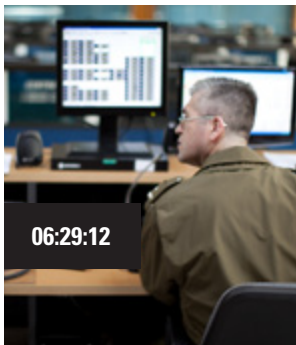
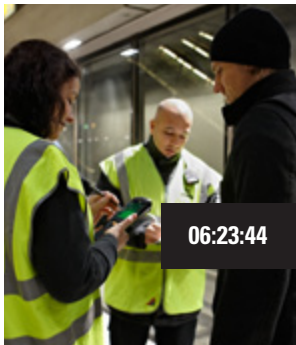


CITYWIDE VIDEO: FROM VISION TO REALITY

**MAXIMIZE THE CAPABILITIES OF CITYWIDE
PUBLIC SAFETY VIDEO SOLUTIONS WITH MOTOROLA'S
INTEGRATED VIDEO SERVICES.**

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Dawn. A group of men are lurking at the back of a chemical storage warehouse. A citizen on the way to work videos the scene on his mobile phone camera, calls 9-1-1 and shares the video with dispatchers. Patrol units are sent immediately and as they approach, streaming video from local street cameras show an explosion engulfing the warehouse in flames. The men run from the scene. Officers immediately take video of the fire from their handheld units and call it in, allowing firefighters en route to view the scene as it evolves. At the same time, they access up-to-date building plans on their in-vehicle and handheld computers.

As the police call for backup, dispatchers receive a video of the fleeing suspects taken from a passing city bus. This, and other video tracking the suspects' as they try to escape, is streamed to all units, helping coordinate operations and locate, identify and apprehend the suspected arsonists. Later, the video will be used as evidence at trial.

As the fire is fueled by stored chemicals, it quickly becomes a four-alarm conflagration. A mobile command center is established with a Deputy Chief in command. He accesses live video from various firefighters and teams around the building, gaining real-time visuals from various perspectives. As one team prepares to vent the building, the commander accesses aerial video from the department helicopter. He sees there is a much better entry point for the operation, and quickly directs the team to the right location. When two firefighters are injured in the effort, EMTs are able to stream live video from the ambulance to doctors at the receiving hospital to help them prepare for immediate treatment.

IN MOMENTS THAT MATTER, VIDEO MATTERS.



IT'S SAID THAT SEEING IS BELIEVING. IN PUBLIC SAFETY SEEING IS MUCH MORE.

Seeing is alerting. Seeing is informing. Seeing is collaborating. Seeing is protecting. In police and fire departments around the world, video is rapidly becoming one of the most important tools for enhancing the safety of first responders, citizens and the entire community. In every part of the world, public safety agencies are considering expanding the use of video throughout their IP networks. By the end of 2013, many industry experts expect that 90 percent of all IP traffic will be video; experts also predict that video will comprise more than 60 percent of all mobile IP traffic in the same time frame.

To many municipalities and agencies, it's clear that to optimize their mission-critical video capabilities now — and to prepare their networks for the future — they need assistance. They need a strong partner that's not only an expert at video technology and applications, but that also understands the unique vision and reality of the mission-critical environment. At Motorola, we've been a trusted communications partner with public safety professionals for more than 80 years. At the same time, we're also a global leader in wireless broadband technology and voice, data and video communications solutions optimized for mission-critical operations.

At Motorola, we're ready to help you with our comprehensive video design and integration services. We'll help you make seeing even more critical than believing. We'll help you make seeing life saving.

SIGHT PROVIDING INSIGHT

There's no greater peril for first responders than facing the unknown. That's why in mission-critical communications, the emphasis is on increasing safety by increasing situational awareness. The more first responders know about an incident, the better prepared they are to handle and resolve it insightfully, effectively and safely.

TECHNOLOGY TRENDS

As agencies consider taking their public safety communications systems to a higher level, a number of trends are evident. Public safety systems are growing in scale and complexity, supporting multiple technologies from multiple vendors and serving a broader profile of users. Networks are being designed to capture and distribute vast amounts of relevant, actionable data to users, and to track people, vehicles and assets in real time. High speed wireless technology is enabling the migration of public safety applications from fixed locations to mobile devices. These mobile devices — ruggedized for public safety environments — are transforming citywide information capture, distribution and access.

