **Amazon EC2 Auto Scaling** instance decision engine handles the rating request, looking up balances and rating rules in **Amazon DynamoDB**. Data is partitioned by tenant ID and subscriber ID.
- 8 **Amazon EventBridge** and **Amazon Simple Storage Service (Amazon S3)** buckets help you fully customize the handling of notifications and event detail record (EDRs).
- 9 Validated subscribers receive quotas from the charging engine for the user session.
- 10 Based on provisioned plan and available credit in Totogi Charging-as-a-Service, the subscriber can access data and voice services over the customer network.



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AWS Reference Architecture