

## Advanced Video Security in Mini Form Factors for Any Space



### Overview

Verkada's Mini Series offers flexible, discreet cameras with exceptional image quality. It includes two indoor models (the CM42 and CM41-S) and one outdoor model (the CM41-E). These cameras are suitable for a variety of applications, from corporate offices and retail locations to banks and schools.

The CM42 is a compact and powerful camera that offers many core benefits found in our Dome Series cameras. It surpasses its predecessor in image quality and analytics performance with a cutting-edge Sony IMX675 image sensor, increased storage capacity and advanced Ambarella CV25S88 system on a chip (SOC). It meets EN 50155 railway compliance standards and can be installed for transportation security on trains, buses and boats.

The CM41-E is ideal for outdoor installations and exposure to the elements, thanks to its IK10, IP67 and IP6K9K ratings that provide additional resistance against external impacts and high-pressure water.

The CM41-S is our most compact and flexible camera because its optics and image sensor are separate from the base. This makes it the only high-resolution hybrid cloud camera that can fit in small and narrow places like ATMs, between walls, or in spaces where other cameras with similar capabilities cannot be installed.

All Mini Series cameras come equipped with essential features such as data encryption, onboard storage and advanced motion-based insights. These features enable organizations to easily scale their security coverage and enhance situational awareness across multiple locations. Additionally, these cameras possess powerful edge processing capabilities that offer advanced computer vision functionalities, including Verkada's People and Vehicle Analytics.

### Key features

#### Uncompromised image quality

- Bring clarity to investigations with 5MP, high-definition sensor resolutions
- Effortlessly uncover in-scene details with enhanced digital zoom

#### Power onboard processing

- Powered by an Ambarella chipset to support Verkada's edge-based video analytics
- Low-bandwidth impact, only using 20-50 kbps per camera at rest

#### High capacity storage

- IP67 weather rated outdoor models
- IK10 impact rated outdoor models
- IK08 impact rated indoor models
- NDAA compliant



## Verkada's hybrid cloud architecture



### No NVR or DVRs

Industrial-grade onboard storage saves up to 365 days of continuous video<sup>1</sup>

### Easy to scale

Bandwidth friendly and supports thousands of cameras across unlimited locations

### Centralized management

Modern platform enables secure access on any device from anywhere in the world

## The Reliability of Onboard Storage, With the Accessibility of the Cloud

### Simple to install

- No NVRs, DVRs, or servers—just a PoE connection
- Cameras come online and configure in minutes
- No added software or complexities like port forwarding

### Easy to use

- Centralized management for secure remote access on any device nearly anywhere
- No training required to access footage and features
- Find, download and share footage from any device

### Advantages of cloud-managed solution

- Real-time alerts if cameras fall offline
- SAML-based integration with single-sign on (SSO) solutions
- Continuous updates with new AI features
- Instantly share live footage via SMS and email
- Live, proactive alerting based on unusual activity

### Ready for scale

- Bandwidth-friendly, operating at just 20–50 kbps
- Scale to thousands of cameras per location
- No added equipment needed to support additional cameras

### No hidden costs

- Hardware includes an industry-leading 10-year warranty
- Automatic firmware updates keep systems secure
- New features and enhancements are added at no additional costs

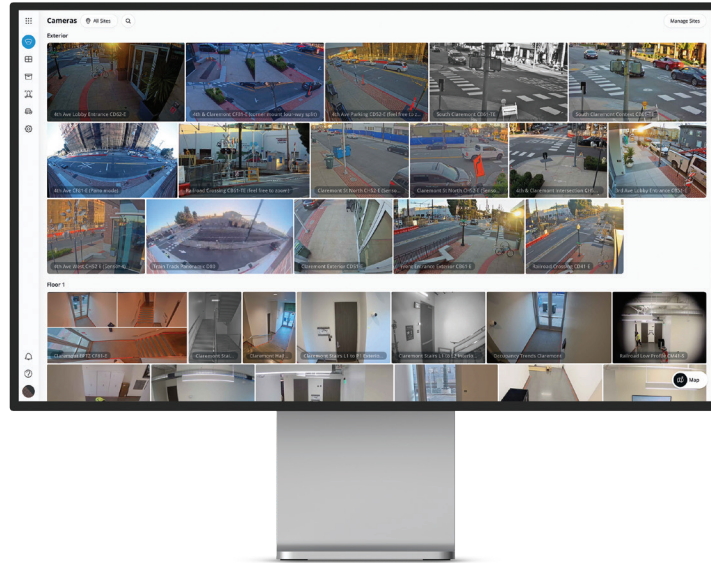


1. All our cameras record in "adaptive quality," capturing both standard and high quality streams. Standard quality (SQ) video is stored up to the amount of retention specified by the customer. The amount of high quality video stored on the camera will depend on the amount of motion detected by the camera over time. To learn more, visit our website: <https://www.verkada.com/blog/recording-in-adaptive-quality/>



