



# KSB 인공지능 프레임워크(BeeAI) v1.0 소개



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KSB융합연구단, ETRI  
Knowledge-converged  
Super BRAIN

한국전자통신연구원  
Electronics and Telecommunications  
Research Institute

한국에너지기술연구원  
KOREA INSTITUTE OF ENERGY RESEARCH

KAERI  
한국원자력연구원  
Korea Atomic Energy Research Institute

KRISS  
한국표준과학연구원  
Korea Research Institute of Standards and Science

# Machine Learning in Real World

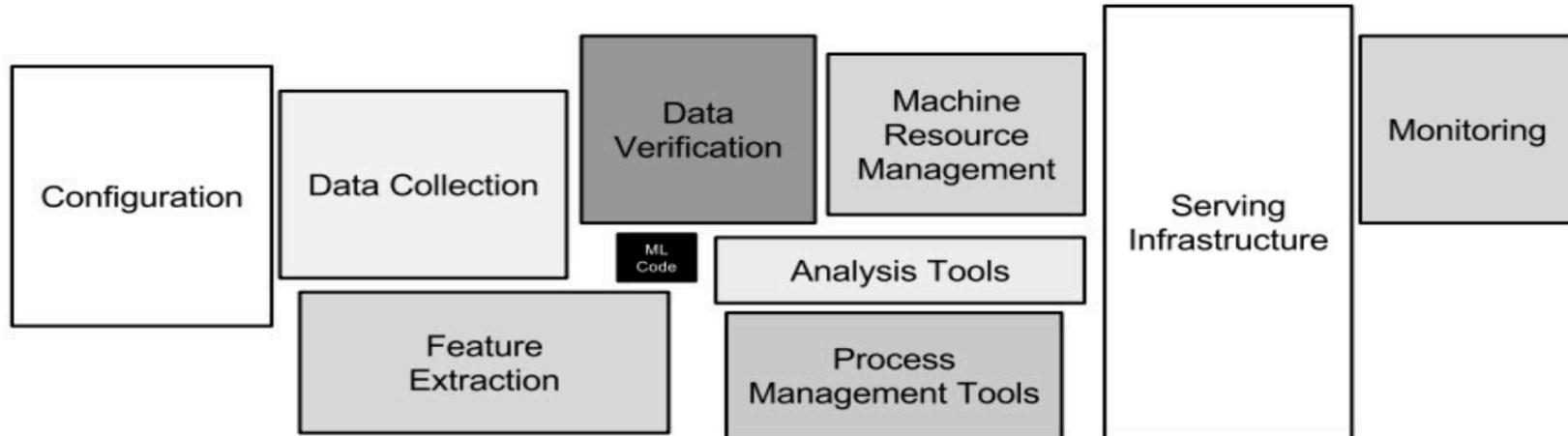
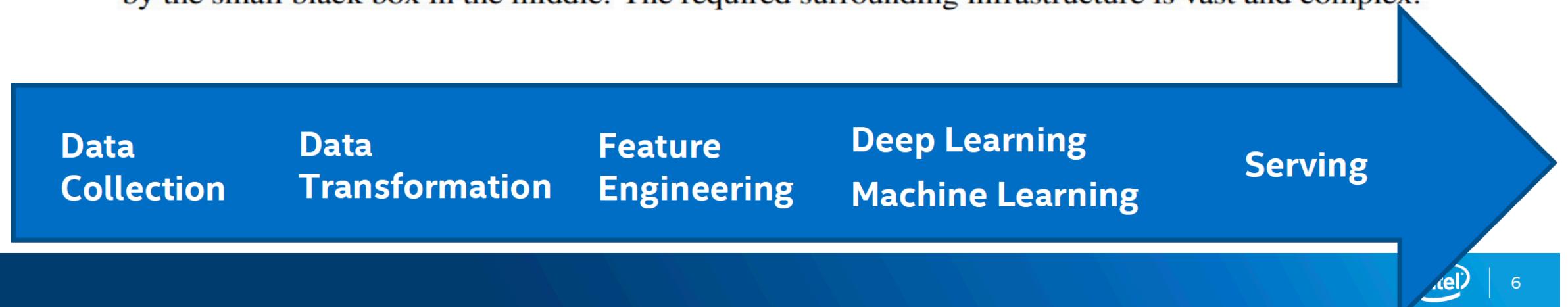
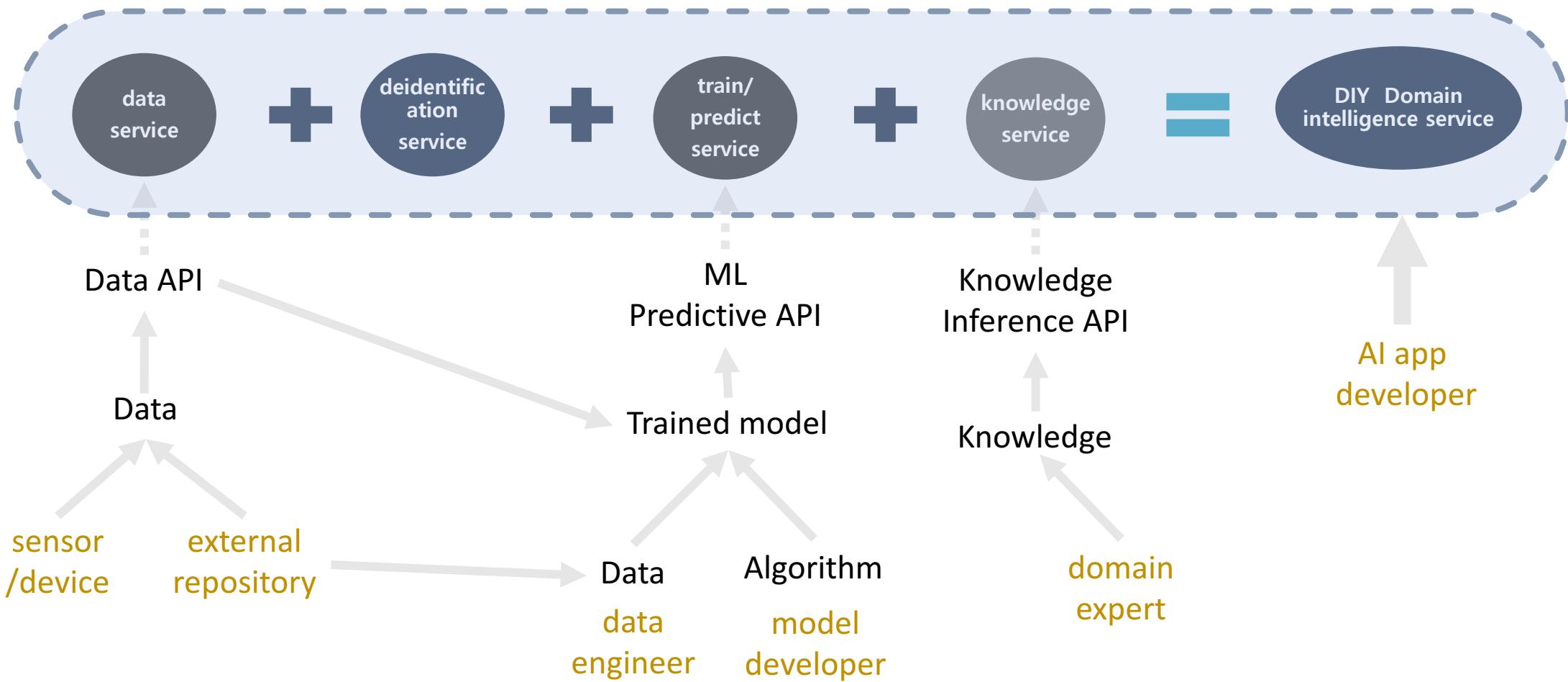


Figure 1: Only a small fraction of real-world ML systems is composed of the ML code, as shown by the small black box in the middle. The required surrounding infrastructure is vast and complex.

