Automating AI Data Collection and Storage

CASE STUDY

INDUSTRY
Retail

INTEGRATION
Google Cloud Platform, Microsoft Azure, and bare metal on-premise cloud

USE CASES
Infrastructure and application automation

> "As we encountered unique software build lifecycles for some of these more challenging pieces of computer vision, artificial intelligence, and machine learning software, we found that Chef Habitat provides unparalleled flexibility and customization."
>
> **Jeff Moody,** DevOps Manager at Intelligent Retail Lab by Walmart

About Walmart IRL

The Intelligent Retail Lab (IRL) is a technology incubator inside of Walmart dedicated to harnessing the power of computer vision, machine learning, and artificial intelligence to help customers shop smarter.

Business Issue

Develop repeatable, scalable processes that allow developers to gather, analyze, and store terabits of sensor data. By tracking what products are on the shelf, IRL seeks to improve customer experience by ensuring products are fresh, particularly in produce and meats.

Business Challenge

Developers were spending weeks to months of their time rebuilding Open Computer Vision (CV) packages trying to get them to work. In addition, they were running into challenges trying to mount media/streaming data into Docker inside of a bare metal deployment.

Solution

Deploy Chef Enterprise Automation Stack (EAS) for infrastructure provisioning, using Chef Habitat as a Linux process allowing developers to use other hardware devices and components within the system to optimize the workflow and streamline data processing that by design, and for security reasons, Docker and Kubernetes makes it hard to do.

Impact

Walmart IRL is now able to use Chef Habitat to fully automate almost all applications and dependen-cies in its cutting-edge AI environment, enabling:

- Developers to focus on solving problems, instead of fighting the platform
- Elimination of developers having to constantly reconfigure the application, saving months of configuration time with Habitat with OpenCV
- Monitoring and control needed to leverage AI in their solutions, with Chef EAS

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