## Verkada Command overview

# All-in-one Cloud-based Management Software for Verkada Security Cameras



Command, Verkada’s cloud-based management software, is designed to deliver simple access and management for all cameras and users across all sites from virtually anywhere in the world. From Command, users can set up new cameras, create sites, manage settings, access live and archived footage, manage users and access the advanced features powered by Verkada’s edge-based analytics.

### Quickly detect and respond to threats

- Stay informed with customizable, intelligent alerts
- Speed up investigations with intelligent people and face detection
- Search and filter to find vehicles of interest and detected license plates

### Remote access on any device

- Access footage from nearly any device (desktops, smartphones, tablets)
- Native apps for iOS, Android and Verkada’s VX52 Viewing Station
- Built-in security integrations with industry-leading MFA providers

### Manage from anywhere

- Remotely access footage and manage sites from any supported browser or device
- Receive alerts for offline cameras, tampering and motion detection
- Gain detailed transparency with audit logs into user access and actions

### Stay secure from the ground up

- Stay secure with data encrypted in transit (AES 128) and at rest (AES 256)
- Access cameras securely without port-forwarding, VPNs, or complicated configurations
- Receive automatic firmware updates to stay a step ahead of emerging threats

### Scale with simplicity

- Add more devices and sites without complicating the user experience
- Leverage granular roles and permissions to manage users at scale
- Bring cameras online without 3rd party plugins, thick clients, or downloads

### Effortlessly archive and share

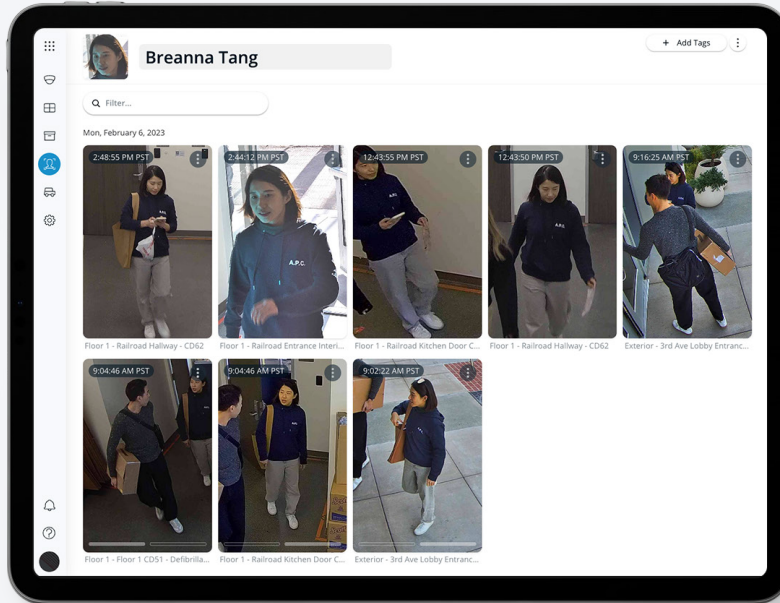
- Command licenses include unlimited cloud archiving and 30-days of cloud backup
- Easily export any footage in a shareable MP4 format
- Share Live Links and floorplans with first responders



# Verkada's People Analytics

## Simplify and Speed Up Investigations

### With Intelligent People and Face Detection



Available for all Verkada camera models, People Analytics combines intelligent edge-based video processing with computer vision in the cloud to give users high-quality images of all individuals identified in the scene. Using People Analytics, customers can filter people by various attributes and expedite investigations.

