

Red Hat
Summit

Connect

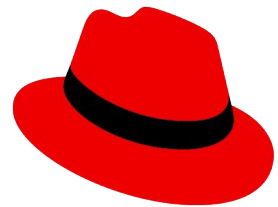
(Not just) OpenShift AI: Demo

Why is Red Hat portfolio perfectly positioned for the age of AI

Red Hat Summit Connect

Warszawa

14.11.2024



Red Hat

Anton Giertli

Senior Solution Architect
Red Hat

Operationalizing AI/ML is not trivial

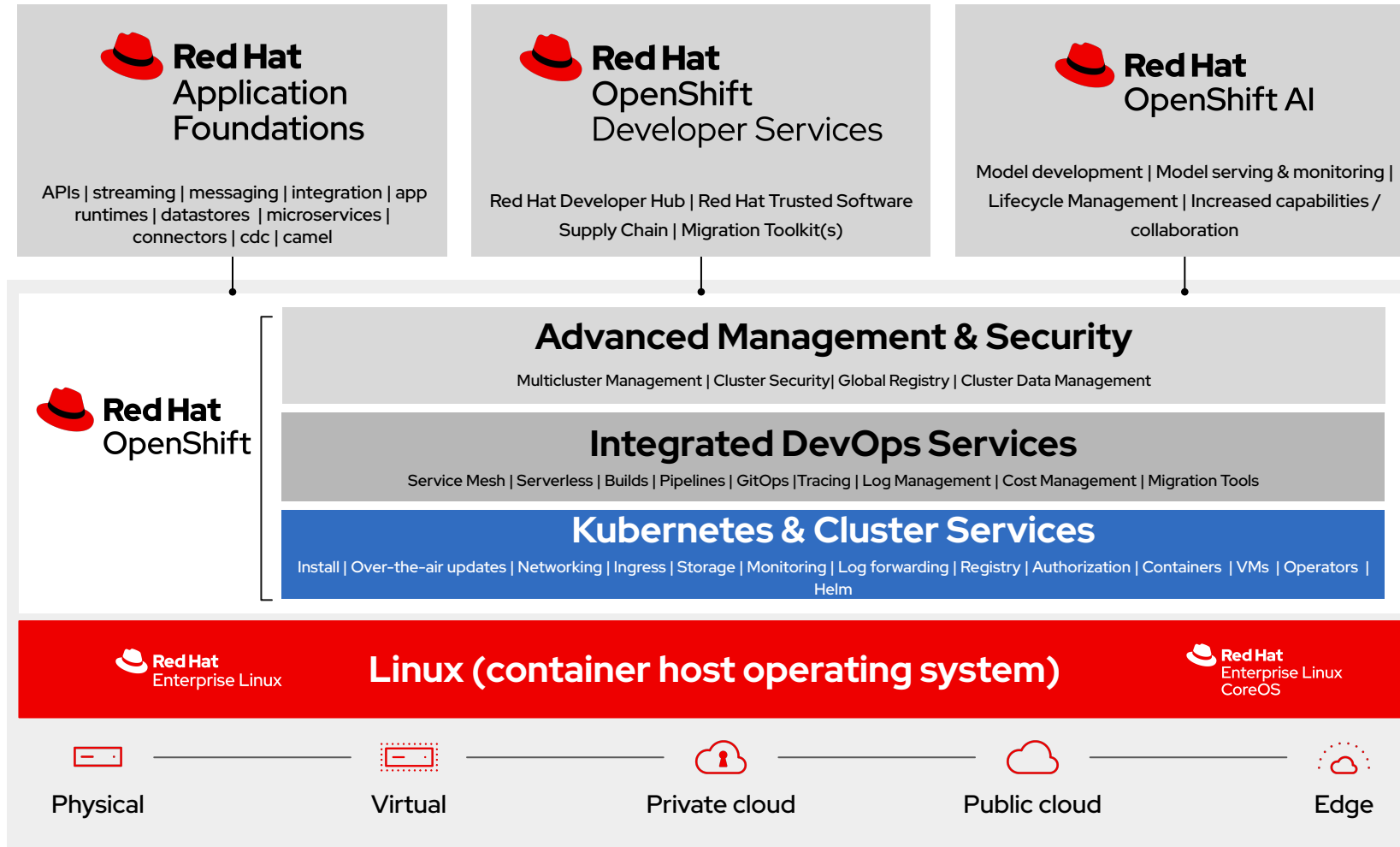
Every member of the team plays a critical role in a complex process

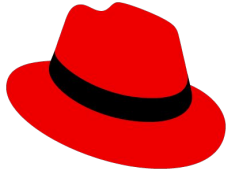


	Set goals	Gather and prepare data	Develop model	Integrate models in app dev	Model monitoring and management
Business leadership	Active				
Data engineer		Active			
Data scientist			Active		Active
ML engineer			Active	Active	Active
App developer				Active	Active
IT operations		Active	Active	Active	Active

Boost the intelligence of your applications with Red Hat

Build an open, flexible foundation for AI/ML





Red Hat OpenShift AI

Hybrid MLOps platform

Collaborate within a common platform to bring IT, data science, and app dev teams together

Available as

- **managed cloud service**
- **traditional software product on-prem or in the cloud!**



Model development

Conduct exploratory data science in JupyterLab with access to core AI / ML libraries and frameworks including TensorFlow and PyTorch using our notebook images or your own.



