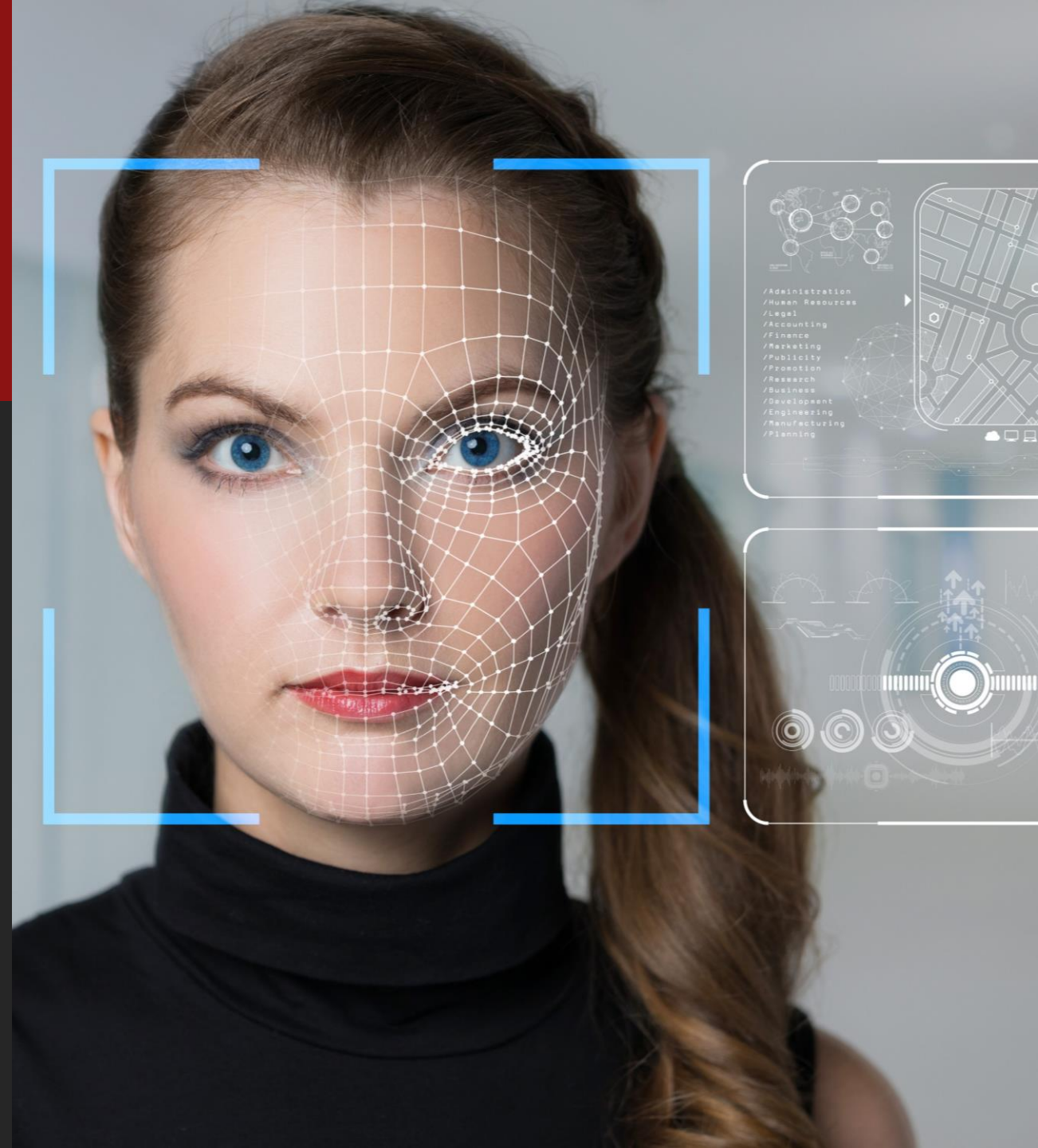




# Face Recognition System



# Artificial Intelligent

As good as you!

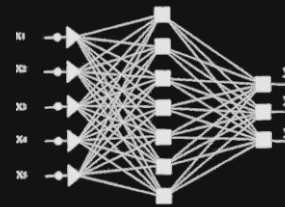
## Faster, Lighter and More Accurate

Smart Logic<sup>®</sup> FR System rely on neural networks are faster, lighter, and more accurate at the same time also good on partial faces (which includes people wearing masks) and faces at big angles. As well as offering facial expression, gender and age information.



## Neural Network Based Algorithm

Smart Logic<sup>®</sup> Face Recognition System (FRS) engine is based on neural networks, featuring all the benefits of the cutting-edge FR technologies.



# Face Recognition That Works !

Decades of research and study, we nailed it at last.

## Liveness Detection for Anti-Spoofing

Liveness detection distinguishes live persons and non-live person such as printed photo or images from smart devices. Liveness feature is important if you are using face recognition system (FRS) for critical application like door access, or door un-locking function.

