



# SOTERIA

Your Smart Retailer Partner



**SOTERIA** is an award-winning patent-pending smart retailer analytics service designed to help small-and-medium-enterprise (SME) owners better understand their customer categories, so they can best address targeted customers with actionable data to increase sales conversion rate and profit.

Soteria employs state-of-the-art artificial intelligence to analyze camera video in real-time. Unlike conventional wisdom that uses continuous video streaming which demands huge bandwidth consumption and large cloud computation power, Soteria takes advantage of its proprietary technologies to significantly reduce the bandwidth, cost, and time by 10 to 100 folds. As a result, real-time AI recognition can be provided at an affordable cost. Moreover, store owners do not need to invest expensive hardware in advance and can save more money from a huge bandwidth expense. Newly upgraded AI recognition feature includes fire detection to offer additional fire hazard and life protection.

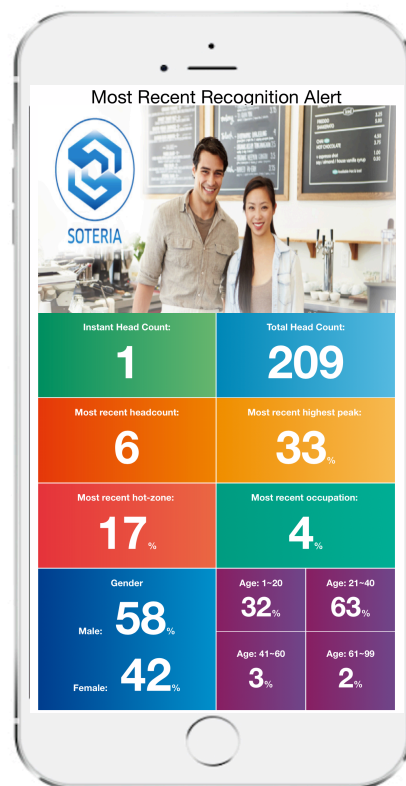


Fig. 1: A summary table of visitors in categorized format is shown on the first screenshot.

## REAL-TIME DATA ANALYTICS

Soteria detects and recognizes faces in real time. Head count is updated every 5 seconds, so owners can learn how many visitors have been in the shops, and how many visitors show up at the instance. A quick daily head count traffic is shown on Fig. 2. Owner can see how the total number of human traffic is added in a day. Fig. 3 depicts how the daily traffic is built over a timeline. Soteria performs data mining of up to 12 straight hours in a day. This means that Soteria will do head counting and data recognition for 12 consecutive hours. By default, the **BUSINESS** mode starts from 9 AM to 9 PM. For the rest of the hours, i.e., from 9 PM to 9 AM, Soteria is in the **SECURITY** mode to monitor theft or human intrusion. Owners can re-define business hours from the app but is limited to 12 hours a day.

Should human be detected during the security mode,

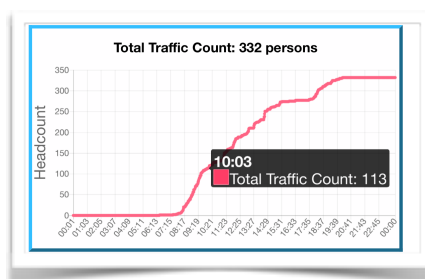


Fig. 2: Total 332 visitors have been identified during the business hours. Headcount traffic count reveals how visitor traffic is built in a day.