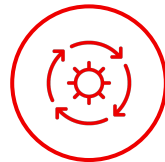
Model serving & monitoring

Deploy models across any cloud, fully managed, and self-managed OpenShift footprint and centrally monitor their performance.



Lifecycle Management

Create repeatable data science pipelines for model training and validation and integrate them with devops pipelines for delivery of models across your enterprise.



Increased capabilities / collaboration

Create projects and share them across teams. Combine Red Hat components, open source software, and ISV certified software.



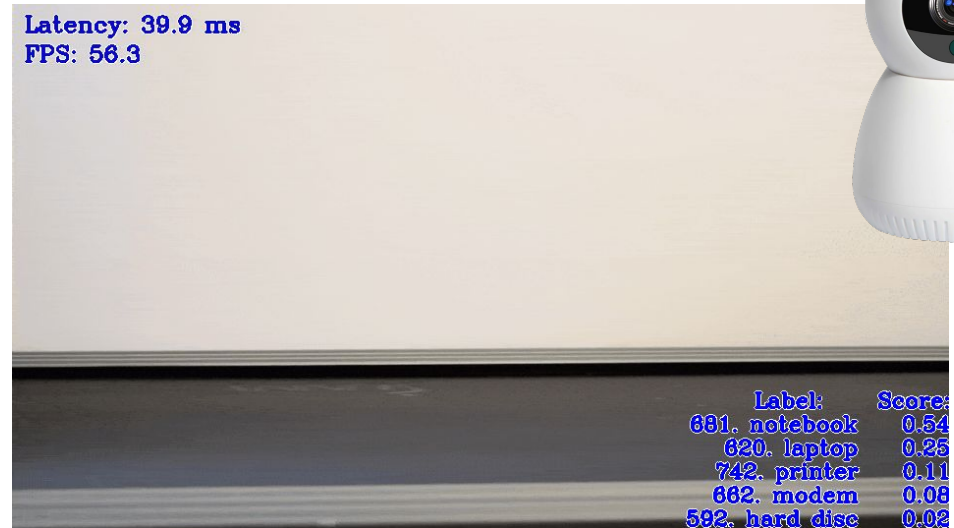
Generated by ChatGPT

Use case: Superstores

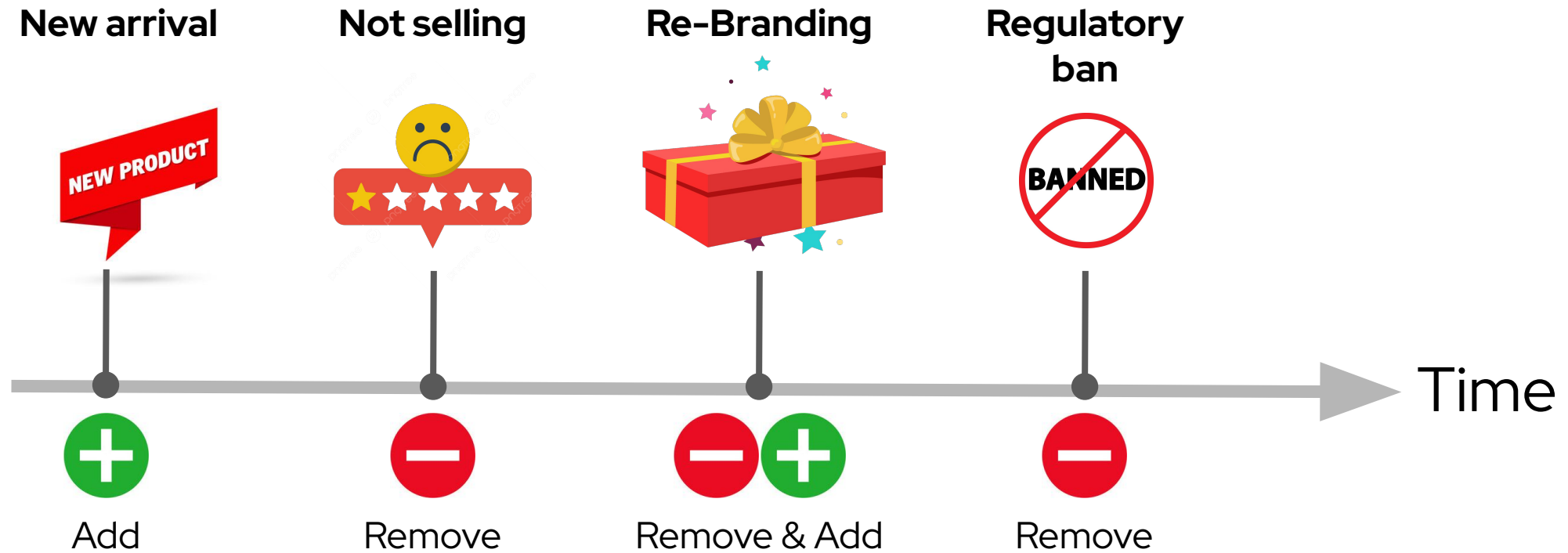
Shoppers & Staff handsets Price check on articles