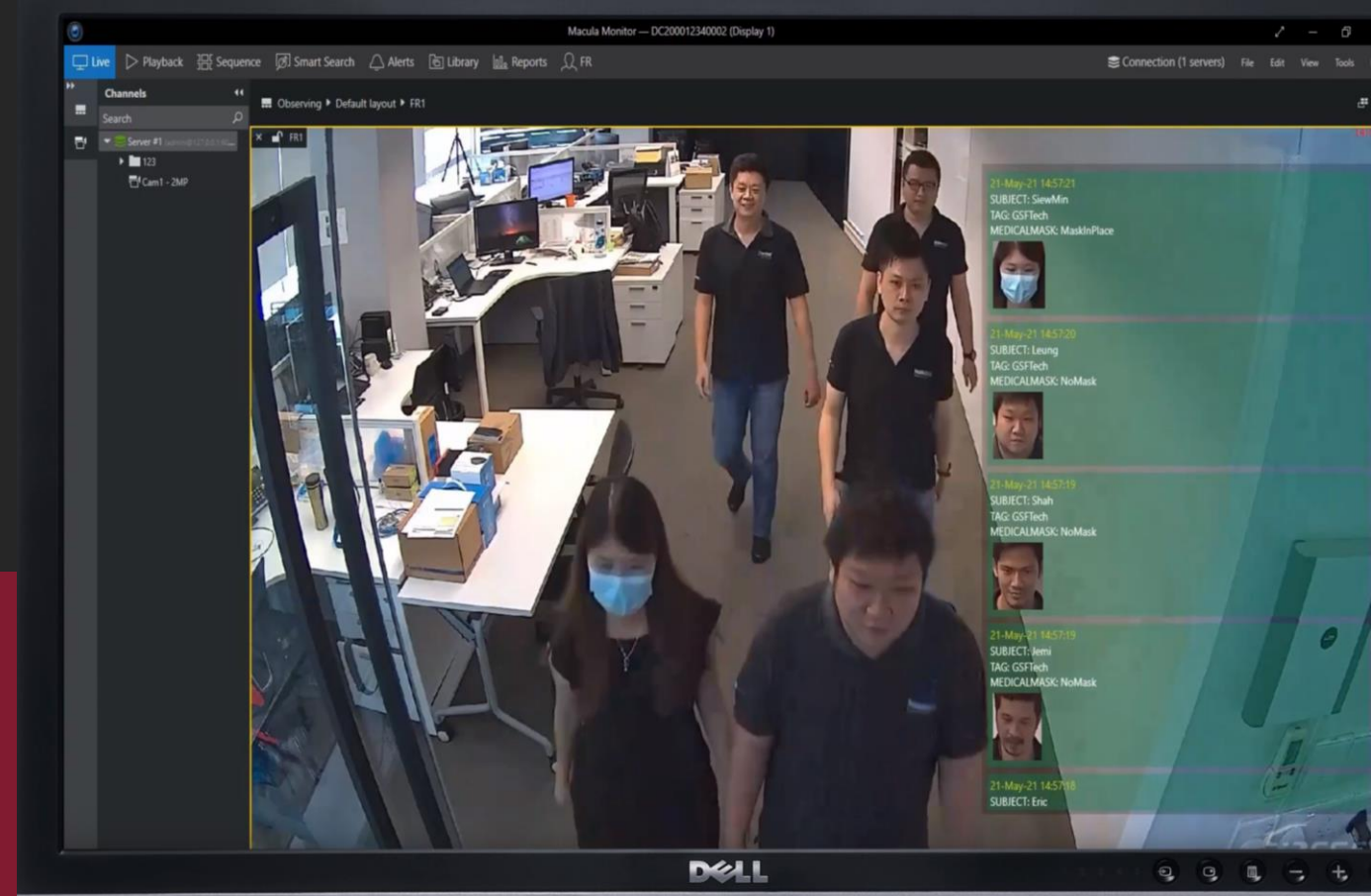
[Watch at YouTube](#)



## Work with Face Mask

Our neural based FR can recognize face with facemask on. Not only this, we can also detect 3 type of facemask status, with mask, no mask or mask not in place.

[Watch at YouTube](#)



FRS in Live Monitoring

[Watch at YouTube](#)





# Engineered to Perform

A good software must come with a hardware that well integrated together

## High Performance

Running with our latest ECA44 10 cores 20 threads powerful processing server, we can archive 600 faces per minutes face recognition performance, or 1080 faces per minutes in peak detection rate, without a miss of single face.

## Unlimited FR Channel Process

You can connect as many camera channel as you wish for FR processing, as long as you are not over the workload processing rate mentioned. Our licensing counts by number of faces enrollment into the database.



