

IBM and Cisco: Public Safety Networks deliver real-time safety, security, operations and incident management collaboration

SOLUTIONS

Highlights

- Increase collaboration between and within agencies to enable better decision making
- Improve joint planning, training, situational awareness and response
- Enable real-time access to personnel and resources
- Achieve high interoperability without sacrificing existing infrastructure

Government and law enforcement agencies responsible for public safety and security are facing constant pressure to increase the effectiveness of their preparedness, response and recovery capabilities—despite tightening budget constraints. Increasing government mandates call for a certain level of

Public safety officials find their mission constantly evolving. While natural threats such as storms, explosions and earthquakes have always been their responsibility, chemical or bio-chemical attacks, suicide bombers and school shooters are fairly recent developments that must now be anticipated and integrated into

A modular approach for implementing new technologies to enhance crucial information-sharing and real-time collaboration between public safety agencies.

preparedness and collaboration, while budgetary concerns limit what can be achieved in a given time period. Citizens call for more effective responses to natural or man-made disasters, yet public safety workers are often hampered by poor communication and collaboration support in crisis situations.

There are too many examples of first responders' best efforts being thwarted by preventable circumstances such as jurisdictional silos of information, obsolete technology and widely dispersed workforces—all of which contribute to communication breakdowns and poor situational management. The responses to Hurricane Katrina and the World Trade Center terrorist attack are just two episodes where, despite their best intentions and efforts, first responders and the agencies that oversaw their efforts were hindered by technology-based factors.

operational planning for disaster response. The officials tasked with responding to these emergencies need to have the infrastructure, plans and strategies in place to contain situations, minimize loss of life and property, and restore order and confidence in the impacted population.

Coordinating responses for increased effectiveness

Traditionally, police, fire, rescue and other first response agencies operated independently. They worked with little coordination in how they planned for, responded to and managed recovery from crimes and emergency events. Today's public safety organizations want to coordinate responses in order to provide more effective incident management and mount successful joint operations. To do so, they need better methods of collaboration that don't disrupt or interfere

Enable real-time information sharing and collaboration across the public safety spectrum to respond more effectively, and plan, prevent and protect against future incidents.

with agency-specific, daily operating procedures, but can securely bring together the plans and operational procedures from multiple agencies for an integrated, unified response.

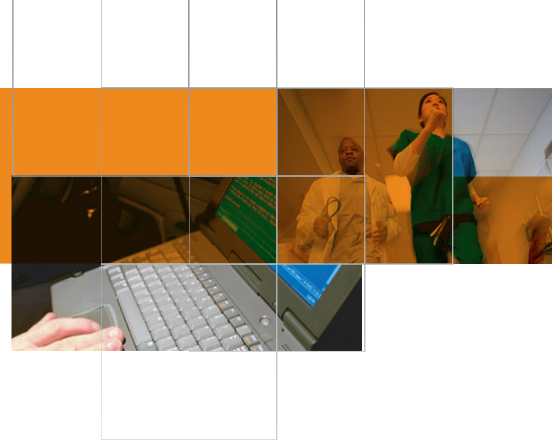
IBM® and Cisco® can help. Backed by the unmatched synergy and combined public safety expertise of two of the world's most respected and experienced technology leaders, the IBM and Cisco Public Safety Networks can connect the right people to relevant information delivered in accessible formats, backed by technology that makes the solutions easy to use. Further, IBM and Cisco are addressing the challenges facing public safety agencies with solutions designed to help mitigate the initial impact of a disaster or crisis, while also enabling a stronger and more effective response. Our Public Safety Network solutions can help agencies bridge jurisdictional silos of information in order to achieve real-time information sharing and collaboration.

Instead of struggling with an array of disparate technology, agencies can leverage existing technology investments with an open standards-based collaboration and communication platform that will ensure a scalable foundation for the future. Our advanced solutions, built with an eye towards best practices, can help agencies maximize limited budgets through more efficient use of

people and IT resources. In cases where government mandates dictate the use of specific communications equipment, our solutions enable those devices to interoperate with a variety of tools, including laptops, landlines, cell phones and radios. IBM and Cisco's goal is to help connect multiple public safety agencies through a centralized communications platform that provides easier access, better collaboration tools and an open-standards infrastructure approach to support future enhancements.