THE VALUE OF VIDEO

When the entire team can actually see what's going on at the scene in real time, the unknown quickly becomes known. For many communities, the most immediate benefit of video is increased safety on the front lines. A firefighter accesses helicopter video of a burning building and sees where the roof is in danger of collapsing. A police officer accesses street camera video to monitor the buildup and mood of a crowd at a protest. But the value of video goes beyond safety. Video also helps reduce costs in numerous ways including increasing individual productivity and

efficiency and working as a force multiplier. The use of traffic light and intersection video can help increase revenues at the same time it increases safety. Overall, video can act as a crime deterrent and play a significant role in reducing crime rates, helping make the community safer and lead to faster business and economic growth.

COLLECTIVE INTELLIGENCE

The power and versatility of video are crucial components of the new era of "collective intelligence." The idea behind collective intelligence is a simple one: Each individual at a scene has a unique perspective on the incident. That means each pair of "feet on the street" has the potential of capturing and distributing essential information that is unknown to others. One-way communications pushed out to the scene are quickly giving way to interactive, two-way communications both to and from the field. Next generation two-way technology, such as active video surveillance, automated video analytics and mobile streaming video, enables the "collective" — i.e., everyone on the team from dispatch to command to individual first responders — to both access and contribute insightful incident information and intelligence in real time. Even the community at large, from citizens with cell phones to stores and offices with security cameras, can contribute important information to the collective. The result is maximum situational awareness, effectiveness and safety.

CASE STUDY

REAL-TIME VIDEO MONITORING OF TRAIN STATIONS IN CHINA

The People's Republic of China is constructing high-speed railway systems to serve industry, including remote coal fields. With trains capable of speeds of over 200 kilometers per hour, it is crucial to safety and efficiency to enhance rail station monitoring along the line to ensure safer, more efficient dispatching. China selected a high-speed broadband network from Motorola that provides real-time data and video monitoring of multiple railway stations over an area encompassing more than 50 kilometers.



ACHIEVING YOUR VISION

Next generation public safety systems will expand the use of video to enhance situational awareness with an array of mission-critical options.

CITYWIDE VIDEO SURVEILLANCE

A great many municipalities have already deployed a network of fixed video surveillance cameras. These cameras help monitor important public safety and public service locations. These can range from infrastructure assets such as bridges and roadways, to dangerous intersections to remote locations such as parking lots and smart grid equipment and power stations. These systems integrate with technologies like remote sensors and video analytics — such as gunshot detection, intrusion alarms and facial recognition — to trigger alerts and to add to enhanced situational awareness.

PUBLIC/PRIVATE VIDEO PARTNERSHIPS

Video solutions are also instrumental in helping create public safety partnerships between municipal and private resources. Situational awareness can be greatly increased through network access to security video from existing systems of private businesses, enabling first responders and command centers to access new information from a wider range of vantage points and locations. In addition to helping protect officers, property and citizens, this sharing of information helps create stronger, more proactive relationships with the community at large.

MOBILE VIDEO

Video doesn't have to be static or limited to fixed cameras with pan, tilt, zoom (P/T/Z) capabilities. Mobile communications are also putting video in motion. Mobile video applications are already in use in police and fire agencies. Dashboard video cameras recording vehicle stops have already proven to be essential in obtaining convictions and in protecting officers from scurrilous complaints. Mobile video surveillance from police cars, fire engines, ambulances, trains, buses and other vehicles are adding immeasurably to improved situational awareness. Mobile command centers can quickly deploy camera pods to capture and deliver potentially life-saving real-time situational awareness of incidents as they unfold.

STREAMING VIDEO

The collective intelligence era is the era of interactive, two-way streaming video. Video sharing is no longer limited to one-way pushing of data out to the field; smart mobile units now also enable two-way streaming video on demand. Fire, police and EMT vehicles can access and send streaming video to and from the command center, as well as to and from other public safety vehicles and handheld computers or other smart devices.

CASE STUDY

VIDEO ENHANCES PORT AND MUNICIPAL SECURITY

The city of Green Bay, Wisconsin, needed to increase security for its crucial port operations. The police department also saw an opportunity to increase security for the entire city, from its three major bridges to downtown special events to historic Lambeau Field, home of the Green Bay Packers. The city chose an expandable high-speed Motorola wireless video network that now delivers real-time video surveillance of port operations and bridges, expanded citywide video monitoring and remote area monitoring via nomadic cameras.



