Solution Brief

Smart Cities
Optimize AI on IA

Megh Computing Validates Performance of Edge Video Analytics Solution for Smart Cities

Intel® Architecture

"Megh Computing provides an AI-based, fully customizable, cross-platform VAS that uses data from cameras and sensors to reduce security risks and improve operational efficiencies for smart cities. The solution is based on Megh's Open Analytics Platform, which leverages Intel's software components like Intel® Distribution of OpenVINO™ Toolkit and hardware like Intel® Core™ processors that allows VAS to scale its performance at the edge and deliver unmatched accuracy. Megh VAS coupled with Intel components drastically lowers the barriers to unlocking real-time insights for businesses of all sizes."

— Prabhat K. Gupta
CEO, Megh Computing

About Megh Computing

Megh Computing provides an AI-based, fully customizable, cross-platform Video Analytics Solution (VAS) that uses data from cameras and sensors to reduce security risks and improve operational efficiencies with actionable insights and total control for smart buildings, smart warehouses, smart cities, smart retail and other venues.

Megh VAS delivers video analytics at the edge

Megh Computing developed its artificial intelligence (AI)-based Megh Video Analytics System (Megh VAS) as a solution for smart city use cases where it provides people management, vandalism prevention, venue overcrowding management, space utilization, queue management, and vehicle tracking and license plate detection.

Megh VAS chooses flexible and scalable Intel compute platform

One advantage of the Megh VAS is that it can be deployed on a range of compute platforms including CPUs, GPUs, FPGAs, and SOCs. While the software is written to work on any processor, Megh has collaborated with Intel to run the software across all CPU families for high performance, low cost of ownership, high reliability, and interoperability. The software has been successfully deployed on servers based on Intel® Core™ Processor multi-core desktop CPUs, all the way to Intel® Xeon® Scalable data center-class server CPUs.

The company tested its edge-based deployments using Intel® Core™-based mini servers that feature a built-in GPU (Intel® iGPU) which is optimized for Intel® Distribution of OpenVINO™ Toolkit -based AI inferencing. Megh's unique software architecture provides great performance in the heterogeneous compute environment of the Intel Core Processor family. In the validation tests, the VAS was able to support 35 video streams, of which 13 streams were on the CPU and 22 on the iGPU (see the validation report link on page 2).

More organizations are considering VAS, and these verified results help reduce the technical risk that comes with deploying new technology. The validation results also help Megh to know how many streams a given system can handle, thus recommending a right-sized server to customers to optimize total cost of ownership.

Intel® Distribution of OpenVINO™ Toolkit

Intel® Distribution of OpenVINO™ toolkit is designed to accelerate the development of machine learning solutions. A tool suite for high-performance deep learning, the OpenVINO toolkit is aimed at delivering faster, more accurate results deployed into production across Intel architecture from edge to cloud.

The toolkit enables a write-once, deploy-anywhere approach to deep learning deployments on Intel platforms that optimizes performance and simplifies deployment.

Learn More

For details about Megh VAS for smart city applications, contact your Intel or Megh representative.

Megh VAS Performance and Validation Report on Intel NUC Kit

Real-Time Streaming Analytics at the Edge Whitepaper

Learn more about Intel® Partner Alliance

Why Validating Matters

By validating the Megh AI platform in the Intel lab, Megh has positioned its solution for:

Simplified AI deployment

An all-in-one preconfigured solution means no need to purchase and experiment with individual components.

Cost-effective performance

The specified system has been tested and proven to deliver the right level of performance to reach desired deployment goals.

Accelerated time to value

Ready-right-now DeepInsights enables fast, easy AI adoption to begin improving community safety upon implementation.

Count on a pre-validated solution to streamline deployment and simplify scaling. That's because optimizing hardware and software configurations in advance reduces risk and complexity, helping to ensure that an AI solution will deliver the right level of performance for the task at hand from day one.

The ISV Validation Lab at Intel

Intel's ISV (Independent Software Vendor) validation lab is a unique and comprehensive preconfigured, remote testing environment. Through the lab, participants have access to the latest hardware and chipsets, including systems based on the latest Intel® Xeon® Scalable processors and Intel® Core™ processors. Intel engineers provide technical consultation and recommendations along with ongoing support throughout the validation process. On completion, the participant receives detailed performance reports and recommendations from Intel on the optimized platform that will best meet their customers' deployment goals.

Intel's ISV Validation Lab featuring Intel® Core™-based mini server

Features:

- Preconfigured remote validation lab
- Configured multi-stream in-process analytics
- Access to the latest Intel® architecture platforms, accelerators, and enabling chipsets
- Complete system configuration for optimal recommendations

Products:

- Chassis: Intel® Core™-based mini server
- CPU: Single socket, tests ran on four Intel® Core™ processor-based systems (tests conducted with 11th gen (i3, i5, i9) and 12th gen (i7))
- Memory: Installed physical memory (RAM) 16GB-32GB depending on the test
- Intel® Distribution of OpenVINO™ toolkit