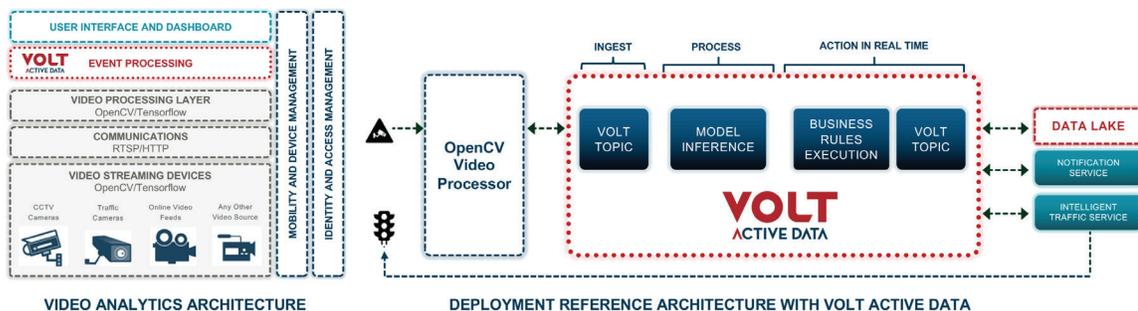


Why Smart Cities Need Real-Time Data Processing

The proliferation of smart cities will test even the most powerful and proven data platforms. What needs to change? The optimization of real-time data processing.

The concept of a truly smart, or ‘cognitive’, city is fast becoming a not-so-distant reality thanks to rapid advancements in big data analytics, [edge computing](#), 5G, the cloud, and the Internet of Things (IoT). In many ways, smart cities are a lot like enterprise digital transformation initiatives, which rely on comprehensive, foundational changes to succeed. Data – namely, the ability to process it rapidly and seamlessly – is crucial to making the connected, intelligent networks that provide the lifeblood of smart cities work.

APAC SMART TRAFFIC MANAGEMENT



CHALLENGES

- 180 intersections/crossings
- Real time closed loop action
- High infrastructure cost
- 2 million Events per second

SOLUTIONS

- Combined event processing with event persistence, aggregation & processing
- Efficient kappa architecture to ingest video data, act in real time & export to data lake
- Model inference in real time
- XDCR for high availability

RESULTS

- Best reliable solution
- Reduced hardware footprint
- Reduced latency

No Real-Time Data Processing, No Smart City

‘Smart’ really means ‘connected’, and ‘connected’ really means many different parts working very quickly in unison. To make this magical orchestration happen, your data platform can’t afford to be: 1. Slow 2. Inaccurate 3. Prone to downtime. Without all three capabilities – speed, accuracy, resiliency – your smart city won’t be very smart and won’t be much of a functioning city; it will be more like a ghost town.

True real-time data processing is the ability to be fast without being wrong or shutting down. Simply put: you can snag the checkered flag without crashing.

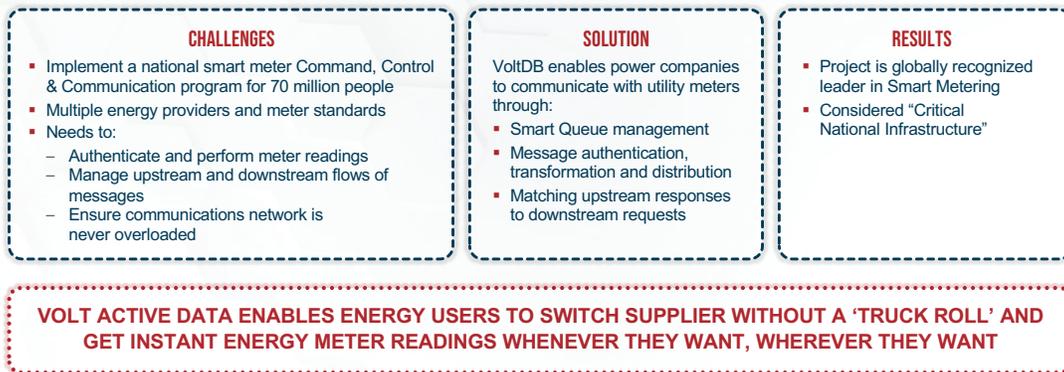
Modern databases can automate the delivery of insights from a huge number of fast-changing data points and work with real-time data platforms to analyze large volumes of city-wide data collected through IoT systems. This data is ingested and processed in real time at petabytes scale and returned as valuable insights that ensure vital decisions, such as when a stoplight should turn red or green, happen seamlessly and without creating accidents.

Why Volt for Smart Cities

Volt is the only data platform that can perform the entire ingest-to-action data processing cycle in single digits milliseconds *without sacrificing accuracy or resiliency*. This makes Volt an ideal data platform for smart cities because it can optimize cities through intelligent data flow, bringing fast data-insight to:

- Smart energy
- Facilities management
- Mobility and connected transit
- Public safety and security
- Environmental controls and sustainability

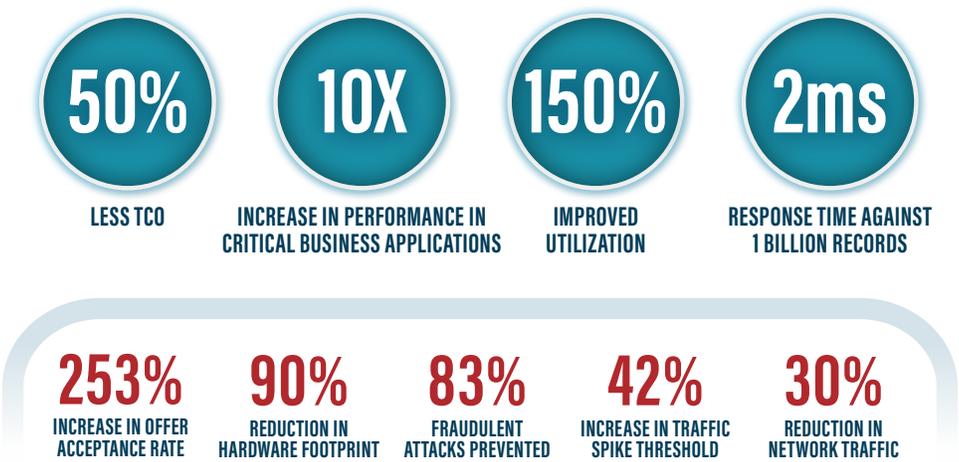
IOT DEVICE MANAGEMENT (ENERGY METERS)



“ Volt gives us instant and reliable customer visibility at any given moment in time, helping us monetize subscriber engagements in real time, configure offers faster and provide evolving rating and charging requirements. – VP Product Management, Hewlett Packard Enterprise

Best Performance for Business-Critical Applications

Volt has been proven and battle-tested in some of the most demanding and unforgiving data processing environments.



To learn more about Volt visit www.VoltActiveData.com