CAN YOU DO IT ALONE?

From an overall perspective, the fundamental challenge you face in planning and implementing a public safety video solution is solving immediate needs while at the same time preparing for the future. Another issue is how to leverage your investments in your existing video systems while gaining the benefits of new leading-edge systems and applications. There's also system expansion, determining how best to grow your network from a single agency to include multiple agencies and other jurisdictions. And how do you develop public/private video security partnerships with the carriers, the business community and other private organizations? In addition, there's the difficulty in planning, implementing and managing increasingly complex video

networks that make use of multiple technologies from a variety of different vendors.

The ultimate question is this: does your agency have the internal resources — a long-term strategic vision, video technology knowledge and expertise, technical staff, sufficient budget — to plan, implement and manage a citywide video network? With the growing importance of video, the growing cost of network deployment and management and the rapidness of video technology innovation, it's a question that deserves serious thought. It also deserves seriously thoughtful answers to a number of important questions.

CASE STUDY

PROTECTING A HIGH-CRIME AREA WITH VIDEO SURVEILLANCE

In East Los Angeles, the Jordan Downs housing development is seeing a dramatic decrease in crime after the installation of a Motorola high-speed wireless video surveillance system. The police department uses the video system as a force multiplier and a 24/7 monitoring system. It provides real-time video of critical locations, increased situational awareness for first responders, enhanced safety and instant access to crucial crime-fighting data. Results include decreased gang activity and a 40 percent reduction in crime rates.

- What range of fixed and mobile video applications will you offer?
- How will you source, implement and manage a multi-vendor video system?
- How can you keep your network open, flexible and secure?
- What are the various types of mobile devices you should consider?
- How will you ensure the ability to work across various agencies and jurisdictions?
- How do you balance the use of innovative technology with the need for maximum reliability?
- How will you protect your data and comply with increasingly stringent privacy regulations?
- How will you forge strong public/private network relationships?
- How can you develop a network evolution plan that ensures your network, applications, and devices stay current with industry advances?

THE PROMISE OF PARTNERSHIP

These are tough questions. So it's not surprising a growing number of cities and municipalities around the globe are coming to understand the benefits of partnering with a video solutions and services expert like Motorola. We are a global leader in public safety communications, in broadband technology and in leading-edge video networks and applications. Our video design and integration services are already helping numerous public safety agencies enjoy the full range of video benefits quickly, efficiently and cost-effectively.

A STRONG VIDEO PARTNERSHIP

Your mission-critical video system is a complex solution in which multiple high-performance technologies converge to deliver a full complement of mission-critical video-based capabilities.

CAPTURE

The ability to capture information — including video, photographs and other images, location, telemetry, biometrics and a variety of sensor data — in real time is the foundation of a citywide public safety video network.

CORRELATE

Your solution should be capable of automating the policy and rules that enable real-time correlation of data, and of using alerts and triggers to flag unusual activities or situations. It should also allow for event-driven manual correlation.

COORDINATE

To enhance situational awareness, your system must be able to distribute video to network users in real time, allowing two-way sharing and access of intelligence across the network.

COMMUNICATE

In addition to visual communication with video and images, your network must also be able to communicate through voice, text, data, alerts and mass notification.

CONTROL

For complete control of video from capture to event resolution, your system must be able to store large amounts of video data, and automate the retrieval process for event reconstruction, evidentiary purposes and training.

CONNECT

Overall, your system must be capable of connecting all network information and assets to your users, whether they're in the station, the office, a mobile command center, a vehicle or on foot.



FACING THE UNKNOWN

For many municipalities and agencies, the planning, implementation and management of a broadband video solution is another great unknown. With challenging budgets and resources attrition, many are unsure that they have enough networking and technical expertise to create the most effective — and cost-effective — system.

The questions are many, and they're formidable. How will you ensure your video solution will be able to deliver these mission-critical capabilities? How will you make sure the system will provide a low total cost of ownership and a rapid return on investment? How will you make certain your network will solve your immediate needs while at the same time positioning you for the future, assuring your ability to take advantage of tomorrow's technology innovations? How will you assure your network is able to handle the delicate information privacy issues that are increasingly being raised? How will you handle training?

