



# SAFE HOSPITALS

Leading edge technologies for hospitals on the leading edge

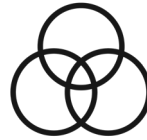


# THE PROMISE OF A MODERN HOSPITAL



## QUALITY CARE

Provide patients and families the finest medical care and best experience possible.



## EFFICIENT OPERATIONS

Maximize resources to treat as many patients as possible while maintaining quality of care.

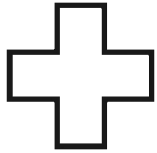


## SAFETY & SECURITY

Create a workplace across one or multiple facilities built on a foundation of safety for all staff, visitors and patients.

The promise to efficiently provide the highest level of care is only possible in an environment built on a foundation of safety.

# THE PROMISE OF A MODERN HOSPITAL



## QUALITY CARE

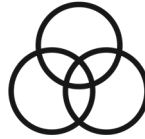
Provide patients and families the finest medical care and best experience possible.

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**\$25-\$45 bil**

Spent on avoidable complications and unnecessary hospital readmissions

- Health Catalyst



## EFFICIENT OPERATIONS

Maximize resources to treat as many patients as possible while maintaining quality of care.

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**\$80.5K**

Average profit for hospitals per inpatient bed

- Becker's Healthcare



## SAFETY & SECURITY

Create a workplace across one or multiple facilities built on a foundation of safety for all staff, visitors and patients.

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**75%**

of workplace assaults occur in healthcare settings.

- Occupational Safety and Health Administration

The promise to efficiently provide the highest level of care is only possible in an environment built on a foundation of safety.



# THE CURRENT ENVIRONMENT BY THE NUMBERS



**20.6 MIL**

Individuals that will likely require hospitalization due to COVID-19

- *Journal of Health Affairs*

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The COVID-19 pandemic are causing a great deal of strain on hospital resources so funding and staff must be maximized



**67%**

Hospitals planned to invest in video surveillance solutions

- *Campus Safety Hospital Security Survey, 2018*

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Having a modern hospitals video surveillance system is recognized across the industry as a necessity with most having plans to update antiquated systems.



**70%**

Emergency physicians and nurses report being physically assaulted at work.

- *American College of Emergency Physicians*

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Security threats are prevalent and pose a real risk not only to the safety of caregivers but also negatively impacts the quality of care patients receive

# MODERN CHALLENGES



How can we uncover potential threats and operational problems?

Control multiple points of entry/exit  
Monitor at-risk patient movements  
Secure and monitor sensitive areas



How can we recognize important events and locate points of interest?

Identify unwanted persons  
Automatically track people of interest  
Recognize hazardous situations



How do we connect all workgroups that need to collaborate?

Share information across devices  
Coordinate with local first responders  
Alert multiple teams simultaneously



How can we quickly respond to problems before they escalate?

Aggregated information feeds  
Directly share data with first responders  
Efficiently log incident reports

# SAFE HOSPITALS

An integrated technology ecosystem



EMERGENCY

BUSINESS-CRITICAL  
COMMUNICATIONS

SAFE  
HOSPITALS

VIDEO  
SECURITY &  
ANALYTICS

INCIDENT  
RESPONSE  
SOFTWARE

MANAGED &  
SUPPORT SERVICES



Instant voice communications to reliably connect teams across facilities and workflows.

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Video analytics technologies to recognize important events and respond before they escalate.

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Advanced software to centralize command everyday and during emergencies.

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Support services that are always there to maintain systems for today and into the future.

**Technology unified by a common orchestration platform built to empower you to address the unique challenges of your hospital**

# FACING MODERN CHALLENGES



## DETECT

**Video Security**  
**Watch List Creation and Alert**  
**Access Control**

Know what is happening with better insights to protect people, property & assets.



## ANALYZE

**Appearance Search**  
**Identity Search**  
**Unusual Motion & Activity Detection**

Recognize which events are important, locate points of interest & make informed decisions to take action.



## COMMUNICATE

**Two-way Radio Platforms**  
**Broadband Push-to-X**  
**Private LTE**

Communicate instantly across devices & networks to keep teams connected and informed.



## RESPOND

**Situational Intelligence**  
**Dynamic Interoperability**  
**Incident & Records Management**

Simultaneously mobilize and coordinate an immediate response internally and with public safety.

Technology that operates seamlessly together across workflows to ensure an environment of safety and maintain business continuity when incidents arise.