# Accredited World Acclaimed Accuracy



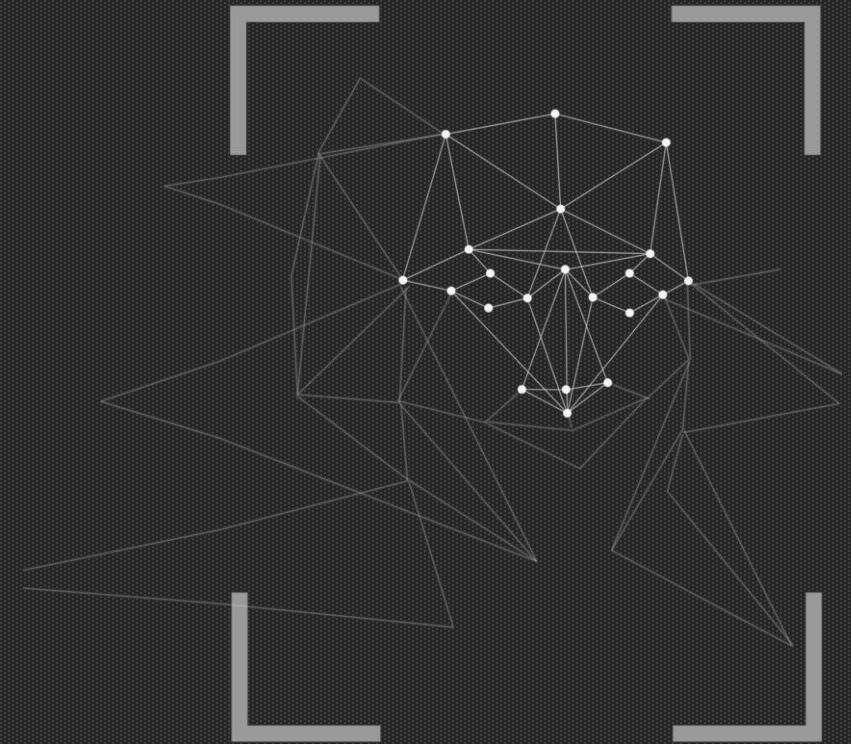
## NDA Compliance

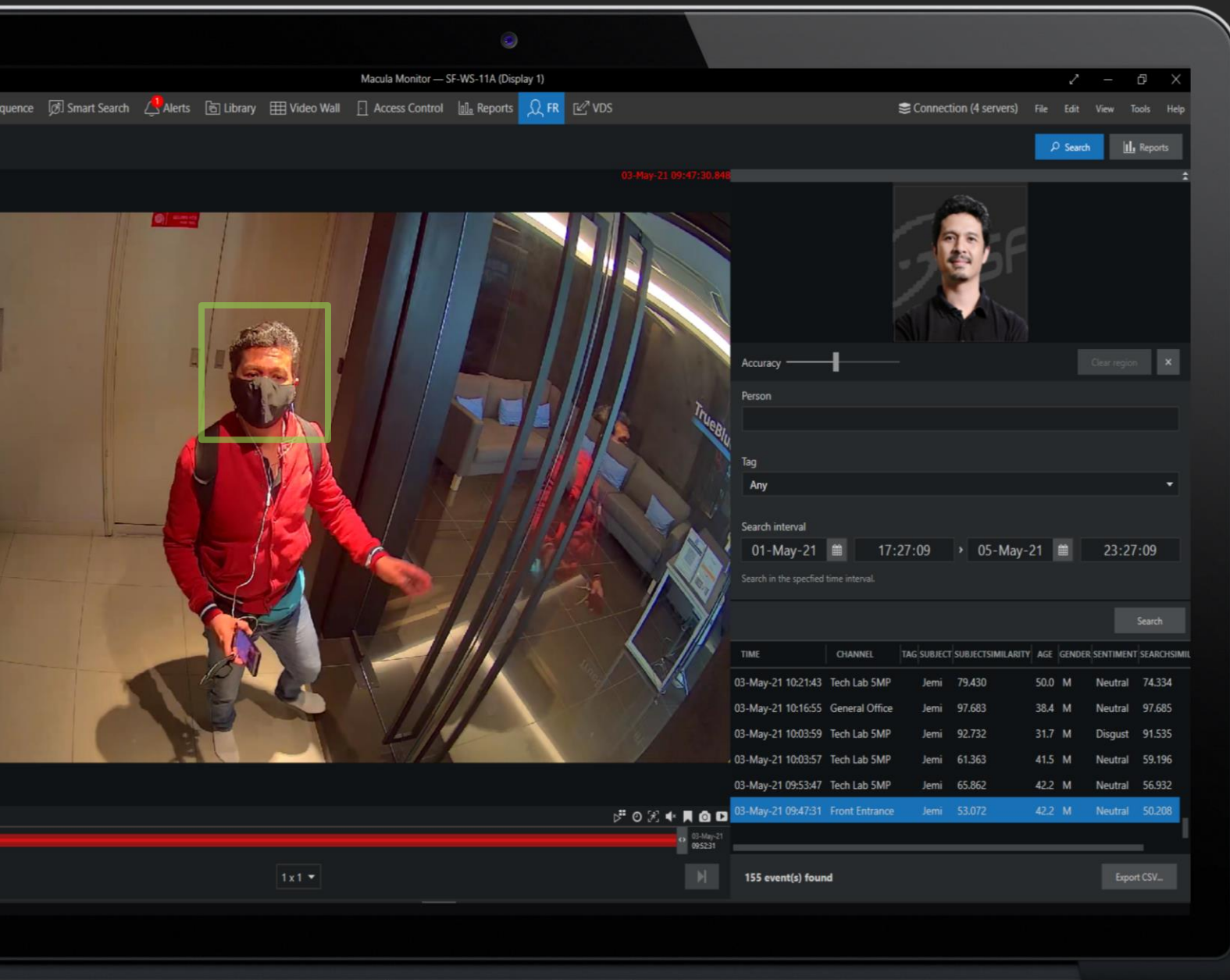
The Smart Logic FR are designed for use as part of video analytics system which comply with NDA 2019, Section 889.