At Motorola, we help you face the daunting task of strategically planning, implementing and managing your mission-critical network with confidence and assurance. As your video solutions partner, we provide comprehensive Design and Integration Services that can help you turn your citywide video vision into reality.

MOTOROLA'S GLOBAL PUBLIC SAFETY FOOTPRINT

Every day, all around the world, Motorola is working closely with public safety professionals to help make communities of all sizes safer, better places to live and work.

- 1,000 public safety networks deployed in 90 countries
 - 21 nationwide mission-critical systems in operation
 - 31 of the 36 statewide systems deployed in the U.S.
 - 1,000 wireless systems designed annually
 - 8,000 world-class partners and certified subcontractors
 - 4,000 monitored sites in 500 systems
 - 1,000,000 events handled and resolved every month
-

MOTOROLA INTEGRATED VIDEO SERVICES

DESIGN AND CONSULTING SERVICES

The first step in our partnership will be consultations that help us understand your department's vision and what it needs to accomplish that vision. We begin with strategy. We conduct safety workshops to examine the solutions landscape and your key solution considerations, security needs and more, enabling us to mutually determine your key challenges and goals. We conduct network technology evaluations on parameters such as interoperability, security and applications support and help specify the optimum solution for your specific needs. We also evaluate your operations in terms of model, policy and processes. We then work with you to design your optimum network solution in terms of architecture, interfaces and equipment, but also in terms of TCO and ROI.

IMPLEMENTATION AND CUSTOMIZATION SERVICES

Our implementation services include a phased network implementation and build-out plan; hardware and software installation and configuration; integration of multiple technologies and multiple vendor products and solutions; equipment validation and testing; and system commissioning and optimization. Our services also include the analysis, design, testing, implementation and integration of applications we customize to your exact requirements.

SUPPORT SERVICES

Our support services are designed to help you keep the network operating at peak performance. We work with you to identify and establish the Key Performance Indicators (KPI) for the network and provide options for 24/7 Network Operations Center and Security Operations Center support services to constantly monitor and protect the network. We ensure reliability and availability with infrastructure repair and replacement services. We also help optimize network performance through the use of health checks and advanced analytics to identify areas of weakness and poor performance. We make improvement recommendations, implement the changes and conduct post implementation analysis to ensure improvements are being realized.

MANAGEMENT SERVICES

To help maintain maximum performance in complex public safety systems, our network management services provide round-the-clock monitoring for equipment alerts and messages, and for ongoing measurement and optimization of network reliability, availability and performance. Our services also encompass your 24/7 Call Center and your Network Operations Center. They include the ongoing equipment analysis, procurement, maintenance and upgrading needed for comprehensive network monitoring. In addition, we provide regular reporting to help you understand and document performance of your network and your applications.

HOSTING SERVICES

A growing number of public safety agencies are exploring the cost and performance benefits of utilizing a managed or hosted network. Advantages of a managed or hosted mission-critical network can be significant: lower upfront capital costs, consistent and predictable ongoing costs, lower TCO and increased reliability. Motorola offers both managed network services in which our experts manage networks that are owned by the municipality or agency, or hosted services in which Motorola both manages the network and owns the equipment. In either case, you gain the ability to concentrate on community safety as professionals manage, monitor and troubleshoot while optimizing network performance, reliability and availability.

VIDEO PARTNERSHIP

Video is on a fast track to becoming one of public safety's most important enabling technologies, helping maximize situational awareness and empowering first responders and command personnel to be more effective and more efficient, as well as better protected and safer. As more public safety agencies begin to address the complexities of multiple technology, multi-vendor citywide video network solutions, a growing number are opting for video services partnership with Motorola. The reason is clear. No other services provider offers Motorola's unparalleled combination of mission-critical communications expertise and broadband networking leadership.

THE VIDEO-EMPOWERED CITY

In the collective intelligence era, citywide video networks and applications are empowering agencies and first responders across the entire public safety network. They deliver two-way streaming video. High-speed access to images and data. Coordination and correlation of public and private video security cameras and networks. Immediate access to real-time video of incidents as they evolve. All of this video power results in enhanced situational awareness and greater effectiveness, efficiency and safety.

With our industry leading video design and integration services, Motorola empowers you to harness the power of video to serve and protect your community.

motorolasolutions.com/services

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