IBM and Cisco Public Safety Networks

Drawing on a combined 75 years of experience using technology to support government agencies worldwide, we have melded our technology expertise and services knowledge to address many of the complex challenges faced by law enforcement and other public safety agencies. The IBM and Cisco approach is to offer a modular framework for safety and security planning, operations and incident management. The IBM and Cisco Public Safety Network solution provides a variety of modules that can work alone or together to enhance real-time communication, collaboration, coordination and surveillance activities before, during and after a crisis situation.



Command, Control and Collaboration (CCC)

Command, Control and Collaboration (CCC) is a solution designed to optimize group efforts within and among law enforcement and public safety agencies. The CCC solution connects people-to-people and provides secure access to crucial information anytime, from anywhere. The three core modules, which can be implemented incrementally, are: Unified Communications (UC), Network Digital Video Surveillance (NDVS) and the VirtualAgility OPS Center (VOC).

Cisco's Unified Communications technology integrates voice, video and data using an intelligent, converged network. This includes real-time collaborative applications such as Lotus® Sametime® Instant Messaging, Web conferencing and Presence—which displays locations and contact information for key personnel. NDVS provides real-time video and video analytics that increase public safety through enhanced situational awareness and response. The VOC portal brings together relevant public safety agencies and response teams into an ad hoc network capable of sharing and communicating plans, policies, resources, locations and updates through a central platform. Agencies can use their individual VOC tools for daily planning and operations, and when an emergency strikes, permit information-sharing with appropriate collaboration partners.

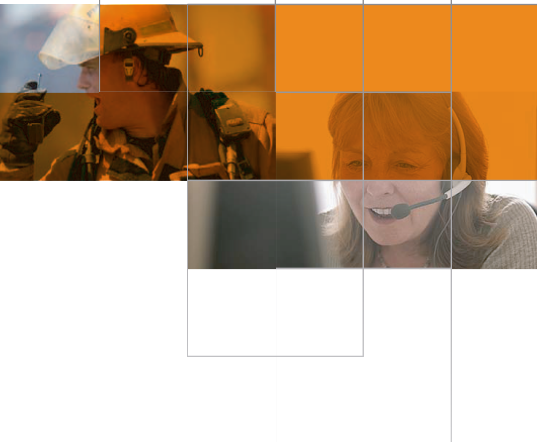
By using all three core components, the CCC solution can enable better planning, training, situational awareness and response to emergency situations without interfering with agency specific day-to-day standard operating procedures. During an event, an incident commander can use the CCC solution from either a mobile or fixed command center to manage the response, collaborate with multiple agencies and organizations, and keep all stakeholders apprised of the ongoing response activities. Through VOC the incident commander can invite activated responders to join a live Web conference, share or report information, and to issue or receive instructions and tactics. If NDVS is available, video about the incident can be broadcast through a Web conference, providing visual situational awareness to on-site and remote participants. The tools assembled through the VOC portal help commanders coordinate and dispatch resources and supplies, better communicate with responder teams and quickly forge a comprehensive overview of the details needed to make effective logistics decisions.

The CCC solution enables agencies to select those modules they most need in order to enhance and expand their existing capabilities. With real-time information exchange and reporting capabilities, agencies can use this solution to strengthen inter-agency relationships, make better decisions, eliminate costly travel and improve planning, before, during and after an event.

Network Digital Video Surveillance

IBM and Cisco together offer a Network Digital Video Surveillance solution that takes digital video surveillance—and the uses of that video—to a new level. NDVS provides real-time video and analytics that can increase public safety, while delivering evidence-grade video that can drive productivity within the judicial system and also reduce the number of frivolous lawsuits. Law enforcement and public safety teams can access real-time and archived video files to determine the most effective response to ongoing situations, prevent and mitigate future emergencies, provide litigation support and centralize control of agency assets.