## NIST Ranked #2 in 2021

The face recognition engine module we used behind Smart Logic is #2 in the NIST FRVT 1:1 verification leaderboard and delivers outstanding results in the 1:N test (one-to-many matching). You get a super low false-positive match rate, top performance, and sky-high accuracy.





## Search by Photo

You can upload a photo, and search from the transaction records see if this person ever been detected in your premise before. Even some unknown stranger will be able to search in the system as well.

## Face Tracking

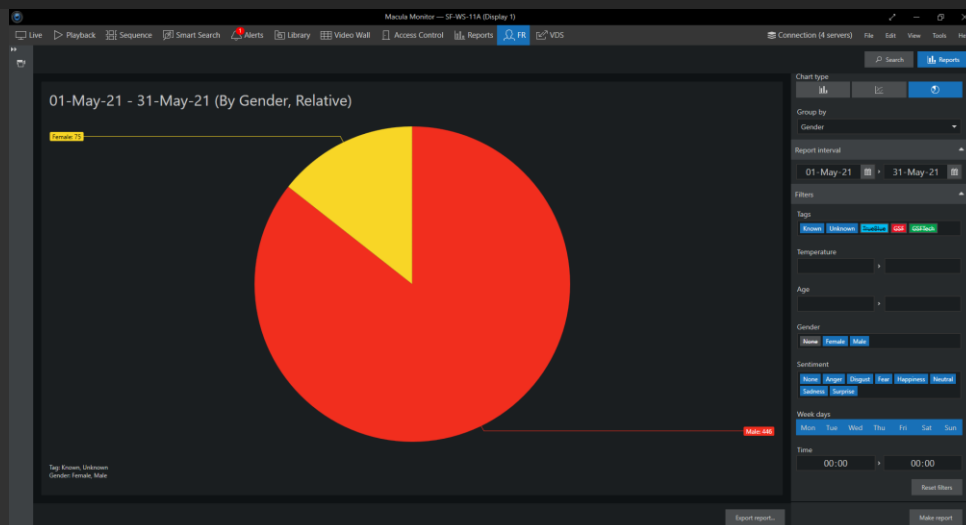
When multiple surveillance cameras was link with Smart Logic FR, we can eventually track individual person where they has been at which location they appear before, sort by time stamp.

