

Case Study

SSM Health

Deploys game-changing safer hospitals ecosystem for highly efficient operations and proactive threat management

With 23 hospitals, 300 delivery sites, nearly 11,000 clinical employees and more than 2 million outpatients seen every year across Illinois, Missouri, Oklahoma and Wisconsin, SSM Health is no stranger to the challenges facing the healthcare industry. SSM Health continuously strives to provide exceptional clinical care while operating efficiently and helping to ensure the safety of employees, patients and visitors at all times.

SSM Health's Greater Midwest Region is comprised of 11 hospitals situated in the Greater St. Louis Metropolitan Area, Mid-Missouri and Southern Illinois. Like many large medical centers, these facilities face heightened and constant safety and security challenges. In response, SSM Health is in the process of deploying the safer hospitals ecosystem from Motorola Solutions to safeguard its employees, property and the patients it serves while replacing the outdated legacy technology that could no longer meet the hospital's security and communication needs. It will rely on a robust, integrated ecosystem of video and analytics, access control, command center software and critical communications networks and devices to proactively meet its complex security needs and allow them to respond to unfolding incidents and disruptions.

MOTOROLA SOLUTIONS

Customer

SSM Health

Industry

Healthcare

Safer hospitals technology ecosystem

- Avigilon Control Center (ACC) Video Management Software
- Access Control Manager (ACM) System
- Avigilon cameras with video analytics
- MOTOTRBO Radios
- Radio Alert
- Ally Security Incident Management Software

Outcomes

- Unified security and communications ecosystem breaks down data silos across teams and systems for more proactive, efficient security
- Advanced analytics allow real-time incident notification for a more proactive response
- Greater sense of safety and security improves staff morale and retention

Challenges

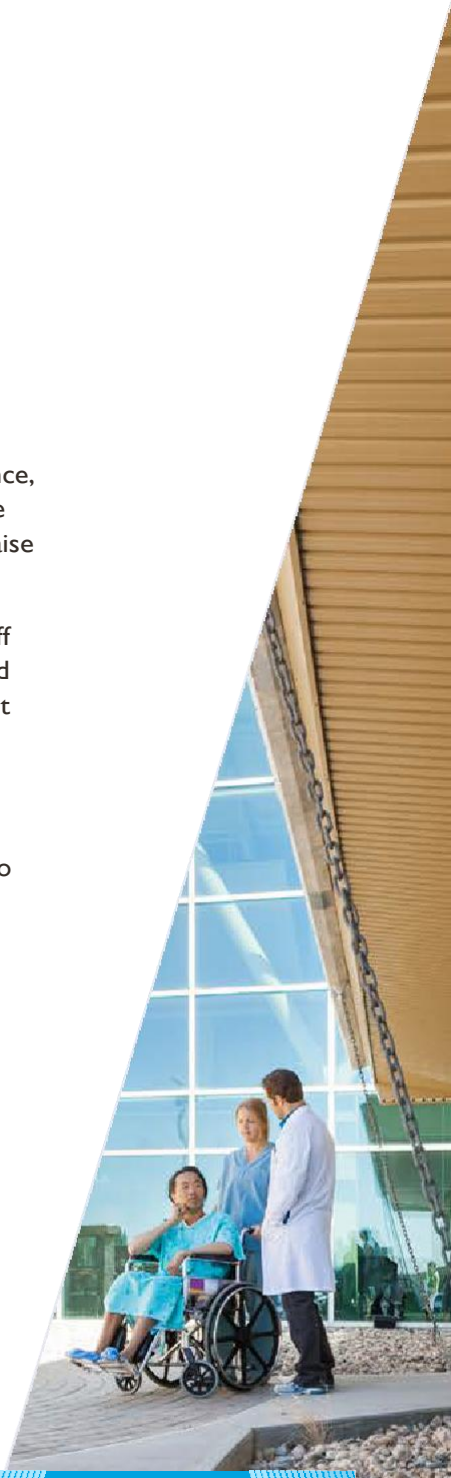
Data silos across teams and systems led to inefficient, reactive security

As a Level I trauma center, SSM Health's Saint Louis University Hospital treats victims of violence, especially in its Emergency Department (ED). The sheer size of the campus, plus the possible presence of drugs or weapons and the high level of emotional stress in these situations all raise the safety risk for patients and staff.

