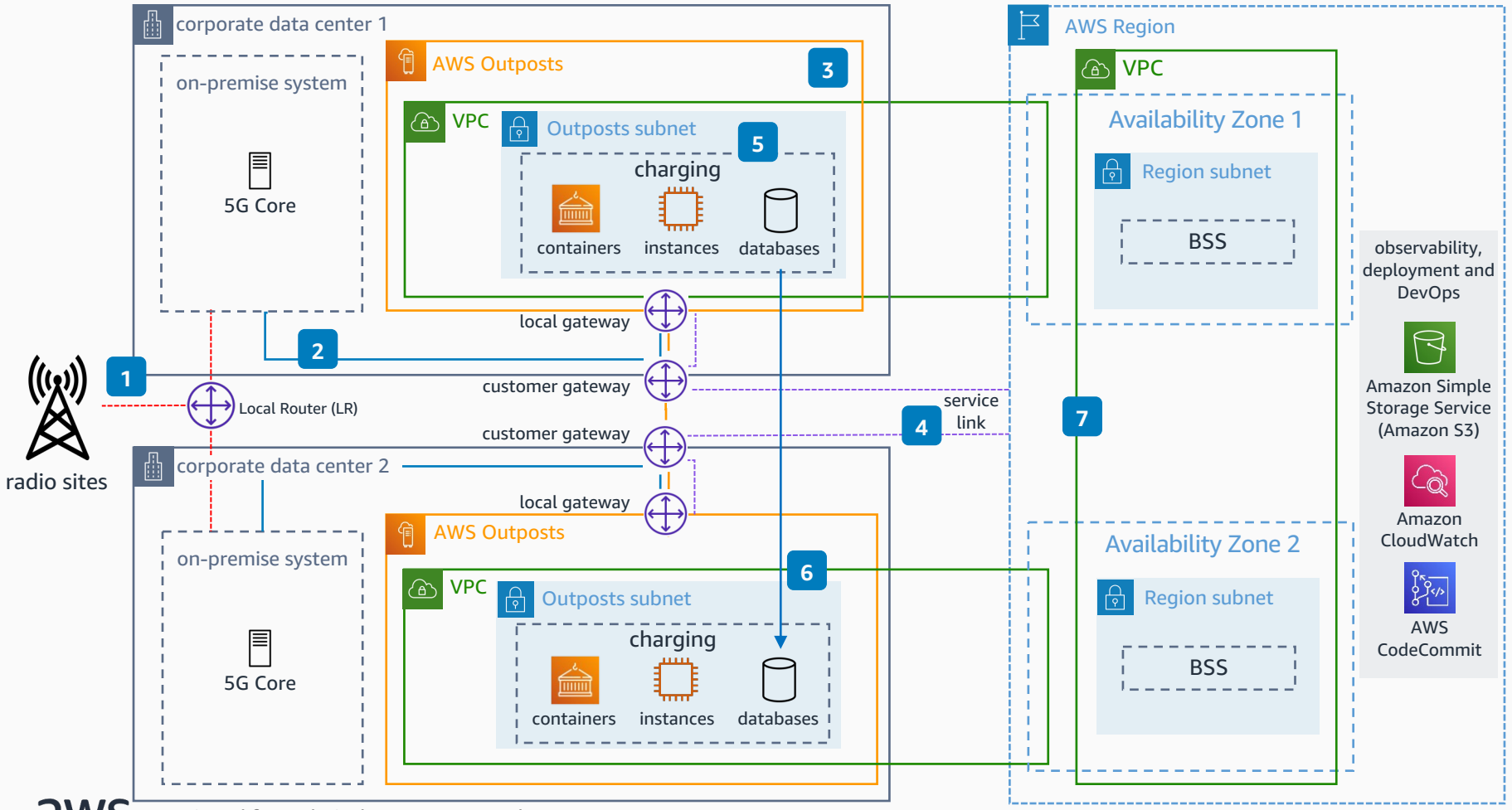
Telecom Charging (OCS/CHF) on AWS Outposts

Deploy a fully automated, resilient, low latency, and highly available Telecom Online Charging System (OCS) / Charging Function (CHF) on AWS Outposts to run in the country of (or close to) the operator core network in cases of country data residency regulations or low latency requirements.



AWS Reference Architecture

1. 4G/5G network devices connect through the Radio Access Network (RAN) to the Communication Service Provider (CSP) data center.
2. The core network integrates with the OCS/CHF on the local network through the outpost's local gateway.
3. For resiliency and high availability, two logical **AWS Outposts** racks are installed in two different, physically isolated sites, and homed to different Availability Zones in the parent AWS Region.
4. A service link connects the outpost to the home AWS Region. The service link is used for both management of **AWS Outposts** and intra-Virtual Private Cloud (VPC) traffic between the AWS Region and **Outposts**. The service link can use the customer's existing internet connection or **AWS Direct Connect.**
5. Online charging can be deployed on **Amazon Elastic Kubernetes Service** (Amazon EKS) and **Amazon Elastic Compute Cloud** (Amazon EC2) instances running on **AWS Outposts**. Charging can run in active-active mode on the two AWS Outposts.
6. Vendor-supported databases run on **Amazon EC2** with near real-time replication to support high availability.
7. Applications that run on **AWS Outposts** can securely connect with other applications running in the AWS Region such as the Business Support System (BSS), and can use a broad set of services in the AWS Region such as **Amazon CloudWatch** and **AWS CodeCommit**.

Reviewed for technical accuracy December 15, 2022