# Statistic Analysis

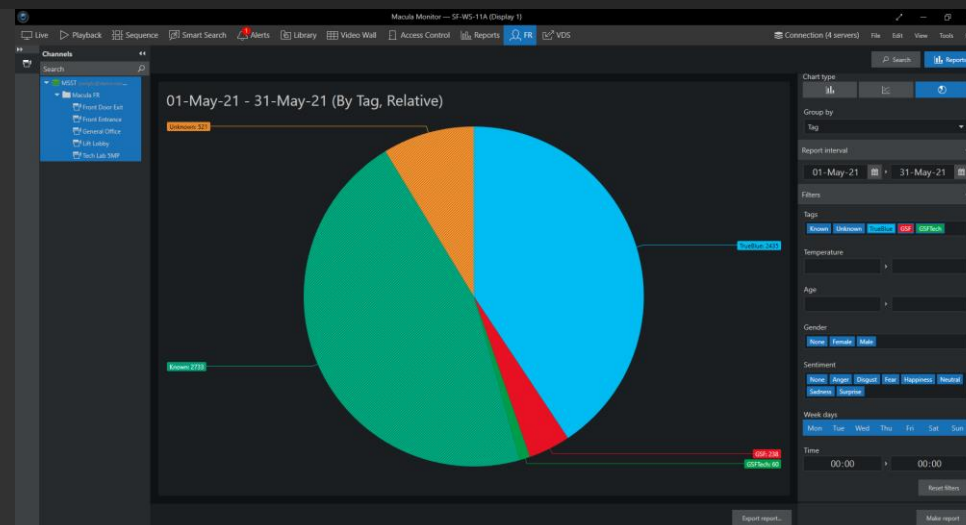
Generate comprehensive report



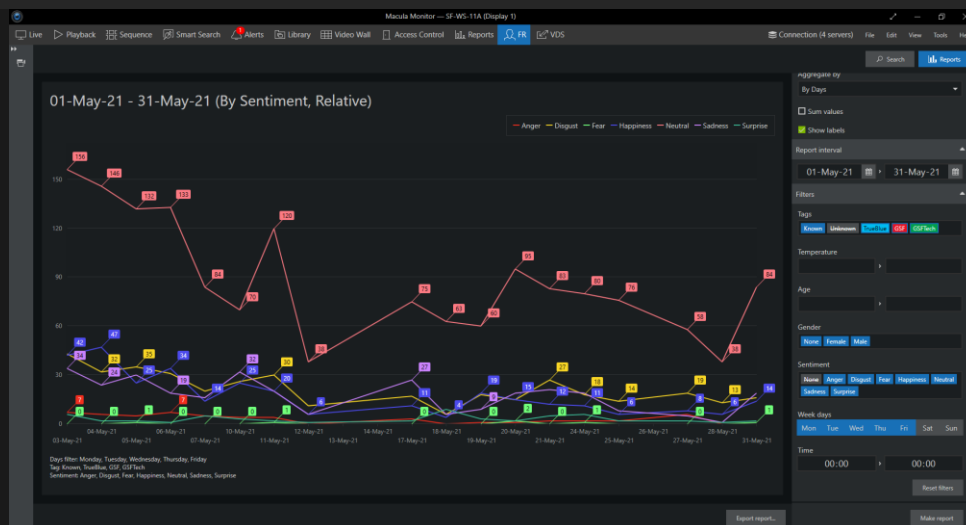
Gender



Category



Sentiment



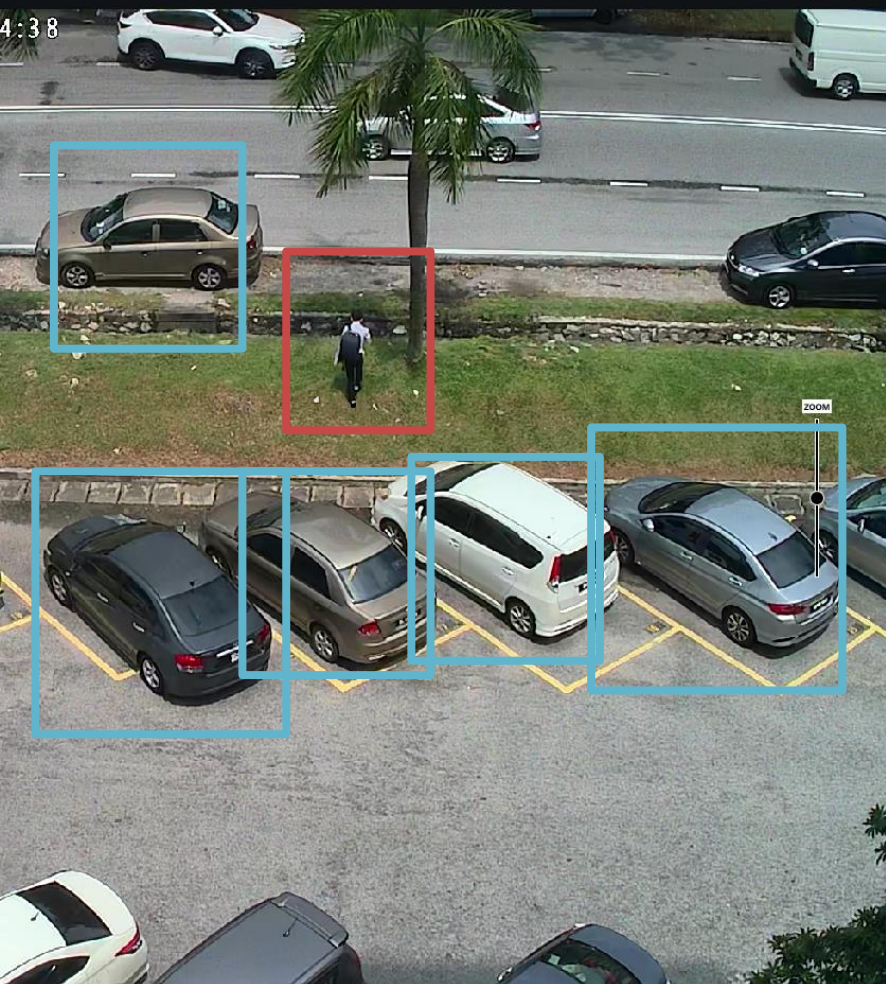
Age



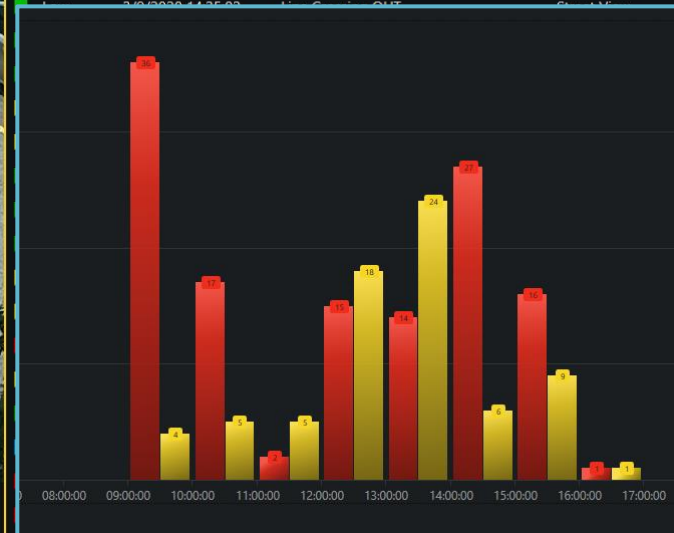


4:38

14:44:47.740



SEVERITY	BOOKMARK TIME	TITLE	CHANNEL
Low	3/9/2020 14:52:55	Line Crossing OUT	Street View
Info	3/9/2020 14:52:33	Human Detected	Street View
Low	3/9/2020 14:51:03	Line Crossing IN	Street View
Low	3/9/2020 14:50:44	Line Crossing IN	Street View
Info	3/9/2020 14:50:41	Human Detected	Street View
Low	3/9/2020 14:49:32	Line Crossing IN	Street View
Info	3/9/2020 14:49:29	Human Detected	Street View
Critical	3/9/2020 14:44:47	Perimeter Crossing Detected	Street View
Info	3/9/2020 14:44:36	Human Detected	Street View
Info	3/9/2020 14:38:50	Human Detected	Street View
Normal	3/9/2020 14:36:39	Parking Beside Jalan Kenari	Street View
Critical	3/9/2020 14:36:15	Perimeter Crossing Detected	Street View
