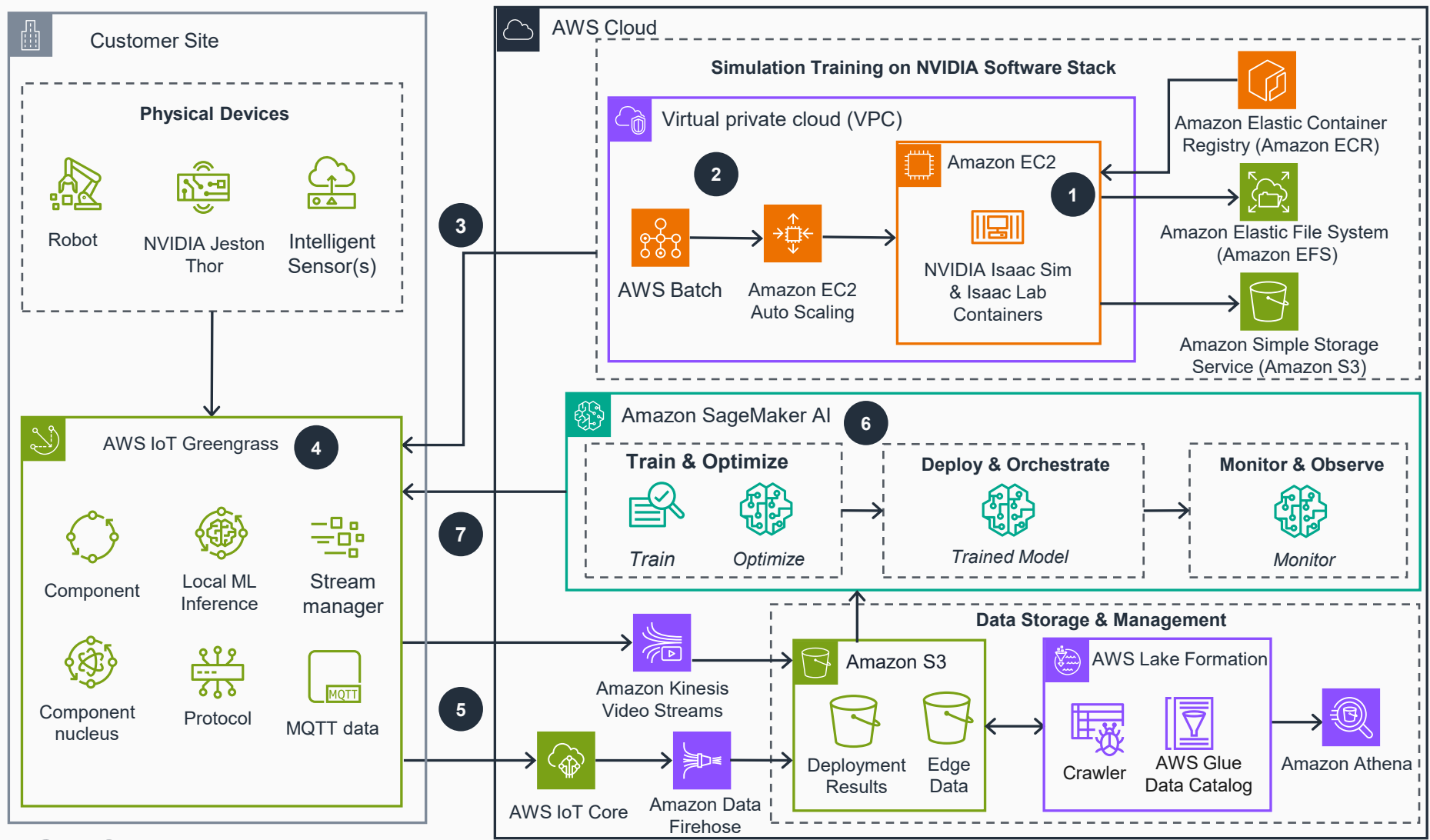


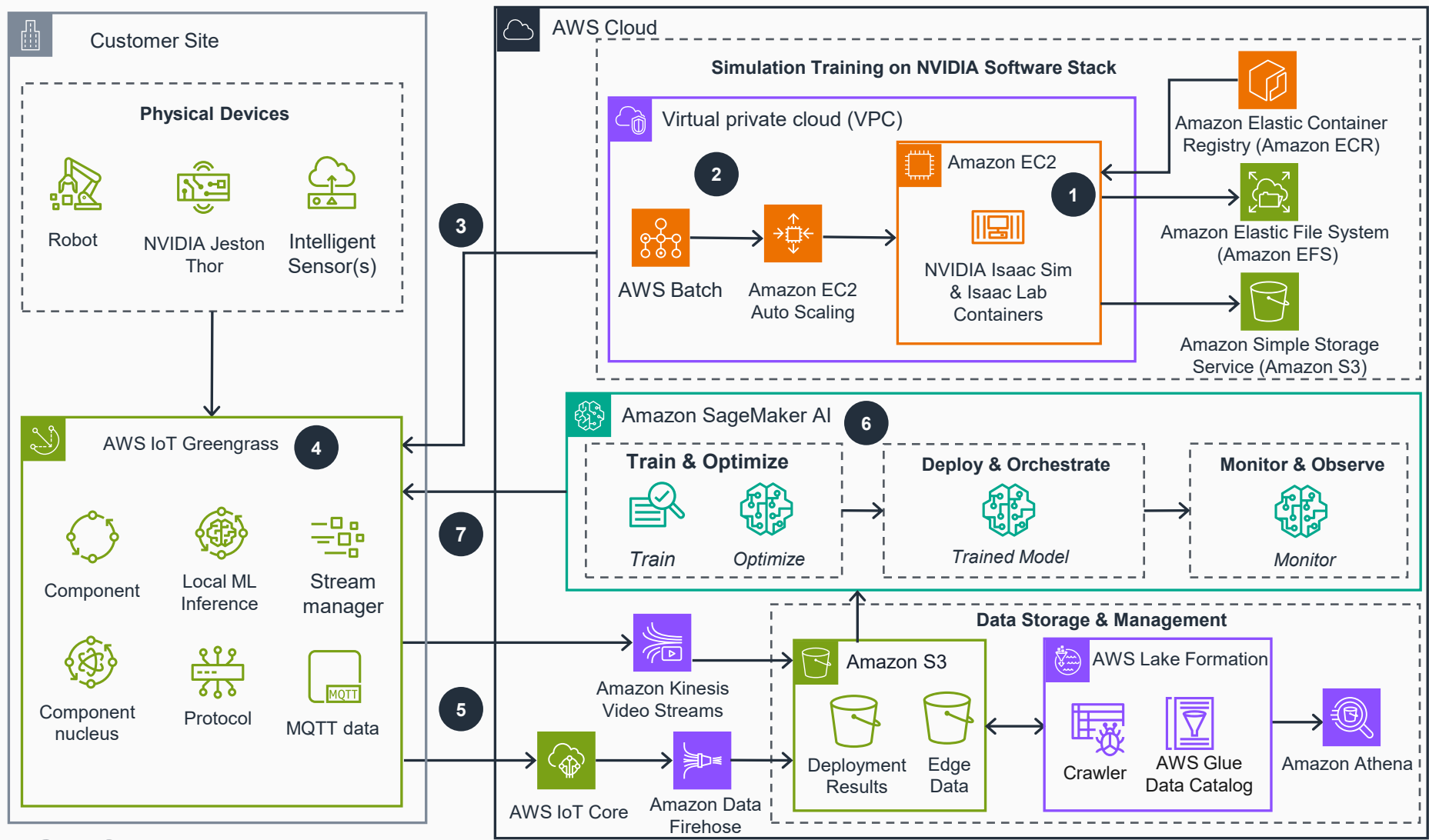
Guidance for Physical AI for Robotic Applications on AWS

This architecture enables autonomous robotics application development through reinforcement learning from physics-based closed-loop feedback systems. Models trained in simulation are deployed to robot controllers for real-world testing. Edge devices collect multi-sensor data that flows to the AWS cloud for continuous model refinement and redeployment. Customers can choose to start with either approach and iterate continuously. This slide shows steps 1-6.



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7

Continuous Deploy and Monitor: Refined ML models trained in **Amazon SageMaker AI** are deployed to **AWS IoT Greengrass** on the robot edge. Inference is performed using these models to optimize robot behavior and meet performance goals. A monitoring layer tracks metrics, detects drift, and triggers retraining. ML model iteration continues through this cycle: robots generate operational data, models are refined based on real-world performance, and improved models are redeployed.