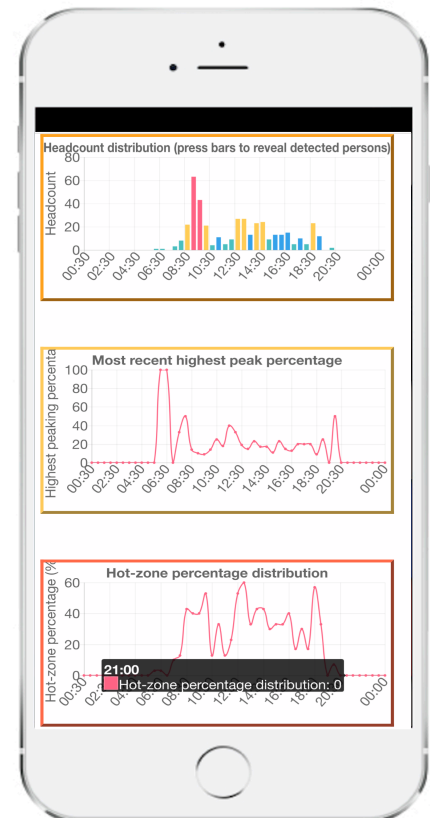
Soteria will send out instant human recognition alert to alarm owners of possible burglary. *The smart AI recognition alert is Amaryllo's patented technologies. It eliminates 99% of the typical false alarm.* To conserve bandwidth during the security mode, Soteria updates store status every 60 seconds. Unlike conventional CCTV, which is a simple recording device, Soteria analyzes video contents allowing owners to see how many people and when people show up at any instance.



**Fig. 3:** Headcount distribution is recorded over timeline. Press on any time bar to download captured human images.

Fig. 3 offers an important feature. It provides a detailed traffic breakdown to depict headcount in each time instance. The default time interval is 10 minutes but can be changed to 20, 30, or 60-minute time bar. Once changed, the summary table will be automatically updated as well. If owners want to see who appeared at any time instance, simply press on the time bar, and it will download the detected human thumbnail images. Scroll down the thumbnails to look for wanted human recognition alert and press on the thumbnail images to download the full images. Press the full images again to restore to their thumbnail sizes.

This unique feature allows business owners to quickly review all of the captured persons who appeared at the cameras. It saves a tremendous time in searching wanted customers or employees. It also serves as a log-in and log-out record, permitting owners to verify employees' work hours. Other features such as hot-zone, peaking rate, occupation time, etc. are presented to provide visual information, allowing owners to better prepare their manpower and inventory. See Fig. 4 for illustration.



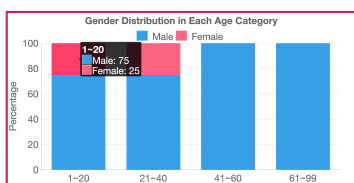
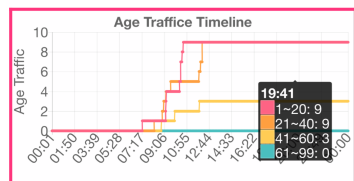
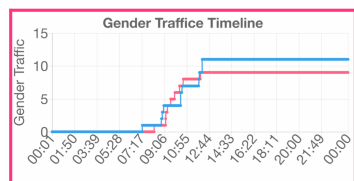
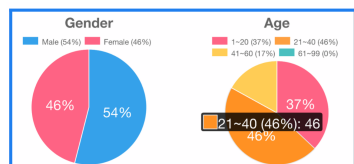
**Fig. 4:** Live statistics charts are available to provide insightful information to owners.



**Fig. 5:** A total of 10 VIPs or Blacklists are stored in a camera.



## REAL-TIME RECOGNITION



**Fig. 6: Gender distribution can be seen in each age category to target specific customers.**

If the cameras are positioned within 10 feet facing incoming customers, faces may be recognized in seconds. If a new face is desired to be registered, press on the boxed face on the app to invoke a dialog box to enter that person's name, so his or her information is registered and stored. When the person shows up again, he or she will be recognized. This recognition feature is particularly useful if VIPs or Blacklists are of importance to owners. Fig. 5 shows that a total of 10 VIPs or Blacklists are provided.

Another attractive feature is the gender and age recognition. It offers additional customer categorization information, allowing owners to target to the right customers, resulting in a much improved sales conversion. The gender and age recognition is subject to the camera distance to the customer faces. The closer the camera to the customer faces, the better the result will be. 10 feet are the maximum distance to obtain reasonable face images. Gender Traffic Timeline shows male and female's head count over the timeline. Age Traffic Timeline depicts when different age groups of people coming to the store. Fig. 6 Gender Distribution Chart further provides male and female

percentages in each age group, letting store owners know how to target their customer needs. These charts offer precise customer categorization information to assist store owners better address customers' buying interest.