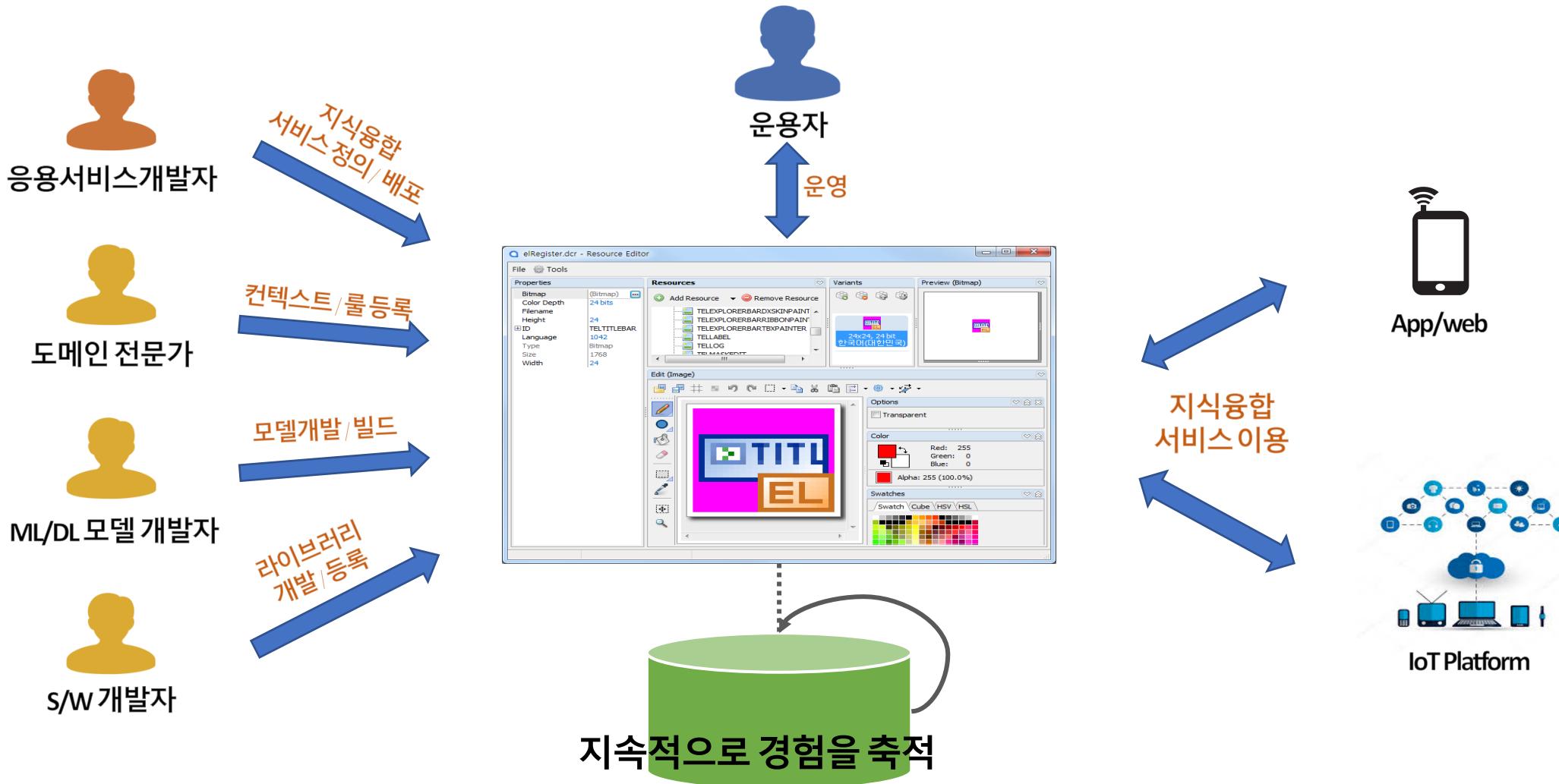


\*Source: Hidden Technical Debt in Machine Learning Systems, Google, NIPS 2015

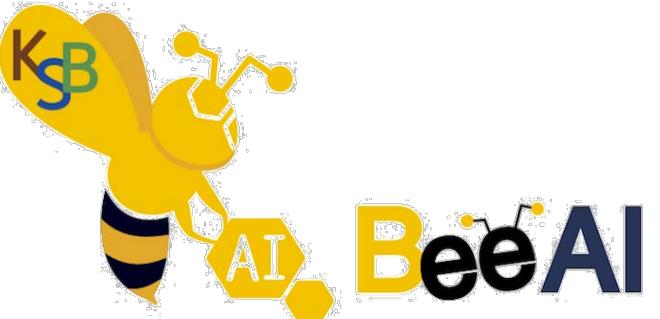
# BeeAI: KSB Industrial AI Service Infra Framework



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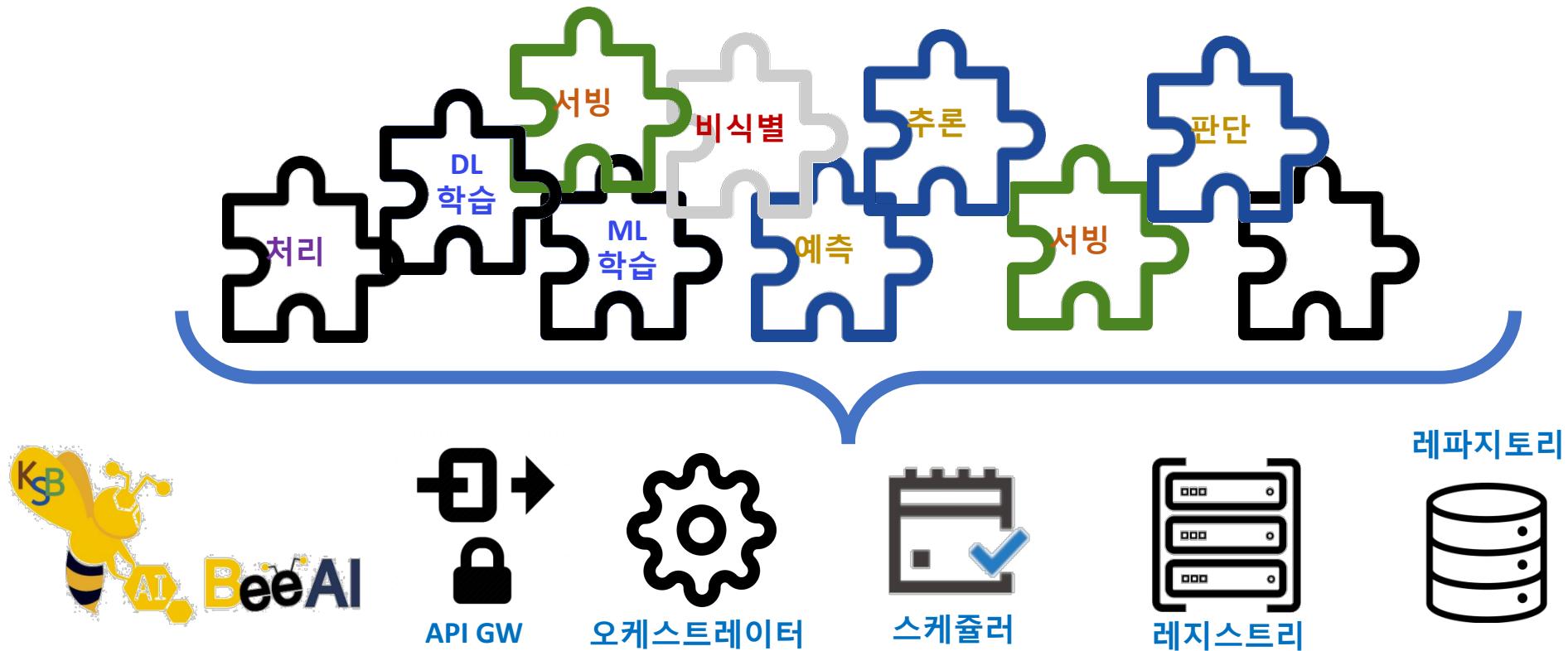