## Bring Intelligence to Investigations

### Face search

- Quickly search for matching people by selecting an existing face from your organization or by uploading an image

### Person history

- Browse through high-resolution snapshots of people detected
- Save snapshots or easily access associated full-res video
- Search for matched people across your entire organization with cross-camera search

### Attribute filters

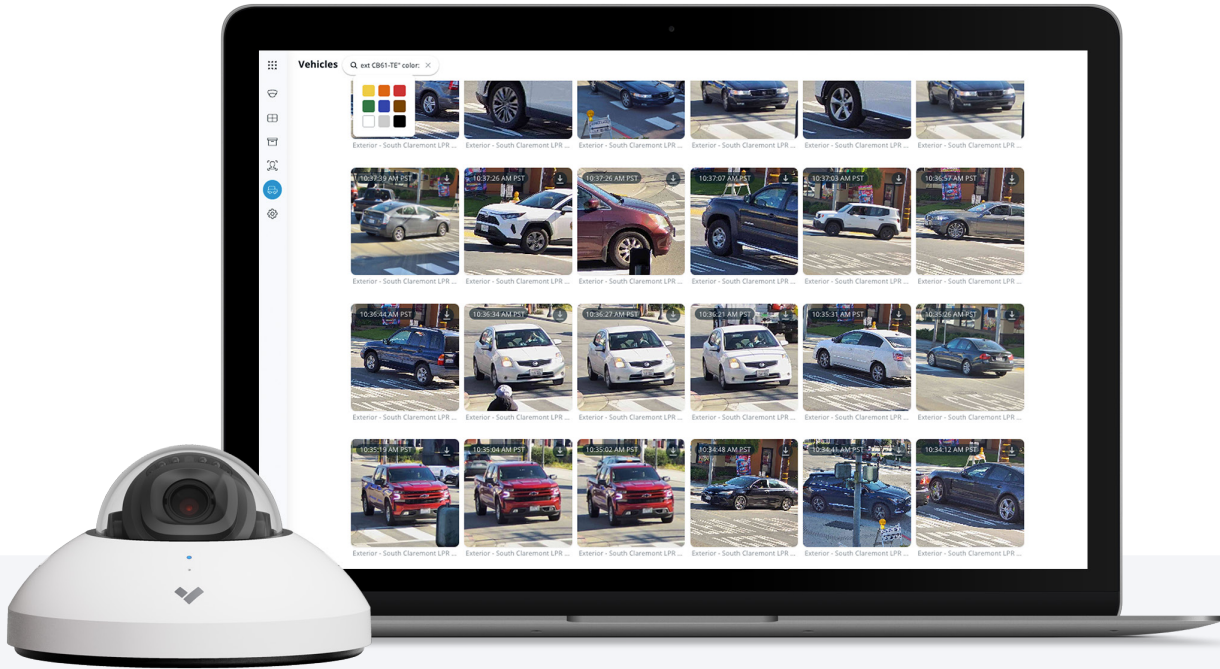
- Filter based on a range of attributes, including clothing color, gender appearance and facial matches

### Person of Interest notifications

- Set up proactive SMS/email notifications for alerting when a matching face is detected by a camera
- Create a Person of Interest by using an uploaded image or an existing face from your organization



# Verkada's Vehicle Analytics Quickly Search and Filter To Find Vehicles of Interest



Vehicle Analytics is a powerful edge-based feature that gives users high-quality images of all vehicles identified in a scene. With Verkada's centralized management platform, customers can filter vehicles by date, time, color and body type.

## Find and Filter Vehicles With Ease

### Vehicle history

- Browse through high-resolution snapshots of vehicles detected in frame
- Save snapshots or easily access associated full-res video

### Investigate anywhere

- Vehicle Analytics is available from any compatible device and can be accessed from virtually anywhere in the world

### Cross-camera search

- Easily find similar vehicles of interest across all cameras deployed across all sites
- Create and export playback of multiple angles of a vehicle to quickly provide evidence

### Attribute filters

- Filter based on a range of attributes, including vehicle color and body type



## Mini Series camera Tech Specs



CM42

### Camera features

<b>Image Sensor</b>	1/2.8" Progressive CMOS	<b>Shutter Speed</b>	1/30 sec. to 1/10,000 sec.
<b>Sensor Resolution<sup>1</sup></b>	5MP (2592 x 1944)	<b>Day/Night</b>	IR-cut filter for day and night function
<b>Lens Type</b>	Fixed	<b>IR Cut Filter</b>	Yes
<b>Focal Length</b>	2.8mm	<b>IR Range</b>	20m / 66ft
<b>Aperture</b>	F1.6	<b>Minimum Illumination</b>	0.009 lux @ F1.9 (Color) 0 lux with IR Illuminators on
<b>Iris</b>	Fixed	<b>Onboard Storage</b>	Capacity: From 256GB to 2TB Card: MicroSD, SDXC
<b>Field of View (after LDC<sup>2</sup>)</b>	Horizontal: 95° (79°) Vertical: 69° (62°) Diagonal: 130° (96°)	<b>CPU</b>	Ambarella CV25S88
<b>Sensor Movement</b>	Tilt: 60° Pan: 350° Rotation: 180°		