Info	3/9/2020 14:36:10	Human Detected	Street View
Low	3/9/2020 14:35:04	Line Crossing IN	Street View



311 bookmarks(s) found

Export CSV...

44:00 14:44:30 3/9/2020 14:44:47 14:45:00 14:45:30 14:46:00 14:46:30 14:47:00

## Counting

With Ai built-in, you can automatically count how many face (person) was detected and generate report with graph accordingly

## Traffic Analysis

we not only counts, but we can counts based on criterial like how many female or make, young or adult etc...by category.



# Centralized Database

## Share DB between Multiple FR Servers

All FR servers share the same subject database. You only required to enroll all faces in central face database server once, then it will automatic be synced to all servers.

## SQL Database Server

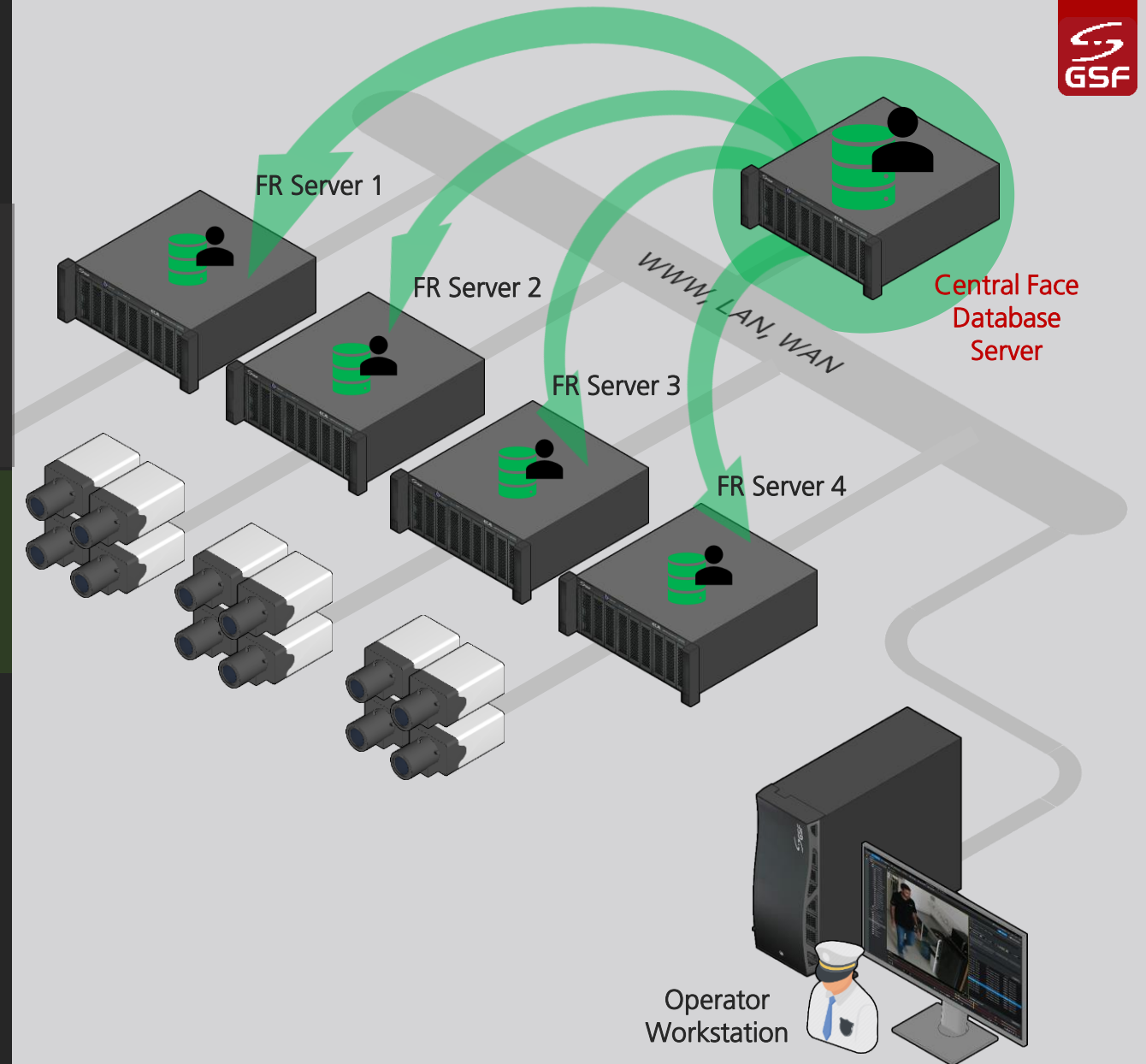
We use enterprise friendly like Microsoft SQL Server; this make maintaining the database server much easier.