# BeeAI: KSB AI Service Infra Framework

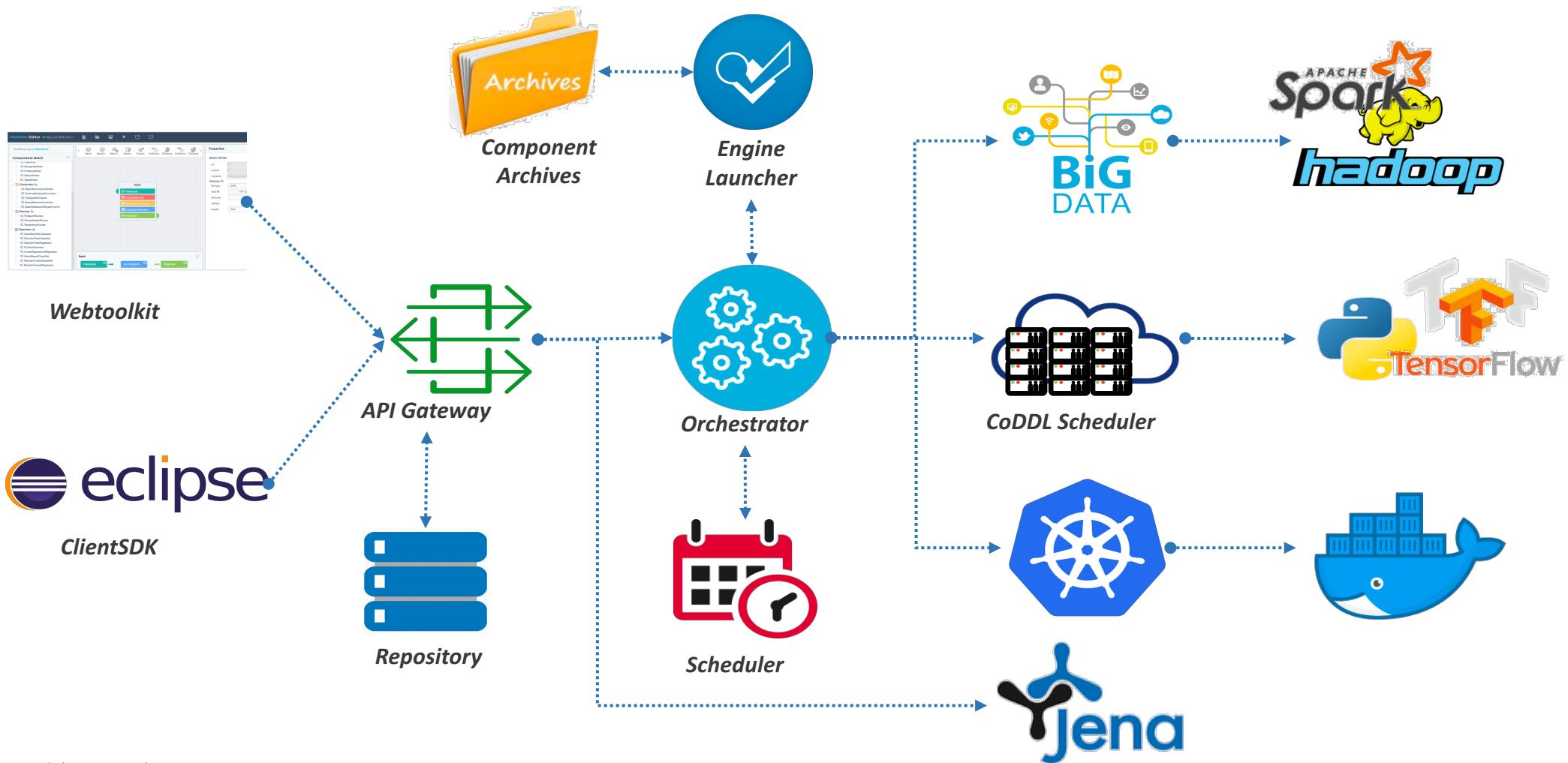


- is not only a tool for ...
  - a data analyst
  - a ML developer
  - a ML end-to-end pipeline
  - a knowledge base
- is ...
  - a Industrial AI Service Infra framework
  - a AI Service DevOps tool

