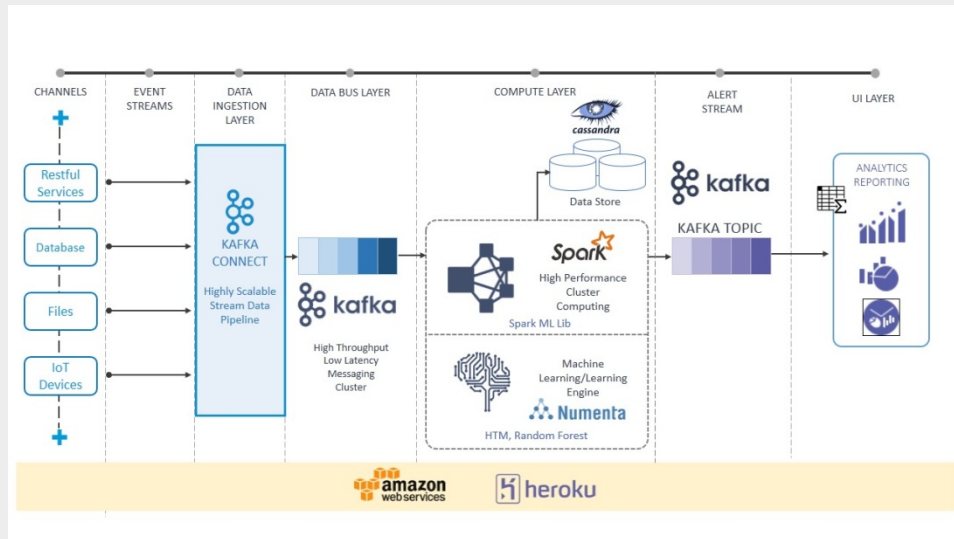


Real-Time Data Analytics - Patient Activity Monitoring Application

The Patient Activity Monitoring application was built to demonstrate how physicians can remotely collect, analyze and monitor patient vital signs, such as heart rate and body temperature. The application also detects and provides alerts for anomalous conditions, such as abnormal heart rates for a patient in a population cohort. The anomaly detected is based on several unique parameters collected in real time from the patient population.

Business Benefits:

- Real-time, high-volume data processing in healthcare use cases for the connected world
- Machine learning-driven predictive and temporal analytics
- High scalability – A seamless architecture to handle fast data analytics with actionable insights and alerts
- Faster time-to-market – Quick “bootstrapping” to any solution requiring intensive data ingestion, processing and reporting needs



Key Highlights

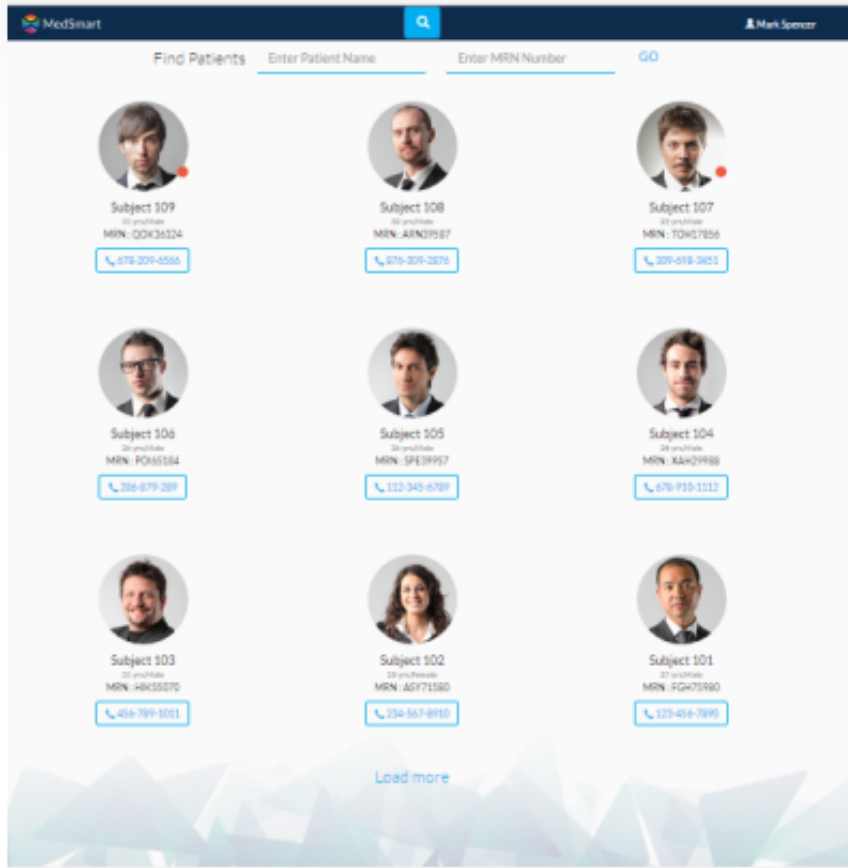
This application demonstrates the following:

- **High-Volume Data Aggregation and Integration** - Ability to handle large volumes of real-time data
- **Real-Time Data Processing** - Ability to stream/process data in real-time and in conjunction with complex rules
- **Temporal and Predictive Analytics** - Ability to perform time-oriented processing and predictive analysis (Contextual Analysis); done with state-of-the-art machine learning algorithms
- **Real-Time Data Analytics** - Ability to perform analytics on streaming data
- Batch and real-time data capture, ingestion and aggregation
- Data visualization with various open-source visualization engines

Technologies



Patient Dashboard and Activity Deduction Chart



The dashboard features a search bar at the top with the MedSmart logo and a user profile for Mark Spencer. Below the search bar are input fields for "Find Patients", "Enter Patient Name", "Enter MRN Number", and a "GO" button. The main area displays a grid of patient cards, each with a profile picture, name, age, MRN, and a contact button. The patients listed are:

Subject	MRN	Contact
Subject 109	QOK36324	678-209-4588
Subject 108	ARN219187	678-209-2878
Subject 107	TON27856	209-678-3823
Subject 106	POH5184	386-879-289
Subject 105	SPE39157	122-345-6789
Subject 104	XAH21988	678-910-1112
Subject 103	HKS5070	416-789-1001
Subject 102	AD71180	234-567-8910
Subject 101	FGH7890	123-456-7890

A "Load more" button is located at the bottom of the grid.