Smart Conveyor Belts Shopping checkout

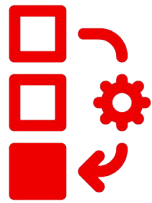


Product Catalogue over time



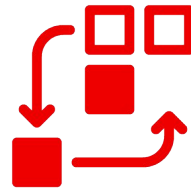
Building Intelligent Applications and Data Pipelines

Application Services Components



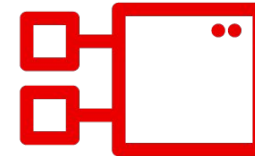
Events

Simplifies the deployment, configuration, management of Apache **Kafka** on OpenShift & enables Change Data Capture



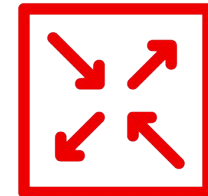
Store and Forward

High-performance messaging implementation based on **ActiveMQ** for edge protocols like MQTT and AMQP



Integration

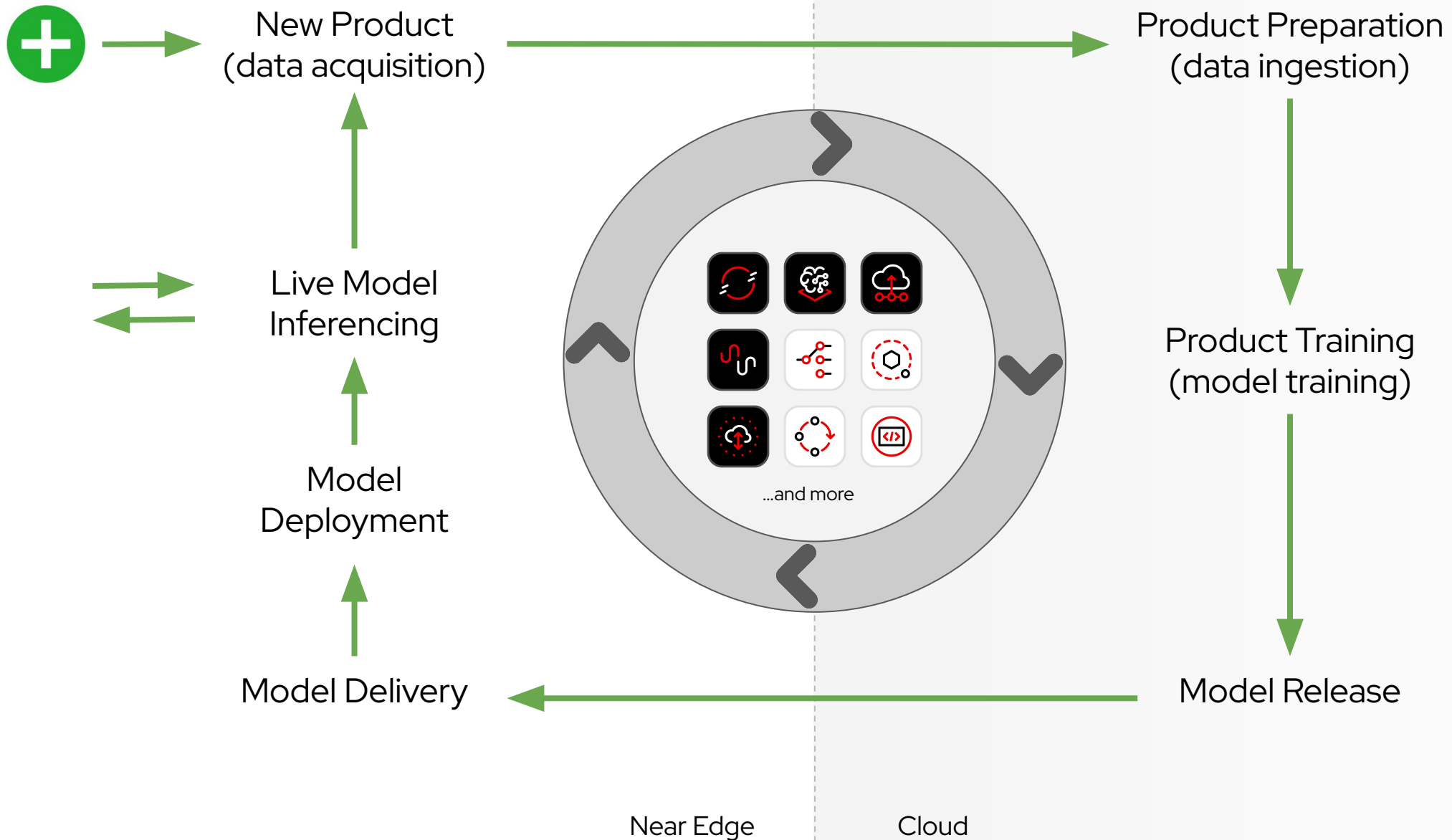
Solve integration problems by applying known patterns and components running **Apache Camel** on Quarkus or OpenShift