**MOTOROLA SOLUTIONS**

# THEFT FROM SECURE AREA

Use Case

## Police arrest hospital aide in thefts of equipment, supplies

April 4, 2020,



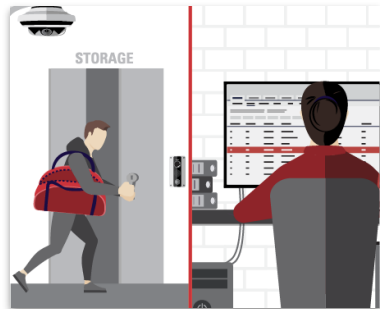
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A hospital has numerous secure areas within their facilities that contain sensitive and critical inventory and patients. Hospitals must ensure that these areas are constantly secured and monitored to prevent staff and visitors from unauthorized access and theft.



# CRITICAL INVENTORY THEFT

## Use Case



## DETECT

### ACCESS CONTROL BREACH RECOGNIZED

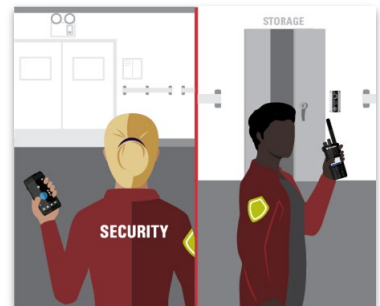
Alert sent to security of forced entry detected in secure storage area.



## ANALYZE

### APPEARANCE CAPTURED

Relevant cameras instantly populate and intruder is identified and tracked through facility using their appearance.



## COMMUNICATE

### NOTIFICATION COMMUNICATED

Alert sent across radios and smartphones to monitor all hospital exits in proximity to the breached area. Image and location of individual is shared with security.



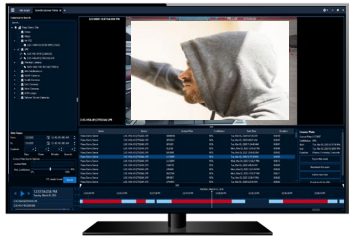
## RESPOND

### FIRST RESPONSE DISPATCHED

Local police directly alerted with video for situational awareness and incident logged with pre-populated fields and relevant data.

# CRITICAL INVENTORY THEFT

## Use Case



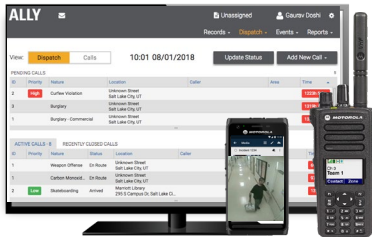
## DETECT

- Avigilon Cameras
- Access Control Manager
- Radio Alert



## ANALYZE

- Avigilon Cameras
- Appearance Search
- Avigilon Control Center



## COMMUNICATE

- Radio Communications
- WAVE / Broadband Push To Talk
- Dispatch



## RESPOND

- Ally Incident Management
- CommandCentral Aware Enterprise
- Critical Connect

# PERIMETER BREACH

## Use Case

**Suspect in triple killing at Chicago hospital had confronted doctor who broke off their engagement: Officials**

November 20, 2018, 6:14 PM

abc NEWS

Knowing who is approaching and inside of your hospital is vital to preventing incidents before they occur. Hospitals need to be able to quickly recognize and respond to potential threats the moment they are revealed.

# PERIMETER BREACH

## Use Case



## DETECT

### LICENSE PLATE RECOGNIZED

An employee's ex-spouse with a history of violence detected entering hospital grounds using license plate recognition.



## ANALYZE

### APPEARANCE DETECTED

Unwarranted individual recognized exiting vehicle and approaching the main entrance. Individual appearance captured and their movements are automatically monitored.



## COMMUNICATE

### NOTIFICATION COMMUNICATED

Alert automatically sent across security teams and nearest security resources dispatched with location and images of an unwelcome individual.



## RESPOND

### FIRST RESPONSE DISPATCHED AND INCIDENT DOCUMENTED

Local police directly alerted with video for situational awareness and incident logged with pre-populated fields and relevant data.

# PERIMETER BREACH

## Use Case



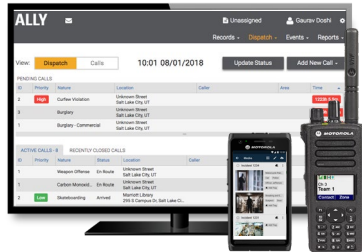
## DETECT

- Avigilon Cameras
- License Plate Recognition
- Avigilon Control Center
- Radio Alert



## ANALYZE

- Avigilon Cameras
- Watchlist
- Radio alert
- Appearance Capture and Search



## COMMUNICATE

- Radio Communications
- WAVE / Broadband Push To Talk
- Dispatch
- CommandCentral Aware Enterprise



## RESPOND

- Ally Incident Management
- CommandCentral Aware Enterprise
- Critical Connect

# ELEVATED SKIN TEMPERATURE DETECTION

## Use Case

Hospitals need an effective and efficient way to monitor the health of visitors who enter their facility, especially during times of a public health crisis. Video analytics can empower security operations teams to screen more people in less time than manual alternatives.



