OnLEP Introduction

Overview

OnLEP is an online learning engine platform that provides near real-time processing of streaming data, and produces opportunities or threats based on your business rule sets and historical data. The resulting alerts are pushed into a messaging queue which can be consumed via downstream applications such as SMS portals, mobile applications, dashboards, business action solutions or automated expert action systems.

What OnLEP does

OnLEP is an advanced PMML learning engine. Through a combination of result scoring and rule set strategy, OnLEP can provide high speed processing of streaming data, using your rule set, and produce actionable threats and/or opportunities. It does these things:

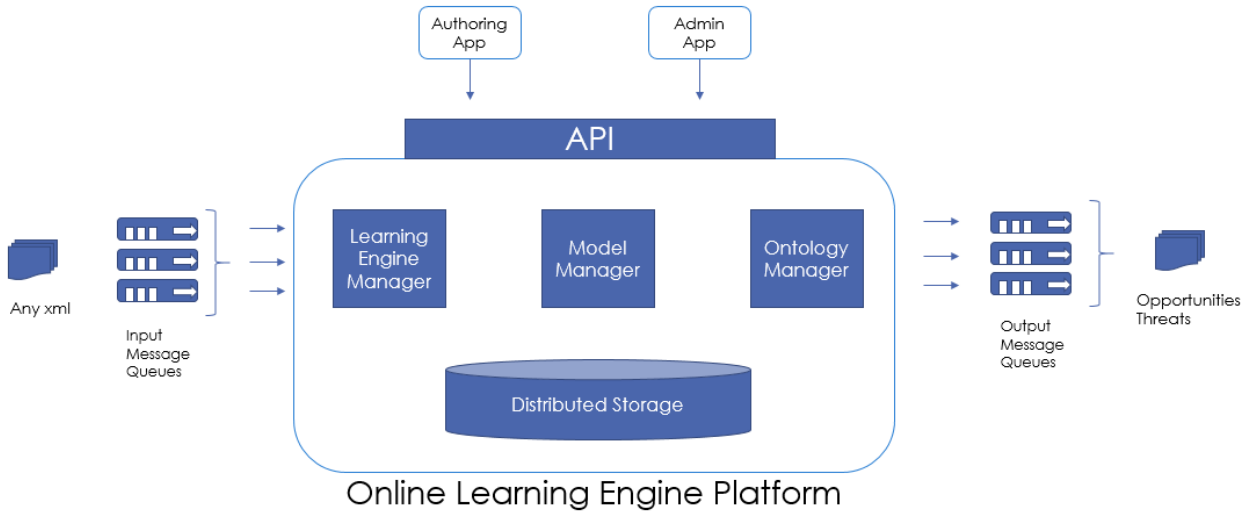
1. By using its enhanced and extended PMML modeling capabilities, OnLEP provides a streamlined method for designing and implementing your business questions and rulesets in PMML models. Incoming messages are consumed by the engine, which uses advanced custom complex data types in various combinations to process messages against multiple models and rule sets to produce insight.

2. OnLEP allows you to quickly create complex rule sets, and programmatically define the input data and output required, without writing new PMML. You define Input, Ruleset, and Output. We provide the data transformation, rule set engine and output mechanism.

OnLEP simplifies the complexity of PMML development, and provides *layering of algorithms, rules and models* that can consume other models at runtime so that your results are more meaningful. You can then programmatically handle those results, speeding along both actions and decisions according to your business needs.

Use Cases

Financial
OnLEP is helping one financial partner reduce overnight global system transaction analysis from over 10 minutes to under 5, resulting in millions saved each period.
Medical
Medical applications are using OnLEPto create a system that analyzes physician notes, test results and patient input to identify certain combinations of information that may alert health care practitioners to new or changed conditions.



Capabilities

- Data Scientist/Designers - Data scientists/designers can define new types, concepts, and messages for each OnLEP use-case.
- Models can learn to change elements of their calculations based on previous calculations.
- Model Developers/Authors - OnLEP provides a model UI that makes model authorship fast and easy:
    - Define, add/update, activate/deactivate messages, decision rulesets and evaluation models
    - Create, activate and deactivate User-Defined Functions (UDFs) and PMML models for your use-cases.
- Admin - OnLEP provides tools for the platform admin to deploy, configure, monitor, and manage the platform on a cluster of nodes

Ease of Use

- Specify incoming messages by wellformed XML from multiple heterogeneous sources
- Intuitive metadata interface that allows you to define your own models far more quickly than possible with standard PMML
- Easy to use rule set definition and algorithm modeling automatically manages dependencies in models
- Data can be added cumulatively over time so that rules execute on all cumulative data

Performance

- Fault Tolerance: exactly-once state out of the box.
- Speed Tests – this data will be provided at a later stage of development

Easy to Deploy

- Runs on single node or multi-node Hadoop clusters.
- Can read data from Kafka, Cassandra, Hbase or simple files.
- Installation and configuration guides walk you through setup
- Immediately start running your own models through the engine.