

INFOSYS VISION ANALYTICS SOLUTION





Enterprises today struggle with tasks that require and depend on human intelligence and intervention like vision / recognition capabilities.

The retail industry faces challenges like collection of data from the physical world. A huge amount of data gets generated by online stores shopping that can be easily collected. The challenge arises for brick & mortar stores who have limited visibility into shopper behavior mostly limited to point of sale data. While

sensors can be installed in stores, but can be quite expensive. Enterprises also struggle with compliance and auditing tasks like product inspection, safety gear compliance, planogram compliance or document /ID verification. For most enterprises these are currently labor-intensive tasks and are dealt with by conducting random checks, thus leading to missing data points.

Our solution helps enterprises unleash the full potential of data by helping them

overcome these challenges with AI based computer vision solutions. The Infosys Vision Analytics Solution leverages latest advances in AI, computer vision and GPU's to crunch several streams of video data in real-time. It leverages accelerators for tasks like custom object detection, person detection and tracking, facial recognition and optical character recognition that have been built and tested by Infosys to enable custom solutions for our clients.





Our key differentiators:

- a. An end-to-end solution that can be customized to meet specific client needs
- b. Continuous development of accelerators to develop the technology base and enable quick deliveries
- c. Strong commitment & support for maintenances like re-training of models, streamlining use cases, integration of systems for more automation

The solution architecture that generates structured data for analytics and actionable inference, includes:

- a. Computational flow schematic
- b. Algorithmic building blocks

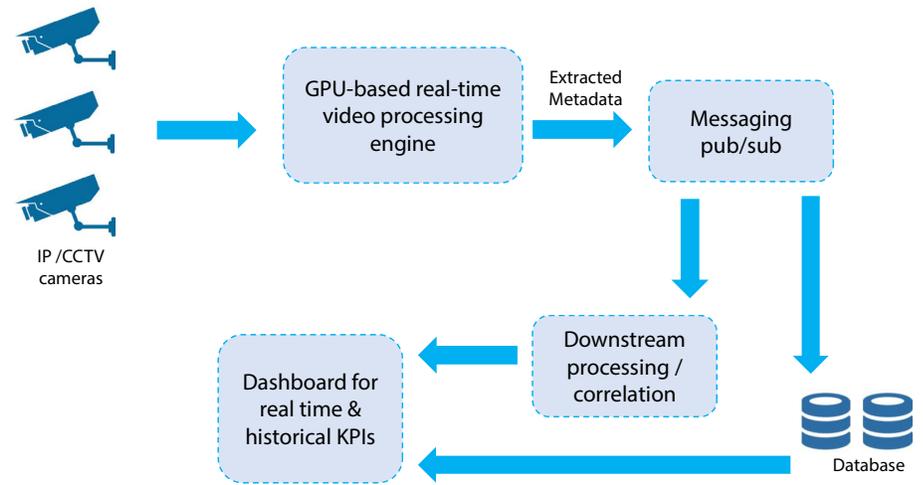


Fig 1: Solution architecture

Benefits of the solution

- Improved customer experience by serving customer better through reduced waiting time and meaningful dialogue based on browsing history
- Optimal use of store premises to display most appropriate products and limited workforce to attend genuine customers
- Additional medium to capture customer satisfaction leading to better NPS Scores and profits
- Increased sale by recommending the most appropriate product customer is looking for
- Understanding the effectiveness of the store representatives and interaction patterns to drive training programmes
- Ability to perform tasks that would otherwise rely on human-vision, at a fraction of the cost, with more reliability & scalability



Use Case – Customer behavior monitoring for a large Telecom



Objective: To acquire new customers, cross-sell/up-sell to existing customers and increase sales at retail store by deriving various KPIs from existing/new video feeds and associating it with available customer/POS data to generate actionable insights.

The solution will support the below uses cases for the client:

 <p>Understanding Customers: <i>Dynamic segmentation to understand changing needs and store visit categorization. Further understand customer specific concerns to drive next best offers</i></p>	 <p>Store Location, Design & Inventory: <i>Recommendations on optimal location and layout/ planogram and optimizing store inventory with weekly demand forecast at SKU level with seasonality and recency factors</i></p>
 <p>Products Pricing, Optimizing Sales & Campaigning: <i>Product Pricing recommendation based on trend and real time recommendations based on interest areas with the help of video feeds and available customer data to maximize sale</i></p>	 <p>Store Experience: <i>Optimizing store experience by minimizing wait time in queue, demystifying overall customer store experience and improving sentiment as well as AR/VR experience</i></p>
 <p>Store Staffing & training: <i>Store footfall forecasting & sales rep staffing/training recommendation along with real time suggestions to open/close counters to control customer wait time</i></p>	

For more information, contact askus@infosys.com

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