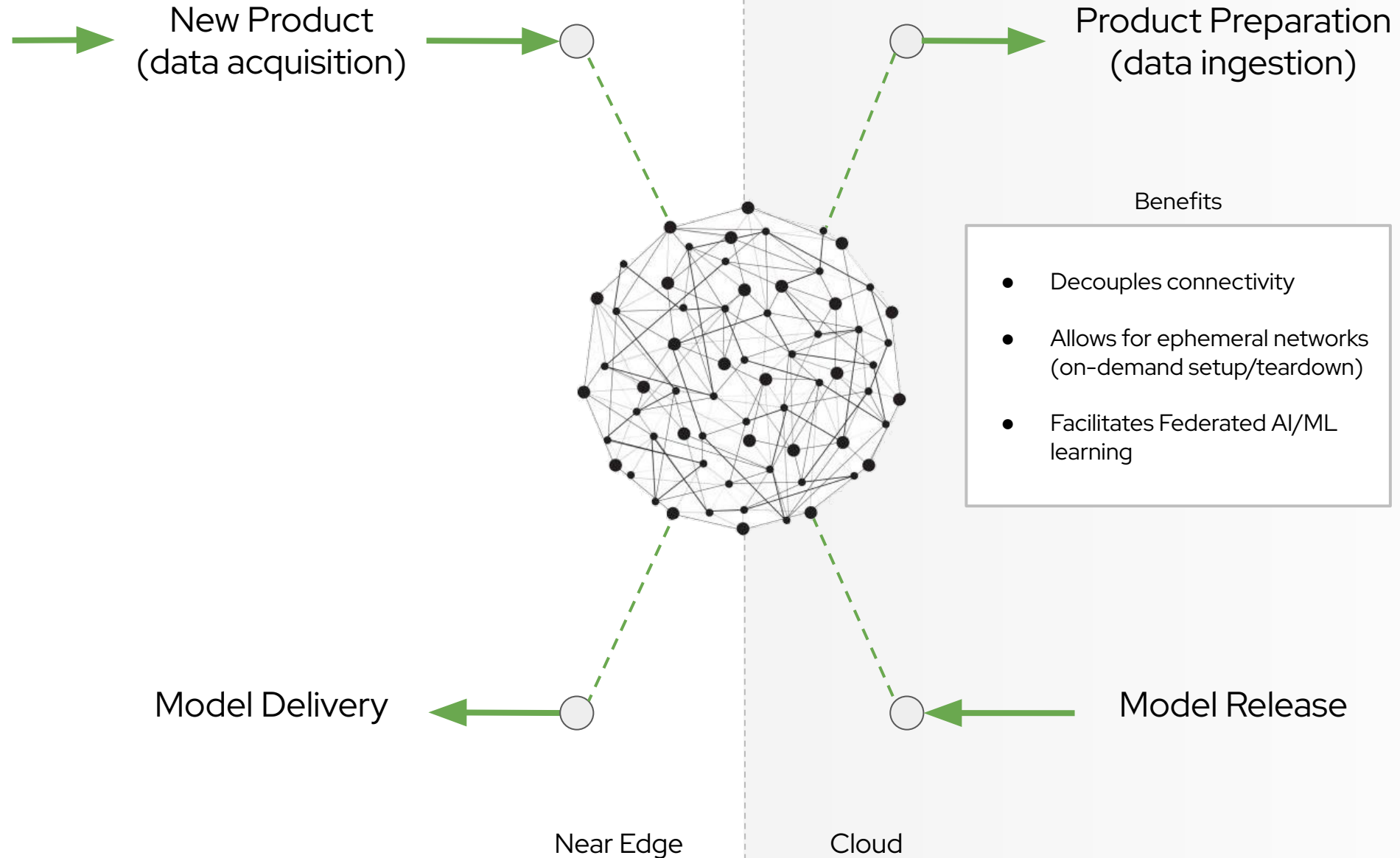
Service Network

Router to build large-scale service networks and create a redundant application-level services across locations with **Service Interconnect (Skupper)**