Like other medical systems, SSM Health is regularly challenged with patients, visitors and staff entering and exiting the premises at all hours of the day, seven days a week. Plus, valuable and sensitive equipment and potentially dangerous medical equipment and pharmaceuticals must always be secured and monitored.

Every day, as part of their normal after-hours routine, SSM Health security staff were physically patrolling close to a million square feet of closed office space. While safety is SSM Health's top priority, its technology was outdated and siloed, making it difficult to get the right information to the right people at the right time.

Without an integrated ecosystem that enabled the seamless sharing of data across teams and systems such as access control, video security and real-time communications, the security team lacked the technology for effective and proactive situational awareness and relied on its systems for limited investigative activity. This meant it was constantly in a reactive mode when an event occurred, making it much more difficult to quickly and effectively remediate security situations and having to lockdown Emergency Departments at times. SSM Health also lacked the ability to efficiently mobilize and coordinate security where it was needed most, forcing security staff to manually monitor all areas, even those with less traffic, instead of focusing resources in high risk departments. By 2015, it became clear to security staff that the hospital's legacy security technology was no longer meeting the health system's needs.



> "We needed to monitor and be aware of all activity across the campus, so we could proactively address unwanted persons entering and causing harm," said Todd Miller, Regional Director of Security at SSM Health. "But we simply didn't possess the proactive technology capabilities to make it happen.



Manual and time intensive video reviews made it difficult to quickly locate people of interest

Like all health facilities of its type, SSM Health security teams must regularly assist in locating persons of interest. Yet, the large footprint of the campus made it difficult to quickly locate them. SSM Health's security technology was limited in capabilities that were able to assist.

When incidents occurred or individuals needed locating, security teams had to manually pull video from the cameras and search through hours of footage to find something of interest. At the same time, they would also conduct searches on foot throughout the entire campus.

This was a problem for a number of reasons. Searches required a large number of dedicated resources, taking security personnel away from other important activities for as long as the search continued.

Plus, without a way to better coordinate and direct security teams, searches were inefficient and time-consuming during a situation when speed was critical.

For instance, even if security personnel saw the direction an individual was headed on video, by the time that footage was reviewed, it was of little use in actually locating them in real-time. This often led to additional issues and inefficiencies, such as building lockdowns that could have been avoided with more effective situational awareness.

Security challenges left staff feeling vulnerable while threatening recruiting and retention

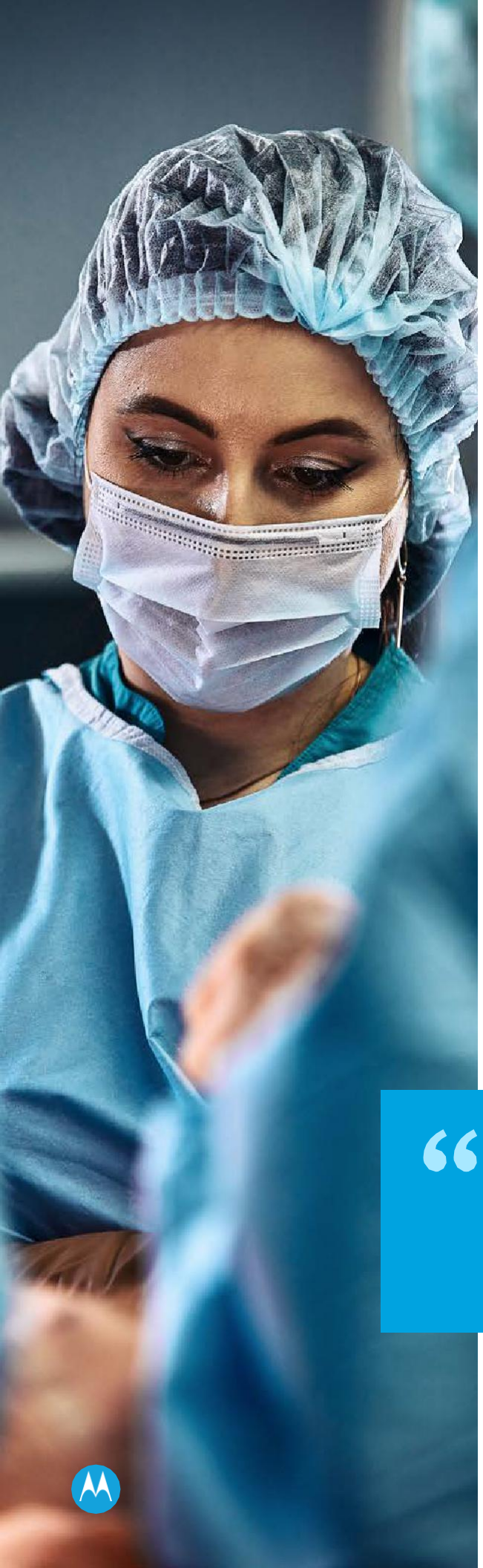
According to OSHA, 75% of workplace assaults occur in healthcare settings.* Ensuring employees feel safe when they come to work is extremely important, as an employee's sense of safety has a direct impact on morale, engagement and retention. As a large Level I trauma center, SSM Health Saint Louis University Hospital confronts these issues regularly.

