

DHS Science and Technology Directorate

Video Quality in Public Safety

Assisting Public Safety in Articulating Video Needs

First responders rely heavily on video technology to increase their situational awareness while on site at an incident, monitoring the situation from afar or conducting day-to-day response. As video technology has evolved, equipment options have become increasingly complex. Many first responder agencies lack the tools and subject matter expertise needed to make informed video system purchasing decisions, so they often turn to manufacturers to direct them. S&T's Video Quality in Public Safety (VQiPS) initiative provides information and support to first responders so they can articulate their video quality needs and ultimately buy the best products to fit their unique needs.

VQiPS Provides Decision-Making Resources

The VQiPS initiative provides unbiased guidance and educational resources to assist the first response community in clearly defining their video quality needs. It allows practitioners to access the tools and information they need to purchase and deploy the appropriate video technology solutions to support their mission.

The Value of the VQiPS Leadership Team

The VQiPS leadership team (LT) consists of public safety officials across disciplines, academia and federal partners. The LT supports DHS S&T in informing the strategic direction of the VQiPS initiative and in identifying capability gaps in the video arena to deliver user driven solutions. These solutions may include knowledge products, technology or even research in a given area of need. The initiative draws on the subject matter expertise of key stakeholder partners, including the National Public Safety Telecommunications Council and the Video Technology Advisory Group (VTAG). The VTAG provides the LT with an even broader set of public safety practitioners, industry, research laboratories, standards development organization representatives and reviews knowledge products for stakeholder feedback.

The VQiPS LT has played a significant role in producing: a video library (including relevant video clips for different types of video processing and quality measurement applications for public safety agencies); a [Digital Video Quality Handbook](#); and numerous technical reports on

topics such as visual quality and visual acuity. These tools are designed to help practitioners make better informed purchasing decisions.

Most recently, VQiPS published [Policy Considerations for the Use of Video in Public Safety](#), to provide guidance for government agencies crafting policies and procedures for the video use across a variety of public safety applications. The purpose was not to provide specific policy recommendations, but instead to highlight policy considerations for agencies in the process of standing up or implementing recently established video systems. Policy topics include privacy, video retention, video redaction and more.



The Path Forward for Public Safety Video

The release of an appendix to the Digital Video Quality Handbook, originally published in 2013, is underway. It will provide end users with critical video analytic concepts, case studies and design considerations for a video system. Readers can also expect to gain a better understanding of the latest in video standard development, specifically as it relates to compression and security standards. As use of video throughout the first responder community continues to increase, resources and guidance developed through the VQiPS initiative will provide responders with a solid foundation on which to become educated, expand and meet their mission-critical video needs. VQiPS recently identified several key focus areas that will serve as guideposts for VQiPS' strategic direction, including expanding on video analytics and forensics topics, diversifying first responders and industry represented in VQiPS, and increasing outreach and education to grow the VQiPS user base.



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To learn more about Video Quality in Public Safety initiative, contact SandTFRG@hq.dhs.gov.

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