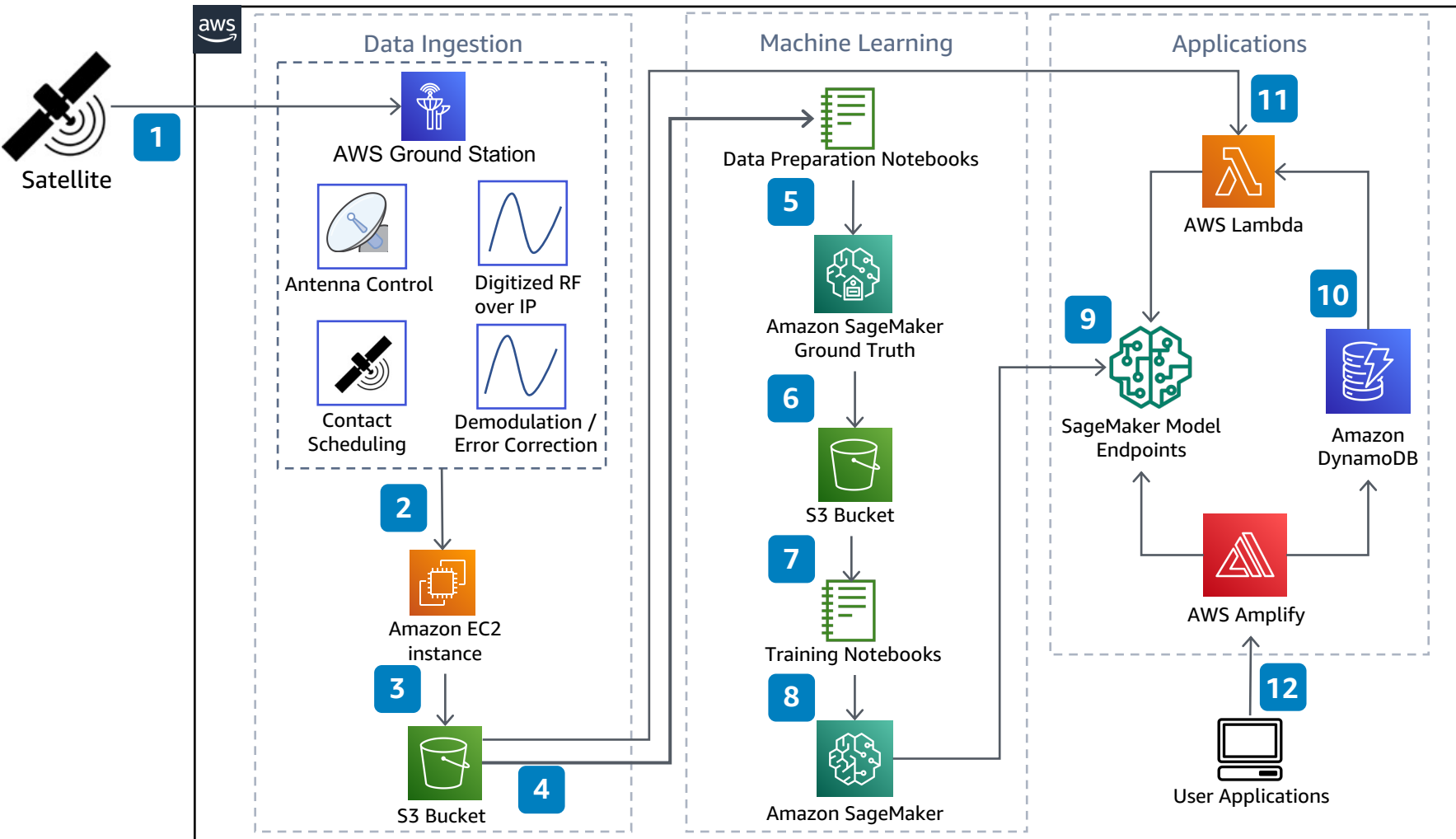


Run Machine Learning Algorithms with Satellite Data

Use AWS Ground Station to ingest satellite imagery, and use Amazon SageMaker to label image data, train a machine learning model, and deploy inferences to customer applications.



- 1 Satellite sends data and imagery to the **AWS Ground Station** antenna.
- 2 **AWS Ground Station** delivers baseband or digitized RF-over-IP data to an **Amazon EC2** instance.
- 3 The **Amazon EC2** instance receives and processes the data, and then stores the data in an **Amazon S3** bucket.
- 4 A Jupyter Notebook ingests data from the **Amazon S3** bucket to prepare the data for training.
- 5 **Amazon SageMaker Ground Truth** labels the images.
- 6 The labeled images are stored in the **Amazon S3** bucket.
- 7 The Jupyter Notebook hosts the training algorithm and code.
- 8 **Amazon SageMaker** runs the training algorithm on the data and trains the machine learning (ML) model.
- 9 **Amazon SageMaker** deploys the ML models to an endpoint.
- 10 The SageMaker ML model processes image data and stores the generated inferences and metadata in **Amazon DynamoDB**.
- 11 Image data received into **Amazon S3** automatically triggers an **AWS Lambda** function to run machine learning services on the image data.
- 12 Applications interact with **AWS Amplify** to access the ML algorithm and database.

