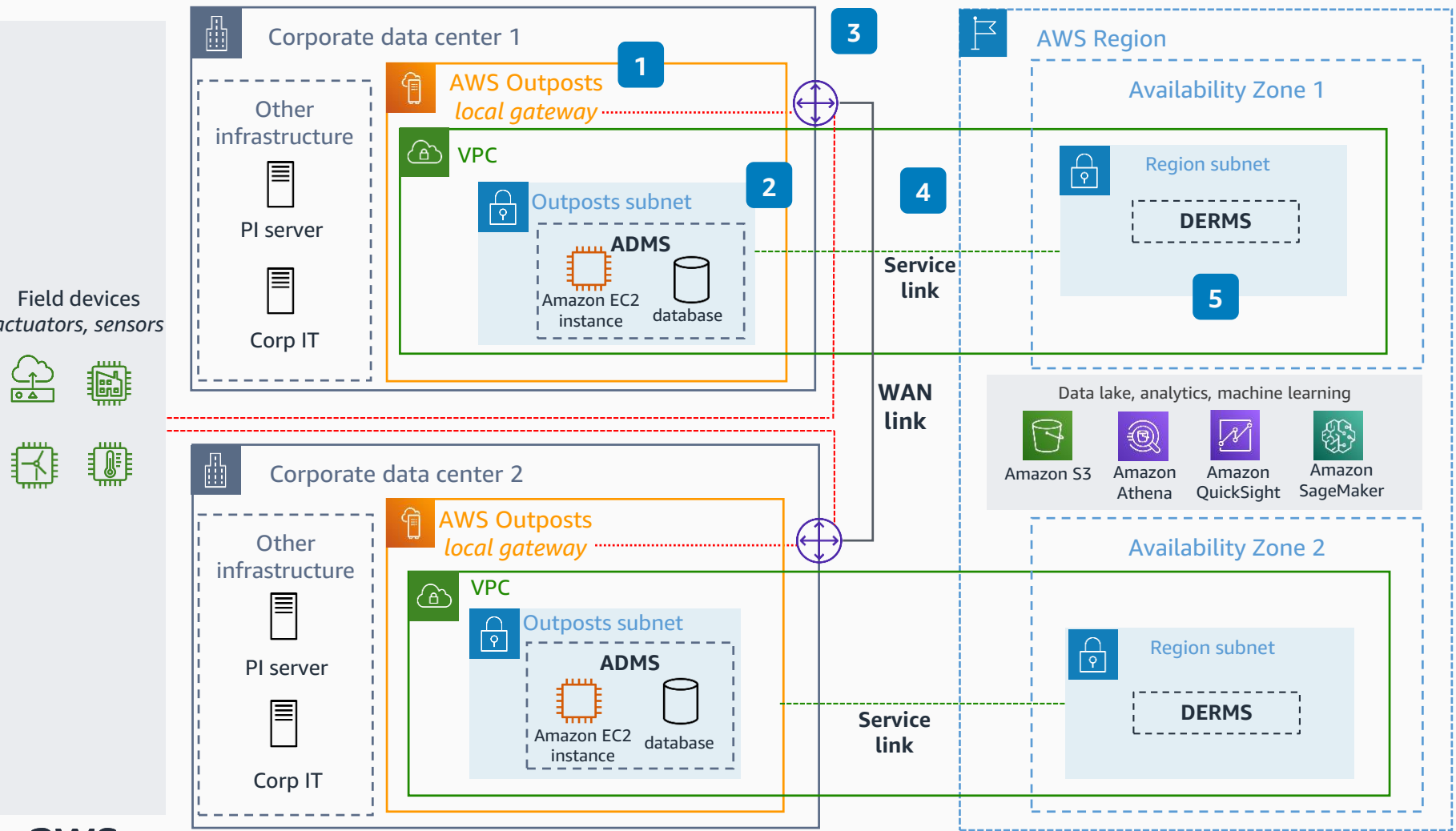


# Advanced Distribution Management System (ADMS) on AWS

Deploy a fully automated, resilient, and highly available advanced distribution management system (ADMS) on AWS Outposts to optimize performance of complex electricity distribution networks that need to support distributed energy resources (DERs), microgrids, and electric vehicles.



- 1 For a resilient and highly available setup, two **AWS Outposts** racks are installed in different physically isolated sites and homed to different Availability Zones in the parent AWS Region.
- 2 Multiple ADMS applications can be deployed on **Amazon Elastic Compute Cloud (Amazon EC2)** instances running on **AWS Outposts** inside a customer data center to meet low latency, data residency, and local data processing requirements. Customers can use a purpose-built AWS database or deploy a vendor-supported database on **Amazon EC2**.
- 3 The ADMS application can connect to on-premises applications in the Operational Technology (OT) network and to field devices such as sensors and actuators by using a low latency local network through the outpost's local gateway.
- 4 A [service link](#) connects the outpost to the home AWS Region. It is used for both management of the **AWS Outposts** instance and intra-VPC traffic between the AWS Region and the outposts. It can use the customer's existing internet connection or **AWS Direct Connect**.
- 5 Applications that run on **AWS Outposts** can securely connect with other applications running in the AWS Region such as a distributed energy resource management system (DERMS). They can also take advantage of a broad set of services in the AWS Region such as **Amazon Simple Storage Service (Amazon S3)**, **Amazon Athena**, **Amazon QuickSight**, and **Amazon SageMaker** for data analytics and machine learning use cases.



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**AWS Reference Architecture**