LUMADA VIDEO INSIGHTS
FOR SMARTER RETAIL STORES AND DISTRICTS

Video intelligence and smart spaces can help retailers operate more efficiently, provide better customer experience that translates into sales, and keep their stores safer and more secure.

Learn How Retailers Succeed With Hitachi

Retailers are facing rapidly changing customer preferences and digitization of commerce. They gain insights from their websites, and IoT can help them gain the same insights from their brick-and-mortar locations, including customer preferences and in-store marketing optimization models.

The RETAIL APOCALYPSE is just getting started.

85% of retail sales in 2025 will happen in brick-and-mortar stores despite the e-commerce boom and slowing growth.
However, Retailers Cannot Expect To Stay Successful By Going About Business As Usual [1]

12,000 stores are projected to close in 2020 (vs. only a few thousand openings),

50% of shopping malls are expected to close by 2023.
Only retailers that provide a great experience, understand their customer's in-store behavior, and operate efficiently will survive, but also prevail. [2,3]

HOW CAN RETAILERS BECOME SMARTER?

OPERATIONAL INTELLIGENCE
When should I deploy a new cashier to keep customers happy?
- Queue Detector
- Direction Controller
- Activity Visualizer

BUSINESS INTELLIGENCE
What's the best way to arrange my store or merchandise?
- Privacy Protector
- People Counter
- ACTIVITY REPORT
- Activity Visualizer

SECURITY
How can I prevent loss, and keep customers safe?
- Intrusion Detector
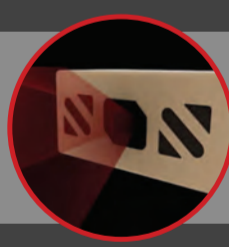- Object Detector
- Hitachi Live Face Matching

VIDEO ANALYTICS

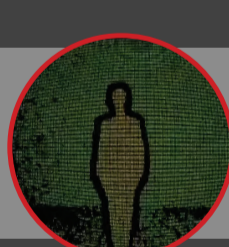## Video is the most underutilized source of data today.

A wide range of video analysis capabilities from Hitachi enable airports and ports to make their existing video capture systems much more effective.
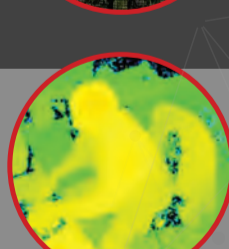
VIDEO ENHANCER • PRIVACY PROTECTOR • CAMERA HEALTH MONITOR

Activity Visualizer
Analyzes motion duration and dwelling times for statistical purposes.

People Counter
Automatically counts people passing a defined area.

Queue Detector
Analyzes queues to detect overcrowding.

Parking Space ANALYZER
Detects occupied parking spots and measures parking duration.

Privacy Protector
Privacy-protected video that pixelates humans and vehicles.

Traffic Analyzer
Automatically counts and classifies vehicles in defined areas.

Video Enhancer
Optimizes a video stream by removing snow, rain and fog, and by stabilizing to provide a clear image for the operator.

License Plate RECOGNIZER
Compares license plates on vehicles with specific lists.

Direction Controller
Automatically detects objects moving in a restricted direction.

Intrusion Detector
Detects persons or vehicles intruding into critical areas.

Hitachi Live FACE MATCHING
Matches faces in real time and searches for similar faces.

Object Detector
Detects objects that enter or leave a scene and remain steady for a defined time.

Traffic Counter
Counts vehicles on the road.

Camera Health MONITOR
Detects whether a camera was tampered with or the image quality has decreased over time.

Features of Video Enhancer and Camera Health Monitor can be combined for better reporting and more useful insights.

3D LIDAR

3D lidar uses lasers to visualize the world, similar to how sonar uses sound.

Lidar is used to create a real-time, three-dimensional view that captures no personally identifiable information (PII).

Lidar data is analyzed by artificial intelligence (AI) to provide new insights and alerts where video may not work well or be appropriate.
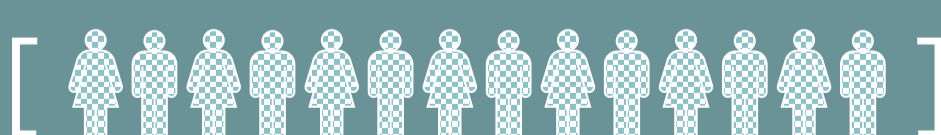
LIDAR USE CASES:
- Gain foot traffic pattern insights across shopping malls or inside retail stores.
- Analyze queue abandonment rates and improve conversions.
- Optimize staffing to meet customer service needs.

PRIVACY PROTECTION

Privacy protection is an important aspect of any video security system, and automated privacy protection can reduce risk and liability.

- COMPLETE PRIVACY: The entire body is pixelated, so no personally identifiable information (PII) is captured.
- TRANSPARENCY: Any use of raw footage for investigations requires ID verification and is tracked to ensure compliance.
- 3D LIDAR: Generates laser-point cloud that provides rich insights without any private information.

WHAT CAN YOU DO WITH VIDEO INSIGHTS?

Improve efficiency, make smarter business decisions, and improve public safety and security with Hitachi Smart Spaces solutions and Lumada Video Insights.

Learn more at **hitachivantara.com**.

[1] https://www.mckinsey.com/industries/retail/our-insights/how-retailers-can-keep-up-with-consumers
[2] Retail Apocalypse: https://www.bloomberg.com/graphics/2017-retail-debt/; https://en.wikipedia.org/wiki/Retail_apocalypse
[3] https://news.warrington.ufl.edu/faculty-and-research/why-brick-and-mortar-retail-stores-are-still-relevant-according-to-uf-warrington-research/