Dynamically enhance the in-store experience and gain inventory insights with image recognition

Today’s customers demand a retail environment that’s fast, targeted, and ultra-responsive. And while the online environment is drawing more market share, that doesn’t mean traditional brick and mortar stores can’t stay competitive. The key is to give your customers more of what they want, when they want it.

Google Cloud has partnered with Trax, a leading retail technology company, to improve the in-store experience through dynamic inventory solutions. Using advanced management solutions that provide real-time access to shelf data and analytics, we’re helping retailers unlock valuable inventory insights, streamline operations, and make more accurate demand projections.

How it works
Using cutting edge software and the power of Google Cloud, you can give your team up-to-date information on store conditions so they can act swiftly to keep sales moving.

- **Step 1**
  Shelf images are taken using fixed cameras, a mobile app or robot.

- **Step 2**
  The captured images are analysed using Trax Retail Watch and Google Cloud technology.

- **Step 3**
  Staff receive inventory analytics through mobile notifications and web reports.

**Combining breakthrough computer vision technology and Internet of Things (IoT)**

Google Cloud has partnered with leading tech company Trax to deliver a unique solution that provides real-time visibility to the constantly changing shelf environment, surfacing opportunities for retailers to provide a better shopping experience and maximise revenue opportunities.

**Real time, unified data**

By using BigQuery to combine data from accurate tracking of real-time shelf conditions and images of digitised products captured by wireless IoT cameras, you know where your product is and its availability at any time.

**Unlock insights**

Leverage dynamic shelf data to understand when low inventory occurs and better prioritise in-store tasks to ensure your shelf is fully utilized.

**Don’t miss another selling opportunity**

Dynamically manage and anticipate your inventory needs to avoid overstocks and understock. With Google Cloud’s machine learning technologies, you can build models that leverage historical data to predict future demands.
What it delivers

**Improved data insights**

**Access** real-time shelf data from mobile apps or connected devices, including wireless IoT carerias and autonomous in-store robots.

**Improve** in-store audit coverage by receiving regular information on the situation at shelf level.

**Lower** your total cost of ownership by calibrating stock levels more effectively and help customers find what they’re looking for, faster.

**Increased control for better shelf management**

**Track** on-shelf availability and planogram compliance levels of connected shelves, and assign targeted actions faster.

**Use** SMS or email alerts to identify issues and make better decisions on the go.

**More accurate supply chain predictions**

**Understand** the patterns in your out-of-shelves to more accurately source the right quantity products to meet customer needs and present the best shelf experience.

**Avoid** potential overstock / stock outs.

**How one leading US retailer recovered lost opportunities**

Faced with confusing and inefficient manual store checks and operations, one US retailer realised they were missing out on important sales. Using the Google Cloud and Trax Retail Watch, the company consolidated their data into a unified dashboard, which delivered to management business-critical data on business health KPIs, such as out-of-shelf, planogram compliance, and share-of-shelf for private label. Store staff had access to real-time SMS alerts on out-of-shelf conditions.

The move resulted in a 10% out-of-shelf reduction, 7% increase in planogram compliance and a 15% decrease in empty spaces on the shelf.

Learn more at

[www.cloud.google.com/solutions/retail](http://www.cloud.google.com/solutions/retail)

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