sqlstream

Live platform for streaming IP network and CDR analytics achieves real-time fraud detection, rating, and least-cost routing

AT A GLANCE

Company
ECaTS

Industry
Internet and
Telecommunications

Country
USA

Website
http://ecats911.com/

NOT-SO-FUN FACT
SQLstream helped
ECaTS detect the San
Bernadino terrorist attack.

BACKGROUND

Call-takers and dispatchers in 9-1-1 call centers are required to make critical decisions, but often do not have real-time insight into the calls they base their decisions on. ECaTS is a service-based 9-1-1 Data Analytics and Management Information System (MIS) that solves the problem by collecting call data and providing dashboards that act as live "heads-up" displays for the entities that need them: individual PSAPs (Public Safety Answering Points) on local, county or statewide levels, as well as separate organizations like CHP and CALFIRE.

In California alone, ECaTS gathers data on more than 65,000 calls daily from 12 different manufacturers' telephone equipment, then parses the data into a standard format to produce comparative reports through its 9-1-1 Emergency Call Tracking System.

> Nobody but SQLstream could guarantee us both the performance levels and the depth of analysis we need every moment, to feed live applications with real-time public safety intelligence.
>
> *CHRIS DUXLER, ECATS, OPERATIONS DIRECTOR*

NEEDS

Servicing an increasing number of emergency centers (over 450 in California alone), ECaTS was confronted with growing volumes of call records.

The streaming data was challenging ECaTS's ability to scale up, integrate, and analyze all the information in real time. In parallel, the 9-1-1 industry was moving towards a standardization of processes involving new time variables (for example, optimal times to answer emergency calls). ECaTS needed needed a streaming analytics solution to address the following:
- A means to maintain a 0% data loss model through volume variations
- Centralized analysis and visualization of data (due to lack of PSAP consolidation).

SOLUTION

ECaTS used SQLstream Blaze to build and power an application that integrates and performs real-time analytics on all data feeds received through 9-1-1 equipment from participating PSAPs. The analytics monitor call processing, network performance, and overall wireless system health and availability. Results are visualized continuously and in real time for all the state agencies in which the PSAPs are located and used to assist in emergencies, prioritize operations, and resolve workload issues as they happen.

Technology and sources: SQLstream Blaze prepares CDRs from ECaTS-provided data streams for continuous ingest with adaptive scalability with 0% data loss through volume variations.

RESULTS

Call status metrics are updated every second, signaling incident severity in real time based on call type, volume, and geography.

The system provides event correlation, correctly identifying network wireless activity performance issues in real time.

Multi-level reporting (calls, PSAPs, county or state) is now provided in real time through customizable dashboards that can be updated with no downtime.

A single platform can now centralize country-wide operations and can be provisioned to handle millions of calls per day.

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