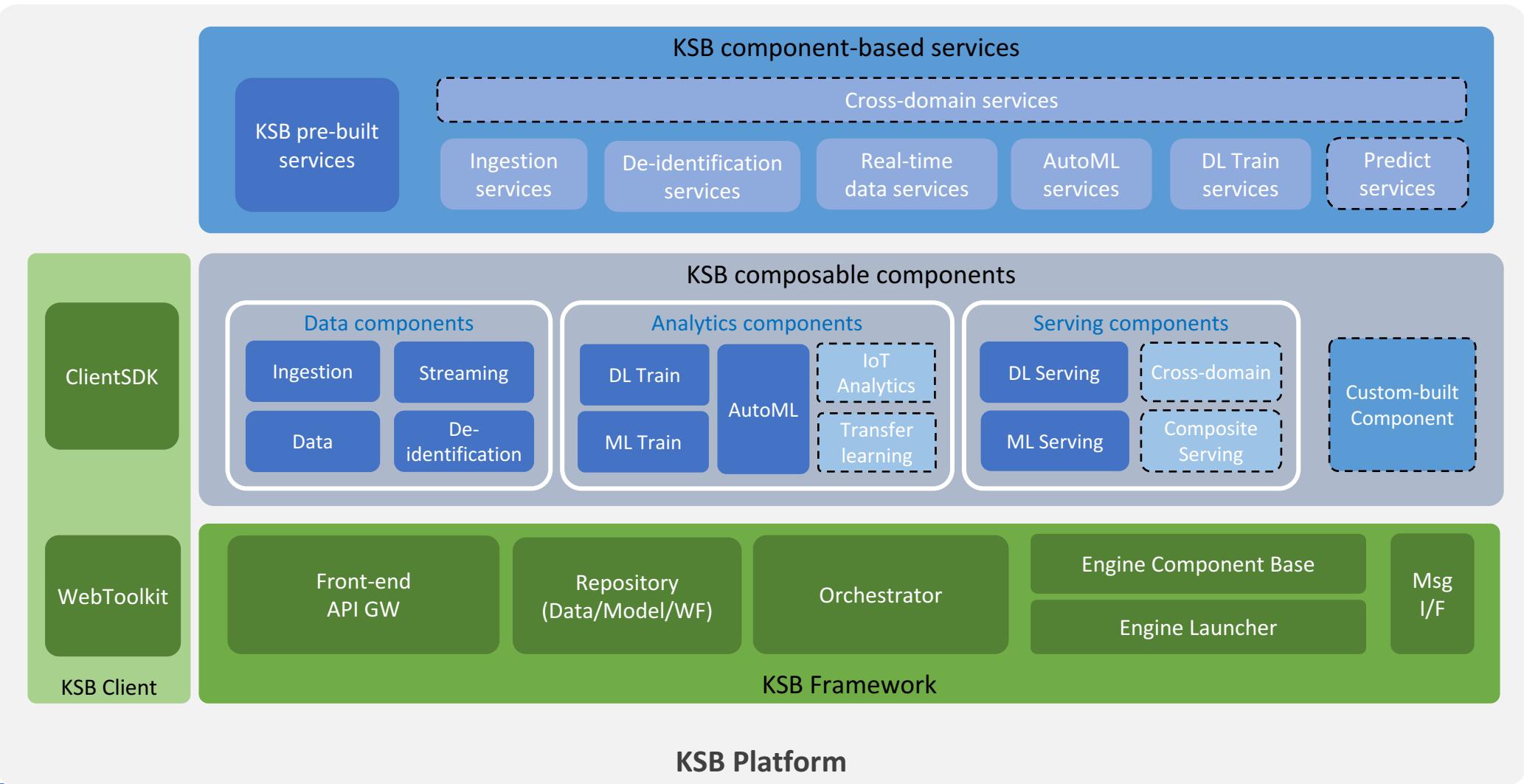
# BeeAI: KSB AI Service Infra Framework



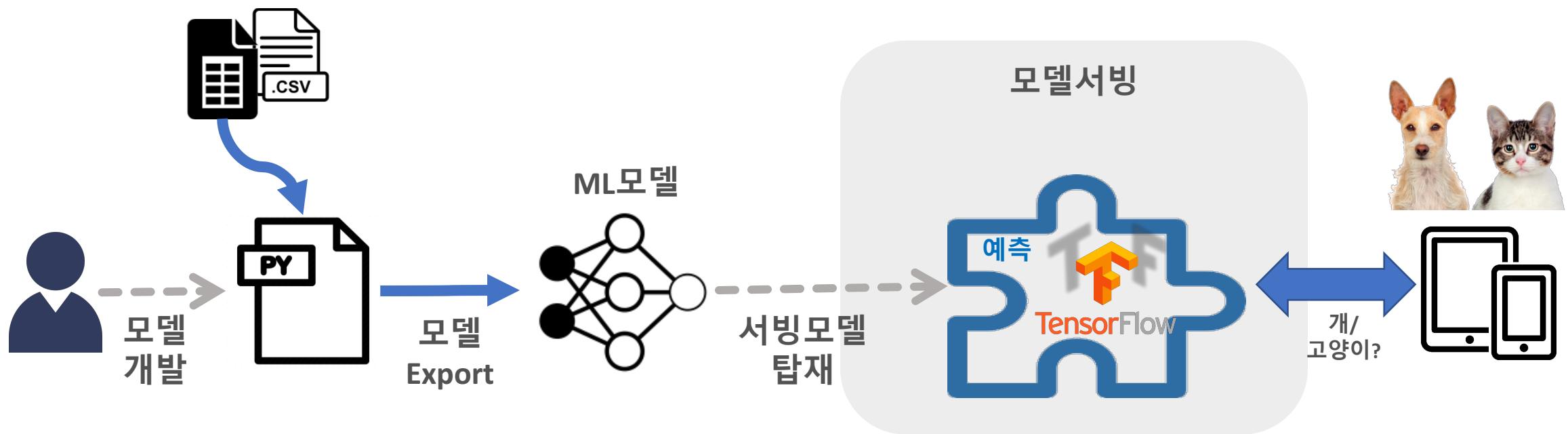
# KSB 프레임워크 아키텍쳐



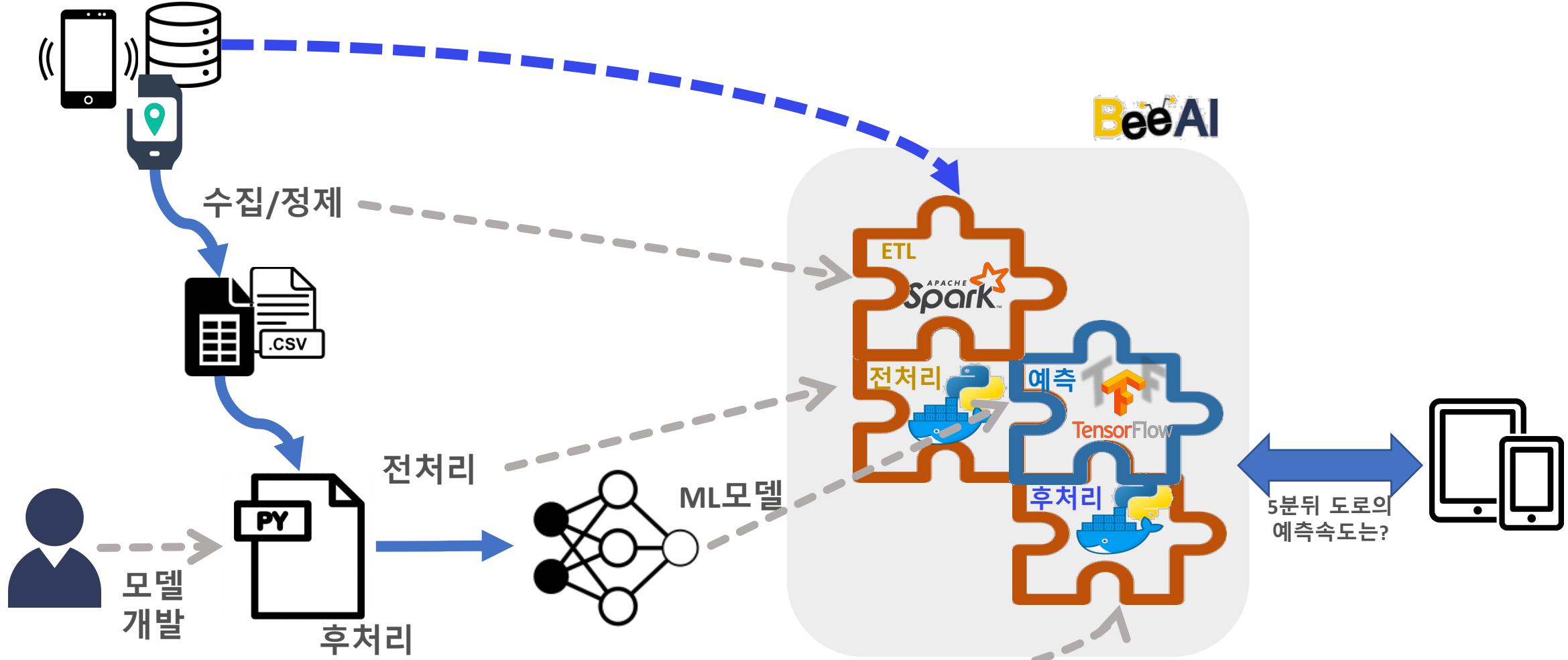