### Standard video settings

<b>Compression</b>	H.265, H.264	<b>Historical Video Settings</b>	Adaptive quality <sup>1</sup>
<b>Frame Rate<sup>3</sup></b>	24fps	<b>Video Streaming Settings</b>	High quality (HQ) - 1,500 Kbps Standard quality (SQ) - 300 Kbps
<b>WDR Technology</b>	104 dB dynamic range, true WDR, dual exposure		

### Standard audio settings

<b>Audio</b>	Supported	<b>Interface</b>	Built-in microphone
<b>Audio Capacity</b>	One-way audio	<b>Effective Range</b>	5m / 15ft

### Power and network

<b>Power Input<sup>4</sup></b>	With IR: IEEE 802.3af Type 1 PoE Without IR: IEEE 802.3af Type 1 PoE Extended temperature range: N/A	<b>Connectivity</b>	RJ-45 cable connector for network/PoE connection; 10 / 100 / 1000 Mbps
<b>Power Consumption<sup>4</sup></b>	With IR: 37-57V, 0.165-0.107A, 6.12W Without IR: 37-57V, 0.086-0.056A, 3.21W Extended temperature range: N/A	<b>RTSP</b>	RTSP 1.0 RFC 2326 Max concurrent streams: 2 Audio support: Yes

1. All our cameras record in "adaptive quality," capturing both standard and high quality streams. Standard quality (SQ) video is stored up to the amount of retention specified by the customer. The amount of high quality video stored on the camera will depend on the amount of motion detected by the camera over time. To learn more, visit our website:

<https://www.verkada.com/blog/recording-in-adaptive-quality/>

2. Lens Distortion Correction (LDC) crops the sensor field of view to deliver a rectified, undistorted output image.

3. Frame rate can be adjusted by Support.

4. Extended temperature range includes operating temperatures below -8.5°C / 16.7°F and assumes IR will be enabled.



# Mini Series camera Tech Specs



CM42

## General

<b>Operating Temperature</b>	-10°C to 50°C / 14°F to 122°F	<b>LED Indicator</b>	System power and status indicator
<b>Humidity</b>	0 to 90%	<b>Warranty</b>	10 Years
<b>Certifications</b>	FCC, ICES, RCM, VCCI, CE, UKCA, EN 50155 railway compliance, UL/cUL/IEC 62368-1, BIS, NOM	<b>Included Accessories</b>	Setup guide, T10 security torx screwdriver, 3x wingnuts, 3x washers, 3x TP4.0 mount screws, 3x M4 wall screws, 3x wall anchors

## Mechanical

<b>Weight</b>	Camera: 290g / 10.23oz Mount plate: 98g / 3.46oz	<b>Body</b>	Aluminum, plastic dome trim
<b>Dimensions</b>	Ø: 124.5mm / 4.9in, H: 71.5mm / 2.8in		

## Software capabilities

<b>Alerts</b>	Camera status, motion detection, people detection, vehicle detection, Person of Interest detection, crowd detection	<b>Streaming and Storage</b>	Cloud backup, configurable retention days, selectable storage location, low bandwidth mode, timelapse, RTSP
<b>People Analytics</b>	People search, attribute search, face search, Occupancy Trends, motion search, trajectory analysis <sup>5</sup>	<b>Sharing and Privacy</b>	Live Link, privacy regions, audit log
<b>Vehicle Analytics</b>	Vehicle search, attribute search		

5. Both indoor and outdoor variants of the following camera models support trajectory analysis: CM42, CD32/42/52/62, CB52/62, CH52-E and CF81-E (in panoramic-mode only).