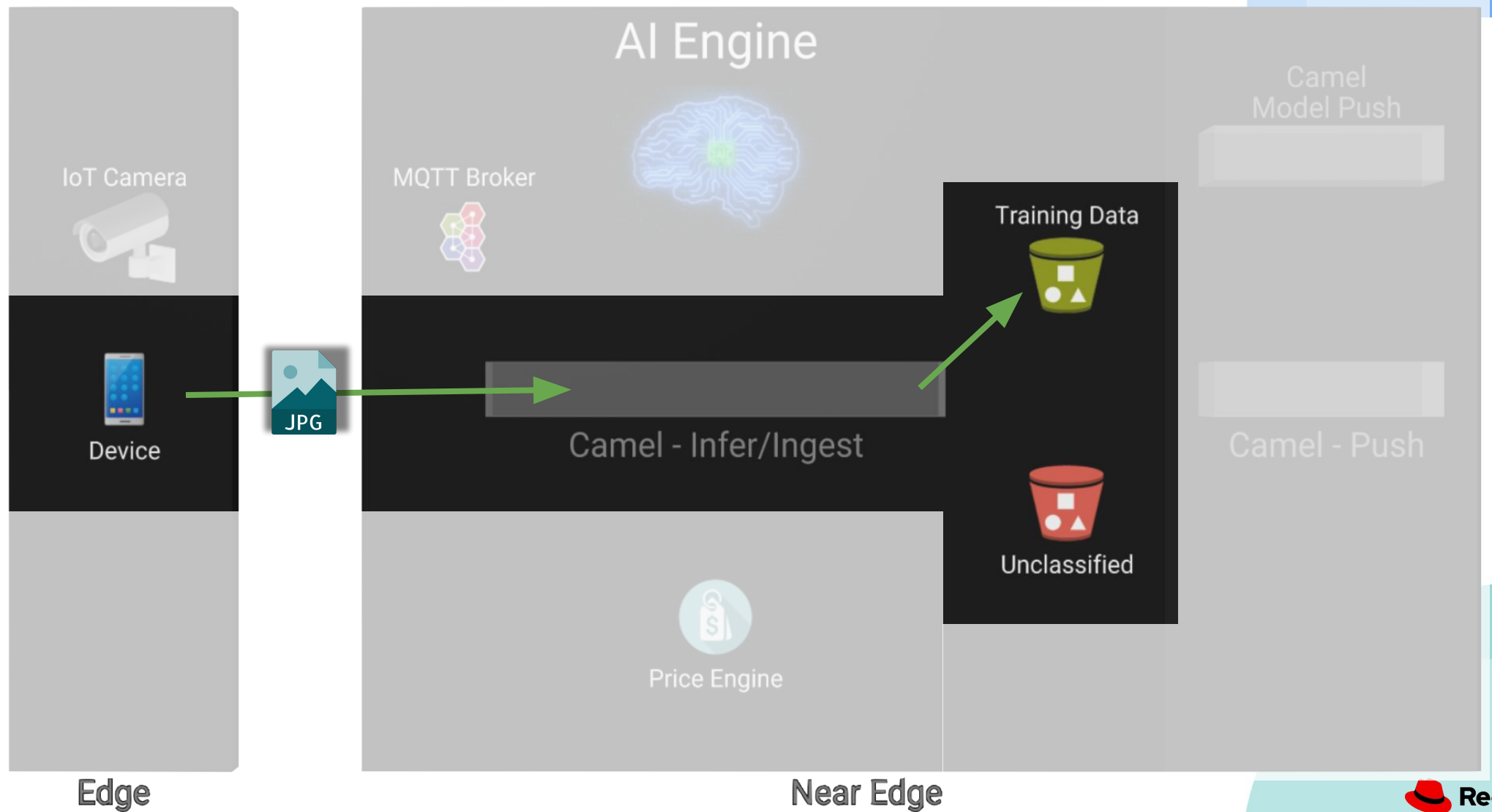
Data Pipelines Circle



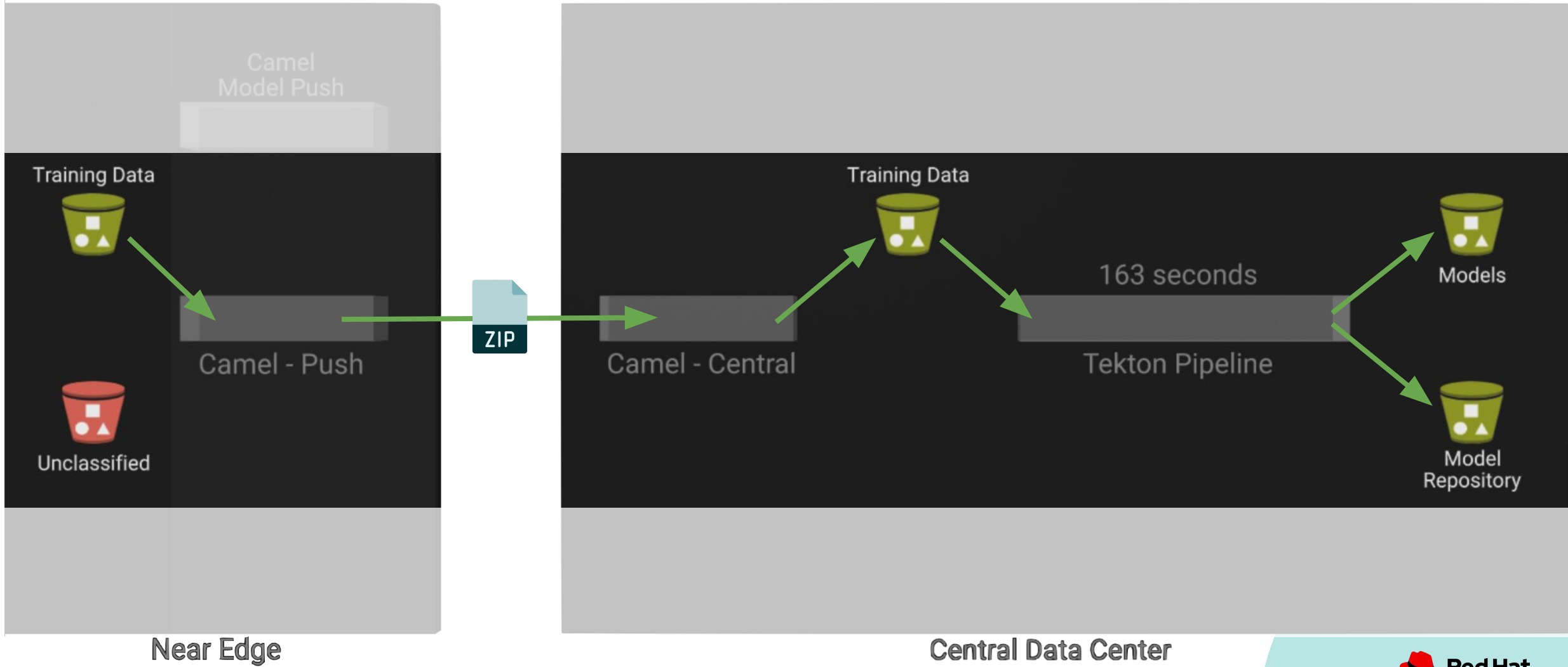
Edge to Cloud: Service Interconnect



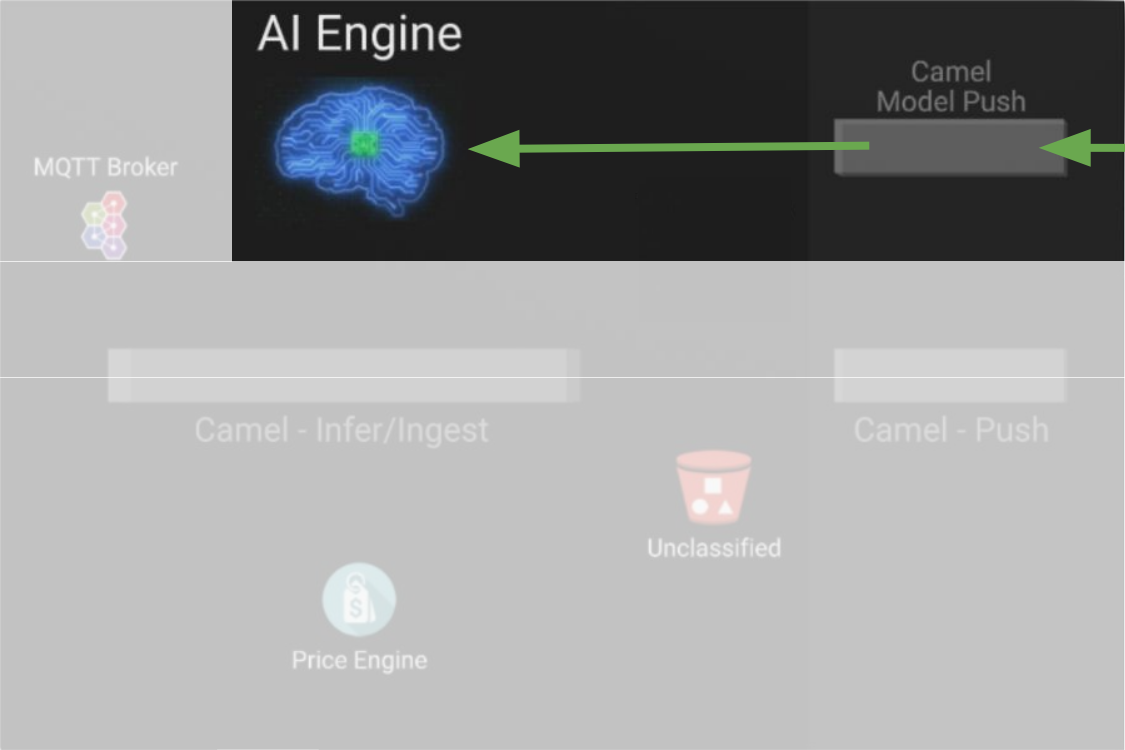
Data acquisition



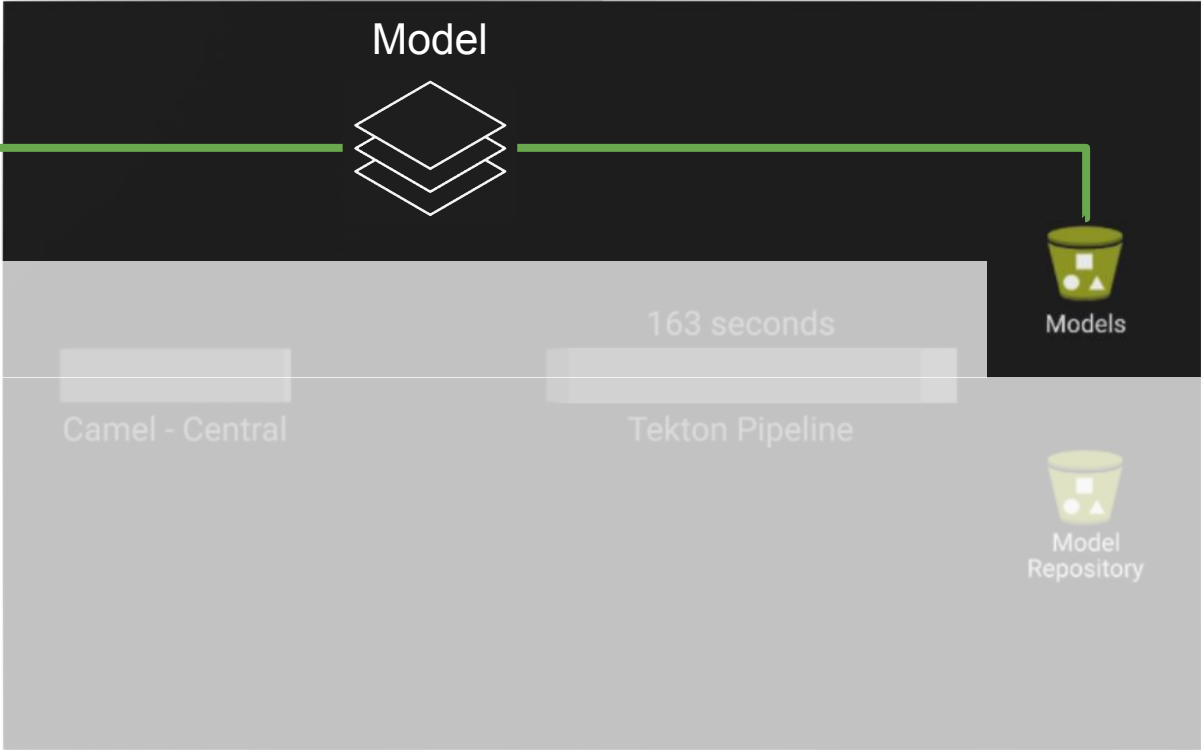
Data preparation & modeling



App Dev & Delivery