NDVS allows fixed and mobile videocam feeds to provide real-time information and situational awareness of developing incidents. Before first responders appear on-site, they can view video streams from cameras mounted on streetlights or buildings near the location at the command center or from vehicles responding to the incident. This video is an effective “force multiplier,” as shared usage reduces the number of responders needed to assess the situation. Upon arrival, the responders can provide video surveillance from their vehicle-mounted cameras and share it with the command center and other responders, increasing situational awareness. For example, in a chemical spill or explosion, shared video could show the extent of damage, such as the impact of a toxic cloud or spill on a freeway.



The sooner responders understand the situation, the more effectively they can identify the response required to best protect the public and speed resolution. In instances where a crime has been committed, a video “witness” can help solve the case more quickly and later serve as evidence.

Depending on the criteria supplied by the agency, NDVS can deliver agency-defined video analytics that automatically identify size, color, shape and speed of vehicles, as well as capture and recognize faces and license plates, or simply detect motion on multiple video streams simultaneously and send alerts to the appropriate personnel. Stored video is accessed for forensic analysis, prosecutive evidence and improved response planning. Archived video can also be used in electronic case jackets—which may help accelerate the judicial process, reduce costs of litigation and officer overtime, and provide training material for new officers and employees. NDVS can be an effective force multiplier for public safety agencies

by reducing the number of responders needed on-site, providing real-time video intelligence, prosecutive and forensic evidence, and expanding situational awareness for myriad situations.

For more information

These are just two of the broad suite of solutions that IBM and Cisco offer public safety agencies. With experience in more than 70 catastrophic events worldwide in 49 countries, IBM and Cisco have implemented solutions in a variety of settings including rural borders, city bus systems and police cars. Our employees have helped in the response to major incidents ranging from terrorist attacks and explosions to hurricanes, tsunamis and forest fires. To learn more about how we can help address many of the complex challenges faced by law enforcement and public safety agencies, contact your Cisco or IBM representative.

Or visit:

- www.cisco.com/go/ibm
- www.ibm.com/cisco/ccs
- www.virtualagility.com



Cisco Systems, Inc.
170 West Tasman Drive
San Jose, CA 95134-1706
www.cisco.com/go/ibm



International Business Machines Corporation
1 New Orchard Road
Armonk, New York 10504
www.ibm.com/cisco

© Copyright IBM Corporation 2008. Published in the United States of America. October 2008. All Rights Reserved. IBM, the IBM logo, ibm.com, Lotus and Sametime are trademarks or registered trademarks of International Business Machines Corporation in the United States, other countries, or both. These and other IBM trademarked terms are marked on their first occurrence in this information with a trademark symbol (® or ™), indicating U.S. registered or common law trademarks owned by IBM at the time this information was published. Such trademarks may also be registered or common law trademarks in other countries. A current list of IBM trademarks is available on the Web at ibm.com/legal/copytrade.shtml.

Cisco, Cisco Systems, and the Cisco Systems logo are trademarks or registered trademarks of Cisco Systems Inc. or its affiliates in the U.S. and certain other countries. All other trademarks mentioned in this document or Website are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company.

Other product, company or service names may be trademarks or service marks of others.

IBM reserves the right to change specifications or other product information without prior notice. This publication could include technical inaccuracies or typographical errors. References herein to IBM products and services do not imply that IBM intends to make them available in other countries, IBM PROVIDES THIS PUBLICATION “AS IS” WITHOUT WARRANTY OR CONDITION OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some jurisdictions do not allow disclaimer of express or implied warranties in certain transactions without notice. IBM may also make improvements and/or changes in the products and/or the programs described herein at any time without notice.

Any performance data for IBM and non-IBM products and services contained in this document was derived under specific operating and environmental conditions. The actual results obtained by any party implementing such products or services will depend on a large number of factors specific to such party's operating environment and may vary significantly. IBM makes no representation that these results can be expected or obtained in any implementation of any such products or services.

Any material included in this document with regard to third parties is based on information obtained from such parties. No effort has been made to independently verify the accuracy of the information. This document does not constitute an expressed or implied recommendation or endorsement by IBM of any third-party product or service.