# KSB Framework S/W Stack



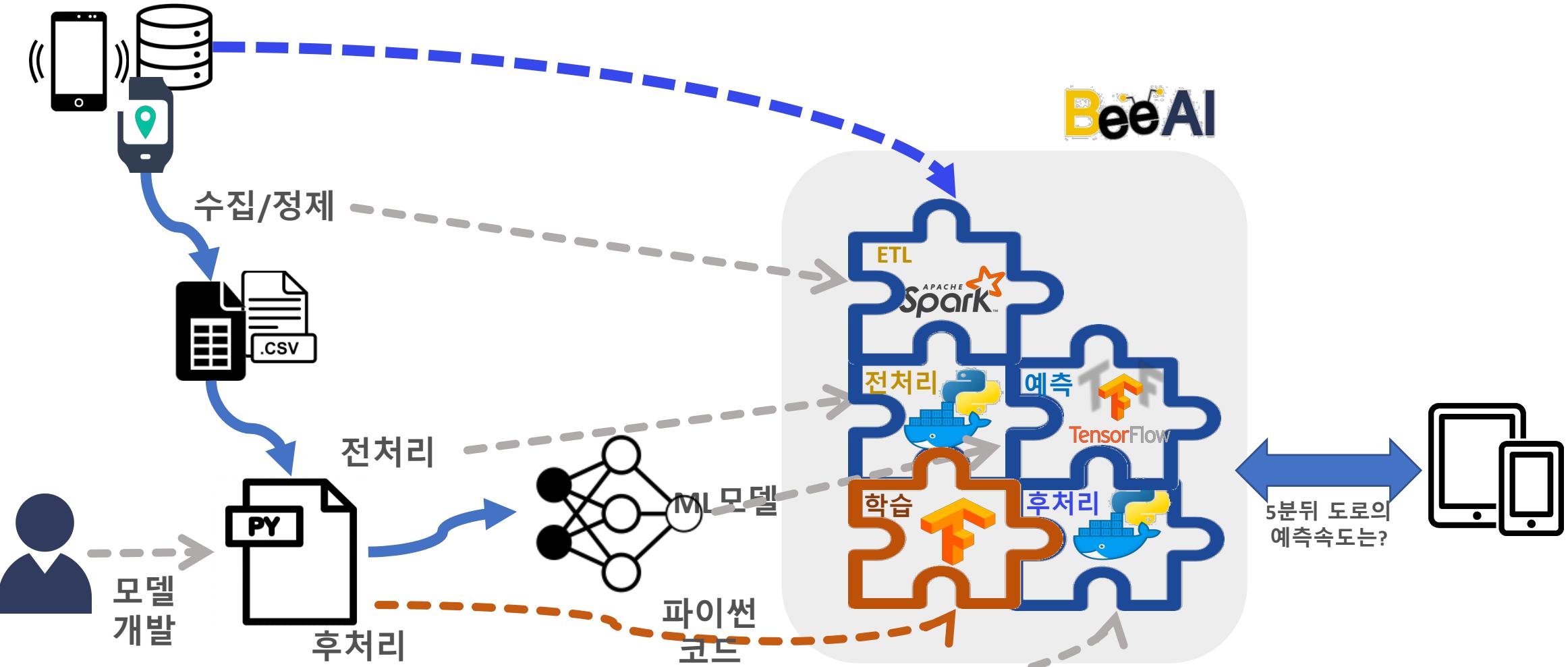
# Model Serving



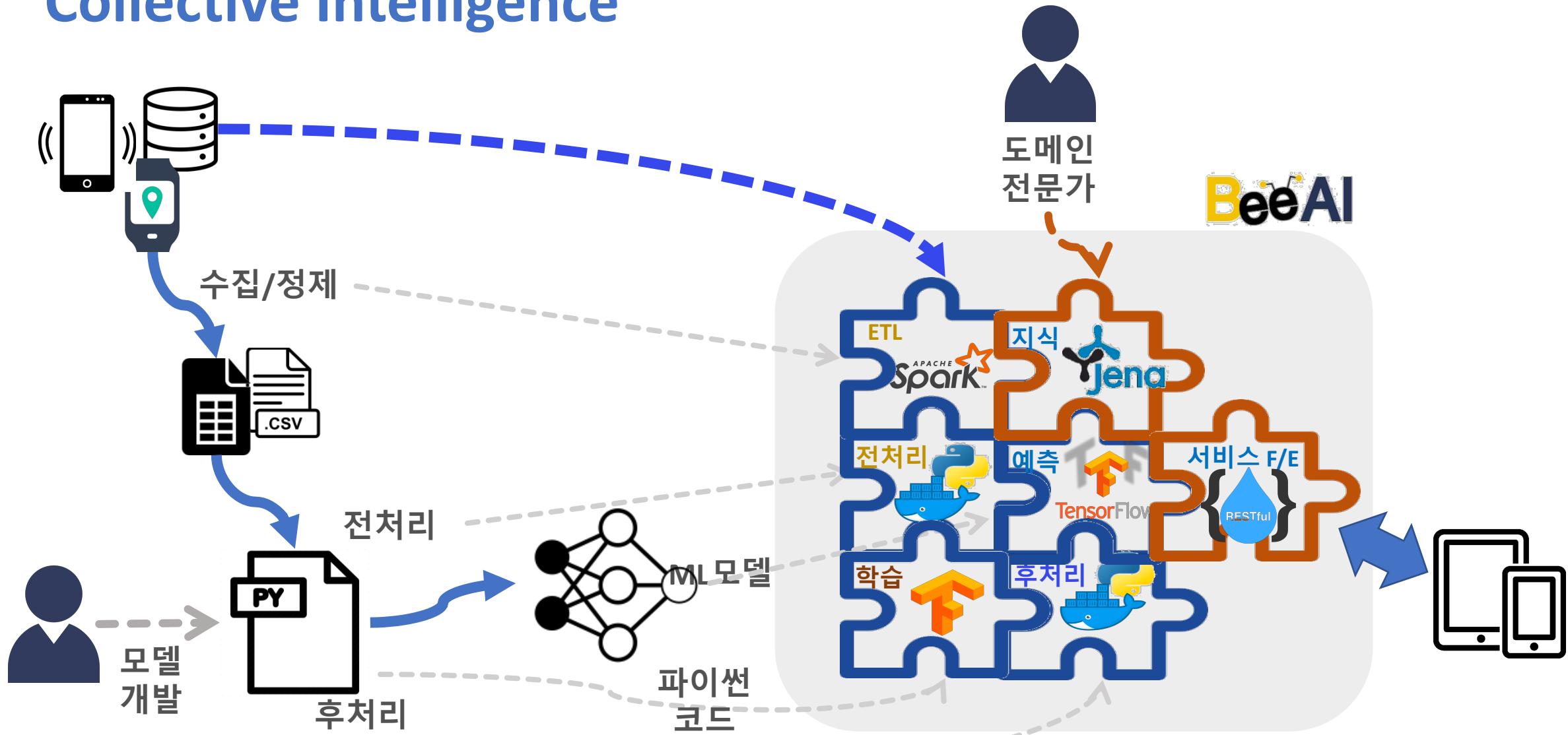
# Real-time Serving



# Adaptive Serving



# Collective Intelligence



# KSB 프레임워크 시연

