



MANUFACTURING SME AND CHALLENGE

Industrial use case: *Tractive AB*
 Challenge: *more efficient & reactive Planning & Scheduling*



Improvement of operational KPIs such as:
 WIP,
 Cycle Time,
 On-Time-Delivery,
 Costs
 Reduce time & effort to implement APS.
 Fine tune APS solver heuristics for more optimization

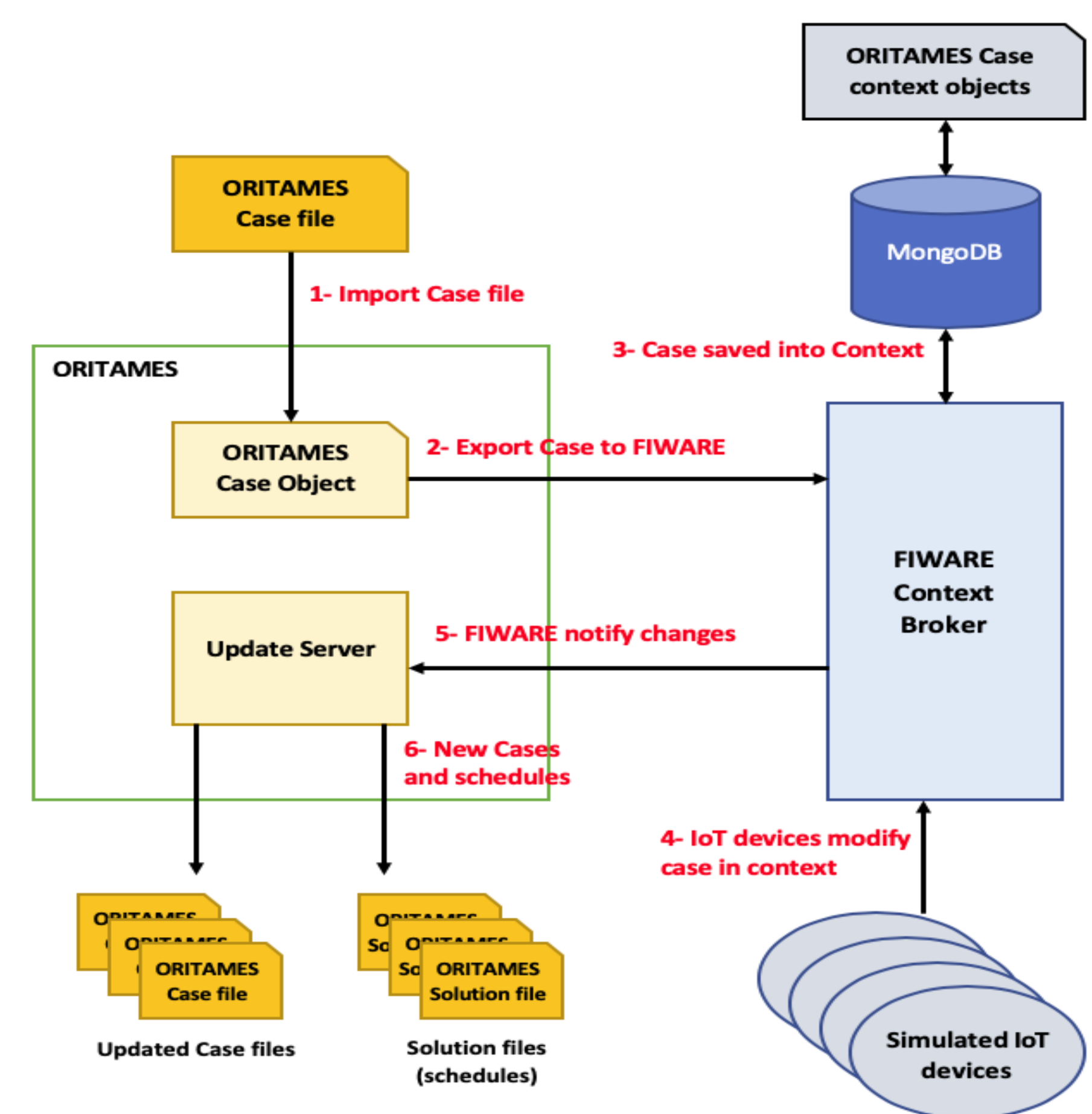
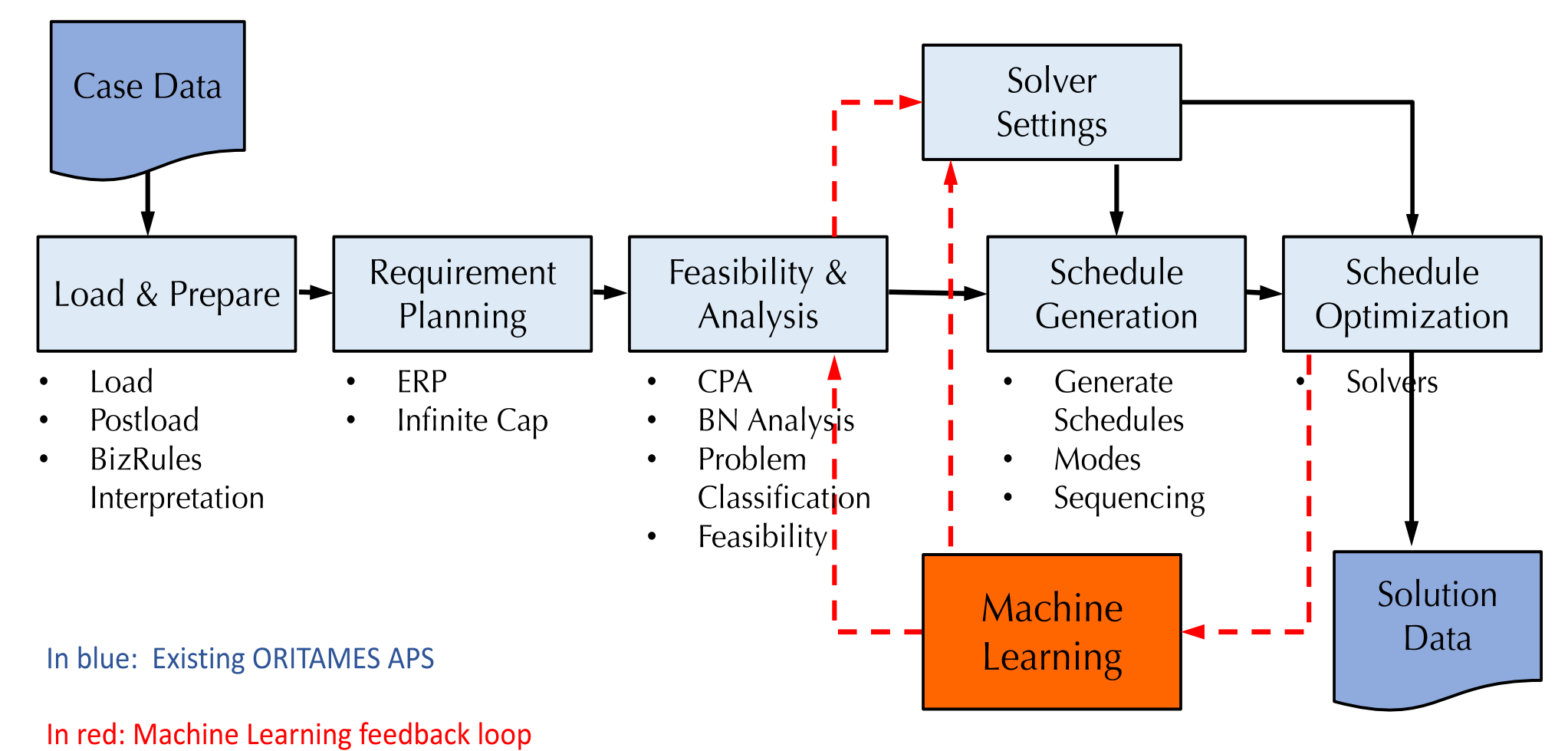


SOLUTION: ARCHITECTURE AND COMPONENTS

Provide automated real-time optimized APS.
 Extend the ORITAMES APS Scheduler with AI and ML components to learn best scheduling configuration.
 Use FIWARE architecture to collect IOT manufacturing data in real-time. Use MongoDB as persistence of model data.

Real-time automation of scheduling. Factory automation with APS.

ORITAMES APS with Machine Learning



BENEFITS AND LESSON LEARNT

Obtained significant KPI improvements

| | |
|------------------|-------|
| Cycle Time | - 30% |
| On-Time-Delivery | + 20% |
| Setup Time | - 50% |
| WIP | - 40% |
| Throughput | + 10% |
| Costs | - 20% |

Eliminated APS fine tuning

Lesson: easy to use FIWARE architecture

OUTLOOK

For MangoGem:

Improved market position ORITAMES APS
 Increased sales
 Company growth

For customers:

Reduced implementation efforts
 Improved manufacturing performance