## Easy Enrolment in Bulk

We support a standard folder and file name-based structure bulk photo, name and category enrolment.

## Web Based User Enrolment

With web-based method, user can easily access via their laptop using general browser like Microsoft Edge to do user enrolment.



# Automatic Event & Action



## Alert if Violation Detected

If one employee is restricted to enter certain area, the system will send alert to client

[Watch at YouTube](#)

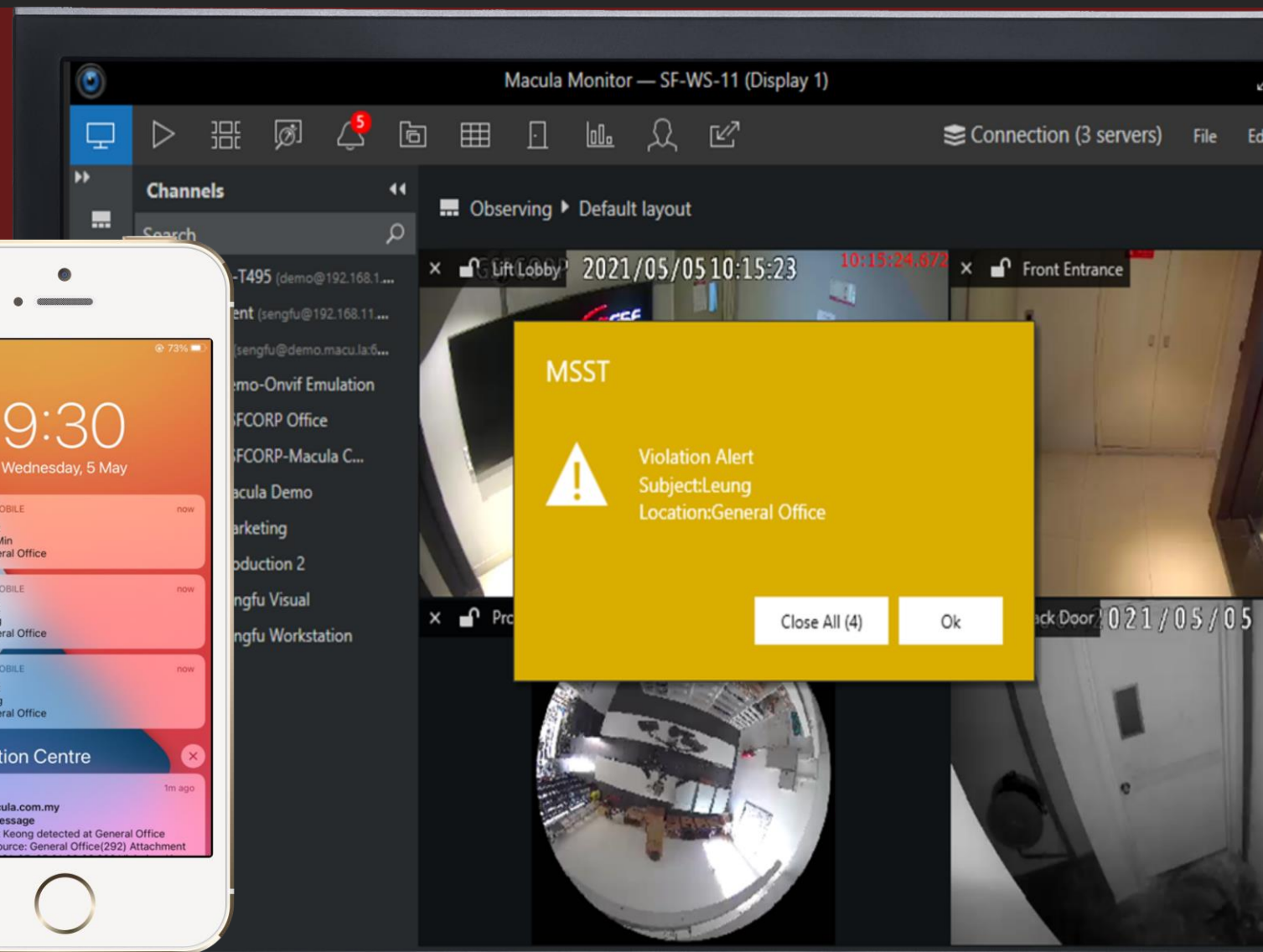
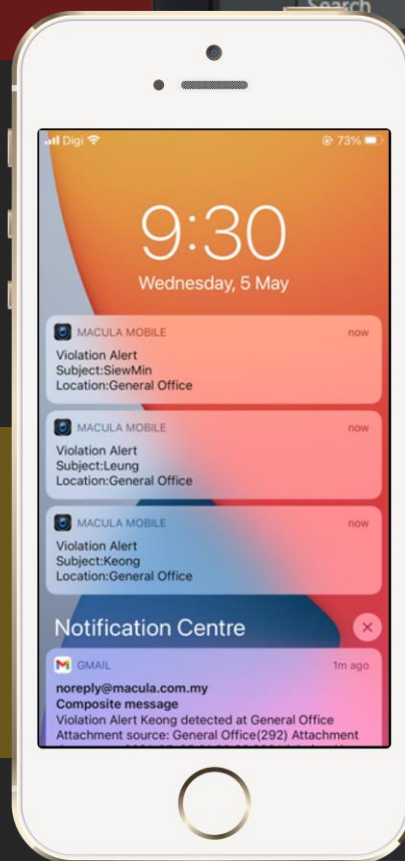


