SMART Policing through Real Time Crime Centers

July 24, 2013
Welcome to today’s NCJA Webinar: SMART Policing through Real Time Crime Centers

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REAL-TIME CRIME CENTER

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SAFER CITIES.
THRIVING COMMUNITIES

PROCEED WITH INTELLIGENCE
STAY AHEAD OF WHAT’S NEXT WITH MISSION-CRITICAL INTELLIGENCE

CONNECT WITH THE CITY
TAP THE BEST SOURCE OF INTELLIGENCE: THE CITY ITSELF

MANAGE THE COMPLEXITY
IT IS THE ONE LINK THAT STRENGTHENS ALL OTHERS
INFORMATION IS EVERYWHERE BUT CAPTURING IT IS JUST THE START
WHAT HAPPENS WHEN INFORMATION BECOMES INTELLIGENCE?
WHAT IF YOU COULD...

POLICE MORE OF THE CITY WITH THE SAME AMOUNT OF RESOURCES WHILE STILL DRIVING DOWN CRIME

REDUCE TIME SPENT ON INVESTIGATIONS

INCREASE CONVICTION RATES

INCREASE CLOSURE RATES
TRENDS IN PUBLIC SAFETY TECHNOLOGY
THE WORLD IS CHANGING

WIRELESS DATA EXPLODES

80% of the world population will have access to mobile broadband in four years.

SMART DEVICES TAKE OVER

50% of the US population has a smartphone.

VIDEO IS EVERYWHERE

60 in 60 days, more video is uploaded than broadcasters produced in 60 years.

SOCIAL NETWORKS ABOUND

250M users engage with their social media on a mobile device.
89% of public safety decision makers say data is just as critical as voice.

The amount of data circling the world is expected to be up 48% from the previous year.
POWER OF CITY SAFETY VIDEO

5,000

NUMBER OF ARRESTS MADE IN CHICAGO WITH HELP OF CAMERAS SINCE 2006

40%

PERCENTAGE OF CRIME REDUCED IN THE FIRST YEAR OF A VIDEO SOLUTION DEPLOYMENT

93%

PERCENT OF OFFICERS MISCONDUCT CHARGES OVERTURNED BY VIDEO EVIDENCE

90%

WHEN CAPTURED ON VIDEO, PERCENT OF CASES WHERE DEFENDANTS PLEADS OUT
THE FUTURE IS PREDICTIVE POLICING

70% of law enforcement agencies are exploring predictive policing.

90% plan to increase its use over the next five years.
REAL-TIME CRIME CENTERS

THE EMERGENCY RESPONSE LANDSCAPE IS CHANGING

ENABLE SMART POLICING AND EMERGENCY RESPONSE
WHAT IS A REAL-TIME CRIME CENTER?
THERE ARE LOTS OF DIFFERENT PLACES THAT CAN HELP

CALL TAKING

DISPATCH

EMERGENCY OPERATION CENTER (EOC)

FUSION CENTER (FC)

REAL-TIME CRIME CENTER

TAKE 9-1-1 CALLS FROM PUBLIC; CREATE INCIDENT RECORD
THERE ARE LOTS OF DIFFERENT PLACES THAT CAN HELP

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COORDINATE DISPATCH RESPONSE TO 9-1-1 CALLS
THERE ARE LOTS OF DIFFERENT PLACES THAT CAN HELP

CALL TAKING

DISPATCH

EMERGENCY OPERATION CENTER (EOC)

FUSION CENTER (FC)

REAL-TIME CRIME CENTER

COORDINATE TOP LEVEL RESPONSE ACTIVITIES AT CITY / JURISDICTION LEVEL ON AN AS NEEDED BASIS
THERE ARE LOTS OF DIFFERENT PLACES THAT CAN HELP

- CALL TAKING
- DISPATCH
- EMERGENCY OPERATION CENTER (EOC)
- FUSION CENTER (FC)
- REAL-TIME CRIME CENTER

MULTI-AGENCY, COORDINATED LONGER TERM INFORMATION SHARING WITH LOCAL, STATE AND FEDERAL JURISDICTIONS
WHAT IS A REAL TIME CRIME CENTER?

CALL TAKING

DISPATCH

EMERGENCY OPERATION CENTER (EOC)

FUSION CENTER (FC)

REAL-TIME CRIME CENTER

- Aggregates multiple data sources to improve situation awareness and help aid in the response process
- Integrates video system with radio system, CAD and records
- Puts all information onto on unified, map view
- Makes video wall actionable
- Integrates existing and new technology together
- Staffed by badged officer Crime Analysts to handle real-time incidents
A REAL-TIME CRIME CENTER IN ACTION

EXAMPLE: AN INDIVIDUAL BRANDISHES A GUN AT THE MALL

CITIZEN INITIATED RESPONSE

CITIZEN
Witnesses at the mall make calls to 911

911 CALL TAKER
answers calls, fills incident form and pushes to CAD operator

CAD OPERATOR
enters incident, dispatches nearby units, establishes talk group

REAL-TIME CENTER INITIATED RESPONSE

REAL-TIME CENTER
Pulls video feed guided by dispatcher information and provides tactical support to officer in the field via RTVI and radio console