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# ELEVATED SKIN TEMPERATURE DETECTION

## Use Case



## DETECT

### ELEVATED SKIN TEMPERATURE DETECTED

A thermal camera at a main hospital entrance detects a visitor with elevated skin temperature and automatically alerts the security operations center.



## ANALYZE

### TEMPERATURE ALERT VERIFIED

The security operations center acknowledges the alert and identifies the visitor with elevated skin temperature.



## COMMUNICATE

### RESOURCES DISPATCHED

Agents at the entrance are notified of the individual and a medical professional is dispatched to the checkpoint.



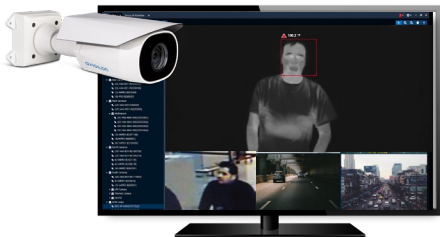
## RESPOND

### SITUATION RESOLVED

The individual is discreetly isolated and a medical screening is conducted and an incident report is logged with pre-populated fields.

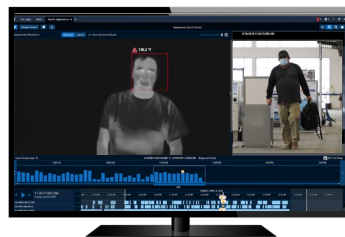
# ELEVATED SKIN TEMPERATURE DETECTION

## Use Case



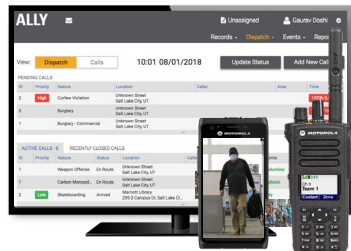
## DETECT

- Avigilon Cameras
- Avigilon Control Center
- Elevated Temperature Detection



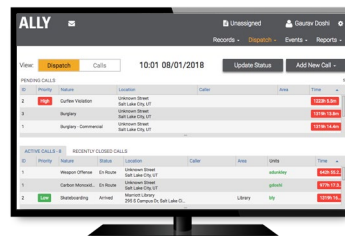
## ANALYZE

- Avigilon Cameras
- Avigilon Control Center



## COMMUNICATE

- Radio Communications
- WAVE / Broadband Push To Talk
- Dispatch



## RESPOND

- Ally Incident Management



# PATIENT ELOPEMENT

Use Case

## PATIENT ELOPEMENT: WIDESPREAD, BUT RARELY DISCUSSED

BY [JENNIFER THEW RN](#) | DECEMBER 06, 2016

*HealthLeaders*

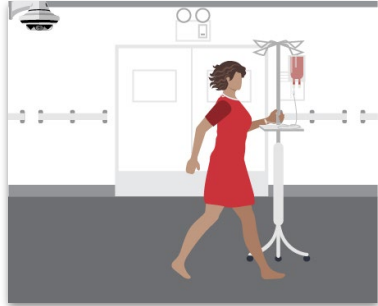
Psychiatric and otherwise unstable patients can often leave their rooms and pose a risk to themselves or others. Hospitals need to be able to quickly identify and locate missing patients to prevent potential incidents.



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# PATIENT ELOPEMENT

## Use Case



## DETECT

### CAMERAS SURVEILLED CORRIDORS

Security retroactively searches footage for the reported patient leaving their room.



## ANALYZE

### APPEARANCE SEARCH ON CAMERAS

Security uses the found image of the patient to automatically search all cameras to track movement and determine their location.



## COMMUNICATE

### TEAMS COORDINATED

Closest security officer or hospital staff to the patient is determined and dispatched to retrieve the patient.



## RESPOND

### INCIDENT RECORDED

Hospital security rendered the patient safe in a timely manner and an incident report is securely logged.

# PATIENT ELOPEMENT

## Use Case



## DETECT

- Avigilon Cameras
- Radio Communications
- WAVE / Broadband Push To Talk
- Avigilon Control Center



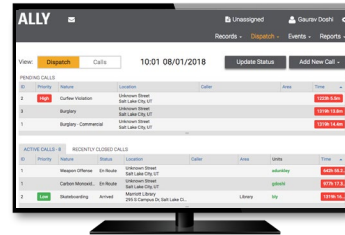
## ANALYZE

- Avigilon Cameras
- Appearance Search
- Avigilon Control Center



## COMMUNICATE

- Radio Communications
- WAVE / Broadband Push To Talk
- Dispatch
- CommandCentral Aware Enterprise



## RESPOND

- Ally Incident Management
- CommandCentral Aware Enterprise

# ESCALATING SITUATIONS

## MAKING EVERY SECOND COUNT

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First responders typically respond to a call within 8 minutes, arriving with minimal information.

Every moment which enables earlier warning and better information is a moment that counts.

