Digital Video Output Standards

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Problem
• Sources of investigative video have increased exponentially. For large-scale events or crimes, the amount of recorded data can be overwhelming.
• Closed circuit television (CCTV) security products store data to digital video recorders (DVRs) using vendor proprietary protocols and formats inhibiting efficient and effective export of video surveillance data for law enforcement (LE) purposes.
• Vendor Lock-in – video playback, export, and analysis frequently requires vendor-only software.
• Exporting video often involves data conversion resulting in degradation, loss of metadata, and costly delays.

Technical Approach
• Hands-on DVR investigation and discovery
• Build community: LE, Industry, & Standards
• Identify open standards and develop best practices
• Promote adoption

Guiding Principles
• Do No Harm – preserve native quality
• Leverage Existing Standards
  – flexible + playable container
  – standard codec
• Promote Key Metadata
  – date, time, location, camera ...
• Minimize Cost – align with Industry practice

Proposed Solution: A standard for efficiently exporting high quality video from CCTV systems

MP4 CONTAINER FILE

VIDEO STREAM
MPEG-4 Part 10, H.264 Compressed Video
with Embedded Metadata
Supplemental Enhancement Information (SEI)
Precision Time Stamps

AUDIO DATA STREAM
(optional)

METADATA STREAM
(optional)

Third Party