One of SMM Health's top goals was to increase the hospital staff's overall perception of security. Yet, that was simply not possible with the health system's existing technology. SSM Health's legacy video system struggled with poor video quality that was often inadequate to aid investigations. When a security event would happen on campus, SSM Health was forced to interpret images from fuzzy, long-shot videos. The technology also lacked the advanced capabilities needed for proactive threat detection and alerting.

Security officers were frustrated because they didn't have the resources to effectively do their jobs and clinical staff were left feeling vulnerable. SSM Health was worried about the effect that would have on its ability to recruit and retain top talent.

* https://abcnews.go.com/Health/epidemic-75-workplace-assaults-happen-health-care-workers/story?id=67685999





Solution

The safer hospitals technology ecosystem

After SSM Health Leadership began to evaluate and reassess its security technology, the team concluded that its legacy video system, access control and radio communications needed to be replaced with a modern technology solution. They evaluated a range of new systems, ultimately standardizing on the Motorola Solutions safer hospitals technology ecosystem.

During the evaluation process, SSM Health was struck by the image quality provided by the Avigilon video security cameras, which then led to an exploration of the broader Motorola Solutions Safer Hospitals ecosystem. Ultimately, SSM Health felt that the larger ecosystem of integrated solutions was a game-changing new approach to security and communications as it allowed them to proactively address situations, making security more efficient and effective.

The suite of technology began with Avigilon cameras, video analytics, Avigilon Control Center™ video management software and Access Control Manager™. With the results seen at SSM Health Saint Louis University Hospital, the decision was made to convert their entire radio platform region-wide to MOTOTRBO reliable and rugged two-way digital radios and they are going through the transition currently. With advanced analytics and automatic alerting capabilities directly integrated on their radios, SSM Health received a new level of visibility and insight into its campus.

Today, SSM Health is implementing the safer hospitals ecosystem in all Missouri and Illinois regional hospitals.

> “What set Motorola apart is that they didn’t just offer cameras or radios, they offered an integrated system that connected video, communications and incident management,
>
> – Miller