# KSB 프레임워크 클라이언트 모듈: WebToolkit

**대쉬보드**

**워크플로우 편집**

**저장소/시각화**

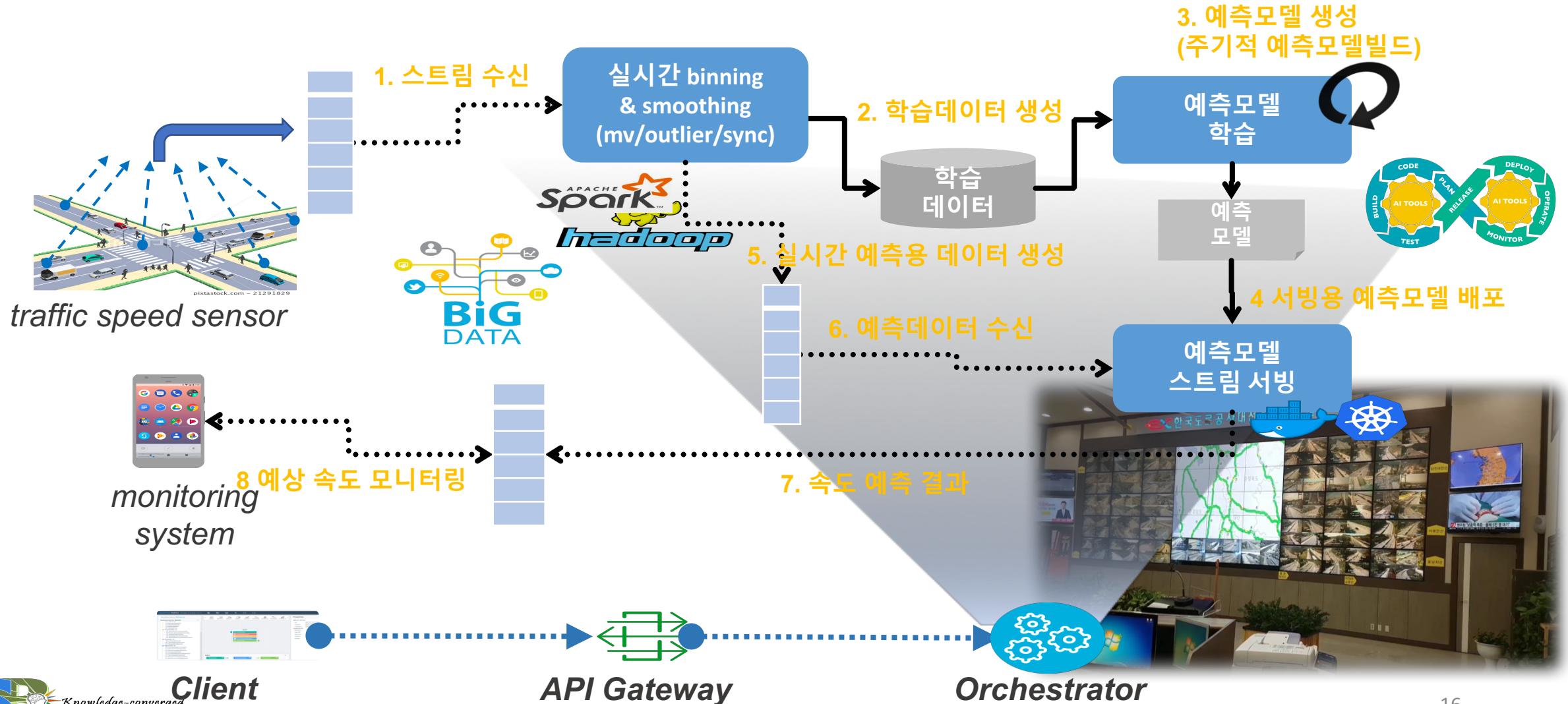
**모니터링**

**컴퍼넌트 관리**

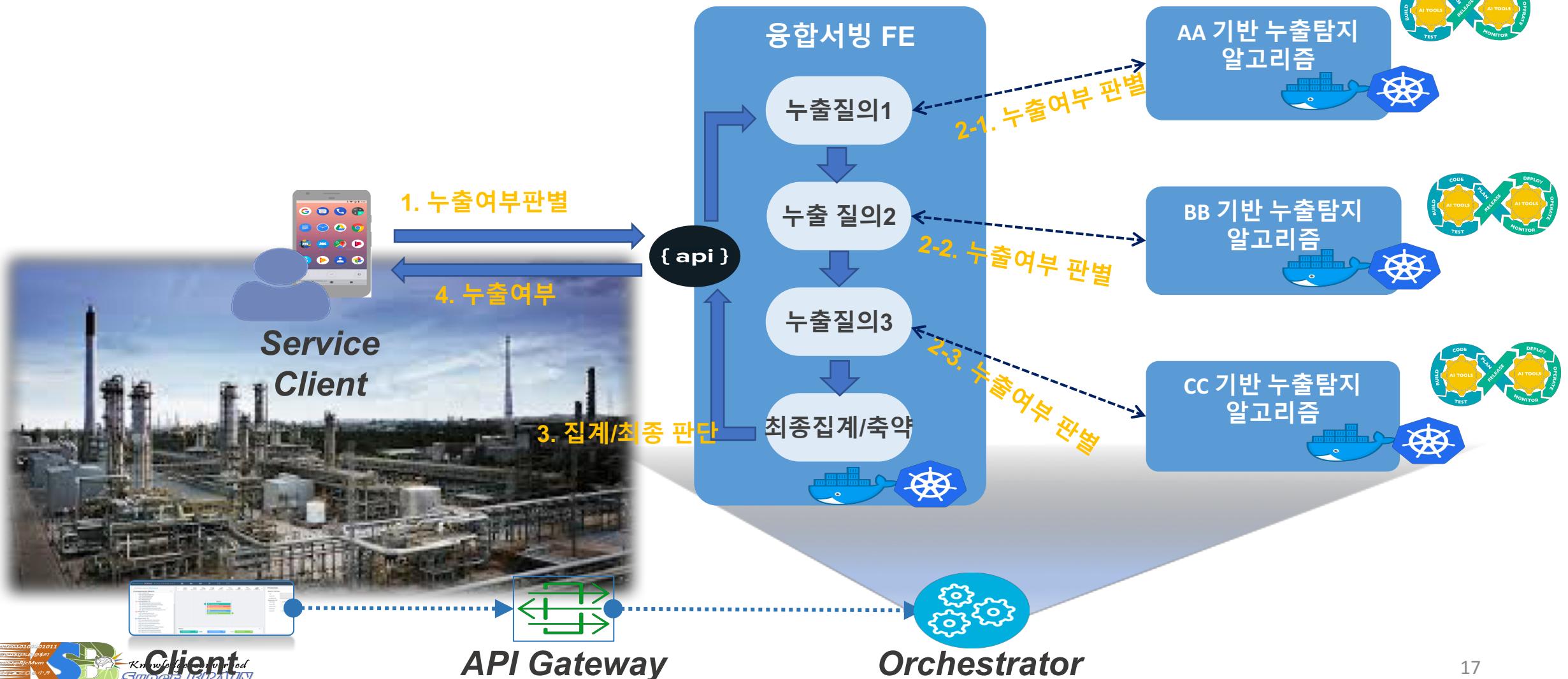