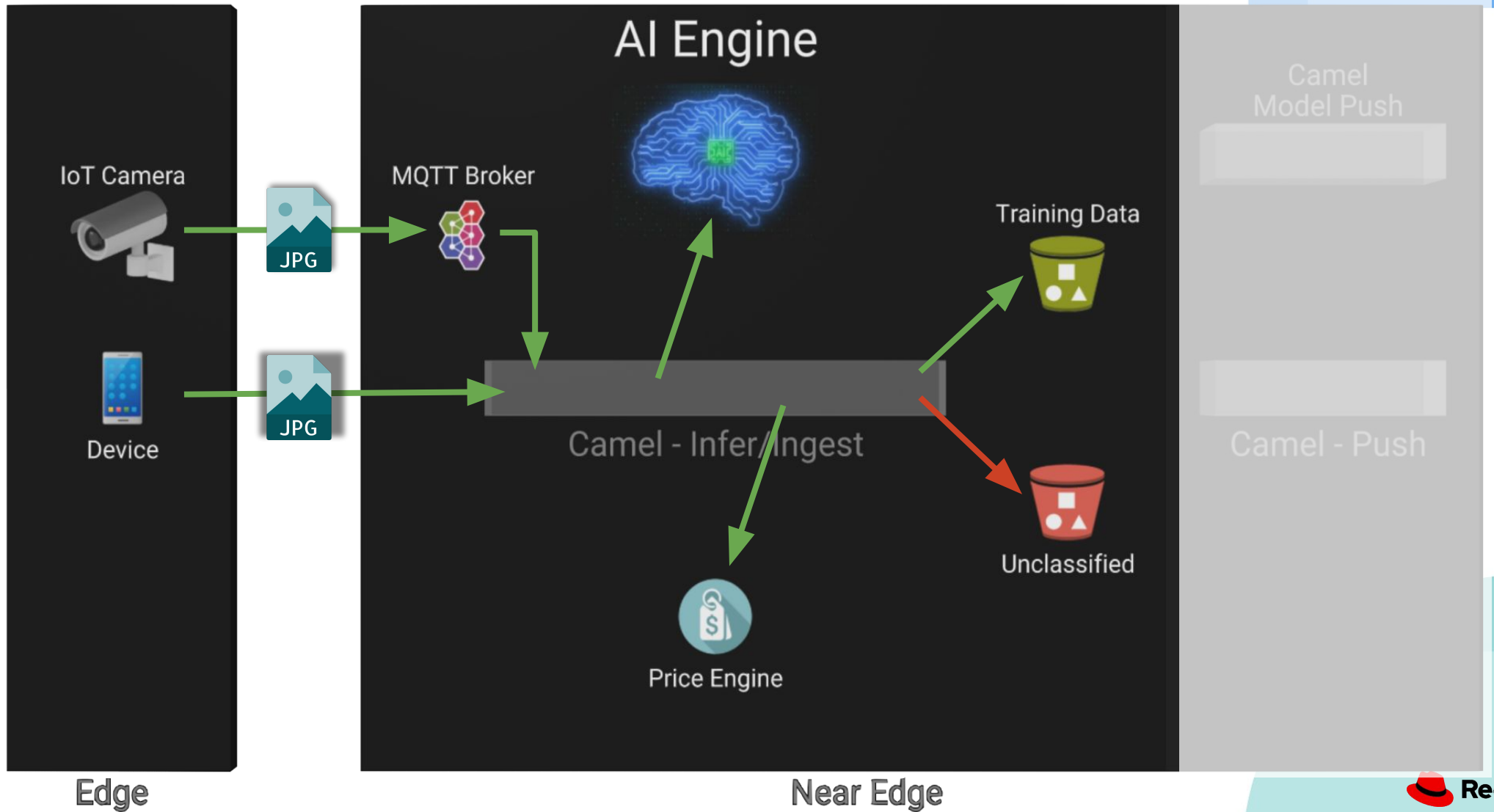


Edge / Near Edge



Central Data Center

ML Inferencing

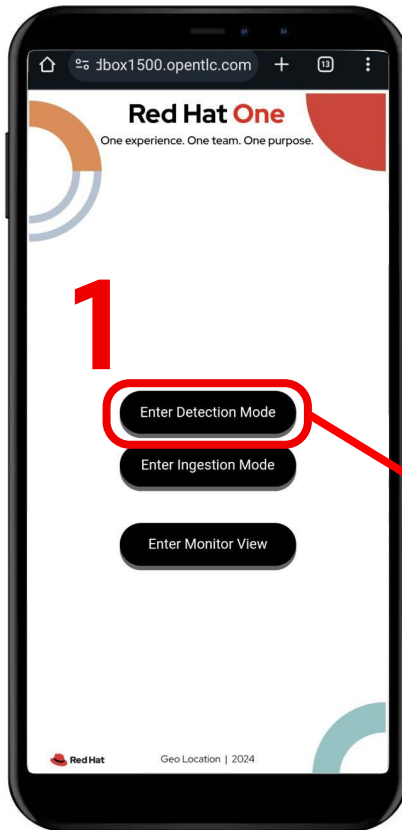


Let's jump to the environment

Detection Mode

(Get price tag for Product)

1) Enter
Detection Mode



2) Take Picture



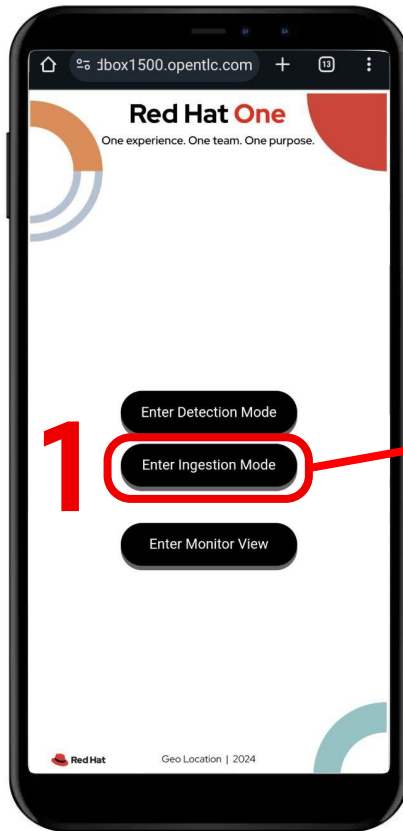
3) Send via:
