SHAPING INTELLIGENCE

MEET AIOT. TOUCH THE FUTURE.















Carabao Group



BUSINESS MODEL

TD Tawandang





Current Solution

5,200 stores

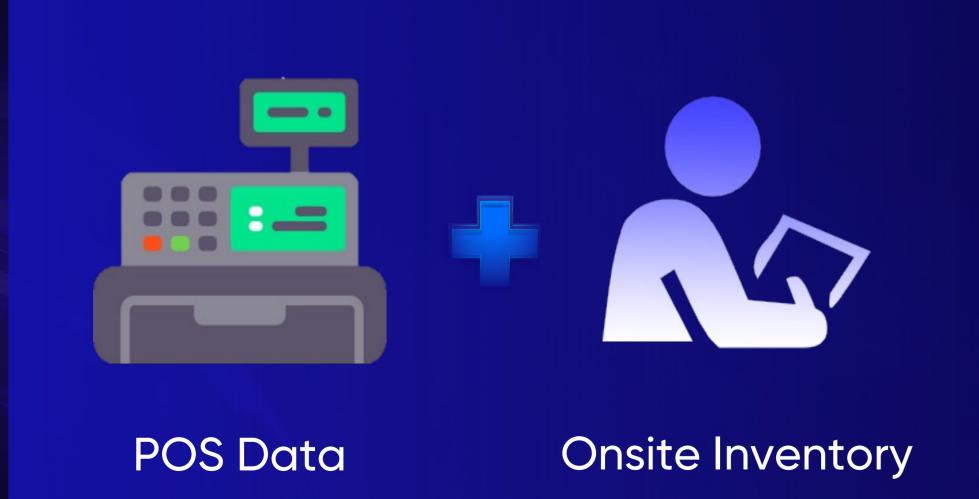
41,600 Cameras



The Background and Pain Points

As franchised stores' scale rapidly increases, more and more risk from internal fraud & loss by stealing goods or pocketing the money

Cameras and DVR have been deployed in shops but **no centralized VMS** was available. The stores continue to expand. Central remote VMS becomes more and more urgent.





Mismatching of POS sales
 & inventory checking

150 -200 stores per month Cost 100,00 THB per month for onsite





- Live view/ Playback
- Video footage download
- Cashier and store management

The Challenges



Large number of stores
Expanding rapidly



Wide Franchised Coverage
Central CCTV Management
Remote Fraud Audit
Remote Operation Management





High initial investment for 40,000 channels if traditional on premise system



Complicated deployment

Maintenance burden if on premise

Sever? Software? Network? Electricity? Control Center? Maintenance? ...

HikCentral Connect

VSaaS Platform for Unified Security Management



Cloud-based
IT Investment → Service Subscription





- Monitoring & Dashboard
- Playback, Live view, Download
- User authorization
- Mass configure
- System on Cloud

Main Benefit







Easy to Deploy



lighly alable



Reliable

Current Progress and Performance



- Now build up a centralized VMS with > 40,000 channels.
 - Audit and Event Handling Efficiency Improved

Carabao can add cost data or estimate

9	Event search and audit	No Remote Audit Can only go on-site	Central, Online & Remote VMS Remote search, playback,	√
I	Time for event audit per shop	2-4 hour (including travel)	download 30 min	↑ 8x
	Audit branch per auditor in one day	2-3 shops	12-16 shops	
	Time for event audit for all branch	2 month (estimate 20% has event, xxx auditors total)	1 week	↑8x
	Travel cost for on-site audit	\$xxx/ per month	Near zero	-
4	Device maintenance event handling	Only go on-site	Online & Remote Audit	-

Before

After

To be Solution

8,000 stores

64,000 Cameras

Al camera for Fraud detection

Fraud detection



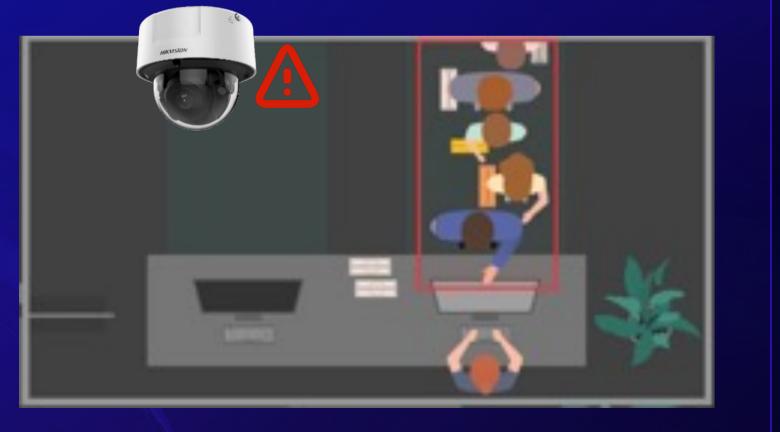
	09:00 < - Transaction Bill	Log CCTV - > 09:00
Fraud??	09:10 < - Transaction Bill	Log CCTV - > 09:10
Fra		Log CCTV - > 09:22
	09:41 < - Transaction Bill	Log CCTV - > 09:41
Fraud??	09:57 < - Transaction Bill	Log CCTV - > 09:57
FIC		Log CCTV - > 10:05
	10:10 < - Transaction Bill	Log CCTV - > 10:10
	10:16 < - Transaction Bill	Log CCTV - > 10:16
	10:25 < - Transaction Bill	Log CCTV - > 10:25
	10:40 < - Transaction Bill	Log CCTV - > 10:40
	10:53 < - Transaction Bill	Log CCTV - > 10:53



Future Planning

Al Fraud Audit: Event Video + POS Transaction Data

Queue Detection



Workflow

- Queue Detection Camera Event (over time threshold)
- HCC Event API and Video API
- Event and POS Data Comparison If POS data missing or cancelled, as Risky Fraud Order;
- Verify Event Video and Get Result.



Future Planning

Logistics Fleet Line Haul: Vehicle Tracking and Management





Main Applications Operation

Multi-dimension analysis

HD real-time monitoring

SPS location tracking

Video backup

Monitor

Active Alarm

ADAS/DBA alarm
Device abnormal alarm

Quick alarm handling