**관리자**

# 대표 인공지능 서비스 응용 시나리오

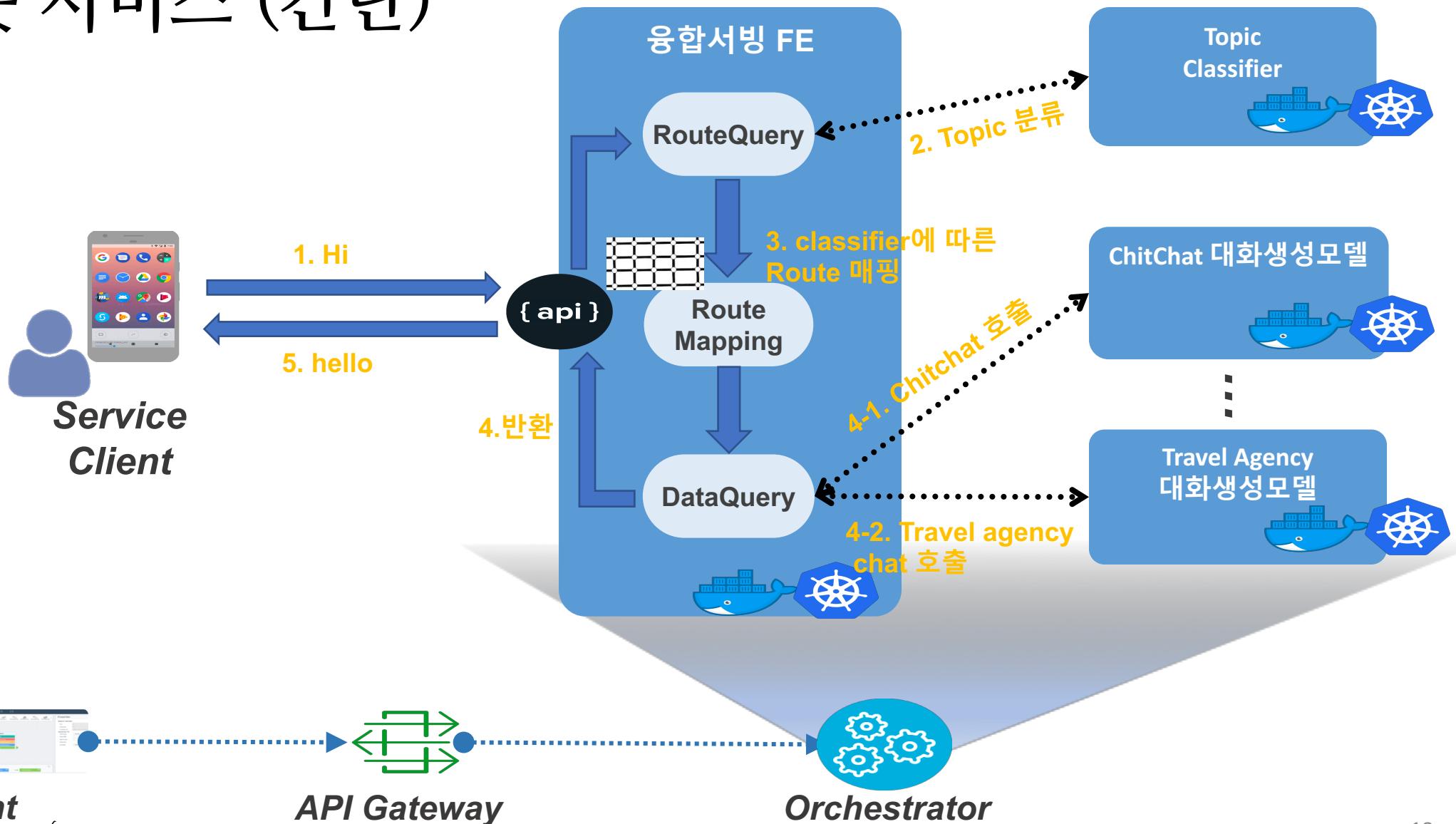
# AI 기반 실시간 교통속도 예측 모니터링 시스템



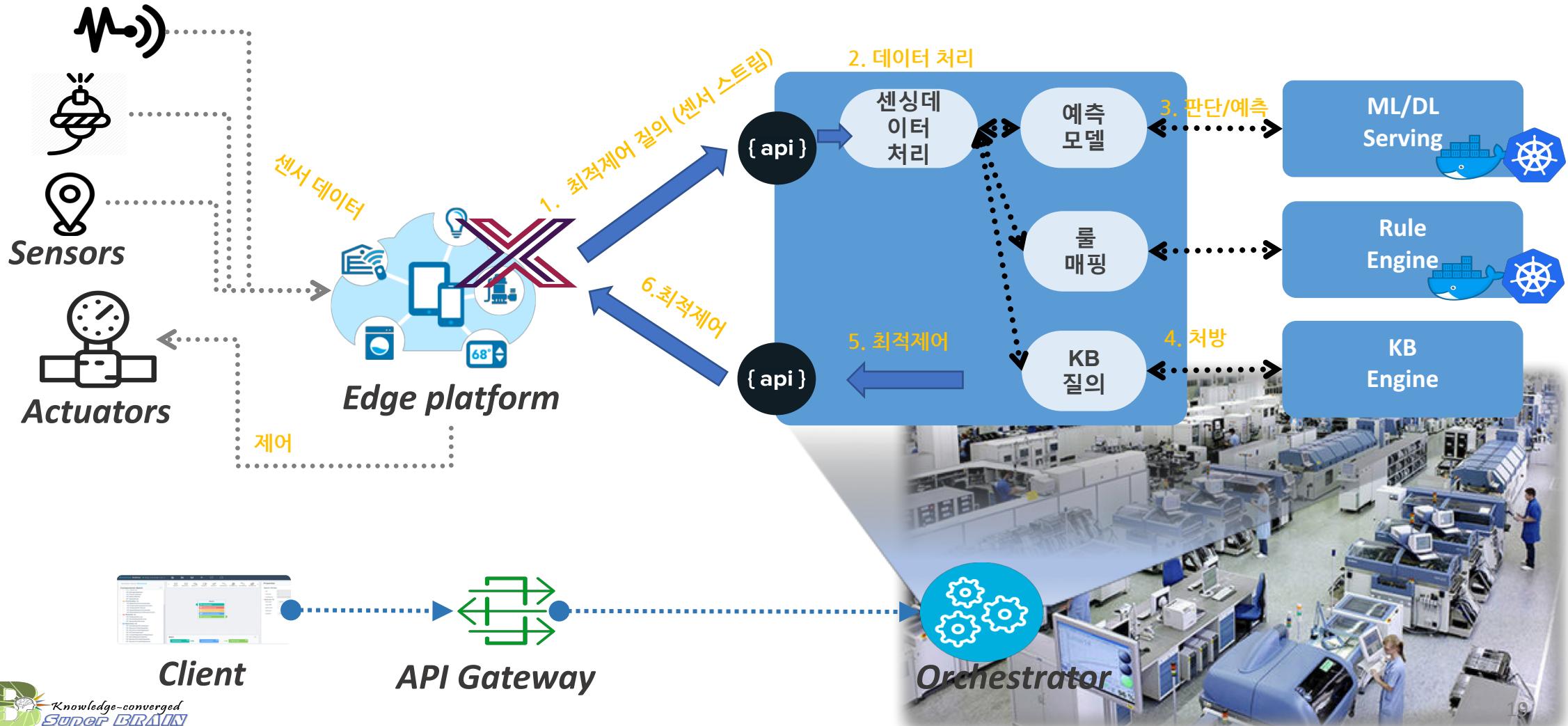
# 모델 앙상블 기반 플랜트 누출 탐지 시스템



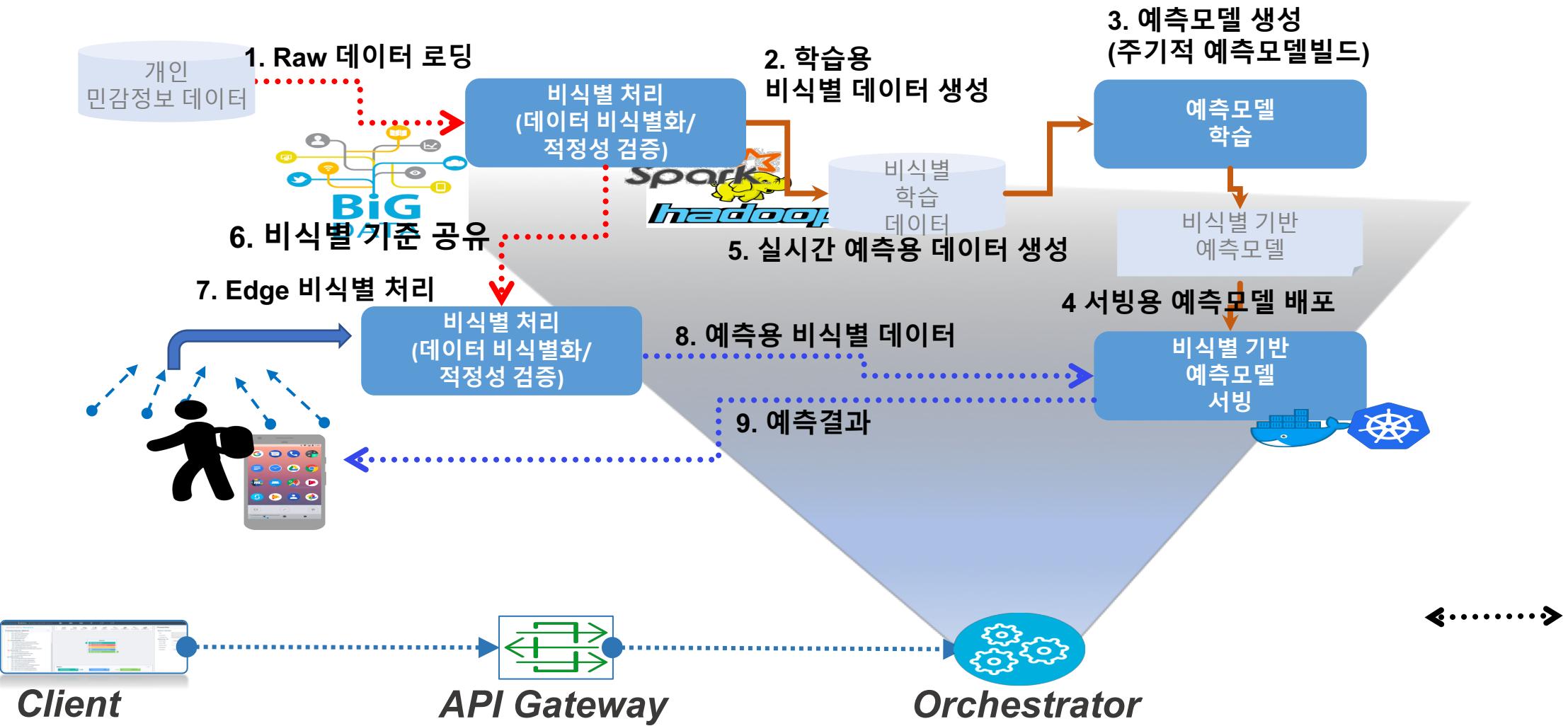
# 챗봇 서비스 (간단)