Outcomes

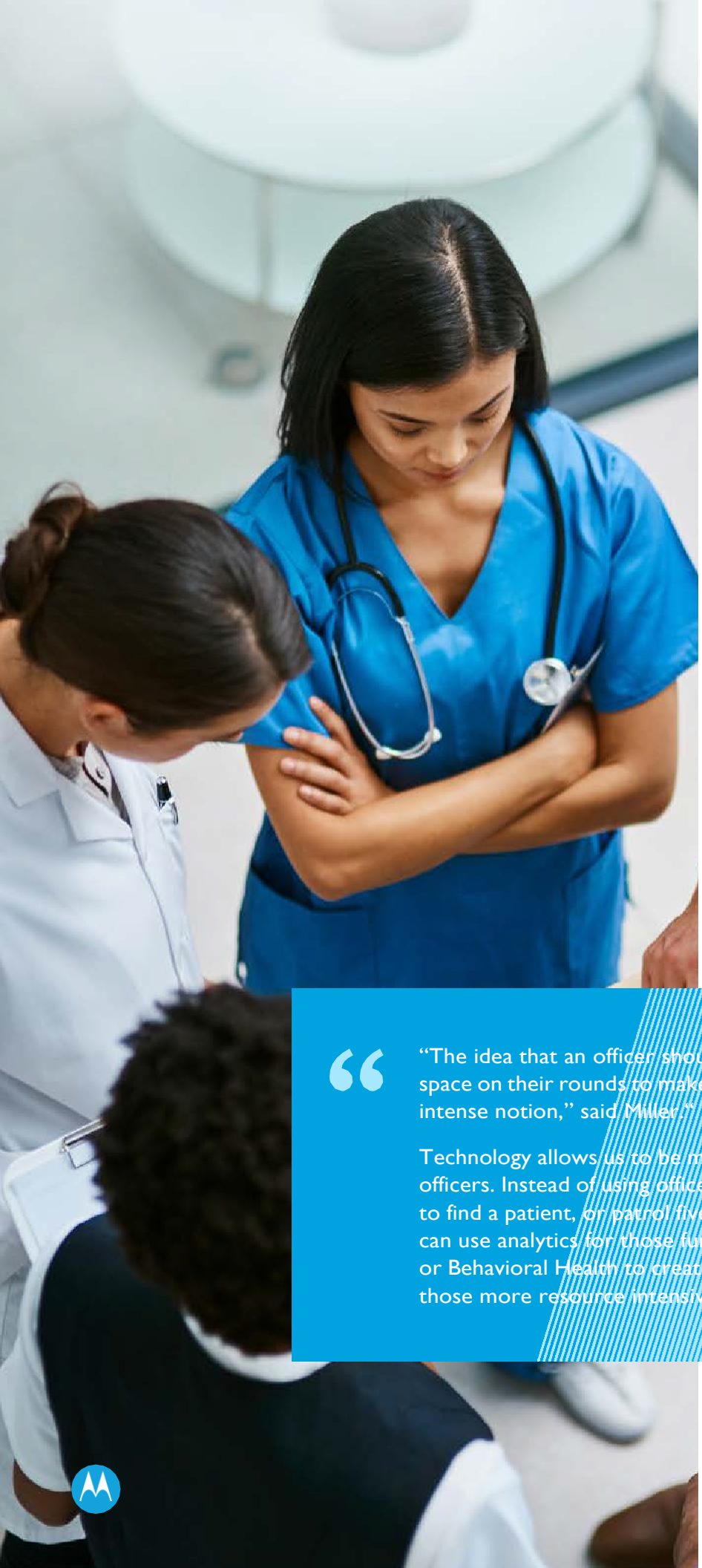
Unified security and communications ecosystem breaks down data silos across teams and systems for more proactive, efficient security

Using the safer hospitals ecosystem, SSM Health has shifted its security approach to be much more proactive, with more efficient, effective use of security staff and resources. Now, instead of deploying officers to patrol the entire campus on foot or by car, the team is aided by advanced analytics, AI-assisted access control and tight radio integration to focus efforts where they are needed most by receiving analytics based alerts directly on their radios. All underpinned by a foundation of seamless, shared data.

SSM Health's video security deters threats and enhances overall situational awareness across all campus facilities with specialized cameras that provide crystal-clear video coverage for every location. License Plate Recognition systems monitor parking lots surrounding the facilities and automatically alert security when threat-designated vehicles enter the campus. With a rules-based access control system, SSM Health can manage staff and public access to buildings or restricted areas with instant detection of pre-listed individuals at access points and instant camera-based verifications.

Plus, SSM Health receives real-time video and access control alerts for everything from unauthorized activity in sensitive areas to loitering and positive license plate matches. Alerts are sent directly to their two-way radio via text message and text-to-voice alerts.





And when an incident is resolved, SSM Health is now also able to easily document and securely store the details of that incident with all relevant data using Ally Incident Management software.