OFFICER
Dispatched to an entrance, receives image of suspect from commander
REAL-TIME CRIME CENTER SOLUTION COMPONENTS

TECHNOLOGY
- VIDEO MANAGEMENT SYSTEM
- RTVI
- MCC7100 CONSOLE
- ALPR
- MVX1000
- SENSORS
- ANALYTICS
- STORAGE
- BACKHAUL
- CAMERAS

AGGREGATES MULTIPLE DATA SOURCES FOR IMPROVED SITUATIONAL AWARENESS

- OPERATIONAL BENCHMARKING
- MOBILITY ASSESSMENT
- VISIONING EVENT
- NETWORK AND APPLICATION ASSESSMENT
- NETWORK TCO ASSESSMENT
- SECURITY ASSESSMENT
- OPERATIONAL PILOT
- BUSINESS INTELLIGENCE
- TRAINING
- SOLUTION OPTIMIZATION
- SERVICE FROM THE START FOR DEVICES
- SERVICE FROM THE START FOR SYSTEMS
- TECHNICAL SUPPORT
- REPAIR SERVICES
- ONSITE SERVICES
VIDEO STREAMING
REAL-TIME VIDEO INTELLIGENCE

LIVE VIDEO OVER MOBILE BROADBAND
• TRULY LIVE, REAL-TIME VIDEO, WITHOUT BUFFERING
• UNIFIED USER INTERFACE - ANY SOURCE, ANY CLIENT

INTELLIGENT VIDEO DISTRIBUTION
• MEASURES BANDWIDTH AND ADAPTS
• OPTIMIZED WITH PUBLIC SAFETY LTE PRIORITIZATION
• RETRIEVE ONCE, SEND ANYWHERE

DESIGNED FOR PUBLIC SAFETY
• INTUITIVE USER INTERFACE
• PRESENCE-BASED VIDEO SHARING MODEL
• SECURITY FEATURES TO PREVENT VIDEO LEAKS
Data rate adapts to client and available bandwidth

Error correction eliminates buffering delays

Accepts video from public and private sources

Enables live streaming from MVX1000 in-car DVR
VIDEO STREAMING
REAL-TIME VIDEO INTELLIGENCE

MOBILE CLIENT
SCREEN SHOT

ANDROID CLIENT
SCREEN SHOTS
AUTOMATIC LICENSE PLATE RECOGNITION

AT THE EDGE...

MW810 ALPR WITH SLATE CAMERAS
With PAGIS software

ALT1000 ALPR SURVEILLANCE TRAILER
With MW810 ALPR, radar & message board

SPIKE FIXED ALPR CAMERAS

AT THE COMMAND CENTER...

WLAN USB 3G / 4G / LTE

3G / 4G / LTE

PTP, PMP, 3G / 4G, LTE, Wired
VIDEO ANALYTICS
RECOMMENDED DEPLOYMENT

PHASE 1
INTEGRATE EXISTING SYSTEMS INTO A BASIC REAL TIME OPERATIONS CENTER

- Unify multiple video sources into a single user interface
- Enable integration of public/private video/CCTV systems
- Add RTVI to enable mobile video sharing, radio console for 2-way voice
- Deploy video, GIS, Radio Console, CAD, RMS in one room on one desk

PHASE 2
ENHANCE REAL-TIME CRIME CENTER CAPABILITIES

- Deploy crime mapping solution, data and video analytics
- Deploy ALPR, In-Car Video
- Expand database access including social media
- Expand surveillance coverage area with more cameras
- Network performance/video quality management services

PHASE 3
INCREASE SITUATIONAL AWARENESS THROUGH ADVANCED ANALYTICS

- Deployment of HD, thermal, ALPR, and aerial cameras
- Further integration of private sector camera systems
- Deploy gunshot detection and other sensors
- On going video quality management services
- Creation and deployment of event networks and predictive models

BENEFITS

IMPLEMENT
A BASIC RTCC TO SHORTEN RESPONSE TIMES AND ENHANCE FIRST RESPONDER CAPABILITIES

INCREASE
ACCOUNTABILITY, DATA ANALYSIS, REAL-TIME INFORMATION FLOW, AND SIMPLIFY SYSTEMS

MAXIMIZE
USE OF SENSORS TO CATCH CRIMES IN PROGRESS AND PROACTIVELY DEPLOY RESOURCES
ACT IN REAL-TIME
A dedicated team of officers monitors inputs from video systems, sensors and other data sources to detect an incident in real-time as it unfolds and trigger the appropriate response

BE READY FOR WHAT’S NEXT
Data analytics enable better anticipate and forecast, bringing the advantage of intelligent prediction for proactive planning and response preparation

ENHANCE THE MANNER OF RESPONSE
Integrate and correlate multiple sources into one unified view and tie radio and video system together to deliver critical information to first responders for improved situational awareness
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