## Door Disabled If Not Wearing Face Mask

Enabled condition to access door control if a person is not wearing a mask.

## Children In Restricted Area

Smart Logic rule can set age limitation alert, example if below age 17 (children) detected in this area then alert security guard.



# Backed by TrueBlue Professionals

Service and support from the people who know your system best.

**TrueBlue®**  
**experience**

## Tuned by TrueBlue

FR onsite deployment to be tuned by our TrueBlue engineer with taking into onsite environment settings, cameras FOV calculations and Ai configurations

## TrueBlue Care

Smart Logic FR come with phone and remote support, for help on settings or using the FR.

*\* Working hour only. Mon-Fri. 9am-6pm (GMT+8)*

## Pay-per-request Onsite Service

Support at your location, as and when you need it, to solve specific problems and issues. Support on-site by our professional TrueBlue engineer.





## Face Recognition System (FRS)

License by Subject Database

From 100 to 10 million Faces DB. (\*Unlimited version by project design)

Video Channel Support

Unlimited video channel stream per machine. (Hardware limitation apply)

Supported OS

x64-bit only. ecaOS-5 and above. or Microsoft Windows 10 / Windows Server 2019.

Processor & Memory

Intel AVX2 Xeon-W 10 Cores 20 Threads, 32GB Dual Channel ECC DDR4. Model: ECA-MX44W5C

Performance

600 Faces per minute. Or 1080 Face/min Peak Performance (Detect and Recognize Face Only)

Database Version

Individual Managed: SQL Lite. Centralized Managed: Microsoft SQL Express or Standard version

Database Storage

250GB SSD Configured in Mirror Redundancy. Estimate 300KB per subject. 2GB per 1 million transaction.

Liveness Sensor

Liveness Analysis Check for: Mouth, Eyes, Eyebrows. Liveness Check of Head Movement, etc.

Face Mask Detection

Mask In Place, Mask Not In Place, and No Mask.

Glasses

Detection work with glasses on inclusive: Eyeglasses and Sunglasses.

Sentiments (Emotion) Detection

Anger, Disgust, Fear, Happiness, Neutral, Sadness, Surprise

Gender

Male, Female

Age (year tolerance)

17-20 ( $\pm 3.5$ ) : 20-30 ( $\pm 1.6$ ) : 30-40 ( $\pm 2.3$ ) : 40-50 ( $\pm 2.6$ ) : 50-60 ( $\pm 2.5$ ) : 60-65 ( $\pm 3.0$ ) : 65-80 ( $\pm 3.9$ )

Notification and Alert

IFTTT event trigger by: Age, Mask and TAG.

[www.gsfcorp.com](http://www.gsfcorp.com)

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