## AFFORDABLE STORAGE PLANS

Data security and storage are necessity because they allow store owners to retrieve prior information and data. Soteria offers 3 affordable storage plans to choose from. All of them come with comprehensive AI recognition features with unlimited cloud storage. The entry-level plan is the 7-day Plan that provides all needed AI data plus 7-day unlimited cloud storage. The monthly fee is only \$39.9. The next upgrade is the 30-day plan to store up to 30-rolling-day unlimited cloud storage, yet the most attractive option is the 365-day plan that keeps the rolling 365-day video data in the cloud, giving owners a peace of mind. See Fig. 7.



Soteria works with Amaryllo's award-winning AI cameras. The entry grade camera is AR4 or AR4X (a set of four AR4's). AR4 is a fixed AI camera with an excellent 2Mp full HD 1080p resolution. AR4 is the 2018 CES BEST Innovation Award winner under Smart Cities category. AR3S is an upgraded camera robot with patented auto-tracking and speech function to proactively safeguard your properties. AR3S is the 2017 CES Innovation winner. Both AR3S and AR4 robotic cameras are certified to operate from -20F to 120F with a professional IP66 anti-dust anti-water grade.

The other multi-unit package is AR3S PRO. See Fig. 8. AR3S PRO comes with a powerful AR3S which can talk, 360-degree auto-track, face-recognize, etc. It is the best camera robot to mount on the front entry, backdoor, inventory, or places where owners want to monitor their valuables. The other two AR4's are added to provide additional surveillance coverage ensuring the rest of the faculties are protected. Soteria AI cameras are encrypted in 256-bit networks to protect your privacy and data security. Night visions are standard in both devices but AR3S is included with smart lamp which can be tuned on when the environment gets dark, or when there is an event, or stays off by the app setting.

Soteria Plans are tabulated below where 3 plans are described and compared. There is no long-term commitment as store owners can pay monthly or participate in annual plans to receive free devices. For a limited time, users receive free Soteria cameras with security deposit. Please visit Soteria website or stores for details. more information about Soteria and Amaryllo products, please visit our website at [soteria.amaryllo.eu](http://soteria.amaryllo.eu) or send your inquires to [sales.ai@amaryllo.eu](mailto:sales.ai@amaryllo.eu).

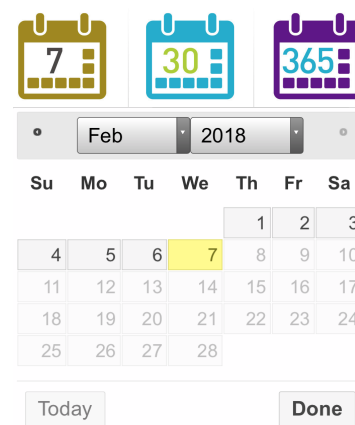


Fig. 7: Tap the date on the smart devices to review past information up to 365 days.



Fig. 8: Above is AR3S PRO which includes an AR3S and two AR4's in a package.

## SOTERIA PLANS

Plans	7-Day Plan	30-Day Plan	365-Day
Data & Video Storage	Unlimited Rolling 7 Days	Unlimited Rolling 30 Days	Unlimited Rolling 365 Days
Basic Features	Live Head Count Sum	Live Headcount Update	Unlimited 3-Day Alert Storage
	Real-Time Face Recognition	Real-Time Hot-Zone Timeline	Real-Time Age Traffic Timeline
	Real-Time Gender Recognition	Real-Time Headcount Timeline	Real-Time Gender Traffic Timeline
	Real-Time Age Recognition	Gender Distribution in Age Category	Real-Time Headcount Warning Alert
Monthly Subscription	\$49.9	\$99.9	\$149.9
Annual Subscription		Receive a free AR4 with a one-year subscription plan	Receive a free AR3S with a 30-month subscription plan
VIP/Blacklist Alert		Free Upgrade*	Free Upgrade*
Fire Hazard Alert			Free Upgrade*

## ABOUT AMARYLLO



Founded in the Amsterdam, the Netherlands, Amaryllo pioneers in **AI as a Service** to provide artificial intelligence data mining with robotic cameras to SME. Amaryllo service improves sales conversion as well as homeland security. Amaryllo offers military grade 256-bit P2P crypto networks to ensure your privacy protection.