## Mini Series camera Tech Specs



CM41-E

### Camera features

<b>Image Sensor</b>	1/2.8" Progressive CMOS	<b>Shutter Speed</b>	1/30 sec. to 1/10,000 sec.
<b>Sensor Resolution<sup>1</sup></b>	5MP (2688 x 1944)	<b>Day/Night</b>	IR-cut filter for day and night function
<b>Lens Type</b>	Fixed	<b>IR Cut Filter</b>	Yes
<b>Focal Length</b>	2.8mm	<b>IR Range</b>	15m / 49ft
<b>Aperture</b>	F1.6	<b>Minimum Illumination</b>	0.009 lux @ F1.9 (Color) 0 lux with IR Illuminators on
<b>Iris</b>	Fixed	<b>Onboard Storage</b>	Capacity: From 128GB to 2TB Card: MicroSD, SDXC
<b>Field of View (after LDC<sup>2</sup>)</b>	Horizontal: 97° (78°) Vertical: 71° (63°) Diagonal: 128° (91°)	<b>CPU</b>	Ambarella S5L63
<b>Sensor Movement</b>	Tilt: 70° Pan: 355° Rotation: 240°		

### Standard video settings

<b>Compression</b>	H.265, H.264	<b>Historical Video Settings</b>	Adaptive quality <sup>1</sup>
<b>Frame Rate<sup>3</sup></b>	24fps	<b>Video Streaming Settings</b>	High quality (HQ) - 1,500 Kbps Standard quality (SQ) - 300 Kbps

### Standard audio settings

<b>Audio</b>	Supported	<b>Interface</b>	Built-in microphone
<b>Audio Capacity</b>	One-way audio	<b>Effective Range</b>	5m / 15ft

### Power and network

<b>Power Input<sup>4</sup></b>	With IR: IEEE 802.3af Type 1 PoE Without IR: IEEE 802.3af Type 1 PoE Extended temperature range: IEEE 802.3af Type 1 PoE	<b>Connectivity</b>	RJ-45 cable connector for network/PoE connection; 10/100 Mbps
<b>Power Consumption<sup>4</sup></b>	With IR: 37-57V, 0.14-0.09A, 5.46W Without IR: 37-57V, 0.08-0.05A, 3.22W Extended temperature range: 37-57V, 0.27-0.17A, 10.1W	<b>RTSP</b>	RTSP 1.0 RFC 2326 Max concurrent streams: 2 Audio support: Yes

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2. Lens Distortion Correction (LDC) crops the sensor field of view to deliver a rectified, undistorted output image.

3. Frame rate can be adjusted by Support.

4. Extended temperature range includes operating temperatures below -8.5°C / 16.7°F and assumes IR will be enabled.





# Mini Series camera Tech Specs



CM41-E

## General

<b>Operating Temperature</b>	-40°C to 55°C / 40°F to 131°F	<b>LED Indicator</b>	System power and status indicator
<b>Humidity</b>	0 to 90%	<b>Warranty</b>	10 Years
<b>Certifications</b>	FCC, ICES, CE, UL, CB, BIS, NOM, VCCI, IP67 weather rating, IP6K9K, IK10 impact rating, IEC 60950, IEC 62368, NDAA, EN 50155 railway compliance, EN 45545 railway fire compliance, EN 50121 railway EMC compliance	<b>Included Accessories</b>	Setup guide, T10 security torx screwdriver, wall mount screws (3x), junction box screws (2x), mounting template, desiccant bags, cable sealing components

## Mechanical

<b>Weight</b>	Camera: 401g / 14.14oz Mount plate: 138g / 4.87oz	<b>Body</b>	Aluminum, plastic dome trim
<b>Dimensions</b>	Ø: 121mm / 4.78in, H: 72mm / 2.83in		

## Software capabilities

<b>Alerts</b>	Camera status, motion detection, people detection, vehicle detection, Person of Interest detection, crowd detection	<b>Streaming and Storage</b>	Cloud backup, configurable retention days, selectable storage location, low bandwidth mode, timelapse, RTSP
<b>People Analytics</b>	People search, attribute search, motion search, face search	<b>Sharing and Privacy</b>	Live Link, privacy regions, audit log
<b>Vehicle Analytics</b>	Vehicle search, attribute search		



## Mini Series camera Tech Specs



### CM41-S

#### Camera features

<b>Image Sensor</b>	1/2.8" Progressive CMOS	<b>Shutter Speed</b>	1/30 sec. to 1/10,000 sec.
<b>Sensor Resolution<sup>1</sup></b>	5MP (2688 x 1944)	<b>Day/Night</b>	IR-cut filter for day and night function
<b>Lens Type</b>	Fixed	<b>IR Cut Filter</b>	Yes
<b>Focal Length</b>	2.8mm	<b>IR Range</b>	N/A
<b>Aperture</b>	F1.6	<b>Minimum Illumination</b>	0.009 lux @ F1.9 (Color) 0 lux with IR Illuminators on
<b>Iris</b>	Fixed	<b>Onboard Storage</b>	Capacity: From 128GB to 384GB Card: MicroSD, SDXC
<b>Field of View (after LDC<sup>2</sup>)</b>	Horizontal: 97° (78°) Vertical: 71° (63°) Diagonal: 128° (91°)	<b>CPU</b>	Ambarella S5L63
<b>Sensor Movement</b>	Tilt: 90° Pan: N/A Rotation: 240°		

