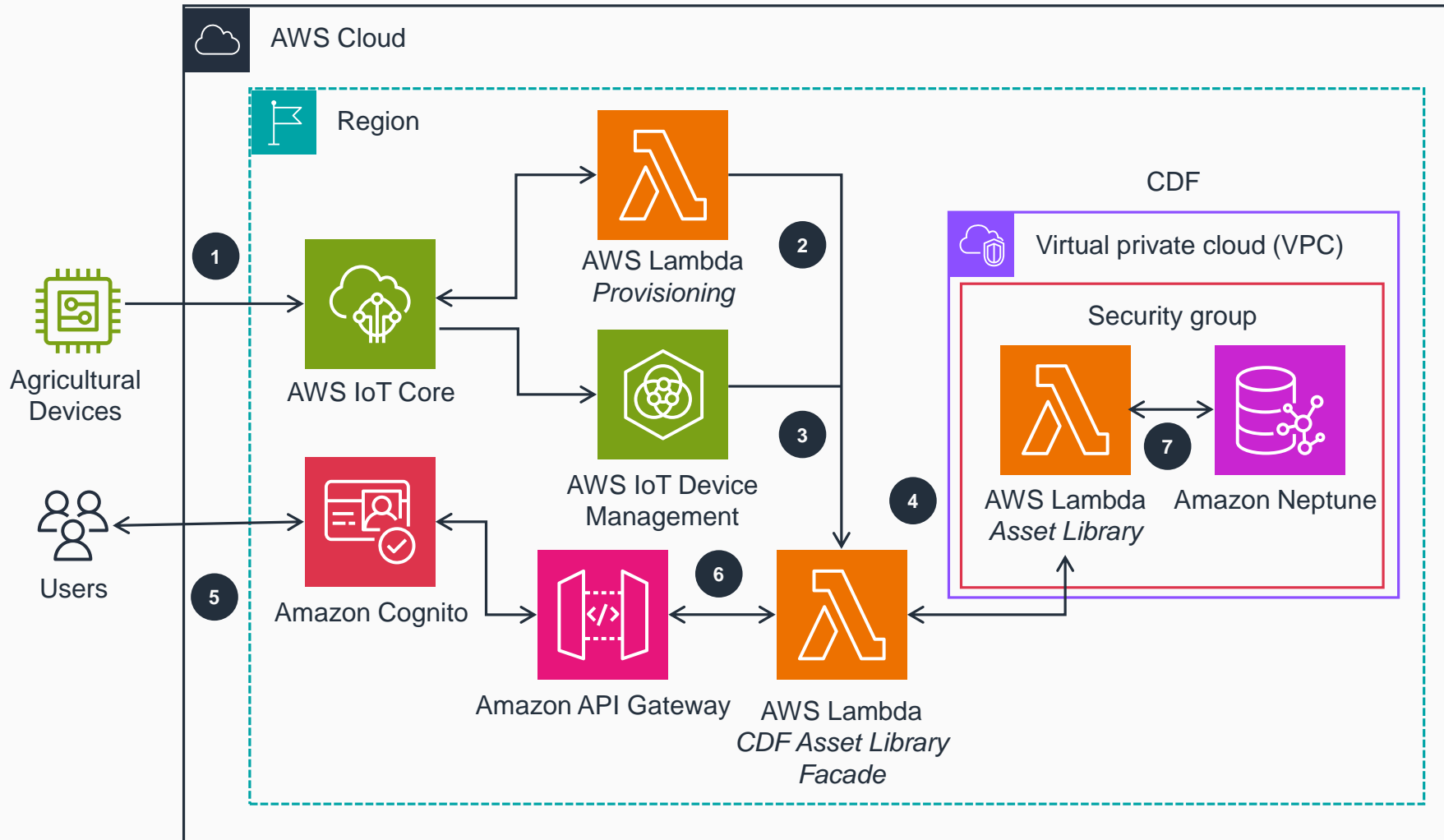


# Guidance for Managing Agriculture Assets Using AWS Connected Device Framework (CDF)

This architecture diagram shows how to obtain advanced analytics from connected assets, reduce risks, and streamline operations.



- 1 The first time an agricultural device connects to **AWS IoT Core**, the **AWS Connected Device Framework (CDF)** uses the *Provisioning* hook function built with **AWS Lambda** for just-in-time provisioning of the device.
- 2 Upon initial device provisioning, the **AWS IoT Core Provisioning** hook function sends device properties to the **CDF Asset Library Facade**, built with **Lambda**.
- 3 **AWS IoT Device Management** stores agricultural device property updates and forwards them to the **Lambda CDF Asset Library Facade** function.
- 4 The **Lambda CDF Asset Library Facade** function transmits the connected device provisioning and property data to **Amazon Neptune** for storage and enhanced analytics.
- 5 **Amazon Cognito** authenticates user access requests for connected device data and analytics.
- 6 Authenticated user HTTPS requests are sent to **Amazon API Gateway**, which routes requests through the **Lambda CDF Asset Library Facade** function and to the **Lambda Asset Library** function and **Neptune**.
- 7 **Neptune** returns authenticated query response data through CDF and **API Gateway**, which delivers the data to the user for enhanced graph analytics of connected devices.

