MAADS-VIPER™:

Manages, Publishes and Consumes Streaming Insights From Distributed Algorithms Using Apache KAFKA® and MAADS™

« With MAADS-VIPER and Kafka – every prediction is stored and distributed across kafka partitions and sharded: **even if you make 1000 predictions, or 100 billion predictions per day, from 10 algorithms or 10,000 algorithms, across hundreds of servers, VIPER and kafka work in-sync to keep providing insights.** »

KEY BENEFITS

1. Lower Cost: Manage complex, cross-platform, environments with distributed algorithms at a much lower cost: Up to **70% cheaper**.

2. High Availability: Drastically lower disruptions to users consuming model predictions from unlimited number of algorithms and data streams while storing all predictions across Kafka partitions.

3. Scale: Develop unlimited number of advanced machine learning algorithms, with AutoML (MAADS), to scale your business without additional cost for people, technology and infrastructure.

4. Auditability: Kafka stores every prediction by sharding the data. No matter if you make 1000, or 100 billion predictions per day, from thousands of algorithms VIPER and kafka work in-sync to manage the process and deliver the insights.

« **For more information on MAADS-VIPER Contact: Michael Scappaticci Email:** michael.scappaticci@otics.ca **Website: www.otics.ca** »

Overview

Businesses are often challenged when it comes to managing information in distributed environments. They routinely focus on managing **data** that may reside in different sources, and have different types (structured, unstructured, semi-unstructured) that is used for machine learning. However, given the growing rise in **Auto-Machine Learning (AutoML)** and increasing amounts of algorithms being created, it becomes more important to manage both **data AND algorithms** in a large distributed environment while still offering your customers a seamless experience when using outcomes from ML algorithms. So, how do companies balance the need for managing a large number of algorithms, in a distributed environment, while ensuring security, high availability, real-time streaming of insights while keeping costs low? The answer is MAADS-VIPER with Kafka.

MAADS-VIPER

MAADS-VIPER (or just **VIPER**) is a cross-platform application that is tightly integrated with Apache kafka and MAADS that **manages, publishes and consumes, streaming insights from an unlimited number of algorithms** across different environments with high availability, consistency and failover to backup algorithm servers.
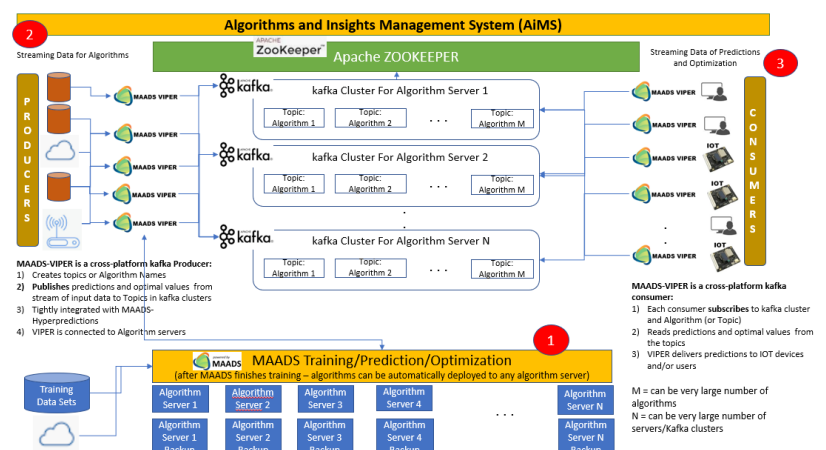
After you have trained your algorithms using MAADS, you can deploy your algorithms to algorithm servers, and backup servers. When you want to use that algorithm, VIPER creates it as a Topic in kafka and **publishes** predictions to the Topic; consumers **subscribe** to that algorithm (Topic) for predictions. If an algorithm server goes down, Viper will automatically shift to a backup server that is a **replica** of the main algorithm server(s), and continue to provide consumers with their predictions with **no disruptions**. Viper with kafka can point to any algorithm, anywhere, and manage all the production of insights to your consumers.