

Wii-Track

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`https://github.com/ColoradoSchoolOfMines/wii-track`

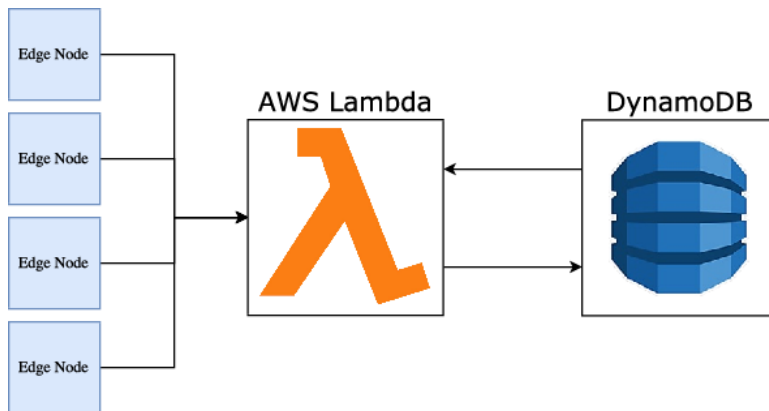


Wii-Track is a system for package tracking designed for use in a variety of markets such as consumer and business inventory tracking, and agricultural product management.

Our overall goal is to make inventory tracking more cost-effective by utilizing sensors and data analytics to identify inventory items automatically.

Architecture

System Architecture



Technical Constraints

Harsh Outdoor Environments

The Wii-Track system can be sealed in a standalone, waterproof package.

Low Bandwidth

Wii-Track nodes only create a connection when there is data to send. Additionally, all computation is done on AWS Lambda so we just need to send raw data.

Mobility

Wii-Track can be adapted to mount to anything.

Battery

Because Wii-Track nodes do not perform heavy computation, it is very low powered. Additionally, nodes can be connected to solar power.

Business Proposition

Wii-Track is a highly extensible platform which can be applied to multiple industries. Some examples include

- Free range livestock movement tracking
- Package and inventory tracking
- Produce tracking

- Wii-Track is designed to use AWS Lambda in an AWS Autoscaling group.
- The AWS Lambda pricing model only charges per API call, which provides predictable pricing.
- Amazon manages all of the infrastructure necessary for AWS Lambda which allows businesses to focus developer time on writing code rather than maintaining infrastructure.
- Since all data processing is done on AWS Lambda, the system is highly extensible.

- Wii-Track provides **Tracking as a Service (TaaS)**.
- Customers can configure the system to meet their needs.
- Monthly subscription to enable data analytics. Pay per data point per sensor per month.
- Customers can pay monthly for technical support for their sensor network.