MQTT / HTTP



Ingestion Mode

(Push Training Data for Product)

1) Enter Ingestion Mode



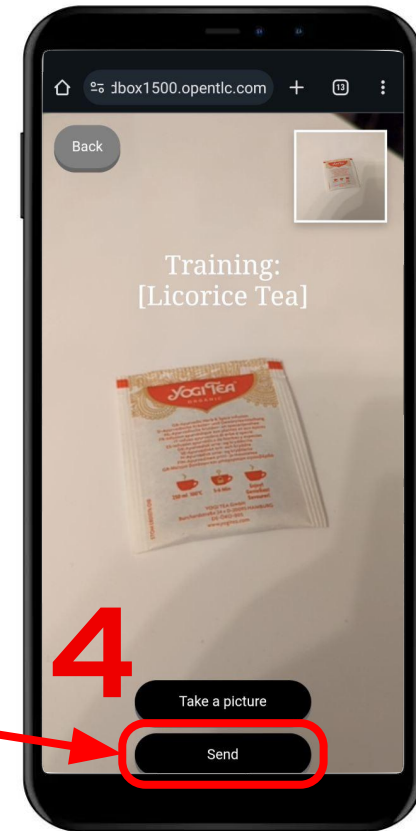
2) Pick Product to train



3) Take Picture



4) Push it (Send)



Short Link:

red.ht/shopper

QR code



Summary



AI/ML benefits businesses

AI-powered intelligent software applications help achieve key business goals



But there are challenges

People, process, and technology challenges can delay deployments. This can have a negative business impact.



Red Hat can help

We have capabilities to help speed up AI/ML initiatives, allowing faster delivery of intelligent software applications.