#### Standard video settings

<b>Compression</b>	H.265, H.264	<b>Historical Video Settings</b>	Adaptive quality <sup>1</sup>
<b>Frame Rate<sup>3</sup></b>	24fps	<b>Video Streaming Settings</b>	High quality (HQ) - 1,500 Kbps Standard quality (SQ) - 300 Kbps

#### Standard audio settings

<b>Audio</b>	Not Supported
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#### Power and network

<b>Power Input<sup>4</sup></b>	With IR: N/A Without IR: IEEE 802.3af Type 1 PoE Extended temperature range: N/A	<b>Connectivity</b>	RJ-45 cable connector for network/PoE connection; 10/100 Mbps
<b>Power Consumption<sup>4</sup></b>	With IR: N/A Without IR: 37-57V, 0.1-0.06A, 3.55W Extended temperature range: N/A	<b>RTSP</b>	RTSP 1.0 RFC 2326 Max concurrent streams: 2 Audio support: No

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# Mini Series camera Tech Specs



CM41-S

## General

<b>Operating Temperature</b>	-10°C to 50°C / 14°F to 122°F	<b>LED Indicator</b>	System power and status indicator
<b>Humidity</b>	0 to 90%	<b>Warranty</b>	10 Years
<b>Certifications</b>	FCC, ICES, CE, UL, CB, NOM	<b>Included Accessories</b>	Setup guide, mounting template, camera mounting screws (2x), hub mounting screws (2x)

## Mechanical

<b>Weight</b>	Camera: 199g / 7.02oz Mount plate: 55g / 1.94oz	<b>Body</b>	Aluminum, plastic housing
<b>Dimensions</b>	Camera Head: H: 47.90mm / 1.89in, W: 55.22mm / 2.17in, D: 35.22mm / 1.39in Base: Ø: 94.18mm / 3.70in, H: 27.64mm / 1.09in		

## Software capabilities

<b>Alerts</b>	Camera status, motion detection, people detection, vehicle detection, Person of Interest detection, crowd detection	<b>Streaming and Storage</b>	Cloud backup, configurable retention days, selectable storage location, low bandwidth mode, timelapse, RTSP
<b>People Analytics</b>	People search, attribute search, motion search, face search	<b>Sharing and Privacy</b>	Live Link, privacy regions, audit log
<b>Vehicle Analytics</b>	Vehicle search, attribute search		



## Professional video monitoring Stop Crimes in Progress

Verkada's 24/7 professional video monitoring solution enables organizations to detect and respond to threats in real time, using only cameras.



### Meet your virtual guard

Professional video monitoring allows organizations to turn their Verkada cameras into a complete, monitored alarm solution - no extra hardware required. Simply select which cameras should be monitored, set an arm/disarm schedule and choose how monitoring agents should respond to a threat, such as remote talk down or notifying police.

### How it works

#### Detect unusual activity

- Choose which cameras should be monitored and when. An alarm is triggered if a person is detected on site while the system is armed.
- Other Verkada devices, including intrusion sensors, access control and environmental sensors, can also be configured as alarm triggers.

#### Assess the threat

- Monitoring agents immediately review relevant video footage to determine if there is a threat to people or property.
- Video-verification helps to ensure priority police response and screens out false alarms.

#### Take action

- If there is a legitimate threat, the monitoring agent will immediately notify your designated call list.
- Agents can also request emergency dispatch or talk down to intruders through an on-site speaker. Automated responses can include locking doors or turning on sirens.
- If there is no visible threat, the agent will dismiss the incident.

### Key benefits



**Leverage cameras as intrusion sensors**



**Deter intruders with remote talk down**



**Emergency services dispatch**



**More complete coverage than in person guard**



**No third-party contracts**



**Remote visibility and control**

Professional monitoring of Verkada cameras is included in the LIC-BA Alarms License. One Alarms License is required for each unique site address, with no limit on monitored cameras. Professional monitoring is provided by fully redundant, US-based, UL-listed central monitoring stations with Five Diamond Certification from The Monitoring Association. Additional licensed monitoring centers available in Canada, the UK and Australia.