All of these pieces of technology come together to provide SSM Health with an ecosystem that's much greater than the sum of each individual part. By integrating formerly siloed systems, the entire ecosystem can share data seamlessly. Now SSM Health can efficiently and proactively direct resources to monitor more security-intensive spaces while letting their technology assist with less trafficked areas. With greatly improved situational awareness and immediate insights from shared data, SSM Health knows what's happening across their entire campus.When incidents occur, SSM Health can now get the right information to the right people quickly and effectively. With alerts received directly on their radio or mobile device, they can mobilize and coordinate an immediate and effective response. Plus, by standardizing on one ecosystem, SSM Health can deploy resources to different locations when and where needed, without having to train staff on multiple different systems and technologies.

> "The idea that an officer should walk past every nook and cranny of a space on their rounds to make sure that it's 'safe' is an outdated, resource-intense notion," said Miller."
>
> Technology allows us to be more thoughtful about where we deploy our officers. Instead of using officers to scroll through hours of video footage to find a patient, or patrol five buildings that are closed for the evening, I can use analytics for those functions and send officers down to the ED or Behavioral Health to create a sense of security for staff and patients in those more resource intensive areas."

Advanced analytics help easily locate people of interest or missing individuals

Using the safer hospitals ecosystem, SSM Health has access to Avigilon Appearance Search™ technology which allows officers to input key physical characteristics, such as gender, age categorization or clothing color and locate an individual across the entire camera system, campus-wide. Security teams can then follow a person or vehicle of interest across the campus, tracking their route in real-time or analyzing it later, during investigations. Appearance Search also incorporates the characteristics of a person's face to ensure it tracks the right person, even if items such as their clothing change over time.

The outcome is a positive last-known location in minutes instead of the hours or days it would previously take to manually scroll through footage. If staff would have concern that a patient eloped, they now have the tools to effectively manage the situation. The COVID-19 pandemic made these capabilities even more critical, as healthcare organizations including SSM Health suddenly face new entry and exit requirements.

"COVID has changed the dynamic around who we let into our buildings and how we secure entrances and exits," said Garcia. "Having officers patrol with radios alone won't cut it – but now we have different, better tools. If we're concerned, we can even set an alert for a specific area, so that if a door opens or the camera senses unusual movement, it goes right to security team radios."

Greater sense of safety and security improves staff morale and positively impacts retention

It wasn't long after the implementation of the new system that employees started to recognize a difference. The combination of high-quality images, analytics and real-time alerts had an immediate impact on incident response and resolution, allowing officers to respond to and resolve events with greater speed and effectiveness. Knowing that a robust, integrated security system is in place also makes it easier for clinical staff to focus on what matters most – patient care.



> "Just knowing that help will be there at the push of a button, that perimeters are protected and alerts are sent and received immediately is an enormous relief," said Garcia. "As a nurse, it's so important to know that if something happens, the security team will be there without me having to do anything."

"We went from having an outdated VMS, ineffective access control and insufficient alarm capability to the exact opposite," said Miller.

"Clinical staff took note and our officers felt more confident because they had the right resources to do their jobs in a truly professional manner. It's a huge game-changer for us."



The safer hospitals ecosystem

Integrated Game-Changing Technology For better outcomes

SSM Health has completely reimagined how it secures its campus and facilities. By integrating once-disparate pieces of security and communications technology into a seamless integrated ecosystem, SSM Health doesn't just receive better security, they can generate better outcomes: enhanced clinical care, higher patient satisfaction, more efficient operations and a safer workplace that enhances employee morale and retention.

By bringing together the innovative and integrated technology needed to detect, analyze, communicate and respond to security threats" help enhance their security response, SSM Health now has a game-changing platform that takes their security and communications to a whole new level.

SKYNET
AUGMENTED AI

To learn more, visit: www.skynetrsa.com

MOTOROLA SOLUTIONS

Motorola Solutions, Inc. 500 West Monroe Street, Chicago, IL 60661 U.S.A. skynetrsa.com/motorola-solutions

MOTOROLA, MOTO, MOTOROLA SOLUTIONS and the Stylized M Logo are trademarks or registered trademarks of Motorola Trademark Holdings, LLC and are used under license. All other trademarks are the property of their respective owners. ©2024 Motorola Solutions, Inc. All rights reserved. 05-2024 [EV04]