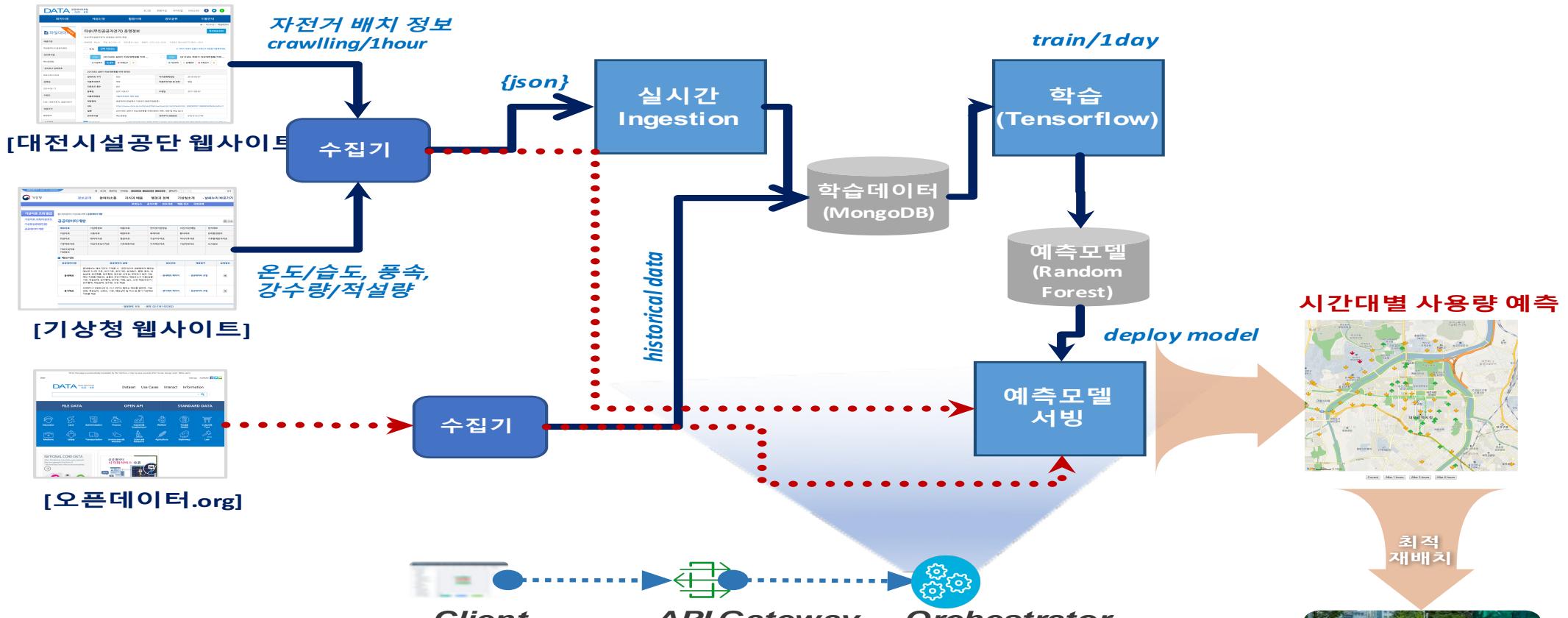
# EdgeX 플랫폼 연동 인텔리전트 디바이스 제어



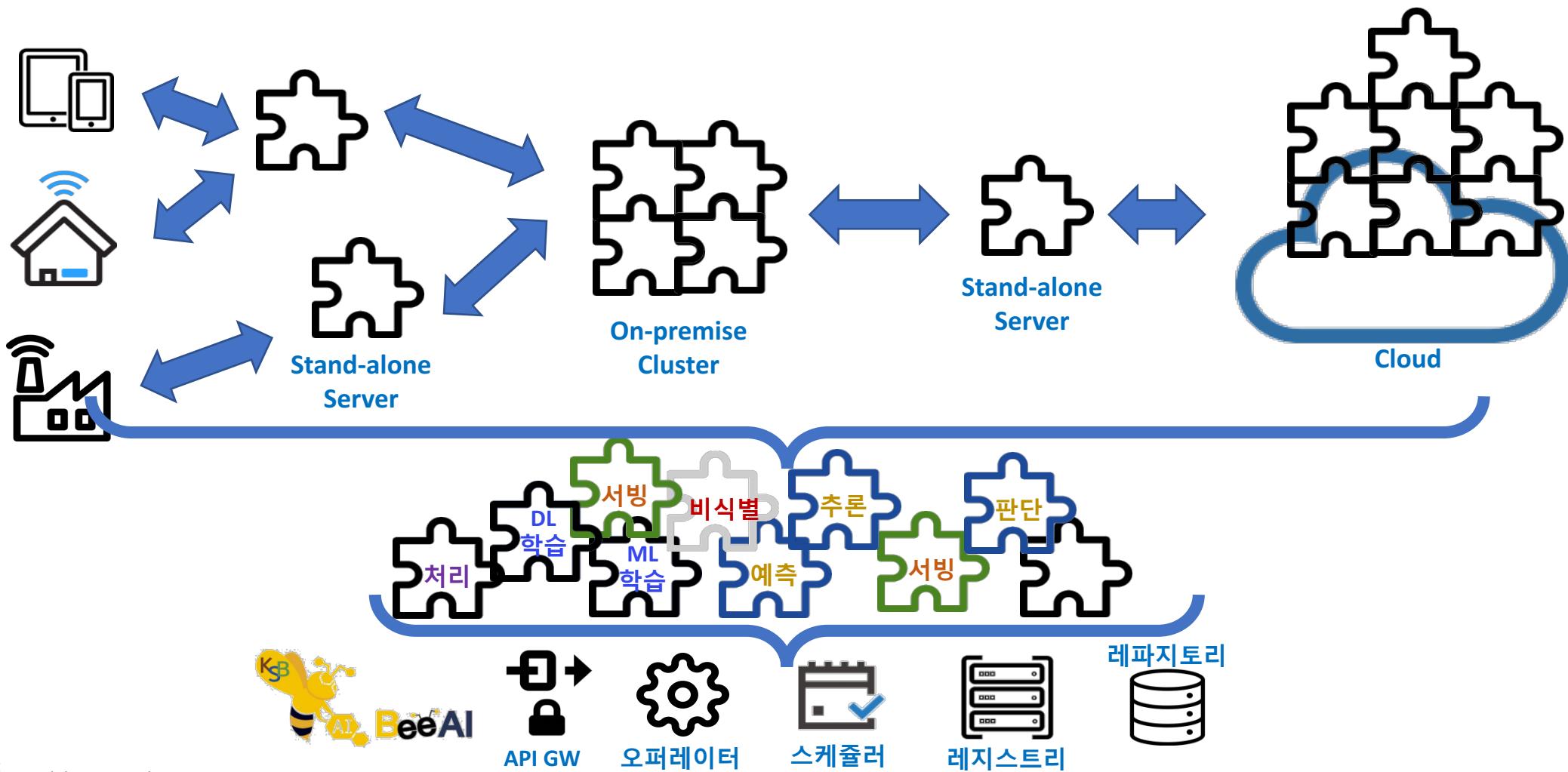
# 비식별 기반 인공지능 서비스



# 공공 자전거 사용량 예측 및 재배치 최적화 서비스



# BeeAI in the Future



# 감사합니다.