Integrated technology can help prevent incidents from becoming tragedies.



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# VIOLENT BEHAVIOR

Use Case

## Man With Gun At Round Rock ER Demanded Mental Health Treatment

Oct 28, 2019 9:47 pm CT

Patch

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ER waiting rooms are one of the main publicly accessible areas in a hospital. Situations that occur there can often escalate and pose a larger security threat to hospital staff and patients as well as disrupt hospital operations.

# EMERGENCY



MOTOROLA SOLUTIONS

# ER WAITING ROOM INCIDENT

## Use Case



### DETECT

#### UNUSUAL MOTION RECOGNIZED

Erratic driving detected in the parking lot outside of ER and security is alerted and relevant cameras are automatically populated.



### ANALYZE

#### APPEARANCE CAPTURED

Security monitors individual exit the car and image of individual is captured as they enter the ER with a weapon drawn.



### COMMUNICATE

#### NOTIFICATION COMMUNICATED

Alert sent across radios and smartphones to inform all relevant security teams of the situation with image of intruder.



### RESPOND

#### FIRST RESPONSE DISPATCHED

Local police directly alerted with video for situational awareness and incident logged with pre-populated fields and relevant data.



# ER WAITING ROOM INCIDENT

## Use Case



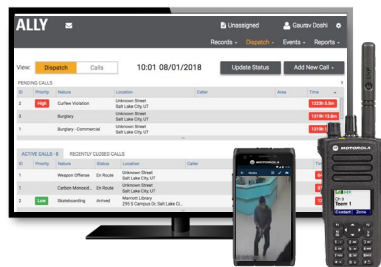
### DETECT

- Avigilon Cameras
- Unusual Motion Detection
- Radio Alert
- Avigilon Control Center



### ANALYZE

- Avigilon Cameras
- Avigilon Control Center



### COMMUNICATE

- Radio Communications
- WAVE / Broadband Push To Talk
- Dispatch



### RESPOND

- Ally Incident Management
- CommandCentral Aware Enterprise
- Critical Connect

# DOOR SECURITY BREACH

Use Case

## Police say man forced entry to downtown Madison hospital, battered nurse

Mark Sommerhauser | Wisconsin State Journal | Mar 27, 2017

WISCONSIN  
STATE JOURNAL

Doors leading in and out of your facility are the first line of defense for your hospital. Security operations needs to be sure they effectively control who is coming into their hospital as well as quickly resolve situations when a locked entrance is breached.



# AFTER HOURS DOOR BREACH

## Use Case



### DETECT



#### ACCESS CONTROL BREACH RECOGNIZED

Alert sent to security about locked door breach and relevant cameras automatically populate in security operations center.

### ANALYZE



#### APPEARANCE IN HALL DETECTED

Situational awareness maintained as intruder appearance is identified and monitored throughout the facility.

### COMMUNICATE



#### NOTIFICATION COMMUNICATED

Alert automatically sent to security staff on their devices and nearest hospital security dispatched with image and location of intruder.

### RESPOND



#### RESOURCES DISPATCHED

Security operations initiates a sitewide lockdown and police directly engaged for immediate first response and incident automatically logged.

# VEHICLE BURGLARY

## Use Case

**Thieves break into nurses' cars at Boston Children's Hospital in 'disturbing' incident**

April 13, 2020

**Boston Herald**

Hospital parking lots and garages are expansive and can extend far beyond the immediate perimeter of the hospital. Providing network coverage to these remote lots for video security technology poses a unique challenge for hospitals leaving these often targeted areas vulnerable and ineffectively monitored. Hospitals need a way to effectively cover these areas with video solutions and network backhaul to better respond to and prevent vehicle break-ins and thefts.

# VEHICLE BURGLARY

Use Case



## DETECT



### UNUSUAL MOTION DETECTED

Using video analytics, an HD camera recognizes suspicious movement in a remote parking lot and alerts security operations via a CBRS network.

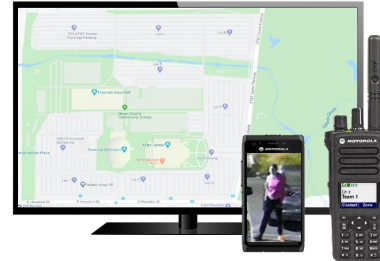
## ANALYZE



### MOVEMENT TRACKED

Security operations observes the flagged individuals attempting to break-in to vehicles. Their appearance is captured and tracked as they move through the parking lots.

## COMMUNICATE



### NOTIFICATION COMMUNICATED

From the security operations center, the nearest security team member is notified and provided an image of the individuals.

## RESPOND



### INCIDENT MANAGED AND REPORTED

Public safety is notified and security personnel apprehend the individuals with the help of security operations providing real time movement information over their radio from video feeds.



—  
**THANK YOU**  
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